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STATION PROFILES

Multi-modal Transit Approach

Level of Service

Municipalities, counties, and state transportation agencies have traditionally evaluated the performance of roadways for vehicular traffic only, using a “level of service” analysis (LOS). The LOS process as outlined below has traditionally assigned a letter grade for the functionality of a street in providing for vehicular traffic throughput. However, until recently, local governments have not analyzed formally the performance of streets or corridors in terms of how they perform or offer service for other modes of travel, including transit, biking, and walking. These alternative LOS designations and analyses allow local communities to evaluate how well local transportation corridors serve all travel modes.

Given that well-planned transit oriented developments support all modes of travel and actively facilitate and encourage transit usage as well as the movement of people on foot and on bicycle to and from light rail and other transit stations, the communities surrounding MetroLink should use the various Level of Service calculations as tools to plan for and evaluate future development proposals, as well as future improvements to streets and street corridors, and improvements for biking and walking. The tables that follow outline the various LOS standards for the various modes of travel. Local communities, working with property owners and developers, should plan for projects that serve all modes and provide for the best LOS metrics across all travel modes.

Transit Level of Service



- Frequent service, passengers do not need schedules
- Night or “owl” service is provided
- Virtually all major origins and destinations are served



- Frequent service but passengers consult schedules
- Late evening service provided
- Most major origins and destinations are served



- Maximum desirable time to wait if bus/train is missed
- Early evening service provided
- About 3/4 of higher-density areas provided



- Service unattractive to choice riders
- Only daytime service provided
- About 2/3 of higher-density areas served



- Service available during the hour
- Peak hour service only or limited midday service
- At least 1/2 of the higher-density areas served



- Service unattractive to all riders
- Very limited or no service
- Less than 1/2 of higher-density areas served

Auto Level of Service

A

Free-flow operations. Traffic flows at or above the posted speed limit and all motorists have complete mobility between lanes. The average spacing between vehicles is about 550 ft(167m) or 27 car lengths. Motorist have a high level of physical and psychological comfort. The effects of incidents or point breakdowns are easily absorbed. An example of LOS A occurs late at night in urban areas, frequently in rural areas, and generally in car advertisements.

B

Reasonable free-flow operations. Free-flow (LOS A) speeds are maintained, maneuverability within the traffic stream is slightly restricted. The lowest average vehicle spacing is about 330 ft(100m) or 16 car lengths. Motorist still have a high level of physical and psychological comfort.

C

At or near free-flow operations. Ability to maneuver through lanes is noticeably restricted and lane changes require more driver awareness. Minimum vehicle spacing is about 220 ft(67m) or 11 car lengths. At LOS C most experienced drivers are comfortable, roads remain safely below but efficiently close to capacity, and posted speed is maintained. Minor incidents may still have no effect but localized service will have noticeable effects and traffic delays will form behind the incident. This is the targeted LOS for some urban and most rural highways.

D

Decreasing free-flow levels. Speeds slightly decrease as the traffic volume slightly increase. Freedom to maneuver within the traffic stream is much more limited and driver comfort levels decrease. Vehicles are spaced about 160 ft(50m) or 8 car lengths. Minor incidents are expected to create delays. Example of LOS D is perhaps the level of service of a busy shopping corridor in the middle of a weekday, or a functional urban highway during commuting hours. It is a common goal for urban streets during peak hours, as attaining LOS C would require a prohibitive cost and societal impact in bypass roads and lane additions.

E

Decreasing free-flow levels. Speeds slightly decrease as the traffic volume slightly increase. Freedom to maneuver within the traffic stream is much more limited and driver comfort levels decrease. Vehicles are spaced about 160 ft(50m) or 8 car lengths. Minor incidents are expected to create delays. Example of LOS D is perhaps the level of service of a busy shopping corridor in the middle of a weekday, or a functional urban highway during commuting hours. It is a common goal for urban streets during peak hours, as attaining LOS C would require a prohibitive cost and societal impact in bypass roads and lane additions.

F

Breakdown in vehicular flow. Flow is forced; every vehicle moves in lockstep with the vehicle in front of it, with frequent slowing required. Technically, a road in a constant traffic jam would be at LOS F. This is because LOS does not describe an instant state, but rather an average or typical service. For example, a highway might operate at LOS D for the AM peak hour, but have traffic consistent with LOS C some days, LOS E or F others, and come to a halt once every few weeks. However, LOS F describes a road for which the travel time cannot be predicted. Facilities operating at LOS F generally have more demand than capacity.

Bicycle Level of Service



These roadways are generally safe and attractive to all bicyclists. Unsupervised child riders should be anticipated because they will typically feel comfortable on these facilities. Bicyclists can anticipate a low level of interaction with motor vehicles. These roadways will provide both on- and off-street bicycle facilities.



These roadways are adequate for all bicyclists. Unsupervised child riders should be anticipated because they will typically feel comfortable on these facilities. Bicyclists can anticipate a low level of interaction with motor vehicles. These roadways may have either on- or off-street facilities. However, those without on-street facilities will have characteristics that dictate a low level of interaction with motor vehicles in the roadway, such as low-speed, low-volume motor-vehicle traffic, infrequent conflicts, and good surface conditions.



These roadways are adequate for most bicyclists. Bicyclists can anticipate a moderate level of interaction with motor vehicles. These roadways will typically have an on-street facility (bicycle lane or wide curb lane) dedicated for bicyclists. The roadway will generally be characterized by a combination of low-speed, low-volume motor-vehicle traffic, infrequent conflicts, and good surface conditions, although minor deficiencies in two or more of these areas will be present. An off-street bicycle facility may be present along this corridor when on-street conditions are less bicycle friendly.



These roadways are adequate for highly experienced riders. Bicyclists can anticipate a moderate to high level of interaction with motor vehicles. These roadways may or may not provide an on-street bicycle facility. When a bicycle facility is provided on an LOS D roadway its characteristics of high-volume, high-speed motor-vehicle traffic and frequent conflicts will make this roadway inadequate for most moderate and beginner riders. An off-street bicycle facility may be present along this corridor when on-street conditions are less bicycle friendly.



These roadways require cautious use by highly experienced riders. Bicyclists can anticipate a high level of interaction with motor vehicles. These roadways may or may not provide an on-street bicycle facility. When a bicycle facility is provided on this roadway its characteristics of high-volume, high-speed motor-vehicle traffic and frequent conflicts will make this roadway highly inadequate for moderate-level riders. An off-street bicycle facility may be present along this corridor when on-street conditions are less bicycle friendly.

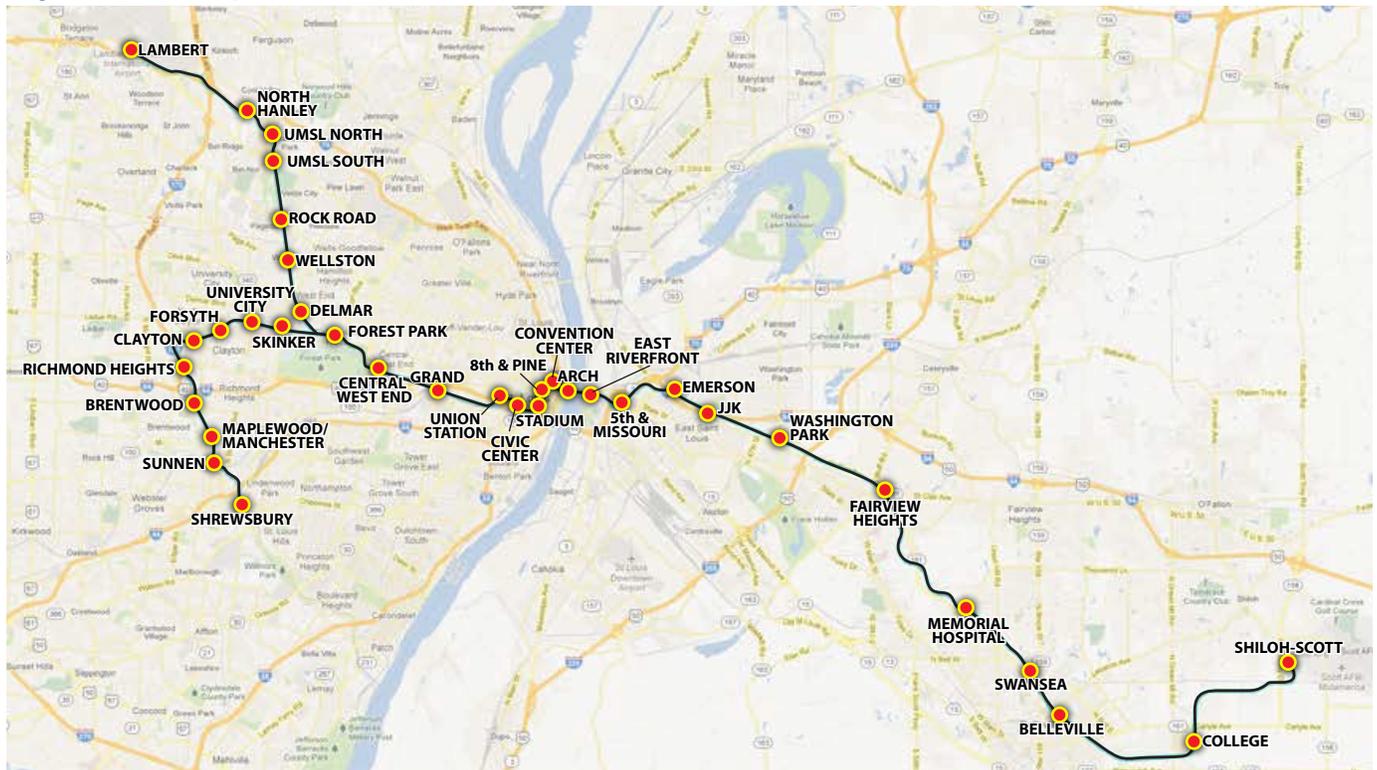


These roadways do not provide any bicycle facilities. Due to the high level of motor-vehicle use and automobile-oriented development on these roadways bicyclists are greatly discouraged or even put at risk when using these roadways.

Pedestrian Level of Service

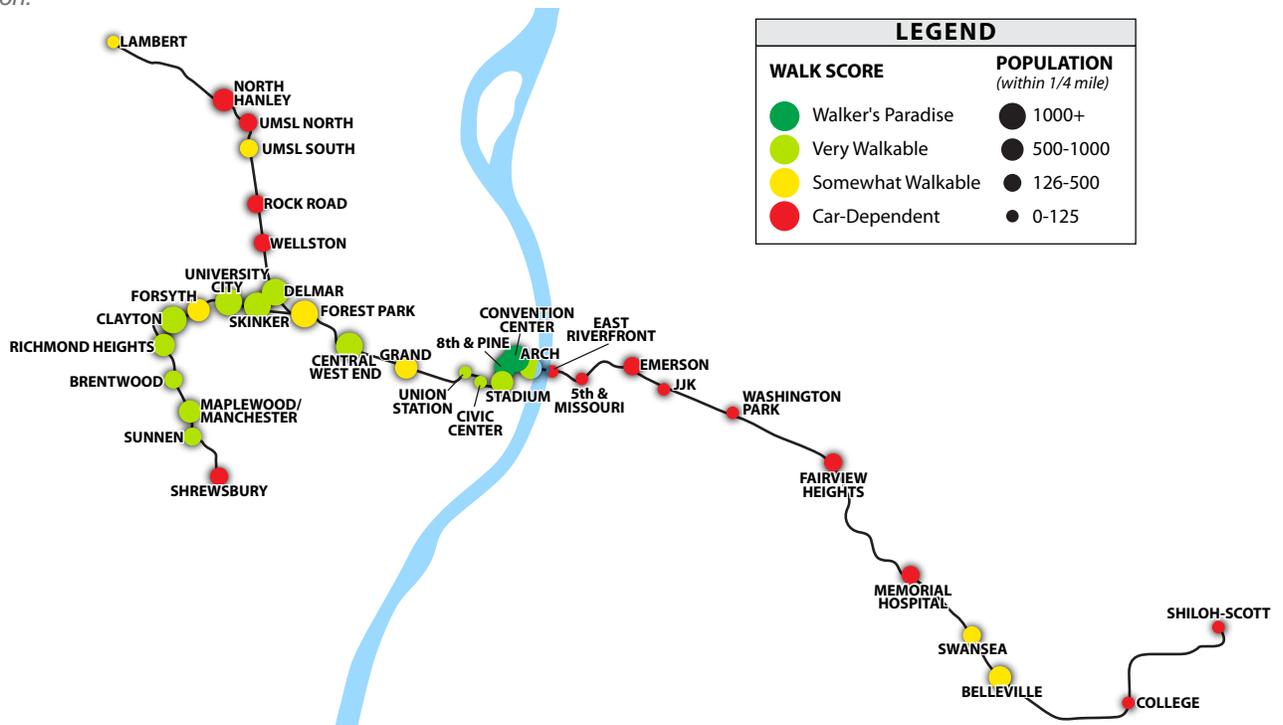
- A** **These roadways are highly pedestrian oriented and will tend to attract pedestrian trips.** The roadways will be characterized by ample sidewalk space, pedestrian-friendly intersection designs, low-speed or low-volume motor-vehicle traffic, and plentiful amenities (e.g., shade, benches, and so forth). The roadway and sidewalk features will be designed at human scale for maximum pedestrian comfort. Roadways with this level of pedestrian accommodation may be expected in central-city, tourist, and college campus locations. Pedestrians can anticipate a low level of interaction with motor vehicles.
- B** **These roadways provide many pedestrian safety and comfort features that can attract pedestrian trips.** These roadways will have many of the characteristics of an LOS A pedestrian facility, but there may be somewhat fewer amenities or pedestrian-friendly design elements. Pedestrians can anticipate a low to moderate level of interaction with motor vehicles.
- C** **These roadways are adequate for pedestrian use, but may not necessarily attract pedestrian trips.** These roadways will provide a standard sidewalk, but will likely have some deficiencies in maintenance or intersection design, may be located on roadways with high-speed, high-volume motor-vehicle traffic, or may provide a sidewalk on one side of the street only. Pedestrians can anticipate moderate interaction with motor vehicles on these roadways.
- D** **These roadways are adequate for pedestrian use, but will not attract pedestrian trips.** These roadways will have more frequent deficiencies in pedestrian safety and comfort features and are more likely to violate ADA requirements for width and clearance. Gaps in the sidewalk system may occur within this roadway corridor. Intersection crossings are likely to be more frequent and more difficult. Pedestrians can anticipate moderate to high levels of interaction with motor vehicles.
- E** **These roadways are inadequate for pedestrian use.** These roadways may or may not provide a pedestrian facility. Even where a sidewalk is provided these roadways will not meet ADA requirements and will have frequent deficiencies in sidewalk width, clearance, continuity, and intersection design. Roadways in this category that do not provide a pedestrian facility may be characterized as urban fringe, rural section roadways with moderate motor-vehicle traffic. Pedestrians can anticipate a high level of interaction with motor vehicles.
- F** **These roadways are inadequate for pedestrian use.** These roadways do not provide any continuous pedestrian facilities and are characterized by high levels of motor-vehicle use and automobile-oriented development. These roadways are designed primarily for high-volume motor-vehicle traffic with frequent turning conflicts and high speeds.

System Map



Walk Score

Walk Score is an online rating system that rates neighborhoods based on the access from a given location to everyday services on foot. Walk score does not evaluate walkability based on streetscape features and other impediments to alternative travel modes such as crime, topography, and weather. Districts earning high Walk Scores include significant parks and public space, locate schools relatively close to workplaces, and encourage of mix of uses and incomes. Walk Score is currently developing Bike Scores and Transit Scores for American communities, however, they are not currently available for the greater St. Louis region.



Lambert Station



This profile outlines current conditions and provides specific recommendations for local jurisdictions concerning how to proceed with TOD at the Lambert Airport MetroLink stations in the future.

Jurisdictions

- St. Louis County
- City of Berkeley
- City of Woodson Terrace

Station Overview and Context

Lambert Airport has two MetroLink stations, one each for Terminals 1 and 2. These stations directly serve the airport, which represents the main air travel connection for residents and businesses in eastern Missouri and southwestern Illinois. The East Terminal, Terminal 2, houses Southwest Airlines, while the Main Terminal, Terminal 1, contains the remainder of the airlines. The airport is surrounded by support services, such as car rental agencies, hotels, paid parking lots and restaurants. Farther away from the terminals, single-family residential areas exist. However, the presence of I-70, separating the airport from the restaurants, hotels and car rental agencies along Natural Bridge Road to the south, largely prohibits pedestrian or bicycle access to the MetroLink stations from surrounding communities to the south such as Edmundson and Woodson Terrace.

The overall design and development around the Lambert area represents standards of airport and suburban development dating to the 1970s. The current appearance and design of the airport entrances and nearby strip commercial and retail along I-70 do not present, perhaps, the best entrance or gateway into the St. Louis region for travelers using Lambert Airport. In the same way that SFO or O'Hare represent world-class airports that have worked to craft the overall branding and entrance to the region for global travelers, the MetroLink system and the entrances to Lambert represent the bi-state region's "front door." While the airport stations generally do not represent the likely area to create a traditional TOD (with a compact mix of residential and commercial uses resembling traditional town or village arrangements), Metro and other regional partners have the opportunity over time to enhance the viability and marketability of the airport and spaces in relatively close proximity to the MetroLink stops.

Site Analysis

Topography: The study area, within one-fourth mile of the station platform, features relatively flat terrain. The topography of the site does not appear to pose any issues with regards to future development. Given that the MetroLink stations are housed within the overall terminal facilities for Terminals 1 and 2, topography of surrounding lands essentially is not an issue at the Lambert stations.

Stream and Floodplain Issues: Floodplain zones do not exist in the station area. Coldwater Creek runs to the southwest of the airport through the St. Ann Golf Course but does not pose any threats to future station area development.

Transportation Network: The Lambert station areas are accessible by I-70, running parallel to the terminals, and I-170, running north-south. Lambert International Boulevard handles the local arrival and departure traffic, and Natural Bridge Road provides more localized access (along the south side of I-70) to neighboring services. Missouri Route EE connects the neighboring residential areas to the station and carries around 15,000 vehicles per day. Traffic counts for the major roads surrounding the Lambert Airport show significantly high traffic on I-70, averaging 150,000 trips per day, and I-170 with upwards of 120,000 vehicles per day.

From the Lambert MetroLink station area, several MetroBus lines provide connections to surrounding destinations.

#34 Earth City MetroBus connects to:

- North Hanley MetroLink Station
- Lambert Busport
- Mark Twain Expressway
- Harrah's Casino
- Express Scripts

#49 North Lindbergh MetroBus connects to:

- North Hanley MetroLink Station
- Lambert Busport

- Northwest Plaza Shopping Center
- Jewish Community Center
- Ballas MetroBus Center

#66 Clayton-Airport MetroBus connects to:

- Village Square Shopping Center
- Valley Industries
- Lambert Busport
- Woodson Road
- Overland Plaza
- Clayton MetroBus Center

Existing Transit Orientation: The station area within one fourth mile of the Lambert station platforms currently includes residential densities of .52 and .79 units per acre, on average, and employee densities of .87 and 1.49 employees per acre, on average. Given that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the Lambert station area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development.

Bike and Pedestrian Environment: The area around the Lambert stations currently registers a Walk Score of 52 (or, “somewhat” as defined by Walk Score methodology).¹¹ Bike infrastructure is largely absent from the station area, however, the Mississippi River Trail does pass just to the north of the terminal. Passengers can transport bikes on MetroLink to help in their commute.

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

The Lambert station area is split between St. Louis County, the City of Woodson Terrace and the City of Berkeley. Lambert International Airport, where the stations are physically located, is zoned Non-Urban District (NU) under the St. Louis County zoning code. This area is entirely occupied by the airport. The City of Berkeley has an M-1, or Industrial District, east of the airport. This zoning category allows a range of office, industrial and research uses but no residential. The remainder of the station area is in Woodson Terrace, zoned either Highway Commercial District (C-2); Shopping, Service and Office District (C-3); or Industrial District (I). Much of the land area is in the C-2 district, which requires special permits for most office, retail and service uses.

The building envelopes in Woodson Terrace’s I, C-2 and C-3 Districts permit heights of 40 feet and 50 feet, respectively. In Berkeley’s M-1 Districts, building heights are allowed to reach six stories or 90 feet, depending on the location of particular parcels in relationship to flight paths. Minimum lot and yard requirements have large minimum thresholds, precluding pedestrian-focused design. The C-2 and C-3 Districts require 12,000 to 20,000 square feet

1 Walk Score. www.walkscore.com, 2013.

per building. Woodson Terrace's I District requires a minimum lot width of 200 feet adjacent to any public street.

Analysis of Current Development Patterns

Current development patterns around the Lambert station reflect a typical major airport hub. Uses are centered on supporting the airport and its travelers. The station area is designed to accommodate large volumes of automobile traffic and therefore exhibits sprawl associated with surface and structured parking lots and non-pedestrian friendly environments.

Current Ridership

As illustrated in the table below, the Lambert stations (overall) report much higher ridership numbers compared to averages for the Missouri portion of the system and the overall MetroLink system. The Main Terminal, Terminal 1, records far higher ridership numbers than Terminal 2, where only one airline is accessible.

Average MetroLink Boarding Estimates - Lambert Station

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Missouri Station Average	42,000	1,560	960
Lambert Terminal 1 MetroLink Station	42,800	1,490	1,200
Lambert Terminal 2 MetroLink Station	12,800	440	370

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The Lambert station is most representative of a Campus/Special Event typology station. It is a single-use destination, primarily serving individuals employed by or utilizing the airport. Development patterns are more recent and suburban in nature. Transit is the key focus of this station area as opposed to real estate development.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the Lambert station is not likely to experience an increase in demand for residential units. However, additional commercial space totaling around 28,774 square feet is possible in the station area. There is no potential for development to the north of I-70, where the airport is currently located and no available land exists. The development potential of parcels to the south of I-70 is limited by the cost and difficulty that providing pedestrian access for airport travelers across I-70 to the airport would entail.

Overall Development Strategy

This combined station area does not exhibit TOD potential due to the lack of available developable land around the station areas. Unless the airport were to completely change the orientation of parking garages and terminal facilities in relation to the two Lambert stations, essentially zero land area is available right around the two station platforms for potential de-

velopment. In addition, the demotion of Lambert from hub to more of a regional status (with the loss of American’s hub status and resulting drop off in air travel at Lambert over the last several years) further diminishes the potential for TOD around the Lambert stations.

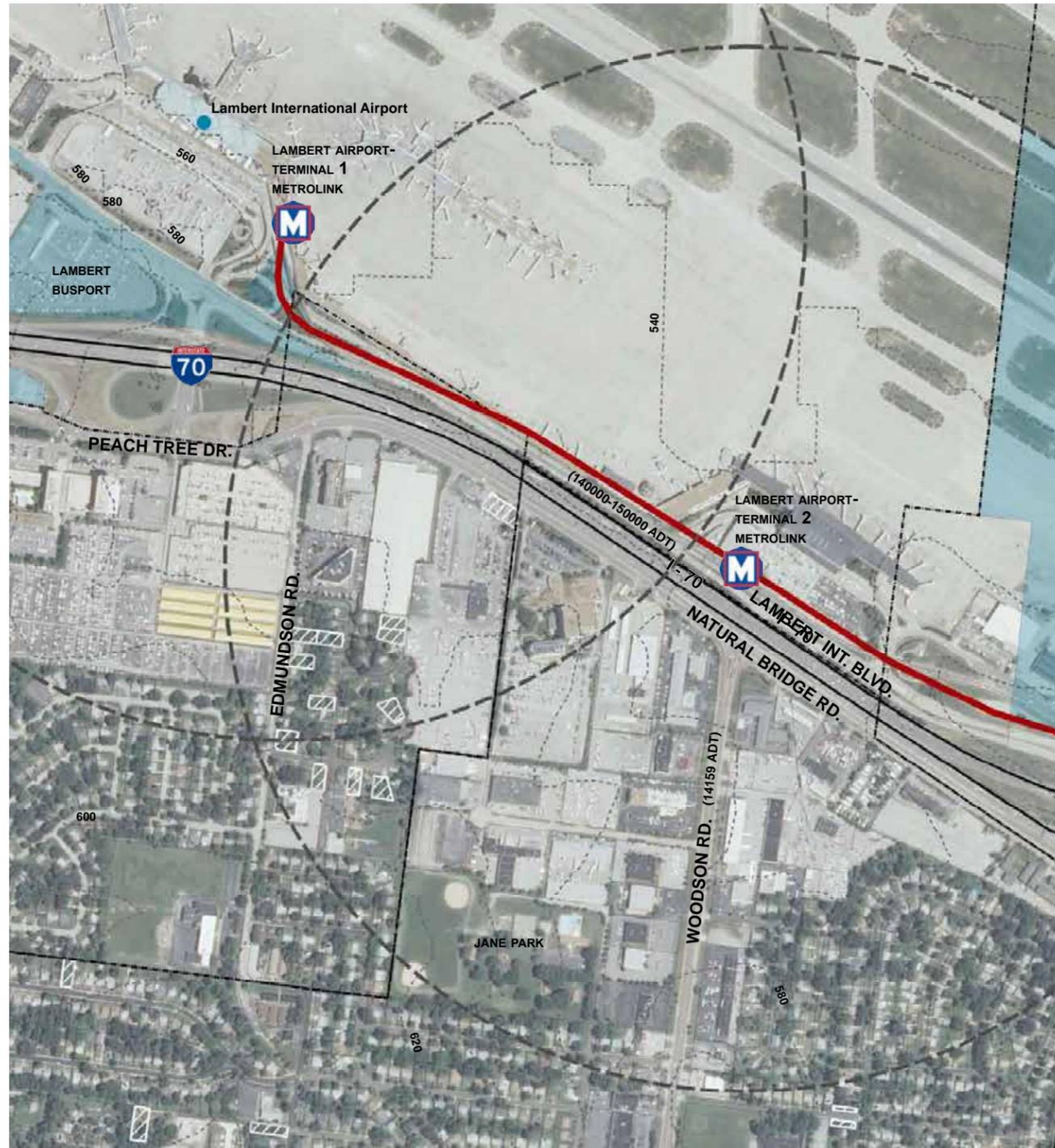
The table below compares the potential developable area at the Lambert Station with the projected supportable square footage of new development. Because the potential developable area around the two stations is essentially zero, this analysis assumes that TOD will likely not proceed in the near- to mid-term, given the site context. In terms of inherent market demand, the areas around the Lambert station areas could support over 50,000 square feet of market demand (including retail or office uses).

Lambert Stations Developable Lands Analysis

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	0	0
Less: Roads and Configuration at 20%	0	0
Less: Open Space and Drainage at 20%	0	0
Less: Surface Parking		0
Net Developable Area		0
Potential Developable SF at 0.25 FAR		0
Potential Developable SF at 0.5 FAR		0
Potential Developable SF at 1.0 FAR		0
Projected Commercial Market Demand		57,548
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		0
Potential Real Estate Market Demand (2010 - 2040)		57,548

Development Tools / Implementation Strategy

TOD is not a viable development strategy at this location.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

LAMBERT [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | These two station areas serve Lambert Airport Terminals 1 and 2. I-70 and Natural Bridge Road run east-west through the airport area, while Woodson Road provides north-south access. This station is surrounded by airport services such as rental car agencies, parking garages, hotels, restaurants, and commercial uses.

Average Monthly Boardings |
 Terminal 1 MetroLink = 42,800
 Terminal 2 MetroLink = 12,800 (MetroLink Station Average = 36,500)

Station Configuration | The airport stations are located adjacent to general parking garages for the two airport terminals and are essentially integrated into the overall airport layout.

Physical Barriers to Development | While the MetroLink services the Lambert Airport north of I-70, much of the potential for transit-oriented development lies south of the I-70 corridor. Pedestrian access would require substantial infrastructure (such as bridges) to be installed across the freeway.

Regulatory Barriers to Development | Zoning around the station site does not allow residential uses or mixed-use development. Most of the station area is occupied by Lambert Airport, and as such, the FAA would also have to review any development plans at the station.

Development Opportunity

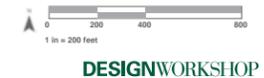
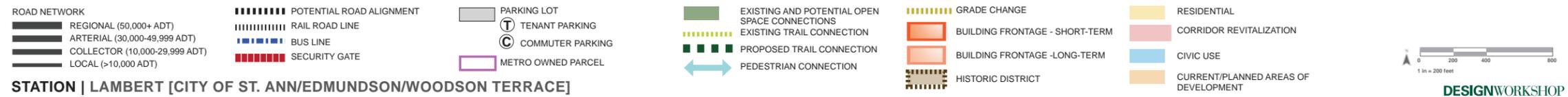
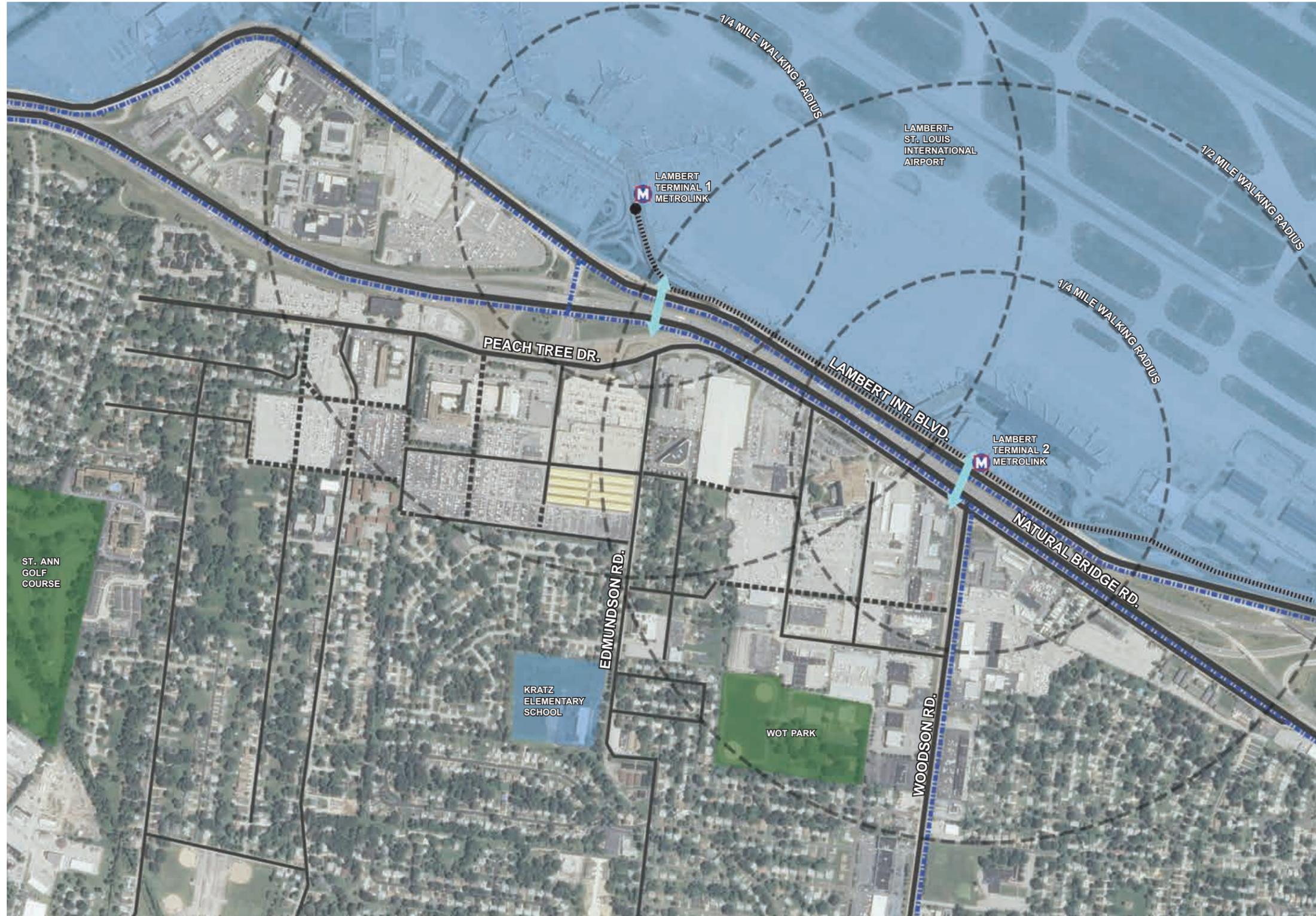
Pros	Cons
<ul style="list-style-type: none"> The airport provides a significant amount of destination workforce and a large number of people pass through the airport area daily Terminal 1 serves a higher than average number of transit riders 	<ul style="list-style-type: none"> There are no nearby concentrations of vacant lots Airport terminals and services limit TOD potential north of I-70 I-70 creates a pedestrian barrier The proximity to this major airport hub creates a conflict inherent to nearby residential uses

- 1/2 MILE RADIUS STUDY AREA
- CULTURAL PLACE OF INTEREST
- METROLINK RED LINE
- VACANT PARCELS OVER 10 ACRES (0 TOTAL)
- METRO OWNED PARCEL (0 ACRES)
- PUBLIC OWNED PARCEL (90.6 ACRES)
- VACANT PARCEL (7.7 ACRES)
- HISTORIC DISTRICT
- ADT AVERAGE DAILY TRAFFIC



STATION | LAMBERT [CITY OF ST. ANN/EDMUNDSON/WOODSON TERRACE]

DESIGNWORKSHOP



North Hanley Station



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the North Hanley MetroLink station in the future.

Jurisdictions

- St. Louis County
- City of Berkeley

Station Overview and Context

The North Hanley Station is one of Metro’s most heavily used multimodal transit stations for a variety of reasons. Its adjacency to the Express Scripts Campus, the NorthPark business park, and a residential neighborhood provide a local base of users. The station’s close proximity to Lambert International Airport and the University of Missouri- St. Louis also help drive overall transit ridership numbers at this location. As the last park-ride station along the red line, adjacent to Interstate 70, the North Hanley station also captures a large volume of suburban commuters heading into the city.

Site Analysis

Topography: The study area, within one-fourth mile of the station platform, features grade changes along the west and south sides of the immediate station area, along Hanley Road and to the south of University Drive. While the overall parking area at Hanley is fairly level,

these grade changes impede connectivity to surrounding land uses and nearby destinations in the local community, and planning for future TOD in the overall station area should consider how to mitigate or plan for this grade change in order to enhance the overall viability of TOD at this location.

Stream and Floodplain Issues: Floodplain zones do not exist in the station area.

Transportation Network: The North Hanley station area enjoys very good transportation connectivity due to its adjacency to Interstate 70 and North Hanley Road, a major north-south thoroughfare. It is also located relatively close to Interstate 170.

Traffic counts for the major roads surrounding the North Hanley area reflect the station's location at a key transportation connection point in the northern suburbs of St. Louis. The I-70 freeway carries over 120,000 vehicles per day. North Hanley Road carries upwards of 15,000 vehicles per day south of the interstate and adjacent to the station, and around 42,000 trips per day north of the interstate in the NorthPark area.

From the North Hanley MetroLink station area, several MetroBus lines provide connections to surrounding destinations in addition to the red MetroLink line.

#04 Natural Bridge MetroBus connects to:

- Express Scripts
- Downtown St. Louis
- University of Missouri-St. Louis

#34 Earth City MetroBus connects to:

- Express Scripts
- Verizon Riverport Amphitheater

#35 Rock Road MetroBus connects to:

- DePaul Medical Center
- Northwest Plaza
- St. Louis Mills

#36 Spanish Lake MetroBus connects to:

- Express Scripts
- Vatterott College
- St. Louis Community College-Florissant Valley
- Christian Hospital Northeast

#44 Hazelwood MetroBus connects to:

- Express Scripts
- NorthPark
- Village Square

#45 Ferguson-Florissant MetroBus connects to:

- Cross Keys Shopping Center
- Clocktower Place

#47 North Hanley MetroBus connects to:

- Downtown Clayton
- Express Scripts
- Flower Valley Shopping Center
- Cross Keys Shopping Center

#49 North Lindbergh MetroBus connects to:

- Express Scripts
- Plaza Frontenac
- Monsanto Headquarters
- Lambert MetroBus Port

#61 Chambers Road MetroBus connects to:

- Express Scripts
- NorthPark
- Federal Center

#75 Lilac Hanley MetroBus connects to:

- St. Louis Community College-Florissant Valley
- Christian Hospital Northeast

#98 Chesterfield Hanley MetroBus connects to:

- Westport Plaza
- St. Luke's Hospital

Existing Transit Orientation: The station area within one fourth mile of the North Hanley platform currently includes residential densities of 1.56 units per acre, on average, and employee densities of 1.31 employees per acre, on average. Given that research suggests that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the North Hanley station area does not facilitate or support enhanced ridership on the Metro-Link system and does not reflect the standards of Transit Oriented Development. The North Hanley area has developed using the framework of typical post World War II suburban standards that do not facilitate transit oriented development

Bike and Pedestrian Environment: The area around the North Hanley station currently registers a Walk Score of 50 (or, “somewhat walkable” as defined by Walk Score methodology) given the lack of proximity from the station area to retail and residential uses and a variety of other community uses.¹ Interstate 70 poses a significant barrier for people biking and walking, and the grade changes to the south of the station area limit connectivity from the Hanley station to areas to the south. The following details observations concerning the bike and pedestrian environment in the North Hanley station area:

- Some of the streets in the station area in general lack accommodations for pedestrians in line with ADA standards.
- The relatively wide width of the five-lane Hanley Road section and the three-lane University Place section in the area around the station help to contribute to a less than favorable environment for people biking and walking.
- The lack of street network connectivity from the station area to neighborhoods to the south forces pedestrians and bicyclists to use Hanley Road to travel south to residences and other community destinations. Hanley Road currently includes relatively limited bike and pedestrian accommodations.
- The connectivity from the Express Scripts campus to the MetroLink station is generally considered to be less than ideal.
- The grade change to the west of the station area, coupled with the width of North Hanley Road, discourages pedestrian and bicycle connectivity from the station area to uses along the west side of Hanley Road, including a local gas station, a greenhouse, and apartment complexes.
- While bicyclists of course may access the station area via roadways, the area around the Hanley station does not feature any dedicated bike lanes or sharrows and bicycle parking is relatively limited at the station platform area.
- The construction of the St. Vincent Greenway from the North Hanley area to the south and east along or parallel to the MetroLink line to the Delmar Loop area will help enhance the degree of bike and pedestrian connectivity in the station area going forward.

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

The North Hanley station area is divided between the City of Berkeley and St. Louis County. Between the two jurisdictions, a variety of zoning districts encompasses the area within a quarter mile of the station area, ranging from Single-family Residential to Non-Urban area and Planned Research and Industrial. Some of these zoning designations favor the creation

1 Walk Score. www.walkscore.com, 2013.

of transit-oriented development, while others may constrain or hinder the development of well-planned TOD.

Specifically, the large parcel where Metro's Park-Ride Lot and the North Hanley Station reside is zoned in St. Louis County's C8: Planned Commercial District, which includes broad development parameters and allows considerable flexibility that may be ideal in promoting TOD. In addition, the blocks west of Hanley Road and south of Dragonwyck Drive are zoned in St. Louis County's R7: Multifamily Residential district, which allows all housing types and mixed-use buildings (with the caveat that retail is limited to 5 percent of total floor area). R7 zoning permits building envelopes of up to 200 feet, although this zoning classification requires apartment building developments to include 10-foot side yards, 20-foot front yards, and minimum lot areas of 1,750 square feet. The City of Berkeley has jurisdiction over the North Park business park along the north side of I-70 and this area currently carries the M-2 zoning designation. M-2 zoning would allow for industrial and business-centered forms of transit-oriented development but does not allow for residential or mixed-use buildings. It generally allows a vast range of office, research, and industrial facilities, as well as personal services and some forms of retail by special permit. The M-2 zoning may inhibit more compact, pedestrian-oriented forms of TOD given the district's requirement for 30 to 50 foot side yards, 40 foot front yards, and building heights up to 90 feet. Future planning for land uses in the North Park area should consider the implications of any building height restrictions posed by the area's location in or near the flight path for Lambert Airport.

Other zoning regulations may further hinder the potential for new transit-oriented development. Most zoning districts within the station area limit building heights to two or three stories. Parking requirements in all residential districts in the area, with the exception of St. Louis County's R5, require 1.5 to 2 parking spots per dwelling unit and one space for every 200 to 300 square feet of floor area for retail and office uses. The potential for compact, walkable TOD may be limited by minimum lot and yard size requirements in all residential zoning districts (of which a good portion of the station area is comprised).

In general, the existing zoning framework within a quarter mile of the station area does not allow for mixed-use development, and allows multi-family housing only on a limited basis. Therefore, the general zoning framework around the Hanley station does not encourage the creation of well-planned TOD. While a developer in theory could submit plans for TOD that would involve zoning amendments or variances to allow for mixed-use development, the area lacks the presence of a zoning framework that would actually encourage or require developers to pursue projects that align with the general goals of transit oriented development.

Analysis of Current Development Patterns

Current development patterns around the North Hanley station reflect the recent completion of suburban business park projects and corporate campus expansions. Express Scripts, the area's major employer, holds a large amount of land north of the interstate and on the western-most part of the UMSL campus. In addition, the existing Metro station occupies a 20-acre site, providing parking for 1,705 surface spaces and a three-story garage. The existing single-family residential properties to the south of the Hanley station, to the south of University Drive, are largely vacant and boarded up. To the west of Hanley Road, a gas station, various apartment developments, and a greenhouse line this main arterial.

Current Ridership

As illustrated in the table below, the North Hanley station reports much higher average ridership numbers compared to averages for the Missouri portion of the system and the overall MetroLink system. The station's designation as the last park-and-ride stop on the red line, along with the ease of access from Interstate 70 and North Hanley Road to the station platform area, contribute to higher ridership. In addition, the station serves commuters for Express Scripts, Lambert International, and UMSL.

Average MetroLink Boarding Estimates - North Hanley Station

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Missouri Station Average	42,000	1,560	960
North Hanley MetroLink Station	88,000	3,350	1,830

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The North Hanley station is most representative of a Suburban Town Center typology. This station provides access to a mix of uses, including employment and residential, and has the potential to support other uses, including retail, in the future. Suburban Town Centers can serve as both origins and destinations for commuters. The North Hanley station area has significant potential to evolve into a Suburban Town Center for this part of the northern St. Louis metro area, including employment uses, residential, and retail. The station's location along I-70 and proximity to the airport and UMSL contribute to significant potential to develop retail and office uses in particular, and the overall North Hanley station area could evolve to represent one of the best examples of TOD in the region going forward.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the North Hanley station is likely to experience an increase in demand for an additional 240 residential units and additional commercial space totaling around 257,700 square feet. Given the station area's growth in employment and the potential future expansion of NorthPark, the station area will likely absorb all of this projected demand within the next 30 years (if not much sooner). NorthPark is currently developing as a business and research park, with infrastructure in place to support large campuses. Its location relative to interstates 70 and 170 and Lambert International Airport make development of corporate head-quarter facilities, distribution centers, and manufacturing uses appealing at this location.

Overall Development Strategy

Given the high potential demand for new development over the next few decades, the strategy for the North Hanley area calls for the community to work with potential developers and property owners to focus redevelopment energy near the station area. In addition, development activity aimed at making North Hanley a true TOD must focus on creating compact, walkable development opportunities, while limiting the auto-centric patterns, including the presence of lower density and sprawled development and large surface parking lots, that currently dominate the station area. Furthermore, connections over Interstate 70 should be

improved, as the existing traffic volumes along North Hanley and the barriers posed by the I-70 interchange crossing currently pose significant barriers for people walking and biking.

The table below compares the potential developable area at the North Hanley station with the projected supportable square footage of new development. Developments that integrate land uses at more urban densities (FAR of 0.5 to 1.0 or greater) would absorb all of the projected demand in the station area over the next 30 years. Therefore, as the station area evolves over the next few decades, developments that include land uses at greater levels of density may leave additional acreage within the station area available for the creation of open space or civic spaces.

North Hanley Station Developable Lands Analysis

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	53.81	2,343,964
Less: Roads and Configuration at 20%	10.762	468,793
Less: Open Space and Drainage at 20%	10.762	468,793
Less: Surface Parking		0
Net Developable Area		1,406,378
Potential Developable SF at 0.25 FAR		351,595
Potential Developable SF at 0.5 FAR		703,189
Potential Developable SF at 1.0 FAR		1,406,378
Projected Commercial Market Demand		287,742
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		240,000
Potential Real Estate Market Demand (2010 - 2040)		527,742

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that St. Louis County and the City of Berkeley work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of a TOD Zoning Classification for the Station Area: In order to support TOD, existing zoning must be amended to allow mixed-uses and multi-family residential units. The current Park-Ride lot is zoned Planned Commercial, C8. While this does allow flexibility with a site plan review, it does not allow residential uses. A TOD Zoning classification should be established for the station area.

Establishment of Form Based Codes for the Station Area: As a substitute for (or in addition to) the creation of a TOD specific zoning classification, St. Louis County and the City of Berkeley should consider establishing a Form Based Code (FBC) for the station area in order to articulate the design of streets and building frontages within the station area district.

Establishment of Parking Maximums (as opposed to parking minimums): St. Louis County and Berkeley should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties. Current zoning requirements in the North Hanley station area require one parking space for every 200-300 square feet of floor area for retail and offices uses.

Action Items

The following includes a series of action items that the local communities, Metro, and other partners should complete in order to move the creation of TOD at the North Hanley station area forward over the near term and long term.

City of Berkeley and St. Louis County

- The city of Berkeley and St. Louis County should establish transit supportive zoning that would encourage and entice mixed-use, transit oriented development in the vicinity of the station area. Specifically, the prospective TOD zoning in this area should encourage densities of 20 residential units or greater and should encourage creation of employment centers that provide for density of 25 employees per acre, within the station area.
- The City of Berkeley and St. Louis County should formally identify, acquire, and begin to develop a district plan and formulate the urban design framework for a revitalized corridor along Hanley Road. In addition, any public purchasing of property at this time would likely require less investment on a per acre basis compared to later stages in the area's revitalization, when property values would naturally increase.
- The County and City should work to implement bike routes identified in the regional STL bike plan that service the general station area. In addition, these entities may wish to work with nearby neighborhoods to outline more specific bike routes for the communities located close to the Hanley station area.
- The City of Berkeley and St. Louis County should identify a prioritization of public improvements (such as streetscapes, open space amenities, and various infrastructure items) and create a capital improvements plan specifically tailored to the North Hanley station area. This plan would provide a road map for how to proceed with investments over several years and help guide county and city leaders as administrations and political climates change over time.
- The city of Berkeley and St. Louis County should explore the use of traffic calming, the installation of ADA ramps, the upgrading of sidewalks, the installation of sidewalks where missing, and the narrowing or "road dieting" of streets in the area as necessary in order to achieve an overall Pedestrian Level of Service of "A" or "B" for the North Hanley station area.
- The city of Berkeley and St. Louis County should consider implementing Neighborhood Improvement Districts (NIDs), Community Improvement Projects (CIPs) or Transportation Development Districts (TDDs) for the station areas in order to encourage ongoing investment in TOD at the North Hanley station. NIDs, CIPs, and TDDs provide for the generation of extra taxes to pay for project or improvement costs for new or redevelopment projects.
- The City of Berkeley and St. Louis County should consider implementing Sales Tax Reimbursement Agreement for a defined geography around the station area. These

agreements represent a funding mechanism allowed by Missouri law that may be used to achieve public benefit through funding for infrastructure projects. Under these agreements, municipalities have the ability to annually appropriate the increase in sales taxes created by new private capital investment to offset a portion of their project investment costs. The sales tax increments must be used for public purposes, primarily through the funding of infrastructure improvements.

- The city and county may also explore the use of the Enhanced Enterprise Zone program (EEZ) under Missouri law and target this tool to the station area through the establishment of a EEZ zone. Companies in the TOD area that expand operations would receive income tax refunds and property tax abatements.

St. Louis County (only)

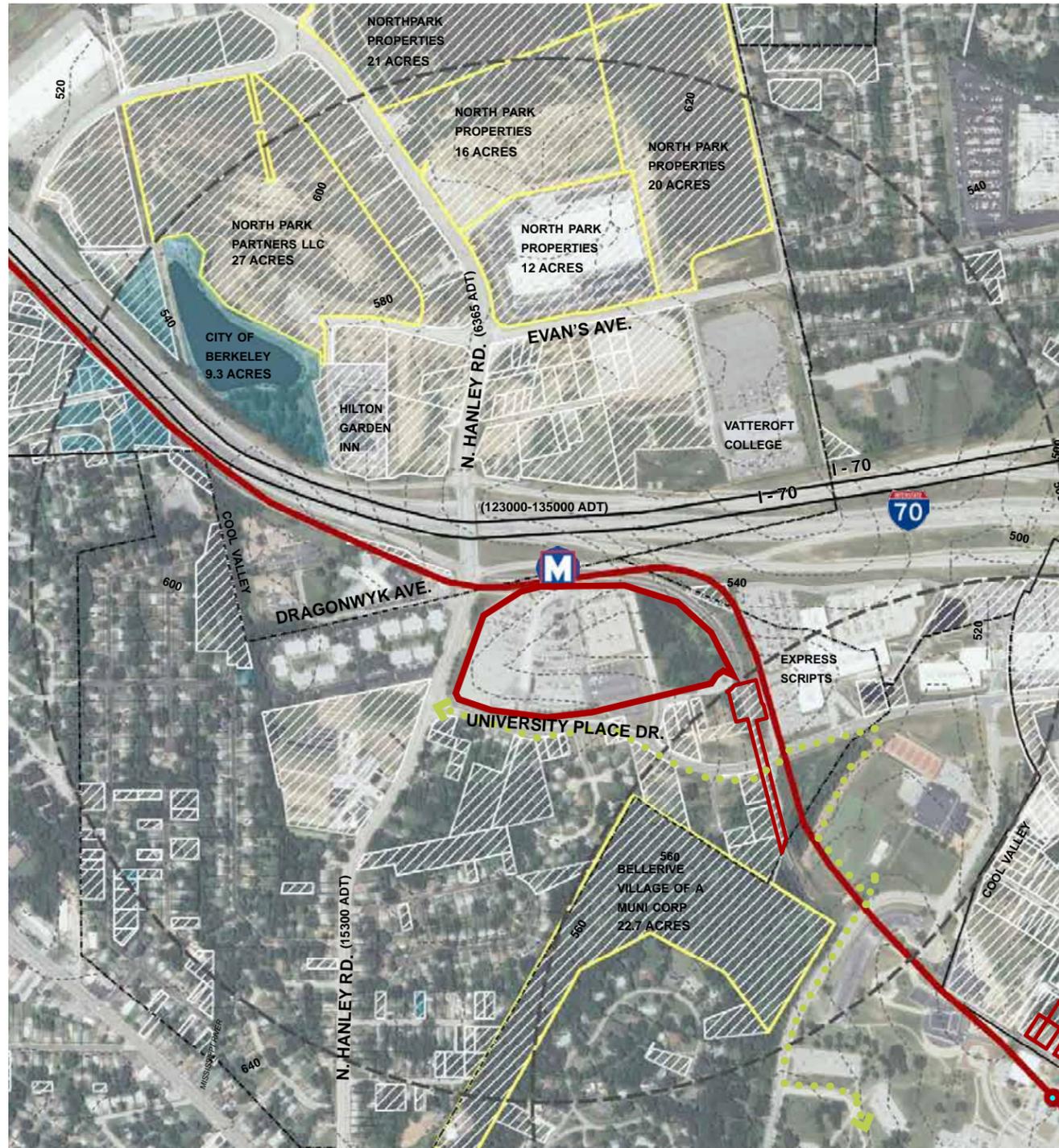
- The County should work to tie approvals for TIF or related county incentive packages for development at the North Hanley station to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 DU per acre and employment uses providing for at least 25 employees per acre). The County should use the approval of TIF or related incentives as “carrots” to promote developments that are more conducive to transit oriented development.
- The County should explore establishing a Chapter 353 redevelopment corporation specifically targeted for the station area. These entities assist companies by providing tax abatements for redevelopment projects.

Metro

- Metro should work on finalizing a parking replacement strategy for North Hanley (and other stations). Metro should work on a strategy to locate replacement parking if part of the existing parking lot at the station area is repurposed to facilitate TOD. In addition, Metro should work with the County to ensure that local side streets accommodate on-street parking wherever possible. Due to the significant amount of parking present at the station area, this strategy is paramount to supporting TOD while maintaining existing ridership levels.
- Metro should work over time to enhance or provide sufficient MetroBus service to and from the station area in order to arrive at a Transit Level of Service measure of “A” or “B”.

Great Rivers Greenway

- As GRG completes construction of the St. Vincent Greenway Trail, the organization should work with Metro, the County, and UMSL to ensure that bike and pedestrian connections from the trail to the MetroLink station area are adequate to encourage use of the trail and a Pedestrian Level of Service of “A”. GRG should also work with Metro to ensure that signage and wayfinding adequately directs MetroLink riders to the trail and vice versa.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

NORTH HANLEY [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station is south of Interstate 70 with North Hanley Road serving as the major north-south connector. A suburban residential neighborhood is located to the south of the station, while corporate campuses lie to the north of I-70. The Express Scripts campus is located directly adjacent to parking lots serving the MetroLink station. The station is also near the University of Missouri St. Louis campus.

Average Monthly Boardings | 88,000 (MetroLink Station Average = 36,500)

Station Configuration | The station includes a Park-Ride lot of 20-acres that contains 1,705 surface parking spaces and a three-story garage that holds 780 spaces.

Physical Barriers to Development | Pedestrian access to the sites surrounding the station is limited due to barriers created by Interstate 70 and Hanley Road.

Regulatory Barriers to Development | Zoning around the station site may support TOD within a planned commercial zoning district. An industrial and business-centered form of TOD may also be supported. Medium and high-density residential and mixed-use development is limited under current zoning.

Development Opportunity

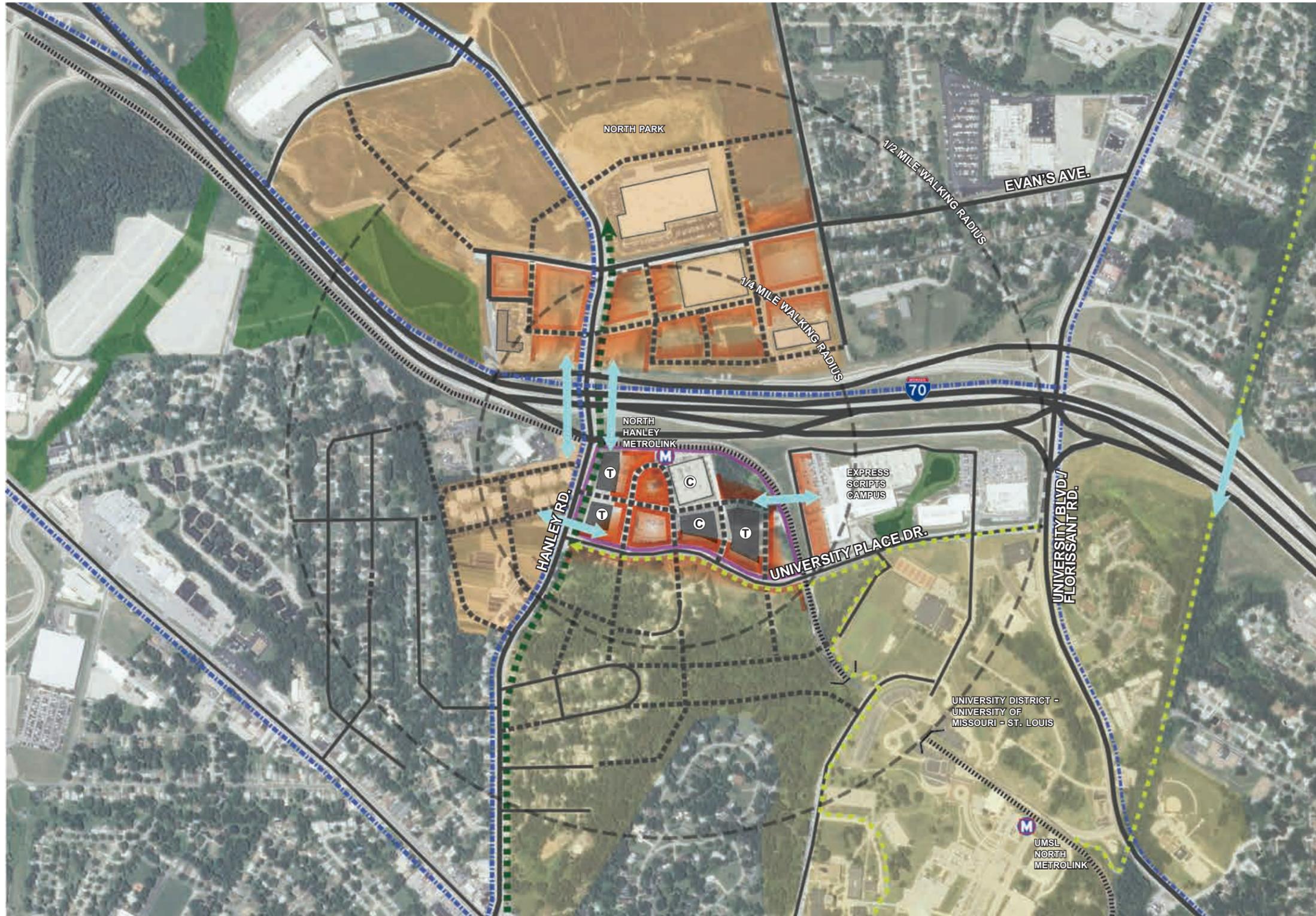
Pros	Cons
<ul style="list-style-type: none"> • High transit ridership • Significant parking inventory and amenities • Significant amount of Metro owned land and vacant land • Corporate campuses and research parks provide a large employment base • Provides opportunities for mixed-use development, including residential, on either side of I-70 	<ul style="list-style-type: none"> • Pedestrian connections across North Hanley Road and I-70 pose challenges

- 1/2 MILE RADIUS STUDY AREA
- CULTURAL PLACE OF INTEREST
- METROLINK RED LINE
- VACANT PARCELS OVER 10 ACRES (6 TOTAL)
- METRO OWNED PARCEL (20.37 ACRES)
- PUBLIC OWNED PARCEL (14.6 ACRES)
- VACANT PARCEL (218.5 ACRES)
- HISTORIC DISTRICT
- ADT AVERAGE DAILY TRAFFIC
- PROPOSED ST. VINCENT GREENWAY TRAIL



STATION | NORTH HANLEY [CITY OF BERKELEY/COOL VALLEY/BELLERIVE]

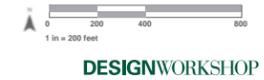
DESIGNWORKSHOP



- | | | |
|-------------------------------|---------------------------------|--------------------|
| ROAD NETWORK | POTENTIAL ROAD ALIGNMENT | PARKING LOT |
| REGIONAL (50,000+ ADT) | RAIL ROAD LINE | TENANT PARKING |
| ARTERIAL (30,000-49,999 ADT) | BUS LINE | COMMUTER PARKING |
| COLLECTOR (10,000-29,999 ADT) | SECURITY GATE | METRO OWNED PARCEL |
| LOCAL (>10,000 ADT) | | |

STATION | NORTH HANLEY [CITY OF BERKELEY/COOL VALLEY/BELLERIVE]

- | | | |
|---|--------------------------------|--------------------------------------|
| EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS | GRADE CHANGE | RESIDENTIAL |
| EXISTING TRAIL CONNECTION | BUILDING FRONTAGE - SHORT-TERM | CORRIDOR REVITALIZATION |
| PROPOSED TRAIL CONNECTION | BUILDING FRONTAGE - LONG-TERM | CIVIC USE |
| PEDESTRIAN CONNECTION | HISTORIC DISTRICT | CURRENT/PLANNED AREAS OF DEVELOPMENT |



UMSL Stations



UMSL North Station

This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the UMSL North MetroLink station in the future.

Jurisdictions

- City of Normandy
- City of Bellerive

Station Overview and Context

The UMSL North Station serves the University of Missouri-St. Louis north campus and surrounding neighborhoods of the City of Normandy and City of Bellerive. Much of the neighboring residential is a combination of single-family homes, garden apartment complexes and student housing.

Site Analysis

Topography: The study area, within one-fourth mile of the station platform, features relatively flat terrain with some grade change present northeast of the tracks. The topography of the site does not appear to pose any significant issues with regard to future development.

Stream and Floodplain Issues: No floodplain zones exist in the station area.

Transportation Network: The UMSL North station area is connected to I-70 via Florissant Road, a major north-south collector road. However, from the UMSL North MetroLink station area, there are no MetroBus lines to other area attractions.

Existing Transit Orientation: The station area within one fourth mile of the UMSL North platform currently includes residential densities of 1.64 units per acre, on average, and employee densities of 1.89 employees per acre, on average. Given that research suggests that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the UMSL North station area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development. The UMSL North area has developed using the framework of typical post World War II suburban standards that do not facilitate transit oriented development.

Bike and Pedestrian Environment: The area around the UMSL North station currently registers a Walk Score of 40 (or, “car dependent” as defined by Walk Score methodology) given the lack of proximity from the station area to retail and residential uses and a variety of other community uses.¹ The following details additional observations concerning the bike and pedestrian environment in the UMSL North station area:

- Some of the streets in the station area in general lack accommodations for pedestrians in line with ADA requirements
- While the UMSL North station enjoys adjacency to the North campus, the orientation of campus and local streets limits connectivity to surrounding neighborhoods.
- While bicyclists of course may access the station area via roadways, the area around the UMSL North station does not feature any dedicated bike lanes or sharrows and bicycle parking is relatively limited at the station platform area.
- The construction of the St. Vincent Greenway from the North Hanley area to the south and east along or parallel to the MetroLink line to the Delmar Loop area will help enhance the degree of bike and pedestrian connectivity in the station area going forward.

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

While the UMSL North station area is split between the Cities of Normandy and Bellerive, the portion of the station area in Bellerive is completely inhabited by UMSL's North Campus. The remainder of the station area lies within Normandy and is comprised mainly of residential districts (A and B: Single-family, C: Two-family residential and D: Multiple Dwelling) as well as a small commercial district (F) – all of which may inhibit new transit-oriented development.

Within the residential districts, District A lots must be comprised of single-family homes (built no higher than two-and-a-half stories) on 10,000 sq.ft., 70' wide lots with a front yard that matches neighboring yards or is at least 30 feet deep. District D permits apartment buildings up to three stories high but does not permit mixed or commercial uses. In addition, District D requires two parking spaces per dwelling unit, lots of at least 3,000 sq.ft. per dwelling unit (minimum lot size of 12,000 sq.ft.), two side yards and 30' front yards.

1 Walk Score. www.walkscore.com, 2013.

The lots zoned as F: Commercial can be comprised of retail, office and other services but not of mixed-use or residential buildings. All structures may be a maximum of 45' (or three stories) high. Commercial buildings are also required to provide one parking space for every 300 sq.ft. of floor area in addition to employee parking.

The area zoned as B: Single-family residential may be more open to suburban-scaled TOD. While the district regulations only allow 7,500 sq.ft. 55'-wide lots, the City of Normandy does make provision for large lots (5+ acres) that are owned by one person to be developed as Planned Unit Developments (PUDs) or Community Unit Plans (CUPs). Such a provision may permit flexibility of density, site planning and uses for this section of the UMSL North station area.

Analysis of Current Development Patterns

Current development patterns reflect a suburban campus combined with neighborhood residential development patterns.

Current Ridership

As illustrated in the table below, the UMSL North station reports much lower than average ridership numbers compared to averages for the Missouri portion of the system and the overall MetroLink system. The station's proximity to automobile dependent residential use patterns and suburban nature do not support transit, while students, faculty, and staff of UMSL do utilize the station.

Average MetroLink Boarding Estimates - UMSL North Station

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Missouri Station Average	42,000	1,560	960
UMSL North MetroLink Station	15,600	640	220

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The UMSL North Station has dual typologies. Given the station's focus around the university, it is a Campus/Special Event typology. In addition, the station also serves the surrounding neighborhood of Normandy, making it also a Neighborhood typology. Neighborhood typologies exhibit relationships to a mix of housing, small-scale industry, and secondary transit networks.

The primary focus of transit and community activity at UMSL North will continue to orient around the university campus, and given this orientation, as the station area's development proceeds, local and university leaders should draw from examples of campus oriented stations in other cities.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the UMSL North station is likely to experience a slight increase in demand for an ad-

ditional 96 residential units and additional commercial space totaling around 57,500 square feet. The station area’s connection to the university ensures that any dedicated student housing consistently turns over on a regular basis as students move on from their studies. If UMSL expands, then more residential units may be warranted. Additional commercial space could be in the form of local small businesses like restaurants and convenience stores.

Overall Development Strategy

The area north of the station platform consists of vacant university-owned land, totaling approximately 16 acres. This area represents the only developable land in proximity to the station platform, and is currently zoned residential. The university’s 2009 master plan shows these lots as part of an open space network connecting athletic fields.

UMSL North Station Developable Lands Analysis

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	20	871,200
Less: Roads and Configuration at 20%	4	174,240
Less: Open Space and Drainage at 20%	4	174,240
Less: Surface Parking		0
Net Developable Area		522,720
Potential Developable SF at 0.25 FAR		130,680
Potential Developable SF at 0.5 FAR		261,360
Potential Developable SF at 1.0 FAR		522,720
Projected Commercial Market Demand		57,548
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		96,000
Potential Real Estate Market Demand (2010 - 2040)		153,548

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that the City of Normandy and the City of Bellerive, where the UMSL north campus is located, work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of a TOD Zoning Classification for the Station Area: None of the zoning classifications in the vicinity of the station area allow for residential land uses that would help to create a true transit-oriented development in the station area. The City should create a TOD zoning district that specifically promotes mixed-use and compact development in the vicinity of the UMSL North station.

Establishment of Form Based Codes for the Station Area: As a substitute for (or in addition to) the creation of a TOD specific zoning classification the local governments should

consider establishing a Form Based Code (FBC) for the station area in order to articulate the design of streets and building frontages within the station area district.

Establishment of Parking Maximums (as opposed to parking minimums): Current zoning requirements in the station area require one parking space for every 300 square feet of floor area of commercial uses plus employee parking. The community should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties.

Action Items

The following includes a series of action items that the local communities, Metro, and other partners should complete in order to move the creation of TOD at the UMSL North station area forward over the near term and long term.

City of Normandy and City of Bellerive

- The cities should establish transit supportive zoning that would encourage and entice mixed-use, transit oriented development in the vicinity of the station area. Specifically, the prospective TOD zoning in this area should encourage densities of 20 residential units or greater and should encourage creation of employment centers that provide for density of 25 employees per acre, within the station area.
- The cities should work to implement bike routes identified in the regional STL bike plan that service the general station area. In addition, the city may wish to work with nearby neighborhoods to outline more specific bike routes for the communities located close to the UMSL North station area.
- The cities should identify a prioritization of public improvements (such as streetscapes, open space amenities, and various infrastructure items) and create a capital improvements plan specifically tailored to the UMSL North station area. This plan would provide a roadmap for how to proceed with investments over several years and help guide city leaders as administrations and political climates change over time.
- The cities should explore the use of traffic calming, the installation of ADA ramps, the upgrading of sidewalks, the installation of sidewalks where missing, and the narrowing or “road dieting” of streets in the area as necessary in order to achieve an overall Pedestrian Level of Service of “A” or “B” for the UMSL North station area.
- The cities should consider implementing Neighborhood Improvement Districts (NIDs), Community Improvement Projects (CIPs) or Transportation Development Districts (TDDs) for the station areas in order to encourage ongoing investment in TOD at the UMSL North station. NIDs, CIPs, and TDDs provide for the generation of extra taxes to pay for project or improvement costs for new or redevelopment projects.
- The cities should consider implementing a Sales Tax Reimbursement Agreement for a defined geography around the station area. These agreements represent a funding mechanism allowed by Missouri law that may be used to achieve public benefit through funding for infrastructure projects. Under these agreements, municipalities have the ability to annually appropriate the increase in sales taxes created by new private capital investment to offset a portion of their project investment costs. The sales tax increments must be used for public purposes, primarily through the funding of infrastructure improvements.

- The cities may also explore the use of the Enhanced Enterprise Zone program (EEZ) under Missouri law and target this tool to the station area through the establishment of an EEZ zone. Companies in the TOD area that expand operations would receive income tax refunds and property tax abatements.

St. Louis County

- The County should work to tie approvals for TIF or related county incentive packages for development at the UMSL North station to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 dwelling units per acre and employment uses providing for at least 25 employees per acre). The County should use the approval of TIF or related incentives as “carrots” to promote developments that are more conducive to transit oriented development.
- The County should explore establishing a Chapter 353 redevelopment corporation specifically targeted for the station area. These entities assist companies by providing tax abatements for redevelopment projects.

Metro

- Metro should work on finalizing a parking replacement strategy for UMSL North (and other stations). Metro should work on a strategy to locate replacement parking if part of the existing parking lot at the station area is repurposed to facilitate TOD. In addition, Metro should work with the County to ensure that local side streets accommodate on-street parking wherever possible. Due to the significant amount of parking present at the station area, this strategy is paramount to supporting TOD while maintaining existing ridership levels.
- Metro should work over time to enhance or provide sufficient MetroBus service to and from the station area in order to arrive at a Transit Level of Service measure of “A” or “B”.

Great Rivers Greenway

- As GRG completes construction of the St. Vincent Greenway Trail, the organization should work with Metro, the County, and UMSL to ensure that bike and pedestrian connections from the trail to the MetroLink station area are adequate to encourage use of the trail and a Pedestrian Level of Service of “A”. GRG should also work with Metro to ensure that signage and wayfinding adequately directs MetroLink riders to the trail and vice versa.

UMSL

- UMSL should work with Metro to ensure that the station area includes sufficient bike parking and pedestrian accommodations to make MetroLink as attractive as possible in drawing ridership from the UMSL community.
- UMSL should work with Normandy, Bellerive and Metro in amending its campus plan, as necessary, to integrate ideas for transit oriented development in and around the UMSL North station area.

UMSL South Station

This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the UMSL South MetroLink station in the future.

Jurisdictions

- City of Normandy
- City of Bellerive

Station Overview and Context

The UMSL South Station serves the University of Missouri-St. Louis south campus and several key destinations in the City of Normandy including the Glen Echo Country Club, Normandy City Hall, the Sisters of Good Shepherd convent, and a community services center. The station also features relatively close proximity to a branch of the St. Louis County Public Library, a local Post Office, and several schools and churches. In general, the UMSL South station lacks the prominence of other stations such as Hanley, given the relative isolation of the station platform from surrounding arterials including Natural Bridge Road and its lack of adjacency to a major interstate. However, spurred in part by the Natural Bridge Great Streets project, local residents and leaders have expressed renewed interest in leveraging the UMSL South station to help improve the overall position of the Normandy community and the UMSL campus.

Site Analysis

Topography: The UMSL South station platform lies at least 400 feet below grade compared to surrounding parcels along Natural Bridge Road and on the UMSL south campus. In essence, the station area is “in a hole” and the station area currently lacks visibility from Natural Bridge Road and surrounding parcels. Planning for this topographical challenge represents a key objective of any planning for TOD at this station going forward.

Stream and Floodplain Issues: No floodplain zones exist in the station area.

Transportation Network: The UMSL South station area enjoys overall good east-west transportation connectivity, as Natural Bridge Road (Missouri Route 115) passes just north of the station platform and connects from areas near Lambert Airport to the heart of St. Louis City, passing through Normandy and several other St. Louis County suburbs. The presence of the UMSL campus and the disjointed nature of nearby neighborhood streets limits the north-south connectivity of the local street network in direct proximity to the station area. However, Hanley Road and Florissant Road, located within a few minutes of the UMSL South station, provide north-south connectivity to I-70 and other nearby communities. Traffic counts for all of the collector roads in the vicinity of the UMSL South station reflect average daily vehicular volumes of fewer than 20,000 vehicles. Given the width of Natural Bridge Road and Hanley Road, these collectors represent “oversized” streets. A key recommendation and action item of the Natural Bridge Great Streets effort calls for Natural Bridge to undergo a “road diet” that will narrow the street down to one lane in each

direction. This conversion will help to create a more intimate, “Main Street” orientation to Natural Bridge Road as it passes through Normandy and the station area. The presence of the two UMSL campuses spurs a significant number of automobile commuters to use the local streets to access campus.

From the UMSL South MetroLink station area, only one MetroBus line provides connections to downtown and surrounding neighborhoods in the vicinity of the station area.

#04 Natural Bridge MetroBus connects to:

- Civic Center MetroLink Station
- Wellston
- Normandy
- North Hanley MetroLink Station

Existing Transit Orientation: The station area within one fourth mile of the UMSL South platform currently includes residential densities of 1.55 units per acre, on average, and employee densities of 1.81 employees per acre, on average. Given that research suggests that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the UMSL South station area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development. The UMSL South area has developed using the framework of typical post World War II suburban standards that do not facilitate transit oriented development. In addition, the presence of the Glen Echo Country Club accounts for a sizeable portion of the overall land area within one-fourth mile of the station area and therefore “removes” these lands from availability to create the levels of residential and commercial density necessary to support TOD at the UMSL South station.

Bike and Pedestrian Environment: The area around the UMSL South station currently registers a Walk Score of 54 (or, “somewhat walkable” as defined by Walk Score methodology) given the lack of proximity from the station area to retail and residential uses and a variety of other community uses.¹ A fence along the east side of the rail line blocks pedestrian and bicycle connectivity from the station area to the Sisters of Good Shepherd and in general pedestrian and bicycle access from the station area to City Hall and other destinations to the east along Natural Bridge is very poor. The upgrades outlined in the Great Streets plan for Natural Bridge Road should improve the bike and pedestrian experience along this major street, but Metro will need to work with the city to improve bike and pedestrian access to and from the MetroLink stop. The following details additional observations concerning the bike and pedestrian environment in the UMSL South station area:

- Some of the streets in the station area in general lack accommodations for pedestrians in line with ADA requirements
- While the UMSL South station enjoys adjacency to the South campus, the orientation of campus and local streets limits connectivity to neighborhoods to the west and south.
- The connectivity from the Express Scripts campus to the MetroLink station is generally considered to be less than ideal.

1 Walk Score. www.walkscore.com, 2013.

- While bicyclists of course may access the station area via roadways, the area around the UMSL South station does not feature any dedicated bike lanes or sharrows and bicycle parking is relatively limited at the station platform area.
- The construction of the St. Vincent Greenway from the North Hanley area to the south and east along or parallel to the MetroLink line to the Delmar Loop area will help enhance the degree of bike and pedestrian connectivity in the station area going forward.

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

While the UMSL-South station area is split between the Cities of Normandy and Bellerive, the UMSL South campus completely encompasses the portion of the station area located within Bellerive. Therefore, only Normandy's zoning and entitlement rules and guidelines pertain to the station area located within one fourth mile of MetroLink. The portion of the station area within Normandy and not included in the UMSL campus includes mainly residential districts (A and B: Single-family) as well as a small commercial district (F). The provisions of all of these zoning classifications may inhibit the creation of transit oriented development.

The vast majority of the station area lies within a residential district. Both residential Districts A and B only permit the construction of single-family homes, with height restrictions of two-and-a-half stories and requirements calling for front yard setbacks to match those of neighboring yards, or thirty feet. District A requires residential lots to include at least 10,000 square feet and include widths of at least 70 feet. District B requires residential lots to include at least 7,500 square feet and include widths of at least 55 feet.

The lots zoned as F: Commercial may include retail, office and other services but may not include mixed-use or residential buildings. The F district includes building height limitations for all structures of 45 feet (or three stories). In addition, the F district requires that commercial developments include at least one parking space for every 300 square feet of floor area, beyond parking spaces provided for employees.

The only zoning category in the station area that currently allows for TOD is the Natural Bridge Corridor (zoned as District B). In this district, the City of Normandy allows property owners to gain approvals for projects encompassing five acres or greater as Planned Unit Developments (PUDs) or Community Unit Plans (CUPs). These types of plans include potential flexibility in terms of requirements for density, allowed uses, and other site planning considerations.

Analysis of Current Development Patterns

Current development patterns reflect an automobile dependent sprawling campus at UMSL South, combined with suburban residential development patterns common to this part of St. Louis County. The vast majority of nearby residents drive to work and do not support the available transit at MetroLink.

Current Ridership

As illustrated in the table below, the UMSL South station reports much lower than average ridership numbers compared to averages for the Missouri portion of the system and the overall MetroLink system. The station's proximity to automobile dependent residential use patterns and the overall suburban nature of the station area does not support transit, while students, faculty, and staff of UMSL do utilize the station.

Average MetroLink Boarding Estimates - UMSL South Station

		AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
	Total Monthly Boardings		
MetroLink Station Average	36,500	1,360	830
Missouri Station Average	42,000	1,560	960
UMSL South MetroLink Station	19,600	750	410

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The UMSL South Station has dual typologies. Given the station's focus around the university, it is a Campus/Special Event typology. In addition, the station also serves the surrounding neighborhood of Normandy, making it also a Neighborhood typology. Neighborhood typologies exhibit relationships to a mix of housing, small-scale industry, and secondary transit networks. The future neighborhood typology will rely on Natural Bridge Road revitalizing to help emphasize a neighborhood focus.

The primary focus of transit and community activity at UMSL South will continue to orient around the university campus, and given this orientation, as the station area's development proceeds, local and university leaders should draw from examples of campus oriented stations in other cities.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the UMSL South station is likely to experience an increase in demand for an additional 192 residential units and additional commercial space totaling around 57,500 square feet. Commercial space would be appropriate for services that serve the university and residential population, such as convenience stores and restaurants. In addition, the Natural Bridge corridor may develop with office space, including uses servicing the university community and the local community. In general, the Normandy community is underserved in terms of dining, grocery, and everyday retail services, and the Natural Bridge corridor and the area around the UMSL South station could evolve to provide these options for local residents.

Overall Development Strategy

Given the limited amount of land available for potential new development surrounding the university, development strategies should focus on the UMSL Master Plan and pedestrian and bicycle connections between UMSL North and South and surrounding neighborhoods. There is an existing supply of vacant land close to the station area, most of which is owned by UMSL. This land is most appropriate for expanding institutional uses, and where avail-

able land on the fronts Natural Bridge Road, retail uses that expand Normandy’s commercial corridor. The 2009 UMSL master plan shows the available land fronting Natural Bridge Road occupied by a proposed institutional building. Any additional development strategies for the station area could involve UMSL considering and prioritizing strategies that begin to discourage single-occupancy automobile use in favor of mass transit. The Wayne Goode Greenway is an existing open space trail that connects both campuses. This network can be expanded, further enhancing the status of the station area as a key community destination. In general, the station area planning should continue to identify opportunities to tie with revitalization efforts on Natural Bridge Road. The City of Normandy has expressed interest in integrating the city hall property into redevelopment plans, and the overall planning for UMSL South should consider how development at this location would eventually tie with areas to the east, as far as The Wedge on Natural Bridge Road. By developing a diversity of uses, the recorded Walk Score of the station area would increase, demonstrating how careful land use planning could help to create an integrated and compact district that encourages bicycle and pedestrian movements and connections.

The table below compares the potential developable area at the UMSL South station area (within one fourth mile) to the projected overall market demand for the station area through 2040. As illustrated, if development were to proceed at suburban levels of density (0.25 to 0.5 FAR), the analysis shows that insufficient aggregate demand exists relative to the available developable land. However, assuming that the UMSL South station area developed at higher densities, the supportable demand could be accommodated within a smaller acreage, thereby leaving excess land around the station area for parks, open space, or other campus amenities.

UMSL South Station Developable Lands Analysis

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	28.7	1,250,172
Less: Roads and Configuration at 20%	5.74	250,034
Less: Open Space and Drainage at 20%	5.74	250,034
Less: Surface Parking		0
Net Developable Area		750,103
Potential Developable SF at 0.25 FAR		187,526
Potential Developable SF at 0.5 FAR		375,052
Potential Developable SF at 1.0 FAR		750,103
Projected Commercial Market Demand		57,548
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		192,000
Potential Real Estate Market Demand (2010 - 2040)		249,548

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that Normandy work with Metro to complete the following key steps in order to encourage TOD at this station over the next 30 years.

Establishment of a TOD Zoning Classification for the Station Area: None of the zoning classifications in the vicinity of the station area allow for mixed land uses that would help to create a true transit-oriented development. The City should create a TOD zoning classification that specifically promotes mixed-use and compact development in the vicinity of the UMSL South station.

Establishment of Form Based Codes for the Station Area: As a substitute for (or in addition to) the creation of a TOD specific zoning classification, the City of Normandy should consider establishing a Form Based Code (FBC) for the station area in order to articulate the design of streets and building frontages within the station area district.

Establishment of Parking Maximums (as opposed to parking minimums): Current zoning requirements in the station area require one parking space for every 300 square feet of floor area of commercial uses plus employee parking. The community should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties.

Action Items

The following includes a series of action items that the local communities, Metro, and other partners should complete in order to move the creation of TOD at the UMSL South station area forward over the near term and long term.

City of Normandy

- The city of Normandy should establish transit supportive zoning that would encourage and entice mixed-use, transit oriented development in the vicinity of the station area. Specifically, the prospective TOD zoning in this area should encourage densities of 20 residential units or greater and should encourage creation of employment centers that provide for density of 25 employees per acre, within the station area.
- The City should work to implement bike routes identified in the regional STL bike plan that service the general station area. In addition, the city may wish to work with nearby neighborhoods to outline more specific bike routes for the communities located close to the UMSL South station area.
- The City of Normandy should identify a prioritization of public improvements (such as streetscapes, open space amenities, and various infrastructure items) and create a capital improvements plan specifically tailored to the UMSL South station area. This plan would provide a roadmap for how to proceed with investments over several years and help guide city leaders as administrations and political climates change over time.
- The city of Normandy should explore the use of traffic calming, the installation of ADA ramps, the upgrading of sidewalks, the installation of sidewalks where missing, and the narrowing or “road dieting” of streets in the area as necessary in order to achieve an overall Pedestrian Level of Service of “A” or “B” for the UMSL South station area.
- The city of Normandy should consider implementing Neighborhood Improvement Districts (NIDs), Community Improvement Projects (CIPs) or Transportation Development Districts (TDDs) for the station areas in order to encourage ongoing investment in TOD

at the UMSL South station. NIDs, CIPs, and TDDs provide for the generation of extra taxes to pay for project or improvement costs for new or redevelopment projects.

- The City of Normandy should consider implementing a Sales Tax Reimbursement Agreement for a defined geography around the station area. These agreements represent a funding mechanism allowed by Missouri law that may be used to achieve public benefit through funding for infrastructure projects. Under these agreements, municipalities have the ability to annually appropriate the increase in sales taxes created by new private capital investment to offset a portion of their project investment costs. The sales tax increments must be used for public purposes, primarily through the funding of infrastructure improvements.
- The city may also explore the use of the Enhanced Enterprise Zone program (EEZ) under Missouri law and target this tool to the station area through the establishment of an EEZ zone. Companies in the TOD area that expand operations would receive income tax refunds and property tax abatements.

St. Louis County

- The County should work to tie approvals for TIF or related county incentive packages for development at the UMSL South station to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 DU per acre and employment uses providing for at least 25 employees per acre). The County should use the approval of TIF or related incentives as “carrots” to promote developments that are more conducive to transit oriented development.
- The County should explore establishing a Chapter 353 redevelopment corporation specifically targeted for the station area. These entities assist companies by providing tax abatements for redevelopment projects.

Metro

- Metro should work on finalizing a parking replacement strategy for UMSL South (and other stations). Metro should work on a strategy to locate replacement parking if part of the existing parking lot at the station area is repurposed to facilitate TOD. In addition, Metro should work with the County to ensure that local side streets accommodate on-street parking wherever possible. Due to the significant amount of parking present at the station area, this strategy is paramount to supporting TOD while maintaining existing ridership levels.
- Metro should work over time to enhance or provide sufficient MetroBus service to and from the station area in order to arrive at a Transit Level of Service measure of “A” or “B”.

Great Rivers Greenway

- As GRG completes construction of the St.. Vincent Greenway Trail, the organization should work with Metro, the County, and UMSL to ensure that bike and pedestrian connections from the trail to the MetroLink station area are adequate to encourage use of the trail and a Pedestrian Level of Service of “A”. GRG should also work with Metro to ensure that signage and wayfinding adequately directs MetroLink riders to the trail and vice versa.

UMSL

- UMSL should work with Metro to ensure that the station area includes sufficient bike parking and pedestrian accommodations to make MetroLink as attractive as possible in drawing ridership from the UMSL community.

- UMSL should work with Normandy and Metro in amending its campus plan, as necessary, to integrate ideas for transit oriented development in and around the UMSL South station area.
- UMSL may wish to consider partnering with the city on redevelopment efforts along Natural Bridge Road that would help to catalyze the overall revitalization efforts in the area, including the district around the UMSL South station.

UMSL NORTH and UMSL SOUTH [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | The UMSL North and South stations serve the University of Missouri - St. Louis' North Campus and parts of the City of Normandy.

Average Monthly Boardings |
 UMSL North = 15,600
 UMSL South = 19,600 (MetroLink Station Average = 36,500)

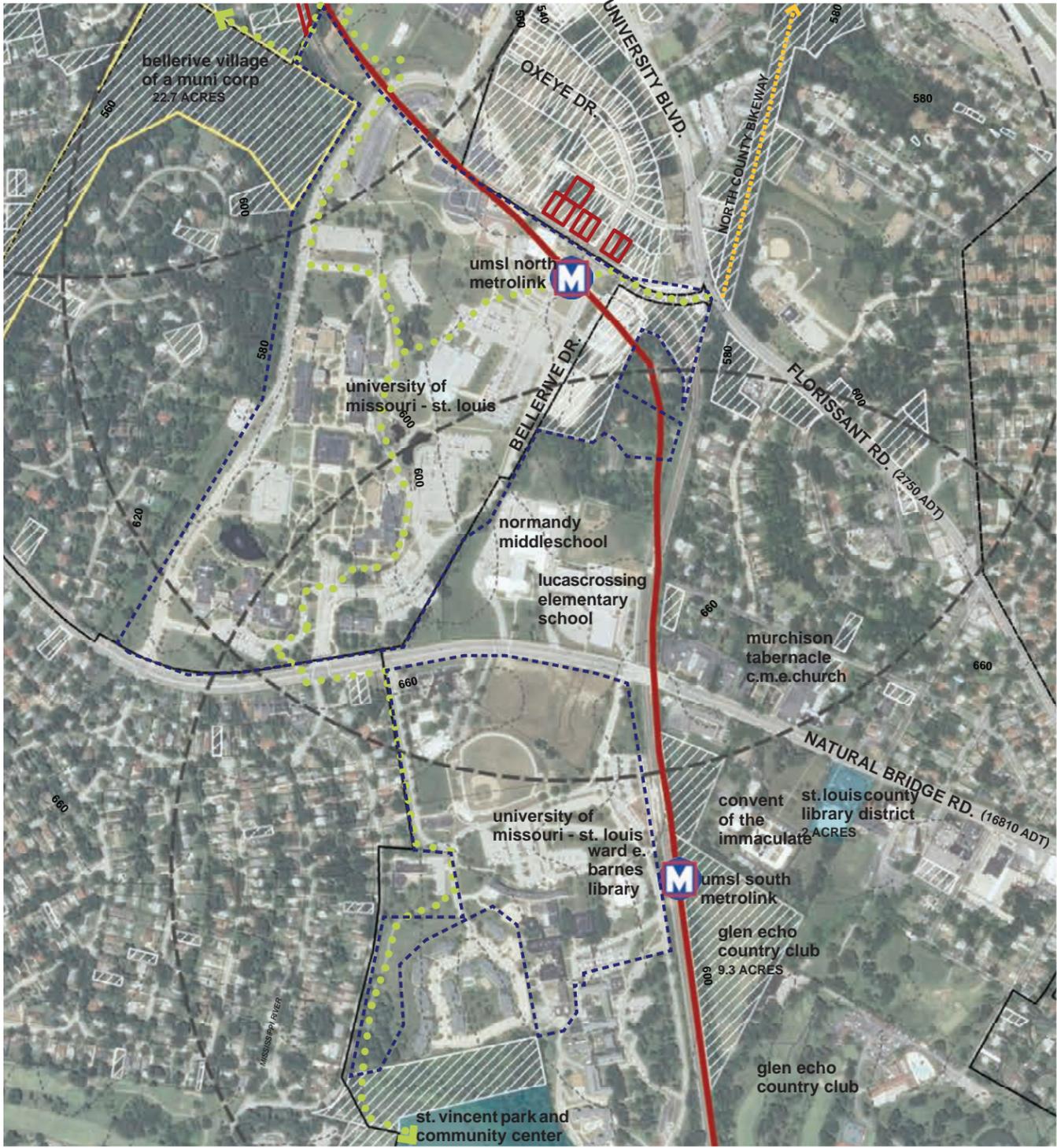
Station Configuration | The UMSL South MetroLink station has an agreement with UMSL to operate a two-acre Park-Ride lot that contains 130 parking spaces.

