TOD ON PUBLICLY-OWNED LAND

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MURP Capstone Paper

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DEFINITIONS

Area of Concentrated Poverty (ACP)
Census tracts where more than 40% of the residents live at or below 185% of the federal poverty line (185% of the poverty threshold for a typical family of four in 2012 was $43,460).

Database
A spatial database containing information about land parcels.

Equity
"Equity is just and fair inclusion into a society in which all can participate, prosper, and reach their full potential." (Policy Link, 2014)

Equity Score
A numerical score at the parcel level, calculated by a combination of carless households, household transportation costs, and whether the parcel is in an ACP.

Opportunity Site
A singular parcel or cluster of parcels that has preliminary TOD potential.

Parcel Score
A numerical score at the parcel level, calculated by a combination of distance from the station, size of the parcel, and vacancy of the parcel.

Publicly-Owned Parcels
All parcels owned by governmental or public agencies.

Public Agency
All state, local, federal, and other government agencies including MnDOT, Port Authority, Metropolitan Council, Dakota County, Hennepin County, Ramsey County, City of Minneapolis, City of St. Paul, and other federal and state agencies.

Transit Oriented Development
Walkable, moderate to high density development served by frequent transit with a mix of housing, retail, and employment choices designed to allow people to live and work without need of a personal automobile.

ACRONYMS LIST

ACP
Area of Concentrated Poverty

aBRT
Arterial Bus Rapid Transit

BRT
Bus Rapid Transit

FHWA
Federal Highway Administration

GIS
Geographic Information System

LRT
Light Rail Transit

MnDOT
Minnesota Department of Transportation

TOD
Transit Oriented Development

TPP
Transportation Policy Plan

VMT
Vehicle Miles Traveled

EXECUTIVE SUMMARY

Metro Transit's Transit Oriented Development (TOD) Office was established to support TOD throughout Twin Cities metropolitan region. In anticipation of an expanding regional transit system, the TOD Office can facilitate collaboration among public entities to leverage the development potential of property along existing and future transitways. However, TOD facilitation requires an understanding of where publicly-owned parcels are located and the characteristics of these parcels. Certain development opportunities may present themselves only when the region has taken a thorough inventory of publicly-owned land.

The goal of this report is to address how much public land is available near transitway corridors, where those parcels are located, and who owns those parcels. Additionally, the report provides a Parcel Score that reflects preliminary development status. The top ten Opportunity Sites (ranked by Parcel Score) are listed by corridor in **Section 3**. The report includes an Equity Score that reflects three demographic indicators to encourage equity from the very beginning of any development process.

The findings are reported in two major sections:

1. Publicly-owned land Database

2. Suitability analysis with opportunity sites
    a. Parcel Score
    b. Equity Score
    c. Results

Geographic Information Systems (GIS) was used to create a Database of publicly-owned land

along several existing and proposed transitway corridors from the 2040 Transportation Policy Plan. This Database can provide a way to easily explore land ownership patterns along future transitway corridors and data has the potential to be shared. One of the goals of this Database is to become a resource to foster collaboration across the public sector.

While existing tools such as the TOD Classification Tool quantify and qualify TOD station area types, the region does not have a parcel-level prioritization tool. The suitability analysis in this report makes the leap from station area classification to individual parcel prioritization. This parcel-level suitability analysis identifies parcels with preliminary potential for TOD. These opportunity sites incorporate parcel information such as size, distance to the station, and occupancy to estimate TOD potential on individual parcels.

Equity is one of the Metropolitan Council's TOD goals and is critical for the region's future. Equity must be included from the very first step to ensure that it is not an afterthought. To that end, the parcels received an Equity Score to identify the opportunity sites with higher potential to advance equity.

While the outcomes from this capstone report reflect a specific scope of analysis, the Database and suitability analysis provide a conceptual framework that is adaptable to evolving circumstances in the region. No existing study has looked at all publicly-owned land along transitways. By treating all publicly-owned land equally, the report encourages the public sector to achieve collaborative, innovative, and equitable TOD, ultimately improving the quality of life for all in the Twin Cities region.
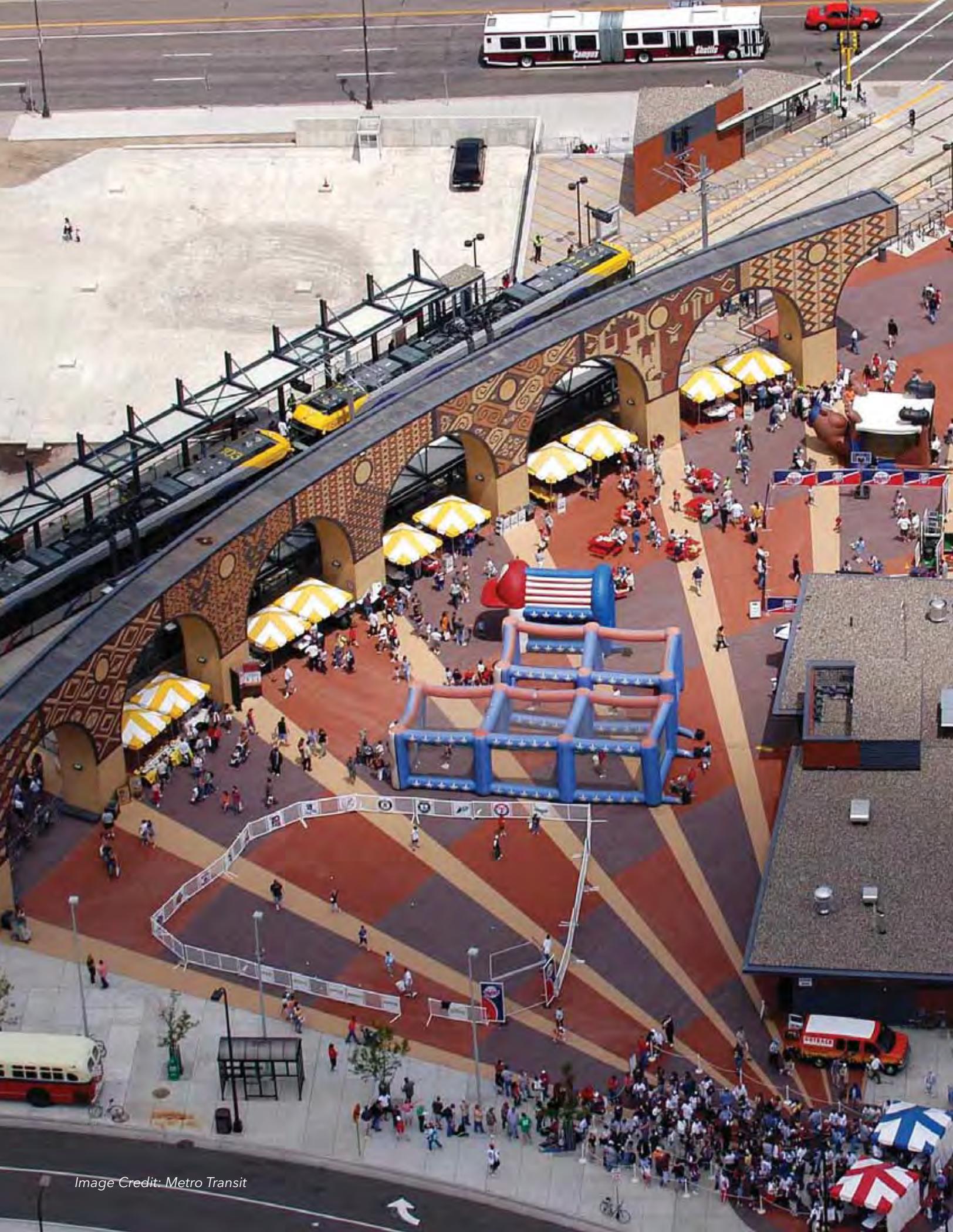
Image Credit: Metro Transit

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VISION STATEMENT
A 2030 SNAPSHOT OF TOD

The following is a hypothetical Vision of TOD, written from the year 2030.

Since the early 2000s, the Twin Cities region has undergone an unprecedented buildout of its transit system. New light rail transit, bus rapid transit, and local bus lines synergize with each other to allow for efficient service network across the region. The transit experience is world-class for amenities and ease of use.

The physical transit buildout of the system is only part of the story. Over the years, cities have allocated resources and funding towards data optimization and consistent open-data practices and sharing, especially in the area of land records and mapping. As the metro region developed a shareable parcel mapping dataset, synergistic opportunities paved the way for land use collaborations. Data-sharing has allowed neighboring cities and economic development authorities to combine land strategically and merge their redevelopment efforts to create marketable sites for development, including challenging infill and brownfield sites near transit.

As the benefits and success of TODs have become apparent, cities have streamlined development projects and RFPs. With increased community buy-in, cities have designated strategic growth TOD overlay zones to set the groundwork for a diverse building portfolio for residents and businesses alike. Leasing costs in TODs vary widely across the region and companies have become increasingly dedicated to locating in transit-accessible areas.

Behavior and Use Shift

Other factors have increased the popularity of TODs. Although the popularity of driving has waned consistently since 2010, the region's increasing population - coupled with fuel efficient technologies - has increased auto congestion and parking demand. TODs save people time and money. Year after year, household surveys show that residents who live in TOD districts spend less time and money commuting and report lower stress.

As viable and attractive transit oriented housing options have increased rapidly in the last 10 years, more households have chosen to locate within walkable TODs. It is now fairly common for households to be "car-light" with a shared automobile supported by multimodal alternatives. In addition to residential TOD, the region's commercial portfolio contains space at a variety of price points to serve everything from family-owned shops to Fortune 500 companies.

Together, office, housing, and retail services compose the region's world-class "TOD districts." Diverse in size, location, and scope, TOD districts incorporate a myriad of services and amenities along convenient high-frequency transit routes. In addition to the concentrated urban density and diversity of the two major downtowns, suburban TOD districts function as walkable neighborhoods in the immediate blocks around the transit station. Suburban-style TOD districts not only serve as mini employment hubs, they provide a variety of lodging types to allow singles, couples, and families of many different income levels to locate there. Transit oriented child care facilities are common in TOD districts, allowing parents to drop off their child either at their origin or destination transit station.

Increased transit-adjacent amenities now attract residents from all over the metro area via transit. Downtown residents routinely travel to entertainment and shopping districts along the Blue Line extension and Orange Line BRT. Meanwhile, suburban students, academics, and staff travel to universities and college campuses along the corridors.

Land Use and Efficiencies

Metro Transit has lowered fare prices as revenue from TOD ground leases subsidize the cost of the agency. Due to the proven financial benefits of permitting denser neighbors, suburban city councils and staff routinely court developers for denser projects with the support of their constituents. To many residents of the region, "density" in a TOD means walkability, convenience, value, and the preservation of lower-density neighborhoods elsewhere. Increased infrastructure efficiencies have lowered maintenance costs for many cities. These efficiencies have, in turn, lightened tax burdens on citizens. As cities have benefited from improved efficiencies, more funding has been put towards equitable efforts. Decent affordable housing, both subsidized and naturally occurring, is widely available.

Accolades

These efforts have led to national recognition. The Atlantic recently ranked the Twin Cities as one of the most livable metro areas in the nation. Residents live within a 30 minute transit ride to an average of 25,000 jobs, a 41% increase from a 2014 report conducted by the Accessibility Observatory at the University of Minnesota. The racial disparities of the 2000's have decreased drastically and mobility and access by transit are at peak levels. The public sector collaboration that led to TOD initiatives has increased quality of life, improved equitable outcomes and air and water quality, and strengthened the metro region.
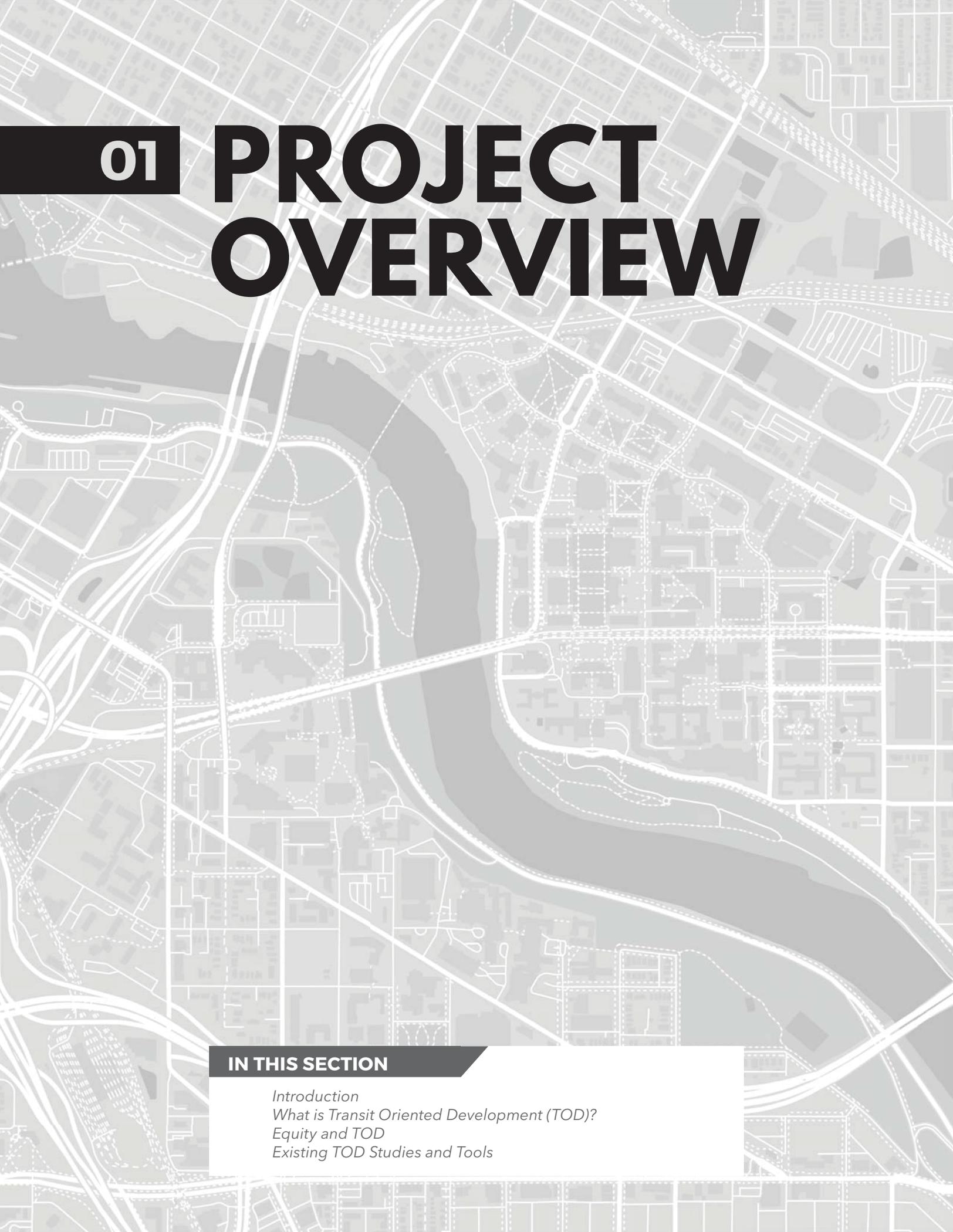
Image Credit: Metro Transit

01 PROJECT OVERVIEW

INTRODUCTION

In January 2015, Metro Transit's Transit Oriented Development (TOD) Office partnered with the Economic & Community Development Capstone Course at the Humphrey School of Public Affairs to explore the TOD development potential of publicly-owned parcels along several planned transitways in the Twin Cities. The goals of this project include:

- **The development of a publicly-owned land Database**
- **A TOD suitability analysis at the parcel level**
- **Recommendations and documentation of findings**

Analyses of publicly-owned land have been conducted unevenly across the region. Prior to this report, Metro Transit, part of the Metropolitan Council, lacked a comprehensive publicly-owned parcel dataset of land held by other public agencies. This report brings the data to a standard level so that the Database can be a shared resource.

The first major component of this report is a shareable Database of all publicly-held parcels within a half mile of the featured transitways detailed in the list below. For light rail (LRT) and bus rapid transit (BRT) corridors, half-mile station area buffers were used. Half-mile corridor buffers were used for two arterial bus rapid transit lines (aBRTs) with service to local streets. These transitways are expected to be operational or under construction by 2020. The featured transitways include:

- **METRO Blue Line**
- **METRO Green Line**
- **A Line - Snelling Ave (aBRT)**
- **METRO Orange Line**
- **METRO Green Line Extension**
- **C Line - Penn Ave (aBRT)**
- **METRO Blue Line Extension**

TOD on Publicly-Owned Parcels

What is Transit Oriented Development (TOD)?

TOD is "walkable urban development served by frequent transit with a mix of housing, retail, and employment designed to allow people to live and work with transportation choices" (TOD Office 2014 Annual Report). The Center for TOD (CTOD) states that TOD is not simply development near transit, it is development that also increases "location efficiency," boosts transit ridership and minimizes the impacts of traffic, provides a mix of housing, jobs, and other uses, and creates a sense of community and place (TOD 101, CTOD). TOD is about "creating walkable, sustainable communities for people of all ages and incomes and providing more transportation and housing choices… [to] provide for a lifestyle that's convenient, affordable and active, and create places where our children can play and our parents can grow old comfortably" (TOD 101, CTOD).

Broad in its application and scope, TOD is open to interpretation by the multiple stakeholders involved in its process (Singh et al., 2012). Because of this complexity, the development of a uniform index to quantify the capacity for TOD has been encouraged by many authors (Evans et al., 2007; Singh et al., 2012). The need for a quantitative framework is especially pressing since public transit investments are often made without a full understanding of the outcomes, resulting in little or no sustainability improvements (Fard, 2013). Too often, lack of coordination between urban development and transportation planning has led to disappointing results (Renne et al., 2005).

As the regional planning agency and transit provider, the Metropolitan Council has an important stake in successful TOD. In 2013, the Metropolitan Council adopted its first TOD Policy. The TOD Policy "provides a framework for the Metropolitan Council to play a leadership role in the planning and implementation of TOD throughout the region" (TOD Policy). Though the TOD Policy is implemented by many hands, the TOD Office was founded in 2014 within Metro Transit to coordinate the implementation of the TOD Policy. As an implementing agency, the TOD Office complements existing planning departments within the Metropolitan Council.

TOD POLICY

The Metropolitan Council's TOD Policy includes four TOD goals and five strategies to implement their primary goals:

1. **Maximize the development impact of transit investments** *by integrating transportation, jobs and housing.*

2. **Support regional economic competitiveness** *by leveraging private investment.*

3. **Advance equity** *by improving multimodal access to opportunity for all.*

4. **Support a 21st century transportation system** *through increased ridership and revenues.*

To achieve these goals, TOD Policy outlines five strategies tailored for the Metropolitan Council's broad internal and external efforts to promote TOD. The Database and suitability scores can complement the five strategies of the TOD Policy.

1. **Prioritize resources** *– the Database and suitability analysis can help determine where to allocate resources*

2. **Focus on implementation** *– a collaborative Database can help the Council and other agencies to implement TOD investments by capitalizing on shared public sector TOD goals and real estate holdings*

3. **Effective communication** *– resources such as the Database one-pager can help to communicate the region's TOD efforts both within the organization and with partners*

4. **Collaborate with partners** *– the Database is a tool to spark dialogue and action among public agencies where available land and transit investments align*

5. **Coordinate internally** *– the TOD Database supports the TOD Office's existing Council-owned land classification process*

Equity and TOD

Equity is an important regional goal. Thrive MSP 2040, the 30-year vision for the region, states that "Equity connects all residents to opportunity and creates viable housing, transportation, and recreation options for people of all races, ethnicities, incomes, and abilities so that all communities share the opportunities and challenges of growth and change. For our region to reach its full economic potential, all of our residents must be able to access opportunity. Our region is stronger when all people live in communities that provide them access to opportunities for success, prosperity, and quality of life" (Thrive MSP 2040).

Met Council's TOD Policy contains an equity goal to improve "multimodal access to opportunity for all" (Metro Council, 2014). The Metro Transit TOD Office is strategically positioned to advance this goal, as equity has become intrinsic to TOD (Markovich and Lucas, 2011, Rodier et al., 2009, Garrett and Taylor, 1999, Kaplan et al., 2014 and Litman, 2002). In transportation planning, economic and environmental impacts have been the primary focus leaving equity as a tertiary consideration (Litman, 2012 and Markovich and Lucas, 2011).

TOD has the potential to exemplify equity potential in regional planning. Equity is seen as an opportunity to address fairness issues and disparities in socioeconomic status related to historically inequitable planning practices (Litman, 2012 and Markovich and Lucas, 2011). Due to the region's startling racial disparities, equity is more important than ever. TOD is one of the primary means to advance equity (Markovich and Lucas, 2011, Rodier et al., 2014, Garrett and Taylor, 2009, Kaplan et al., 1999, Litman, 2002 and 2012, and Pollack, Rose, and Marsh, 2006).

Unfortunately, the potential for equity to improve the quality of life for a wide range of core riders has been underestimated in planning, development projects and processes (Litman, 2012 and Markovich and Lucas, 2011). The new Twin Cities Development Scorecard tool can help public agencies, developers, and the public collaborate to achieve equitable TOD projects. The Scorecard defines equity as "just and fair inclusion where all can participate and prosper" (Twin Cities Development Scorecard, 2015). TOD encompasses transit, the built environment (including housing, workplaces, and other amenities), economic development, and community placemaking. As such, TOD can impact equity in several ways. Transit should be affordable, supportive of multimodalism (bicyclists and pedestrians), accessible to low-income communities, communities

of color, seniors, and persons with disabilities. Development could include infrastructure investments that improve livability and walkability, improved access to housing, jobs, and education, and mixed-income communities and affordable housing.

The Scorecard defines equitable development as "a process for creating healthy, vibrant, communities of opportunity. Equitable outcomes result when strategies are put in place to ensure that low-income communities and communities of color participate in and benefit from investments that shape their neighborhoods and regions" (Twin Cities Development Scorecard, 2015). Ultimately, tools like the Scorecard bring equity into the process during the initial stages which increases the likelihood of success. Similarly, the Equity Score (explained in **Section 3**) intends to bring equity into initial TOD planning and prioritization.

Existing TOD Studies and Tools

Although publicly-owned land mapping along transit corridors has not yet been completed in the region, numerous other TOD initiatives are completed or underway. Existing TOD studies have examined how TOD goals and principles could be applied to station areas within corridor development plans. TOD is a complex topic that can involve many different fields. Unsurprisingly, existing TOD studies include a diverse set of TOD goals such as: improved transportation choices and a mix of land uses, increased land use density, enhanced pedestrian safety, an improved sense of place and public amenities, and strengthened economic vitality and equity (63rd Avenue/Bottineau Boulevard Land Use and Transit Oriented Development Plan, 2011; Central Corridor Investment Strategy, 2010).

The Twin Cities TOD Classification Tool was designed to provide strategic guidance for different transitway station areas based off nine metrics related to market potential and transit orientation, a measure of how well the urban form and physical infrastructure supports walking, biking, and transit use (TOD Classification Tool, pg. 52). The five implementation types range from cool markets with little existing urban form to support TOD to hot markets with ample development potential. The Classification Tool is a macro-level view of the region's expanding transit system and provides tailored recommendations and strategies for implementation types. As a macro-level tool, the Classification Tool does not delve into specific parcels. However, the strategies described by the TOD Classification Tool are included in the recommended parcel-level Opportunity Sites listed in the Results (**Section 3**).

02 PUBLICLY-OWNED LAND DATABASE

INTRODUCTION

For this project, a GIS-based Database was created of all publicly-held parcels of land within a half-mile of several existing and future transitways. The main goal of this Database is to become a shareable resource to foster collaboration between regional agencies and local government units. This Database can provide a way for stakeholders to visually and technically explore land ownership and assess potential for development along present and future transitway corridors. This section includes a summary description of the methodology used for the creation of the Database and an analysis of the results.

A full technical description is available in the Appendix

Overview of Project Scope

The following transitways were selected for the scope of the report:

- METRO Blue Line
- METRO Green Line
- A Line - Snelling Ave (aBRT)
- METRO Orange Line
- METRO Green Line Extension
- C Line - Penn Ave (aBRT)
- METRO Blue Line Extension

Publicly-owned parcels include any parcel within a half-mile buffer distance of a LRT station or aBRT corridor. Because there is less distance between aBRT stops as compared to the distance between LRT stops, the entire aBRT corridor was analyzed. These transit lines are either operational or planned to be by 2020.

Further descriptions of these transit lines are included in the Suitability Analysis Results section.

Sources

The Database is based on the MetroGIS Regional Parcel Dataset distributed and maintained by MetroGIS. Publicly-owned parcels were defined as all parcels owned by governmental or public agencies and were included if a public agency was listed in the owner field of the county-reported parcel-level data. Public agencies include local, county, state, and federal agencies. The Database incorporates land owned by special jurisdictions such as the Metropolitan Airports Commission, school districts, and other regional entities. The Database also includes land owned by railway companies and joint public-private enterprises, such as Saint Paul's District Energy.

Council-Owned Land Inventory

For more information on the assessment of the level of completeness of the Regional Parcel Dataset visit: http://www.datafinder.org/metadata/MetroGIS_Regional_Parcels_Attributes.pdf

In 2014, the TOD Office analyzed Metropolitan Council-owned land in the region using the MetroGIS dataset. The database created by the TOD Office of Metropolitan Council-owned land relied largely on manual queries within the ArcGIS mapping program. The MetroGIS dataset is riddled with data inconsistencies. These inconsistencies may be a direct result of the way in which the data is collected and maintained. Each county is responsible for maintaining its own parcel information which can lead to variations in the data. For example, some counties use abbreviations to describe the public agency owner while others included the full name. In other instances, abbreviations did not align.

Because of data inconsistency, there is no way to automatically search or identify names. The sheer variety of public agencies within this geographical scope is a significant challenge. Coupled with spelling errors and inconsistencies, manual searching is very laborious. In total, there were over 100 variations. One agency name had over a dozen variations (see **Figure 1** below).

Figure 1
Identified variations of Minneapolis' Park & Recreation Board

CITY OF MINNEAPOLIS PARK B	CITY OF MPLS PK BK
CITY OF MINNEAPOLIS PARK BD	CITY OF MPLS PK BOARD
CITY OF MINNEAPOLIS PK BD	CITY OF MPLS PK COMM
CITY OF MINNEAPOLIS PK BOARD	CITY OF MPLS-PARK BOARD
CITY OF MPLS PARK BOARD	MINNEAPOLIS PARK & REC BOARD
CITY OF MPLS PARK	MINNEAPOLIS PARK BOARD
CITY OF MPLS PARK & REC	MPLS PARK & REC BOARD
CITY OF MPLS PARK BD	MPLS PARK BOARD
CITY OF MPLS PARK BOARD	PARK BOARD
CITY OF MPLS PK BD	PARK BOARD CITY OF MPLS

Finally, there is no way to calculate or estimate accuracy for the obtained results. New parcel data is produced every 6 months and each update provides an opportunity for new variations.

Methodology

*For the purposes of this analysis, "**publicly-owned**" refers to a broad variety of public agencies including states, counties, cities, and "special" agencies (airport, military).*

The Database is intended to be a resource which builds off of existing county-level parcel data. As such, the Database includes several new attribute fields. Attribute fields are geospatial data within GIS, similar to an Excel spreadsheet. These additional fields provide information to gain an understanding of TOD potential on the publicly-owned parcels within transitways.

The methodology assumes that the tax status of the majority of publicly-owned land is tax exempt and the majority of name variations would appear within this subgroup of the data.

Within the project scope, all tax exempt parcels were selected. This selection produced a preliminary list of agency names. Next, the tax exemption field status field allowed for the identification and removal of non-taxable privately held land (such as churches). These removals were completed using Microsoft Excel (but could be completed within GIS).

Next, the list of public agencies was parsed through manually (in Excel) for spelling and formatting inconsistencies. All organization names were manually reviewed for spelling and formatting inconsistencies. Spelling errors in the agency names were corrected and variations were changed to a standardized name.

The final list of identified public agencies was used in GIS to locate all parcels who had a matching ownership attribute, regardless of their tax-exempt status. Missing variations were identified and corrected. The resulting data thus incorporated all parcels identified to be publicly-owned.

