



Transit Oriented Development Plan

For the DELMAR LOOP and FOREST PARK–DeBALIVIERE
METROLINK STATIONS

prepared by H3 Studio

for the City of Saint Louis
Final Report

September 2013

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The work that provided the basis of this publication was supported by funding under an award with the U.S. Department of Housing and Urban Development through East-West Gateway Council of Governments. The substance and findings of the work are dedicated to the public. The author and publisher are solely responsible for the accuracy of the statements and interpretations contained in this publication. Such interpretations do not necessarily reflect the views of the Government or the East-West Gateway Council of Governments.

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The Following Project Files Are Located at the St. Louis Development Corporation:

Transit Oriented Development Plan for the Delmar Loop and Forest Park–DeBaliviere MetroLink Station
Transit Oriented Development Plan Appendix

The Following Project Files Are Located at the East-West Gateway Council of Governments' Website:

Electronic files of this Plan and corresponding Appendix are available on the website of the East-West Gateway Council of Governments in adherence to the criteria for funding under an award with the U.S. Department of Housing and Urban Development through East-West Gateway Council of Governments.

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0 | Executive Summary



PLAN OBJECTIVE

BACKGROUND & CONTEXT

The City of Saint Louis has adopted a comprehensive, triple-bottom-line approach to sustainability planning. The triple-bottom-line approach acknowledges the three pillars of sustainability—environmental stewardship, improved social equity, and increased economic development—as equally important in their contribution to a sustainable future. Transit oriented development has been embraced as an exemplary model for holistic sustainable development and this Plan has embraced the three pillars of sustainability embodied in the seven Livability Principles defined by HUD, DOT, and EPA. The City of Saint Louis has listed Transit Oriented Development (TOD) as an essential component of its Sustainability Plan and Mayor’s Sustainability Action Agenda. As a result, the City wanted to conduct detailed TOD station area plans at several existing and proposed MetroLink stations. These stations are: the Cherokee and Kingshighway stations on the proposed Northside/Southside alignment; the existing Arch-Laclede’s MetroLink station, the existing Stadium MetroLink station, and the existing Demar Loop and Forest Park–DeBaliviere MetroLink stations.

The Delmar Loop and Forest Park–DeBaliviere MetroLink stations are some of the most remarkable stations in the entire MetroLink system. Situated in the heart of Saint Louis’ central corridor, these stations provide direct access to the region’s major cultural, recreation, education, and entertainment destinations. Forest Park, Washington University in St. Louis, and the Delmar Loop are all within a half-mile of the Delmar Loop and Forest Park–DeBaliviere stations. As the transfer point between transit lines stretching from south St. Louis County, the Metro East and Scott Air Force Base, and Lambert-St. Louis International Airport, the regional importance of these stations cannot be overstated.

The *Transit Oriented Development (TOD) Plan for the Delmar Loop and Forest Park–DeBaliviere MetroLink Stations* (“the Plan”) establishes an actionable, 30-year plan for new development supported by access to transit. The Plan outlines market-based development programs supported by proforma analysis for recommended station area development. The Plan includes recommended improvements to existing streets, parks, and infrastructure to maximize access to the stations and achieve environmental best management practices. The Plan describes the estimated costs of these public infrastructure improvements and outlines available mechanisms to provide incentives and aid in implementation funding. Finally, the Plan proposes regulatory tools for the City to pursue in the implementation process. In total, the Plan sets forth a

The Plan sets forth a market-based, community-supported vision for transit oriented development around the Delmar Loop and Forest Park–DeBaliviere MetroLink stations, and a roadmap for the City of Saint Louis to make this vision reality.

market-based, community-supported vision for transit oriented development around the Delmar Loop and Forest Park–DeBaliviere MetroLink stations, and a roadmap for the City of Saint Louis to make this vision reality.

PLAN DEVELOPMENT & FUNDING

This Plan is funded with a portion of the \$4.7 million Sustainable Communities Regional Planning Grant from the joint U.S. Department of Housing and Urban Development (HUD)–U.S. Department of Transportation (DOT)–U.S. Environmental Protection Agency (EPA) Partnership for Sustainable Communities. This grant was awarded to and administered by the East-West Gateway Council of Governments as part of OneSTL (formerly the Regional Plan for Sustainable Development). This Plan builds upon the existing Saint Louis TOD Framework Plan, which was completed by Design Workshop on behalf of East-West Gateway for the entire MetroLink system. As a Consortium Partner for OneSTL, the City of Saint Louis is contributing this Plan to East-West Gateway as part of the OneSTL planning effort.

Strengthening existing neighborhoods and connecting residents to transit is a major component of sustainable neighborhood development and a stated requirement of this Plan. The project Study Area incorporates the 10-minute walk shed (one-half mile) for the Delmar Loop and Forest Park–DeBaliviere MetroLink stations. This Study Area is comprised of 700 acres and is home to approximately 7,700 residents and 2,300 jobs. In addition, there are approximately 300 vacant lots and vacant housing units within the Study Area. This represents a significant opportunity for new development and enhancing existing connectivity, mobility, and access to transit.

PARTNERS & ADMINISTRATION

The planning process for this Plan was administered by the St. Louis Development Corporation (SLDC) on behalf of the City of Saint Louis. The Project Team lead was H3 Studio, performing project direction, transit oriented development planning, and project management. Project Team partner Development Strategies performed economic development program analysis and funding plan development. Bernardin, Lochmueller & Associates (BLA) performed transportation, parking, and connectivity planning and ridership projections. Innis Consulting assisted BLA with transit policy and operations recommendations. M3 Engineering Group (M3) developed the civil and environmental engineering recommendations and cost estimates. Finally, Vector Communications led public outreach and communication efforts.



EAST-WEST GATEWAY
Council of Governments





IMAGE OF HISTORIC SAINT LOUIS

Transit Oriented Development has been shown to...

- **Increase land and property values** in the station area;
- **Improve access to employment** for all citizens of all income levels;
- **Reduce car trips** and greenhouse gas emissions;
- **Reduce costs** for infrastructure upkeep and construction;
- **Increase walkability** within the transit shed by bringing needed services to the station area;
- **Create opportunities for diverse housing** at the station area and within the transit shed;
- Assure developers, entrepreneurs, and residents that **transit service will be sustained**; and
- **Create a unique feature within the city** to attract residents, workers, and visitors.

The St. Louis Development Corporation (SLDC) is responsible for the project administration. The Client Group team consists of Otis Williams (Executive Director, SLDC), Amy Lampe (Major Project Manager, SLDC), Don Roe (Director, City of Saint Louis Planning and Urban Design Agency), and Connie Tomasula (Urban Planner, City of Saint Louis Planning and Urban Design Agency). The project team held four (4) coordination and review meetings with the Client Group team throughout the course of the planning process for regular guidance and review of materials and work products.

PLANNING PROCESS

This planning process took place over the course of six months and involved regular interface between the Client Group and the Project Team. In addition, the Project Team met with an assembled Technical Advisory Committee (TAC) and conducted extensive public and stakeholder outreach. These efforts allowed the Project Team to collect a large amount of data and feedback from a wide cross-section of neighborhood residents, institutional and governmental staff, and community members. The public and stakeholder outreach initiatives have helped to enrich the recommendations of the study and have helped to build a broad base of consensus and support for the project.

TRANSIT IN SAINT LOUIS

The historic settlement patterns of Saint Louis produced an urban fabric that makes for easy walkability and facilitates various forms of transit. Small blocks and tightly-knit residential neighborhoods are punctuated with numerous parks and street-corner commercial districts. Over the past century, the City's street grid has evolved with the introduction of boulevards, streetcar lines, and interstate highways. Despite these changes, the City has remained the nexus of transit in the greater Saint Louis region.

THE POSITIVE IMPACTS OF TRANSIT ORIENTED DEVELOPMENT

In 1993, Metro began operating MetroLink, the region's first light rail system. Despite 20 years of service, MetroLink stations have not delivered on the potential of transit oriented development. Nevertheless, many of the neighborhoods retain a tight knit residential base, and shifting demographic trends have resulted in new demand for these communities. Now is the time to capitalize on this momentum to foster new development and sustainable infrastructure.

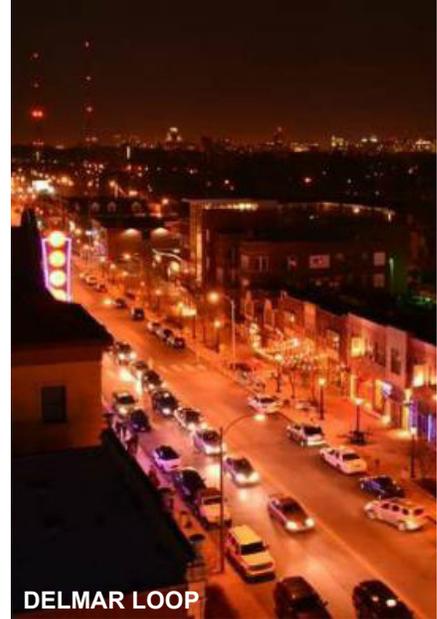
SUMMARY OF EXISTING CONDITIONS

The Delmar Loop and Forest Park–DeBaliviere Station Area is comprised of two separate MetroLink Stations—the Red Line Delmar Loop Station and the Red Line/Blue Line Forest Park–DeBaliviere Station. These stations are linked by the L-shaped, one-mile Delmar/DeBaliviere corridor. A third station, the Blue Line Skinker Station, is located immediately to the southwest. The Skinker Station was not included in this study because it is fully developed and does not possess any major TOD opportunities. These three stations are all within a half-mile of one another with overlapping transit sheds.

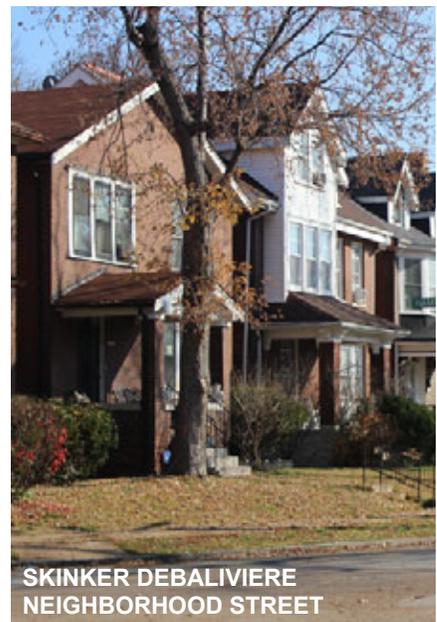
The Station Area includes three residential neighborhoods: Skinker DeBaliviere, the West End, and DeBaliviere Place. It also includes Washington University in St. Louis' North Campus and portions of The Loop and Forest Park. It is situated between the region's premier commercial and entertainment main street and the region's premier park and cultural attraction. In terms of accessibility to amenities, this Station Area is the best-located and most transit-served place in the entire region. Despite these remarkable assets and 20 years of light rail transit service, neither the Delmar Loop or Forest Park–DeBaliviere Stations have yet delivered on the promise of transit oriented development.

KEY CHARACTERISTICS OF THE STATION AREA

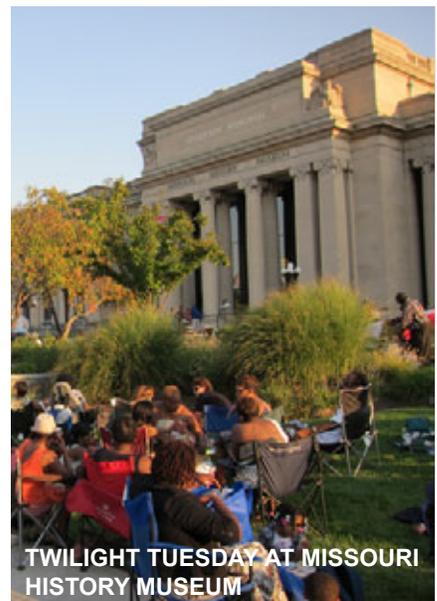
- The Delmar Loop Station has 55,450 monthly boardings (June 2011-July 2012), which is the sixth highest among all stations. The Forest Park–DeBaliviere Station has 119,280 monthly boardings (June 2011-July 2012), the second highest among all stations;
- The station area is accessed by nine MetroBus lines;
- The station area contains one primary commercial corridor (Delmar Boulevard) and one secondary commercial corridor (DeBaliviere Avenue);
- The primary land use in the station area is single family residential;
- The station area contains numerous underutilized sites, including surface parking lots and inactive facades. Despite these characteristics, many of these sites house viable businesses;
- The station area contains multiple, overlapping National Register historic districts, certified local historic districts, special assessment districts, and redevelopment areas;
- Neighborhoods south of Delmar Boulevard are stable; neighborhoods north of Delmar face challenges of vacancy, disinvestment, and negative perceptions of safety;
- There are 7,718 residents, 2,337 employees, and 321 vacant housing units within one-half mile of the two stations.



DELMAR LOOP



SKINKER DEBALIVIERE
NEIGHBORHOOD STREET



TWILIGHT TUESDAY AT MISSOURI
HISTORY MUSEUM



STATION AREA PLAN SUMMARY

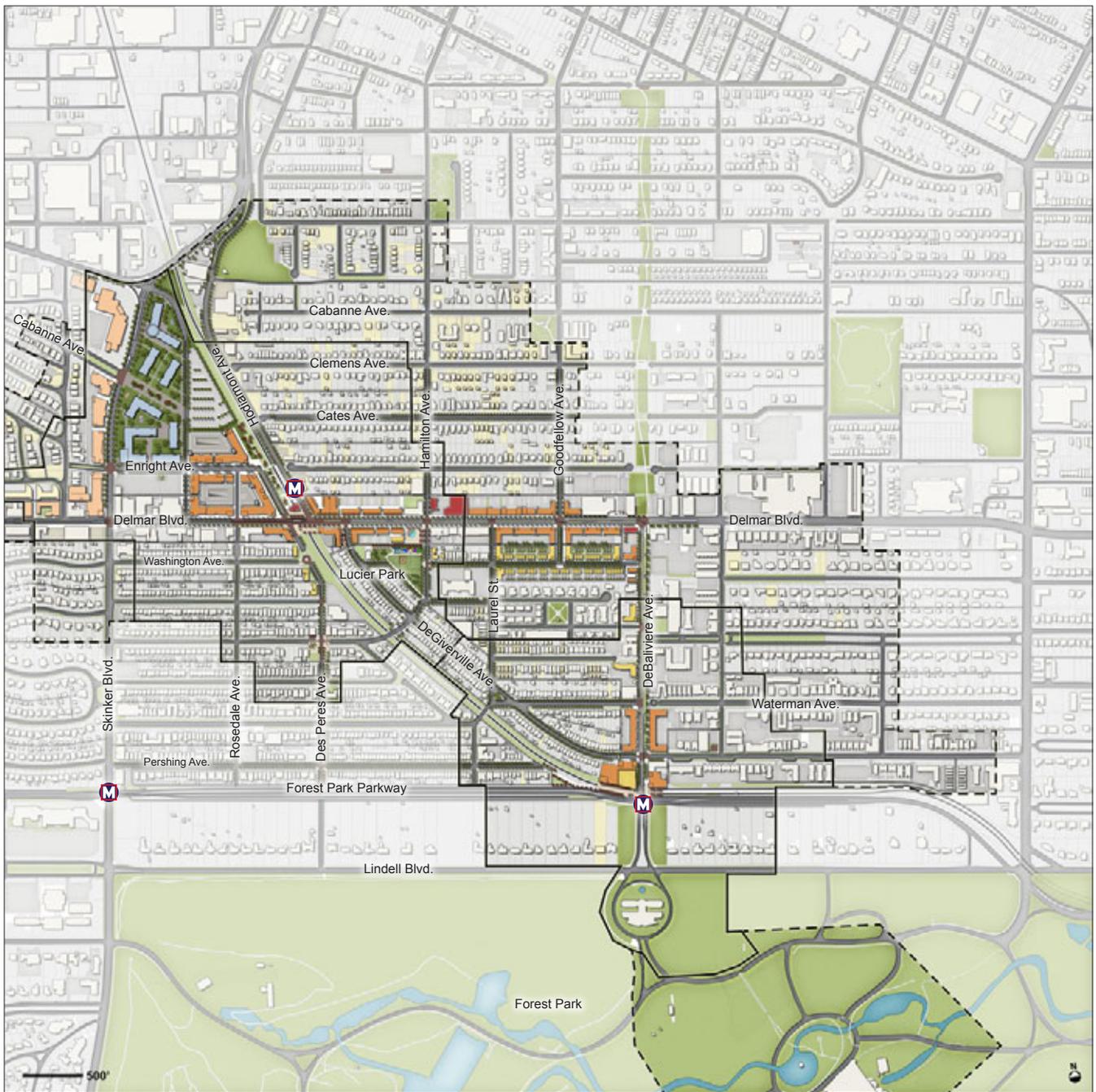
The Delmar Loop and Forest Park–DeBaliviere Station Area Plan establishes a vibrant, mixed-use transit corridor linking the two MetroLink Stations. In addition to creating a linear corridor along Delmar Boulevard and DeBaliviere Avenue, the plan envisions these two key commercial streets—which today function as the “back door” to the adjacent neighborhoods—as newly-revitalized “Main Streets” supporting a transit oriented residential district. The Plan utilizes a strategy of identifying key redevelopment anchors, focusing infill development around existing amenities, and restoring the station area’s urban street grid. This strategy recreates the walkable relationship between the corridor and the surrounding neighborhoods, restoring the Delmar Boulevard and DeBaliviere Avenue to their historic grandeur.

The Plan establishes three key anchors on existing redevelopment sites. The **Delmar Loop Station** is redeveloped with a mix of primary retail, neighborhood services, office space, and new residences.

The **Forest Park–DeBaliviere Station** encompasses prime redevelopment sites in Saint Louis overlooking Forest Park. New development and public space improvements provide the station area with necessary vibrance while providing key public space improvements.

Finally, the **Metro DeBaliviere Garage** is redeveloped as a residential and mixed-use part of the Skinker DeBaliviere neighborhood. The Plan is supported by key public realm improvements, including streetscapes, the Loop Trolley, Saint Vincent Greenway, and Lucier Park to create a vibrant transit oriented and truly car-optional neighborhood.

The Station Area Plan recreates the walkable relationship between the corridor and the surrounding neighborhoods, restoring the Delmar Boulevard and DeBaliviere Avenue to their historic grandeur.



STATION AREA PLAN

LEGEND

	EXISTING BUILDINGS
	NEW MIXED USE BUILDINGS
	NEW RESIDENTIAL BUILDINGS
	REDEVELOPED RETAIL/COMMERCIAL BUILDINGS
	WASHINGTON UNIVERSITY NORTH CAMPUS BUILDINGS (not included in development program)
	NORTH SKINKER MIXED USE DEVELOPMENT (not included in development program)
	PARKING
	PARKS
	OPEN SPACE
	NEW SIGNATURE INTERSECTION
	NEW PLAZA
	QUARTER MILE TRANSIT SHED
	HALF MILE TRANSIT SHED

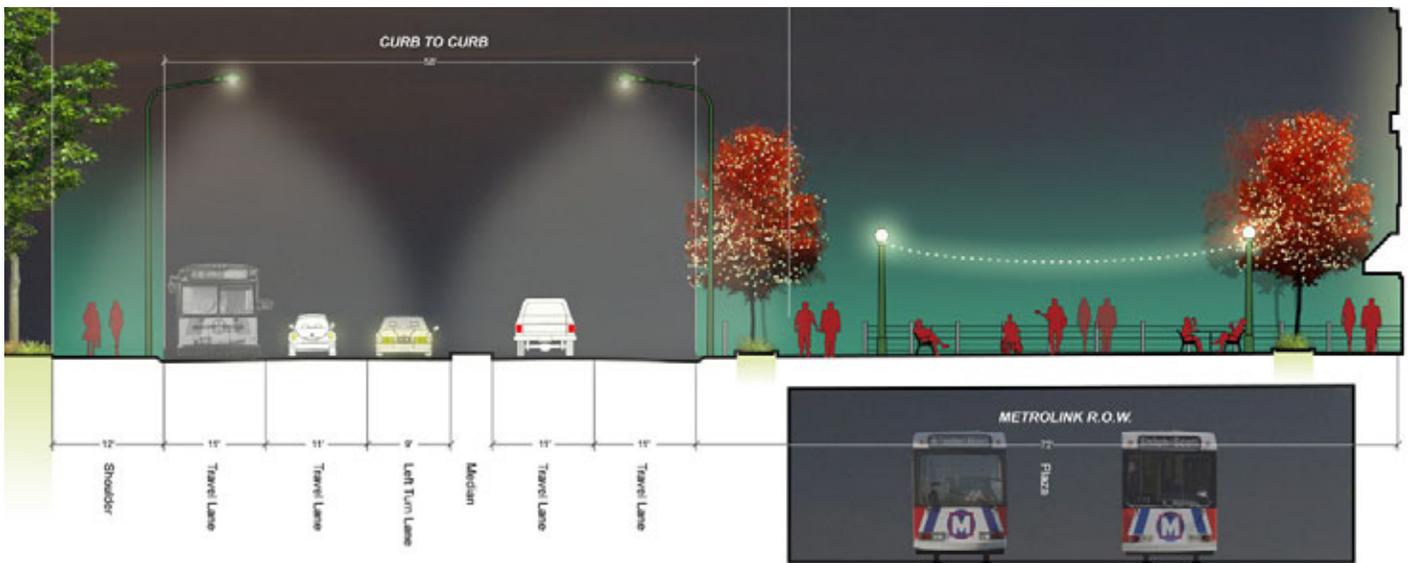
Proposed Development Program:

- Residential Rehab and Infill: 320 Units
- Residential: 1,750 Units (1,050 S.F./Unit)
- Affordable Housing: 600 units (1,000 S.F./Unit)
- Retail: 65,000 S.F.
- Office: 55,000 S.F.
- Structured Public Parking: 500 Spaces at Delmar Loop Station
- Structured Private Parking: 500 Spaces at Delmar Loop Station
- Parks & Plazas: 136,140 S.F.
- Building Heights: 3 to 12 Stories (See pages 112-140 for Range)

DELMAR LOOP AND FOREST PARK-DEBALIVIERE STATION AREA PLAN 2043



DEBALIVIERE AVENUE

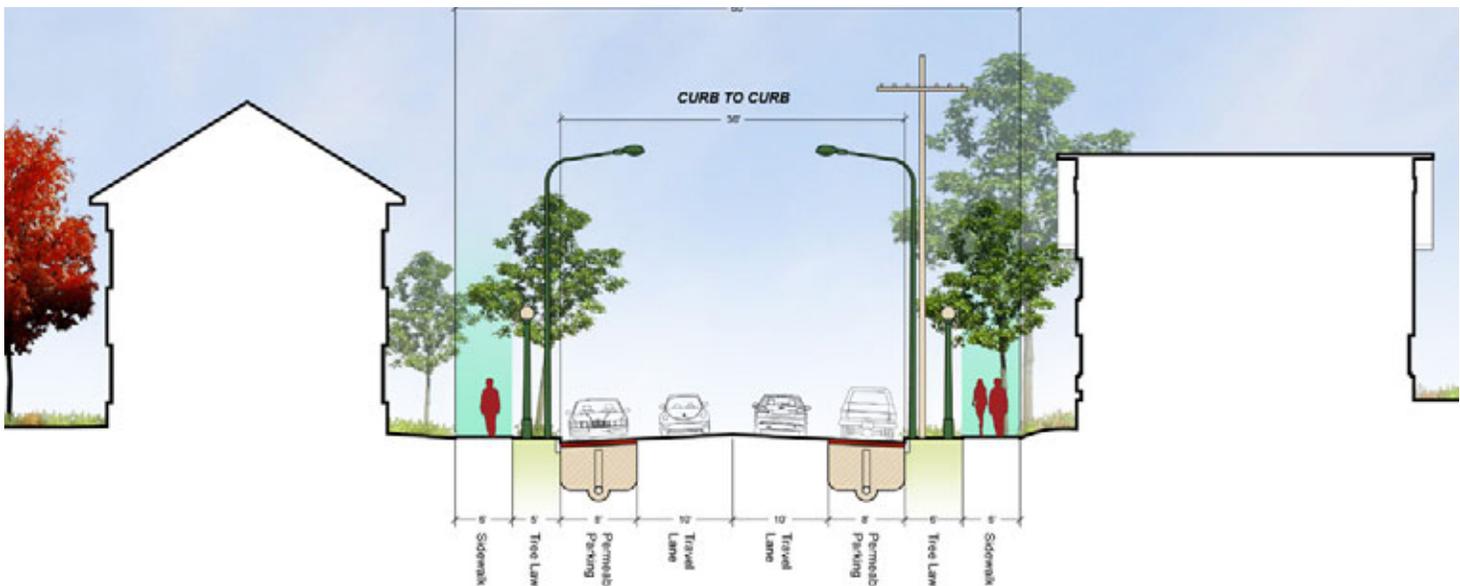


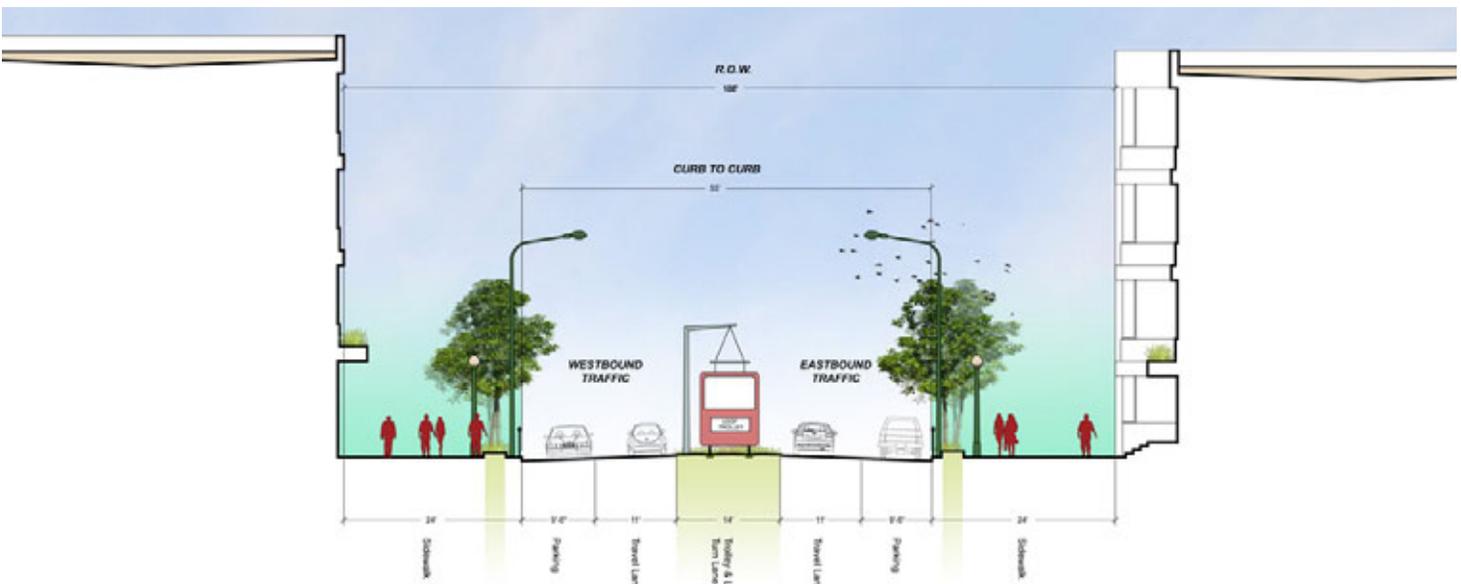


DELMAR LOOP AND FOREST PARK-DEBALIVIERE STATION AREA PLAN 2043



**GOODFELLOW BOULEVARD, LOOKING SOUTH
TOWARD DELMAR BOULEVARD**





DELMAR LOOP AND FOREST PARK-DEBALIVIERE STATION AREA PLAN 2043



DELMAR LOOP METROLINK STATION







IMPLEMENTATION SUMMARY

OVERALL IMPLEMENTATION CONSIDERATIONS

Successful implementation of all the Station Area Plans will require taking the Plans “on the road.” It is recommended that the City of Saint Louis engage with partner organizations, public and private, including professional associations that represent components of the real estate development industry. A result of this widespread policy recognition will likely be the creation of appropriate partnerships to implement prioritized parts of each plan. The City and Metro are key partners involved in this effort.

Resources will be needed for prioritized redevelopment projects. Money, access to, and preparation of applications for various governmental and foundations grants, incentive programs and their creation/management, fast-track permitting, political advocacy, staff support and expedited reviews, etc., can all be offered as part of a package to entice the private market and land owners to move quickly toward plan implementation.

STATION AREA IMPLEMENTATION ACTION ITEMS

While some of these issues are beyond the City’s control, the City can play a key role in kick starting activity in the area. We recommend the following near-term activities:

1. SLDC, the nearby neighborhoods, and the City Streets Department should begin the process to improve pedestrian access to both stations. Funding for new sidewalks should be secured and any public engagement activities should be scheduled;
2. SLDC should attempt to secure underutilized parcels near the MetroLink stations. This may be in the form of a swap arrangement with another City-owned property or an outright purchase of the property. Other friendly entities—Metro, Washington University, and local developers—must be involved in this process. This will create larger development parcels at critical locations;
3. After securing underutilized properties, work to consolidate or form a joint venture opportunity with other nearby landowners or developers;

A result of this widespread policy recognition will, and should, be creation of appropriate partnerships to implement prioritized parts of each plan. Almost certainly, the City and Metro should be partners around both stations.

4. Once a developer is engaged, SLDC should include the realignment of Rosedale Avenue in the development agreement;
5. The City should encourage more urban-friendly design and community engagement be completed by developers to ensure that the project is fulfilling the TOD plans and aligns with the desires of neighborhood residents;
6. After securing the critical sites, the City should promote the projects in the business community. Using the marketing tools described in the Schematic Implementation Plan, the City can begin building a marketing package for both local and out-of-town developers. Involve key stakeholders—Washington University, Metro, and local land owners—in the development of this marketing package. Make it clear that collaboration and support will be given at all levels;
7. After attracting interest in development opportunities, facilitate discussions between Metro and potential developers regarding the parking facility and kiss-and-ride at the Forest Park station;
8. Market infill opportunities in the neighborhood to residents, local developers, and out-of-town developers. Partner with community organizations to ensure that existing residents are represented;
9. Invest in Tier 1 street improvements as detailed on pages 98-105 of this TOD report.

Ideally, the tasks listed above should be accompanied by a long-term plan for the area. The following activities are recommended for the long-term:

1. Invest in Tier 2 and Tier 3 street improvements as detailed on pages 98-105 of this TOD report;
2. If Metro elects to move their facility at the corner of Delmar Boulevard and DeBaliviere Avenue, work to facilitate the acquisition of the property or a joint venture redevelopment;
3. Continue to market infill opportunities in the neighborhood to local and out-of-town developers.



**EXISTING SIDEWALK CONDITIONS
IN DEBALIVIERE PLACE
NEIGHBORHOOD**



**'THE LOFTS' AT WASHINGTON
UNIVERSITY - STUDENT HOUSING
UNDER CONSTRUCTION**



**EXISTING PEDESTRIAN
CONDITIONS IN WEST END
NEIGHBORHOOD**



**FOREST PARK–DEBALIVIERE
METROLINK STATION**

DELMAR LOOP AND FOREST PARK– DEBALIVIERE STATION AREA PLAN GENERAL PHASING

3 Stage Approach:

- First, the City should work to incentivize development at the Forest Park/DeBaliviere Metrolink station parking lot as a mixed-use residential and retail development.
- Second, steps must be taken to work with friendly parties to identify a mixed-use development for the parcels immediately west of the Delmar Metrolink station.
- The third stage of the redevelopment should focus on the remaining developable parcels within $\frac{1}{4}$ mile of the station and infill housing opportunities within the $\frac{1}{2}$ mile station area.

GENERAL PUBLIC ASSISTANCE FOR REDEVELOPMENT

At this time, the City of Saint Louis has an array of development tools to help offset some costs. Tax Increment Financing, a tool that allows a developer to collect incremental real property and economic activity tax revenue, is a popular way to finance property acquisition, infrastructure improvements, and renovation costs in the City. Other tools, such as Community Improvement Districts, allow for a developer to generate funds for area amenities or other programs. A complete listing of possible incentive tools is included on page 33 in Appendix C.

Gap financing can come from private sources as well. It should be noted that competition for these limited resources is great. Other potential sources of gap financing include: the business community, community-based organizations, developers, financial institutions, and philanthropic organizations. In addition to tools geared towards property redevelopment, the City offers some assistance to small business owners in the form of grants, tax credits, and other specialized programs. In order to entice businesses into each station area, it is critical that these programs be marketed towards the business community.

SUBSIDIES & DEVELOPMENT GAPS

While the Forest Park–DeBaliviere and Delmar station areas is an obvious location for TOD, it is likely that a gap between the development cost and the actual value of the development, post-development, will exist. This is especially true for the first few TOD projects attempted. A critical mass of high demand must be built up—through the help of public financing—to attract developers that could build entirely reliant on the private market. Therefore, it is necessary to find some sort of financing—be it public or private—to fill the gap and entice development.

The sidebars on the facing page detail the estimated funding gap and the amount of public financing available for the finalized development scenario. In general, the available public subsidies would not fill the financing gap for the full project build out. The high costs associated with infrastructure improvements, land acquisition, and construction outstrip any gains based on current rents and demand. To succeed as TOD, it is critical that a significant amount of density is created to increase demand and rents.

FINANCIAL MODEL OUTCOMES

It should be noted that while the economic projections below estimate the potential returns of the suggested redevelopment plan, no significant market analysis has been performed to estimate the actual demand for these devel-

DELMAR LOOP AND FOREST PARK– DEBALIVIERE STATION AREA PLAN

opment configurations. The sidebar on the on this page indicates the estimated financial returns for the Station Area Plan.

The overall return for the proposed development plan is within an acceptable range for a developer if the development gap were filled by public or another type of financing. However, the estimated amount of public financing available does not cover the total construction costs. Therefore, it is critical that the City insist that any development receiving public subsidy within a TOD area be a quality development that will attract new residents or other users to spur higher rents in the future. For the full economic analysis of each alternative, please see page 64 in Appendix C.

PUBLIC SUBSIDY DESCRIPTIONS

General development incentives consist of:

- Tax Increment Financing: A TIF collects a portion of net new real property, earnings, and sales taxes. These funds are then used to finance development and other improvements within the TIF district.
- Community Improvement District (CID): A CID can levy real property and/or additional sales taxes to be used for certain improvements or services within the boundaries of the CID. Sales tax CIDs are capped at 1.0%.
- Transportation Development District (TDD): A TDD can be funded through special assessment, real property tax, or sales tax. Sales tax TDDs are capped at 1.0%. Funds are used to support transportation improvement projects like signage, road conditions, or other transport-related needs within the districts of the TDD.
- Chapter 353 Redevelopment: This program allows for full or partial abatement of real property taxes for up to 25 years.
- Chapter 99 Redevelopment: This program allows for full or partial abatement of real property taxes for up to 10 years.

Specialized development incentives consist of:

- Tax-Exempt Bond Financing: This bond incentive provides long-term capital financing for major projects.
- Chapter 100 Bond Financing: This bond incentive provides long-term capital financing for major projects.
- Chapter 100 Sales Tax Exemption: Used in conjunction with Chapter 100 Bonds, the Chapter 100 Sales Tax Exemption reduces the costs of purchasing non-manufacturing equipment.
- The Small Business Association 7(a) Loan Guaranty: The SBA provides financing to small businesses with reasonable terms.
- New Markets Tax Credits (NMTC): These credits are typically used to attract investments to low-income areas and offer tax credits for a portion of the investment. Typically, NMTC are utilized for large areas of redevelopment to increase return.
- Historic Tax Credits: Offers tax credits for owners of recognized historic structures.

ESTIMATED FUNDING GAP

DEVELOPMENT COST
\$511.4 M

DEVELOPMENT VALUE
\$373.4 M

FUNDING GAP
\$138.0 M

AVAILABLE PUBLIC
SUBSIDY
\$64.3 M

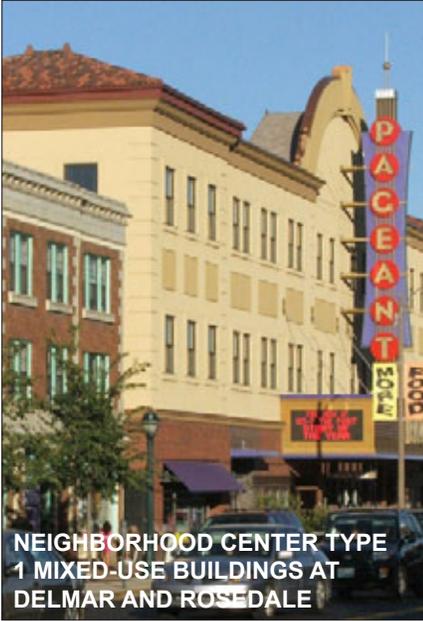
ESTIMATED FINANCIAL RETURNS

RETURN WITHOUT
GAP FINANCING
3.8 %

RETURN WITH
GAP FINANCING
4.8 %

LAND RESIDUAL
VALUE @ 15%
\$41.6 M

LAND RESIDUAL
VALUE @ 20%
\$55.4 M



**NEIGHBORHOOD CENTER TYPE
1 MIXED-USE BUILDINGS AT
DELMAR AND ROSEDALE**

SUMMARY OF FORM-BASED DISTRICT RECOMMENDATIONS

Statement of Purpose for the FBD

The objective of the form-based district (FBD) is to regulate future development to encourage increased density and walkability. The proposed district concentrates commercial activity and neighborhood services along Delmar Boulevard and DeBaliviere Avenue, while supporting incremental, contextual infill. Furthermore, the FBD is designed to minimize redundancy with existing regulations (refer to *Reconciliation of the Historic Districts with the FBD* on page 114 for additional information), and increase coordination with existing and proposed new special assessment districts, including the Loop Special Business District (SBD), East Loop SBD, Loop Trolley Transportation Development District (TDD), and the proposed Loop and East Loop Community Improvement Districts (CIDs) (proposed as part of the Loop Retail Study and Parkview Gardens Neighborhood Sustainable Development Plan).



EXAMPLE OF BOULEVARD TYPE 2

Finally, the proposed FBD boundary intentionally omits portions of the West End Neighborhood north of Delmar Boulevard. This plan recommends that the City work with the West End Neighborhood to develop and establish a future neighborhood FBD. The portion of the West End Neighborhood that falls within the half-mile transit shed could be included in the proposed Delmar Loop and Forest Park–DeBaliviere FBD. However, the City and planning team feel that a separate, neighborhood-based FBD that considers the West End Neighborhood as a whole would better address the needs and desires of the West End Neighborhood and its residents. Form-based district recommendation are described in detail on pages 112-140.

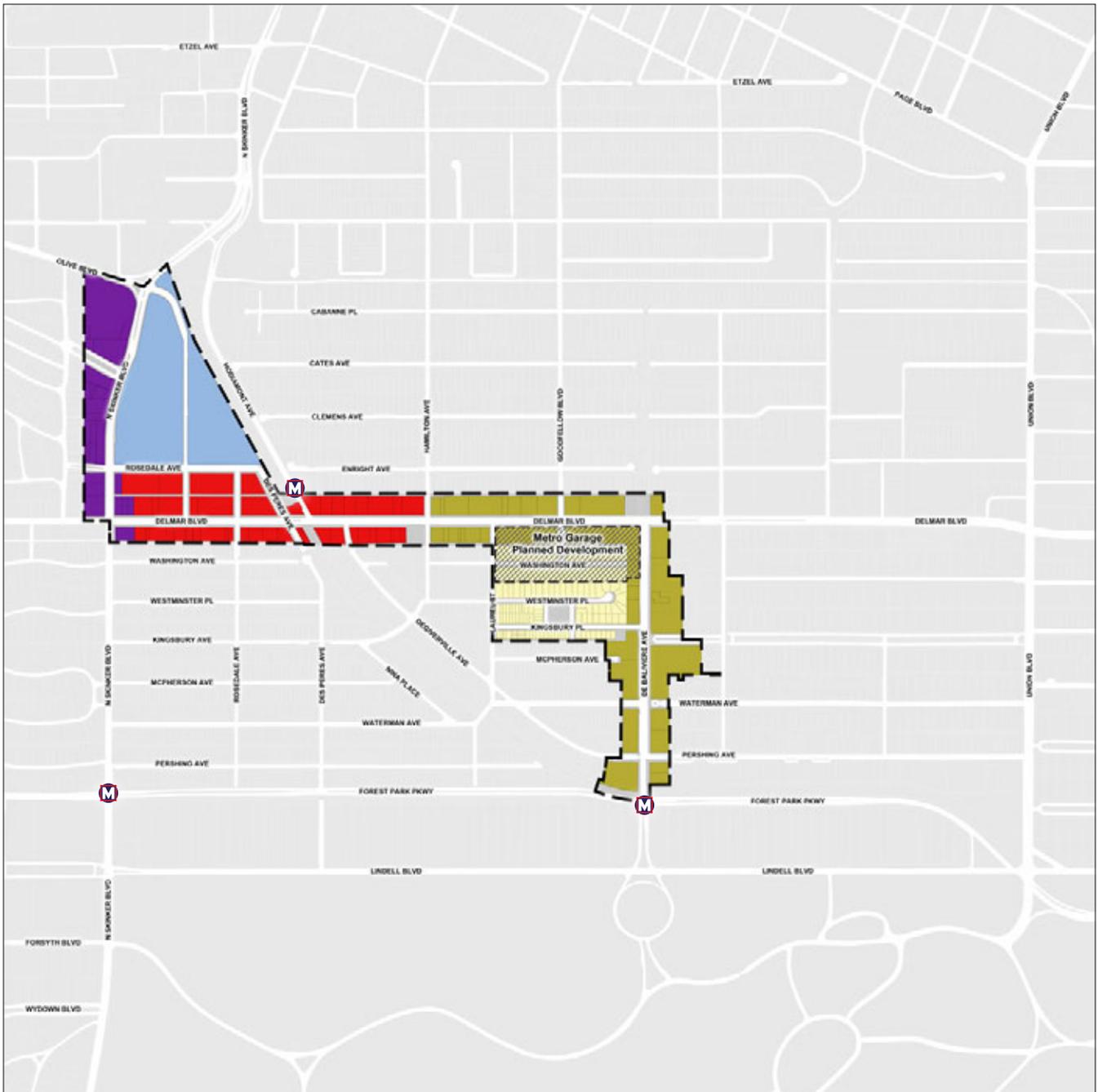


**EXAMPLE OF NEIGHBORHOOD
GENERAL TYPE 1**

Reconciliation of the Historic Districts with the FBD

The station area also encompasses portions of the Skinker DeBaliviere–Catlin Tract–Parkview and Central West End Certified Local Districts. Each Local District has established Rehabilitation and New Construction Standards that specify building height, setback, materials, architectural design guidelines, and site design guidelines. These standards apply to all contributing structures within the district. Furthermore, construction permits are required for all work (including for non-structural work not normally requiring a permit, such as partial roof and window replacement), and these permits trigger a review by the City’s Cultural Resources Office (CRO) for conformity to district standards.