Physical Barriers to Development | No significant physical barriers exist.

Regulatory Barriers to Development | Zoning around the station site is split between the City of Bellerive and the City of Normandy. Zoning south of Florissant Road limits residential development to single-family houses on small lots. Other areas allow for multiple dwellings, but not for mixed or commercial uses. Community Unit Plan (CUP) or Planned Unit Development (PUD) may provide greater flexibility.

Development Opportunity

Pros	Cons
<ul style="list-style-type: none"> Serves the university and large amounts of student housing Well suited for a range of residential development and neighborhood-oriented retail and services Availability of vacant land Part of the Great Streets Initiative 	<ul style="list-style-type: none"> Lower than average existing transit ridership

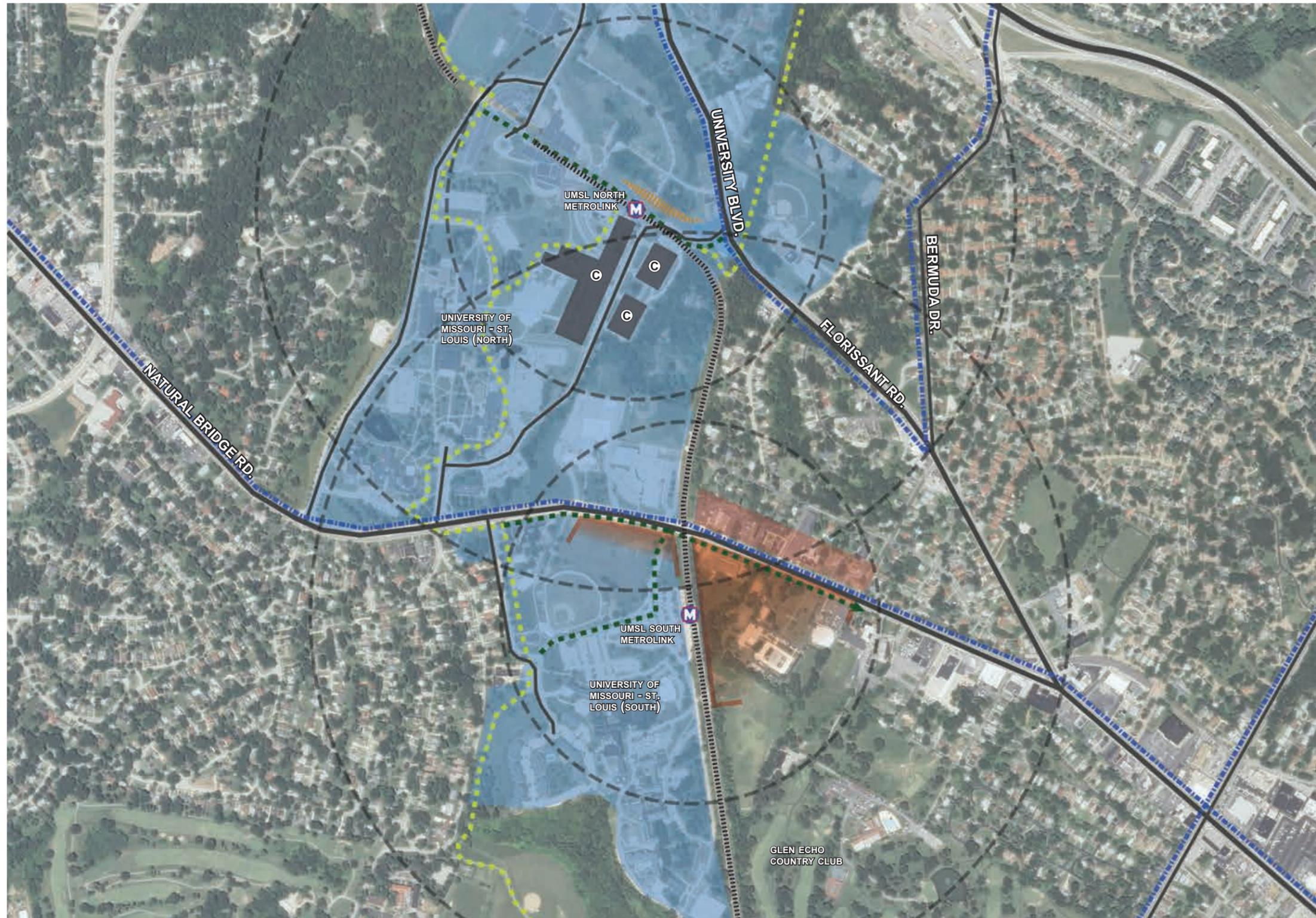


*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.



STATION | UMSL NORTH AND UMSL SOUTH [CITY OF NORMANDY/BELLERIVE]

DESIGNWORKSHOP



ROAD NETWORK
 REGIONAL (50,000+ ADT)
 ARTERIAL (30,000-49,999 ADT)
 COLLECTOR (10,000-29,999 ADT)
 LOCAL (<10,000 ADT)

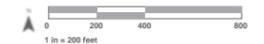
POTENTIAL ROAD ALIGNMENT
 RAIL ROAD LINE
 BUS LINE
 SECURITY GATE

PARKING LOT
 TENANT PARKING
 COMMUTER PARKING
 METRO OWNED PARCEL

EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS
 EXISTING TRAIL CONNECTION
 PROPOSED TRAIL CONNECTION
 PEDESTRIAN CONNECTION

GRADE CHANGE
 BUILDING FRONTAGE - SHORT-TERM
 BUILDING FRONTAGE - LONG-TERM
 HISTORIC DISTRICT

RESIDENTIAL
 CORRIDOR REVITALIZATION
 CIVIC USE
 CURRENT/PLANNED AREAS OF DEVELOPMENT



DESIGNWORKSHOP

STATION | UMSL NORTH AND SOUTH [CITY OF NORMANDY/BELLERIVE]

Rock Road Station



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the Rock Road MetroLink station in the future.

Jurisdictions

- City of Wellston
- City of Pagedale

Station Overview and Context

The Rock Road Station serves North St. Louis County and the commercial corridor of St. Charles Rock Road within the municipalities of Wellston and Pagedale. The area immediately surrounding the station includes a three-acre park-and-ride lot and a large one-story flea market and associated surface parking lot. St. Charles Rock Road serves as a corridor for commercial, industrial, and manufacturing uses, while residential neighborhoods including post World War II, single-family single homes are located within a block from the station. The area within one-quarter mile of the station platform also includes St. Peters Cemetery, Normandy High School, Bethany Cemetery, and the Pagedale Family Support Center. Overall, the area near the Rock Road station has suffered from a lack of economic strength in recent decades and includes a number of vacant parcels, including a number of vacant industrial tracts.

Site Analysis

Topography: The study area, within one-fourth mile of the station platform, features relatively flat terrain. However, to the north of St. Charles Rock Road, the grade does drop to accommodate bridging over the train tracks. The overall topography of the site, however, does not appear to pose any issues with regard to future development.

Stream and Floodplain Issues: Floodplain zones exist to the south and west of the station area, within the Engelholm Creek floodway. The creek does not pose significant risks or threats to development within the station area or the vacant areas immediately surrounding it.

Transportation Network: The Rock Road station area enjoys overall good transportation connectivity to surrounding areas via St. Charles Rock Road, including access indirectly to I-170 and I-70. St. Charles Rock Road and Lucas-Hunt Road accommodate relatively low traffic volumes given the width of these streets, with volumes of fewer than 20,000 vehicles per day common on these main arterials. Closer to the station platform, the area immediately to the east of the MetroLink line is relatively cut off from surrounding destinations, requiring access via Market Street to the north or St. Charles Rock Road in order to access residential neighborhoods to the east and Normandy High School.

From the Rock Road MetroLink station area, several MetroBus lines provide direct connections to surrounding destinations within the area.

#02 Red Line MetroBus connects to:

- Rock Road MetroLink Station
- Pagedale
- Skinker MetroLink Station
- Forest Park
- Richmond Heights MetroLink Station
- Galleria
- Brentwood Promenade
- Brentwood MetroLink Station
- Maplewood Commons
- Big Bend Boulevard
- Kirkwood Commons
- Meramec Community College

#30 Soulard MetroBus connects to:

- Downtown St. Louis
- Old North
- South Grand
- Soulard
- Tower Grove Park

- Convention Center
- Grace Hill
- Barrett Park
- Nestle-Purina

#32 M.L. King-Chouteau MetroBus connects to:

- Downtown St. Louis
- Scottrade Center
- Convention Center
- Martin Luther King Plaza
- Ameren UE
- Myrtle Hilliard Davis Health Center

#33 Dorsett-Lackland MetroBus connects to:

- Olivette
- Overland
- Maryland Heights
- Westport
- Saint Ann
- Breckenridge Hills

#35 Rock Road MetroBus connects to:

- Earth City
- Bridgeton
- Northwest Plaza
- DePaul Medical Center
- Saint Louis Mills
- Macy's Call Center
- Contico

#64 Lucas Hunt MetroBus connects to:

- Ferguson
- Normandy
- Jennings

- Lucas Hunt Village
- ExpressScripts
- Buzz Westfall Plaza
- North Oaks Shopping Center

Existing Transit Orientation: The station area within one fourth mile of the Rock Road platform currently includes residential densities of 1.08 units per acre, on average, and employee densities of 1.10 employees per acre, on average. Given that research suggests that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the Rock Road station area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development. The Rock Road area has developed using the framework of typical post World War II suburban standards that do not facilitate transit oriented development, and the industrial parcels and businesses in the station area include uses that do not accommodate significant numbers of employees. As is typical in many industrial areas, the commercial properties near Rock Road do not provide for densities of workers that serve as a magnet for transit ridership. In order to encourage TOD at Rock Road and in this part of St. Louis County, the local jurisdictions and Metro would need to alter the overall development and land use framework in the areas around the Rock Road station.

Bike and Pedestrian Environment: The area around the Rock Road station currently registers a Walk Score of 30 (or, “a car dependent location” as defined by Walk Score methodology) given the lack of connectivity from the east side of the station area to the west, the lack of proximity to nearby shopping or retail areas, and the lack of proximity to nearby park facilities.¹ Similarly, the bicycle environment poses significant challenges in the station area. The following details observations concerning the bike and pedestrian environment in the Rock Road station area:

- The streets in the station area in general lack accommodations for pedestrians in line with ADA standards.
- St. Charles Rock Road is a relatively wide street with a total of five lanes. This section design creates a less than friendly environment for individuals biking or walking along this corridor.
- The lack of street network connectivity from the east to the west side of the station area forces people walking and biking to use St. Charles Rock Road and Market Street. While Market Street is a quieter neighborhood street, St. Charles Rock Road is a higher volume street with significant noise from passing vehicles and therefore creates a less favorable environment for people walking and biking.
- The sidewalk condition and inventory of sidewalks present along St. Charles Rock Road is considered substandard.
- While bicyclists of course may access the station area via roadways, the area around the Rock Road station does not feature any dedicated bike lanes or sharrows and bicycle parking is relatively limited at the station platform area.

Utility Issues: There are no known utility constraints to development.

1 Walk Score. www.walkscore.com, 2013.

Existing Zoning and Entitlement Considerations

The Rock Road station area lies within the zoning districts of the Cities of Pagedale and Wellston. Zoning regulations may in theory support industrial focused transit-oriented development around the Rock Road station given that Pagedale’s D: Industrial district allows an array of industrial and commercial uses. However, this zoning classification does not allow for residential uses. Limited low-density transit-oriented development is possible along St. Charles Rock Road given that mixed-use buildings and low-density apartments are allowed in Pagedale’s C: Commercial district.

However, beyond the areas zoned as Industrial, current zoning in the Rock Road station area may hinder TOD considerably. The current inventory of residential parcels only includes single-family homes, and the regulations in the two municipalities limit all building heights to 35 feet. Residential districts require lots to be 50 to 70 feet wide and 4,000 to 7,000 square feet in size, with front yards that range from 30 to 60 feet in width. The Commercial and Industrial district regulations require developments to include 30 foot building setbacks from the street, but do not require side yards (unless parcels border residential districts). In addition, these district regulations either do not permit mixed-use or multi-family structures or permit them only on a very limited basis. The two communities only allow multi-family housing on lots that directly front St. Charles Rock Road.

Analysis of Current Development Patterns

Current development patterns reflect those of a typical inner-ring suburb that includes expansive commercial, industrial and manufacturing lots combined with lower density older single-family neighborhoods. Most of the existing building stock in the local area includes buildings of one to two stories, and typical parcels include small building footprints arranged on relatively large lots. Much of the existing building stock is one- and two-story high with small footprints on large lots. The two cemeteries and Normandy High School account for larger land areas within the station area but do not generally generate ridership to or from MetroLink. A considerable amount of vacant and under-utilized land is available for future development.

Current Ridership

As illustrated in the table below, the Rock Road station reports ridership numbers in line with averages for the Missouri portion of the system and slightly higher than that for the overall MetroLink system. The station acts as a hub for MetroBus transfers and connections to and from buses help to drive ridership at this station.

Average MetroLink Boarding Estimates - Rock Road Station

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Missouri Station Average	42,000	1,560	960
Rock Road MetroLink Station	43,400	1,620	970

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The Rock Road station area most closely resembles the Neighborhood typology of light rail station areas. The Neighborhood typology serves primarily residential areas with some local-serving small businesses, retail, and small-scale industry. Given the orientation of the Rock Road station relative to the surrounding communities and the lack of direct adjacency to major interstate corridors or employment centers (such as university campuses), this station will likely continue to function as a neighborhood type station for the foreseeable future. Rock Road serves the neighboring communities in North St. Louis County and serves as an important connection point for MetroBus service, but the area around the station will likely not develop as a town center or a regionally-oriented center over the next several decades.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the Rock Road station is likely to experience an increase in demand for an additional 192 residential units and additional commercial space totaling around 57,500 square feet. Given the local economic conditions and the context of the local area, the additional residential development would likely include multi-family units, although the revitalization of the area may include construction of a number of single family houses in the established neighborhoods surrounding the station. The additional commercial space would likely encompass neighborhood-serving retail uses such as convenience stores, smaller restaurants, and various service businesses, providing goods and services for local neighborhoods in the area. In addition, the St. Charles Rock Road corridor may benefit from infill development and corridor revitalization over time.

Overall Development Strategy

Given the limited potential demand for new development over the next few decades, the local communities should work with potential developers and property owners to focus re-development energy near the station area in order to maximize the benefit of this economic activity for the overall community. The community should actively recruit partners to launch small but achievable revitalization projects within a few blocks of the MetroLink station in order to help create a “nucleus” of vitality that could then grow larger over time. The Rock Road station enjoys very strong ridership, and as a result the community and developers should focus on creating transit-serving land uses, particularly on the vacant lots owned by Metro within a block or two of the station platform. Potential land uses may include small restaurants, convenience or neighborhood retail (including a dry cleaner, a discount retail outlet, or a small grocery), as well as apartment or related multi-family residential uses that would benefit from adjacency to the MetroLink line. The multi-family residential uses may in particular appeal to lower wage employees who work in the central part of St. Louis, near the MetroLink line, and would benefit from not having to drive and park in the city on a daily basis.

The corridor revitalization of St. Charles Rock Road as a main commercial and retail street, along with the execution of a few key catalyst projects, could help launch the rebirth of the Rock Road area over time.

The overall strategy for the Rock Road station area should include various open space and park corridors and designations. The completion of the St. Vincent Greenway Trail along

Engelholm Creek, near the station area, will improve pedestrian and bike connections from the Rock Road area north to UMSL and south and east to the Delmar Loop.

The table below compares the potential developable area at the Rock Road station area (within one fourth mile) to the projected overall market demand for the station area through 2040. As illustrated in the table, new developments utilizing vacant parcels in the station area but accommodating land uses at suburban levels of density (FAR of 0.25 to 0.5) would not absorb the anticipated level of market demand in the station area over the next thirty years. However, constructing developments at urban levels of density of FAR of 1.0 or greater would absorb all projected market demand in the station area over the next thirty years.

Rock Road Station Developable Lands Analysis

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	14.21	618,988
Less: Roads and Configuration at 20%	2.842	123,798
Less: Open Space and Drainage at 20%	2.842	123,798
Less: Surface Parking		0
Net Developable Area		371,393
Potential Developable SF at 0.25 FAR		92,848
Potential Developable SF at 0.5 FAR		185,696
Potential Developable SF at 1.0 FAR		371,393
Projected Commercial Market Demand		57,548
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		192,000
Potential Real Estate Market Demand (2010 - 2040)		249,548

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that the cities of Wellston and Pagedale work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of a TOD Zoning Classification for the Station Area: The current zoning around the station allows for low-density apartments and mixed uses directly along the Rock Road corridor. However, the communities should implement TOD zoning that specifically articulates density levels that would be desired to promote TOD at the station area. This zoning classification should encompass much, if not all, of the overall station area, thereby encouraging the development of a variety of land uses throughout the neighborhood, and not merely along primary streets or arterials.

Establishment of Form Based Codes for the Station Area: As a substitute for (or in addition to) the creation of a TOD specific zoning classification, the cities of Wellston and

Pagedale should consider establishing a Form Based Code (FBC) for the Rock Road station area in order to articulate the design of streets and building frontages within the station area district.

Establishment of Parking Maximums (as opposed to parking minimums): With new development, the community should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties.

Action Items

The following includes a series of action items that the local communities, Metro, and other partners should complete in order to move the creation of TOD at the Rock Road station area forward over the near term and long term.

Cities of Wellston and Pagedale

- The cities of Wellston and Pagedale should establish transit supportive zoning that would encourage and entice mixed-use, transit oriented development in the vicinity of the station area. Specifically, the prospective TOD zoning in this area should encourage densities of 20 residential units or greater and should encourage creation of employment centers that provide for density of 25 employees per acre, within the station area.
- The City of Pagedale should formally identify, acquire, and begin to develop a district plan and formulate the urban design framework for a revitalized corridor along Rock Road. In addition, any public purchasing of property at this time would likely require less investment on a per acre basis compared to later stages in the area's revitalization, when property values would naturally increase.
- The City of Pagedale should identify a prioritization of public improvements (such as streetscapes, open space amenities, and various infrastructure items) and create a capital improvements plan specifically tailored to the Rock Road corridor area. This plan would provide a roadmap for how to proceed with investments over several years and help guide city leaders as administrations and political climates change over time.
- The cities of Wellston and Pagedale should explore the use of traffic calming, the installation of ADA ramps, the upgrading of sidewalks, the installation of sidewalks where missing, and the narrowing or "road dieting" of streets in the area as necessary in order to achieve an overall Pedestrian Level of Service of "A" or "B" for the Rock Road station area.
- The cities of Wellston and Pagedale should consider implementing Neighborhood Improvement Districts (NIDs), Community Improvement Projects (CIPs) or Transportation Development Districts (TDDs) for the station areas in order to encourage ongoing investment in TOD at the Rock Road station. NIDs, CIPs, and TDDs provide for the generation of extra taxes to pay for project or improvement costs for new or redevelopment projects.
- The Cities should consider implementing a Sales Tax Reimbursement Agreement for a defined geography around the station area. These agreements represent a funding mechanism allowed by Missouri law that may be used to achieve public benefit through funding for infrastructure projects. Under these agreements, municipalities have the ability to annually appropriate the increase in sales taxes created by new private capital investment to offset a portion of their project investment costs. The sales tax incre-

ments must be used for public purposes, primarily through the funding of infrastructure improvements.

- The cities may also explore the use of the Enhanced Enterprise Zone program (EEZ) under Missouri law and target this tool to the station area through the establishment of a EEZ zone. Companies in the TOD area that expand operations would receive income tax refunds and property tax abatements.

St. Louis County

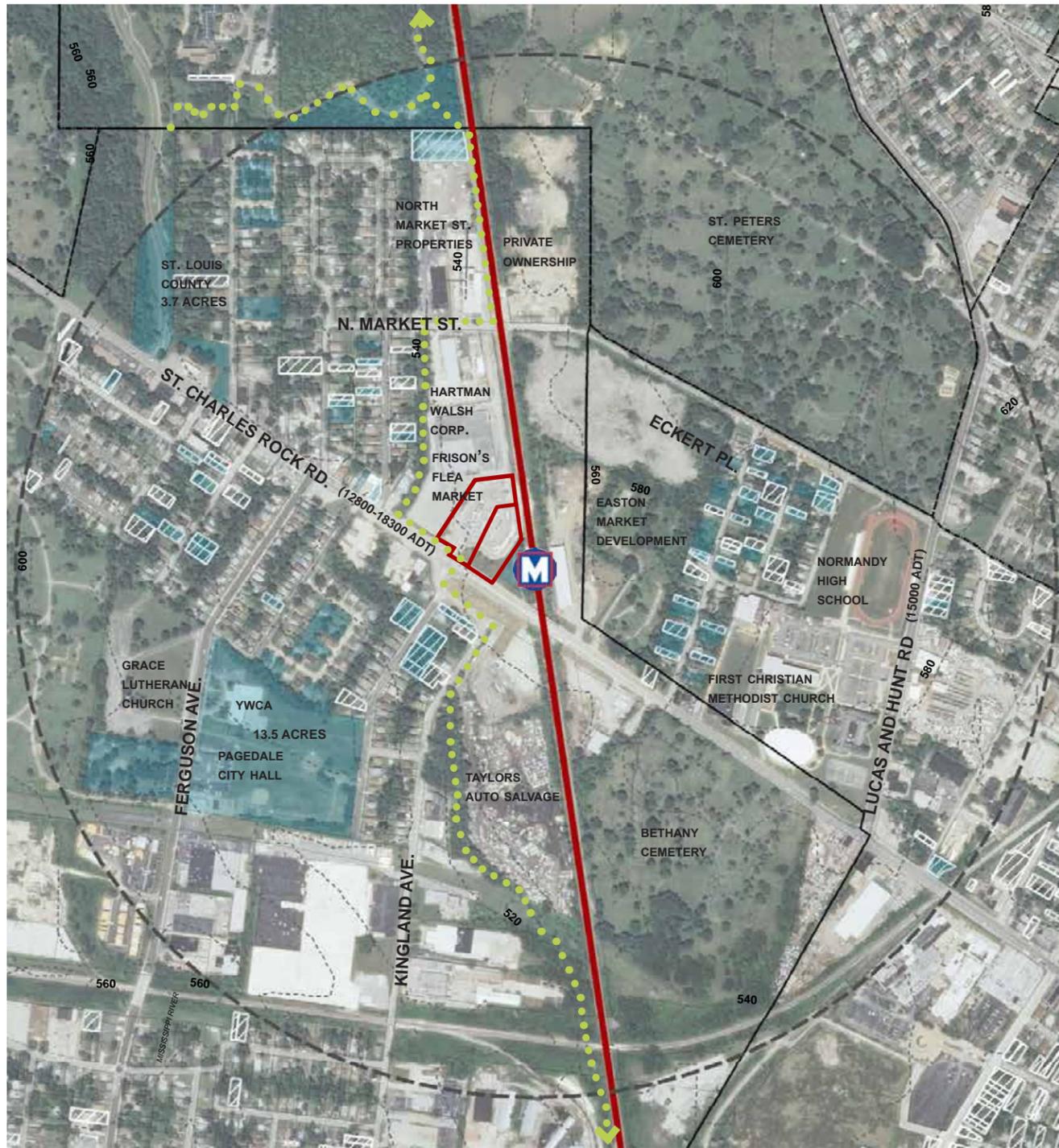
- The County should work to tie approvals for TIF or related county incentive packages for development at the Rock Road station to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 DU per acre and employment uses providing for at least 25 employees per acre). The County should use the approval of TIF or related incentives as “carrots” to promote developments that are more conducive to transit oriented development.
- The County should explore establishing a Chapter 353 redevelopment corporation specifically targeted for the station area. These entities assist companies by providing tax abatements for redevelopment projects.

Metro

- Metro should work on finalizing a parking replacement strategy for Rock Road (and other stations). Metro should work on a strategy to locate replacement parking if part of the existing parking lot at the station area is repurposed to facilitate TOD. In addition, Metro should work with the cities to ensure that local side streets accommodate on-street parking wherever possible.
- Metro should work over time to enhance or provide sufficient MetroBus service to and from the station area in order to arrive at a Transit Level of Service measure of “A” or “B”.

Great Rivers Greenway

- As GRG completes construction of the St. Vincent Greenway Trail, the organization should work with Metro and Pagedale to ensure that bike and pedestrian connections from the trail to the MetroLink station area are adequate to encourage use of the trail and a Pedestrian Level of Service of “A”. GRG should also work with Metro to ensure that signage and wayfinding adequately directs MetroLink riders to the trail and vice versa.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

ROCK ROAD [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station is located on St. Charles Rock Road and is surrounded by industrial and commercial uses, along with some nearby residential neighborhoods. The station area includes parts of Pagedale and Wellston cities.

Average Monthly Boardings | 43,400 (MetroLink Station Average = 36,500)

Station Configuration | The station is a three-acre Park-Ride lot containing 191 spaces.

Physical Barriers to Development | Access to the surrounding station site is complicated by the need for vehicles and pedestrians from the eastern side of the station to either travel farther north to Market Street or south to St. Charles Rock Road, across the MetroLink right-of-way, and down the opposite direction in order to arrive at the station.

Regulatory Barriers to Development | Zoning may support low-density TOD along St. Charles Rock Road or an industrial-focused TOD around the station. Multifamily housing and mixed uses are not allowed or are limited within the City of Wellston's R-A District or Pagedale's D District.

Development Opportunity

Pros	Cons
<ul style="list-style-type: none"> Vacant and under-utilized land exists within the station area A large amount of land is well suited for a range of residential product types and neighborhood serving retail 	<ul style="list-style-type: none"> Much of the undeveloped land previously contained industrial uses, posing environmental concerns Lack of current market activity and perception issues exist -- public-private partnerships with financial assistance for catalyst projects may be necessary

- 1/2 MILE RADIUS STUDY AREA
- CULTURAL PLACE OF INTEREST
- METROLINK RED LINE
- VACANT PARCELS OVER 10 ACRES (0 TOTAL)
- METRO OWNED PARCEL (0 ACRES)
- PUBLIC OWNED PARCEL (33.4 ACRES)
- VACANT PARCEL (11.1 ACRES)
- HISTORIC DISTRICT
- ADT AVERAGE DAILY TRAFFIC
- PROPOSED ST. VINCENT GREENWAY



STATION | ROCK ROAD [CITY OF PAGEDALE/WELLSTON/NORMANDY]

DESIGNWORKSHOP



ROAD NETWORK

- REGIONAL (50,000+ ADT)
- ARTERIAL (30,000-49,999 ADT)
- COLLECTOR (10,000-29,999 ADT)
- LOCAL (>10,000 ADT)

POTENTIAL ROAD ALIGNMENT

- RAIL ROAD LINE
- BUS LINE
- SECURITY GATE

PARKING LOT

- TENANT PARKING
- COMMUTER PARKING
- METRO OWNED PARCEL

EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS

- EXISTING TRAIL CONNECTION
- PROPOSED TRAIL CONNECTION
- PEDESTRIAN CONNECTION

GRADE CHANGE

- BUILDING FRONTAGE - SHORT-TERM
- BUILDING FRONTAGE - LONG-TERM
- HISTORIC DISTRICT

RESIDENTIAL

- CORRIDOR REVITALIZATION
- CIVIC USE
- CURRENT/PLANNED AREAS OF DEVELOPMENT

STATION | ROCK ROAD [CITY OF PAGEDALE/WELLSTON/NORMANDY]

0 200 400 600
1 in = 200 feet

DESIGNWORKSHOP

Wellston Station



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the Wellston MetroLink station in the future.

Jurisdictions

- City of Wellston
- City of Pagedale
- City of University City

Station Overview and Context

The Wellston Station serves the inner ring suburb of Wellston in north St. Louis County. The station area is surrounded by industrial uses, incubator and job training centers, and surface parking. A variety of lower density land uses surround the immediate station area. An unimproved but dedicated park, surrounded by single-family detached residential land uses, flanks the west side of the station area. The area east of the tracks includes a greater concentration of residential land uses. However, the occupancy rates of the residential units on the east side of MetroLink trails those of the residential properties to the west. Overall, the relatively low density and dispersed nature of the industrial, residential, and commercial uses near the station area and along Page Avenue, which runs east-west a few blocks north of the station platform, does not provide an ideal framework for TOD and does not encourage higher levels of ridership on the MetroLink line at this location.

Site Analysis

Topography: The study area, within one-fourth mile of the station platform, features relatively flat terrain. The topography of the site does not appear to pose any issues with regard to future development.

Stream and Floodplain Issues: The Engelholm Creek floodplain orients north-south through the station area, and generally runs parallel to the MetroLink line. The floodplain exists generally around two blocks east of the MetroLink station, between Ogden and Stephen Jones Avenues. Some of the floodplain encompasses existing developed areas. As the area potentially develops, the potential exists to convert some of the areas within the floodplain into open space or stormwater relief areas.

Transportation Network: The Wellston station area enjoys fairly good connectivity to local and regional transportation networks. Page Avenue, located a few blocks north of the station area, crosses east-west throughout St. Louis County and St. Louis City. Skinker Parkway runs north-south around one-third mile east of the station area and connects from Forest Park Parkway to I-70, along the border between St. Louis City and St. Louis County. However, although these larger regional roads provide connectivity to the larger region, the distance of the actual Wellston station a few blocks from these arterials helps to isolate the station area somewhat. Visitors to the area may have difficulty locating the station area from nearby arterials given the somewhat isolated location of the station area.

Although Page Avenue and Skinker provide connectivity to the larger region and include two lanes in each direction, both of these arterials carry fewer than 20,000 vehicles per day at this time. The lower level of traffic volume on these arterials may in part reflect the diminished economic vitality of the areas in and near Wellston compared to their position a few decades ago.

From the Wellston MetroLink station area, only one MetroBus line provides connections to surrounding residential and employment destinations.

#94 Page MetroBus connects to:

- Maryland Heights
- Jewish Community
- Olivette
- Pagedale
- Civic Center MetroLink Station

Existing Transit Orientation: The station area within one-fourth mile of the Wellston platform currently includes residential densities of 3.17 units per acre, on average, and employee densities of 2.29 employees per acre, on average. Given that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the Wellston station area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development. The Wellston area has developed using the framework of typical post World War II suburban standards that do not facilitate transit oriented development, and the industrial parcels and businesses in the station area include uses that do not accommodate significant numbers of employees. As is typical in many

industrial areas, the commercial properties near the Wellston station do not provide for densities of workers that serve as a magnet for transit ridership. In order to encourage TOD at Wellston and in this part of St. Louis County, the city and Metro would need to alter the overall development and land use framework in the areas around the Wellston station.

Bike and Pedestrian Environment: The area around the Wellston station currently registers a Walk Score of 40 (or, “a car dependent location” as defined by Walk Score methodology) given the lack of connectivity from the east side of the station area to the west, the lack of proximity to nearby shopping or retail areas, and the lack of proximity to nearby community facilities.¹ Similarly, the bicycle environment poses significant challenges in the station area. The following details observations concerning the bike and pedestrian environment in the Wellston station area:

- The streets in the station area in general lack accommodations for pedestrians in line with ADA standards
- The sidewalk condition and inventory of sidewalks present in the station area is considered substandard.
- While bicyclists of course may access the station area via roadways, the area around the Wellston station does not feature any dedicated bike lanes or sharrows and bicycle parking is relatively limited at the station platform area.

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

Current zoning requirements for Wellston Station (which include zoning codes for the particular cities of Wellston, University City, and Pagedale within one-fourth mile of the station platform) may significantly hamper the opportunity for future transit-oriented development as they do not support compact, walkable development or transit-supportive densities.

Building heights throughout the majority of the station area are limited to 35 feet. (Pagedale’s C: Commercial district does allow buildings up to five stories or 65 feet in height, however the applicable C district lots in Pagedale have developed as single family homes.) Wellston requires residential lots in the station area to include widths of 50 to 60 feet and 4,000 to 6,000 square feet in aggregate size. Wellston also requires residential front lots to include building setbacks of 25 to 40 feet.

Multi-family housing is not permitted in the majority of the zoning districts. University City’s SR: Single-family residential district requires the development of single-family, detached homes, and Wellston’s R-B: Two-family residential district only allows single- and two-family homes. The small part of Pagedale’s C district that lies within the Wellston Station area does allow apartment complexes with up to four units.

None of the zoning districts in the Wellston station area allow mixed-use development. The residential districts do not allow industrial or commercial uses. Wellston’s B-N: Neighborhood Business and I-L: Light Industrial districts do allow industrial and commercial uses but prohibit residential uses.

¹ Walk Score. www.walkscore.com, 2013.

Analysis of Current Development Patterns

Current development patterns are based on an older stock of single family residential homes built between the 1940s and 1990s. Occupancy rates and home values are somewhat low in this area, with rental units dominating the housing sector. Lining the rail corridor is both active and vacant land dedicated to manufacturing and industrial uses.

Current Ridership

As illustrated in the table below, the Wellston station reports much lower average ridership numbers compared to averages for the Missouri portion of the system and the overall MetroLink system.

Average MetroLink Boarding Estimates - Wellston Station

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Missouri Station Average	42,000	1,560	960
Wellston MetroLink Station	24,700	950	490

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The Wellston station area most closely resembles the Neighborhood typology of light rail station areas. The Neighborhood typology serves primarily residential areas with some local-serving small businesses, retail, and small-scale industry. Given the orientation of the Wellston station relative to the surrounding communities and the lack of direct adjacency to major interstate corridors or employment centers (such as university campuses), this station will likely continue to function as a neighborhood type station for the foreseeable future. The Wellston station serves the neighboring communities in North St. Louis County, but the area around the station will likely not develop as a town center or a regionally-oriented center over the next several decades.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the Wellston station is likely to experience an increase in demand for an additional 240 residential units and additional commercial space totaling around 57,500 square feet. Given the local economic conditions and the context of the local area, the additional residential development would likely include multi-family units, although the revitalization of the area may include construction of a number of single family houses in the established neighborhoods surrounding the station. The additional commercial space would likely encompass neighborhood-serving retail uses such as convenience stores, smaller restaurants, and various service businesses, providing goods and services for local neighborhoods in the area.

Overall Development Strategy

Given the limited potential demand for new development over the next few decades, the development strategy for the Wellston area calls for the community to work with potential

developers and property owners to focus redevelopment energy near the station area in order to maximize the benefit of economic activity for the overall neighborhood. Rather than applying incentives and public-private partnerships across a widely dispersed area within this portion of the county, the community should actively recruit partners to launch small but achievable revitalization projects within a few blocks of the MetroLink station in order to help create a “nucleus” of vitality that could then grow larger over time. The Wellston station already benefits from the St. Louis County Enterprise Center, an incubator for start-up enterprises, and the MET Center, a job training and career services center aimed at serving low-income communities. In addition, the St. Louis County Police and Fire Training Center is nearby, bringing more individuals through the station area to reach job training programs. The Wellston station sees lower than average ridership, however, making transit-focused land uses less appealing at this time.

However, there is a distinct lack of convenience or neighborhood retail near this stop, and therefore the overall area near the MetroLink station could benefit from the development of smaller scale retail near or around the Wellston station. Apartment or multi-family residential uses would be beneficial in this neighborhood, as a high renter population already occupies the surrounding neighborhoods. The multi-family residential uses may in particular appeal to lower wage employees who work in the vicinity and in St. Louis City, near the MetroLink line, and would benefit from not having to drive and park in the city on a daily basis. The retail uses, if positioned and marketed correctly, could appeal to commuters who could shop in the area for at least a portion of their daily needs, either before or after work. The presence of a significant acreage of vacant lands around the Wellston station creates significant opportunities for TOD around this station.

The overall strategy for the Wellston station area should also include various open space and park corridors and designations, which would allow for bike and pedestrian connections throughout the neighborhood connecting to transit. These open space corridors and facilities should link with larger regional trails and open space systems. While the Robert L. Powell Park is adjacent to the station, it shows signs of lack of maintenance and does not contain any formal improvements beyond the “great lawn” present within the park boundaries. Again while the presence of the park is key in driving increased ridership, it means that for the overall ped-shed to have sufficient density of population and employment to drive ridership the other areas within the station area radius will need to be denser.

The table below compares the potential developable area at the Wellston station with the projected supportable square footage of new development over the next thirty years. As illustrated, if development were to proceed at suburban levels of density (0.25 to 0.5 FAR), the analysis shows that insufficient aggregate demand exists relative to the available developable land. However, assuming that the Wellston station area developed at higher densities, the supportable demand could be accommodated within a smaller acreage, thereby leaving excess land around the station area for parks, open space, or other amenities. While the station diagram depicts a longer term development strategy, in order to minimize infrastructure costs and proceed with more compact TOD around the station area and therefore encourage greater MetroLink ridership, Metro and the surrounding cities should prioritize development near the MetroLink platform over the next few decades. While the station diagram allows for development to exceed projected demand estimates and extend to other areas in the area, the city should work to focus development around the station platform.

Wellston Station Developable Lands Analysis

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	38.37	1,671,397
Less: Roads and Configuration at 20%	7.674	334,279
Less: Open Space and Drainage at 20%	7.674	334,279
Less: Surface Parking		0
Net Developable Area		1,002,838
Potential Developable SF at 0.25 FAR		250,710
Potential Developable SF at 0.5 FAR		501,419
Potential Developable SF at 1.0 FAR		1,002,838
Projected Commercial Market Demand		57,548
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		240,000
Potential Real Estate Market Demand (2010 - 2040)		297,548

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that the City of Wellston work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of a TOD Zoning Classification for the Station Area: None of the zoning classifications in the vicinity of the station area allow for mixed uses or multifamily residential options that would help to create a true transit-oriented development. The City should add a TOD zoning that specifically promotes mixed-use and compact development in the vicinity of the Wellston station. This TOD zoning should promote diversity of land uses and higher density development.

Establishment of Form Based Codes for the Station Area: As a substitute for (or in addition to) the creation of a TOD specific zoning classification, the City of Wellston should consider establishing a Form Based Code (FBC) for the station area in order to articulate the design of streets and building frontages within the station area district.

Establishment of Parking Maximums (as opposed to parking minimums): With new development, the community should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties.

Action Items

The following includes a series of action items that the local communities, Metro, and other partners should complete in order to move the creation of TOD at the Wellston station area forward over the near term and long term.

Cities of Wellston and Pagedale

- The cities of Wellston and Pagedale should establish transit supportive zoning that would encourage and entice mixed-use, transit oriented development in the vicinity of the station area. Specifically, the prospective TOD zoning in this area should encourage densities of 20 residential units or greater and should encourage creation of employment centers that provide for density of 25 employees per acre, within the station area.
- The City should formally identify, acquire, and begin to develop a district plan and formulate the urban design framework for a revitalized corridor along Page Avenue. In addition, any public purchasing of property at this time would likely require less investment on a per acre basis compared to later stages in the area's revitalization, when property values would naturally increase.
- The City should identify a prioritization of public improvements (such as streetscapes, open space amenities, and various infrastructure items) and create a capital improvements plan specifically tailored to the Page Avenue corridor area. This plan would provide a roadmap for how to proceed with investments over several years and help guide city leaders as administrations and political climates change over time.
- The cities of Wellston and Pagedale should explore the use of traffic calming, the installation of ADA ramps, the upgrading of sidewalks, the installation of sidewalks where missing, and the narrowing or "road dieting" of streets in the area as necessary in order to achieve an overall Pedestrian Level of Service of "A" or "B" for the Page Avenue station area.
- The cities of Wellston and Pagedale should consider implementing Neighborhood Improvement Districts (NIDs), Community Improvement Projects (CIPs) or Transportation Development Districts (TDDs) for the station areas in order to encourage ongoing investment in TOD at the Wellston station. NIDs, CIPs, and TDDs provide for the generation of extra taxes to pay for project or improvement costs for new or redevelopment projects.
- The Cities should consider implementing a Sales Tax Reimbursement Agreement for a defined geography around the station area. These agreements represent a funding mechanism allowed by Missouri law that may be used to achieve public benefit through funding for infrastructure projects. Under these agreements, municipalities have the ability to annually appropriate the increase in sales taxes created by new private capital investment to offset a portion of their project investment costs. The sales tax increments must be used for public purposes, primarily through the funding of infrastructure improvements.
- The cities may also explore the use of the Enhanced Enterprise Zone program (EEZ) under Missouri law and target this tool to the station area through the establishment of an EEZ zone. Companies in the TOD area that expand operations would receive income tax refunds and property tax abatements.

St. Louis County

- The County should work to tie approvals for TIF or related county incentive packages for development at the Wellston station to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 DU per acre and employment uses providing for at least 25 employees per acre). The County should use the approval of TIF or related incentives as "carrots" to promote developments that are more conducive to transit oriented development.

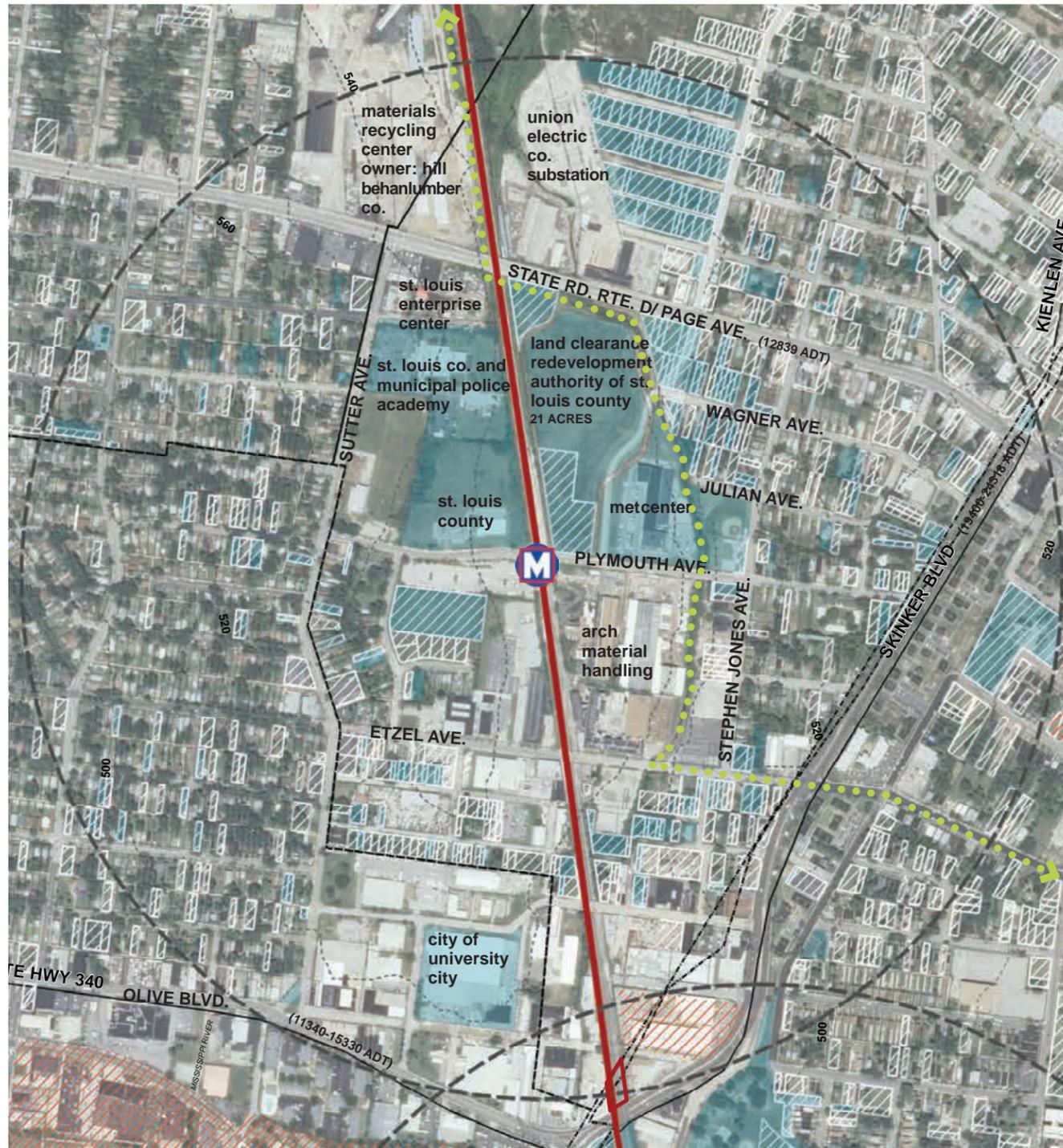
- The County should explore establishing a Chapter 353 redevelopment corporation specifically targeted for the station area. These entities assist companies by providing tax abatements for redevelopment projects.

Metro

- Metro should work on finalizing a parking replacement strategy for Wellston (and other stations). Metro should work on a strategy to locate replacement parking if part of the existing parking lot at the station area is repurposed to facilitate TOD. In addition, Metro should work with the cities to ensure that local side streets accommodate on-street parking wherever possible.
- Metro should work over time to enhance or provide sufficient MetroBus service to and from the station area in order to arrive at a Transit Level of Service measure of “A” or “B”.

Great Rivers Greenway

- As GRG completes construction of the St. Vincent Greenway Trail, the organization should work with Metro and Wellston to ensure that bike and pedestrian connections from the trail to the MetroLink station area are adequate to encourage use of the trail and a Pedestrian Level of Service of “A”. GRG should also work with Metro to ensure that signage and wayfinding adequately directs MetroLink riders to the trail and vice versa.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

WELLSTON [SITE ANALYSIS]

MetroLink Station Area Profile*
 Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station serves North St. Louis County. It is primarily surrounded by the City of Wellston's industrial district, displaying large buildings, surface parking lots, and open storage. It is in close proximity to St. Louis City.

Average Monthly Boardings | 24,700 (MetroLink Station Average = 36,500)

Station Configuration | The station is a 2.6-acre park-ride containing 242 parking spaces.

Regulatory Barriers to Development | Zoning around the station site is split between the City of Wellston, the City of Pagedale, and the City of University City. Currently, zoning does not allow or mixed-uses or multifamily housing. In addition, most buildings are limited to 35 feet in height.

Development Opportunity

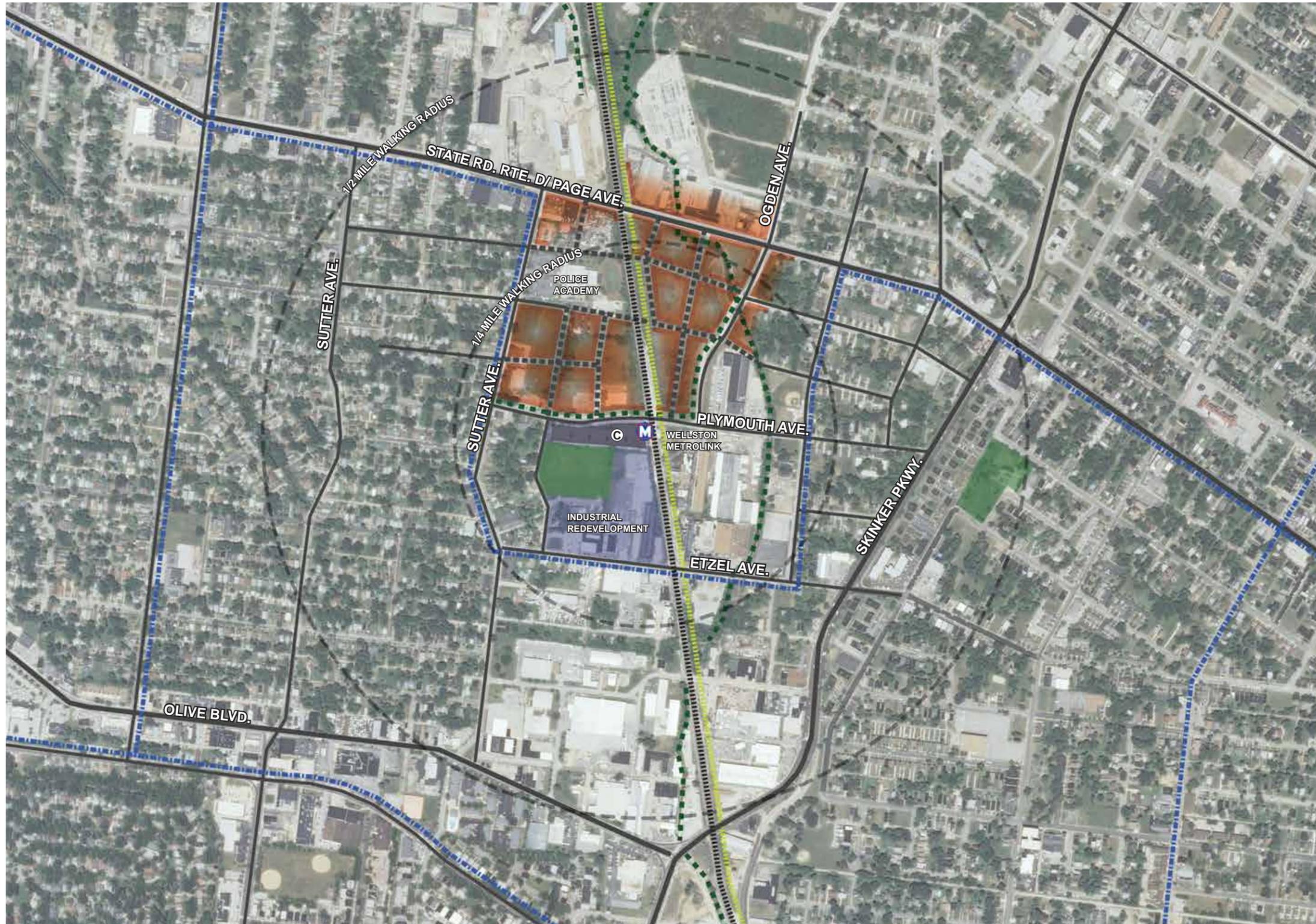
Pros	Cons
<ul style="list-style-type: none"> • Availability of vacant land • Land around the station area is well suited for various types of residential and potentially institutional uses 	<ul style="list-style-type: none"> • Prevailing industrial character and the presence of several brownfield sites • Lack of market activity

- 1/2 MILE RADIUS STUDY AREA
- CULTURAL PLACE OF INTEREST
- METROLINK RED LINE
- ▭ VACANT PARCELS OVER 10 ACRES (0 TOTAL)
- ▭ METRO OWNED PARCEL (.36 ACRES)
- ▭ PUBLIC OWNED PARCEL (76.3 ACRES)
- ▭ VACANT PARCEL (72.3 ACRES)
- ▭ HISTORIC DISTRICT
- ADT AVERAGE DAILY TRAFFIC
- PROPOSED ST. VINCENT GREENWAY



STATION | WELLSTON [CITY OF WELLSTON/UNIVERSITY CITY/PAGEDALE]

DESIGNWORKSHOP



- | | | |
|-------------------------------|---------------------------------|--------------------|
| ROAD NETWORK | POTENTIAL ROAD ALIGNMENT | PARKING LOT |
| REGIONAL (50,000+ ADT) | RAIL ROAD LINE | TENANT PARKING |
| ARTERIAL (30,000-49,999 ADT) | BUS LINE | COMMUTER PARKING |
| COLLECTOR (10,000-29,999 ADT) | SECURITY GATE | METRO OWNED PARCEL |
| LOCAL (>10,000 ADT) | | |

STATION | WELLSTON [CITY OF WELLSTON/UNIVERSITY CITY/PAGEDALE]

- | |
|---|
| EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS |
| EXISTING TRAIL CONNECTION |
| PROPOSED TRAIL CONNECTION |
| PEDESTRIAN CONNECTION |

- | |
|--------------------------------|
| GRADE CHANGE |
| BUILDING FRONTAGE - SHORT-TERM |
| BUILDING FRONTAGE - LONG-TERM |
| HISTORIC DISTRICT |

- | |
|--------------------------------------|
| RESIDENTIAL |
| CORRIDOR REVITALIZATION |
| CIVIC USE |
| CURRENT/PLANNED AREAS OF DEVELOPMENT |



DESIGNWORKSHOP

Shrewsbury TOD Action Plan



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the Shrewsbury MetroLink station in the future.

Jurisdictions

- City of Shrewsbury
- City of St. Louis

Station Overview and Context

The Shrewsbury MetroLink station is located along the River Des Peres and on the border of the City of St. Louis and the City of Shrewsbury, an inner-ring suburban community. While the overall station area serves a mixture of land uses including industrial space and park lands along the river, neighborhoods with single-family homes dominate the overall landscape of the station area.

Site Analysis

Topography: A significant grade change exists between the MetroLink platform and the surrounding parking lot area. A ridge exists to the west of the parking lot area, creating a visual barrier from the station area to surrounding areas in Shrewsbury. Otherwise, the overall station area within one-fourth mile of the station platform is relatively level. The channelized River Des Peres creates a barrier along the east side of the station, although

the Lansdowne Avenue bridge provides relatively easy access from the Shrewsbury station to the east, into the City of St. Louis.

Stream and Floodplain Issues: Floodplain zones do not seem to pose a threat to future development in this area. However, the site is adjacent to the River Des Peres.

Transportation Network: The Shrewsbury station area is just south of Interstate 44 and benefits from close proximity to Shrewsbury Avenue and Lansdowne Avenue. The interstate carries traffic volumes of 122,000 trips per day, and Lansdowne (a four lane arterial) carries around 16,000 vehicle trips per day. River Des Peres Blvd provides access from the station area to the south, along the west side of the river. Despite the nearby adjacency to I-44, the station area is somewhat isolated from the overall street network in this part of the metro area. The River Des Peres separates St. Louis City from areas in Shrewsbury, to the west, and Lansdowne Avenue provides the only good east-west access in the station area. The presence of Interstate 44 blocks north-south movement from the station area. A rail line along the west side of the station area further separates the MetroLink facility from nearby neighborhoods in Shrewsbury.

St. Louis County is currently working on plans to extend the South County Connector through the middle of the Shrewsbury station area. This regional connector would extend from the I-64 / Brentwood area south along the Hanley corridor to the Shrewsbury area, and then to the south toward I-55, thereby completing the “inner beltway” (along with I-170) from Interstate 70 south to Interstate 55 in south county.

From the Shrewsbury MetroLink station area, several MetroBus routes provide service.

#11 Chippewa MetroBus connects to:

- Civic Center MetroLink Station
- Jefferson Avenue

#17 Oakville MetroBus connects to:

- MacKenzie Point Plaza
- Reavis Barracks and Sylvan Springs Park-Ride Lots
- South County Mall
- Oakville Shopping Center

#21 Watson Road MetroBus connects to:

- Highway 366 to Kirkwood Commons and Meramec Community College

#30 Souldard MetroBus connects to:

- Rock Road MetroLink Station
- Wellston
- Civic Center MetroLink Station

- Soulard Market
- Tower Grove

#46 Tesson Ferry MetroBus connects to:

- Lutheran South High School
- Highway 21 to St. Anthony's Hospital and Met Life

#56 Kirkwood-Webster MetroBus connects to:

- Rock Hill Loop
- Highways 61 and 67 to Meramec Community College

#210 Fenton Gravois Bluffs MetroBus connects to:

- Interstate 44 to Valley Park and Fenton
- Maritz Inc.
- MoDOT Park-Ride Lots
- St. Clare Health Care Center
- Sanford Brown College
- Gravois Bluff Shopping Center
- Anthem College
- Vatterott College

Existing Transit Orientation: The station area within one fourth mile of the Shrewsbury platform currently includes residential densities of 3.38 units per acre, on average, and employee densities of 4.10 employees per acre, on average. Given that research suggests that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the Shrewsbury station area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development. The Shrewsbury area has developed using the framework of typical post World War II suburban standards that do not facilitate transit oriented development. In order to encourage TOD at Shrewsbury, the local jurisdictions and Metro would need to alter the overall development and land use framework in the areas around the Shrewsbury station.

Bike and Pedestrian Environment: The area around the Shrewsbury station currently registers a Walk Score of 49 (or, "a car dependent location" as defined by Walk Score methodology) given the lack of proximity to nearby shopping or retail areas, and the lack of connectivity in the local street network.¹ Similarly, the bicycle environment poses significant challenges in the station area. The following details observations concerning the bike and pedestrian environment in the Shrewsbury station area:

1 Walk Score. www.walkscore.com, 2013.

- The streets in the station area in general lack accommodations for pedestrians in line with ADA standards
- The lack of street network connectivity from the east to the west side of the station area forces people walking and biking to use Lansdowne Avenue. This collector is a higher volume street with significant noise from passing vehicles and therefore creates a less favorable environment for people walking and biking.
- The sidewalk condition and inventory of sidewalks present along several of the side streets in the local area is considered substandard. In particular, Wabash Avenue in St. Louis City lacks sidewalk amenities on one side and Sutherland, Bancroft, and Vincent Avenue lack sufficient sidewalks as well.
- While bicyclists of course may access the station area via roadways, the area around the Shrewsbury station does not feature any dedicated bike lanes or sharrows and bicycle parking is relatively limited at the station platform area. The need for bike storage is greater at Shrewsbury compared to some other MetroLink stations given the status of this station at the end of the line.

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

The Shrewsbury station area is split between the City of St. Louis and the City of Shrewsbury zoning districts. The City of Shrewsbury has Single-Family Residential (R-2), Planned Residential (R-3), Shopping (C-1), and Industrial (M-1) District zoning categories that apply to the station area. The City of St. Louis has Single-Family Residential (A) and Multiple-Family Residential (D) Districts in the immediate station area. Most of the station area is zoned for single-family residential uses and mixed-use developments are not permitted. Zoning in the area limits residential buildings to 2.5 to 4 stories in height. The M-1 district permits industrial and office uses, but does not allow residential or retail developments and only permits building heights of up to 100 feet. The R-3 zoning district allows apartment buildings up to four stories and for local retail to account for up to five percent of total floor area on a given property. Shrewsbury's C-1 classification does allow some mixed uses, including the installation of second floor residential units above commercial properties. The D district allows some retail within apartment buildings by special permit. The City of Shrewsbury also allows Planned Unit Developments (PUD) in all zoning districts, thereby allowing greater flexibility in uses, housing types, and site planning by formal review and approval.

Analysis of Current Development Patterns

Current development patterns at the Shrewsbury station reflect a significant proportion of single-family residential uses. The River Des Peres is an organizing feature in the landscape, with the River Des Peres Park providing a local open space amenity along the river. The Metro-owned Park-Ride lot at the Shrewsbury station covers 12.8 acres and contains 800 parking spaces. Elsewhere in the station area, small areas of industrial uses flank the west side of the parkland along the river and orient around the I-44 corridor and the adjacent freight line corridor.

Current Ridership

As illustrated in the table below, the Shrewsbury station reports higher than average ridership numbers compared to averages for the Missouri portion of the system and the overall MetroLink system, given its orientation as the last commuter station on the Blue Line. The

Shrewsbury station captures ridership from a relatively broad area in south city and south St. Louis County, given this status at the end of the MetroLink system.

Average MetroLink Boarding Estimates - Shrewsbury Station

	AVERAGE DAILY BOARDINGS		
	Total Monthly Boardings	Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Missouri Station Average	42,000	1,560	960
Shrewsbury MetroLink Station	49,400	1,860	1,080

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The Shrewsbury Station is a Neighborhood station typology. It primarily serves residential areas in the immediate station area, along with small areas of local-serving retail and employment nodes. Going forward the Shrewsbury station will likely continue to operate as a neighborhood station. Although it represents the end of the line and therefore attracts significant ridership, its disconnection from I-44 and the separation of the station area from surrounding neighborhoods limits the potential to create a more regionally-focused TOD. The orientation of the local street networks limits the potential to develop a significant program of retail, office, or civic uses at the station and further reinforces Shrewsbury’s status as a neighborhood connection.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the Shrewsbury station is likely to experience an increase in demand for an additional 285 residential units and additional commercial space totaling around 114,521 square feet. The station area has potential to develop further as a suburban and residential-focused development around MetroLink. While the sizeable Metro park and ride lot presents opportunities for redevelopment, the orientation of the station relative to local streets and the interstate limits the potential for sizeable commercial development at the station. Initial development at Shrewsbury would likely include the construction of townhouse or apartment units or complexes along with small quantities of local serving retail or office uses.

Overall Development Strategy

The local cities should work to ensure that future development around the station area is compact and walkable in order to establish a framework for well planned TOD. Metro should explore the conversion of at least parts of the surface parking lots at the station to other uses, including residential properties and local-serving retail or office uses. Given that the local market in this part of the metro has not to date supported residential development at densities sufficient to serve light rail, the development of residential properties may need to occur in phases.

Future development at Shrewsbury should include the provision of trail or walking path connections to neighboring open space amenities, including River Des Peres Park, and nearby shopping centers. Metro should work with the two cities to explore strategies to improve the health of the River Des Peres and use it as a greater amenity in the future. In addition,

the two cities should explore strategies to improve the streetscape and amenities along the Lansdowne Avenue bridge in order to improve the overall degree of bicycle and pedestrian connectivity and thereby enhance the marketability of the overall station area.

The table below compares the potential developable area at the Shrewsbury station with the projected supportable square footage of new development over the next thirty years. The total developable site area of 12.8 acres encompasses only the Metro-owned park and ride lot at the light rail station. Even at greater densities of around 1.0 FAR, the station area would not absorb all of the projected demand over the next thirty years. Therefore, development strategies for the Shrewsbury station should consider ways to provide for even greater densities in order to maximize the value of the projected market demand in the overall station area.

Shrewsbury Station Developable Lands Analysis

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	12.8	557,568
Less: Roads and Configuration at 20%	2.56	111,514
Less: Open Space and Drainage at 20%	2.56	111,514
Less: Surface Parking		0
Net Developable Area		334,541
Potential Developable SF at 0.25 FAR		83,635
Potential Developable SF at 0.5 FAR		167,270
Potential Developable SF at 1.0 FAR		334,541
Projected Commercial Market Demand		114,521
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		285,000
Potential Real Estate Market Demand (2010 - 2040)		399,521

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that the City of Shrewsbury and the City of St. Louis work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of a TOD Zoning Classification for the Station Area: In order to support TOD, existing zoning must be amended to allow mixed-uses and multi-family residential units. The current park-ride lot is zoned for single-family homes. In order to facilitate mixed-uses, a TOD Zoning classification should be established for the station area.

Establishment of Form Based Codes for the Station Area: The local governments should consider adopting a Form Based Code (FBC) for the station area in order to articulate the design of streets and building frontages within the station area district. FBC can help promote a more pedestrian friendly and TOD supportive environment.

Establishment of Parking Maximums (as opposed to parking minimums): The Cities of Shrewsbury and St. Louis should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties. Current minimum parking requirements stipulate two parking spaces per dwelling units for two-family and apartment buildings. Retail, services, and offices currently require one space for every 200 to 250 square feet of floor area.

Action Items

The following represent a series of action items that the City of St. Louis, the City of Shrewsbury, Metro, and other partners should complete in order to move the creation of TOD at the Shrewsbury station area forward over the next few years.

City of St. Louis and City of Shrewsbury

- The cities of St. Louis and Shrewsbury should establish transit supportive zoning that would encourage and entice mixed-use, transit oriented development in the vicinity of the station area. Specifically, the prospective TOD zoning in this area should encourage densities of 20 residential units or greater and should encourage creation of employment centers that provide for density of 25 employees per acre, within the station area.
- Shrewsbury should formally identify, acquire, and begin to develop greenways and open space components of the district while looking to improve the health of the River Des Peres. The river could act as an amenity for the city, but it currently exhibits poor health due to its containment of the city's sanitary and stormwater systems. The River Des Peres Greenway is actively planning and implementing trail connections along the river, and these pedestrian and bike improvements should be supported by the local governments.
- The City of Shrewsbury should identify a prioritization of public improvements (such as streetscapes, open space amenities, and various infrastructure items) and create a capital improvements plan specifically tailored to the station area. This plan would provide a roadmap for how to proceed with investments over several years and help guide city leaders as administrations and political climates change over time.
- The cities of St. Louis and Shrewsbury should explore the use of traffic calming, the installation of ADA ramps, the upgrading of sidewalks, the installation of sidewalks where missing, and the narrowing or "road dieting" of streets in the area as necessary in order to achieve an overall Pedestrian Level of Service of "A" or "B" for the Shrewsbury station area.
- The cities of St. Louis and Shrewsbury should consider implementing Neighborhood Improvement Districts (NIDs), Community Improvement Projects (CIPs) or Transportation Development Districts (TDDs) for the station areas in order to encourage ongoing investment in TOD at the Shrewsbury station. NIDs, CIPs, and TDDs provide for the generation of extra taxes to pay for project or improvement costs for new or redevelopment projects.
- The Cities should consider implementing a Sales Tax Reimbursement Agreement for a defined geography around the station area. These agreements represent a funding mechanism allowed by Missouri law that may be used to achieve public benefit through funding for infrastructure projects. Under these agreements, municipalities have the ability to annually appropriate the increase in sales taxes created by new private capital investment to offset a portion of their project investment costs. The sales tax incre-

ments must be used for public purposes, primarily through the funding of infrastructure improvements.

- The cities may also explore the use of the Enhanced Enterprise Zone program (EEZ) under Missouri law and target this tool to the station area through the establishment of an EEZ zone. Companies in the TOD area that expand operations would receive income tax refunds and property tax abatements.

St. Louis County

- The County should work to tie approvals for TIF or related county incentive packages for development at the Shrewsbury station to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 DU per acre and employment uses providing for at least 25 employees per acre). The County should use the approval of TIF or related incentives as “carrots” to promote developments that are more conducive to transit oriented development.
- The County should explore establishing a Chapter 353 redevelopment corporation specifically targeted for the station area. These entities assist companies by providing tax abatements for redevelopment projects.
- The County should work to ensure that plans for the South County Connector provide for safe and effective bike and pedestrian access across this road corridor in order to serve local neighborhoods and the Shrewsbury station area.

Metro

- Metro should work on finalizing a parking replacement strategy for Shrewsbury (and other stations). Metro should work on a strategy to locate replacement strategy if part of the existing parking lot at the station area (12.8 acres) is repurposed to facilitate TOD. As such, the station area should support on-street parking in lieu of, or in addition to, surface parking.
- Metro should work over time to enhance or provide sufficient MetroBus service to and from the station area in order to arrive at a Transit Level of Service measure of “A” or “B”.

SHREWSBURY - LANSDOWNE [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station borders the Cities of St. Louis and Shrewsbury and is near the River Des Peres. The existing neighborhood is a mix of development uses. Along the river, much of the land is developed as single-family homes.

Average Monthly Boardings | 49,400 (MetroLink Station Average = 36,500)

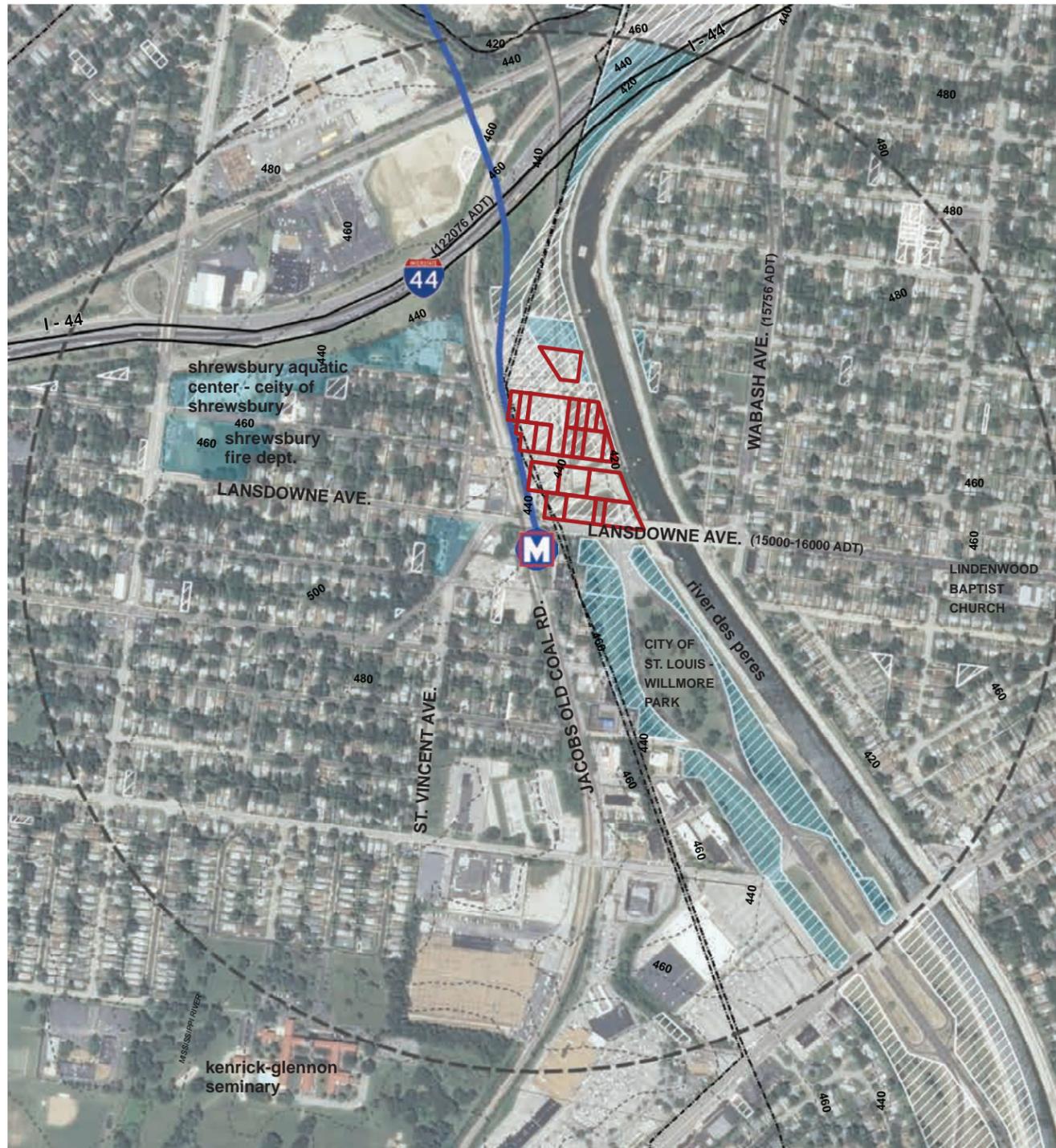
Station Configuration | Metro owns and operates a 12.8-acre parcel that includes the station, MetroBus loop, and an 800-space Park-Ride lot.

Physical Barriers to Development | Access to the surrounding station site is significantly constrained by I-44, the River Des Peres, and industrial properties in the area.

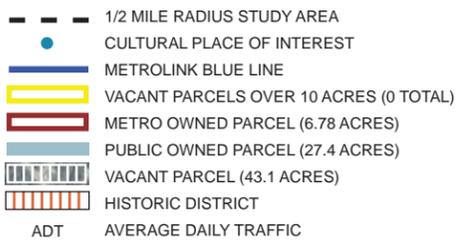
Regulatory Barriers to Development | Zoning around the station site is mostly single-family residential with limited to no mixed use development.

Development Opportunity

Pros	Cons
<ul style="list-style-type: none"> Higher than average transit ridership due to commuter parking lots and Shrewsbury's status as the "end of the line" on the MetroLink system Availability of vacant/under-utilized land Proximity to St. Louis city open space 	<ul style="list-style-type: none"> The local market has not demonstrated support for residential uses at TOD densities Interstate 44 and the nearby river limit the size of development acres that could realistically be developed around this station

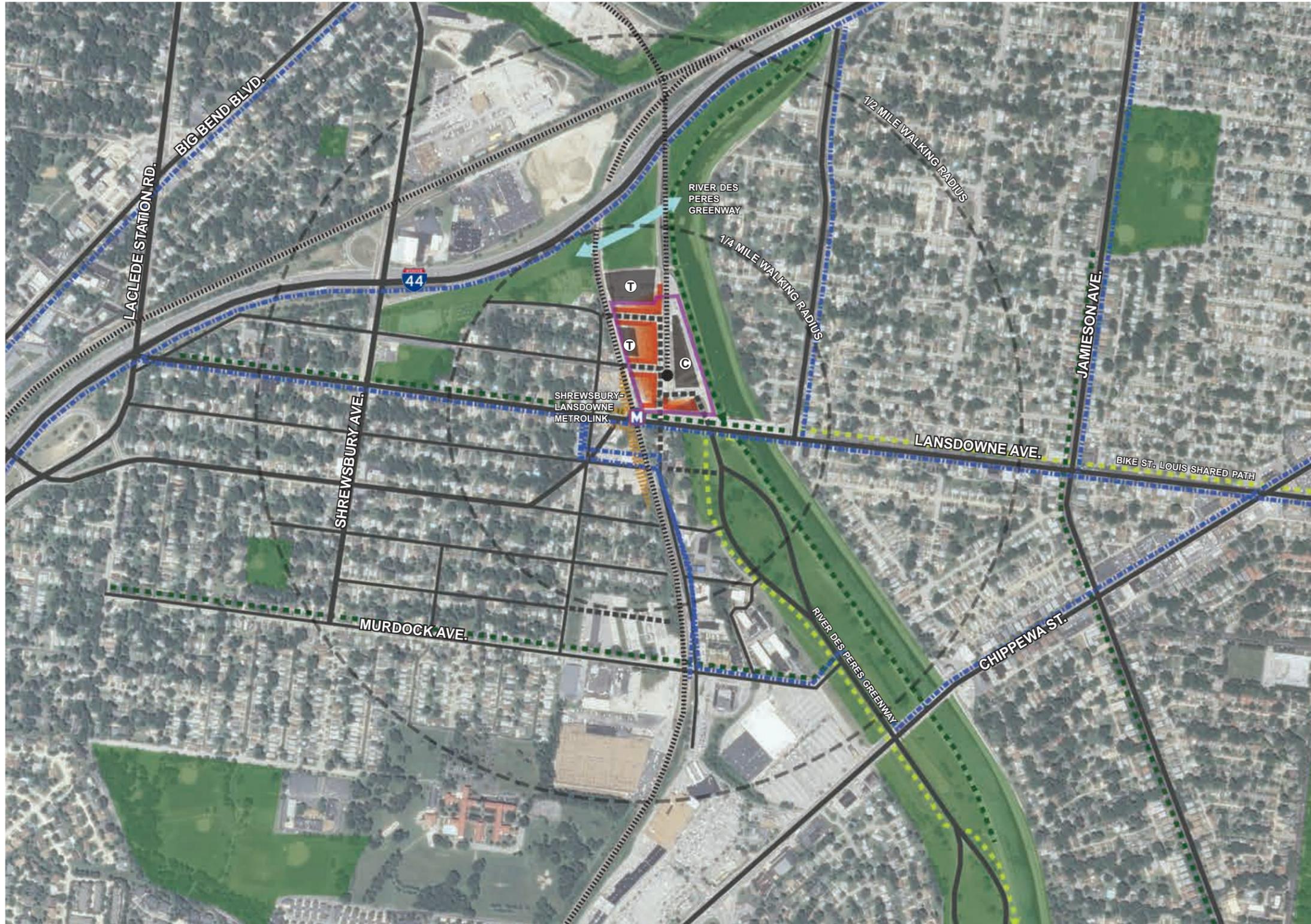


*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.



STATION | SHREWSBURY - LANSDOWNE [CITY OF SHREWSBURY]

DESIGNWORKSHOP

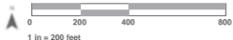


- | | | |
|-------------------------------|---------------------------------|----------------------|
| ROAD NETWORK | POTENTIAL ROAD ALIGNMENT | PARKING LOT |
| REGIONAL (50,000+ ADT) | RAIL ROAD LINE | T TENANT PARKING |
| ARTERIAL (30,000-49,999 ADT) | BUS LINE | C COMMUTER PARKING |
| COLLECTOR (10,000-29,999 ADT) | SECURITY GATE | M METRO OWNED PARCEL |
| LOCAL (>10,000 ADT) | | |

- | | |
|---|--------------------------------|
| EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS | GRADE CHANGE |
| EXISTING TRAIL CONNECTION | BUILDING FRONTAGE - SHORT-TERM |
| PROPOSED TRAIL CONNECTION | BUILDING FRONTAGE - LONG-TERM |
| PEDESTRIAN CONNECTION | HISTORIC DISTRICT |

- | |
|--------------------------------------|
| RESIDENTIAL |
| CORRIDOR REVITALIZATION |
| CIVIC USE |
| CURRENT/PLANNED AREAS OF DEVELOPMENT |

STATION | SHREWSBURY-LANSDOWNE [CITY OF SHREWSBURY]



DESIGNWORKSHOP

Sunnen Station



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the Sunnen MetroLink station in the future.

Jurisdictions

- City of Maplewood

Station Overview and Context

The Sunnen MetroLink station is located at the west entrance to the Sunnen Business Park, just off of Hanley Road. In addition, this station serves the inner-ring suburb of Maplewood with a mix of surrounding uses including commercial, industrial, and residential.

Site Analysis

Topography: The overall study area around the Sunnen station features relatively flat terrain, including the absence of significant bluffs or hills. The area directly within a block or two of the station area platform in particular is quite flat and therefore provides a solid foundation for development, to the east and west. However, to the north of the Sunnen station, significant grade changes along Manchester Road and along the east side of Hanley potentially inhibit future development in these areas (which are located in the vicinity of the Sunnen station, but in fact are located closer to the Maplewood station).

Stream and Floodplain Issues: Floodplain zones exist to the west and south of the station area surrounding Deer Creek. However, this area is already developed, and floodplains do

not seem to pose a threat to future development, particularly in close proximity to the Sunnen station platform area.

Transportation Network: The Sunnen station area is connected by collector roads including Hanley Road, Manchester Road, and Big Bend Boulevard. Hanley Road reports average daily traffic of between 28,000 and 33,000 trips per day. Manchester Road sees traffic volumes of 17,300 trips per day, and Big Bend Boulevard around 25,000 trips per day. Interstate 44 lies to the south of the station, and I-64 is to the north, affording the station area relatively good transportation connectivity to the rest of the region. In addition, the South County Connector will likely follow a north-south alignment through the area, along Hanley Road, in the future. This connector route will link the south end of the I-170 corridor with destinations in South County and therefore eventually complete the “inner belt” around the City of St. Louis from I-70 south to I-55.

From the Sunnen MetroLink station area, MetroBus does not provide service.

Bike and Pedestrian Environment: The area around the Sunnen station currently registers a Walk Score of 86 (or, “very walkable”) given the geographic proximity of the station area to a variety of retail services, nearby residential areas, and other community features.¹ However, the bike and pedestrian environment presents challenges in a number of areas:

- Pedestrian connectivity is somewhat limited from nearby parcels to the Sunnen station platform area
- In addition, sidewalk access is relatively limited along the major roads leading to the general station area (Hanley, Big Bend, etc.).
- While bicyclists of course may access the station area via roadway, the area around the Sunnen station does not feature any dedicated bike lanes or sharrows and bicycle parking is relatively limited at the station platform area.
- The relatively significant width of the five-lane Hanley Road and Big Bend Boulevard corridors further limits the degree of bike and pedestrian friendliness in the Sunnen station area.

Utility Issues: The City of Maplewood and local utilities will need to coordinate any necessary alterations to utility systems associated with the potential construction of the South County connector, along the western portion of the study area. Significant utility issues associated with overall capacity do not appear to exist in the station area. However, given the size of the potential developable area (including swaths of land between MetroLink and Hanley Road and north toward Manchester Road), the City of Maplewood would need to work with potential developers to ensure that proper sizing of utilities is available to service development projects.

Existing Zoning and Entitlement Considerations

The Sunnen station area falls within the zoning regulations of the City of Maplewood. While a range of zoning districts affect future development surrounding the station, Single Family Residential (SR), Planned Unit Development (PUD), and Medium-Density Residential (MR) are dominant. There are also zones for Public Activity (PA), for the existing Deer Creek Park, Arterial Business (AB), and Light Manufacturing (LM).

The Sunnen Business Park is zoned PUD, allowing it opportunities for mixed uses. Combined with its existing employment base, this affords the potential for TOD. Other zoning

1 Walk Score. www.walkscore.com, 2013.

districts in the station area, like the AB and LM districts, allow generous building heights and lot sizes, but generally have low floor area ratios, resulting in one to two story buildings covering a large portion of individual lots. They also do not allow residential uses. Currently, most of the station area is limited to either low-density residential or commercial developments, in the form of strip-malls.

Analysis of Current Development Patterns

Current development patterns at the Sunnen Station demonstrate momentum in the local market in terms of new construction and development. However, the projects that are in process in the station area are following typical suburban patterns, with low-density land uses spread across lots. The area is very much automobile dominant, with large surface parking lots and limited trail and pedestrian connections. A luxury car dealership is currently under construction along Hanley Road in the local station area.

Current Ridership

As illustrated in the table below, the Sunnen station reports significantly lower average ridership numbers compared to averages for the Missouri portion of the system and the overall MetroLink system. The station's location in a very suburban and automobile-centric part of the region adds to the low ridership numbers, as does the car-dominant nature of the destinations surrounding the station, itself. In addition, this station does not provide access to any neighboring attractions. The lack of any connecting MetroBus lines to the Sunnen station further limits ridership to the Sunnen station.

Average MetroLink Boarding Estimates - Sunnen

	AVERAGE DAILY BOARDINGS		
	Total Monthly Boardings	Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Missouri Station Average	42,000	1,560	960
Sunnen MetroLink Station	5,700	220	120

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The Sunnen Station represents a Suburban Town Center typology, given the potential for new town center development at the station area, versus the existing mix and nature of development. The presence of the Sunnen Business Park and its mix of tenants already creates a significant employment center adjacent to the MetroLink line and represents a destination or potential destination via light rail for a sizeable population of employees in the area. A number of other employers are located in light industrial areas to the north and west along Hanley and Manchester Road. Assuming future development in the station area could include a sizeable mixture of residential and commercial space in addition to office or employment uses, the Sunnen station has the potential to evolve into a Suburban Town Center over time. The potential development of the South County Connector running parallel to the MetroLink line may also enhance the potential to create more of a town center at the Sunnen location to serve this portion of St. Louis County.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the Sunnen station is likely to experience an increase in demand for an additional 285 residential units and additional commercial space totaling around 114,521 square feet. The future commercial space could include a mixture of additional office space and some limited amounts of retail to service the local base of employees working in the area. However, given the presence of significant areas of big box and regional retail to the north, along Hanley and toward I-64, and local serving retail along Big Bend Boulevard, the balance of new commercial space near the Sunnen station may include office uses. Additional residential units could include a mixture of apartments, townhouses and similar suburban style multi-family uses.

Overall Development Strategy

Local jurisdictions should encourage the development of future projects at Sunnen that are compact and walkable. An opportunity exists to develop retail and residential uses that would complement the existing business park uses at the Sunnen site and leverage the enhanced connectivity that the South County Connector would provide to the areas around and near the Sunnen station. In addition, over time parking lots and select portions of the existing Sunnen Business Park could be repositioned or converted to more of a mixed-use orientation, with a combination of office, residential, and commercial uses.

Potential new projects at the Sunnen station should include a variety of residential units in order to provide for a diversity of household types and provide increased opportunities to activate the station area vicinity. Residential projects may need to proceed in phases as the local market has not demonstrated support for residential development at densities that would support TOD. In addition, opportunities may arise to convert aging industrial properties near the Sunnen station area to higher value commercial or retail properties or projects.

Any new TOD at the Sunnen station area should include design elements and strategies to connect the area to Downtown Maplewood and to nearby trail and open space connections, including those along Deer Creek. These connections to local amenities will help drive the marketability of TOD at the Sunnen station and enhance overall project value over time.

The table below compares the potential developable area at the Sunnen station with the projected supportable square footage of new development over the next thirty years. As illustrated, if development were to proceed at relatively modest levels of density in the Sunnen vicinity, the station area contains excess developable area compared to the anticipated demand for real estate space over the next 30 years. Therefore, future development plans could potentially include parks, civic spaces, and related community features in order to fill some of the excess space in the station area.

Sunnen Station Developable Lands Analysis

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	90.42	3,938,695
Less: Roads and Configuration at 20%	18.084	787,739
Less: Open Space and Drainage at 20%	18.084	787,739
Less: Surface Parking		0
Net Developable Area		2,363,217
Potential Developable SF at 0.25 FAR		590,804
Potential Developable SF at 0.5 FAR		1,181,609
Potential Developable SF at 1.0 FAR		2,363,217
Projected Commercial Market Demand		114,521
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		285,000
Potential Real Estate Market Demand (2010 - 2040)		399,521

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that the City of Maplewood work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of a TOD Zoning Classification for the Station Area: Much of the existing station area is covered by either the City of Maplewood’s Planned Unit Development District (PUD) or residential uses. While the PUD zoning district allows a mix of uses, including retail, offices, services, and residential units, the other zoned areas do not.

Establishment of Form Based Code for the Station Area: The City of Maplewood should consider adopting a Form Based Code (FBC) for the station area in order to articulate the design of streets and building frontages within the station area district. FBC can help promote a more pedestrian friendly and TOD supportive environment.

Establishment of Parking Maximums (as opposed to parking minimums): The City of Maplewood should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties. Current minimum parking requirements are high, requiring one space for every 200 square feet of general retail use, and one space for every 300 square feet of office use. In addition, the city should examine the current regulations for adjoining Maplewood streets to ensure that on-street parking is allowed in as many locations as possible.

Action Items

The following represent a series of action items that the City of Maplewood, Metro, and other partners should complete in order to move the creation of TOD at the Sunnen station area forward over the next few years.

City of Maplewood

- Maplewood should formally identify, acquire, and begin to develop greenways and open space components of the district. There is no pedestrian connectivity surrounding this existing station area. Much of the existing environment can be improved with the introduction of park and open space land. In addition, purchasing ground at this time would likely require less investment on a per acre basis compared to later stages in the planning and development of new land uses at the station area, when property values would naturally increase.
- Maplewood should use its influence to advocate and guide development at the Sunnen station area to include sufficient levels of residential and employment density to promote higher levels of ridership at the Sunnen station.
- Maplewood should work to connect any nearby bike routes to the Sunnen station area in order to encourage higher levels of bicycle access.

Property Owners (Sunnen, etc.)

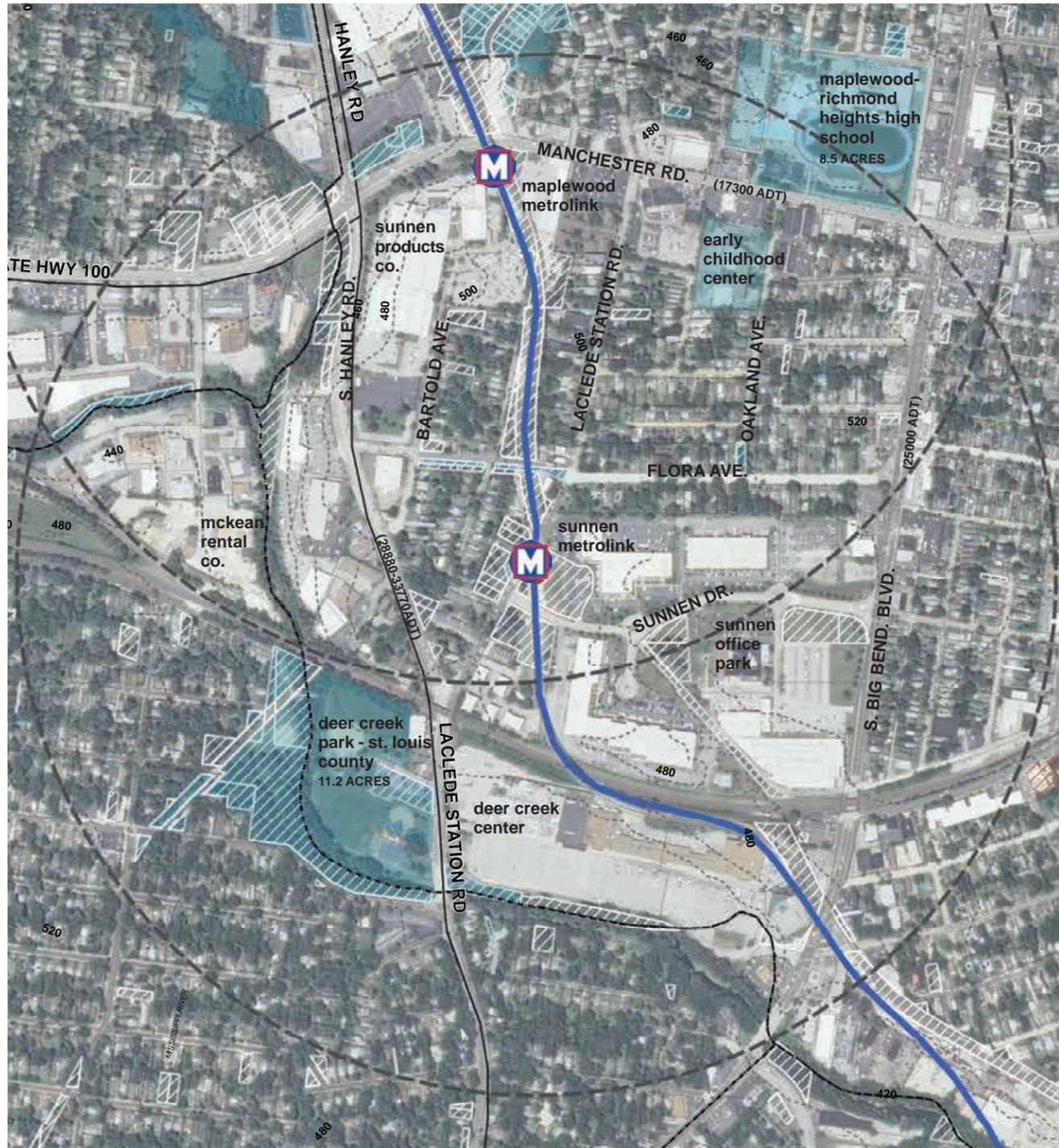
- Future plans for development in the Sunnen Business Park should facilitate transit oriented development through compact planning and a mix of market uses, utilizing the MetroLink light rail as a site amenity. A continued public/private relationship between the Business Park, Metro, and East-West Gateway Council of Governments is necessary to support the continued shared goal and outcome of TOD.