TOD on Publicly-Owned Parcels

DATABASE RESULTS

The following map shows the parcels (in blue) owned by an identified public agency or relevant government unit.
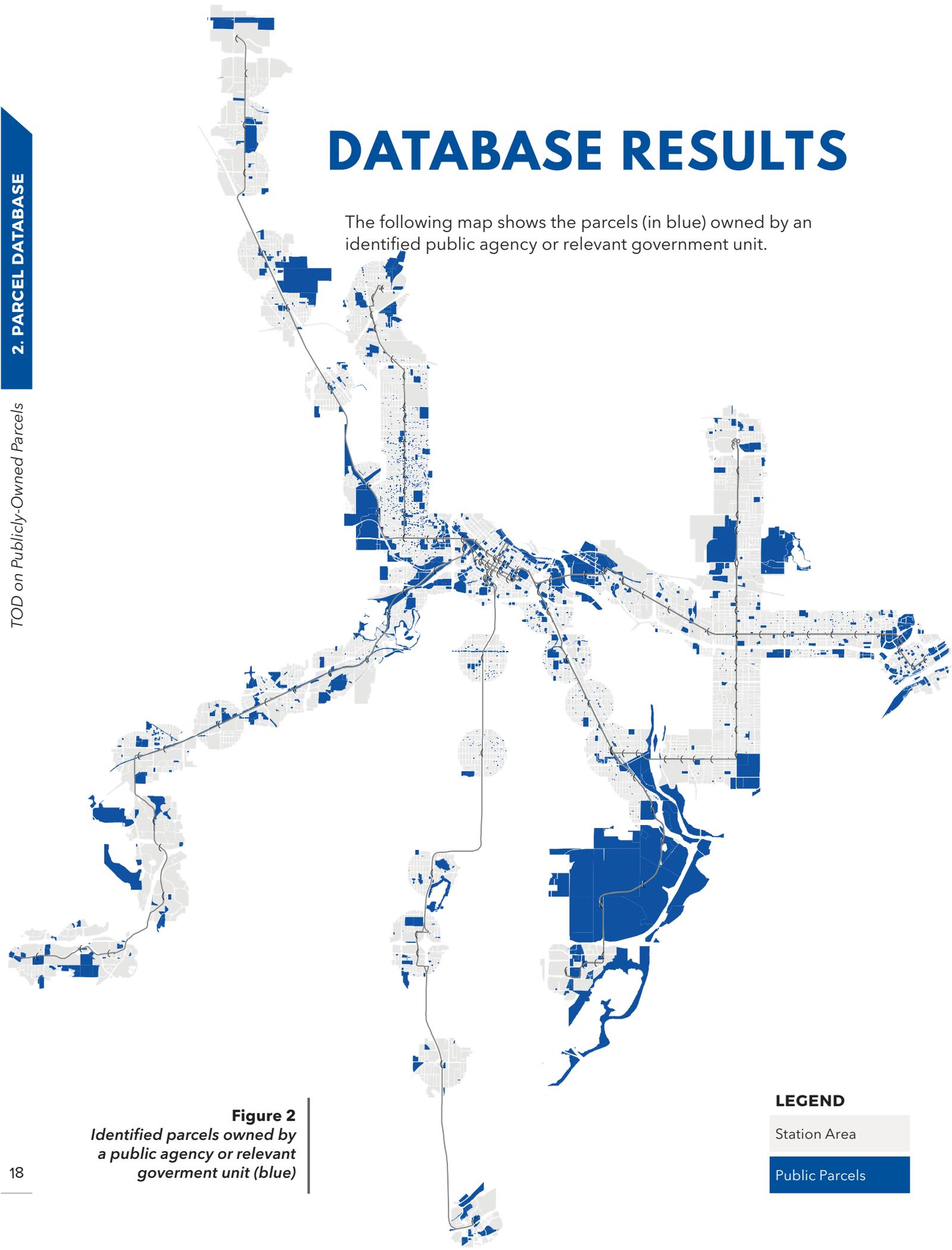
Figure 2
Identified parcels owned by a public agency or relevant goverment unit (blue)

LEGEND

Station Area

Public Parcels

The majority of publicly-owned parcels along identified transitways are located in Hennepin County (**Figure 3**). There are over 2,600 publicly-owned parcels within the project area in Hennepin County, totalling over 9,000 acres of land. About one-fifth of the total acreage of publicly-owned land is located in Ramsey County and only 1 percent is located in Dakota County.

	STATION AREA PARCELS	PUBLIC PARCELS	STATION AREA ACRES	PUBLIC PARCEL ACRES	% STATION AREA
Hennepin	65,711	2,615	62,450	9,513	15.23%
Ramsey	21,079	468	7,985	1,887	23.64%
Dakota	264	34	469	135	28.88%
Total	**87,054**	**3,117**	**70,904**	**11,536**	**16.27%**

Figure 3
Distribution of identified public parcels

Land near stations is more likely to be owned by private entities (83 percent) than public agencies (17 percent). However, the proportion of private to public land ownership near stations varies by county. Nearly one third of the land at Dakota county transit stations is owned by public agencies while only fifteen percent of land near Hennepin county transit stations is publicly-held (**Figure 4**).

OVERALL

17%

83%

HENNEPIN

15%

85%

RAMSEY

26%

74%

DAKOTA

29%

71%

■ Private ■ Public
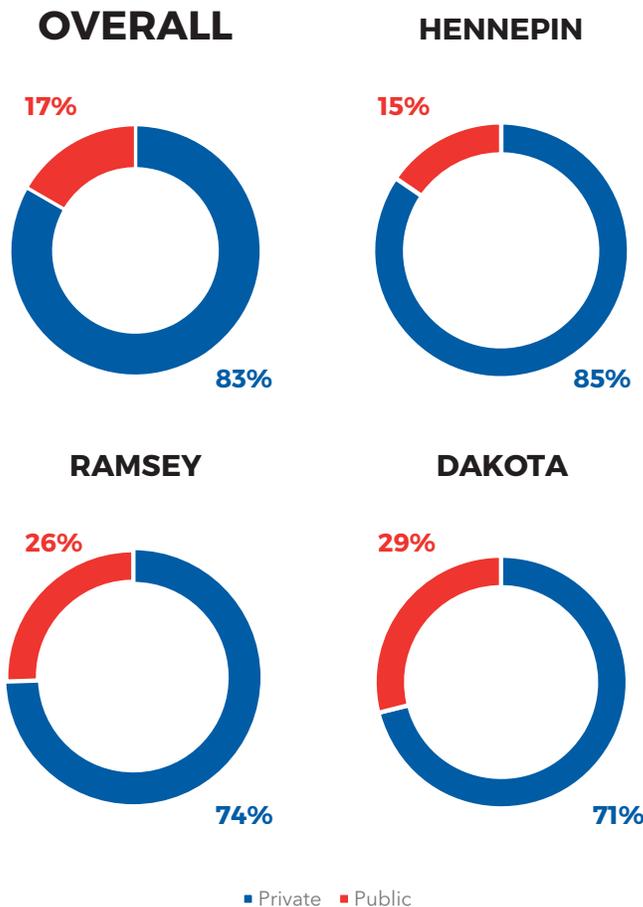
Figure 4
Public land distribution at the station area level, by county

TOD on Publicly-Owned Parcels

As seen in **Figure 5** the majority of the land is owned by government agencies at the city or state level.

Figure 5
Public land distribution at the station area level, by government level

City	39%
State	32.4%
Federal	16.7%
Regional	7.5%
County	4.4%
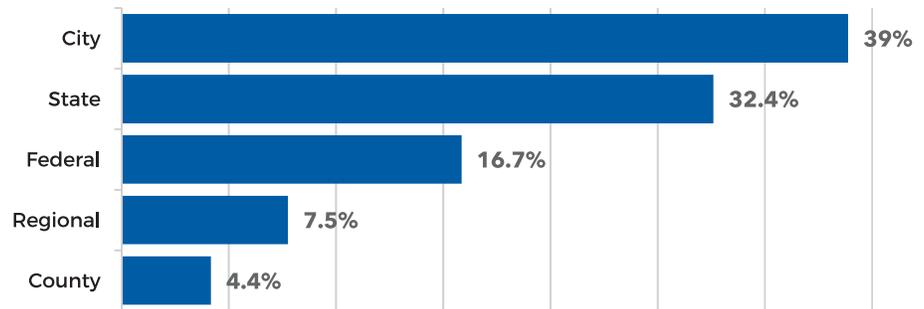
Most of the land owned by state agencies is controlled by the Metropolitan Airports Commission (19.1 percent) as seen in **Figure 6**. Land owned at the city level is much more distributed, with Minneapolis and St. Paul owning the largest share (20.1 and 12.9 percent, respectively). In total, nearly 65 percent of publicly-owned parcels are located within the boundaries of Minneapolis, St. Paul, the Minneapolis-St. Paul Airport, or Fort Snelling. The remaining publicly-owned land is distributed among 15 cities and townships in the metro area, with the most publicly-owned land located in Bloomington (6.6 percent) and the least amount of land located in Edina (less than 1 percent).

Figure 6
Public land distribution at the station area level, by city, township or unorganized territory

Minneapolis	20.1%
Met. Airports	19.1%
St. Paul	12.9%
Fort Snelling	11.9%
Bloomington	6.6%
Eden Prairie	4.0%
Golden Valley	3.9%
Brooklyn Park	3.6%
Crystal	3.2%
St. Louis Park	2.6%
Falcon Heights	2.6%
Minnetonka	2.0%
Brooklyn Center	1.7%
Richfield	1.4%
Hopkins	1.4%
Burnsville	1.2%
Roseville	0.9%
Robbinsdale	0.8%
Edina	0.002%
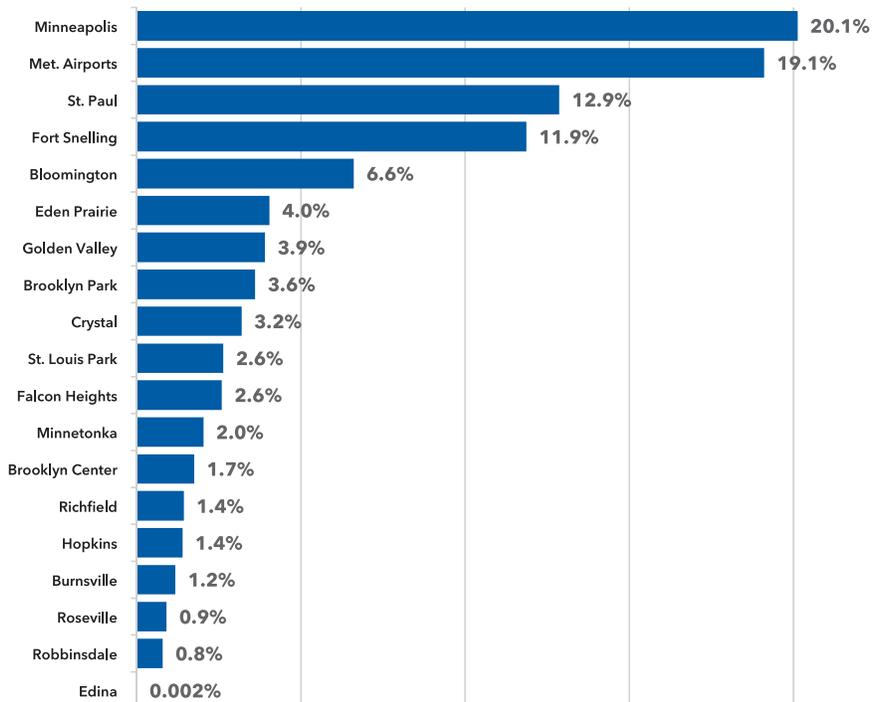
The majority of publicly-owned land in most metro area cities is owned by the city itself (**Figure 7**). Edina and Crystal are the only cities that have a different ownership distribution; Edina's publicly-owned land is controlled by the regional government while the majority of land in Crystal is owned at the state level.
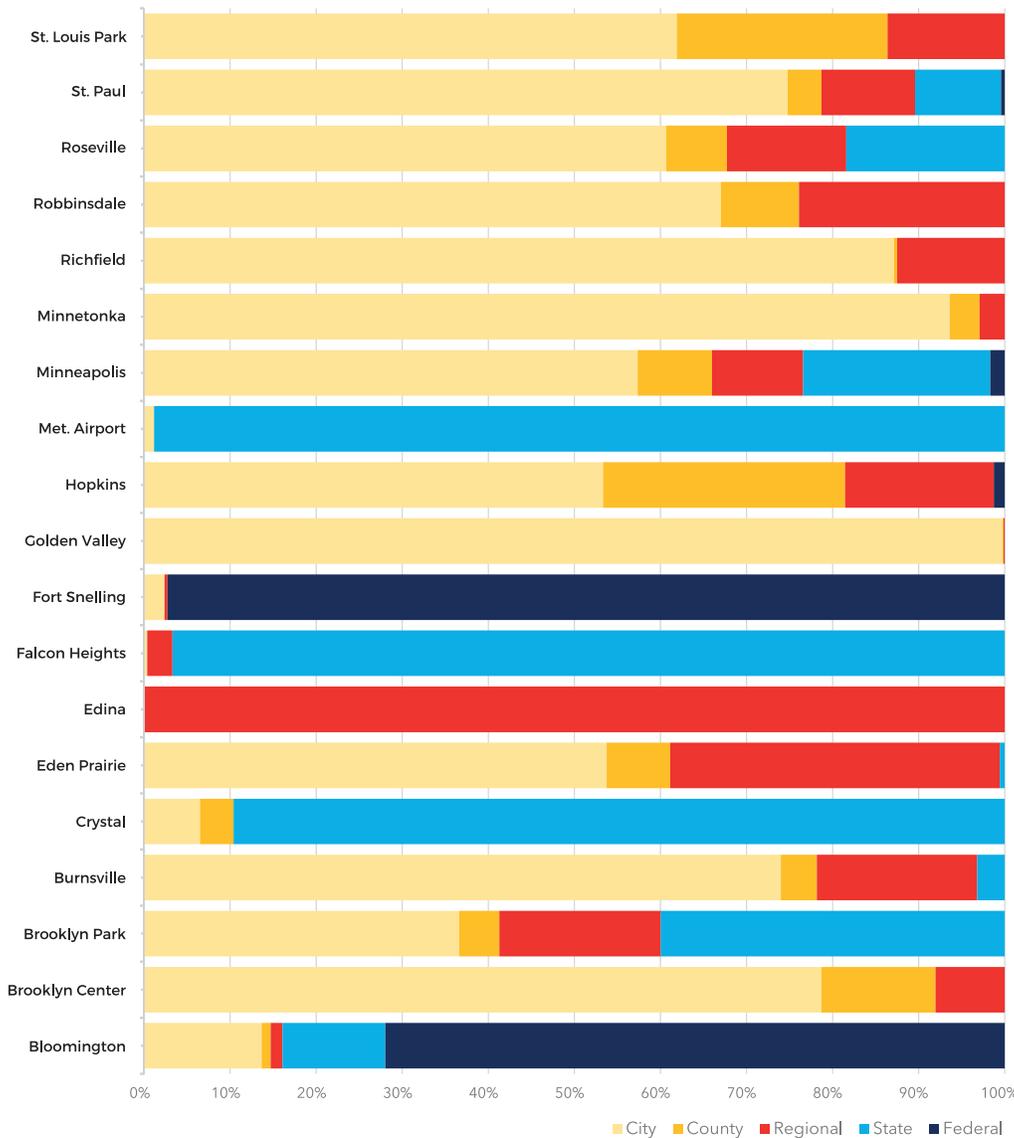
Figure 7
Public land distribution at the station area level by government level, city, township or unorganized territory

TOD on Publicly-Owned Parcels

03 TOD SUITABILITY ANALYSIS

INTRODUCTION

The Database described in the previous section comprehensively lists publicly-owned parcels and can be used as a starting point for a conversation on TOD. However, identified parcels display a variety of individual properties that should be accounted for to assess their TOD potential. In this section, parcel prioritization is performed using a suitability analysis based on geographical and non-geographical data to determine sites most likely to be developable. This suitability analysis is comprised of two independent scoring systems that measure the quality of the parcel for TOD development and the surrounding context in terms for equitable development potential. This section includes a summary description of the methodology for the creation of both scores and the subsequent results.

Full technical description is available in the Appendix

Filtering the Data

The Database was used as the main source for the suitability analysis. An iterative filtering process was applied to exclude land unsuitable for development. Excludable land includes:

- Water features (lakes and rivers, but not drainage ponds)
- Parks
- Railroads and railroad easements
- Major government buildings or landmarks (such as the Capitol Building)

Google satellite imagery and N'compass data was used to confirm the location of excluded land uses. Any parcel that was excluded has an explanatory field in the Attributes Table with the exclusion reason. Results of the suitability analysis do not incorporate the excluded parcels (though the scores for excluded parcels remain in the Database).

Cluster Identification

The Database provides information for singular parcels rather than groups of parcels. However, both the public sector and developers have acknowledged a lack of interest in development of parcels which are smaller than 0.8 acres. The prioritization excludes parcels less than 0.25 acres (unless located in a cluster). The suitability analysis identifies groups of adjacent publicly-owned parcels and counts them as single entities (clusters) for the purposes of area and distance scoring.

Cities can pave the way for developers on cluster acquisition and merging of parcels. Developers have noted that holding costs (taxes) and capricious land-sellers preclude the purchase of adjacent parcels. This process is usually too unpredictable and risky for private developers and is better completed by the public sector (PA 8081 Developer Tour, 4/14/15). Unclustered parcels smaller than 0.25 acres were excluded from the results. These small parcels are typically in single family home neighborhoods and have little short-term potential for TOD.

Developers (PA 8081 Class Presentation, 4/2/15) stated that parcels less than 0.8 acres are not feasible for typical multifamily residential projects. The cluster methodology of this suitability analysis allows for groups of several smaller parcels to reflect a larger singular site.

PARCEL SCORE

Downtown areas were defined using Metro Transit's Downtown Fare Zones delineation

Parcels were divided into two categories: downtown and non-downtown parcels. Within each category, each parcel was scored based on three attributes: distance from the station, size of the parcel, and whether there appears to be a superstructure (an above-ground building, parking garage, etc.) on the site (**Figure 8**). Opportunity sites, ranked by Parcel Scores, include individual parcels and adjacent groups of parcels (clusters) of a minimum size.

Figure 8
Diagram showing the three variables of the Parcel Score equation

DISTANCE TO STATION **+** PARCEL SIZE **+** VACANT LAND **=** PARCEL SCORE

(0-1) x 1.25   (0-1)   (0-1) x 1.25   **= (0-3.5)**
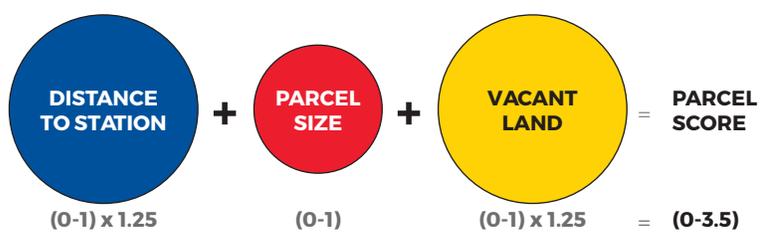
Scoring Factors

The Parcel Score is an additive score (maximum score of 3.5) based on the following three attributes:

Distance: Parcels that were closer to the station received a higher score than stations that were further away. Downtown areas are highly conducive to walking due to street connectivity, sidewalks, and pedestrian crossings (**Figure 9**). The highest Distance score was given to downtown parcels within 0.2 miles of the station. Parcels toward the edge of the half-mile station area buffer received a much smaller score for the Distance attribute.

Non-downtown areas vary in their walkability (**Figure 10**). Therefore, parcels immediately adjacent to the station or within 0.075 miles of the station platforms received a higher relative weight for the Distance attribute. While any parcel within a downtown station area received a positive score of 0.3 for Distance, non-downtown parcels farther than 0.25 miles from the station received only 0.1 points for the Distance attribute. Parcels over 0.5 miles from the station but within the station area buffer received no points. In many suburban contexts of proposed transitways, TODs may have the greatest potential for ridership if they are located much closer than a half-mile to the station.

Size: Following conversations with three developers (PA 8081 Class Presentation, 4/2/2015), it was determined that land below a certain size can be a deterrent to the feasible development of a parcel. Single family home lots are not relevant to the scope of public sector TOD in the near term; any parcels smaller than 0.25 acres were excluded. Conversely, very large parcels can be very difficult and risky to develop since developers need greater financial resources. To account for this, parcels that were very large (6 acres or more) received fewer points for the Size attribute. Sites that were between 0.65 and 6 acres in size received the maximum parcel size score; sites between 0.25 and 0.65 received a lower score, and those below 0.25 acres received no points for Size (**Figure 11**).

Vacancy: Because sites with pre-existing structures (buildings, parking ramps, etc.) may be financially and politically more difficult to develop in the near term, a score was incorporated for "vacant" sites. A "Superstructure" variable was added to the Database to identify parcels that may be relatively easier to develop. Substructures, such as utilities, are not accounted for in this variable.

The scoring process and factors used are detailed to a greater extent in the Appendices

Figure 9
Distance score classification Downtown parcels

0.40 mi
0.5 point
0.20 mi
1 point
over 0.40 mi
0.3 point
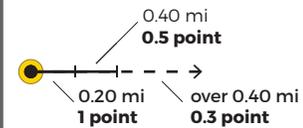
Figure 10
Distance score classification Non-Downtown parcels

0.25 mi
0.75 point
over 0.50 mi
no points (0)
0.075 mi
1 point
0.50 mi
0.1 point
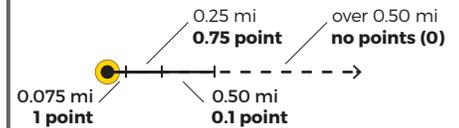
Figure 11
Size score classification All parcels

over 6 acres
0.5 point

<6 acres
1 point

< 0.65 acre
0.25 pt

< 0.25
0 pt
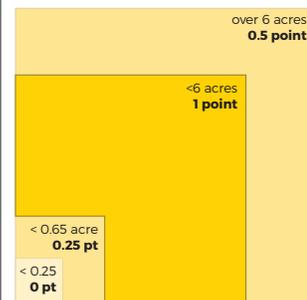
Figure 12
Vacancy score classification
All parcels

Existent structure
No points (0)

Parcels 50% occupied
0.5 point

Vacant land / Surface parking lot
1 point
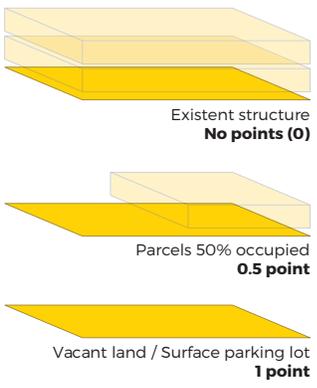
Vacant sites were defined as parcels with no superstructure. This was determined using Google maps, satellite, and Streetview imagery. Additionally, the Capstone team used personal knowledge of the status of parcels and clusters to determine parcel vacancy. Parcels with no structure were given the highest score. Downtown parcels with a vacant space on at least half of the site were scored 0.5. This score indicated the potential for a higher usage of the site. Of 3,117 parcels, only 14 of these received the 0.5 score. The majority of vacant space on these sites were surface parking lots. Lastly, parcels with an existing structure were given no points. Surface parking lots have no superstructure and were considered vacant.

Overall Score and Weighting

Distance is a major determinant in whether a parcel's users interact with transit. Vacant land is advantageous for new development. Therefore, Distance and Vacancy were weighted more than Size in the overall Parcel Score.

EQUITY SCORE

Equity Scores were calculated to offer additional insight beyond the typical development criteria of the Parcel Score. Unlike the Parcel Scores, downtown and non-downtown areas were not distinguished. There are many ways to measure equity and identify equity opportunities. Current literature recommends a focus on disadvantaged populations because there is a greater impact on ridership and quality of life within these populations (Garrett and Taylor, 2011). Disadvantaged often refers to low-income, racial or ethnic minorities, and transit dependent populations, but it should also include the disabled, elderly, children, and teenagers (Litman 2011 and 2012). These groups share common statistics relating to income, transportation burden, and vehicle ownership (Litman, 2002 and Pollack et. al., 2013). These three indicators were integrated into a parcel-level Equity Score to help identify Opportunity Sites with potential for equity advancement (**Figure 13**).
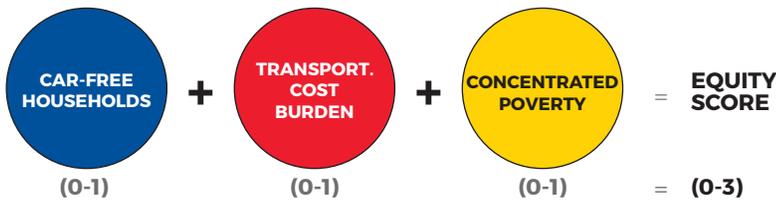
Scoring Factors

Three attributes were used to determine the Equity Score:

The scoring process and factors used are detailed to a greater extent in the Appendices

Car-free Households: The number of car-free households is a common measure of transit dependency, or to what extent the residents rely on transit for their daily transportation. The higher the number of car-free households in an area, the higher the score received by the parcel.

Transportation Cost Burden: Transit can often provide a lower-cost option for transportation which can be especially important to cost-burdened households. Using the Location Affordability Index developed by the US Department of Housing and Urban Development in conjunction with the Department of Transportation, this variable provides a measurement of how much a household spends on transportation, measured as a percentage of total income.

Areas of Concentrated Poverty (ACPs): The Metropolitan Council has defined Areas of Concentrated Poverty as census tracts where 40% or more of the households earn incomes that are less than 185% of the federal poverty level (excluding tracts where a large percentage of the residents are post-secondary students). Areas with large concentrations of poverty are likely to support high transit ridership and could benefit from improved service and development. If any portion of a parcel overlaps an area designated by the Metropolitan Council as an ACP, then the parcel receives the optimal score.

Overall Scoring

All three scoring factors were weighted equally and combined to create the overall Equity Score.

PRIORITIZATION RESULTS

The following section presents a selection of parcels or clusters called Opportunity Sites. Opportunity Sites are listed by transitway. The top 10 highest Parcel Scores are included in this report (excluded sites received scores but area not included). Only Opportunity Sites with Parcel Scores greater than 1 are listed in this report. Therefore, some transitways have fewer than 10 Opportunity Sites.

The Top 10 Opportunity Sites are grouped by transitway and are listed from north to south while the Green Line is listed from east to west (St. Paul to Minneapolis). Transitways are listed by expected opening date (2040 Transportation Policy Plan):

1. **METRO Blue Line**

2. **METRO Green Line**

3. **A Line - Snelling Ave (aBRT)**

4. **METRO Orange Line**

5. **METRO Green Line Extension**

6. **C Line - Penn Ave (aBRT)**

7. **METRO Blue Line Extension**

A brief transitway summary precedes each set of transitway Opportunity Sites. Opportunity Sites include singular parcels and clusters of parcels. Each parcel or cluster site is shown with its Parcel Score, ownership, corridor, and station. Opportunity Sites with Equity Scores greater than 1 are highlighted; these sites may have stronger equity needs. Additionally, the recommended TOD implementation activities from the TOD Classification Tool are listed for each Opportunity Site. These implementation activities are based on the station area's Classification (such as Raise the Bar, Catalyze, Connect, Transition, and Plan and Partner) for each Opportunity Site.

See Appendices for Metro Transit's Implementation Priorities table

While many Opportunity Sites can be analyzed through an equity lens to identify how public resources are allocated, only Opportunity Sites that scored higher than 1 for the Equity Score are highlighted. The Equity Score is not a comprehensive measure of equity, nor is it a perfect method of parcel comparison. Highlighting equity

is intended to trigger a discussion of how TOD can advance equity from the beginning of the TOD planning and development process, ultimately helping to achieve Thrive MSP 2040's equity outcomes. Although this report includes the top 10 Opportunity Sites per corridor by Parcel Score, it would be possible to rank parcels by Equity Score or as a combined Parcel and Equity score.

Though the Parcel Score establishes preliminary development potential based off of size, distance, and vacancy, there are notable limitations. First, transitways range from operational to several years away from completion. As such, station area locations are subject to change. Several factors were beyond the scope of this report and are not accounted for in Parcel Scores:

- **Road access -** Parcels that lack road access (such as the interior of a block) have limited development potential without major infrastructure modifications to increase access.

- **Topography/grade changes** - Extremely sloped parcels may drive up costs.

- **Soil and/or environmental quality** - Polluted brownfields can increase costs and/or preclude certain uses, such as residential.

- **Existing plans, development, and zoning** - Many parcels have complex political histories of acquisition and ongoing management issues.

The Capstone group encountered several parcels with a known process or special status (such as the Snelling Bus Barn). Maps of special cases are not included in this report. Oddly shaped or extremely thin parcels received a Parcel Score in the Database but are not included in this report.

The prioritization results do not assume a program of function for each Opportunity Site. Where some parcels might accommodate multi-story apartments or office buildings, other parcels might serve as an accessory public amenity to an adjacent TOD (whether public or private).

OPPORTUNITY SITES

1. METRO Blue Line

The METRO Blue Line opened in 2004 and links the Mall of America, Minneapolis-St. Paul Airport, and downtown Minneapolis. Multiple regional transit routes converge at the terminal hubs of Target Field Station and Mall of America Station.

Downtown Minneapolis is a hot and evolving real estate market with large-scale developments activating formerly vacant blocks in Downtown East.

South of downtown, the light rail runs along the Blue Line corridor through single family home neighborhoods. This corridor is more automobile-friendly than pedestrian-friendly, which may inhibit development potential. Pedestrian connectivity improvements would improve existing TODs as well as provide a better environment for new developments.

The Bloomington South Loop area represents a key TOD opportunity with strong city support and planning, though flight paths and large scale commercial uses complicate TOD planning and implementation.