The existing Local Historic District Standards are redundant to new FBD regulations, and in general are more restrictive than proposed FBD regulations. As a result, the FBD boundary is established, to the extent



PROPOSED REGULATING PLAN FOR DELMAR LOOP AND FOREST PARK-DEBALIVIERE STATION AREA

LEGEND: BUILDING ENVELOPE STANDARDS

- NEIGHBORHOOD GENERAL TYPE 1
- NEIGHBORHOOD GENERAL TYPE 2
- NEIGHBORHOOD GENERAL TYPE 3
- NEIGHBORHOOD CENTER TYPE 1
- BOULEVARD TYPE 2
- CAMPUS TYPE 1

possible, to not include the Local Historic Districts. Overlap only occurs where there is a need to achieve taller building heights and greater levels of density than permitted in the existing Local Historic District standards. This increased density is required for TOD to be successful in this station area. These overlaps occur on the 5700- to 6100-blocks of Delmar Boulevard and the 200- to 500-blocks of DeBaliviere Avenue. Where these overlaps exist, we recommend that the new FBD regulations be explicitly incorporated into the Local Historic Districts Standards.



1 | Introduction



INTRODUCTION

The Delmar Loop and Forest Park–DeBaliviere MetroLink stations are the most remarkable stations in the entire MetroLink system. Located along neighborhood commercial corridors in established residential neighborhoods, these stations are among only seven of the 37 stations that offer immediate walkable access from adjacent homes¹. Additionally, these two stations are situated in the heart of Saint Louis' central corridor and provide direct access to the region's major cultural, recreation, education, and entertainment destinations. Forest Park, Washington University in St. Louis, and the Delmar Loop—one of America's Great Streets—are all within a half-mile of the Delmar Loop and Forest Park–DeBaliviere stations.

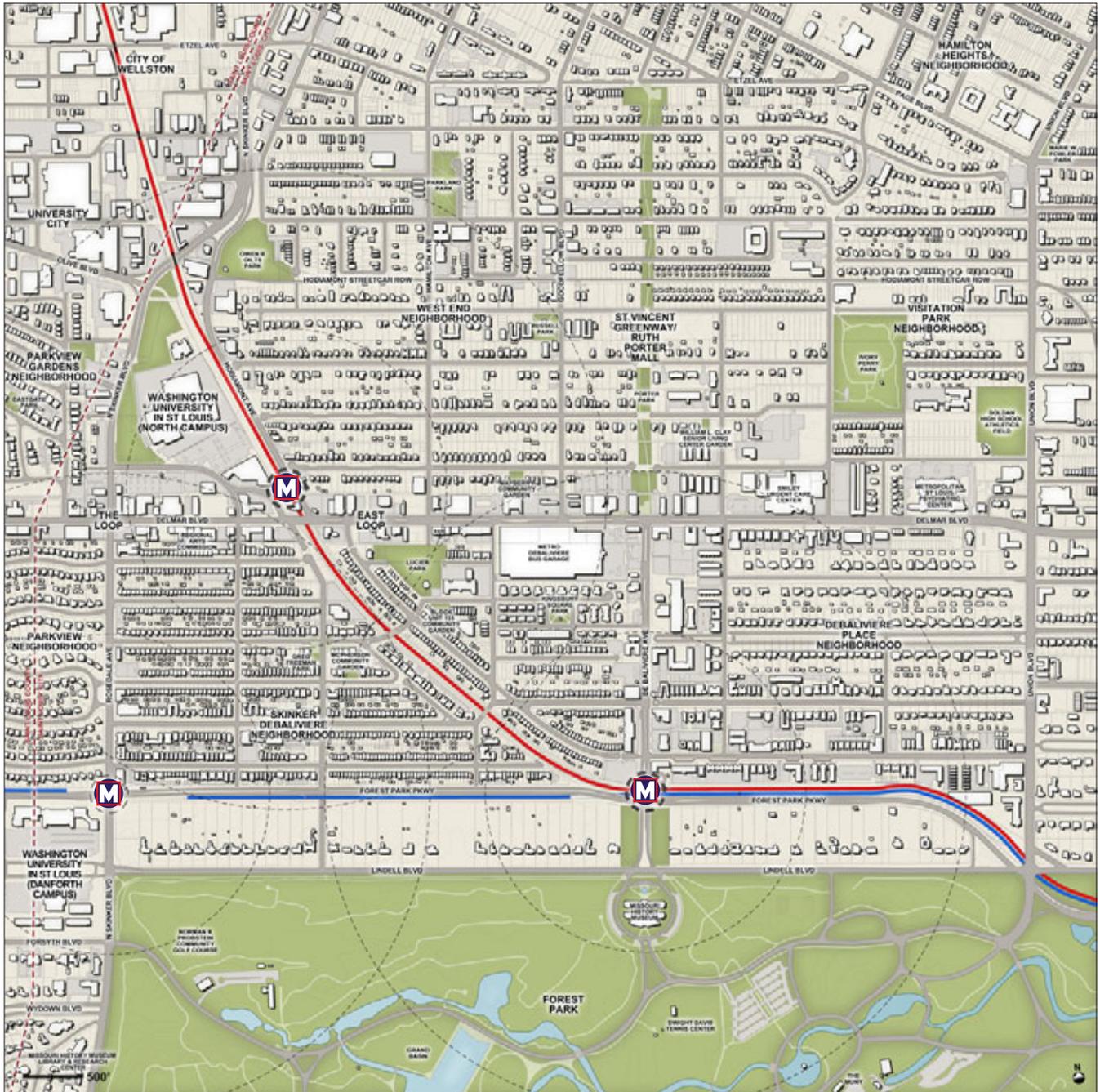
These two stations, along with the Skinker Station, are all located within a half-mile of each other. The proximity of these three stations provides the framework for a transit district that is unmatched in the Saint Louis region. Furthermore, the Forest Park–DeBaliviere station is the intersection of the MetroLink Red and Blue Lines. As the transfer point between transit lines stretching from south St. Louis County, the Metro East and Scott Air Force Base, and Lambert-St. Louis International Airport, the regional importance of these stations cannot be overstated.

Despite these assets and the 20-year history of MetroLink in Saint Louis, the development potential surrounding the Delmar Loop and Forest Park–DeBaliviere stations has never been realized. Existing commercial development is generally low-density, low intensity, and automobile-centric. Persistent vacancies and low-value land uses inhibit the creation of a high-quality pedestrian environment. Negative perceptions of safety deter transit riders from walking to the Delmar Loop and Forest Park–DeBaliviere stations, despite easy pedestrian access. More fundamentally, this combined station area is very much a community on the edge. South of Delmar, the Skinker DeBaliviere and DeBaliviere Place neighborhoods have remained stable and vibrant communities. To the west, the Delmar Loop is a nationally-recognized success story for grassroots urban revitalization. North of Delmar, however, the West End neighborhood has not experienced this kind of success. While population and safety have increased measurably over the past decade, the neighborhood is still challenged by vacancies and a negative perceptions of safety.

The City of Saint Louis, Saint Louis Development Corporation, Metro, and their partners possess a significant opportunity to recreate the Delmar Loop and Forest Park–DeBaliviere Station Area as a key amenity to link between surrounding neighborhoods with a community-based vision for neighborhood development and placemaking that supports transit oriented development through the creation of vibrant and active streets and public spaces. The

Forest Park, Washington University in St. Louis, and the Delmar Loop are all within a half-mile of the Delmar Loop and Forest Park–DeBaliviere stations. As the transfer point between the Red and Blue Lines, the regional importance of these stations cannot be underestimated.

1. Adjacent homes are defined as those that are 500 feet or less from the entrance to the MetroLink station platform.



CONTEXT MAP



METROLINK RIDERS AT THE FOREST PARK–DEBALIVIERE STATION

The Plan sets forth a market-based, community-supported vision for transit oriented development around the Delmar Loop and Forest Park–DeBaliviere MetroLink stations, and a roadmap for the City of Saint Louis to make this vision reality.

Transit Oriented Development (TOD) Plan for the Delmar Loop and Forest Park–DeBaliviere MetroLink Stations is a roadmap for the City of Saint Louis, its partners, and the development community to achieve the development promise of MetroLink light rail transit.

PLAN OBJECTIVE

The *Transit Oriented Development (TOD) Plan for the Delmar Loop and Forest Park–DeBaliviere MetroLink Stations* (“the Plan”) establishes an actionable, 30-year plan for new development supported by access to transit. The Plan outlines market-based development programs supported by proforma analysis for recommended station area development. The Plan includes recommended improvements to existing streets, parks, and infrastructure to maximize access to the stations and achieve environmental best management practices. The Plan describes the estimated costs of these public infrastructure improvements and outlines available mechanisms to provide incentives and aid in implementation funding. Finally, the Plan proposes regulatory tools for the City to pursue in the implementation process. In total, the Plan sets forth a market-based, community-supported vision for transit oriented development around the Delmar Loop and Forest Park–DeBaliviere MetroLink stations, and a roadmap for the City of Saint Louis to make this vision reality.

PLAN DEVELOPMENT & FUNDING

This Plan is funded with a portion of the \$4.7 million Sustainable Communities Regional Planning Grant from the joint U.S. Department of Housing and Urban Development (HUD)–U.S. Department of Transportation (DOT)–U.S. Environmental Protection Agency (EPA) Partnership for Sustainable Communities. This grant was awarded to and administered by the East-West Gateway Council of Governments as part of OneSTL (formerly the Regional Plan for Sustainable Development.) This plan builds upon the existing Saint Louis TOD Framework Plan, which was completed by Design Workshop on behalf of East-West Gateway for the entire MetroLink systems. As a Consortium Partner for OneSTL, the City of Saint Louis is submitting both this Plan and the TOD Framework Plan to East-West Gateway as part of the OneSTL Plan.

The *Transit Oriented Development (TOD) Plan for the Delmar Loop and Forest Park–DeBaliviere MetroLink Stations* is closely aligned with the goals of the HUD-DOT-EPA Partnership for Sustainable Communities *Livability Principles*. The Principles are to: Provide More Transportation Choices;

Promote Equitable, Affordable Housing; Enhance Economic Competitiveness; Support Existing Communities; Coordinate and Leverage Federal Policies and Investment; and Value Communities and Neighborhoods.

In order to achieve these principles through actionable implementation initiatives, the Plan is comprised of the following components: 1) economic analysis and development proforma outlining the station area development program, projected costs, land values, and development gaps; 2) transportation analysis outlining street, sidewalk, and public space improvements, parking, and multi-modal transit access; 3) stormwater and environmental planning analysis outlining performance criteria and green infrastructure best management practices; 4) public improvement cost estimates and funding tools; and 5) a Form-Based District Regulating Plan, Building Envelope Standards, and recommended changes to the City of Saint Louis Strategic Land Use Plan.

Strengthening existing neighborhoods and connecting residents to transit is a major component of sustainable neighborhood development and a stated requirement of this Plan. The project Study Area incorporates the 10-minute walk shed (one-half mile) for the Delmar Loop and Forest Park–DeBaliviere MetroLink stations. This area extends from approximately one-half block north of Etzel Avenue to the north to approximately one-half block south of Wydown Avenue to the south; and from approximately one-half block east of the Union Boulevard to the east to approximately one-half block west of the City limits to the west. This Study Area is comprised of 700 acres and is home to approximately 7,700 residents and 2,300 jobs. In addition, there are approximately 300 vacant lots and vacant housing units within the Study Area. This represents a significant opportunity for new development and enhancing existing connectivity, mobility, and access to transit.

PARTNERS & ADMINISTRATION

The planning process for this Plan was administered by the St. Louis Development Corporation (SLDC) on behalf of the City of Saint Louis. The Project Team lead was H3 Studio, performing project direction, transit oriented development planning, and project management. Project Team partner Development Strategies performed economic development program analysis and funding plan development. Bernardin, Lochmueller & Associates (BLA) performed transportation, parking, and connectivity planning and ridership projections. Innis Consulting assisted BLA with transit policy and operations recommendations. M3 Engineering Group (M3) developed the civil and environmental engineering recommendations and cost estimates. Finally, Vector Communications led public outreach and communication efforts.



EAST-WEST GATEWAY
Council of Governments



PLANNING PROCESS SCHEDULE

Project Kick-Off Meeting

March 13, 2013

Stakeholder Interviews

April–July, 2013

Client Group Coordination Meeting 02

April 11, 2013

Technical Advisory Committee (TAC) Meeting 01

May 7, 2013

Public Workshop 01

May 21, 2013

Technical Advisory Committee (TAC) Meeting 02

June 4, 2013

Client Group Coordination Meeting 03

July 10, 2013

Public Workshop 02

July 23, 2013

Client Group Coordination Meeting 04

August 27, 2013

The St. Louis Development Corporation (SLDC) is responsible for the project administration. The Client Group team consists of Otis Williams (Executive Director, SLDC), Amy Lampe (Major Project Manager, SLDC), Don Roe (City of Saint Louis Planning and Urban Design Agency Director), and Connie Tomasula (Urban Planner, City of Saint Louis Planning and Urban Design Agency). The project team held four (4) coordination and review meetings with the Client Group team throughout the course of the planning process for regular guidance and review of materials and work products.

PLANNING PROCESS

This planning process took place over the course of six months and involved regular interface between the Client Group and the Project Team. In addition, the Project Team met with an assembled Technical Advisory Committee (TAC) and conducted extensive public and stakeholder outreach. These efforts allowed the Project Team to collect a large amount of data and feedback from a wide cross-section of neighborhood residents, institutional and governmental staff, and community members. The public and stakeholder outreach initiatives have helped to enrich the recommendations of the study and have helped to build a broad base of consensus and support for the project.

TECHNICAL ADVISORY COMMITTEE (TAC)

The purpose of the Technical Advisory Committee was to provide directed guidance to the Planning Team and review of in-progress work, public engagement materials and initiatives, and public work products. The Technical Advisory Committee was comprised of representatives from key agencies and institutions involved in the Plan, including the Skinker DeBaliviere Community Council, West End Neighbors, Skinker DeBaliviere Community Housing Corporation, Washington University in St. Louis, Metro, the East-West Gateway Council of Governments, Citizens for Modern Transit, Great Rivers Greenway District, the Saint Louis Development Corporation, University City, and the City of Saint Louis. Refer to the Acknowledgements section on page two for a complete list. The Technical Advisory Committee was identified by the Client Group, with assistance from the Project Team, to serve as a representative cross-section of project partners and stakeholders for decision making and feedback. For presentations utilized during TAC Meetings, refer to page 1 and page 58 of Appendix A.

STAKEHOLDER INTERVIEWS

Additionally, the Client Group and the Project Team identified 14 key project stakeholders to be interviewed as part of the planning process. Stakeholders included residents of the Skinker DeBaliviere and West End neighborhoods; business and property owners; developers; City staff; Alderpersons; institutional representatives; non-governmental organizations; and other interested parties. These stakeholders were invited to speak with the Project Team in one-on-one, confidential work sessions. These stakeholder interviews were one of multiple key items that helped shape the Project Team's understanding of the station area, surrounding neighborhoods, transit use, and accessibility. While comments provided by the Stakeholders are confidential and not attributed to any particular individual, information collected is compiled in the *Consensus Issues* and *Project Assumptions*. A summary of major themes provided by stakeholders is provided on page 8 of Appendix B.

PUBLIC ENGAGEMENT

In addition to the regular meetings with the Client Group team and Technical Advisory Committee, the Project Team and Client conducted two Public Workshops. The purpose of these Workshops was to present the Plan deliverables to date and collect input and feedback from the attendees. The first Public Workshop was held on May 21, 2013 at Crossroads College Preparatory Academy. The second Public Workshop was held on July 23, 2013 at New Cote Brillante Church of God. Each Workshop began with a presentation by the Project Team outlining the current development of the Plan. This presentation lasted approximately 45 minutes. Following the presentation, attendees broke up into small groups to work hands-on with work boards that summarized the content of the presentation. Attendees were encouraged to draw their ideas on these work boards, which were collected by the Project Team for review and summation. This small group work session lasted about thirty-minutes and concluded with a public "report out" of key ideas from each of the small groups. Following each Workshop, the Project Team reviewed the comments selected and prepared summary documents for the Client. For presentations utilized during public meetings, refer to page 109 and page 156 of Appendix A.

To maximize community participation, Vector Communications conducted a public awareness and outreach campaign. The approach involved a comprehensive campaign that aimed to touch target audiences at least seven times. These exposures occurred through: social media marketing, direct mail, posters, phone calls, media relations, email marketing, online calendar posts and personal stakeholder invitations during interviews. A full report on the public outreach process is provided in Appendix B of this document.





2 | Project Background & Context



IMAGE OF HISTORIC ST. LOUIS

SAINT LOUIS AS A TRANSIT CITY

The historic settlement patterns of Saint Louis produced an urban fabric that makes for easy walkability and facilitates various forms of transit. Small blocks and tightly-knit residential neighborhoods are punctuated with numerous parks and street-corner commercial districts. Over the past century, the City's street grid has evolved with the introduction of boulevards, streetcar lines, and interstate highways. Despite these changes, the City has remained the nexus of transit in the greater Saint Louis region.

The great places that characterize Saint Louis today were the direct result of the City's historic transit systems. For decades, the City's many distinctive neighborhoods flourished as traditional streetcar suburbs. Residents commuted to jobs Downtown or in the northside industrial districts, but were able to accommodate their everyday needs close to home. While the last streetcar in the Saint Louis region ceased operation in 1966, residents today seem ready to re-embrace transit oriented development to support connectivity of all residents to jobs, homes, shopping, and parks.

THE POSITIVE IMPACTS OF TRANSIT ORIENTED DEVELOPMENT

In 1993, Metro began operating MetroLink, the region's first light rail system. Despite 20 years of service, MetroLink stations have not delivered on the potential of transit oriented development. Nevertheless, many of the neighborhoods retain a tight knit residential base, and shifting demographic trends have resulted in new demand for these communities. Now is the time to capitalize on this momentum to foster new development and sustainable infrastructure.

Transit oriented development is situated within walking distance of transit stations and is characterized by a mix of uses such as residential, entertainment, retail, and office. TOD brings increased density with multi-story, mixed-use buildings. TOD usually develops around light rail, which is perceived as a more permanent type of transit infrastructure than bus routes or other "rubber wheeled" modes of transit. This permanence tends to encourage large investments in development and facilitate more concentrated and compact development. Increased development density is more efficient, requiring fewer resources and less infrastructure per capita. This efficiency helps to preserve valuable land and resources.

Total trackage in 1881 was 119.6 miles; the companies owned 2,280 horses and mules and 496 cars, employed more than a thousand workers, and carried 19.6 million passengers.

James Neal Primm
Lion of the Valley

TOD can be attractive when it is part of a complete community...

Because of this efficiency, TOD is inherently more sustainable than other types of single-use and auto-dependent development. Transit oriented development has been shown to:

- **Increase land and property values** in the station area;
- **Improve access to employment** for all citizens of all income levels;
- **Reduce car trips** and greenhouse gas emissions;
- **Reduce costs** for infrastructure upkeep and construction;
- **Increase walkability** within the transit shed by bringing needed services to the station area;
- **Create opportunities for diverse housing** at the station area and within the transit shed;
- Assure developers, entrepreneurs, and residents that **transit service will be sustained**; and
- **Create a unique feature within the City** to attract residents, workers, and visitors.

TOD AS A TOOL FOR SUSTAINABILITY

The City of Saint Louis has adopted a comprehensive, triple-bottom-line approach to sustainability planning. The triple-bottom-line approach acknowledges the three pillars of sustainability—environmental stewardship, improved social equity, and increased economic development—as equal in their impact on allowing current generations to meet their needs while protecting the ability of future generations to do the same. Furthermore, it recognizes that when taken together, these three pillars can be leveraged to increase positive outcomes on multiple fronts. This is due to the fact that most sustainability initiatives occur in the sphere of cities. Regardless of their specific focus, these initiatives require some degree of investment of city funds. If one of the effects of the initiatives is to increase property values or stimulate economic activity, the tax base may increase enough to fully offset the cost of the initiative or beyond. In addition, an increase in property value improves the investment of individual residents, makes the community more desirable, and may lead to an increase in other investments, both public and private. This has the effect of increasing social equity by improving each individual resident’s “investment” in their community and its “return.”

A complete community is opportunity-rich; all people have access to quality housing, education, employment opportunities, open space and recreation, retail, places of worship, healthcare, and transportation. This is to encompass the needs for households with children, which may be overlooked in areas around transit planning.

Center for Transit-Oriented Development

COMPLETE COMMUNITIES ARE ATTRACTIVE TO FAMILIES WITH CHILDREN WHEN THEY OFFER:

- *A sense of community and “place” through investment in parks, libraries, and community events;*
- *A neighborhood where kids can run and bicycle on streets through investment in streetscape and bicycle and pedestrian improvements;*
- *Transit-accessible schools which are integrated into the community, rather than separate from it;*
- *Access to regional amenities such as zoos and large parks;*
- *Convenient access to daily shopping such as groceries, clothing, or school supplies; and*
- *Access to regional employment opportunities via high-quality transit*

THE BENEFITS OF COMPLETE COMMUNITIES FOR FAMILIES ARE BROAD AND INCLUDE:

- *Reduced spending on transportation by owning fewer cars and driving less;*
- *Reduced childhood obesity through increased physical activity;*
- *Reduced household stress through shorter commute times and more time for family activities; and*
- *Improved educational outcomes through access to stable housing and a range of supportive and enriching activities*

HUD-DOT-EPA Partnership for Sustainable Communities Livability Principles

- **Provide more transportation choices:** *Develop safe, reliable, and economical transportation choices to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions, and promote public health.*
- **Promote equitable, affordable housing:** *Expand location- and energy-efficient housing choices for people of all ages, incomes, races, and ethnicities to increase mobility and lower the combined cost of housing and transportation.*
- **Enhance economic competitiveness:** *Improve economic competitiveness through reliable and timely access to employment centers, educational opportunities, services and other basic needs by workers, as well as expanded business access to markets.*
- **Support existing communities:** *Target federal funding toward existing communities—through strategies like transit oriented, mixed-use development, and land recycling—to increase community revitalization and the efficiency of public works investments and safeguard rural landscapes.*
- **Coordinate and leverage federal policies and investment:** *Align federal policies and funding to remove barriers to collaboration, leverage funding, and increase the accountability and effectiveness of all levels of government to plan for future growth, including making smart energy choices such as locally generated renewable energy.*
- **Value communities and neighborhoods:** *Enhance the unique characteristics of all communities by investing in healthy, safe, and walkable neighborhoods—rural, urban, or suburban.*

This type of success can be illustrated with the development of public transit and transit oriented development. Through increased efficiency, mass transit lowers the per-capita carbon emissions when compared to transportation by car. This has a measurable impact on environmental sustainability. Regular use of public transit reduces annual transportation costs to households, which increases individual wealth. This increase in wealth can have a positive effect on both individual economic prosperity as well as social equity, because it enhances individual empowerment within a community. People will choose to live closer to convenient transit, increasing demand for housing, This spurs development, creates jobs, and encourages residents to support local businesses.

CURRENT PLANNING INITIATIVES & STUDIES

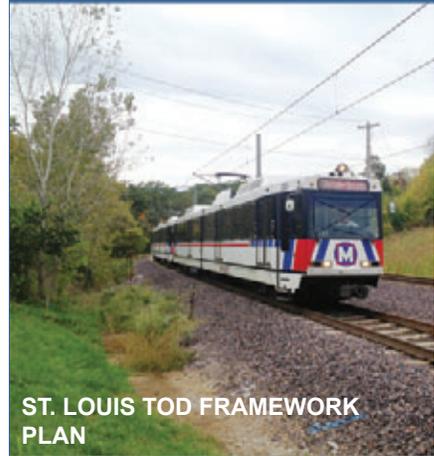
There are a number of existing plans and current planning initiatives in and around the Delmar Loop and Forest Park–DeBaliviere Study Area. These existing plans and planning efforts affect the future environment of transit oriented development in the Study Area. The Station Area Planning project coordinates with these plans to the extent possible. Current planning initiatives and studies include:

THE ST. LOUIS TRANSIT ORIENTED DEVELOPMENT (TOD) FRAMEWORK PLAN (2013)

Commissioned by East-West Gateway and Metro as part of the \$4.7 million OneSTL planning process, the St. Louis TOD Framework Plan establishes a strategies for smart growth around existing Metro stations. The Framework Plan includes station area typologies that are used to classify each MetroLink station based on ridership, population sheds, and adjacent land use patterns. The Framework Plan also examines the potential for economic development around each station and provides recommendations for the existing regulatory environment and public and private financing options.

THE CITY OF SAINT LOUIS SUSTAINABILITY PLAN (2013)

The City of Saint Louis spent two years collaboratively developing the City's first sustainability plan. During the planning process, the City learned from its stakeholders that they envision a "Sustainable City of Saint Louis" as being vibrant, progressive, prosperous, integrated, diverse, and a leader. They see these characteristics being built upon the solid foundation of the City's neigh-



ST. LOUIS TOD FRAMEWORK PLAN

borhoods; its rich architecture and built environment; a better connection with natural resources; and the talent, innovation, and knowledge of local industry, cultural organizations, and higher educational institutions. The City-wide plan includes hundreds of strategies to advance sustainability in the City and can be found at <http://www.stlouis-mo.gov/sustainability>. This Plan is designed to achieve the applicable goals of the City of Saint Louis Sustainability Plan.

THE LOOP TROLLEY (2011–PRESENT)

The Loop Trolley is an approximately 2.2 mile fixed-track streetcar that is planned to run from the University City lion gates (Delmar Boulevard and Trinity Boulevard) to the Missouri History Museum in Forest Park. The route will follow Delmar Boulevard to DeBaliviere Avenue with designated stops at the Delmar Loop and Forest Park–DeBaliviere MetroLink stations. The project is a partnership between Citizens for Modern Transit and Loop developer Joe Edwards, and is being funded by a \$25 million grant from the Federal Transit Administration and \$19 million of privately-raised funds. When completed, the Loop Trolley has the potential to serve as a local feeder for MetroLink. This will effectively increase the transit shed for each station on the Trolley route. This Plan assumes that the Loop Trolley will be constructed as planned to date.

SAINT VINCENT GREENWAY (2008–PRESENT)

The Saint Vincent Greenway, a project of Great Rivers Greenway, is a dual-use pathway that extends from Forest Park north to the campus of the University of Missouri–St. Louis (UMSL.) The greenway is comprised of both off-street trails and sidewalk alignments that parallel streets. Saint Vincent Greenway begins at the Missouri History Museum in Forest Park and travels north on DeBaliviere Avenue, running alongside the Loop Trolley alignment. At Delmar Boulevard, the greenway begins an off-street alignment north through Ruth Porter Park. The Saint Vincent Greenway will be transformative to the DeBaliviere Avenue streetscape, as well as significantly improving connectivity between Forest Park, the West End Neighborhood, Skinker DeBaliviere, and DeBaliviere Place. This Plan assumes that Saint Vincent Greenway will be constructed as planned to date.

Other Plans & Studies

- **Skinker DeBaliviere Urban Design & Development Plan (2012–Present):** *Commissioned by the Skinker DeBaliviere Community Council, this project encompasses the entire Skinker DeBaliviere neighborhood and includes both MetroLink Stations. This Plan is examining issues of connectivity, public space, development, and quality of life in the neighborhood, and will be coordinated with the final recommendations of the TOD Station Area Plan.*
- **Parkview Gardens Neighborhood Sustainable Development Plan (2011–Present):** *A project of University City and City of Saint Louis, this Plan was funded through a joint HUD-DOT Partnership for Sustainable Communities Grant. This cross-jurisdictional plan includes development recommendations, building envelope recommendations, and a neighborhood Sustainability Action Plan. The Parkview Gardens Neighborhood Sustainability Plan has already resulted in development projects, including a \$80 million, 600-bed mixed commercial/student housing complex and a new University City Fire Station.*
- **Delmar Loop Retail Study (2011):** *This study was commissioned by Washington University in St. Louis on behalf of the Delmar Loop Special Business District, East Loop Special Business District, and other stakeholders. The Delmar Loop Retail Study consists of a detailed retail and commercial market analysis, future retail market potential, tenancing strategies, and implementation recommendations. It was critical in shaping the Project Team’s understanding of the commercial market within the Study Area.*



INTERSECTION OF GOODFELLOW AND DELMAR BLVD.

CONTEXT CONDITIONS

The Delmar Loop and Forest Park–DeBaliviere Station Area is comprised of two separate MetroLink Stations—the Red Line Delmar Loop Station and the Red Line/Blue Line Forest Park–DeBaliviere Station. These stations are linked by the L-shaped, one-mile Delmar/DeBaliviere corridor. A third station, the Blue Line Skinker Station, is located immediately to the southwest. The Skinker Station was not included in this study because it is fully developed and does not possess any major TOD opportunities. These three stations are all within a half mile of one another with overlapping transit sheds.

The Station Area includes three residential neighborhoods: Skinker DeBaliviere, the West End, and DeBaliviere Place. It also includes Washington University in St. Louis' North Campus and portions of the Delmar Loop and Forest Park. It is situated between the region's premier commercial and entertainment main street and the region's premier park and cultural attraction. In terms of accessibility to amenities, this Station Area is the best-located and most transit-served place in the entire region. Despite these remarkable assets and 20 years of light rail transit service, neither the Delmar Loop or Forest Park–DeBaliviere Stations have yet delivered on the promise of transit oriented development.

KEY CHARACTERISTICS OF THE STATION AREA

- The Delmar Loop Station has 55,450 monthly boardings (June 2011-July 2012), which is the sixth highest among all stations. The Forest Park–DeBaliviere Station has 119,280 monthly boardings (June 2011-July 2012), the second highest among all stations;
- The station area is accessed by nine MetroBus lines;
- The station area contains one primary commercial corridor (Delmar Boulevard) and one secondary commercial corridor (DeBaliviere Avenue);
- The primary land use in the station area is single family residential;
- The station area contains numerous underutilized sites, including surface parking lots and blank facades. Despite these characteristics, many of these sites house viable businesses;
- The station area contains multiple, overlapping National Register historic districts, certified local historic districts, special assessment districts, and redevelopment areas;
- Neighborhoods south of Delmar Boulevard are stable; neighborhoods north of Delmar face challenges of vacancy, disinvestment, and negative perceptions of safety;
- There are 7,718 residents, 2,337 employees, and 321 vacant housing units within one-half mile of the two stations.

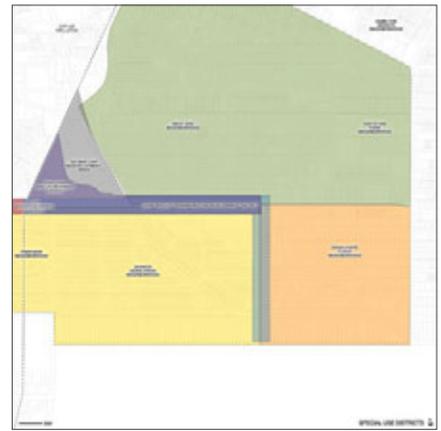
Transit Oriented Development promotes sustainable communities by providing people of all ages and incomes with improved access to transportation, diverse housing choices, and reduced transportation costs.



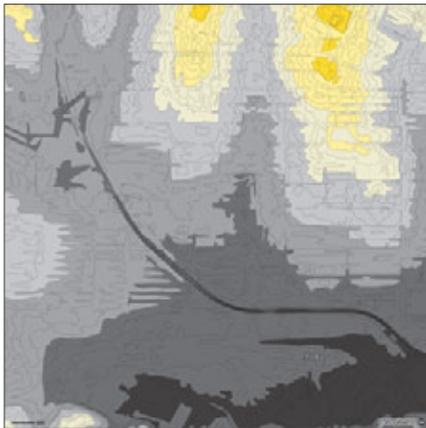
ZONING



LAND USE



SPECIAL USE DISTRICTS



TOPOGRAPHY



STREETS - STREET HIERARCHY



BLOCKS



BUILDINGS



METRO - BUS - TROLLEY



PARKS - OPEN SPACE



PARKING



SIDEWALKS

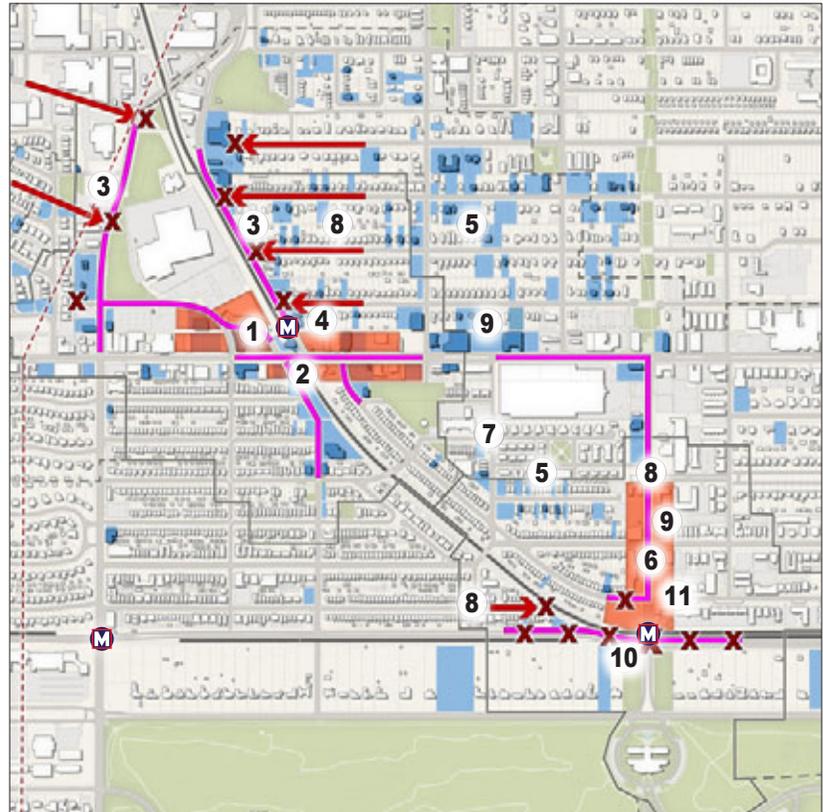


AMENITIES

DELMAR LOOP & FOREST PARK- DEBALIVIERE STATION AREA

CONSENSUS ISSUES

1. Development sites surrounding the Delmar MetroLink Station are small and constrained;
2. The entrance to Delmar MetroLink Station is not visible from Delmar Boulevard, making it less recognizable, accessible, and user-friendly;
3. There is poor pedestrian connectivity and infrastructure from the North and East of the Delmar MetroLink Station;
4. Current development is low density and is not the ideal model for Transit Oriented Development;
5. Large numbers of residential vacancies in some surrounding neighborhoods;
6. Lack of large, contiguous, or available development sites.



CONSENSUS ISSUES MAP

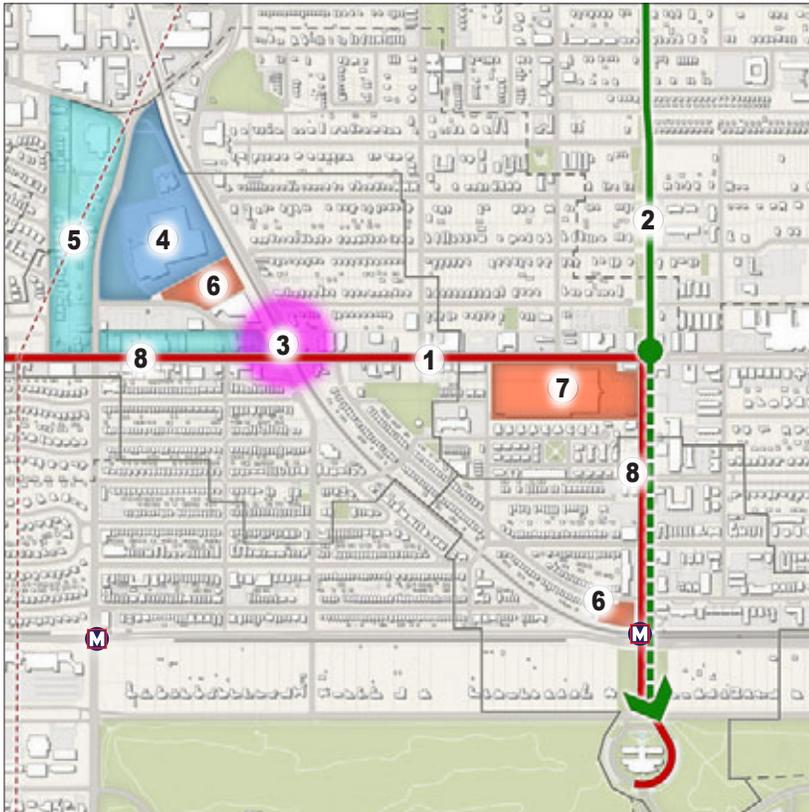
LEGEND

- VACANT BUILDINGS
- VACANT PARCELS
- POOR PEDESTRIAN FACILITIES AND INFRASTRUCTURE
- POOR PEDESTRIAN ACCESS
- SMALL CONSTRAINED DEVELOPMENT SITES

7. Existing zoning and parking requirements do not support increased density necessary for transit oriented development;
8. Poor pedestrian access from surrounding neighborhoods due to poor pedestrian facilities and unfavorable walking conditions;
9. Commercial vacancy and underutilization;
10. Forest Park Parkway creates a barrier between Forest Park and the station and neighborhoods;
11. There is a perceived lack of safety at the Forest Park-DeBaliviere Station.

DELMAR LOOP & FOREST PARK- DEBALIVIERE STATION AREA

PROJECT ASSUMPTIONS



PROJECT ASSUMPTIONS MAP

LEGEND

- █ LOOP TROLLEY
- █ SAINT VINCENT GREENWAY
- █ WASHINGTON UNIVERSITY NORTH CAMPUS
- █ NORTH SKINKER AND DELMAR BLVD. FUTURE DEVELOPMENT
- █ METRO-OWNED FUTURE DEVELOPMENT SITES
- █ DELMAR METROLINK STATION AREA

1. Loop Trolley will be constructed as planned;
2. Saint Vincent Greenway construction will be completed connecting Ruth Porter Mall to Forest Park;
3. The Wabash Station will become the main entrance to the Delmar MetroLink Station;
4. Washington University North Campus will be redeveloped over the next 20 years as a major TOD employment center;
5. North Skinker Boulevard will be redeveloped over the next 20 years with mixed use office, laboratory, and other buildings catalyzed or supported by Washington University in St. Louis;
6. The MetroLink park and ride lots at both the Delmar Loop Station and Forest Park-DeBaliviere Station will be redeveloped;
7. The Metro DeBaliviere Garage will be redeveloped over the 30 year timeframe of the Plan.
8. Gigabit internet access will be provided along the Loop Trolley route as part of the Loop Media Hub initiative.