St. Louis County

- The county should work with Maplewood and property owners in proximity to the Sunnen station to ensure that the final design and construction of the South County Connector includes sufficient bike and pedestrian amenities and connections from the new road to the station area.

Metro

- Metro should begin to introduce bus lines to the station area, given the presence of a number of employers in the area and the potential to increase ridership from the Sunnen station over time.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

SUNNEN [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station serves a mixed development area that includes a planned new development (for a car dealership), the Sunnen business park, large commercial and industrial uses, and single-family homes. Hanley Road and Laclede Station Road provide north-south thoroughfares, while Manchester Road carries east-west traffic.

Average Monthly Boardings | 5,700 (MetroLink Station Average = 36,500)

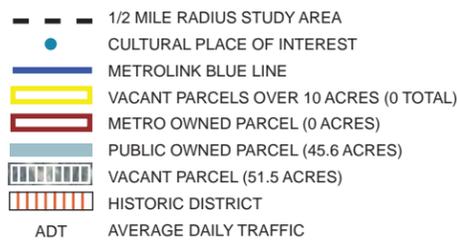
Station Configuration | MetroBus does not provide access to this station, and no on-site parking is provided.

Physical Barriers to Development | No significant barriers exist.

Regulatory Barriers to Development | Zoning around the station site allows for mixed use development and also establishes liberal building envelopes. Much of the residential potential, however, allows for low-density uses while the commercial is targeted as strip-mall development.

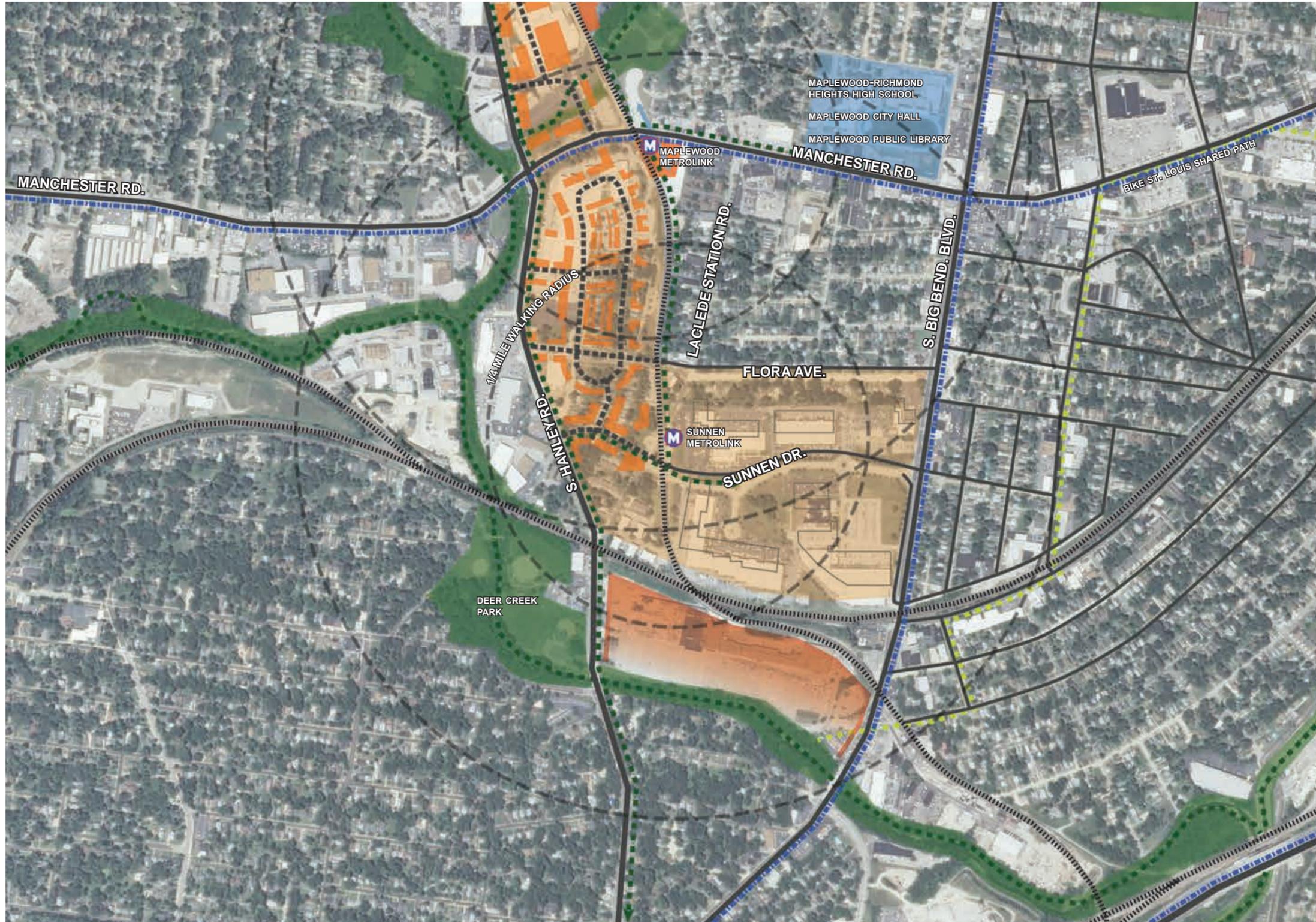
Development Opportunity

Pros	Cons
<ul style="list-style-type: none"> Some large vacant parcels adjacent to the station Potential for nearby industrial properties to redevelop to higher value commercial uses 	<ul style="list-style-type: none"> Transit ridership is significantly lower than MetroLink average Metro does not own any property beyond the train platform and rail line The local market has not demonstrated support for residential uses at TOD densities New road construction and infrastructure needs create development challenges



STATION | SUNNEN [CITY OF BRENTWOOD/MAPLEWOOD/WEBSTER GROVES]

DESIGNWORKSHOP



- | | | |
|-------------------------------|---------------------------------|--------------------|
| ROAD NETWORK | POTENTIAL ROAD ALIGNMENT | PARKING LOT |
| REGIONAL (50,000+ ADT) | RAIL ROAD LINE | TENANT PARKING |
| ARTERIAL (30,000-49,999 ADT) | BUS LINE | COMMUTER PARKING |
| COLLECTOR (10,000-29,999 ADT) | SECURITY GATE | METRO OWNED PARCEL |
| LOCAL (>10,000 ADT) | | |

STATION | SUNNEN [CITY OF BRENTWOOD/MAPLEWOOD/WEBSTER GROVES]

- | |
|---|
| EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS |
| EXISTING TRAIL CONNECTION |
| PROPOSED TRAIL CONNECTION |
| PEDESTRIAN CONNECTION |

- | |
|--------------------------------|
| GRADE CHANGE |
| BUILDING FRONTAGE - SHORT-TERM |
| BUILDING FRONTAGE -LONG-TERM |
| HISTORIC DISTRICT |

- | |
|--------------------------------------|
| RESIDENTIAL |
| CORRIDOR REVITALIZATION |
| CIVIC USE |
| CURRENT/PLANNED AREAS OF DEVELOPMENT |



DESIGNWORKSHOP

Maplewood / Manchester Station



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the Maplewood MetroLink station in the future.

Jurisdictions

- City of Brentwood
- City of Maplewood

Station Overview and Context

The Maplewood MetroLink station is located at the north end of the Sunnen Business Park, along Manchester Road and just east of Hanley Road. This station serves the inner-ring suburb of Maplewood with a mix of land uses including industrial, local retail, residential, and the Maplewood-Richmond Heights High School.

Site Analysis

Topography: The station platform, itself, is raised above grade, creating a visual separation between the MetroLink line and surrounding uses. In addition, the Sunnen Corporation buildings to the south are similarly separated by grade changes, creating a physical barrier and visual disassociation with the station.

Stream and Floodplain Issues: Floodplain zones exist in the Maplewood Station area. Black Creek runs to the west of the station area, and the Hampton Branch runs directly north and east of the station.

Transportation Network: The Maplewood station area is connected to surrounding neighborhoods via Manchester Road running east-west, and South Hanley Road and Laclede Station Road oriented north-south. South Hanley carries around 39,000 vehicle trips per day in the station vicinity, and Manchester Road carries closer to 17,000 per day. The north-south collector roads in the area, including Hanley Road and Big Bend Boulevard, connect the station area to Interstate 64 to the north.

St. Louis County is currently working on plans for the South County Connector, which would follow a general alignment along Hanley Road and would connect from I-64 through several communities to the south, providing a higher capacity connection between I-170 and I-55. The development of this connector will affect transportation and land use patterns in this portion of St. Louis County over the longer term.

From the Maplewood MetroLink station area, MetroBus provides several connections to destinations by MetroBus.

#02 Red Line:

- Delmar Loop
- St. Mary's Hospital
- Webster University
- Maplewood Commons
- Washington University

#32 M.L. King-Chouteau:

- Downtown St. Louis
- Ameren Complex

#57 Maplewood-Wildwood:

- West County Mall
- Wildwood Center

Bike and Pedestrian Environment: The area around the Maplewood station currently registers a Walk Score of 71 (or, “very walkable”) given the geographic proximity of the station area to a variety of retail services, nearby residential areas, and other community features.¹ However, the bike and pedestrian environment presents challenges in a number of areas:

- Pedestrian facilities along Manchester Road, including sidewalks, are substandard and do not facilitate a pedestrian friendly environment. Crosswalks are not present in many cases.

1 Walk Score. www.walkscore.com, 2013.

- While bicyclists of course may access the station area via roadways, the area around the Maplewood station does not feature any dedicated bike lanes or sharrows and bicycle parking is relatively limited at the station platform area.

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

While most of the Maplewood station area falls within the zoning regulations of the City of Maplewood, a portion of the station area also lies within the City of Brentwood. A range of zoning districts affect the prospects for future development around the station. The area located immediately to the east of the station is zoned single-family residential, limiting any future mixed uses. The area to the west is designated Light Manufacturing (the LM zone in Maplewood and the LID zone in Brentwood). This zone allows office and retail in addition to industrial uses, but does not allow residential development or mixed-use TOD. There is also a small block of arterial business zoning (AB) within Maplewood, but this zone similarly does not allow residential uses. Some medium-density residential (MR) is also present, allowing a limited number of apartment buildings, and one block is zoned for a planned development district (PD) within the City of Brentwood near the intersection of South Hanley Road and Manchester Road. This zone is most promising for supporting dense mixed uses and TOD.

Analysis of Current Development Patterns

The Maplewood station is located at the convergence of industrial and manufacturing uses to the west and the transition to a neighborhood retail center and Maplewood-Richmond Heights High School the east. Existing residential neighborhoods surround the station to the west, east, and southeast. These are primarily single-family, with some multi-family garden apartment complexes also present. The majority of the housing stock was constructed between 1940 and 1990, with very little constructed recently.

Current Ridership

As illustrated in the table below, the Maplewood station reports significantly lower average ridership numbers compared to averages for the Missouri portion of the system and the overall MetroLink system. The station does have active MetroBus ridership, but does not include a park-ride lot.

Average MetroLink Boarding Estimates - Maplewood

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Missouri Station Average	42,000	1,560	960
Maplewood MetroLink Station	18,400	670	450

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The Maplewood Station represents a Suburban Town Center typology. Given the presence of Downtown Maplewood to the east along Manchester Road and the location of the sta-

tion area near the junction of two major north south routes in St. Louis County (Manchester Road and Hanley Road), the area has the potential to develop into a more significant focal point for development and community activity in the future, serving a fairly large trade area in this portion of St. Louis County. The area located between the station area and Downtown Maplewood has the potential to evolve into a district that connects the MetroLink station to a key gathering place in this part of St. Louis County (Downtown).

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the Maplewood station is likely to experience an increase in demand for an additional 380 residential units and additional commercial space totaling around 152,695 square feet. The station area has TOD potential for residential, commercial, and office uses. The local market, however, has not demonstrated support for TOD densities in the residential market. Therefore, residential development may need to occur in phases and include product types such as townhouses as opposed to higher density residential uses. Redevelopment of nearby industrial properties to higher value uses also offers potential in the Maplewood station area.

Overall Development Strategy

The overall recommended development strategy for the Maplewood station calls for the areas along Manchester Road, from the station area to the east toward Downtown Maplewood, to evolve over time into more of a “Main Street” district that would connect these two assets and help to further establish this portion of Manchester Road as a Great Street. The areas directly around the station area, to the north and east, could accommodate a limited degree of mixed-use development, primarily focused on residential units. To the west and south, over time a number of the industrial properties along Hanley and Manchester Road may convert to different land uses including commercial and some residential uses that would further enhance the profile of the Maplewood station as a Transit Oriented Development area. In facilitating and encouraging development in the area, the City of Maplewood should work to encourage the creation of projects that are walkable, compact, and integrate various land uses as much as possible. In addition, in order to facilitate the creation of a more viable mixed-use environment in and near the Maplewood station, the City should work with regional partners to enhance any potential trail connections in the area, particularly along the east side of the MetroLink line (extending to the north toward Hanley Road), and along Manchester Road. The City should work to establish designated bike lanes and bike routes that would connect various civic destinations to the station area as well.

The table that follows compares the potential developable area at the Maplewood station with the projected supportable square footage of new development over the next thirty years. As illustrated, if development were to proceed at densities (represented by Floor to Area Ratio) in excess of 1.0, the station area would have excess space to accommodate development compared to the projected market demand. Assuming that well planned transit oriented development includes fairly dense levels of development, this comparison of development capacity versus anticipated demand may mean that only a portion of the station area will or should develop over the next three decades. Alternatively, in order to ensure that developments created in the station area evolve as fairly dense and compact projects, the future station area plan for Maplewood-Manchester may assume that larger portions of the developable areas would serve as open space or community gathering places.

Maplewood Station Developable Lands Analysis

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	38.17	1,662,685
Less: Roads and Configuration at 20%	7.634	332,537
Less: Open Space and Drainage at 20%	7.634	332,537
Less: Surface Parking		0
Net Developable Area		997,611
Potential Developable SF at 0.25 FAR		249,403
Potential Developable SF at 0.5 FAR		498,806
Potential Developable SF at 1.0 FAR		997,611
Projected Commercial Market Demand		152,695
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		380,000
Potential Real Estate Market Demand (2010 - 2040)		532,695

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that the City of Maplewood work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of a TOD Zoning Classification for the Station Area: The City should add a TOD zoning classification that specifically promotes mixed-use and compact development in the vicinity of the Maplewood station. This TOD zoning should promote a diversity of land uses and higher density development.

Establishment of a Form Based Code for the Station Area: The City of Maplewood should consider adopting a Form Based Code (FBC) for the station area in order to articulate the design of streets and building frontages within the station area district. FBC can help promote a more pedestrian friendly and TOD supportive environment and in particular should focus on the urban design and development framework of Manchester Road.

Establishment of Parking Maximums (as opposed to parking minimums): The City of Maplewood should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties.

Action Items

The following represent a series of action items that the City of Maplewood, Metro, and other partners should complete in order to move the creation of TOD at the Maplewood station area forward over the near term and long term.

City of Maplewood

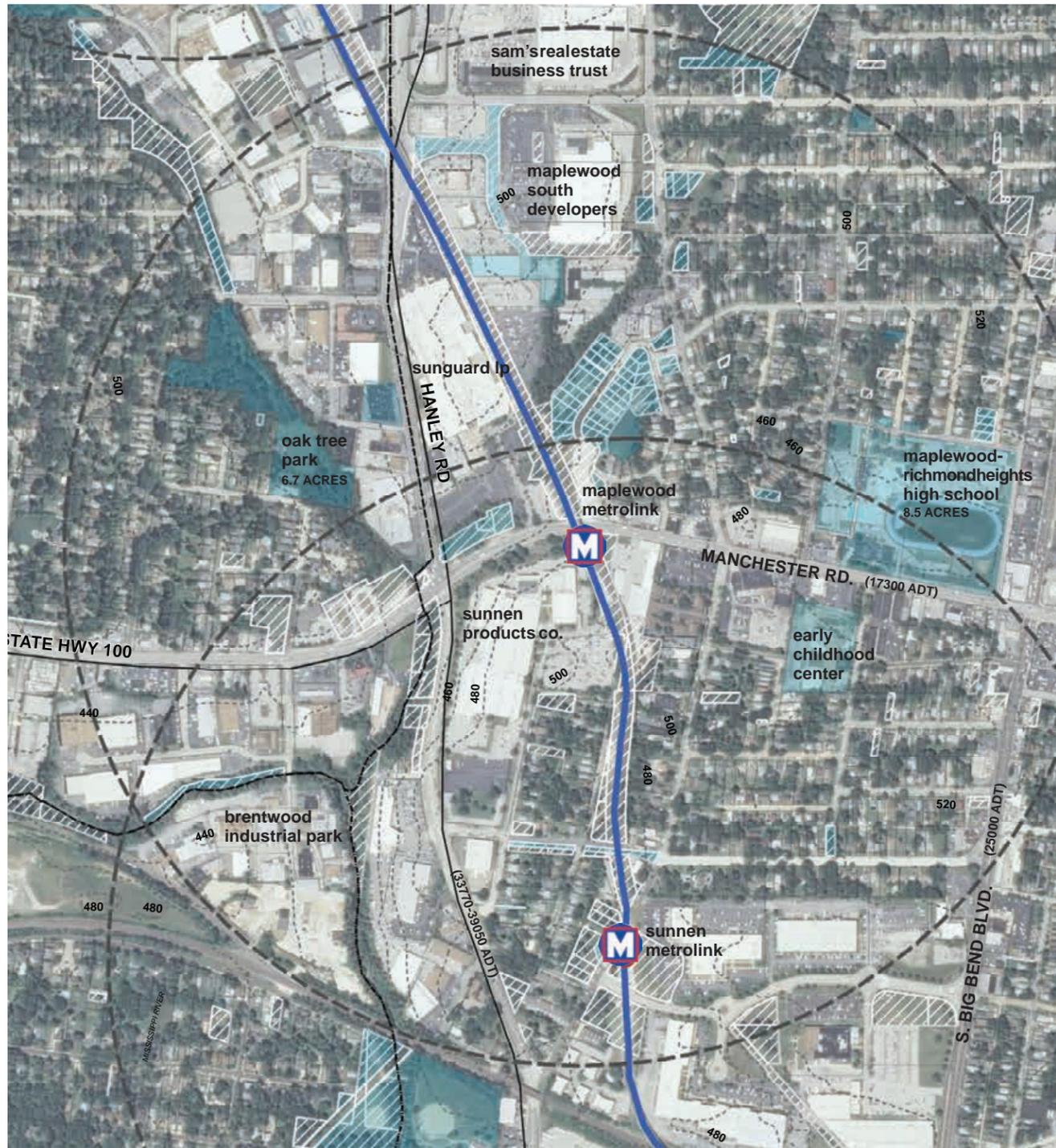
- Maplewood should formally identify, acquire, and begin to develop greenways and open space components of the district. There is no pedestrian connectivity surrounding the existing station area. Much of the existing environment can be improved with the introduction of park and open space connections. In addition, purchasing ground at this time would likely require less investment on a per acre basis compared to later stages in the station area's revitalization, when property values would naturally increase.
- Creation of a Form Based Code to guide development at this station area.
- Creation of a TOD zoning classification for the Maplewood-Manchester station area
- Establishment of a bike and pedestrian strategy for the station area that would include improvements such as construction of improved sidewalks and crosswalks, bike lanes or sharrows, and related improvements.
- Parking replacement strategies are not a consideration at this station, as Metro does not currently operate any transit oriented parking. However, large, under-utilized lots do exist around the station (5.7 acres) that could be redeveloped or reused for TOD. Future development and the parking requirements that it yields should consider on-street parking where neighboring roads are able to support it. Therefore, the City of Maplewood should focus its regulations concerning zoning and parking to ensure that nearby streets facilitate on-street parking.

Metro

- Metro should work to ensure that connecting MetroBus lines are adequately coordinated with MetroLink train schedules in order to facilitate ongoing development at the station area.
- Metro should work with the City and regional bike and pedestrian partners to help provide sufficient bike storage facilities around the station area.
- Metro should improve schedules and service by MetroBus to and from the Maplewood station to ensure that overall station area reports a Transit Level of Service of "A" or "B".

St. Louis County

- The County should work with the City and Metro to coordinate plans for potential development of the South County Connector with ongoing station area planning in the Maplewood area. The County should work to ensure that the Connector allows for sufficient bike and pedestrian access and amenities, for example.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

MAPLEWOOD MANCHESTER/I-64 [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station is located north of Manchester Road and is primarily surrounded by industrial uses with some smaller single-story commercial uses (along the Hanley and Manchester corridors) and a considerable amount of residential uses in surrounding neighborhoods.

Average Monthly Boardings | 18,400 (MetroLink Station Average = 36,500)

Station Configuration | The station includes a MetroBus transfer loop but no on-site parking.

Physical Barriers to Development | There is a sizeable elevation change between the platform area and surrounding parcels located around the MetroLink line.

Regulatory Barriers to Development | Zoning around the station site supports industrial and commercial uses, but not residential. The Light Manufacturing district limits floor area ratios (FAR) to 1.0-1.5.

Development Opportunity

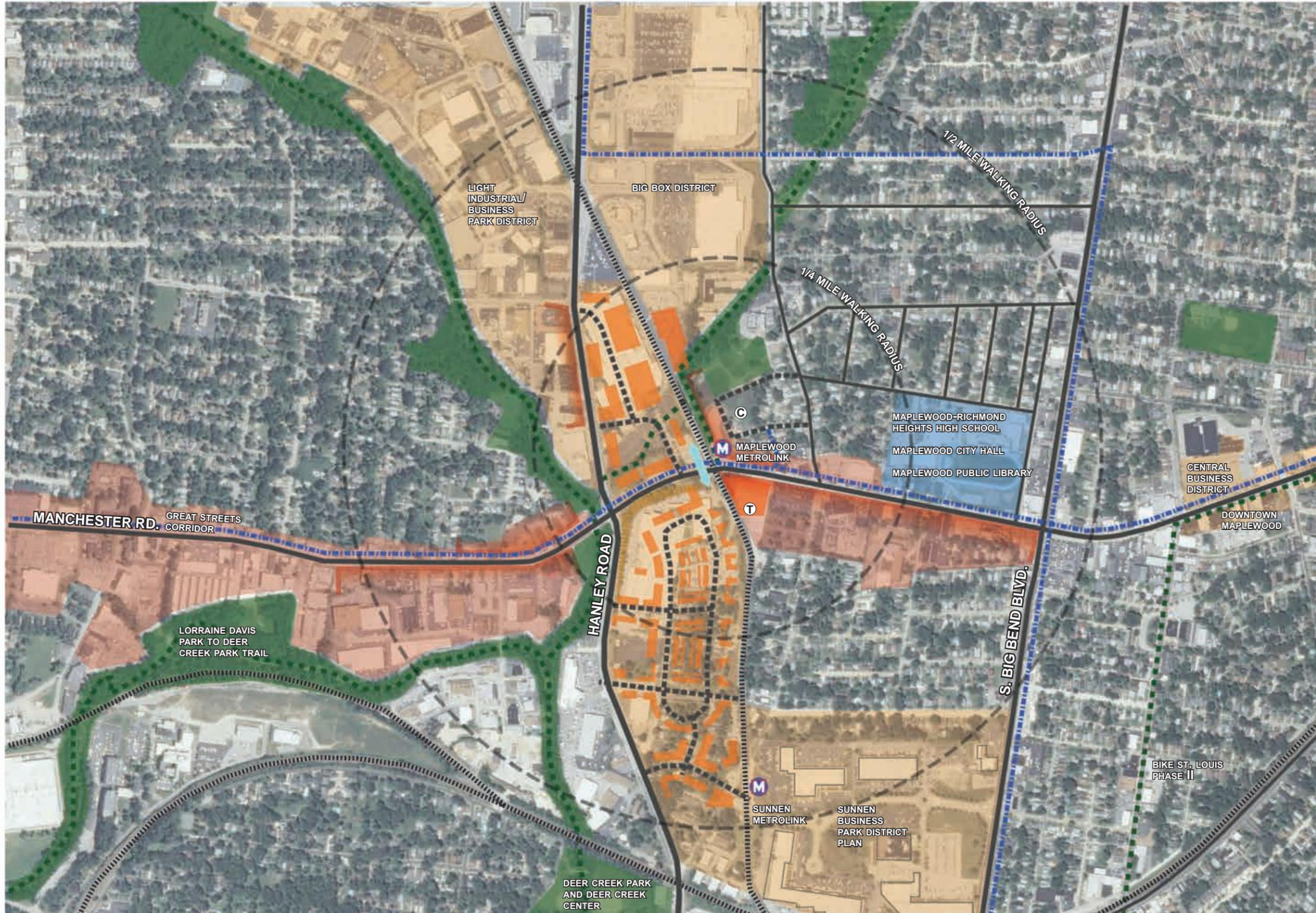
Pros	Cons
<ul style="list-style-type: none"> • Opportunities to reconsider under-utilized sites • Potential for residential and commercial uses 	<ul style="list-style-type: none"> • Lack of ridership • Elevation differences between the rail line and surrounding parcels create physical barriers

- 1/2 MILE RADIUS STUDY AREA
- CULTURAL PLACE OF INTEREST
- METROLINK BLUE LINE
- ▭ VACANT PARCELS OVER 10 ACRES (0 TOTAL)
- ▭ METRO OWNED PARCEL (0 ACRES)
- ▭ PUBLIC OWNED PARCEL (41.2 ACRES)
- ▭ VACANT PARCEL (56.1 ACRES)
- ▭ HISTORIC DISTRICT
- ADT AVERAGE DAILY TRAFFIC



STATION | MAPLEWOOD MANCHESTER/I-64 [CITY OF MAPLEWOOD/BRENTWOOD]





- | | | |
|-------------------------------|---------------------------------|--------------------|
| ROAD NETWORK | POTENTIAL ROAD ALIGNMENT | PARKING LOT |
| REGIONAL (50,000+ ADT) | RAIL ROAD LINE | TENANT PARKING |
| ARTERIAL (30,000-49,999 ADT) | BUS LINE | COMMUTER PARKING |
| COLLECTOR (10,000-29,999 ADT) | SECURITY GATE | METRO OWNED PARCEL |
| LOCAL (>10,000 ADT) | | |

STATION | MAPLEWOOD MANCHESTER/I-64 [CITY OF MAPLEWOOD/BRENTWOOD]

- | | | |
|---|--------------------------------|--------------------------------------|
| EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS | GRADE CHANGE | RESIDENTIAL |
| EXISTING TRAIL CONNECTION | BUILDING FRONTAGE - SHORT-TERM | CORRIDOR REVITALIZATION |
| PROPOSED TRAIL CONNECTION | BUILDING FRONTAGE -LONG-TERM | CIVIC USE |
| PEDESTRIAN CONNECTION | HISTORIC DISTRICT | CURRENT/PLANNED AREAS OF DEVELOPMENT |



DESIGNWORKSHOP

Brentwood / I-64 Station



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the Brentwood / I-64 MetroLink station in the future.

Jurisdictions

- City of Brentwood
- City of Richmond Heights

Station Overview and Context

The Brentwood / I-64 Station lies just to the south and east of the junction of Interstates 64 and 170 and orients around a series of regional and sub-regional shopping centers in the area, including a shopping center just to the west anchored by Dierberg's, the Maplewood Commons shopping area to the south and east along Hanley Road, and other retail offerings to the west along Brentwood Boulevard. The Meridian, a multi-story office complex just to the east of the station area, includes ground floor retailers including Best Buy and represents one of the more prominent developments in the station area. Multi-family apartments to the south of the station area complement the retail and office uses in the vicinity of the MetroLink platform. The Meridian at Brentwood development includes a parking garage that is shared with Metro.

In general, while the projects around the Brentwood station represent some of the better known examples of Transit Oriented Development in the St. Louis region at the current time,

parts of the general station area do not fit the profile of TOD. The shopping centers to the east and west, including grocery stores and big box developments, consume a good deal of land and include fairly low density levels of development that are not particularly conducive to TOD.

Site Analysis

Topography: The study area, within one-fourth mile of the station platform, features relatively flat terrain. The topography of the site does not appear to pose any issues with regard to future development. The station platform is cut off from the retail to the west by grade and road separation, however, and is located in somewhat of a “trough” compared to the parcels to the east and west.

Stream and Floodplain Issues: Floodplain zones exist to the west of the station area in the areas surrounding Black Creek. However, these zones do not pose a threat to the potential to develop future TOD at the Brentwood station.

Transportation Network: The Brentwood station area enjoys very good transportation connectivity to regional destinations via Interstates 64 and 170. South Brentwood Boulevard and South Hanley Road also provide regional connectivity surrounding the station. Traffic counts for the major collectors of Brentwood Boulevard and Hanley Road reflect the station’s location relative to the interstates. South Brentwood Boulevard accommodates between 30,000 and 38,000 trips per day, while South Hanley Road carries around 45,000 trips per day near the station. Interstate 64 carries around 140,000 vehicle trips per day.

From the Brentwood/I-64 MetroLink station area, several MetroBus lines provide connections to surrounding destinations.

#02 Red Line MetroBus connects to:

- Rock Road MetroLink Station
- Pagedale
- Forest Park
- Delmar Loop and Skinker MetroLink Stations
- Richmond Heights MetroLink Station
- Galleria
- Brentwood Promenade
- Brentwood MetroLink Station
- Maplewood Commons
- Big Bend Boulevard
- Kirkwood Commons
- Meramec Community College

#59 Dogtown MetroBus connects to:

- Central West End MetroBus Center
- Richmond Heights

- Maplewood
- Maplewood Commons
- Brentwood MetroBus Garage
- Rock Hill Loop

#158 Ballas-West County MetroBus connects to:

- Ballas MetroBus Center
- St. John's and St. Luke's Hospitals
- Creve Coeur
- Delmar Gardens Chesterfield

#57X Clayton Road Express MetroBus connects to:

- St. Louis University High School
- Richmond Heights
- Ballas MetroBus Center
- Creve Coeur
- Clarkson Valley

Existing Transit Orientation: The station area within one fourth mile of the Brentwood station platform currently includes residential densities of 2.04 units per acre, on average, and employee densities of 2.27 employees per acre, on average. Given that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the Brentwood station area does not currently facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development.

Bike and Pedestrian Environment: The area around the Brentwood station currently registers a Walk Score of 77 (or, "very walkable") given the geographic proximity of the station area to a variety of retail services, nearby residential areas, and other community features.¹ However, the bike and pedestrian environment presents challenges in a number of areas:

- Pedestrian connectivity is blocked from the Metro stop area to the Dierberg's shopping center to the west by a fence and grade separation. Shoppers wishing to access this shopping center must walk all the way north to Eager Road before heading east to access the station area.
- In addition, sidewalk access is relatively limited along the major roads leading to the general station area (Hanley, Eager Road, etc.).
- While bicyclists of course may access the station area via roadway, the area around the Brentwood station does not feature any dedicated bike lanes or sharrows and bicycle parking is relatively limited at the station platform area.

Utility Issues: There are no known utility constraints to development.

¹ Walk Score. www.walkscore.com, 2013.

Existing Zoning and Entitlement Considerations

The Brentwood / I-64 Station area falls within two jurisdictions, the Cities of Brentwood and Richmond Heights. Current zoning regulations north of I-64 as well as in the southernmost portion of the station area may pose difficulties to new transit-oriented development, but the current zoning regulations for most of the one-quarter-mile station area south of I-64 seem to favorably support it.

Richmond Heights' R1A and R2A zoning districts limit single-family home heights to three stories and require substantial minimum lot and yard sizes (15,000 sq.ft. for lots and 40 feet for front yards in the R1A district, and 7,500 sq.ft. for lots and 35' for front yards in the R2A district) that may inhibit walkable and compact urban design. Brentwood's LID District in the southernmost part of the station area permits commercial and industrial uses but does not allow mixed-use or residential buildings.

However, south of I-64, Brentwood's PD (Planned Development) and LID (Light Industrial) districts and Richmond Heights' PDM (Planned Mixed-Use Development) district are generally welcoming to future transit-oriented development. They have liberal building envelopes (Richmond Heights' PDM district does not have any specific building heights. Brentwood's PD District permits buildings up to six stories on sites of at least two acres with taller buildings possible by special permit.) Both the PDM and PD districts allow medium-density mixed-use developments and apartment buildings. In fact, they permit a range of office, retail and services as well as mixed-use buildings and all housing types. The six story residential height limit in Brentwood's PD District in particular would translate into levels of density that would support the creation of TOD at the station area.

Analysis of Current Development Patterns

Current development patterns reflect recent big box retail development patterns and associated large surface parking lots. The Meridian at Brentwood development includes an eight-story office tower, a nine-story parking garage, and a two-story retail and office complex, reflecting a shift in the local submarket to providing denser office and mixed-use development along the I-64 corridor and in the general area in and to the south of the Clayton employment area. North of Interstate 64, single-family residential neighborhoods exist to the east of I-170, while the St. Louis Galleria mall is to the west of the interstate.

Current Ridership

As illustrated in the table that follows, the Brentwood / I-64 station reports much lower average ridership numbers compared to averages for the Missouri portion of the system and the overall MetroLink system. The station's location in a very suburban and automobile-centric part of the region adds to the low ridership numbers, as does the car-dominant nature of the destinations surrounding the station.

Average MetroLink Boarding Estimates - Brentwood

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Missouri Station Average	42,000	1,560	960
Brentwood/I-64 MetroLink Station	24,300	910	540

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The Brentwood/I-64 Station represents a Suburban Town Center typology. While it provides a mix of retail and employment uses, it does not include a significant pool of residential land uses in the areas adjacent to the station area. Suburban Town Centers can serve as both origins and destinations for commuters, and clearly the Brentwood station provides good connectivity for individuals accessing MetroLink to travel to Clayton, Downtown St. Louis, and other employment centers as well as those individuals traveling to the office developments located near the Brentwood station itself. The station area does support a mix of transit uses, with access of course to both MetroBus and MetroLink service.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the Brentwood station is likely to experience an increase in demand for an additional 201 residential units and additional commercial space totaling around 204,450 square feet. In keeping with existing patterns of development and the orientation of the Brentwood station to I-64 and other major regional transportation routes, the future commercial space at the Brentwood station may include a mixture of regional or sub-regional retailers as well as office space that could include additional larger employers. Given the orientation of the station area relative to the rest of the metro area, the demand for an additional 201 residential units may include apartments, condominiums, or townhouses primarily as opposed to single family detached residences.

Overall Development Strategy

Metro and the local jurisdictions should pursue opportunities to entice and then guide future development at the Brentwood station that would leverage the station area's obvious locational advantages relative to MetroLink and its central location in the metro area, and at the same time guide developers to create new projects over time that better reflect the key principles of good Transit Oriented Development. Future developments at Brentwood should emphasize compact land uses and walkability. Future site plans must emphasize bike accommodations including connectivity to surrounding or nearby bike routes, the provision of sharrows or potential bike lanes on nearby streets, and sufficient bike storage facilities to accommodate future growth in bicycle traffic over time. The cities should look over the long term for opportunities to attract and guide developers to redevelop properties in the Brentwood area that include large surface parking lots and suburban standards for development as more urban projects with higher levels of density more conducive to TOD. The cities should work with developers, for example, to ensure that future plans include a balanced mix of residential and commercial / retail uses and the construction of residential components at density levels that would have tangible impacts on ridership at the Brent-

wood station. While Brentwood enjoys a strategic location at the junction of two interstates in the heart of the metro area, future TOD should more fully take advantage of these inherent strengths to create a better model for development that would increase ridership on Metro-Link in the future.

The table below compares the potential developable area at the Brentwood/I-64 station compared to the projected supportable square footage of new development over the next thirty years, based upon the regional TOD market study. As illustrated, even if development were to proceed at a FAR of 1.0 or above, the Brentwood station area generally will have market demand over the next few decades that exceeds the quantity of developable space. Given this incongruity, the local jurisdictions should work to encourage developers to proceed with plans that maximize density as much as possible in order to absorb as much of the inherent market demand at this station area as possible.

Brentwood Station - Developable Lands Analysis

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	5.7	248,292
Less: Roads and Configuration at 20%	1.14	49,658
Less: Open Space and Drainage at 20%	1.14	49,658
Less: Surface Parking		0
Net Developable Area		148,975
Potential Developable SF at 0.25 FAR		37,244
Potential Developable SF at 0.5 FAR		74,488
Potential Developable SF at 1.0 FAR		148,975
Projected Commercial Market Demand		204,451
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		201,000
Potential Real Estate Market Demand (2010 - 2040)		405,451

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that the City of Brentwood work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of a TOD Zoning Classification for the Station Area: Much of the existing station area is covered by either the City of Brentwood’s Planned Development District (PD) or the City of Richmond Height’s Planned Mixed-Use District (PDM). Both zoning districts allow a mix of uses, including retail, offices, services, and residential units. Some areas in existing residential neighborhoods will not support infill TOD, however. The two cities would benefit from establishing a specific zoning classification geared to TOD that would emphasize the need to promote higher levels of density at this station and provide clearer guidance to potential new developers considering projects in this station area.

Establishment of Form Based Codes for the Station Area: The City of Brentwood and the City of Richmond Heights should consider adopting a joint Form Based Code (FBC) for the station area in order to articulate the design of streets and building frontages within the station area district. FBC can help retrofit the existing sprawling retail centers in order to create a more pedestrian friendly and authentic environment conducive to TOD.

Establishment of Parking Maximums (as opposed to parking minimums): The City of Brentwood and the City of Richmond Heights should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties. Current minimum parking requirements in the station area are high, requiring two parking spaces per dwelling unit, one space for every 200 square feet of general retail use, and one space for every 250-300 square feet of office use.

Action Items

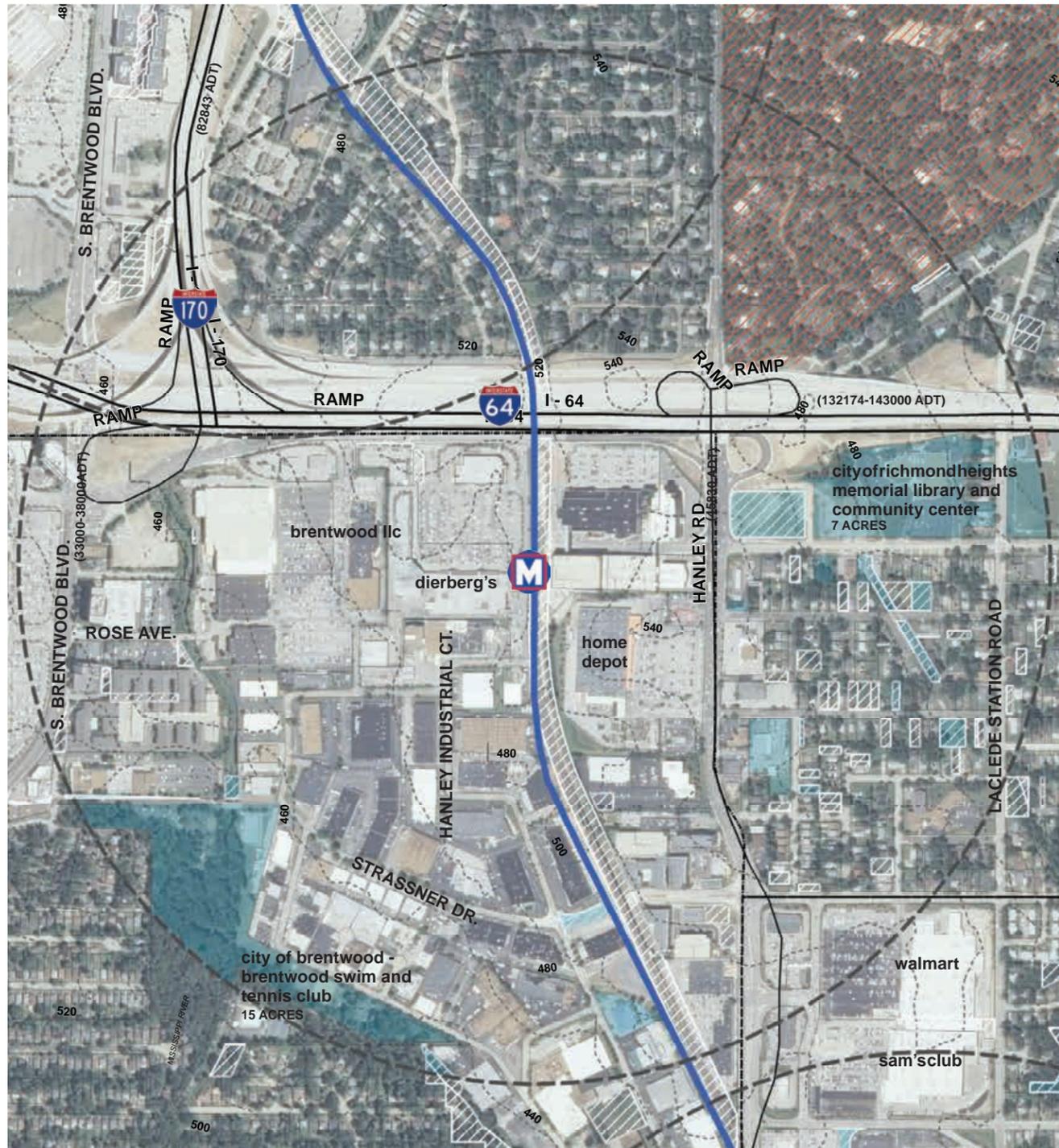
The following represent a series of action items that the cities of Brentwood and Richmond Heights, Metro, and other partners should complete in order to move the creation of TOD at the Brentwood/I-64 station area forward over the next few years.

City of Brentwood and City of Richmond Heights

- The cities should formally identify, acquire, and begin to develop greenways and open space components of the district. There is no pedestrian connectivity surrounding this existing station area. Much of the existing environment can be improved with the introduction of park and open space land. In addition, purchasing ground at this time would likely require less investment on a per acre basis compared to later stages in the station area's revitalization, when property values would naturally increase.
- The cities should similarly identify a prioritization of public improvements (such as streetscapes, open space amenities, and various infrastructure items) and create a capital improvements plan specifically tailored to the station area. The cities in particular should focus on providing for improved bike and pedestrian facilities and connections along the routes leading to the Brentwood station area, given the current lack of bike and pedestrian service in the station area.

Metro

- Metro should outline potential station platform improvements that may be necessary (in terms of ramps and other infrastructure) to better connect the station platform to the parcels to the west. While funding for these improvements may not be available in the near term, identifying and specifying potential improvements will help the cities in guiding future land owners in providing for improved bike and pedestrian access in the station area going forward.
- Metro should work with MoDOT, and East-West Gateway, to plan for how any future BRT lines along I-64 would tie into the Brentwood station area for MetroLink, in order to maximize the potential benefits from future transit improvements.
- Metro should work to ensure that senior bus or parabus connections are sufficient to serve local communities and provide connectivity from nearby communities to this MetroLink station.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

STATION | BRENTWOOD/I-64 [CITY OF BRENTWOOD]

BRENTWOOD/I-64 [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station is sited at the intersection of two major highways, I-64 and I-170, and serves the communities of Brentwood and Richmond Heights. The station is surrounded by regional shopping including retail strip centers and big box stores with large surface parking areas. The Meridian at Brentwood development is also adjacent to the station and includes an eight-story office tower for BJC and a nine-story parking garage.

Average Monthly Boardings | 24,300 (MetroLink Station Average = 36,500)

Station Configuration | Metro operates part of the adjacent Meridian parking garage which contains 914 parking spaces.

Physical Barriers to Development | Access to the station is impeded by the presence of I-64 to the north. Current conditions create problems for pedestrians due to the lack of direct routes and walkways and elevated rail structures.

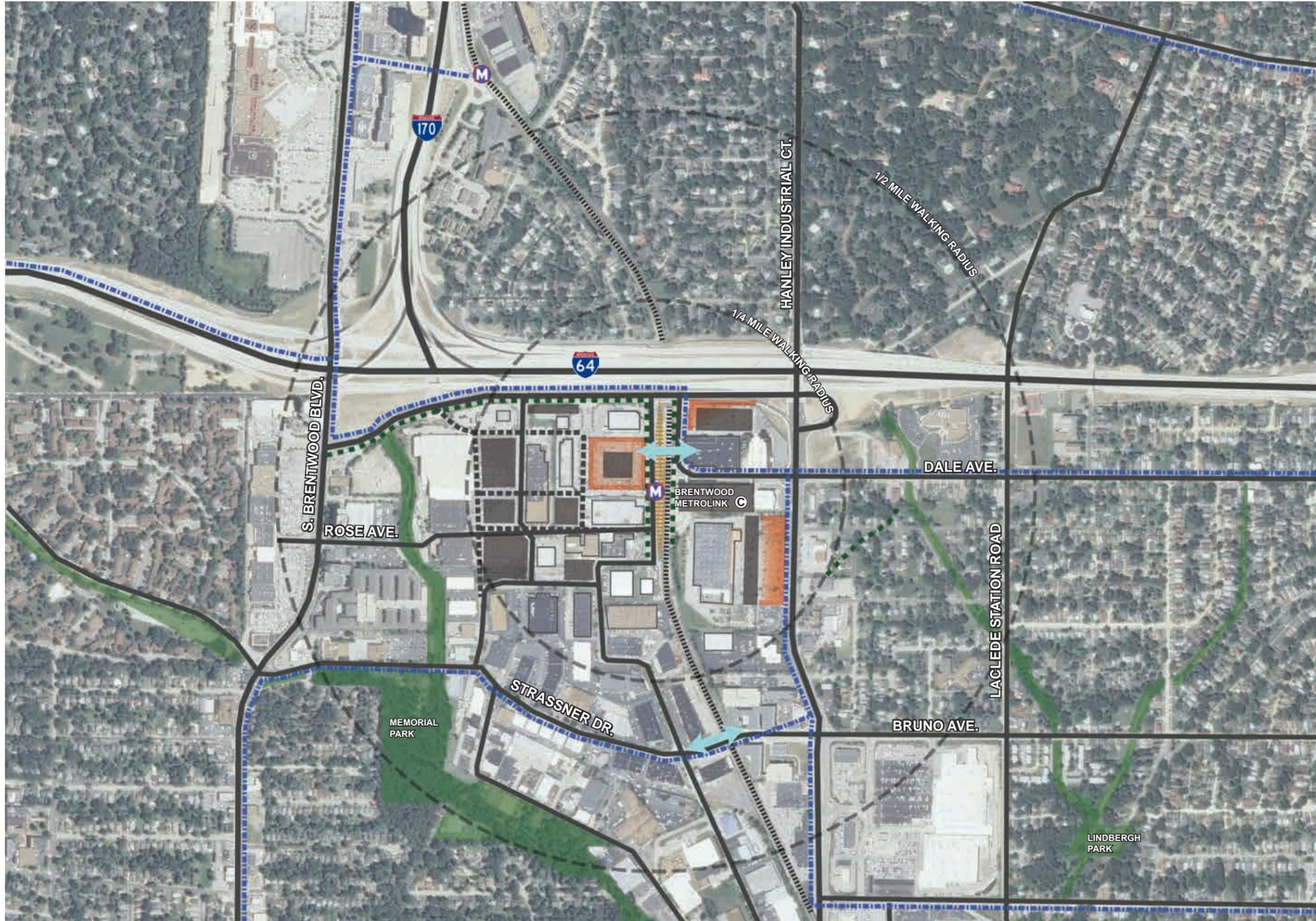
Regulatory Barriers to Development | Zoning around the station site is split between the City of Brentwood and the City of Richmond Heights. Zoning immediately adjacent to the station allows for medium-density housing and mixed-use developments and buildings up to six stories. Within the Light Industrial District, however, residential and mixed-uses are not allowed. TOD would require a rezoning.

Development Opportunity

Pros	Cons
<ul style="list-style-type: none"> • Many surface parking lots and industrial areas could be developed • Very good access to two major freeways and several arterial streets (Brentwood and Hanley) that would help support development • Proximity to some of the most affluent communities in St. Louis County, which enhances market viability 	<ul style="list-style-type: none"> • Existing development patterns and physical barriers, including high value retail adjacent to the station impact TOD potential • Burdensome parking requirements • Limited pedestrian east-west connectivity at the station area



DESIGNWORKSHOP



ROAD NETWORK
 REGIONAL (50,000+ ADT)
 ARTERIAL (30,000-49,999 ADT)
 COLLECTOR (10,000-29,999 ADT)
 LOCAL (<10,000 ADT)

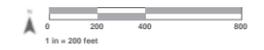
POTENTIAL ROAD ALIGNMENT
 RAIL ROAD LINE
 BUS LINE
 SECURITY GATE

PARKING LOT
 TENANT PARKING
 COMMUTER PARKING
 METRO OWNED PARCEL

EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS
 EXISTING TRAIL CONNECTION
 PROPOSED TRAIL CONNECTION
 PEDESTRIAN CONNECTION

GRADE CHANGE
 BUILDING FRONTAGE - SHORT-TERM
 BUILDING FRONTAGE - LONG-TERM
 HISTORIC DISTRICT

RESIDENTIAL
 CORRIDOR REVITALIZATION
 CIVIC USE
 CURRENT/PLANNED AREAS OF DEVELOPMENT



STATION | BRENTWOOD [CITY OF BRENTWOOD]

DESIGNWORKSHOP

Richmond Heights Station



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the Richmond Heights MetroLink station in the future.

Jurisdictions

- City of Clayton
- City of Richmond Heights

Station Overview and Context

The Richmond Heights station is located near the junction of several local and regional transportation facilities, including Interstate 170, Interstate 64, Clayton Road, and South Brentwood Boulevard. The station area provides relatively close connections to the St. Louis Galleria, the Boulevard mixed-use development, several large office towers along Brentwood Boulevard, and smaller commercial properties along the Clayton Road and Brentwood Boulevard corridors. The elevated I-170 freeway passes overhead just to the west of the station area. While a local street passes under I-170 and connects the station area to Brentwood Boulevard, the interstate effectively splits the station area into two distinct segments (east, and west).

Site Analysis

Topography: Interstate 170 passes through the station area above grade (on an overpass) compared to the surrounding streets and land parcels in the station area. Therefore, the interstate creates a visible barrier between the east and west sides of the station area, and the station area platform operates in the shadow of the I-170 overpass. While the land parcels in the surrounding area are generally flat and do not pose any issues with regard to development feasibility, the above grade crossing of Interstate 170 does limit some degree of development potential in the general area.

Stream and Floodplain Issues: Floodplain zones do not exist in the vicinity of the Richmond Heights station.

Transportation Network: Interstate 170 provides connectivity from the Brentwood and Richmond Heights area to Lambert Airport, Interstate 70, and various suburbs in North St. Louis County. Interstate 64 / Highway 40, to the south, connects Downtown St. Louis with the western suburbs in St. Louis and St. Charles counties. Clayton Road connects Ladue and Richmond Heights with Interstate 64, Big Bend Boulevard, and Skinker Boulevard to the east. Brentwood Boulevard connects Downtown Clayton with the I-64 corridor and communities to the south, including Maplewood and Brentwood. While local streets connect the station area with Brentwood Boulevard, the station area lacks street connectivity from the east to west sides of the station area. Local streets in the neighborhood to the south and east provide limited connectivity to surrounding communities.

Interstate 170 carries in excess of 115,000 vehicles per day and Interstate 64 carries over 130,000 vehicles per day in the general vicinity of the Richmond Heights station. Brentwood Boulevard carries around 45,000 vehicles per day in the vicinity of the St. Louis Galleria and over 20,000 vehicles per day to the north of Clayton Road. The Clayton Road corridor carries just over 20,000 vehicles per day to the east of Brentwood Boulevard. In general, the traffic volumes present on the surrounding streets in the station area are high enough to support a sizeable program of retail in the general vicinity.

From the Richmond Heights MetroLink station area, only one MetroBus line provides connectivity to surrounding neighborhoods and districts in this part of the St. Louis region.

#02 Red Line MetroBus connects to:

- Delmar Loop
- St. Mary's Hospital
- Webster University
- Washington University

Existing Transit Orientation: The station area within one fourth mile of the Richmond Heights station platform currently includes residential densities of 2.41 units per acre, on average, and employee densities of 2.21 employees per acre, on average. Given that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the Richmond Heights station area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development.

Bike and Pedestrian Environment: The area around the station currently registers a Walk Score of 74 (or, “very walkable” as defined by Walk Score methodology).¹

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

In general, existing zoning classifications in the vicinity of the Richmond Heights station do not allow for well-planned TOD. Only one zoning classification in the station area, the PDMX zone located in and around the Boulevard mixed-use development, allows for a mixing of land uses. Outside of the PDMX zone, other zoning areas do not allow for multi-family apartments. Throughout the station area, residential uses are limited to heights of two to three stories, and commercial uses to three stories. In both Richmond Heights and in Clayton, minimum residential lot sizes range from 5,000 SF to 15,000 SF, depending on use. Commercial uses in Richmond Heights require a minimum lot size of 10,000 SF and a minimum lot width of 100 feet. Residential front yards in both cities range from 30 feet to 40 feet.

Both cities require two parking spaces per dwelling unit. General retail uses require one parking space for every 200 SF of floor area, and offices require one space for every 250 SF. These requirements resemble parking ratios more typical of lower density suburbs as opposed to a district that surrounds a major light rail line.

Analysis of Current Development Patterns

While several very strong retail and office centers, and two freeways, surround the Richmond Heights station, the areas directly adjacent to the station area feature underperforming real estate uses in need of revitalization. The St. Louis Galleria and the Boulevard mixed-use development draw a significant pool of economic power to the area just to the west of the station. The Clayton Road corridor features a range of fairly strong local retail tenants. The CH2M Hill tower and several other office buildings along and near Brentwood Boulevard create significant employment centers in the general vicinity.

Despite this strength, the parcels adjoining the MetroLink station exhibit relative economic weakness. The Tropicana bowling alley, located just to the east of the MetroLink platform, appears to suffer from economic decline, and the adjoining surface parking lots appear to be in some degree of disrepair and decay. The office uses to the north and east of the Tropicana are suffering from some degree of vacancy, as are the office towers to the west of I-170. Strip retail businesses along Brentwood Boulevard appear to not perform as well as hoped. In general, while the various land uses near the Richmond Heights station appear to perform fairly well in the local market, a number of pockets of weakness, particularly to the east of the station area, do exist and may require intervention.

Current Ridership

As illustrated in the table below, despite the adjacency of the station to a number of employment centers along Brentwood Boulevard and Clayton Road, the Richmond Heights station reports low ridership compared to other nearby stations. The lack of local bus connections to the Richmond Heights station may contribute to this lower than average ridership rate.

¹ Walk Score. www.walkscore.com, 2013.

Average MetroLink Boarding Estimates - Richmond Heights

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Missouri Station Average	42,000	1,560	960
Richmond Heights MetroLink Station	19,800	660	620

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The Richmond Heights station represents a good example of the neighborhood typology. While several larger retail and employment centers operate in the vicinity of the station area, the overall focus of the land uses in direct proximity of the station platform serve local market areas and therefore create a neighborhood setting.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the Richmond Heights station is likely to experience demand for an additional 402 residential units and an additional 102,000 square feet of commercial uses. Given the local economic conditions and the context of the local area, the additional residential development would likely include apartment units (likely organized in a multi-story fashion) as well as an arrangement of condominiums or townhouses. Additional commercial space would include a mixture of office suites as well as additional retail uses, particularly along the Brentwood Boulevard and Clayton Road corridors within the station area.

Overall Development Strategy

The development strategy for the Richmond Heights station area calls for Richmond Heights and Clayton to work with private sector interests to implement more compact, higher density, and mixed-use development in the proximity of the station area. Pursuing this strategy should help to create a more vibrant environment for development around the station areas and hopefully lead to an increase in ridership from the Richmond Heights station. Several key parcels, including the Tropicana bowling alley, surface parking lots between I-170 and Brentwood Boulevard, and a few vacant lots to the south of The Boulevard, represent likely areas for the development of mixed-use projects that would represent a good template for TOD in the Richmond Heights vicinity.

Beyond encouraging mixed-use, compact, and well-connected TOD for the various parcels around the station area, the framework master plan recommends that Richmond Heights work with Metro and other partners to improve the facilities and connectivity for bicyclists and pedestrians accessing the station platform and the adjoining areas. The existing station area does not allow for any connectivity from the east side to the west side. The future design for this station area should allow for all modes of travel to pass from one side of the station to the other, in order to help stimulate increased activity on all four quadrants and a higher level of street activity. Richmond Heights should incorporate improvements for bicyclists and pedestrians in the station area with any efforts to improve the Clayton Road and Brentwood Boulevard corridors as “great streets” or “complete streets”.

The table below compares the potential developable area at the Richmond Heights station with the projected supportable square footage of new development over the next thirty years. As illustrated, even assuming that development proceeds at densities more typical of urban or downtown areas, the station area does not have sufficient developable land area to accommodate the future real estate demand for residential and commercial product over the next few decades.

RICHMOND HEIGHTS STATION - DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	23.99	1,045,004
Less: Roads and Configuration at 20%	4.80	209,001
Less: Open Space and Drainage at 20%	4.80	209,001
Less: Surface Parking	1.00	43,560
Net Developable Area		583,443
Potential Developable SF at 0.25 FAR		145,861
Potential Developable SF at 0.5 FAR		291,721
Potential Developable SF at 1.0 FAR		583,443
Projected Commercial Market Demand		102,225
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		402,000
Potential Real Estate Market Demand (2010 - 2040)		504,225

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that the cities of Richmond Heights and Clayton work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of a TOD Zoning Classification for areas around the station area: The areas around the Richmond Heights station area currently lack zoning specifically organized around TOD. The cities of Richmond Heights and Clayton should develop and implement TOD related zoning for the station area in order to maximize the development potential stemming from the adjacency to the MetroLink platform.

Establishment of Form Based Codes for the Station Area: As a substitute for (or in addition to) the creation of a TOD specific zoning classification, Clayton and Richmond Heights should consider establishing a Form Based Code (FBC) for the station area and the surrounding vicinity in order to articulate the design of streets and building frontages within the station area district.

Establishment of Higher FAR Requirements for the Station Area: Given that projected demand exceeds the anticipated development area around the Richmond Heights station, the City, as part of future planning for the station, should consider implementing regulations

(as part of zoning or FBC) that would increase the minimum FAR expected for new development in the area. These regulations could tie with regulations that set maximum allowable parking ratios or minimum height requirements.

Establishment of Parking Maximums (as opposed to parking minimums): Current zoning requirements in the Richmond Heights station area require two parking spaces for every dwelling unit, one space for every 200 square feet of retail floor area, and one space for every 250 square feet of office floor area. The community should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties.

Action Items

The following represent a series of action items that Richmond Heights, Clayton, Metro and other partners should complete in order to move the creation of TOD at the Richmond Heights station area forward over the next few years.

Cities of Clayton and Richmond Heights

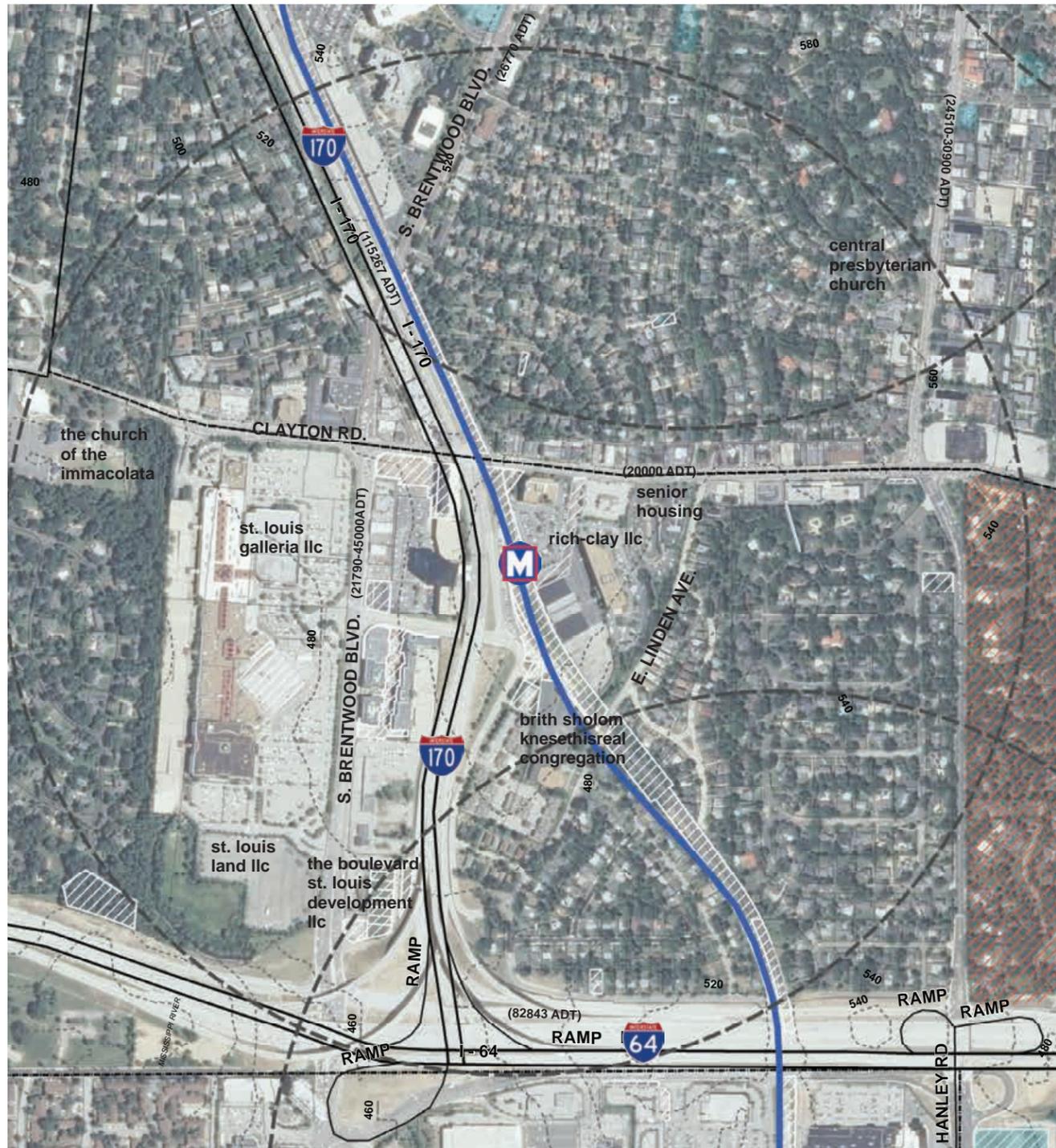
- The City of Clayton should work with stakeholders and Metro to outline new TOD related zoning classifications for the station area in order to promote the creation of well-planned transit oriented development.
- Clayton and Richmond Heights should identify and implement any bike or pedestrian connection improvements along major arterials such as Brentwood Boulevard and Clayton Road that would help to improve the multi-modal level of connectivity in the vicinity of the station area. The addition of bike lanes, improved sidewalks, and related improvements would help to make the station area a better example of urban TOD for the St. Louis area.
- Metro should work with adjoining property owners and the City of Richmond Heights to outline and implement plans to connect the station area, from the west to east sides of the station platform. The lack of connectivity from one side of the station area to another significantly limits the potential of the area to support true transit oriented development. Creating east-west access would increase real estate value, enhance safety and connectivity, and create a greater sense of community in the station area.
- Metro should explore re-routing or introducing additional local bus lines to connect with the Richmond Heights station. Despite the central location of the Richmond Heights station and its adjacency to a number of major employment and shopping areas, only one MetroBus line connects with this light rail station. Adding additional local bus line connections would help to enhance the viability of local businesses and would help to increase ridership rates on MetroLink from the Richmond Heights station.
- Metro should design any bus system upgrades in order to provide for a transit Level of Service of “A” or “B” for the Richmond Heights station area.
- The City of Richmond Heights should identify a prioritization of public improvements (such as streetscapes, open space amenities, and various infrastructure items) and create a capital improvements plan specifically tailored to the station area. This plan would provide a roadmap for how to proceed with investments over several years and help guide city leaders as administrations and political climates change over time.
- The cities of Clayton and Richmond Heights should explore the use of traffic calming, the installation of ADA ramps, the upgrading of sidewalks, the installation of sidewalks where missing, and the narrowing or “road dieting” of streets in the area as necessary

in order to achieve an overall Pedestrian Level of Service of “A” or “B” for the MetroLink station area.

- The cities of Clayton and Richmond Heights should consider implementing Neighborhood Improvement Districts (NIDs), Community Improvement Projects (CIPs) or Transportation Development Districts (TDDs) for the station areas in order to encourage ongoing investment in TOD at the Rock Road station. NIDs, CIPs, and TDDs provide for the generation of extra taxes to pay for project or improvement costs for new or redevelopment projects.
- The Cities should consider implementing a Sales Tax Reimbursement Agreement for a defined geography around the station area. These agreements represent a funding mechanism allowed by Missouri law that may be used to achieve public benefit through funding for infrastructure projects. Under these agreements, municipalities have the ability to annually appropriate the increase in sales taxes created by new private capital investment to offset a portion of their project investment costs. The sales tax increments must be used for public purposes, primarily through the funding of infrastructure improvements.
- The cities may also explore the use of the Enhanced Enterprise Zone program (EEZ) under Missouri law and target this tool to the station area through the establishment of an EEZ zone. Companies in the TOD area that expand operations would receive income tax refunds and property tax abatements.

St. Louis County

- The County should work to tie approvals for TIF or related county incentive packages for development at the Richmond Heights station to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 DU per acre and employment uses providing for at least 25 employees per acre). The County should use the approval of TIF or related incentives as “carrots” to promote developments that are more conducive to transit oriented development.
- The County should explore establishing a Chapter 353 redevelopment corporation specifically targeted for the station area. These entities assist companies by providing tax abatements for redevelopment projects.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

RICHMOND HEIGHTS [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station serves a regional commercial core with automobile access provided by I-64, I-170, South Brentwood Boulevard, and Clayton Road. It is also surrounded by a substantial neighborhood of single- and two-family residential.

Average Monthly Boardings | 19,800 (MetroLink Station Average = 36,500)

Station Configuration | The station is a Metro Park-Ride lot containing 57 commuter spaces.

Physical Barriers to Development | Pedestrian access to the station is limited.

Regulatory Barriers to Development | Zoning around the station allows for residential development in the Planned Mixed-Use District and existing residential neighborhoods only.

Development Opportunity

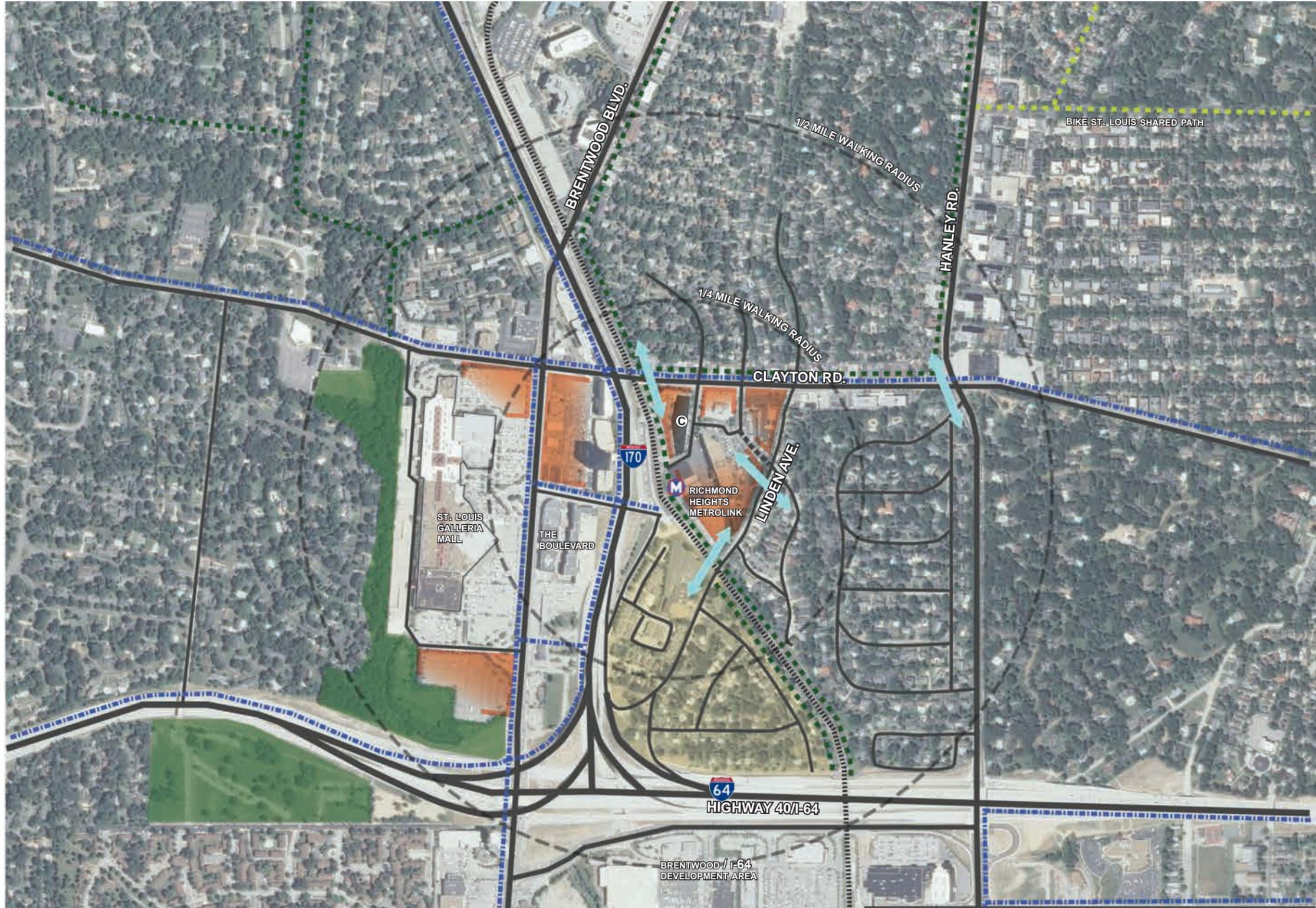
Pros	Cons
<ul style="list-style-type: none"> • Surface parking lots that could be adapted for future development • High value retail exists across I-170 	<ul style="list-style-type: none"> • The location of the station, limited land, and problematic pedestrian access limit TOD potential

- 1/2 MILE RADIUS STUDY AREA
- CULTURAL PLACE OF INTEREST
- METROLINK BLUE LINE
- ▭ VACANT PARCELS OVER 10 ACRES (0 TOTAL)
- ▭ METRO OWNED PARCEL (0 ACRES)
- ▭ PUBLIC OWNED PARCEL (.08 ACRES)
- ▭ VACANT PARCEL (22.7 ACRES)
- ▭ HISTORIC DISTRICT
- ADT AVERAGE DAILY TRAFFIC



STATION | RICHMOND HEIGHTS [CITY OF RICHMOND HEIGHTS/CLAYTON]

DESIGNWORKSHOP



- | | | |
|-------------------------------|---------------------------------|--------------------|
| ROAD NETWORK | POTENTIAL ROAD ALIGNMENT | PARKING LOT |
| REGIONAL (50,000+ ADT) | RAIL ROAD LINE | TENANT PARKING |
| ARTERIAL (30,000-49,999 ADT) | BUS LINE | COMMUTER PARKING |
| COLLECTOR (10,000-29,999 ADT) | SECURITY GATE | METRO OWNED PARCEL |
| LOCAL (>10,000 ADT) | | |

- | |
|---|
| EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS |
| EXISTING TRAIL CONNECTION |
| PROPOSED TRAIL CONNECTION |
| PEDESTRIAN CONNECTION |

- | |
|--------------------------------|
| GRADE CHANGE |
| BUILDING FRONTAGE - SHORT-TERM |
| BUILDING FRONTAGE -LONG-TERM |
| HISTORIC DISTRICT |

- | |
|--------------------------------------|
| RESIDENTIAL |
| CORRIDOR REVITALIZATION |
| CIVIC USE |
| CURRENT/PLANNED AREAS OF DEVELOPMENT |



STATION | RICHMOND HEIGHTS [CITY OF RICHMOND HEIGHTS/CLAYTON]

DESIGNWORKSHOP

Clayton Station



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the Clayton MetroLink station in the future.

Jurisdictions

- City of Clayton

Station Overview and Context

The Clayton station is located at the southern edge of the downtown business district, near the junction of Meramec Avenue and Forest Park Parkway. The station serves as the main transit facility serving Downtown Clayton, which houses the operations of the county government and represents one of the main employment centers in the metropolitan area. The Clayton station also enjoys good connectivity to a number of MetroBus routes. The downtown area, with an existing grid of streets and plaza areas, has limited potential for new TOD, unless property owners reposition or replace existing buildings or parking facilities. Despite all the factors favoring the Clayton station, the ridership numbers for the station trail those of the overall MetroLink system and the averages for the Missouri side of the metro area. A key question concerning future station planning is how to encourage and produce higher ridership numbers at this station along the blue line.

Site Analysis

Topography: Forest Park Parkway passes through the station area above grade (on an overpass) compared to the surrounding streets and land parcels in the downtown area. Therefore, Forest Park Parkway creates a visible barrier between the north and south sides of the station area, and the station area platform operates in the shadow of the Forest Park Parkway overpass. The sound walls of the Parkway create an impassable barrier to existing residential neighborhoods south of the station. While the land parcels in the surrounding area are generally flat and do not pose any issues with regard to development feasibility, the above grade crossing of Forest Park Parkway does limit some degree of development in the general area.

Stream and Floodplain Issues: Floodplain zones do not exist in the vicinity of the Clayton station.

Transportation Network: Forest Park Parkway connects Clayton with the heart of St. Louis City and passes above-grade through the middle of the station area. Hanley Road provides the main north-south connection through the middle of Downtown Clayton. Brentwood Boulevard passes a few blocks to the west of the station platform and connects the Downtown area with the Galleria area and a number of major employment centers between Clayton and I-64. The downtown area already has a grid of streets that are conducive to transit oriented development, and the surrounding street network provides good connectivity from the station area to surrounding communities. However, existing highway infrastructure creates barriers to pedestrian movement in this area, particularly to the residential neighborhoods located to the south of the station.

Forest Park Parkway carries around 20,000 vehicles per day in the vicinity of the Clayton station. Hanley Road carries around 20,000 vehicles per day to the north of the station area and between 25,000 and 30,000 vehicles per day to the south of Forest Park Parkway. Brentwood Boulevard carries around 20,000 vehicles per day to the north of Forest Park Parkway and between 25,000 and 30,000 vehicles per day to the south of Forest Park Parkway. Maryland Avenue, which runs east-west across the north end of Downtown Clayton, carries around 16,000 vehicles daily. Other streets within the downtown grid carry from 5,000 to 10,000 vehicles per day.

From the Clayton MetroLink station area, seven MetroBus lines provide connectivity to surrounding neighborhoods and districts in this part of the St. Louis region.

#01 Gold MetroBus connects to:

- Washington University's Danforth Campus
- Mallinckrodt Center Loop
- Forest Park Parkway and Skinker MetroLink stations

#47 North Hanley MetroBus connects to:

- Jamestown Mall
- Highway 67 to Flower Valley Shopping Center
- Vatterott College
- North Hanley MetroLink station

- Hanley Road south to University City

#58 Clayton-Ballas MetroBus connects to:

- Clayton Road, west to Ballas MetroBus center
- Valley Industries
- Lambert International Airport
- Lambert Busport
- Woodson Road
- Overland Plaza
- University City

#97 Delmar MetroBus connects to:

- University City
- Delmar MetroLink station
- Civic Center MetroBus Center and MetroLink station

#158 Ballas-West County MetroBus connects to:

- Brentwood MetroLink station
- Ballas MetroBus Center
- St. John's and St. Luke's Hospitals
- Creve Coeur
- Delmar Gardens Chesterfield

#258 Clayton-Chesterfield MetroBus connects to:

- Interstate 64, to Ballas MetroBus Center
- Delmar Gardens Chesterfield
- Chesterfield Mall
- Chesterfield Commons
- Spirit of St. Louis Airport

Existing Transit Orientation: The station area within one fourth mile of the Clayton station area platform currently includes residential densities of 4.45 units per acre, on average, and employee densities of 3.16 employees per acre, on average. Given that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the Clayton station

area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development.

Bike and Pedestrian Environment: The area around the station currently registers a Walk Score of 85 (or, “very walkable” as defined by Walk Score methodology).¹ The grid network of streets in the local station area, coupled with the relative proximity of the station area to nearby retail, residential, office and civic uses, enhances the overall Walk Score for the Clayton station area.

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

The existing zoning to the north of Forest Park Parkway, within the core of the downtown area, already supports the creation of good TOD. The City of Clayton has established a TOD Overlay district for the area from Bonhomme Avenue to Forest Park Parkway and from Brentwood east to Hanley, next to the MetroLink station area. This overlay district specifically seeks to encourage new TOD by allowing a wide range of uses, removing height restrictions, and connecting parking requirements to the completion of a market study. The City’s Planned Unit Development Districts (PUDs) and Special Development Districts (SSDs) may be used to allow residential and mixed-use development within the core of the downtown area.

The zoning classifications to the south of Forest Park Parkway do not support TOD to the same extent. Single family-oriented R-2, R-4, and R-5 zones primarily allow for strictly residential land uses. The zoning districts generally do not allow higher density residential developments and only allow mixed-uses by special permit. These regulations for areas to the south of Forest Park Parkway, in general, limit the potential to create transit-supportive densities and a compact, walkable form of TOD. While the existing single family residential neighborhoods to the south of Forest Park Parkway will likely remain in their current form for the foreseeable future, the City of Clayton’s zoning along South Brentwood Boulevard does not promote the creation of mixed-use, compact TOD.

Analysis of Current Development Patterns

The Clayton station serves the central business district of Downtown Clayton, which serves as the seat of county government and one of the main employment centers in the metropolitan area. The CBD contains a mix of four to six-story mid-rise office buildings, ten to fifteen story high-rise office buildings, the St. Louis County Government Center, and smaller mixed-use buildings with ground-floor retail. The Brentwood Boulevard corridor features several high-rise apartment towers and various strip retail commercial centers to the south, toward Clayton Road. The area to the south of the station area, to the south of Forest Park Parkway, includes fairly affluent and well-established single family residential neighborhoods that should remain in their existing orientation for many years.

1 Walk Score. www.walkscore.com, 2013.

Current Ridership

As illustrated in the table below, despite the adjacency of the station to Downtown Clayton, the Clayton station reports very low ridership compared to other nearby stations.

Average MetroLink Boarding Estimates - Clayton

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Missouri Station Average	42,000	1,560	960
Clayton MetroLink Station	22,200	880	380

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The Clayton station represents a Major Urban Center typology. The station area serves as one of the key employment centers in the metro area and is the location for the seat of government for St. Louis County. The Clayton area is served by a rich mix of transit modes including the MetroLink line as well as numerous MetroBus connections. The station area also includes a variety of restaurant and retail offerings, particularly in the northern portion of the district.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the Clayton station is likely to experience demand for an additional 402 residential units and an additional 307,000 square feet of commercial uses. Given the local economic conditions and the context of the local area, the additional residential development would likely include primarily multi-story apartment or condominium units in the Downtown area. Additional commercial space would likely primarily include office space serving the local business market, given Clayton's status as one of the key employment centers in the region.

Overall Development Strategy

The development strategy for the Clayton station calls for the City of Clayton and Metro to work proactively with owners of any parcels that could potentially redevelop in the downtown area over the next few decades, to ensure that potential site plans for new development align with goals of the city and Metro for well-planned transit oriented development. Potential development in the vicinity of the station area, in Downtown Clayton, is likely to include a mixture of multi-family residential, office development, and local serving retail uses. While the existing Downtown area features a variety of office, retail, and entertainment uses, the district does not feature a wider variety of residential uses, such as apartments or condominiums. The city should pursue strategies to add to the base of residential housing in the Downtown area in order to drive increased demand for retail uses and encourage greater ridership of MetroLink from the Clayton area.

To the south of Downtown Clayton, along the South Brentwood Boulevard corridor, the City should work with property owners to introduce TOD zoning and incentives that would encourage the creation of development forms in keeping with good TOD. The City should also work with stakeholders to create plans and policies for Brentwood Boulevard that

would maximize this route’s potential as a “great street” or “complete street” connecting the downtown area with Galleria and other areas to the south.

Throughout the study area, Metro should work with the City to introduce bike and pedestrian connectivity strategies that would enhance the multi-modal aspects of TOD in the area. The City should work to ensure that the downtown area and the Brentwood corridor include amenities designed for bicyclists and pedestrians, such as bike storage or bike sharing facilities or programs, safe crosswalk zones, and sidewalk connectivity from the downtown area to the south along Brentwood Boulevard. These strategies in particular should focus on how to improve connectivity and safety for bicyclists and pedestrians crossing from the downtown area to residential neighborhoods and other districts to the south.

The table below compares the potential developable area at the Clayton station with the projected supportable square footage of new development over the next thirty years. As illustrated, assuming existing buildings continue operations, the station area lacks any material areas for new development. Further development to meet real estate demand in the downtown area would involve conversion or redevelopment of existing buildings or conversion of parking areas to mixed-use developments incorporating increased building footprints.

CLAYTON STATION - DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	0	0
Less: Roads and Configuration at 20%	0	0
Less: Open Space and Drainage at 20%	0	0
Less: Surface Parking		0
Net Developable Area		0
Potential Developable SF at 0.25 FAR		0
Potential Developable SF at 0.5 FAR		0
Potential Developable SF at 1.0 FAR		0
Projected Commercial Market Demand		306,676
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		402,000
Potential Real Estate Market Demand (2010 - 2040)		708,676

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that the City of Clayton work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of a TOD Zoning Classification for areas to the south of the station area: While Clayton has established zoning and overlay districts tailored to the creation of

TOD in the heart of the downtown area, the area to the south of Forest Park Parkway currently lacks zoning specifically organized around TOD. The City should develop and implement TOD related zoning for the portion of the station area in order to maximize the development potential stemming from the adjacency to the MetroLink platform.

Establishment of Form Based Codes for the Station Area: As a substitute for (or in addition to) the creation of a TOD specific zoning classification, Clayton should consider establishing a Form Based Code (FBC) for the station area and the surrounding vicinity in order to articulate the design of streets and building frontages within the station area district.

Establishment of Parking Maximums (as opposed to parking minimums): Current zoning requirements in the Clayton station area require two parking spaces for every dwelling unit and one space for every 300 square feet of commercial floor area in the C-1 Zoning District. The community should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties.

Action Items

The following represent a series of action items that Clayton, Metro and other partners should complete in order to move the creation of TOD at the Clayton station area forward over the next few years.

City of Clayton

- The City of Clayton and Metro should meet proactively with owners of key properties in the downtown area that may convert to other uses over the next few decades, in order to outline design for future mixed-use buildings on these key parcels. The city should engage a professional designer to help tailor recommendations for urban design and streetscape in this portion of the downtown area, near the MetroLink station. Laying the groundwork for the future development of these parcels as good examples of TOD will help to expedite the development process once the market returns and help to outline the TOD planning and design principles agreed to by the City and by private sector land owners.
- The City of Clayton should work with stakeholders and Metro to outline new TOD related zoning classifications for potential development areas along and near South Brentwood Boulevard in the station area, to the south of downtown.
- Clayton should identify and implement any bike or pedestrian connection improvements along major arterials such as Forest Park Parkway and Brentwood Boulevard that would help to improve the multi-modal level of connectivity in the vicinity of the station area. The addition of bike lanes, improved sidewalks, and related improvements would help to make the station area a better example of urban TOD for the St. Louis area.
- The City should work to design potential bike and pedestrian improvements to provide for a Pedestrian Level of Service of “A” or “B” within this station area.
- The City of Clayton should strongly consider lowering Forest Park Parkway to street level (in other words, converting the road from an elevated expressway to an at-grade boulevard). The conversion to a boulevard would help to improve connectivity from the downtown area to neighborhoods to the south and would present opportunities to reposition Forest Park Parkway as a more pedestrian and bicycle friendly thoroughfare, including the installation of bike lanes, sidewalks, and related improvements. The City should also explore strategies to calm traffic on major arterials in the downtown area,

including Brentwood Boulevard and Maryland Avenue, in order to provide for a more pedestrian and bicycle friendly downtown district.

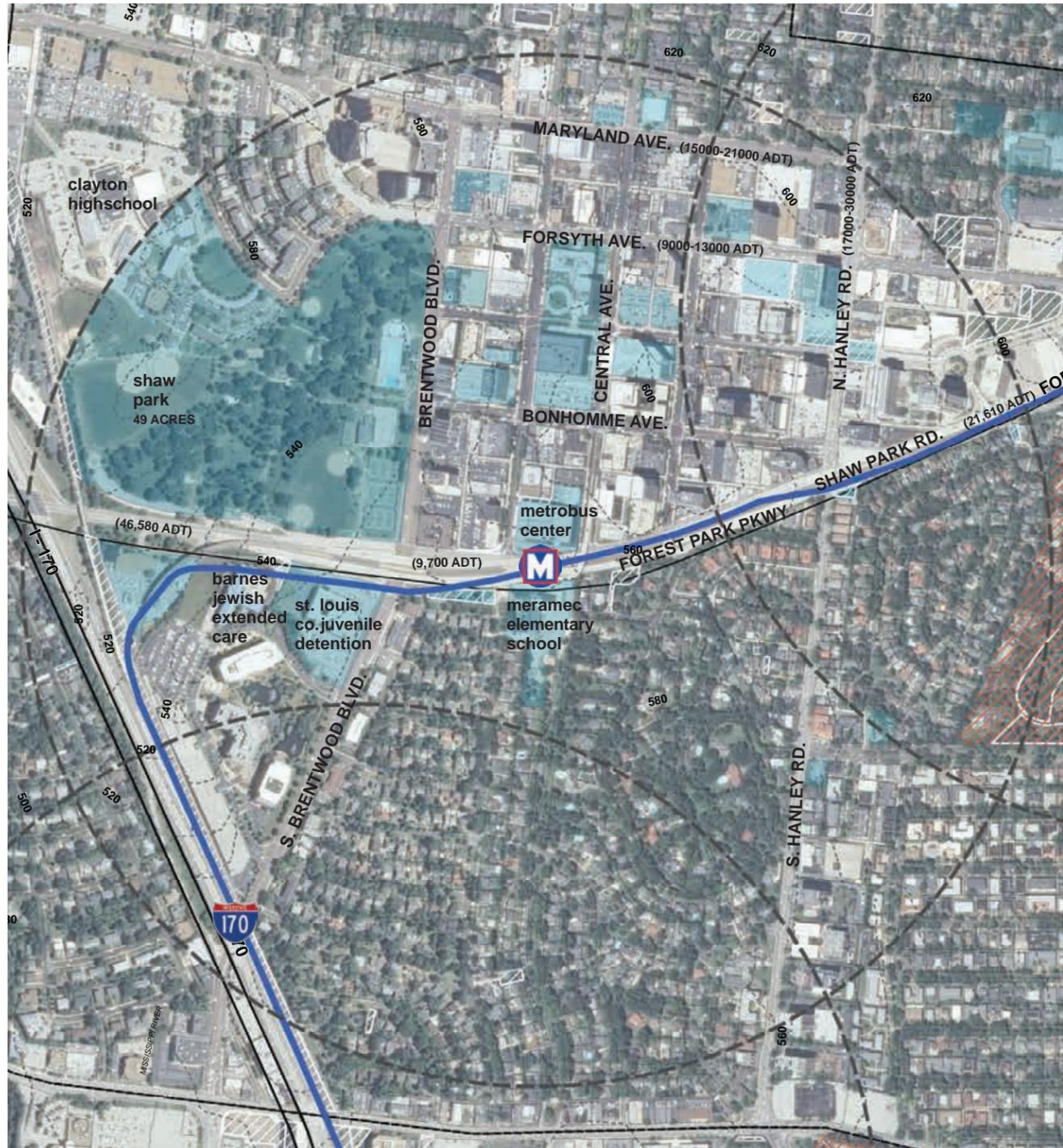
- The cities of Clayton and Richmond Heights should consider implementing Neighborhood Improvement Districts (NIDs), Community Improvement Projects (CIPs) or Transportation Development Districts (TDDs) for the station areas in order to encourage ongoing investment in TOD at the Rock Road station. NIDs, CIPs, and TDDs provide for the generation of extra taxes to pay for project or improvement costs for new or redevelopment projects.
- The Cities should consider implementing Sales Tax Reimbursement Agreement for a defined geography around the station area. These agreements represent a funding mechanism allowed by Missouri law that may be used to achieve public benefit through funding for infrastructure projects. Under these agreements, municipalities have the ability to annually appropriate the increase in sales taxes created by new private capital investment to offset a portion of their project investment costs. The sales tax increments must be used for public purposes, primarily through the funding of infrastructure improvements.
- The cities may also explore the use of the Enhanced Enterprise Zone program (EEZ) under Missouri law and target this tool to the station area through the establishment of a EEZ zone. Companies in the TOD area that expand operations would receive income tax refunds and property tax abatements.