TOD on Publicly-Owned Parcels

Target Field Station

Warehouse District/Hennepin Avenue Station

Nicollet Mall Station

Government Plaza Station

Downtown East Station

Cedar-Riverside Station

Franklin Avenue Station

Lake Street Midtown Station

38th Street Station (Hiawatha Ave)

46th Street Station (Hiawatha Ave)

50th Street Minnehaha Park Station

VA Medical Center Station

Fort Snelling Station

Airport Terminal 1 Lindbergh Station

Airport Terminal 2 Humphrey Station

28th Avenue Station

Mall of America Station

American Blvd 34th Ave Station Bloomington Central Station

Public Parcels
METRO Blue Line (Hiawatha LRT)

LEGEND

Station Area

Public Parcels

Dev. Potential

TOD on Publicly-Owned Parcels

EQUITY OPPORTUNITY

METRO BLUE LINE 1.1

Cedar-Riverside Station

CITY
MINNEAPOLIS

STATION
CEDAR-RIVERSIDE

OWNER
City of Minneapolis

TOD TYPE
CATALYZE

TOD PRIORITIES
Placemaking
Catalytic Dev'
Affordable Housing
Econ. Development
Transit Improvements

| **Parcel Score:** 3.19 | **Total Area (acres):** 0.83 | **# Parcels:** 1 |

EQUITY OPPORTUNITY
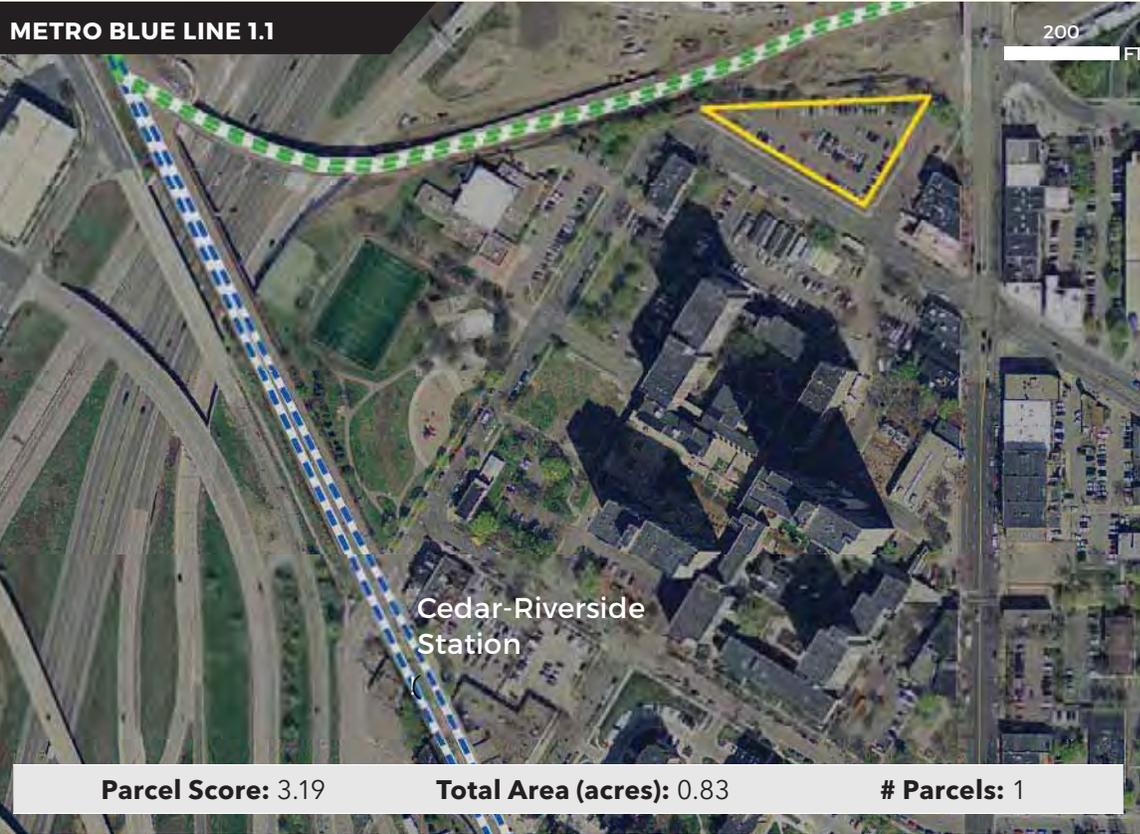
METRO BLUE LINE 1.2

Lake St Midtown

CITY
MINNEAPOLIS

STATION
LAKE ST-MIDTOWN

OWNER
City of Minneapolis

TOD TYPE
CATALYZE

TOD PRIORITIES
Placemaking
Catalytic Dev'
Affordable Housing
Econ. Development
Transit Improvements

| **Parcel Score:** 3.19/2.56 | **Total Area (acres):** 1.49 | **# Parcels:** 2 |

METRO BLUE LINE 1.3

200 FT

Lake Street Midtown Station
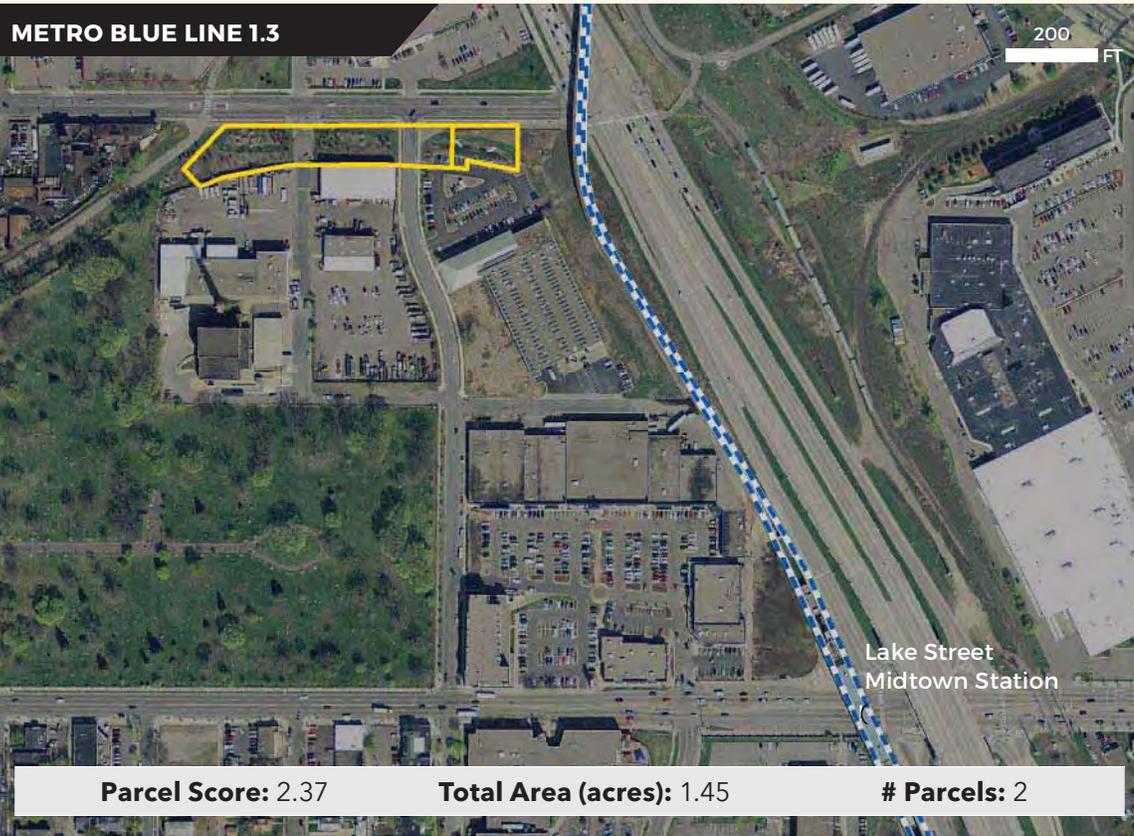
Parcel Score: 2.37	Total Area (acres): 1.45	# Parcels: 2

CITY
MINNEAPOLIS

STATION
LAKE ST-MIDTOWN

OWNER
Hennepin County Regional Rail Authority

TOD TYPE
CATALYZE

TOD PRIORITIES
*Placemaking
Catalytic Dev'
Affordable Housing
Econ. Development
Transit Improvements*

METRO BLUE LINE 1.4

200 FT

38th St (Hiawatha Ave)

Parcel Score: 3.19/1.94	Total Area (acres): 3.06	# Parcels: 3

CITY
MINNEAPOLIS

STATION
38TH STREET

OWNER
*Met Council (1)
MnDOT (1)
Minneapolis Public Housing Authority (1)*

TOD TYPE
CATALYZE

TOD PRIORITIES
*Placemaking
Catalytic Dev'
Affordable Housing
Econ. Development
Transit Improvements*

TOD on Publicly-Owned Parcels

METRO BLUE LINE 1.5

200 FT

46th St
(Hiawatha Ave)
46th St

CITY
MINNEAPOLIS

STATION
46TH STREET

OWNER
MetCouncil (1)
MnDOT (1)

TOD TYPE
CATALYZE

TOD PRIORITIES
Placemaking
Catalytic Dev'
Affordable Housing
Econ. Development
Transit Improvements

Parcel Score: 3.5/2.25	**Total Area (acres):** 4.14	**# Parcels:** 2

EQUITY
OPPORTUNITY

METRO BLUE LINE 1.6

200 FT

American Blvd
34th Ave Station

Bloomington
Central Station

CITY
BLOOMINGTON

STATION
AMERICAN BLVD
/ 34TH AVE

OWNER
City of Bloomington
Port Authority

TOD TYPE
CONNECT

TOD PRIORITIES
Infrastructure
Placemaking
Design & Zoning
Econ. Development

Parcel Score: 3.50	**Total Area (acres):** 4.84	**# Parcels:** 1

TOD on Publicly-Owned Parcels

METRO BLUE LINE 1.7

28th Avenue Station
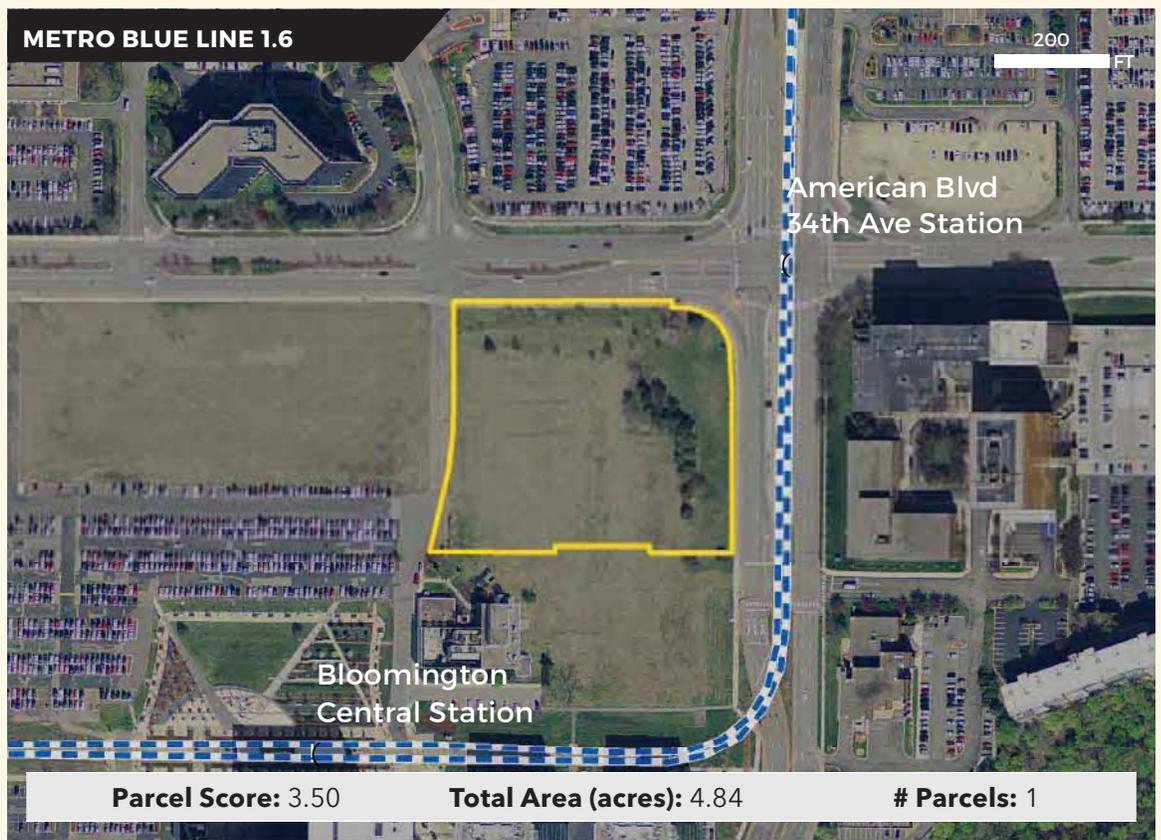
Parcel Score: 3/1.75   **Total Area (acres):** 13.24   **# Parcels:** 2

EQUITY OPPORTUNITY

CITY
BLOOMINGTON

**STATION**
28TH AVE

OWNER
MetCouncil (1)
Metro. Airports Comission (1)

TOD TYPE
CATALYZE

TOD PRIORITIES
Placemaking
Catalytic Dev'
Affordable Housing
Econ. Development
Transit Improvements

METRO BLUE LINE 1.8
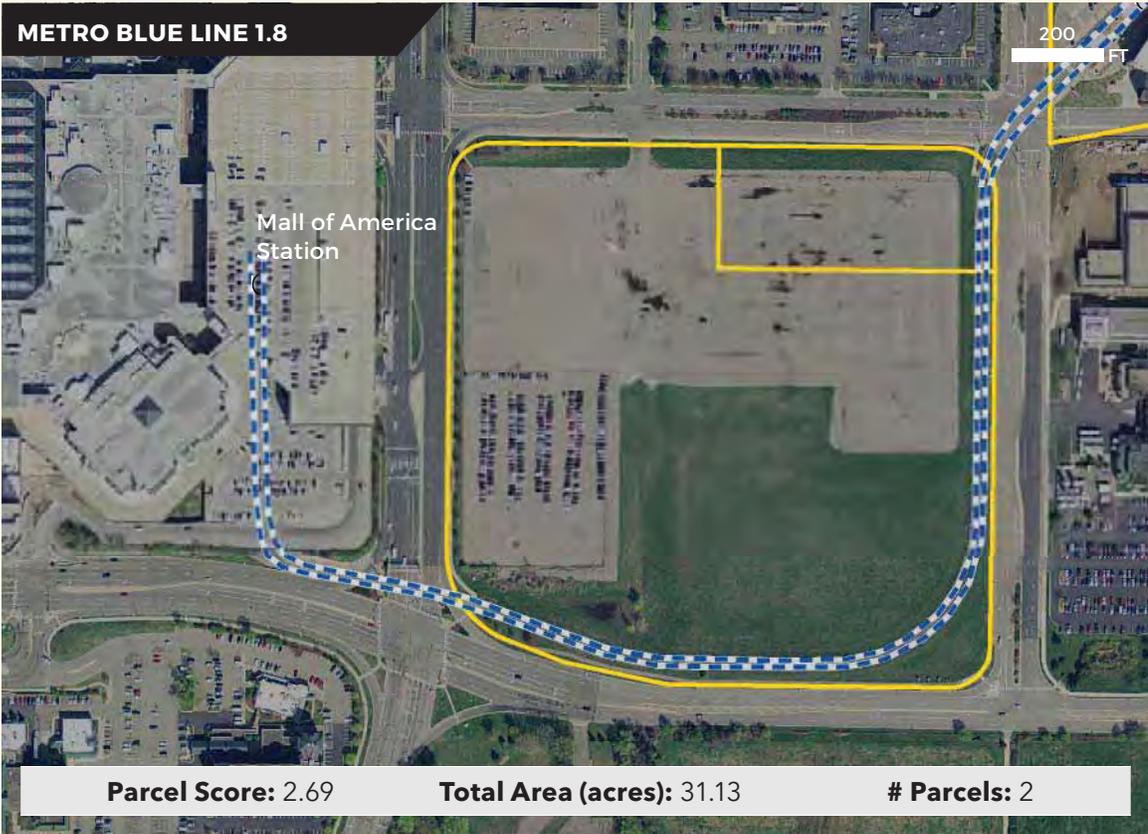
Mall of America Station

Parcel Score: 2.69   **Total Area (acres):** 31.13   **# Parcels:** 2

EQUITY OPPORTUNITY

CITY
BLOOMINGTON

STATION
MALL OF AMERICA

OWNER
Metro. Airports Comission

TOD TYPE
CATALYZE

TOD PRIORITIES
Placemaking
Catalytic Dev'
Affordable Housing
Econ. Development
Transit Improvements

/3. SUITABILITY ANALYSIS

TOD on Publicly-Owned Parcels

EQUITY OPPORTUNITY

CITY
BLOOMINGTON

STATION
MALL OF AMERICA

OWNER
Metro. Airports Commission

TOD TYPE
CATALYZE

TOD PRIORITIES
*Placemaking
Catalytic Dev'
Affordable Housing
Econ. Development
Transit Improvements*

METRO BLUE LINE 1.9

28th Avenue Station

200 FT

Parcel Score: 2.38   **Total Area (acres):** 3.63   **# Parcels:** 6
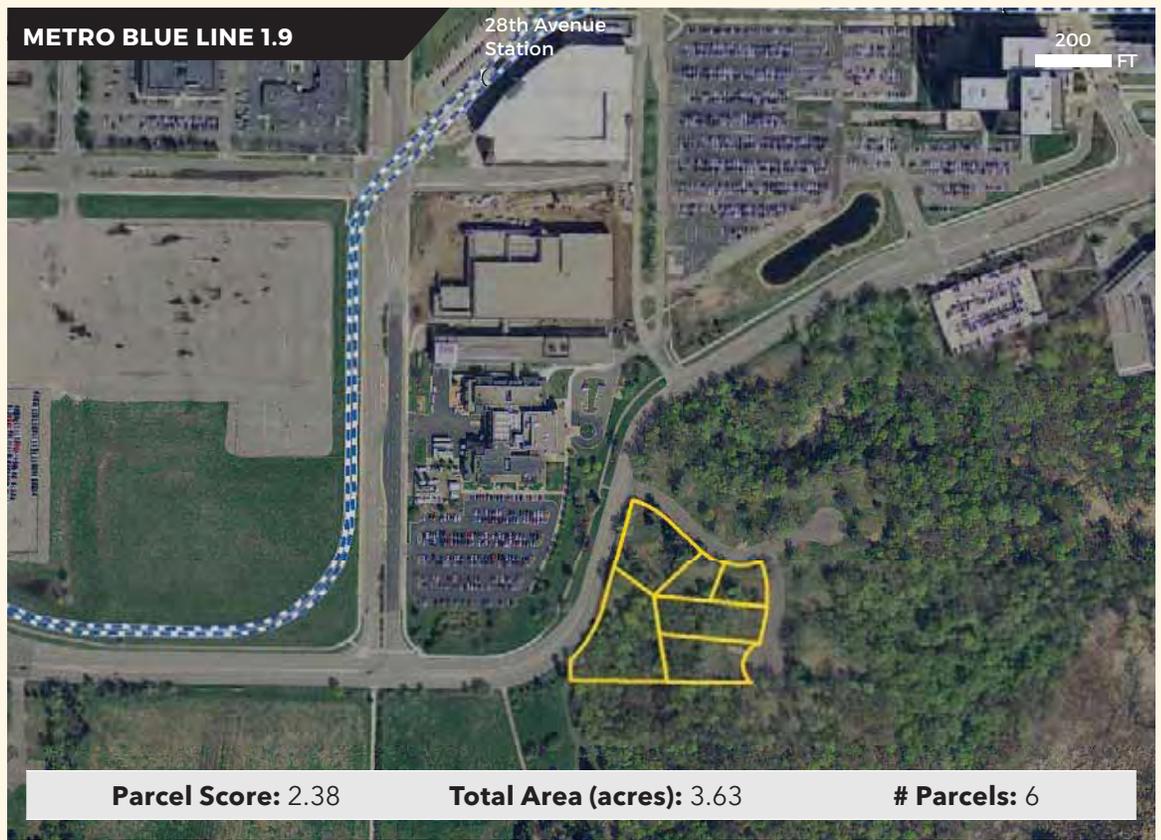
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2. METRO Green Line

The METRO Green Line is the most recent addition to a growing METRO transit system, connecting downtown Minneapolis and downtown St. Paul. The Green Line provides service to a variety of neighborhoods, universities, and cultural amenities. Private, nonprofit, and public development has already occurred along the transitway. Identifying further sites for public collaboration and TOD will strengthen transit ridership and transit-friendly land use patterns.

The corridor is already largely developed and within an existing urban grid. Though few high-scoring parcels exist between the downtowns, there are several opportunities within or nearby downtown transit stations. Many of these high-scoring parcels are located in downtown St. Paul.

One special case is the Snelling Avenue Bus Barn site, which is already under review for TOD through other processes. Though it is scored in this project, it is not included in the recommendations due to the ongoing efforts of Metro Transit.
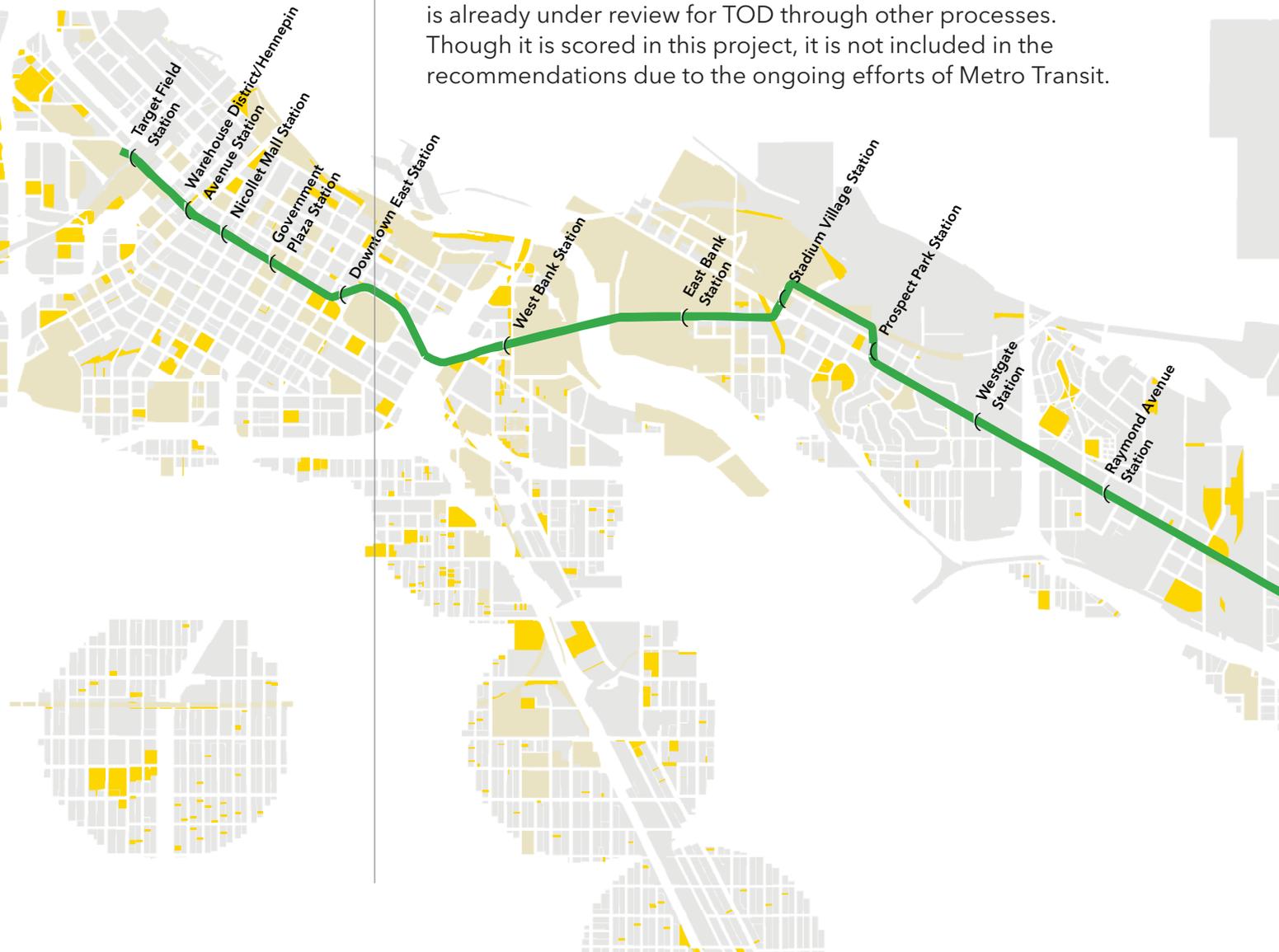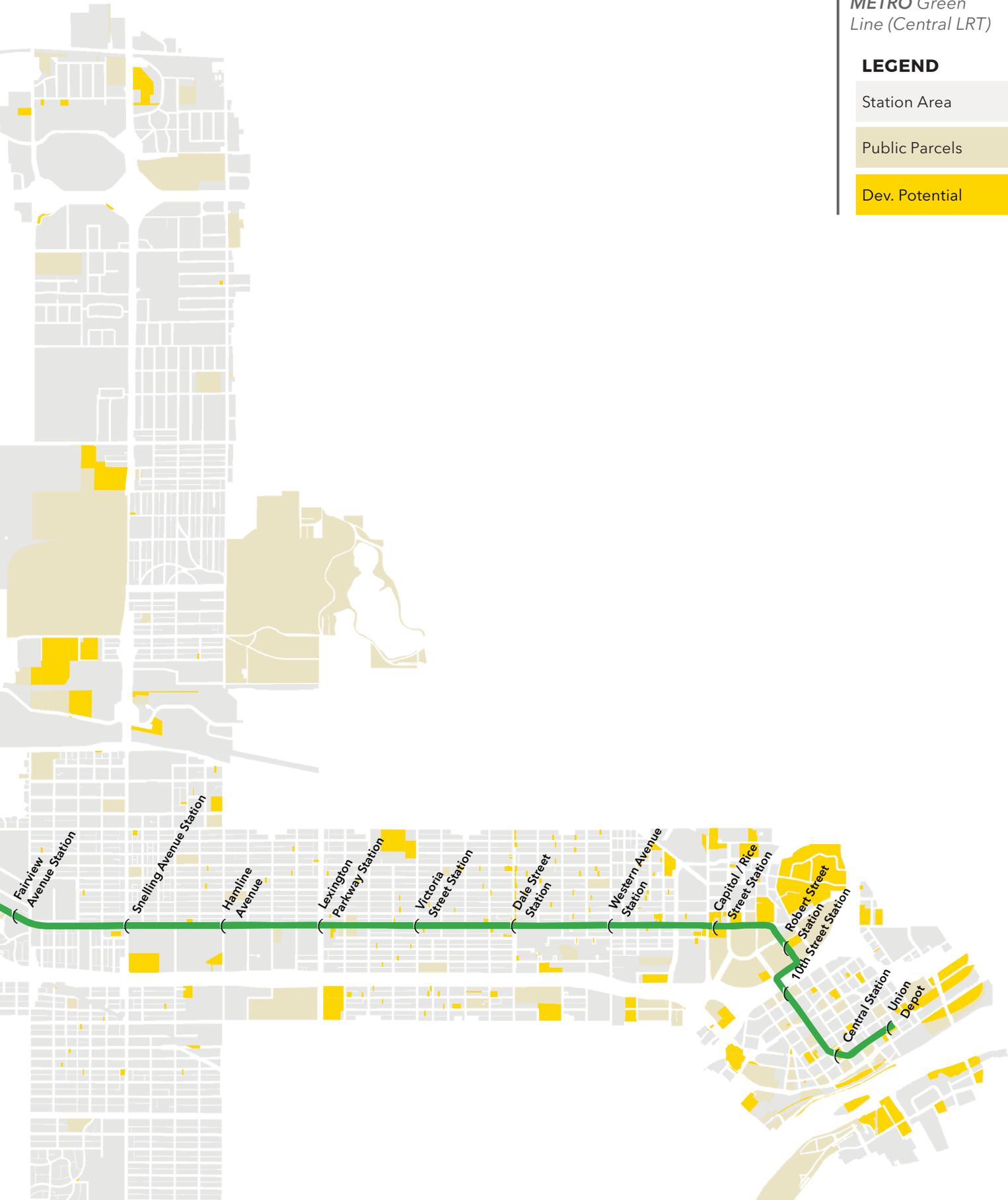
Public Parcels
METRO *Green*
Line (Central LRT)

LEGEND

Station Area

Public Parcels

Dev. Potential

TOD on Publicly-Owned Parcels

Fairview
Avenue Station

Snelling Avenue Station

Hamline
Avenue

Lexington
Parkway Station

Victoria
Street Station

Dale Street
Station

Western Avenue
Station

Capitol / Rice
Street Station

Robert Street
Station

10th Street Station

Central Station

Union
Depot

TOD on Publicly-Owned Parcels

METRO GREEN LINE 2.1

200 FT
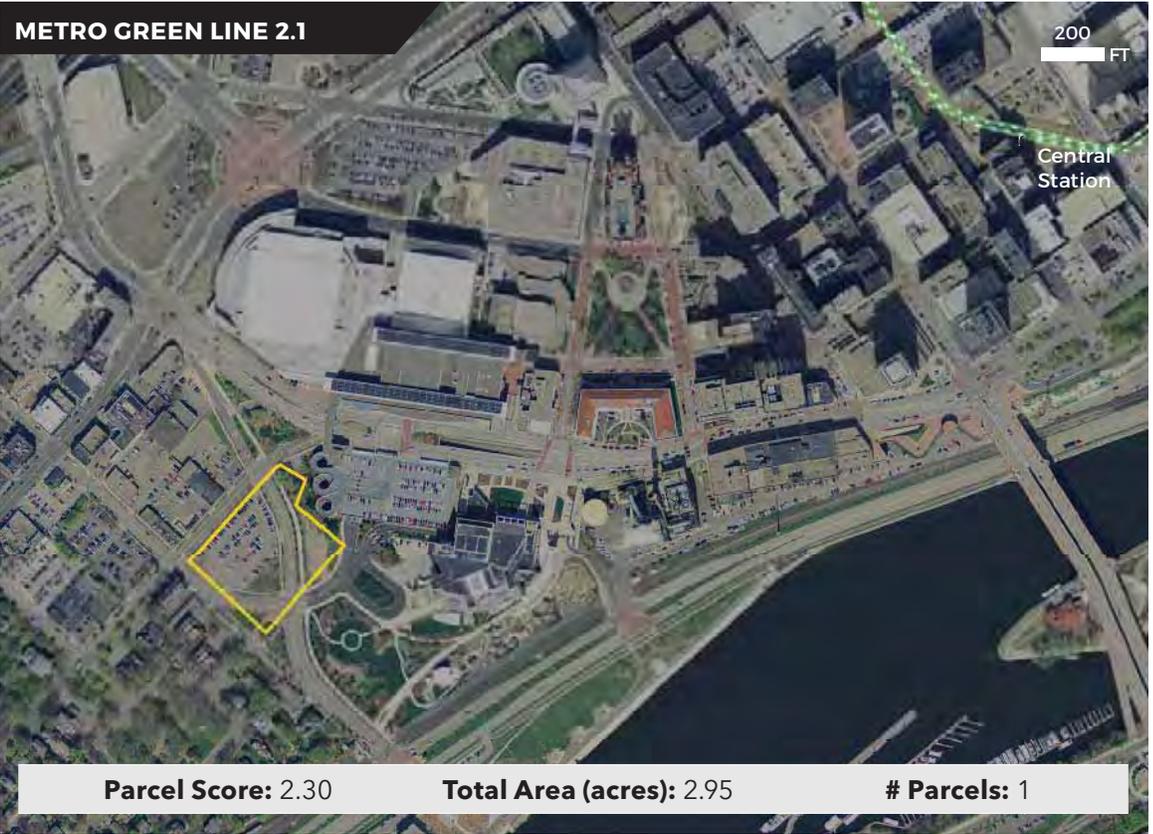
Central Station

CITY
ST. PAUL

STATION
CENTRAL

OWNER
City of St. Paul

TOD TYPE
RAISE THE BAR

TOD PRIORITIES
Placemaking
Design & Zoning
Transit Improvements
Affordable Housing