Quarter Mile Transit Shed Characteristics

- Forest Park Parkway is a major pedestrian barrier.
- Forest Park is a major attraction that is served by transit
- The depressed MetroLink tracks bisect the transit shed and form a major barrier with only two crossing points.
- The Loop Trolley can help to improve the urban character of the area and create a more complete transit system.
- Washington University North Campus is a major opportunity for a transit oriented, mixed-use employment center.
- Population: **3,860**
- Employment: **1,176**
- Use Mix: **0.38**
- Transit Capture Rate: **15%**

Half Mile Transit Shed Characteristics

- Influenced more by the proximity to the station than by pedestrian conditions.
- Forest Park Parkway is a major pedestrian barrier.
- Forest Park is a major attraction that is served by transit
- The close proximity of the Skinker Station to the Delmar Loop and Forest Park–DeBaliviere Stations limits the size of the transit shed.
- Population: **7,718**
- Employment: **2,337**
- Use Mix: **0.30**
- Transit Capture Rate: **10%**

TRANSIT SHEDS

The neighborhoods, institutions, districts, and amenities that are part of the Delmar Loop and Forest Park–DeBaliviere Station Area are served by three MetroLink stations, located within a half mile of each other. This level of light rail access is unequalled in the region with the exception of Downtown Saint Louis.

As a general rule, the maximum distance that a person is likely to walk in order to ride transit is one half mile (a 10-minute walk). The ideal distance is one quarter of a mile (a 5-minute walk). These approximate walking distances are referred to as transit sheds. As a result of their proximity, the three MetroLink Stations that serve this area share one large transit shed.

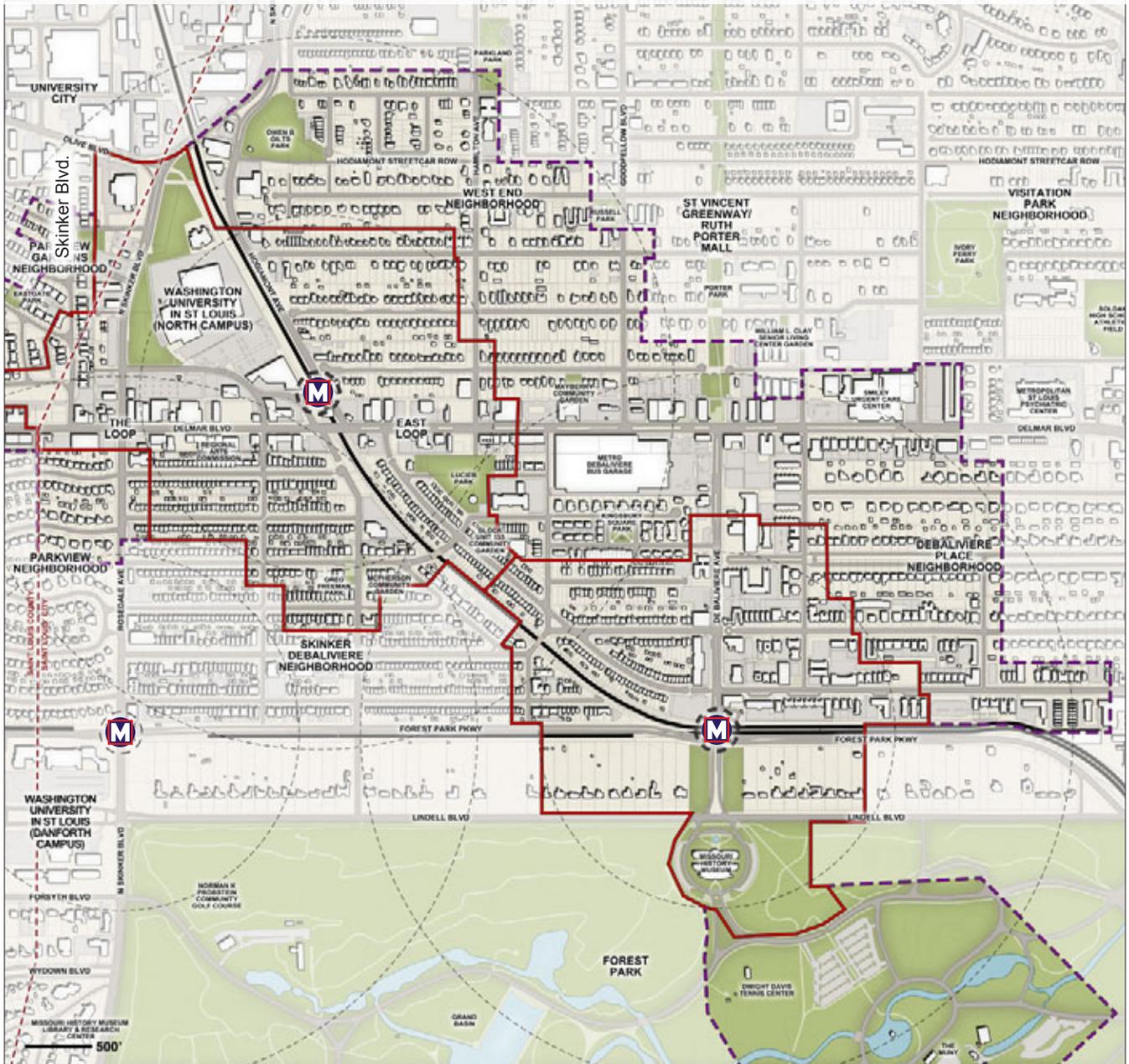
While transit sheds are typically defined “as the crow flies” with a simple radius, this does not provide an true representation of the transit capture area. In order to accurately predict transit capture rates and the positive effects of TOD, the transit sheds are modified based on accessibility (the street grid, quality of the urban environment, and barriers), concentrations of likely transit riders, and the influence of existing stations. For example, areas with poor street lighting or vacant buildings and surface parking can deter walkability if people do not feel comfortable on the street. This will drive transit users to other stations, particularly if other stations are available nearby. This can be seen at the Delmar Loop Station. Despite its close proximity to Des Peres Avenue and the numerous residences nearby, the quality of the surrounding urban environment is perceived as unpleasant and unsafe. Therefore, residents of the Skinker DeBaliviere neighborhood will often walk twice as far or more to the Skinker Station, which is surrounded by a high-quality urban environment and walkable, pedestrian oriented storefronts.

The proximity to the station and the particular challenges also influence the capture rates for the station area. Capture rates are defined as the percentage of workers and residents expected to use a particular station to access transit. These rates vary based on the mode of transit, density of the surrounding areas, and ease of access to the station. They are primarily a function of distance from the proposed station, but they are also influenced by connectivity, safety & quality of the walking environment. The quarter mile and half mile transit sheds and capture rates (which are illustrated on the following page and described in detail in the sidebar) have been modified based on the unique accessibility and access challenges for each particular station. Of special note are the fact that the quarter mile sheds for each station connect along DeGiverville Avenue, because DeGiverville Avenue provides a direct link between the two stations; and the fact that the sheds do not extend to the southwest because that area is part of the adjacent Skinker Station quarter mile and half mile transit sheds.

EXISTING STATION AREA CONTEXT PLAN SHOWING TRANSIT SHEDS

LEGEND

- QUARTER MILE TRANSIT SHED
- HALF MILE TRANSIT SHED





3 | Station Area Plan



STATION AREA PLAN

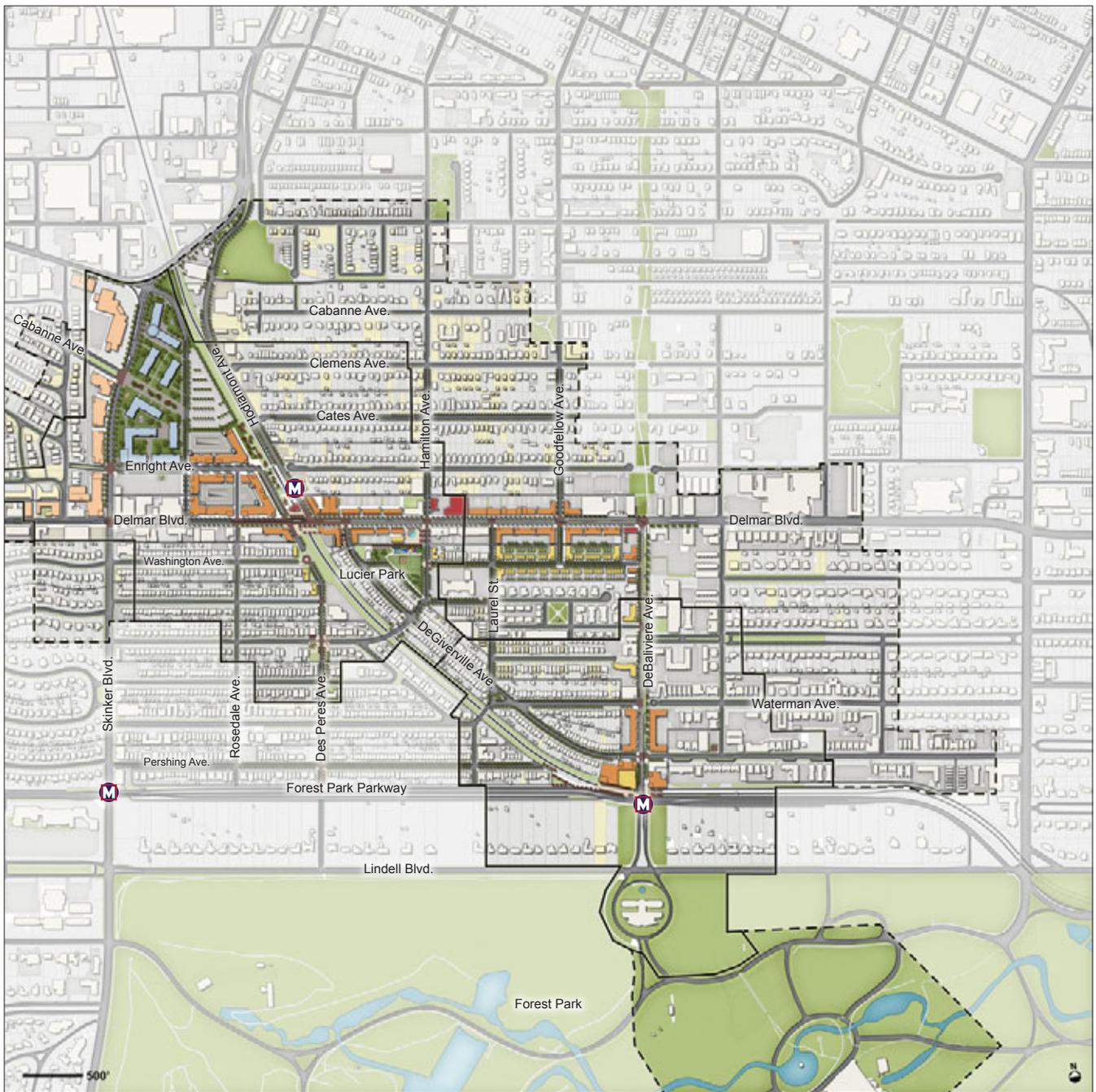
The Delmar Loop and Forest Park–DeBaliviere Station Area Plan establishes a vibrant, mixed-use transit corridor linking the two MetroLink Stations. In addition to creating a linear corridor along Delmar Boulevard and DeBaliviere Avenue, the plan envisions these two key commercial streets—which today function as the “back door” to the adjacent neighborhoods—as newly-revitalized “Main Streets” supporting a transit oriented residential district. The plan utilizes a strategy of identifying key redevelopment anchors, focusing infill development around existing amenities, and restoring the station area’s urban street grid. This strategy recreates the walkable relationship between the corridor and the surrounding neighborhoods, restoring the Delmar Boulevard and DeBaliviere Avenue to their historic grandeur.

The Plan establishes three key anchors on existing redevelopment sites. The **Delmar Loop Station** is redeveloped with a mix of primary retail, neighborhood services, office space, and new residences. These surround a rehabbed Wabash Station House that serves as the main entrance to the Delmar Loop Station. This new development anchors the East Loop and is supported by the revised street alignment and block structure north of Delmar and west of the MetroLink tracks, and the adjacent future redevelopment opportunity of Washington University’s North Campus. The Delmar Loop Station improvements are described in detail on pages 52-53.

The **Forest Park–DeBaliviere Station** encompasses the only available redevelopment sites in the station area overlooking Forest Park. To take advantage of this location, mixed-use and high-rise residential development surround a new transit plaza that spans a portion of the depressed MetroLink right-of-way. This new development and transit plaza provides the station area with necessary vibrance and makes key improvements to adjacent public space. These improvements will enhance the safety, comfort, and pedestrian access of the Forest Park–DeBaliviere Station, making it a true asset to neighboring residents. These station improvements are described in detail on pages 56-57.

Finally, the **Metro DeBaliviere Garage** is redeveloped as a residential and mixed-use part of the Skinker DeBaliviere neighborhood. The Plan recreates the historic street grid, extending Washington Avenue east to DeBaliviere and Goodfellow Avenue south to Washington. This redevelopment anchors the corridor and redefines the corner at Delmar and DeBaliviere. These improvements are described in detail on pages 60-61. These three anchor developments establish the key extents of the station area and facilitate infill of the rest of the corridor. They are supported by key public realm improvements, including streetscapes, the Loop Trolley, Saint Vincent Greenway, and Lucier Park to create a vibrant transit oriented and truly car-optional neighborhood.

The Station Area Plan recreates the walkable relationship between the corridor and the surrounding neighborhoods, restoring the Delmar Boulevard and DeBaliviere Avenue to their historic grandeur.



STATION AREA PLAN

LEGEND

- EXISTING BUILDINGS
- NEW MIXED USE BUILDINGS
- NEW RESIDENTIAL BUILDINGS
- REDEVELOPED RETAIL/COMMERCIAL BUILDINGS
- WASHINGTON UNIVERSITY NORTH CAMPUS BUILDINGS (not included in development program)
- NORTH SKINKER MIXED USE DEVELOPMENT (not included in development program)
- PARKING
- PARKS
- OPEN SPACE
- NEW SIGNATURE INTERSECTION
- NEW PLAZA
- QUARTER MILE TRANSIT SHED
- HALF MILE TRANSIT SHED

Proposed Development Program:

- Residential Rehab and Infill: 320 Units
- Residential: 1,750 Units (1,050 S.F./Unit)
- Affordable Housing: 600 units (1,000 S.F./Unit)
- Retail: 65,000 S.F.
- Office: 55,000 S.F.
- Structured Public Parking: 500 Spaces at Delmar Loop Station
- Structured Private Parking: 500 Spaces at Delmar Loop Station
- Parks & Plazas: 136,140 S.F.
- Building Heights: 3 to 12 Stories (See pages 112-140 for Range)

AERIAL PERSPECTIVE VIEW OF THE STATION AREA (LOOKING SOUTHEAST)



EXISTING VIEW



PROPOSED VIEW

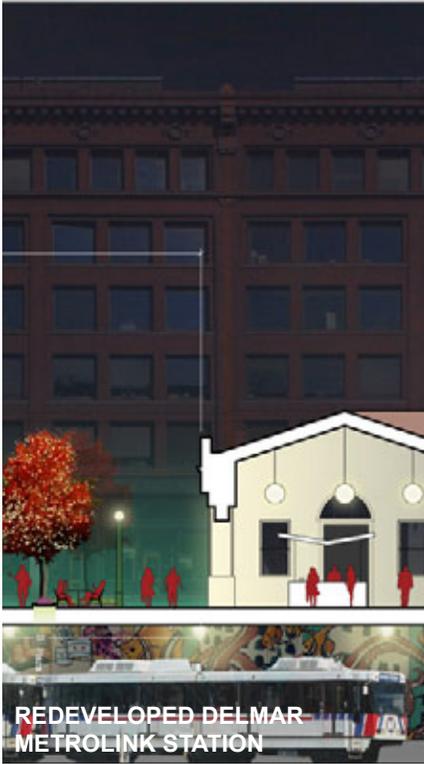
AERIAL PERSPECTIVE VIEW OF THE STATION AREA (LOOKING NORTHWEST)



EXISTING VIEW



PROPOSED VIEW

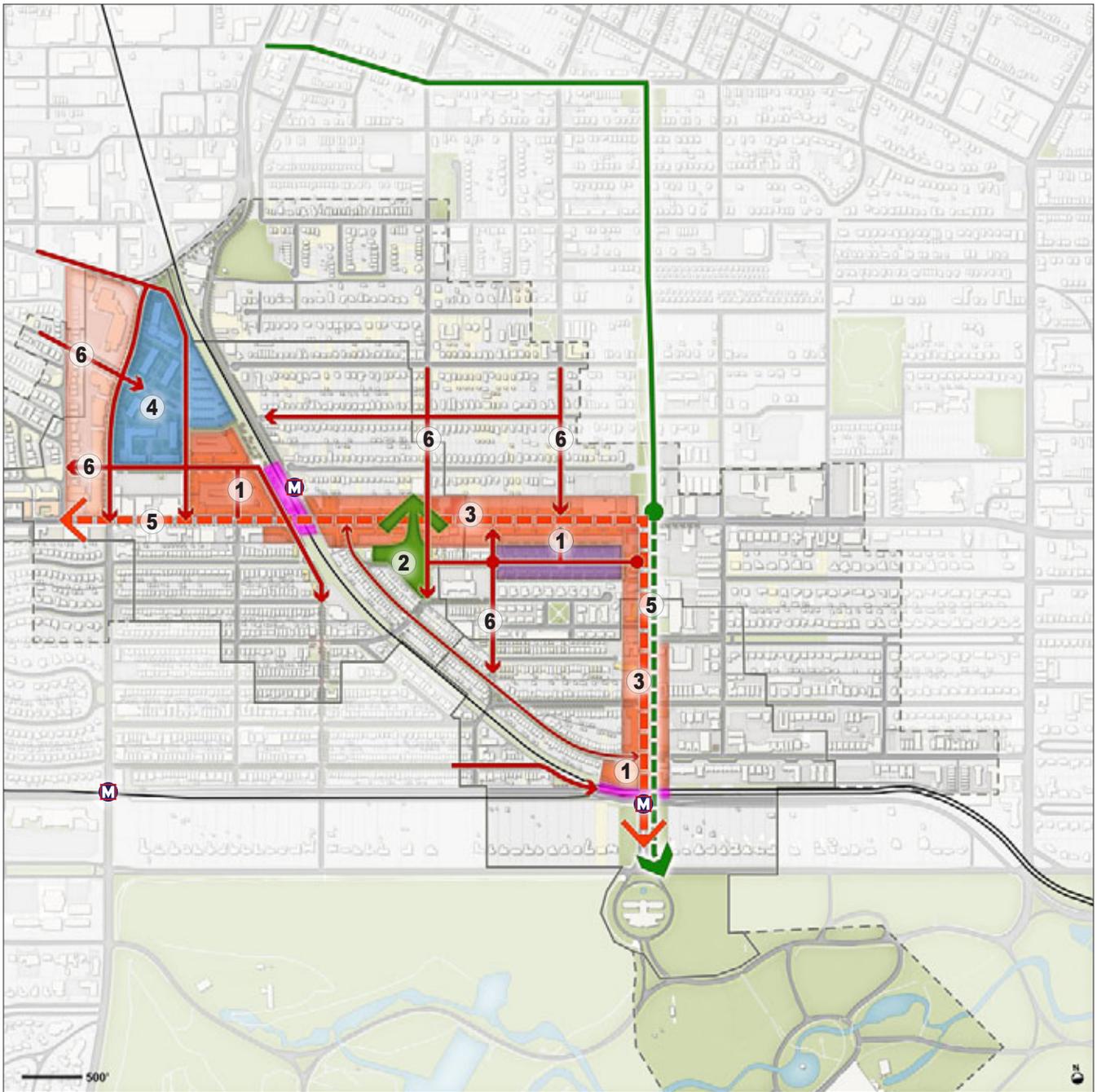


DELMAR LOOP & FOREST PARK– DEBALIVIERE DEVELOPMENT FRAMEWORK

The Development Framework for the Delmar Loop and Forest Park–DeBaliviere Station Area aims to establish a coherent, vibrant, mixed-use corridor along Delmar Boulevard and DeBaliviere Avenue, connecting existing assets and new opportunities. Today, the Delmar–DeBaliviere corridor acts as a barrier between its three adjacent neighborhoods—a vehicular-centric no-man’s land that divides rather than unites the heart of a diverse and vibrant community. A revitalized transit corridor will function as a seam that integrates Skinker DeBaliviere, the West End, and DeBaliviere Place. It will book-end and extend the Delmar Loop, providing a major catalyst for new market opportunities and the continued revitalization of the surrounding neighborhoods. The Development Framework includes the following elements:

A revitalized transit corridor will function as a seam that integrates Skinker DeBaliviere, the West End, and DeBaliviere Place. It will book-end and extend the Delmar Loop, providing a major catalyst for new market opportunities and the continued revitalization of the surrounding neighborhoods.

- 1. DEFINE THE CORRIDOR WITH KEY ANCHOR DEVELOPMENT:** By utilizing major redevelopment opportunities at the Delmar Loop Station, Forest Park–DeBaliviere Station, and Metro DeBaliviere Garage, the transit corridor can be established with major amenities that serve both the surrounding neighborhoods and the region as a whole.
- 2. CONNECT LUCIER PARK:** By extending Lucier Park north to Delmar Boulevard, the park can become an amenity for the corridor, the West End, and Skinker DeBaliviere serving as a catalyst for new surrounding development.
- 3. INFILL THE CORRIDOR:** Once the corridor anchors are established, infill the Delmar Boulevard and DeBaliviere Avenue transit corridor with new mixed use development. This will enhance the activity and vibrance of the area and create a new seam that links the adjacent neighborhoods together.
- 4. SUPPORT THE REDEVELOPMENT OF NORTH CAMPUS:** Washington University North Campus is a major opportunity for a transit oriented employment center and will catalyze new market opportunities and supporting development.
- 5. LEVERAGE THE LOOP TROLLEY AND SAINT VINCENT GREENWAY:** The Loop Trolley and Saint Vincent Greenway are funded initiatives that will have major positive impacts on the public realm and vitality of Delmar Boulevard and DeBaliviere Avenue. Leverage these projects to incentivize development of the transit corridor.
- 6. ENHANCE CONNECTIVITY TO SURROUNDING NEIGHBORHOODS:** By improving the safety, beauty, and public realm of existing streets and bicycle and pedestrian connections, the transit corridor can function as a major amenity for the revitalization of adjacent neighborhoods.



DEVELOPMENT FRAMEWORK PLAN

LEGEND

- MIXED USE DEVELOPMENT AREA
- METROLINK STATIONS
- WASHINGTON UNIVERSITY NORTH CAMPUS
- NORTH SKINKER DEVELOPMENT
- RESIDENTIAL DEVELOPMENT AREA
- NEW AND IMPROVED STREETS
- LOOP TROLLEY
- LUCIER PARK
- EXISTING SAINT VINCENT GREENWAY
- FUTURE SAINT VINCENT GREENWAY
- METROLINK
- QUARTER MILE TRANSIT SHED
- HALF MILE TRANSIT SHED



VIEW OF GOODFELLOW AT REDEVELOPED METRO GARAGE

URBAN DESIGN & PLANNING

The following urban design and planning strategies define the Station Area Plan for Delmar Loop and Forest Park–DeBaliviere Stations:

INCREASED INTENSITIES OF RESIDENTS AND EMPLOYEES: The Station Area Plan should increase ridership and area density by adding a critical mass of new residents and workers in the area. These will be associated with development opportunities at the Delmar Loop Station, Forest Park–DeBaliviere Station, and Metro Garage, as well as incremental infill development of vacancies in the surrounding neighborhoods.

USE MIX REFLECTING A FINE GRAIN, DIVERSE BLEND OF LAND-USES: The Station Area Plan focuses primarily on the addition of new and renovated residential units (2,670), with an affordable housing target of 20%. These are supported by 65,000 square feet of new retail storefronts and 55,000 square feet of new office space. Please refer to page 49 for further details.

URBAN FORM & QUALITY: The Station Area Plan should build on the existing character of the East Loop, Skinker DeBaliviere, West End, and DeBaliviere Place neighborhoods by introducing compatible new development with heights and forms that restore the former grandeur of Delmar and DeBaliviere as walkable, neighborhood-supported commercial corridors. Furthermore, the Station Area Plan should build on the existing assets of the surrounding neighborhoods by utilizing building types and material qualities compatible with the characteristics of the early twentieth century brick structures, streets, and public spaces. This approach will establish a coherent image for the corridor and neighborhoods with unique character and a comfortable sense of place.

CONNECTIVITY: The Station Area Plan should enhance vehicular and pedestrian connectivity along Delmar Boulevard and DeBaliviere Avenue as well as provide an improved level of connectivity for pedestrians and bicycles between the Delmar–DeBaliviere corridor, MetroLink Stations, and the surrounding neighborhoods. Access and circulation should be coordinated with MetroBus, the Loop Trolley, and parking facilities in order to provide for efficient and intelligible circulation throughout the Station Area.

PARKING STRATEGY: While this is a TOD plan, the Station Area Plan should provide sufficient parking for new development while ensuring that proposed parking and parking requirements do not limit development or adversely affect urban character. Proposed parking should be located in shared-use garages on the interiors of blocks to conceal it from the street to the greatest extent possible. Please refer to pages 106-107 for further details.

<i>Intensities of Residents & Employees</i>	<i>Use Mix Reflecting a Fine Grain & Diversity</i>	<i>Urban Form & Quality</i>	<i>Connectivity</i>	<i>Parking Strategy</i>	<i>Other Highly Desirable Features</i>
++	++	++	++	++	++
++	++	++	++	++	++
++	++	++	++	++	++
+	+	+	+	+	+

PERSPECTIVE VIEW OF LUCIER PARK AT THE CORNER OF HAMILTON AVENUE AND DELMAR BOULEVARD



EXISTING VIEW



PROPOSED VIEW



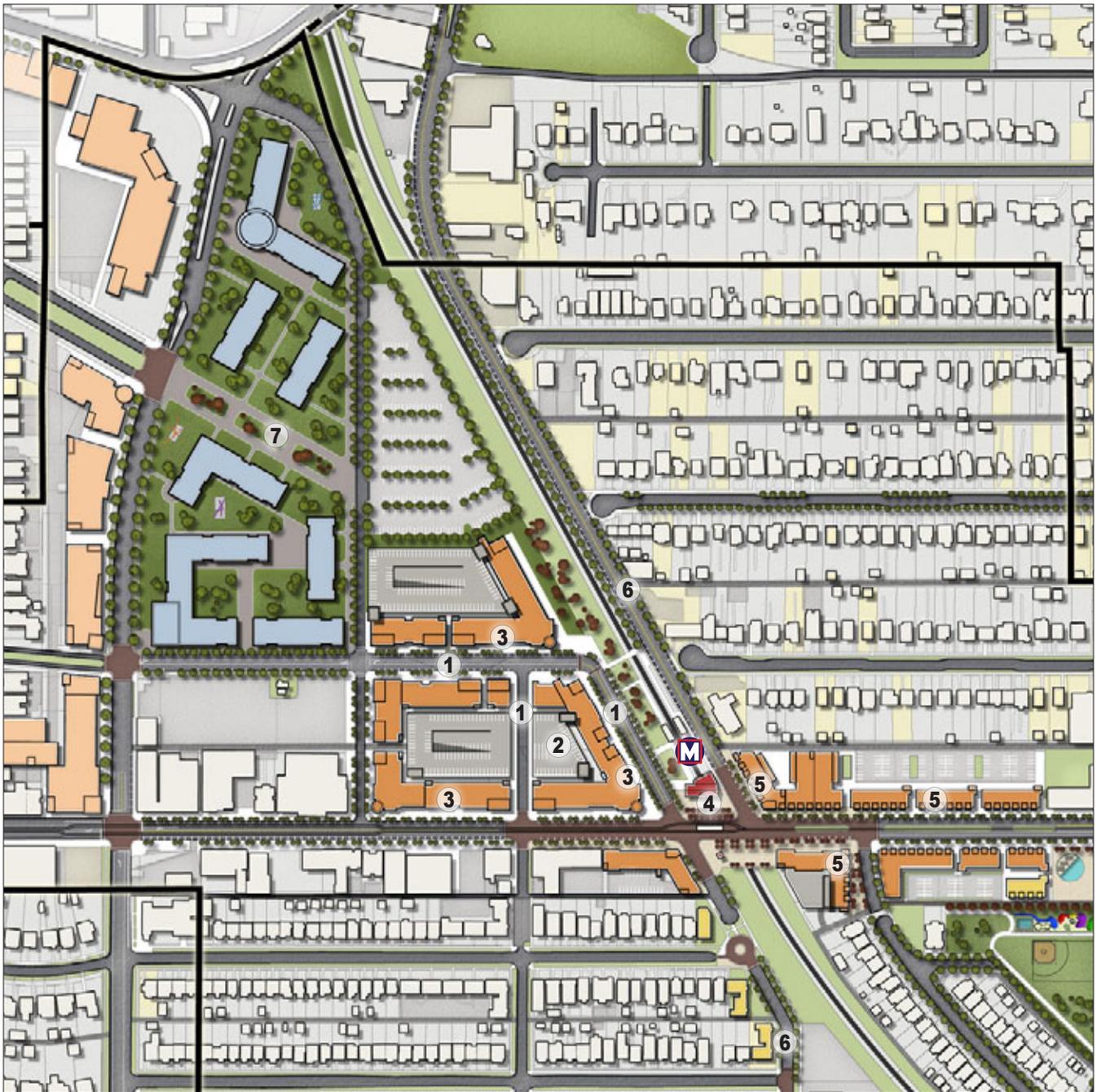
DELMAR LOOP STATION AREA

The Delmar Loop Station Area has the greatest development potential and access to surrounding amenities of any place within the Study Area. It is just beyond the extent of current East Loop development, but is walkable from the both the Delmar Loop in University City—designated one of America’s Great Streets by the American Planning Association—and the East Loop. It is also the major multi-modal bus transfer point in the area, serving five MetroBus Lines (#02 Red Line, Green Line Shuttle, #16 City Limits, #91 Olive, and #97 Delmar). Finally, it is within walking distance of Washington University’s North Campus, which has the potential to become a major TOD employment center. The Delmar Station also provides easy, walkable access from the residential neighborhoods of Skinker DeBaliviere, the West End, and Parkview Gardens in University City. This accessibility and development potential classifies the Delmar Loop Station as Major Urban Center in the TOD Framework Plan.

In order to realize this potential, there are a number of issues that must be addressed. The existing street pattern results in small and oddly-shaped development sites, particularly north of Delmar and west of Hodiament. There are significant issues of pedestrian comfort and safety which must be improved if the station is to become a walkable destination. There are also problems with vehicular circulation and access to the Delmar Loop Station. Finally, the Station is not easily visible or accessible from Delmar Boulevard itself. The Delmar Loop Station Area plan includes the following recommendations:

1. **Realign Des Peres Avenue and Rosedale Avenue north of Delmar** to create two larger, rectilinear development blocks. Work with property owners and development partners to acquire and assemble existing parcels on the open market;
2. **Develop a shared-use parking garage and multi-modal bus transfer facility.** The parking garage should include Park-and-Ride Spaces with an internal bus transfer facility on the ground floor;
3. **New, five to eight (5 to 8) story mixed-use development** along Des Peres Avenue, Rosedale Avenue, and Delmar Boulevard west of Hodiament;
4. **Redevelop the Wabash Station House** as main entrance to the Delmar Loop MetroLink station. Provide a kiss-and-ride drop-off and station access on each side of Delmar Boulevard;
5. **New three to eight (3 to 8) story development** along Delmar Boulevard between Hodiament and Hamilton Avenue;
6. **Infill vacant properties and improve streetscape and pedestrian facilities** on Des Peres Avenue and Hodiament Avenue;
7. **Support the future development of North Campus** and North Skinker Boulevard.

The Delmar Loop Station Area has the greatest development potential and access to surrounding amenities of any place within the Study Area.



DELMAR STATION AREA PLAN

LEGEND

- EXISTING BUILDINGS
- NEW MIXED USE BUILDINGS
- NEW RESIDENTIAL BUILDINGS
- REDEVELOPED RETAIL/COMMERCIAL BUILDINGS
- WASHINGTON UNIVERSITY NORTH CAMPUS BUILDINGS
- NORTH SKINKER MIXED USE DEVELOPMENT
- PARKING
- PARKS
- OPEN SPACE
- QUARTER MILE TRANSIT SHED
- HALF MILE TRANSIT SHED

**AERIAL PERSPECTIVE VIEW OF THE
DELMAR LOOP METROLINK STATION (LOOKING NORTHWEST)**



EXISTING VIEW



PROPOSED VIEW

**PERSPECTIVE VIEW OF THE
DELMAR LOOP METROLINK STATION**



EXISTING VIEW



PROPOSED VIEW



**VIEW OF FOREST PARK–
DEBALIVIERE STATION LOOKING
NORTH FROM FOREST PARK**

FOREST PARK–DEBALIVIERE STATION AREA

The Forest Park–DeBaliviere Station possesses few large redevelopment opportunities. Parcels surrounding the station are small and constrained by adjacent residential development in established, stable neighborhoods. Properties between Waterman Boulevard and Pershing are underdeveloped and currently face issues of tenancing and deferred maintenance. The greatest opportunities for new mixed-use development are the two Metro-owned properties immediately adjacent to the station. These include a 118-space Park-and-Ride Lot on the west side of DeBaliviere and a kiss-and-ride drop-off on the east side of the street. Given the smaller scale of current and prospective development around the station, the Forest Park–DeBaliviere station is classified as a Neighborhood Station in the TOD Framework Plan.

Despite the limited development area available, the value of the two Metro-owned lots cannot be overstated. These are the only two readily-available development sites in the City that overlook Forest Park. Since the Forest Park–DeBaliviere Station is the intersection of the Red and Blue Lines, any development at this station will have easy access to any place in the region served by MetroLink. The major issues with development at this station involve poor pedestrian accessibility and a lack of public safety enforcement. This results in a kind of “no man’s land” immediately outside the station entrance, which creates negative perceptions of safety. The Forest Park–DeBaliviere Station Area plan includes the following recommendations:

Despite the limited development area available, the value of the two Metro-owned lots cannot be overstated. These are the only two readily-available development sites in the station area that overlook Forest Park.

1. **Redevelop the Metro Park-and-Ride Lot** with a new mixed-use development. Include a three (3) story podium with ground-level commercial, upper floor residential units, and internal structured parking. Construct an eight to twelve (8 to 12) story residential tower at the corner of DeBaliviere and Forest Park Parkway;
2. **Redevelop the Metro Kiss-and-Ride drop-off** with a new mixed-use building of five to eight (5 to 8) stories;
3. **Redevelop the existing strip mall and facing properties** along DeBaliviere between Waterman Boulevard and Pershing Avenue with new, three to eight (3 to 8) story development oriented to the sidewalk;
4. **Build a new transit plaza** north of Forest Park Parkway at the intersection of Forest Park Parkway and DeBaliviere Avenue. This transit plaza should cap a portion of the depressed MetroLink right-of-way. Provide a kiss-and-ride drop-off, bus drop-off, and pedestrian station access on each side of DeBaliviere Avenue;
5. **Improve pedestrian crossings** at DeBaliviere Avenue and Forest Park Parkway;
6. **Build a pedestrian connection** between the transit plaza and the east end of Pershing Avenue;
7. **Implement** the Loop Trolley and Saint Vincent Greenway improvements.



FOREST PARK / DEBALIVIERE STATION AREA PLAN

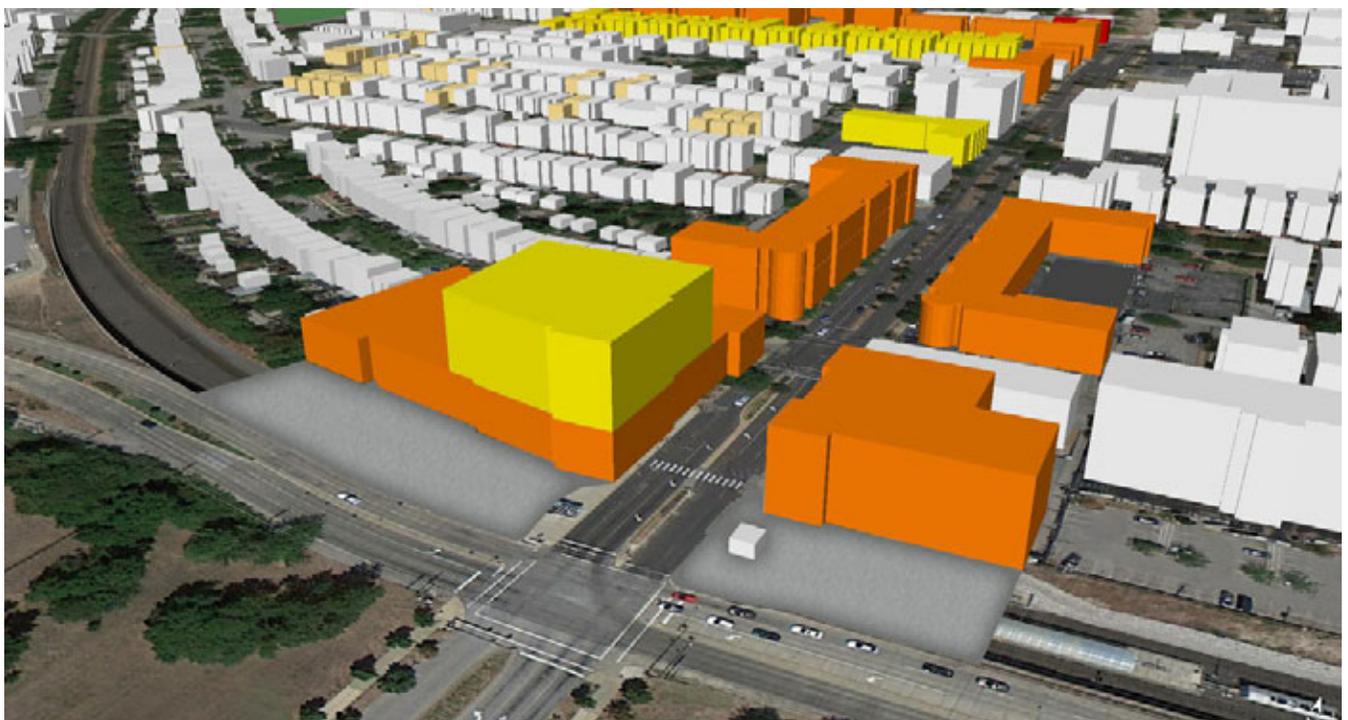
LEGEND

- EXISTING BUILDINGS
- NEW MIXED USE BUILDINGS
- NEW RESIDENTIAL BUILDINGS
- REDEVELOPED RETAIL/COMMERCIAL BUILDINGS
- WASHINGTON UNIVERSITY NORTH CAMPUS BUILDINGS
- NORTH SKINKER MIXED USE DEVELOPMENT
- PARKING
- PARKS
- OPEN SPACE
- QUARTER MILE TRANSIT SHED
- HALF MILE TRANSIT SHED

AERIAL PERSPECTIVE VIEW OF THE FOREST PARK-DEBALIVIERE METROLINK STATION (LOOKING NORTHWEST)



EXISTING VIEW



PROPOSED VIEW

**PERSPECTIVE VIEW OF THE FOREST PARK-DEBALIVIERE
METROLINK STATION (LOOKING NORTHWEST)**



EXISTING VIEW



PROPOSED VIEW



VIEW OF INTO NEW ENTRY PLAZA OF LUCIER PARK AT HAMILTON AND DELMAR

DELMAR–DEBALIVIERE CORRIDOR

The Metro DeBaliviere Garage is the largest single redevelopment opportunity in the Station Area. While this facility has been a stabilizing force in the neighborhood over the past two decades, its blank façades do not support a vibrant street life on Delmar or DeBaliviere. It is acknowledged that this development is a medium- to long-term prospect and poses certain difficulties. However, if this site is redeveloped as an integral part of the corridor and surrounding neighborhoods, it will provide a critical development anchor and catalyst on Delmar. More importantly, it will allow the proposed transit corridor to effectively “turn the corner” onto DeBaliviere Avenue. Recommendations include:

1. **Reconnect the existing street grid** by extending Washington Avenue east to DeBaliviere, and extending Goodfellow Boulevard south to Washington Avenue;
2. **Develop new, three to five (3 to 5) story mixed use buildings** along Delmar Boulevard;
3. **Develop new, two to three (2 to 3) story multi-family residential buildings** and attached rowhouses along Washington Avenue;
4. **Redevelop the former Delmar High School building** as the new Loop Trolley Barn;
5. **Extend the Delmar Boulevard “road diet”** from Hodiamont east to Goodfellow Boulevard by removing the outer travel lanes and installing wider sidewalks to leave two (2) travel lanes and two (2) parking lanes;
6. **Provide access to Lucier Park from Delmar Boulevard** by creating a new entrance plaza at 5900 to 5914 Delmar Boulevard;
7. **Create a new public edge to Lucier Park** by extending Hamilton Avenue south to Westminster Avenue and extending Washington Avenue east to Hamilton Avenue (subject to City of Saint Louis Charter, Article XXVI; more information is provided in the paragraph below);
8. **Implement** the Loop Trolley and Saint Vincent Greenway improvements.