St. Louis County

- The County should work to tie approvals for TIF or related county incentive packages for development at the Richmond Heights station to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 DU per acre and employment uses providing for at least 25 employees per acre). The County should use the approval of TIF or related incentives as “carrots” to promote developments that are more conducive to transit oriented development.
- The County should explore establishing a Chapter 353 redevelopment corporation specifically targeted for the station area. These entities assist companies by providing tax abatements for redevelopment projects.

Metro

- Metro should work over time to enhance or provide sufficient MetroBus service to and from the station area in order to arrive at a Transit Level of Service measure of “A” or “B”.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

CLAYTON [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | The station is located in the central business district amongst a large employment center. The St. Louis County Government Center is situated one to two blocks to the north.

Average Monthly Boardings | 22,200 (MetroLink Station Average = 36,500)

Station Configuration | The station serves MetroBus and MetroLink and is situated on an elevated median between the eastbound and westbound lanes of Forest Park Parkway. A pay Park-Ride is included at this station.

Physical Barriers to Development | Pedestrian access to the station is limited by the a long wall along Forest Park Parkway. A pedestrian overpass exists, but is isolated, distant, and lacks signage.

Regulatory Barriers to Development | Zoning around the station site allows for high density and high-rise residential. A TOD overlay district already exists, and Special Development and Planned Unit Development Districts (SDD and PUD) allow for mixed-use development.

Development Opportunity

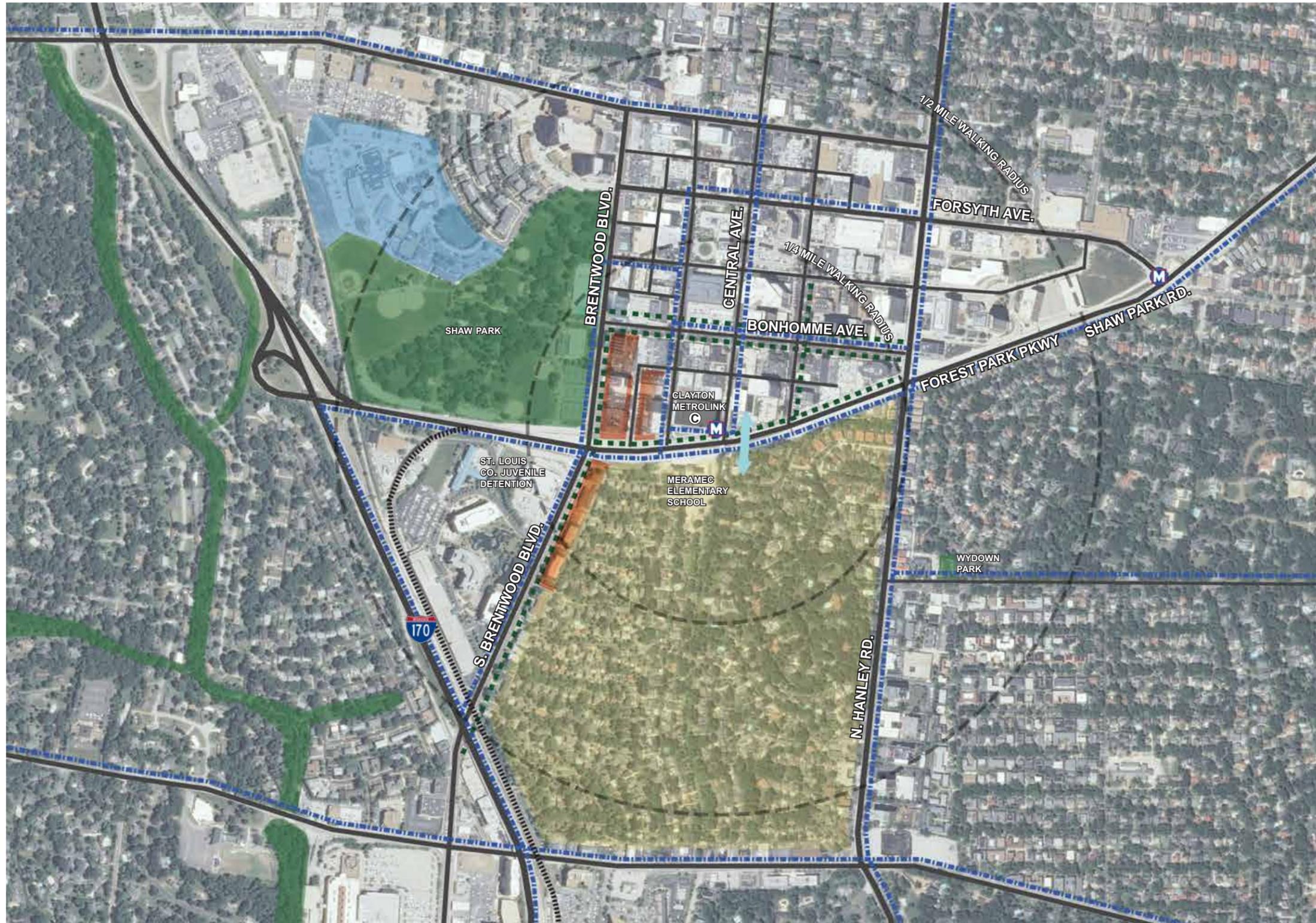
Pros	Cons
<ul style="list-style-type: none"> Part of the central business district Market potential for redevelopment of existing dense development adjacent to station 	<ul style="list-style-type: none"> The area is substantially developed, offering few opportunities for new development. However, there may be opportunities for redevelopment of existing buildings. This station's location is adjacent to high value development and established single-family neighborhoods that tend to preclude new TOD

- 1/2 MILE RADIUS STUDY AREA
 - CULTURAL PLACE OF INTEREST
 - METROLINK BLUE LINE
 - ▭ VACANT PARCELS OVER 10 ACRES (0 TOTAL)
 - ▭ METRO OWNED PARCEL (0 ACRES)
 - ▭ PUBLIC OWNED PARCEL (89 ACRES)
 - ▭ VACANT PARCEL (19.3 ACRES)
 - ▭ HISTORIC DISTRICT
 - ADT AVERAGE DAILY TRAFFIC
- PUBLICLY OWNED LAND IS A COMBINATION OF THE CITY OF CLAYTON, ST. LOUIS COUNTY, AND CLAYTON SCHOOL DISTRICT OWNED LANDS



STATION | CLAYTON [CITY OF CLAYTON]





- ROAD NETWORK**
- REGIONAL (50,000+ ADT)
 - ARTERIAL (30,000-49,999 ADT)
 - COLLECTOR (10,000-29,999 ADT)
 - LOCAL (>10,000 ADT)

- POTENTIAL ROAD ALIGNMENT
- RAIL ROAD LINE
- BUS LINE
- SECURITY GATE

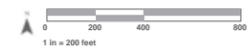
- PARKING LOT
- TENANT PARKING
- COMMUTER PARKING
- METRO OWNED PARCEL

- EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS
- EXISTING TRAIL CONNECTION
- PROPOSED TRAIL CONNECTION
- PEDESTRIAN CONNECTION

- GRADE CHANGE
- BUILDING FRONTAGE - SHORT-TERM
- BUILDING FRONTAGE - LONG-TERM
- HISTORIC DISTRICT

- RESIDENTIAL
- CORRIDOR REVITALIZATION
- CIVIC USE
- CURRENT/PLANNED AREAS OF DEVELOPMENT

STATION | CLAYTON [CITY OF CLAYTON]



DESIGNWORKSHOP

Forsyth Station



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the Forsyth MetroLink station in the future.

Jurisdictions

- City of Clayton
- City of University City

Station Overview and Context

The Forsyth station, located at the junction of Forsyth Boulevard and Forest Park Parkway, serves the eastern end of the central business district of Clayton and adjacent residential neighborhoods in Clayton and University City. Although the station benefits from its general adjacency to Downtown Clayton and these residential neighborhoods, ridership for this Blue Line station continues to trail that of other stations on the line.

Site Analysis

Topography: Forest Park Parkway passes through the station area above grade (on an overpass) compared to Forsyth Boulevard and the surrounding land parcels. Therefore, Forest Park Parkway creates a visible barrier between the north and south sides of the station area, and the station area platform operates in the shadow of the Forest Park Parkway overpass. While the land parcels in the surrounding area are generally flat and do not pose

any issues with regard to development feasibility, the above grade crossing of Forest Park Parkway does limit some degree of development in the general area.

Stream and Floodplain Issues: Floodplain zones do not exist in the vicinity of the Forsyth station.

Transportation Network: Forest Park Parkway connects Clayton with the heart of St. Louis City and passes above-grade through the middle of the station area. Forsyth Boulevard provides east-west access between Downtown Clayton and Big Bend Boulevard to the east. However, while Forest Park Parkway operates as an expressway through this general area and includes on and off-ramps, the expressway does not include any on or off ramps for Forsyth Boulevard. Therefore, the station area does not benefit from the traffic passing along Forest Park Parkway in the area. Although a grid of neighborhood streets exists in the general area, the station area lacks a significant north-south street connection, and Forsyth Boulevard provides the only significant connectivity at the street level from the station area to surrounding areas in Clayton and University City.

Forest Park Parkway carries around 20,000 vehicles per day in the vicinity of the Forsyth station, and Forsyth Boulevard carries around 9,000 vehicles per day to the west of the station area, but only around 5,000 vehicles per day to the east of the station area.

The Metro system does not offer any MetroBus connections from this station area to surrounding neighborhoods and districts. The Blue line of MetroLink provides the only transit connectivity from this station area.

Existing Transit Orientation: The station area within one fourth mile of the Forsyth station currently includes residential densities of 3.77 dwelling units per acre, on average, and employee densities of 4.54 employees per acre, on average. Given that research suggests that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the Forsyth station area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development.

Bike and Pedestrian Environment: The Walk Score around the Forsyth station currently registers as 69, or somewhat walkable according to the Walk Score methodology.¹ While the station is in close proximity to residential, local retail, and campus uses, Forest Park Parkway creates a physical barrier to much of the surrounding neighborhood.

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

Existing zoning within the City of Clayton appears to effectively promote TOD. The City has established a TOD overlay district for the areas to the north of Forest Park Parkway and west of the MetroLink station platform. The City of Clayton's HDC and PUD districts in this area allow mixed-use developments and residential densities of up to 750 SF per dwelling unit. These two districts, as well as the C-2 General Commercial District in the City of Clayton, also allow higher density office and commercial development. The TOD Overlay District has established a minimum FAR of 3.0 for the area south of Forsyth Boulevard and also has removed most building height limits and tied parking requirements to the findings of professional parking studies.

1 Walk Score. www.walkscore.com, 2013.

However, existing zoning in the University City portion of the station area poses barriers to the creation of TOD. The stretch of Forsyth Boulevard to the east of Forest Park Parkway does allow apartment buildings of up to four stories but does not allow commercial uses or mixed-use buildings. The GC (General Commercial) zoning to the south of the station area allows a variety of non-residential uses but does not allow residential or mixed-use buildings. Zoning districts in the remainder of the station area, north of Lindell Boulevard and south of Forsyth Boulevard, allow only single-family homes.

In addition, single family homes in both cities require very substantial lot sizes and residential buildings outside of Clayton's commercial core area are limited to two to four stories in height, in both municipalities. In addition, minimum parking requirements throughout the station area may prove burdensome for transit-supportive developments. The PUD District and TOD Overlay allow parking requirements to match each development's unique needs as determined by a parking study, but the remainder of the station area requires 1.5 to two parking spaces per dwelling unit, and one space for every 200 to 300 SF of commercial and office use.

Analysis of Current Development Patterns

The Forsyth station serves the eastern end of Downtown Clayton as well as adjoining areas of University City. To the west of the station area, the Forsyth corridor includes a mixed-use, multi-story building that contains a satellite campus for Washington University as well as street-level retail and various office uses. Other buildings in the area contain multi-story apartment units, the Plaza in Clayton complex, a 31-story residential tower, an 18-story hotel, and a four story parking garage. The area to the north of the station area includes a fitness center. To the south of Forest Park Parkway, a gas station and a row of single level retail development lines Forsyth Boulevard. A few key vacant parcels include a large vacant parcel on the south side of Forsyth, just west of Forest Park Parkway, and some open lands to the north of Forsyth, just west of the Forsyth station area. Developers had plans for multi-story mixed-use development in the area but these plans faltered with the recent downturn in the economy.

To the east, existing residential neighborhoods in Clayton and University City continue to thrive and are unlikely to change in the foreseeable future.

Current Ridership

As illustrated in the table below, despite the adjacency of the station to Downtown Clayton, the Forsyth station reports very low ridership compared to other nearby stations. The station area lacks any sizeable areas of public parking, and the lack of connectivity with Forest Park Parkway significantly reduces the potential of this station to drive increased ridership. In addition, the non-residential land uses in the area are relatively disjointed and located away from the actual station area. The Forsyth station area (and associated access to MetroLink) feels rather remote compared to surrounding land uses and districts.

Average MetroLink Boarding Estimates - Forsyth

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Missouri Station Average	42,000	1,560	960
Forsyth MetroLink Station	9,800	390	160

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

Because the areas around the Forsyth station include primarily residential land uses and have the potential to support neighborhood-oriented or local serving retail, the station area represents a good example of the Neighborhood typology. Within the Neighborhood typology of stations, transit is less of a focal point compared to downtown or more intensive stations, and the focus is on serving the local needs of residents.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the Forsyth station is likely to experience demand for an additional 201 residential units and an additional 102,000 square feet of commercial uses. Given the local economic conditions and the context of the local area, the additional residential development would likely include a variety of multi-family units, including urban style rowhomes or townhomes as well as apartment units catering to young professionals. Additional commercial space may include office development and retail development anchoring the east end of the downtown district.

Overall Development Strategy

The development strategy for the Forsyth station calls for the City of Clayton and Metro to work proactively with owners of the vacant parcels in the vicinity of the station area to ensure that potential site plans for new development align with goals of the city and Metro for well-planned transit oriented development. As the economy recovers plans for mixed-use in the vicinity of the station area are likely to resurface and the city should actively engage developers at this point. Potential development in the vicinity of the station area is likely to include a mixture of multi-family residential, office development, and local serving retail uses.

Clayton and University City should also work proactively with Metro to enhance the connectivity of this station area and thereby promote increased ridership at the Forsyth station. Metro should explore introducing local serving bus connections at this station in order to encourage higher levels of ridership. Clayton should consider installing trolleys or circulator buses to connect the Forsyth station with the main downtown district in the future. The lack of transit and pedestrian / bike connectivity is one of the main reasons for the relatively low ridership at this station, and the local jurisdictions should work with Metro to formulate and implement solutions in this regard. Clayton and University City should also work to implement bike and pedestrian improvements in order to promote multi-modal transportation in the vicinity of the station area. These improvements may include enhanced sidewalks, bike lanes or sharrows, or the designation of connections to surrounding parks or open spaces in Clayton or University City.

The table below compares the potential developable area at the Forsyth station with the projected supportable square footage of new development over the next thirty years. As illustrated, even at greater levels of density, the potential for new development of residential and commercial uses exceeds the anticipated developable area around the station.

FORSYTH STATION - DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	6.42	279,655
Less: Roads and Configuration at 20%	1.28	55,931
Less: Open Space and Drainage at 20%	1.28	55,931
Less: Surface Parking	0.00	0
Net Developable Area		167,793
Potential Developable SF at 0.25 FAR		41,948
Potential Developable SF at 0.5 FAR		83,897
Potential Developable SF at 1.0 FAR		167,793
Projected Commercial Market Demand		102,225
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		201,000
Potential Real Estate Market Demand (2010 - 2040)		303,225

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that Clayton and University City work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of a TOD Zoning Classification for the University City portion of the station area: While Clayton has established zoning and overlay districts tailored to the creation of TOD, University city currently lacks zoning specifically organized around TOD. University City should develop and implement TOD related zoning for the portion of the Forsyth area within its boundaries in order to maximize the development potential stemming from the adjacency to the MetroLink platform.

Establishment of Form Based Codes for the Station Area: As a substitute for (or in addition to) the creation of a TOD specific zoning classification, University City and Clayton should consider establishing a Form Based Code (FBC) for the station area and the surrounding vicinity in order to articulate the design of streets and building frontages within the station area district.

Establishment of Parking Maximums (as opposed to parking minimums): Current zoning requirements in the Forsyth station allow PUD Districts and TOD Overlay districts to provide parking based on each development’s needs as determined by a parking study. The remainder of the surrounding area, however, requires one-and-a-half to two parking spaces

per dwelling unit, and one space for every 200-300 square feet of commercial and office use. The community should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties.

Action Items

The following represent a series of action items that Clayton, University City, Metro and other partners should complete in order to move the creation of TOD at the Forsyth station area forward over the next few years.

University City

- University City should work with stakeholders and Metro to outline new TOD related zoning classifications for potential development areas along and near Forsyth Boulevard in the station area.

University City and Clayton

- University City and Clayton should work together to identify and implement any bike or pedestrian connection improvements along major arterials such as Forest Park Parkway and Forsyth Boulevard that would help to improve the multi-modal level of connectivity in the vicinity of the station area. The addition of bike lanes, improved sidewalks, and related improvements would help to make the station area a better example of urban TOD for the St. Louis area.
- The two cities should work with Metro to introduce local bus service to access the Forsyth station area. Local bus routes would help to better connect WUSTL and the Downtown Clayton district with this station area. In addition, Clayton should consider installing a trolley or circulator bus system to transport MetroLink riders to and from the downtown district. These moves would help to drive increased ridership and promote development in the area around the Forsyth station.
- The cities should establish transit supportive zoning that would encourage and entice mixed-use, transit oriented development in the vicinity of the station area. Specifically, the prospective TOD zoning in this area should encourage densities of 20 residential units or greater and should encourage creation of employment centers that provide for density of 25 employees per acre, within the station area.
- The cities should work to implement bike routes identified in the regional STL bike plan that service the general station area. In addition, the city may wish to work with nearby neighborhoods to outline more specific bike routes for the communities located close to the Forsyth station area.
- The cities should identify a prioritization of public improvements (such as streetscapes, open space amenities, and various infrastructure items) and create a capital improvements plan specifically tailored to the Forsyth station area. This plan would provide a roadmap for how to proceed with investments over several years and help guide city leaders as administrations and political climates change over time.
- The cities should explore the use of traffic calming, the installation of ADA ramps, the upgrading of sidewalks, the installation of sidewalks where missing, and the narrowing or “road dieting” of streets in the area as necessary in order to achieve an overall Pedestrian Level of Service of “A” or “B” for the Forsyth station area.
- The cities should consider implementing Neighborhood Improvement Districts (NIDs), Community Improvement Projects (CIPs) or Transportation Development Districts (TDDs) for the station areas in order to encourage ongoing investment in TOD at the

Forsyth station. NIDs, CIPs, and TDDs provide for the generation of extra taxes to pay for project or improvement costs for new or redevelopment projects.

- The cities should consider implementing Sales Tax Reimbursement Agreement for a defined geography around the station area. These agreements represent a funding mechanism allowed by Missouri law that may be used to achieve public benefit through funding for infrastructure projects. Under these agreements, municipalities have the ability to annually appropriate the increase in sales taxes created by new private capital investment to offset a portion of their project investment costs. The sales tax increments must be used for public purposes, primarily through the funding of infrastructure improvements.
- The cities may also explore the use of the Enhanced Enterprise Zone program (EEZ) under Missouri law and target this tool to the station area through the establishment of a EEZ zone. Companies in the TOD area that expand operations would receive income tax refunds and property tax abatements.

Clayton and Metro

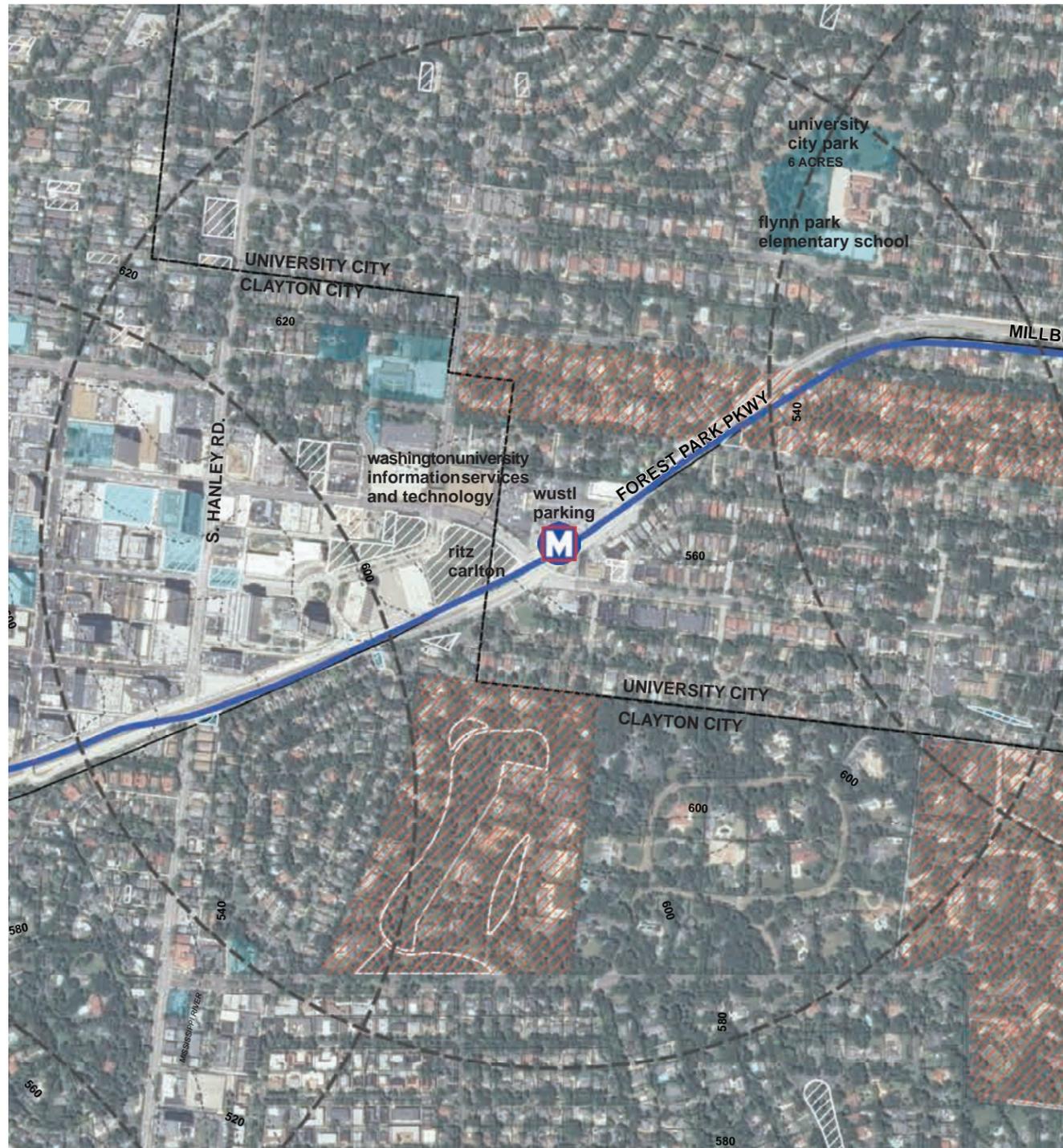
- The City of Clayton and Metro should meet proactively with owners of the vacant properties just to the west of the station area in order to outline design for future mixed-use buildings on these key parcels. The city should engage a professional designer to help tailor recommendations for urban design and streetscape in the vicinity of these parcels. Laying the groundwork for the future development of these parcels as good examples of TOD will help to expedite the development process once the market returns and help to outline the TOD planning and design principles agreed to by the cities and by private sector land owners.

St. Louis County

- The County should work to tie approvals for TIF or related county incentive packages for development at the Forsyth station to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 DU per acre and employment uses providing for at least 25 employees per acre). The County should use the approval of TIF or related incentives as “carrots” to promote developments that are more conducive to transit oriented development.
- The County should explore establishing a Chapter 353 redevelopment corporation specifically targeted for the station area. These entities assist companies by providing tax abatements for redevelopment projects.

Metro

- Metro should work on finalizing a parking replacement strategy for Forsyth (and other stations). Metro should work on a strategy to locate replacement parking if part of the existing parking lot at the station area is repurposed to facilitate TOD. In addition, Metro should work with the County to ensure that local side streets accommodate on-street parking wherever possible. Due to the significant amount of parking present at the station area, this strategy is paramount to supporting TOD while maintaining existing ridership levels.
- Metro should work over time to enhance or provide sufficient MetroBus service to and from the station area in order to arrive at a Transit Level of Service measure of “A” or “B”.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

FORSYTH [SITE ANALYSIS]

MetroLink Station Area Profile*
 Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station serves parts of Downtown Clayton and a portion of University City. Forsyth Boulevard and Forest Park Parkway are the main vehicular corridors serving this station area. Mixed-uses include residential, commercial strips, offices, and a Washington University satellite campus. The Plaza in Clayton includes a 31-story residential tower, 18-story hotel, an eight-story mixed-use building, and a four-story parking garage.

Average Monthly Boardings | 9,800 (MetroLink Station Average = 36,500)

Station Configuration | The station provides direct connections from MetroLink, however, it does not provide direct connections from MetroBus or on-site parking.

Physical Barriers to Development | Forest Parkway crosses the station area via an elevated bridge structure. This expressway limits connections from the north to south (and vice versa).

Regulatory Barriers to Development | Zoning around the station site will allow for mixed-use development and high-density commercial and office development. The station area is within a TOD Overlay District, which encourages new development south of Forsyth at a minimum FAR of 3.0.

Development Opportunity

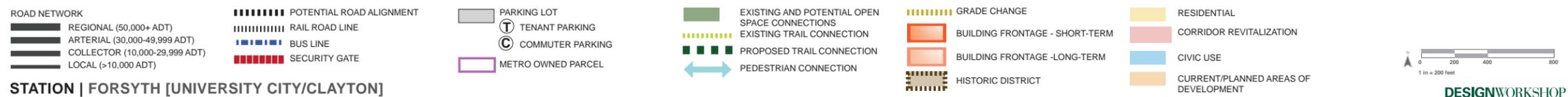
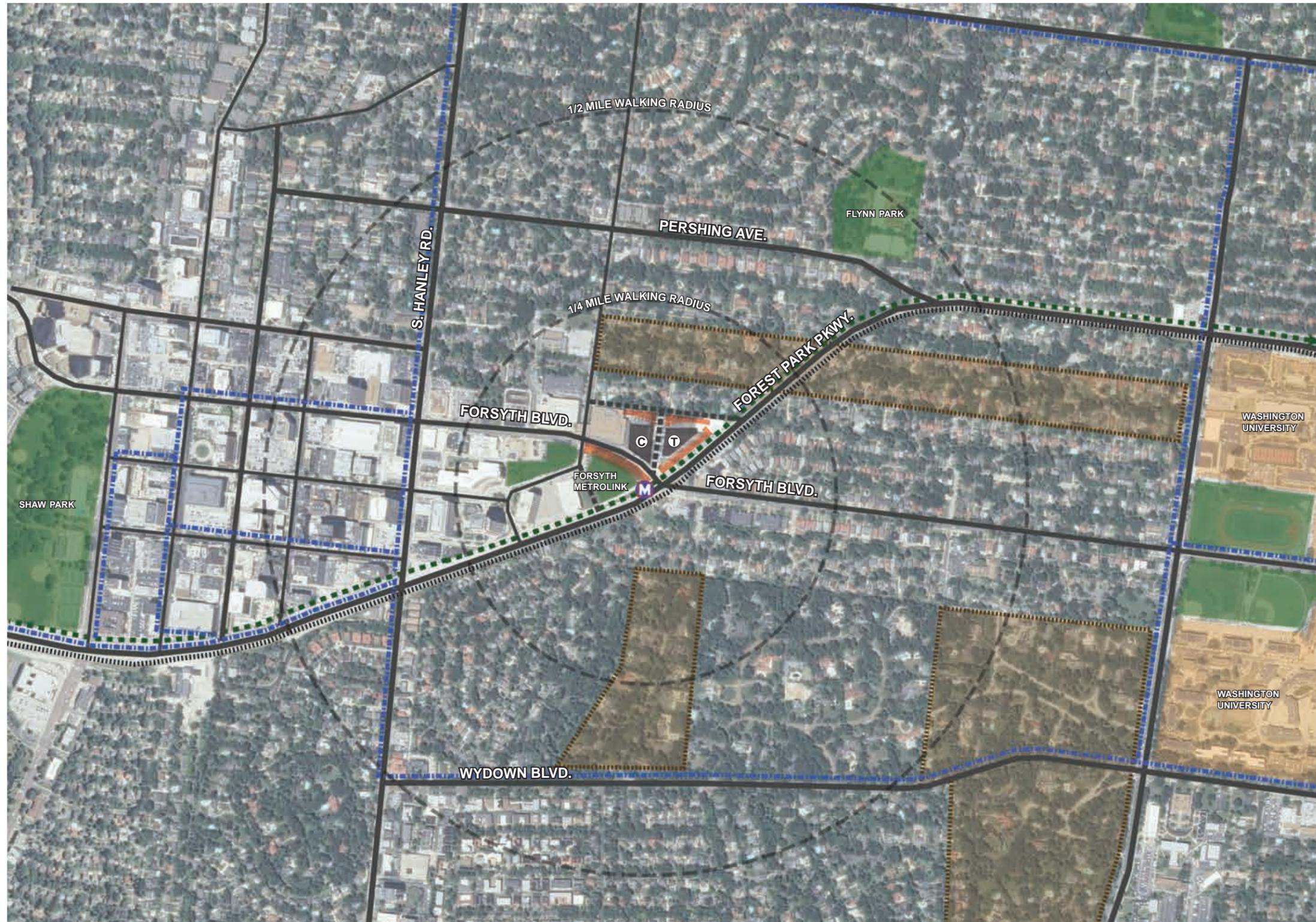
Pros	Cons
<ul style="list-style-type: none"> Sites are well located and can support a range of residential, commercial, and institutional uses 	<ul style="list-style-type: none"> Transit ridership is significantly low at this station Limited amount of available land Potential for burdensome parking requirements

- 1/2 MILE RADIUS STUDY AREA
- CULTURAL PLACE OF INTEREST
- METROLINK BLUE LINE
- VACANT PARCELS OVER 10 ACRES (0 TOTAL)
- METRO OWNED PARCEL (0 ACRES)
- PUBLIC OWNED PARCEL (18.3 ACRES)
- VACANT PARCEL (19.5 ACRES)
- HISTORIC DISTRICT
- ADT AVERAGE DAILY TRAFFIC



STATION | FORSYTH [UNIVERSITY CITY/CLAYTON]





University City – Big Bend Station



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the University City – Big Bend MetroLink station in the future.

Jurisdictions

- St. Louis County (Washington University Campus)
- City of University City

Station Overview and Context

The University City-Big Bend station serves a primarily residential area on either side of Forest Park Parkway, and just to the west of Washington University's main St. Louis campus. The station platform is located across Forest Park Parkway from the northwest corner of the WUSTL main campus, at the Big Bend intersection. Although this station area benefits from adjacency to the campus and connections via MetroBus to surrounding communities, ridership for this Blue Line station continues to trail that of other stations on the line.

Site Analysis

Topography: The area around the station area features relatively flat terrain and topography does not appear to inhibit any future development in the area.

Stream and Floodplain Issues: Floodplain zones do not exist in the vicinity of the University City – Big Bend station.

Transportation Network: Forest Park Parkway connects Clayton with the heart of St. Louis City and passes directly in front of the station area. Big Bend Blvd provides north south access and connects Richmond Heights and I-64 corridor with the area around the WUSTL campus and the Delmar Loop. Several other neighborhood streets provide connectivity, and a grid network exists throughout the station area. Forest Park Parkway carries just over 31,000 vehicles per day and Big Bend carries around 20,000 vehicles per day, on average.

From the University City – Big Bend MetroLink station area, the Green Line Shuttle provided by MetroBus provides access to destinations in University City and Washington University's Danforth Campus.

Existing Transit Orientation: The station area within one fourth mile of the University City platform currently includes residential densities of 3.21 units per acre, on average, and employee densities of 4.33 employees per acre, on average. Given that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the University City station area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development.

Bike and Pedestrian Environment: The area around the University City station currently registers a Walk Score of 75 (or, “very walkable” as defined by Walk Score methodology).¹ The following represents key observations concerning the bike and pedestrian environment surrounding the Big Bend station:

- The significant width of the five lane Forest Park Parkway and the five lane Big Bend Boulevard create challenges for anyone attempting to cross this part of the station area by foot or on a bicycle. While well-marked crosswalks and signals exist at the intersection, the sheer width of these streets creates a less than ideal environment for walking and biking.
- The station area lacks sufficient bicycle parking given the presence of a major college campus nearby. College students tend to ride bicycles in greater numbers compared to the general population and therefore this station should include larger numbers of bike storage units.
- Sidewalks do not exist along the north side of Forest Park Parkway in the station area.

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

Most of the area around the University City station includes established and relatively affluent single family residential neighborhoods that are unlikely to materially change over the next few decades. Within walking distance of the station platform, a relatively small strip commercial center at the northwest corner of Big Bend and Forest Park Parkway, adjacent to the station platform, represents the only parcel with the potential for redevelopment over the next few decades. This parcel carries the LC or Limited Commercial designation within the city of University City. LC zoning does not allow for residential land uses and requires setbacks of 35 feet from public streets for front yards, side yards, and rear yards. The LC zoning requires one parking space for every 200 SF of general commercial uses, every 300

¹ Walk Score. www.walkscore.com, 2013.

SF of general office land uses, every 200 SF of medical office land uses, and one parking space per 1,000 SF of industrial uses. The prohibition of residential land uses and the substantial parking requirements of the LC zoning are not consistent with planning principles conducive to TOD.

Analysis of Current Development Patterns

As stated, the existing residential neighborhoods surrounding the station area in University City continue to thrive and are unlikely to materially change over the next few decades. The only land parcel that represents a potential location for new TOD at this station is the small lot at the northwest corner of Forest Park Parkway and Big Bend, owned by WUSTL.

Current Ridership

As illustrated in the table below, despite the adjacency of the station to the WUSTL campus and connections via MetroBus to surrounding communities, the University City station reports relatively low ridership compared to other nearby stations. The station area lacks any sizeable areas of public parking, and with the exception of the small retail project at the northwest corner of Big Bend and Forest Park Parkway, the station area lacks the presence of any commercial or employment centers. The WUSTL campus of course is a key destination, but most faculty and students appear to use the Skinker station more frequently than the U City station in order to access MetroLink.

Average MetroLink Boarding Estimates - University City - Big Bend

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Missouri Station Average	42,000	1,560	960
University City - Big Bend MetroLink Station	12,700	480	280

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

Because the areas around the University City station include primarily residential land uses and have the potential to support neighborhood-oriented or local serving retail, the station area represents a good example of the Neighborhood typology. Within the Neighborhood typology of stations, transit is less of a focal point compared to downtown or more intensive stations, and the focus is on serving the local needs of residents.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the University City station is likely to experience demand for an additional 201 residential units. The market study determined that, based upon competing development areas and the local market context, the U City station would likely not attract any additional demand for commercial uses over the next few decades. Given the local economic conditions and the context of the local area in University City, the additional residential development would likely include a variety of multi-family units, including urban style rowhomes or townhomes as well as apartment units catering to students or young professionals.

Overall Development Strategy

The main focal point for new transit oriented development at this station is the small mixed-use center at the northwest corner of Big Bend and Forest Park Parkway. This property, owned by WUSTL, includes a three-story mixed use building, a one story commercial building, a one story retail strip center, and surface parking. The commercial strip center has experienced increased vacancies over the last year as a major tenant with visibility directly onto Forest Park Parkway recently moved out.

The main development strategy for this property calls for WUSTL to work to develop a dialogue with the surrounding neighborhoods concerning the types of construction and land uses desired at this location and then working collaboratively to create a site plan for the eventual renovation of this property into a more cohesive TOD over time. The repositioned property should ideally include residential units in order to meet the tenets of transit oriented development. In order to create enhanced real estate value and a more appealing example of TOD at this location, WUSTL should work with architects and designers to create a vision and plans for new construction on the property that creates a good example of urban TOD for neighborhoods throughout St. Louis.

The table below compares the potential developable area at the University City – Big Bend station with the projected supportable square footage of new development over the next thirty years. As illustrated, even at greater levels of density, the potential for new development of residential uses exceeds the anticipated developable area around the station, in that very little vacant land exists. Instead, redevelopment will likely have to focus on underperforming parcels.

UNIVERSITY CITY - BIG BEND STATION - DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	2	87,120
Less: Roads and Configuration at 20%	0.4	17,424
Less: Open Space and Drainage at 20%	0.4	17,424
Less: Surface Parking		0
Net Developable Area		52,272
Potential Developable SF at 0.25 FAR		13,068
Potential Developable SF at 0.5 FAR		26,136
Potential Developable SF at 1.0 FAR		52,272
Projected Commercial Market Demand		0
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		201,000
Potential Real Estate Market Demand (2010 - 2040)		201,000

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that WUSTL and University City work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of a TOD Zoning Classification for Targeted Areas around the Station: The majority of the zoning classifications around the University City station pertain to standard, single family residential neighborhood uses. For parcels that may represent future areas for mixed-use development in the future (such as the parcel owned by WUSTL at Big Bend and Forest Park Parkway), the City of University City should establish a zoning classification tailored to TOD. This zoning tool would allow for various land uses and would specifically call for design techniques and standards tailored to creating a pedestrian and bicycle friendly environment conducive to well-planned TOD.

Establishment of Form Based Codes for the Station Area: As a substitute for (or in addition to) the creation of a TOD specific zoning classification, University City and St. Louis County should consider establishing a Form Based Code (FBC) for the station area and the surrounding vicinity in order to articulate the design of streets and building frontages within the station area district.

Establishment of Parking Maximums (as opposed to parking minimums): Current zoning requirements require one-and-a-half to two parking spaces per dwelling unit, one space for every 200 square feet of commercial, and one space for every 300 square feet of office space. The community should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties.

Action Items

The following represent a series of action items that University City, St. Louis County, WUSTL and other partners should complete in order to move the creation of TOD at the University City station area forward over the next few years.

Washington University

- WUSTL should convene community planning sessions with surrounding neighborhoods to collaboratively develop a vision for the property at Big Bend and Forest Park Parkway. The surrounding neighborhoods have the potential to derail potential development of this parcel in the entitlement process, and as a result the university should work proactively with neighborhood stakeholders to create a vision for this property that suits the interests of all those involved. This collaboration should help define the acceptable level of density, the types of land uses to be included in the property going forward, and the design of future buildings, open space and plaza amenities, and bike / pedestrian connections.
- WUSTL should also work proactively with University City to outline and define potential changes to zoning for the property in order to help facilitate more transit-oriented development in the area going forward. Even if the city does not move forward with the creation of a formal TOD oriented zoning classification, the university should work proactively with the city to identify changes in the zoning code that would help to create a more successful project at this intersection in the future.
- WUSTL and University City should work together to identify and implement any bike or pedestrian connection improvements along major arterials such as Forest Park Park-

way and Big Bend that would help to improve the multi-modal level of connectivity in the vicinity of the station area. The addition of bike lanes, improved sidewalks, and related improvements would help to make the station area a better example of urban TOD for the St. Louis area.

- Future planning for this station area should provide for an eventual Pedestrian Level of Service rating of “A” or “B” for the University City/Big Bend station area.

University City

- University City should identify a prioritization of public improvements (such as streetscapes, open space amenities, and various infrastructure items) and create a capital improvements plan specifically tailored to the station area. This plan would provide a roadmap for how to proceed with investments over several years and help guide city leaders as administrations and political climates change over time.
- University City should consider implementing Neighborhood Improvement Districts (NIDs), Community Improvement Projects (CIPs) or Transportation Development Districts (TDDs) for the station areas in order to encourage ongoing investment in TOD at the station. NIDs, CIPs, and TDDs provide for the generation of extra taxes to pay for project or improvement costs for new or redevelopment projects.
- University City should consider implementing Sales Tax Reimbursement Agreements for a defined geography around the station area. These agreements represent a funding mechanism allowed by Missouri law that may be used to achieve public benefit through funding for infrastructure projects. Under these agreements, municipalities have the ability to annually appropriate the increase in sales taxes created by new private capital investment to offset a portion of their project investment costs. The sales tax increments must be used for public purposes, primarily through the funding of infrastructure improvements.
- The city may also explore the use of the Enhanced Enterprise Zone program (EEZ) under Missouri law and target this tool to the station area through the establishment of a EEZ zone. Companies in the TOD area that expand operations would receive income tax refunds and property tax abatements.

St. Louis County

- The County should work to tie approvals for TIF or related county incentive packages for development at the University City station to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 DU per acre and employment uses providing for at least 25 employees per acre). The County should use the approval of TIF or related incentives as “carrots” to promote developments that are more conducive to transit oriented development.
- The County should explore establishing a Chapter 353 redevelopment corporation specifically targeted for the station area. These entities assist companies by providing tax abatements for redevelopment projects.

UNIVERSITY CITY-BIG BEND [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station serves Washington University's main Danforth Campus and the historic residential neighborhood that surrounds it. Fontbonne University is also located nearby. The neighborhood area is in proximity to the Delmar Loop entertainment district. Adjacent to the MetroLink station is a small commercial node.

Average Monthly Boardings | 12,700 (MetroLink Station Average = 36,500)

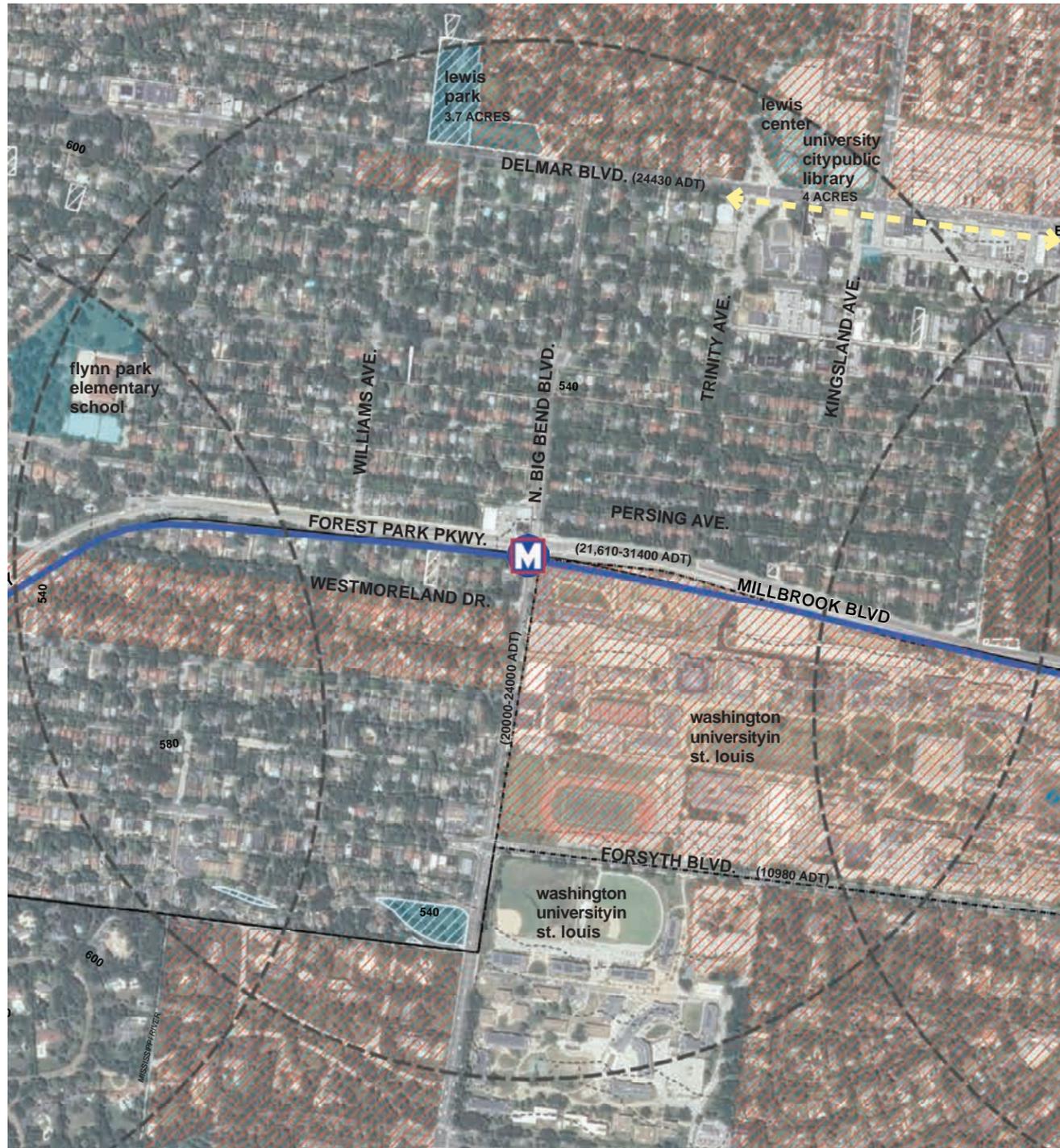
Station Configuration | The station is served by MetroBus and MetroLink. On-site parking is not provided.

Physical Barriers to Development | No significant physical barriers exist.

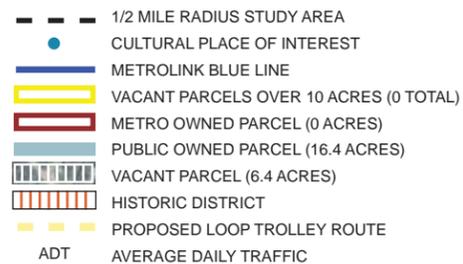
Regulatory Barriers to Development | Zoning around the station does not generally offer mixed-use developments and multifamily apartments are limited. Much of the station area outside of the university allows for single family homes and limited community facilities.

Development Opportunity

Pros	Cons
<ul style="list-style-type: none"> • Proximity to Delmar Loop entertainment district 	<ul style="list-style-type: none"> • Lower than average transit ridership • No large vacant lots • The sole available site will be constrained by the adjacent single-family residential neighborhood

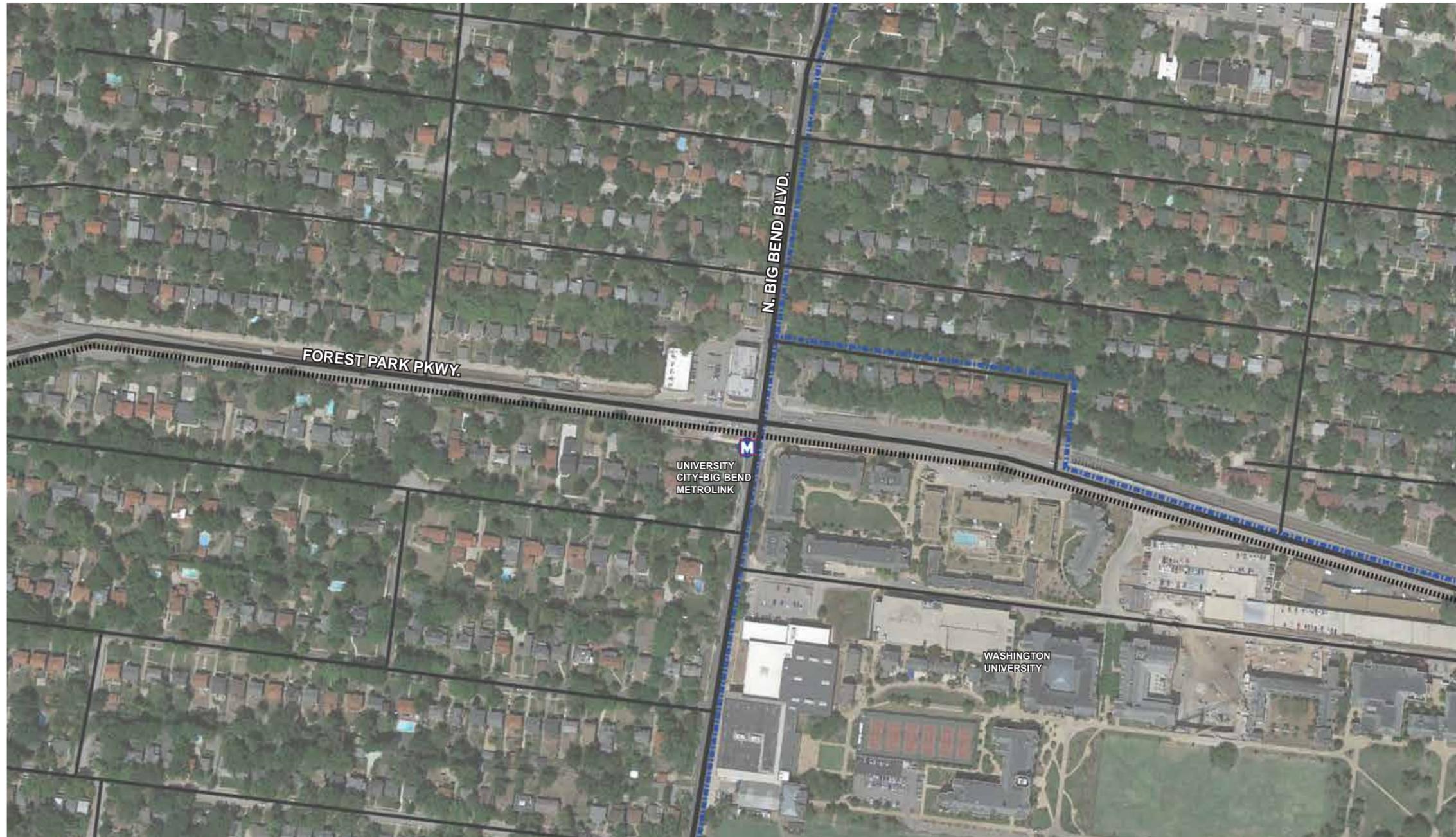


*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.



STATION | UNIVERSITY CITY - BIG BEND [UNIVERSITY CITY/CLAYTON]

DESIGNWORKSHOP



ROAD NETWORK
 REGIONAL (50,000+ ADT)
 ARTERIAL (30,000-49,999 ADT)
 COLLECTOR (10,000-29,999 ADT)
 LOCAL (>10,000 ADT)

POTENTIAL ROAD ALIGNMENT
 RAIL ROAD LINE
 BUS LINE
 SECURITY GATE

PARKING LOT
 TENANT PARKING
 COMMUTER PARKING
 METRO OWNED PARCEL

EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS
 EXISTING TRAIL CONNECTION
 PROPOSED TRAIL CONNECTION
 PEDESTRIAN CONNECTION

GRADE CHANGE
 BUILDING FRONTAGE - SHORT-TERM
 BUILDING FRONTAGE - LONG-TERM
 HISTORIC DISTRICT

RESIDENTIAL
 CORRIDOR REVITALIZATION
 CIVIC USE
 CURRENT/PLANNED AREAS OF DEVELOPMENT

STATION | UNIVERSITY CITY-BIG BEND [UNIVERSITY CITY/CLAYTON]



Skinker Station



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the Skinker MetroLink station in the future.

Jurisdictions

- St. Louis County (Washington University Campus)
- City of University City
- City of St. Louis

Station Overview and Context

The Skinker station, located at the northeast corner of the Skinker and Forest Park Parkway intersection, serves the eastern end of the main campus of Washington University, Forest Park, and residential and mixed-use areas along Skinker, extending north to the Delmar Loop area. Although this station area benefits from adjacency to the campus and connections via MetroBus to surrounding communities, ridership for this Blue Line station continues to trail that of other stations on the line.

Site Analysis

Topography: The area around the station area features relatively flat terrain and topography does not appear to inhibit any future development in the area.

Stream and Floodplain Issues: Floodplain zones do not exist in the vicinity of the Skinker station.

Transportation Network: Forest Park Parkway connects Clayton with the heart of St. Louis City and passes directly in front of the station area. Skinker Boulevard provides north-south access and connects areas to the south of the WUSTL campus with the heart of the Delmar Loop district, to the north. Several other neighborhood streets such as Lindell Boulevard provide connectivity, and a grid network exists throughout the station area. Forest Park Parkway and Skinker both carry in excess of 30,000 vehicles per day and Lindell carries around 15,000 vehicles, on average.

From the University City – Big Bend MetroLink station area, three MetroBus lines provide connectivity to surrounding neighborhoods and districts in this part of the St. Louis region.

#01 Gold Line MetroBus connects to:

- Clayton MetroBus Center
- Washington University's Danforth Campus
- Mallinckrodt Center Loop
- Forest Park Parkway and Central West End MetroLink stations

#02 Red Line MetroBus connects to:

- Rock Road MetroLink station
- Pagedale
- Delmar MetroLink station
- Forest Park
- Richmond Heights MetroLink station
- Galleria
- Brentwood Promenade
- Brentwood MetroLink station
- Maplewood Commons
- Big Bend Boulevard
- Kirkwood Commons
- Meramec Community College

#16 City Limits MetroBus connects to:

- Riverview and Hall MetroBus Center
- Jennings
- Wellston
- Delmar MetroLink station
- Clayton

- Richmond Heights
- Maplewood
- Shrewsbury MetroLink station

Existing Transit Orientation: The station area within one fourth mile of the Skinker station platform currently includes residential densities of 4.20 units per acre, on average, and employee densities of 4.40 employees per acre, on average. Given that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the Skinker station area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development.

Bike and Pedestrian Environment: The area around the Skinker station currently registers a Walk Score of 82 (or, “very walkable” as defined by Walk Score methodology).¹ The very wide, five-lane Skinker Boulevard and the very wide, five-lane Forest Park Parkway inhibit bike and pedestrian connections across the intersection and across these major arterials. Forest Park Parkway lacks significant bike and pedestrian accommodations along its length, and as a result people must use parallel streets to traverse the area. Bike and pedestrian connections remain very important at the Skinker station given that this location lacks a surface MetroLink parking lot and many people, including Washington University students, access the station on foot or by bike. The station also lacks sufficient bike storage areas, given the significant pool of college students who access the station by bicycle or would like to on a regular basis.

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

Most of the area around the Skinker station includes established single family or multi-family neighborhoods in University City and St. Louis City. The Danforth campus of WUSTL is located within St. Louis County. Zoning in the University City portion of the area includes the SR (Single-Family Residential District) zoning and the WUSTL campus is zoned R6 (Residential District). Zoning in the portion of the area included in St. Louis City includes the A (Single Family Residential District), C (Multi-family Residential District) and F (Neighborhood Commercial District) zoning classifications. With the exception of the F zoning in St. Louis City, all of these zones do not allow mixed-use development and limit the degree of multi-family housing allowed. The SR and A districts limit homes to a height of two to three stories or 35 feet. The C district and the R6 district limit apartment buildings to three or four stories, and the City’s F district limits commercial and mixed-use buildings to a height of three stories or 50 feet.

In terms of parking, the SR district requires two parking spaces per home, and the R6 district requires 1.5 spaces for every dwelling unit.

In general, while the existing zoning classifications match the existing land uses in the station area, they do not proactively encourage the type of development patterns and design typical of well-conceived TOD. Ideally, zoning in the area would encourage a diversity of land uses, lower parking ratios, reduced setback requirements, and other design elements that would encourage the creation of a denser, more vibrant environment around the station areas.

¹ Walk Score. www.walkscore.com, 2013.

Analysis of Current Development Patterns

The Danforth campus of WUSTL occupies the southwestern quadrant of the immediate station area at Skinker and Forest Park Parkway, including academic buildings, surface parking lots, and the University's Brookings Hall. East of Skinker Boulevard, the Catlin Tract Historic District contains a variety of two and three story single family homes developed on one-acre lots. The western edge of the Skinker-DeBaliviere Historic District lies to the north of Forest Park Parkway and to the east of Skinker and includes a variety of housing types, including pre-War, three-story apartment buildings and two and three-story single-family homes on 30 to 40 foot wide lots. The Parkview Historic District, to the west of Skinker and north of Forest Park Parkway, consists entirely of pre-War, two and three-story single family lots located on 50 to 100 foot wide lots. Farther to the north, the Delmar Loop mixed-use district begins at the Skinker and Delmar intersection and stretches east toward the Delmar MetroLink station.

The existing residential neighborhoods surrounding the station area in University City and St. Louis City continue to thrive and are unlikely to materially change over the next few decades. The only land parcel that represents a likely potential location for new TOD at this station is a small parcel of just over two acres owned by WUSTL at the southeast corner of Skinker and Forest Park Parkway.

Current Ridership

As illustrated in the table below, despite the adjacency of the station to the WUSTL campus and connections via MetroBus to surrounding communities, the Skinker station reports relatively low ridership compared to other nearby stations. The station area lacks any sizeable areas of public parking, and with the exception of the small retail and mixed-use development at the northeast corner of Skinker and Forest Park Parkway, the station area lacks the presence of any commercial or employment centers.

Average MetroLink Boarding Estimates - Skinker

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Missouri Station Average	42,000	1,560	960
Skinker MetroLink Station	12,700	480	280

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

Because the areas around the Skinker station include primarily residential land uses and have the potential to support neighborhood-oriented or local serving retail, the station area represents a good example of the Neighborhood typology. Within the Neighborhood typology of stations, transit is less of a focal point compared to downtown or more intensive stations, and the focus is on serving the local needs of residents.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the Skinker station is likely to experience demand for an additional 201 residential units and an additional 51,000 square feet of commercial uses. Given the local economic conditions and the context of the local area, the additional residential development would

likely include a variety of multi-family units, including urban style rowhomes or townhomes as well as apartment units catering to students or young professionals. Additional commercial space may include office development serving programs organized by WUSTL, local serving offices including professional services tenants, and small format retail serving the university population, including additional eateries, coffee shops, and related convenience retail uses.

Overall Development Strategy

The main focal point for new transit oriented development at this station is the vacant parcel currently owned by WUSTL at the southeast corner of Skinker and Forest Park Parkway.

The main development strategy for this property calls for WUSTL to work to develop a dialogue with the surrounding neighborhoods concerning the types of construction and land uses desired at this location and then working collaboratively to create a site plan for the eventual renovation of this property into a more cohesive TOD over time. The repositioned property should ideally include residential units in order to meet the tenets of transit oriented development. In order to create enhanced real estate value and a more appealing example of TOD at this location, WUSTL should work with architects and designers to create a vision and plans for new construction on the property that creates a good example of urban TOD for neighborhoods throughout St. Louis.

The table below compares the potential developable area at the Skinker station with the projected supportable square footage of new development over the next thirty years. As illustrated, even at greater levels of density, the potential for new development of residential and commercial uses exceeds the anticipated developable area around the station, requiring redevelopment to focus around under-performing parcels.

SKINKER STATION - DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	2	87,120
Less: Roads and Configuration at 20%	0.4	17,424
Less: Open Space and Drainage at 20%	0.4	17,424
Less: Surface Parking		0
Net Developable Area		52,272
Potential Developable SF at 0.25 FAR		13,068
Potential Developable SF at 0.5 FAR		26,136
Potential Developable SF at 1.0 FAR		52,272
Projected Commercial Market Demand		51,000
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		201,000
Potential Real Estate Market Demand (2010 - 2040)		252,000

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that WUSTL, University City, and St. Louis City work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of a TOD Zoning Classification for Targeted Areas around the Station:

The majority of the zoning classifications around the Skinker station pertain to residential neighborhood uses. For parcels that may represent future areas for mixed-use development in the future (such as the parcel owned by WUSTL at Skinker and Forest Park Parkway), the local municipalities should establish a zoning classification tailored to TOD. This zoning tool would allow for various land uses and would specifically call for design techniques and standards tailored to creating a pedestrian and bicycle friendly environment conducive to well-planned TOD.

Establishment of Form Based Codes for the Station Area: As a substitute for (or in addition to) the creation of a TOD specific zoning classification, University City and St. Louis City should consider establishing a Form Based Code (FBC) for the station area and the surrounding vicinity in order to articulate the design of streets and building frontages within the station area district.

Establishment of Parking Maximums (as opposed to parking minimums): Current zoning requirements in the Skinker station area require one-and-a-half to two parking spaces per dwelling unit. The community should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties.

Action Items

The following represent a series of action items that University City, St. Louis City, WUSTL and other partners should complete in order to move the creation of TOD at the Skinker station area forward over the next few years.

Washington University

- WUSTL should convene community planning sessions with surrounding neighborhoods to collaboratively develop a vision for the property at Skinker and Forest Park Parkway. The surrounding neighborhoods have the potential to derail potential development of this parcel in the entitlement process, and as a result the university should work proactively with neighborhood stakeholders to create a vision for this property that suits the interests of all those involved. This collaboration should help define the acceptable level of density, the types of land uses to be included in the property going forward, and the design of future buildings, open space and plaza amenities, and bike / pedestrian connections.
- WUSTL should also work proactively with University City and St. Louis City to outline and define potential changes to zoning for the property in order to help facilitate more transit-oriented development in the area going forward. Even if the city does not move forward with the creation of a formal TOD oriented zoning classification, the university should work proactively with the cities to identify changes in the zoning code that would help to create a more successful project at this intersection in the future.

University City/St. Louis City

- WUSTL, University City, and St. Louis City should work together to identify and implement any bike or pedestrian connection improvements along major arterials such as

Forest Park Parkway and Skinker that would help to improve the multi-modal level of connectivity in the vicinity of the station area. The addition of bike lanes, improved sidewalks, and related improvements would help to make the station area a better example of urban TOD for the St. Louis area.

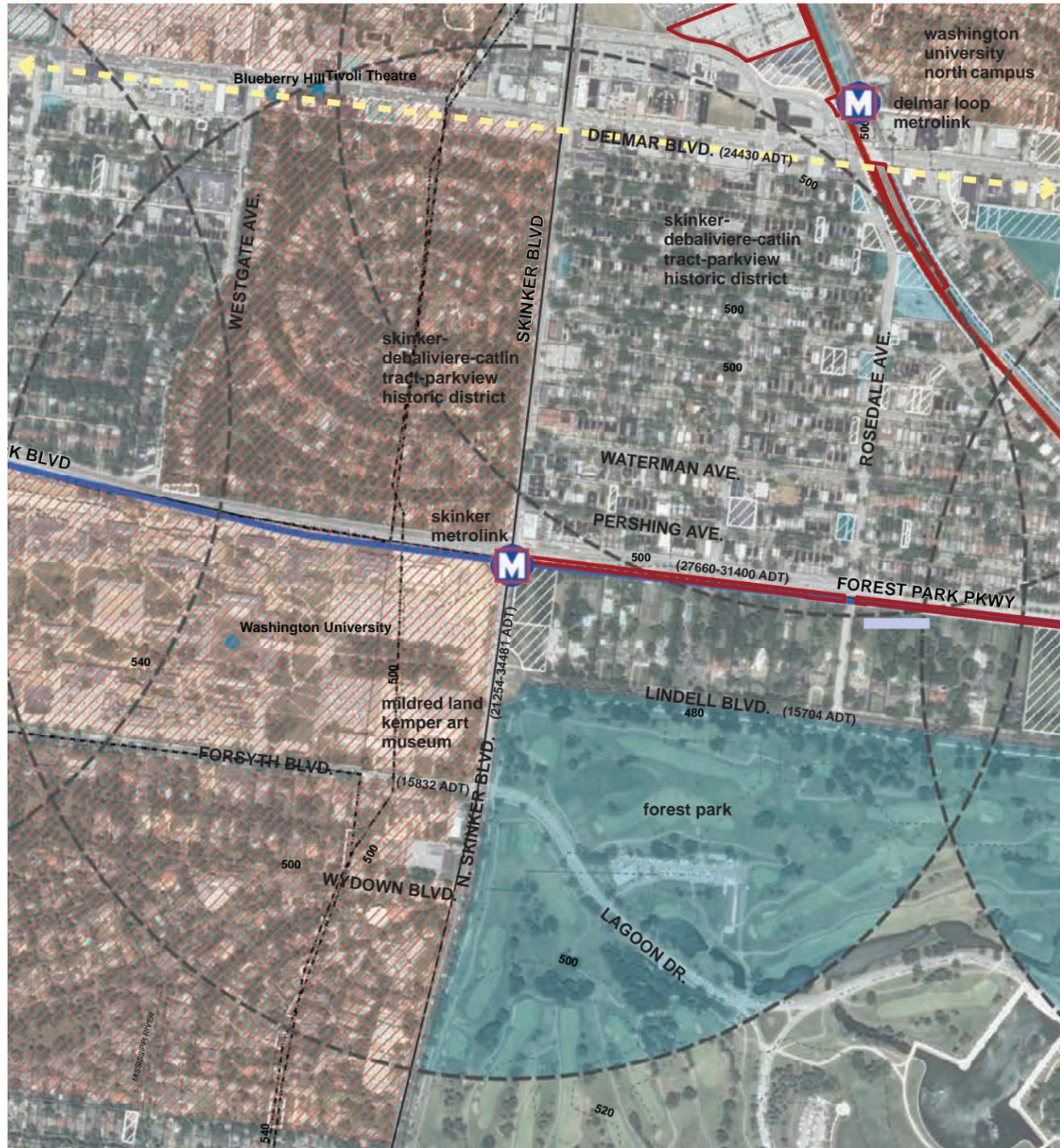
- University City should identify a prioritization of public improvements (such as streetscapes, open space amenities, and various infrastructure items) and create a capital improvements plan specifically tailored to the station area. This plan would provide a roadmap for how to proceed with investments over several years and help guide city leaders as administrations and political climates change over time. The outlined infrastructure improvements should help provide for a Pedestrian Level of Service of “A” or “B”.
- University City and St. Louis City should consider implementing Neighborhood Improvement Districts (NIDs), Community Improvement Projects (CIPs) or Transportation Development Districts (TDDs) for the station areas in order to encourage ongoing investment in TOD at the Skinker station. NIDs, CIPs, and TDDs provide for the generation of extra taxes to pay for project or improvement costs for new or redevelopment projects.
- University City and St. Louis City should consider implementing Sales Tax Reimbursement Agreements for a defined geography around the station area. These agreements represent a funding mechanism allowed by Missouri law that may be used to achieve public benefit through funding for infrastructure projects. Under these agreements, municipalities have the ability to annually appropriate the increase in sales taxes created by new private capital investment to offset a portion of their project investment costs. The sales tax increments must be used for public purposes, primarily through the funding of infrastructure improvements.
- The cities may also explore the use of the Enhanced Enterprise Zone program (EEZ) under Missouri law and target this tool to the station area through the establishment of a EEZ zone. Companies in the TOD area that expand operations would receive income tax refunds and property tax abatements.

St. Louis County and/or St. Louis City

- The County and City should work to tie approvals for TIF or related county incentive packages for development at the Skinker station to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 DU per acre and employment uses providing for at least 25 employees per acre). The County and City should use the approval of TIF or related incentives as “carrots” to promote developments that are more conducive to transit oriented development.
- The County and City should explore establishing a Chapter 353 redevelopment corporation specifically targeted for the station area. These entities assist companies by providing tax abatements for redevelopment projects.

Metro

- Metro should work over time to enhance or provide sufficient MetroBus service to and from the station area in order to arrive at a Transit Level of Service measure of “A” or “B”.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

SKINKER [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station serves Washington University's main campus and the surrounding historic residential neighborhood.

Average Monthly Boardings | 18,300 (MetroLink Station Average = 36,500)

Station Configuration | The station serves both MetroLink and MetroBus. It does not include on-site parking.

Physical Barriers to Development | Access to the surrounding station site is not limited by physical barriers.

Regulatory Barriers to Development | Zoning around the station site is split between St. Louis City, the City of University City, and St. Louis County. Much of the land is occupied by Washington University and is subject to their development plans. The residential development patterns include low-density apartments and single-family homes. Denser development patterns are being encouraged. Mixed-use development and multifamily residential are limited or not allowed at all.

Development Opportunity

Pros	Cons
<ul style="list-style-type: none"> Proximity to Washington University Proximity to Delmar Loop mixed-use entertainment district Already a thriving walkable community 	<ul style="list-style-type: none"> Lower than average transit ridership Very little vacant land available - the only available site is under the control of Washington University

- 1/2 MILE RADIUS STUDY AREA
- CULTURAL PLACE OF INTEREST
- METROLINK BLUE LINE
- ▭ VACANT PARCELS OVER 10 ACRES (0 TOTAL)
- ▭ METRO OWNED PARCEL (3.08 ACRES)
- ▭ PUBLIC OWNED PARCEL (.5 ACRES, EXCLUDING FOREST PARK)
- ▭ VACANT PARCEL (12.3 ACRES)
- ▭ HISTORIC DISTRICT
- PROPOSED LOOP TROLLEY ROUTE
- ADT AVERAGE DAILY TRAFFIC
- ▭ SKINKER-DEBALIVIERE-CATLIN TRACT-PARKVIEW HISTORIC DISTRICT



STATION | SKINKER [CITY OF ST. LOUIS/UNIVERSITY CITY/CLAYTON]

DESIGNWORKSHOP



- ROAD NETWORK**
- REGIONAL (50,000+ ADT)
 - ARTERIAL (30,000-49,999 ADT)
 - COLLECTOR (10,000-29,999 ADT)
 - LOCAL (>10,000 ADT)

- POTENTIAL ROAD ALIGNMENT
- RAIL ROAD LINE
- BUS LINE
- SECURITY GATE

- PARKING LOT
- TENANT PARKING
- COMMUTER PARKING
- METRO OWNED PARCEL

- EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS
- EXISTING TRAIL CONNECTION
- PROPOSED TRAIL CONNECTION
- PEDESTRIAN CONNECTION

- GRADE CHANGE
- BUILDING FRONTAGE - SHORT-TERM
- BUILDING FRONTAGE - LONG-TERM
- HISTORIC DISTRICT

- RESIDENTIAL
- CORRIDOR REVITALIZATION
- CIVIC USE
- CURRENT/PLANNED AREAS OF DEVELOPMENT

STATION | SKINKER [CITY OF ST. LOUIS/UNIVERSITY CITY/CLAYTON]

DESIGNWORKSHOP

Delmar / DeBaliviere TOD Action Plan



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the Delmar and DeBaliviere MetroLink stations in the future. This profile combines information and recommendations for these two station areas given their relative proximity in the City of St. Louis.

Jurisdictions

- City of St. Louis

Station Overview and Context

The Delmar Loop MetroLink station is located in the heart of the Delmar Loop, a vibrant mixed-use and entertainment district surrounded by a variety of established residential neighborhoods that incorporate various density levels. The Delmar corridor extends to the east into an emerging and redeveloping sector of the City of St. Louis. Larger industrial uses and Washington University's North Campus surround the station area to the north and west, toward Skinker Boulevard.

The Forest Park / DeBaliviere station operates at the junction of the red and blue MetroLink lines, just to the north of Forest Park Parkway along DeBaliviere. Perceptions of increased crime and economic stagnation have plagued this station area for many years, despite its relative proximity to Forest Park, Washington University, and the more affluent residential enclaves located within a few miles to the west.

The planned Loop Trolley project will connect the two stations, proceeding east from the Delmar station along Delmar and then south along DeBaliviere Avenue to the Forest Park station area. City and neighborhood leaders are hoping that the investment in the Loop Trolley will help spur redevelopment and revitalization in the areas between the two stations and help to extend the energy of the Delmar Loop toward the east within the City of St. Louis.

Site Analysis

Topography: The study areas, within one-fourth mile of both station platforms, feature relatively flat terrain. The topography of the sites does not appear to pose any issues with regard to future development.

Stream and Floodplain Issues: Floodplain zones do not exist in the Delmar Loop Station area or the DeBaliviere station area.

Transportation Network: Delmar Boulevard and Skinker Boulevard provide the main transportation connections to the Delmar station area. The American Planning Association has designated the Delmar Loop as one of America's "Great Streets" in recent years and the vibrancy of this corridor has continued to spread to the east of Skinker over the last several years and has generally reached the MetroLink platform area. Delmar currently accommodates an average of 22,000 vehicle trips per day and Skinker carries around 30,000 vehicle trips daily in the vicinity of the station area.

DeBaliviere Avenue and Forest Park Parkway provide the main transportation connections in the DeBaliviere station area, as well as a grid of local side streets. While Forest Park Parkway carries in excess of 20,000 vehicle trips per day, DeBaliviere carries less than 11,000 vehicle trips per day, on average.

Five MetroBus routes depart from the Delmar transit station. These routes include the following:

#02 Red Line:

- Rock Road MetroLink Station
- Pagedale
- Skinker MetroLink Station
- Forest Park
- Richmond Heights MetroLink Station
- Galleria
- Brentwood Promenade
- Brentwood MetroLink Station
- Maplewood Commons
- Big Bend Boulevard
- Kirkwood Commons
- Meramec Community College

Green Line Shuttle:

- University City
- Big Bend MetroLink Station
- Washington University's Danforth Campus

#16 City Limits MetroBus:

- Riverview and Hall MetroBus Center
- Jennings
- Wellston
- Skinker MetroLink Station
- Clayton
- Richmond Heights
- Maplewood
- Shrewsbury MetroLink Station

#91 Olive:

- University City
- Olivette
- Jewish Community Center
- Four Seasons Shopping Center
- Delmar Gardens Chesterfield
- Chesterfield Mall

#97 Delmar:

- Clayton MetroBus Center
- University City
- Civic Center MetroBus Center and MetroLink Station

Five MetroBus routes also depart from the DeBaliviere station to a variety of destinations. These routes include the following:

#01 Gold Line MetroBus:

- Washington University's Danforth Campus
- Mallinckrodt Center Loop
- Skinker and Forest Park Parkway MetroLink stations
- St. Louis County Government Center
- Clayton MetroBus Center

#13 Union MetroBus:

- Union Boulevard at Florissant south to Forest Park
- Central West End
- Forest Park
- Saint Louis Children's Hospital
- Union Seventy Business Park

#90 Hampton:

- Hampton Avenue between North St. Louis and South St. Louis
- Forest Park, Art Museum, History Museum, Zoo
- Forest Park Hospital
- Hampton Village
- Goodfellow Federal Center
- People's Health Center
- Sanford Brown at Hazelwood
- Riverview-Hall Transit Center
- Gravois-Hampton Transit Center
- Catalan Loop

#97 Delmar MetroBus:

- University City
- Delmar Loop
- St. Louis Science Center
- Grand Center
- Cochran Veteran's Hospital
- People's Health Center
- St. Louis County Government Center
- Clayton MetroBus Center
- Civic Center MetroBus Center and MetroLink Station

Existing Transit Orientation: The station area within one fourth mile of the Delmar station platform currently includes residential densities of 7.46 units per acre, on average, and employee densities of 5.04 employees per acre, on average. The station area within one fourth mile of the Forest Park / DeBaliviere platform currently includes residential densities of 6.14 units per acre, on average, and employee densities of 4.98 employees per acre, on average. Given that research suggests that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees

per acre, the current orientation of the Delmar and DeBaliviere station areas do not reflect the standards of Transit Oriented Development.

Bike and Pedestrian Environment: The area around the Delmar station currently registers a Walk Score of 80 (or, “very walkable” as defined by Walk Score methodology) given the general proximity of the station area to nearby residential, retail, civic, and employment land uses in the Delmar Loop area.¹ The area around the DeBaliviere station currently registers a Walk Score of 58 (or, “somewhat walkable” as defined by Walk Score methodology).² This station registers a lower Walk Score because the station area does not enjoy the same proximity to dining and retail uses, as well as civic facilities such as Washington University. The following details observations concerning the bike and pedestrian environment in the Delmar and DeBaliviere station areas:

- Some of the streets in the station areas in general lack accommodations for pedestrians in line with ADA standards
- The existing four lane Delmar corridor, to the east of the station platform, features relatively narrow sidewalks and less than favorable conditions in general for walking on either side of the street. The existing DeBaliviere Boulevard corridor features similar conditions. However, the construction associated with the Loop Trolley project will incorporate various improvements to these two corridors in order to create a more favorable “Complete Streets” environment.
- While bicyclists of course may access the station area via roadways, the area around the Delmar and DeBaliviere stations does not feature any dedicated bike lanes or sharrows and bicycle parking is relatively limited at the station platform areas.
- The St. Vincent Greenway trail will connect from the intersection of DeBaliviere and Delmar to the north and west toward the Hanley station area. This trail will greatly enhance regional connections for people walking and biking in the station areas and provide an alternative to local arterial roads in this part of St. Louis City and County.

In addition, the Delmar station registers a high Bike Score of 76 (or, “very bikeable” as defined by Bike Score methodology).

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations:

Delmar:

The Delmar Loop station area is located entirely within the City of St. Louis. The study area is zoned under one of the following designations: Single-Family Residential District (A), Two-Family Residential District (B), Multi-family Residential District (D), Neighborhood Commercial District (F), Local Commercial and Office District (G), and Industrial District (J). Areas to the south, in the Skinker-DeBaliviere-Catlin Tract- Parkview Historic District, are subject to regulations concerning building heights, building setbacks, and overall site design. The zoning regulations in the area largely match the existing character of the surrounding districts – a mixture and intermingling of residential and commercial uses. Given the existing density and vitality of this neighborhood, the Delmar Loop station already provides a form of TOD. Current zoning in the station area does not necessarily support the expansion of this type of development, however. Existing zoning designations either do not support the creation of mixed uses and medium to higher density residential uses, or limit

1 Walk Score. www.walkscore.com, 2013.

2 *ibid.*

this framework to the D, F, and G districts. Provisions for Community Unit Plans (CUPs), Special Use Districts (SUDs), and Planned Unit Development Districts (PUDs) in St. Louis City may provide greater development flexibility for the developers of potential projects in the station area.

DeBaliviere:

Most of the station area surrounding the Forest Park / DeBaliviere MetroLink station falls within one of three historic districts in St. Louis City – the Skinker-DeBaliviere-Catlin Tract-Parkview Historic District, the Central West End Historic District, and the Kingsbury-Washington Terrace Historic District. These districts impose special regulations concerning building heights, building setbacks, and overall design and building materials.

In general, the zoning regulations to the east of DeBaliviere Avenue would support a medium-density form of TOD that includes mixed-use buildings of up to eight stories in height. The zoning classifications to the west of DeBaliviere would support the creation of a lower-density form of TOD consisting of two to three-story apartment buildings and single-family homes positioned on relatively narrow lots. The regulations for areas to the west of DeBaliviere limit maximum building heights to two to three stories, whereas buildings east of this street may reach heights of eight stories or 100 feet.

In general, across the entire DeBaliviere station area, provisions for Community Unit Plans (CUPs), Special Use Districts (SUDs), and Planned Unit Development Districts (PUDs) in St. Louis City may provide greater development flexibility for the developers of potential projects.

Analysis of Current Development Patterns

The Delmar Loop station is surrounded by a vibrant and evolving urban center. Delmar Boulevard is an enticing retail and entertainment corridor, while the surrounding residential uses support this district and create an activity center with day and nighttime uses. Its proximity to a historic district also creates a sense of authenticity and a unique place-based character. The areas to the northwest of the station are somewhat less cohesive, as the presence of large industrial uses and a range of single-use developments provide for a less integrated urban framework.

The area immediately surrounding the DeBaliviere station features a range of underperforming commercial and multi-family uses, including several aging retail and multi-family properties. However, the pending construction of the Loop Trolley will likely stimulate greater investment in this station area and the DeBaliviere corridor over time.

Current Ridership

As illustrated in the table below, the Delmar Loop station reports higher than average ridership numbers compared to averages for the Missouri portion of the system and the overall MetroLink system. This is attributable to the large existing population served by the station, the range of entertainment and commercial uses attracting people, and the degree of Metro-Bus transit service offered at the station.

Average MetroLink Boarding Estimates - Delmar Loop

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Missouri Station Average	42,000	1,560	960
Delmar Loop MetroLink Station	51,900	1,940	1,160

**Metro Fiscal Year July 2010-June 2011*

Due to its status as a junction between the Blue and Red MetroLink lines, the DeBaliviere station reports the highest ridership statistics in the entire system, with total monthly boardings of more than three times the average for the overall system.

Average MetroLink Boarding Estimates - Forest Park/DeBaliviere Station

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Missouri Station Average	42,000	1,560	960
Forest Park/DeBaliviere MetroLink Station	109,300	3,980	2,680

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The Delmar Loop Station is an example of the Major Urban Center typology. The station attracts residents from surrounding neighborhoods and services a mix of residential, employment, retail, and entertainment uses. It has been able to retain its historic character while remaining current with today's trends. It is served by a multitude of transit options, including MetroBus and MetroLink, and the future plans for the Loop Trolley. The Delmar Loop area represents a major destination in the City of St. Louis and will continue to serve as a Major Urban Center for the foreseeable future.

Given the smaller scale of the current and prospective development within walking distance of the MetroLink station, the DeBaliviere station represents more of a Neighborhood typology station. The retail and civic land uses around DeBaliviere primarily serve local residents in this part of St. Louis City and do not tend to attract business from other communities or even from people living more than a few miles away. Although the DeBaliviere station area benefits from adjacency to Forest Park Parkway, it will likely continue to serve as a Neighborhood station in the future, even with the development of the Loop Trolley project.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the Delmar Loop station is likely to experience an increase in demand for an additional 402 residential units and additional commercial space totaling around 255,563 square feet. The additional commercial space can be supported by local services, convenience goods, and personal care merchandisers. In addition, there is also a market for general local retail and restaurant/entertainment uses. Office uses can also be supported in this district, with the vibrant corridor's existing offerings creating amenities for daytime employ-

ees. Residential units should be geared towards young professionals and those appreciating convenient access to public transportation, perhaps with limited budgets. There is also strong market potential for a grocery store as part of a TOD.

The regional TOD market study also indicates that between 2010 and 2040 the station area around the DeBaliviere station is likely to experience an increase in demand for an additional 424 residential units and additional commercial space totaling around 192,000 square feet. The additional commercial space at the DeBaliviere station may include a mixture of local-serving retail and local-serving office uses.

Overall Development Strategy

Future development in the Delmar and DeBaliviere station areas should focus on connecting the two stations via revitalization along the Delmar Boulevard and DeBaliviere Avenue corridors, along the route of the new Loop Trolley project. Redevelopment should focus on the repurposing of vacant lots along this corridor into a mixture of retail, residential, and office uses, along with spaces interspersed along the two corridors for parks, open space, and civic plaza uses. Metro should consider converting at least part of the bus barn at the intersection of Delmar and DeBaliviere into new development facing the two streets. This conversion could involve converting the external parts of this key parcel to new uses and “wrapping” the parking facilities for Metro within the interior of the parcel. Alternatively, Metro could relocate to an entirely different parcel in the city, freeing up more space along Delmar for redevelopment. The City should work with current and future planning for the Loop Trolley to ensure that bike and pedestrian facilities tie in and leverage the new St. Vincent Greenway, which begins at the intersection of Delmar and DeBaliviere and proceeds to the north. Along DeBaliviere itself, redevelopment efforts should focus on bringing buildings closer to the street and avoiding the use of surface parking lots and in enhancing the pedestrian realm along the short but important stretch of DeBaliviere from Delmar south to Forest Park. Future land uses along Delmar may transition from more entertainment or retail focused near the Delmar MetroLink station to a more residentially-focused area to the east. The entire development area should focus areas of greater intensity closer to the two MetroLink station areas going forward. The potential abandonment of Des Peres Avenue north of Delmar Boulevard would increase the developable land area and support land assembly in the station area. Any redevelopment efforts to the north and west of the Delmar station would depend on the real estate goals and objectives of Washington University given the institution’s land holdings at the North Campus.

The table below compares the potential developable area at the Delmar and DeBaliviere station areas (combined) with the projected supportable square footage of new development over the next thirty years. As illustrated, if development were to proceed at urban levels of density (of around 1.0 FAR) the area would lack sufficient space to absorb the projected aggregate real estate demand over the next three decades. Given this incongruity, new development may incorporate greater height and overall density in order to absorb more of the projected real estate demand in the local area.

DELMAR AND DEBALIVIERE STATION - DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	17.83	776,675
Less: Roads and Configuration at 20%	3.566	155,335
Less: Open Space and Drainage at 20%	3.566	155,335

Less: Surface Parking		0
Net Developable Area		466,005
Potential Developable SF at 0.25 FAR		116,501
Potential Developable SF at 0.5 FAR		233,002
Potential Developable SF at 1.0 FAR		466,005
Projected Commercial Market Demand		447,870
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		826,000
Potential Real Estate Market Demand (2010 - 2040)		1,273,870

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that the City of St. Louis work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of a TOD Zoning Classification for the Station Area: The City should add a TOD zoning that specifically promotes mixed-use and compact development in the vicinity of the Delmar Loop and DeBaliviere stations. This TOD zoning should promote diversity of land uses and higher density development.

Establishment of Form Based Codes for the Station Areas: The City of St. Louis should consider adopting a Form Based Code (FBC) for the station areas in order to articulate the design of streets and building frontages within the station area district. FBC can help promote a more pedestrian friendly and TOD supportive environment. This is particularly relevant to the areas along the Delmar and DeBaliviere corridors, between the two station platforms.

Establishment of Parking Maximums (as opposed to parking minimums): The City of St. Louis should establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties in order to support and promote TOD.

Action Items

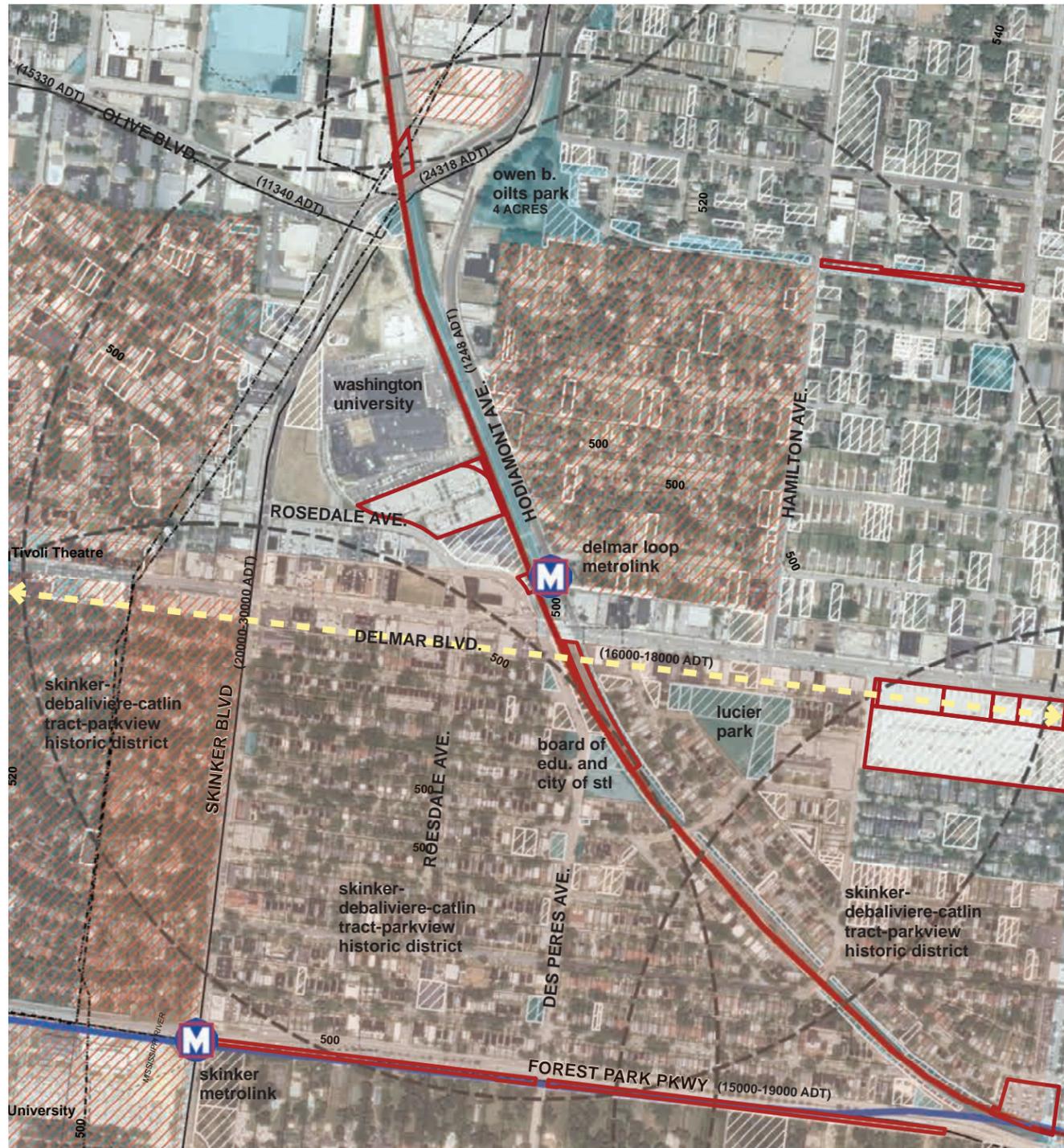
City of St. Louis

- The city of St. Louis should establish transit supportive zoning that would encourage and entice mixed-use, transit oriented development in the vicinity of the station areas. Specifically, the prospective TOD zoning in this area should encourage densities of 20 residential units or greater and should encourage creation of employment centers that provide for density of 25 employees per acre, within the station areas.
- The City should work to implement bike routes and strategies identified in the regional STL bike plan that service the general station area. These new facilities should integrate with the St. Vincent Greenway project.