Parcel Score: 2.30 | **Total Area (acres):** 2.95 | **# Parcels:** 1

METRO GREEN LINE 2.2

200 FT
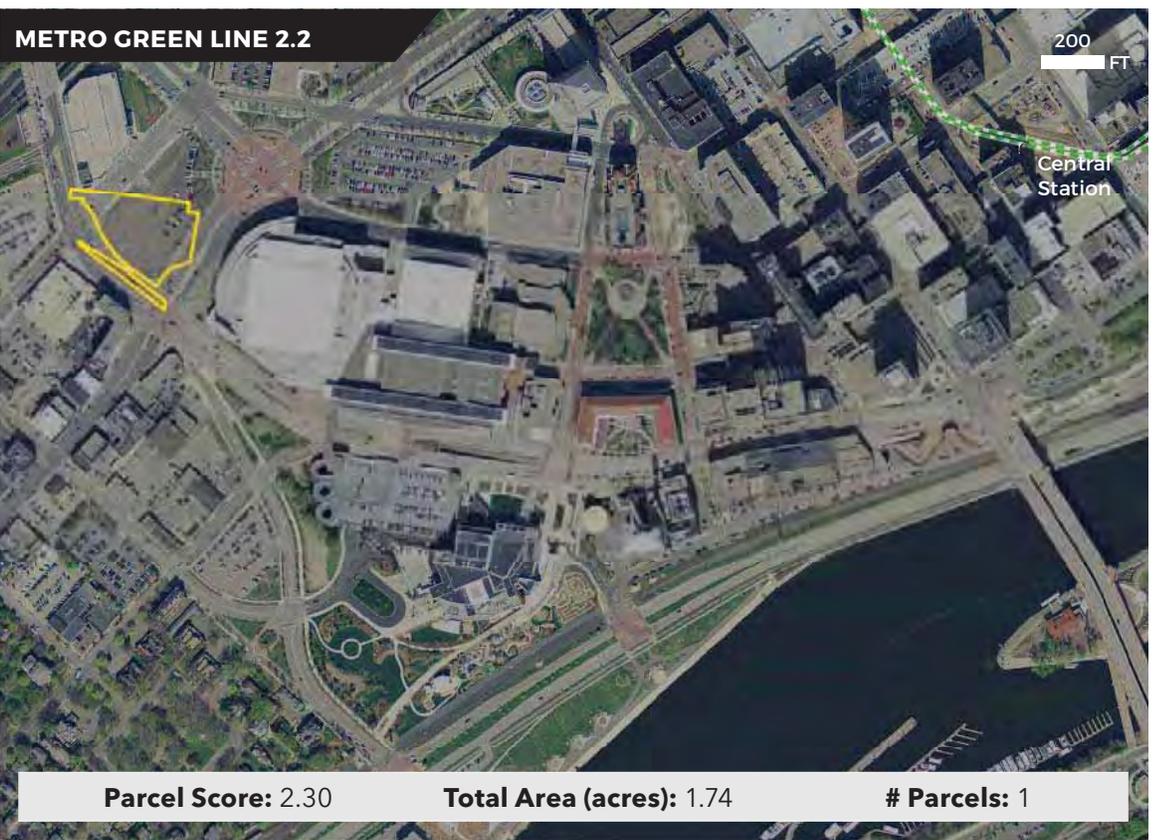
Central Station

CITY
ST. PAUL

STATION
CENTRAL

OWNER
St. Paul Housing and Redevelopment Agency

TOD TYPE
RAISE THE BAR

TOD PRIORITIES
Placemaking
Design & Zoning
Transit Improvements
Affordable Housing

40

Parcel Score: 2.30 | **Total Area (acres):** 1.74 | **# Parcels:** 1

METRO GREEN LINE 2.3

200 FT

10th Street Station

| Parcel Score: 3.00 | Total Area (acres): 1.40 | # Parcels: 1 |

EQUITY OPPORTUNITY

CITY
ST. PAUL

STATION
10TH STREET

OWNER
MnDOT

TOD TYPE
RAISE THE BAR

TOD PRIORITIES
Placemaking
Design & Zoning
Transit Improvements
Affordable Housing

METRO GREEN LINE 2.4

200 FT

Robert Street Station

| Parcel Score: 3.00 | Total Area (acres): 2.12 | # Parcels: 1 |

EQUITY OPPORTUNITY

CITY
ST. PAUL

STATION
ROBERT STREET

OWNER
State of Minnesota

TOD TYPE
RAISE THE BAR

TOD PRIORITIES
Placemaking
Design & Zoning
Transit Improvements
Affordable Housing

TOD on Publicly-Owned Parcels

METRO GREEN LINE 2.5

Capitol / Rice Street Station

200 FT

CITY
ST. PAUL

STATION
CAPITOL/RICE STREET

OWNER
State of Minnesota

TOD TYPE
RAISE THE BAR

TOD PRIORITIES
Placemaking
Design & Zoning
Transit Improvements
Affordable Housing

Parcel Score: 3.00	Total Area (acres): 2.12	# Parcels: 2

METRO GREEN LINE 2.6

200 FT

Capitol / Rice Street Station
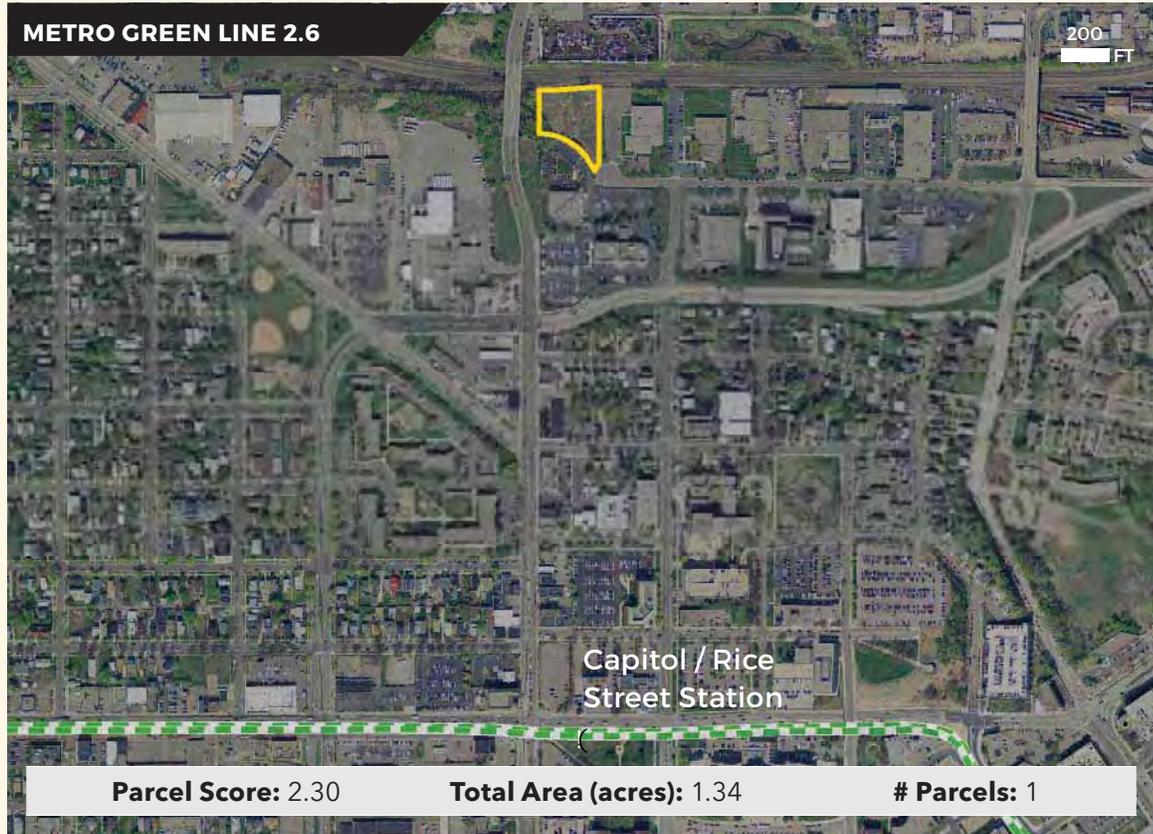
CITY
MINNEAPOLIS

STATION
VAN WHITE BOULEVARD

OWNER
St. Paul Port Authority

TOD TYPE
RAISE THE BAR

TOD PRIORITIES
Placemaking
Design & Zoning
Transit Improvements
Affordable Housing

Parcel Score: 2.30	Total Area (acres): 1.34	# Parcels: 1

METRO GREEN LINE 2.7

200 FT

Downtown East Station

| Parcel Score: 2.50 | Total Area (acres): 0.82 | # Parcels: 1 |
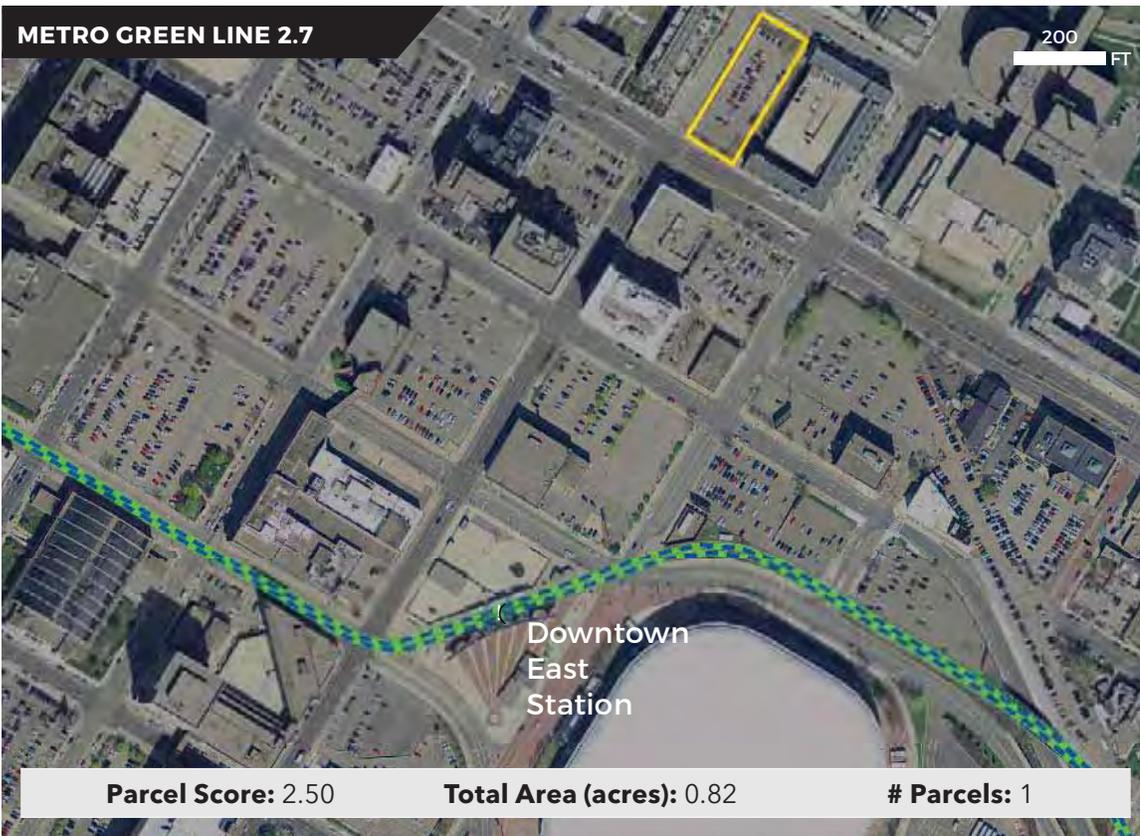
CITY
MINNEAPOLIS

STATION
DOWNTOWN EAST

OWNER
City of Minneapolis

TOD TYPE
RAISE THE BAR

TOD PRIORITIES
Placemaking
Design & Zoning
Transit Improvements
Affordable Housing

METRO GREEN LINE 2.8

200 FT

Nicollet Mall Station

Marquete Ave & 5th Street Station

2nd Ave & 5th Street Station

Plaza Station

| Parcel Score: 2.30 | Total Area (acres): 2.34 | # Parcels: 1 |
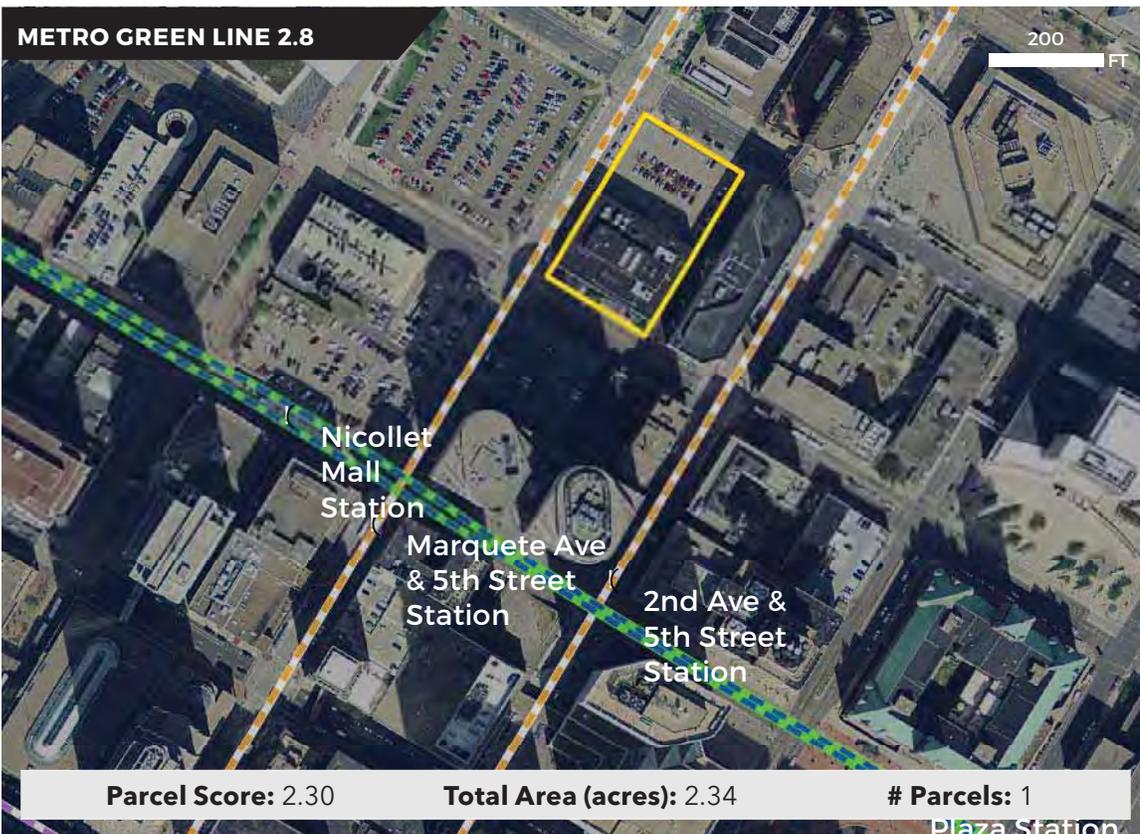
CITY
MINNEAPOLIS

STATION
NICOLLET MALL

OWNER
City of Minneapolis

TOD TYPE
RAISE THE BAR

TOD PRIORITIES
Placemaking
Design & Zoning
Transit Improvements
Affordable Housing

# 3. A Line - Snelling Ave (aBRT)

The A Line, also known as Snelling Ave aBRT, will be the region's first arterial BRT. The route will run on Snelling Avenue and Ford Parkway, connecting Rosedale Center and the Green and Blue Lines. The A Line is targeted to launch in late 2015. Once the new aBRT is running, it will provide a faster trip with improved station facilities.

The A Line corridor has only a few publicly-owned parcels since the majority of the corridor contains already developed residential areas. The corridor includes two identified Opportunity Sites. Both are existing surface parking lots near the Minnesota State Fairgrounds. Utilization of these parking lots is sporadic and seasonal. The new proximity of high-quality BRT transit could precipitate more creative utilization of these land uses.
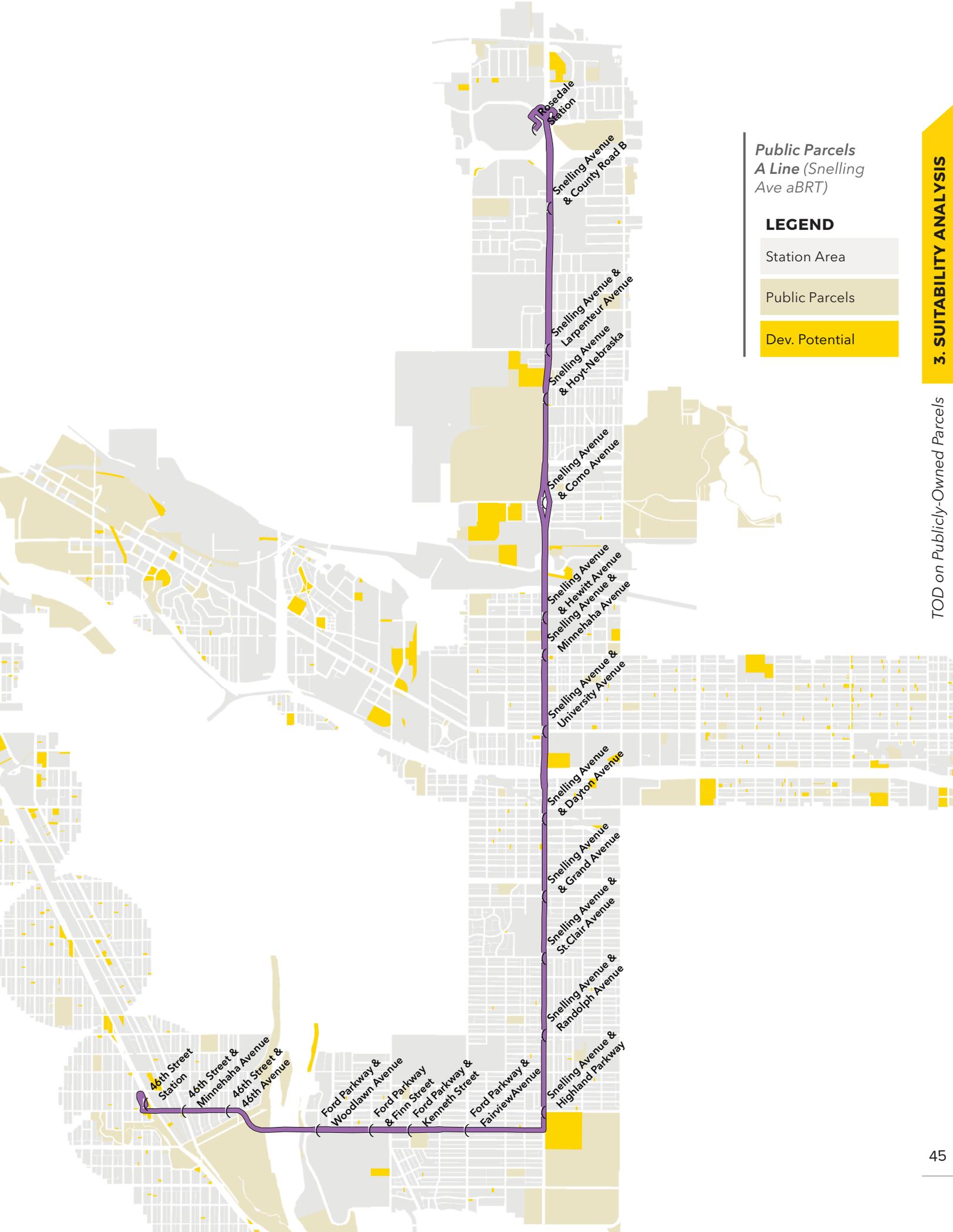
Public Parcels A Line (Snelling Ave aBRT)

LEGEND

Station Area

Public Parcels

Dev. Potential

TOD on Publicly-Owned Parcels

Rosedale Station

Snelling Avenue & County Road B

Snelling Avenue & Larpenteur Avenue

Snelling Avenue & Hoyt-Nebraska

Snelling Avenue & Como Avenue

Snelling Avenue & Hewitt Avenue

Snelling Avenue & Minnehaha Avenue

Snelling Avenue & University Avenue

Snelling Avenue & Dayton Avenue

Snelling Avenue & Grand Avenue

Snelling Avenue & St.Clair Avenue

Snelling Avenue & Randolph Avenue

Snelling Avenue & Highland Parkway

46th Street Station

46th Street & Minnehaha Avenue

46th Street & 46th Avenue

Ford Parkway & Woodlawn Avenue

Ford Parkway & Finn Street

Ford Parkway & Kenneth Street

Ford Parkway & FairviewAvenue

TOD on Publicly-Owned Parcels

A-LINE (SNELLINGAVE) 3.1

200 FT

Snelling Avenue & Larpenteur Avenue

CITY
FALCON HEIGHTS

STATION
SNELLING & LARPENTEUR AVE

OWNER
Minnesota Agricultural Society

TOD TYPE
TRANSITION

TOD PRIORITIES
Design & Zoning
Planning
Local Capacity

Parcel Score: 1.75 | **Total Area (acres):** 19.40 | **# Parcels:** 1

A-LINE (SNELLINGAVE) 3.2

200 FT

Snelling Avenue & Como Avenue

CITY
ST. PAUL

STATION
SNELLING & COMO AVE

OWNER
Minnesota Agricultural Society

TOD TYPE
TRANSITION

TOD PRIORITIES
Design & Zoning
Planning
Local Capacity

Parcel Score: 2.69 | **Total Area (acres):** 6.14 | **# Parcels:** 2

TOD on Publicly-Owned Parcels

A-LINE (SNELLINGAVE) 3.3

200 FT

Snelling Avenue & Como Avenue

| Parcel Score: 1.88 | Total Area (acres): 28.40 | # Parcels: 4 |

CITY
ST. PAUL

STATION
SNELLING & COMO AVE

OWNER
Minnesota Agricultural Society

TOD TYPE
TRANSITION

TOD PRIORITIES
Design & Zoning
Planning
Local Capacity

A-LINE (SNELLINGAVE) 3.4

Snelling Avenue & Como Avenue

200 FT

| Parcel Score: 2.25 | Total Area (acres): 1.06 | # Parcels: 1 |

EQUITY OPPORTUNITY

CITY
ST. PAUL

STATION
SNELLING & COMO AVE

OWNER
Ramsey County Parks & Recreation

TOD TYPE
TRANSITION

TOD PRIORITIES
Design & Zoning
Planning
Local Capacity

CITY
ST. PAUL

STATION
HAMLINE AVE

OWNER
*St. Paul Housing
& Redevelopment
Authority*

TOD TYPE
RAISE THE BAR

TOD PRIORITIES
*Placemaking
Design & Zoning
Transit Improvements
Affordable Housing*

A-LINE (SNELLINGAVE) 3.5

200 FT

Snelling
Avenue Station
Snelling Avenue &
University Avenue

Parcel Score: 2.43	**Total Area (acres):** 0.43	**# Parcels:** 4
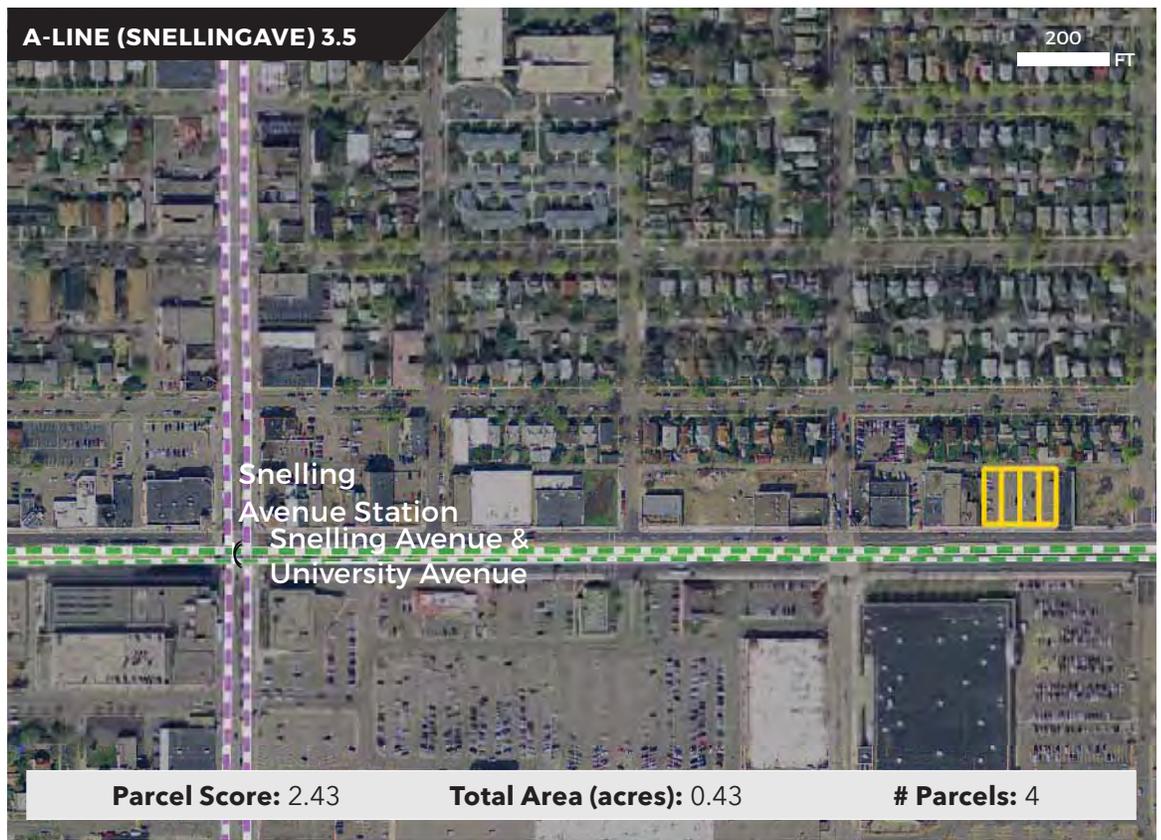
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4. METRO Orange Line

The METRO Orange Line will provide fast, frequent, and reliable service to the I-35W corridor between Burnsville and downtown Minneapolis in the form of all-day bus rapid transit. This corridor has had strong express ridership and today has nearly 14,000 daily rides. The Orange Line is an opportunity to offer an improved passenger experience and high-quality transit service to the many major employers spanning the corridor.

The METRO Orange Line offers opportunities for development in a different context than many of the other transitways. The southern terminus boasts a large amount of developable publicly-owned land and offers unique opportunities to connect over 162,000 jobs to new and existing residents (METRO Orange Line fact sheet, Metro Transit). Several sites near the Lake Street station may be ripe for redevelopment in the near future as transit use grows and land use patterns evolve. Lastly, several publicly-owned sites near the American Boulevard station have strong potential for development but will need to be balanced with existing small area and development plans.

The Orange Line's alignment through a highway corridor and several auto-oriented station areas present several challenges to creating successful TOD. Development will need to be especially attuned to creating a welcoming pedestrian environment while moderating automobile traffic.