LUCIER PARK ALTERNATIVE OPTION

An alternative proposal to improve Lucier Park is presented on the facing page. While the aforementioned recommendation provides access to the park from Delmar, it does not address the fact that the southwestern edge of the park faces an alley behind residential properties. The alternative option creates a square park that is surrounded by public frontages on all four sides. In addition, it makes the parcel at 517 to 535 Hamilton Avenue a new residential development site facing the park. In order to achieve this plan, however, parcels along Delmar Boulevard must be purchased and held by some entity in preparation for development of the new park. In addition, this plan is subject to the requirements of the Parks Protection Charter Amendment, City of Saint Louis Charter, Article XXVI. Approved by City of Saint Louis voters in 2006, Article XXVI states that “any real estate, now or hereafter owned by the City” that is used as a public park may not sold or otherwise redeveloped for non-park uses unless the sale or redevelopment is approved by a majority of voters in a city-wide ballot initiative.

If this site is redeveloped as an integral part of the corridor and surrounding neighborhoods, it will provide a critical development anchor and catalyst on Delmar.



**DELMAR DEBALIVIERE
CORRIDOR AREA PLAN**

LEGEND

- EXISTING BUILDINGS
- NEW MIXED USE BUILDINGS
- NEW RESIDENTIAL BUILDINGS
- REDEVELOPED RETAIL/COMMERCIAL BUILDINGS
- WASHINGTON UNIVERSITY NORTH CAMPUS BUILDINGS
- NORTH SKINKER MIXED USE DEVELOPMENT
- PARKING
- PARKS
- OPEN SPACE
- QUARTER MILE TRANSIT SHED
- HALF MILE TRANSIT SHED



LUCIER PARK ALTERNATIVE OPTION

AERIAL PERSPECTIVE VIEW OF THE METRO BUS MAINTENANCE GARAGE (LOOKING SOUTHWEST)



EXISTING VIEW



PROPOSED VIEW

**PERSPECTIVE VIEW OF THE METRO BUS MAINTENANCE GARAGE
(FROM GOODFELLOW LOOKING SOUTH)**



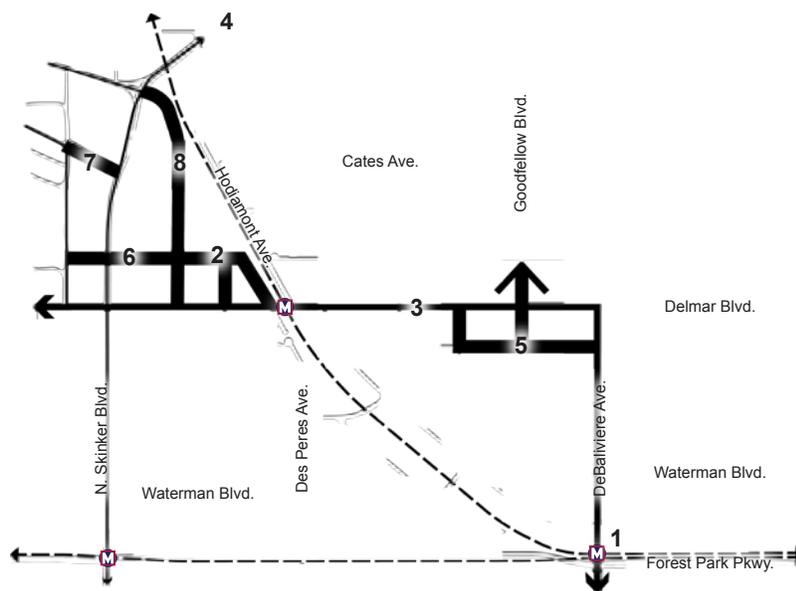
EXISTING VIEW



PROPOSED VIEW

TRANSPORTATION CONNECTIVITY IMPROVEMENTS

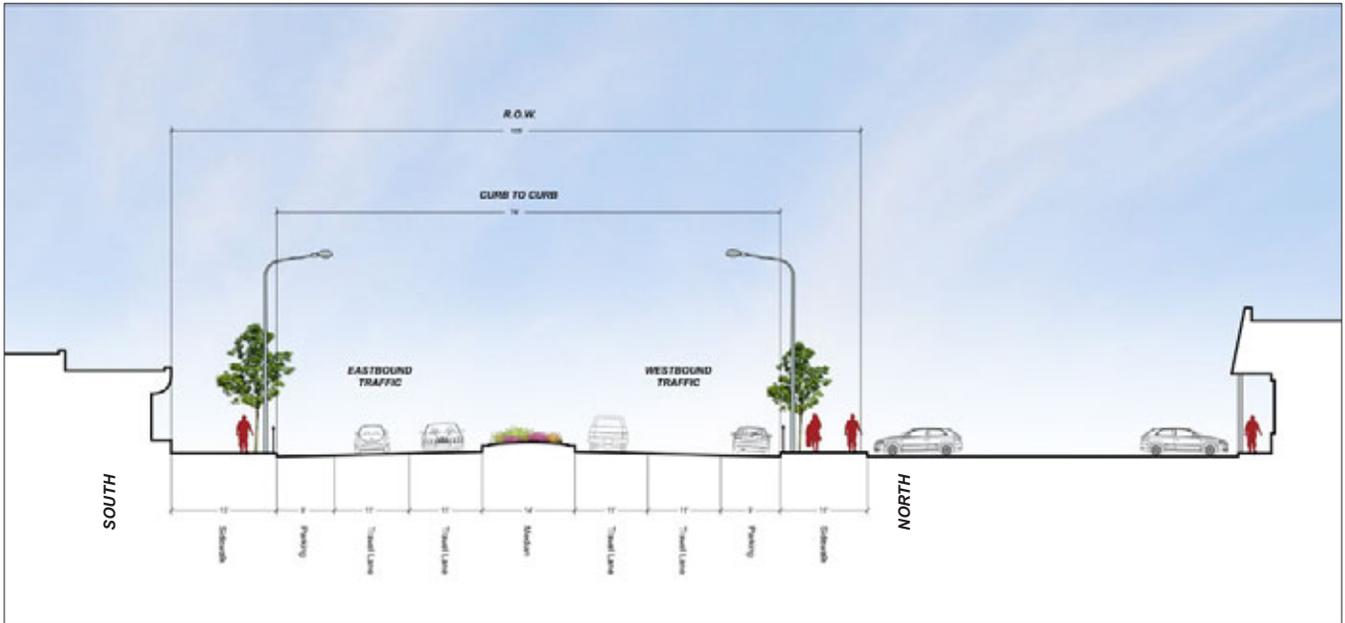
1. Remove the bus roundabout at the Forest Park–DeBaliviere Station and use the curb lane or proposed trolley station as a bus stop. This station currently serves only two bus routes, Gold #1 and Hampton #90. Bus facilities should be integrated into the new streetscape along with the proposed Loop Trolley and Saint Vincent Greenway improvements;
2. Maintain the existing bus transfer center at the Delmar Station or incorporate a similar facility into future development, keeping all existing routes that serve this station. Reroute bus transfer to utilize a kiss-and-ride system on Delmar Boulevard. Refer to *Implementation* for additional details;
3. In conjunction with the proposed Loop Trolley, institute a road diet along Delmar Boulevard between Goodfellow Boulevard and the MetroLink station that matches current conditions west of the MetroLink station. Current and projected traffic volumes support the elimination of one travel lane in each direction. The roadway could remain two lanes in each direction between Goodfellow and DeBaliviere to maintain traffic flow between the West End neighborhood and Forest Park Parkway via DeBaliviere;
4. Improve the intersection of Hodiamont Avenue and Skinker Parkway with pedestrian facilities and a roundabout.
5. Restore the street grid on the DeBaliviere Metro Garage by: extending Washington Boulevard east to DeBaliviere Avenue; extending Goodfellow Boulevard south to Washington Boulevard; and make Laurel Street 2-way between Delmar Boulevard and Washington Boulevard.
6. Realign Enright Avenue and extend Enright Avenue west to Eastgate Avenue.
7. Realign Cates Avenue and extend Cates Avenue east to N. Skinker Boulevard.
8. Extend Olive Boulevard southeast into future development of Washington University North Campus.



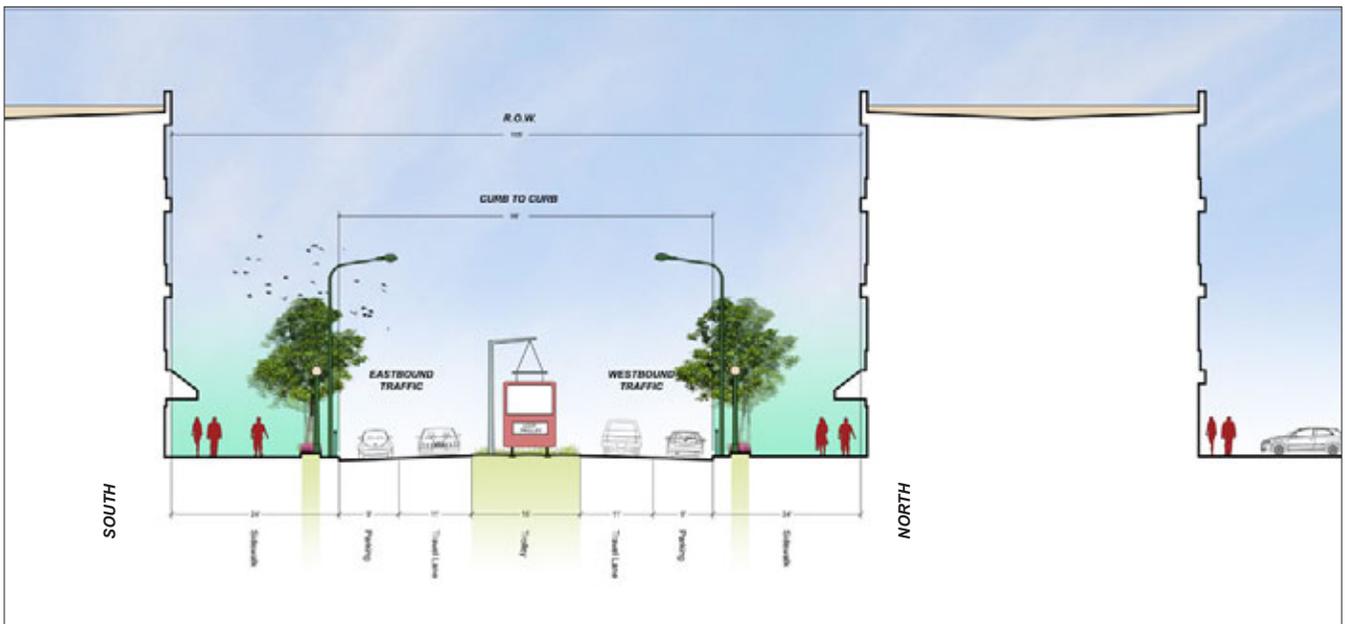
TRANSIT & STREETScape IMPROVEMENT DIAGRAM



CROSS-SECTION OF DELMAR BOULEVARD (AT FAMILY DOLLAR)

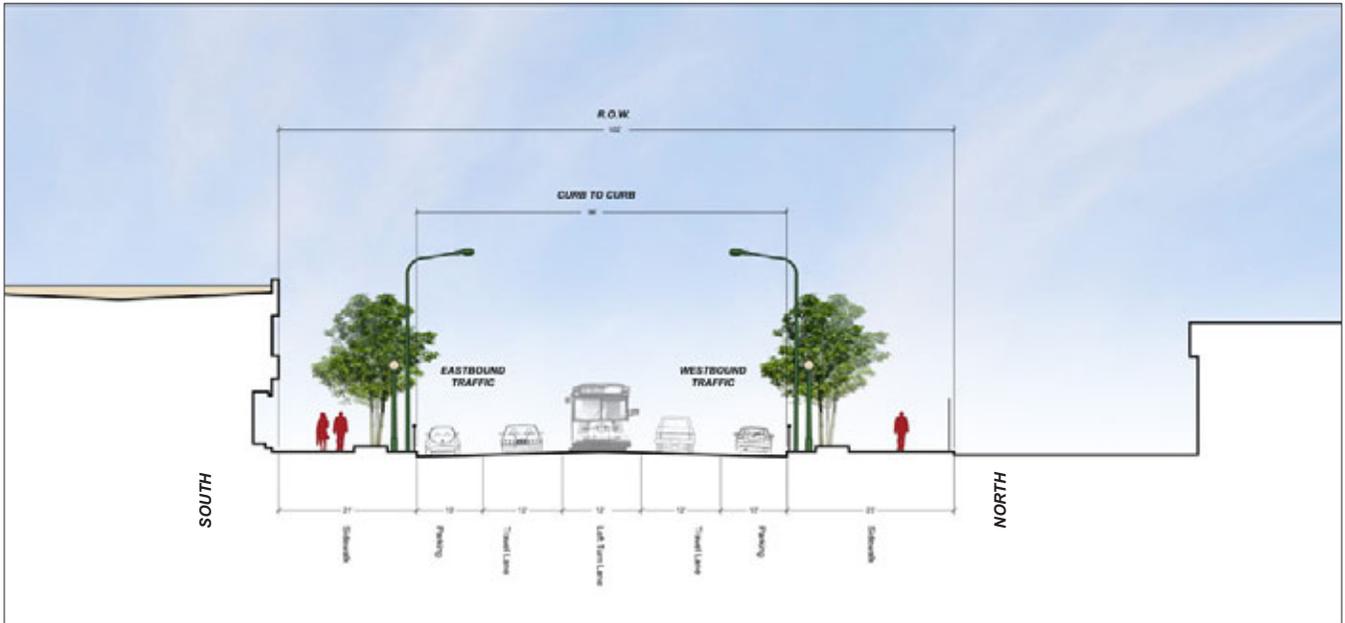


EXISTING SECTION

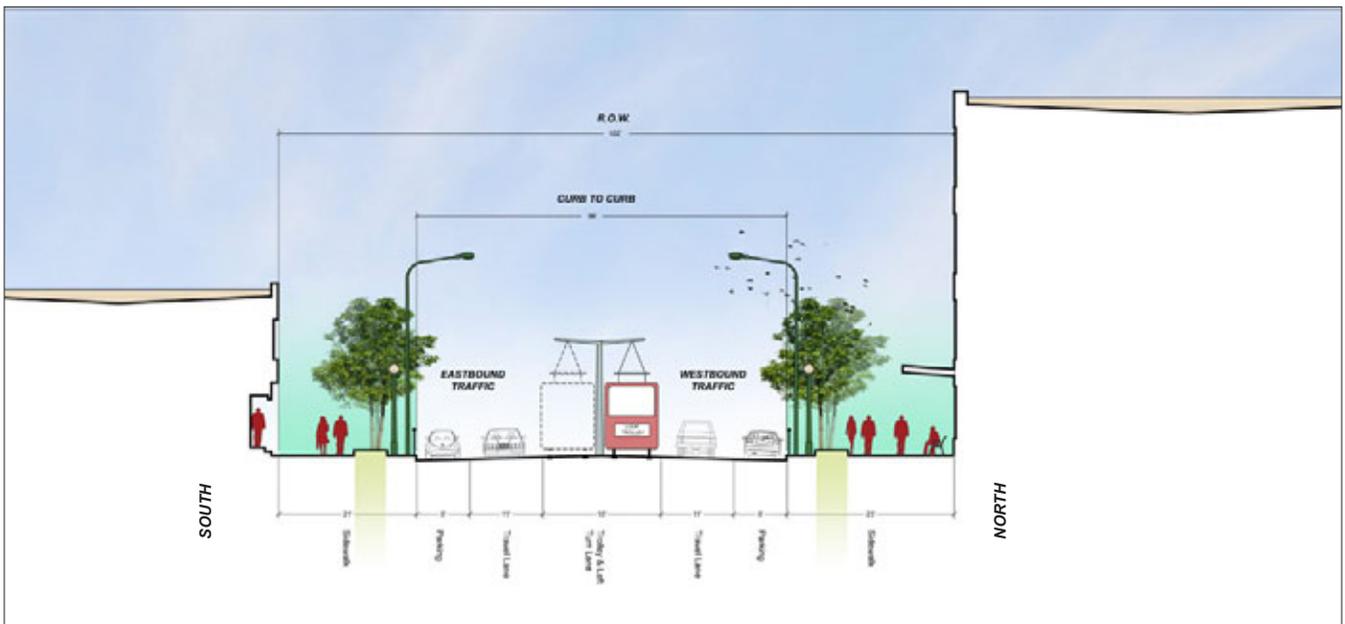


PROPOSED SECTION

CROSS-SECTION OF DELMAR BOULEVARD (AT DOBBS BUILDING)



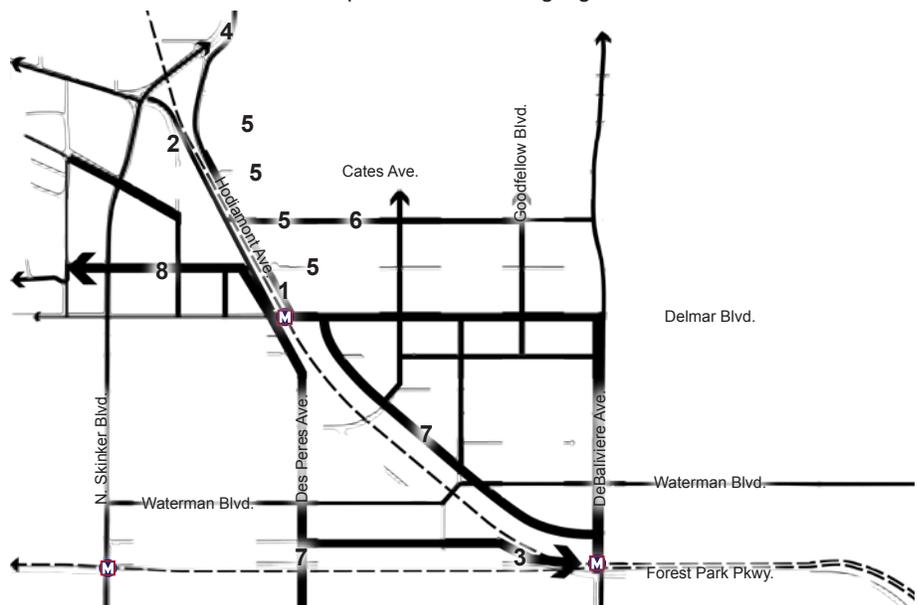
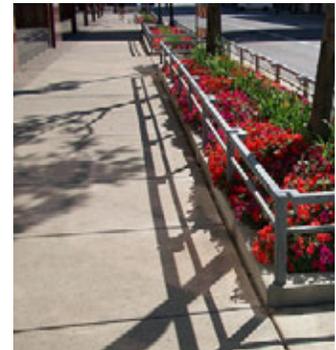
EXISTING SECTION



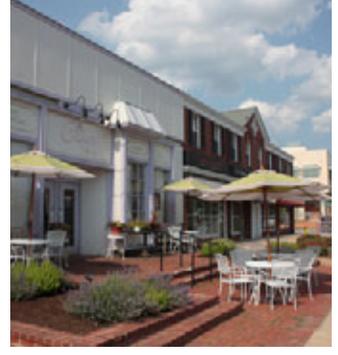
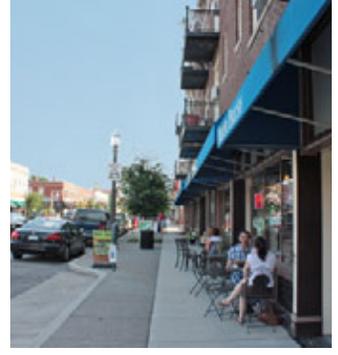
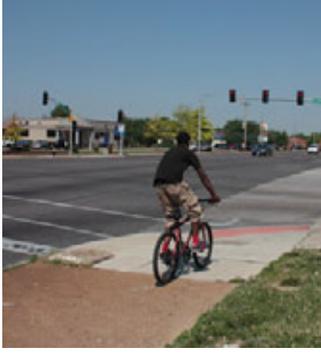
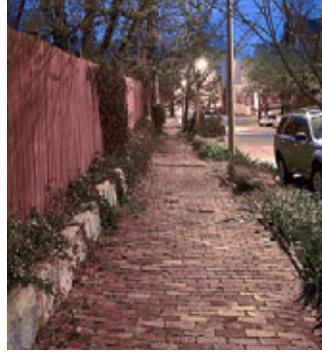
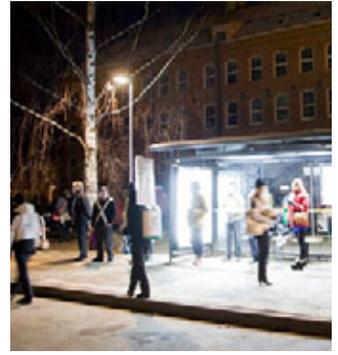
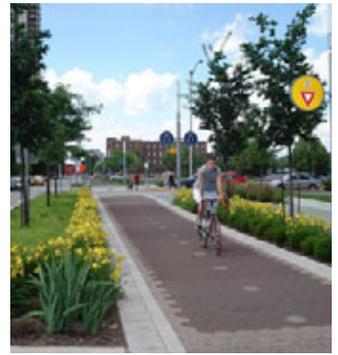
PROPOSED SECTION

PEDESTRIAN & BICYCLE ACCESS, SAFETY & CONNECTIVITY

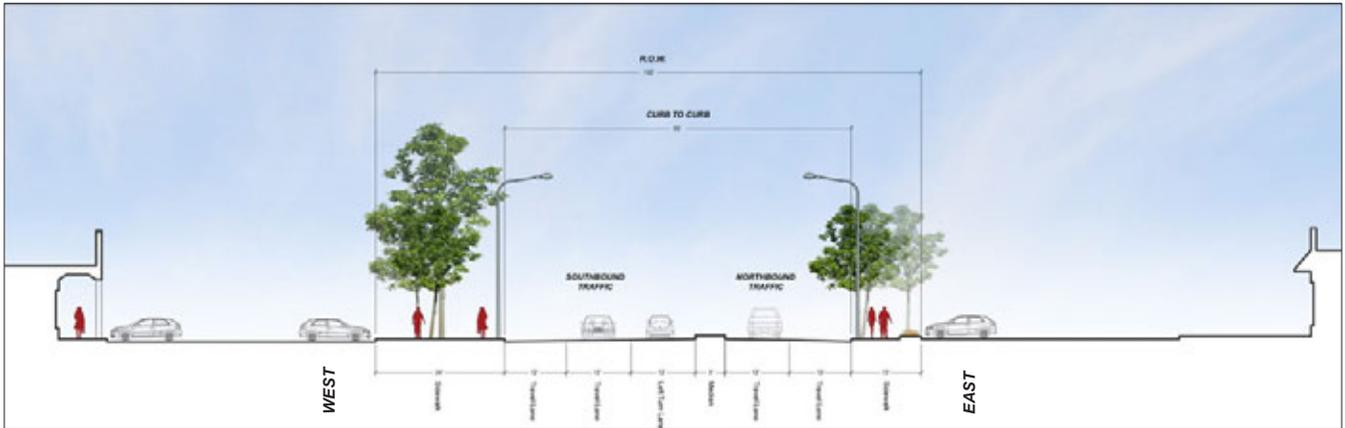
1. Convert the over-sized and under-utilized Hodiamont Avenue into a pedestrian and bicycle corridor with widened sidewalks, improved lighting, improved street trees, and benches;
2. Provide a pedestrian connection between Delmar Station and Olive Boulevard. This could be located along the MetroLink right-of-way or included in future plans for Washington University North Campus;
3. Upgrade pedestrian connections from Pershing Avenue to the Forest Park–DeBaliviere Station on both sides of DeBaliviere Avenue;
4. Improve the intersection of Hodiamont Avenue and Skinker Parkway with pedestrian facilities and a roundabout;
5. Improve pedestrian and bicycle intersections where Enright, Cates, Clemens, and Cabanne connect with Hodiamont Avenue;
6. Improve Clemens Avenue to be an east-west pedestrian connection through the northwest quadrant of the Delmar Loop Station transit shed, connecting the Saint Vincent Greenway to the Delmar Loop station;
7. Enhance DeGiverville and Des Peres Avenues as pedestrian routes linking the MetroLink stations to the Skinker-DeBaliviere neighborhood, while allowing them to remain closed to vehicular traffic at Delmar Boulevard and DeBaliviere Avenue;
8. Ensure bicycle connections to both stations. Open Enright Avenue at Skinker Boulevard and add a multi-use path between Ackert Walkway and Skinker Boulevard.
9. (Not Shown) Ensure all sidewalks and intersections are ADA accessible;
10. (Not Shown) Include unique paving, seating, lighting, signage, and wayfinding into new streetscape improvements. Ensure clear direction to MetroLink stations;
11. (Not Shown) Upgrade important intersections with signature paving, wide crosswalks, and well timed pedestrian crossing signals;



PEDESTRIAN CONNECTIVITY DIAGRAM



CROSS-SECTION OF DEBALIVIERE AVENUE (AT STRIP MALL)

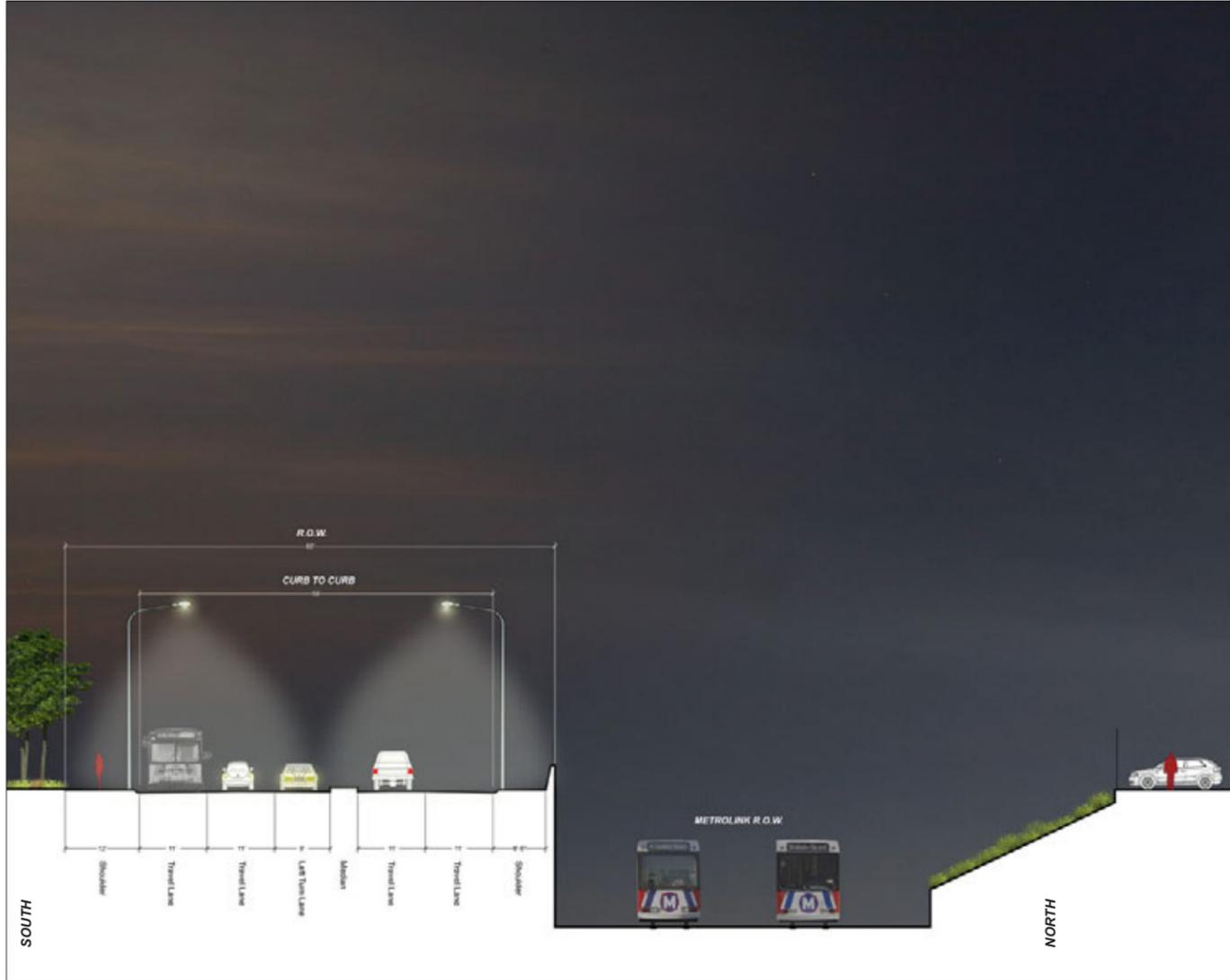


EXISTING SECTION



PROPOSED SECTION

CROSS-SECTION OF FOREST PARK PARKWAY (AT METRO PARKING LOT)



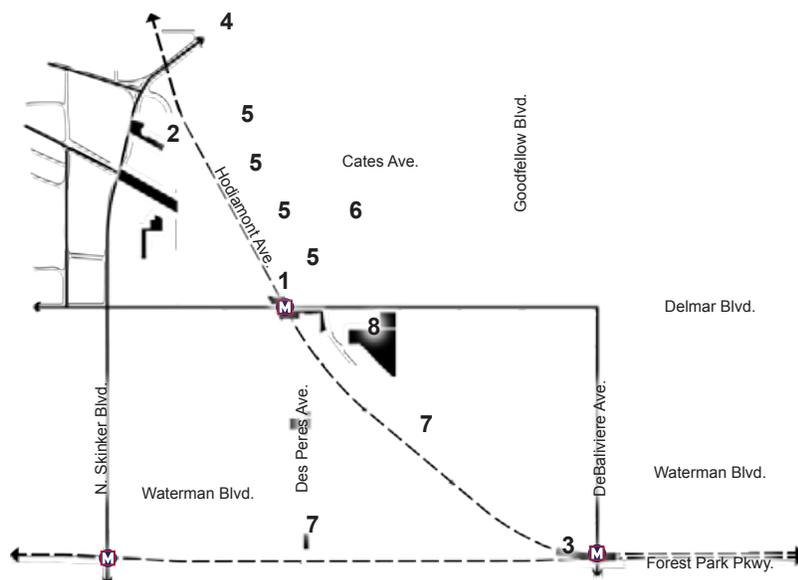
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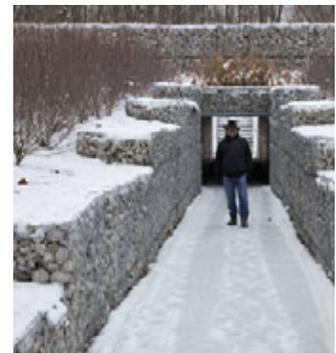
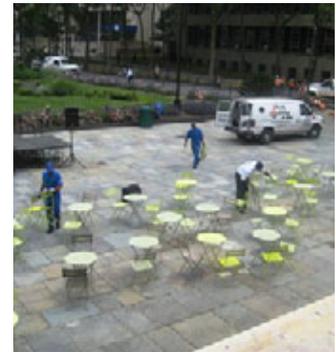
PROPOSED SECTION

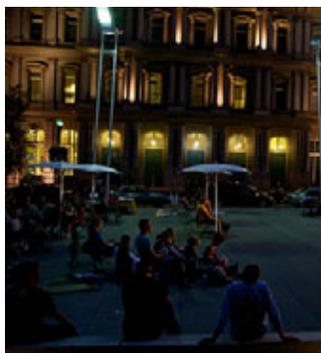
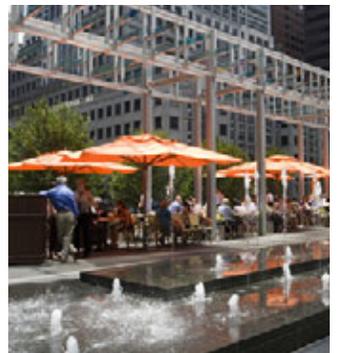
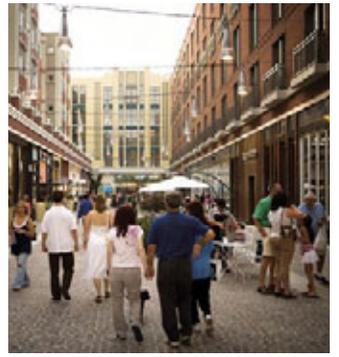
PUBLIC SPACE

1. Convert the over-sized and under-utilized Hodiamont Avenue into a pedestrian and bicycle corridor with widened sidewalks, improved lighting, improved street trees, and benches;
2. Provide a pedestrian connection between Delmar Station and Olive Boulevard. This could be located along the MetroLink right-of-way or included in future plans for Washington University North Campus;
3. Upgrade pedestrian connections from Pershing Avenue to the Forest Park–DeBaliviere Station on both sides of DeBaliviere Avenue. On the west, create a new pedestrian and bicycle only route from the east end of Pershing Avenue, through the vacant parcel, connecting to the new transit plaza. On the east, widen and improve sidewalk connections on the DeBaliviere Avenue overpass;
4. Improve the intersection of Hodiamont Avenue and Skinker Parkway with pedestrian facilities and a roundabout;
5. Improve pedestrian and bicycle intersections where Enright, Cates, Clemens, and Cabanne connect with Hodiamont Avenue;
6. Improve Clemens Avenue to be an east-west pedestrian connection through the northwest quadrant of the Delmar Loop Station transit shed;
7. Enhance DeGiverville and Des Peres Avenues as pedestrian gateways linking the MetroLink stations to the Skinker-DeBaliviere neighborhood, while allowing them to remain closed to vehicular traffic at Delmar Boulevard and DeBaliviere Avenue;
8. Develop a new entrance plaza to Lucier Park at Delmar Boulevard and Hamilton Avenue.
9. (Not Shown) Ensure all sidewalks and intersections are ADA accessible;
10. (Not Shown) Include unique paving, seating, lighting, signage, and wayfinding into new streetscape improvements. Ensure clear direction to MetroLink stations;
11. (Not Shown) Upgrade important intersections with signature paving, wide crosswalks, and well timed pedestrian crossing signals.

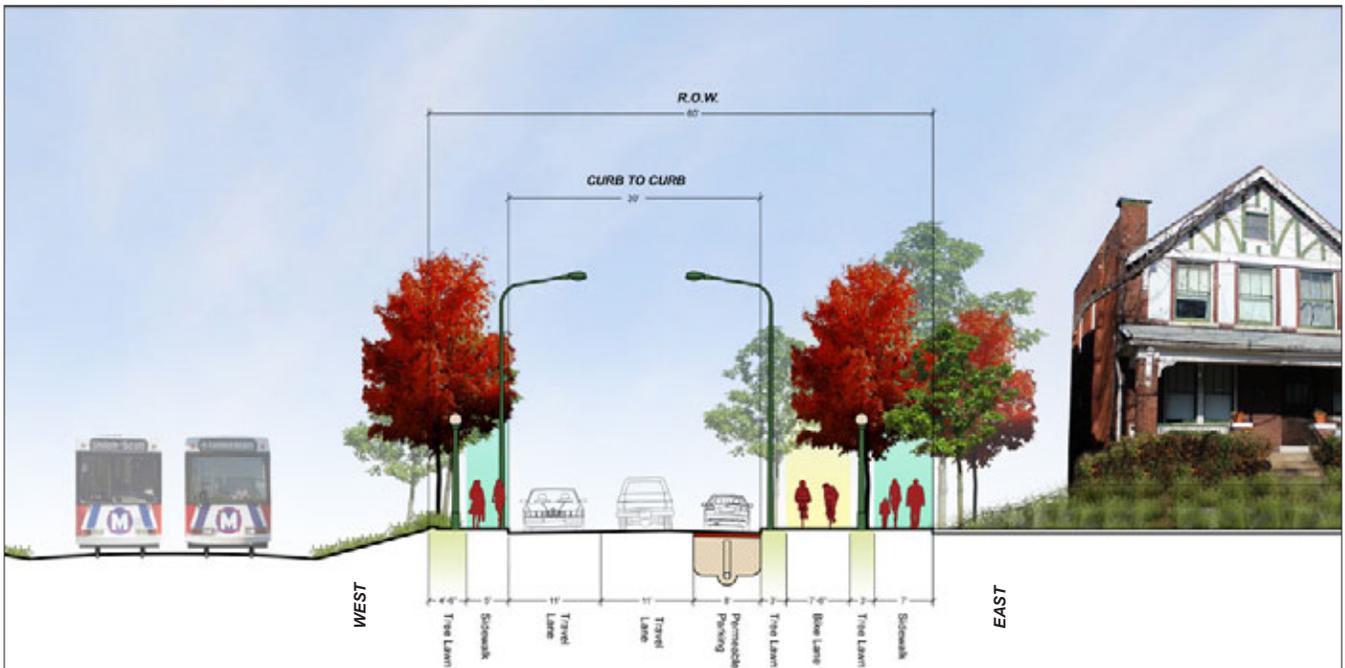
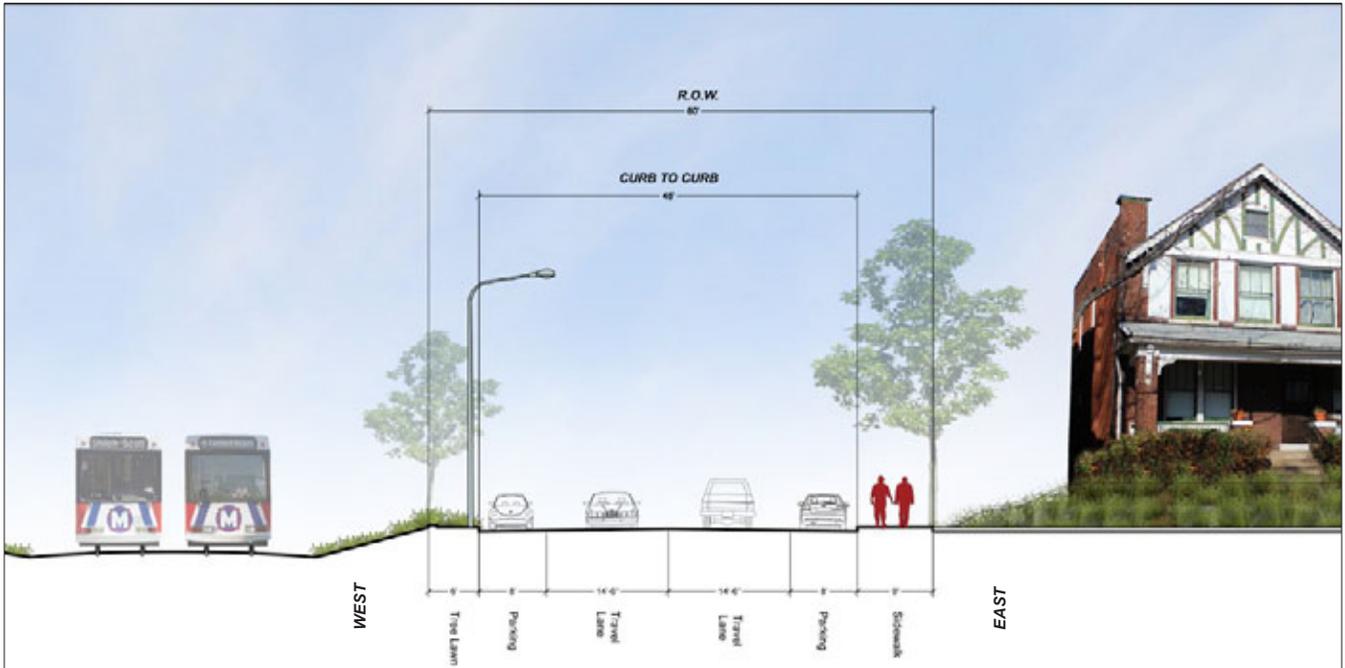


PUBLIC SPACE DIAGRAM

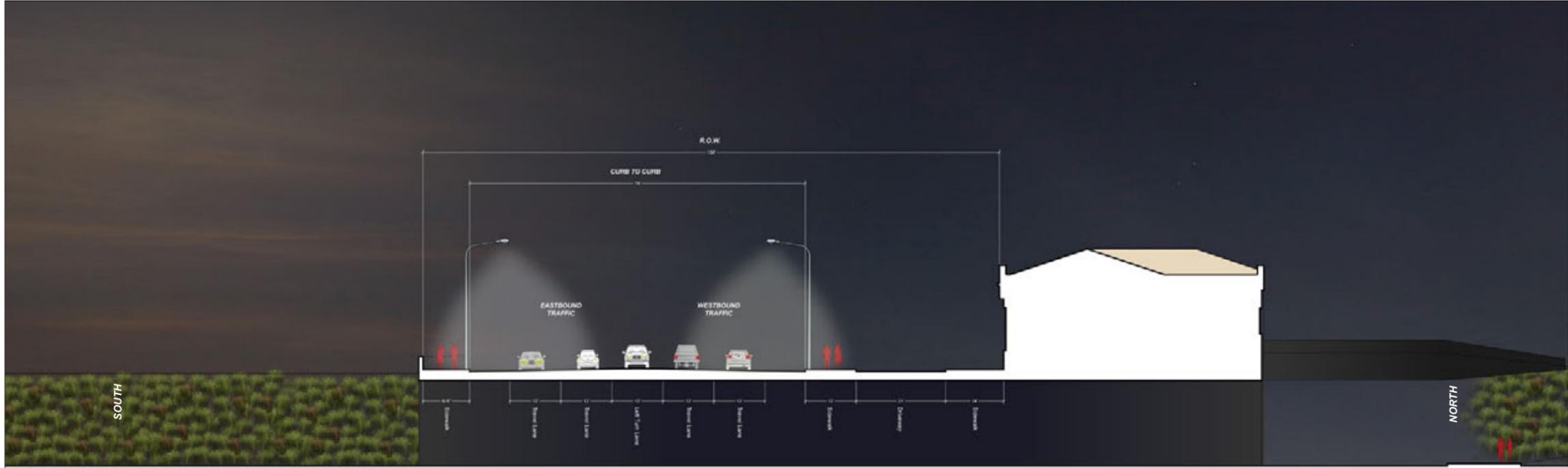




CROSS-SECTION OF HODIAMONT AVENUE (AT CATES)



CROSS-SECTION OF DELMAR METROLINK STATION



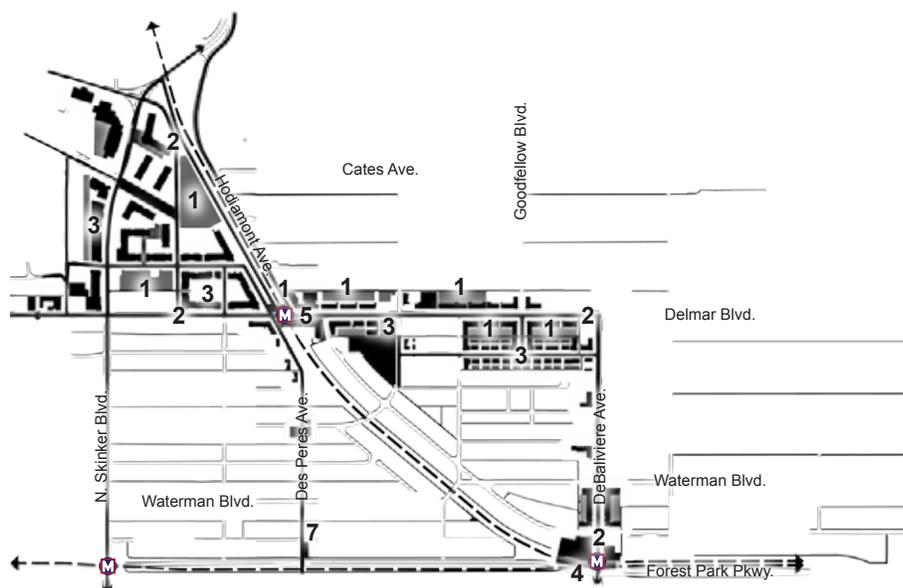
EXISTING SECTION



PROPOSED SECTION

GREEN INFRASTRUCTURE

1. Utilize permeable pavement where possible in parking lots, sidewalks, driveways, and alleys;
2. Integrate bioretention facilities into curb bump-outs and tree wells, providing additional greenery as part of the street level stormwater management strategy;
3. Install aesthetically pleasing rainwater harvesting facilities on new and existing buildings, including rain barrels and green roofs;
4. Consider water features and fountains in the transit plazas and Lucier Park to create interest and new programming for users;
5. (Not Shown) Install buffer strips adjacent to new and existing streets and parking lots to reduce stormwater runoff and increase comfort on the sidewalk;
6. (Not Shown) Provide additional seating and activate street edges using planters;
7. (Not Shown) Where necessary, screen outdoor seating and gathering spaces from the vehicular right-of-ways using planters;
8. (Not Shown) Integrate bioswales, rain gardens, and native plants into the design of the Saint Vincent Greenway where possible;
9. (Not Shown) Use native plantings & perennials where possible;
10. (Not Shown) Plant street trees and specialty trees along all streets and public spaces;
11. (Not Shown) Develop neighborhood volunteer group for planting and maintenance.