- The City should identify a prioritization of public improvements (such as streetscapes, open space amenities, and various infrastructure items) and create a capital improvements plan specifically tailored to the Delmar and DeBaliviere station areas. This plan would provide a roadmap for how to proceed with investments over several years and help guide city leaders as administrations and political climates change over time.
- The City should explore the use of traffic calming, the installation of ADA ramps, the upgrading of sidewalks, the installation of sidewalks where missing, and the narrowing or “road dieting” of streets in the area as necessary in order to achieve an overall Pedestrian Level of Service of “A” or “B” for the two station areas.
- The City should consider implementing Neighborhood Improvement Districts (NIDs), Community Improvement Projects (CIPs) or Transportation Development Districts (TDDs) for the station areas in order to encourage ongoing investment in TOD. NIDs, CIPs, and TDDs provide for the generation of extra taxes to pay for project or improvement costs for new or redevelopment projects.
- The City should consider implementing Sales Tax Reimbursement Agreement for a defined geography around the station areas. These agreements represent a funding mechanism allowed by Missouri law that may be used to achieve public benefit through funding for infrastructure projects. Under these agreements, municipalities have the ability to annually appropriate the increase in sales taxes created by new private capital investment to offset a portion of their project investment costs. The sales tax increments must be used for public purposes, primarily through the funding of infrastructure improvements.
- The City may also explore the use of the Enhanced Enterprise Zone program (EEZ) under Missouri law and target this tool to the station area through the establishment of an EEZ zone. Companies in the TOD area that expand operations would receive income tax refunds and property tax abatements.
- The City should work to tie approvals for TIF or related incentive packages for development at the Delmar and DeBaliviere station areas to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 dwelling units per acre and employment uses providing for at least 25 employees per acre). The City should use the approval of TIF or related incentives as “carrots” to promote developments that are more conducive to transit oriented development.
- The City should explore establishing a Chapter 353 redevelopment corporation specifically targeted for the station area. These entities assist companies by providing tax abatements for redevelopment projects.
- The City should work proactively with property owners along the Delmar and DeBaliviere corridors to plan for the eventual conversion of vacant lots and surface parking lots to developments that would tie with the overall vision for these two corridors. Future site plans should provide for the massing of buildings along the streets and the relocation of parking lots to the rear of buildings, wherever feasible.

Metro

- Metro should work over time to enhance or provide sufficient MetroBus service to and from the station area in order to arrive at a Transit Level of Service measure of “A” or “B”.
- Metro should consider renovating or replacing the bus barn facility at Delmar and DeBaliviere in order to open up this key parcel to potential new redevelopment at this key location at the junction of the two corridors.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

DELMAR LOOP [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station serves the Delmar Loop mixed-use neighborhood and entertainment district. It is part of the historic Skinker-DeBaliviere neighborhood with a mix of residential types. Washington University's North Campus and some large industrial uses are to the north. The new Loop Trolley will soon be under construction and should help to revitalize the area and spur further development.

Average Monthly Boardings | 51,900 (MetroLink Station Average = 36,500)

Station Configuration | The station has a 3.5 acre Park-Ride lot containing 362 spaces.

Physical Barriers to Development | Physical barriers to development include the station's relationship to the Skinker-DeBaliviere-Catlin Tract-Parkview Historic District, which can restrict opportunities for development.

Regulatory Barriers to Development | Zoning around the station promotes low-density development and limits building heights to two to three stories. Community Unit Plans (CUP), Special Use Districts (SUD), and Planned Unit Development (PUD) overlays can permit increased densities and mixed-use development in this area. TOD would require a rezoning.

Development Opportunity

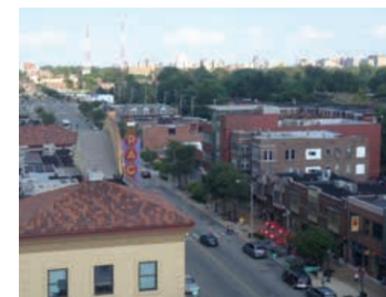
Pros

- High level of transit ridership
- Upcoming construction of the Loop Trolley
- Availability of under-utilized and vacant land and great potential for redevelopment into higher value uses
- Significant involvement of Washington University as a key stakeholder. The University owns land and views the Delmar area as a key growth area for the institution. The interest of Wash U significantly enhances the viability of this station area.

Cons

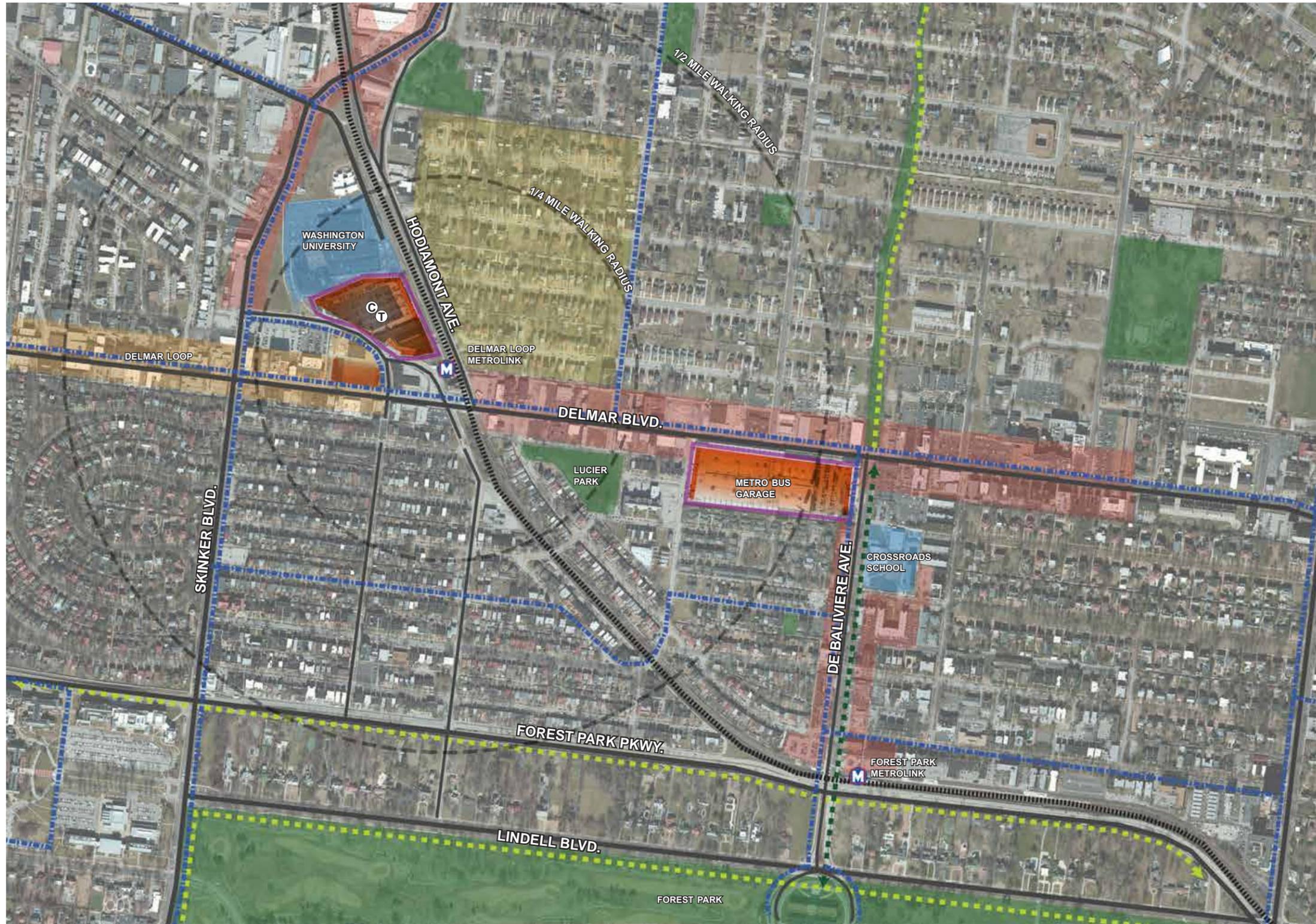
- Historic district restrictions
- Existing zoning somewhat limits the intensity of potential development (in terms of density and heights)

- 1/2 MILE RADIUS STUDY AREA
- CULTURAL PLACE OF INTEREST
- METROLINK RED LINE
- ▭ VACANT PARCELS OVER 10 ACRES (0 TOTAL)
- ▭ METRO OWNED PARCEL (18.63 ACRES)
- ▭ PUBLIC OWNED PARCEL (26 ACRES)
- ▭ VACANT PARCEL (62.6 ACRES)
- ▭ HISTORIC DISTRICT
- PROPOSED LOOP TROLLEY ROUTE
- AVERAGE DAILY TRAFFIC
- SKINKER-DEBALIVIERE-CATLIN TRACT-PARKVIEW HISTORIC DISTRICT



DESIGNWORKSHOP

STATION | DELMAR LOOP [CITY OF St. LOUIS]



- ROAD NETWORK**
- REGIONAL (50,000+ ADT)
 - ARTERIAL (30,000-49,999 ADT)
 - COLLECTOR (10,000-29,999 ADT)
 - LOCAL (>10,000 ADT)

- POTENTIAL ROAD ALIGNMENT
- RAIL ROAD LINE
- BUS LINE
- SECURITY GATE

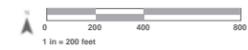
- PARKING LOT
- TENANT PARKING
- COMMUTER PARKING
- METRO OWNED PARCEL

- EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS
- EXISTING TRAIL CONNECTION
- PROPOSED TRAIL CONNECTION
- PEDESTRIAN CONNECTION

- GRADE CHANGE
- BUILDING FRONTAGE - SHORT-TERM
- BUILDING FRONTAGE - LONG-TERM
- HISTORIC DISTRICT

- RESIDENTIAL
- CORRIDOR REVITALIZATION
- CIVIC USE
- CURRENT/PLANNED AREAS OF DEVELOPMENT

STATION | DELMAR LOOP AND FOREST PARK [CITY OF ST. LOUIS]



DESIGNWORKSHOP

Central West End Station



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the Central West End MetroLink station in the future.

Jurisdictions

- City of St. Louis

Station Overview and Context

The Central West End Station (“CWE”) serves the Barnes-Jewish Hospital and Washington University Medical Center, two of the region’s largest employers. In addition, the station’s location also provides convenient access to Forest Park and Downtown. The MetroLink station benefits from a strategic location in the middle of the medical campus, which consists of high-density medical, academic, and residential towers. In addition, two mixed-use urban neighborhoods in the station area add to the general vitality of the Central West End district.

Site Analysis

Topography: The study area, within one-fourth mile of the station platform, features relatively flat terrain. The topography of the site does not appear to pose any issues with regard to future development.

Stream and Floodplain Issues: No floodplain zones exist in the station area.

Transportation Network: The Central West End station area is very well connected to nearby neighborhoods and to the greater St. Louis metropolitan area. The area benefits from its proximity to Forest Park Avenue, Kingshighway Boulevard, and Interstate 64.

Traffic counts on Kingshighway range from 25,000 to 60,000 vehicles per day, depending on the location, and counts along Forest Park Avenue approach 25,000 vehicles per day. Interstate 64 carries around 90,000 vehicle trips per day.

From the Central West End MetroLink station area, numerous MetroBus lines provide connections to surrounding destinations in Downtown St. Louis and several other metro communities.

#01 Gold Line MetroBus connects to:

- Clayton MetroBus Center
- Washington University's Danforth Campus
- Mallinckrodt Center Loop
- Skinker and Forest Park Parkway MetroLink Stations

#08 Bates-Morganford MetroBus connects to:

- Missouri Botanical Garden
- Tower Grove
- Morganford Strip
- Loughborough Commons
- Catalan Loop

#10 Gravois-Lindell MetroBus connects to:

- Forest Park
- Civic Center MetroBus Center
- Gravois-Hampton Transit Center

#13 Union MetroBus connects to:

- DeBalivere Place
- Union Seventy Business Park
- Walnut Park
- Penrose

#18 Taylor MetroBus connects to:

- O'Fallon Park

- The Ville
- Lewis Place

#42 Sarah MetroBus connects to:

- East-west access to Central West End
- O'Fallon Park

#59 Dogtown MetroBus connects to:

- Richmond Heights
- Maplewood
- Maplewood Commons
- Brentwood MetroLink Station
- Brentwood MetroBus Garage
- Rock Hill Loop

#95 Kingshighway MetroBus connects to:

- Taylor and Florissant
- Forest Park
- Shaw
- Gravois-Hampton Transit Center

Existing Transit Orientation: The station area, within one fourth mile of the CWE platform, currently includes residential densities of 7.16 units per acre, on average, and employee densities of 4.63 employees per acre, on average. Research suggests that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre. However, given the presence of numerous connecting bus lines in the CWE area and the concentration of a variety of retail and office uses, the CWE station reports significant ridership. Further increasing density levels in terms of residential units and employment would further enhance the CWE area and result in higher ridership.

Bike and Pedestrian Environment: The area around the CWE station currently registers a Walk Score of 77 (or, “very walkable” as defined by Walk Score methodology) given the proximity of the station area to a range of land uses, including the hospitals, a range of restaurants and retail options, various office uses, and a range of residential uses in the local area.¹ The following details observations concerning the bike and pedestrian environment in the CWE station area:

- Some of the streets in the station area lack accommodations for pedestrians in line with ADA standards

1 Walk Score. www.walkscore.com, 2013.

- Bicycle parking is relatively limited at the station platform area, but does exist and other opportunities are also available nearby on the BJC campus.
- Bicyclists would benefit from the addition of signage and marking on the streets in the vicinity in order to denote bike routes.

In addition, the Central West End station registers a good Bike Score of 66 (or, “bikeable” as defined by Bike Score methodology).

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

The Central West End Station area is defined by a number of zoning districts (single-family residential, multi-family residential, area commercial, industrial and unrestricted). Most of the zoning districts in the station area effectively support transit-oriented development and present few barriers to new or infill transit-oriented development. The zoning districts allow building heights of up to 8 stories or 100 feet for mixed-use, office developments and higher-density residential. The J (industrial district), to the north and east of the station platform area, poses potential barriers to TOD, in that this district allows residential only if 40 percent or more of a given block contains residential. The K (unrestricted) district, also located to the north and east of the station platform, does not allow housing at all.

While the J and K districts pose potential challenges to the creation of TOD in the CWE area, the City’s provision of Planned Unit Development and Community Unit Plan provisions may allow for flexibility in site planning and development in these districts.

Analysis of Current Development Patterns

The development patterns of the BJC/Washington University Medical Center dominate the Central West End station area. The combination of tall towers ranging from five to twenty stories and a well-kept and pedestrian dominant streetscape environment encourage walking and promote the use of transit. Levels of density generally scale downward as one moves from the campus area to the surrounding residential neighborhoods to the north and south. Forest Park, located just to the west of the station area, serves as a key amenity for the medical campus and the people who live or work in the area. The area to the east of the station area transitions to an industrial orientation and a handful of surface parking lots along and east of Taylor Avenue could represent development opportunities in the CWE area going forward.

Current Ridership

As illustrated in the table below, the Central West End station reports significantly higher average ridership numbers compared to averages for the Missouri portion of the system and the overall MetroLink system. The Central West End station serves as a major transfer hub with a wide variety of MetroBus connections. In addition, the hospital serves as a major employment center for the region, attracting a large number of commuters.

Average MetroLink Boarding Estimates - Central West End

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Missouri Station Average	42,000	1,560	960
Central West End MetroLink Station	135,400	5,400	2,130

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The Central West End station represents an example of the Major Urban Center typology. This station attracts residents from surrounding neighborhoods and serves as one of the key commuter hubs for the larger region. The combination of significant employment centers and nearby and integrated residential and retail uses creates the framework for a major urban center. While the CWE does not serve as a “downtown” for the St. Louis region per se, the economic power of the district makes this station area one of the most important areas along the MetroLink system.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the Central West End station is likely to experience an increase in demand for an additional 707 residential units and additional commercial space totaling around 480,767 square feet. However, the station area does not include any larger vacant lots or concentrations of land that could support significant developments. Any further development in the CWE area would result from campus expansions spurred by BJC or Washington University. In addition, developers could reuse or redevelop existing buildings and convert the handful of surface parking lots in the station area to a variety of land uses. The economic analysis does demonstrate significant potential demand in the station area over the next thirty years. The viability of potential new development or redevelopment in the CWE area would depend upon the underlying cost of acquiring parcels and the potential return from potential projects (as is the case with any real estate investment). Given the higher land costs in the station area, a potential project would need to produce higher rent or sale prices for real estate in order to meet normal investment goals. While the macroeconomic market analysis projects significant demand at CWE over the next few decades, potential development projects could choose other sites in this part of St. Louis City for a variety of reasons, ranging from the presence of cheaper land, to the availability of incentive packages in particular zones or locations, to the potential for more streamlined or less difficult entitlements at other locations.

Overall Development Strategy

Given the limited amount of available land, TOD development should remain centered on supporting and enhancing the existing development patterns of the BJC-Washington University Medical Center. It already serves as a good example of a TOD business district. The area around the station area provides a good example of a walkable, pedestrian friendly environment. The overall development strategy should include provisions to further enhance connections to surrounding neighborhoods and to identify opportunities for developers to engage in partnerships with Washington University or BJC in order to create additional projects in the station area.

The table following compares the potential developable area at the Central West End station with the projected supportable square footage of new development over the next thirty years. The analysis assumes that the station area does not have any sizeable areas of developable land available for development over the next few decades. In reality, as mentioned, a handful of key parcels could become available for development or redevelopment and in turn a particular project, if orchestrated correctly, could absorb a good deal of the market demand projected for the CWE area over the next thirty years.

CENTRAL WEST END STATION - DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	11	479,160
Less: Roads and Configuration at 20%	2.2	95,832
Less: Open Space and Drainage at 20%	2.2	95,832
Less: Surface Parking		0
Net Developable Area		287,496
Potential Developable SF at 0.25 FAR		71,874
Potential Developable SF at 0.5 FAR		143,748
Potential Developable SF at 1.0 FAR		287,496
Projected Commercial Market Demand		480,767
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		707,000
Potential Real Estate Market Demand (2010 - 2040)		1,187,767

Action Items

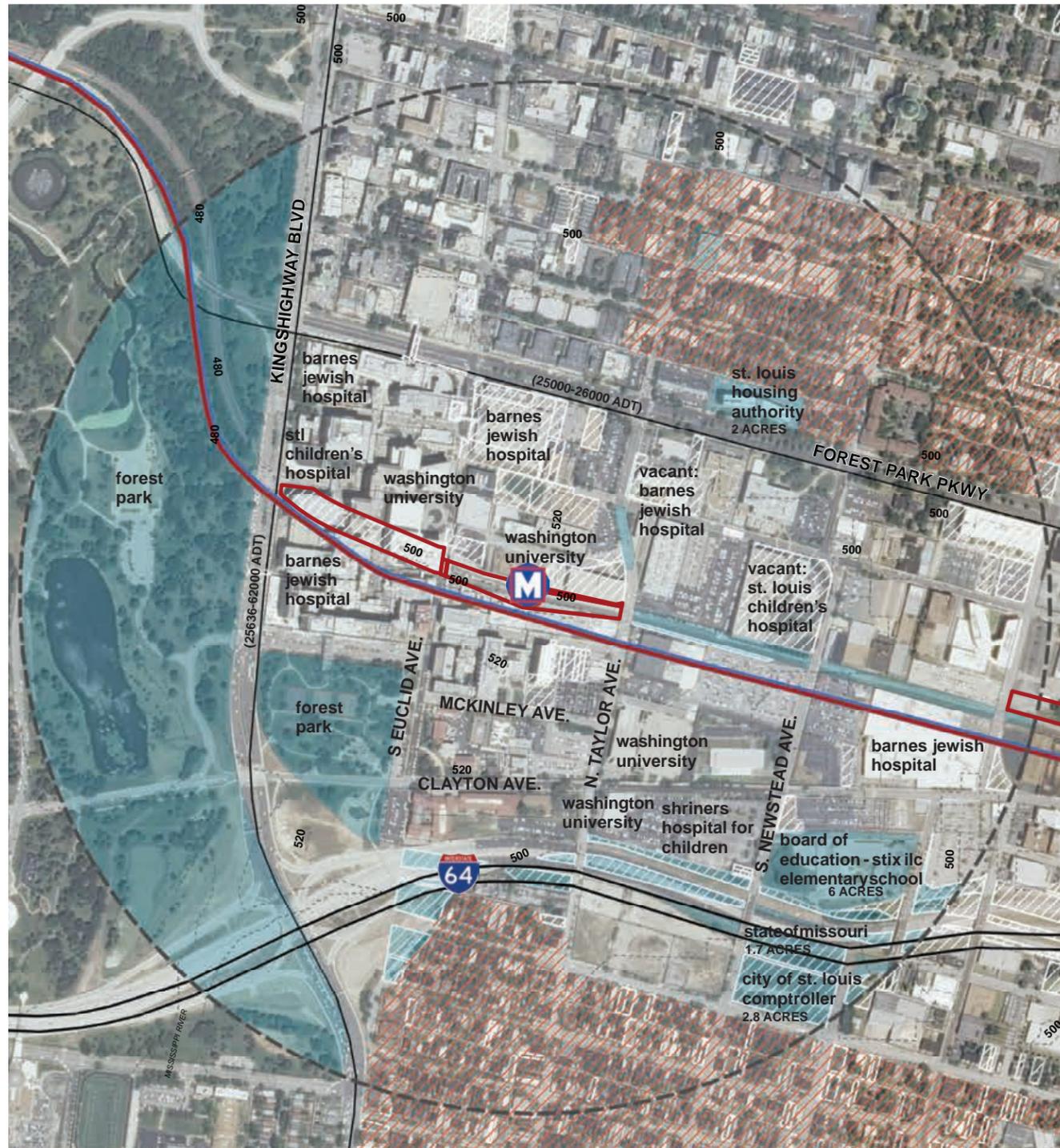
The following represent a series of action items that The City of St. Louis, Metro, and other partners should complete in order to move the creation or further enhancement of TOD at the Central West End station area forward over the next few years.

City of St. Louis

- The city should work with GRG and other partners to complete additional signage and marking for bicyclists in the CWE area. The St. Louis regional bike plan designates Taylor Avenue and Euclid as streets targeted for enhanced signage and marking. Given the importance of CWE as an employment and educational center in the city, St. Louis should work to make these bike improvements a priority.
- The City should amend or replace the J and K zoning classifications to allow for residential and mixed-use designations. While other planning designations (such as CUP) exist and make it easier for potential projects to obtain approvals for mixed-use projects in the station area, creating a TOD zoning designation for the overall station area would help to further enhance the attractiveness of the Central West End area to potential developers.

BJC and Washington University

- BJC and Washington University should identify potential future needs for space in the campus area and identify potential opportunities to joint venture to create TOD projects in the CWE station area, in the short term and over the long term. As space needs develop, these institutional partners may be able to combine employment or educational space with opportunities to provide additional retail or residential space in the local area.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

CENTRAL WEST END [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station serves the BJC/Washington University Medical Center, Forest Park, and two mixed-use neighborhoods. The station is located in the center of the medical center. It is surrounded by industrial and office uses.

Average Monthly Boardings | 135,400 (MetroLink Station Average = 36,500)

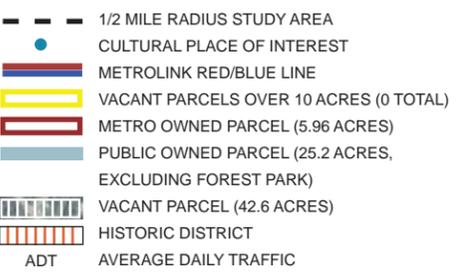
Station Configuration | The station is a major transfer hub for the Metro System. On-site parking is not provided.

Physical Barriers to Development | Access to the surrounding station site is relatively good. The existing grid network allows for pedestrian and bicycle connectivity to surrounding neighborhoods and destinations.

Regulatory Barriers to Development | Zoning around the station site creates few regulatory zoning barriers. There is an eight-story height limit and a limit on residential uses within the Industrial and Unrestricted Districts. Community Unit Plan (CUP) and Planned Unit Development (PUD) districts can increase flexibility in development.

Development Opportunity

Pros	Cons
<ul style="list-style-type: none"> • Significantly high transit ridership • Strong market for residential, office, and institutional uses 	<ul style="list-style-type: none"> • Limited land availability, with the exception of surface parking lots • Available sites are relatively distant from the station



STATION | CENTRAL WEST END [CITY OF ST. LOUIS]

DESIGNWORKSHOP



- ROAD NETWORK**
- REGIONAL (50,000+ ADT)
 - ARTERIAL (30,000-49,999 ADT)
 - COLLECTOR (10,000-29,999 ADT)
 - LOCAL (>10,000 ADT)

- POTENTIAL ROAD ALIGNMENT
- RAIL ROAD LINE
- BUS LINE
- SECURITY GATE

- PARKING LOT
- TENANT PARKING
- COMMUTER PARKING
- METRO OWNED PARCEL

- EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS
- EXISTING TRAIL CONNECTION
- PROPOSED TRAIL CONNECTION
- PEDESTRIAN CONNECTION

- GRADE CHANGE
- BUILDING FRONTAGE - SHORT-TERM
- BUILDING FRONTAGE - LONG-TERM
- HISTORIC DISTRICT

- RESIDENTIAL
- CORRIDOR REVITALIZATION
- CIVIC USE
- CURRENT/PLANNED AREAS OF DEVELOPMENT

STATION | CENTRAL WEST END [CITY OF ST. LOUIS]

DESIGNWORKSHOP

Grand Station



This profile outlines current conditions and provides specific recommendations to the City of St. Louis and other regional partners concerning how to proceed with TOD at the Grand MetroLink station in the future.

Jurisdictions

- City of St. Louis

Station Overview and Context

The Grand Station benefits from a strategic location relative to Grand Boulevard, one of the main urban boulevards in the City of St. Louis, St. Louis University's main campus, and nearby dense residential towers and mixed-use properties. The station area is adjacent to the right of way of an active freight rail line, and Metro's main shop and a variety of heavy industrial uses and open storage lots surround the station area as well. Interstate 64 provides good east-west connectivity in the vicinity of the station area, but in general the station area's location between the interstate and the heavy rail line limits connectivity to surrounding urban districts and uses in the city and therefore limits to some degree the potential for growth of TOD at the Grand station area.

Site Analysis

Topography: The overall study area includes relatively flat ground, including the blocks immediately surrounding the MetroLink station. However, Grand Boulevard and Interstate

64 pass above grade relative to the station platform area. The lack of visual connectivity between Grand and I-64 and the MetroLink station means that this station remains “out of sight and out of mind” in the minds of many local residents. The significant grade change from Grand to the station area in particular reduces the potential connectivity and synergism between the station area and nearby residential and retail land uses.

Stream and Floodplain Issues: No floodplain zones exist in the station area.

Transportation Network: The Grand station area is very well connected to road systems and mass transit. Interstate 64 is just to the north of the station area, while Interstate 44 runs relatively close to the Grand station to the south. Grand Boulevard provides good connectivity to the Grand Center area and SLU to the north and to the South Grand urban district and South City to the south.

From the Grand MetroLink station area, several MetroBus lines provide connections to surrounding destinations in Downtown St. Louis and several other metro communities.

#70 Grand:

- Wellston
- Normandy
- UMSL South MetroLink Station
- North Hanley MetroLink Station

#58X Twin Oaks Express:

- Maplewood
- Webster Groves
- Kirkwood
- Chesterfield
- Downtown
- Convention Center, 8th & Pine, and Civic Center

#410X Eureka Express:

- Maplewood
- Webster Groves
- Valley Park
- Downtown
- Convention Center, 8th & Pine, and Civic Center

Existing Transit Orientation: The station area within one fourth mile of the Grand platform currently includes residential densities of 1.75 units per acre, on average, and employee densities of 6.75 employees per acre, on average. Given that research suggests that developments around light rail stations ideally include residential densities of 20 units per acre

and employment densities of 25 employees per acre, the current orientation of the Grand station area does not reflect the standards of Transit Oriented Development.

Bike and Pedestrian Environment: The area around the Grand station currently registers a Walk Score of 70 (or, “very walkable” as defined by Walk Score methodology) given the general proximity of the station area to nearby residential, retail, civic, and employment land uses.¹ Although the grade change from the station area to Grand poses challenges to pedestrian mobility, the overall location of the Grand station provides for the higher WalkScore. People walking or biking to the station area must either walk down a lengthy flight of stairs or take the elevator from Grand Boulevard to the MetroLink platform, and this connection limits bike and pedestrian connectivity. The streets winding through the industrial areas to the east of the station generally lack pedestrian and bicycle amenities. Interstate 64 and the freight line pose challenges to north-south bike and pedestrian connectivity. The following details observations concerning the bike and pedestrian environment in the Grand station area:

- Some of the streets in the station area in general lack accommodations for pedestrians in line with ADA standards.
- The lack of street network connectivity from the station area to areas to the north and south forces pedestrians and bicyclists to use Grand Boulevard. Fortunately, Grand Boulevard now includes bike and pedestrian enhancements following the recent bridge construction project.
- While bicyclists of course may access the station area via roadways, the area around the Grand station does not feature any dedicated bike lanes or sharrows and bicycle parking is relatively limited at the station platform area.

In addition, the Grand station registers a fair Bike Score of 53 (or, “bikeable” as defined by Bike Score methodology).

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

The Grand Station area is defined by a number of zoning districts within the City of St. Louis. These zones include the Multi-family Residential District (D), Area Commercial District (H), Industrial District (J), and Unrestricted District (K). Most of the immediate station area, where land is available for development, is zoned Industrial or Unrestricted. These zones allow commercial, office, and industrial uses up to 8 stories or 100 feet in height. However, residential is not allowed at all in the K District and in the J District only if 40 percent of a block front is currently developed with housing. High density industrial and business development may be supported around the station area. The city also allows for entitlements through the Community Unit Plan (CUP) and Planned Unit Development (PUD) mechanisms that may provide greater flexibility in zoning for TOD. Again, industrial and unrestricted zoning districts generally do not provide for the types of land uses that are conducive to TOD ridership.

Analysis of Current Development Patterns

This station has an industrial character related to previous and existing land uses of manufacturing and rail services. The preponderance of industrial land uses around Grand poses

1 Walk Score. www.walkscore.com, 2013.

challenges to the potential to create traditional mixed-use type developments that ideally develop around light rail stops.

Current Ridership

As illustrated in the table below, the Grand station reports significantly higher average ridership numbers compared to averages for the Missouri portion of the system and the overall MetroLink system. The presence of the SLU and a residential population that tends to own vehicles and drive less frequently than the general population in the St. Louis metro area help contribute to higher ridership at the Grand station.

Average MetroLink Boarding Estimates - Grand Station

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Missouri Station Average	42,000	1,560	960
Grand Station MetroLink Station	78,800	3,100	1,640

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The Grand station represents an example of the Neighborhood typology. While the station area benefits from a strategic location near I-64 and Grand, other nearby stations such as Central West End and Union Station are more likely to develop as Major Urban Centers or more regionally focused light rail station areas. The Grand station will likely continue to primarily serve as a neighborhood-centric station area oriented around the SLU neighborhood and districts along South Grand Boulevard. The challenges posed by the limited land areas near the station area, sandwiched between I-64 and the freight rail line, limit the potential to create the scale of development around the Grand station that would help to elevate the profile of Grand on a regional level. Given the site constraints, Grand will likely continue to function as a Neighborhood type station for the foreseeable future.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the Grand station is likely to experience an increase in demand for an additional 283 residential units and additional commercial space totaling around 288,460 square feet. Residential development would likely continue to center around housing for students, faculty, and young adults associated with SLU. The additional commercial space may include space for some limited retail uses as well as employment uses within the station area.

Overall Development Strategy

The table below compares the potential developable area at the Grand station with the projected supportable square footage of new development over the next thirty years. As illustrated, if development were to proceed at more urban standards of density (FAR approaching 1.0) the station area would generally accommodate the projected market demand for various land uses over the next thirty years. Developing at lower density would mean

that the station area would not absorb all of the projected demand identified for the station area over the next thirty years.

GRAND STATION - DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	25.99	1,132,124
Less: Roads and Configuration at 20%	5.198	226,425
Less: Open Space and Drainage at 20%	5.198	226,425
Less: Surface Parking		0
Net Developable Area		679,275
Potential Developable SF at 0.25 FAR		169,819
Potential Developable SF at 0.5 FAR		339,637
Potential Developable SF at 1.0 FAR		679,275
Projected Commercial Market Demand		288,460
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		283,000
Potential Real Estate Market Demand (2010 - 2040)		571,460

ACTION ITEMS

The following represent a series of action items that St. Louis, Metro, and other partners should complete in order to move the creation of TOD at the Grand station area forward over the next few years.

City of St. Louis

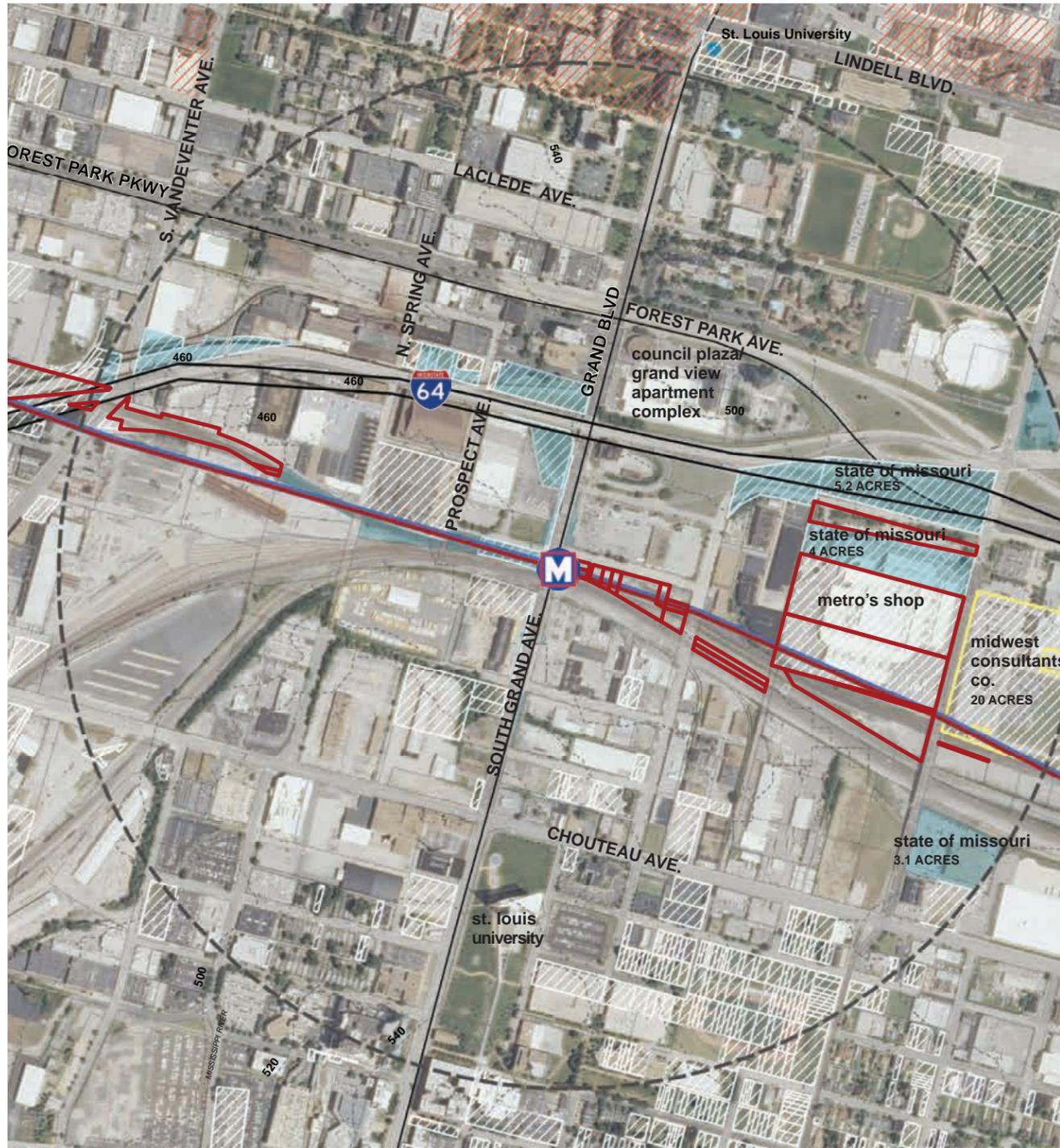
- The city of St. Louis should establish transit supportive zoning that would encourage and entice mixed-use, transit oriented development in the vicinity of the station area. Specifically, the prospective TOD zoning in this area should encourage densities of 20 residential units or greater and should encourage creation of employment centers that provide for density of 25 employees per acre, within the station area.
- The City should work to implement bike routes and strategies identified in the regional STL bike plan that service the general station area. In addition, these entities may wish to work with nearby neighborhoods to outline more specific bike routes for the communities located close to the Grand station area.
- The City should identify a prioritization of public improvements (such as streetscapes, open space amenities, and various infrastructure items) and create a capital improvements plan specifically tailored to the Grand station area. This plan would provide a roadmap for how to proceed with investments over several years and help guide city leaders as administrations and political climates change over time.
- The City should explore the use of traffic calming, the installation of ADA ramps, the up-grading of sidewalks, the installation of sidewalks where missing, and the narrowing or

“road dieting” of streets in the area as necessary in order to achieve an overall Pedestrian Level of Service of “A” or “B” for the Grand station area.

- The City should consider implementing Neighborhood Improvement Districts (NIDs), Community Improvement Projects (CIPs) or Transportation Development Districts (TDDs) for the station areas in order to encourage ongoing investment in TOD at the Grand station. NIDs, CIPs, and TDDs provide for the generation of extra taxes to pay for project or improvement costs for new or redevelopment projects.
- The City should consider implementing Sales Tax Reimbursement Agreement for a defined geography around the station area. These agreements represent a funding mechanism allowed by Missouri law that may be used to achieve public benefit through funding for infrastructure projects. Under these agreements, municipalities have the ability to annually appropriate the increase in sales taxes created by new private capital investment to offset a portion of their project investment costs. The sales tax increments must be used for public purposes, primarily through the funding of infrastructure improvements.
- The City may also explore the use of the Enhanced Enterprise Zone program (EEZ) under Missouri law and target this tool to the station area through the establishment of an EEZ zone. Companies in the TOD area that expand operations would receive income tax refunds and property tax abatements.
- The City should work to tie approvals for TIF or related county incentive packages for development at the Grand station to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 dwelling units per acre and employment uses providing for at least 25 employees per acre). The City should use the approval of TIF or related incentives as “carrots” to promote developments that are more conducive to transit oriented development.
- The City should explore establishing a Chapter 353 redevelopment corporation specifically targeted for the station area. These entities assist companies by providing tax abatements for redevelopment projects.

Metro

- Metro should work on finalizing a parking replacement strategy for Grand (and other stations). Metro should work on a strategy to locate replacement parking if part of the existing parking lot at the station area is repurposed to facilitate TOD. In addition, Metro should work with the City to ensure that local side streets accommodate on-street parking wherever possible.
- Metro should work over time to enhance or provide sufficient MetroBus service to and from the station area in order to arrive at a Transit Level of Service measure of “A” or “B”.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

GRAND [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station serves Grand Boulevard and is adjacent to Saint Louis University's main campus and is nearby to a high-density residential and mixed-use development.

Average Monthly Boardings | 78,800 (MetroLink Station Average = 36,500)

Station Configuration | The MetroLink rail line is in the same right-of-way as an active freight railroad that runs under the Grand Boulevard Bridge. On-site parking is not provided.

Physical Barriers to Development | The active heavy rail lines running along the south edge of the station area, coupled with the I-64 / US 40 freeway that crosses just to the north, effectively constrains the station area from two sides and leaves only a small wedge of developable land within easy access of the MetroLink platform.

Regulatory Barriers to Development | Zoning around the station site may offer the potential for business and industry-focused TOD, with allowable heights up to 8 stories, but will not permit residential development. Planned Unit Development (PUD) or Community Unit Plan (CUP) districts may provide greater flexibility.

Development Opportunity

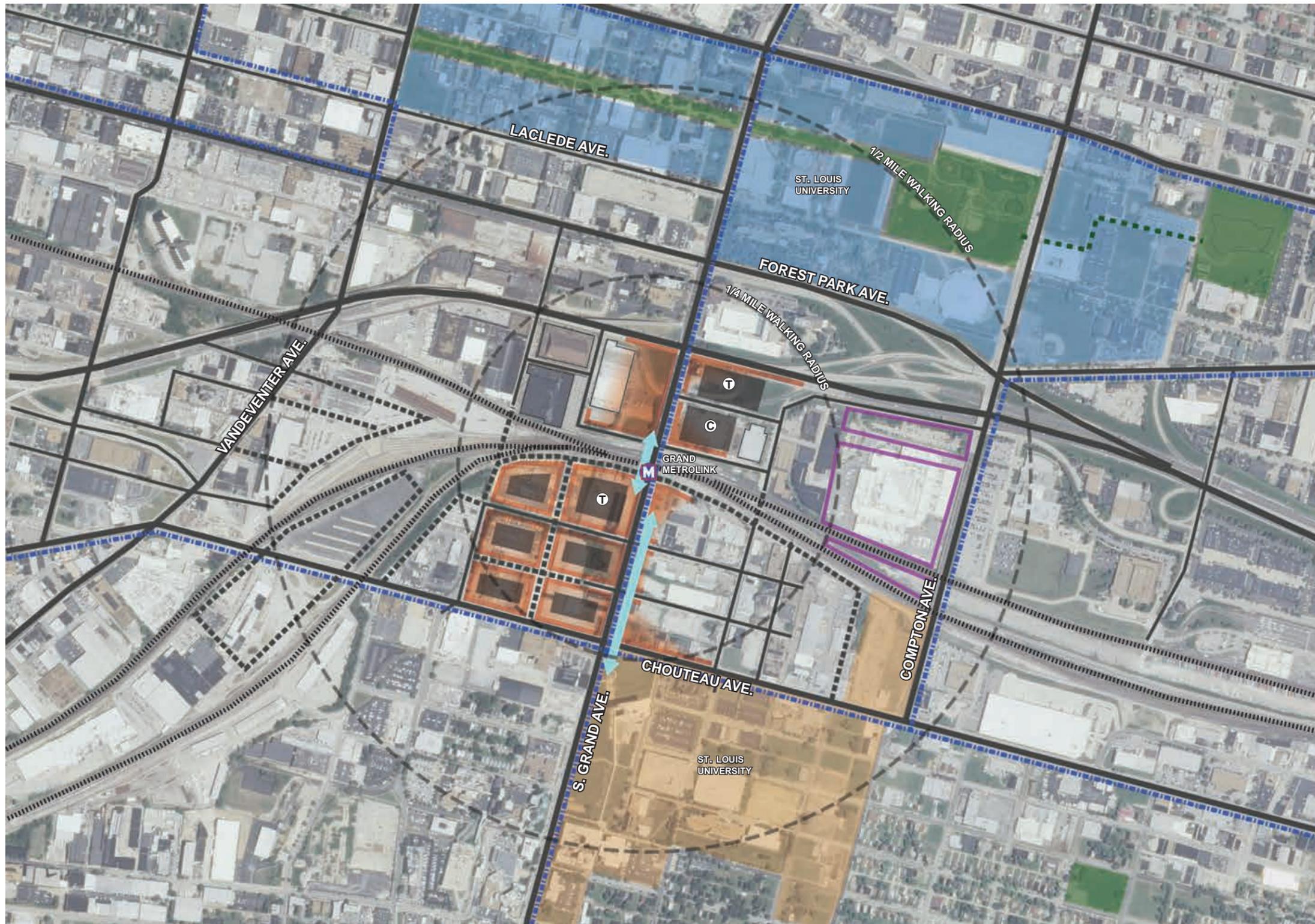
Pros	Cons
<ul style="list-style-type: none"> Higher than average transit ridership Availability of vacant or under-utilized land and buildings Potential for non-TOD reuse of industrial properties, including institutional or other uses associated with St. Louis University 	<ul style="list-style-type: none"> The station's location below the Grand Boulevard bridge, adjacent to main railroad lines, precludes significant TOD

- 1/2 MILE RADIUS STUDY AREA
- CULTURAL PLACE OF INTEREST
- METROLINK RED/BLUE LINE
- ▭ VACANT PARCELS OVER 10 ACRES (1 TOTAL)
- ▭ METRO OWNED PARCEL (20.75 ACRES)
- ▭ PUBLIC OWNED PARCEL (24.7 ACRES)
- ▭ VACANT PARCEL (101.3 ACRES)
- ▭ HISTORIC DISTRICT
- ADT AVERAGE DAILY TRAFFIC

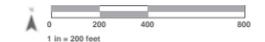


STATION | GRAND [CITY OF ST. LOUIS]

DESIGNWORKSHOP



STATION | GRAND [CITY OF ST. LOUIS]



DESIGNWORKSHOP

Union Station / Civic Center Station



This profile outlines current conditions and provides specific recommendations to the City of St. Louis and other entities concerning how to proceed with TOD at the Union and Civic Center MetroLink stations in the future.

Jurisdictions

- City of St. Louis

Station Overview and Context

The Union Station MetroLink stop serves the southwestern portion of downtown St. Louis at a location just to the east of the historic Union Station structure. The Civic Center station stop is located a few blocks further to the east, providing walkable connections to a large array of Downtown's civic institutions and entertainment venues including the Scottrade Center, the Peabody Opera House, St. Louis City Hall, and the U.S. Postal Service's Main Branch. The combined station area includes Market Street between North 20th Street and Tucker Boulevard. The northern edge of the district reaches the downtown commercial core and contains a variety of office buildings and residential complexes. Various office and industrial uses are located to the east, as well as a hotel. The area to the south of Interstate 64 includes freight railroads, parking lots, and industrial uses.

Site Analysis

Topography: The study area, within one-fourth mile of the station platform, features relatively flat terrain. The topography of the site does not appear to pose any issues with regard to future development. The existing MetroLink rail line enters into the Union Station area by way of an aging tunnel located under the trainshed. Interstate 64 passes just to the south of the station area along an elevated section.

Stream and Floodplain Issues: No floodplain zones exist in the station area.

Transportation Network: The Union and Civic Center station area is well connected to downtown St. Louis and Interstate 64. Traffic counts range from around 16,000 vehicle trips per day along Market Street to 17,000 to 20,000 vehicles per day along Tucker Boulevard, passing north-south through the station area, to around 90,000 vehicles per day on Interstate 64.

In addition, the Gateway Transportation Station, located adjacent to Union Station, provides Greyhound, Amtrak, and city taxi services in addition to MetroLink and MetroBus. The Civic Center Station also operates as a Metro System hub, offering numerous city bus routes and connections. The following outlines the bus lines that connect with Union Station / Civic Center and the associated destinations to which the various lines connect in the City, and beyond.

#04 Natural Bridge MetroBus

- Wellston
- Normandy
- UMSL South MetroLink Station
- North Hanley MetroLink Station

#10 Gravois-Lindell MetroBus

- Forest Park
- Central West End MetroBus Center
- Cherokee Street
- Gravois-Hampton Transit Center

#11 Chippewa MetroBus

- Jefferson Avenue
- Shrewsbury MetroLink Station

#30 Soulard MetroBus

- Rock Road MetroLink Station
- Wellston
- Soulard Market

- Tower Grove
- Shrewsbury MetroLink Station

#32 M.L. King-Chouteau MetroBus

- Rock Road MetroLink Station
- Pagedale
- Wellston
- Cass Avenue
- Maplewood Manchester Station

#41 Lee MetroBus

- Riverview & Hall MetroBus Center
- Riverview Drive

#73 Carondelet MetroBus

- Anheuser Bush Visitors Center
- Cherokee Street
- Bella Villa
- Mehlville
- South County Mall

#74 Florissant MetroBus

- Florissant Valley Community College
- Dellwood
- Ferguson
- Jennings

#80 Park-Shaw MetroBus

- Tower Grove
- Lafayette Square
- Shaw
- Missouri Botanical Gardens
- The Hill

#94 Page MetroBus

- Maryland Heights
- Jewish Community Center
- Olivette
- Pagedale
- Wellston MetroLink Station

#97 Delmar MetroBus

- Clayton MetroBus Center
- University City
- Delmar Loop MetroLink Station

#99 Downtown Trolley MetroBus

- Civic Center
- City Museum

#36X Bissell Hills Express MetroBus

- North St. Louis
- Spanish Lake
- Riverview & Hall MetroBus Center

#40X I-55 Express MetroBus

- Civic Center MetroLink and MetroBus Center
- South County Education Center
- South County Community College

#58X Twin Oaks Express MetroBus

- Maplewood
- Webster Groves
- Kirkwood
- Chesterfield

#174X Halls Ferry Express MetroBus

- North St. Louis
- Jennings
- Flower Valley Shopping Center

#410X Eureka Express MetroBus

- Maplewood
- Webster Groves
- Valley Park

Existing Transit Orientation: The station area within one fourth mile of the Union Station platform currently includes residential densities of 5.11 units per acre, on average, and employee densities of 5.00 employees per acre, on average. The station area within one fourth mile of the Civic Center platform currently includes residential densities of 4.88 units per acre, on average, and employee densities of 5.47 employees per acre, on average. Given that research suggests that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the Union Station and Civic Center station areas do not reflect the standards of Transit Oriented Development.

Bike and Pedestrian Environment: The area around the Union Station and Civic Center stations currently registers a Walk Score of 92 (or, “very walkable” as defined by Walk Score methodology) given the general proximity of the station areas to nearby residential, retail, civic, and employment land uses in the Downtown area.¹ The following details observations concerning the bike and pedestrian environment in the Union Station and Civic Center station areas:

- Some of the streets in the station area in general lack accommodations for pedestrians in line with ADA standards
- Clark Street, running east west from Busch Stadium to the Union Station vicinity, includes an urban design framework dominated by blank walls and narrow sidewalks that does not encourage pedestrian movement.
- The existing bridge along Market Street, passing over the spur ramp off of I-64, includes limited pedestrian or bicycle accommodations.
- While bicyclists of course may access the station area via roadways, the area around the Union Station and Civic Center stations does not feature any dedicated bike lanes or sharrows and bicycle parking is relatively limited at the station platform area.

In addition, the Union Station area registers a good Bike Score of 56 (or, “bikeable” as defined by Bike Score methodology). Civic Center registers at 53.

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

Located entirely within the City of St. Louis, the zoning and entitlement guidelines present in the Union Station and Civic Center station area generally support the creation of transit-

1 Walk Score. www.walkscore.com, 2013.

oriented development, although the zoning present in the areas to the north of I-64 provides greater support for transit oriented development. The area north of I-64 is currently zoned I: Central Business – which comprises the City’s central business district. As such, it allows all uses aside from a defined set of manufacturing and heavy industrial uses. This zoning classification governs building heights using a flexible prism, starting at a base height of 200 feet that can be increased in the case of increased building setbacks.

The area to the south of I-64 contains heavy industrial uses including the freight yard and includes either the J: Industrial or K: Unrestricted zoning districts. These zoning classes do not allow any residential uses, although this stipulation has little effect as nearly all of the land south of I-64 includes the right of way of the freight lines and freight yards.

Analysis of Current Development Patterns

The Union Station and Civic Center station areas fall within the edge of the dense downtown business district. As such, this area features an established character derived from historic civic buildings and a strong heritage of city planning. Market Street and Chestnut Streets operate as large boulevards and integrate with the Gateway Mall, stretching to the east toward the Arch and the river. The mall and these boulevards help frame great civic spaces. Union Station is designated as a historic property, and areas to the north of Olive Street also fall within a historic district. The station areas do not include large concentrations of vacant land, but surface parking lots do provide the opportunity for infill and redevelopment over time.

Current Ridership

As illustrated in the table below, the Civic Center station reports significantly higher average ridership numbers compared to averages for the Missouri portion of the system and the overall MetroLink system. Union Station reports ridership that is about equal to Missouri portion averages and slightly higher than the overall system average. These relatively strong transit ridership numbers can be attributed to high employment and population densities in the downtown area.

Average MetroLink Boarding Estimates -Union Station

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Missouri Station Average	42,000	1,560	960
Union Station MetroLink Station	78,800	3,100	1,640

*** Union Station MetroLink Station Estimates for July 2010-February 2011 due to Grand MetroLink Station Construction*

Typology Classification

The Union and Civic Center stations are both Major Urban Center typology stations. They are destinations - Union Station containing shopping, a hotel, and dining within a historic structure, and Civic Center attracting visitors to the Scott Trade Center, a regional entertainment venue. They also provide easy access to downtown St. Louis. The surrounding area includes a mixture of land uses, including residential, employment, government, and retail and entertainment. Recent developments have largely retained the historic character of the

area, through both architecture and urban design. The stations are also served by a range of transit options, including rail, regional and local-serving buses, and taxis.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station areas around both the Union Station and Civic Center station are likely to experience an increase in demand for an additional 55 residential units and additional commercial space totaling around 172,551 square feet. The downtown submarket benefits from high demand for leisure, hospitality, public administration, and professional and business services. However, Downtown currently features relatively few shopping destinations. The recent opening of the Schnucks Culinaria food store is a sign that retailers are beginning to understand the opportunities to meet the daily needs of downtown residents. Residential units in the downtown area tend to be older and densely arranged. A large portion of residents in the downtown area are also renters. There remains a strong market for newer apartments. The Union Station building has great potential for renovation that could support a variety of uses. The Civic Center station shows limited TOD potential due to the small amount of land available for redevelopment or uses that can support TOD.

Overall Development Strategy

The redevelopment of Union Station provides the opportunity to expand dining, entertainment, lodging, and retail uses to the west end of downtown. MetroLink service should be extended into the actual Union Station facility. In addition, downtown redevelopment efforts should continue to explore opportunities to support residential uses through the operation of retail and entertainment venues that cater towards residents.

The table below compares the potential developable area at the Union Station and Civic Center station areas with the projected supportable square footage of new development over the next thirty years. As illustrated, if development were to proceed at normal urban densities (including FAR of at least 1.0), the station area would have excess space over the next few decades relative to projected demand.

UNION STATION - DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	60	2,613,600
Less: Roads and Configuration at 20%	12	522,720
Less: Open Space and Drainage at 20%	12	522,720
Less: Surface Parking		0
Net Developable Area		1,568,160
Potential Developable SF at 0.25 FAR		392,040
Potential Developable SF at 0.5 FAR		784,080
Potential Developable SF at 1.0 FAR		1,568,160
Projected Commercial Market Demand		345,102

Projected Residential Market Demand (assuming average of 1,000 SF per unit)		110,000
Potential Real Estate Market Demand (2010 - 2040)		455,102

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that the City of St. Louis work with Metro to complete the following steps in order to encourage TOD in this area over the next 30 years.

Establishment of a TOD Zoning Classification for the Station Area: The City should add a TOD zoning that specifically promotes mixed-use and compact development in the vicinity of the Union and Civic Center stations. This TOD zoning should promote diversity of land uses and higher density development while utilizing the station areas as development amenities.

Establishment of Form Based Codes for the Downtown Area: As a substitute for (or in addition to) the creation of a TOD specific zoning classification, the City of St. Louis should consider establishing a Form Based Code (FBC) for the station area in order to articulate the design of streets and building frontages within the station area district.

Action Items

The following represent a series of action items that St. Louis, Metro, and other partners should complete in order to move the creation of TOD at the Union station area forward over the next few years.

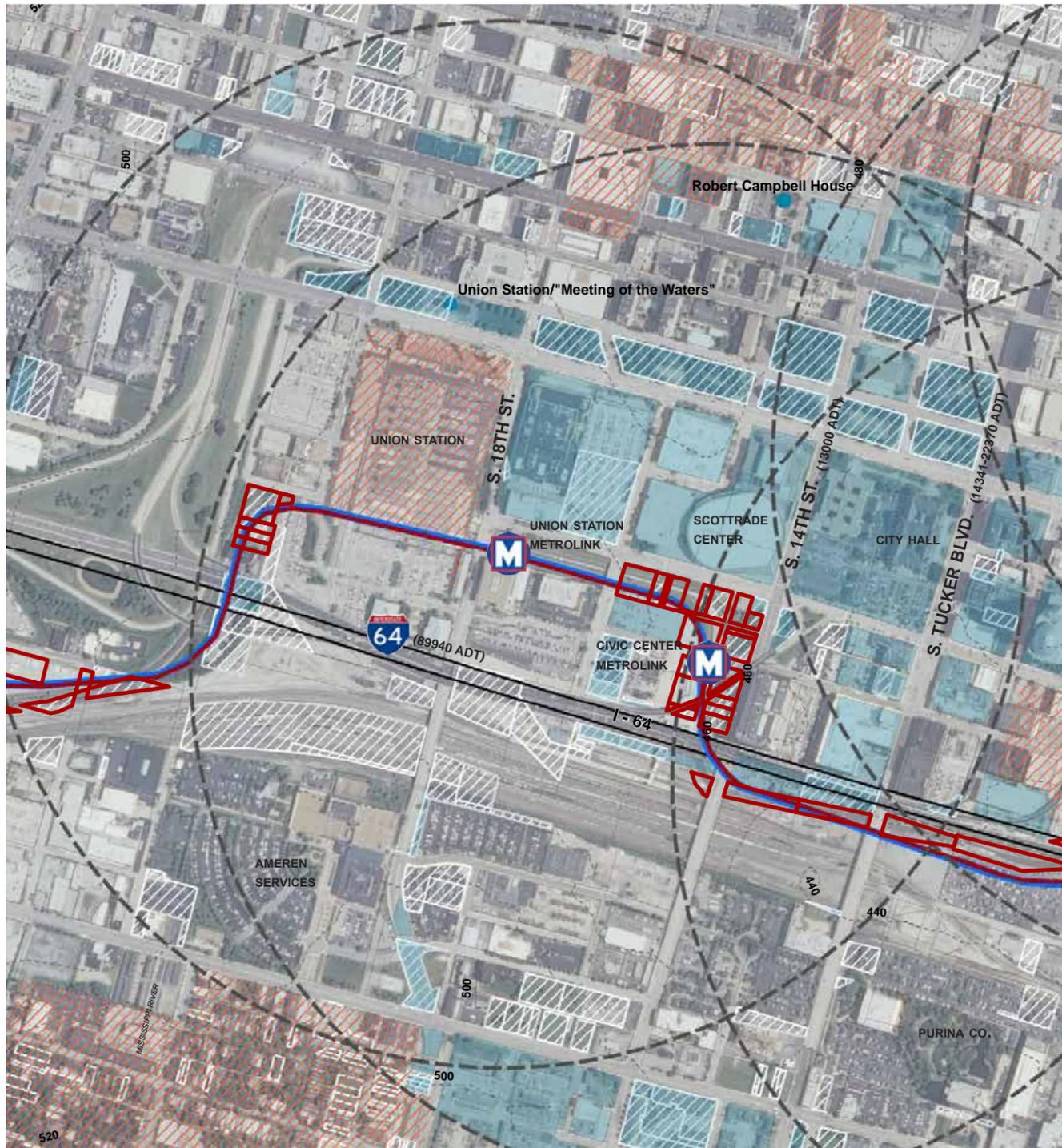
City of St. Louis

- The city of St. Louis should establish transit supportive zoning that would encourage and entice mixed-use, transit oriented development in the vicinity of the station area. Specifically, the prospective TOD zoning in this area should encourage densities of 20 residential units or greater and should encourage creation of employment centers that provide for density of 25 employees per acre, within the station area.
- The City should work to implement bike routes and strategies identified in the regional STL bike plan that service the general station area.
- The City should identify a prioritization of public improvements (such as streetscapes, open space amenities, and various infrastructure items) and create a capital improvements plan specifically tailored to the Union Station and Civic Center station areas. This plan would provide a roadmap for how to proceed with investments over several years and help guide city leaders as administrations and political climates change over time.
- The City should explore the use of traffic calming, the installation of ADA ramps, the upgrading of sidewalks, the installation of sidewalks where missing, and the narrowing or “road dieting” of streets in the area as necessary in order to achieve an overall Pedestrian Level of Service of “A” or “B” for the two station areas.
- The City should consider implementing Neighborhood Improvement Districts (NIDs), Community Improvement Projects (CIPs) or Transportation Development Districts (TDDs) for the station areas in order to encourage ongoing investment in TOD. NIDs, CIPs, and TDDs provide for the generation of extra taxes to pay for project or improvement costs for new or redevelopment projects.

- The City should consider implementing Sales Tax Reimbursement Agreement for a defined geography around the station areas. These agreements represent a funding mechanism allowed by Missouri law that may be used to achieve public benefit through funding for infrastructure projects. Under these agreements, municipalities have the ability to annually appropriate the increase in sales taxes created by new private capital investment to offset a portion of their project investment costs. The sales tax increments must be used for public purposes, primarily through the funding of infrastructure improvements.
- The City may also explore the use of the Enhanced Enterprise Zone program (EEZ) under Missouri law and target this tool to the station area through the establishment of an EEZ zone. Companies in the TOD area that expand operations would receive income tax refunds and property tax abatements.
- The City should work to tie approvals for TIF or related incentive packages for development at the Union Station and Civic Center station areas to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 dwelling units per acre and employment uses providing for at least 25 employees per acre). The City should use the approval of TIF or related incentives as “carrots” to promote developments that are more conducive to transit oriented development.
- The City should explore establishing a Chapter 353 redevelopment corporation specifically targeted for the station area. These entities assist companies by providing tax abatements for redevelopment projects.
- The City should work with MoDOT to convert the existing freeway spur, located along Market to the west of Union Station, into an interchange design that encompasses a smaller footprint located closer to I-64. This change would free up additional land along Market and west of Union Station for development in close proximity to the MetroLink station and the variety of key civic and private sector properties along and south of Market Street. This move would also help to restitch the urban fabric of this portion of the City of St. Louis that was disrupted several decades ago with the opening of I-64 and the associated 20th and Chestnut freeway spur ramp.
- The City should work with adjacent property owners to redesign Clark Street as a pedestrian oriented street, with improved streetscape and associated amenities, in the station area. Clark Street should evolve to represent a main pedestrian through-way and the focal point of ongoing retail and office redevelopment efforts, forming a key spine of activity from Busch Stadium to the west past Union Station.
- Assuming that the freeway spur ramp at 20th and Chestnut is redesigned, the City should work with property owners to ensure that the Gateway Mall extends to the west along Market through the spur ramp area. This move would help to connect areas to the west with the core of downtown and extend the mall as a civic amenity a few blocks to the west. This amenity should help serve as a key gathering place and help to drive real estate activity and real estate values on nearby and adjacent parcels.

Metro

- Metro should work on finalizing a parking replacement strategy for Union Station and Civic Center (and other stations). Metro should work on a strategy to locate replacement parking if part of the existing parking lot at the station area is repurposed to facilitate TOD. In addition, Metro should work with the City to ensure that local side streets accommodate on-street parking wherever possible.
- Metro should work over time to enhance or provide sufficient MetroBus service to and from the station area in order to arrive at a Transit Level of Service measure of “A” or “B”.
- Metro should work with the new owners of Union Station to consider relocating the MetroLink station to the west in order to better tie the light rail service to the historic Union Station building.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

WEST DOWNTOWN STATIONS [SITE ANALYSIS] UNION STATION AND CIVIC CENTER

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | These downtown stations provide walkable access to most downtown attractions and civic institutions. Tall, dense buildings provide a mix of retail, office, and residential uses.

Average Monthly Boardings | Civic Center = 84,900; Union Station = 44,800 (MetroLink Station Average = 36,500)

Station Configuration | The Civic Center Station serves as one of Metro's central hubs between MetroLink and bus routes. On-site parking is not provided.

Physical Barriers to Development | Access to the surrounding station site is limited by surrounding Interstate highways and a rail yard to the south.

Regulatory Barriers to Development | Zoning around the station sites does not pose a significant barrier to new or infill TOD.

Development Opportunity

Pros	Cons
<ul style="list-style-type: none"> • Accessibility to downtown civic and entertainment venues • Downtown employment density • Potential for residential, office, lodging, mixed-use, and entertainment-related uses • Walkable neighborhood 	<ul style="list-style-type: none"> • No significant concentrations of vacant lots, other than parking lots

- 1/2 MILE RADIUS STUDY AREA
- CULTURAL PLACE OF INTEREST
- METROLINK RED/BLUE LINE
- VACANT PARCELS OVER 10 ACRES
- METRO OWNED PARCEL
- PUBLIC OWNED PARCEL
- VACANT PARCEL
- HISTORIC DISTRICT
- ADT AVERAGE DAILY TRAFFIC

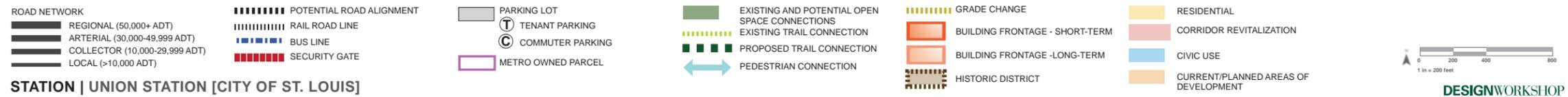
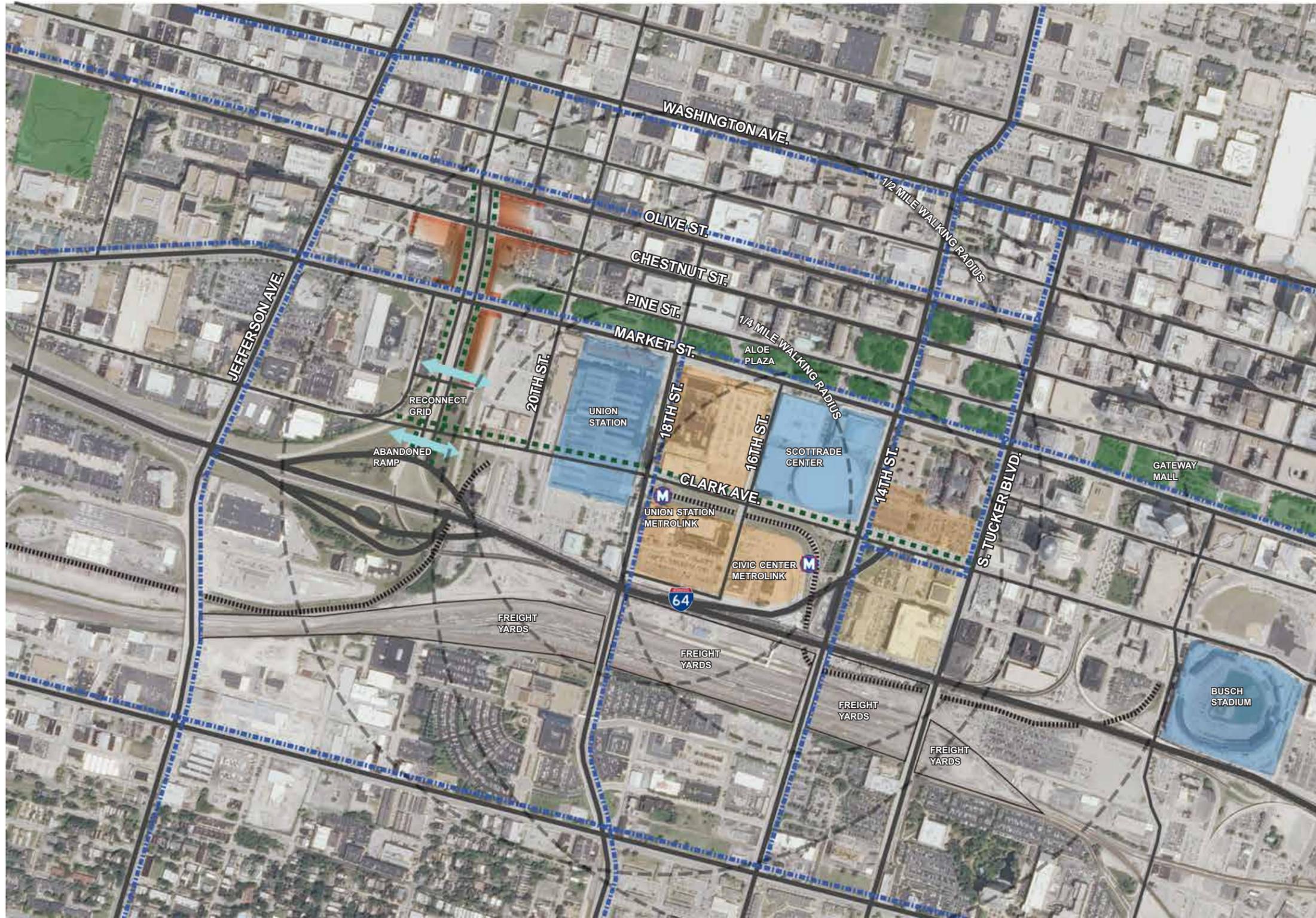
METRO OWNED PARCELS:
UNION STATION - 10.53 ACRES
CIVIC CENTER - 10.32 ACRES

PUBLIC OWNED PARCELS:
UNION STATION - 85.7 ACRES
CIVIC CENTER - 113.4 ACRES



STATION | WEST DOWNTOWN [CITY OF ST. LOUIS]

DESIGNWORKSHOP



STATION | UNION STATION [CITY OF ST. LOUIS]



DESIGNWORKSHOP



ROAD NETWORK
 REGIONAL (50,000+ ADT)
 ARTERIAL (30,000-49,999 ADT)
 COLLECTOR (10,000-29,999 ADT)
 LOCAL (>10,000 ADT)

POTENTIAL ROAD ALIGNMENT
 RAIL ROAD LINE
 BUS LINE
 SECURITY GATE

PARKING LOT
 TENANT PARKING
 COMMUTER PARKING
 METRO OWNED PARCEL

EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS
 EXISTING TRAIL CONNECTION
 PROPOSED TRAIL CONNECTION
 PEDESTRIAN CONNECTION

GRADE CHANGE
 BUILDING FRONTAGE - SHORT-TERM
 BUILDING FRONTAGE - LONG-TERM
 HISTORIC DISTRICT

RESIDENTIAL
 CORRIDOR REVITALIZATION
 CIVIC USE
 CURRENT/PLANNED AREAS OF DEVELOPMENT

STATION | CIVIC CENTER [CITY OF ST. LOUIS]



Stadium Station TOD Action Plan



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the Stadium MetroLink station in the future.

Jurisdictions

- City of St. Louis

Station Overview and Context

The Stadium MetroLink station serves south downtown St. Louis at Busch Stadium. It is located in close proximity to I-64, the Gateway Mall, and the Mississippi Riverfront. The surrounding uses include block-long parking garages and the empty lot where the old stadium was located. This lot is targeted for redevelopment under the Ballpark Village plan. To the west, a group of mid-rise 19th century warehouse buildings are being converted into a mixed-use and entertainment district, while farther into the commercial core and Riverfront towers of 20 to 40 stories line the streets and include various retail, hotel, and office uses. The area to the south of the stadium and Interstate 64 is largely occupied by surface parking lots.

Busch Stadium has a capacity of 44,000 and this facility drives a good deal of the ridership at this MetroLink station, given the Cardinals play 81 times each year at the facility. The Scottrade Center, with a capacity of 19,000 and the home of the St. Louis Blues, is located next to the Civic Center station but does attract some riders who access the area via the Stadium MetroLink station.

Site Analysis

Topography: The study area, within one-fourth mile of the station platform, features relatively flat terrain. The topography of the site does not appear to pose any issues with regard to future development.

Stream and Floodplain Issues: No floodplain zones exist in the station area.

Transportation Network: The Stadium Station is connected by Interstate 64 running east-west and 7th and 8th Streets running north-south. I-64 generates around 90,000 vehicle trips a day, while 7th and 8th Streets have traffic volumes of less than 6,000 trips per day. The MetroLink station does not support any direct MetroBus route connections.

Existing Transit Orientation: The station area within one fourth mile of the Stadium MetroLink platform currently includes residential densities of 3.25 units per acre, on average, and employee densities of 4.10 employees per acre, on average. Given that research suggests that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the Stadium station area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development. While the Stadium area enjoys a location within a walkable urban grid of streets in the downtown district, the station area generally lacks residential land uses as well as sizeable areas of office space. In order to fully represent a TOD, the station area must evolve to include a wider range of land uses.

Bike and Pedestrian Environment: The area around the Stadium station currently registers a Walk Score of 86 (or, “very walkable” as defined by Walk Score methodology) given the connections provided by the local street grid to surrounding retail, entertainment, office, and residential land uses in the downtown area.¹

The following details observations concerning the bike and pedestrian environment in the Stadium station area:

- Pedestrians and bicyclists must pass under Interstate 64 in order to travel from areas to the south of Busch Stadium to the MetroLink station and areas farther to the north. The area lacks a dedicated passageway for people walking and biking and passing through this area by foot can prove challenging and somewhat dangerous.
- While the overall station area is fairly walkable and compact, pedestrians must cross or pass by sizeable parking lot areas to the north and east of the stadium in order to reach nearby destinations in the downtown area.
- The district overall lacks bike storage facilities and designated passageways for bicyclists.

In addition, the Stadium station registers a good Bike Score of 50 (or, “bikeable” as defined by Bike Score methodology).

Utility Issues: There are no known utility constraints to development.

¹ Walk Score. www.walkscore.com, 2013.

Existing Zoning and Entitlement Considerations

Located entirely within the City of St. Louis, the Stadium station area may be generally open to transit-oriented development, although zoning classifications in the area north of I-64 may be more supportive of new and infill TOD. The area north of I-64 is currently zoned I: Central Business – which comprises the City’s central business district. As such, it allows all uses aside from a defined set of manufacturing and heavy industrial uses. Building height is governed by a flexible prism, starting at a base height of 200 feet that can be increased through building setback provisions.

The majority of the station area south of I-64 is zoned such that it could support industrial and business-focused transit-oriented development only, since both the J: Industrial District and K: Unrestricted District allow all uses aside from mixed use or residential. One half-block of the station area near the intersection of 6th and Cerre Streets is located within the B: Two-family residential district, allowing only single- and two-family homes.

Analysis of Current Development Patterns

This station areas falls within the downtown business district. As such, it has an established character derived from historic civic buildings and city planning. The station area is focused around Busch Stadium and the vitality it brings to the downtown. In addition, the station’s proximity to the Arch Grounds, Riverfront, and other Downtown attractions create a tourism-based destination along with daily office and employment opportunities. Towers of 20 to 40 stories define the downtown skyline. However, surface and structured parking lots dominate the areas to the east and north of the immediate Busch Stadium grounds and have contributed to a disconnection between the stadium and the heart of the downtown district to the north and east. Upon completion of the new Busch Stadium several years ago, the Cardinals demolished the old Busch Stadium. Today, a grassy area remains at this location, awaiting development. The Cordish Companies had planned the Ballpark Village mixed-use entertainment district on this property but the flagging economy and concerns over public finance for the project led to the project’s stoppage a few years ago. While plans for a reconfigured Ballpark Village continue to evolve, this land, within a block of the station area, remains vacant.

Current Ridership

As illustrated in the table below, the Stadium Station reports average ridership numbers compared to averages for the Missouri portion of the system and the overall MetroLink system.

Average MetroLink Boarding Estimates - Stadium Station

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Missouri Station Average	42,000	1,560	960
Stadium MetroLink Station	40,100	1,290	1,380

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The Stadium Station is a Campus/Special Event typology station. It is focused around a major venue, Busch Stadium. Any new developments in the station area will integrate planning for the stadium's use and consider how to leverage the stadium activity to drive retail, entertainment, and other land uses in the station area's vicinity.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the Stadium is likely to experience an increase in demand for an additional 110 residential units and additional commercial space totaling around 345,102 square feet. This station area has great potential for TOD, with sites available that can support residential, office, and entertainment-related uses. The Ballpark Village development plan is proposing to turn the parcels once occupied by the old stadium into a mixed-use development housing offices, residential units, and a Cardinals museum. Phase I of the project is proposed to include a minimum of 325,000 square feet of office and 250,000 square feet of retail/entertainment uses.

Overall Development Strategy

The redevelopment of Stadium Station provides the opportunity to expand dining, entertainment, lodging, and retail uses in the southern part of the downtown district. Beyond the Ballpark Village development, the city should work with private sector interests to expand the energy created by the stadium to the various properties to the south of the stadium and to the south of Highway 40. This area contains potentially several blocks of urban development area. Future development plans should consider how to connect this area to the station area and the area north of the interstate and how to create a distinct, walkable, and compact sub-area that could include a mixture of residential, office, and entertainment uses. This area should help to tie the stadium area with other parts of the city just to the south of downtown, including properties along Broadway and 4th Street.

The table below compares the potential developable area at the Stadium station with the projected market demand in the station area over the next 30 years. Assuming that developments in the area proceed at urban densities of 1.0 FAR or greater, the area will have excess potential developable space relative to the projected demand. The various surface lots currently located within the Stadium area represent potential key redevelopment parcels within the district over the next few decades. Any potential development efforts will need to account for the loss of parking from any surface lots in the district.

STADIUM STATION - DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	44	1,916,640
Less: Roads and Configuration at 20%	8.8	383,328
Less: Open Space and Drainage at 20%	8.8	383,328
Less: Surface Parking		0
Net Developable Area		1,149,984
Potential Developable SF at 0.25 FAR		287,496

Potential Developable SF at 0.5 FAR		574,992
Potential Developable SF at 1.0 FAR		1,149,984
Projected Commercial Market Demand		345,000
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		110,000
Potential Real Estate Market Demand (2010 - 2040)		455,000

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that the City of St. Louis work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of a TOD Zoning Classification for the Station Area: The City should add a TOD zoning that specifically promotes mixed-use and compact development in the vicinity of Stadium Station. This TOD zoning should promote a diversity of land uses and higher density development while utilizing the station areas as development amenities.

Establishment of Form Based Codes for the Downtown Area: As a substitute for (or in addition to) the creation of a TOD specific zoning classification, the City of St. Louis should consider establishing a Form Based Code (FBC) for the station area in order to articulate the design of streets and building frontages within the station area district.

Action Items

The following represent a series of action items that the City of St. Louis, Metro, and other partners should complete in order to move the creation of TOD at the Stadium station area forward over the next few years.

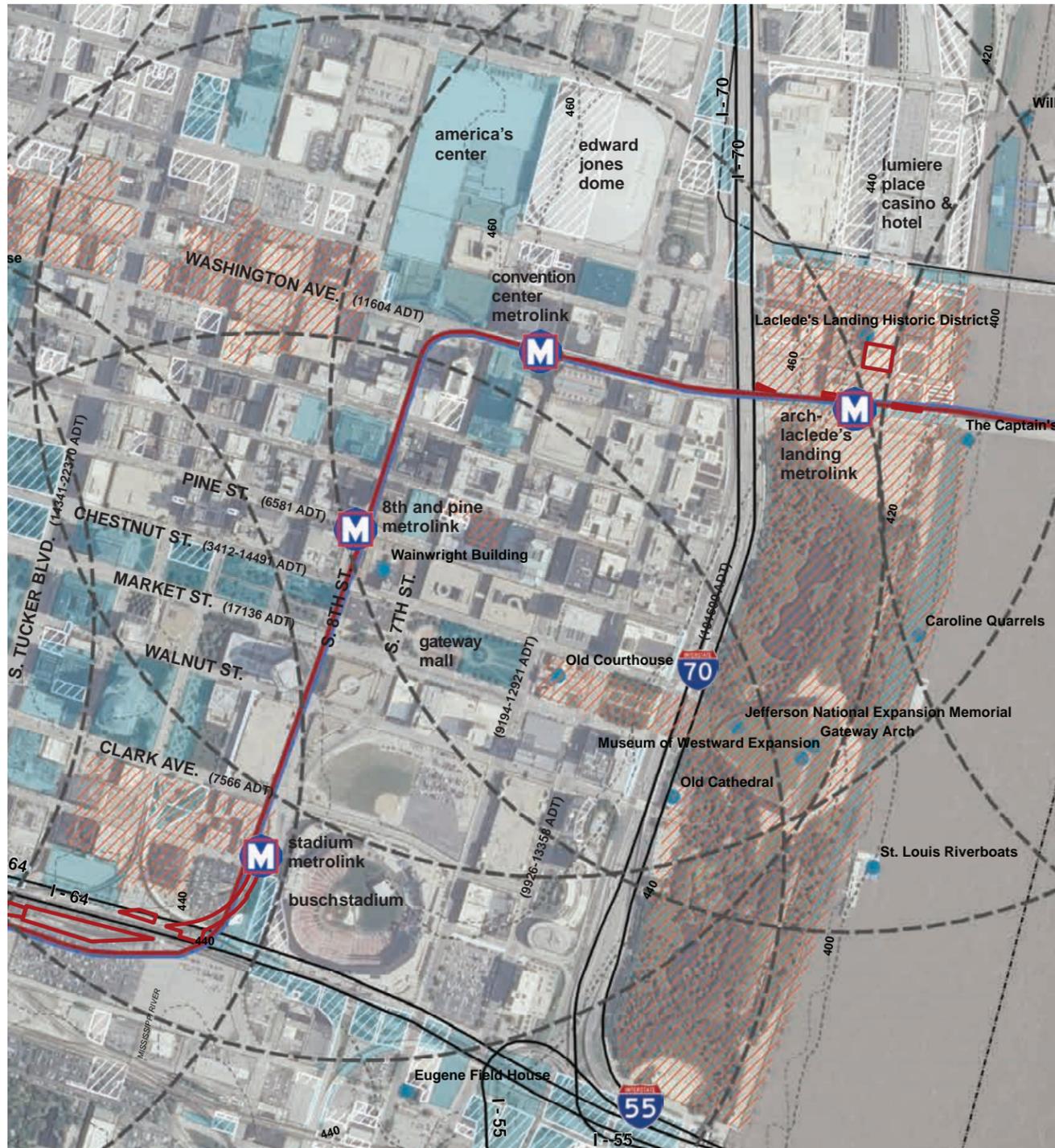
City of St. Louis

- The City of St. Louis should establish transit supportive zoning that would encourage and entice mixed-use, transit oriented development in the vicinity of the station area. Specifically, the prospective TOD zoning in this area should encourage densities of 20 residential units or greater and should encourage creation of employment centers that provide for density of 25 employees per acre, within the station area.
- The City of St. Louis should formally and proactively identify and develop greenways and open space components within the overall stadium district, as depicted by the green symbols on the station area diagram. This effort should include designating and constructing bike lanes, sharrows, linear parks, and other amenities that would help to create improved civic spaces within the district and would better connect the various assets in the district.
- The City of St. Louis should identify a prioritization of public improvements (such as streetscapes, open space amenities, and various infrastructure items) and create a capital improvements plan specifically tailored to the station area. This plan would provide a roadmap for how to proceed with investments over several years and help guide city leaders as administrations and political climates change over time.

- The City of St. Louis should explore the use of traffic calming, the installation of ADA ramps, the upgrading of sidewalks, the installation of sidewalks where missing, and the narrowing or “road dieting” of streets in the area as necessary in order to achieve an overall Pedestrian Level of Service of “A” or “B” for the Stadium station area.
- The City should consider implementing a Sales Tax Reimbursement Agreement for a defined geography around the station area. These agreements represent a funding mechanism allowed by Missouri law that may be used to achieve public benefit through funding for infrastructure projects. Under these agreements, municipalities have the ability to annually appropriate the increase in sales taxes created by new private capital investment to offset a portion of their project investment costs. The sales tax increments must be used for public purposes, primarily through the funding of infrastructure improvements.
- The City may also explore the use of the Enhanced Enterprise Zone program (EEZ) under Missouri law and target this tool to the station area through the establishment of an EEZ zone. Companies in the TOD area that expand operations would receive income tax refunds and property tax abatements.
- The City should work to tie approvals for TIF or related county incentive packages for development at the Stadium station to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 DU per acre and employment uses providing for at least 25 employees per acre). The City should use the approval of TIF or related incentives as “carrots” to promote developments that are more conducive to transit oriented development.
- The City should explore establishing a Chapter 353 redevelopment corporation specifically targeted for the station area. These entities assist companies by providing tax abatements for redevelopment projects.

Metro

- Metro should work over time to enhance or provide sufficient MetroBus service to and from the station area in order to arrive at a Transit Level of Service measure of “A” or “B”.
- Metro should also work with the City and planners to ensure that future upgrades in the Stadium district include enhanced wayfinding and signage that would direct visitors to the district to the MetroLink facility.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

EAST DOWNTOWN STATIONS [SITE ANALYSIS] STADIUM, 8TH & PINE, CONVENTION CENTER, AND ARCH-LACLEDE'S LANDING

MetroLink Station Area Profile*
Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | These downtown stations provide walkable access to most downtown attractions and civic institutions. Tall, dense buildings provide a mix of retail, office, and residential uses.

Average Monthly Boardings | Stadium = 40,100; 8th and Pine = 47,900; Convention Center = 44,300; Arch/Laclede's Landing = 34,900 (MetroLink Station Average = 36,500)

Station Configuration | MetroBus does not directly serve the Stadium or Arch-Laclede's Landing stations. On-site parking is not provided.

Physical Barriers to Development | Access to some of the potential development sites within one half mile of these stations is limited by the interstates that cross the downtown area (including I-70 and I-64), and bridge crossings such as the Eads Bridge.

Regulatory Barriers to Development | Zoning around the station sites does not pose a significant barrier to new or infill TOD.

Development Opportunity

Pros	Cons
<ul style="list-style-type: none"> • Accessibility to downtown civic and entertainment venues • Downtown employment density • Potential for residential, office, lodging, mixed-use, and entertainment-related uses • Arch-Laclede's could be enhanced by waterfront revitalization • Walkable neighborhood 	<ul style="list-style-type: none"> • No significant concentrations of vacant lots, other than parking lots

- 1/2 MILE RADIUS STUDY AREA
- CULTURAL PLACE OF INTEREST
- METROLINK RED/BLEU LINE
- ▭ VACANT PARCELS OVER 10 ACRES (0 TOTAL)
- ▭ METRO OWNED PARCEL
- ▭ PUBLIC OWNED PARCEL
- ▭ VACANT PARCEL
- ▭ HISTORIC DISTRICT
- ADT AVERAGE DAILY TRAFFIC

METRO OWNED PARCELS:	PUBLIC OWNED PARCELS:
STADIUM - 8.08 ACRES	STADIUM - 84 ACRES
8TH/PINE - 2.96 ACRES	8TH/PINE - 103 ACRES
CONVENTION CENTER - .55 ACRES	CONVENTION CENTER - 72.2 ACRES
ARCH/LACLEDE'S LANDING - .92 ACRES	ARCH/LACLEDE'S LANDING - 43.7 ACRES



STATION | EAST DOWNTOWN [CITY OF ST. LOUIS]





ROAD NETWORK
 REGIONAL (50,000+ ADT)
 ARTERIAL (30,000-49,999 ADT)
 COLLECTOR (10,000-29,999 ADT)
 LOCAL (>10,000 ADT)

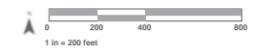
POTENTIAL ROAD ALIGNMENT
 RAIL ROAD LINE
 BUS LINE
 SECURITY GATE

PARKING LOT
 TENANT PARKING
 COMMUTER PARKING
 METRO OWNED PARCEL

EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS
 EXISTING TRAIL CONNECTION
 PROPOSED TRAIL CONNECTION
 PEDESTRIAN CONNECTION

GRADE CHANGE
 BUILDING FRONTAGE - SHORT-TERM
 BUILDING FRONTAGE - LONG-TERM
 HISTORIC DISTRICT

RESIDENTIAL
 CORRIDOR REVITALIZATION
 CIVIC USE
 CURRENT/PLANNED AREAS OF DEVELOPMENT



STATION | STADIUM [CITY OF ST. LOUIS]

DESIGNWORKSHOP

8th & Pine and Convention Center Stations



This profile outlines current conditions and provides specific recommendations to the City of St. Louis and other entities concerning how to proceed with TOD at the 8th & Pine and Convention Center MetroLink stations in the future.