TOD on Publicly-Owned Parcels

2nd Ave & 5th
Street Station
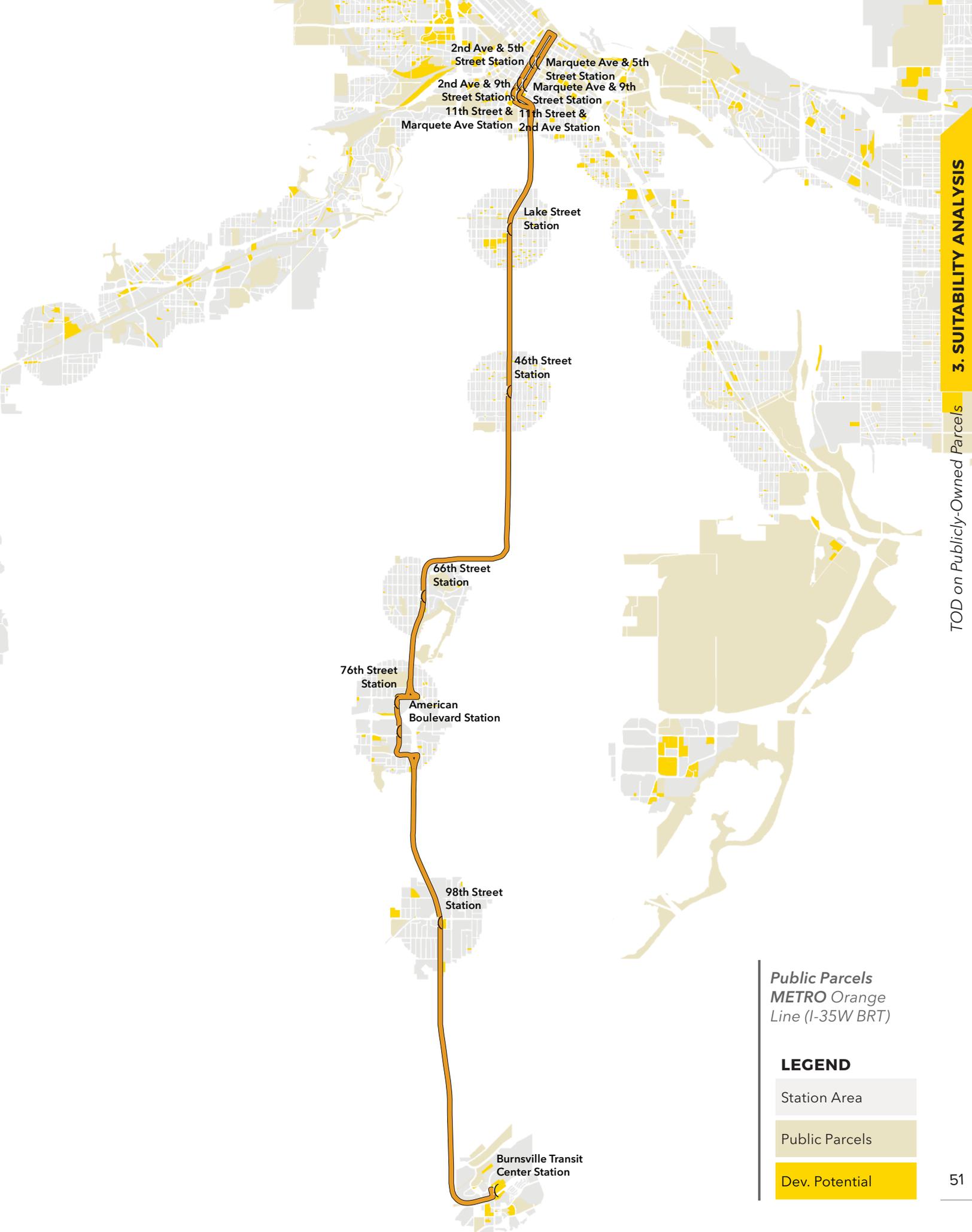
Marquete Ave & 5th
Street Station

Marquete Ave & 9th
Street Station

2nd Ave & 9th
Street Station

11th Street &
Marquete Ave Station

11th Street &
2nd Ave Station

Lake Street
Station

46th Street
Station

66th Street
Station

76th Street
Station

American
Boulevard Station

98th Street
Station

Burnsville Transit
Center Station

*Public Parcels
METRO Orange
Line (I-35W BRT)*

LEGEND

Station Area

Public Parcels

Dev. Potential

51

EQUITY OPPORTUNITY

METRO ORANGE LINE 4.1

Lake Street Station

200 FT

CITY
MINNEAPOLIS

STATION
LAKE STREET

OWNER
Metro Transit

TOD TYPE
CATALYZE

TOD PRIORITIES
Placemaking
Catalytic Dev'
Affordable Housing
Econ. Development
Transit Improvements

| **Parcel Score:** 2.10 | **Total Area (acres):** 0.79 | **# Parcels:** 1 |

**METRO ORANGE LINE 4.2**

76th Street Station

200 FT

CITY
RICHFIELD

STATION
26TH STREET

OWNER
City of Richfield

TOD TYPE
CONNECT

TOD PRIORITIES
Infrastructure
Placemaking
Design & Zoning
Econ. Development
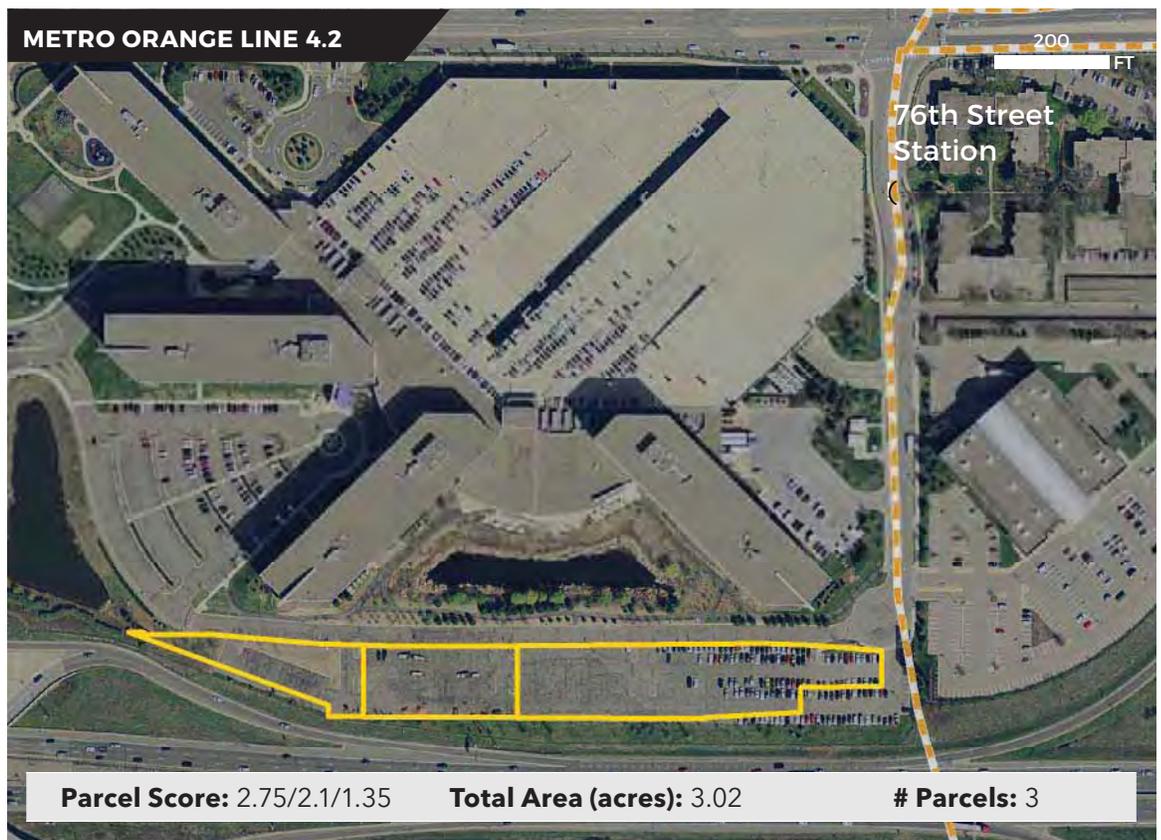
| **Parcel Score:** 2.75/2.1/1.35 | **Total Area (acres):** 3.02 | **# Parcels:** 3 |

TOD on Publicly-Owned Parcels

METRO ORANGE LINE 4.3

98th Street Station

| Parcel Score: 2.75/2.55 | Total Area (acres): 2.59 | # Parcels: 3 |
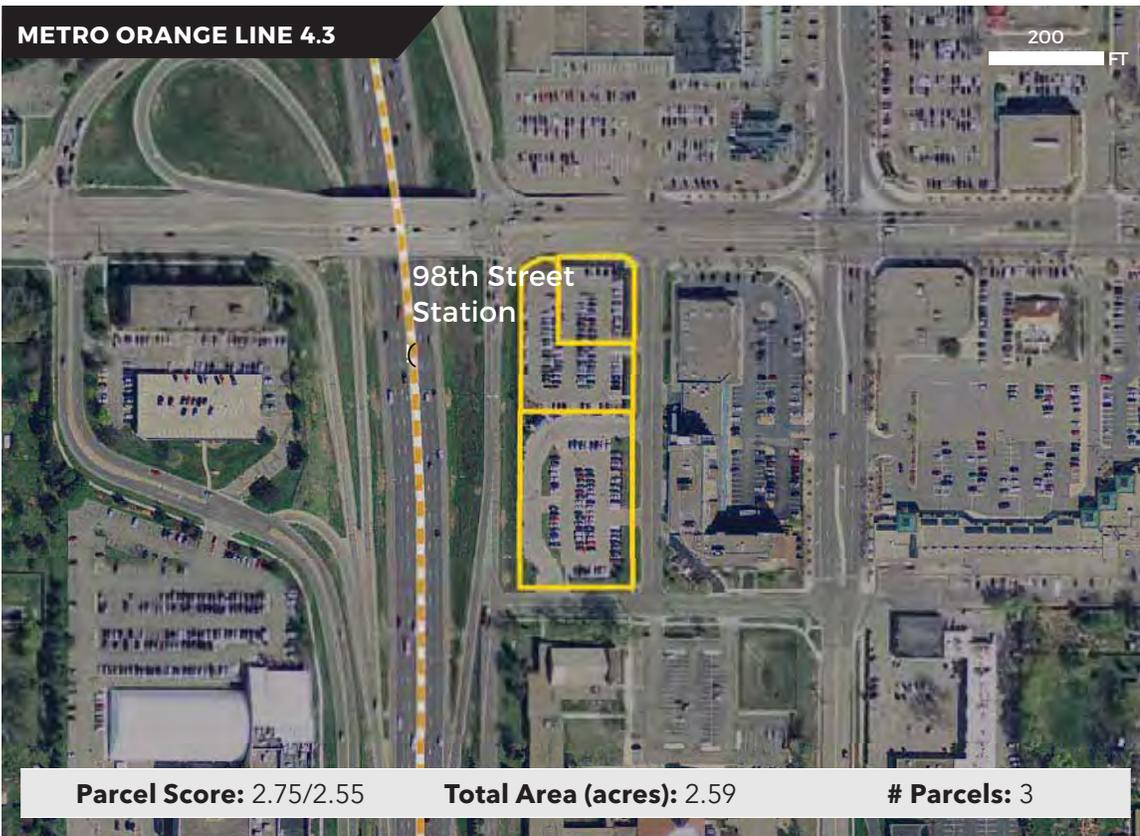
CITY
BLOOMINGTON

STATION
98TH STREET

OWNER
MetCouncil (2)
City of
Bloomington (1)

TOD TYPE
TRANSITION

TOD PRIORITIES
Design & Zoning
Planning
Local Capacity

METRO ORANGE LINE 4.4

Burnsville Transit Center Station

| Parcel Score: 3.00 | Total Area (acres): 1.26 | # Parcels: 1 |

EQUITY OPPORTUNITY

CITY
BURNSVILLE

STATION
BURNSVILLE TRANSIT CENTER

OWNER
Minnesota Valley Transit Authority

TOD TYPE
TRANSITION

TOD PRIORITIES
Design & Zoning
Planning
Local Capacity

METRO ORANGE LINE 4.5

Burnsville Transit Center Station

200 FT
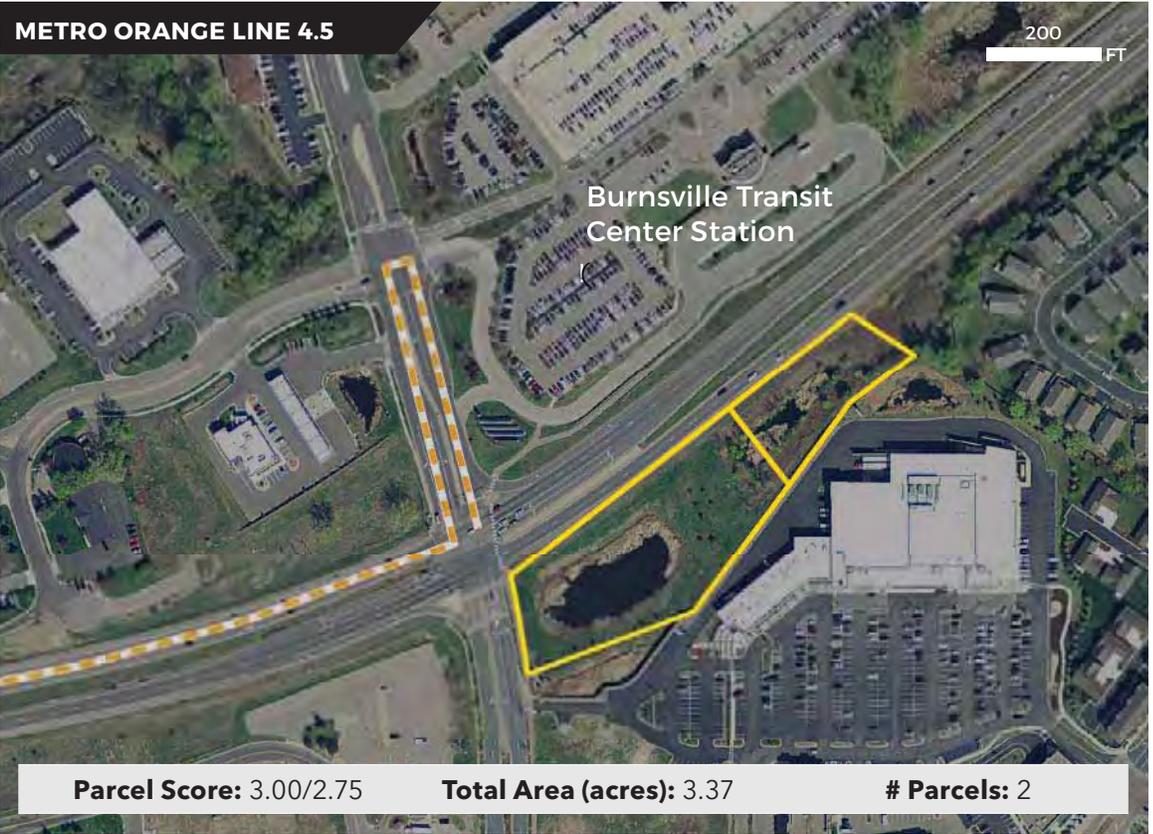
CITY
BURNSVILLE

STATION
BURNSVILLE TRANSIT CENTER

OWNER
Bunrsville EDA (1)
MnDOT (1)

TOD TYPE
TRANSITION
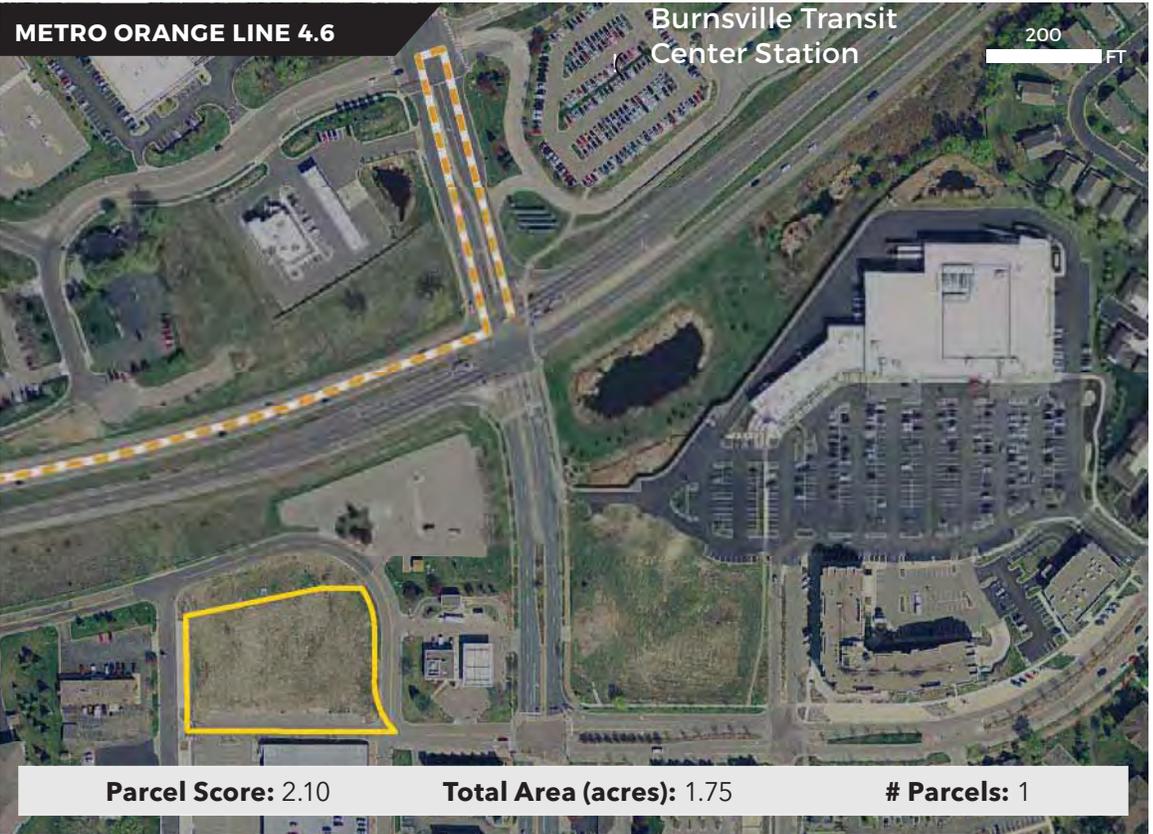
TOD PRIORITIES
Design & Zoning
Planning
Local Capacity

| **Parcel Score:** 3.00/2.75 | **Total Area (acres):** 3.37 | **# Parcels:** 2 |

METRO ORANGE LINE 4.6

Burnsville Transit Center Station

200 FT

CITY
BURNSVILLE

STATION
BURNSVILLE TRANSIT CENTER

OWNER
Minnesota Valley Transit Authority

TOD TYPE
TRANSITION

TOD PRIORITIES
Design & Zoning
Planning
Local Capacity

| **Parcel Score:** 2.10 | **Total Area (acres):** 1.75 | **# Parcels:** 1 |

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5. METRO Green Line Extension

The METRO Green Line Extension will extend from the Target Field Station to Eden Prairie. Opportunity sites were identified at 9 of 17 total stations. West Lake, Beltline, Opus, and Golden Triangle stations have individual parcel Opportunity Sites while Royalston, Van White, 21st Street, Wooddale, and Hopkins have multiple adjacent parcels.

At Royalston Station, three parcels are owned by the City of Minneapolis and the Minneapolis Public Housing Authority. These parcels are a part of or adjacent to the Heritage Park redevelopment project and reflect equity considerations. Van White station includes five parcels with high Equity Scores. Proximity to a light industrial site raises the possibility of contaminated soils and incompatible land uses for equity-focused development. However, there is an adjacent park and residential neighborhood to the west which represent a good opportunity to discuss equity-focused development options.

A site visit to the 21st Street Station revealed that one of the parcels is a restoration project and another is a new neighborhood development with a single home. The parcel to the northwest has no structures. These parcels reflect the limitation of data and satellite imagery for analyzing suitability and prioritization. While two of the three sites have current land uses undetectable through data and imagery analysis, the site visit revealed uses that might complement the development opportunity northwest of the station (Map 5.2).

By looking at the Opportunity Sites identified in this project, collaborators will gain a common understanding of the project capabilities and conditions at the parcel-level. It is important to review and understand the process that identified these Opportunity Sites and use these sites to facilitate TOD discussion among agencies. The suitability and TOD classification tool are not the only aspects to consider when discussing development potential of these sites. Collaborators should consider the transitway as a whole and functionality or activity basis for the station area. This analysis also provides a unique opportunity to compare Opportunity Sites identified by the Capstone team with the opportunity areas identified by the Southwest LRT Project Office.

TOD on Publicly-Owned Parcels

Roya[l]
Stati[on]

Van White
Station

Penn
Station

21st Street
Station

West Lake
Station

Beltline
Station

Wooddale
Station

Louisiana
Station

Blake
Station

Hopkins Station
Shady Oak
Station

Opus
Station

City West
Station

Golden Triangle
Station

Southwest
Station

Mitchell
Station

Eden Prairie Town
Center Station

*Public Parcels
METRO Green
Line Extension
(Southwest LRT)*

LEGEND

Station Area

Public Parcels

Dev. Potential

57

EQUITY OPPORTUNITY

CITY
MINNEAPOLIS

STATION
VAN WHITE

OWNER
City of Minneapolis (4)

City of Minneapolis Park & Recreation Board (1)

TOD TYPE
CATALYZE

TOD PRIORITIES
Placemaking
Catalytic Dev'
Affordable Housing
Econ. Development
Transit Improvements

METRO GREEN LINE EXT 5.1

Van White Station

200 FT

| **Parcel Score:** 1.75 | **Total Area (acres):** 38.29 | **# Parcels:** 5 |
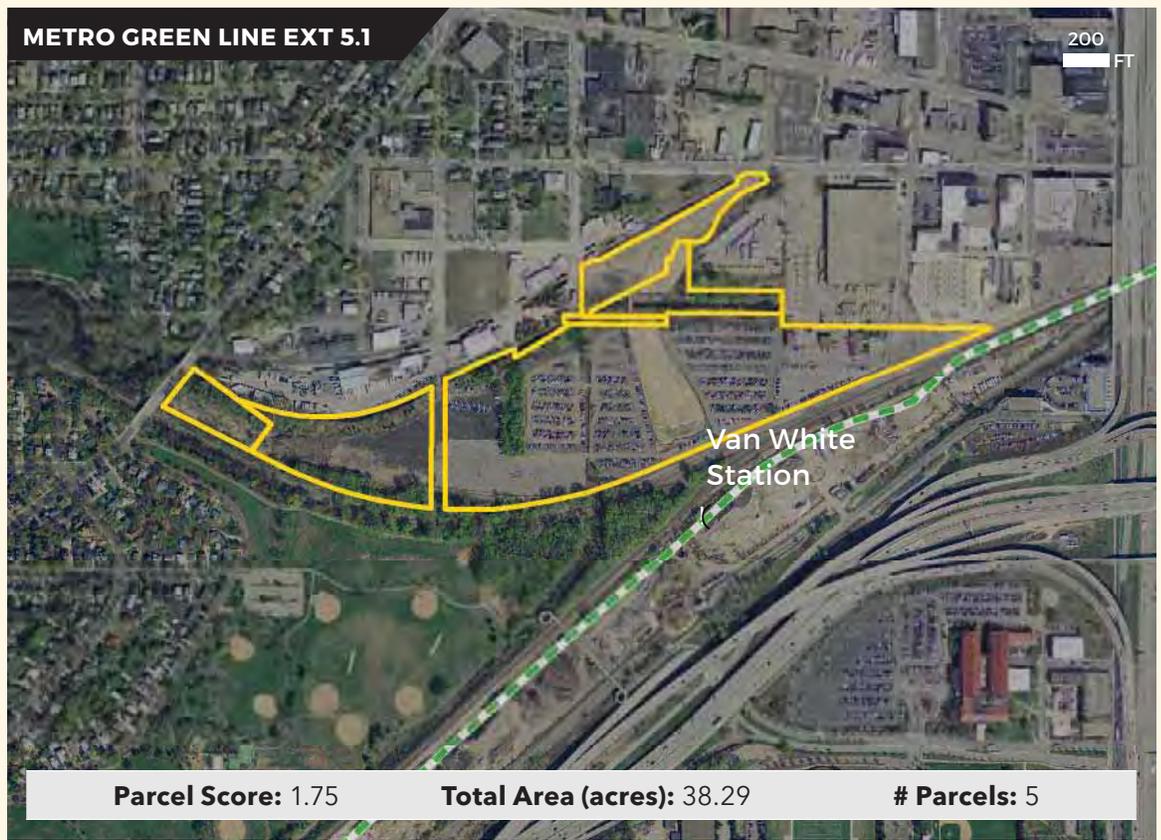
CITY
MINNEAPOLIS

STATION
21ST STREET

OWNER
Hennepin County (1)
HCRRA (2)
City of Minneapolis Park & Recreation Board (1)

TOD TYPE
PLAN AND PARTNER

TOD PRIORITIES
Planning
Local Capacity
Visioning

METRO GREEN LINE EXT 5.2

21st Street Station

200 FT

| **Parcel Score:** 3.50/3.19 | **Total Area (acres):** 4.03 | **# Parcels:** 4 |

METRO GREEN LINE EXT 5.3

200 FT

West Lake Station

| Parcel Score: 3.50	Total Area (acres): 1.52	# Parcels: 1

CITY
MINNEAPOLIS

STATION
WEST LAKE

OWNER
Hennepin County Regional Railroad Authority

TOD TYPE
TRANSITION

TOD PRIORITIES
Design & Zoning
Planning
Local Capacity

METRO GREEN LINE EXT 5.4

200 FT

Beltline Station

Parcel Score: 3.19	Total Area (acres): 1.86	# Parcels: 1
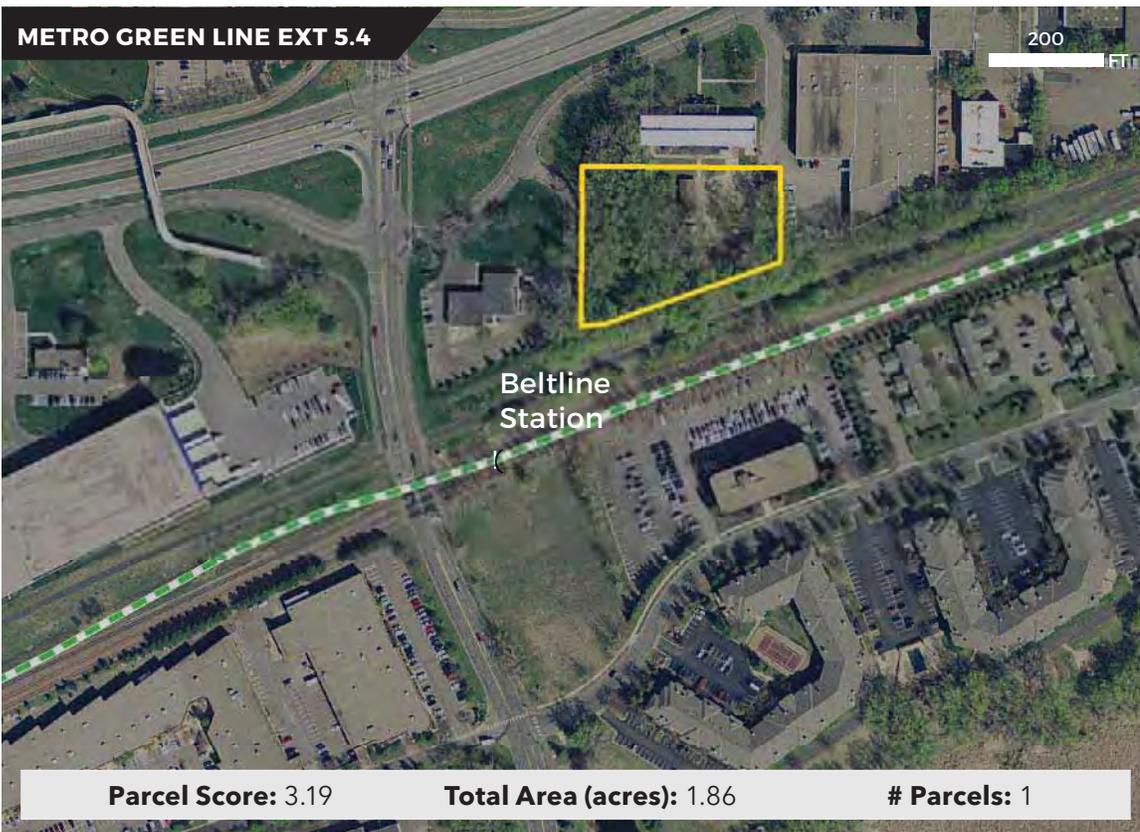
CITY
ST. LOUIS PARK

STATION
BELTLINE

OWNER
St Louis Park Economic Development Authority

TOD TYPE
TRANSITION

TOD PRIORITIES
Design & Zoning
Planning
Local Capacity

TOD on Publicly-Owned Parcels

METRO GREEN LINE EXT 5.5

200 FT

Beltline
Station

CITY
ST. LOUIS PARK

STATION
BELTLINE

OWNER
Hennepin County
Regional Railroad
Authority

TOD TYPE
TRANSITION

TOD PRIORITIES
*Design & Zoning*
Planning
Local Capacity

| **Parcel Score:** 3.50 | **Total Area (acres):** 1.81 | **# Parcels:** 1 |

METRO GREEN LINE EXT 5.6

200 FT

Wooddale
Station

CITY
ST. LOUIS PARK

STATION
WOODDALE

OWNER
City of St. Louis
Park (2)
St. Louis Park EDA
(2)
HCRRA (3)

TOD TYPE
TRANSITION

TOD PRIORITIES
Design & Zoning
Planning
Local Capacity

| **Parcel Score:** 3.50/3.19 | **Total Area (acres):** 5.84 | **# Parcels:** 7 |