GREEN INFRASTRUCTURE OPPORTUNITIES

PERSPECTIVE VIEW OF DEBALIVIERE AVENUE (LOOKING SOUTH)

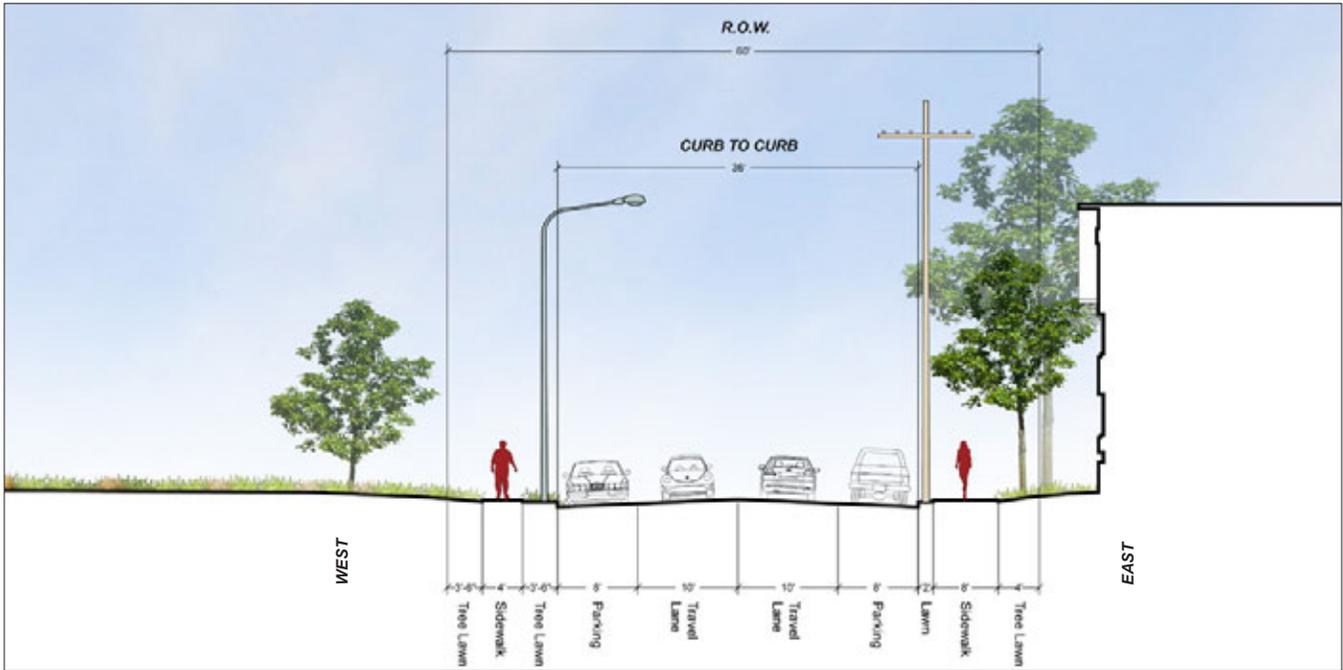


EXISTING VIEW

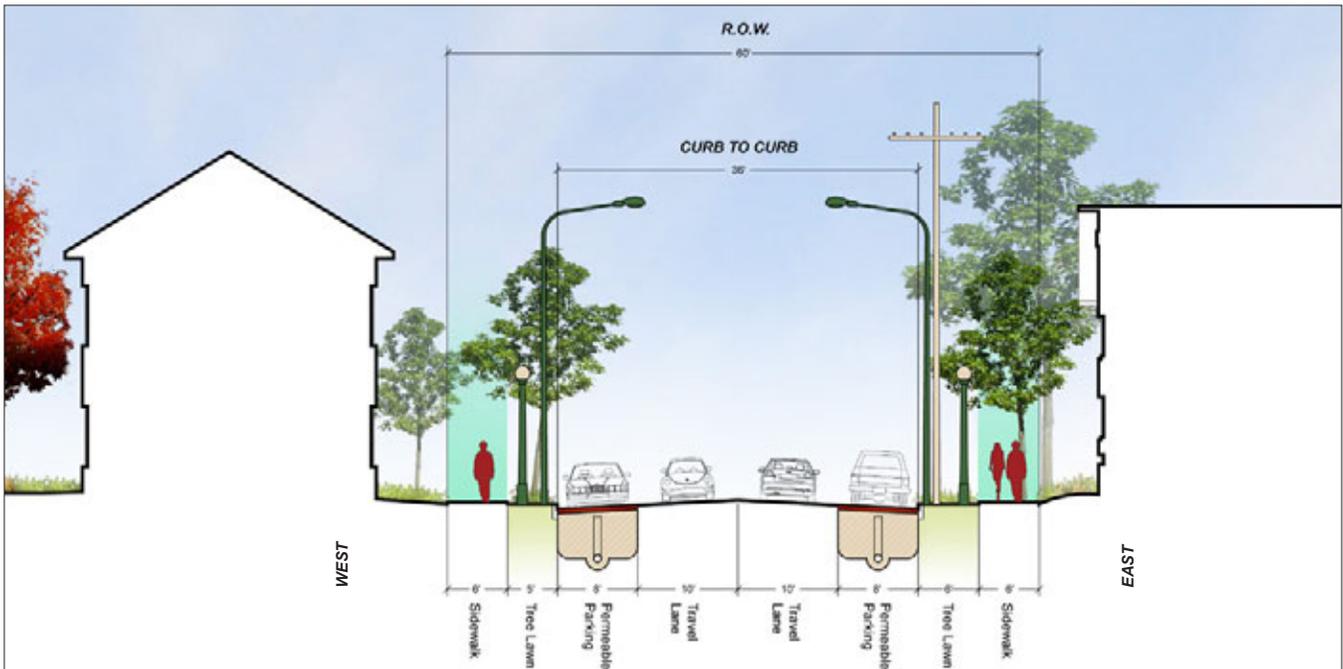


PROPOSED VIEW

CROSS-SECTION OF HAMILTON AVENUE (BETWEEN ENRIGHT & CLEMENS)



EXISTING SECTION



PROPOSED SECTION

CROSS-SECTION OF DELMAR BOULEVARD (AT METROBUS GARAGE)



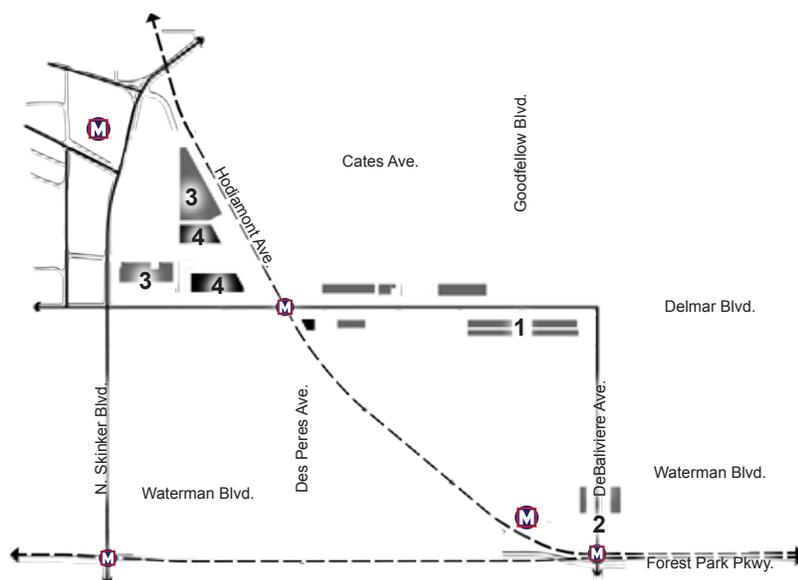
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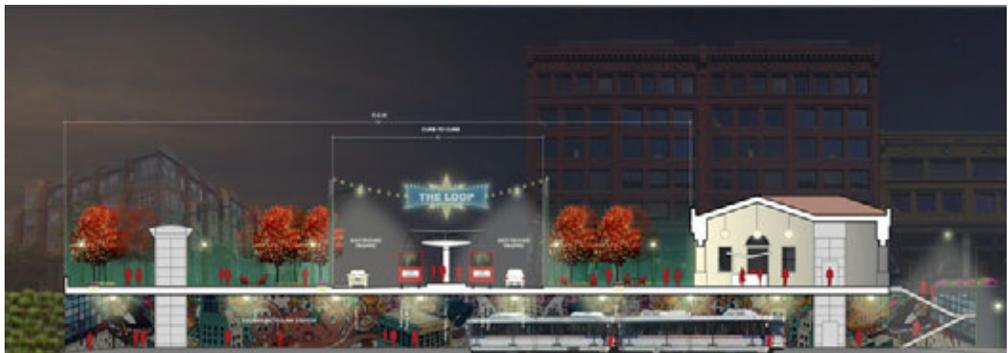
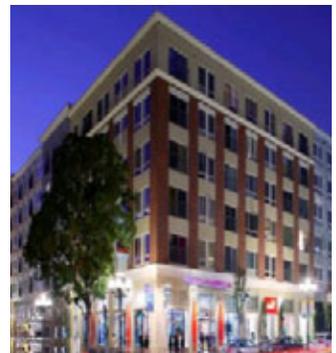
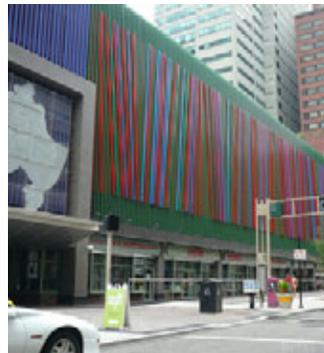
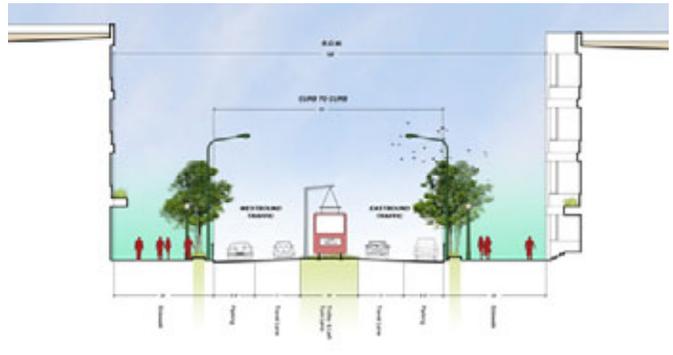
PROPOSED SECTION

PARKING

1. Accommodate approximately 600 private parking spaces at the corner of Delmar Boulevard and DeBaliviere Avenue for residential development. Retail parking should be accommodated on-street.
2. Accommodate approximately 600 private parking spaces in the vicinity of the Forest Park–DeBaliviere Station for residential development;
3. Accommodate approximately 1,800 parking spaces near the Delmar Loop station for new development.
4. Provide 500 public parking spaces for centralized East Loop parking and MetroLink Park-and-Ride at the Delmar Loop MetroLink station. Provide two structured parking garages at the Delmar Loop station;
5. (Not Shown) Structured and surface parking should always be located behind buildings, never adjacent to a main street to preserve primary street frontage for ground floor commercial and retail uses;
6. (Not Shown) Shared parking strategy between residential properties and commercial, office, or retail properties can reduce the parking demand by 25%;
7. (Not Shown) Use permeable pavement, bioswales, shade trees, and other green infrastructure to reduce the environmental impacts of surface parking;
8. (Not Shown) Establish a zero parking requirement for new development to encourage transit ridership and let the market drive parking necessity.



PARKING DIAGRAM





4 | Implementation



STATION AREA IMPLEMENTATION RECOMMENDATIONS

GENERAL IMPLEMENTATION RECOMMENDATIONS

Successful implementation of all the Station Area Plans will require taking the Plans “on the road.” It is recommended that the City of Saint Louis make presentations to and have conversations with partner organizations, public and private, including professional associations that represent components of the real estate development industry. Presentation materials would be enhanced by sharing ideas for implementation (discussed further below). A result of this widespread policy recognition will likely be the creation of appropriate partnerships to implement prioritized parts of each plan. The City and Metro are key partners involved in this effort.

Resources will be needed for prioritized redevelopment projects. Money, access to, and preparation of applications for various governmental and foundations grants, incentive programs and their creation/management, fast-track permitting, political advocacy, staff support and expedited reviews, etc., can all be offered as part of a package to entice the private market and land owners to move quickly toward plan implementation.

PHASE 1: ORGANIZATION

The City and the region should organize itself to identify and promote TOD development. To that end, we recommend the following structure to ensure that TOD is promoted at all levels:

1. Consider convening a regional task force that identifies and promotes TOD opportunities on a region-wide basis throughout St. Louis, St. Louis County, and St. Clair County. The group will be tasked with recommending prime areas for TOD on a regional level.
2. This group should include representatives from Metro, local governments, East West Gateway, RCGA, APA, Trailnet, and others.
3. Consider convening a City-wide task force that focuses on TOD opportunities throughout the City. The group will identify the key stations—or future stations—where TOD should occur and promote the adoption of policies that promote sustainable development at each identified area.
4. This group should be composed of representatives from the Board of Aldermen, large institutions (Washington University, St. Louis University, BJC, etc.), and Metro. Ideally, similar groups will be formed in St. Louis County and St. Clair County to promote TOD within their jurisdictions.
5. Consider forming a station area-specific group for each station identified as having the potential for TOD in the City. This group will focus on

*Successful implementation of all the Station Area Plans will require taking the Plans “on the road.” It is recommended that the City of Saint Louis make presentations to and have conversations with **partner organizations, public and private, including professional associations that represent components of the real estate development industry.***

attracting development and enhancing TOD at the station level.

6. Each station-specific group should include representatives from Metro, neighborhood organizations, the Board of Aldermen, nearby land owners, business owners, and local developers.
7. Formally adopt the station area plans as part of the City's Strategic Land Use Plan. To succeed as TOD, the City of Saint Louis—and all City departments, commissions, boards, etc., involved with redevelopment—should support the preferred plan for each station. The station area plan for each station should be fully adopted by the City and/or appropriate departments, commissions, and boards. Strong leadership on the part of the City of Saint Louis is key to ensuring that the vision remains intact.
8. This adoption process should continue beyond the City's governance and regulatory boundaries. Metro should adopt the plans as official policy. Great Rivers Greenway should adopt all or parts of the plans as appropriate to its mission in these areas. Trailnet might adopt the policies. Citizens for Modern Transit should do the same. Even key institutions with important interests in the station areas should adopt the plans as part of their real estate and related missions: Washington University, for example, as well as the Skinker DeBaliviere Community Council and other neighborhoods. All these organizations should buy in to the plans and, in an effort to move quickly, absorb such plans into their own missions and plans.
9. The City should complete and adopt the recommended Form Based District.
10. Consider dedicating a staff member—or create a new position—as the TOD project lead within SLDC. This individual should be capable of developing a marketing program for the general station area and key development parcels within it, promoting the plan for each station area, building relationships with key individuals or groups, assisting in land acquisition, implementing specific projects, and assisting individual developers with public subsidy programs. In addition, it is recommended that this staff member work closely with the TOD specialist at Metro.

PHASE 2: INVESTMENT & RISK MITIGATION

Several issues exist in each station area that should be addressed by the City to reduce developer risk and encourage investment. Meetings with several developers and key institutions at each station area confirmed these issues. The following is a general list that the City should address at all station areas where TOD is desired:



Despite positive trends in the area, the MetroLink stations at both Delmar and Forest Park/DeBaliviere have not yielded dense, mixed-use development that would encourage increased use of transit and create a truly urban atmosphere.



FOREST PARK-DEBALIVIERE
METROLINK STATION

DELMAR LOOP AND FOREST PARK- DEBALIVIERE STATION AREA PLAN GENERAL PHASING

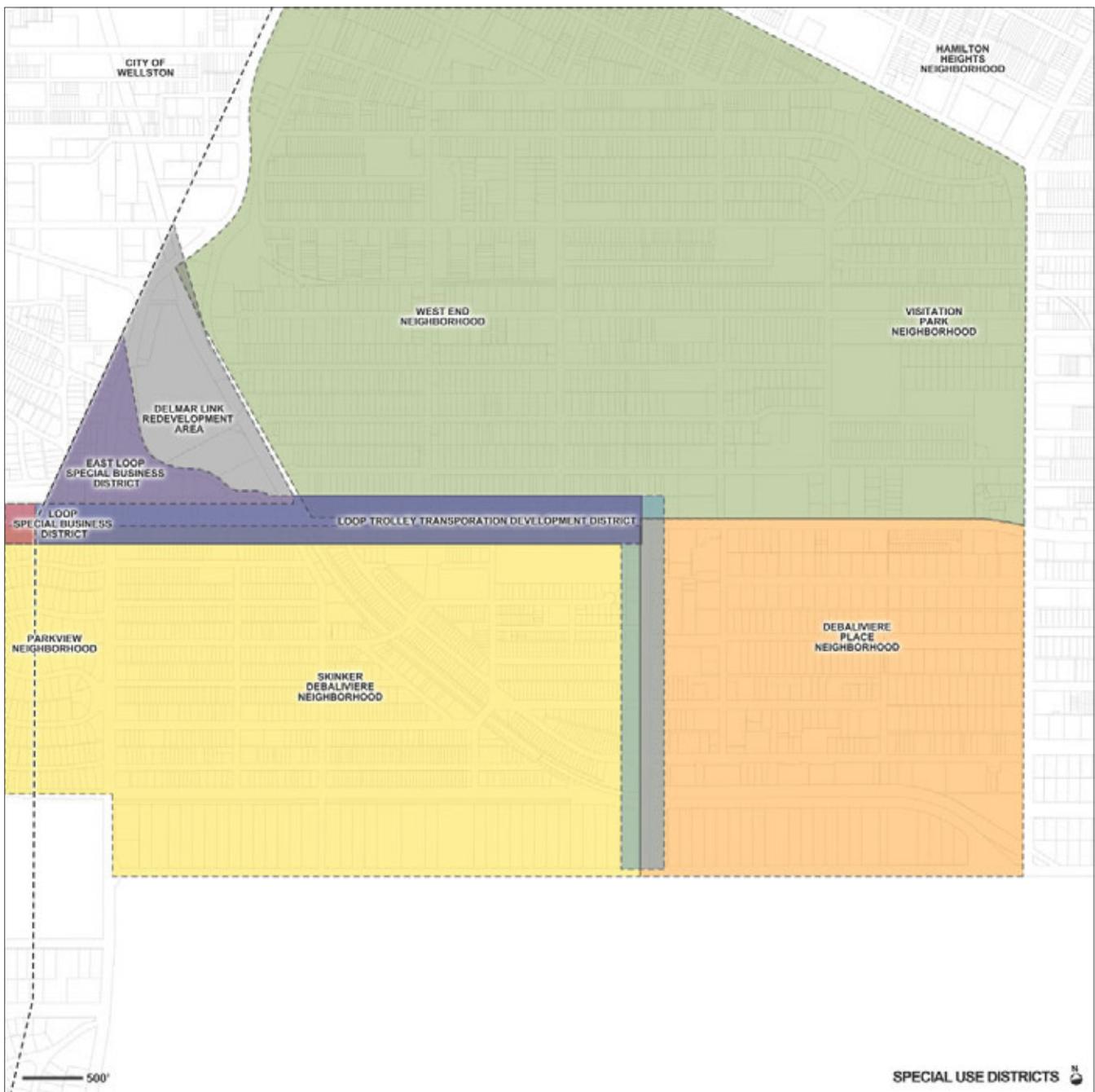
3 Stage Approach:

- First, the City must work to incentivize development at the Forest Park/DeBaliviere Metrolink station parking lot as a mixed-use residential and retail development.
- Second, steps must be taken to work with friendly parties to identify a mixed-use development for the parcels immediately west of the Delmar Metrolink station.
- The third stage of the redevelopment should focus on the remaining developable parcels within $\frac{1}{4}$ mile of the station and infill housing opportunities within the $\frac{1}{2}$ mile station area.

1. The City should work with the City Streets Department, Forestry, and St. Louis Metropolitan Police Department to target City resources to the station areas. This could include investing in key roadway improvements, adding additional vegetation, and improving safety within each station area.
2. Work to facilitate the acquisition of properties when available. If possible, target available funds from the general fund, CDBG, etc. to purchase market rate properties.
3. Target enforcement of building maintenance requirements and resolution of Citizen Service Bureau (CSB) complaints to properties within the station areas.
4. Invest in a marketing strategy for each station area and develop materials to promote TOD to both local and out-of-town developers.
5. Consider the creation of a master development organization for each station area. Because some redevelopment corporations are already in existence at some station areas, the City should work with these existing groups to either amend existing redevelopment agreements or extract undeveloped parcels from existing redevelopment agreements.

PHASE 3: PROJECT INITIATION

1. Work with partnering institutions and other stakeholders to convene a Developer's Forum—beginning with local developers and perhaps expanding to out-of-towners—to showcase each station area. These forums should be held annually; as the targeted station areas fulfill their plans, efforts can shift to other station areas.
2. Develop an easily accessible development prospectus, based on the recommendation of this plan, that details key financial and population demographics, basic development parameters, available financial incentives by parcel, and suggested future land use.
3. Consider streamlining the permitting processes and giving timeline estimates to potential developers for projects in the station areas.
4. With the coalition team, issue RFPs or RFQs for key project components within each station area.
5. Focus the initial RFP processes on the amount of developable residential and commercial property as defined in the St. Louis TOD Framework Plan market analysis. Then, if market conditions are favorable, foster additional development per the station area plan.
6. Consider remaining an active, ongoing partner with the development team.



IMPLEMENTATION OBSERVATIONS

Over the past few decades, the Skinker DeBaliviere Neighborhood, the West End Neighborhood, and the Delmar corridor have experienced positive growth and redevelopment. Despite positive trends in the area, the MetroLink stations at both Delmar and Forest Park/DeBaliviere have not yielded dense, mixed-use development that would encourage increased use of transit and create a truly urban atmosphere.

The consulting team has had multiple discussions with key parties—including Metro, Washington University, and other developers—to uncover opportunities and barriers to redevelopment within each station area and under-



stand possible solutions to those problems. The following list details the key outcomes of those conversations:

1. Initial efforts should be focused on achieving the market-supported development recommendations of this TOD Station Area Plan;
2. The property at 640 Rosedale Avenue has long been targeted as a prime location for redevelopment given its adjacency to the Delmar MetroLink station and visibility from Delmar Boulevard. However, the current owners are generally happy with their location and do not wish to leave the City;
3. The Wabash Station—while beautiful and ripe for redevelopment—is essentially an island surrounded by open lots;
4. Metro is very willing to contribute their property holdings around the Delmar and Forest Park–DeBaliviere stations through either a joint-venture or outright sale. If sold, the properties should achieve fair market value. Metro can act as a partner by contributing the property through a long-term ground lease. A joint venture project will likely have to demonstrate a benefit to transit users/ridership to satisfy Federal Transit Administration (FTA) requirements;
5. The development of other Metro operations facilities in the region may render the bus facility at the corner of Delmar and DeBaliviere obsolete, or mostly obsolete, in the next five to seven years. If that were to occur, Metro would be open to discussing redevelopment of the garage pending completion of a fleet maintenance plan;
6. McCormack Baron retains options on key properties along DeBaliviere Boulevard near the Forest Park–DeBaliviere MetroLink station. These options will expire in the fall of 2014. The surrounding neighborhood does not support the development of only affordable housing on this site.
7. Access to both stations—especially pedestrian access—is difficult;
8. Both the West End and the Skinker DeBaliviere neighborhoods would like more daily needs shopping and restaurants along Delmar to the east of the MetroLink station. Improved shopping and residences along DeBaliviere Avenue are very much desired by both communities.

SLDC, the nearby neighborhoods, and the City Streets Department should begin the process to improve pedestrian access to both stations.

DELMAR LOOP & FOREST PARK– DEBALIVIERE IMPLEMENTATION ACTION ITEMS

While many of these issues are beyond the City’s control, the City has the opportunity to play a key role in kick starting activity in the area. We recommend the following near-term activities:

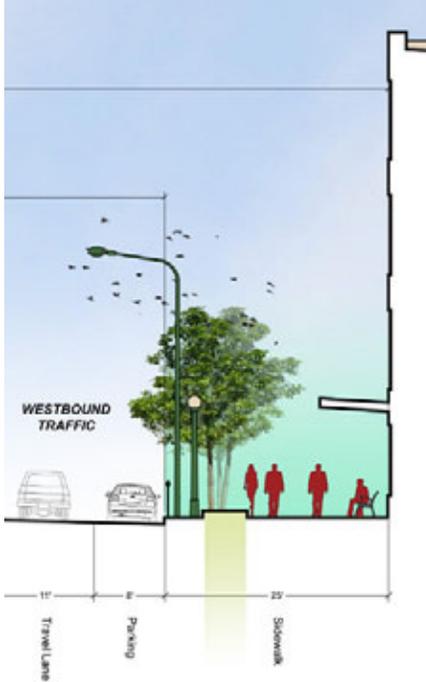
1. SLDC, the nearby neighborhoods, and the City Streets Department should begin the process to improve pedestrian access to both stations. Funding for new sidewalks should be secured and any public engagement activities should be scheduled;
2. SLDC should attempt to secure underutilized parcels near the MetroLink stations. This may be in the form of a swap arrangement with another City-owned property or an outright purchase of the property. Other friendly entities—Metro, Washington University, and local developers—should be involved in this process to help ensure success. This will create larger development parcels at critical locations;
3. After securing properties, the SLDC should work to consolidate or form a joint venture opportunity with other nearby landowners or developers;
4. Once a developer is engaged, SLDC should include the realignment of Rosedale Avenue in the development agreement;
5. The City should encourage more urban-friendly design and community engagement be completed by developers to ensure that the project is fulfilling the TOD plans and aligns with the desires of neighborhood residents;
6. After securing the critical sites, the City should promote the projects in the business community. Using the marketing tools described in the Schematic Implementation Plan, the City can begin building a marketing package for both local and out-of-town developers. Involve key stakeholders in the development of this marketing package. the City should make clear that collaboration and support will be given at all levels;
7. After attracting interest in development opportunities, facilitate discussions between Metro and potential developers regarding the parking facility and kiss-and-ride at the Forest Park station;
8. Market infill opportunities in the neighborhood to residents, local developers, and out-of-town developers. The City should partner with community organizations to ensure that existing residents are represented;
9. Invest in Tier 1 street improvements as detailed on pages 98-105 of this TOD report.

Ideally, the tasks listed above should be accompanied by a long-term plan for the area. The following activities are recommended for the long-term:

1. Invest in Tier 2 and Tier 3 street improvements as detailed on pages 98-105 of this TOD report;
2. If Metro elects to move their facility at the corner of Delmar Boulevard and DeBaliviere Avenue, work to facilitate the acquisition of the property or a joint venture redevelopment;
3. Continue to market infill opportunities in the neighborhood to local and out-of-town developers.



A result of this widespread policy recognition will, and should, be creation of appropriate partnerships to implement prioritized parts of each plan.



CROSS SECTION OF DELMAR BLVD.

STATION AREA FINANCIAL ANALYSIS

DEVELOPMENT PROGRAM

Given feedback from the Technical Advisory Committee and the public, the consultant team developed the finalized station area plan for the Forest Park–DeBaliviere and Delmar Loop Stations. This plan assumes that mixed use residential, retail, and office will be developed near the Delmar Loop station and a significant residential tower with ground level retail will occupy the MetroLink-owned site near the Forest Park–DeBaliviere station. The following is the development program for the Station Area Plan:

Renovated Residential:	320 Units
Market Rate Residential:	1,750 Units
Affordable Residential:	600 Units
Retail:	65,000 Square Feet
Office:	55,000 Square Feet
Public Structured Parking:	500 Spaces

DEVELOPMENT PLAN COST & PHASING

An econometric model was developed to analyze the preferred development plan for the Forest Park–DeBaliviere and Delmar Loop stations. The table on the facing page details key assumptions in the preferred development model regarding rents, construction costs, and other factors.

- A full listing of the development assumptions for the Forest Park–DeBaliviere and Delmar Loop stations is available in Appendix C on page 29.
- An inflation rate of 2.5 percent was applied to rents, operating costs, and developments costs. For the sake of comparison, it is assumed that all development will be sold in year 30 and priced using an appropriate capitalization rate.
- Generally, it was assumed that residential property would be built prior to the construction of significant office or retail space. The following diagram shows the general phasing of the suggested redevelopment.

Fiscal Impact and Feasibility Analysis
 Summary of Assumptions and Inputs

Development	NEW CONSTRUCTION	RENOVATIONS
<i>Affordable Housing</i>		
Monthly Rent/s.f.	\$0.90 per square foot	\$0.90 per square foot
Monthly Parking	\$0 per month	\$0 per month
Average Unit Size	800 square feet	800 square feet
Number of Units	90 per acre	90 per acre
2011 Private Development Cost	\$160 per square foot	\$160 per square foot
Non-Profit Cost Multiplier	60% of Private Dev Cost	60% of Private Dev Cost
Total Development Cost	\$260 per square foot	\$260 per square foot
<i>Stand-Alone Apartments</i>		
Monthly Rent/s.f.	\$1.45 per square foot	\$1.15 per square foot
Monthly Parking	\$0 per month	\$0 per month
Average Unit Size	800 square feet	950 square feet
Number of Units	90 per acre	90 per acre
2011 Private Development Cost	\$160 per square foot	\$160 per square foot
Non-Profit Cost Multiplier	0% of Private Dev Cost	0% of Private Dev Cost
Total Development Cost	\$160 per square foot	\$160 per square foot
<i>Mixed-Use Apartments</i>		
Monthly Rent/s.f.	\$1.58 per square foot	\$1.15 per square foot
Monthly Parking	\$0 per month	\$0 per month
Average Unit Size	1,000 square feet	1,000 square feet
Number of Units	90 per acre	90 per acre
2011 Private Development Cost	\$160 per square foot	\$160 per square foot
Non-Profit Cost Multiplier	0% of Private Dev Cost	0% of Private Dev Cost
Total Development Cost	\$160 per square foot	\$160 per square foot
<i>Storefront Retail</i>		
Annual Lease/s.f.	\$20.00 per square foot (NNN)	\$20.00 per square foot (NNN)
Monthly Parking	\$0 per month	\$0 per month
Square Feet (net leasable)	17,850	17,850
2013 Development Cost	\$150 per square foot	\$150 per square foot
<i>Restaurant</i>		
Annual Lease/s.f.	\$20.00 per square foot (NNN)	\$20.00 per square foot (NNN)
Monthly Parking	\$0 per month	\$0 per month
Square Feet (net leasable)	17,850	17,850
2013 Development Cost	\$200 per square foot	\$200 per square foot
<i>Office/Institutional</i>		
Annual Lease/s.f.	\$18.00 per square foot (NNN)	\$18.00 per square foot (NNN)
Monthly Parking	\$0 per month	\$0 per month
Square Feet (net leasable)	17,000	17,000
2013 Development Cost	\$160 per square foot	\$160 per square foot
<i>Surface Parking</i>		
Annual Lease/space	\$200 per space	\$200 per space
Monthly Parking	\$100 per space	\$100 per space
Spaces	500	500
2013 Development Cost	\$10,000 per space	\$10,000 per space
<i>Parking Garage</i>		
Annual Lease/space	\$1,000 per space	\$1,000 per space
Monthly Parking	\$117 per space	\$117 per space
Spaces	500	500
2013 Development Cost	\$20,000 per space	\$20,000 per space



DELMAR-DEBALIVIERE INTERSECTION

DELMAR LOOP AND FOREST PARK-DEBALIVIERE STATION AREA PLAN ESTIMATED FUNDING GAP

DEVELOPMENT COST
\$516 M

DEVELOPMENT VALUE
\$372.1 M

FUNDING GAP
\$143.9 M

AVAILABLE PUBLIC SUBSIDY
\$63.6 M

GENERAL PUBLIC ASSISTANCE FOR REDEVELOPMENT

At this time, the City of Saint Louis has an array of development tools to help offset some costs. Tax Increment Financing, a tool that allows a developer to collect incremental real property and economic activity tax revenue, is a popular way to finance property acquisition, infrastructure improvements, and renovation costs in the City. Other tools, such as Community Improvement Districts, allow for a developer to generate funds for area amenities or other programs. A complete listing of possible incentive tools is included on page 33 in Appendix C.

Gap financing can come from private sources as well. It should be noted that competition for these limited resources is great. Other potential sources of gap financing include: the business community, community-based organizations, developers, financial institutions, and philanthropic organizations.

In addition to tools geared towards property redevelopment, the City offers some assistance to small business owners in the form of grants, tax credits, and other specialized programs. In order to entice businesses into each station area, it is critical that these programs be marketed towards the business community.

SUBSIDIES & DEVELOPMENT GAPS

While the Forest Park-DeBaliviere and Delmar station areas is are an obvious location for TOD, it is likely that a gap between the development cost and the actual value of the development, post-development, will exist. This is especially true for the first few TOD projects attempted. A critical mass of high demand must be built up—through the help of public financing—to attract developers that could build entirely reliant on the private market. Therefore, it is necessary to find some sort of financing –be it public or private—to fill the gap and entice development.

The sidebars on this page and the facing page detail the estimated funding gap and the amount of public financing available for the finalized development scenario. In general, the available public subsidies would not fill the financing gap for the full project build out. The high costs associated with infrastructure improvements, land acquisition, and construction outstrip any gains based on current rents and demand. To succeed as TOD, it is critical that a significant amount of density is created to increase demand and rents.

FINANCIAL MODEL OUTCOMES

It should be noted that while the economic projections below estimate the potential returns of the suggested redevelopment plan, no significant market analysis has been performed to estimate the actual demand for these devel-

opment configurations. The table on this page indicates the estimated financial returns for the Station Area Plan.

The overall return for the proposed development plan is within an acceptable range for a developer if the development gap were filled by public or another type of financing. However, the estimated amount of public financing available does not cover the total construction costs. Therefore, it is critical that the City insist that any development receiving public subsidy within a TOD area be a quality development that will attract new residents or other users to spur higher rents in the future. For the full economic analysis of each alternative, please see page 64 in Appendix C.

PUBLIC SUBSIDY DESCRIPTIONS

General development incentives consist of:

- Tax Increment Financing: A TIF collects a portion of net new real property, earnings, and sales taxes. These funds are then used to finance development and other improvements within the TIF district.
- Community Improvement District (CID): A CID can levy real property and/or additional sales taxes to be used for certain improvements or services within the boundaries of the CID. Sales tax CIDs are capped at 1.0%.
- Transportation Development District (TDD): A TDD can be funded through special assessment, real property tax, or sales tax. Sales tax TDDs are capped at 1.0%. Funds are used to support transportation improvement projects like signage, road conditions, or other transport-related needs within the districts of the TDD.
- Chapter 353 Redevelopment: This program allows for full or partial abatement of real property taxes for up to 25 years.
- Chapter 99 Redevelopment: This program allows for full or partial abatement of real property taxes for up to 10 years.

Specialized development incentives consist of:

- Tax-Exempt Bond Financing: This bond incentive provides long-term capital financing for major projects.
- Chapter 100 Bond Financing: This bond incentive provides long-term capital financing for major projects.
- Chapter 100 Sales Tax Exemption: Used in conjunction with Chapter 100 Bonds, the Chapter 100 Sales Tax Exemption reduces the costs of purchasing non-manufacturing equipment.
- The Small Business Association 7(a) Loan Guaranty: The SBA provides financing to small businesses with reasonable terms.
- New Markets Tax Credits (NMTC): These credits are typically used to attract investments to low-income areas and offer tax credits for a portion of the investment. Typically, NMTC are utilized for large areas of redevelopment to increase return.
- Historic Tax Credits: Offers tax credits for owners of recognized historic structures.



DELMAR LOOP AND FOREST PARK– DEBALIVIERE STATION AREA PLAN ESTIMATED FINANCIAL RETURNS

RETURN WITHOUT GAP FINANCING
5.0 %

RETURN WITH GAP FINANCING
6.2 %

LAND RESIDUAL VALUE @ 15%
\$41.0 M

LAND RESIDUAL VALUE @ 20%
\$54.7 M



STATION AREA PUBLIC IMPROVEMENTS

PEDESTRIAN RECOMMENDATIONS

A

Hodiamont Avenue: Develop Hodiamont Avenue as a pedestrian and bicycle corridor. Narrow the street width for vehicles and provide dedicated bicycle lanes and vastly improved pedestrian accommodations. The space along Hodiamont Avenue should ultimately be enhanced as a linear park with features oriented to pedestrians, such as benches, lighting, and other aesthetic treatments.

B

MetroLink Right-of-Way Path: Provide a multi-use path along the west side of the MetroLink right-of-way to connect the Delmar Station with Olive Boulevard at Skinker Boulevard. This connection would travel along the eastern periphery of the Washington University North Campus and link the campus with the station, while also helping to expand the station's capture area further to the northwest.