Jurisdictions

- City of St. Louis

Station Overview and Context

The 8th & Pine and Convention Center combined station areas, in the heart of Downtown St. Louis, serve the city's central business district. High-rise towers, both historic and modern, characterize the urban core. America's Center Convention Center and the Edward Jones Dome complex draw visitors to the Convention Center station, while other uses such as residential, hotel, office, and retail are also prominent throughout the downtown district.

Site Analysis

Topography: The study area, within one-fourth mile of the station platform, features relatively flat terrain. The topography of the site does not appear to pose any issues with regard to future development.

Stream and Floodplain Issues: Floodplain zones do not exist in this station area.

Transportation Network: The 8th & Pine and Convention Center combined station area links with the surrounding Downtown grid. Both stations feature easy access via local streets to Interstates 64 and 70. Near the Convention Center, I-70 accommodates over 100,000 vehicle trips per day. North Broadway, running north-south in the urban core, carries around 12,000 daily trips, while Washington Avenue, running east-west parallel to the Convention Center, carries between 6,000 and 11,000 trips per day. The remainder of the downtown streets in the surrounding grid carry from 1,000 to 3,000 trips per day.

From the 8th & Pine and Convention Center MetroLink station area, a number of MetroBus lines provide connections to surrounding destinations within the metropolitan region.

#04 Broadway MetroBus connects to:

- North St.. Louis
- Soulard
- Catalan Loop

#99 Downtown Trolley MetroBus connects to:

- Civic Center
- City Museum

#36X Bissell Hills Express MetroBus connects to:

- North St.. Louis
- Spanish Lake
- Riverview & Hall MetroBus Center

#40X I-55 Express MetroBus connects to:

- Civic Center MetroLink and MetroBus Center
- South County Education Center
- South County Community Center

#58X Twin Oaks Express MetroBus connects to:

- Maplewood
- Webster Groves
- Kirkwood
- Chesterfield

#174X Halls Ferry Express MetroBus connects to:

- North St.. Louis
- Jennings
- Flower Valley Shopping Center

#410X Eureka Express MetroBus connects to:

- Maplewood
- Webster Groves
- Valley Park

Existing Transit Orientation: The station area within one fourth mile of the 8th and Pine station platform currently includes residential densities of 7.22 units per acre, on average, and employee densities of 7.75 employees per acre, on average. The station area within one fourth mile of the Convention Center platform currently includes residential densities of 7.35 units per acre, on average, and employee densities of 7.50 employees per acre, on average. Given that research suggests that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientations of the two station areas do not reflect the standards of Transit Oriented Development.

Bike and Pedestrian Environment: The area around the 8th and Pine and Convention Center stations currently registers a Walk Score of 97 (or, “a walker’s paradise” as defined by Walk Score methodology) given the general proximity of the station areas to nearby residential, retail, civic, and employment land uses in the Downtown area.¹ The following details observations concerning the bike and pedestrian environment in the two station areas:

- While bicyclists of course may access the station area via roadways, the area around the two stations does not feature any dedicated bike lanes or sharrows and bicycle parking is relatively limited at the station platform area.
- The area would benefit from additional bike storage areas, bike sharing programs, and other amenities common in downtown areas nationally that benefit and encourage bicycle travel.

In addition, the 8th and Pine station registers a fair Bike Score of 50 (or, “bikeable” as defined by Bike Score methodology). The Convention Center station also registers a 50.

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

The surrounding vicinity of the combined station area for the 8th & Pine and Convention Center Stations is located entirely within the City of St. Louis and defined by either the Central Business (I) or Jefferson Memorial (L) District zoning designations. Both zoning districts allow all uses excluding a defined set of noxious, industry and heavy manufacturing uses. These zoning classifications have liberal building envelopes with flexible prisms that can be increased from the base height of 200 feet by including additional building setbacks. The L

1 Walk Score. www.walkscore.com, 2013.

District (southeast of the combined station area), with its proximity to the Mississippi River, allows for a maximum building height of 751 feet above sea level. Though minimum parking requirements do not exist for these districts, both zoning districts call for a minimum lot size of 100 to 250 square feet per dwelling unit. The existing zoning regulations for the I and L Districts are quite conducive to transit-oriented development around the 8th & Pine and Convention Center stations.

Analysis of Current Development Patterns

The 8th and Pine and Convention Center stations reflect a dense development pattern of high-rise towers, some dating to pre-War standards that did not mandate any building setbacks, and others more modern that utilize building setbacks in order to provide light to the street environment below. Ground floor retail is common in the district, and parking is structured with some on-street available. Washington Avenue was designated as one of the American Planning Association’s “Great Streets” because of its iconic mixed-use orientation. To the north of the Washington Avenue district, the Convention Center complex and several hotel towers support the convention center. To the west of Washington Avenue and 9th Street, a residential neighborhood has emerged as developers have renovated and repurposed a series of 19th century warehouses and commercial buildings into a variety of lofts, condominium, and apartment units and integrated other uses, including retail and office, on the ground floor.

Current Ridership

As illustrated in the table below, the 8th & Pine and Convention Center stations report roughly the same average ridership numbers as the averages for the Missouri portion of the system and higher averages than that for the overall MetroLink system.

Average MetroLink Boarding Estimates -8th & Pine and Convention Center Stations

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Missouri Station Average	42,000	1,560	960
Convention Center MetroLink Station	44,300	1,600	1,120
8th & Pine MetroLink Station	44,800	1,620	1,150

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The 8th & Pine and Convention Center station areas represent examples of the Downtown station typology. It is a primary regional center of economic, cultural, and entertainment activity. A dense mix of housing types and employment opportunities exist in proximity to both MetroLink stations, and retail and entertainment uses in the vicinity cater to the broader regional market. A range of transit modes, including rail and bus, also serve the station area.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the 8th & Pine and Convention Center stations is likely to experience an increase in demand for an additional 110 residential units and additional commercial space totaling

around 345,102 square feet. Therefore, the potential exists to integrate additional mixed-use and transit oriented development around these two station areas. Developers have renovated and repurposed a series of buildings near the Convention Center in recent years and this trend will likely continue throughout Downtown St. Louis over the next few decades. The Mercantile Exchange project is an adaptive reuse project with residential, lodging, and retail uses that has been successful and provides a good template for further redevelopment efforts in the downtown area. As young professionals and seniors continue to move to Downtown and surrounding districts, demand for retail, office, and entertainment uses will likely continue to blossom in the local area and along the streets in the vicinity of the 8th and Pine and Convention Center stations.

Overall Development Strategy

The table below compares the potential developable area at the 8th & Pine and Convention Center station with the projected development capacity of the combined station areas from 2010 to 2040. The table assumes that zero acres are available for redevelopment at this time. However, in keeping with recent trends in the area, developers may of course remodel or convert existing spaces along nearby streets into new space for development. A few parcels may redevelop into denser development parcels (through the construction of taller buildings). In general, however, the development size of the station area will likely not grow significantly over the next three decades. Instead, developers will continue to absorb demand in the Downtown area by repositioning or repurposing existing space into a variety of highest and best uses that align with the ongoing revitalization of the overall central part of St. Louis. A few vacant lots currently exist within one fourth mile of these station areas, and these parcels may represent near term opportunity sites for the construction of additional retail, office, or residential space in the downtown area.

8TH & PINE STATION - DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	0	0
Less: Roads and Configuration at 20%	0	0
Less: Open Space and Drainage at 20%	0	0
Less: Surface Parking		0
Net Developable Area		0
Potential Developable SF at 0.25 FAR		0
Potential Developable SF at 0.5 FAR		0
Potential Developable SF at 1.0 FAR		0
Projected Commercial Market Demand		47,000
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		171,000
Potential Real Estate Market Demand (2010 - 2040)		218,000

CONVENTION CENTER STATION - DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	0	0
Less: Roads and Configuration at 20%	0	0
Less: Open Space and Drainage at 20%	0	0
Less: Surface Parking		0
Net Developable Area		0
Potential Developable SF at 0.25 FAR		0
Potential Developable SF at 0.5 FAR		0
Potential Developable SF at 1.0 FAR		0
Projected Commercial Market Demand		47,000
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		171,000
Potential Real Estate Market Demand (2010 - 2040)		218,000

Action Items

The following represent a series of action items that the City of St. Louis, Metro, and other partners should complete in order to move the creation of TOD at the 8th & Pine and Convention Center station area forward over the next several years.

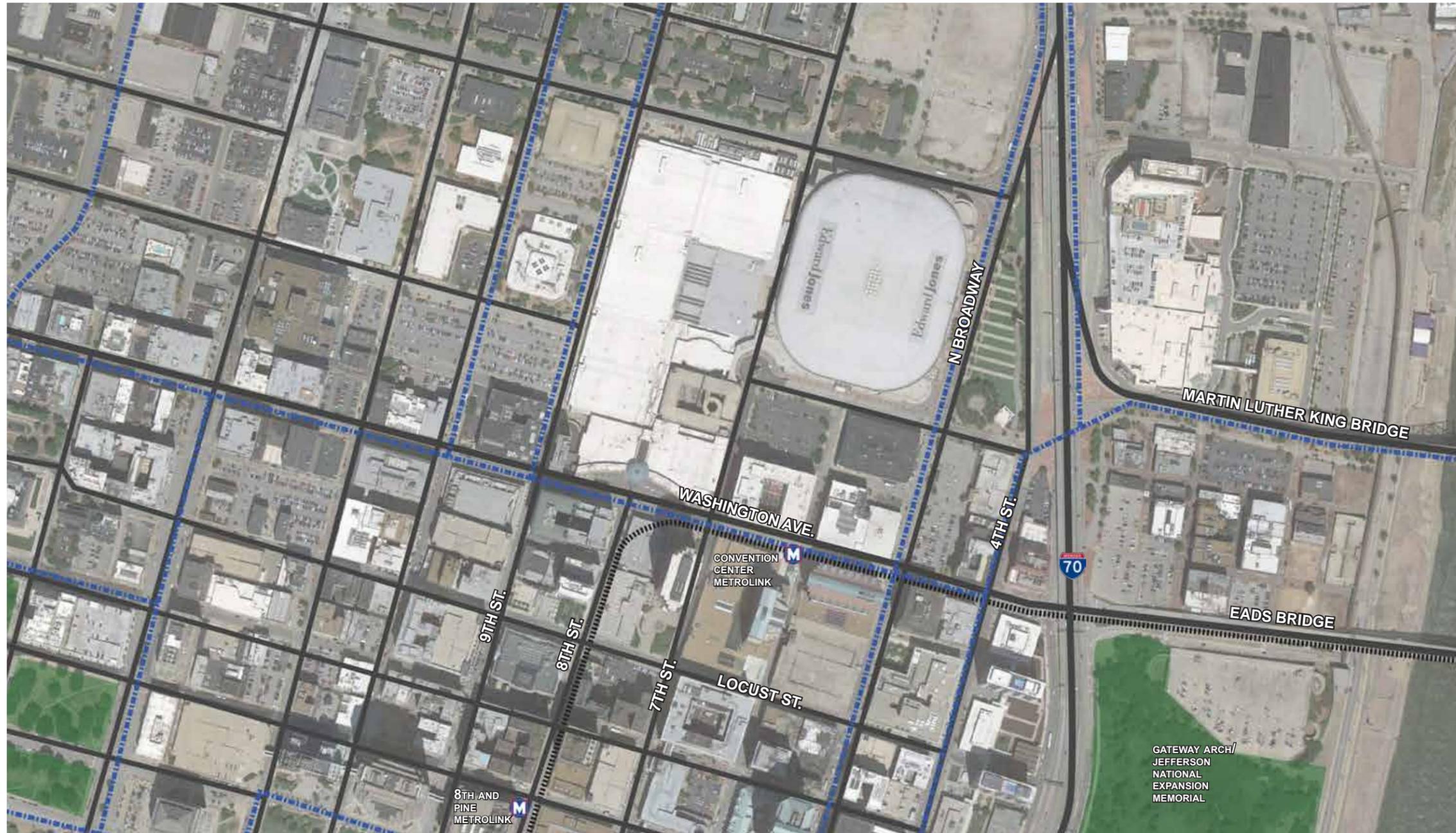
City of St.. Louis

- The city of St. Louis should establish transit supportive zoning that would encourage and entice mixed-use, transit oriented development in the vicinity of the station areas. Specifically, the prospective TOD zoning in this area should encourage densities of 20 residential units or greater and should encourage creation of employment centers that provide for density of 25 employees per acre, within the station area.
- The City should work to implement bike routes and strategies identified in the regional STL bike plan that service the general station area.
- The City should identify a prioritization of public improvements (such as streetscapes, open space amenities, and various infrastructure items) and create a capital improvements plan specifically tailored to the 8th and Pine and Convention Center station areas. This plan would provide a roadmap for how to proceed with investments over several years and help guide city leaders as administrations and political climates change over time. This plan should align and draw from the recommendations outlined in the most recent Downtown plan for St. Louis.
- The City should explore the use of traffic calming, the installation of ADA ramps, the upgrading of sidewalks, the installation of sidewalks where missing, and the narrowing or “road dieting” of streets in the area as necessary in order to achieve an overall Pedestrian Level of Service of “A” or “B” for the two station areas.

- The City should consider implementing Neighborhood Improvement Districts (NIDs), Community Improvement Projects (CIPs) or Transportation Development Districts (TDDs) for the station areas in order to encourage ongoing investment in TOD. NIDs, CIPs, and TDDs provide for the generation of extra taxes to pay for project or improvement costs for new or redevelopment projects.
- The City should consider implementing Sales Tax Reimbursement Agreement for a defined geography around the station areas. These agreements represent a funding mechanism allowed by Missouri law that may be used to achieve public benefit through funding for infrastructure projects. Under these agreements, municipalities have the ability to annually appropriate the increase in sales taxes created by new private capital investment to offset a portion of their project investment costs. The sales tax increments must be used for public purposes, primarily through the funding of infrastructure improvements.
- The City may also explore the use of the Enhanced Enterprise Zone program (EEZ) under Missouri law and target this tool to the station area through the establishment of an EEZ zone. Companies in the TOD area that expand operations would receive income tax refunds and property tax abatements.
- The City should work to tie approvals for TIF or related incentive packages for development at the two station areas to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 dwelling units per acre and employment uses providing for at least 25 employees per acre). The City should use the approval of TIF or related incentives as “carrots” to promote developments that are more conducive to transit oriented development.
- The City should explore establishing a Chapter 353 redevelopment corporation specifically targeted for the station area. These entities assist companies by providing tax abatements for redevelopment projects.

Metro

- Metro should work over time to enhance or provide sufficient MetroBus service to and from the station area in order to arrive at a Transit Level of Service measure of “A” or “B”.



ROAD NETWORK
 REGIONAL (50,000+ ADT)
 ARTERIAL (30,000-49,999 ADT)
 COLLECTOR (10,000-29,999 ADT)
 LOCAL (>10,000 ADT)

POTENTIAL ROAD ALIGNMENT
 RAIL ROAD LINE
 BUS LINE
 SECURITY GATE

PARKING LOT
 TENANT PARKING
 COMMUTER PARKING
 METRO OWNED PARCEL

EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS
 EXISTING TRAIL CONNECTION
 PROPOSED TRAIL CONNECTION
 PEDESTRIAN CONNECTION

GRADE CHANGE
 BUILDING FRONTAGE - SHORT-TERM
 BUILDING FRONTAGE - LONG-TERM
 HISTORIC DISTRICT

RESIDENTIAL
 CORRIDOR REVITALIZATION
 CIVIC USE
 CURRENT/PLANNED AREAS OF DEVELOPMENT

STATION | CONVENTION CENTER [CITY OF ST. LOUIS]





ROAD NETWORK
 REGIONAL (50,000+ ADT)
 ARTERIAL (30,000-49,999 ADT)
 COLLECTOR (10,000-29,999 ADT)
 LOCAL (>10,000 ADT)

POTENTIAL ROAD ALIGNMENT
 RAIL ROAD LINE
 BUS LINE
 SECURITY GATE

PARKING LOT
 TENANT PARKING
 COMMUTER PARKING
 METRO OWNED PARCEL

EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS
 EXISTING TRAIL CONNECTION
 PROPOSED TRAIL CONNECTION
 PEDESTRIAN CONNECTION

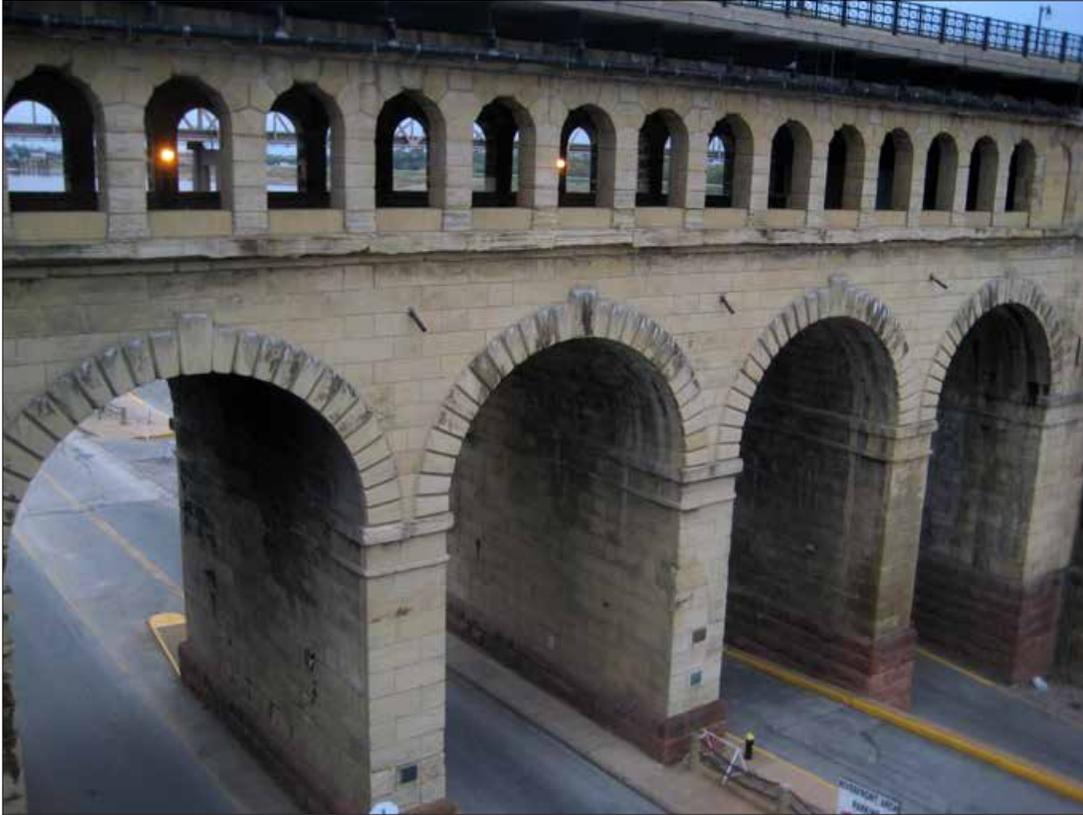
GRADE CHANGE
 BUILDING FRONTAGE - SHORT-TERM
 BUILDING FRONTAGE - LONG-TERM
 HISTORIC DISTRICT

RESIDENTIAL
 CORRIDOR REVITALIZATION
 CIVIC USE
 CURRENT/PLANNED AREAS OF DEVELOPMENT

STATION | 8TH & PINE [CITY OF ST. LOUIS]



Arch-Laclede's Landing TOD Action Plan



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the Arch-Laclede's Landing MetroLink station in the future.

Jurisdictions

- City of St. Louis

Station Overview and Context

The Arch-Laclede's Landing station area, in the heart of historic Downtown St. Louis, serves the city's two most recognized landmarks, the Gateway Arch/Jefferson National Expansion Memorial, and the Laclede's Landing Historic District. In addition, the station is the first MetroLink stop when approaching the city from Illinois, or the last when departing the city and crossing the Mississippi River. The Arch-Laclede's Landing station also serves the central business district. The area south of the station is occupied by the Arch and its grounds. The Laclede's Landing National Historic District, including a range of 19th century warehouse and commercial buildings, lies to the north of the station. The Lumiere Place development, including a casino, retail, and hotel uses, lies further to the north, along I-70.

Site Analysis

Topography: The study area, within one-fourth mile of the station platform, features relatively flat terrain. The topography of the site does not appear to pose any issues with regard

to future development. The station area gently slopes toward the east, toward the Mississippi River.

However, because the MetroLink tracks attach to the Eads Bridge structure through the length of the station area, the train proceeds through the Laclede's Landing area at a significant difference of grade compared to surrounding land uses. This disconnection does not provide for a close visual or pedestrian relationship between MetroLink and surrounding land uses and therefore limits any synergistic ties between the station and adjacent retail and office uses.

Stream and Floodplain Issues: Floodplain zones do not pose a threat at this station area, although the Mississippi River is adjacent to the station.

Transportation Network: The Arch-Laclede's Landing station area enjoys very good linkages to a range of regional and local transportation systems. Interstate 70, carrying in excess of 100,000 vehicle trips per day, divides the station area from Downtown St. Louis, just to the west, but connects the district to Interstates 55, 64, and 44 and the rest of the bi-state region. The Eads and MLK bridges connect from the Laclede's Landing area across the river to East St. Louis and to the combined Interstate 55 / 70 / 64. Washington Avenue connects the heart of downtown St. Louis to the Eads Bridge and carries over 11,000 vehicle trips per day and North Broadway, which parallels I-70 and provides access to the North Riverfront district, carries around 10,000 vehicle trips per day.

Despite its central location in the downtown area, Metro does not provide any MetroBus connections to the Arch / Laclede's station area at this time.

The parking structure currently located between the station and the Arch Grounds creates a visual and physical barrier between the Arch grounds and Laclede's Landing.

Existing Transit Orientation: The station area within one fourth mile of the Arch / Laclede's platform currently includes residential densities of 3.10 units per acre, on average, and employee densities of 2.02 employees per acre, on average. Given that research suggests that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the Arch / Laclede's station area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development. While the Arch / Laclede's area enjoys a location within a walkable urban grid of streets and adjacent to the downtown district, the station area lacks residential land uses as well as any sizeable areas of office space. In order to fully represent a TOD, the station area must evolve to include a wider range of land uses and move beyond its current status as a primarily restaurant and entertainment district.

Bike and Pedestrian Environment: The area around the Arch / Laclede's station currently registers a Walk Score of 82 (or, "very walkable" as defined by Walk Score methodology) given the connections provided by the local street grid to surrounding retail, entertainment, office, and residential land uses in the Laclede's Landing district and the nearby Downtown area.¹

The following details observations concerning the bike and pedestrian environment in the Arch / Laclede's station area:

1 Walk Score. www.walkscore.com, 2013.

- Pedestrians and bicyclists must pass under Interstate 70 and cross a series of traffic signals and one-way travel lanes and streets to travel from the Laclede's Landing district to the downtown area, to the west. While crosswalk signals are present in several locations, the area lacks a dedicated passageway for people walking and biking and passing through this area by foot can prove challenging and potentially dangerous.
- While the Laclede's Landing district is fairly walkable and compact, pedestrians must cross sizeable parking lot areas in some parts of the district, such as at Lumiere Place, in order to reach nearby destinations.
- While the riverfront bike trail runs along the east edge of the district, adjacent to the riverfront, the district overall lacks bike storage facilities and designated passageways for bicyclists, particularly those traveling east-west.
- The cobblestone materials present on many streets in the district pose challenges for walking, for more vulnerable segments of the population. However, given the age of the streets and their historical significance, the city will likely not be able to fully mitigate this design feature.

In addition, the Arch/Laclede's station registers a good Bike Score of 40 (or, "somewhat bikeable" as defined by Bike Score methodology).

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

The area surrounding the Laclede's Landing station lies entirely within the City of St. Louis and is contained by the Jefferson Memorial (L) District zoning designation. The zoning regulations allow all uses except heavy manufacturing and industrial, thus supporting TOD. The allowable building envelopes in this zoning classification are determined by a flexible "prism" that starts with a base height of 200 feet that can be increased by way of building setback provisions. The district allows a maximum height limit of 571 feet and does not include any minimum parking requirements. In addition, The Arch-Laclede's station is located entirely in the Laclede's Landing Historic District, the old riverfront neighborhood of St. Louis. This designation imposes some restrictions in order to maintain the overall character of the district.

Analysis of Current Development Patterns

The Arch-Laclede's station area is a vibrant, historic mixed-use entertainment and tourist district. Converted 19th warehouses and commercial buildings serve modern-day uses with ground-floor retail, restaurants, bars, and entertainment uses and upper floor office uses. The Eads Bridge and the Arch Grounds create an iconic waterfront. To the north of the station is Lumiere Place, housing a two-story casino, 22-story hotel, eight-story hotel, four-story parking garage, and surface parking lots. The downtown core to the west is developed with six to 20-story office buildings, and two 30-story residential towers are also found along 4th Street. However, as mentioned, Laclede's Landing generally does not include residential or sizeable areas of office space at this time, thereby limiting its potential performance as a transit oriented development.

Current Ridership

As illustrated in the table below, the Arch-Laclede's Landing station reports roughly the same average ridership numbers as the averages for the overall MetroLink system.

Average MetroLink Boarding Estimates - Arch-Laclede's Landing

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Illinois Station Average	42,000	1,560	960
Arch-Laclede's MetroLink Station	34,900	1,050	1,370

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The Arch-Laclede's Landing station area represents a Downtown station typology. It is a primary regional center of economic, cultural, and entertainment activity. There is a dense mix of commercial, entertainment, tourist, and employment opportunities in the general vicinity of Laclede's Landing and the downtown area catering to the regional market. A range of transit modes, including rail and bus, also serve the station area.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the Arch-Laclede's Landing station is likely to experience an increase in demand for an additional 110 residential units and additional commercial space totaling around 345,102 square feet. In terms of potential developable acreage, this station is the second largest TOD opportunity in the overall downtown area. It could support lodging, dining, entertainment, and employment uses. Because I-70 separates the station from downtown, revitalization of the waterfront could help to enhance the attractiveness of development in this location.

Overall Development Strategy

The table below compares the potential developable area at the Arch-Laclede's Landing station with the projected market demand in the station area over the next 30 years. Assuming that developments in the area proceed at urban densities of 1.0 FAR or greater, the area will have excess potential developable space relative to the projected demand. The various surface lots currently located within the Laclede's Landing area represent potential key redevelopment parcels within the district over the next few decades. Any potential development efforts will need to account for the loss of parking from any surface lots in the district.

The parking structure located between the existing Arch / Laclede's station and the Arch grounds creates a visual and physical barrier between the Arch grounds and the overall Laclede's Landing district. If this structure is to be removed as part of Arch renovations, the City and Metro should work with the park service and local property owners to locate new structured parking facilities within new development projects in the district. Ideally, new developments would locate parking facilities within "wrap" buildings in which retail, office, or other uses line the streets and provide structured parking behind or above these land uses. This strategy would lead visitors to the Arch grounds to stroll past retail, entertainment, and other offerings within Laclede's Landing while traveling to their parking spaces, thereby enhancing retail viability in the district. Structured parking facilities located within Laclede's

Landing would help provide parking for the district during evenings and other periods when the Arch grounds are either closed or not highly utilized.

ARCH-LACLEDE’S STATION DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	24	1,045,440
Less: Roads and Configuration at 20%	4.8	209,088
Less: Open Space and Drainage at 20%	4.8	209,088
Less: Surface Parking		0
Net Developable Area		627,264
Potential Developable SF at 0.25 FAR		156,816
Potential Developable SF at 0.5 FAR		313,632
Potential Developable SF at 1.0 FAR		627,264
Projected Commercial Market Demand		47,000
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		171,000
Potential Real Estate Market Demand (2010 - 2040)		218,000

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that the City of St. Louis work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of a TOD District Area Plan: The City of St. Louis should work with Metro and the National Park Service to develop an overall TOD District Area Plan for the Laclede’s Landing district that ties with the ongoing planning and renovation of the Gateway Arch grounds. The plan should outline incremental improvements to public streets and infrastructure in order to establish the framework for denser transit oriented development over time. It should establish a revitalization strategy for Laclede’s Landing that will draw from the anticipated investment in the Arch grounds and help to diversify the land uses in the district beyond retail, entertainment, and a very limited office component. The plan should address design standards, overall district character, and marketing strategies for the district.

Action Items

The following represent a series of action items that the City of St. Louis, Metro, and other partners should complete in order to move the creation of TOD at the Arch-Laclede’s Landing station area forward over the next several years.

City of St. Louis

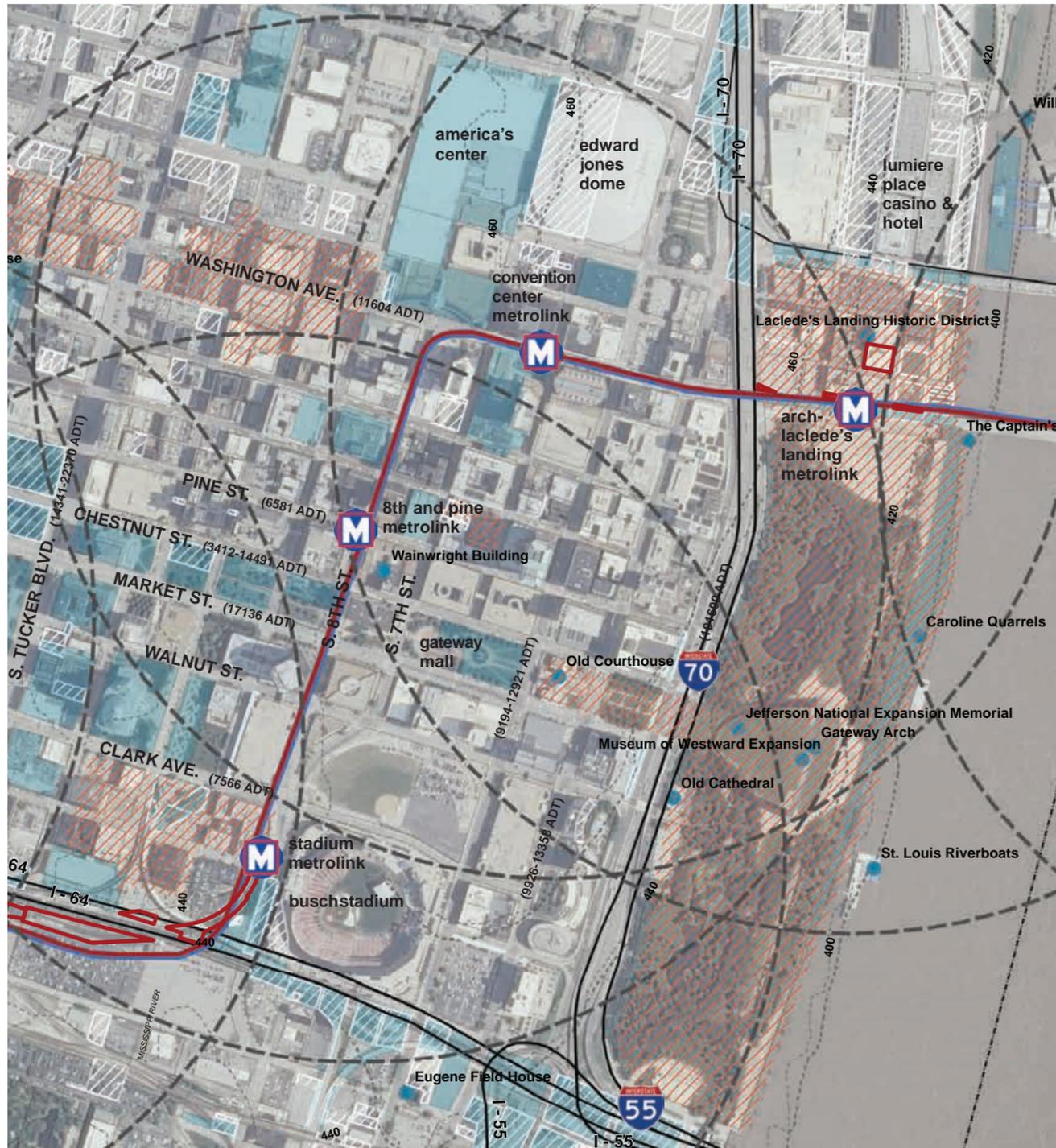
- The City of St. Louis should establish transit supportive zoning that would encourage and entice mixed-use, transit oriented development in the vicinity of the station area. Specifi-

cally, the prospective TOD zoning in this area should encourage densities of 20 residential units or greater and should encourage creation of employment centers that provide for density of 25 employees per acre, within the station area.

- The City of St. Louis should formally and proactively identify and develop greenways and open space components within the Laclede's Landing district, as depicted by the green symbols on the station area diagram. This effort should include designating and constructing bike lanes, sharrows, linear parks, and other amenities that would help to create improved civic spaces within the district and would better connect the various assets in the district to the riverfront itself and to the Arch grounds.
- The City of St. Louis should identify a prioritization of public improvements (such as streetscapes, open space amenities, and various infrastructure items) and create a capital improvements plan specifically tailored to the station area. This plan would provide a road-map for how to proceed with investments over several years and help guide city leaders as administrations and political climates change over time.
- The City of St. Louis should explore the use of traffic calming, the installation of ADA ramps, the upgrading of sidewalks, the installation of sidewalks where missing, and the narrowing or "road dieting" of streets in the area as necessary in order to achieve an overall Pedestrian Level of Service of "A" or "B" for the Arch / Laclede's station area.
- The City should consider implementing a Sales Tax Reimbursement Agreement for a defined geography around the station area. These agreements represent a funding mechanism allowed by Missouri law that may be used to achieve public benefit through funding for infrastructure projects. Under these agreements, municipalities have the ability to annually appropriate the increase in sales taxes created by new private capital investment to offset a portion of their project investment costs. The sales tax increments must be used for public purposes, primarily through the funding of infrastructure improvements.
- The City may also explore the use of the Enhanced Enterprise Zone program (EEZ) under Missouri law and target this tool to the station area through the establishment of an EEZ zone. Companies in the TOD area that expand operations would receive income tax refunds and property tax abatements.
- The City should work to tie approvals for TIF or related county incentive packages for development at the Arch / Laclede's station to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 DU per acre and employment uses providing for at least 25 employees per acre). The City should use the approval of TIF or related incentives as "carrots" to promote developments that are more conducive to transit oriented development.
- The City should explore establishing a Chapter 353 redevelopment corporation specifically targeted for the station area. These entities assist companies by providing tax abatements for redevelopment projects.

Metro

- Metro should work over time to enhance or provide sufficient MetroBus service to and from the station area in order to arrive at a Transit Level of Service measure of "A" or "B".
- Metro should also work with the City and planners to ensure that future upgrades in the Laclede's Landing district include enhanced wayfinding and signage that would direct visitors to the district to the MetroLink facility. Because the MetroLink platform will continue to operate above grade compared to the rest of the district, ongoing plans should include upgrades to signage to help visitors and tourists locate the light rail facility.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

EAST DOWNTOWN STATIONS [SITE ANALYSIS] STADIUM, 8TH & PINE, CONVENTION CENTER, AND ARCH-LACLEDE'S LANDING

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | These downtown stations provide walkable access to most downtown attractions and civic institutions. Tall, dense buildings provide a mix of retail, office, and residential uses.

Average Monthly Boardings | Stadium = 40,100; 8th and Pine = 47,900; Convention Center = 44,300; Arch/Laclede's Landing = 34,900 (MetroLink Station Average = 36,500)

Station Configuration | MetroBus does not directly serve the Stadium or Arch-Laclede's Landing stations. On-site parking is not provided.

Physical Barriers to Development | Access to some of the potential development sites within one half mile of these stations is limited by the interstates that cross the downtown area (including I-70 and I-64), and bridge crossings such as the Eads Bridge.

Regulatory Barriers to Development | Zoning around the station sites does not pose a significant barrier to new or infill TOD.

Development Opportunity

Pros	Cons
<ul style="list-style-type: none"> • Accessibility to downtown civic and entertainment venues • Downtown employment density • Potential for residential, office, lodging, mixed-use, and entertainment-related uses • Arch-Laclede's could be enhanced by waterfront revitalization • Walkable neighborhood 	<ul style="list-style-type: none"> • No significant concentrations of vacant lots, other than parking lots

- 1/2 MILE RADIUS STUDY AREA
- CULTURAL PLACE OF INTEREST
- METROLINK RED/BLEU LINE
- ▭ VACANT PARCELS OVER 10 ACRES (0 TOTAL)
- ▭ METRO OWNED PARCEL
- ▭ PUBLIC OWNED PARCEL
- ▭ VACANT PARCEL
- ▭ HISTORIC DISTRICT
- ADT AVERAGE DAILY TRAFFIC

METRO OWNED PARCELS:

STADIUM - 8.08 ACRES
8TH/PINE - 2.96 ACRES
CONVENTION CENTER - .55 ACRES
ARCH/LACLEDE'S LANDING - .92 ACRES

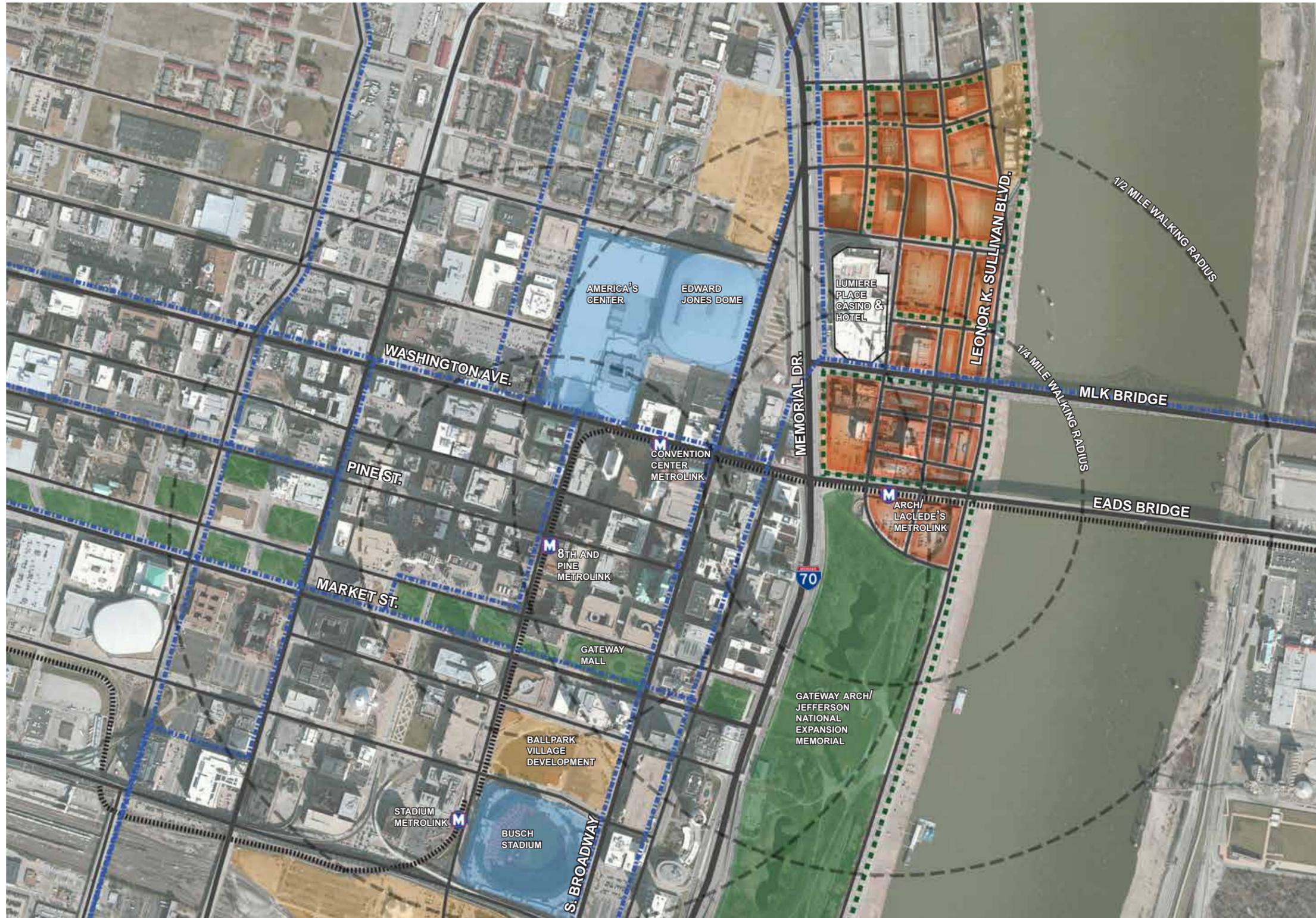
PUBLIC OWNED PARCELS:

STADIUM - 84 ACRES
8TH/PINE - 103 ACRES
CONVENTION CENTER - 72.2 ACRES
ARCH/LACLEDE'S LANDING - 43.7 ACRES



STATION | EAST DOWNTOWN [CITY OF ST. LOUIS]

DESIGNWORKSHOP



- | | | |
|-------------------------------|---------------------------------|--------------------|
| ROAD NETWORK | POTENTIAL ROAD ALIGNMENT | PARKING LOT |
| REGIONAL (50,000+ ADT) | RAIL ROAD LINE | TENANT PARKING |
| ARTERIAL (30,000-49,999 ADT) | BUS LINE | COMMUTER PARKING |
| COLLECTOR (10,000-29,999 ADT) | SECURITY GATE | METRO OWNED PARCEL |
| LOCAL (>10,000 ADT) | | |

- | |
|---|
| EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS |
| EXISTING TRAIL CONNECTION |
| PROPOSED TRAIL CONNECTION |
| PEDESTRIAN CONNECTION |

- | |
|--------------------------------|
| GRADE CHANGE |
| BUILDING FRONTAGE - SHORT-TERM |
| BUILDING FRONTAGE -LONG-TERM |
| HISTORIC DISTRICT |

- | |
|--------------------------------------|
| RESIDENTIAL |
| CORRIDOR REVITALIZATION |
| CIVIC USE |
| CURRENT/PLANNED AREAS OF DEVELOPMENT |

STATION | ARCH/LACLEDE'S LANDING [CITY OF ST. LOUIS]



DESIGNWORKSHOP

East Riverfront Station



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the East Riverfront MetroLink station in the future.

Jurisdictions

- City of East St. Louis

Station Overview and Context

The East Riverfront station serves as the gateway for the MetroLink system on the Illinois side of the river. Dominant land uses in the vicinity of the station include the Casino Queen, the very large Cargill Grain elevator, and numerous vacant industrial lands along and to the north of the station, along the east banks of the Mississippi River. The area has a significant heritage as a key commercial and industrial district serving the broader metropolitan area and the Midwest.

Site Analysis

Topography: The study area, within one-fourth mile of the station platform, features relatively flat terrain. The topography of the site does not appear to pose any issues with regard to future development.

Stream and Floodplain Issues: The East Riverfront station is located adjacent to the Mississippi River, but it is not located in a floodplain.

Transportation Network: Two bridges connecting East St. Louis to Downtown St. Louis, the Eads Bridge and the Martin Luther King Jr. Bridge, pass in the vicinity of the MetroLink station. However, the station area is below the grade of the approaches to these bridges, with the station platform located beneath the elevated highway of Eads Bridge. The area has reduced north-south connectivity, as Front Street continues north from the station area as a very limited two lane street. Therefore, despite its central location in the metropolitan area, the East Riverfront station remains somewhat cut off in terms of regional connectivity.

The Eads Bridge and the Martin Luther King Jr. Bridge, connecting Illinois to Missouri, both carry around 10,000 vehicles per day. Side streets around the station area, including Missouri Avenue and Front Street, carry fewer than 5,000 vehicles per day.

The East Riverfront station does not have any connections to local bus service via Metro-Bus at this time.

Existing Transit Orientation: The station area within one fourth mile of the East Riverfront platform currently includes residential densities of .02 units per acre, on average, and employee densities of .25 employees per acre, on average. Given that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the East Riverfront station area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development. Essentially, almost no one lives near the East Riverfront station and relatively few people work at the casino and a few other industrial properties in the area. Therefore, the station does not really take advantage of the MetroLink adjacency at this time in terms of existing development patterns.

Bike and Pedestrian Environment: The area around the East Riverfront station currently registers a Walk Score of 43 (or, “a car dependent location” as defined by Walk Score methodology).¹ The area remains relatively isolated from retail, residential, and office uses and continues to function as an aging industrial area along the river.

With the exception of a small sidewalk along Front Street and Bogy Avenue next to the MetroLink station, all of the streets in the station area lack sidewalks and do not have any designated accommodations for bicyclists. Even travelers crossing the street to the Casino Queen do not benefit from any sidewalks or protected areas in traveling from MetroLink or across the parking lot to the casino property. The presence of MetroLink almost feels forgotten at this station, and it appears that the main usage of the station derives from game-day traffic for the Rams and Cards and from commuter traffic, for those Illinois passengers who park at MetroLink and take the short ride across the river to work in the city.

In addition, the station area appears to lack sufficient bike storage. Connections for bicyclists and walkers from MetroLink to the park area to the south along Front Street also appear non-existent.

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

The M-2 Industrial District within the City of East St. Louis encompasses the entire station area. This district permits a broad range of land uses, including manufacturing and industrial, offices, research labs, wholesale, retail, and public buildings. M-2 does not establish any building height restrictions, but does require all buildings to fall under a 60 degree angle ex-

1 Walk Score. www.walkscore.com, 2013.

tending from adjacent street centerlines. The M-2 zoning requires lots of at least 50,000 SF, with dimensions of at least 100 feet wide and 200 feet deep. Building layouts must include a 25 foot front yard. Parking requirements call for one space for every 100 SF of retail floor area. The requirements for parking and building setbacks are significant and do not support the creation of the forms of development typically associated with TOD.

Analysis of Current Development Patterns

The Casino Queen and its adjacent hotel dominate the existing development context around the East Riverfront station area. To the south of the Casino Queen, the 12-story Cargill grain elevator and related agricultural processing facilities cover several acres along the riverfront. Farther to the south, the Gateway Geyser park creates an attractive overlook area to view the Gateway Arch and Downtown St. Louis. To the north of the station area and the Eads Bridge, the vast majority of land parcels remain vacant and overgrown, along and to the east of Front Street. This area once included a number of shipping and industrial facilities but the area has remained vacant in recent years as industrial development has spread to outlying areas and freeway corridors in Metro East.

Current Ridership

As illustrated in the table below, the East Riverfront station reports slightly lower average ridership numbers compared to averages for the Illinois portion of the system. Although very few residents live within walking distance of the station area, the relative proximity of East Riverfront to Downtown St. Louis, the central location of the station in the overall metropolitan area, and ridership resulting from visitors to the Casino Queen results in fairly robust ridership at the East Riverfront station relative to several other stations on the Illinois side of the metropolitan area. It attracts a good amount of park-ride customers for these reasons, as well.

Average MetroLink Boarding Estimates - East Riverfront

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Illinois Station Average	23,500	880	520
East Riverfront MetroLink Station	23,100	730	830

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The East Riverfront station most logically classifies as an example of the Major Urban Center typology given its potential to serve as a major destination and commercial center in the metro area in the future. Major Urban Centers contain a mix of residential, employment, retail and entertainment uses, usually at slightly lower densities and intensities than in regional centers. These centers serve as commuter hubs for a larger region. Although the East Riverfront station area currently includes mainly industrial and entertainment uses, the large availability of vacant and under-utilized land provides the opportunity to add residential components, especially given its proximity to Downtown St. Louis. In addition, the area may develop additional employment centers along the river. The addition of a number of feeder bus lines into the East Riverfront station area would help enhance the station's status as a transit hub for parts of the Metro East area. While the East Riverfront station currently lacks

prominence in the overall MetroLink system, the addition of employment, residential, and transit components would help elevate this station to a Major Urban Center.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the East Riverfront station is likely to experience demand for an additional 125 residential units and additional commercial space totaling around 41,000 square feet. Given the local economic conditions and the context of the riverfront area relative to the major employment centers in Downtown St. Louis, the additional residential development would likely include primarily multi-family units such as apartments and condominium units. The additional 41,000 square feet of commercial space may include a small amount of local serving retail but may largely include offices for small to medium size companies and other tenants that typically locate in business park developments.

Overall Development Strategy

The development strategy for the East Riverfront station calls for business park and mixed-use development to extend the current area of development to the north of the Martin Luther King Jr. Bridge, along the riverfront. The vacant lands along the riverfront represent a good location for office or light industrial uses that could leverage the relative proximity to Downtown St. Louis and, perhaps more importantly, to the region's major freeways that converge near the East Riverfront station. The areas directly along the riverfront may represent a good location for mixed-use development, including apartments, condominiums, and related residential products that would appeal to employees working in Downtown St. Louis who seek a shorter commute to work and a lower cost of living (compared to higher priced units in the heart of the commercial business district). The mixed-use area along the river may also include a small area of local serving retail for these residents, including tenants such as a local coffee shop, dry cleaner, or small eatery. The areas directly surrounding the Casino Queen could develop as mid-size retail tenants in order to leverage the traffic created by the casino complex.

In terms of transportation, the station diagram depicts the creation of a landscaped parkway traversing from north to south through the station area in order to better open up and position the areas north of the MLK Bridge for development in the future. This parkway should include accommodations for pedestrians, as well as bike paths or prominent bike lanes, in order to encourage multi-modal transportation. The diagram also calls for the preservation of low-lying and wooded properties flanking the business park development envelopes to the north of the MLK Bridge. These open space areas would serve important conservation objectives and may also serve as an open space amenities for employees or nearby residents. The overall plans for the East Riverfront area should design for overlook areas along the river to take advantage of views of Downtown St. Louis and the Gateway Arch. These views create a good deal of the potential appeal of the East Riverfront area for residential uses as well as employment centers.

The table below compares the potential developable area at the East Riverfront station with the projected supportable square footage of new development over the next thirty years. As illustrated, if development were to proceed at densities typical of urban, infill development (at least 0.5 to 1.0 FAR) the station area has excess developable space. While the station diagram depicts a longer term development strategy, in order to minimize infrastructure costs and proceed with more compact TOD around the station area and therefore encourage greater MetroLink ridership, East St. Louis should prioritize development in close prox-

imity to the MetroLink platform over the next few decades. While the station diagram allows for development to exceed projected demand estimates and extend farther to the north along the riverfront, the city and Metro should work to focus development around the station platform, at least initially.

EAST RIVERFRONT STATION - DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	46.14	2,009,858
Less: Roads and Configuration at 20%	9.23	401,972
Less: Open Space and Drainage at 20%	9.23	401,972
Less: Surface Parking	14	609,840
Net Developable Area		596,075
Potential Developable SF at 0.25 FAR		149,019
Potential Developable SF at 0.5 FAR		298,038
Potential Developable SF at 1.0 FAR		596,075
Projected Commercial Market Demand		41,000
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		125,000
Potential Real Estate Market Demand (2010 - 2040)		166,000

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that East St. Louis work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of a TOD Zoning Classification for the Entire Station Area: The existing zoning in the station area does not allow for residential uses and primarily focuses on regulations pertaining to industrial land uses. While industrial and business park uses will continue to operate in the station area over the long-term, the city should consider crafting a zoning for TOD tailored to this station area, in order to encourage the development of a wider range of land uses at densities appropriate to increase overall transit ridership. The TOD zoning should specifically promote mixed-use and more compact development directly around the East Riverfront station platform and on areas directly fronting the riverfront.

Establishment of Form Based Codes for the Station Area: As a substitute for (or in addition to) the creation of a TOD specific zoning classification, East St. Louis should consider establishing a Form Based Code (FBC) for the station area and the surrounding vicinity in order to articulate the design of streets and building frontages within the station area district.

Action Items

The following represent a series of action items that East St. Louis, Metro, and other partners should complete in order to move the creation of TOD at the East Riverfront station area forward over the next few years.

City of East St. Louis

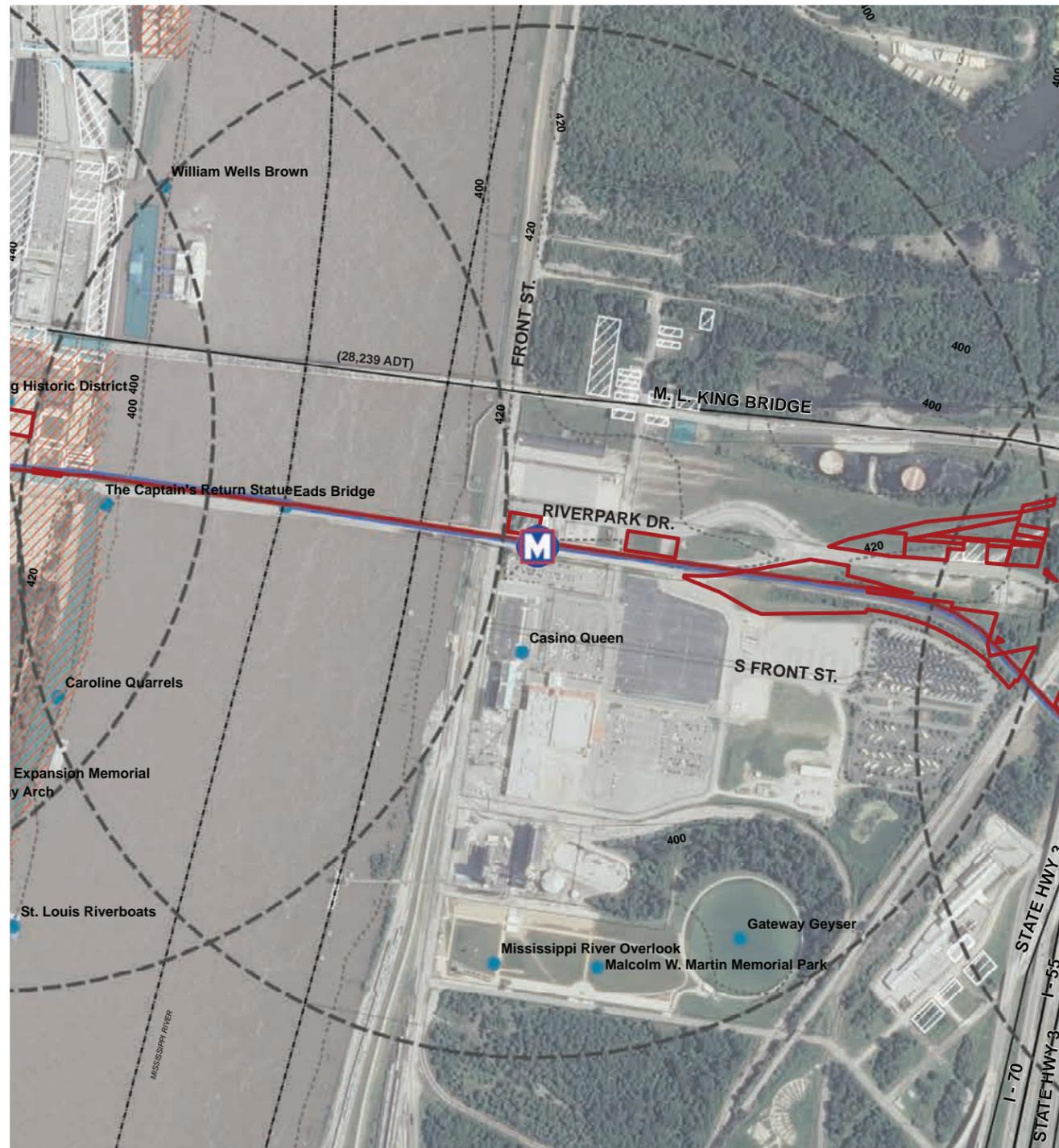
- Given that existing zoning does not allow for a diversity of land uses including residential that would support TOD, the City should establish zoning that would encourage and entice mixed-use, transit oriented development in the vicinity of the station area.
- The City of East St. Louis should formally identify, acquire, and begin to develop greenways and open space components in the district in order to build the open space connections between the station area and surrounding areas in the community. The City should partner with Metro East Parks and Rec in designing and implementing additional greenways, trails, and open space connections, particularly along the riverfront.
- The City of East St. Louis should consider actively engaging a developer or developers to master plan and execute development of larger parcels around the East Riverfront station. Pursuing this strategy could help to minimize the potential of piecemeal developments dominating the landscape around the station area.
- The City of East St. Louis should work to enhance the sidewalks to the north and east of the station platform, including the installation of ADA ramps, widening of sidewalks in areas, and the installation of sidewalks along segments that currently do not have sidewalks. The city should pursue improvements necessary to result in a Pedestrian Level of Service of “A” or “B” for the East Riverfront station area.
- The City should explore working to designate the East Riverfront station area as an Enterprise Zone in the state of Illinois, in order to make additional grants and loans available to facilitate redevelopment in the station area.

Metro

- Metro should work on finalizing a parking replacement strategy for the East Riverfront station (and other stations). Metro should work on a strategy to locate replacement parking if part of the existing parking lot at the station area is repurposed to facilitate business park or mixed-use development between the station platform and the MLK Bridge.
- Metro should work over time to enhance or provide sufficient MetroBus service to and from the station area in order to arrive at a Transit Level of Service measure of “A” or “B”.

St. Clair County

- The County should work to tie approvals for TIF or related county incentive packages for development at the East Riverfront station to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 DU per acre and employment uses providing for at least 25 employees per acre). The County should use the approval of TIF or related incentives as “carrots” to promote developments that are more conducive to transit oriented development.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

EAST RIVERFRONT [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station connects MetroLink to St. Clair County on the riverfront of East St. Louis. The station primarily serves a working commercial and industrial district and serves the large Casino Queen complex.

Average Monthly Boardings | 23,100 (MetroLink Station Average = 36,500)

Station Configuration | This station is not served by MetroBus. The Casino Queen complex provides parking for Metro customers in their 295 space lot.

Physical Barriers to Development | The site is not easily accessed from surface streets to the north or south along the river. Access is provided primarily from the bridges across the river and the interstates to the east and south. The presence of industrial properties along the river may constrain the size of potential redevelopment projects.

Regulatory Barriers to Development | Zoning for this station may support industrial and commercial TOD. Current zoning, however, does not allow for residential uses or mixed-use development. TOD would require a rezoning.

Development Opportunity

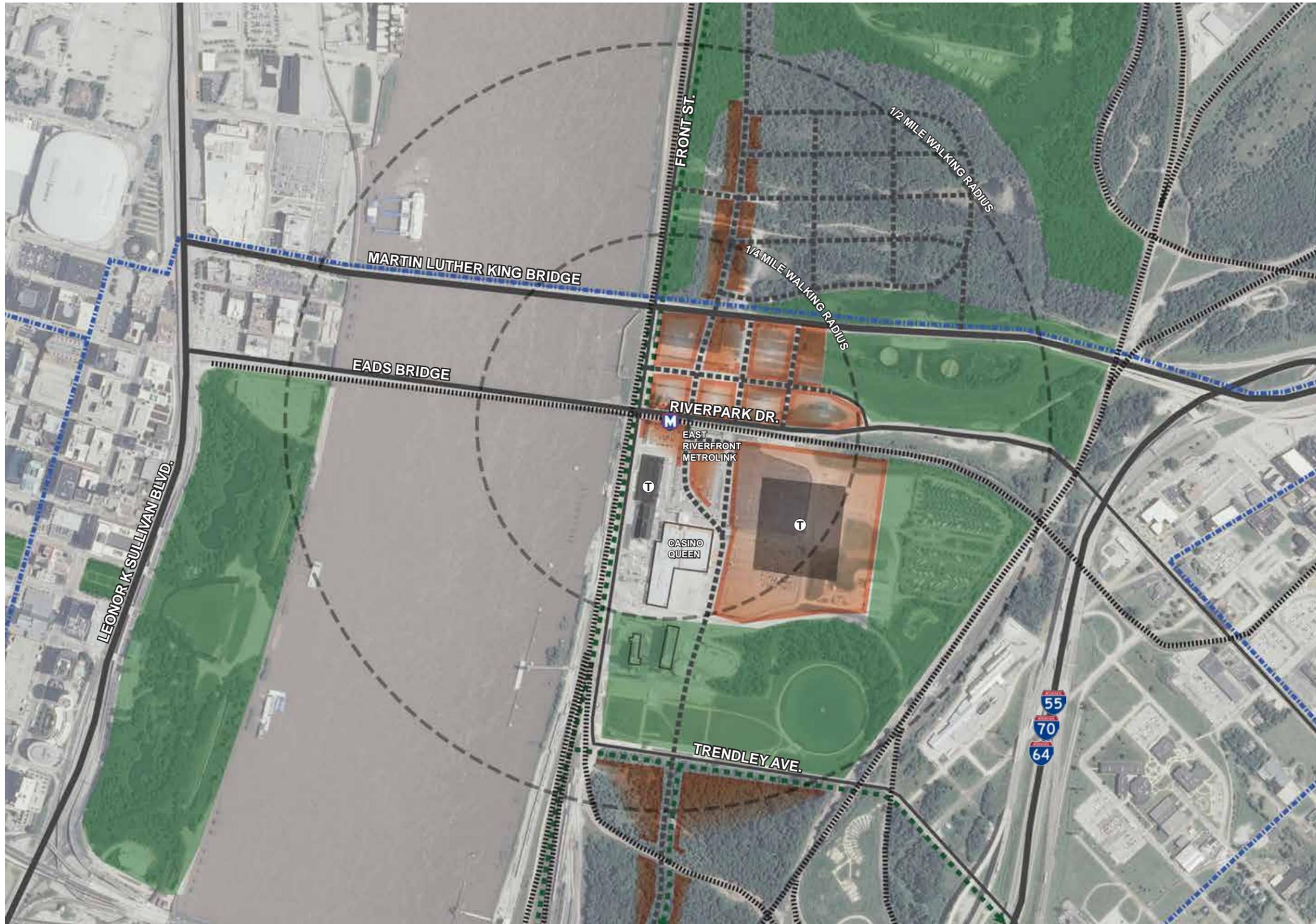
Pros	Cons
<ul style="list-style-type: none"> • Availability of under-utilized and vacant land • Centrally located within the metropolitan region and located directly across the river from Downtown St. Louis • Potential to leverage the river and riverfront access for new development • Good access to regional highways and freeways • The casino already draws significant numbers of visitors to the area and may help to enhance market viability • Views of Downtown 	<ul style="list-style-type: none"> • Lower than average transit ridership • Difficult to access except by MetroLink

- 1/2 MILE RADIUS STUDY AREA
- CULTURAL PLACE OF INTEREST
- METROLINK RED/BLUE LINE
- VACANT PARCELS OVER 10 ACRES (0 TOTAL)
- METRO OWNED PARCEL (12.1 ACRES)
- PUBLIC OWNED PARCEL (9.7 ACRES)
- VACANT PARCEL (6.5 ACRES)
- HISTORIC DISTRICT
- ADT AVERAGE DAILY TRAFFIC



DESIGNWORKSHOP

STATION | EAST RIVERFRONT [CITY OF EAST ST. LOUIS]



ROAD NETWORK
 REGIONAL (50,000+ ADT)
 ARTERIAL (30,000-49,999 ADT)
 COLLECTOR (10,000-29,999 ADT)
 LOCAL (>10,000 ADT)

POTENTIAL ROAD ALIGNMENT
 RAIL ROAD LINE
 BUS LINE
 SECURITY GATE

PARKING LOT
 TENANT PARKING
 COMMUTER PARKING
 METRO OWNED PARCEL

EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS
 EXISTING TRAIL CONNECTION
 PROPOSED TRAIL CONNECTION
 PEDESTRIAN CONNECTION

GRADE CHANGE
 BUILDING FRONTAGE - SHORT-TERM
 BUILDING FRONTAGE -LONG-TERM
 HISTORIC DISTRICT

RESIDENTIAL
 CORRIDOR REVITALIZATION
 CIVIC USE
 CURRENT/PLANNED AREAS OF DEVELOPMENT



STATION | EAST RIVERFRONT [CITY OF EAST ST. LOUIS]

DESIGNWORKSHOP

5th and Missouri Station



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the 5th and Missouri MetroLink station in the future.

Jurisdictions

- City of East St. Louis

Station Overview and Context

The 5th and Missouri Station serves the central business district of East St. Louis. However, despite its relative proximity to a variety of government and institutional uses in the vicinity of the downtown area, this station primarily serves as a park and ride or transfer station for transit riders using MetroLink to cross the river into St. Louis and the Missouri side of the metro area. The region's main freeways (I-70, I-64, and I-55) converge near the 5th and Missouri station before crossing the river, and this access enhances the station's status as a prime transfer, kiss and ride, or park and ride facility. Any significant redevelopment or revitalization of the almost entirely vacant central business district in East St. Louis would help elevate this station to a major destination along the MetroLink system.

Site Analysis

Topography: The study area, within one-fourth mile of the station platform, features relatively flat terrain. The topography of the site does not appear to pose any issues with regard to future development.

Stream and Floodplain Issues: Floodplain zones do not exist in the vicinity of the 5th and Missouri station.

Transportation Network: The 5th and Missouri station area enjoys very good transportation connectivity to surrounding areas in East St. Louis and to the larger metropolitan area.

Traffic counts for the major roads surrounding the 5th and Missouri area reflect the station's location at a key transportation connection point in the Metro East area. The I-64 / I-70 / I-55 freeway carries over 90,000 vehicles per day to the west of the ML King Bridge connection and around 120,000 vehicles per day between the ML King Bridge exit and the exit for I-64, heading eastbound to Louisville. The main north-south arterial street connecting Downtown East St. Louis to communities to the south, Broadway, carries between 8,000 and 10,000 vehicles per day. However, traffic volumes on the minor streets located within the grid network, surrounding the 5th and Missouri station in the downtown area, carry less than 5,000 vehicles per day, reflecting the economic weakness of the downtown area and surrounding neighborhoods.

From the 5th and Missouri MetroLink station area, several MetroBus lines provide connections to surrounding destinations in East St. Louis and several other communities within Metro East.

#01 Main Street-State Street MetroBus connects to:

- Neighborhoods in East St. Louis, to the south and east
- St. Elizabeth Hospital
- Fairview Heights MetroLink station
- Belleville MetroLink station

#02 Cahokia MetroBus connects to:

- Illinois Route 3, to Sauget, Cahokia, and Centreville
- St. Louis Downtown Airport

#04 19th and Central – ML King MetroBus connects to:

- Various East St. Louis neighborhoods

#02X Waterloo-Columbia MetroBus connects to:

- Illinois Route 3, to Sauget, Cahokia, Columbia and Waterloo

Existing Transit Orientation: The station area within one fourth mile of the 5th and Missouri platform currently includes residential densities of .63 units per acre, on average, and employee densities of .57 employees per acre, on average. Given that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the station area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development.

Bike and Pedestrian Environment: The area around the 5th and Missouri station currently registers a Walk Score of 43 (or, “a car dependent location” as defined by Walk Score methodology).¹

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

The vast majority of the area around the 5th and Missouri station, to the north and east of Broadway, includes the C-2 Central Business District zoning designation within the city of East St. Louis. This zoning allows a wide range of commercial development, including medium-density office buildings, department stores, hotels, research laboratories, limited light industrial, retail, and services. This zoning allows building height of up to eight stories or 100 feet, and allows a FAR of 5.0 for buildings of over four stories in height. In order to promote a “Main Street” pedestrian environment, the CBD zoning requires only a 5-foot setback, no side yards, and no parking. In addition, the zoning requires only a 20-foot break in building frontage for every 400 feet of overall street frontage. However, the C-2 district does not currently allow residential buildings or mixed-use housing units that would help to support transit oriented development.

The western portion of the station area, to the west of Broadway, primarily includes the M-1 (Medium Manufacturing and Industrial) zoning classification. This zoning allows for a variety of industrial and manufacturing uses but does not allow for any residential or mixed-use development. M-1 requires a minimum lot size of 20,000 SF, a minimum lot width of 75 feet, and 25-foot front yards, and therefore does not promote the creation of compact development or walkable environments conducive to TOD. The M-1 district also establishes very high parking ratios, with requirements of one parking space for every 100 SF of retail space and one space per 1,000 SF of industrial space.

Analysis of Current Development Patterns

Although a number of impressive Art Deco buildings remain from the heyday of downtown East St. Louis in the early 20th century, the central business district around the 5th and Missouri station suffers from nearly 100 percent vacancy rates on many of the individual streets. A few bars, night clubs, and convenience stores have survived along surrounding streets, but otherwise the area remains deserted. The residential neighborhoods to the south and east include numerous vacant lots, with many individual blocks having lost over half of the original housing stock. Various industrial uses exist to the west of Broadway, although this area as well suffers from vacancies on various parcels. Overall, as evident to anyone visiting the area, the districts surrounding the 5th and Missouri area have suffered from tremendous disinvestment and decay in recent decades.

1 Walk Score. www.walkscore.com, 2013.

Current Ridership

As illustrated in the table below, the 5th and Missouri station reports much higher average ridership numbers compared to averages for the Illinois portion of the system and the overall MetroLink system. The station's adjacency to area freeways and its relative proximity to Downtown St. Louis translate into very high use of the station as a park and ride, kiss and ride, or transfer station for the overall Metro East area.

Average MetroLink Boarding Estimates - 5th and Missouri

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Illinois Station Average	23,500	880	520
5th and Missouri MetroLink Station	48,300	1,840	990

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

Although the 5th and Missouri station area has suffered from significant economic distress in recent decades, its location relative to the rest of East St. Louis and the region creates the potential for the area to eventually redevelop as a strong downtown serving Metro East. Based upon its potential position in the region going forward, 5th and Missouri most closely resembles the Downtown typology of light rail station areas. Downtown station areas ideally represent the primary center of economic and cultural activity in any region and include a dense mix of housing and employment types, retail and entertainment that cater to the regional market. The 5th and Missouri station already enjoys the level of transit connectivity typical of downtown districts, with several connections to local and regional bus lines and connections to the two MetroLink rail lines (blue and red). While redevelopment and revitalization in downtown St. Louis will require patience, over time the 5th and Missouri area has the potential to represent a good example of the Downtown typology for the Metro East area.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the 5th and Missouri station is likely to experience an increase in demand for an additional 62 residential units and additional commercial space totaling around 41,000 square feet. Given the local economic conditions and the context of the local area in downtown East St. Louis, the additional residential development would likely include multi-family units, although the revitalization of the area may include construction of a number of single family houses in the established neighborhoods to the south and east of downtown. The additional 41,000 square feet of commercial space would likely encompass neighborhood-serving retail uses such as convenience stores, smaller restaurants, and various service businesses, providing goods and services for local neighborhoods in East St. Louis. In addition, the area west and south of Broadway may benefit from infill development of light industrial or business park buildings over time.

Overall Development Strategy

Given the limited potential demand for new development over the next few decades, the development strategy for the 5th and Missouri area calls for the community to work with potential developers and property owners to focus redevelopment energy near the station area, in the heart of downtown, in order to maximize the benefit of this economic activity for the overall community. Rather than applying incentives and public-private partnerships across a widely dispersed area within this portion of East St. Louis, the community should actively recruit partners to launch small but achievable revitalization projects within a few blocks of the MetroLink station in order to help create a “nucleus” of vitality that could then grow larger over time. The 5th and Missouri station enjoys very strong ridership, and as a result the community and developers should focus on creating transit-serving land uses, particularly on the vacant lots owned by Metro within a block or two of the station platform. Potential land uses may include small restaurants, convenience or neighborhood retail (including a dry cleaner, a discount retail outlet, or a small grocery), as well as apartment or related multi-family residential uses that would benefit from adjacency to the MetroLink line. The multi-family residential uses may in particular appeal to lower wage employees who work in the central part of St. Louis, near the MetroLink line, and would benefit from not having to drive and park in the city on a daily basis. The retail uses, if positioned and marketed correctly, could appeal to commuters from St. Louis who could shop in the area for at least a portion of their daily needs, either before or after work.

In addition, in order to further stimulate development, East St. Louis should work proactively with St. Clair County, the state of Illinois, and any other educational or institutional partners to locate future facilities in the 5th and Missouri area, given its location at the heart of the region. The area represents a potential and logical location for any expansions in court facilities, medical facilities, community colleges, and government service centers, given its connectivity to the Metro East region.

In general, East St. Louis should continue to work with private and public sector partners to implement and promote the recommendations of the Mid-America Medical District Comprehensive Master Plan, adopted by the City in August 2010. This plan calls for the active recruitment of medical and related uses to create a campus of medical uses to the south and west of the MetroLink station. It also envisions St. Clair Avenue revitalizing as a main commercial and retail street serving the East St. Louis community and the gradual redevelopment of residential neighborhoods to the south and east of the heart of downtown. While the area remains largely vacant at this time, a few key catalyst projects (such as landing a major medical or government anchor) could help launch the rebirth of the 5th and Missouri area and downtown East St. Louis overall.

The overall strategy for the 5th and Missouri station area should include various open space and park corridors and designations, as depicted on the station diagram, that would allow for bike and pedestrian connections from one end of the downtown area to the other. These open space corridors and facilities should link with larger regional trails and open space systems along the river and connecting East St. Louis to surrounding communities.

The table below compares the potential developable area at the 5th and Missouri station with the projected supportable square footage of new development over the next thirty years. As illustrated, if development were to proceed at densities typical of downtown dis-

tricts (above 0.5 FAR) the station area has excess developable space. While the station diagram depicts a longer term development strategy, in order to minimize infrastructure costs and proceed with more compact TOD around the station area and therefore encourage greater MetroLink ridership, Metro and East St. Louis should prioritize development near the MetroLink platform over the next few decades. While the station diagram allows for development to exceed projected demand estimates and extend to other areas in downtown East St. Louis and beyond, the city should work to focus development around the station platform and the heart of the downtown district, along St. Clair Avenue.

5TH AND MISSOURI STATION DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	36.04	1,569,902
Less: Roads and Configuration at 20%	7.208	313,980
Less: Open Space and Drainage at 20%	7.208	313,980
Less: Surface Parking		0
Net Developable Area		941,941
Potential Developable SF at 0.25 FAR		235,485
Potential Developable SF at 0.5 FAR		470,971
Potential Developable SF at 1.0 FAR		941,941
Projected Commercial Market Demand		41,000
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		62,000
Potential Real Estate Market Demand (2010 - 2040)		103,000

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that East St. Louis work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of a TOD Zoning Classification for the Station Area: None of the zoning classifications in the vicinity of the station area allow for residential land uses that would help to create a true transit-oriented development in the downtown area. The City should replace the existing CBD zoning with a TOD zoning that specifically promotes mixed-use and compact development in the vicinity of the 5th and Missouri station and in the downtown overall. This TOD zoning may incorporate a good deal of the current rules included in the CBD zoning, but it should more strongly promote diversity of land uses.

Establishment of Form Based Codes for the Downtown Area: As a substitute for (or in addition to) the creation of a TOD specific zoning classification, East St. Louis should consider establishing a Form Based Code (FBC) for the downtown area in order to articulate the design of streets and building frontages within the station area district. Again, the FBC

may incorporate many of the guidelines present in the existing CBD zoning pertaining to setbacks and street frontages.

Establishment of Parking Maximums (as opposed to parking minimums): Current zoning requirements in the 5th and Missouri station area require a very high threshold for parking at one space for every 100 square feet of retail space and every 1,000 square feet of industrial space. The community should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties.

Action Items

The following represent a series of action items that East St. Louis, Metro, and other partners should complete in order to move the creation of TOD at the 5th and Missouri station area forward over the next few years.

City of East St. Louis

- Given that existing zoning does not allow for a diversity of land uses including residential that would support TOD, the City should establish zoning that would encourage and entice mixed-use, transit oriented development in the vicinity of the station area.
- The City of East St. Louis should formally identify, acquire, and begin to develop greenways and open space components of the district in order to begin to formulate the urban design framework for a revitalized downtown. Much of the vacant acreage in the downtown area is producing very little in tax revenue at this time, and therefore going ahead and designating and acquiring park and open space land at this time would help to lay the groundwork for private sector development in future years. In addition, purchasing ground at this time would likely require less investment on a per acre basis compared to later stages in the downtown area's revitalization, when property values would naturally increase.
- The City of East St. Louis should identify a prioritization of public improvements (such as streetscapes, open space amenities, and various infrastructure items) and create a capital improvements plan specifically tailored to the downtown area. This plan would provide a roadmap for how to proceed with investments over several years and help guide city leaders as administrations and political climates change over time.
- The City of East St. Louis should continue to actively engage a developer or developers of medical districts or related medical-themed developments, in order to help bring the vision of the Mid-America Medical District to fruition.
- East St. Louis should engage partners to help rebuild and redevelop the residential neighborhoods to the south and east of the downtown area. Potential partners may include Habitat for Humanity and other local non-profits that would help provide the resources or financing to help facilitate the reconstruction of residential housing in the neighborhood, in many cases on a house-by-house basis over time.
- The City of East St. Louis should work to enhance the sidewalks to the north and east of the station platform, including the installation of ADA ramps, widening of sidewalks in areas, and the installation of sidewalks along segments that currently do not have sidewalks. The city should pursue improvements necessary to result in a Pedestrian Level of Service of "A" or "B" for the 5th and Missouri station area.

- The City of East St. Louis should implement improved signage and wayfinding in the community to articulate the directions to the MetroLink station area. Potential signage and wayfinding should identify the station area as a distinct destination within the Downtown area in order to drive real estate activity and property values in the area.
- The City should explore working to designate the 5th and Missouri station area as an Enterprise Zone in the state of Illinois, in order to make additional grants and loans available to facilitate redevelopment in the station area.

St. Clair County

- The County should work to tie approvals for TIF or related county incentive packages for development at the 5th and Missouri station to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 DU per acre and employment uses providing for at least 25 employees per acre). The County should use the approval of TIF or related incentives as “carrots” to promote developments that are more conducive to transit oriented development.

Metro

- Metro should work on finalizing a parking replacement strategy for 5th and Missouri (and other stations). Metro should work on a strategy to locate replacement parking if part of the existing parking lot at the station area is repurposed to facilitate TOD. In addition, Metro should work with East St. Louis to ensure that local side streets accommodate on-street parking wherever possible.
- Metro should work over time to enhance or provide sufficient MetroBus service to and from the station area in order to arrive at a Transit Level of Service measure of “A” or “B”.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

5TH AND MISSOURI [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station serves the City of East St. Louis' central business district. The area immediately north of the station is occupied by government buildings and office buildings from 2-6 stories, most with ground-floor retail space. Nearly all of these buildings are vacant and are showing signs of significant disrepair. The park and ride lot is located immediately south of the station.

Average Monthly Boardings | 48,300 (MetroLink Station Average = 36,500)

Station Configuration | There are 322 park-ride spaces available including 25 long term spaces.

Physical Barriers to Development | Access to the station site is not an issue as this area is based on a grid street network.

Regulatory Barriers to Development | Zoning within the station site is Central Business District which allows a wide range of development including office, retail, commercial, and hotels. Buildings can reach up to 8 stories or 100 feet in height. The Central Business District (CBD) encourages a "main street" style pedestrian environment, however this district does not currently allow residential uses.

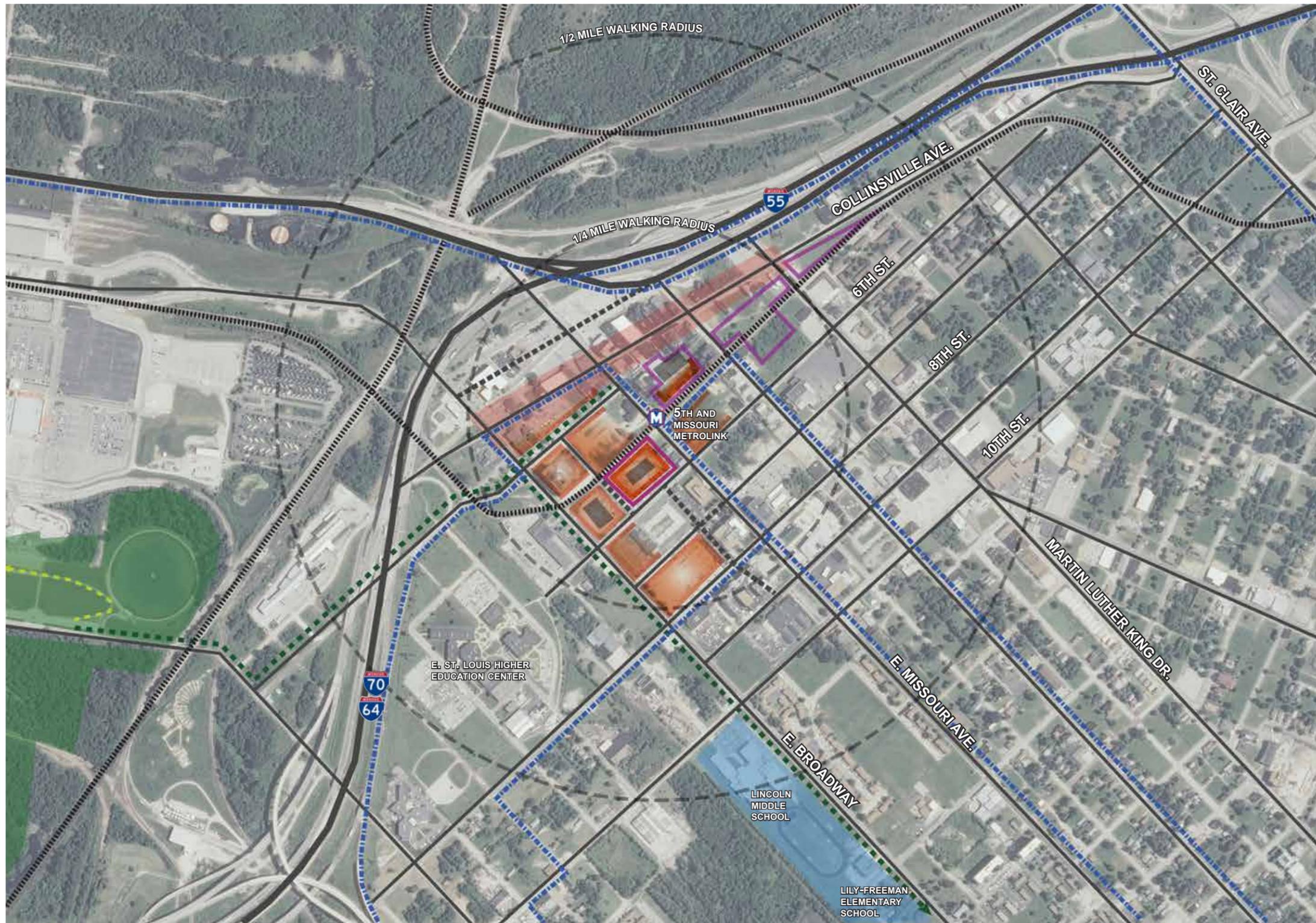
Development Opportunity

Pros	Cons
<ul style="list-style-type: none"> • Significant number of contiguous vacant parcels creates opportunities for development • Many surface parking lots that could be developed • Opportunity to regenerate / redevelop a downtown "heart" to East St. Louis • Significant connectivity to the region via multiple transportation connections • Relatively inexpensive land available for development 	<ul style="list-style-type: none"> • Lack of demand in local trade areas for all real estate product types and market perception issues exist • Potential redevelopment would require rezoning and significant public / private incentives and partnerships

- 1/2 MILE RADIUS STUDY AREA
- CULTURAL PLACE OF INTEREST
- METROLINK RED/BLUE LINE
- VACANT PARCELS OVER 10 ACRES (0 TOTAL)
- METRO OWNED PARCEL (23.6 ACRES)
- PUBLIC OWNED PARCEL (50 ACRES)
- VACANT PARCEL (46.3 ACRES)
- HISTORIC DISTRICT
- ADT AVERAGE DAILY TRAFFIC



STATION | 5TH AND MISSOURI [CITY OF EAST ST. LOUIS]



ROAD NETWORK REGIONAL (50,000+ ADT) ARTERIAL (30,000-49,999 ADT) COLLECTOR (10,000-29,999 ADT) LOCAL (>10,000 ADT)	POTENTIAL ROAD ALIGNMENT RAIL ROAD LINE BUS LINE SECURITY GATE	PARKING LOT TENANT PARKING COMMUTER PARKING METRO OWNED PARCEL	EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS EXISTING TRAIL CONNECTION PROPOSED TRAIL CONNECTION PEDESTRIAN CONNECTION	GRADE CHANGE BUILDING FRONTAGE - SHORT-TERM BUILDING FRONTAGE - LONG-TERM HISTORIC DISTRICT	RESIDENTIAL CORRIDOR REVITALIZATION CIVIC USE CURRENT/PLANNED AREAS OF DEVELOPMENT	
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STATION | 5TH AND MISSOURI [CITY OF EAST ST. LOUIS]

Emerson Park and Jackie Joyner-Kersey Station



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the Emerson Park and Jackie Joyner-Kersey (JJK) MetroLink stations in the future. Because of the relative proximity and connections between these two stations, the Framework Master Plan combines the analyses of these two station areas.

Jurisdictions

- City of East St. Louis

Station Overview and Context

The Emerson Park and JJK stations serve a number of local neighborhoods in East St. Louis, on either side of Interstate 64. The residential neighborhoods to the south of I-64 have retained a greater degree of vitality compared to those north of I-64 and north of the MetroLink stations, where many residential street blocks exhibit vacancies of well over 50 percent. The Emerson Park station area has already witnessed redevelopment in recent years, with the construction of an apartment and townhome complex to the west of 15th Street and the current construction of the Jazz at Walter Circle mixed-use project. Although many of the residential areas around these two stations have faltered in recent decades, the proximity to I-64 and the heart of the metro area do create opportunities for potential redevelopment and rebirth in the future.

Site Analysis

Topography: The study area, within one-fourth mile of the station platform, features relatively flat terrain. The topography of the site does not appear to pose any issues with regard to future development.

Stream and Floodplain Issues: Floodplain zones do not exist in the vicinity of the two station areas.

Transportation Network: The Emerson Park and JJK station areas enjoy very good transportation connectivity to surrounding areas in East St. Louis and to the larger metropolitan area. Interstate 64 passes within a block of both station areas and connects the local neighborhoods to the entire metro area. The major north-south arterials in the two station areas, 15th Street and 25th Street, connect the local neighborhoods to the I-64 corridor as well as important retail and arterial corridors in East St. Louis, including St. Clair Avenue and State Street.

The I-64 freeway carries around 65,000 vehicles per day, on average, in the vicinity of both station areas. The 15th Street corridor carries between 3,000 and 5,000 vehicles daily. The 25th Street corridor carries between 5,000 and 8,000 vehicles per day to the north of I-64, and around 9,000 vehicles per day between I-64 and St. Clair Avenue. The St. Clair Avenue corridor carries between 7,000 and 9,000 vehicles per day east of 25th Street, and from 3,000 to 5,000 vehicles per day to the west of 25th Street. The State Street corridor, an important retail area to the south, carries between 7,000 and 10,000 vehicles per day on average in this part of East St. Louis. The other neighborhood streets in the vicinity of the Emerson Park and JJK stations carry only a few thousand vehicles per day, reflecting the residential nature of these areas.

From the Emerson Park MetroLink station area, several MetroBus lines provide connections to surrounding destinations in East St. Louis and several other communities within Metro East.

#06 Rosemont – Fairmont City MetroBus connects to:

- Neighborhoods in East St. Louis
- Multiple schools
- JJK Center MetroLink station
- Washington Park MetroLink station

#08 Alta Sita MetroBus connects to:

- Touchette Regional Hospital
- Centreville
- Various neighborhoods and destinations within East St. Louis

#09 Washington Park MetroBus connects to:

- Various East St. Louis neighborhoods
- Forest Boulevard

- JJK Center MetroLink

From the JJK MetroLink station area, several MetroBus lines provide connections to surrounding destinations in East St. Louis and several other communities within Metro East.

#06 Rosemont – Fairmont City MetroBus connects to:

- Neighborhoods in East St. Louis
- Multiple schools
- Emerson Park MetroLink station
- Washington Park MetroLink station

#09 Washington Park MetroBus connects to:

- Various East St. Louis neighborhoods
- Forest Boulevard
- Emerson Park MetroLink

Existing Transit Orientation: The station area within one fourth mile of the platforms currently includes residential densities of 1.46 units per acre for Emerson Park and 1.20 units per acre for JJK, on average, and employee densities of .25 employees per acre for Emerson Park and .57 employees per acre for JJK, on average. Given that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the station area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development.

Bike and Pedestrian Environment: The area around the Emerson station currently registers a Walk Score of 17 and for JJK, 37 (or, “a car dependent location” as defined by Walk Score methodology).¹

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

The majority of the zoning classifications in the vicinity of the Emerson Park and JJK stations do not encourage a diverse mix of land uses at varying densities that would support transit oriented development.