METRO GREEN LINE EXT 5.7

Hopkins Station

| Parcel Score: 3.50/3.19 | Total Area (acres): 2.69 | # Parcels: 3 |
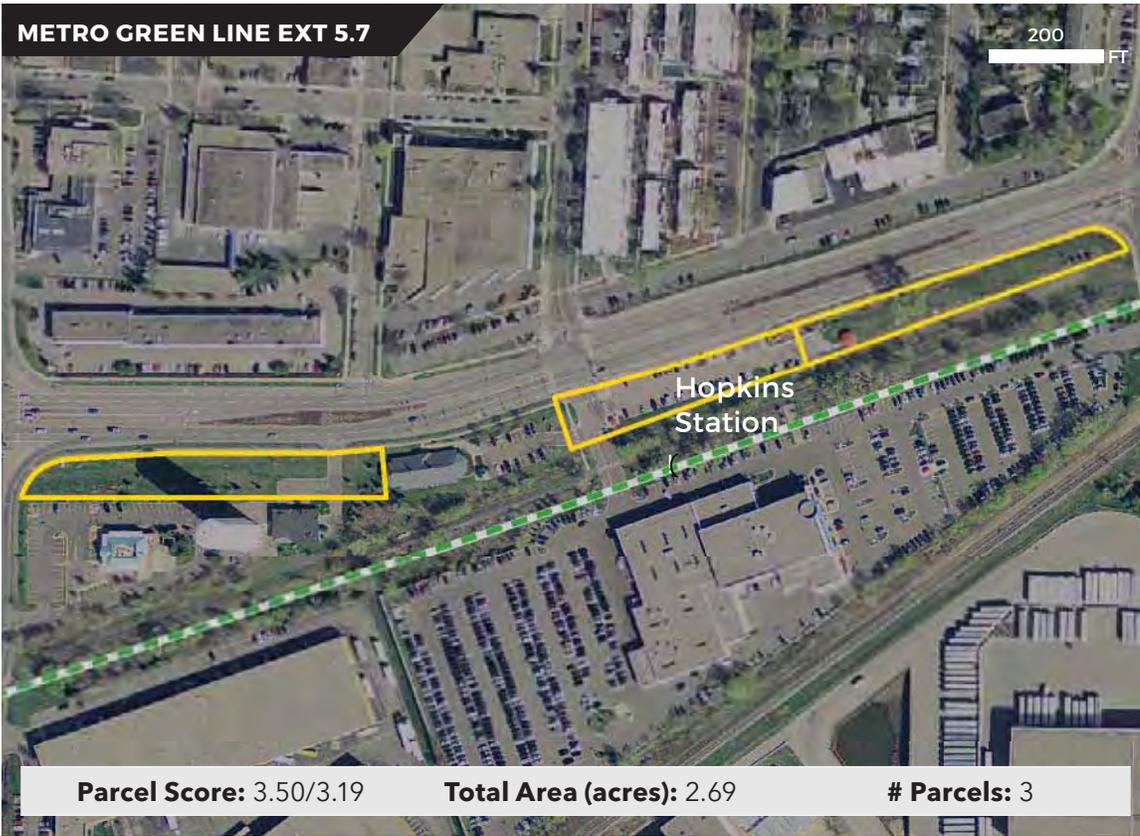
CITY
HOPKINS

STATION
HOPKINS

OWNER
City of Hopkins (2)
City of Hopkins
Housing and
Redevelopment
Authority (1)

TOD TYPE
TRANSITION

TOD PRIORITIES
Design & Zoning
Planning
Local Capacity

TOD on Publicly-Owned Parcels

METRO GREEN LINE EXT 5.8

Opus Station

| Parcel Score: 3.19 | Total Area (acres): 1.81 | # Parcels: 1 |
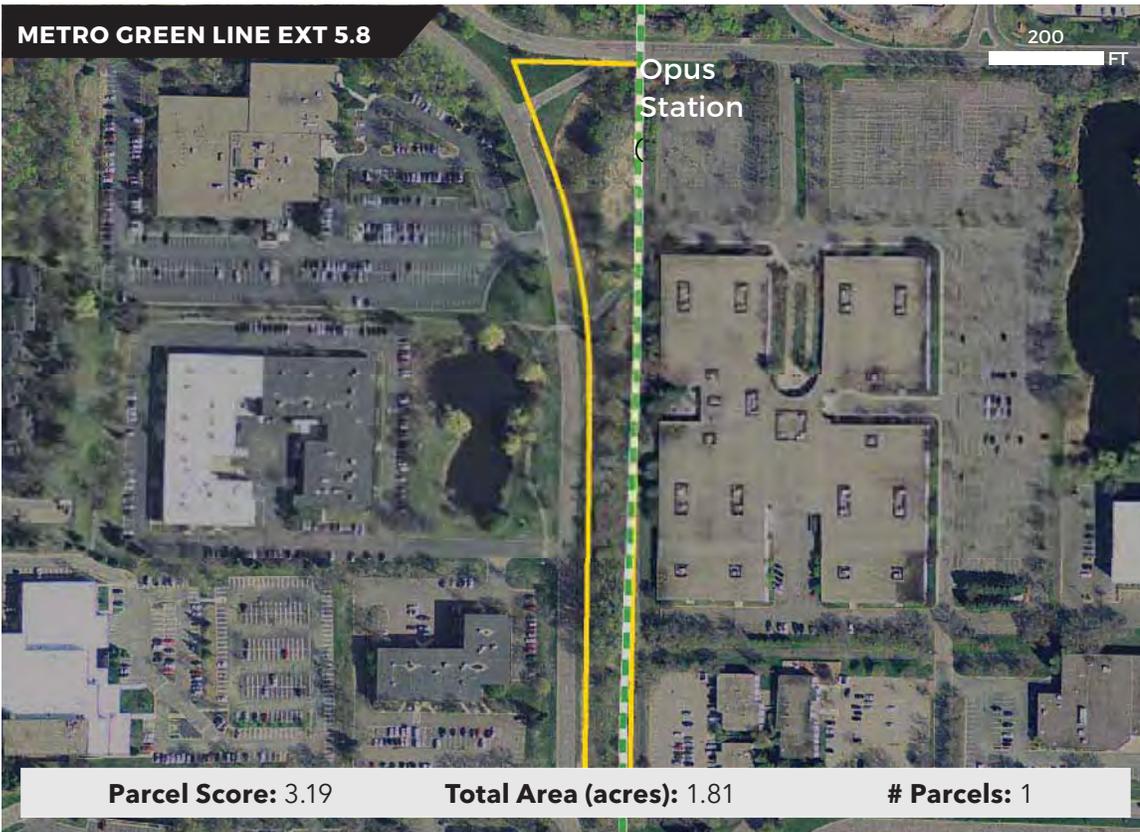
CITY
MINNETONKA

STATION
OPUS

OWNER
City of Minnetonka

TOD TYPE
TRANSITION

TOD PRIORITIES
Design & Zoning
Planning
Local Capacity

6. C Line - Penn Ave (aBRT)

The C Line, also known as Penn Avenue aBRT, will connect downtown Minneapolis, Olson Memorial Highway, Penn Avenue, and Brooklyn Boulevard with the Brooklyn Center Transit Center. Currently, the C line project is in the planning and design phase with a 2017 completion date. The purpose of the C Line is to improve livability through the redesign of the roadway and transit improvements.

Within the area of the C Line corridor, there are several potential parcels for TOD. These parcels benefit from proximity to the stations, are decently-sized, and appear to be vacant. For instance, there are two opportunity sites at the intersection of Penn Ave & Plymouth Ave and three at the intersection of Penn Ave & W. Broadway Ave. In this case, the C Line project is expected to leverage public investment to bring economic development to a North Minneapolis corridor burdened with many vacant sites.

Many Opportunity Sites in the C Line corridor are noted as opportunities to advance equity since the majority of this corridor is designated as an ACP. Equitable TOD investments in the corridor might include permanent high-quality affordable housing.

Public Parcels
C Line *(Penn*
Avenue aBRT)

LEGEND

Station Area

Public Parcels

Dev. Potential

TOD on Publicly-Owned Parcels

Brooklyn Center
Transit Center

Brooklyn Boulevard
& Hwy 100

Brooklyn Boulevard&
51st Avenue

Osseo Road &
46th Avenue

Penn Avenue &
43rd Avenue

Penn Avenue &
Dowling Avenue

Penn Avenue &
36th Avenue

Penn Avenue &
Lowry Avenue

Penn Avenue &
29th Avenue

Penn Avenue &
W.Broadway Avenue

Penn Avenue &
Golden Valley Road

Penn Avenue &
Plymouth Avenue

Olson Memorial
Hwy & Penn Avenue

Olson Memorial Hwy
& Humboldt Avenue

Royalton
Station

8th Street &
Nicollet Mall

8th Street &
4th Avenue

7th Street &
Park Avenue

63

TOD on Publicly-Owned Parcels

C-LINE (PENN AVE) 6.1

Brooklyn Center
Transit Center

CITY
BROOKLYN CENTER

STATION
BROOKLYN TRANSIT CENTER

OWNER
Met Council

TOD TYPE
TRANSITION

TOD PRIORITIES
Design & Zoning
Planning
Local Capacity

Parcel Score: 3.19 | **Total Area (acres):** 2.34 | **# Parcels:** 1

EQUITY OPPORTUNITY

C-LINE (PENN AVE) 6.2

Penn Avenue & Lowry Avenue
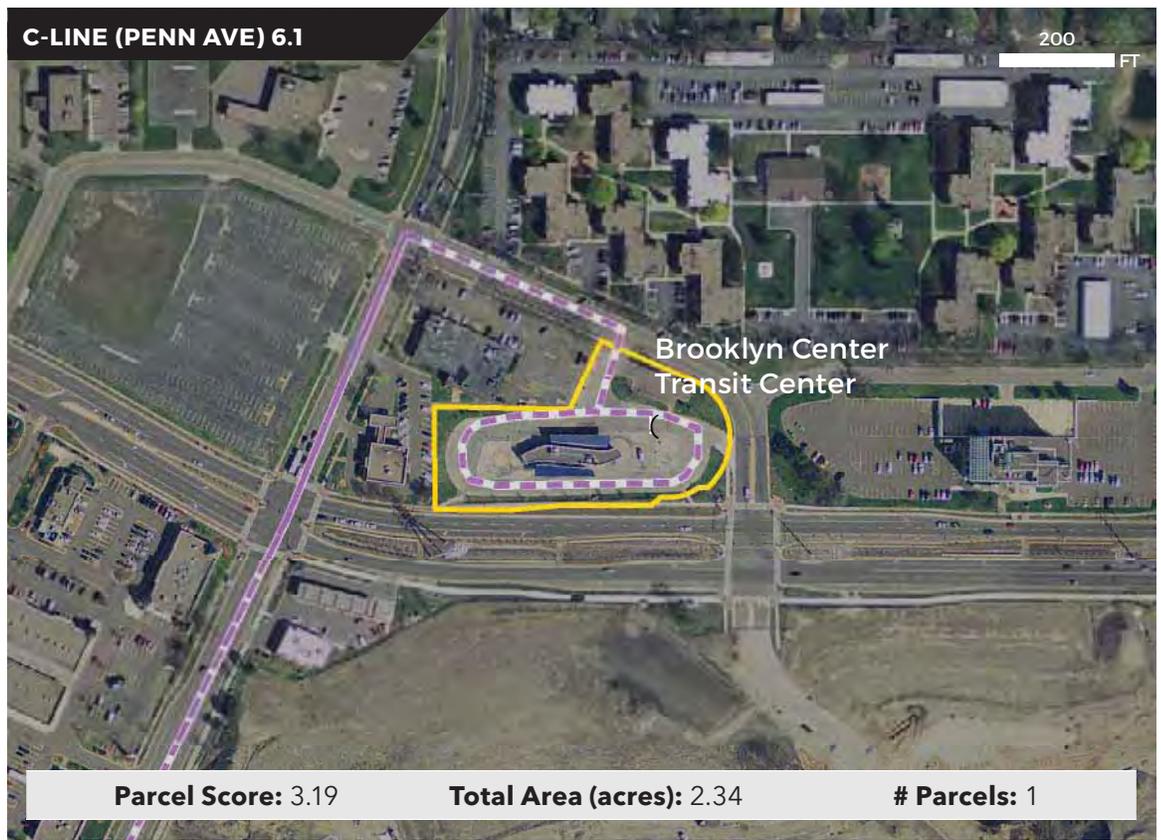
CITY
MINNEAPOLIS

STATION
PENN & LOWRY AVE

OWNER
Hennepin County

TOD TYPE
TRANSITION

TOD PRIORITIES
Design & Zoning
Planning
Local Capacity

Parcel Score: 2.75 | **Total Area (acres):** 0.70 | **# Parcels:** 4

TOD on Publicly-Owned Parcels

C-LINE (PENN AVE) 6.3

200 FT

Penn Avenue & W.Broadway Avenue

CITY
MINNEAPOLIS

STATION
PENN & WEST BROADWAY AVE

OWNER
City of Minneapolis

TOD TYPE
CATALYZE

TOD PRIORITIES
Placemaking
Catalytic Dev'
Affordable Housing
Econ. Development
Transit Improvements
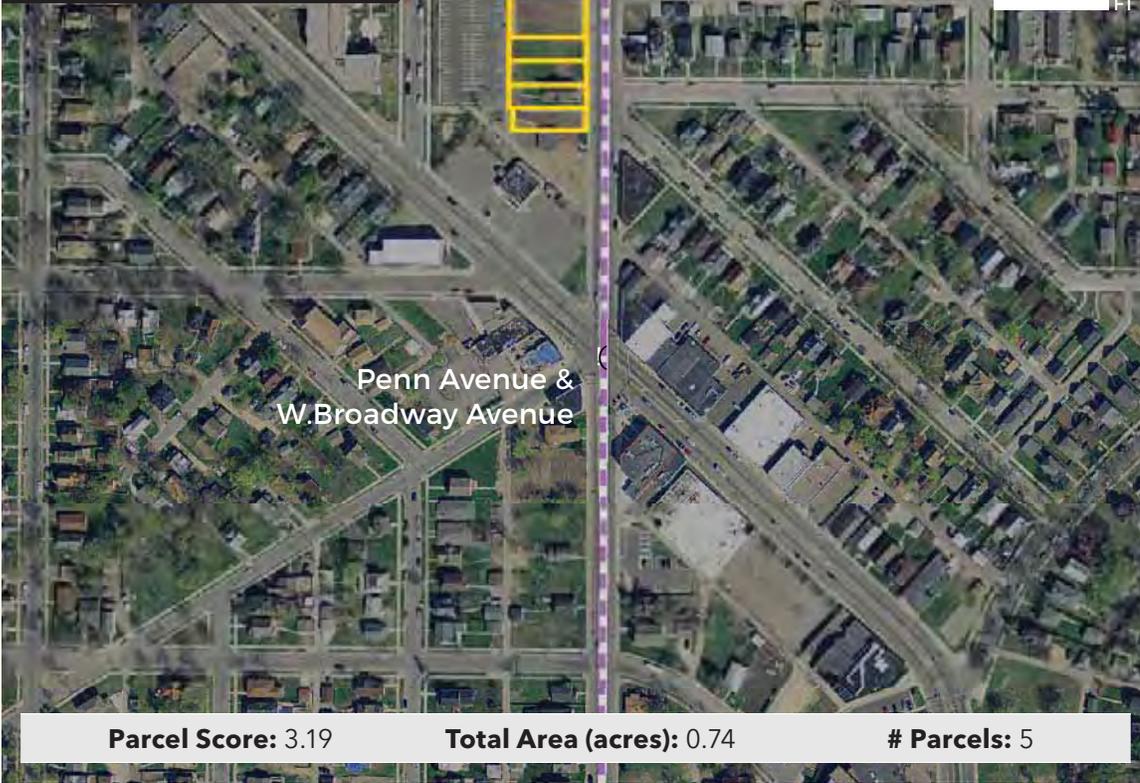
Parcel Score: 3.19	**Total Area (acres):** 0.74	**# Parcels:** 5

C-LINE (PENN AVE) 6.4

200 FT

Penn Avenue & W.Broadway Avenue

CITY
MINNEAPOLIS

STATION
PENN & WEST BROADWAY AVE

OWNER
City of Minneapolis (1)
Hennepin County (1)

TOD TYPE
CATALYZE

TOD PRIORITIES
Placemaking
Catalytic Dev'
Affordable Housing
Econ. Development
Transit Improvements

Parcel Score: 2.75	**Total Area (acres):** 0.26	**# Parcels:** 2

TOD on Publicly-Owned Parcels

EQUITY OPPORTUNITY

C-LINE (PENN AVE) 6.5

200 FT

Penn Avenue & W.Broadway Avenue

CITY
MINNEAPOLIS

STATION
PENN & WEST BROADWAY AVE

OWNER
City of Minneapolis

TOD TYPE
CATALYZE

TOD PRIORITIES
Placemaking
Catalytic Dev'
Affordable Housing
Econ. Development
Transit Improvements

| **Parcel Score:** 3.19 | **Total Area (acres):** 1.24 | **# Parcels:** 3 |

EQUITY OPPORTUNITY

C-LINE (PENN AVE) 6.6

200 FT

Penn Avenue & Plymouth Avenue

CITY
MINNEAPOLIS

STATION
PENN & PLYMOUTH AVE

OWNER
City of Minneapolis

TOD TYPE
CATALYZE

TOD PRIORITIES
Placemaking
Catalytic Dev'
Affordable Housing
Econ. Development
Transit Improvements

| **Parcel Score:** 3.19 | **Total Area (acres):** 1.43 | **# Parcels:** 5 |

C-LINE (PENN AVE) 6.7

Penn Avenue & Plymouth Avenue

200 FT

Parcel Score: 2.75 **Total Area (acres):** 0.81 **# Parcels:** 3

TOD on Publicly-Owned Parcels

EQUITY
OPPORTUNITY

CITY
MINNEAPOLIS

STATION
PENN & PLYMOUTH AVE

OWNER
City of Minneapolis

TOD TYPE
CATALYZE

TOD PRIORITIES
*Placemaking
Catalytic Dev'
Affordable Housing
Econ. Development
Transit Improvements*

C-LINE (PENN AVE) 6.8

Penn Avenue & Plymouth Avenue

200 FT
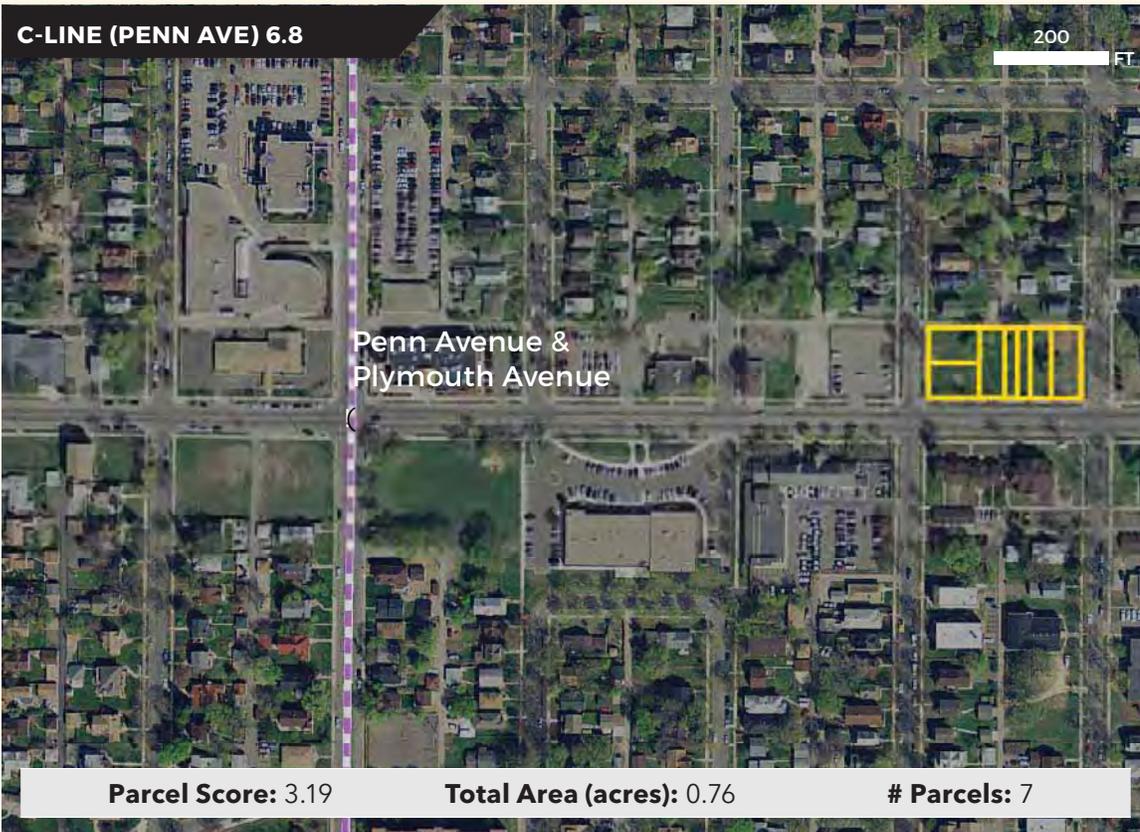
Parcel Score: 3.19 **Total Area (acres):** 0.76 **# Parcels:** 7

EQUITY
OPPORTUNITY

CITY
MINNEAPOLIS

STATION
PENN & PLYMOUTH AVE

OWNER
City of Minneapolis

TOD TYPE
CATALYZE

TOD PRIORITIES
*Placemaking
Catalytic Dev'
Affordable Housing
Econ. Development
Transit Improvements*

7. METRO Blue Line Extension

The proposed METRO Blue Line Extension, also known as the Bottineau transitway, will run from Target Field to Brooklyn Park. Starting in downtown Minneapolis, the proposed alignment heads west from Target Field along Olson Memorial Highway in a transit-rich area. The proposed METRO Green Line extension and the planned Penn Avenue aBRT converge near this section of Olson. However, this area of Olson has pedestrian challenges that may inhibit TOD. Visionary and collaborative planning of new transit investments is necessary in order to achieve safe, walkable urbanism that can serve as the foundation for new TOD. The Van White station contains several vacant parcels with high TOD potential.

The Blue Line Extension turns north adjacent to BNSF tracks at Theodore Wirth Park and continues through a rail trench. Stations will be located below bridges and will require stairs or elevator access. Nearby vacant parcels contain TOD potential, but the existing low density single family home neighborhoods, hilly topography, and parkland represent significant barriers to TOD.

Stations north of Robbinsdale contain an assortment of nearby vacant publicly-owned land. In lower density areas, sensitive urban design will be important to maximize transit adjacency for any new development. Careful consideration must be given to the design and location of proposed station Park & Rides, since a poorly placed Park & Ride can preclude key TOD opportunities in the future. As this transitway evolves, all parties involved in station area planning must take TOD into consideration.
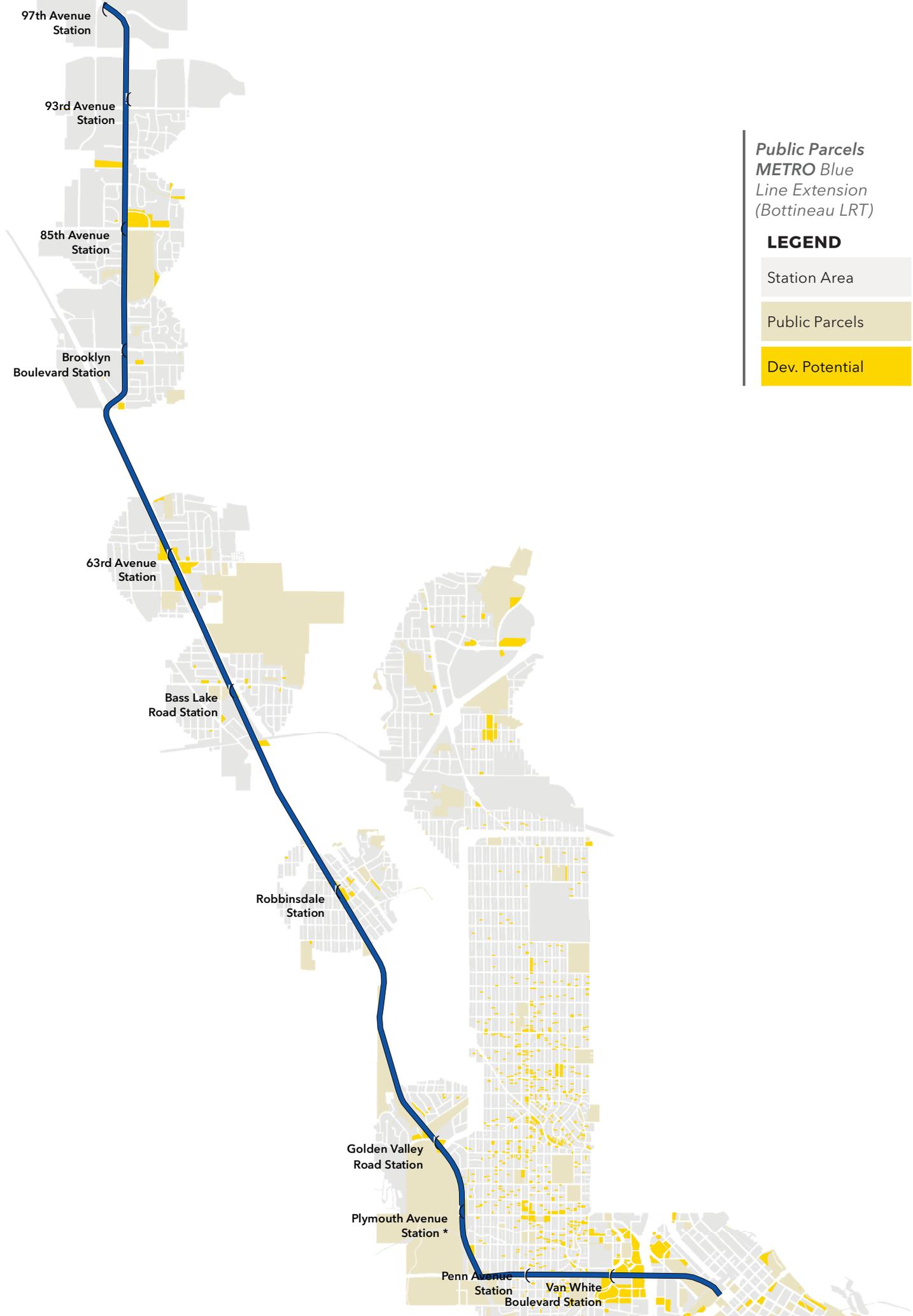
TOD on Publicly-Owned Parcels

METRO BLUE LINE EXT 7.1

200 FT

85th Avenue Station

CITY
BROOKLYN PARK

STATION
85TH AVE

OWNER
Hennepin County (1)
State of Minnesota (1)

TOD TYPE
PLAN AND PARTNER

TOD PRIORITIES
Planning
Local Capacity
Visioning

| **Parcel Score:** 2.69 | **Total Area (acres):** 13.14 | **# Parcels:** 2 |

EQUITY OPPORTUNITY

METRO BLUE LINE EXT 7.2
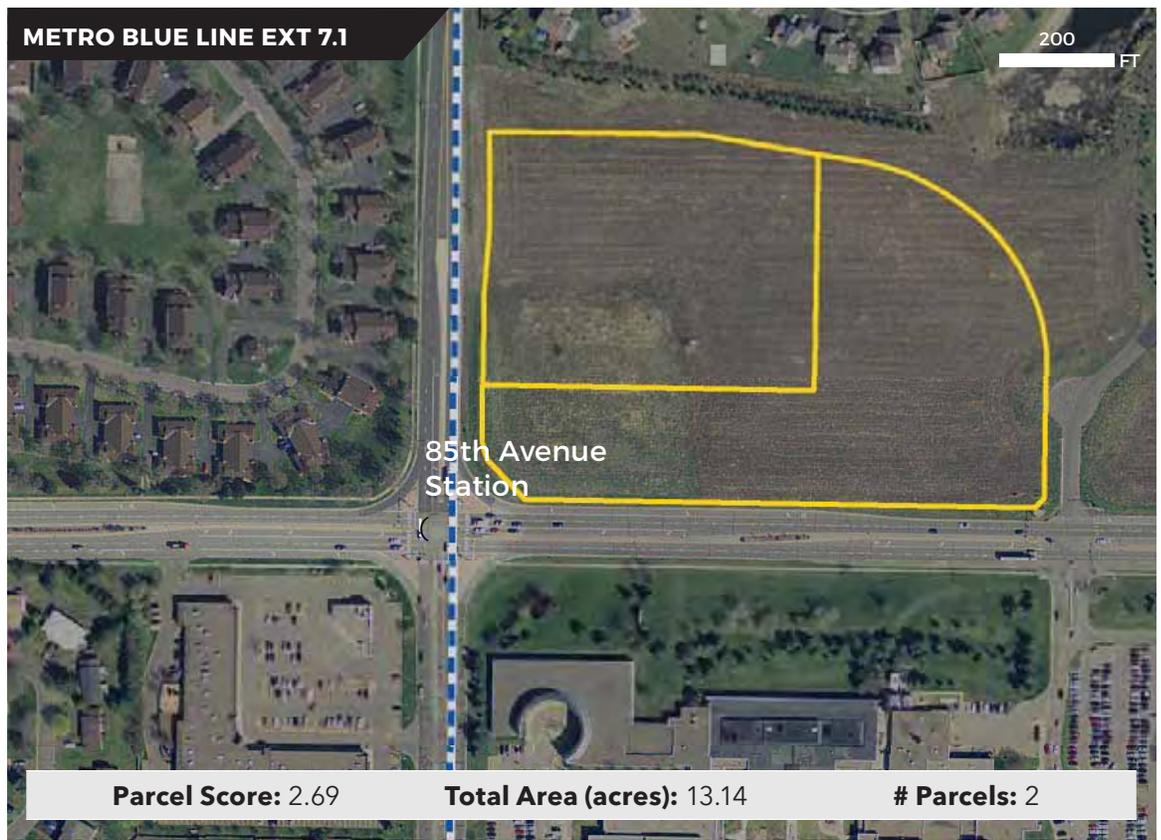
200 FT

Brooklyn Boulevard Station

CITY
BROOKLYN PARK

STATION
BROOKLYN BOULEVARD

OWNER
City of Brooklyn Park

TOD TYPE
TRANSITION

TOD PRIORITIES
Design & Zoning
Planning
Local Capacity

| **Parcel Score:** 3.19 | **Total Area (acres):** 1.43 | **# Parcels:** 1 |

METRO BLUE LINE EXT 7.3 / 7.4

Bass Lake
Road Station

Parcel Score: 3.5/2.25   Total Area (acres): 0.80/0.66   # Parcels: 2/3

TOD on Publicly-Owned Parcels

CITY
CRYSTAL

STATION
BASS LAKE ROAD

OWNER
Hennepin County

TOD TYPE
PLAN AND PARTNER

TOD PRIORITIES
*Planning
Local Capacity
Visioning*

TOD on Publicly-Owned Parcels

EQUITY OPPORTUNITY

METRO BLUE LINE EXT 7.5

200 FT

63rd Avenue Station

CITY
BROOKLYN PARK

STATION
63RD AVE

OWNER
Hennepin County (14)
City of Brooklyn Park (1)