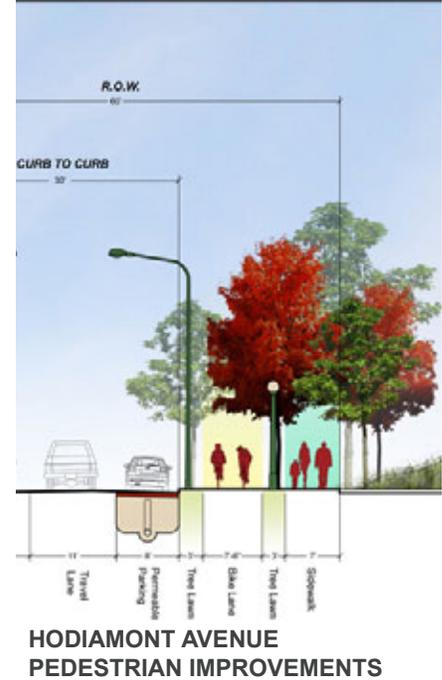
C

Forest Park Parkway Pedestrian Connection: Develop an improved pedestrian connection between Pershing Avenue and the Forest Park–DeBaliviere Station. An improved sidewalk should be provided along the north side of Forest Park Parkway to connect the station with the transit plaza and Pershing Avenue to the west. The walkway should be separated from moving traffic by a safety barrier. The alley just east of the existing bus loop should be enhanced as a pedestrian corridor to provide a direct connection between the station and dense residential uses along Pershing Avenue to the east. Access to the east end of the station platform could be provided via a new stairwell and walkway along the north side of the MetroLink right-of-way.

D

Clemens Avenue: Improve Clemens Avenue and designate it as the primary east-west pedestrian connection within the West End Neighborhood. A possible pedestrian bridge should be constructed over MetroLink where Clemens Avenue intersects the rail corridor right-of-way. This structure would then facilitate an extension of the Clemens Avenue pedestrian corridor along the south periphery of the Washington University North Campus to Skinker Boulevard

By creating recognizable and beautiful entry ways into the station areas, more pedestrians will be comfortable using the stations.



E ↔

DeGiverville Avenue: Enhance DeGiverville Avenue and Des Peres Avenue as pedestrian gateways for the Skinker-DeBaliviere neighborhood that link residents with the Forest Park–DeBaliviere and Delmar Loop Stations. Emphasize pedestrian connectivity; these streets are not being recommended for increased vehicular access or re-establishing connections to Delmar Boulevard or DeBaliviere Avenue.

F ○

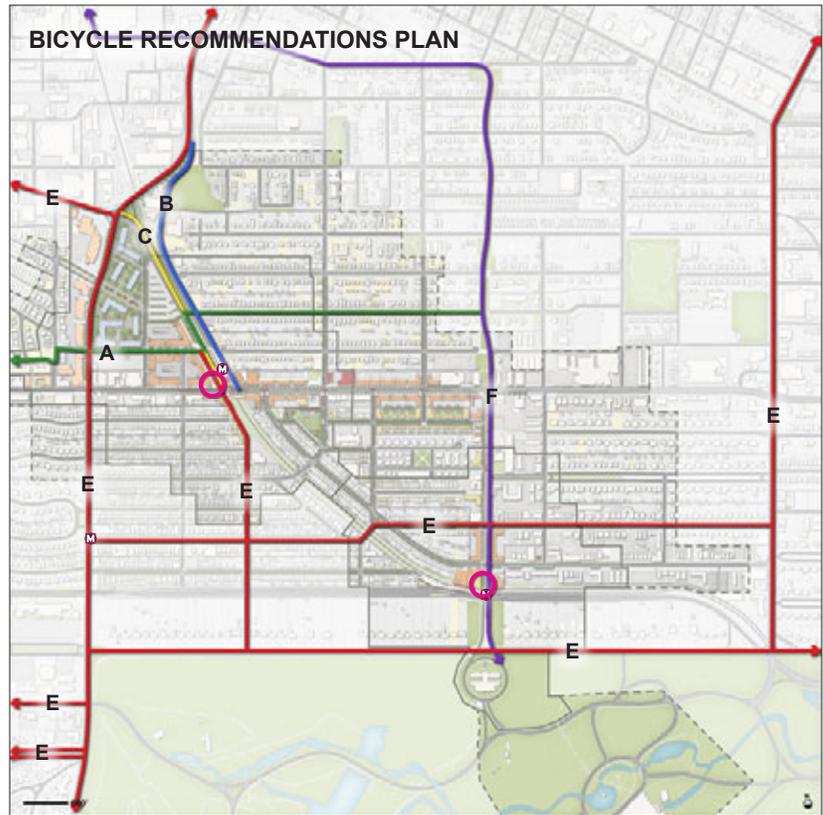
Key Intersections: Implement pedestrian upgrades at the intersections of Delmar Boulevard with Skinker Boulevard and DeBaliviere Avenue with Forest Park Parkway, as follows:

- Require protected-only left-turn phases to reduce conflicts between yielding left-turn movements and pedestrians.
- Increase awareness of pedestrian crossings by using longitudinal 'zebra' pavement markings in crosswalks.
- Upgrade traffic signal equipment to maximize intersection efficiency and enhance intersection lighting to promote pedestrian safety.
- Prohibit right-turns on-red and consider employing leading pedestrian intervals to reduce right-turn conflicts with pedestrians.
- Verify curb ramps are ADA-complaint and make improvements as necessary.

For General Station Area Transportation Principles & Guidelines, see page 12 of Appendix D.



ST. VINCENT GREENWAY



BICYCLE RECOMMENDATIONS

A

Enright Avenue/Clemens Avenue Corridor: Establish an east-west bicycle connection along the Enright Avenue/Clemens Avenue corridor to connect the heart of the Delmar Loop and Ackert Walkway/Centennial Greenway to the Delmar Loop MetroLink Station, West End Neighborhood, and Saint Vincent Greenway. A dedicated off-street, multi-use path should be provided parallel to Enright Avenue from Ackert Walkway east to Hodiamont Avenue. This should transition to a designated share-the-road corridor along Clemens Avenue with shared-lane pavement markings east of Hodiamont Avenue to Saint Vincent Greenway. This corridor would effectively integrate designated bike routes along Centennial Greenway, Skinker Boulevard, Westgate Avenue, and Saint Vincent Greenway.

B

Hodiamont Avenue: Develop Hodiamont Avenue as a pedestrian and bicycle corridor. The street width designated for vehicles should be narrowed and a dedicated off-street, multi-use path along the eastern edge of Hodiamont Avenue and vastly improved pedestrian accommodations should be provided.

C

MetroLink Right-of-Way Path: Provide a multi-use path along the west side of the MetroLink right-of-way to connect the Delmar Loop Station with Olive Boulevard at Skinker Boulevard. This connection would travel along the eastern periphery of the Washington University North Campus and link the

campus with the station, while also connecting to the dedicated bike lanes planned for the Olive Boulevard corridor per the Gateway Bike Plan (www.stlbikeplan.com).

D

Commuter Bicycle Stations: Bicycle stations should be provided at both the Delmar Loop and Forest Park–DeBaliviere MetroLink stations to increase the mode share of bicycle-to-MetroLink intermodal connections. Bicycle stations should follow the model of the existing, Trailnet-operated Downtown Bicycle Station and provide, at minimum:

- Secured storage for 100 bicycles
- Dressing rooms with 100 Lockers
- Five showers
- 20-hour secure access

Bicycle stations should be located in street-level storefronts in mixed-use buildings. Bicycle stations should be located within 500 feet of the primary MetroLink station entrance. Bicycle stations should be operated in conjunction with local or regional partners, such as Great Rivers Greenway, Trailnet, Washington University, Metro, or neighborhood organizations.

E

Proposed Gateway Bike Plan Facilities: The Saint Louis Regional Gateway Bike Plan recommends the following bicycle facilities within the station area:

- Bike Lanes on Olive Boulevard;
- Shared Lane Markings on Skinker Boulevard;
- Shared Lane Markings on Lindell Boulevard;
- Bike Lane on Union Boulevard from Lindell to Delmar Boulevard;
- Shared Lane Markings on Union Boulevard north of Delmar Boulevard;
- Shared Lane Markings on Des Peres Avenue;
- Bike Boulevard on Waterman Avenue from Des Peres Avenue to Union Boulevard;
- Centennial Greenway is an off-street, multi-use path that runs parallel to Forsyth Boulevard along the northern edge of Forsyth Boulevard from Skinker Boulevard/Forest Park west.

These facilities should be taken as minimum level-of-service requirements. Should facilities providing a higher level of service (e.g. dedicated bike lanes) be proposed on designated routes, these facilities should be permitted

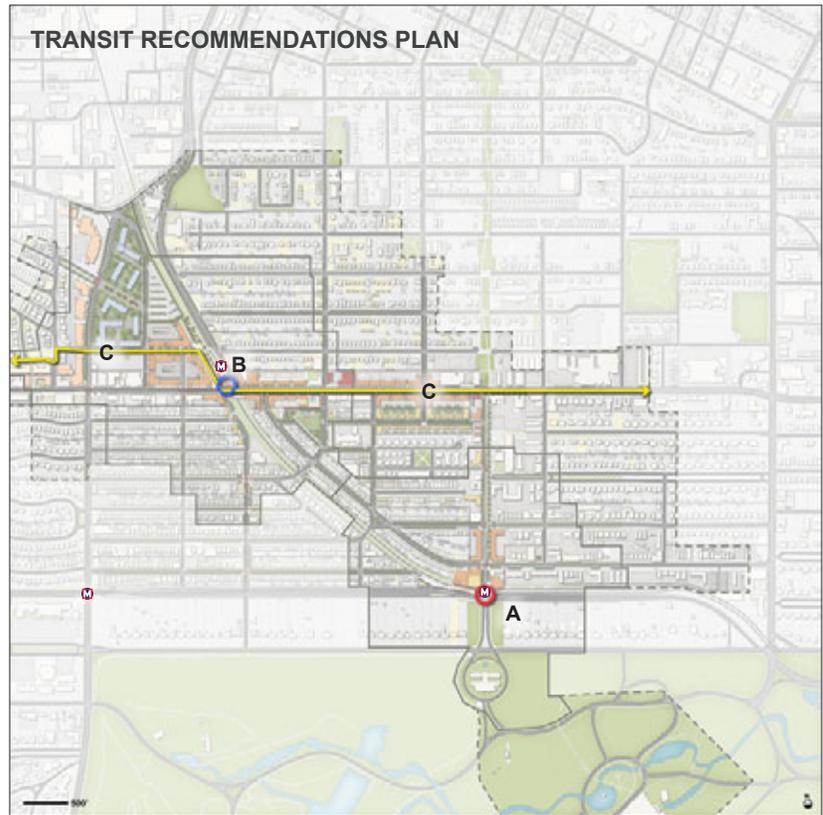
F

Saint Vincent Greenway: Saint Vincent Greenway is a multi-use Path connecting Forest Park and Saint Vincent Park (7335 St. Charles Rock Road) in the municipality of Greendale in north St. Louis County. Saint Vincent Greenway follows DeBaliviere Avenue north from Forest Park to Delmar Boulevard. It through Ruth Porter Mall north to Etzel Avenue, where it turns west to follow the MetroLink tracks north to Saint Vincent Park.

For General Station Area Transportation Principles & Guidelines, see page 12 of Appendix D.



SAINT VINCENT GREENWAY



TRANSIT RECOMMENDATIONS

A

Forest Park–DeBaliviere Station: Provide the following enhancements to the Forest Park–DeBaliviere MetroLink Station:

- Remove the bus loop at the Forest Park–DeBaliviere Station to accommodate future development. The bus loop is not warranted by the limited MetroBus connections provided at the station. Instead, bus pull-outs should be constructed along DeBaliviere Avenue. Note that U-turn maneuvers for the Forest Park Shuttle would need to be accommodated along DeBaliviere Avenue.
- Build a new transit plaza north of Forest Park Parkway at the intersection of Forest Park Parkway and DeBaliviere Avenue. This transit plaza should cap a portion of the depressed MetroLink right-of-way. Provide a kiss-and-ride drop-off, bus drop-off, and pedestrian station access on each side of DeBaliviere Avenue;

B

Delmar Loop Station: Provide the following enhancements to the Delmar Loop MetroLink Station:

- Activate the former Wabash Railroad Station Building on Delmar Boulevard as a prominent entrance for the MetroLink Station.
- More effectively integrate the station with Delmar Boulevard by extending pedestrian connections under Delmar Boulevard and establishing a station entrance on the south side of the street. This would provide transit

riders on the south side of Delmar Boulevard the ability to access the station without crossing the busy street.

- Maintain a transit center at the station, thereby preserving transfers between MetroBus and MetroLink at that location for all routes currently served. Note that a reconfigured transit center may be established on the ground floor of planned structured parking.

C 

MetroBus: Consider re-routing the #97 Delmar MetroBus off of frequently congested sections of Delmar Boulevard to a parallel route along the Enright Avenue corridor to the north. This new corridor would be established by the recommended completion of the Enright Avenue extension between Skinker Boulevard and Eastgate Avenue. This would enable MetroBus routes to by-pass congestion while continuing to serve the greater Loop mixed-use district. Rerouting of the #97 Delmar MetroBus can only be accomplished in conjunction with the proposed Enright Avenue extension.

D (not shown)

Operational Enhancements: Other transit enhancements for consideration include:

- Increasing frequency of the planned Loop Trolley from 20 minutes to 10 minutes.
- Increasing the frequency of #16 and #97 routes to the Delmar Loop Station.
- Increase frequency of the Forest Park Shuttle from 15 minutes to 10 minutes.
- Extend the operating schedule of the Forest Park shuttle. Currently, the shuttle operates from 10:00 a.m. – 7:00 p.m. Extend this to 7:00 a.m. – 7:00 p.m. to better serve the park’s employment base.
- Extend service of the Forest Park Shuttle to April 1st through October 30th in order to more fully capture the park’s seasonal usage.

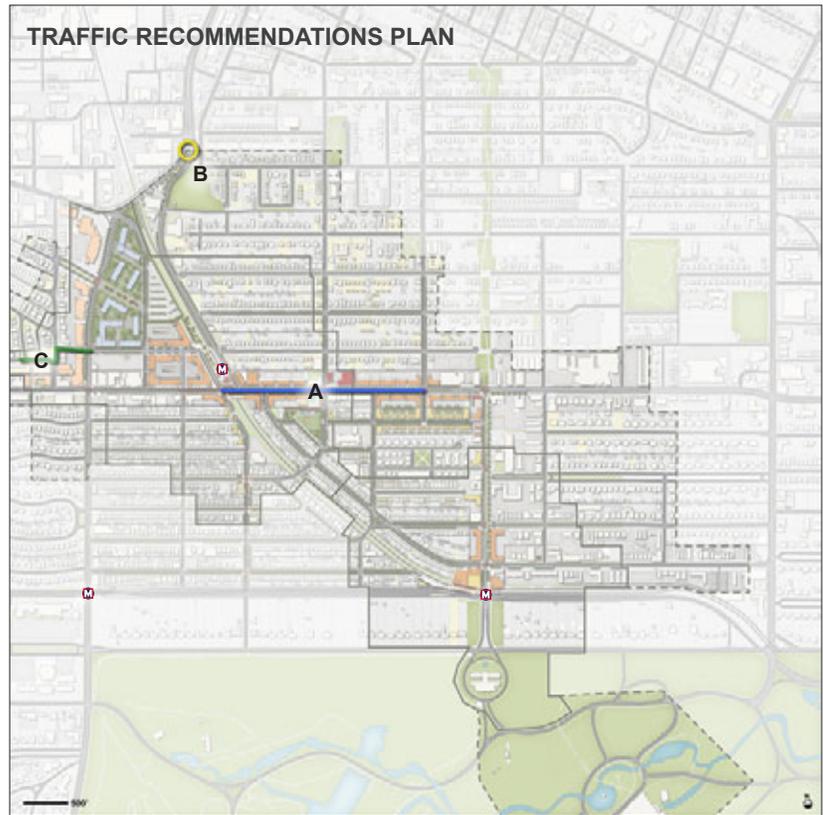
For General Station Area Transportation Principles & Guidelines, see page 12 of Appendix D.



**DELMAR LOOP METROLINK
STATION IMPROVEMENTS**



**FOREST PARK-DEBALIVIERE
STATION AREA**



TRAFFIC RECOMMENDATIONS

A 

Delmar Boulevard Road Diet: Perform a Road Diet along Delmar Boulevard between the Delmar Loop MetroLink Station and Goodfellow Boulevard. Existing and projected traffic volumes support the elimination of one travel lane in each direction in order to accommodate enhanced sidewalks and on-street parking. Under this recommendation, Delmar Boulevard would remain 2 lanes in each direction east of Goodfellow Boulevard to help maintain existing vehicular access and traffic flow between the West End Neighborhood, Forest Park Parkway, and destinations to the east. A detailed analysis of the Delmar Boulevard Road Diet is provided on the facing page.

B 

Key Intersections: Improve the intersection of Hodiament Avenue and North Skinker Blvd.

- Realign Hodiament to intersect North Skinker at a more direct angle.
- Install a roundabout to accommodate all traffic movements and serve as a gateway for the enhanced Hodiament pedestrian and bicycle corridor.

C 

Enright Avenue Corridor: Extend Enright Ave. west of Skinker Blvd. to more effectively connect the station area with the residential neighborhood to the west. This would accommodate the #97 Delmar MetroBus route, facilitating its removal from congested Delmar Blvd.

The purpose of a road diet is to lessen the adverse effects of traffic, improve walkability, and encourage walkable development.

DELMAR BOULEVARD ROAD DIET

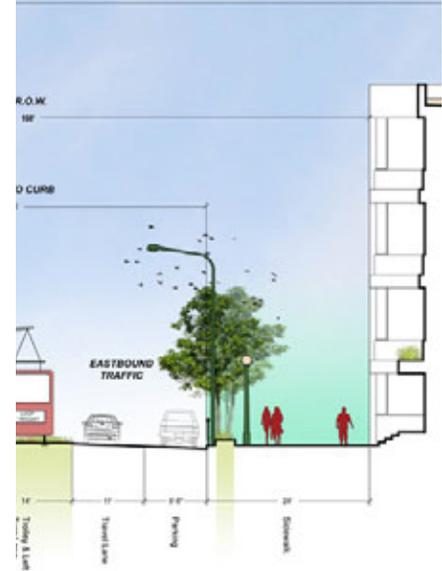
A “road diet” is recommended along Delmar Boulevard between the Delmar Loop MetroLink station and Goodfellow Boulevard. This recommendation would reduce the number of through traffic lanes from four (4) lanes to two (2) lanes, leaving one (1) through traffic lane in each direction. On-street, parallel parking would be provided along both sides of the street, and sidewalk widths would be increased to encourage pedestrian activity. This would effectively represent an extension of the roadway cross-section that presently exists along Delmar, west of Rosedale Avenue in the heart of the Loop mixed-use district.

In the Saint Louis area, a road diet was implemented on South Grand Boulevard near Tower Grove Park as part of East-West Gateway’s Great Streets Initiative. This road diet is located between Arsenal Street and Utah Street in the heart of the South Grand business district—a heavily-trafficked section of a major City arterial route comparable to Delmar Boulevard.

The purpose of a road diet is to lessen the adverse effects of traffic, improve walkability, and encourage walkable development. Road diets are widely credited for increasing safety. The Federal Highway Administration (FHWA) considers a road diet to be a proven safety countermeasure for their ability to decrease crashes, reduce crash severity, and lessen conflicts between vehicles and pedestrians. A nationwide study attributed a 29 percent reduction in crashes to road diets. Road diets also inhibit speeding by eliminating passing lanes. The South Grand road diet achieved a 14% reduction in average speeds. Lower speeds help create a more desirable street for pedestrians, which in turn stimulates patronage of businesses. The South Grand Community Improvement District credits the road diet project with an 8% increase in sales tax.

Traffic volumes along Delmar Boulevard were evaluated to determine if the corridor would be a good candidate for a road diet. FHWA recommends road diets for corridors with 20,000 vehicles per day (vpd) or less. This section of Delmar currently serves about 11,000 vpd, so a road diet would effectively accommodate existing traffic volumes. Development associated with the preferred station area plan, coupled with the Washington University North Campus and North Skinker developments, would add approximately 3,700 vpd, increasing the total volume on Delmar to just below 15,000 vpd. This future year forecasted traffic volume is well within the acceptable guidelines for a road diet.

A more detailed analysis was performed using traffic modelling software to further validate road diet feasibility. This analysis considered the effect of roadway capacity and traffic signals upon traffic flows both with and without a road diet. Future year traffic volumes were forecasted and included growth due to the preferred station area plan as well as the Washington University North Campus and the North Skinker development area. The analysis of the Delmar Boulevard corridor between MetroLink and Goodfellow Boulevard is provided in Appendix B on pages 14-16. The results confirm that overall levels of service (LOS) would remain unchanged at an acceptable LOS C, but average speeds would be reduced by approximately 10 percent as a result of the road diet.



DELMAR BOULEVARD ROAD DIET

The Federal Highway Administration recommends road diets for corridors with 20,000 vehicles per day (vpd) or less. This section of Delmar currently serves about 11,000 vpd.



STATION AREA PARKING GUIDELINES

ANTICIPATED PARKING FOR THE DEVELOPMENT PROGRAM

Guidelines for providing parking for the preferred station area plan are offered with the goal of accommodating parking needs in an efficient manner, while minimizing the supply of spaces. The proposed uses would generate total demand for approximately 3,000 additional parking spaces, not including the Washington University North Campus and North Skinker developments. This calculation reflects the mixed-use, urban character of the station area as well as the light rail station's anticipated impact reducing vehicular trips.

A total of 600 parking spaces would be needed in the vicinity of the Forest Park-DeBaliviere Station to accommodate residential development at that location. Likewise, approximately 600 parking spaces would be needed near the intersection of DeBaliviere Avenue and Delmar Boulevard to serve development concentrated on the site of the existing Metro facility. Note that it was assumed retail uses in both of these areas would primarily consist of neighborhood services and would attract significant patronage from pedestrians. As a result, retail parking demands should be almost entirely accommodated on-street. Similarly, it was assumed that any single family residences would include dedicated parking.

The remaining 1,800 parking spaces would be needed near the Delmar MetroLink Station to accommodate development in that area. Note that an additional 500 spaces above the 1,800 would likely be needed to replace existing park and ride spaces displaced by development. In total, up to 2,300 parking spaces may be needed in that vicinity. This parking need is exclusive of the parking demands that would be generated by Washington University North Campus, which would amount to an additional 500 spaces assumed to be provided for on their campus. Likewise, the North Skinker development would require 1,500 spaces, assumed to be accommodated in dedicated parking on the west side of Skinker Boulevard.

Surplus on-street parking capacity may be able to accommodate some of these demands. However, it is advised that residential and office uses especially be allocated dedicated off-street parking facilities. According to Development Strategies, off-street spaces would be necessary for these uses to attract residential and businesses lease rates that are sufficient to sustain development. Moreover, forcing the parking needs of large-scale developments onto streets creates shortages that result in adverse neighborhood impacts, including parking districts and management strategies. The long-term approach for the station area is to avoid the need for on-street parking management.

The amount of the off-street space need could be reduced by the concept of shared parking. Offsetting temporal parking demands for retailers and residents could enable the same space to be shared by both uses.

The amount of the off-street space need could be reduced by the concept of shared parking. Offsetting temporal parking demands for retailers and residents could enable the same space to be shared by both uses. For example, a residential space occupied overnight but vacated during the day when the resident is at work could be used by a retail customer. Shared parking could reduce the parking supply for the mixed-use development near the stations by 25 percent. However, the segregation of uses away from the station, particularly the concentration of office space northwest of the station, would limit opportunities for shared parking elsewhere.

GENERAL TOD PARKING STRATEGIES

One of the challenges to TOD that the Station Areas face is current City of Saint Louis off-street parking requirements, as outlined in the City's Revised Code. These requirements exist on a parcel-by-parcel basis and are tied to allowed uses under City Zoning. Given the small lot sizes that exist along the Delmar–DeBaliviere corridor, existing off-street parking requirements can make higher-density development cost-prohibitive for developers. This is because structured parking is generally required to meet minimum off-street parking requirements. In the absence of structured parking, large areas of required surface parking will not allow the Station Area to achieve the density targets of TOD.

As outlined in the Form-Based District recommendations presented on pages 112-140, Building Envelope Standards developed for TOD do not specify minimum parking requirements. This strategy, which relies on a market based approach to parking (i.e. developers have a financial interest in meeting the needs of their tenants without oversupplying parking) is recommended in the EPA publication *Parking Spaces / Community Places: Finding the Balance through Smart Growth Solutions*. This publication is a guidebook compiled by U.S. EPA's Development, Community, and Environment Division (DCED) and contractors using existing and new case studies, current bibliographical research, and interviews with experts. In addition to relieving parking requirements, this guidebook recommends a variety of context-specific parking standards. These include transit zoning overlays (utilized by Milwaukee, Wisconsin; Montgomery County, Maryland; and others to reduce parking requirements where there is access to transit. In addition, new zoning districts or specific plans that reduce or relieve parking requirements are in place in downtowns and special business districts throughout the country, including Downtown Saint Louis. These approaches have been proven to help incentivize development while maintaining a dense, vibrant, and walkable urban character.

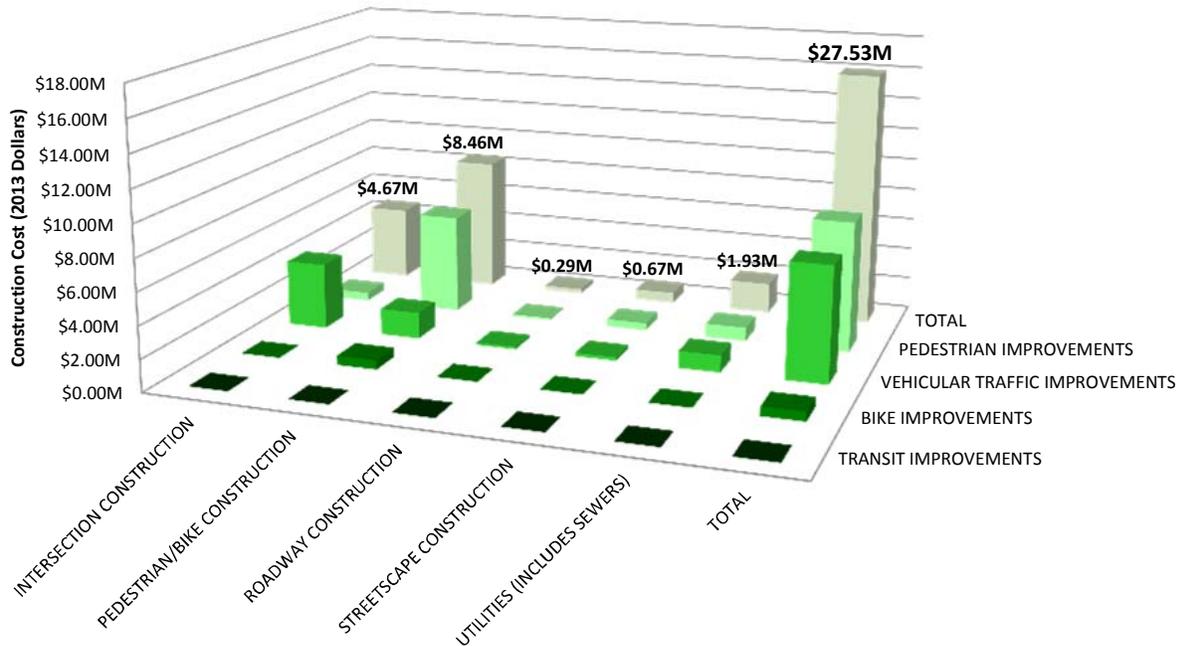


One of the challenges to TOD that the Station Areas face is current City of Saint Louis off-street parking requirements. Given the small lot sizes that exist along the Delmar–DeBaliviere corridor, existing off-street parking requirements can make higher-density development cost-prohibitive for developers.

STATION AREA PUBLIC IMPROVEMENTS COSTS

The total estimated public improvement cost for the station area is estimated to be \$44.37 million in 2013 dollars and includes all tiers of improvements described in the Transportation Analysis of Area Plans. Roadway Construction accounts for 33 percent of the total costs with pedestrian/bike construction and intersection construction accounting for 23 percent and 22 percent respectively. These are followed by Utility costs at 18 percent and Streetscape Construction at 2 percent. Transit improvements comprise less than 1 percent of construction cost because the proposed station area plan improvements include virtually no City of Saint Louis expenditures on MetroLink infrastructure improvements (e.g. station platforms, tracks, etc.). A detailed cost breakdown, including assumptions, is included on page 2 of Appendix F.

Delmar and DeBaliviere Station Public Improvement Cost by Construction Type and Improvement Type for All Tiers



	INTERSECTION CONSTRUCTION	PEDESTRIAN/BIKE CONSTRUCTION	ROADWAY CONSTRUCTION	STREETSCAPE CONSTRUCTION	UTILITIES (INCLUDES SEWERS)	TOTAL
■ TRANSIT IMPROVEMENTS	\$0.00M	\$0.00M	\$0.04M	\$0.00M	\$0.00M	\$0.04M
■ BIKE IMPROVEMENTS	\$0.00M	\$0.58M	\$0.00M	\$0.00M	\$0.00M	\$0.58M
■ VEHICULAR TRAFFIC IMPROVEMENTS	\$4.15M	\$1.66M	\$0.15M	\$0.21M	\$1.06M	\$7.23M
■ PEDESTRIAN IMPROVEMENTS	\$0.52M	\$6.22M	\$0.11M	\$0.46M	\$0.86M	\$8.18M
■ TOTAL	\$4.67M	\$8.46M	\$0.29M	\$0.67M	\$1.93M	\$16.02M

**TRANSPORTATION ORIENTED DEVELOPMENT
PLANNING LEVEL OPINION OF PROBABLE CONSTRUCTION COST
FOR PUBLIC IMPROVEMENTS
AT THE EXISTING
DELMAR AND FOREST-PARK DEBALIVIERE STATIONS**

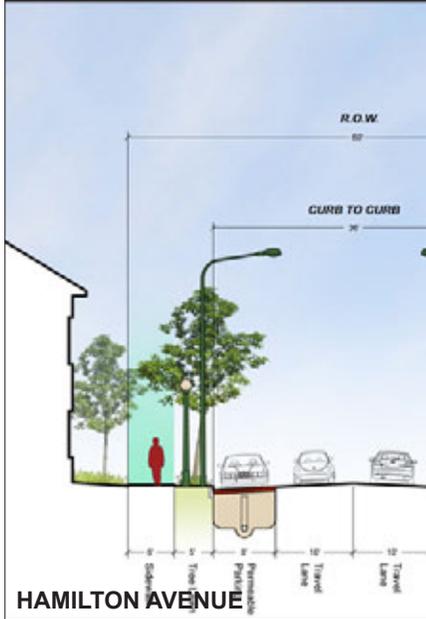
		INTERSECTION IMPROVEMENTS	PEDESTRIAN/BIKE IMPROVEMENTS	ROADWAY IMPROVEMENTS	STREETScape IMPROVEMENTS	UTILITIES (INCLUDES SEWERS)	TIER TOTAL	AREA TOTAL	IMPROVEMENT TOTAL
PEDESTRIAN IMPROVEMENTS									
								\$	8,178,252.66
AREA "A"								\$ 3,038,519.78	
TIER 1	WIDEN SIDEWALK, CONSTRUCT ADA-COMPLIANT RAMPS, AND IMPROVE LIGHTING ALONG HODIAMONT FROM DELMAR BLVD TO SKINKER PKWY	\$ -	\$ 1,089,627.50	\$ -	\$ -	\$ 304,249.91	\$ 1,393,877.41		
TIER 2	NARROW HODIAMONT AND INSTALL A MULTI-USE PATH ALONG THE EAST SIDE OF THE RIGHT-OF-WAY	\$ 260,000.00	\$ 414,277.50	\$ 3,965.00	\$ -	\$ 335,249.88	\$ 1,013,492.38		
TIER 3	[3] ENHANCE THE MULTI-USE PATH AS A LINEAR PARK WITH FEATURES ORIENTED TO PEDESTRIANS SUCH AS BENCHES, LIGHTING, AND AESTHETIC TREATMENTS	\$ -	\$ 319,800.00	\$ -	\$ -	\$ 311,350.00	\$ 631,150.00		
								\$ 466,120.00	
AREA "B"								\$ 1,303,484.00	
TIER 1	CONSTRUCT A SIDEWALK FROM OLIVE BLVD TO THE STATION	\$ -	\$ 206,700.00	\$ -	\$ 5,200.00	\$ 4,000.00	\$ 215,900.00		
TIER 2	INSTALL A MULTI-USE TRAIL FOR PEDESTRIAN AND CYCLISTS	\$ -	\$ 101,400.00	\$ -	\$ 144,820.00	\$ 4,000.00	\$ 250,220.00		
								\$ 1,303,484.00	
AREA "C"								\$ 1,151,389.96	
TIER 1	ESTABLISH SIDEWALK ALONG THE NORTH SIDE OF FOREST PARK PARKWAY WEST OF DEBALIVIERE TO PERSHING, REPLACE EXISTING ROLLED CURB WITH VERTICAL CURB, AND PROVIDE BARRIER BETWEEN SIDEWALK AND ROADWAY	\$ -	\$ 109,720.00	\$ -	\$ -	\$ 15,834.00	\$ 125,554.00		
TIER 2	IMPROVE THE ALLEY JUST TO THE EAST OF THE BUS ROUNDABOUT AND CREATE ACCESS FROM THIS ALLEY TO THE EXISTING STAIRWELL DOWN TO TRACKS IN ORDER TO CREATE A MORE DIRECT ROUTE FOR THE DENSE HOUSING ALONG PERSHING	\$ -	\$ -	\$ 104,130.00	\$ -	\$ 73,800.00	\$ 177,930.00		
TIER 3	PROVIDE A PEDESTRIAN BRIDGE OVER THE METROLINK TRACKS THE CONNECTS THE WEST SIDE OF PERSHING TO THE EXISTING PARK-N-RIDE LOT OR FUTURE DEVELOPMENT SITE	\$ -	\$ 1,000,000.00	\$ -	\$ -	\$ -	\$ 1,000,000.00		
								\$ 1,151,389.96	
AREA "D"								\$ 1,891,359.91	
TIER 1	FILL IN GAPS OF SIDEWALKS AND CONSTRUCT ADA-COMPLIANT RAMPS	\$ -	\$ 703,950.00	\$ -	\$ -	\$ 35,999.96	\$ 739,949.96		
TIER 2	CONNECT TO A POTENTIAL PEDESTRIAN CORRIDOR ALONG HODIAMONT AVENUE	\$ -	\$ 11,440.00	\$ -	\$ -	\$ -	\$ 11,440.00		
TIER 3	CONSTRUCT A BRIDGE OVER METROLINK TRACKS TO CONNECT TO AND THROUGH THE WASH U NORTH CAMPUS	\$ -	\$ 400,000.00	\$ -	\$ -	\$ -	\$ 400,000.00		
								\$ 1,891,359.91	
AREA "E"								\$ 327,379.00	
TIER 1	[6] PROTECTED-ONLY LEFT-TURN PHASES TO REDUCE CONFLICTS BETWEEN YIELDING LEFT-TURN MOVEMENTS AND PEDESTRIANS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
TIER 2	INCREASE PEDESTRIAN AWARENESS BY USING LONGITUDINAL 'ZEBRA' MARKINGS IN CROSSWALKS	\$ 4,979.00	\$ -	\$ -	\$ -	\$ -	\$ 4,979.00		
TIER 3	REPLACE THE TRAFFIC SIGNAL AND UPGRADE INTERSECTION LIGHTING TO IMPROVE THE INTERSECTION'S EFFICIENCY AND ENHANCE PEDESTRIAN SAFETY	\$ 260,000.00	\$ 62,400.00	\$ -	\$ -	\$ -	\$ 322,400.00		
								\$ 327,379.00	
BIKES									
								\$	577,720.00
AREA "A"								\$ 577,720.00	
TIER 1	CONNECT TO THE ACKERT WALKWAY TRAIL TO THE DELMAR STATION ON THE NORTH SIDE OF DELMAR BOULEVARD	\$ -	\$ 355,160.00	\$ -	\$ -	\$ -	\$ 355,160.00		
TIER 2	CONNECT THE RUTH PORTER TRAIL TO THE FOREST PARK STATION AND FOREST PARK ALONG DEBALIVIERE AVENUE	\$ -	\$ 222,560.00	\$ -	\$ -	\$ -	\$ 222,560.00		
								\$ -	
AREA "B"								\$ -	
TIER 1	[4] NARROW HODIAMONT AND INSTALL A MULTI-USE PATH ALONG THE EAST SIDE OF THE RIGHT-OF-WAY	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
TIER 2	[5] ENHANCE THE MULTI-USE PATH AS A LINEAR PARK WITH FEATURES ORIENTED TO PEDESTRIANS SUCH AS BENCHES, LIGHTING, AND AESTHETIC TREATMENTS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
TRANSIT									
								\$	35,503.00
AREA "A"								\$ 35,503.00	
TIER 1	REMOVE THE BUS ROUNDABOUT AT THE DEBALIVIERE STATION AND USE THE CURB LANE OR PROPOSED TROLLEY STATION AS A BUS STOP	\$ -	\$ -	\$ 35,503.00	\$ -	\$ -	\$ 35,503.00		
								\$ -	
AREA "B"								\$ -	
TIER 1	[6] MAINTAIN THE EXISTING BUS TRANSFER CENTER AT THE DELMAR STATION OR INCORPORATE A SIMILAR FACILITY INTO FUTURE DEVELOPMENT, KEEPING ALL EXISTING ROUTES THAT SERVE THIS STATION	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
VEHICULAR TRAFFIC									
								\$	7,229,156.99
AREA "A"								\$ 3,144,047.92	
TIER 1	[6] STRIPE THE ROADWAY TO REDUCE THE CROSS SECTION DOWN TO ONE TRAVEL LANE, A TWO-WAY LEFT-TURN LANE, AND ONE PARKING LANE IN EACH DIRECTION (ALONG WITH TROLLEY TRACKS). CONSTRUCT ADA-COMPLIANT RAMPS, UPGRADE SIDEWALKS, AND IMPROVE LIGHTING	\$ 1,553,344.00	\$ 1,182,480.00	\$ 21,840.00	\$ -	\$ 79,999.92	\$ 2,837,663.92		
TIER 2	[7] ENHANCE THE CORRIDOR WITH IMPROVED LANDSCAPING, TEXTURED CROSSWALKS, AND AESTHETIC FEATURES	\$ -	\$ 148,044.00	\$ -	\$ 158,340.00	\$ -	\$ 306,384.00		
								\$ 2,465,386.43	
AREA "B"								\$ 1,619,722.64	
TIER 1	REALIGN HODIAMONT TO MAKE A MORE PEDESTRIAN FRIENDLY INTERSECTION	\$ -	\$ 169,806.00	\$ -	\$ 53,950.00	\$ 97,024.98	\$ 320,780.98		
TIER 2	INSTALL A ROUNDABOUT TO ACCOMMODATE ALL TRAFFIC MOVEMENTS AND TO SERVE AS A GATEWAY SYMBOL INTO A POTENTIAL HODIAMONT PEDESTRIAN CORRIDOR	\$ 1,330,706.00	\$ 111,800.00	\$ -	\$ -	\$ 702,099.45	\$ 2,144,605.45		
								\$ 1,619,722.64	
AREA "C"								\$ 160,885.00	
TIER 1	[6] RE-ESTABLISH CONNECTIONS BETWEEN HODIAMONT AND ENRIGHT, CLEMENS, CATES, MAPLE	\$ 1,263,117.70	\$ 44,720.00	\$ -	\$ -	\$ 150,999.94	\$ 1,458,837.64		
TIER 2	CLOSE HODIAMONT AT DELMAR TO PREVENT CUT-THRU TRAFFIC AND INCREASED TRAFFIC CIRCULATION WITHIN THE WEST END NEIGHBORHOOD	\$ -	\$ -	\$ 126,685.00	\$ -	\$ 34,200.00	\$ 160,885.00		
TOTALS		\$ 4,672,146.70 29%	\$ 8,457,245.00 53%	\$ 292,123.00 2%	\$ 673,660.00 4%	\$ 1,925,457.94 12%		\$ 16,020,632.64	

NOTES:

- [1] ALL COSTS ARE IN 2013 DOLLARS
- [2] ALL COSTS INCLUDE MOBILIZATION (5%) AND CONTINGENCY (25%)
- [3] TIER 3 IMPROVEMENTS BUILD ON TIER 2 IMPROVEMENTS OF PEDESTRIAN IMPROVEMENTS AREA "A", TIER 2
- [4] BIKE IMPROVEMENTS FOR AREA "B", TIER 1 ARE THE SAME AS FOR PEDESTRIAN IMPROVEMENTS, AREA "A", TIER 2
- [5] BIKE IMPROVEMENTS FOR AREA "B", TIER 2 ARE THE SAME AS FOR PEDESTRIAN IMPROVEMENTS, AREA "A", TIER 3
- [6] NO PUBLIC IMPROVEMENTS COSTS WITH THIS TIER
- [7] TIER 2 IMPROVEMENTS BUILD ON TIER 1 IMPROVEMENTS OF VEHICULAR IMPROVEMENTS AREA "A"
- [8] COSTS DO NOT INCLUDE LAND ACQUISITION AND BUILDING DEMOLITION
- [9] COST DO NOT INCLUDE SITE CONTAMINATION REMEDIATION



REV. 0 - 7/30/2013 DD



HAMILTON AVENUE



DELMAR BOULEVARD



LUCIER PARK

STATION AREA GREEN INFRASTRUCTURE FRAMEWORK

In support of the City’s sustainability initiatives, complete streets including green infrastructure and retrofitted buildings are prescribed throughout the Station Area. Green infrastructure is a defining element of street improvements and new developments within the Delmar Loop and Forest Park–DeBaliviere Station Area. Local species of plants remediate toxins in the ground and control and collect rain water to increase water quality before it gets into the drinking supply; green roofs with the potential for urban agriculture and new trees reduce the heat island effect and create comfortable walking environments; bioswales and permeable pavement reduce stormwater runoff and increase infiltration. Green infrastructure also enhances public spaces and provides a venue for public art. All of these features combined will improve air quality and water management around the stations, enrich the character and experience of the streetscape, and elevate property values around the stations.