The R-1A (Single-Family Residential) zoning classification covers the majority of the residential neighborhoods surrounding the two stations, and in keeping with the name of this zoning, R-1A only allows the construction of single-family homes. A small portion of the station areas includes R-3 (Multi-family residential), however, the majority of the parcels zoned for R-3 are already built out. A few lots in the station areas contain R-2 zoning, which allows single family and two-family residential. The majority of the St. Clair Avenue corridor in the vicinity of the Emerson Park station contains the C-1 and C-3 zoning classifications that

¹ Walk Score. www.walkscore.com, 2013.

allow a wide range of commercial uses but not allow residential development or mixed-use development. Large portions of the areas directly fronting the MetroLink line contain the M-1 and M-2 industrial zoning classifications. These zones by their nature do not allow residential uses and tend to discourage retail development.

Throughout both station areas, zoning generally limits heights for residential and commercial buildings to three stories. Minimum residential lot sizes range from 5,000 SF for single-family homes to 2,000 to 3,000 SF per dwelling unit for apartments. Residential lots must be at least 50 to 80 feet wide, and require 20 to 25 foot front yards and two side yards. Commercial and industrial uses in C-3 and M-1 districts require a minimum lot size of 20,000 SF, a minimum width of 75 to 100 feet, and 25-foot front yards. The C-1 District does not impose any minimum lot size requirements and requires only a 10-foot front yard. In terms of parking, the C-3 and M-1 districts require one parking space for every 100 SF of retail floor area.

In general, the zoning regulations present in both station areas do not promote the development of compact, mixed-use developments typical of transit oriented development. All of the zoning codes allow for standard suburban level development, with significant setbacks, larger lot sizes, ample parking, and the separation of land uses.

Analysis of Current Development Patterns

Although the recent residential and retail development around the Emerson Park station provides a good example of infill development for East St. Louis, the vast majority of the residential neighborhoods in the vicinity of both station areas suffer from significant disinvestment and vacancies. The St. Clair Avenue corridor has lost significant economic strength as a retail corridor as the surrounding neighborhoods have lost population, and as I-64 has separated the corridor to a certain extent from neighborhoods to the north.

Current Ridership

As illustrated in the table below, the Emerson Park station reports average ridership numbers on par with averages for the Illinois portion of the MetroLink station. The Emerson Park station, given its sizeable Metro parking lot and adjacency to new residential and retail developments, attracts a higher number of riders compared to other stations in East St. Louis and the eastern suburbs.

The JJK station reports much lower average ridership numbers relative to averages for the Illinois portion of the MetroLink system and the overall system. The JJK station lacks parking facilities and few active land uses currently surround the station area, and these factors contribute to less use of this station compared to the nearby Emerson Park facility.

Average MetroLink Boarding Estimates - Emerson Park and Jackie Joyner-Kersee Center

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Illinois Station Average	23,500	880	520
Emerson Park MetroLink Station	22,500	880	410
Jackie Joyner-Kersee Center MetroLink Station	13,100	480	310

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

Because the areas around both the Emerson Park and JJK stations include primarily residential land uses and have the potential to support neighborhood-oriented or local serving retail, both station areas represent good examples of the Neighborhood typology. Within the Neighborhood typology of stations, transit is less of a focal point compared to downtown or more intensive stations, and the focus is on serving the local needs of residents.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the Emerson Park station is likely to experience an increase in demand for an additional 125 residential units and additional commercial space totaling around 41,000 square feet. During the same period, the JJK station is likely to experience an increase in demand for an additional 125 residential units and additional commercial space totaling around 41,000 square feet as well.

Given the context of these station areas, additional residential growth will likely include a mixture of single family detached units, as well as apartments and rowhomes or townhomes in close proximity to the MetroLink station platforms. Additional commercial space will likely include neighborhood serving retail as the population of the surrounding neighborhoods begins to recover, as well as small scale office uses. Large industrial uses are not likely to develop in the local station areas given the neighborhood orientation of the Emerson Park and JJK areas.

Overall Development Strategy

Given the level of disinvestment the areas around Emerson Park and JJK have witnessed over the last few decades and the limited projected market demand over the next few decades, the City should work with Metro to concentrate new development near the MetroLink line in order to maximize return on investment and to maximize the potential increase in ridership on the light rail system. The existing mixed-use development around the Emerson Park station represents a good example of the kind of public-private partnership in terms of redevelopment that could be replicated at the JJK station area and in additional areas near the Emerson Park station. Future development should plan carefully for any additional retail uses, as the existing retail at the Emerson Park station has struggled over the last few years since its inception. Future residential development directly around the two station areas should include a mix of townhomes, rowhomes, and apartment units, in order to provide for higher levels of density around the two MetroLink station areas.

The city should also work with public and private sector partners to devise strategies to redevelop and revitalize the various street corridors connecting with the two MetroLink stations, including 15th Street, 25th Street, and St. Clair Avenue. While these corridors have witnessed significant disinvestment in recent decades, the development of additional residential units in and around the two station areas should support additional neighborhood level retail along these various corridors in East St. Louis. Importantly, the city should plan for these corridors as complete streets or “Great Streets” in order to ensure that these corridors accommodate all modes of travel, create an aesthetically pleasing sense of place, and thereby retain their marketability to retail, office, and residential land uses over time. These corridors lost vitality over time in part because their design oriented very strongly around the automobile and strip retail uses, rather than around a cohesive plan for all land uses and

for bike and pedestrian connectivity. Revitalizing and rebranding these corridors as “great streets” represents a key strategy in attracting new investment to this part of the city.

Beyond the immediate station areas, the city should work with various private and public sector partners to help landowners and developers repopulate the residential urban fabric in the various neighborhoods, particularly to the north of the two station areas. The city should actively encourage and provide incentives for organizations such as Habitat for Humanity to construct homes on a one by one basis in the neighborhoods. The urban framework, in terms of street grids and access to major destinations in East St. Louis, already exists. The priority of the city should focus on promoting reconstruction of the single family housing base in these various neighborhoods. The city should focus on developing the infrastructure, in terms of sidewalk networks, pocket and neighborhood parks, and lighting, to support ongoing residential development in this part of the city.

Throughout both station areas, the City of East St. Louis can help to attract development by investing in park, open space, and bike and pedestrian connections and amenities. Further enhancing pedestrian and bike connections across I-64 would help link neighborhoods on the north side with the St. Clair Avenue corridor. Installing a network of bike lanes or bike paths would increase the marketability of the area to new residential development. Promoting a system of linear parks, pocket parks, and neighborhood level parks could also help attract residential development as well.

As discussed in the next section, prioritizing investment will remain a key to development strategy, as the potential developable area for both station areas exceeds the potential market demand over the next few decades. Even at low densities typical of suburban areas, both station areas will have excess developable area over the next few decades relative to projected market demand, as illustrated in the following table.

EMERSON PARK AND JJK STATIONS - DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	85.21	3,711,748
Less: Roads and Configuration at 20%	17.04	742,350
Less: Open Space and Drainage at 20%	17.04	742,350
Less: Surface Parking	14.00	609,840
Net Developable Area		1,617,209
Potential Developable SF at 0.25 FAR		404,302
Potential Developable SF at 0.5 FAR		808,604
Potential Developable SF at 1.0 FAR		1,617,209
Projected Commercial Market Demand		82,000
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		250,000
Potential Real Estate Market Demand (2010 - 2040)		332,000

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that East St. Louis work with Metro to complete the following steps in order to encourage TOD at these station areas over the next 30 years.

Establishment of a TOD Zoning Classification for the Station Areas: None of the zoning classifications in the vicinity of the station area allow for a mixing of land uses that would help to create a true transit-oriented development at the Emerson Park and JJK station areas. The City should replace the existing zoning, in particular around the station areas, with a TOD zoning that specifically promotes mixed-use and compact development.

Establishment of Form Based Codes for the Station Areas: As a substitute for (or in addition to) the creation of a TOD specific zoning classification, East St. Louis should consider establishing a Form Based Code (FBC) for the station areas in order to articulate the design of streets and building frontages within the station area districts.

Establishment of Parking Maximums (as opposed to parking minimums): Current zoning requirements in the station area require a very high threshold for parking at one space for every 100 square feet of retail space. The community should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties.

Action Items

The following represent a series of action items that East St. Louis, Metro, and other partners should complete in order to move the creation of TOD at the Emerson Park and JJK station areas forward over the next few years.

City of East St. Louis

- Given that existing zoning does not allow for the diversity and mixing of land uses that would support TOD, the City should establish zoning that would encourage and entice mixed-use, transit oriented development in the vicinity of the station area.
- The City of East St. Louis should formally identify, acquire, and begin to develop greenways and open space components in the Emerson Park and JJK area in order to begin to formulate the urban design framework for revitalized residential neighborhoods. Much of the vacant acreage in the neighborhoods is producing very little in tax revenue at this time, and therefore going ahead and designating and acquiring park and open space land at this time would help to lay the groundwork for private sector development in future years. In addition, purchasing ground at this time would likely require less investment on a per acre basis compared to later stages in the area's revitalization, when property values would naturally increase.
- The City of East St. Louis should identify a prioritization of public improvements (such as streetscapes, open space amenities, and various infrastructure items) and create a capital improvements plan specifically tailored to the Emerson Park and JJK area. This plan would provide a roadmap for how to proceed with investments over several years and help guide city leaders as administrations and political climates change over time. The city has limited funds for investment, so this plan should identify clearly the prioritization of improvements and funding in the two neighborhood areas over the next few decades.

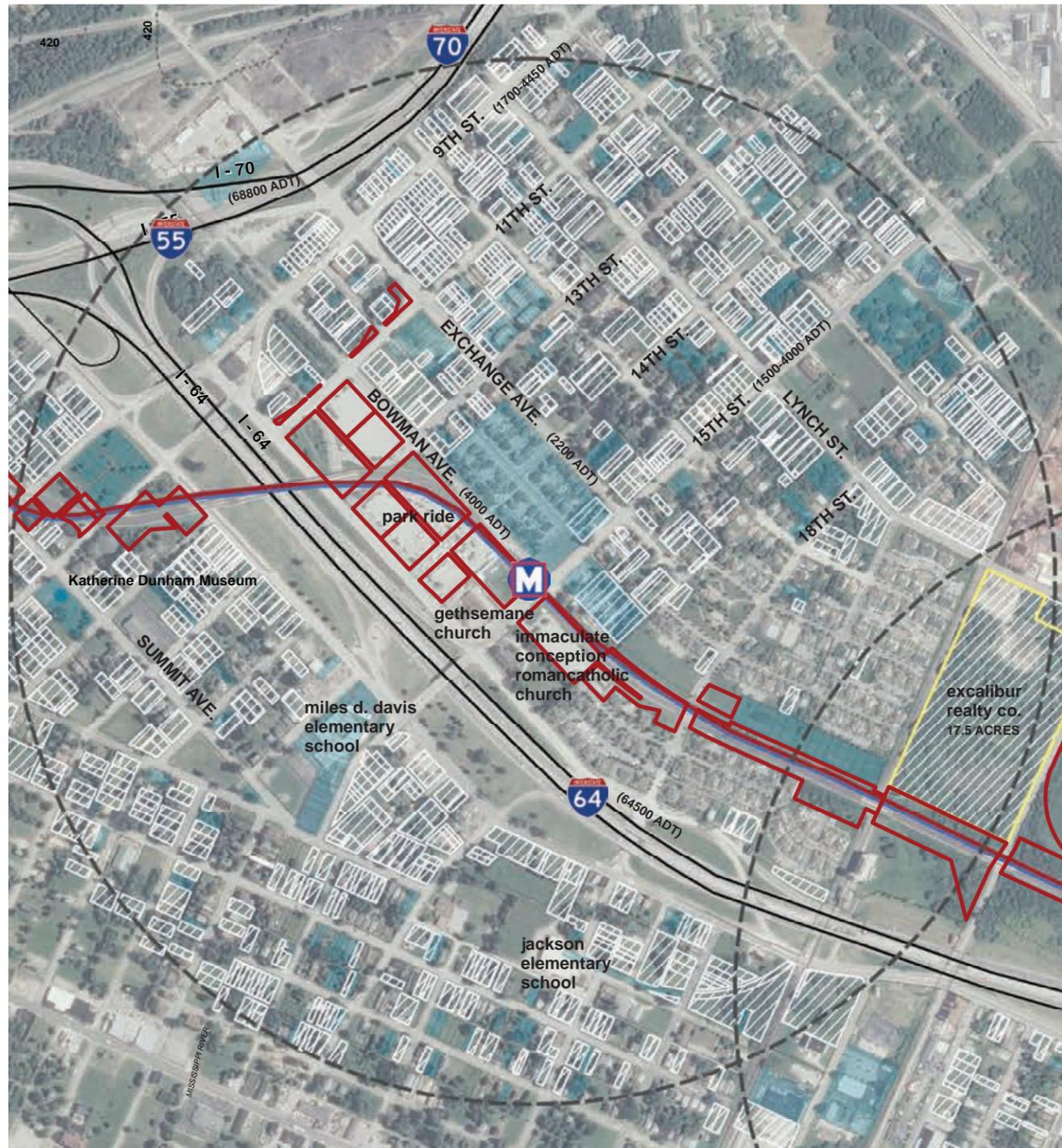
- East St. Louis should engage partners to help rebuild and redevelop the residential neighborhoods around the two station areas. Potential partners may include Habitat for Humanity and other local non-profits that would help provide the resources or financing to help facilitate the reconstruction of residential housing in the neighborhood, in many cases on a house-by-house basis, over time.
- The City of East St. Louis should work to enhance the sidewalks in the station platform areas, including the installation of ADA ramps, widening of sidewalks in areas, and the installation of sidewalks along segments that currently do not have sidewalks. The city should pursue improvements necessary to result in a Pedestrian Level of Service of “A” or “B” for the two station areas.
- The City of East St. Louis should implement improved signage and wayfinding in the community to articulate the directions to the MetroLink station areas. Potential signage and wayfinding should identify the station area as distinct destinations in order to drive real estate activity and property values in the area.
- The City should explore working to designate the two station areas as Enterprise Zones in the state of Illinois, in order to make additional grants and loans available to facilitate redevelopment in the station areas.

St. Clair County

- The County should work to tie approvals for TIF or related county incentive packages for development at the two station areas to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 DU per acre and employment uses providing for at least 25 employees per acre). The County should use the approval of TIF or related incentives as “carrots” to promote developments that are more conducive to transit oriented development.

Metro

- Metro should work on finalizing a parking replacement strategy for the Emerson Park station (and other stations). Metro should work on a strategy to locate replacement parking if part of the existing parking lot at the station area is repurposed to facilitate TOD. In addition, Metro should work with East St. Louis to ensure that local side streets accommodate on-street parking wherever possible.
- Metro should work over time to enhance or provide sufficient MetroBus service to and from the station areas in order to arrive at a Transit Level of Service measure of “A” or “B”.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

EMERSON PARK [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station is located adjacent to the I-64 and 15th Street interchange in East St. Louis. A redevelopment project including dozens of new housing units and a small retail center (including a snack shop, barber, and Metro security station) was completed at Emerson Park in recent years. The surrounding neighborhood to the north and east contains areas zoned for low to medium density residential. However, the majority of lots within the neighborhood are vacant, as illustrated in the graphic. The area of the city to the south of I-64 is also challenged by numerous vacant lots in commercial and residential areas.

Average Monthly Boardings | 22,500 (MetroLink Station Average = 36,500)

Station Configuration | Three Park-Ride lots serve this station with a total of 14 acres and 816 parking spaces.

Physical Barriers to Development | Access to the surrounding station site from the south requires crossing over the I-64 corridor via a pedestrian bridge near 14th Street.

Regulatory Barriers to Development | Zoning around the station generally does not permit mixed-use development, and multifamily housing is also limited. Building heights are also limited to two or three stories. TOD would require a rezoning.

Development Opportunity

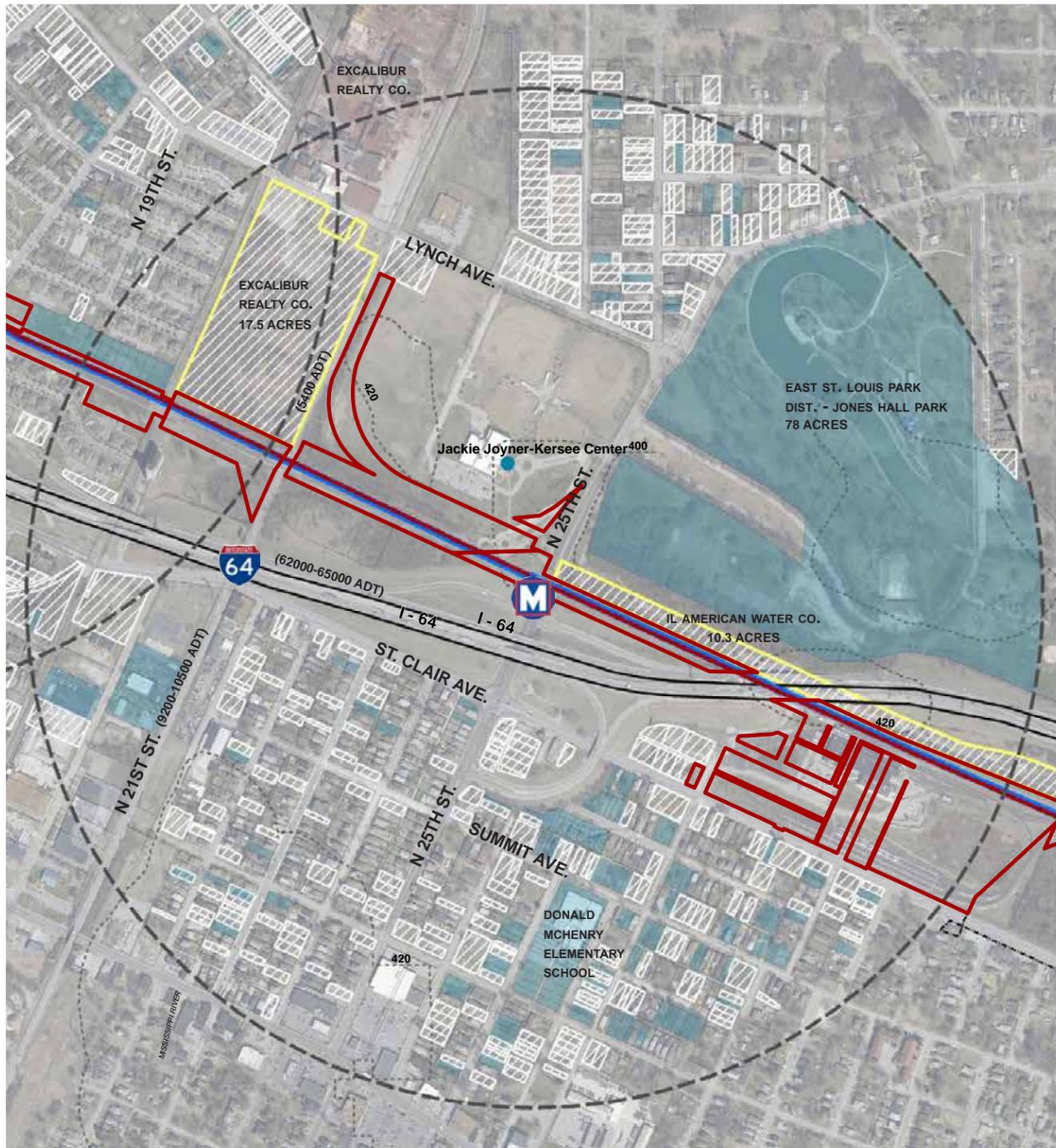
Pros	Cons
<ul style="list-style-type: none"> Substantial amount of vacant land This station area has extensive residential development involving both affordable and market rate residential, with potential for supporting additional residential development Centralized location within the larger metropolitan region with good access to I-64 	<ul style="list-style-type: none"> The I-64 corridor may create a barrier without improved pedestrian circulation Very challenging area from a market viability perspective

- 1/2 MILE RADIUS STUDY AREA
 - CULTURAL PLACE OF INTEREST
 - METROLINK RED/BLUE LINE
 - VACANT PARCELS OVER 10 ACRES (1 TOTAL)
 - METRO OWNED PARCEL (25.58 ACRES)
 - PUBLIC OWNED PARCEL (42.7 ACRES)
 - VACANT PARCEL (116 ACRES)
 - HISTORIC DISTRICT
 - ADT AVERAGE DAILY TRAFFIC
- OF THE PUBLICLY OWNED LAND, NO PARCELS ARE OVER TWO ACRES AND THEY ARE COMPOSED OF SCHOOL DISTRICT, EAST ST. LOUIS HOUSING AUTHORITY, AND ST. CLAIR COUNTY TRUSTEE LAND



STATION | EMERSON PARK [CITY OF EAST ST. LOUIS]





*Data and Information provided by Design Workshop, East West Gateway and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

- 1/2 MILE RADIUS STUDY AREA
- CULTURAL PLACE OF INTEREST
- METROLINK RED/BLUE LINE
- ▭ VACANT PARCELS OVER 10 ACRES (2 TOTAL)
- ▭ METRO OWNED PARCEL (43.9 ACRES)
- ▭ PUBLIC OWNED PARCEL (101.2 ACRES)
- ▭ VACANT PARCEL (76.6 ACRES)
- ▭ HISTORIC DISTRICT
- ADT AVERAGE DAILY TRAFFIC

JACKIE JOYNER KERSEE (JJK) [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station, located near the intersection of I-64 and North 25th Street, provides access to the Jackie Joyner Kersee Center, a community facility that provides youth and resident services. North 25th Street and St. Clair Avenue are both major commercial corridors.

Average Monthly Boardings | 13,100 (MetroLink Station Average = 36,500)

Station Configuration | The station area includes drop off lanes for buses and passenger vehicles but does not include any general parking areas next to the MetroLink station.

Physical Barriers to Development | Interstate 64 limits connectivity to parcels to the south. Jones Hall Park precludes development to the east of the station area. The JJK Center creates a separation between the station area and the residential neighborhoods to the north.

Regulatory Barriers to Development | Zoning around the station currently has the ability to support industrial and commercial TOD, but residential and mixed-use TOD would be challenging with zoning regulations.

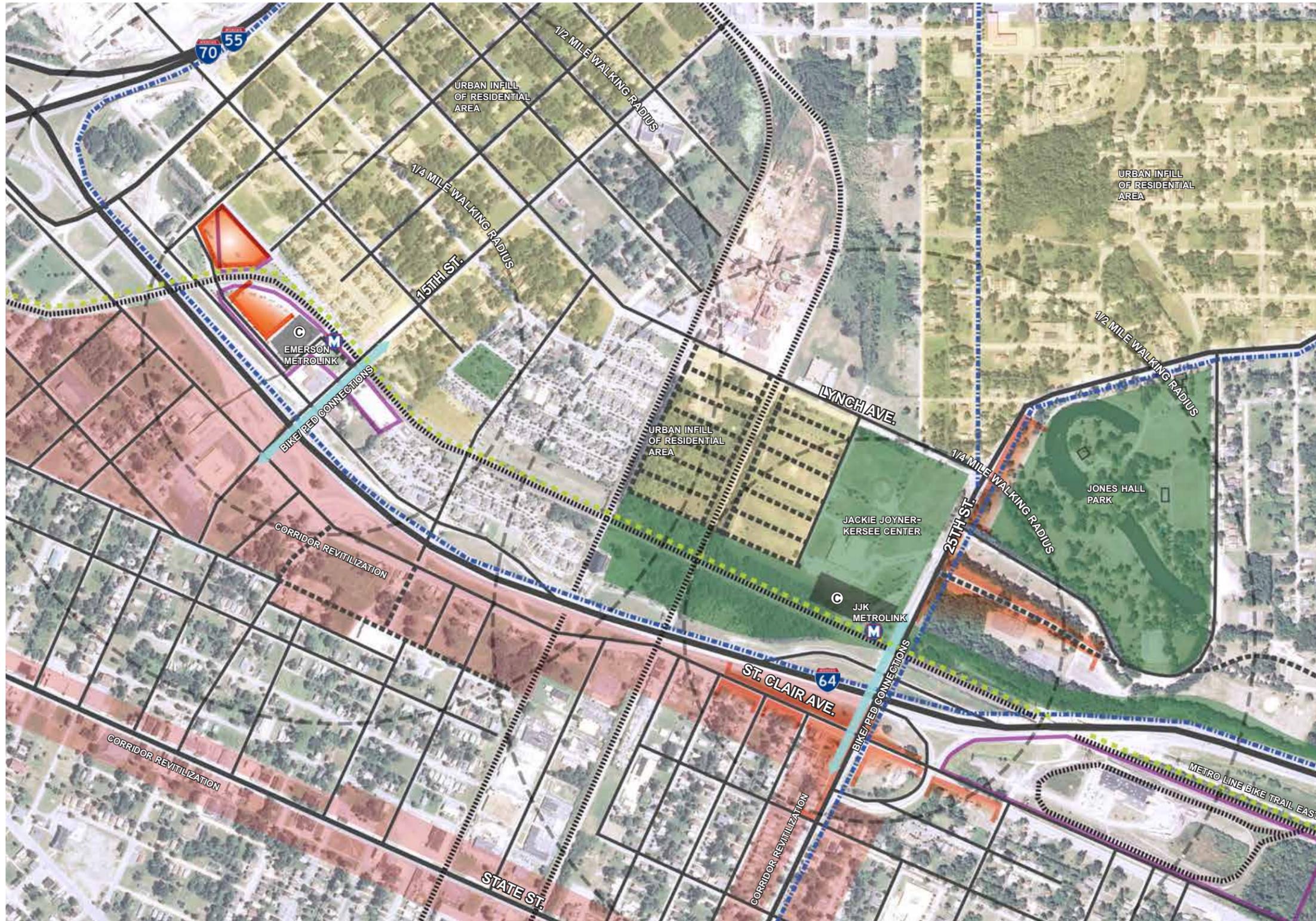
Development Opportunity

Pros	Cons
<ul style="list-style-type: none"> • There is a lot of vacant land in large concentrations of acres, in neighborhoods to the north and south • Access to I-64 enhances connectivity to the rest of the region 	<ul style="list-style-type: none"> • Large I-64 right-of-way • Very challenging to complete any new developments from a market perspective at this time



STATION | JACKIE JOYNER-KERSEE [CITY OF EAST ST. LOUIS]

DESIGNWORKSHOP



- | | | |
|-------------------------------|---------------------------------|--------------------|
| ROAD NETWORK | POTENTIAL ROAD ALIGNMENT | PARKING LOT |
| REGIONAL (50,000+ ADT) | RAIL ROAD LINE | TENANT PARKING |
| ARTERIAL (30,000-49,999 ADT) | BUS LINE | COMMUTER PARKING |
| COLLECTOR (10,000-29,999 ADT) | SECURITY GATE | METRO OWNED PARCEL |
| LOCAL (>10,000 ADT) | | |

- | | |
|---|--------------------------------|
| EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS | GRADE CHANGE |
| EXISTING TRAIL CONNECTION | BUILDING FRONTAGE - SHORT-TERM |
| PROPOSED TRAIL CONNECTION | BUILDING FRONTAGE -LONG-TERM |
| PEDESTRIAN CONNECTION | HISTORIC DISTRICT |

- | |
|--------------------------------------|
| RESIDENTIAL |
| CORRIDOR REVITALIZATION |
| CIVIC USE |
| CURRENT/PLANNED AREAS OF DEVELOPMENT |



STATION | EMERSON PARK AND JACKIE JOYNER-KERSEE [CITY OF EAST ST. LOUIS]

Washington Park Station



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the Washington Park MetroLink station in the future.

Jurisdictions

- St. Clair County
- Village of Washington Park
- City of East St. Louis
- St. Clair County Transit District

Station Overview and Context

The Washington Park Station currently operates primarily as a park and ride lot for commuters in this portion of East St. Louis and St. Clair County. Heavy industrial uses dominate the area between the Washington Park station and Interstate 64, and an aging residential neighborhood with numerous vacancies dominates the area to the south. The adjacency to neighborhoods that have experienced urban decline and heavy industrial areas has limited the potential to create new TOD around Washington Park in the past. In addition, the Southwestern Illinois Correction Center is located within the vicinity of the station area, creating a substantial institutional presence, that, while good for commuters employed at the center, is a hindrance to other market demands.

Site Analysis

Topography: The study area, within one-fourth mile of the station platform, features relatively flat terrain. The topography of the site does not appear to pose any issues with regard to future development.

Stream and Floodplain Issues: Floodplain zones exist to the south and east of the MetroLink station, to the south of the MetroLink line, and also to the northwest, across St. Clair Avenue. The areas directly to the north do not appear to have any floodplain issues.

Transportation Network: The Washington Park station area generally enjoys good transportation connectivity to surrounding areas in East St. Louis and Washington Park. Illinois Route 111 (Kingshighway) connects the I-64 corridor to the State Street corridor and provides good north-south access. St. Clair Avenue passes just to the north of the station area and connects the heart of East St. Louis to eastern portions of the city and to Fairview Heights and other suburbs to the east. Summit Avenue and a grid network of neighborhood streets provide connectivity to the south and east.

Traffic volumes along arterial streets in the vicinity of the Washington Park station remain fairly low. St. Clair Avenue in the vicinity of the MetroLink station carries approximately 6,000 vehicles per day, and Summit Avenue accommodates approximately 3,000 vehicles per day. Route 111 accommodates between 5,000 and 8,000 vehicles per day, just to the east of the station area.

From the Washington Park MetroLink station area, two MetroBus lines provide connections to surrounding destinations:

#6 Rosemont-Fairmont City MetroBus connects to:

- Neighborhoods in East St. Louis
- Local schools
- Jackie Joyner-Kersey Center (JJK)
- Emerson Park and JJK MetroLink stations

#13 Caseyville-Marybelle MetroBus connects to:

- Illinois Route 157, to Collinsville
- Fairview Heights MetroLink station
- Illinois Route 15 and Illinois Route 163, to Alorton and Centreville
- The Madison County Transit Center in Collinsville

Existing Transit Orientation: The station area within one fourth mile of the platform currently includes residential densities of .31 units per acre, on average, and employee densities of .39 employees per acre, on average. Given that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the station area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development.

Bike and Pedestrian Environment: The area around the Washington Park station currently registers a Walk Score of 17 (or, “a car dependent location” as defined by Walk Score

methodology).¹ This station area is relatively isolated from shopping areas, employment centers, parks and open space, and concentrations of residential housing. The area around Washington Park represents a relatively isolated industrial area.

While St. Clair Avenue features some sidewalks, the streets leading from the station area to nearby arterials lack sidewalks, as does Kingshighway and several other side roads and side streets in the general vicinity. The station area lacks sufficient bike storage and the area does not feature any bike lanes or similar accommodations.

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

Washington Park, East St. Louis, and St. Clair County control the portion of the station area located to the north of the station platform, toward I-64, and these areas include a mixture of I-1 (Research & Assembly Industrial District), B-2 (General Business District), and C-3 (Highway Commercial District) zoning classifications. These districts allow for a variety of retail, commercial, and industrial uses, but do not permit any residential uses. To the south of the MetroLink line, in East St. Louis, R-1 (Single Family Residential District), R-2 (Two Family Residential District), and R-3 residential districts dominate. The area also includes small acreages of C-1 (Neighborhood Commercial District) and M-1 (Medium Manufacturing and Industrial) zoning districts along the Route 111 and Summit Avenue corridors. The vast majority of the acreage to the south of the tracks carries the R-1 zoning designation, which allows for only single-family homes and limited community facilities. The commercial and industrial zoning south of the MetroLink line does not allow for any residential development. None of the zoning areas around the Washington Park station currently allow for a diversity of land uses (including residential, office, retail and other land uses, at various densities) conducive to TOD.

Analysis of Current Development Patterns

Existing single family residential neighborhoods dominate the area between the MetroLink station and State Street, to the south, in East St. Louis. However, the area south of Summit Avenue contains numerous vacant lots, and virtually the entire residential fabric of the area located between Summit Avenue and the MetroLink line has disappeared. While designated street rights of way remain, virtually all of the area has decayed into an overgrown area devoid of houses. The community reconstructed 53rd Street from Summit to the MetroLink station in order to provide connectivity from the neighborhood to the train station, but other residential streets north of Summit have essentially disappeared. Areas to the southeast and southwest of the MetroLink station feature additional vacant, overgrown lots. To the northeast of the very large Metro parking lot next to the station, a flea market has developed at the southwest corner of St. Clair Avenue and Route 111. A heavy industrial tenant has retained operations to the east of Route 111 and to the north of MetroLink. A large vacant industrial parcel exists to the north of St. Clair Avenue and to the northwest of the station. An Illinois state prison continues operations east of Route 111 and between St. Clair Avenue and I-64. To the north of I-64, a mixture of highway commercial (gas stations and convenience stores) and strip clubs dominate the landscape.

Washington Park Motocross Corp. controls the nearly 24 acre vacant industrial property north of St. Clair Avenue and various fragmented ownerships encompass the numerous

1 Walk Score. www.walkscore.com, 2013.

vacant residential lots to the south of the MetroLink line. Metro controls 11.5 acres at the station area, including a relatively large park and ride lot.

Current Ridership

As illustrated in the table below, the Washington Park station reports much lower average ridership numbers compared to averages for the Illinois portion of the system and the overall MetroLink system. The relative isolation of the station from nearby employment centers and neighborhoods limits ridership. While I-64 passes nearby, the Washington Park station enjoys less direct access to nearby expressways and freeways compared to several other stations on the Illinois side of the metro area.

Average MetroLink Boarding Estimates - Washington Park Station

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Illinois Station Average	23,500	880	520
Washington Park MetroLink Station	14,400	560	270

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The Washington Park station represents an example of the Neighborhood typology of light rail stations. Although the emphasis on light industrial uses near the Washington Park station does not tie with the typical attributes of neighborhood stations, the majority of the area to the south of the station contains the fabric for a network of classic residential neighborhoods. These residential areas to the south have the potential to enjoy strong connections to local transit networks, including various bus lines, in addition to the MetroLink system. They also have potential to exhibit diversity in product types and income ranges typical of well planned neighborhoods. Although the Washington Park area may serve as a sizeable employment center in the future, the strong overall residential nature of the station area helps establish it as an example of the Neighborhood typology.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the Washington Park station is likely to experience an increase in demand for an additional 62 residential units and additional commercial space totaling around 41,000 square feet. Given the local economic conditions and the context of the local area in East St. Louis and Washington Park, the additional residential development would likely include primarily single family detached homes, although a few multi-family units may develop in the area as well over the next few decades. The additional 41,000 square feet of commercial space would likely encompass neighborhood-serving retail uses such as convenience stores, smaller restaurants, and various service businesses. Future commercial space would likely include small to mid-size business park uses accommodating operations for a variety of companies.

Overall Development Strategy

The development strategy for Washington Park calls for the redevelopment and infill of the residential neighborhood fabric to the south of the MetroLink station. The grid of residential streets between the MetroLink line and Summit Avenue could redevelop through collaboration with a non-profit housing developer or through the use of tax incentives to encourage the construction of homes on a smaller scale over time. The area to the south of the MetroLink station included strong residential neighborhoods in the past and could regenerate in the future, assuming that a variety of private and public sector partners provide support. The presence of East St. Louis High School just to the south and west provides an anchor for the future redevelopment of the residential area to the south of the MetroLink line.

To the north of the MetroLink station, the development strategy envisions the potential to redevelop the expansive Metro parking lots along the north side of the tracks into a small business park district including a mixture of office and light industrial uses. A grid network of streets would provide for bike and pedestrian connectivity from the station platform to the various tenants in the district. Clustering business park tenants closer to the station platform would help to encourage greater use of the MetroLink system by employees commuting to the Washington Park station for their jobs, and by employees in the business park district using the light rail system to access the greater St. Louis area and a variety of destinations before, or after work. Areas farther to the north and east of the Washington Park station could also redevelop into business park or light industrial uses over time. However, given their greater distance from MetroLink, these uses would likely accommodate tenants requiring larger land parcels.

The overall strategy for the Washington Park station area would include various open space and park corridors and designations, as depicted on the station diagram, that would allow for bike and pedestrian connections from one end of the station area development to the other. These open space corridors would link with nearby green spaces in St. Clair County and provide recreational space for local residents. The development would also take advantage of the extension of the Metro East Parks and Rec bike and pedestrian trail along the MetroLink line.

The table below compares the potential developable area at the Washington Park station with the projected supportable square footage of new development over the next thirty years. As illustrated, even if development were to proceed at suburban densities (0.25 to 0.5 FAR) the station area has excess developable space. While the station diagram depicts a longer term development strategy, in order to minimize infrastructure costs and proceed with more compact TOD around the station area and therefore encourage greater MetroLink ridership, Metro, and the local jurisdictions should prioritize development around the MetroLink platform over the next few decades. While the station diagram allows for development to exceed projected demand estimates and more quickly form a larger business park district at the Washington Park station, local jurisdictions should work first to establish a true TOD node around the station area.

WASHINGTON PARK STATION - DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	71.05	3,094,938
Less: Roads and Configuration at 20%	14.21	618,988
Less: Open Space and Drainage at 20%	14.21	618,988

Less: Surface Parking		0
Net Developable Area		1,856,963
Potential Developable SF at 0.25 FAR		464,241
Potential Developable SF at 0.5 FAR		928,481
Potential Developable SF at 1.0 FAR		1,856,963
Projected Commercial Market Demand		41,000
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		62,000
Potential Real Estate Market Demand (2010 - 2040)		103,000

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that East St. Louis, Washington Park, St. Clair County, and St. Clair County Transit District work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of Parking Maximums (as opposed to parking minimums): Current zoning requirements in the station area establish similar parking requirements, including one parking space per dwelling unit and one parking space for every 100 to 300 SF of commercial floor area, and one space for every 200 to 300 SF of office space. St. Clair County, Washington Park, and East St. Louis should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties.

Establishment of a TOD Zoning Classification for the Station Area: None of the zoning classifications in the station area allow for a mix of land uses, including a variety of densities of residential as well as retail and office uses. The local jurisdictions should explore creating a zoning classification for the Washington Park station area that would allow for the full range of land uses normally allowed within Transit Oriented Development areas. The jurisdictions should explore the creation of TOD zoning that specifically states the range of land uses and densities types allowed within the station area. The TOD zoning should articulate the setbacks and street design characteristics desired by the community for the station area in order to encourage more compact, mixed-use construction that would be supportive of transit oriented development.

Establishment of Form Based Codes for the Station Area: As a substitute for (or in addition to) the creation of a TOD specific zoning classification, Washington Park, East St. Louis, and St. Clair County should consider establishing a Form Based Code (FBC) for the Washington Park station area in order to articulate the design of streets and building frontages within the station area district.

Action Items

The following represent a series of action items that East St. Louis, Washington Park, St. Clair County, Metro, and other partners should complete in order to move the creation of TOD at the Washington Park station area forward over the next few years.

Washington Park and the City of East St. Louis

- Given that existing zoning does not allow for a diversity of land uses including residential that would support TOD, the local jurisdictions, as a first step, should establish zoning that would encourage and entice mixed-use, transit oriented development in the vicinity of the station area.
- The local jurisdictions or Metro should engage an office, business park, or mixed-use developer to more actively develop the area around the station area platform as a TOD district.
- Washington Park, East St. Louis, St. Clair County, and Metro should work with Metro East Parks and Rec to connect local bike routes and open space paths with the bike/ped route along the MetroLink route.
- Washington Park, East St. Louis and St. Clair County should establish and approve a master plan for the station area that would define future street connections, open space connections, locations for parking versus key development sites, transit connections, bike/ped connections, and design guidelines or FBC for the station area.
- East St. Louis and Washington Park should engage partners to help rebuild and redevelop the residential neighborhoods to the south of the station area. Potential partners may include Habitat for Humanity and other local non-profits that would help provide the resources or financing to help facilitate the reconstruction of residential housing in the neighborhood, in many cases on a house-by-house basis over time.
- Washington Park and East St. Louis should conduct further analysis to determine the feasibility of developing or redeveloping on any lands included in floodplain designations in the station area. A sizeable portion of the acreage around the station area carries the floodplain status.
- The cities of East St. Louis and Washington Park should work to enhance the sidewalks in the station platform area, including the installation of ADA ramps, widening of sidewalks in areas, and the installation of sidewalks along segments that currently do not have sidewalks. The cities should pursue improvements necessary to result in a Pedestrian Level of Service of “A” or “B” for the station area.
- East St. Louis and Washington Park should implement improved signage and wayfinding in the community to articulate the directions to the MetroLink station area. Potential signage and wayfinding should identify the station area as distinct destinations in order to drive real estate activity and property values in the area.
- The cities should explore working to designate the station area as an Enterprise Zone in the state of Illinois, in order to make additional grants and loans available to facilitate redevelopment in the station area.

St. Clair County

- The County should work to tie approvals for TIF or related county incentive packages for development at the station area to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 DU per acre and employment uses providing for at least 25 employees per acre). The County should use the approval of TIF or related incentives as “carrots” to promote developments that are more conducive to transit oriented development.

Metro

- Metro should work on finalizing a parking replacement strategy for the Washington Park station (and other stations). Metro should work on a strategy to locate replacement parking if part of the existing parking lot at the station area is repurposed to facilitate TOD. In addition, Metro should work with East St. Louis and Washington Park to ensure that local side streets accommodate on-street parking wherever possible.
- Metro should work over time to enhance or provide sufficient MetroBus service to and from the station area in order to arrive at a Transit Level of Service measure of “A” or “B”.

WASHINGTON PARK [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station serves the Metro East job center and several large public facilities, a State of Illinois correctional facility, industrial facilities, and some residential neighborhoods.

Average Monthly Boardings | 14,400 (MetroLink Station Average = 36,500)

Station Configuration | The station has a 10-acre Park-Ride lot that holds 681 parking spaces.

Physical Barriers to Development | No significant physical barriers exist.

Regulatory Barriers to Development | The area north of the station site is mostly zoned for industrial, business, and commercial uses, while the area to the south is restricted to single-family residential. No multifamily residential uses are permitted north or south.

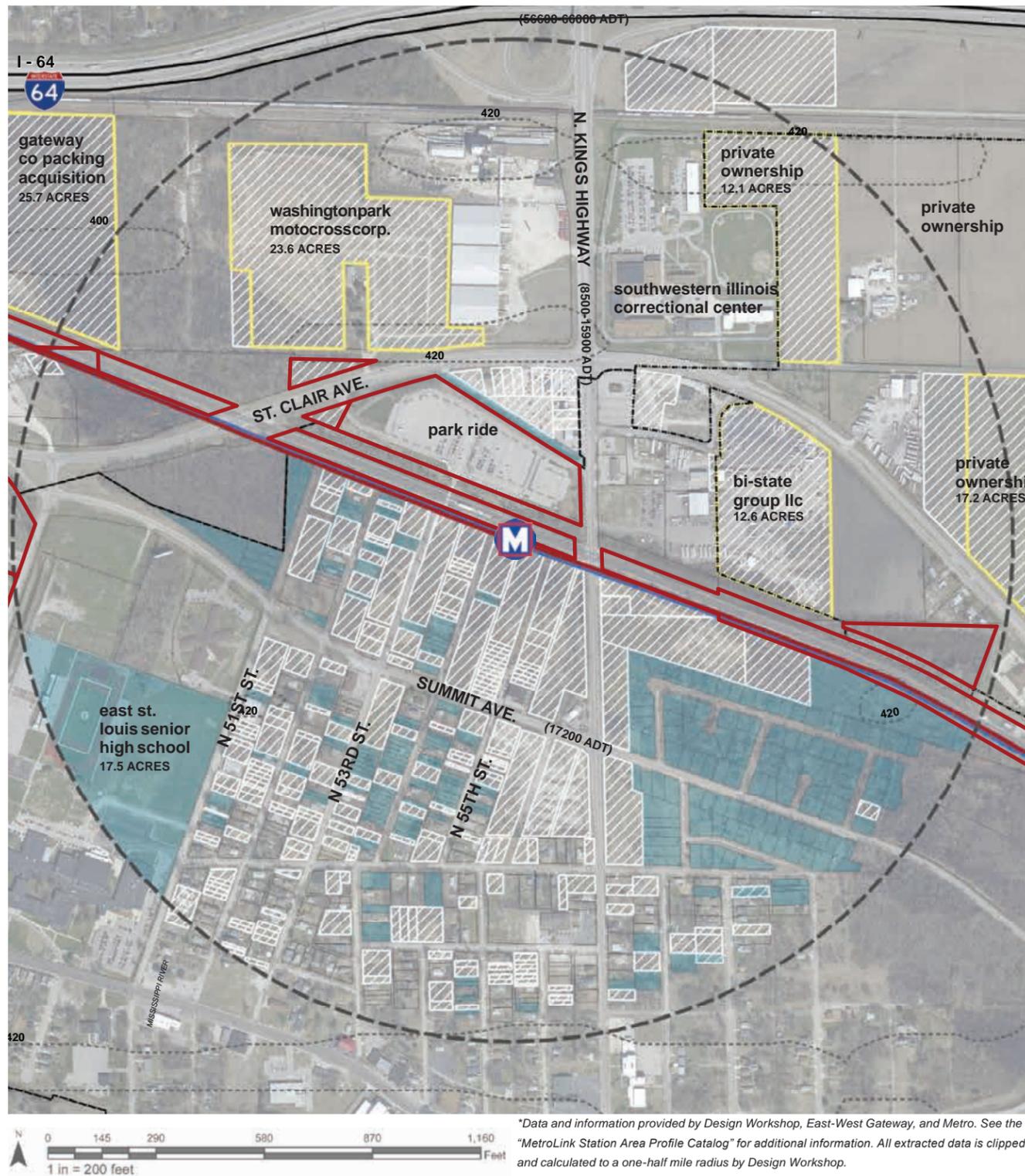
Development Opportunity

Pros

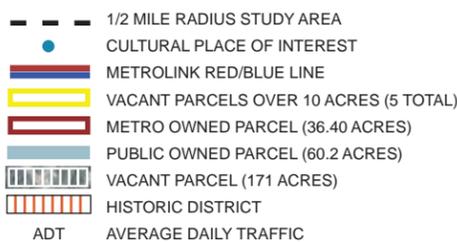
- Large amounts of vacant land within the station area
- Potential to support a range of residential development, as well as commercial and institutional uses that benefit from the access to Metro as well as nearby I-64

Cons

- The adjacent prison and industrial uses may present a near-term or longer-term barrier to development



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.



STATION | WASHINGTON PARK [CITY OF EAST ST. LOUIS/WASHINGTON PARK]

DESIGNWORKSHOP



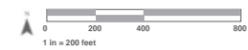
- ROAD NETWORK**
- REGIONAL (50,000+ ADT)
 - ARTERIAL (30,000-49,999 ADT)
 - COLLECTOR (10,000-29,999 ADT)
 - LOCAL (>10,000 ADT)
- POTENTIAL ROAD ALIGNMENT**
- RAIL ROAD LINE
 - BUS LINE
 - SECURITY GATE
- PARKING LOT**
- TENANT PARKING
 - COMMUTER PARKING
 - METRO OWNED PARCEL

- EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS
- EXISTING TRAIL CONNECTION
- PROPOSED TRAIL CONNECTION
- PEDESTRIAN CONNECTION

- GRADE CHANGE
- BUILDING FRONTAGE - SHORT-TERM
- BUILDING FRONTAGE -LONG-TERM
- HISTORIC DISTRICT

- RESIDENTIAL
- CORRIDOR REVITALIZATION
- CIVIC USE
- CURRENT/PLANNED AREAS OF DEVELOPMENT

STATION | WASHINGTON PARK [CITY OF EAST ST. LOUIS/WASHINGTON PARK]



DESIGNWORKSHOP

Fairview Heights Station



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the Fairview Heights MetroLink station in the future.

Jurisdictions

- City of East St. Louis
- City of Fairview Heights

Station Overview and Context

The Fairview Heights station serves a fairly low density, conventional suburban area in Fairview Heights and East St. Louis. The residential neighborhood located directly to the south and west of the station platform is actually located in East St. Louis, but little if any connectivity exists between the MetroLink station and this area. The areas near the station along Route 161 to the east and south feature a scattered pattern of low density highway commercial uses, including some light industrial buildings within and near the French Village Industrial Park, a cemetery, and small businesses. Much of the area to the east and south features vacant, undeveloped parcels as well. The areas along St. Clair Avenue to the north and west feature older strip retail tenants. Several key factors have contributed to high rider-ship rates at Fairview Heights, including the presence of a large park and ride lot and the station's status as the last the station to serve both rail lines in St. Clair County.

Site Analysis

Topography: The area directly around the station area, to the east, features flat terrain. However, to the north and east of Route 161, bluffs create impediments to development. The area to the west of the Fairview Heights station features very hilly and bluff oriented neighborhood conditions. These hills to the south and west have created impediments for the creation of a grid system in this portion of East St. Louis in the past.

Stream and Floodplain Issues: Floodplain zones do not exist in the vicinity of the Fairview Heights station.

Transportation Network: The arterial highways and streets in the vicinity, including Route 157, Route 161, and St. Clair Avenue, provide good connectivity to surrounding areas in Belleville, Fairview Heights and East St. Louis. Route 157 provides direct access to the I-64 corridor and thereby provides increased connectivity to the larger Metro East region compared to other nearby MetroLink stations.

The streets and roadways in the vicinity of the Fairview Heights station carry fairly typical traffic volumes for major arterials in suburban areas. Route 161, which runs parallel to the MetroLink line and adjacent to the station area, carries around 15,000 vehicles per day. St. Clair Avenue carries over 25,000 vehicles per day between Route 157 and the junction with Route 161, but only around 10,000 vehicles per day east of Route 161 within Fairview Heights. Route 157, despite its status as a higher speed four lane highway, carries fewer than 10,000 vehicles per day south of St. Clair Avenue, but over 17,000 per day between St. Clair Avenue and I-64.

From the Fairview Heights MetroLink station area, three MetroBus lines provide connections to surrounding destinations in Belleville, Fairview Heights and other communities within Metro East.

#01 Main Street – State Street MetroBus connects to:

- East St. Louis
- St. Elizabeth Hospital
- Belleville MetroLink station

#12 O'Fallon-Fairview Heights MetroBus connects to:

- Highway 158 into O'Fallon
- O'Fallon Transfer Center
- Highway 50 into Fairview Heights
- St. Clair Square
- Vatterott College

#13 Caseyville-Marybelle MetroBus connects to:

- Illinois Route 157, to Collinsville
- Route 15 and Route 163 to Alorton and Centreville

- Madison County Transfer Center in Collinsville

Existing Transit Orientation: The station area within one fourth mile of the Fairview Heights platform currently includes residential densities of .75 units per acre, on average, and employee densities of .84 employees per acre, on average. Given that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the station area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development.

Bike and Pedestrian Environment: The area around the station currently registers a Walk Score of 14 (or, “a car dependent location” as defined by Walk Score methodology).¹ The Fairview Heights station area remains relatively isolated from shopping areas, government facilities, parks, and employment centers. Therefore, the station remains fairly unwalkable for most people in most situations.

Route 161 and St. Clair Avenue lack sidewalks, as do many of the neighborhood streets in the nearby areas. The nearby routes lack any accommodations or provisions for bicyclists as well. The station area itself lacks sufficient bike storage areas. In general, the Fairview Heights station remains isolated from the rest of the community and orients around a very vehicular dominated highway environment.

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

The zoning classifications around the Fairview Heights station do not support a full range of TOD. The R-1 residential zoning within the East St. Louis portion of the station area, to the west of the station platform, does not allow for multi-family residential land uses. The zoning to the east, in Fairview Heights, includes mainly commercial and industrial classifications that do not allow for residential land uses. Throughout the station area, current zoning limits both residential and commercial buildings to no higher than two to three stories in height. The Planned Business district, located in the northern portion of the Metro park and ride lot, may allow taller buildings with City approval. Minimum residential lot dimensions range from 6,000 SF to 10,000 SF in size and 50 to 75 feet in width. The residential zones also require front yards ranging from 25 to 75 feet. Commercial and industrial uses require lots of 10,000 to 20,000 SF in size and 80 to 100 feet in width. Front yards for commercial and industrial land uses must measure from 75 to 115 feet from the street centerline. All of these requirements may discourage the type of higher density and pedestrian friendly development that is conducive to TOD.

The parking requirements in the vicinity of the Fairview Heights station also discourage the creation of successful TOD. General retail uses in the area must provide one parking space for every 200 SF of floor area, and offices must provide three spaces for every 1,000 SF.

Analysis of Current Development Patterns

A variety of land uses surround the Fairview Heights station in East St. Louis and Fairview Heights. The French Village Industrial Park and various commercial uses line Route 161 to the east of the station area. To the north, various strip commercial and residential land

¹ Walk Score. www.walkscore.com, 2013.

uses line St. Clair Avenue. An existing residential neighborhood in East St. Louis flanks the station area to the south and west. A number of larger vacancies exist in the vicinity of the station area, including several vacancies in the French Village Industrial Park, vacant lots along St. Clair Avenue, and two large vacant lots of 18 and 6 acres, respectively, along the west side of the MetroLink tracks within East St. Louis. The disjointed nature of the existing development pattern inhibits TOD and fails to maximize the development potential of the area. In all, private sector vacant lots total over 36 acres. Metro owns surface parking lots at the station and vacant parcels in adjoining areas totaling nearly 19 acres.

In general, the orientation of the local land uses remains somewhat disjointed and unorganized. With the exception of the main arterials (Route 161 and St. Clair Avenue) the area lacks connectivity in terms of interconnected street grids and arterial streets. Most of the residential uses in the station area orient around dead end streets or cul-de-sacs and do not allow for connectivity to surrounding transit facilities or other land uses.

Current Ridership

As illustrated in the table below, the Fairview Heights station reports much higher ridership compared to the averages for the Illinois portion of the system and for MetroLink overall. The blue line terminates at this station area, and as a result many travelers depart the system at Fairview Heights. In addition, Fairview Heights represents the first station east of I-255, serving suburban communities such as Fairview Heights, Swansea, and Belleville. Many suburban customers drive to Fairview Heights from various locations in Metro East and then ride MetroLink into St. Louis. The station area enjoys good connectivity to surrounding communities via Route 161 and Route 157 and this transportation framework further supports higher ridership numbers at Fairview Heights.

Average MetroLink Boarding Estimates - Fairview Heights

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Illinois Station Average	23,500	880	520
Fairview Heights MetroLink Station	52,300	1,930	1,220

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

Given the strategic location of the Fairview Heights station at the junction of several highways in the area, at the terminus of the blue line, and the presence of significant vacant lands that could redevelop as TOD, this station has the potential to develop as an example of the Suburban Town Center typology in the future.

Suburban Town Centers contain a mix of residential, employment, retail and entertainment uses and can serve as both origins and destinations for commuters. Ideally, these types of stations contain a mix of transit types including various levels of bus service, with high frequency service. In general, the Fairview Heights station has the potential to emerge as a Suburban Town Center serving the entire Metro East area in coming decades.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the Fairview Heights station is likely to experience demand for an additional 125 residential units and additional commercial space totaling around 68,000 square feet. Given the local economic conditions and the context of the local area in Fairview Heights and St. Clair County, the additional residential development would likely include a mixture of single family and multi-family residential units, including the potential to develop a portion of the program as senior or active adult housing. The additional 68,000 square feet of commercial space may include local serving retail uses, including convenience stores, a small grocery, and tenants catering to the daily needs of commuters (including tenants such as Walgreen’s, dry cleaners, and small restaurants). The station area could also include small local serving office uses, including offices for professional services (dentists, lawyers) and service industries (such as an insurance agency)

Overall Development Strategy

The development strategy for the Fairview Heights station involves formulating an urban framework of streets, bike and pedestrian connections, and open space amenities in the area between the station platform and Route 161, in order to leverage the adjacency to the MetroLink line and the ample landholdings controlled by Metro. This development area near the MetroLink station may include a mixture of multi-family residential units, neighborhood serving retail, and small format office uses. Around the edges of this development program, fronting St. Clair Avenue and Route 161, potential developers may have the potential to introduce junior box or somewhat larger format retailers, such as a Walgreen’s or other neighborhood retailer, in order to leverage the higher traffic volumes on the adjacent arterial roads. Across Route 161 to the east, potential development may involve the installation of a network of urban streets that would serve as the backbone for business park or office uses. The existing French Industrial Park may integrate with this new development and therefore help to establish the Fairview Heights station area and the Route 161 corridor as a sub-regional node of business park and employment center land uses. To the west of the station area, the communities of Fairview Heights and East St. Louis should work together to complete pedestrian and bike connections from the station platform area to neighborhoods to the west.

The table below compares the potential developable area at the Fairview Heights station with the projected supportable square footage of new development over the next thirty years. As illustrated, if development were to proceed at densities typical of suburban development (0.25 to 0.5 FAR) the station area would consume the available developable space in the immediate area. While future development could exceed projected demand estimates and extend to additional areas to the east of Route 161, the City of Fairview Heights should work to focus development around the station platform, at least initially.

FAIRVIEW HEIGHTS STATION - DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	37.86	1,649,182
Less: Roads and Configuration at 20%	7.572	329,836
Less: Open Space and Drainage at 20%	7.572	329,836
Less: Surface Parking	18	784,080

Net Developable Area		205,429
Potential Developable SF at 0.25 FAR		51,357
Potential Developable SF at 0.5 FAR		102,714
Potential Developable SF at 1.0 FAR		205,429
Projected Commercial Market Demand		68,000
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		125,000
Potential Real Estate Market Demand (2010 - 2040)		193,000

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that Fairview Heights and East St. Louis work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of a TOD Zoning Classification for the Entire Station Area: While some of the zoning classifications in the station area vicinity allow for residential uses, several of the zoning types do not, and all of the zones allow for various setbacks, densities, and other guidelines related to development that are not particularly conducive to the creation of TOD. While parts of the existing regulations allow for TOD, East St. Louis and Fairview Heights should work to establish a consistent zoning code for TOD at the station area to guide development and set expectations for developers and other partners. The TOD zoning should specifically promote mixed-use and more compact development directly around the Fairview Heights station platform.

Establishment of Form Based Codes for the Station Area: As a substitute for (or in addition to) the creation of a TOD specific zoning classification, Fairview Heights and East St. Louis should consider establishing a Form Based Code (FBC) for the station area and the surrounding vicinity in order to articulate the design of streets and building frontages within the station area district.

Establishment of Parking Maximums (as opposed to parking minimums): Current zoning requirements in the Fairview Heights station area require two parking spaces per home, one space per 200 square feet of floor area for retail uses, and three spaces for every 1,000 square feet of offices. The community should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties.

Action Items

The following represent a series of action items that Fairview Heights, East St. Louis, Metro, and other partners should complete in order to move the creation of TOD at the Fairview Heights station area forward over the next few years.

Fairview Heights/City of East St. Louis

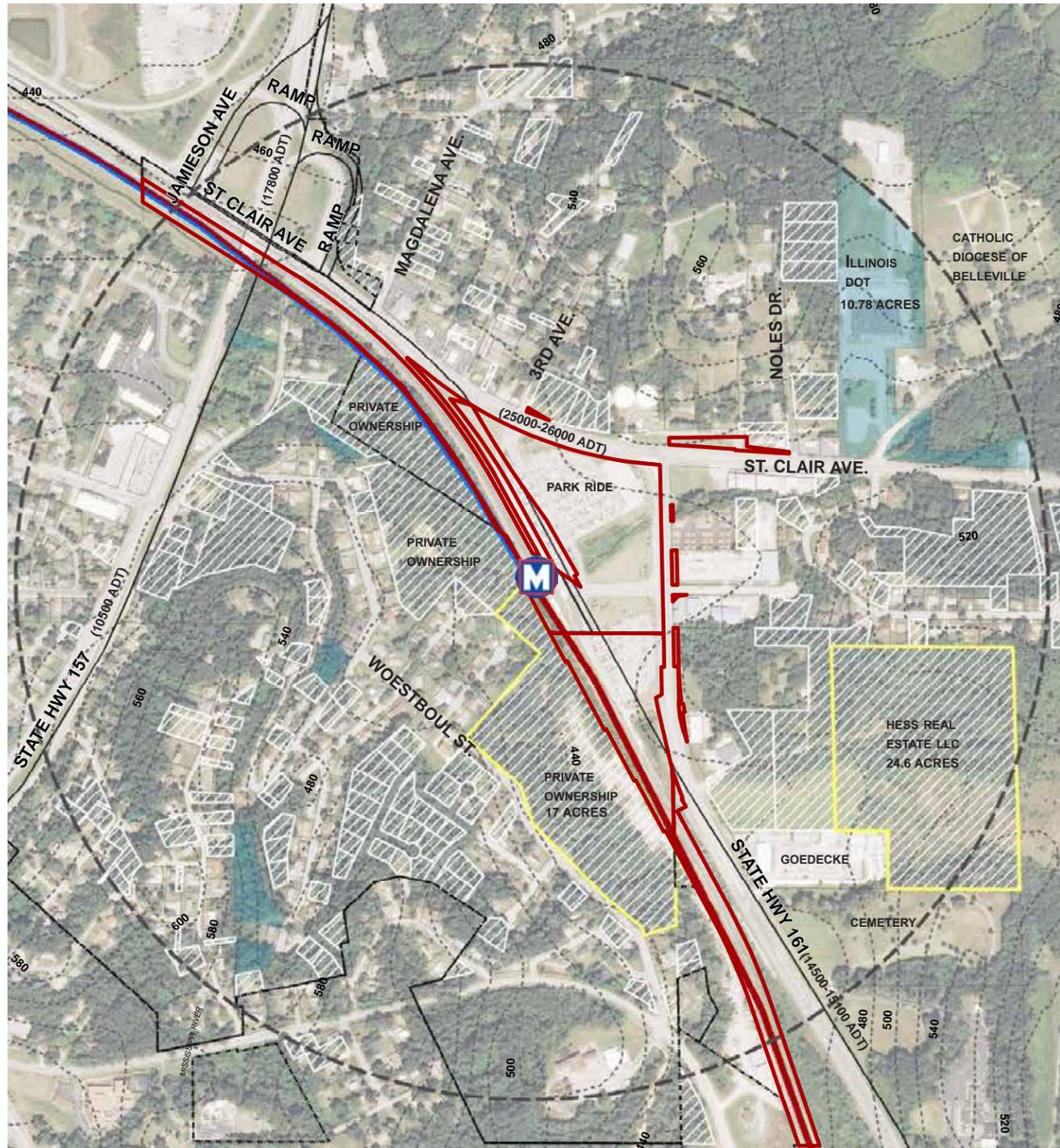
- Given that existing zoning does not allow for a diversity of land uses including residential that would support TOD, the local jurisdictions should establish zoning that would encourage and entice mixed-use, transit oriented development in the vicinity of the station area.
- The City of Fairview Heights should work closely with regional partners in creating the station area plan for this station, as part of the regional TOD study, and should work to accelerate implementation of this plan. Specifically, the City should aim to adopt the station area plan into the city's comprehensive plan and municipal codes by mid 2013.
- In early 2013, the City of Fairview Heights should work to actively solicit development proposals from potential developers for areas around the station area, based upon the station area plans created as part of the regional TOD effort. Developer facilitation will help to accelerate the process of bringing TOD at this station area to reality.
- The City of Fairview Heights and the City of East St. Louis should work together to outline capital improvement plans for the station area and the surrounding neighborhoods in order to help prioritize public improvements associated with TOD. These plans should identify the items and costs for various improvements, ranging from open space improvements to street improvements to additional infrastructure items.
- Metro should work on finalizing a parking replacement strategy for the Fairview Heights station (and other stations). Metro should work on a strategy to locate replacement strategy if part of the existing parking lot at the station area is repurposed to facilitate business park or mixed-use development between the station platform and Route 161.
- Fairview Heights and East St. Louis should formally identify, acquire, and begin to develop greenways and open space components in the district in order to build the open space connections between the Fairview Heights station and surrounding areas in the community.
- The cities of East St. Louis and Fairview Heights should work to enhance the sidewalks in the station platform area, including the installation of ADA ramps, widening of sidewalks in areas, and the installation of sidewalks along segments that currently do not have sidewalks. The cities should pursue improvements necessary to result in a Pedestrian Level of Service of "A" or "B" for the station area.
- The cities should explore working to designate the station area as an Enterprise Zone in the state of Illinois, in order to make additional grants and loans available to facilitate redevelopment in the station area.

St. Clair County

- The County should work to tie approvals for TIF or related county incentive packages for development at the station area to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 DU per acre and employment uses providing for at least 25 employees per acre). The County should use the approval of TIF or related incentives as "carrots" to promote developments that are more conducive to transit oriented development.

Metro

- Metro should work on finalizing a parking replacement strategy for the Fairview Heights station (and other stations). Metro should work on a strategy to locate replacement parking if part of the existing parking lot at the station area is repurposed to facilitate TOD. In addition, Metro should work with East St. Louis and Fairview Heights to ensure that local side streets accommodate on-street parking wherever possible.
- Metro should work over time to enhance or provide sufficient MetroBus service to and from the station area in order to arrive at a Transit Level of Service measure of "A" or "B".



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

FAIRVIEW HEIGHTS [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station is located in the City of Fairview Heights and extends into the City of East St. Louis. It is surrounded by residential neighborhoods to the west while the eastern side contains mostly commercial and light industrial uses.

Average Monthly Boardings | 52,300 (MetroLink Station Average = 36,500)

Station Configuration | The station has two Metro-owned Park-Ride lots with 18 total acres and 853 parking spaces located at the intersection of St. Clair Avenue and IL-161/94th Street.

Physical Barriers to Development | Access to the surrounding station site lacks formal pedestrian crossings between the MetroLink Station and the western portion of the station site.

Regulatory Barriers to Development | Zoning around the station may create barriers because of limitations in allowing multifamily housing and mixed-use development. Building heights are also limited in this area to two or three stories.

Development Opportunity

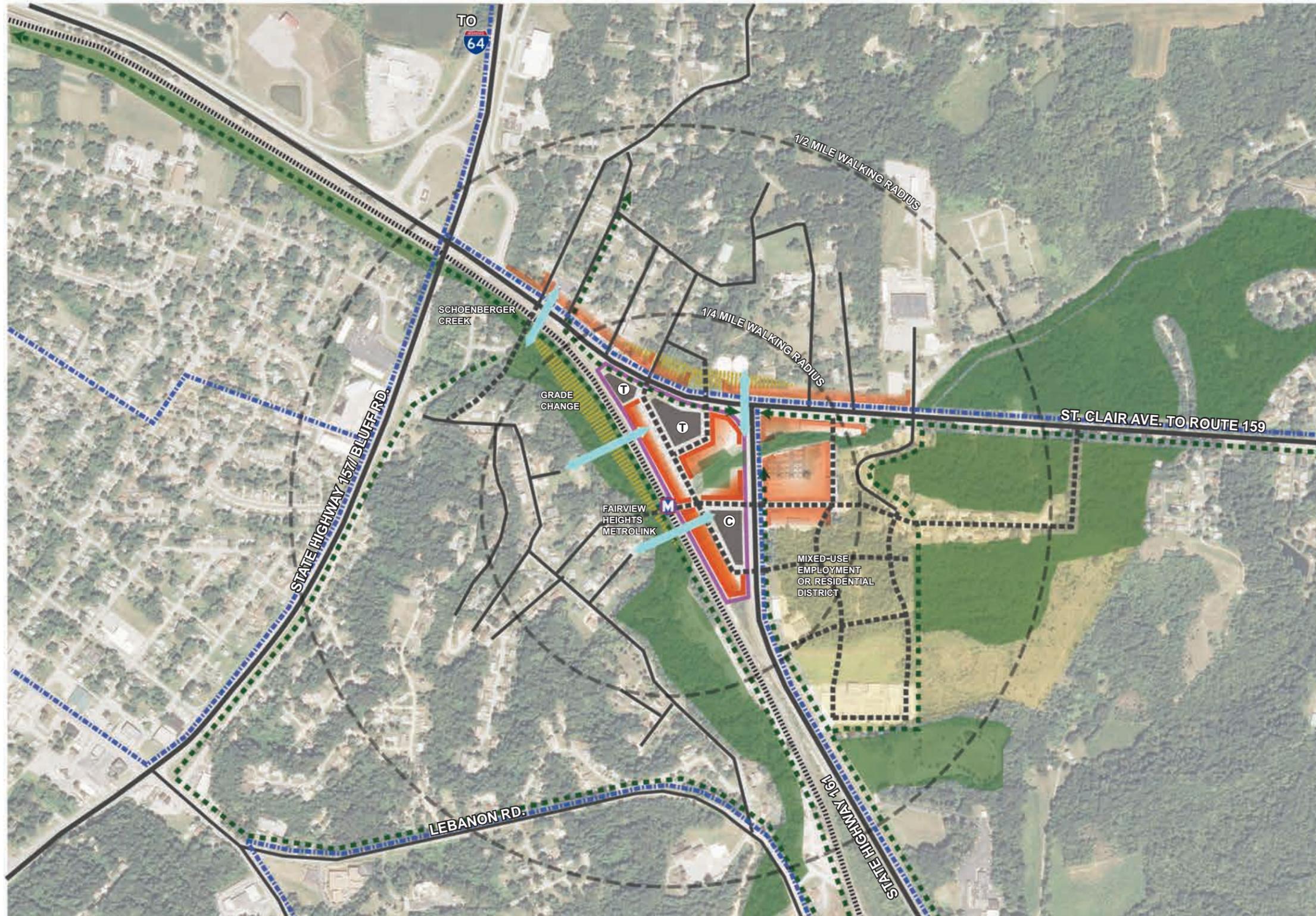
Pros	Cons
<ul style="list-style-type: none"> Approximately 52 acres of vacant land exists within the station area This station has the potential to support a range of residential TOD and a limited amount of mixed-use Highway 161 provides access from the site to Belleville and Swansea, and St. Clair Avenue connects to the heart of Fairview Heights, to the east 	<ul style="list-style-type: none"> Somewhat limited potential in terms of market viability for larger scale residential and commercial uses

- 1/2 MILE RADIUS STUDY AREA
- CULTURAL PLACE OF INTEREST
- METROLINK RED/BLUE LINE
- VACANT PARCELS OVER 10 ACRES (2 TOTAL)
- METRO OWNED PARCEL (33.7 ACRES)
- PUBLIC OWNED PARCEL (17 ACRES)
- VACANT PARCEL (117.5 ACRES)
- HISTORIC DISTRICT
- ADT AVERAGE DAILY TRAFFIC



STATION | FAIRVIEW HEIGHTS [FAIRVIEW HEIGHTS/CITY OF EAST ST. LOUIS]

DESIGNWORKSHOP



- | | | |
|-------------------------------|---------------------------------|--------------------|
| ROAD NETWORK | POTENTIAL ROAD ALIGNMENT | PARKING LOT |
| REGIONAL (50,000+ ADT) | RAIL ROAD LINE | TENANT PARKING |
| ARTERIAL (30,000-49,999 ADT) | BUS LINE | COMMUTER PARKING |
| COLLECTOR (10,000-29,999 ADT) | SECURITY GATE | METRO OWNED PARCEL |
| LOCAL (>10,000 ADT) | | |

STATION | FAIRVIEW HEIGHTS [FAIRVIEW HEIGHTS/CITY OF EAST ST. LOUIS]

- | | | |
|---|--------------------------------|--------------------------------------|
| EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS | GRADE CHANGE | RESIDENTIAL |
| EXISTING TRAIL CONNECTION | BUILDING FRONTAGE - SHORT-TERM | CORRIDOR REVITALIZATION |
| PROPOSED TRAIL CONNECTION | BUILDING FRONTAGE -LONG-TERM | CIVIC USE |
| PEDESTRIAN CONNECTION | HISTORIC DISTRICT | CURRENT/PLANNED AREAS OF DEVELOPMENT |



DESIGNWORKSHOP

Memorial Hospital Station



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the Memorial Hospital MetroLink station in the future.

Jurisdictions

- St. Clair County
- City of Belleville
- St. Clair County Transit District

Station Overview and Context

The Memorial Hospital station serves a fairly low density, conventional suburban area in Belleville. A variety of single family homes, multi-family apartments and condominiums, low density strip commercial uses, and vacant lands surround the station area. Although the MetroLink station carries the Memorial Hospital name, the actual hospital facility is located over a half mile to the south of the station area, to the east of Frank Scott Parkway. This MetroLink station, like many in Metro East, primarily serves as a park and ride facility for commuters traveling to destinations throughout the metro area. A significant inventory of vacant and undeveloped land exists directly adjacent to the station area, however. The local communities have the opportunity to help develop these parcels in a way to help provide for transit oriented development and stimulate increased ridership at the Memorial Hospital station.

Site Analysis

Topography: The study area, within one-fourth mile of the station platform, features rolling terrain. The station platform is below grade to the west from Frank Scott Parkway, but reaches a common grade in the park-ride area. Topography is most conducive to development to the north, south, and east of the platform.

Stream and Floodplain Issues: Floodplain zones do not exist in the vicinity of the Memorial Hospital station.

Transportation Network: The arterial streets in the vicinity, Frank Scott Parkway and Route 161, provide good connectivity to other areas in Belleville, Fairview Heights and Swansea. However, the area is relatively isolated from I-64 and therefore does not benefit from the same levels of connectivity to the larger metropolitan area compared to other stations along MetroLink in the Metro East area.

The streets and roadways in the vicinity of the Memorial Hospital station carry fairly typical traffic volumes for major arterials in suburban areas. Frank Scott Parkway, which directly serves the station area, carries between 13,000 and 15,000 vehicles per day on average. Route 161, which runs parallel to the MetroLink line to the south and west, carries between 15,000 and 18,000 vehicles per day.

From the Memorial Hospital MetroLink station area, only one MetroBus line provides connections to surrounding destinations in Belleville, Fairview Heights and other communities within Metro East.

#14 Memorial Hospital-Westfield Plaza MetroBus connects to:

- Memorial Hospital
- Westfield Plaza
- The #1 bus (Main Street-State Street connection)
- Belleville, Fairview Heights, and East St. Louis

Existing Transit Orientation: The station area within one fourth mile of the Memorial Hospital station platform currently includes residential densities of 1.18 units per acre, on average, and employee densities of .79 employees per acre, on average. Given that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the station area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development.

Bike and Pedestrian Environment: The area around the station currently registers a Walk Score of 17 (or, “a car dependent location” as defined by Walk Score methodology).¹ The station area remains fairly isolated from community shopping areas, parks, and primary concentrations of residential neighborhoods. Although some existing residential neighborhoods exist across the road from the station and the hospital situates less than a mile away, from a walkability perspective this station continues to present challenges.

While Frank Scott Parkway includes a sidewalk along the west side of the street along the frontage in front of the station area, the road lacks sidewalks to the north and south from this location. In addition, the prevailing speed of traffic along Frank Scott is fairly high, creating a less than hospitable environment for individuals walking to and from the station area.

1 Walk Score. www.walkscore.com, 2013.

Frank Scott and other roads in the area do not include bike sharing provisions, and the station area lacks sufficient bike storage. The new bike trail along the side of the MetroLink line from Memorial Park to Swansea will improve connectivity, but the communities should focus on improving access to the actual MetroLink area from nearby neighborhoods and destinations.

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

The area around the Memorial Hospital station contains a variety of commercial and residential zoning classifications. Belleville's C-1, C-2, and B-1 commercial districts allow retail and office uses, but residential uses such as apartments are allowed if a PUD is approved by the city. Therefore, these stations do allow for a mix of land uses conducive to TOD. In addition, the C-2 districts allow buildings to reach a height of 100 feet and cover up to 75 percent of a given lot. The B-1 and C-1 districts allow buildings of up to 35 feet in height, covering 40 percent of a given lot. These stipulations further support the creation of TOD.

However, the St. Clair County zoning districts in the station area (RR1 – Rural Residential District, MHP – Manufactured Home Park District, and B2 – General Business District) do not support TOD concepts. None of the zoning classifications in the county allow multi-family residential development or the mixing of land uses. In addition, the RR1 and B2 districts require minimum lot sizes of one acre and widths of 135 to 150 feet. The MHP district requires at least 10 acres for each manufactured home park. The RR1 and MHP districts require a minimum of 25 foot front yards for single-family homes and the B2 district requires 75-foot front yards for commercial uses.

All of the zoning districts in the station area include parking requirements that are in keeping with suburban conventions and therefore do not help support transit oriented development. Retail and office development must include one parking space for every 200 to 300 square feet of floor area and 1.5 to two spaces per dwelling unit.

Analysis of Current Development Patterns

Suburban neighborhoods including diverse neighborhoods encompass the areas within a half mile of the Memorial Hospital station. The area to the east of Frank Scott Parkway and north of the station includes larger, higher value single family detached homes arranged in a very low density pattern. Just to the north of the station and west of Frank Scott, a small multi-family condominium project, with units arranged around small cul-de-sacs, encompasses Hawk Bill Drive. Directly to the south of the station, across Frank Scott Parkway, a mixture of single family homes, mobile homes, and a small strip commercial center cover the area from the MetroLink line south to Route 161. A postal facility dominates the southwest corner of the Route 161 and Frank Scott Parkway intersection. To the south of this intersection, a residential subdivision includes primarily two-story apartment buildings. Elsewhere, several parcels including vacant or undeveloped land cover areas to the east, west, and northwest of the Memorial Hospital station. In all, private sector vacant lots total over 25 acres. Metro owns surface parking lots at the station and vacant parcels in adjoining areas totaling over 25 acres.

In general, the orientation of the local land uses remains somewhat disjointed and unorganized. With the exception of the main arterials (Route 161 and Frank Scott Parkway) the area lacks connectivity in terms of interconnected street grids and arterial streets. Most of the residential uses in the station area orient around dead end streets or cul-de-sacs and do not allow for connectivity to surrounding transit facilities or other land uses.

Current Ridership

As illustrated in the table below, the Memorial Hospital station reports much lower average ridership numbers compared to averages for the Illinois portion of the system and the overall MetroLink system. The station's relative isolation from major transportation routes in Metro East and the lack of significant development or density in surrounding areas contribute to the relatively limited use of this MetroLink station. The station primarily serves as a park and ride facility for Metro East commuters. On weekend days, only a few hundred people use the station.

Average MetroLink Boarding Estimates - Memorial Hospital

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Illinois Station Average	23,500	880	520
Memorial Hospital MetroLink Station	10,800	410	220

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

Given the primarily residential nature of the surrounding areas in Belleville and St. Clair County, the Memorial Hospital station most logically classifies as an example of a Neighborhood typology TOD station area. A variety of residential land use types exist in all directions, and existing commercial includes local serving tenants such as convenience stores and related convenience retail. Although the presence of a major hospital normally could elevate a station area to a higher intensity typology, the distance of the Memorial Hospital from the MetroLink station limits the potential to create more regionally significant land uses at this station area. Given regional land use and transportation patterns, the Memorial Hospital area is likely to continue to evolve as a neighborhood station over the next few decades.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the Memorial Hospital station is likely to experience demand for an additional 214 residential units and additional commercial space totaling around 58,000 square feet. Given the local economic conditions and the context of the local area in Belleville and St. Clair County, the additional residential development would likely include a mixture of single family and multi-family residential units, including the potential to develop a portion of the program as senior or active adult housing. The additional 58,000 square feet of commercial space may include local serving office uses, such as medical office tenants leveraging adjacency to the hospital, as well as additional local serving retail tenants.

Overall Development Strategy

The development strategy for the Memorial Hospital area primarily focuses on connecting the various areas around the station from a transportation, open space, and multi-modal perspective and on promoting a greater densification of land uses around the immediate station area, in order to promote transit ridership and provide a good suburban example of transit oriented development. Belleville and St. Clair County should work with surrounding property owners to create a transportation framework to install and connect various streets from the neighborhoods to the east, toward the station area and Frank Scott Parkway. The areas to the north

should integrate with the station area as well through streets running parallel to Frank Scott Parkway. Local authorities should work to improve pedestrian connectivity across Frank Scott Parkway in order to enhance safety in the area, regardless of the type and pace of development. A mixture of land uses, including single and multi family residential and primarily local-serving retail, should orient directly around the Memorial Hospital station area. Metro would need to work with prospective developers to help create mixed-use development directly adjacent to the station platform and therefore would have to collaborate in site planning to relocate surface parking to various locations in the general station area. The overall community has a good opportunity at the Memorial Hospital station to create a development framework that would create a neighborhood level node or focal point of activity in this part of Metro East. The communities and private land owners should also work to install open space, bicycle, and pedestrian connections along Frank Scott Parkway, eventually connecting with Memorial Hospital, and to connect the station area with wooded areas and other open space resources in the area.

The table below compares the potential developable area at the Memorial Hospital station with the projected supportable square footage of new development over the next thirty years. As illustrated, if development were to proceed at densities typical of suburban development (0.25 to 0.5 FAR) the station area has excess developable space. While the station diagram depicts a longer term development strategy, in order to minimize infrastructure costs and proceed with more compact TOD around the station area and therefore encourage greater MetroLink ridership, Belleville and St. Clair County should prioritize development near the MetroLink platform over the next few decades. While the station diagram allows for development to exceed projected demand estimates and extend to other areas along Frank Scott Parkway and beyond, the city and county should work to focus development around the station platform, at least initially.

MEMORIAL HOSPITAL STATION - DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	35.14	1,530,698
Less: Roads and Configuration at 20%	7.028	306,140
Less: Open Space and Drainage at 20%	7.028	306,140
Less: Surface Parking	8	348,480
Net Developable Area		569,939
Potential Developable SF at 0.25 FAR		142,485
Potential Developable SF at 0.5 FAR		284,970
Potential Developable SF at 1.0 FAR		569,939
Projected Commercial Market Demand		58,000
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		214,000
Potential Real Estate Market Demand (2010 - 2040)		272,000

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that Belleville, St. Clair County, and St. Clair County Transit District work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of a TOD Zoning Classification for the Entire Station Area: While many of the zoning classifications in the station area vicinity allow for residential uses, several of the zoning types do not, and all of the zones allow for various setbacks, densities, and other guidelines related to development. While parts of the existing regulations allow for TOD, the city and county should work to establish a consistent zoning code for TOD at the station area to guide development and set expectations for developers and other partners. The TOD zoning should specifically promote mixed-use and more compact development directly around the Memorial Hospital station platform.

Establishment of Form Based Codes for the Station Area: As a substitute for (or in addition to) the creation of a TOD specific zoning classification, Belleville and St. Clair County should consider establishing a Form Based Code (FBC) for the station area and the surrounding vicinity in order to articulate the design of streets and building frontages within the station area district.

Establishment of Parking Maximums (as opposed to parking minimums): Current zoning requirements in the Memorial Hospital station area require one-and-a-half to two parking spaces per residential dwelling unit and one space per 200-300 square feet of floor area for retail and office uses. The community should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties.

Action Items

The following represent a series of action items that Belleville, St. Clair County, Metro, and other partners should complete in order to move the creation of TOD at the Memorial Hospital station area forward over the next few years.

City of Belleville

- Given that existing zoning does not allow for a diversity of land uses including residential that would support TOD, the City and County should establish zoning that would encourage and entice mixed-use, transit oriented development in the vicinity of the station area.
- The City of Belleville may wish to annex the unincorporated portions of the station area in order to consolidate zoning and regulations under one umbrella. This change would help provide for greater consistency in the administration of TOD going forward.
- The City of Belleville should formally identify, acquire, and begin to develop greenways and open space components in the district in order to build the open space connections between the Memorial Hospital station and surrounding areas in the community.
- The City of Belleville should consider actively engaging a developer or developers to master plan and execute development of larger parcels around the Memorial Hospital station. Pursuing this strategy could help to minimize the potential of piecemeal developments continuing to dominate the landscape around the station area.

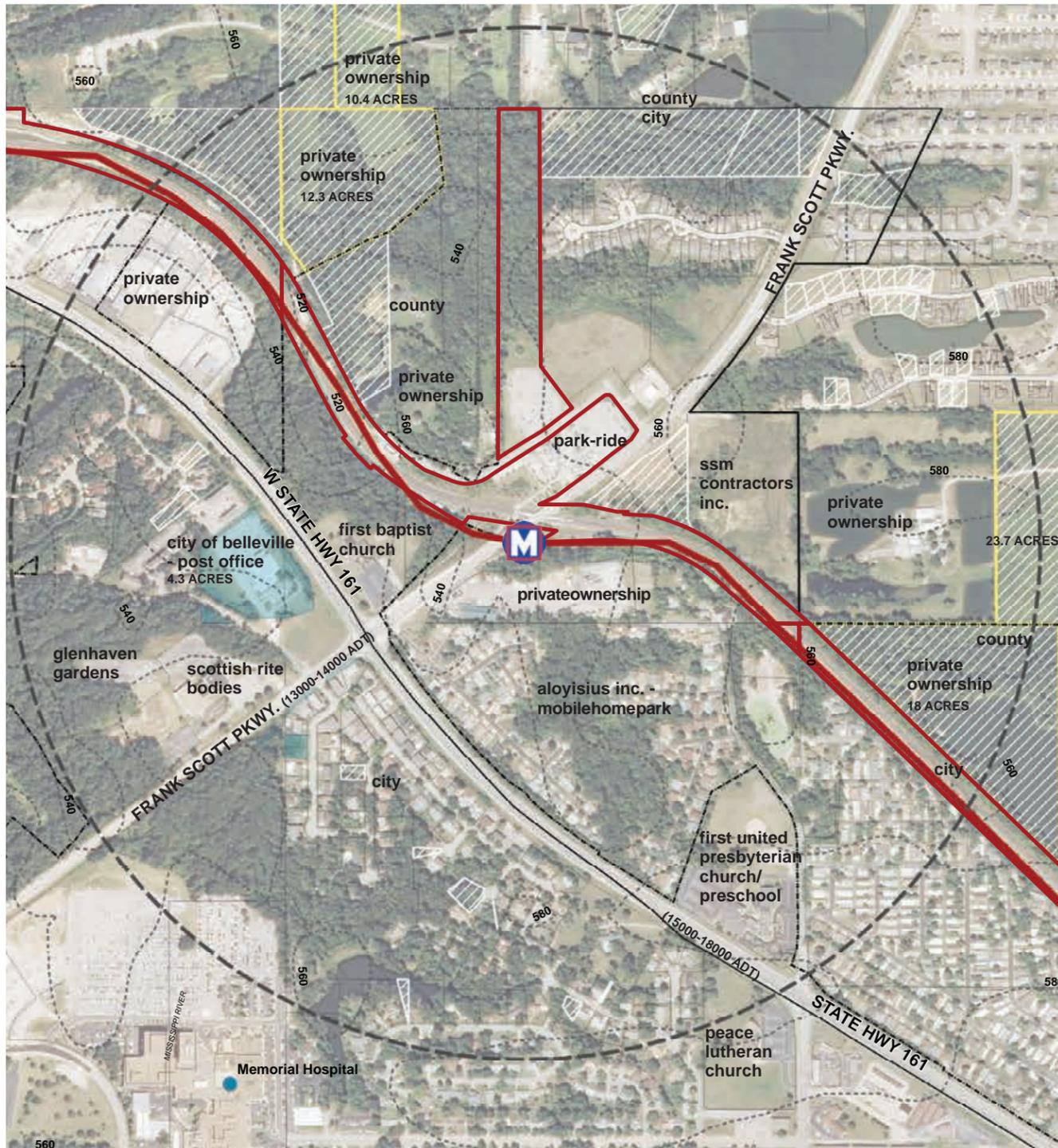
- The City of Belleville should work to enhance the sidewalks in the station platform area, including the installation of ADA ramps, widening of sidewalks in areas, and the installation of sidewalks along segments that currently do not have sidewalks. The city should pursue improvements necessary to result in a Pedestrian Level of Service of “A” or “B” for the station area.
- The city should explore working to designate the station area as an Enterprise Zone in the state of Illinois, in order to make additional grants and loans available to facilitate redevelopment in the station area.

St. Clair County

- The County should work to tie approvals for TIF or related county incentive packages for development at the station area to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 DU per acre and employment uses providing for at least 25 employees per acre). The County should use the approval of TIF or related incentives as “carrots” to promote developments that are more conducive to transit oriented development.

Metro

- Metro should work on finalizing a parking replacement strategy for the Memorial Hospital station (and other stations). Metro should work on a strategy to locate replacement parking if part of the existing parking lot at the station area is repurposed to facilitate TOD. In addition, Metro should work with Belleville to ensure that local side streets accommodate on-street parking wherever possible.
- Metro should work over time to enhance or provide sufficient MetroBus service to and from the station area in order to arrive at a Transit Level of Service measure of “A” or “B”.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

MEMORIAL HOSPITAL [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station serves the area around the Memorial Hospital in Belleville, IL and its surrounding low-density residential neighborhood. It is situated near the intersection of IL-161 and the Frank Scott Parkway.

Average Monthly Boardings | 10,800 (MetroLink Station Average = 36,500)

Station Configuration | The station has three Park-Ride lots totaling eight acres with 431 parking spaces.