TOD TYPE
PLAN AND PARTNER

TOD PRIORITIES
Planning
Local Capacity
Visioning

Parcel Score: 3.19/1.88	**Total Area (acres):** 8.35	**# Parcels:** 15

METRO BLUE LINE EXT 7.6

200 FT

Robbinsdale Station

CITY
ROBBINSDALE

STATION
ROBBINSDALE

OWNER
City of Robbinsdale (6)
MetCouncil (2)
Hennepin County Regional Railroad Authority (1)

TOD TYPE
CONNECT

TOD PRIORITIES
Infrastructure
Placemaking
Design & Zoning
Econ. Development

Parcel Score: 2.38	**Total Area (acres):** 4.89	**# Parcels:** 9

METRO BLUE LINE EXT 7.7

Golden Valley Road Station

200 FT

| Parcel Score: 3.50 | Total Area (acres): 0.85 | # Parcels: 1 |
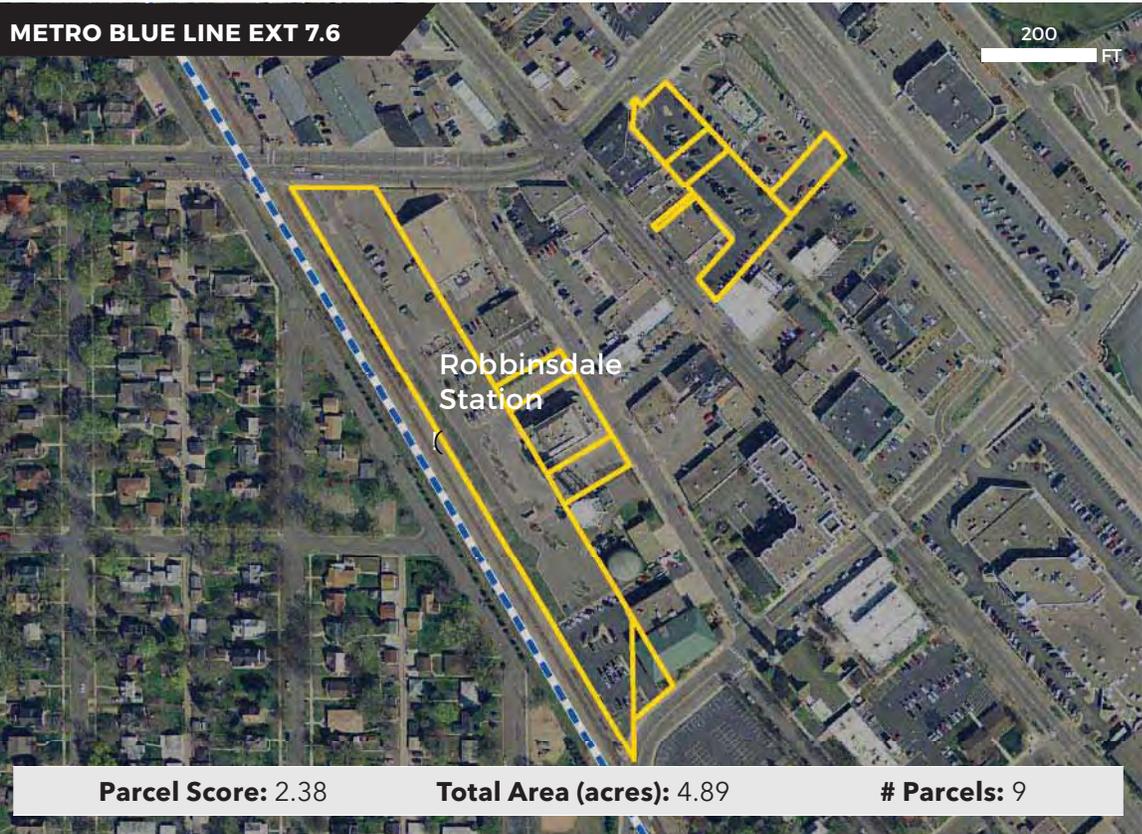
CITY
GOLDEN VALLEY

STATION
GOLDEN VALLEY ROAD

OWNER
City of Minneapolis

TOD TYPE
PLAN AND PARTNER

TOD PRIORITIES
Planning
Local Capacity
Visioning

METRO BLUE LINE EXT 7.8

200 FT

EQUITY OPPORTUNITY

Olson Memorial Hwy & Humboldt Avenue

Van White Boulevard Station

Olson Memorial Hwy & Bryant Avenue

| Parcel Score: 2.38 | Total Area (acres): 2.46 | # Parcels: 9 |

CITY
MINNEAPOLIS

STATION
VAN WHITE BOULEVARD

OWNER
City of Minneapolis (8)
City of Minneapolis CPED (1)

TOD TYPE
TRANSITION

TOD PRIORITIES
Design & Zoning
Planning
Local Capacity

METRO BLUE LINE EXT 7.9

200 FT

Olson Memorial Hwy & Humboldt Avenue

CITY
MINNEAPOLIS

STATION
OLSON MEMORIAL HWY

OWNER
Hennepin County

TOD TYPE
TRANSITION

TOD PRIORITIES
*Design & Zoning
Planning
Local Capacity*

| Parcel Score: 3.50 | Total Area (acres): 0.30 | # Parcels: 1 |

METRO BLUE LINE EXT 7.10

200 FT

Van White Boulevard Station

Olson Memorial Hwy & Bryant Avenue
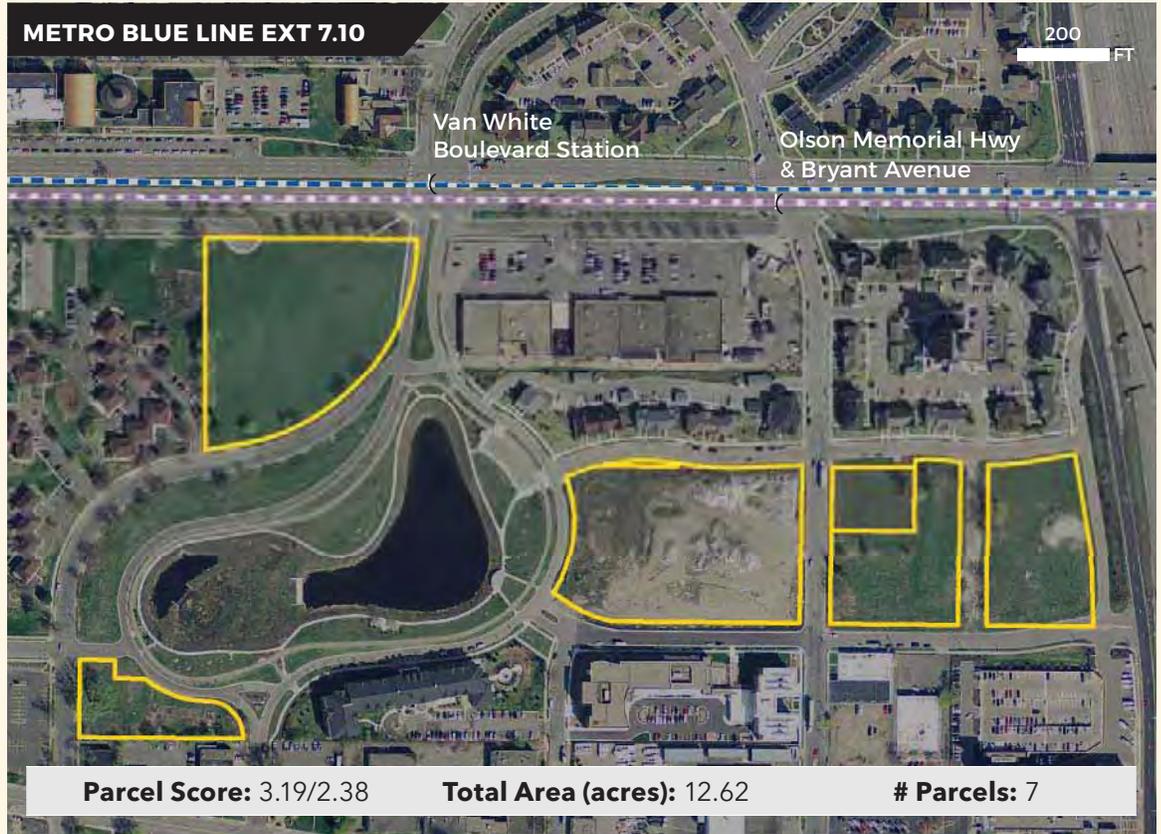
CITY
MINNEAPOLIS

STATION
VAN WHITE BOULEVARD

OWNER
*City of Minneapolis (1)
City of Minneapolis PHA (6)*

TOD TYPE
TRANSITION

TOD PRIORITIES
*Design & Zoning
Planning
Local Capacity*

| Parcel Score: 3.19/2.38 | Total Area (acres): 12.62 | # Parcels: 7 |

METRO BLUE LINE - HEYWOOD

200 FT

Royalton Station

TOD on Publicly-Owned Parcels

CITY
MINNEAPOLIS

STATION
ROYALTON

OWNER
Metro Transit

METRO TRANSIT HEYWOOD CAMPUS

The Metro Transit Heywood campus is a key opportunity TOD site. Any redevelopment or new construction on the site should exemplify the TOD principles adopted by the Metropolitan Council. The Heywood facility is located in a critical transit location in a strong real estate market. Light rail transit and commuter rail converge about a quarter mile (a five-minute walk) from the existing Heywood entrance. The proposed extension of both light rail corridors and new arterial BRTs will enrich this area's high connectivity.

A visionary redevelopment or renovation of this campus should reflect its transit assets and downtown location. While maintaining efficient bus circulation and "bus barn" functions, certain elements might be stacked to efficiently utilize the enormous footprint of the site. By stacking uses and minimizing the overall site coverage, Metro Transit might be able to lease excess portions of the site to provide a steady stream of income. Proven urban design principles such as orienting building entries towards transit and bringing building edges close to the street will promote walkability and neighborhood connectivity.

The Metro Transit "lower lot" has been highlighted as one of eight Council-owned TOD opportunity sites. The parcel is adjacent to the Junction Flats apartment building which recently sold for $49 million (Finance-Commerce; 2014). The lower lot parcel shares the same zoning code as Junction Flats and is comparably sized. The lower lot, currently used as free surface parking for employees, is only 0.3 miles from the Target Field station entrance which links directly to over $2 billion in transit infrastructure. A redeveloped Heywood would provide internal and external benefits such as increased neighborhood walkability, safety, and air quality while setting a gold standard for public sector TOD.

04 RECOMMENDATIONS & ACTION STEPS

INTRODUCTION

FROM THE VISION:

The publicly-owned parcel Database, coupled with parcel prioritization, will allow the public sector to prioritize TOD opportunities while facilitating collaboration and efficiency. As publicly-owned parcels are developed to make the best use of their transit proximity, the region will build world-class TODs through strategic and innovative TOD investments.

The TOD Office has a unique role to play in regional TOD due to its regional focus, convening capabilities, and its role as an agent of change within the Council and as a regional player.

As described in **Section 2**, the publicly-owned parcel Database is a mapping tool that is unprecedented in the region. Shareable datasets are difficult to implement and maintain due to their collaborative nature and technical complexities (as evidenced in the inconsistent data entry of the county-level parcel database). Despite these challenges, the region can benefit from an organized TOD-focused Database that is shared broadly by the TOD Office. Potential benefits of the Database include:

- Public sector employees that have taken stock of publicly-owned land are more primed to act according to regional and local TOD goals, collaborate with each other, and produce innovative solutions to TOD challenges.
- Transit-appropriate land uses for publicly-owned land will be easier to identify as the region's transit network expands.
- Private sector developers may be more willing to partner with public agencies about real estate opportunities if the public sector is perceived as being proactive about TOD.

In its capacity to spark actual TODs and improved TOD districts, the Database can be a catalyst for:

- Increased public revenues via tax base growth, ground leasing, or parcel sales
- Reduced inefficiencies from underutilized publicly-owned parcels

- Traffic congestion mitigation as the regional population grows

- Improved equity via access and mobility

- Increased ridership

In addition to the Database, the suitability analysis (see **Section 3**) prioritizes parcel Opportunities Sites based on size, distance, and vacancy. This suitability analysis can be modified or tweaked to suit different development needs and station area types.

The group has also developed a parcel Equity Score to encourage equity from the earliest planning phases. These scores and the Database can be used in conjunction with existing tools, such as the TOD Classification Tool, to assess the TOD potential of publicly-owned parcels. These tools are intended to help the TOD Office prioritize parcels, to provide an innovative conceptual and technical framework to approach TOD, to complement existing planning work, and to raise the bar for land uses near transit.

ACTION STEPS

The TOD Office should complete the following action steps related to the TOD Database and suitability analysis. The first and second phases of action steps relate to immediate use of the Database while the third phase extends into longer-term coordination and development strategies for the Database. Beyond these action steps, the Office will work on development steps for specific TOD projects. While some of these action steps might already be underway in the TOD Office, the activities are included to underscore their importance. All steps assume dedicated TOD Office staff time.

First Phase Action Steps

- The TOD Office should familiarize itself with the GIS process and outcomes of the Database specified in this report. The Office should assess the relevance of the existing parcel prioritization and the top Opportunity Sites while considering the limitations and assumptions inherent in the Database.

If the Database and priority sites are deemed acceptable as-is (both technically and conceptually), the TOD Office can move to the second phase. If the Database and/or the prioritization

needs to be modified, then corrective activities must precede moving to the second phase action steps. Whether or not the existing report is acceptable in its current state, the TOD Office can use the report as a starting point to strategize about TOD and discuss land prioritization with other public agencies.

Second Phase Action Steps

In order to effectively collaborate with other diverse agencies, the TOD Office should have an established vocabulary for communicating TOD and equity. After defining the TOD vocabulary, the TOD Office should plan its outreach and communications strategy based off of time-sensitive parcel opportunities or transitway planning activities.

- Establish a TOD vocabulary to communicate TOD to diverse external agencies.

- Integrate equity framework for prioritization of Opportunity Sites.

- Separate publicly-owned sites into near-term and longer-term opportunities. Identify and prioritize time-sensitive parcels and/or near-term Opportunity Sites.

- Develop an outreach plan to engage with city or county staff with various levels of experience and understanding of TOD using an established TOD framework language.

- Develop TOD evaluation metrics.

COMMUNICATING TOD AND EQUITY

TOD can mean different things to different people. The TOD Office, in partnership with other staff within the Metropolitan Council, should develop a TOD vocabulary to communicate TOD to diverse regional partners that acknowledges the various potential definitions of TOD. This language can directly be used for implementation of Thrive MSP 2040. By establishing a TOD vocabulary, the Council and Metro Transit can support efficient regional conversations about TOD. Much of the vocabulary can be culled from existing resources such as the TOD Classification Tool. The goal is to ensure that partners and staff are on the same page about the varying aspects of TOD as they relate to complex and changing regional contexts, and to reduce confusion or anxiety about what TOD does - and does not - mean for different communities.

COMMUNICATING TOD AND EQUITY (CONT.)

The public sector's interest in TOD goes beyond the development capacity of each publicly-owned parcel. An equity framework must be developed to determine how the TOD Office prioritizes parcels. Communicating the equity framework is critical, since equity discussions can provoke a variety of personal reactions. The development of a TOD equity framework should build off of any internal equity initiatives and complement the inclusion of equity as a method of prioritizing resources.

The Database one-pager (see Appendix) can be shared both internally and with external partners to familiarize parties with the fundamental goals and purpose of the Database as well as the benefits of TOD.

EVALUATING TOD

In order to evaluate the success of regional TOD efforts, including the TOD Database, the TOD Office must define TOD evaluation metrics to take stock of the region's existing TOD. These evaluation metrics can be used to measure the region's progress. Evaluation criteria may be development using the TOD Policy's four goals as a starting point:

1. *Maximize the development impact of transit investments*
2. *Support regional economic competitiveness*
3. *Advance equity*
4. *Support a 21st century transportation system*

While all Council TOD investments must relate to these four goal areas, other public agencies may have other TOD goals. As the TOD Office develops its TOD evaluation metrics, the TOD Office might seek input on its TOD metrics from other agencies. Counties and cities might provide additional perspective to TOD evaluation metrics.

With a finite amount of staff time and resources, the TOD Office must be strategic about how it proceeds with its development processes. Staff time can reflect prioritized parcels, station areas, or corridors depending on competing opportunities. The TOD Office should determine thresholds (related to TOD evaluation criteria) for TOD that determine what uses and/or forms are "good enough." In other words, what proposals are "good enough" to pursue now, and what uses should the public sector delay for better TOD? These thresholds will vary from parcel to parcel, and may relate to the TOD vocabulary and the goals of the Transportation Policy Plan.

Action Steps for Opportunity Sites

Once TOD opportunity sites are identified, the TOD Office should pursue development opportunities in a manner that aligns with its capacity and work plan. The TOD Office has already identified eight opportunity sites. Adjacent publicly-owned parcel opportunities might help to prioritize among the existing eight Opportunity Sites. Specific action steps will relate to development opportunities that are currently not determined. Action steps might include:

- Perform further due diligence on development opportunities as a result of prior action steps.

- Determine public sector roles for the development of TOD sites including specific leadership and supportive roles and responsibilities.

- Align Council funds or grants towards collaborative public sector TOD projects.

- Perform an analysis of private sector land opportunities adjacent to publicly-owned land.

Action Steps for Database Maintenance Plan

Issues Encountered and Intent of Maintenance Plan

MetroGIS parcel-level data is comprised of data collected by county surveyors and tax assessors which is converted to a GIS format by county GIS departments. Parcel ownership is updated when physical or ownership changes occur. Therefore, historical naming conventions that are obsolete still exist in the current dataset. Additionally, some parcels use the legal names of cities or agencies while other parcels use colloquial names. The range of possible city or agency names greatly limits the usefulness of the data. The intent of this maintenance plan is to recommend short-term maintenance of the Database and long-term changes in the data collection and data entry process in order to make greater use of the dataset in fostering collaboration and upholding TOD goals.

A shareable Database will need long-term maintenance to be relevant:

- Determine the audience for the Database.

- Determine any restrictions on sharing the Database with public and/or private partners.

- Consider sharing the Database with MetroGIS to be accessible online (determine which attributes are appropriate).

- Lobby MetroGIS to coordinate with Minnesota Geospatial Information Office to standardize land ownership naming conventions. Consider using domains for attribute fields instead of requiring manual data entry. Inconsistent parcel data is a substantial challenge that undermines public sector land use and TOD planning.

- Maintain the TOD Database and allot funding and resources for this maintenance each quarter. Incorporate new transitways as they enter the planning pipeline.

- Archive previous versions and include date of revision in the updated file.

- Update metadata with each new version.

Action Steps Conclusion

The Database represents an opportunity to start a regional conversation about capturing the value of transit investments and publicly-owned land through TOD development. Because the Metropolitan Council is the only public agency with a regional scope, the onus is on the Council and its agencies to consider regional balance in its distribution of resources and investments. The Council must consider the merits of all places in the region for potential TOD and transit investments. If no action is taken in regard to this Database, the Office may neglect the chance to promote public sector TOD on key Opportunity Sites.

REPORT CONCLUSION

The publicly-owned parcel Database can improve institutional knowledge of existing land holdings with TOD potential. The suitability analysis and Opportunity Site maps highlight distinct locations for public agencies to begin exploring development.

The Database and suitability analysis are intended for both immediate use and further refinement. The TOD Office may find that prohibitive site conditions, private or public interests, and spatial conditions may alter the prioritization of sites. The data can be filtered to adjust for agency interests. Additionally, the suitability analysis can be adjusted to reflect differences in preferences of different users. Additional criteria, such as station area amenities or adjacent privately-owned opportunity parcels, can be integrated to explore alternative Opportunity Sites and station area functions.

This report and the Database provide an adjustable framework for public sector discussions and leadership in TOD. Ultimately, this project creates a starting point from which to better leverage public sector land through collaboration to achieve high-quality TOD.
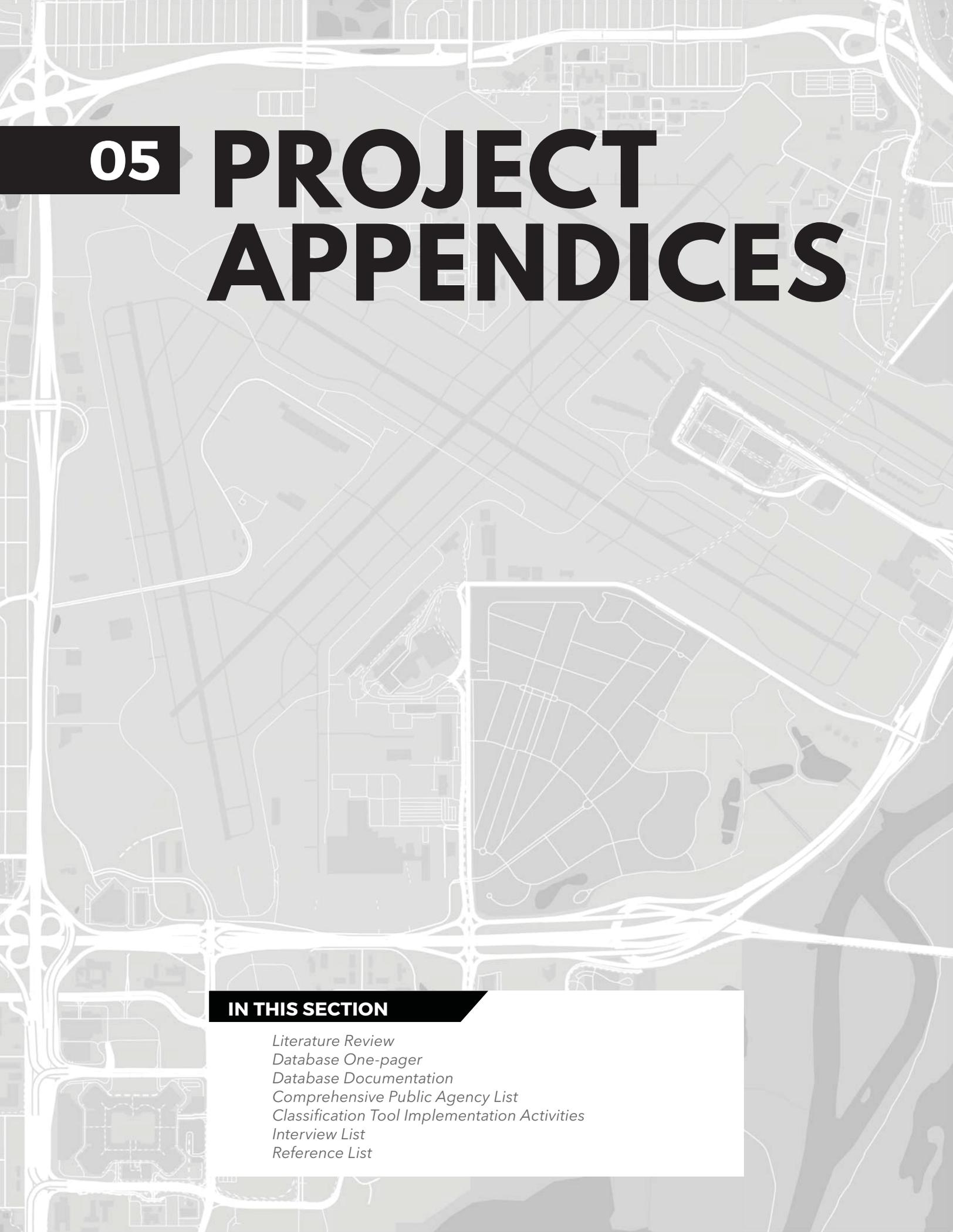
05 PROJECT APPENDICES

LITERATURE REVIEW

Previous studies on TOD and TOD Classification Methods

Previous TOD studies in the Twin Cities region examine how TOD goals and principles could be applied to station-area or corridor development plans, many with similar goals and principles. These goals often include: provide transportation choices, provide a mix of land uses, increase land use density, enhance pedestrian safety, create a sense of place, and strengthen economic vitality for public and private sectors (63rd Avenue/Bottineau Boulevard Land Use and Transit Oriented Development Plan, 2011). Some studies also include: boost transit ridership, minimize traffic, create community value, and foster interaction through public amenities (Central Corridor Investment Strategy, 2010). Community participation is also cited as a primary goal in some local planning studies (The Transit-Oriented Development Design Guidelines: Penn Avenue and West Broadway Avenue, 2006).

New trends in TOD have emerged as more transitways are planned in the Twin Cities region. For example, previous studies of the Blue Line found that the limited connectivity between the stations and the neighborhoods to the east has hindered ridership and resulted in uneven impacts on property values near the new light rail. The experience of the Blue Line highlights the importance of planning for and implementing station area infrastructure investments (Central Corridor TOD Investment Framework, 2010).

New TOD studies explore local or regional characteristics to support TOD for proposed transitway corridors. For instance, the Southwest LRT corridor has a much higher percentage of people age 25 to 34 and fewer school-age children. The corridor has been experiencing a shift away from industrial uses to commercial and residential uses. Both of these demographic and land use shifts are perceived as positive local trends supporting TOD (Southwest Corridor Investment Framework, 2013).

A review of the literature reveals that there is no standard definition for TOD. It is often interpreted differently by the multiple stakeholders involved in its process (Singh et al., 2012). In addition, available case studies in the literature have different foci, and almost all deal only

TOD on Publicly-Owned Parcels

with the evaluation of TOD projects but not the measurement of TOD capacity in a given area (Singh et al., 2012). Evaluation studies which attempt to assess TOD capacity do not utilize a universally accepted method for measurement. As such, the development of a uniform index to quantify the TOD potential has been encouraged by many authors (Evans et al., 2007; Singh et al., 2012).

The need for a quantitative framework becomes a pressing issue since it has been noted that public investment in transit is too often made without a full understanding of the outcomes, in many times resulting in little or no improvement toward transit sustainability (Singh et al., 2014). An overall lack of coordination between urban development and transportation planning has persistently led to disappointing results (Renne et al., 2005).

Recent literature recommends that a TOD index should be developed using multi-scalar, multi-criteria spatial assessment GIS-tools, such as a Spatial Multi-Criteria Analysis (SMCA) (Singh et al., 2012). It is believed that with the aid of SMCA, TOD capacity can be translated into a TOD index for various locations. The results then can be used in a Spatial Decision Support System environment, where multiple stakeholders can share their views and propose specific TOD planning interventions (Singh et al., 2012).

The TOD Classification Tool developed by Metro Transit is a quantitative measurement system to assist communities and agencies at different levels of governance understand the impacts of prioritizing investments in transit station areas. The Tool sorts station-level areas into five implementation types based on a quantitative assessment of: 1) their market potential for transit-oriented development and 2) the current transit oriented status of the area. The Tool also includes an economic development overlay that identifies major employment centers, and an equity overlay that identifies Areas of Concentrated Poverty (ACPs).

Other tools, such as the eTOD score developed by the Northeastern University in Boston, also recognize the multi-scale nature of successful transit-oriented development. eTOD is a rating system which ranks station areas on three scales of 10 indicators. High performing TOD development can effectively reduce driving and increase transit ridership. These eTOD indicators were chosen based on their correlation with vehicle miles traveled (VMT), which assumes that TOD projects are developed to decrease VMT. As a result, the scores are inversely correlated with VMT, so a high score for TOD potential will be spatially associated with areas where VMT is low.

An important consideration is the fact that none of the available literature or proposed TOD index systems go beyond a station-area level analysis. One of the goals for the Capstone report, however, is to provide recommendations for TOD investment based on the TOD potential at the parcel level. In this sense, while existing documentation can have an influence on the project, the report's innovative nature requires a thorough discussion on how to articulate station-area TOD assessment with a deeper level of analysis.

Ultimately, literature concurs that there is no single answer to the question of whether a proposed TOD project is a "good" one. The answer is context-specific and depends in part on whether a TOD project can provide what is missing in a station area (Pollack et al., 2013). Defining TOD success can prove to be even more difficult where a social equity goal is included in the process. Station areas that succeed from the perspectives of transportation and social equity are those where a substantial population are likely to use transit, including households without automobiles, renters, and low-income households. A high performing and equitable development can be achieved by identifying and orienting TOD toward these areas (Pollack et al., 2013).

National Case Studies and Best Practices

Reconnecting America's TOD Best Practices document provides national examples of successful TODs, some of which were developed on publicly owned land such as Park & Rides. In Dallas, DART sold air rights for 55 percent of the land value before the station was constructed (near the Reunion Arena area). Boston has also promoted several air rights developments in addition to working with private developers adjacent to transit to provide pedestrian and bike connections (TOD Best Practices, 2007). Joint development and innovative value capture strategies might provide additional revenues to transit agencies while allowing the public agency long-term control over the site. Long-term ground lease arrangements provide a steady stream of income rather than a lump-sum sale and can be based on property or development rights.

In the Bay Area, VTA's (Santa Clara Valley Transportation Authority) Ohlone-Chynoweth Station includes affordable housing on what was once an underutilized 1,100 space Park & Ride. The development also includes childcare and a learning center. San Jose bonded nearly half the cost of the project. Boston used a long-term ground lease at Ashmont Station to construct affordable housing. Baltimore

Metro did a long term (99-year) ground lease at Owings Mills station (TOD Best Practices, 2007). The Baltimore Business Journal describes how a surface Park & Ride space was converted into a TOD in an article aptly titled "Amassing the land was key to creating Owings' Mills Metro Centre." The Park & Ride lot was converted into structured parking to free up the rest of the land while the agency provided incentives to the developer to get the other parts of the project constructed. The new development includes a community college and several library buildings (Bizjournals, 2014).