Impact on Imperviousness/Stormwater Runoff/Water Quality

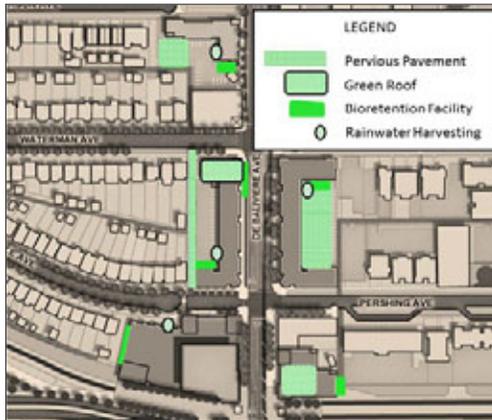
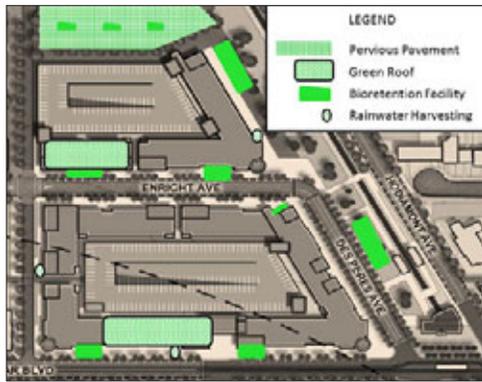
Development that increases imperviousness will cause an increase in the stormwater (and pollutants) that runs off into the enclosed combined sewer system, as well as an increase in bypass into the Mississippi River during heavy rain events. For the Delmar Loop and Forest Park–DeBaliviere Station Area, it appears that there may be an increase in the percent impervious on certain sites. In general, the best approach is to maximize green space for each site when combined with parking strategies, and utilize green infrastructure wherever possible.

Regulatory and Permitting Requirements

Stormwater permitting for this project will be administered by the Metropolitan St. Louis Sewer District (MSD). All projects submitted to MSD must be reviewed to determine if stormwater quantity and/or quality management will be required. A project will require stormwater quantity and/or quality management if any of the following apply:

- The project is a new development or redevelopment project that disturbs greater than or equal to one acre;
- The project on an individual parcel disturbs less than one acre, but it is part of a larger overall, project that disturbs over one acre;
- There is a proposed increase in stormwater runoff over two cubic feet per second (cfs) for the 20 year-20 minute design rainfall;
- Downstream stormwater problems (insufficient pipe capacity) exists that might require the proposed site to have quantity detention, where less than two cfs increase in runoff is proposed.

All new development projects must reasonably mimic pre-construction runoff with the aim of preventing or reducing water quality impacts. Any project site



that has an existing percent impervious of 20 percent or less, will be considered new development. Any succeeding or additional development to these sites will also be considered new development. All redevelopment projects must also reasonably mimic pre-construction runoff with the aim of preventing or reducing water quality impacts, by utilizing effective water quality strategies.

The three key components of stormwater quantity and quality management are water quality volume, channel protection storage volume, and flood protection volume. The preferred method to address these components is removing stormwater volume through infiltration.

For further details on the Delmar Loop and Forest Park–DeBaliviere Station Area Green Infrastructure Recommendations, see page 5 of Appendix E.

PRELIMINARY ESTIMATED UNIT COSTS FOR WATER QUALITY AND WATER QUANTITY

- BIORETENTION FACILITIES \$20 TO \$25/SF
- PERMEABLE PAVEMENT \$15 TO \$20/SF
- RAINWATER HARVESTING \$150 AND UP (DEPENDS ON THE AESTHETIC NATURE OF THE BMP).
- GREEN ROOFS – \$15 TO \$20/SF
- DISCONNECTION – \$500 TO \$1,000 PER DISCONNECTION.
- BUFFER STRIPS – \$5 TO \$10/SY

PRELIMINARY ESTIMATED COST OF CONSTRUCTION FOR WATER QUALITY AND WATER QUANTITY

- BIORETENTION FACILITIES (SF); 200,000; 25\$ / UNIT; TOTAL COST OF \$5,000,000
- PERMEABLE PAVEMENT (SF); 57,000; 20\$ / UNIT; TOTAL COST OF \$1,140,000
- RAINWATER HARVESTING (EA); 11; \$20,000 / UNIT; TOTAL COST OF \$220,000
- GREEN ROOFS (SF); 23,500; \$25 / UNIT; TOTAL COST OF \$587,500

TOTAL ESTIMATED COST

\$6,947,500



NEIGHBORHOOD CENTER TYPE 1 MIXED-USE BUILDINGS AT DELMAR AND ROSEDALE

FORM-BASED DISTRICT RECOMMENDATIONS

Statement of Purpose for the FBD

The objective of the form-based district (FBD) is to regulate future development to encourage increased density and walkability. The proposed district concentrates commercial activity and neighborhood services along Delmar Boulevard and DeBaliviere Avenue, while supporting incremental, contextual infill. Furthermore, the FBD is designed to minimize redundancy with existing regulations (refer to *Reconciliation of the Historic Districts with the FBD* on page 114 for additional information), and increase coordination with existing and proposed new special assessment districts, including the Loop Special Business District (SBD), East Loop SBD, Loop Trolley Transportation Development District (TDD), and the proposed Loop and East Loop Community Improvement Districts (CIDs) (proposed as part of the Loop Retail Study and Parkview Gardens Neighborhood Sustainable Development Plan).



EXAMPLE OF BOULEVARD TYPE 2

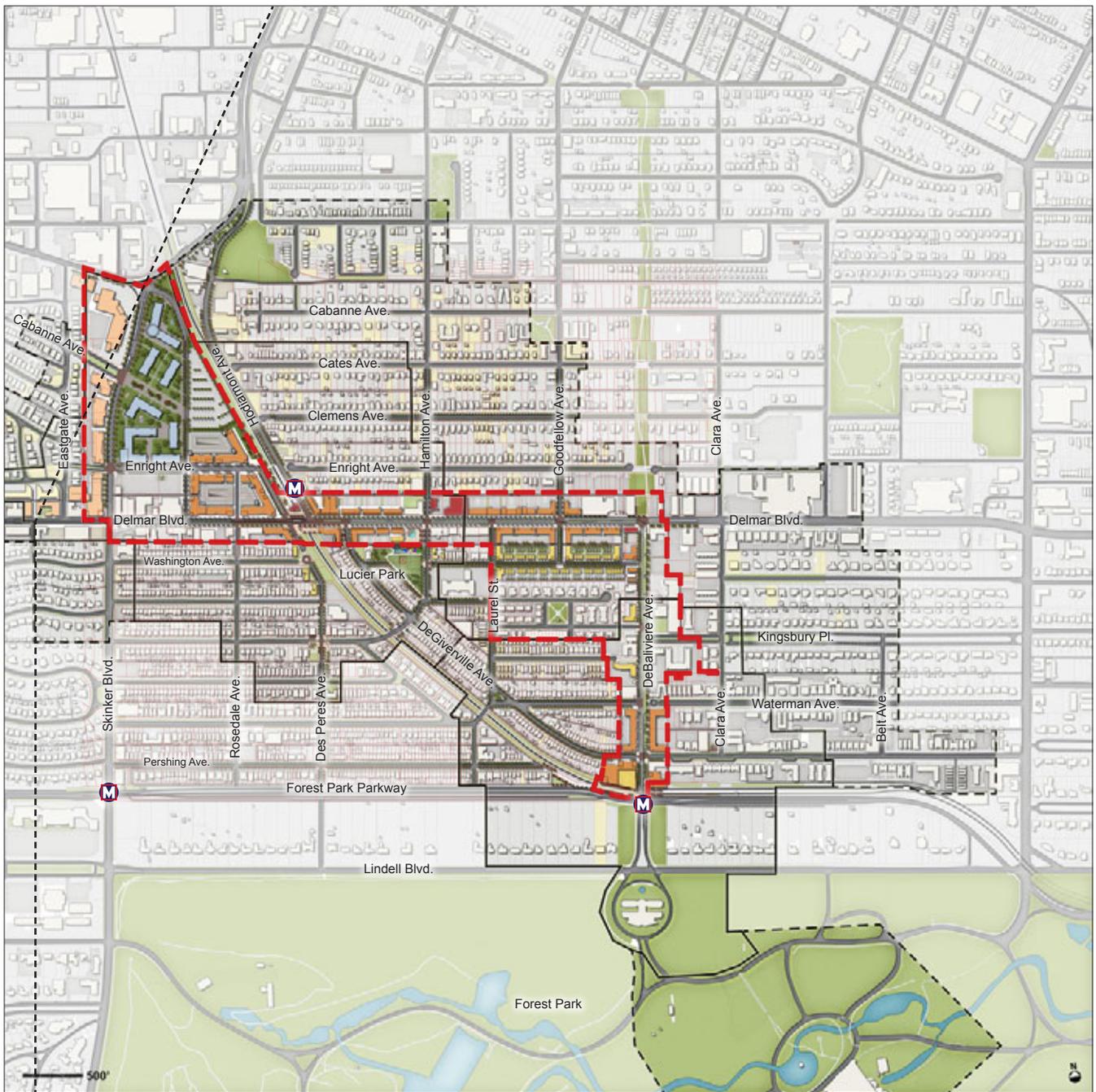
The proposed FBD boundary intentionally omits portions of the West End Neighborhood north of Delmar Boulevard. This plan recommends that the City work with the West End Neighborhood to develop and establish a future neighborhood FBD. The portion of the West End Neighborhood that falls within the half-mile transit shed could be included in the proposed Delmar Loop and Forest Park–DeBaliviere FBD. However, the City and planning team feel that a separate, neighborhood-based FBD that considers the West End Neighborhood as a whole would better address the needs and desires of the West End Neighborhood and its residents. Finally, the Metro DeBaliviere Garage site, while comprised of multiple parcels, is under single ownership by a “friendly” development partner. As a result, this site is an ideal candidate for a Planned-Unit Development (PUD) under a Chapter 99 redevelopment area.



EXAMPLE OF NEIGHBORHOOD GENERAL TYPE 1

Regulating Plan & Building Envelope Standards for the FBD

The Regulating Plan designates the recommended Building Envelope Standards for the station area. Building Envelope Standards regulate the building placement, building height, building types, encroachments, and use requirements for the station area. Neighborhood Center Type 1 is applied along Delmar Boulevard west of Hodiamont to create a high-density commercial center around the existing East Loop. Neighborhood General Type 3 is applied along DeBaliviere Avenue and Delmar east of Hodiamont to create a medium-density mixed-use corridor supporting residential, office, and secondary retail uses. Boulevard Type 2 is applied along North Skinker Boulevard to create a distinctive urban edge to a major City arterial, and a the new Campus Building Envelope Standard is applied to Washington University North Campus to facilitate the development of



STATION AREA PLAN

an urban campus. These Building Envelope Standards accommodate a range of building forms and uses, detailed on pages 120-140.

The Existing Zoning for the FBD

The Regulating Plan and Building Envelope Standards established will serve as an overlay to the St. Louis City Revised Code Title 26 (shown on the opposite page for reference) within the boundary noted. Any parcel subject to the rules and regulations of the adopted Form-Based District, would no longer be subject to the Zoning Code, with exception to any regulatory subjects not addressed within the final adopted FBD.

LEGEND

- EXISTING BUILDINGS
- NEW MIXED USE BUILDINGS
- NEW RESIDENTIAL BUILDINGS
- REDEVELOPED RETAIL/COMMERCIAL BUILDINGS
- WASHINGTON UNIVERSITY NORTH CAMPUS BUILDINGS (not included in development program)
- NORTH SKINKER MIXED USE DEVELOPMENT (not included in development program)
- PARKING
- PARKS
- OPEN SPACE
- NEW SIGNATURE INTERSECTION
- NEW PLAZA
- 1/4 MILE TRANSIT SHED
- 1/2 MILE TRANSIT SHED
- FORM BASED DISTRICT BOUNDARY



**PROPOSED REDEVELOPMENT
OF THE DEBALIVIERE METRO
GARAGE SITE**

When these regulations are combined with improvements to the public realm, the new development and redevelopment within the station area will exhibit more of the vibrant qualities which are characteristic of transit-oriented development.

“Triggers” for the FBD

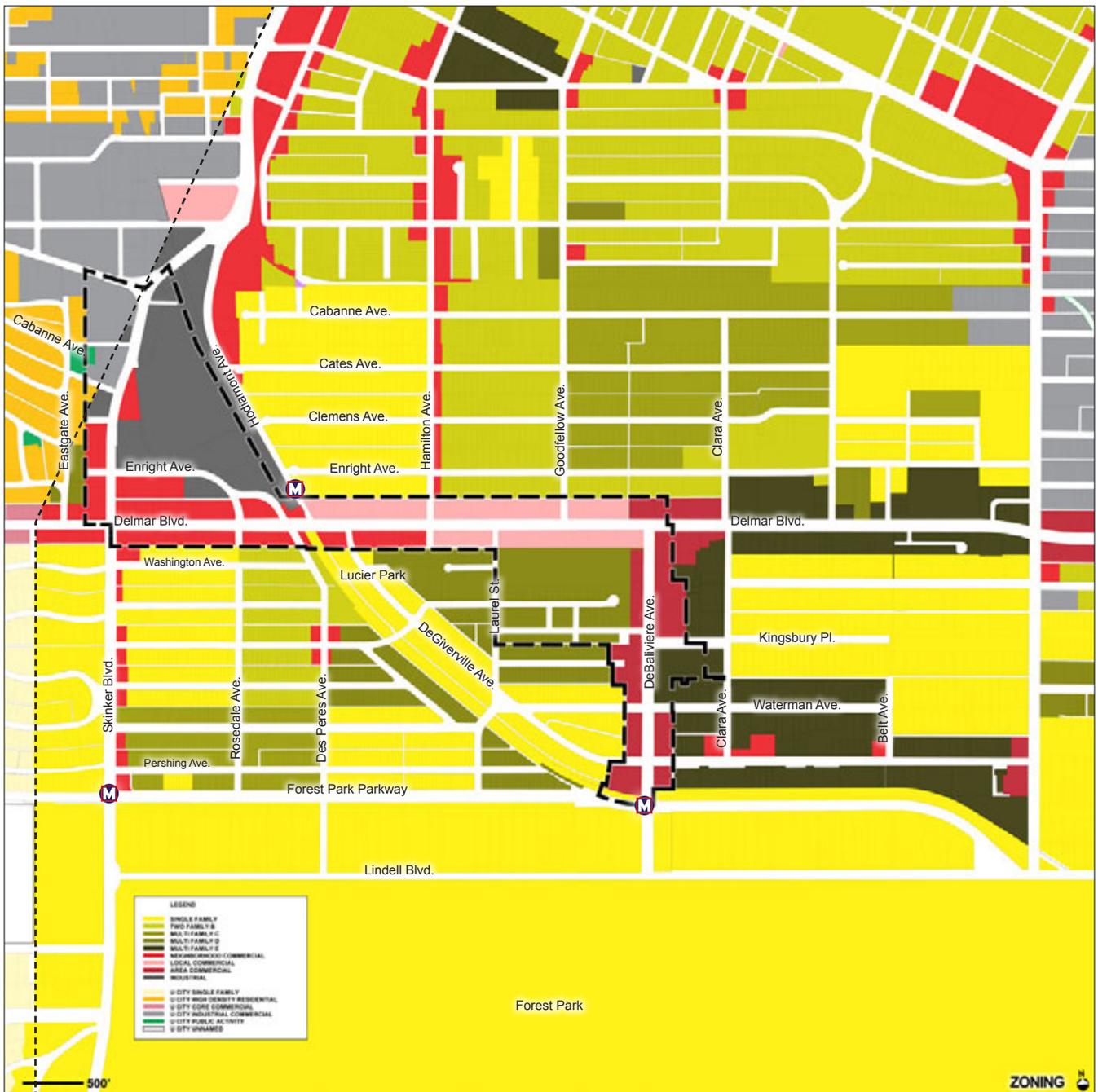
As the FBD is an overlay zone for the existing zoning, the “triggers” (otherwise known as “permits”) for the FBD will be important to determine. We are recommending, at a minimum, that the ordinance be applicable (similar to existing Ordinance 69406) to new construction permits or addition permits within the FBD area. Additionally, great consideration should be given to the applicability of permits for the renovation of existing buildings and occupancy permits, especially when considering the vacant buildings in the area.

Reconciliation of the Historic Districts with the FBD

The station area encompasses the Hamilton Place and West Cabanne National Historic Districts. Within these districts, the Secretary of the Interior’s Standards will only be applicable if a property owner desires state or Federal historic preservation tax credits. These standards contain no zoning criteria, and the design standards are more relegated to very specific requirements for restoration and rehabilitation. We recommend that the form-based district regulations take precedence over the national historic district guidelines, and that the final adoption ordinance contain language (similar to existing Ordinance 69406) addressing any conflicts with historic district regulations or requirements.

The station area also encompasses portions of the Skinker DeBaliviere–Catlin Tract–Parkview and Central West End Certified Local Districts. Within these districts, the Secretary of the Interior’s Standards apply as indicated above. Additionally, however, each Local District has established Rehabilitation and New Construction Standards that specify building height, setback, materials, architectural design guidelines, and site design guidelines. These standards apply to all contributing structures within the district. Furthermore, construction permits are required for *all work* in Certified Local Districts, including non-structural work not normally requiring a permit (e.g. window replacement, roof replacement comprising 25-percent or less of the roof, etc.). These permits trigger a mandatory review by the City’s Cultural Resources Office (CRO) to ensure conformity with district standards.

The existing Local Historic District Standards are redundant to new FBD regulations, and in general are more restrictive than proposed FBD regulations. As a result, the FBD boundary is established to not include the Local Historic Districts to the extent possible. Overlap only occurs where there is a need to achieve taller building heights and greater levels of density than permitted in the existing Local Historic District standards. This increased density is required for TOD to be successful in the station area. These overlaps occur on the 5700- to 6100-blocks of Delmar Boulevard and the 200- to 500-blocks of DeBaliviere Avenue. Where

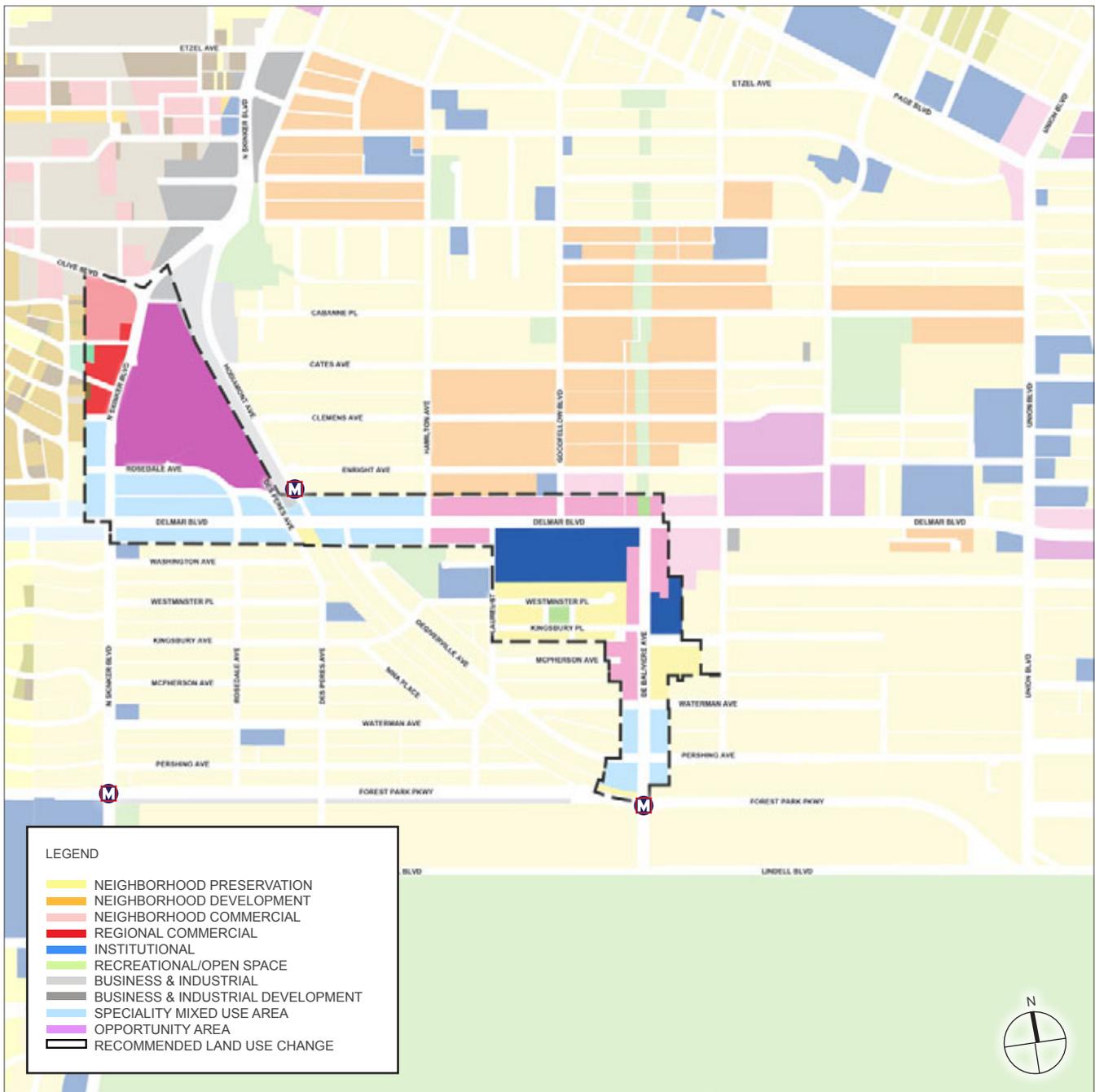


EXISTING ZONING

these overlaps exist, we recommend that the new FBD regulations be explicitly incorporated into the Local Historic Districts Standards for rehabilitation and new construction.

Parking Requirements for the FBD

As described in *General TOD Parking Strategies* on page 107, proposed regulations eliminate minimum off-street parking requirements to encourage higher density, transit-oriented development. Thus all Building Envelope Standards within the station area are designated with the suffix “TOD” following their respective titles.



EXISTING STRATEGIC LAND USE PLAN

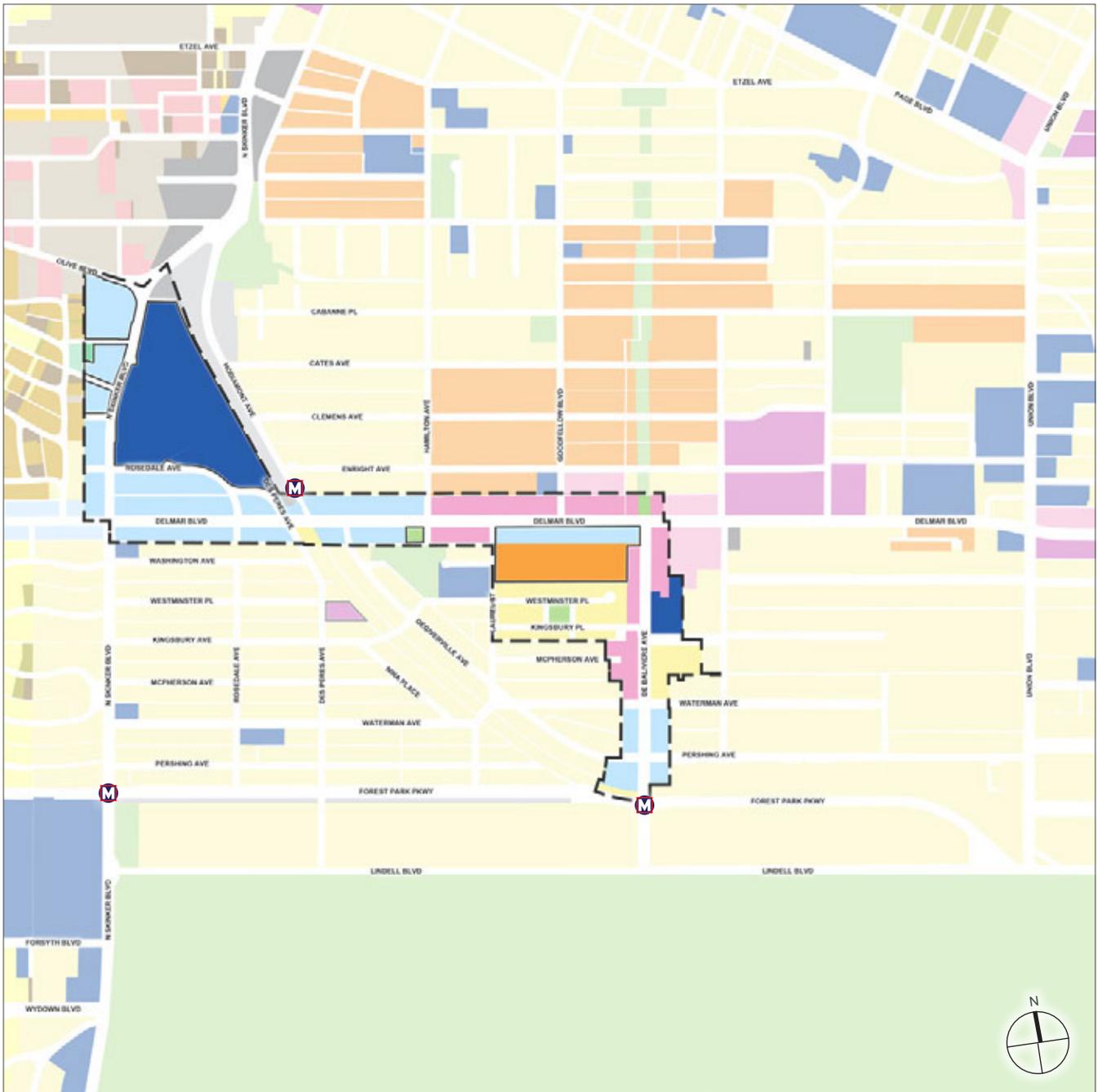
RECOMMENDED CHANGES TO THE STRATEGIC LAND USE PLAN & OTHER CITY REGULATIONS

The Strategic Land Use Plan was established by the City of Saint Louis on January 5, 2005. It has been updated through Amendment #10 – December 5, 2012. The purpose of the plan is to guide, at a very broad level, development and preservation throughout the area in a comprehensive manner. As the intent of the Station Area Plan is to establish a vision and development plan, it will be necessary to make modifications to the Strategic Land Use Plan in order to ensure that it is concurrent with the Form-Based District. As a transit oriented neighborhood,

parking requirements (as required by the City of Saint Louis Revised Code Title 26) have been removed within the Delmar Loop and Forest Park-DeBaliviere Form-Based District.

The following are the recommended changes to the Strategic Land Use Plan within the Delmar Loop and Forest Park-DeBaliviere Form-Based District:

- The parcels creating Washington University’s North Campus have been changed to Institutional in order to support the future development plans of the university and the benefit this will add as an anchor



RECOMMENDED CHANGES TO THE STRATEGIC LAND USE PLAN

- within the Delmar Loop Station transit shed.
- Parcels along the West side of North Skinker Boulevard have been changed from regional commercial to Specialty Mixed Use Area to reflect the greater possibility of mixed use office in this area rather than regional commercial, which is more realistic along Delmar Boulevard.
- Two parcels at the Southwest corner of the intersection of Delmar Boulevard and Hamilton Avenue have been changed from Specialty Mixed Use Area to Recreational/Open Space to support the expansion and/or reconfiguration of Lucier Park so it connects to Delmar Boulevard.
- The parcels of the current Metro Garage Site at the Southwest corner of Delmar Boulevard and DeBaliviere Avenue have been changed from Institutional to Specialty Mixed Use Area and Neighborhood Redevelopment to support the redevelopment of the Metro Garage site for mixed use and residential uses.

SEE ABOVE MAP FOR RECOMMENDED CHANGES



PRIMARY & SIDE STREETS

PRIMARY & SIDE STREETS

Primary Streets within the Delmar Loop and Forest Park-DeBaliviere Form-Based District are:

- Skinker Boulevard
- Delmar Boulevard
- DeBaliviere Avenue
- Forest Park Parkway
- Enright Avenue
- Waterman Boulevard
- Pershing Avenue
- DeGiverville Avenue
- McPherson Avenue
- Kingsbury Place
- Kingsbury Avenue
- Westminster Place
- Washington Boulevard
- Nina Place
- Laurel Street
- Clemens Avenue
- Cates Avenue
- Rosedale Avenue
- New Street through Washington University North Campus

All other streets shall be considered Side Streets.

LEGEND: BUILDING ENVELOPE STANDARDS

- PRIMARY STREETS
- SIDE STREETS



DELMAR BLVD.

BUILDING ENVELOPE STANDARDS

Neighborhood General Type 1 (NG1-TOD)

Neighborhood General Type 1 intends to preserve and enhance the integrity and quality of primarily single family, duplex, triplex, fourplex, and rowhouse residential area of the neighborhood. The area is designed to provide for sensitive and respectful infill development which allows for the variety of building types and forms, and front yards found in the neighborhood.

Neighborhood General Type 3 (NG3-TOD)

Neighborhood General Type 3 intends to establish a flexible mixed-use residential area that enhances and densifies this primarily larger, lot mixed-use area of the neighborhood. The area is designed to provide for architectural appropriate infill development which allows for a variety of building types, uses, heights, and forms, as well as the creation of a vibrant mixed-use streetscape.

Neighborhood Center Type 1 (NC1-TOD)

Neighborhood Center Type 1 intends to regulate areas which are typically neighborhood retail centers in order to establish, preserve or enhance the vibrant, pedestrian oriented character of these walkable neighborhood main streets. The physical form of the buildings are regulated while allowing flexibility in use. The area is designed to provide convenient shopping and servicing establishments for persons residing in the neighborhood, so long as such uses are compatible with adjacent residential uses.

Boulevard Type 2 (B2-TOD)

Boulevard Type 2 intends to establish a flexible mixed-use residential area that enhances and densifies this primarily larger, lot mixed-use area of the neighborhood. The area is designed to provide for architectural appropriate infill development which allows for a variety of building types, uses, heights and forms as well as the creation of a vibrant mixed-use streetscape.

Campus Type 1 (C1-TOD)

Campus Type 1 intends to establish the flexible, mixed-use areas of primarily large lot and combined lot developments while maintaining and supporting an active streetscape and a vibrant urban character. The physical form of these areas responds to the existing context by meeting a minimum coverage of the build-to-line and orienting buildings to the primary streets. Campus Type 1 is a new Building Envelope Standard, additional to the eight (8) Building Envelope Standards adopted as part of Ordinance 69406.



MOONRISE HOTEL IN THE LOOP



HOMES IN SKINKER-
DEBALIVIERE NEIGHBORHOOD

NEIGHBORHOOD GENERAL TYPE 1 (NG1-TOD)



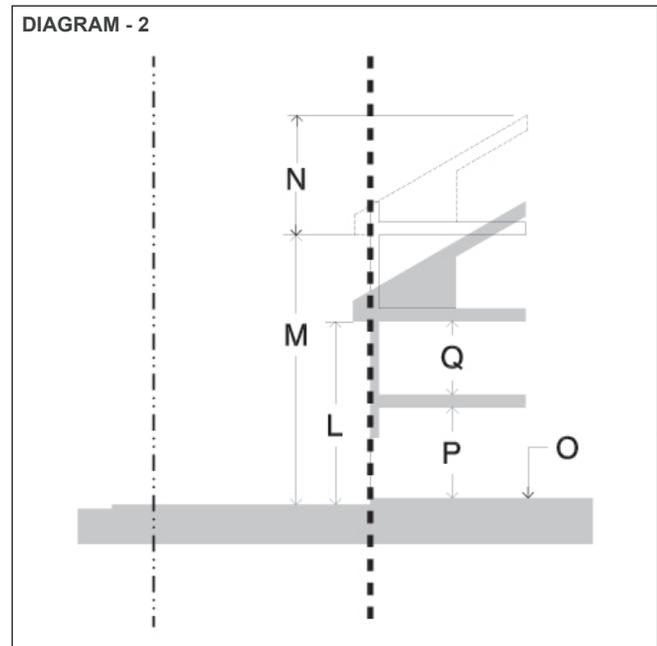
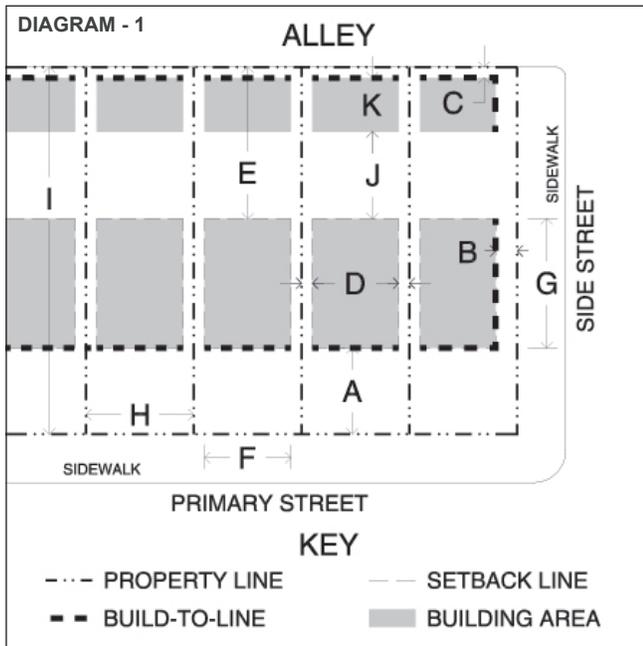
INTENT STATEMENT:

The intent of this Building Envelope Standard is to regulate the physical form of the Neighborhood General Type 1 areas in order to preserve and enhance the integrity and quality of this primarily single family, duplex, triplex, fourplex and rowhouse residential area of the neighborhood. The area is designed to provide for sensitive and respectful infill development which allows for the variety of building types and forms, and front yards found in the neighborhood. This intent statement and the images shown below are advisory only.

EXAMPLES OF CHARACTER



NEIGHBORHOOD GENERAL TYPE 1 (NG1-TOD)



I - BUILDING PLACEMENT

BUILD-TO-LINE:

[A] PRIMARY STREET:	25' Min 50' Max (1)
[B] SIDE ST., ANC. & MAIN BLDG	10'
[C] ALLEY, ANC. BLDG:	5'

SETBACK:

[D] SIDE, ANC. & MAIN BLDG	5' Min 10' Max
[E] ALLEY, MAIN BLDG:	60' Min 120' Max (2)

BUILDING FORM:

[F] PRIMARY STREET:	At least 80% of Build-to-Line
[G] SIDE ST., MAIN BLDG:	At Least 25% of Build-to-Line
[H] LOT WIDTH:	Per Existing
[I] LOT DEPTH:	Per Existing
[J] BETWEEN BLDGS:	25' Min b/t Main & Anc. Buildings
[K] DEPTH OF ANC. BLDG:	30' Max

FOR REFERENCE NOTES REFER TO FINAL PAGE OF THIS TYPE.

II - BUILDING HEIGHT

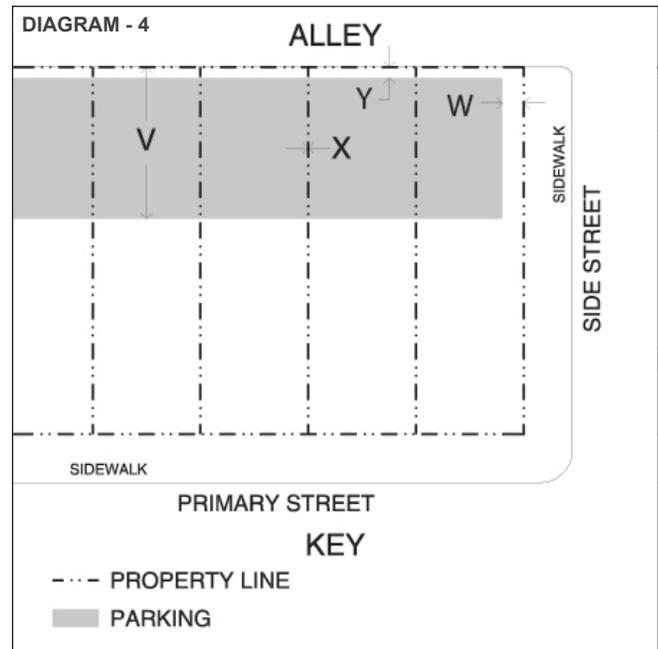
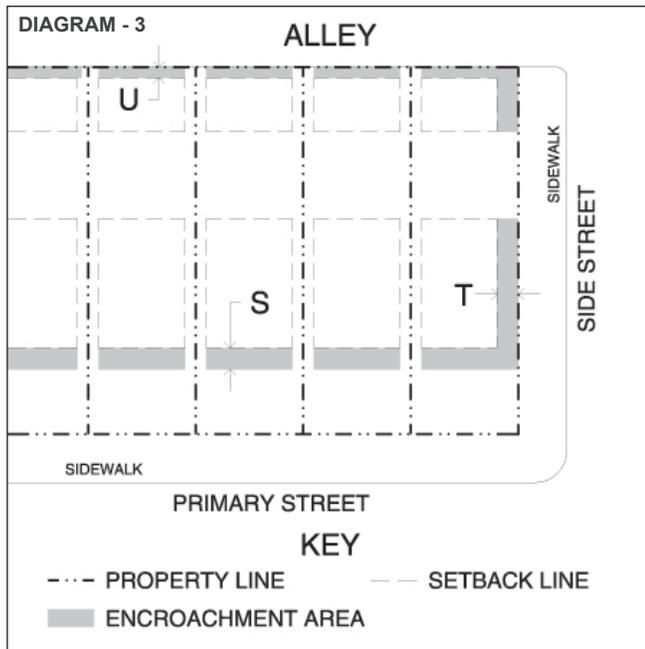
[L] BUILDING HEIGHT MINIMUM:	2 Stories and 25'
[M] BUILDING HEIGHT MAXIMUM:	3 Stories and 40'
[N] MAX FROM B.O. EAVE TO T. O. PARAPET OR ROOF:	15' Max
[O] FINISHED GRND FLOOR LEVEL:	1' Min 3' Max Above Back of Sidewalk or Adjacent Lot Level
[P] FIRST FLOOR CEILING HTS:	10' Min 12' Max (F to C)
[Q] UPPER FLOORS CEILING HTS:	8' Min 10' Max (F to C)
[R] ANC. BLDG. MAX. HEIGHT	3 Stories and 40' (3)

III - BUILDING TYPES

- Detached Single Family Dwelling
- Rear Garage
- Carriage House
- Duplex, Triplex, and Fourplex
- Rowhouse and Courtyard Rowhouse

*Indicates a change from the existing Building Envelope Standards adopted as part of Ordinance 69406.

NEIGHBORHOOD GENERAL TYPE 1 (NG1-TOD)



IV - ENCROACHMENTS

LOCATION:

[S] PRIMARY STREET:	12' Max
[T] SIDE STREET:	10' Max
[U] ALLEY:	5' Max

V - USE REQUIREMENTS

GROUND FLOOR USES: Residential

UPPER FLOOR(S) USES: Residential

VI - PARKING REQUIREMENTS

LOCATION:

[V] PRIMARY SETBACK:	60' Max
[W] SIDE STREET SETBACK:	10' Min
[X] SIDE SETBACK:	0', If Surface Lot; Per Main Building if Structured Parking
[Y] ALLEY SETBACK:	5' Min

REQUIRED SPACES:*

THERE ARE NO MINIMUM OFF-STREET PARKING SPACE REQUIREMENTS.

*Indicates a change from the existing Building Envelope Standards adopted as part of Ordinance 69406.

NEIGHBORHOOD GENERAL TYPE 1 (NG1-TOD)

VII - REFERENCE NOTES

1. The Build-to-Line must match the average Front Facade Line of the Block Face; and lots with NO Primary Street or Side Street frontage (abutting adjacent properties) are exempt from the Primary Street Build-to-Line dimensional requirements, and are only required to have a five foot (5') setback on said frontage.
2. Lots with NO Alley frontage (abutting adjacent properties) are exempt from the Alley, Main Building Build-to-Line dimensional requirements; and are only required to have a five foot (5') setback on said frontage.
3. In no case shall the Ancillary Building have a height greater than that of the Main Building.