Physical Barriers to Development | Significant physical barriers to development are not present around the station area.

Regulatory Barriers to Development | Zoning around the station site allows for mixed uses and multifamily residential development within the City of Belleville. Within the St. Clair County zoning area, however, multifamily residential and mixed uses are not allowed.

Development Opportunity

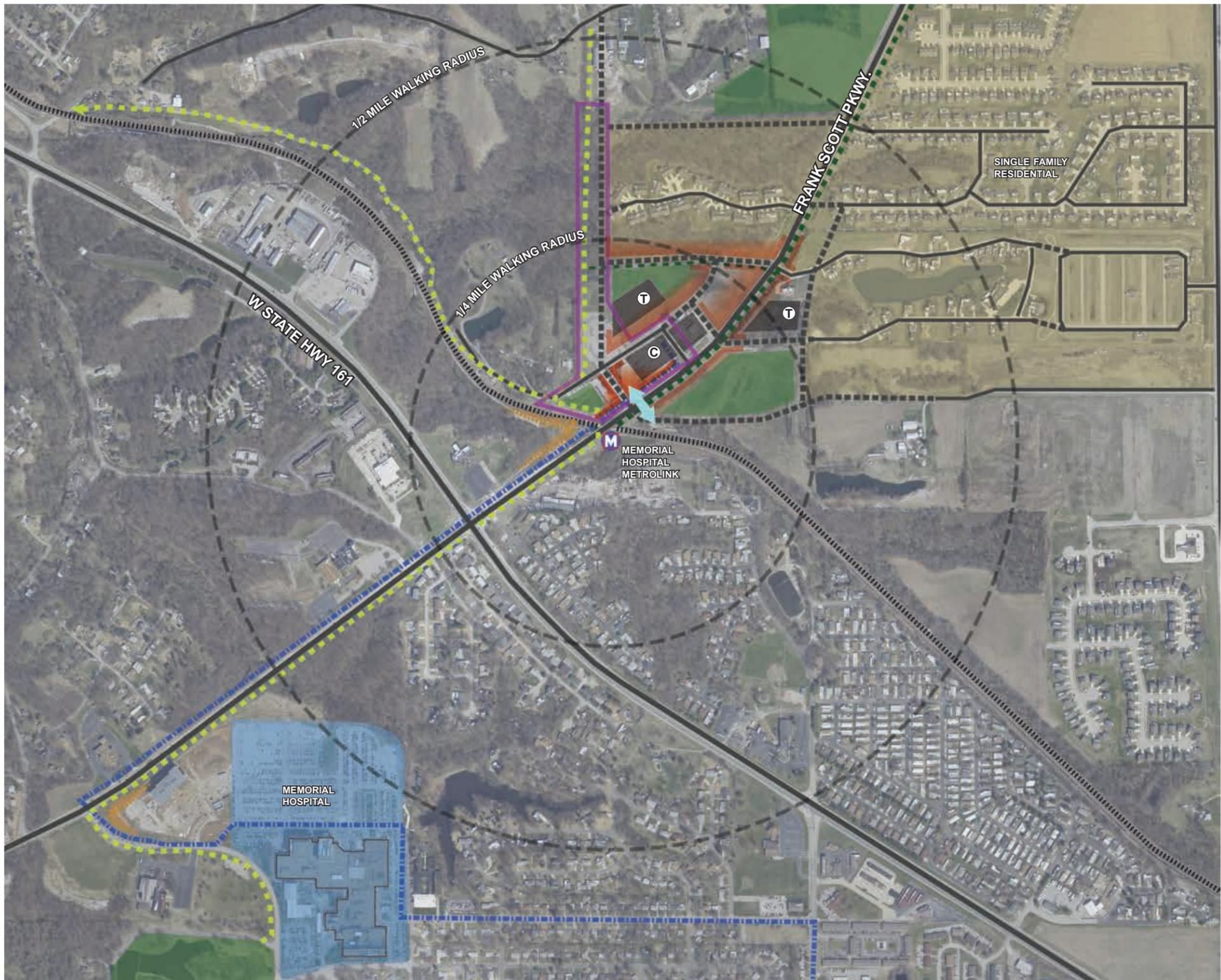
Pros	Cons
<ul style="list-style-type: none"> • Vacant land exists north and east of the MetroLink Station • This station area could support a range of residential TOD 	

- 1/2 MILE RADIUS STUDY AREA
- CULTURAL PLACE OF INTEREST
- METROLINK RED LINE
- ▨ VACANT PARCELS OVER 10 ACRES (4 TOTAL)
- ▨ METRO OWNED PARCEL (51.83 ACRES)
- ▨ PUBLIC OWNED PARCEL (6 ACRES)
- ▨ VACANT PARCEL (105.6 ACRES)
- ▨ HISTORIC DISTRICT
- ADT AVERAGE DAILY TRAFFIC



STATION | MEMORIAL HOSPITAL [CITY OF BELLEVILLE/VILLAGE OF SWANSEA]

DESIGNWORKSHOP



- ROAD NETWORK**
- REGIONAL (50,000+ ADT)
 - ARTERIAL (30,000-49,999 ADT)
 - COLLECTOR (10,000-29,999 ADT)
 - LOCAL (>10,000 ADT)
- POTENTIAL ROAD ALIGNMENT**
- RAIL ROAD LINE
 - BUS LINE
 - SECURITY GATE
- PARKING LOT**
- TENANT PARKING
 - COMMUTER PARKING
 - METRO OWNED PARCEL

STATION | MEMORIAL HOSPITAL [CITY OF BELLEVILLE/VILLAGE OF SWANSEA]

- EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS
- EXISTING TRAIL CONNECTION
- PROPOSED TRAIL CONNECTION
- PEDESTRIAN CONNECTION
- GRADE CHANGE
- BUILDING FRONTAGE - SHORT-TERM
- BUILDING FRONTAGE -LONG-TERM
- HISTORIC DISTRICT
- RESIDENTIAL
- CORRIDOR REVITALIZATION
- CIVIC USE
- CURRENT/PLANNED AREAS OF DEVELOPMENT



DESIGNWORKSHOP

Swansea Station



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning the Swansea station in Metro East concerning how to proceed with TOD in the future.

Jurisdictions

- Village of Swansea

Site Analysis

Topography: The study area, within one-fourth mile of the station platform, features gently sloping land, similar to other station areas in Metro East. The station area is located below grade compared to the Illinois Route 159 corridor, located about two blocks to the east, and is below grade compared to the areas to the south and west. The topography of the site is an issue and may impede retail land uses, particularly in locations located farther from the Route 159 frontage.

Stream and Floodplain Issues: The area does not feature any streams or floodplain areas that would materially impact development potential for TOD. While a small area of floodplain exists primarily in the wooded areas along the MetroLink line and to a small extent to the west of the line, the key developable area at Swansea (to the north and east) is not included in any floodplain designations.

Transportation Network: To the north and east, an existing grid provides an established urban framework from which the community may develop TOD fairly easily. Metro Way

and Old Fullerton Road provide east-west and north-south connectivity. However, parcels located immediately adjacent to the station are fairly large in size and would need to be developed in a pedestrian-friendly manner in order to provide for these connections from the existing Metro station to the existing grid. The presence of existing residential neighborhoods to the southeast and the northwest, including a network of neighborhood streets emphasizing cul-de-sacs and dead end streets, limits connectivity to the station area. The existing businesses and commercial uses along Route 161, directly to the west of the station area, do not have any direct connections to the MetroLink station area. In essence, the existing station area connects only to the north and east and primarily “fronts” onto the Route 159 corridor. Route 159 is one of the key transportation links in Metro East and carries between 20,000 and 25,000 vehicles per day. Route 161 carries around 20,000 vehicles per day. This level of traffic would support additional retail activity along the Route 159 frontage, near the Swansea station.

From the Swansea MetroLink station area, only one MetroBus line provides connections to surrounding destinations in Metro East.

#16 St. Clair Square MetroBus connects to:

- Route 161 to Southwestern Illinois College
- Belleville and College MetroLink
- Route 159, to Fairview Heights and Collinsville
- St. Clair Square
- Madison County Transit Center

Existing Transit Orientation: The station area within one fourth mile of the Swansea platform currently includes residential densities of 1.55 units per acre, on average, and employee densities of 1.53 employees per acre, on average. Given that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the station area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development.

Bike and Pedestrian Environment: The area around the station currently registers a Walk Score of 54 (or, “somewhat” as defined by Walk Score methodology).¹ The Swansea station enjoys relative proximity to a variety of shopping options along nearby Route 159. However, the station is somewhat removed from governmental centers, parks, and other civic amenities. Some of the local streets that connect the station area to Route 159 lack sidewalks, and Route 159 itself only has sidewalks on one side of the street. The width of the five-lane Route 159 creates barriers for people walking and biking to the MetroLink station. The actual station platform area lacks sufficient bike storage areas. The installation of the walking and biking trail along the MetroLink right of way has improved access for people walking and biking, but issues remain concerning how to connect this trail with the surrounding community.

Utility Issues: There are no known utility constraints to development.

1 Walk Score. www.walkscore.com, 2013.

Existing Zoning and Entitlement Considerations

The majority of the areas directly around the station area, to the north and east, is zoned Planned Business District (PB). The PB district allows a very wide range of land use types, including all types of residential, retail, offices, research facilities, government and institutional uses, parking garages, and planned unit developments (PUDs). Additional parcels along Routes 161 and 159 contain the Highway Business District zoning (HB), which permits a variety of retail and commercial uses. Residential uses, hotels, and institutional uses in the HB district require special permits. In keeping with the existing land uses, several parcels to the northwest and southeast contain single family residential zoning (SR-2, SR-3, or SR-4). Within these zones, single family detached homes are permitted, but attached or multi-family housing as well as commercial and office uses are not allowed. A few parcels directly north of the station area carry the Light Industrial (LI) zoning designation. This zone allows manufacturing, storage, and other industrial uses but does not allow retail, office, or residential uses. Given existing zoning, TOD development would be most likely to occur to the north and east of the station.

Analysis of Current Development Patterns

The suburban strip retail district along Route 159 dominates the overall development patterns in the local station area. This commercial corridor developed over the last thirty to forty years and represents one of the main commercial corridors serving the Belleville, Swansea, and Fairview Heights communities in Metro East. It contains a mixture of automobile-oriented, restaurant, service, and general retail uses, and the condition and performance of parcels varies from block to block. The area to the north of Fullerton Road and Route 159 includes newer restaurants including Applebee's as well as relatively strong grocery-anchored shopping center tenants. Along and to the south of the station area, the corridor features service uses (repair shops, insurance agencies) that do not appear to fare as well from a retail and commercial perspective.

To the northwest and southeast, the existing single family residential areas appear relatively stable. The existing commercial / light industrial uses to the west, toward Route 161, appear fairly stable as well, although over time they could convert to other land use types. To the north, a combination of storage units and small office tenants stretches from the station area to the north and east to the Fullerton Road and Route 159 intersection. The Moose Lodge along Route 159 and the Metro buildings along Route 159 dominate the "front door" into the station area. The Moose also own a small vacant lot of around 2 acres located just to the northwest of the station area. Metro owns a total of 26.5 acres of land directly around the station platform, including an 8 acre parking lot containing 716 surface parking spaces.

Current Ridership

As illustrated in the table below, the Swansea station reports much lower ridership numbers compared to the averages in both the Illinois side of the metro area and for the MetroLink system overall. Therefore, the MetroLink system has significant excess capacity at the Swansea station.

Average MetroLink Boarding Estimates - Swansea

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Illinois Station Average	23,500	880	520
Swansea MetroLink Station	12,400	480	240

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The Swansea station represents an example of the Neighborhood typology of light rail stations. Given the presence of a regional mall and other larger format retail near I-64 and Route 159 in nearby Fairview Heights, the Swansea station area is unlikely to ever develop as a regional destination or a suburban town center typology. The likely trade area for retail uses in the Swansea area would not exceed two to three miles. While surrounding parcels could develop with office uses, the Swansea area is unlikely to develop as a significant employment center and therefore is not likely to emerge as a Suburban Town Center or a Downtown station. Given the existing context of the local area and local economic conditions, the Neighborhood typology is most appropriate for the Swansea station.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around Swansea is likely to experience an increase in demand for an additional 171 residential units and additional commercial space totaling around 47,000 square feet. Given the local economic conditions and the context of the local area in Swansea and Metro East, the additional residential development may include a mixture of single family detached, single family attached units (such as townhomes or patio homes), or an apartment complex. The additional 47,000 square feet of commercial space may encompass additional neighborhood-serving retail uses and primarily smaller scale office uses (such as local-serving offices uses including medical office and small professional suites). Importantly, because the Metro East area in general will continue to grow relatively slowly over the next few decades, the quantity of projected additional demand for real estate growth at the Swansea station area may not match the quantity of developable land (assuming the total of developable land includes both Metro-owned parcels, vacant lots, and properties that may repurpose over the next few decades). The Swansea community should strategically consider new development proposals, therefore, in light of their potential to maximize overall economic value for the community and to spur ongoing growth around the station area and in Swansea in general, over the course of the next thirty years and beyond.

Overall Development Strategy

Given the quantities of supportable demand for TOD over the next thirty years, the development strategy outlined in the attached diagram calls for the community to concentrate on maximizing development potential in the quadrant located to the north and east of the Swansea station area, toward the Route 159 and Fullerton Road intersection. While the commercial area to the west, toward Route 161, could convert to other uses over the next thirty years, the areas to the east are more likely candidates for TOD.

The development strategy calls for Metro to work with surrounding property owners and the Village of Swansea to further connect and complete a north-south grid of streets, from the

station area parking lot north to Fullerton Road. The potential exists to better connect the station area with Fullerton and therefore better energize the parcels to the north.

The primary focus of TOD strategies at Swansea should focus on connecting the station area with Route 159, directly to the east. These connections should focus in particular on walking and bicycling, as opposed to the creation of additional lanes for vehicular traffic. Future plans for development at the station should help to manage auto traffic while providing the best possible connections, in terms of access and safety, for all other modes of travel. The Metro-Link platform currently enjoys visibility from Route 159, but it is limited by the presence of the Metro building on Route 159 and the Moose lodge to the north. Potential land uses in this zone between the station area and Route 159 may include an apartment complex, neighborhood serving retail, and smaller scale office development serving the Swansea community (including medical office and related professional services uses). These uses will ideally orient along an east-west axis in order to encourage movement from Route 159 to the station area to the west. Parking lots should be strategically located away from the central development spine of the development area.

The table below compares the potential developable area at Swansea station (encompassing areas to the north and east of the existing station platform) with the projected supportable square footage of new development over the next thirty years. As illustrated, even if development were to proceed at suburban densities (0.25 to 0.5 FAR) the station area has excess developable space. Therefore, Swansea, Metro, and potential developers in the area should carefully plan for new construction given the local market. Development proposals that utilize larger portions of the site for open space amenities or connections could help the project area attract additional activity compared to conventional suburban developments. Given the quantity of space available at Swansea, creatively leveraging this space to create real estate value through open space premiums would make sense.

SWANSEA STATION - DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	51	2,221,560
Less: Roads and Configuration at 20%	10.2	444,312
Less: Open Space and Drainage at 20%	10.2	444,312
Less: Surface Parking	8	348,480
Net Developable Area		984,456
Potential Developable SF at 0.25 FAR		246,114
Potential Developable SF at 0.5 FAR		492,228
Potential Developable SF at 1.0 FAR		984,456
Projected Commercial Market Demand		47,000
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		171,000
Potential Real Estate Market Demand (2010 - 2040)		218,000

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that Swansea work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of Parking Maximums (as opposed to parking minimums): Current zoning requirements in Swansea require 5 parking spaces per 1,000 square feet of GLA for commercial uses. The community should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for commercial properties and not greater than one space per 1,000 SF GLA for residential properties.

Establishment of a TOD Zoning Classification for the Station Area: While the PB and HB zoning classifications allow for multi-family residential development and would allow for modifications to land use and site design on a project by project basis, the community lacks a zoning classification explicitly established for mixed-use development or transit-oriented development. Swansea should explore the creation of TOD zoning that specifically states the range of land use and densities types allowed within the station area. The TOD zoning should articulate the setbacks and street design characteristics desired by the community for the station area in order to encourage more compact, mixed-use development that would be supportive of transit oriented development.

Establishment of Form Based Codes for the Station Area: As a substitute for (or in addition to) the creation of a TOD specific zoning classification, Swansea should consider establishing a Form Based Code for the Swansea station in order to articulate the design of streets and building frontages within the station area district.

Action Items

The following represent a series of action items that Swansea, Metro, and other partners should complete in order to move the creation of TOD at the Swansea station area forward over the next few years.

Swansea/Metro

- Metro should consider long term plans for Metro owned building and property along Route 159. Metro should consider feasibility of relocating or modifying this facility to accommodate additional development, or provide additional viewshed or signage opportunities from Route 159 down into the station area.
- Swansea and Metro should continue discussions / negotiations with the Moose Lodge to facilitate development on Moose-owned land just to the north and west of station platform. They should discuss potential for TOD in the station area and how Moose Lodge on Route 159 could benefit from this development.
- Metro should work on finalizing a parking replacement strategy for Swansea (and other stations). Metro should work on a strategy to locate replacement strategy if part of the existing parking lot at the station area is repurposed to facilitate development between the station platform and Route 159.
- Swansea or Metro should engage an office or business park developer to more actively develop the area between the existing station area and Fullerton Road as an office or mixed use district.
- Swansea and Metro should work with Metro East Parks and Rec to connect local bike routes and open space paths with the bike/ped route along the MetroLink route.

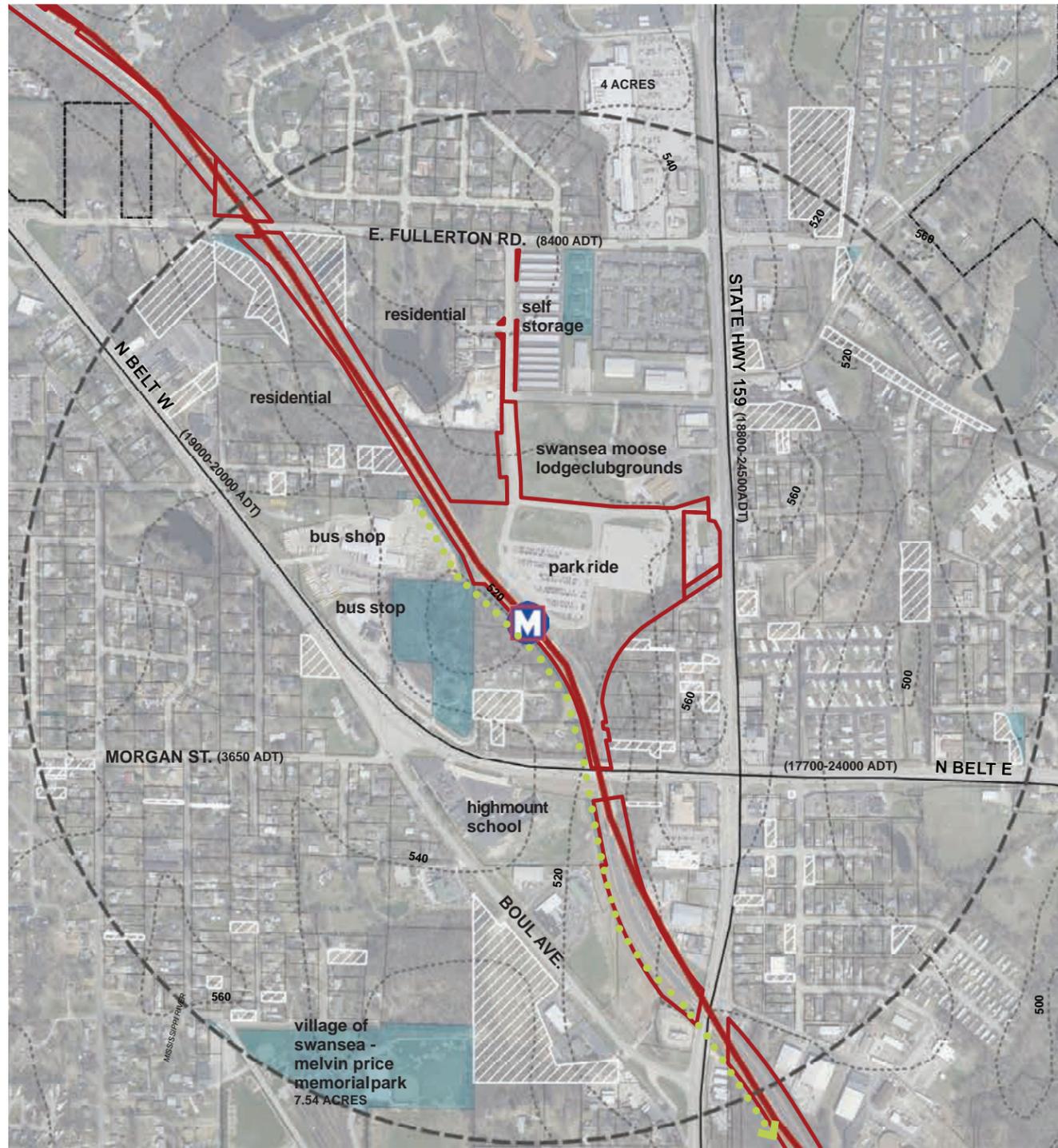
- Metro should explore connecting additional MetroBus routes to the Swansea station in order to improve local connectivity and enhance ridership numbers for this MetroLink station.

City of Swansea

- Swansea should establish and approve a PUD or similar master plan for the station area that would define future street connections, open space connections, locations for parking versus key development sites, transit connections, bike/ped connections, and design guidelines or FBC for the station area.
- The city should explore working to designate the station area as an Enterprise Zone in the state of Illinois, in order to make additional grants and loans available to facilitate redevelopment in the station area.

St. Clair County

- The County should work to tie approvals for TIF or related county incentive packages for development at the station area to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 DU per acre and employment uses providing for at least 25 employees per acre). The County should use the approval of TIF or related incentives as “carrots” to promote developments that are more conducive to transit oriented development.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

SWANSEA [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station serves a suburban population and a mix of land uses such as storage rental facilities, an office park, and some one-story commercial buildings. Residential units include low-density apartment buildings, ranch-style single-family homes, and mobile homes.

Average Monthly Boardings | 12,400 (MetroLink Station Average = 36,500)

Station Configuration | The station is serviced by two Park-Ride lots owned by Metro with nearly eight acres and 716 parking spaces. There is also a maintenance facility for the station at the intersection of Metro Way and IL-159.

Physical Barriers to Development | The station area is at a slightly lower grade than areas to the west, and development would need to address these grade variations.

Regulatory Barriers to Development | Zoning around the station site may allow low-density transit-oriented development. This would include mixed uses and multifamily residential by permit. Around the station's periphery, however, multifamily residential and mixed uses are not permitted. This area primarily includes existing single-family residential.

Development Opportunity

Pros

- This station area could support moderate-density mixed-use as well as various types of residential and commercial development
- The presence of Route 161 and Route 159 nearby enhance the market viability of this station area
- Small vacant lots exist around the station area

Cons

- Lower than average transit ridership numbers
- No significantly large vacant lots



DESIGNWORKSHOP

STATION | SWANSEA [VILLAGE OF SWANSEA]



STATION | SWANSEA [VILLAGE OF SWANSEA]



DESIGNWORKSHOP

Belleville TOD Action Plan



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the Belleville MetroLink station in the future.

Jurisdictions

- City of Belleville

Station Overview and Context

The Belleville Station is situated within the framework of an older, single family residential neighborhood in the heart of Belleville. Local streets including Scheel Street provide access from the MetroLink station to the revitalized Downtown district, located about a mile to the southwest. A number of vacant parcels surround the station area, including several smaller industrial properties along the north and east sides of the station platform. Neighborhoods on either side of the tracks may access the MetroLink platform directly. However, Scheel Street does not connect across the station area, and therefore the station itself serves as a barrier from one side of the tracks to the other.

Site Analysis

Topography: The study area, within one-fourth mile of the station platform, features relatively flat terrain. The topography of the site does not appear to pose any issues with regard to future development.

Stream and Floodplain Issues: Floodplain zones exist to the west of the station area around Richland Creek. However, this zone is far removed from the Belleville station area and does not pose any issues with regard to future transit-oriented development.

Transportation Network: Several regional collector roads provide general access to the Belleville area, including Route 159 and Route 161 (Sherman Street), two state highways that carry from 15,000 to 20,000 vehicle trips per day. In addition, Lebanon Avenue, Douglas Avenue, and B Street provide local access and each carries fewer than 10,000 vehicles per day. Scheel Street connects the station area to the downtown heart of Belleville, about a mile to the southwest. A network of lightly traveled local streets including Lucinda Avenue and Lebanon Avenue connect the general station area to Route 161 to the north and east. In general, however, the immediate station area suffers from relative isolation from the main highways in this part of St. Clair County. While a few small highway signs direct drivers from Routes 159 and 161 to the Belleville station, access to the station from other parts of town may confuse or disorient drivers and travelers to the area. This relative isolation has likely contributed to the relatively low ridership numbers at Belleville relative to other stations in Metro East.

The park and ride lot at Belleville, owned by Metro, encompasses 4.5 acres and includes 287 surface parking spaces.

From the Belleville MetroLink station area, several MetroBus lines provide connections to surrounding destinations:

#01 Main Street-State Street:

- Belleville MetroLink Station
- St. Elizabeth Hospital
- Fairview Heights MetroLink Station
- East St. Louis

#15 Belleville-Shiloh-Scott:

- Lebanon Avenue to Shiloh-Scott

#16 St. Clair Square:

- Highway 161 into Belleville
- College and Swansea MetroLink
- Highway 159 to Fairview Heights and Collinsville
- St. Clair Square
- Madison County Transit Center-Collinsville

#17 Carlyle Plaza-17th Street:

- City of Belleville

Existing Transit Orientation: The station area within one fourth mile of the Belleville platform currently includes residential densities of 3.21 units per acre, on average, and

employee densities of 3.43 employees per acre, on average. Given that research suggests that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the Belleville station area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development. The Belleville station area has developed using the framework of lower density, small town development standards typical in smaller communities in southern Illinois that does not ordinarily facilitate transit oriented development. The vacant parcels along the east side of the station area do not contain active businesses and therefore do not provide a base of employment from which to generate transit ridership. In order to encourage TOD at Belleville that would have a meaningful effect on ridership, the City and Metro would need to encourage the development of higher residential densities or employment densities around the station area.

Bike and Pedestrian Environment: The area around the Belleville station currently registers a Walk Score of 52 (or, “somewhat walkable” as defined by Walk Score methodology) given the lack of proximity to nearby shopping or retail areas, and the lack of proximity to nearby park facilities.¹ Similarly, the bicycle environment poses challenges in the station area. The following details observations concerning the bike and pedestrian environment in the Belleville station area:

- The streets to the north and east of the station area lack sufficient sidewalks and pedestrian accommodations. For example, drivers in the area often park vehicles on top of the narrow sidewalks that line White Street, running along the MetroLink line. Scheel Street lacks continuous sidewalks to the north and east of the MetroLink station. Several of the sidewalks are particularly narrow or in substandard condition.
- The new Metro BikeLink Trail provides good bicycle and pedestrian access along the MetroLink alignment, connecting the Belleville station with other stations in St. Clair County.
- While bicyclists of course may access the station area from nearby neighborhoods via roadways, the area around the Belleville station does not feature any dedicated bike lanes or sharrows and bicycle parking is relatively limited at the station platform area.

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

The Belleville station area falls within the City of Belleville, and zoning in the immediate area primarily includes a mixture of single-family, two-family, and mobile home residential designations, as well as limited areas of heavy commercial and industrial zones. The zoning classifications for areas within one-quarter mile of the station platform do not support the creation of a mixture of land uses or TOD. The residential zones limit building heights to 35 feet and require building setbacks of at least 25 feet. The A-2 Two Family Residential district also allows a limited range of community facilities. The Heavy Commercial District (C-2), Light Industrial District (D-1), and Heavy Industrial District (D-2) permit a wider range of uses, such as retail, services, offices, and industrial uses, but allow multi-family housing and Planned Unit Developments (PUD) by special permit only. The C-2, D-1, and D-2 zones also allow for building heights of up to 100 feet.

Given the focus of the prevalent zoning in the station area on single and two-family residences, any potential TOD efforts in the station area may encounter resistance from local officials and residents to the inclusion of higher density residential or mixed-use buildings.

1 Walk Score. www.walkscore.com, 2013.

The area around the station has remained fairly stable for quite some time, and introducing additional density in the middle of an established residential neighborhood may encounter significant opposition politically.

Analysis of Current Development Patterns

Current development patterns in the station area reflect the history of smaller town and suburban growth common to this part of the metropolitan area. Half of the housing stock within a half-mile of the station area dates to before World War II, while the other half dates to the first few decades of post-war suburban expansion. In addition, a number of smaller industrial and commercial buildings line the areas to the north and east of the station platform, and a large percentage of these buildings are currently vacant.

A number of vacant properties in the station area create opportunities for potential development around the Belleville station. The City owns a 2.9 acre vacant parcel along the north and east sides of the MetroLink tracks. The City and other private landowners control a total of nearly 5 acres of vacant ground to the south and east of the station platform and along the northwest side of Scheel Street, stretching to the south and west from the station area.

Current Ridership

As illustrated in the table below, the Belleville station reports much lower average ridership numbers compared to averages for the Illinois portion of the system and the overall MetroLink system. The station's relatively isolated location within a quiet residential neighborhood and the absence of any drivers of ridership (in the form of places of employment or educational institutions) contribute to the below-average ridership rates at the Belleville station.

Average MetroLink Boarding Estimates - Belleville Station

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Illinois Station Average	23,500	880	520
Belleville MetroLink Station	17,400	680	310

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The Belleville Station is a Neighborhood station typology. It serves primarily residential uses, and has the potential to provide local-serving retail services. Commercial properties in the station area include mainly small-scale enterprises and the area lacks a major employer. The station area lies at the cusp of two very well established neighborhoods. While the station serves as the main connecting point from the Belleville community to MetroLink, it will remain a neighborhood station for the foreseeable future.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the Belleville station is likely to experience an increase in demand for an additional 214 residential units and additional commercial space totaling around 58,730 square feet.

Future commercial uses may include small areas of local-serving retail and very small, primarily local serving office uses. Given the station's location, future development will not include any regionally-serving land uses. In terms of residential, senior housing and multi-family housing may attract significant support in the local market, given the access from MetroLink to nearby hospital facilities (at the Memorial Hospital station) and the overall aging of the population in the St. Clair County area.

Overall Development Strategy

Future development efforts around the Belleville station should leverage the attractiveness of the overall Belleville community and the surrounding neighborhoods to create a higher density, residential focused series of projects in the area near the station platform. The station area has the potential to successfully introduce multi-family and senior housing into this part of Belleville and thus create a stronger base of residential customers to drive increased ridership at the Scheel Street station. In addition, future developments could include a very small area of local serving retail (such as a dry cleaner) and a small program of local serving office uses, including dental or medical offices for example.

As illustrated, if development were to proceed at prevailing densities within Metro East (including FAR of around 0.25), projects would not absorb the projected real estate demand for the station area over the next thirty years. Therefore, developing at slightly higher levels of density would help to absorb the projected demand in the local market.

BELLEVILLE STATION - DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	20.71	902,128
Less: Roads and Configuration at 20%	4.142	180,426
Less: Open Space and Drainage at 20%	4.142	180,426
Less: Surface Parking		0
Net Developable Area		541,277
Potential Developable SF at 0.25 FAR		135,319
Potential Developable SF at 0.5 FAR		270,638
Potential Developable SF at 1.0 FAR		541,277
Projected Commercial Market Demand		47,000
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		171,000
Potential Real Estate Market Demand (2010 - 2040)		218,000

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that the City of Belleville work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of a TOD Zoning Classification for the Station Area: The City should create a TOD zoning district that specifically promotes mixed-use, compact, and higher density development in the vicinity of the Belleville station.

Establishment of Form Based Codes for the Station Area: The City of Belleville should consider adopting a Form Based Code (FBC) for the station area in order to articulate the design of streets and building frontages within the station area district.

Establishment of Parking Maximums (as opposed to parking minimums): The City of Belleville should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties. Current minimum parking requirements are high, requiring two parking spaces per single-family dwelling unit, and one-and-a-half to two spaces per apartment unit. Retail and office requires one space for every 300 square feet of floor area.

Action Items

The following represent a series of action items that the cities of Belleville, Metro, and other partners should complete in order to move the creation of TOD at the Belleville station area forward over the next few years.

City of Belleville

- The City of Belleville should establish transit supportive zoning that would encourage and entice mixed-use, transit oriented development in the vicinity of the station area. Specifically, the prospective TOD zoning in this area should encourage densities of 20 residential units or greater and should encourage creation of employment centers that provide for density of 25 employees per acre, within the station area.
- The City of Belleville should formally identify, acquire, and begin to develop a district plan and formulate the urban design framework for the area surrounding the Scheel Street station. In addition, any public purchasing of property at this time would likely require less investment on a per acre basis compared to later stages in the area's revitalization, when property values would naturally increase.
- The City of Belleville should identify a prioritization of public improvements (such as streetscapes, open space amenities, and various infrastructure items) and create a capital improvements plan specifically tailored to the Belleville station area. This plan would provide a roadmap for how to proceed with investments over several years and help guide city leaders as administrations and political climates change over time.
- The City of Belleville should work to enhance the sidewalks to the north and east of the station platform, including the installation of ADA ramps, widening of sidewalks in areas, and the installation of sidewalks along segments that currently do not have sidewalks. The city should pursue improvements necessary to result in a Pedestrian Level of Service of "A" or "B" for the Belleville station area.
- The City of Belleville should implement improved signage and wayfinding in the community to articulate the directions to the MetroLink station area. Potential signage and

wayfinding should identify the station area as a distinct destination district within the Belleville community in order to drive real estate activity and property values in the area.

- The City should explore working to designate the Scheel Street station area as an Enterprise Zone in the state of Illinois, in order to make additional grants and loans available to facilitate redevelopment in the station area.

St. Clair County

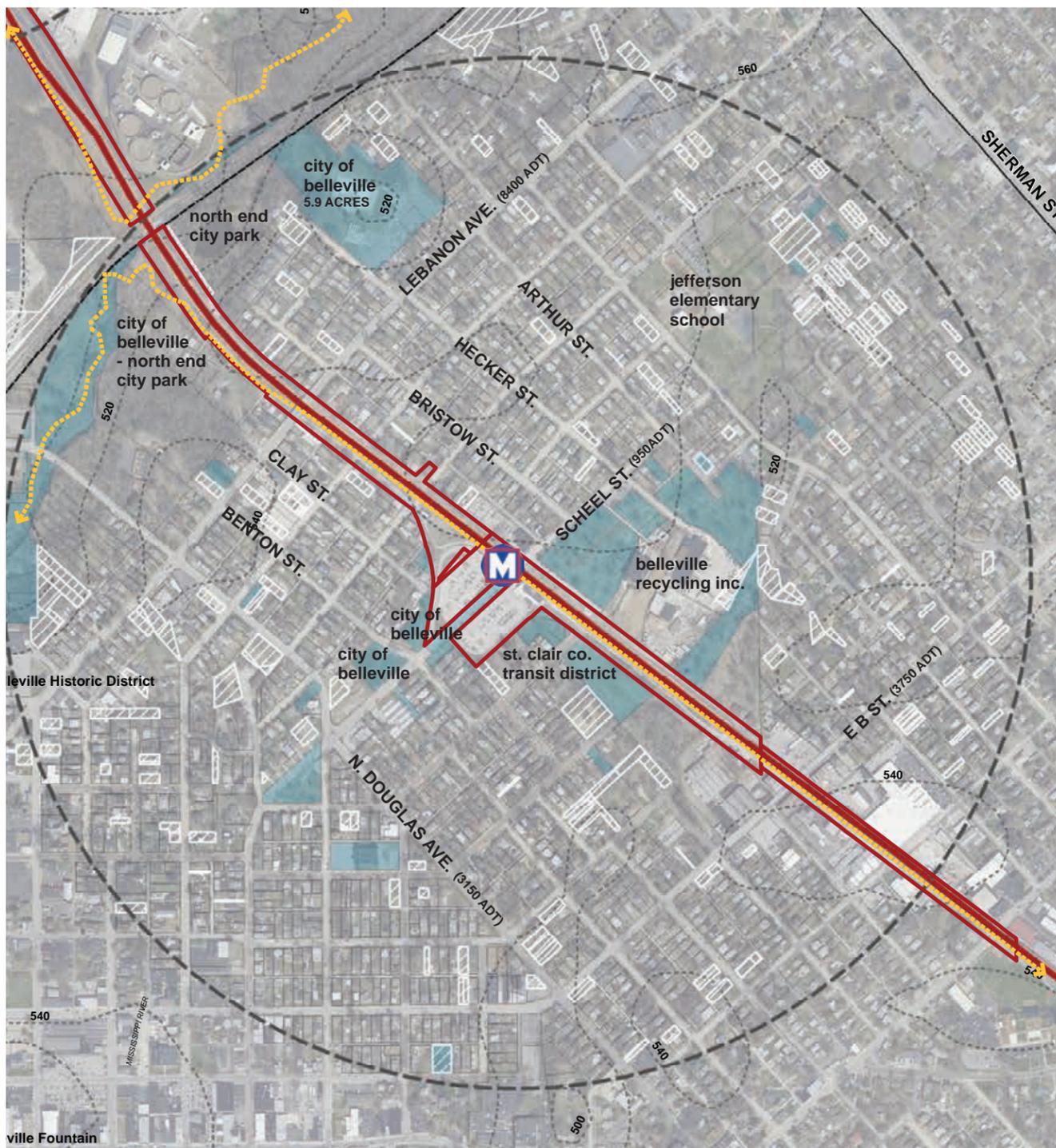
- The County should work to tie approvals for TIF or related county incentive packages for development at the Belleville station to provisions requiring development that would match suggested density requirements for the station area (promoting residential densities of at least 20 DU per acre and employment uses providing for at least 25 employees per acre). The County should use the approval of TIF or related incentives as “carrots” to promote developments that are more conducive to transit oriented development.

Metro

- Metro should work on finalizing a parking replacement strategy for Belleville (and other stations). Metro should work on a strategy to locate replacement parking if part of the existing parking lot at the station area is repurposed to facilitate TOD. In addition, Metro should work with Belleville to ensure that local side streets accommodate on-street parking wherever possible.
- Metro should work over time to enhance or provide sufficient MetroBus service to and from the station area in order to arrive at a Transit Level of Service measure of “A” or “B”.

Metro East Park and Recreation District (MEPRD)

- MEPRD should work with Metro and Belleville to ensure that bike and pedestrian connections from the Metro BikeLink trail to the MetroLink station area are adequate to encourage use of the trail and a Pedestrian Level of Service of “A”. MEPRD should also work with Metro to ensure that signage and wayfinding adequately directs MetroLink riders to the trail and vice versa.



1 in = 200 feet

*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

BELLEVILLE [SITE ANALYSIS]

MetroLink Station Area Profile*
 Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station serves largely single family residential neighborhoods located within the older part of the City of Belleville. The station is surrounded by a small amount of commercial and light industrial uses.

Average Monthly Boardings | 17,400 (MetroLink Station Average = 36,500)

Station Configuration | The station is a Park-Ride with 287 parking spaces, a transit plaza, and a bus transfer loop.

Physical Barriers to Development | Access to the surrounding station site is limited to the major thoroughways of Scheel Street and N. Douglas Avenue; both of which run through single family residential areas. In addition, Scheel Street terminates from both directions at the train station area, further limiting connectivity to the surrounding area.

Regulatory Barriers to Development | Zoning around the station site is largely comprised of single family and two family residential categories. Building heights are limited to 35 feet. A small amount of commercial and industrial zoning exists. TOD would require a rezoning.

Development Opportunity

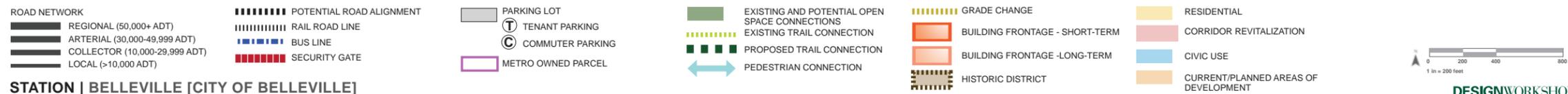
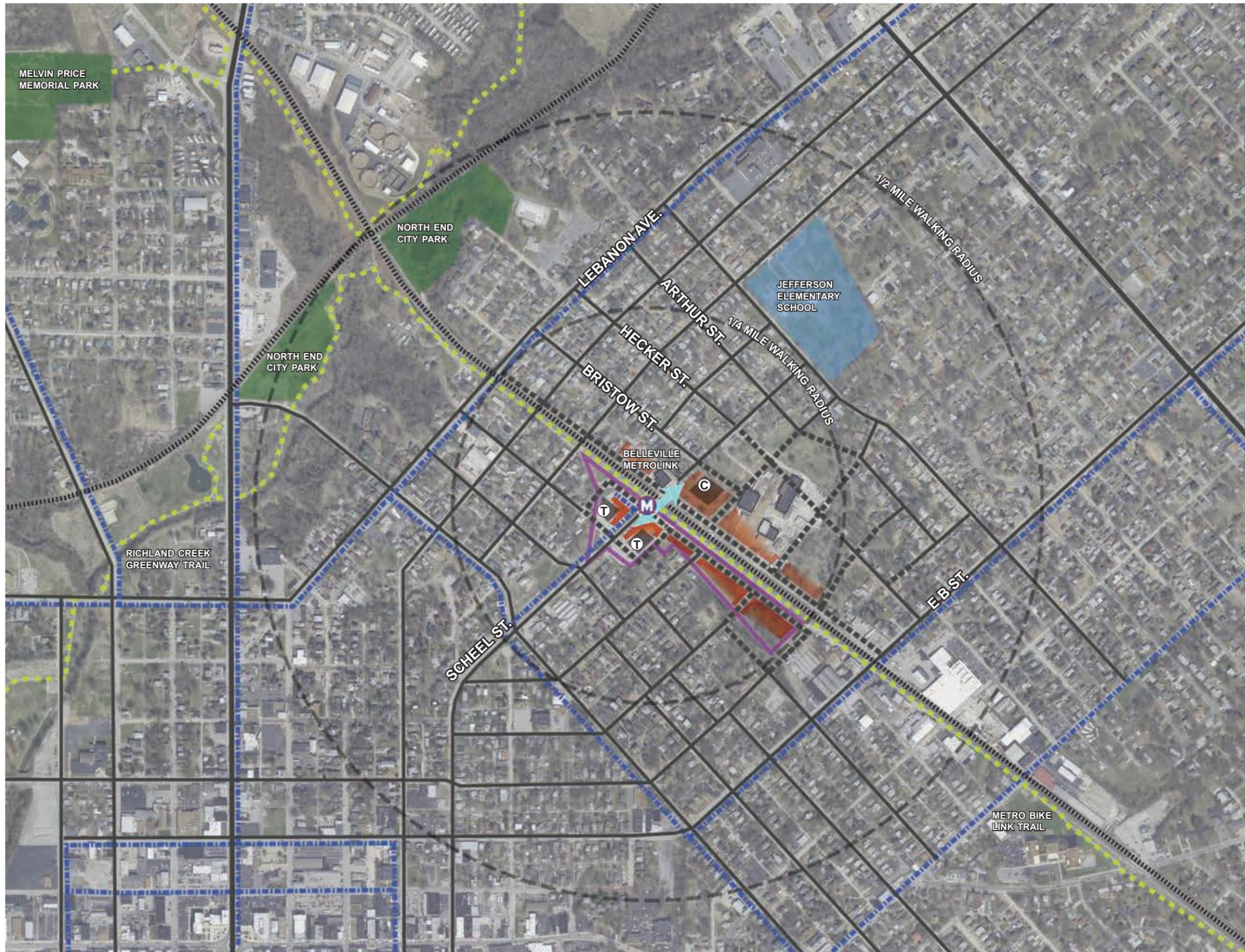
Pros	Cons
<ul style="list-style-type: none"> • There are several vacant parcels within close proximity to the station stop - some of which are owned by Metro and the City of Belleville • Richland Creek Greenway Trail is adjacent to the rail line • This infill site is well suited to a range of moderate density residential, institutional uses, or neighborhood retail and services 	<ul style="list-style-type: none"> • Low density residential zoning surrounding the site • Scheel St. does not connect through from one side of the tracks to the other • Difficult to locate from surrounding parts of Belleville • Limited connectivity to any nearby major streets or corridors

- 1/2 MILE RADIUS STUDY AREA
- CULTURAL PLACE OF INTEREST
- METROLINK RED LINE
- ▭ VACANT PARCELS OVER 10 ACRES (0 TOTAL)
- ▭ METRO OWNED PARCEL (26.95 ACRES)
- ▭ PUBLIC OWNED PARCEL (36 ACRES)
- ▭ VACANT PARCEL (23.8 ACRES)
- ▭ HISTORIC DISTRICT
- RICHLAND CREEK GREENWAY TRAIL
- ADT AVERAGE DAILY TRAFFIC



STATION | BELLEVILLE [CITY OF BELLEVILLE]





STATION | BELLEVILLE [CITY OF BELLEVILLE]



DESIGNWORKSHOP

College Station



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the College (SWIC) MetroLink station in the future.

Jurisdictions

- St. Clair County
- City of Belleville
- St. Clair County Transit District

Station Overview and Context

The College Station currently operates as a park and ride lot for commuters in this portion of St. Clair County and provides direct access to Southwest Illinois College (SWIC), one of the larger community college campuses in the state. The college owns the vast majority of land around the station area, including an existing farmstead and surrounding farm fields to the east of SWIC, along Route 161, and has not proceeded with any development of its holdings since the arrival of the MetroLink line in 2001. The retention of the SWIC acreage as a land reserve for the college has helped to reinforce the exurban nature of the station area. To the north of the SWIC campus along Route 161, a large big box retail commercial shopping center has emerged over the last several years to serve the local market.

Site Analysis

Topography: The study area, within one-fourth mile of the station platform, features relatively flat terrain, typical of southern Illinois. The station area enjoys very good visibility from Route 161, the SWIC campus, and surrounding properties. The topography of the site does not appear to pose any issues with regard to future development.

Stream and Floodplain Issues: The area does not feature any streams or floodplain areas that would materially impact development potential for TOD.

Transportation Network: The College station area generally enjoys good transportation connectivity to surrounding areas and the broader Metro East region. Route 161 (running east-west across the station area) connects older portions of Belleville with outlying communities to the east, including Mascoutah, and the Scott Air Force Base area. Green Mount Road, located a half mile to the west along the western edge of the SWIC campus, runs north-south and connects this portion of Belleville with a key retail district at the I-64 / Green Mount Road interchange in O'Fallon. A loop road around the south and east edges of the SWIC campus directly connects the MetroLink station area to Route 161 and Green Mount Road.

In terms of traffic counts, Route 161 carries between 13,000 and 14,000 vehicles daily to the east of Green Mount Road, and around 19,000 vehicles daily to the west of Green Mount Road. Meanwhile, Green Mount Road carries around 15,000 to 16,000 vehicles per day to the north of Route 161 and between 17,000 and 20,000 vehicles per day to the south of Route 161, in the vicinity of the SWIC campus.

From the College MetroLink station area, one MetroBus line provides connections to surrounding destinations in Belleville and several other communities within Metro East.

#16 St. Clair Square MetroBus connects to:

- Highway 161, into Belleville
- Belleville and Swansea MetroLink
- Highway 159, to Fairview Heights and Collinsville
- St. Clair Square
- Madison County Transit Center in Collinsville

Existing Transit Orientation: The station area within one fourth mile of the College Station platform currently includes residential densities of .16 units per acre, on average, and employee densities of .14 employees per acre, on average. Given that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the station area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development.

Bike and Pedestrian Environment: The area around the station currently registers a Walk Score of 29 (or, “a car dependent location” as defined by Walk Score methodology).¹ Despite the direct connectivity from MetroLink to the SWIC campus and relative proximity to the big box retail development along Route 161, the station area continues to record

1 Walk Score. www.walkscore.com, 2013.

a fairly low Walk Score because the area lacks sidewalks and because nearby residential areas are located farther than walking distance away from the station. While a few of the streets on the SWIC campus feature sidewalks, the station area lacks sidewalk connections to Route 161. The width of Route 161, its five lane orientation, and the speed of travel along this road disconnects the station area from retail areas along the north side of the highway. The campus area and the station area both lack bike sharing or lane options and the station area itself lacks sufficient bike storage facilities.

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

St. Clair County controls the portion of the station area to the south of Route 161 and has retained Agricultural zoning for this area, including the SWIC campus. The agricultural zoning designation only allows agricultural and recreational uses, large institutions, and government buildings. Areas to the north of Route 161 are located within the City of Belleville and include the C-4 Commercial District and the A-2 Two-Family Residential District. The C-4 District allows all types of retail and services, but allows multi-family apartments only by special permit. The A-2 district permits only single and two-family homes and a limited set of community facilities. Therefore, none of the zoning areas around the College station currently allow for a diversity of land uses (including residential, office, retail and other land uses, at various densities) conducive to TOD.

Analysis of Current Development Patterns

Typical suburban development (single family homes developed in isolation from commercial shopping centers, office development, and other land uses) dominate this portion of Metro East, to the west of the station area. A residential neighborhood is located along the west side of Green Mount Road, to the west of the SWIC campus. Small single family residential developments have emerged in recent years to the south of the SWIC campus and to the north of the retail commercial area along Route 161, to the north of SWIC. Otherwise, the area around SWIC has remained largely agricultural. The I-64 corridor has represented the focal point for a good deal of suburban development in Metro East in recent years, and development elsewhere (including around SWIC) has proceeded in more of a piecemeal fashion. The area to the east of the station is largely rural, along Route 161 to the east toward Scott AFB and the community of Mascoutah.

SWIC controls the vast majority of the vacant agricultural land around the station area, to the south of Route 161, and therefore controls the destiny of this land to potentially develop as a TOD. Private landowners control the parcels to the north of Route 161.

Current Ridership

As illustrated in the table below, the College station reports average ridership numbers nearly on par with the average for the Illinois stations overall. However, ridership at College trails the averages for the overall MetroLink system. The ridership numbers for College exceed those of several stations located closer to the heart of East St. Louis likely because the station area draws park and ride customers from a larger geographic area in outlying St. Clair County.

Average MetroLink Boarding Estimates - College Station

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Illinois Station Average	23,500	880	520
Shiloh-Scott MetroLink Station	21,300	860	330

*Metro Fiscal Year July 2010-June 2011

Typology Classification

The College Station has dual typologies - Suburban Town Center and Campus/Special Event/Special Purpose. The station is larger in scale than the Neighborhood typology and contains a mix of residential, employment, retail, and entertainment uses serving a sub-regional market within a metropolitan area. These station typologies also include connections to numerous other bus lines in a given local area. Given the presence of the SWIC campus to the station, the designation as a Campus/Special Event/Special Purpose typology is also appropriate.

The station receives good regional connectivity via Route 161 and Green Mount Road. For this reason, the College station area has the potential to create a true suburban center around it in coming decades, serving a larger trade area within St. Clair County. The development of the big box oriented retail at Route 161 and Green Mount Road has already established this area as a key shopping area serving Belleville and surrounding communities, and the development of the College station area as a mixed-use town center could further serve larger trade areas in this portion of Metro East. While the area around the College station has retained its agricultural heritage to date, over time the area has the potential to develop as a larger town center, leveraging its adjacency to the SWIC campus.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around the College station is likely to experience an increase in demand for an additional 128 residential units and additional commercial space totaling around 35,000 square feet. Given the local economic conditions and the context of the local area in Belleville and Metro East, the additional residential development may include a mixture of single family detached, single family attached units (such as townhomes or patio homes), and apartment complexes. The additional 35,000 square feet of commercial space may encompass neighborhood-serving retail uses (and, eventually, somewhat larger sub-regional retail uses such as larger format retailers). Future office uses may include small scale offices serving local market needs (including medical office and small professional offices) as well as business park uses that could leverage their adjacency to the SWIC campus and connectivity via Route 161 and Green Mount Road to the rest of Metro East. The potential exists to create, over time, a small research or business park that could employ SWIC students or collaborate with the college in work-study programs. A hospital could also locate in the vicinity of the station area and could leverage the nursing programs at SWIC to fill positions and serve the community.

Overall Development Strategy

The development strategy depicted on the station diagram for College calls for the development of a master planned community flanking the existing station area, to the west and east. Metro could collaborate or partner with SWIC to develop on the very large parking lots currently located between the station platform and the existing buildings located on the SWIC campus. Development in this portion of the station area could include convenience retail serving the college population and transit riders from MetroLink, residential units marketed to younger adults and college students, and various offices or classroom space serving either the college or the private sector market. Discussions with SWIC officials conducted as part of the study revealed that a market does exist to provide housing on or near community college campuses, to serve the growing sector of single parents attending the school. This development trend mirrors patterns observed nationally, in which the proliferation of single parent households has created an increased need for apartments or other smaller residential units. To the east of the station area, the college could partner with or sell to private sector developers and develop the larger land holdings as a master planned community. This development, as depicted on the diagram, would include higher density land uses closer to the College station area and lower density and more traditional suburban development to the east and to the south. The areas around the College station platform, and along street connections to the north toward Route 161, would include “Main Street” development incorporating a mix of higher density apartments or townhomes, various forms of retail, and a mixture of office and business park uses.

To the south of the existing SWIC campus, the college and/or private sector developers could construct a small office or business park on the existing parking lots and acreage to the south, in order to leverage adjacency to the college campus and MetroLink and connections via Green Mount Road to the I-64 corridor to the north.

The overall master plan for the College station area would include various open space and park corridors and designations, as depicted on the station diagram, that would allow for bike and pedestrian connections from one end of the station area development to the other. These open space corridors would link with nearby green spaces in St. Clair County and provide recreational space for local residents. The development would also take advantage of the extension of the Metro East Parks and Rec bike and ped trail along the MetroLink line.

The table below compares the potential developable area at the College station with the projected supportable square footage of new development over the next thirty years. As illustrated, even if development were to proceed at suburban densities (0.25 to 0.5 FAR) the station area has excess developable space. While the station diagram depicts a longer term development strategy, in order to minimize infrastructure costs and proceed with more compact TOD around the station area and therefore encourage greater MetroLink ridership, Metro, the college, and the local jurisdictions should prioritize development around the MetroLink platform over the next few decades. While the station diagram allows for development to exceed projected demand estimates and more quickly form a larger suburban town center at the College station, SWIC should work to first establish a true TOD node around the station area.

COLLEGE STATION - DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	78.82	3,433,399
Less: Roads and Configuration at 20%	15.764	686,680
Less: Open Space and Drainage at 20%	15.764	686,680
Less: Surface Parking		0
Net Developable Area		2,060,040
Potential Developable SF at 0.25 FAR		515,010
Potential Developable SF at 0.5 FAR		1,030,020
Potential Developable SF at 1.0 FAR		2,060,040
Projected Commercial Market Demand		47,000
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		171,000
Potential Real Estate Market Demand (2010 - 2040)		218,000

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that SWIC, St. Clair County, St. Clair County Transit District, and Belleville work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of Parking Maximums (as opposed to parking minimums): Current zoning requirements in the station area establish similar parking requirements, including 1.5 to two parking spaces per dwelling unit and one parking space for every 300 SF GLA for retail uses. St. Clair County and Belleville should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties.

Establishment of a TOD Zoning Classification for the Station Area: None of the zoning classifications in the station area in Belleville or St. Clair County allow for a mix of land uses, including a variety of densities of residential as well as retail and office uses. The City of Belleville, in conjunction with St. Clair County, should explore creating a zoning classification for the College station area that would allow for the full range of land uses normally allowed within Transit Oriented Development areas. The two jurisdictions should explore the creation of TOD zoning that specifically states the range of land uses and densities types allowed within the station area. The TOD zoning should articulate the setbacks and street design characteristics desired by the community for the station area in order to encourage more compact, mixed-use construction that would be supportive of transit oriented development.

Establishment of Form Based Codes for the Station Area: As a substitute for (or in addition to) the creation of a TOD specific zoning classification, Belleville and St. Clair County

should consider establishing a Form Based Code (FBC) for the College station area in order to articulate the design of streets and building frontages within the station area district.

Action Items

The following represent a series of action items that Belleville, St. Clair County, SWIC, Metro, and other partners should complete in order to move the creation of TOD at the College station area forward over the next few years.

Belleville/St. Clair County

- Given that existing zoning (agricultural, A-2, and C-4) does not allow for a diversity of land uses including residential that would support TOD, Belleville and St. Clair County, as a first step, should establish zoning that would encourage and entice mixed-use, transit oriented development in the vicinity of the station area.
- Belleville and St. Clair County should engage the leadership at SWIC to join station area planning efforts going forward in order to ensure that the needs of the college for various land uses and support services in the future better integrate with future TOD at the station area, given its adjacency to the college.
- Belleville, St. Clair County, and Metro should work with Metro East Parks and Rec to connect local bike routes and open space paths with the bike/ped route along the MetroLink route.
- Belleville, SWIC and St. Clair County should establish and approve a master plan for the station area that would define future street connections, open space connections, locations for parking versus key development sites, transit connections, bike/ped connections, and design guidelines or FBC for the station area.

Metro

- Metro should explore the potential to add more local bus lines to the College station. Given the importance of SWIC in the local area, additional bus lines serving the college and the MetroLink station would help improve connectivity throughout the area and help to increase ridership numbers on MetroLink.
- Metro should work on finalizing a parking replacement strategy for the College station (and other stations). Metro should work on a strategy to locate replacement parking if part of the existing parking lot at the station area is repurposed to facilitate TOD. In addition, Metro should work with Belleville to ensure that local side streets accommodate on-street parking wherever possible.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

COLLEGE [SITE ANALYSIS]

MetroLink Station Area Profile*
 Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station serves Southwestern Illinois College. The area surrounding the Metro station is divided between the campus, surface parking lots, a big box retail center, farmland owned by Southwestern Illinois College to the east, and a vacant lot to the north east.

Average Monthly Boardings | 21,300 (MetroLink Station Average = 36,500)

Station Configuration | The Southwestern Illinois College owns and operates surface parking lots adjacent to the Metro station that provides 598 dedicated parking spaces for transit riders.

Physical Barriers to Development | Access to the surrounding station site is good. The topography of the area is relatively flat.

Regulatory Barriers to Development | Zoning around the station site allows for low-impact agricultural and recreational uses, large institutions, and government uses. Multifamily and mixed use developments are not permitted or are limited. Building envelopes are low-density, restricting height to three stories.

Development Opportunity

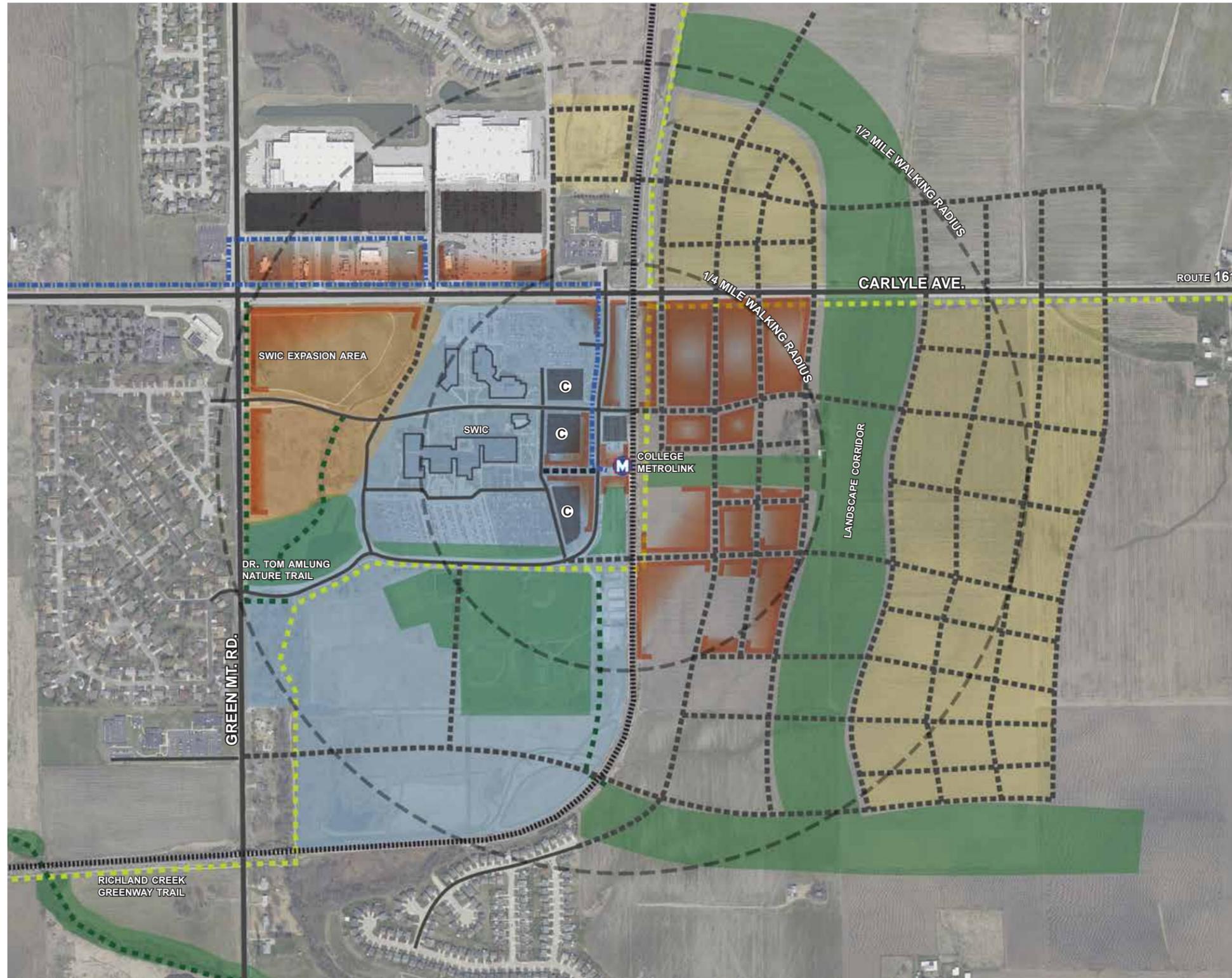
Pros	Cons
<ul style="list-style-type: none"> • Large tracts of available land • Ability to support residential types tied to faculty, staff, and student housing 	<ul style="list-style-type: none"> • Restrictive zoning

- 1/2 MILE RADIUS STUDY AREA
- CULTURAL PLACE OF INTEREST
- METROLINK RED LINE
- ▭ VACANT PARCELS OVER 10 ACRES (0 TOTAL)
- ▭ METRO OWNED PARCEL (11.59 ACRES)
- ▭ PUBLIC OWNED PARCEL (0 ACRES)
- ▭ VACANT PARCEL (121.9 ACRES)
- ▭ HISTORIC DISTRICT
- ADT AVERAGE DAILY TRAFFIC
- RICHLAND CREEK GREENWAY TRAIL



STATION | COLLEGE [CITY OF BELLEVILLE]

DESIGNWORKSHOP



- ROAD NETWORK**
- REGIONAL (50,000+ ADT)
 - ARTERIAL (30,000-49,999 ADT)
 - COLLECTOR (10,000-29,999 ADT)
 - LOCAL (>10,000 ADT)

- POTENTIAL ROAD ALIGNMENT
- RAIL ROAD LINE
- BUS LINE
- SECURITY GATE

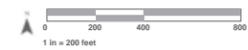
- PARKING LOT
- TENANT PARKING
- COMMUTER PARKING
- METRO OWNED PARCEL

- EXISTING AND POTENTIAL OPEN SPACE CONNECTIONS
- EXISTING TRAIL CONNECTION
- PROPOSED TRAIL CONNECTION
- PEDESTRIAN CONNECTION

- GRADE CHANGE
- BUILDING FRONTAGE - SHORT-TERM
- BUILDING FRONTAGE -LONG-TERM
- HISTORIC DISTRICT

- RESIDENTIAL
- CORRIDOR REVITALIZATION
- CIVIC USE
- CURRENT/PLANNED AREAS OF DEVELOPMENT

STATION | COLLEGE [CITY OF BELLEVILLE]



DESIGNWORKSHOP

Shiloh – Scott Station



This profile outlines current conditions and provides specific recommendations to local jurisdictions concerning how to proceed with TOD at the Shiloh-Scott MetroLink station in the future.

Jurisdictions

- St. Clair County
- Village of Shiloh
- St. Clair County Transit District

Station Overview and Context

The Shiloh-Scott station represents the eastern terminus of the existing MetroLink system in Illinois. It traditionally has served as a park and ride lot that attracts ridership from a much larger area in St. Clair County and surrounding areas in southern Illinois, given its status at the end of the line. The station area provides connectivity between Scott Air Force Base, one of the largest employers in St. Clair County, and the rest of the St. Louis region. However, given its distance from the rest of the metro area and separation from the main growth corridor in Metro East, the I-64 corridor, the Shiloh-Scott station area has remained largely undeveloped since the completion of this portion of the line in 2001.

Site Analysis

Topography: The study area, within one-fourth mile of the station platform, features relatively flat farm ground, typical of rural Illinois. The station area is slightly below grade compared to Illinois 158, which runs north-south along the western edge of the station area, but enjoys very good visibility from Route 158 and surrounding properties. The topography of the site does not appear to pose any issues with regard to future development.

Stream and Floodplain Issues: The area does not feature any streams or floodplain areas that would materially impact development potential for TOD.

Transportation Network: The Shiloh-Scott station area generally enjoys good transportation connectivity to surrounding areas and the broader Metro East region. Metro Plaza Lane provides direct access to Route 158, a four lane state highway that connects with I-64 to the north and Route 161 to the south. Route 158 provides direct connections to Shiloh and O'Fallon to the north and west and via other state highways to the Mascoutah area, to the south and east. Enlisted Drive terminates at the station area from the east and provides connectivity from the station area to the various land uses within the Scott Air Force Base property, just to the east. Other than these street connections and state highways, farm fields surround the MetroLink station to the west and south.

In terms of traffic counts, Route 158 carries only 6,000 to 8,000 vehicles per day in front of the Shiloh-Scott Station. Siebert Drive, the main entrance drive into Scott AFB from Route 158, carries between 15,000 and 17,000 vehicles per day. Route 161, running east-west to the south of the station area, carries from 13,000 to 15,000 vehicles per day.

From the Shiloh-Scott MetroLink station area, several MetroBus lines provide connections to surrounding destinations in Shiloh and several other communities within Metro East.

#12 O'Fallon-Fairview Heights MetroBus connects to:

- Highway 158, into O'Fallon
- O'Fallon Transfer Center
- Highway 50, into Fairview Heights
- Fairview Heights MetroLink
- St. Clair Square
- Vatterott College

#15 Belleville-Shiloh MetroBus connects to:

- Lebanon Avenue, to Belleville

#21 Scott Air Force Base – Main Base Shuttle connects to:

- Scott Air Force Base Hospital
- Scott Inn
- Heritage and Hanger

#21X Scott Air Force Base – East Base Shuttle connects to:

- Scott Air Force Base
- South Drive & Superior Street
- East Drive & Pryor Drive

Existing Transit Orientation: The station area within one fourth mile of the Shiloh-Scott platform currently includes residential densities of .53 units per acre, on average, and employee densities of .48 employees per acre, on average. Given that developments around light rail stations ideally include residential densities of 20 units per acre and employment densities of 25 employees per acre, the current orientation of the station area does not facilitate or support enhanced ridership on the MetroLink system and does not reflect the standards of Transit Oriented Development.

Bike and Pedestrian Environment: The area around the station currently registers a Walk Score of 14 (or, “a car dependent location” as defined by Walk Score methodology).¹

Utility Issues: There are no known utility constraints to development.

Existing Zoning and Entitlement Considerations

The Village of Shiloh controls the portion of the station area located to the east of Route 158 and has zoned this area for B-2 (Office and Business District). The lands to the west of Route 158 remain in unincorporated St. Clair County and have retained agricultural zoning. The area within Shiloh also carries the designation as a Transit Oriented Development (TOD) Overlay District. However, Shiloh has not provided any details concerning the guidelines and regulations pertaining to this overlay district. The B-2 zoning does not allow for residential land uses, and therefore the community would need to articulate a desire for residential within the TOD Overlay District in order to encourage a greater mixing of uses conducive to transit oriented development around the station. St. Clair County’s agricultural zoning does not allow for urban development, including the types of land uses and densities commonly associated with TOD. Although Shiloh’s TOD Overlay District lacks detail, the area to the east of Route 158, within the Village of Shiloh, represents the most likely location for TOD development around the Shiloh-Scott station.

Analysis of Current Development Patterns

While Scott Air Force Base has grown over the last few decades, almost all of the residential, office, and retail growth directly associated with the base’s operations has remained confined to the boundaries of the base, just to the east of the MetroLink station. A low density suburban residential neighborhood, including Scott Elementary and a network of numerous cul-de-sac streets, has developed to the south of the station area along the east side of Route 158. The area to the west of the base has remained vacant and retains existing agricultural operations. Larger scale retail development serving the area has oriented around the I-64 and Green Mount Road area in O’Fallon and the big box retail area along Route 161, just to the north of Southwest Illinois College in Belleville. In general, most of the growth in the far eastern reaches of the metro area has occurred along and near the I-64 corridor, leaving areas to the south somewhat agricultural in nature.

1 Walk Score. www.walkscore.com, 2013.

Private landowners control the agricultural parcels located around the station area (outside of the boundaries of Scott AFB). Metro owns a total of 40 acres around the Shiloh station, including 18 acres of park and ride lots totaling 1,066 spaces.

Current Ridership

As illustrated in the table below, the Shiloh-Scott station reports average ridership numbers on par with the average for the Illinois stations overall. However, ridership at Scott trails the averages for the overall MetroLink system. Shiloh-Scott's ridership numbers likely exceed those of other outlying stations in Illinois due to the station's status at the eastern terminus of the MetroLink line. Many residents from outlying communities use Shiloh-Scott as a park and ride lot to access the MetroLink system and, therefore, reach St. Louis and the rest of the metro area.

Average MetroLink Boarding Estimates - Shiloh-Scott Station

	Total Monthly Boardings	AVERAGE DAILY BOARDINGS	
		Weekday	Weekend
MetroLink Station Average	36,500	1,360	830
Illinois Station Average	23,500	880	520
Shiloh-Scott MetroLink Station	22,500	810	570

**Metro Fiscal Year July 2010-June 2011*

Typology Classification

The Shiloh-Scott station represents an example of the Special Purpose or Campus typology of light rail stations. These types of stations orient primarily around a major institution such as a university. In this case, the presence of Scott Air Force Base serves as a key employment campus for this portion of southern Illinois. While the Shiloh-Scott station serves the broader region as the eastern terminus for the MetroLink system, from which residents from Illinois access the system and the broader metro area, to a large extent the MetroLink system serves the needs of the Air Force Base specifically. As is typical of this typology, the Shiloh-Scott station area clearly does not represent the key focus of economic activity. Instead, the base itself clearly is the focal point of development activity and considerations. Given the existing context of the local area and local economic conditions, the Campus / Special Purpose typology is most appropriate for the Shiloh-Scott station.

Market Analysis

According to the regional TOD market study, between 2010 and 2040 the station area around Shiloh-Scott is likely to experience an increase in demand for an additional 128 residential units and additional commercial space totaling around 35,000 square feet. Given the local economic conditions and the context of the local area in Shiloh and Metro East, the additional residential development may include a mixture of single family detached, single family attached units (such as townhomes or patio homes), or an apartment complex. The additional 35,000 square feet of commercial space may encompass primarily neighborhood-serving retail uses and smaller scale office uses (such as local-serving offices uses including medical office and small professional suites). The station area has the potential as well to attract some office users specifically oriented around military operations or support. Importantly, because the Metro East area in general will continue to grow relatively slowly over the next few decades and the Shiloh-Scott station area is located relatively distant from

key markets and the I-64 corridor, the quantity of projected additional demand for real estate growth at the Shiloh-Scott station area will likely not match the quantity of developable land (assuming the total of developable land includes both Metro-owned parcels, vacant lots, and properties that may repurpose over the next few decades). A good deal of the land in the broader area around the Shiloh-Scott station will likely remain agricultural or vacant over the next few decades given the exurban nature of this station area.

Overall Development Strategy

Given the quantities of supportable demand for TOD over the next thirty years, the development strategy outlined in the attached diagram calls for the community to concentrate on maximizing development potential in the parcels directly adjacent to the station area, to the east of Route 158. Areas to the west of Route 158 are likely to remain in agricultural use for many years, and in order to promote more compact development that would help to increase MetroLink ridership, the Village of Shiloh should work with Metro to more actively promote TOD to the east of the highway.

The development strategy calls for Metro to work with surrounding property owners and the Village of Shiloh to further connect and complete a north-south grid of streets, from the station area parking lot west to Route 158, and to the north and south from the vicinity of the station area. This strategy would create a relatively compact network of streets that would encourage a greater diversity of land uses and a stronger urban fabric for the creation of a small TOD village in the vicinity of the Shiloh-Scott station.

The primary focus of TOD strategies at Shiloh-Scott should focus on connecting the station area with the Route 158 corridor, directly to the west. These connections should focus in particular on walking and bicycling, including sidewalks and trails. Future plans for development at the station should help to manage auto traffic while providing the best possible connections, in terms of access and safety, for all other modes of travel. Potential land uses in the zone between the station area and Route 158 may include an apartment complex, various townhomes or rowhouses, neighborhood serving retail, and smaller scale office development serving the Scott Air Force Base area (including professional services uses). The office and retail uses should orient along Metro Plaza Lane, along the east-west axis, in order to create a “Main Street” corridor connecting Route 158 with the station platform area. Parking lots, as well as townhomes and somewhat lower density housing development, should be strategically located away from the central spine of the development area.

The table below compares the potential developable area at the Shiloh-Scott station (encompassing areas to the west of the existing station platform) with the projected supportable square footage of new development over the next thirty years. As illustrated, if development were to proceed at somewhat higher densities than the norm for suburban areas in St. Louis (at 0.5 FAR or greater) the station area has excess developable space. Therefore, the Village of Shiloh, Metro, and potential developers in the area should carefully plan for new construction given the local market. Development proposals that utilize portions of the site for open space amenities or connections could help the project area attract additional activity compared to conventional suburban developments. Given the quantity of space available at Shiloh-Scott, creatively leveraging this space to create real estate value through open space premiums would make sense.

SHILOH STATION - DEVELOPABLE LANDS ANALYSIS

	ACREAGE	SQUARE FOOTAGE
Total Developable Site Area	54.01	2,352,676
Less: Roads and Configuration at 20%	10.802	470,535
Less: Open Space and Drainage at 20%	10.802	470,535
Less: Surface Parking		0
Net Developable Area		1,411,605
Potential Developable SF at 0.25 FAR		352,901
Potential Developable SF at 0.5 FAR		705,803
Potential Developable SF at 1.0 FAR		1,411,605
Projected Commercial Market Demand		47,000
Projected Residential Market Demand (assuming average of 1,000 SF per unit)		171,000
Potential Real Estate Market Demand (2010 - 2040)		218,000

Development Tools / Implementation Strategy

The TOD Framework Master Plan recommends that the Village of Shiloh work with Metro to complete the following steps in order to encourage TOD at this station over the next 30 years.

Establishment of Parking Maximums (as opposed to parking minimums): Current zoning requirements in the Shiloh portion of the station area require six parking spaces per 1,000 square feet of GLA for retail uses and five spaces per 1,000 square feet of GLA for office uses. The community should amend zoning requirements for the station area to establish parking maximums of no greater than 3 spaces per 1,000 SF GLA for retail and office properties and not greater than one space per 1,000 SF GLA for residential properties.

Establishment of a TOD Zoning Classification for the Station Area: The B-2 district in the Village of Shiloh only allows for offices and commercial services and does not allow for residential development. The agricultural zoning within the unincorporated portions of St. Clair County only allows for agricultural and recreational uses. While a TOD Overlay District exists for a portion of the station area, within the Village of Shiloh, the allowable land uses and other details of this designation remain undefined.

The Village of Shiloh, in conjunction with St. Clair County, should explore creating a zoning classification for the Shiloh-Scott station area that would allow for the full range of land uses normally allowed within Transit Oriented Development areas. The two jurisdictions should explore the creation of TOD zoning that specifically states the range of land uses and densities types allowed within the station area. The TOD zoning should articulate the setbacks and street design characteristics desired by the community for the station area in order to

encourage more compact, mixed-use construction that would be supportive of transit oriented development.

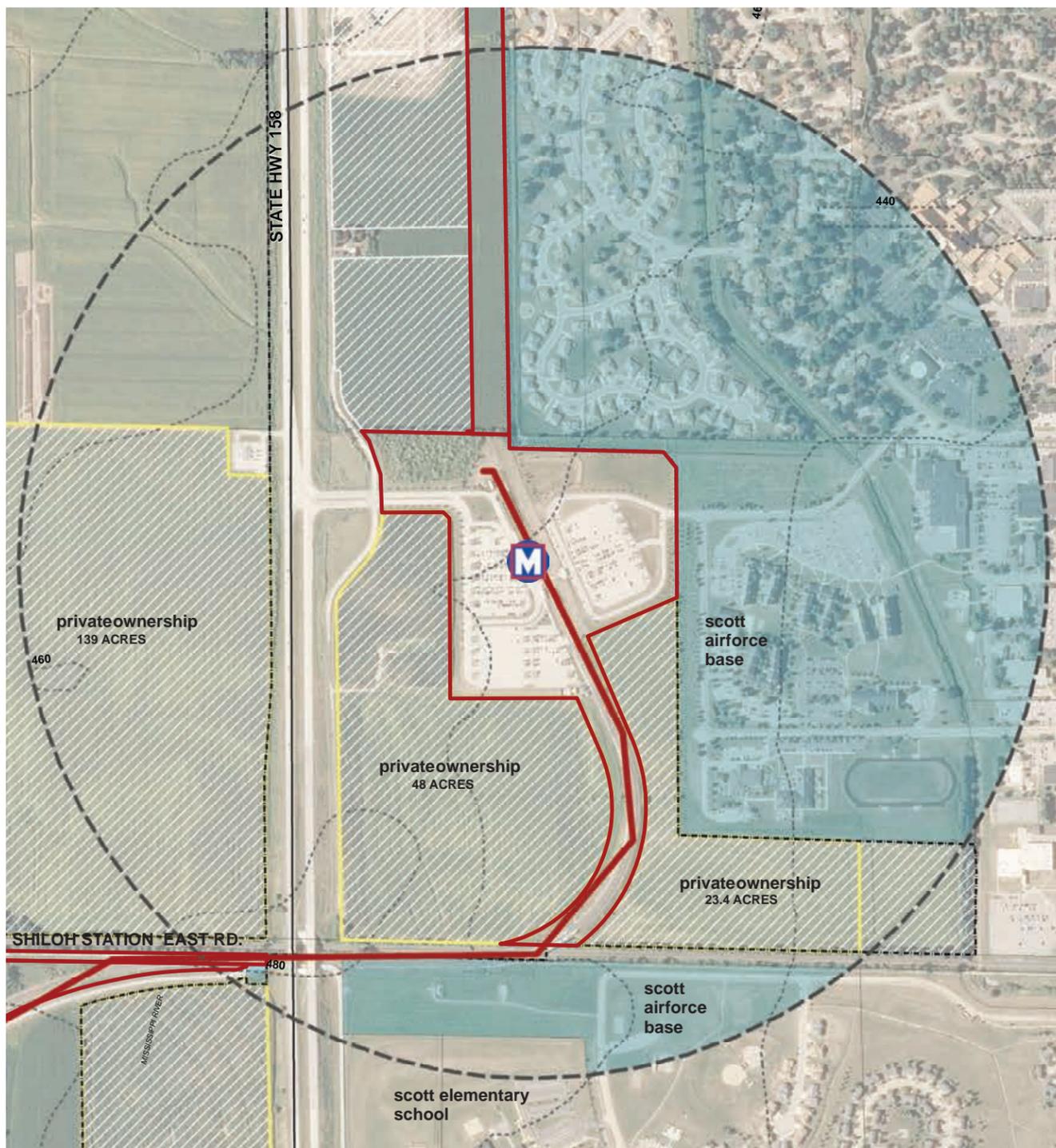
Establishment of Form Based Codes for the Station Area: As a substitute for (or in addition to) the creation of a TOD specific zoning classification, Shiloh and St. Clair County should consider establishing a Form Based Code (FBC) for the Shiloh-Scott station area in order to articulate the design of streets and building frontages within the station area district.

Action Items

The following represent a series of action items that Shiloh, St. Clair County, St. Clair County Transit District, Metro, and other partners should complete in order to move the creation of TOD at the Shiloh-Scott station area forward over the next few years.

Shiloh/St. Clair County

- Given that existing zoning (agricultural, and B-2) does not allow for a diversity of land uses including residential that would support TOD, Shiloh and St. Clair County, as a first step, should establish zoning that would encourage and entice mixed-use, transit oriented development in the vicinity of the station area.
- Shiloh and St. Clair County should engage the leadership at Scott Air Force Base to join station area planning efforts going forward in order to ensure that the needs of the base for various land uses and support services in the future better integrate with future TOD at the station area, given its adjacency to the base. While an air force base must maintain a distinct and secured perimeter, planning for the future of the Shiloh-Scott station area should consider how future land uses in the vicinity of the station area tie with plans for the air force base's growth.
- Metro should work on finalizing a parking replacement strategy for Shiloh-Scott (and other stations). Metro should work on a strategy to locate replacement strategy if part of the existing parking lot at the station area is repurposed to facilitate development between the station platform and Route 158.
- Shiloh or Metro should engage an office, business park, or mixed-use developer to more actively develop the area between the existing station area and Route 158 as a TOD district.
- Shiloh, St. Clair County, and Metro should work with Metro East Parks and Rec to connect local bike routes and open space paths with the bike/ped route along the MetroLink route.
- Shiloh and St. Clair County should establish and approve a master plan for the station area that would define future street connections, open space connections, locations for parking versus key development sites, transit connections, bike/ped connections, and design guidelines or FBC for the station area.



*Data and information provided by Design Workshop, East-West Gateway, and Metro. See the "MetroLink Station Area Profile Catalog" for additional information. All extracted data is clipped and calculated to a one-half mile radius by Design Workshop.

SHILOH SCOTT [SITE ANALYSIS]

MetroLink Station Area Profile*

Identifies Metro-owned parcels that have the potential to encourage new development around the station; other vacant and under-utilized sites that may provide opportunities for infill development; and physical, policy, and zoning barriers to TOD that currently exist.

Context | This station serves the Scott Air Force Base. The base's eastern portion of personnel housing is within the station area.

Average Monthly Boardings | 22,500 (MetroLink Station Average = 36,500)

Station Configuration | The station has two Park-Ride lots. One is a public lot of 10-acres and has 645 parking spaces while the other is eight-acres with 421 parking spaces limited to Scott AFB personnel.

Physical Barriers to Development | Access to the surrounding station site is not limited by physical barriers.

Regulatory Barriers to Development | Zoning around the station site is split between St. Clair County and the Village of Shiloh. All lots are either A01 Agricultural Industry District with a Conservation Overlay Zone or B-2 Office and Business. A01 allows low-impact agricultural and recreational uses only, or low density housing for Scott Air Force Base. Shiloh's B-2 district does not permit residential development.

Development Opportunity

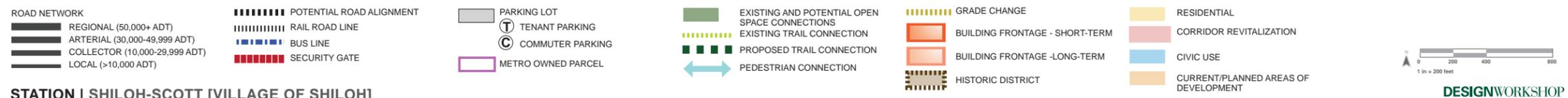
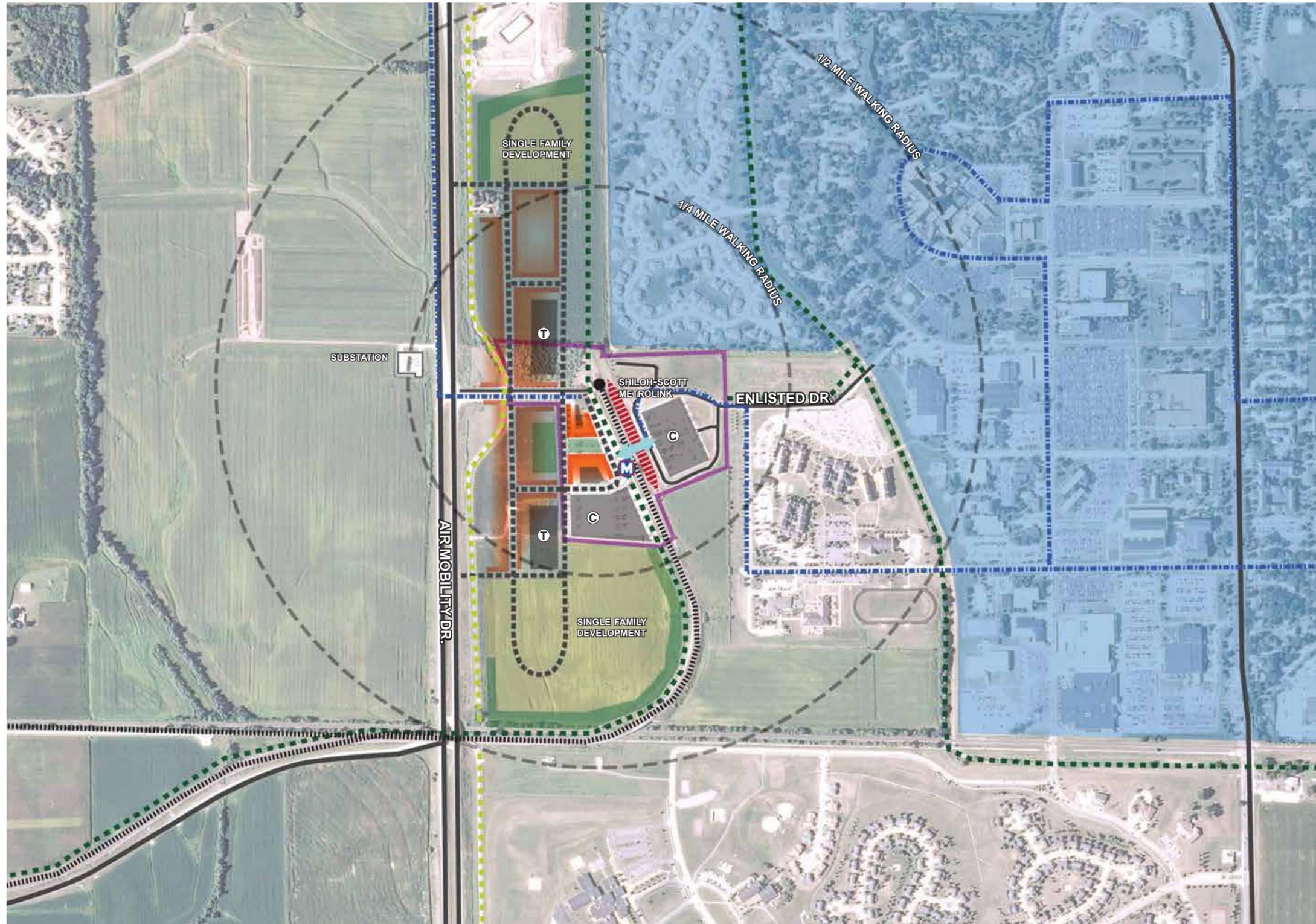
Pros	Cons
<ul style="list-style-type: none"> • Most of the surrounding land is vacant • Off-site privatized housing for military personnel may be an option 	<ul style="list-style-type: none"> • Terminus of the MetroLink station in Illinois • Serves a car-dependent community of people who live and work on base • Zoning may prevent walkable, pedestrian-oriented development • The station area is relatively distant from the metropolitan area, and as a result, development around this station may be more likely in the long-term, rather than the short-term

- 1/2 MILE RADIUS STUDY AREA
- CULTURAL PLACE OF INTEREST
- METROLINK RED LINE
- ▭ VACANT PARCELS OVER 10 ACRES (4 TOTAL)
- ▭ METRO OWNED PARCEL (58.55 ACRES)
- ▭ PUBLIC OWNED PARCEL (202.85 ACRES)
- ▭ VACANT PARCEL (265.4 ACRES)
- ▭ HISTORIC DISTRICT
- ADT AVERAGE DAILY TRAFFIC
- PUBLICLY OWNED LANDS ALL OWNED BY SCOTT AIRFORCE BASE



STATION | SHILOH-SCOTT [VILLAGE OF SHILOH]

DESIGNWORKSHOP



STATION | SHILOH-SCOTT [VILLAGE OF SHILOH]

DESIGNWORKSHOP