The most successful agencies have been highly active in acquiring land and capitalizing on joint development opportunities. TRIMET, a public transit agency in Portland, has actively acquired parcels for redevelopment. WMATA in DC has been active in joint development for over 30 years and has taken a "more entrepreneurial approach to land-use issues than is characteristic of transit agencies." For example, WMATA released an RFP for a development opportunity at the Ballston Metro station that received no submittals. Realizing that developers were reluctant to participate due to the apparently limited potential of the parcel in the RFP, WMATA began assembling adjacent parcels. Additionally, WMATA created a strategy to define its acquisition and development. As part of a market analysis, the agency classified its portfolio into three categories depending on the level of public-sector intervention required: "Level 1 sites are those with significant private-sector interest that will require little public-sector intervention... Level 2 sites have some private sector interest, but carry logistic or political constraints... [and] Level 3 sites [that] suffer from a lack of private sector interest and require substantial public-sector intervention over a long period of time" (TOD Best Practices, 2007).

Equity in TOD

Equity is a distinct goal of the TOD Office as public transit has a high impact on increasing equity for underrepresented populations (Markovich and Lucas, 2011, Rodier et al., 2009, Kaplan et al., 2014, Garrett and Taylor, 1999, and Litman, 2002). For the purposes of this report, two perspectives were researched that align with the Metropolitan Council's TOD Policy equity goal. The first perspective looked at technical methods for integrating equity in transit oriented development analysis. Several of the technical aspects mentioned below were integrated into the suitability analysis presented in this report. The second perspective provides a broader understanding

of how equity and TOD are being discussed and implemented.

Equity and transportation have been connected to disadvantaged populations in the form of environmental justice and accessibility. Environmental justice is a subset of the broader concept of social equity (Litman and Brenman, 2012). TOD is recognized for having the potential to advance equity (Markovich and Lucas, 2011, Rodier et al., 2009, Kaplan et al., 2014, Garrett and Taylor, 1999, and Litman, 2002). As such, equity has become intrinsically linked to TOD. However, equity remains nebulous making it difficult to standardize, measure, and implement. The definition of equity ranges from broad and all encompassing (Policy Link, 2014) to specific (Metro Transit, 2014). Although equity remains nebulous there are several common attributes and emerging ideas that align TOD and equity with complementary strategies for implementation.

Numerous indicators are used throughout transportation planning such as vehicle traffic counts, commute times, and ridership. However, many indicators focus disproportionately on automobile use. Many indicators do not address transportation holistically (Litman, 2011 and Garrett and Taylor, 1999). The merging of TOD, equity, and sustainable transportation planning has shifted the indicators used from an auto focus to indicators more appropriate to equity and TOD (Renne, 2009).

Numerous tools and methods address equity in transportation and community planning. Some tools utilize as many variables as possible to ensure equity is addressed while others focus on aspects of equity such as accessibility and connectivity or race, culture, affordability. Tools such as the Dukakis Center for Urban and Regional Policy's eTOD (Pollack, 2013), Chicago's Transit Equity Matters (TEM, 2009), and Sacramento's Social Equity and Transit Oriented Development (Brenner and Tithi, 2011) incorporate many equity variables that are location-based or project specific . These tools use different methods to evaluate, measure, or identify equity related to transit planning. One method created typology descriptions of station areas by utilizing the concepts of activity centers for evaluating equity and TOD (Austin, et.al., 2011). While there is not yet consensus on a comprehensive equitable TOD tool, these tools share similar processes and common attributes.

One common theme in equity is multimodal transit and accessibility for all. Accessibility to transit stations, jobs, and services such as health, eldercare, and childcare is a common variable across transit and equity. The literature suggests focusing on disadvantaged populations because there is a greater impact on ridership and quality of life within

these populations (Garrett and Taylor, 2011). Income and vehicle miles traveled (VMT), are common among equity and TOD indicators. VMT correlates strongly with income and disadvantaged populations (Litman, 2002 and Pollack et. al., 2013). Affordability in both housing and in terms of the cost of living, quality of life, and connection to employment are other variables used to discuss equitable TOD.

Other literature recommends a "mixed framework" for TOD planning that is interdisciplinary. A "mixed framework" combines TOD with concepts from Smart Growth, Urban Sustainable Development, Mixed Income Development, and Mixed Partnerships to create a framework for advancing equity through TOD. This framework addresses increases in land value from TOD to avoid the negative aspects of gentrification. By including mixed income and mixed partnerships, this framework aims to create "positive gentrification" (Cappellano and Spisto, 2014). By recognizing the benefits that mixed use, mixed income, and mixed partnership bring to TOD, it is possible to plan TOD districts that exemplify equity principles.

A growing number of partnerships between community land trusts (CLTs) and entities such as Habitat for Humanity, (St. Claire, et. al., 2002) demonstrate results that support TOD and equity. Community land trusts provide a unique opportunity for retaining affordable housing near TOD stations even when land prices increase (Peterson, 2010), with methods similar to the "mixed framework."

Other concepts could complement mixed income frameworks. The first is the growing trend to support socially responsible property investments (Pivo, 2005). Some researchers suggest a shift from station area planning to district and regional scales to increase resiliency (Pendall et. al., 2010). A focus on employment centers in relation to other nodes supports the shift of focus to regional scales. The merging of strategic planning and spatial planning to more appropriately plan for transit (Todes, 2012) and the use of a typological approach to TOD planning could complement mixed income frameworks. The typological approach provides insight to better identify best strategies for development at station areas and equity based development solutions (Kumruzzaman et. al., 2014 and Austin, 2012).

Equity can be measured in a variety of ways by combining concepts from a diversity of methods found in practice and research. Equity implementation strategies through TOD could be tiered (Litman, 2002), with a general focus (accessibility, connectivity, regional resilience, sustainable development and livability indicators), a second tier (low income and VMT), and a third tier

focused on specific populations or aspects (CTOD, 2007) (e.g. race, culture, access to healthy food, education, services, etc.).

The literature suggests that finding an universal method, tool, or strategy is unlikely. Rather, an integrated approach to equity and TOD planning may be the best strategy. Such an approach will consider context in addition to template approaches (Austin et. al., 2010), merging strategic and spatial planning (Todes, 2012), systems and resilience (Pendall et. al. 2010), and sustainable development (Renne, 2009). Equity must be a consistent factor of success in addition to the traditional factors of transportation and development (Higgins et. al., 2014 and Markovich and Lucas, 2011). The full report's Equity Score represents a conceptual framework for equity that is intrinsic to the TOD planning and parcel development process from the very beginning.

Excess and Surplus Right-of-Way

When building new state roadways or expanding existing roadways, the Minnesota Department of Transportation (MnDOT) often needs to acquire additional land, called Right of Way, in order to meet certain construction and safety standards or to accommodate the space needed for roadway expansion. Land that MnDOT determines is not needed for upcoming highway projects, or land that was only needed temporarily during construction phases, can be sold. However, the disposal process is heavily regulated by federal and state statute.

Contained within the statutes are two terms: "excess" and "surplus." Excess property is land that is currently in MnDOT's possession but is not being used as operating Right of Way, is not needed for expansion in the foreseeable future or for maintenance of the transportation system. Surplus property is a designation that is given to the excess land once it clears a rigorous review process and is declared as surplus by the Commissioner (Minn. Statute 161.41, MnDOT Right of Way Manual, 2010).

Property owners impacted by highway projects may request that their property be purchased by MnDOT, even if it is outside of the necessary Right of Way. MnDOT will acquire the property as excess land and can reconvey the property after the completion of the project to potential owners in the chain of title. The chain of title includes the previous owner and other public agencies who operate as road authorities. After offering such land to all of those in the chain of title, that land can be offered to the public in the form of a public land auction. If a city or local governmental subdivision approaches MnDOT with an interest in buying surplus land, MNDOT can forgo the chain of title and sell directly to the governmental unit without first approaching the previous owner.

MnDOT land ownership can take two forms. If MnDOT owns the land as a highway easement, then MnDOT owns the right to construct a highway on the land but cannot sell the land rights to any party other than a road authority. In this scenario, MnDOT could sell the land acquired by easement to a city or county.

If the land is owned in fee (owner has the typical rights that are attached to property ownership), then the owner has all of the rights to the property. It can thus be sold at auction. As regulated by the Federal Highway Administration, this land cannot be sold for less than the current fair market value. The land could be transferred

to a public agency for $0, but it must meet two conditions::

1. The land must be used for charitable or public purposes

2. The deed must contain a reversionary clause, under which MnDOT reacquires the land if that land ceases to be used for charitable or public purposes

Local examples of MnDOT reacquiring land from public agencies include the former site of the Highway 610 and Noble Parkway Park & Ride, formerly owned and operated by Metro Transit. Metro Transit received funding to build a larger Park & Ride near the original location, which opened in the fall of 2014. Because the former site was no longer being used, MnDOT reacquired the land.

Along the proposed Green Line Extension, the city of Chanhassen acquired land at a station, originally for public purposes. They have recently decided to try to develop the land in a non-charitable way, and are currently trying to purchase the land in fee because of the reversionary clause.

OVERVIEW

In 2015, Metro Transit's Transit Oriented Development (TOD) Office partnered with the Economic & Community Development Capstone Course at the Humphrey School of Public Affairs to explore the TOD development potential of publicly-owned parcels along several planned transitways in the Twin Cities.

TOD facilitation requires an understanding of where publicly-owned parcels are located and the characteristics of these parcels. Certain development opportunities may present themselves only when the region has taken a thorough inventory of publicly-owned land.

The goal of this project is to address how much public land is available near transitway corridors, where those parcels are located, and who owns those parcels.

PROJECT COMPONENTS

Publicly-Owned Land Database

+

Suitability analysis with Opportunity Sites

The publicly-owned parcel Database will allow the public sector to prioritize TOD opportunities while facilitating collaboration and efficiency. As publicly-owned parcels are developed to make the best use of their transit proximity, the region will build world-class TODs through strategic and innovative TOD investments. Successful TOD projects can increase revenues, walkability, sustainability, and diversity of the regional housing portfolio.

Challenges
*Messy, inconsistent, and erroneous GIS data, varied regional context*

The analysis comprised two scores:

Parcel Scores reflect the diversity of publicly-owned land across the region.

DISTANCE TO STATION	+	PARCEL SIZE	+	VACANT LAND	=	PARCEL SCORE
(0-1) x 1.25		(0-1)		(0-1) x 1.25	=	(0-3.5)
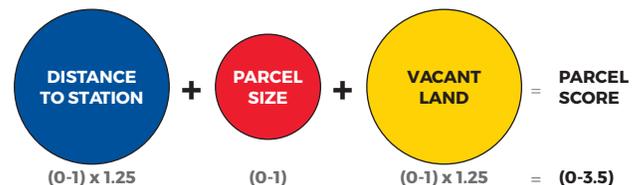
Equity Scores reflect three demographic indicators to encourage equity from the very beginning of any development process.

CAR-FREE HOUSEHOLDS	+	TRANSPORT. COST BURDEN	+	CONCENTRATED POVERTY	=	EQUITY SCORE
(0-1)		(0-1)		(0-1)	=	(0-3)
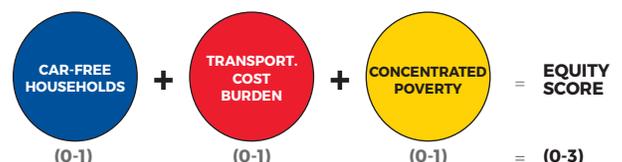
Challenges
Limited information for complex parcels

RESULTS

The full report provides a Parcel Score that reflects preliminary development status. The top ten Opportunity Sites (ranked by Parcel Score) are listed by corridor in the full report.

TOD ON PUBLICLY-OWNED LAND

13%
of land at station areas
is publicly-owned

>9,000 ACRES
of publicly-owned land
(approximate)

BLUE LINE
EXTENSION
(LRT)

PENN AVE
(ABRT)

SNELLING AVE
(ABRT)

METRO GREEN LINE
(LRT)

METRO BLUE
LINE (LRT)

METRO GREEN
LINE EXTENSION
(LRT)

80+
city, state,
regional & federal
agencies

METRO ORANGE
LINE (BRT)

16
cities
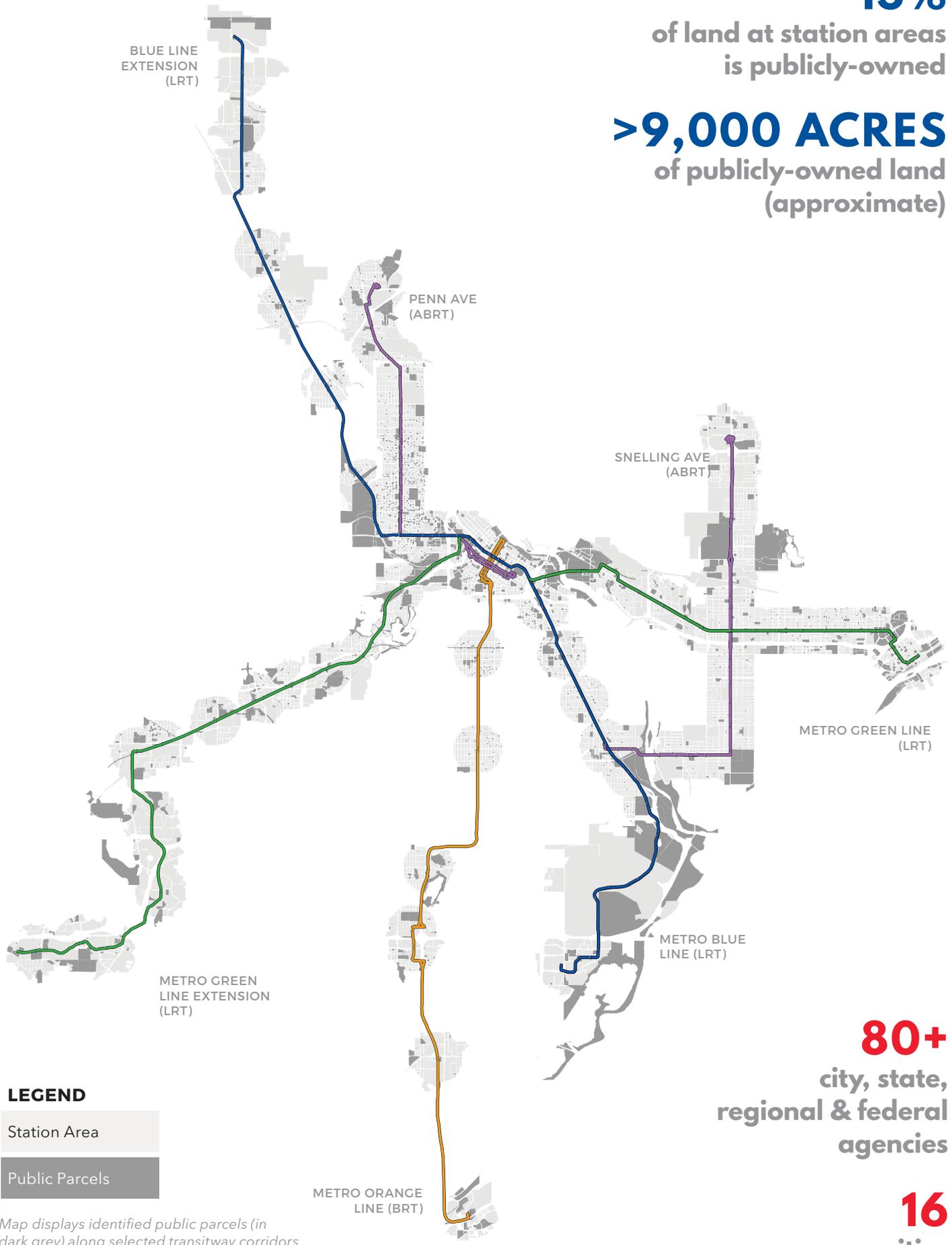
LEGEND

Station Area

Public Parcels

*Map displays identified public parcels (in
dark grey) along selected transitway corridors*

DATABASE DOCUMENTATION

Parcel Database Attributes

AREA

Describes: Area of parcel in acres.
Source: Metro GIS County Parcel Layer
Values: Area in Acres
Methodology: Parcel area in acres were calculated using field calculator in ArcGIS.

PARCELDIS

Describes: The distance from the centroid of each parcel to each station center point in each station area.
Source: Metro GIS County Parcel Layer
Values: Distance in miles
Methodology: Parcel polygons centroids were created and the distance from each parcel to the station was calculated using network analysis.

EXCLUDE

Describes: Whether a parcel is excluded from suitability analysis due to a certain reason.
Source: NCompass Technologies Landmarks and Google satellite imagery
Values: "1" indicates no exclusion. "RR" for being excluded because it is a railroad track, "A" for being excluded because it is a airport. "B" for being excluded because it is a government building. "P" for being excluded because it is a park. "W" for being excluded because it is a water body. "OT" for being excluded for other reason.
Methodology: The NCompass Technologies Landmarks shapefile was overlayed with the preliminary publicly-owned parcels. Any parcel that overlapped with the landmarks shapefile was excluded (with a corresponding reason in the next field). The consultant team performed a visual check of publicly-owned parcels using Google satellite imagery.

EXC_NAME (OPT)

Describes: Name of excluded parcels, if known. Most of the are parks, government buildings, airports, and railroads.
Source: NCompass Technologies Landmarks
Values: Unique names
Methodology: The NCompass Technologies Landmarks shapefile was overlayed with the preliminary publicly-owned parcels. Any parcel that overlapped with the landmarks shapefile was excluded (with

a corresponding reason). The consultant team performed a visual check of publicly-owned parcels using Google satellite imagery.

HH1T

Describes: Modeled transportation costs as a percent of income for a median-income family (Type 1) by census block group. A Type 1 family in the source data is comprised of 4 household members, including 2 commuters.
Source: Location Affordability Index (HUD-DOT)
Values: Range from 11.54 to 22.23 percent.
Methodology: Parcels were assigned the value from their corresponding census block group.

HHNOVEH

Describes: Percentage of car-free households by census block group.
Source: American Community Survey 5-year summary file (MetroGIS)
Values: Range from 0 to 100 percent.
Methodology: The number of households with no cars was divided by the total number of households at that block group. Parcels were assigned the value from their corresponding block group.

TODCODE

Describes: The TOD Classification Tool designates station areas in 5 implementation types based on transit orientation and market potential. Each type corresponds to a text value in TODName.
Source: TOD Office Classification Tool. Data within the Classification Tool (2013).
Values: Raise the Bar (5), Catalyze (4), Connect (3), Transition (2), Plan and Partner (1)
Methodology: The Classification Tool is based off of 2013 data for 9 metrics. Five of these metrics relate to Transit Orientation (car-free population, intensity, transit frequency, intersection density, and amenities) and four relate to market potential (increased job access, development potential, sales activity, land value).

TODNAME

Describes: The TOD Classification Tool designates station areas in 5 implementation types based on transit orientation and market potential. Each type corresponds to a numerical value in TODCode.
Source: TOD Office Classification Tool. Data within the Classification Tool from 2013.
Values: Raise the Bar, Catalyze, Connect, Transition, Plan and Partner
Methodology: The Classification Tool is based off of 2013 data for 9 metrics. Five of these metrics relate to Transit Orientation (car-free population, intensity, transit frequency, intersection density, and amenities) and four relate to market potential (increased job access, development potential, sales activity, land value).

TODCAT

Describes: Classification of parcels according to their location inside or outside a defined downtown area in Minneapolis or Saint Paul.
Source: Metro Transit Downtown Fare Zone (MetroGIS)
Values: Downtown, Non Downtown
Methodology: Parcels were classified based on the location of the nearest station area. Parcels inside station areas whose stations were contained within the downtown delineation were marked as Downtown. All other parcels were marked as Non Downtown.

ACP

Describes: Areas of Concentrated Poverty (ACPs) are census tracts where more than 40% of the residents live at or below 185% of the federal poverty live (equivalent to $43,460 for a family of four in 2012). Areas of Concentrated Poverty usually suffer from high crime and tend to have underperforming schools. Overall, living in an ACP can reduce economic mobility. 75% of the ACP census tracts are also census tracts in which over half of the resident are people of color. "Households of color are more likely to live in ACPs than white households at rates beyond what income alone can explain" (Adapted from the Met Council ACP one pager).
Source: Areas of Concentrated Poverty (MetroGIS)
Values: 0 for not in an ACP, 1 if overlapping with an ACP
Methodology: Parcels receive a 1 if any part of the parcel intersects an ACP.

NO_SUPERST

Describes: Whether a parcel appears to vacant or not.
Source: Google Maps street view and Bing satellite images
Values: 0 for Occupied, 0.5 Potential, 1 Vacant
Methodology: Using a combination of satellite images and Google Maps, each parcel was identified as containing an above-ground structure or not. This methodology does not reflect substructures that may inhibit development. Google street views were used to determine if parcels contain superstructures. However, satellite maps may be out of date and may not reflect updated construction.

AREACAT

Describes: Categorization of parcel areas into discrete ranges.
Source: Metro GIS County Parcel Layer
Values: 0 for less than 0.25 acres / 0.25 for areas between 0.25 and 0.65 acres / 1 for areas between 0.65 and 6 acres / 0.5 for greater than 6 acres
Methodology: Parcel area in acres were calculated and allocated into ranges using field calculator in ArcGIS.

AREACLUST

Describes: If a parcel is adjacent to another publicly-owned parcel, the areas are combined. If a parcel is not immediately adjacent to another parcel, only the individual parcel area is displayed.
Source: Metro GIS County Parcel Layer
Values: Aggregate or individual acreage
Methodology: Adjacent polygons were merged into single clusters. Their areas were recalculated and assigned to respective component parcels.

DISTCAT

Describes: The distance from the centroid of each parcel to each station center point in each station area, grouped into ranges. Downtown parcels were assigned different ranges and points than non-downtown parcels.
Source: Metro GIS County Parcel Layer
Values: Downtown: 1 for 0-0.2 miles / 0.5 for 0.2-0.4 miles / 0.3 for greater than 0.40 miles. Non-downtown: 1 for 0-0.075 miles / 0.75 for 0.075-0.25 miles / 0.1 for 0.25-0.5 miles / 0 for greater than 0.5 miles
Methodology: Parcel polygons centroids were created and using network analysis the distance from each parcel to the station was calculated.

DISTCLUST

Describes: The distance from the centroid of each parcel cluster to each station center point in each station area, grouped into ranges. If the parcel is not part of a cluster, then individual distance is provided. Downtown parcels were assigned different ranges and points than non-downtown parcels.
Source: Metro GIS County Parcel Layer
Values: Aggregate or individual distance in miles
Methodology: Cluster centroids were created and using network analysis the distance from each parcel to the station was calculated.

HH1T_IDX

Describes: Modeled transportation costs as percent of income for an average household, indexed.
Source: Location Affordability Index (HUD-DOT)
Values: Range from 0 to 1
Methodology: Percentage values from HH1T field were indexed to a 0-1 range. Maximum indexed value was 22.23 percent (1). Minimum indexed value was 11.54 percent (0).

HHNOV_IDX

Describes: Percentage of households with no vehicle ownership at the census block group level, indexed.
Source: American Community Survey 5-year summary file (MetroGIS)
Values: Range from 0 to 1
Methodology: Percentage values from HHNoVeh field were indexed to a 0-1 range. Maximum indexed value was 100

percent (1). Minimum indexed value was 0 percent (0).

SCOREPARC

Describes: The composite weighted Parcel Score for potential TOD.
Methodology: The final score is the sum of the partial scores for TOD suitability in terms of area (AREACat), distance (DISTCat) and vacancy status (NO_SUPERST), weighted according to their comparative importance.

$$SCOREParc = AREACat + DISTCat * 1.25 + NO\_SUPERST * 1.25$$

Values: Ranges from 0 to 3.5 (maximum potential).

SCOREEQ

Describes: The composite weighted parcel score assessing equitable TOD development potential. The Equity Score identifies areas of household vulnerability as a combination of income, expenditures and travel patterns. It is argued that public parcels located in these areas are prime locations for TOD development.
Methodology: The final score is the sum of the partial scores for concentrated poverty (ACP), household non-motorization (HHNOV_IDX) and household transportation costs (HH1T_IDX). All partial scores are assumed to have an equal weight.

$$SCOREEq = ACP + HHNOV\_IDX + HH1T\_IDX$$

Values: Ranges from 0 to 3 (maximum potential).

REPORT

Describes: Whether the parcels were included in the final report.
Methodology: All parcels displayed in the report were assigned a YES value. Remaining parcels were assigned a NO value.
Values: YES if the parcel is preset in the report.

COMPREHENSIVE PUBLIC AGENCY LIST

The following is a list of all public agencies and governmental bodies identified as land-owners in this report.

CITIES

City of Bloomington

Housing and Redevelopment Authority

Port Authority

City of Brooklyn Center

Department of Community Activities Recreation and Services

Economic Development Authority

City of Brooklyn Park

Economic Development Authority

City of Burnsville

Economic Development Authority

Heart of the City Redevelopment Project

City of Crystal

Economic Development Authority

Housing and Redevelopment Authority

City of Eden Prairie

City of Falcon Heights

City of Golden Valley

City of Hopkins

Housing and Redevelopment Authority

City of Minneapolis

Minneapolis Community Development Agency

Park and Recreation Board

Public Housing Authority

City of Minnetonka

City of Richfield

Housing and Redevelopment Authority

City of Robbinsdale

CITIES

Economic Development Authority

City of Roseville

City of Saint Louis Park

Economic Development Authority

Housing and Redevelopment Authority

City of Saint Paul

Board of Water Commissioners

Department of Public Works

Highland Library

Hillcrest Recreation Center

Housing and Redevelopment Authority

Park and Recreation Board

Port Authority

Public Housing Authority

River Centre Authority

Saint Paul Library

COUNTIES

Dakota County

Community Development Agency

Hennepin County

Housing and Redevelopment Authority

Regional Railroad Authority

Ramsey County

Department of Community Corrections

Department of Property Management

Department of Public Health

Department of Public Works

Minnesota Landmarks Agency

Parks and Recreation Board

Regional Railroad Authority

*Comprehensive
public agency list*

REGIONAL

Metropolitan Council

Metro Transit

Metropolitan Sewer Board

Metropolitan Mosquito Control District

Minnesota Valley Transit Authority

School District

Board of Education

Independent School District 1

Independent School District 191

Independent School District 272

Independent School District 274

Independent School District 279

Independent School District 280

Independent School District 281

Independent School District 283

Independent School District 623

Independent School District 625

Intermediate School District 287

Special School District 1

SouthWest Metro Transit

Three Rivers Park District

Watershed District

Minnehaha Creek District

STATE

Department of Administration

Plant Management Division

Department of Commerce

Weights and Measures Division

Department of Military Affairs

Department of Public Safety

Department of Transportation

Department of Veteran Affairs

STATE

Metropolitan Airports Commission

Minnesota Ballpark Authority

Minnesota Counties Intergovernmental Trust

Minnesota Historical Society

Minnesota Sports Facilities Authority

Minnesota State Agricultural Society

State of Minnesota

University of Minnesota

Board of Regents

FEDERAL

Department of Housing and Urban Development

National Park Service

Reserve Bank

Federal Reserve Bank of Minneapolis

United States Postal Service

US Government

CLASSIFICATION TOOL IMPLEMENTATION ACTIVITIES

The Classification Tool defines five implementation types for TOD station areas:

- **Raise the Bar:** development potential is ready to support TOD and transit connections

- **Catalyze:** strong urban form in emerging or cool markets

- **Connect:** warm markets but with auto-oriented urban form

- **Transition:** auto-oriented urban form in cooler markets

- **Plan and Partner:** cool market areas with little existing urban form to support TOD

The goals for the TOD Classification Tool are to:

- Prioritize and drive public and private investment in TOD

- Coordinate actors making investments

- Inform local community strategies

To achieve those goals, the TOD Classification Tool can:

- Differentiate TOD areas based on quantitative factors

- Measure TOD readiness

- Create a shared understanding of priority needs

The Classification Tool can be used for:

- Planners to determine recommended investment and action steps for station areas

- Developers for guidance on regional or local markets

• Anyone looking for a regional language to quantify development potential in transit station areas.

Implementation Priorities
(from Metro Transit's TOD Classification Tool User Guide)

The table below shows how different implementation ypes have different sets of activities that are priorities.

ACTIONS	RAISE THE BAR	CATALYE	CONNECT	TRANSITION	PLAN AND PARTNER
Infrastructure Improvements	Medium	High	Medium	Low	
Placemaking and Urban Amenities	High	High		Medium	Medium
Catalytic Development	Medium	High	Medium	Low	Low
Design and Zoning	High	Medium	High	High	Medium
Planning	Medium	Medium	Medium	High	High
Build Local Capacity	Low	Medium	Medium	High	High
Visioning	Low	Low	Low	Medium	High
Affordable Housing Strategies	High	High	Medium	Medium	Low
Economic Development Strategies	Medium	High	High	Medium	Low
Regional Access and Transit System Improvements	High	High	Medium	Medium	Medium

	Low Priority		Medium Priority		High Priority

INTERVIEW LIST

The capstone team spoke to various professionals to gain a better understanding of regional TOD challenges and opportunities.

- **Allison Bell**, TOD Office Program Manager, Metro Transit TOD Office

- **Cole Hiniker**, Senior Planner, Metropolitan Transportation Services, Metropolitan Council

- **David Frank**, Community Planning and Economic Development (CPED) Director , City of Minneapolis

- **Daniel Oberpriller**, Principal/Broker, CPM

- **Geoff Maas**, MetroGIS Coordinator, Metropolitan Council

- **Gary Leavitt**, TOD Manager, City of St. Paul

- **Steven Aviles**, TOD Intern, Metro Transit TOD Office

- **Jennifer Bailey Matti**, LS, Property Conveyance Unit, MNDOT

- **Jerry Zhao**, Associate Professor, Humphrey School of Public Affairs, UMN

- **Mary Kay Bailey,** Project Director, Minnesota Philanthropy Partners/Corridors of Opportunity

- **Matthew G. Rauwnhorst**, Vice President, Real Estate Development, Opus

- **Merrie Sjogren**, Sjogren Group

- **Michael Krantz**, Metro Transit Southwest Project Office, Metro Transit

- **Yingling Fan**, Associate Professor, Humphrey School of Public Affairs, UMN

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