NEIGHBORHOOD GENERAL TYPE 3 (NG3-TOD)



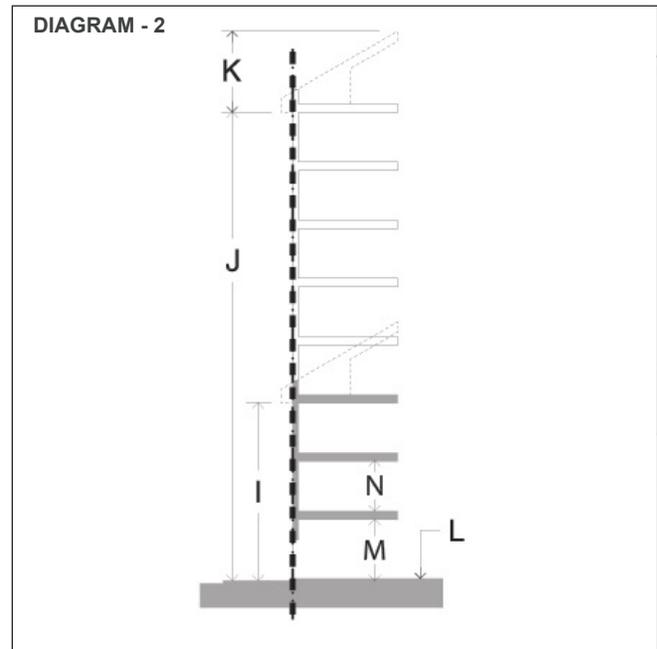
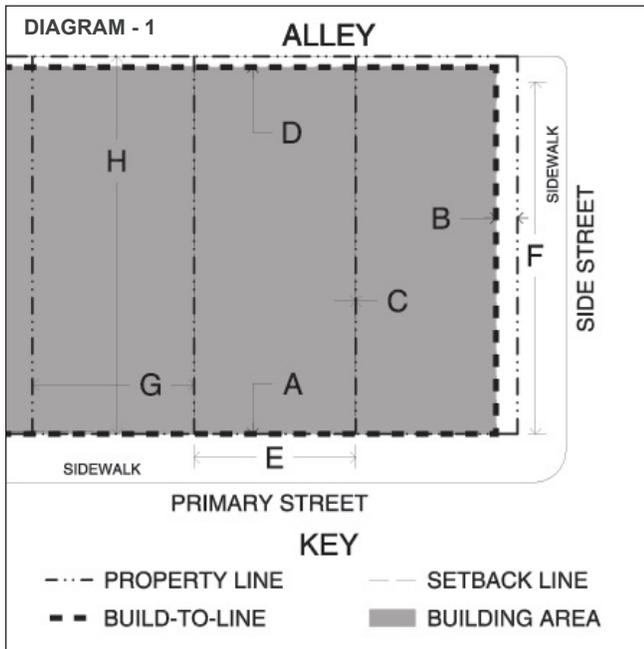
INTENT STATEMENT:

The intent of this Building Envelope Standard is to regulate the physical form of the Neighborhood General Type 3 areas in order to establish a flexible mixed-use residential area that enhances and densifies this primarily larger, lot mixed-use area of the neighborhood. The area is designed to provide for architectural appropriate infill development which allows for a variety of building types, uses, heights and forms as well as the creation of a vibrant mixed-use streetscape. This intent statement and the images shown below are advisory only.

EXAMPLES OF CHARACTER



NEIGHBORHOOD GENERAL TYPE 3 (NG3-TOD)



I - BUILDING PLACEMENT

BUILD-TO-LINE:

- [A] PRIMARY STREET: 0' **(1)**
- [B] SIDE STREET: 0' Min | 10' Max **(1)**

SETBACK:

- [C] SIDE: 0' Min | 10' Max **(2)**
- [D] ALLEY: 5' Min | 10' Max **(3)**

BUILDING FORM:

- [E] PRIMARY STREET: At Least 80% of Build-to-Line **(4)**
- [F] SIDE STREET: At least 80% of Build-to-Line **(5)**
- [G] LOT WIDTH: Per Existing
- [H] LOT DEPTH: Per Existing

FOR REFERENCE NOTES REFER TO THE FINAL PAGE OF THIS TYPE.

II - BUILDING HEIGHT

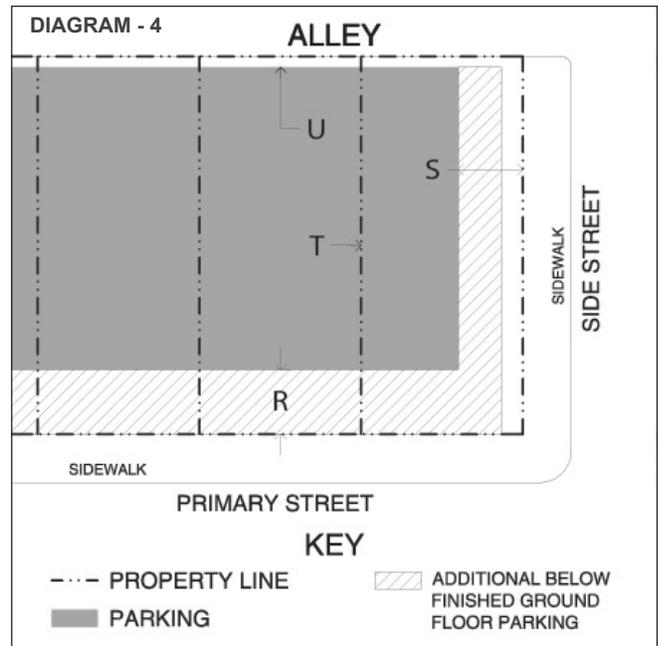
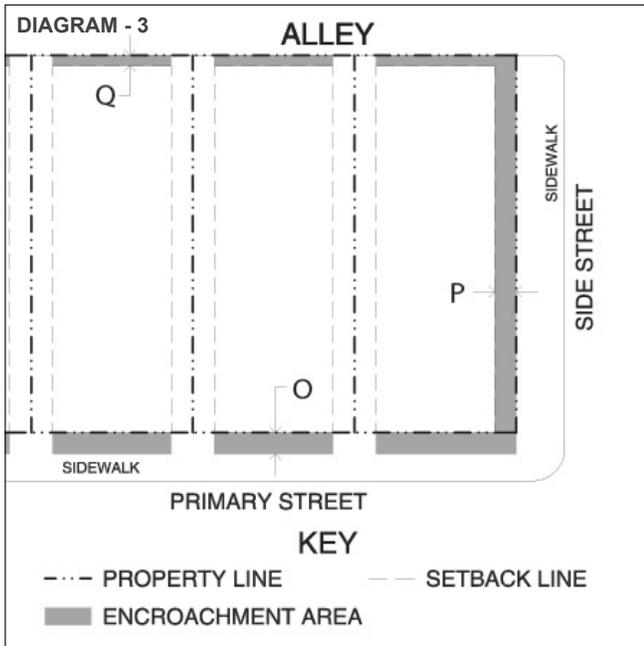
- [I] BUILDING HEIGHT MINIMUM: 3 Stories and 40'
- [J] BUILDING HEIGHT MAXIMUM: 8 Stories and 90' **(1)(6)**
- [K] MAX FROM B.O. EAVE TO T. O. PARAPET OR ROOF: 15' Max
- [L] FINISHED GRND FLOOR LEVEL: 1' Min | 3' Max
Back of Sidewalk Or Adjacent Lot Level For Residential; All Other Uses are Max 6"
- [M] FIRST FLOOR CEILING HTS: 12' Min | 25' Max *(F to C)*
- [N] UPPER FLOORS CEILING HTS: 8' Min | 12' Max *(F to C)*
- [N1] MEZZANINES AND PODIUMS: Mezzanines and Podiums Greater Than 1/3 of the Floor Plate Area Shall Be Counted as a Full Story

III - BUILDING TYPES

- Rowhouse and Courtyard Rowhouse
- Stacked Flats
- Courtyard Building
- High Rise Residential Building
- Commercial Block Building
- Flex Building
- Liner Building

*Indicates a change from the existing Building Envelope Standards adopted as part of Ordinance 69406.

NEIGHBORHOOD GENERAL TYPE 3 (NG3-TOD)



IV - ENCROACHMENTS

LOCATION:

[O] PRIMARY STREET:	10' Max
[P] SIDE STREET:	10' Max
[Q] ALLEY:	5' Max

V - USE REQUIREMENTS

GROUND FLOOR USE:	Office Primary Retail Residential Secondary Retail Special
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UPPER FLOOR(S) USE:	Office Residential Special
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VI - PARKING REQUIREMENTS

LOCATION:

[R] PRIMARY STREET SETBACK:	30' Min (7)
[S] SIDE STREET SETBACK:	30' Min (8)
[T] SIDE SETBACK:	0' , If Surface Lot; Per Main Building if Structured Parking
[U] ALLEY SETBACK:	5' Min

REQUIRED SPACES:*

THERE ARE NO MINIMUM OFF-STREET PARKING SPACE REQUIREMENTS.

*Indicates a change from the existing Building Envelope Standards adopted as part of Ordinance 69406.

NEIGHBORHOOD GENERAL TYPE 3 (NG3-TOD)

VII - REFERENCE NOTES

1. At the 200 and 300 blocks of DeBaliviere Avenue, maximum building height shall be 12 stories and 130' with a minimum setback of thirty feet (30') required on primary streets for 7 to 12 stories and a minimum setback of ten feet (10') required on side streets for 7 to 12 stories.
2. For buildings with Dwelling Units primarily opening to side yards, Side Setback is required to be ten feet (10'). Buildings higher than three (3) stories and forty feet (40') are required to have a ten foot (10') Side Setback.
3. Lots with NO Alley frontage (abutting adjacent properties) are required to have a five foot (5') setback on said frontage.
4. This percentage (%) can be adjusted to fifty percent (50%) in the case of the following Building Types: Courtyard Rowhouse and Courtyard Building .
5. Corner Lots will be treated as having a Primary Street for the first thirty (30') feet of the building facing any Side Street; and shall thus conform to the Primary Street Build-to-Line for that length of Building Facade.
6. At the 5600, 5700, and 5800 blocks of Delmar Boulevard, maximum building height shall be 5 stories and 65'
7. This figure reflects an additional dimension of thirty feet (30') beyond the Primary Street Build-to-Line for above grade parking. Below finished ground floor level parking can be coterminous with the Facade Line of the building.
8. This figure reflects an additional dimension of twenty feet (20') beyond the Side Street Build-to-Line for above grade parking. Below finished ground floor level parking can be coterminous with the Facade Line of the building.
9. Within the Delmar Loop and Forest Park–DeBaliviere Station Area Form-Based District Boundary, required spaces do not apply.

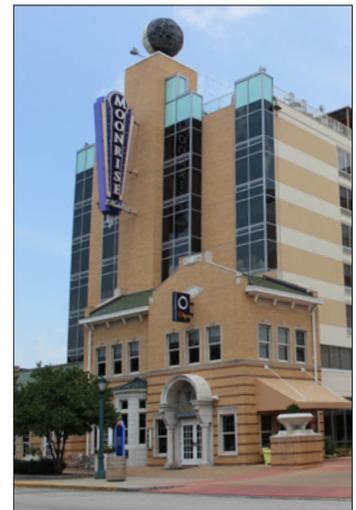
NEIGHBORHOOD CENTER TYPE 1 (NC1-TOD)



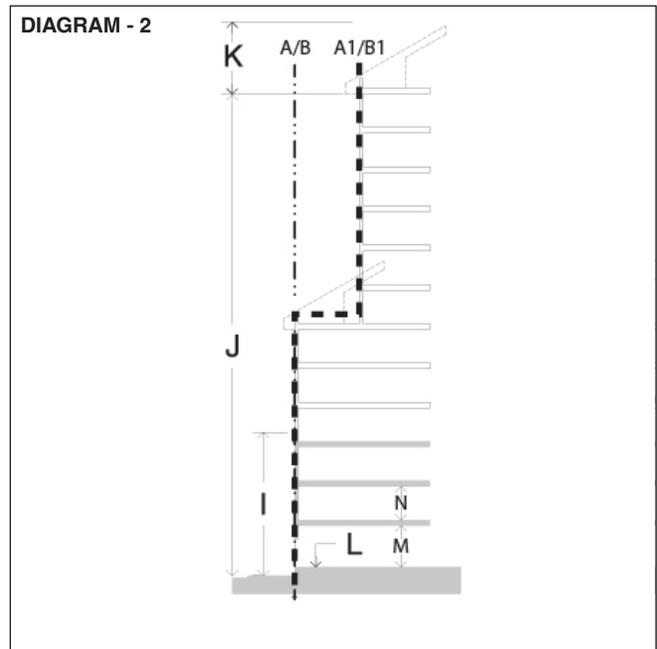
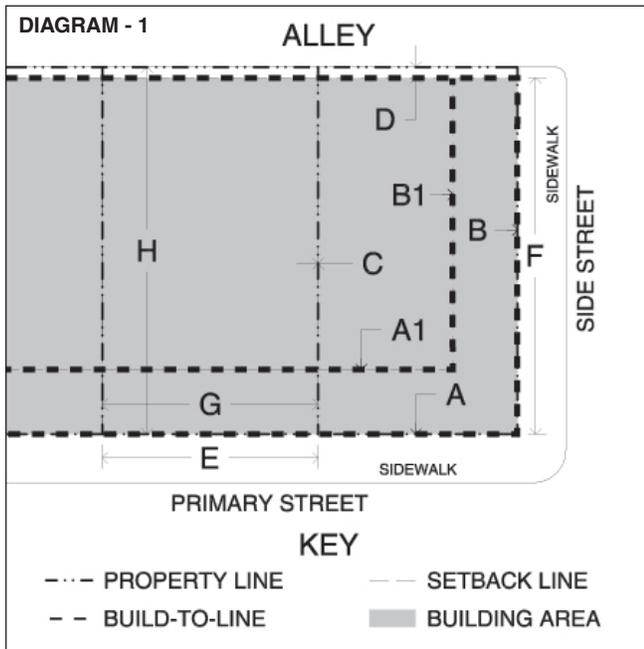
INTENT STATEMENT:

The intent of this Building Envelope Standard is to regulate the Neighborhood Center Type 1 areas which are typically neighborhood retail centers in order to establish, preserve or enhance the vibrant, pedestrian oriented character of these walkable neighborhood main streets. The physical form of the buildings are regulated while allowing flexibility in use. The area is designed to provide convenient shopping and servicing establishments for persons residing in the neighborhood, so long as such uses are compatible with adjacent residential uses. This intent statement and the images shown below are advisory only.

EXAMPLES OF CHARACTER



NEIGHBORHOOD CENTER TYPE 1 (NC1-TOD)



I - BUILDING PLACEMENT

BUILD-TO-LINE:

[A] PRIMARY STREET (For First 5 Stories):	0'
[A1] PRIMARY STREET (For 6 to 8 Stories):	25' *
[B] SIDE STREET (For First 5 Stories):	0'
[B1] SIDE STREET (For 6 to 8 Stories):	25' *

SETBACK:

[C] SIDE:	0' Min 10' Max (1)
[D] ALLEY:	5' Min 10' Max (2)

BUILDING FORM:

[E] PRIMARY STREET:	At Least 85% of Build-to-Line
[F] SIDE STREET:	At Least 85% of Build-to-Line
[G] LOT WIDTH:	Per Existing
[H] LOT DEPTH:	Per Existing

FOR REFERENCE NOTES REFER TO THE FINAL PAGE OF THIS TYPE.

II - BUILDING HEIGHT

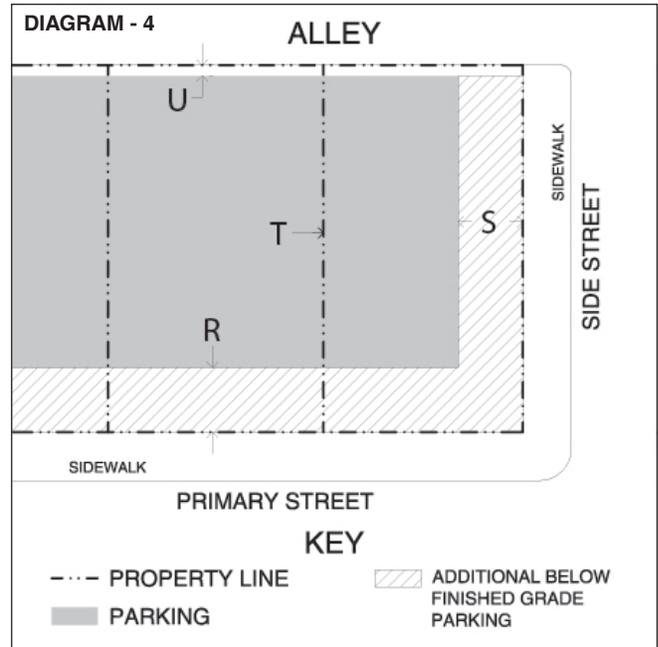
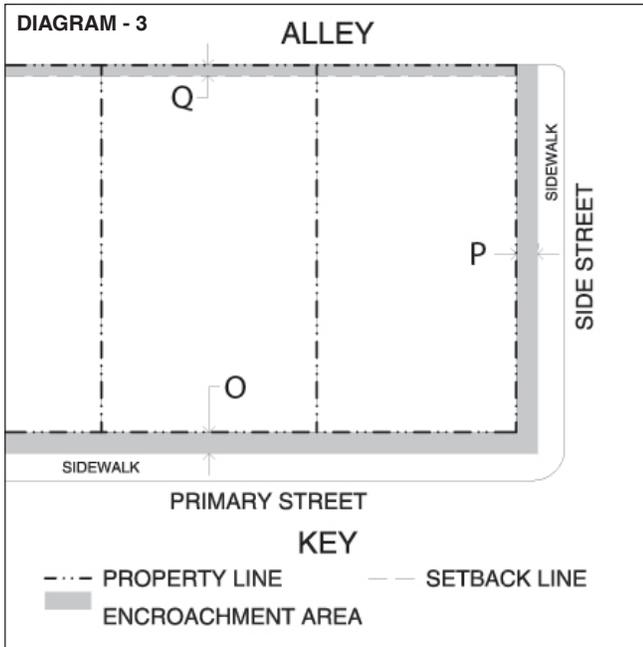
[I] BUILDING HEIGHT MINIMUM:	3 Stories and 40'
[J] BUILDING HEIGHT MAXIMUM:	8 Stories and 90' *
[K] MAX FROM B.O. EAVE TO T. O. PARAPET OR ROOF:	15' Max
[L] FINISHED GRND FLOOR LEVEL:	6" Max Above Back of Sidewalk Or Adjacent Lot Level
[M] FIRST FLOOR CEILING HTS:	12' Min 25' Max (F to C)
[N] UPPER FLOORS CEILING HTS:	8' Min 15' Max (F to C)
[N1] MEZZANINES AND PODIUMS:	Mezzanines and Podiums Greater Than 1/3 of the Floor Plate Area Shall Be Counted as a Full Story

III - BUILDING TYPES

- Podium Building
- Commercial Block Building
- Flex Building
- Live / Work Units
- Liner Building

*Indicates a change from the existing Building Envelope Standards adopted as part of Ordinance 69406.

NEIGHBORHOOD CENTER TYPE 1 (NC1-TOD)



IV - ENCROACHMENTS

LOCATION:

- [O] PRIMARY STREET: 10' Max
- [P] SIDE STREET: 10' Max
- [Q] ALLEY: 5' Max

V - USE REQUIREMENTS

- GROUND FLOOR: Office
Primary Retail
Secondary Retail
Special
- UPPER FLOOR(S): Office
Residential
Special

VI - PARKING REQUIREMENTS

LOCATION:

- [R] PRIMARY STREET SETBACK: 30' Min
- [S] SIDE STREET SETBACK: 30' Min
- [T] SIDE SETBACK: 0'
- [U] ALLEY SETBACK: 12' Min

REQUIRED SPACES:*

THERE ARE NO MINIMUM OFF-STREET PARKING SPACE REQUIREMENTS.

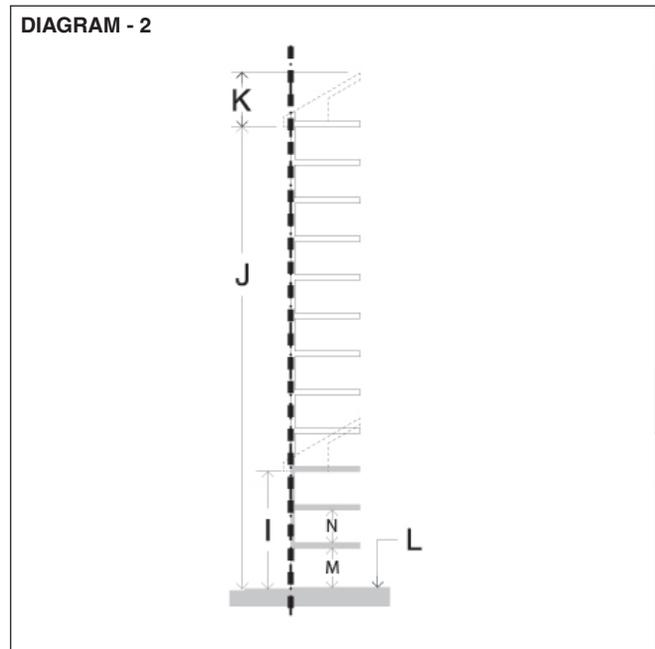
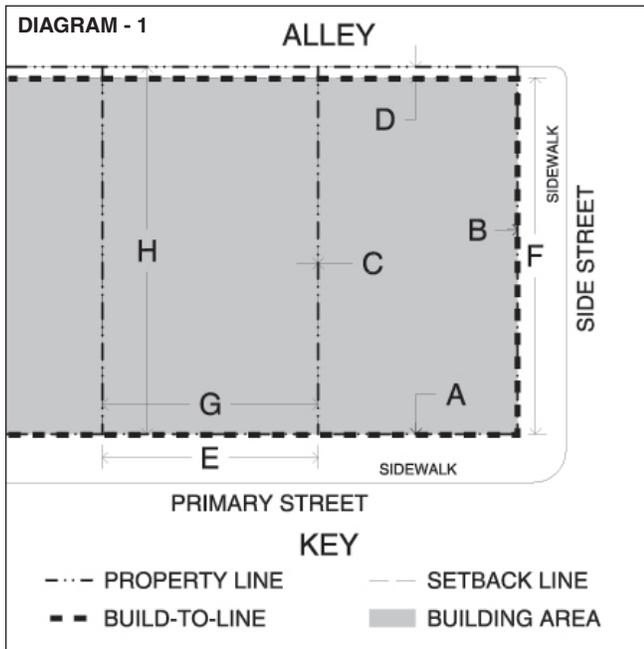
*Indicates a change from the existing Building Envelope Standards adopted as part of Ordinance 69406.

NEIGHBORHOOD CENTER TYPE 1 (NC1-TOD)

VII - REFERENCE NOTES

1. Lots which share a Side Setback with lots in the Neighborhood Center Type 2 zone are required to have a Building Height Maximum of six (6) stories and seventy-five feet (75') for the first thirty feet (30') of adjacent frontage.
2. Lots with NO Alley frontage (abutting adjacent properties) are required to have a ten foot (10') setback on said frontage.
3. Within the Delmar Loop and Forest Park–DeBaliviere Station Area Form-Based District Boundary, required spaces do not apply.

BOULEVARD TYPE 2 (B2-TOD)



I - BUILDING PLACEMENT

BUILD-TO-LINE:

- [A] PRIMARY STREET: 0' (3) (4)
- [B] SIDE STREET: 0' (3) (4)

SETBACK:

- [C] SIDE: 0' Min | 10' Max
- [D] ALLEY: 5' Min | 10' Max

BUILDING FORM:

- [E] PRIMARY STREET: At Least 85% of Build-to-Line (1)
- [F] SIDE STREET: At Least 85% of Build-to-Line
- [G] LOT WIDTH: Per Existing
- [H] LOT DEPTH: Per Existing

FOR REFERENCE NOTES REFER TO THE FINAL PAGE OF THIS TYPE.

II - BUILDING HEIGHT

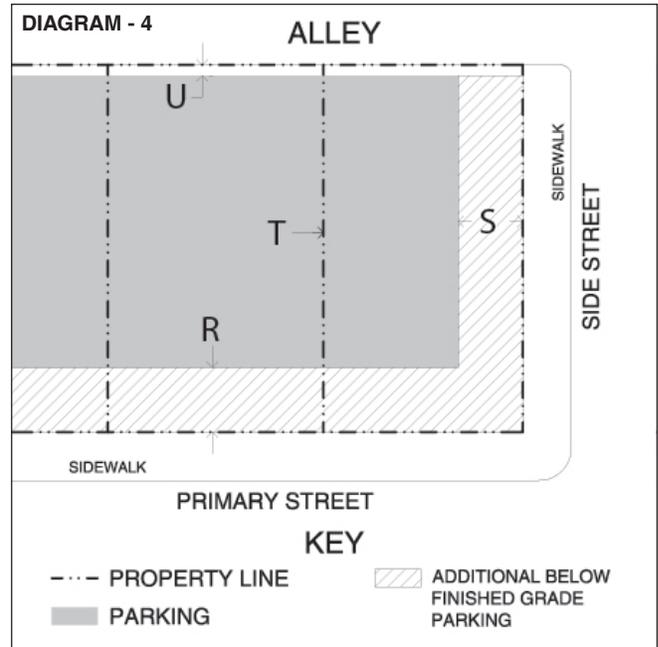
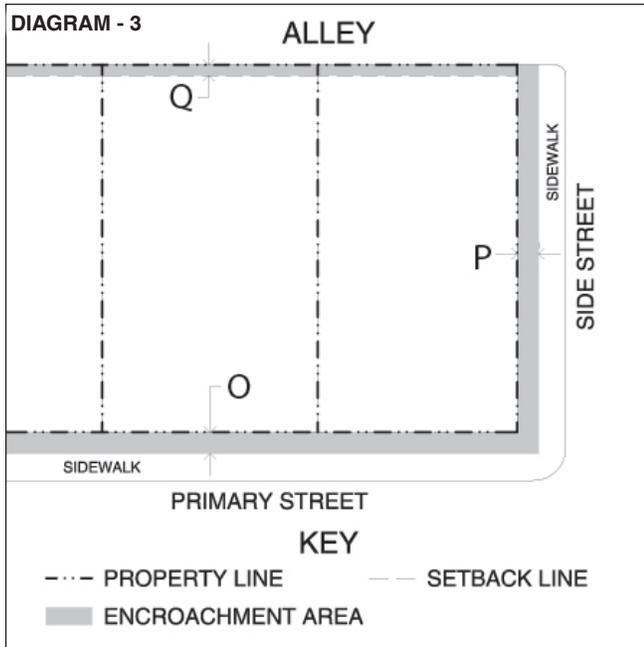
- [I] BUILDING HEIGHT MINIMUM: 3 Stories and 40'
- [J] BUILDING HEIGHT MAXIMUM: 12 Stories and 130'
- [K] MAX FROM B.O. EAVE TO T. O. PARAPET OR ROOF: 15' Max
- [L] FINISHED GRND FLOOR LEVEL: 6" Max Above Back of Sidewalk Or Adjacent Lot Level
- [M] FIRST FLOOR CEILING HTS: 12' Min | 25' Max (F to C)
- [N] UPPER FLOORS CEILING HTS: 8' Min | 15' Max (F to C)
- [N1] MEZZANINES AND PODIUMS: Mezzanines and Podiums Greater Than 1/3 of the Floor Plate Area Shall Be Counted as a Full Story

III - BUILDING TYPES

- Duplex, Triplex, and Fourplex
- Rowhouse and Courtyard Rowhouse
- Stacked Flats
- Courtyard Building
- High Rise Residential Building
- Commercial Building
- Flex Building
- Live / Work Unit
- Liner Building

*Indicates a change from the existing Building Envelope Standards adopted as part of Ordinance 69406.

BOULEVARD TYPE 2 (B2-TOD)



IV - ENCROACHMENTS

LOCATION:

- [O] PRIMARY STREET: 10' Max
- [P] SIDE STREET: 10' Max
- [Q] ALLEY: 5' Max

V - USE REQUIREMENTS

- GROUND FLOOR: Office, Primary Retail, Residential, Secondary Retail, Special
- UPPER FLOOR(S): Office, Residential, Special

VI - PARKING REQUIREMENTS

LOCATION:

- [R] PRIMARY STREET SETBACK: 30' Min
- [S] SIDE STREET SETBACK: 30' Min
- [T] SIDE SETBACK: 0'
- [U] ALLEY SETBACK: 10' Min

REQUIRED SPACES:*

THERE ARE NO MINIMUM OFF-STREET PARKING SPACE REQUIREMENTS.

*Indicates a change from the existing Building Envelope Standards adopted as part of Ordinance 69406.

BOULEVARD TYPE 2 (B2-TOD)

VII - REFERENCE NOTES

1. This percentage (%) can be adjusted to fifty percent (50%) in the case of the following Building Types: Courtyard Rowhouses and Courtyard Buildings (See Section 4.1: Building Types for further details on the Building Types).
2. Within the Delmar Loop and Forest Park–DeBaliviere Station Area Form-Based District Boundary, required spaces do not apply.
3. On the West side only of the 600 and 700 blocks of North Skinker Boulevard, the minimum setback shall be 15' required on primary streets, with a thirty feet (30') setback required for stories 7 to 12. A minimum setback of ten feet (10') is required on secondary streets with a thirty feet (30') setback required for stories 7 to 12.
4. On the West side only of the 800 and 900 blocks of North Skinker Boulevard, minimum building setback shall be thirty feet (30') to eighty feet (80') required on primary streets with a minimum setback of zero feet (0') to ten feet (10') required on side streets.

CAMPUS TYPE 1 (CM1-TOD)*



INTENT STATEMENT:

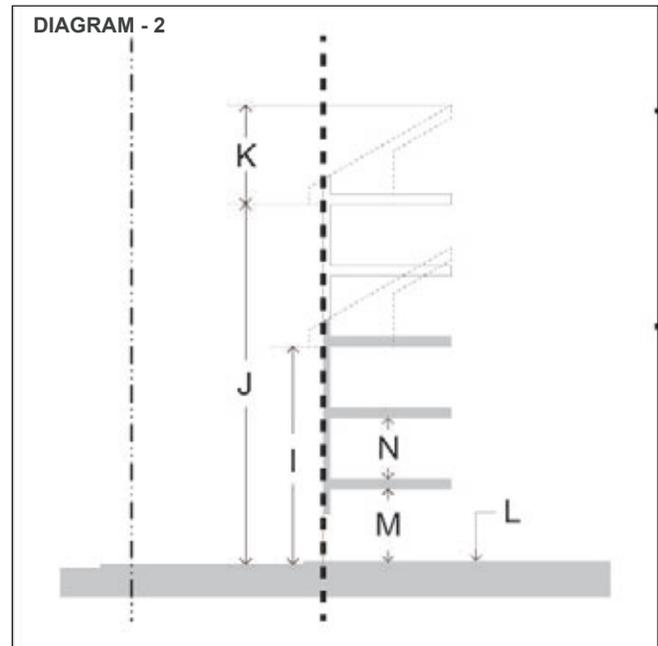
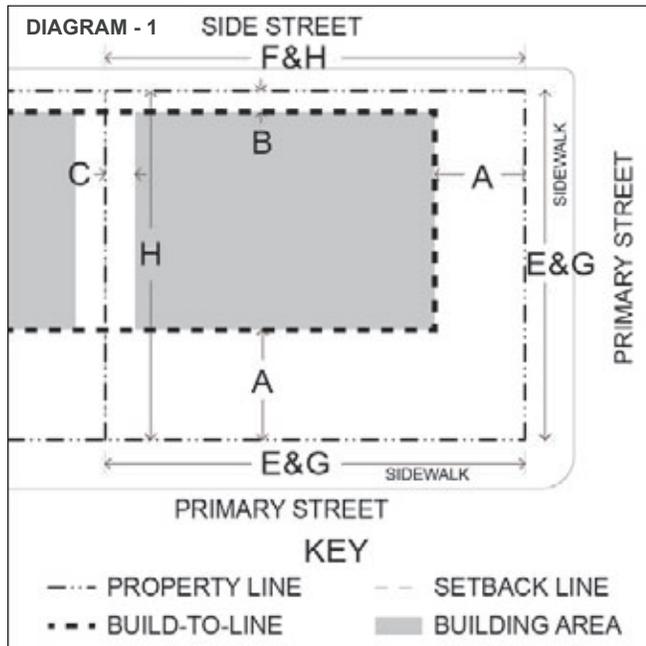
The intent of this Building Envelope Standard is to regulate the physical form of Campus developments, defined as large-lot developments with multiple Building Types. Campuses are singular, identifiable sites within the district, bounded by public streets and typically featuring unifying characteristics. The area is designed to allow for a variety of urban business, industrial, institutional, and academic uses while maintaining and supporting an active streetscape and a vibrant urban character. This intent statement and the images shown below are advisory only.

EXAMPLES OF CHARACTER



*Indicates that this is a new Building Envelope Standard.

CAMPUS TYPE 1 (CM1-TOD)*



I - BUILDING PLACEMENT

BUILD-TO-LINE:

- [A] PRIMARY STREET: 30' Min | 80' Max **(1,12)**
- [B] SIDE STREET: 0' Min | 10' Max **(2,12)**

SETBACK:

- [C] SIDE: 0' Min | 10' Max **(3)**
- [D] ALLEY: Not Applicable **(3,4)**

BUILDING FORM:

- [E] PRIMARY STREET: At Least 60% of Build-to-Line
- [F] SIDE STREET: At Least 30% of Build-to-Line
- [G] LOT WIDTH: At Least 500' **(5)**
- [H] LOT DEPTH: At Least 425' **(5)**

FOR REFERENCE NOTES REFER TO FINAL PAGE OF THIS TYPE

II - BUILDING HEIGHT

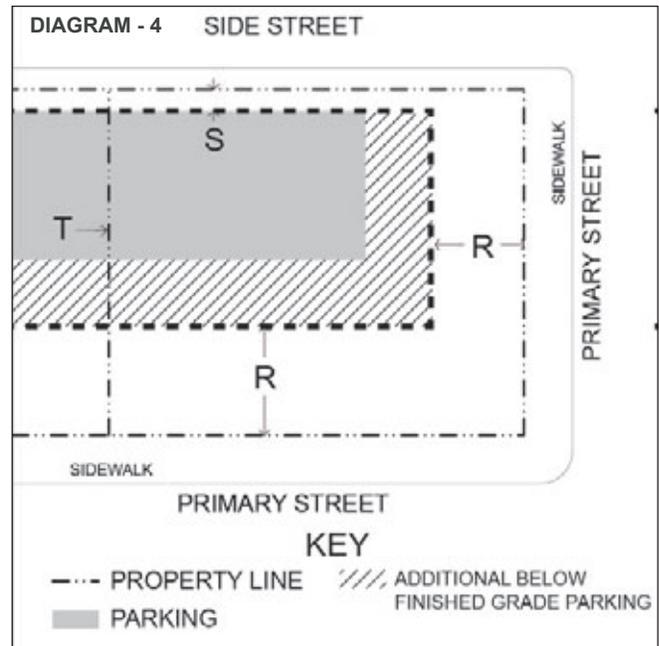
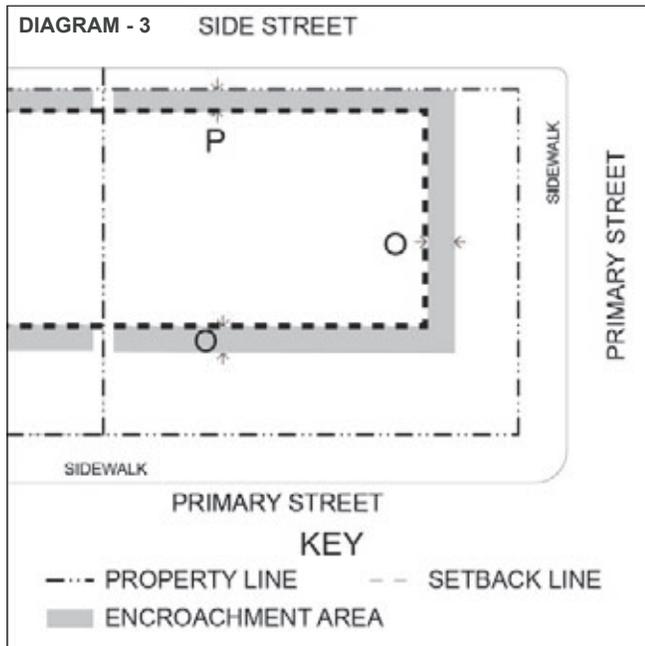
- [I] BUILDING HEIGHT MINIMUM: 3 Stories and 40' **(6)**
- [J] BUILDING HEIGHT MAXIMUM: 8 Stories and 90'
- [K] MAX FROM B.O. EAVE TO T. O. PARAPET OR ROOF: 15' Max
- [L] FINISHED GRND FLOOR LEVEL: 2' Min | 3' Max
Back of Sidewalk Or Adjacent Lot Level For Residential; All Other Uses are Max 6"
- [M] FIRST FLOOR CEILING HTS: 12" Min | 25' Max (F to C)
- [N] UPPER FLOORS CEILING HTS: 8' Min | 15' Max (F to C)
- [N1] MEZZANINES AND PODIUMS: Mezzanines and Podiums Greater Than 1/3 of the Floor Plate Area Shall Be Counted as a Full Story

III - BUILDING TYPES

- Commercial Block Building **(7)**
- Flex Building **(7)**
- Live|Work Units **(7)**
- Liner Building **(7)**
- Civic|Institutional Building **(7)**

*Indicates that this is a new Building Envelope Standard.

CAMPUS TYPE 1 (CM1-TOD)*



IV - ENCROACHMENTS

LOCATION:

[O] PRIMARY STREET:	12' Max
[P] SIDE STREET:	10' Max
[Q] ALLEY:	Not Applicable (8)

V - USE REQUIREMENTS

GROUND FLOOR USE:	Office Primary Retail Civic Institutional
UPPER FLOOR(S) USE:	Office Residential Civic Institutional

VI - PARKING REQUIREMENTS

LOCATION:

[R] PRIMARY STREET SETBACK:	60'-110' Min (10)
[S] SIDE STREET SETBACK:	30'-40' Min (10)
[T] SIDE SETBACK:	0' , If Surface Lot; Per Main Building if Structured Parking
[U] ALLEY SETBACK:	Not Applicable (11)

*Indicates that this is a new Building Envelope Standard.

CAMPUS TYPE 1 (CM1-TOD)*

VII - REFERENCE NOTES

1. On all lots, a minimum of two (2) bounding streets must be Primary Streets.
2. Lots may be bounded by Side Streets on the remaining lot lines.
3. Private streets, driveways, and alleys that are internal to the lot shall not be subject to setback requirements; and when the conditions enumerated in the Build-to-Line requirements are fulfilled, side setbacks shall apply to remaining lot lines.
4. Where alleys are present, setbacks shall be from five feet (5') to ten feet (10')
5. Lots shall have a minimum area of five (5) acres, irrespective of lot dimensions; and lot dimensions and lot area shall be measured either (A) by individual lot or parcel; (B) by multiple contiguous lots or parcels under single ownership; or (C) by multiple contiguous lots or parcels agglomerated by a legally-enforcable development agreement.
6. Building Heights for buildings interior to the campus block are not required to meet the building height minimum.
7. This Building Envelope Standard allows multiple Building Types per lot.
8. Where alleys are present, setbacks shall be five feet (5') Maximum.
9. This figure reflects and additional dimension of thirty feet (30') beyond the Primary Street Build-to-Line for on grade and above grade parking. Below finished ground floor level parking can be coterminous with the Facade Line of the building.
10. This figure reflects and additional dimension of thirty feet (30') beyond the Side Street Build-to-Line for on grade and above grade parking. Below finished ground floor level parking can be coterminous with the Facade Line of the building.
11. Where alleys are present, setbacks shall be five feet (5') Minimum.
12. At the 6100 block of Enright Avenue and the 600 and 700 blocks of Rosedale Avenue, north of Delmar Blvd., minimum building setback is ten feet (10') and maximum building setback is thirty feet (30').

*Indicates that this is a new Building Envelope Standard.

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5 | Appendix

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- A** **Planning & Urban Design:
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 - a. Technical Advisory Committee Meetings
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Bernardin, Lochmueller & Associates Report**

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- F** **Opinion of Probable Costs:
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The work that provided the basis for this publication was supported by funding under an award with the U.S. Department of Housing and Urban Development. The substance and findings of the work are dedicated to the public. The author and publisher are solely responsible for the accuracy of the statements and interpretation contained in this publication. Such interpretations do not necessarily reflect the views of the Government.

This material is based upon work supported by the Federal Transit Administration under Cooperative Agreement No. MO-79-1001.

Any opinions, findings, and conclusions or recommendations expressed in this publication are those of the Author(s) and do not necessarily reflect the view of the Federal Transit Administration.





EAST-WEST GATEWAY
Council of Governments

