

OVERVIEW

The Property Conditions and Development chapter examines properties in the Penn Avenue corridor, addressing a range of land use, regulatory, economic, and environmental characteristics. This chapter is divided into three parts:

- Inventory of property uses and conditions
- · Analysis of property conditions and development potential
- · Environmental screening

INVENTORY OF PROPERTY USES AND CONDITIONS

LAND USE

Penn Avenue North is primarily a residential corridor, interspersed with a variety of other land uses at major roadway intersections along its length. Housing types include primarily single-family, detached homes with some scattered single-family attached and multi-family homes. Areas of greater housing density are located near major intersections along the corridor, such as 44th Avenue, Dowling Avenue, Lowry Avenue, West Broadway Avenue, Golden Valley Road, Plymouth Avenue, Highway 55 (also known as Olson Memorial Highway), Glenwood Avenue and Cedar Lake Road. These intersections also include neighborhood serving businesses, shops, services, restaurants, cultural destinations, civic institutions, employment destinations, public transit, public spaces, and public art.

At the north end of the corridor, east of the Osseo Road and 49th Avenue intersection, a large industrial (Humboldt Industrial Area) and railway area is located between the railroad corridor and 49th Avenue, from Osseo Road to Humboldt Avenue.

Several civic and/or institutional uses are also located within and near the corridor. They include Patrick Henry High School, Crystal Lake Cemetery, Noble Academy, Lucey Laney at Cleveland Park Community School, U.S. Post Office, Pierre Bottineau French Immersion School, Hmong International Academy, North High School, NorthPoint Health & Wellness Center, Minneapolis Urban League, Minneapolis College Preparatory School, Harvest Prep Seed Academy, Harrison Recreation Center, Bryn Mawr Elementary School, Anwatin Middle School, Plymouth Youth Center, and others.

Several parks and open spaces are located within and near the Penn Avenue corridor. These include Victory Memorial Parkway, Victory Park, Victory Prairie/Dog Park, Folwell Park, Cleveland Park, Jordan Park, Cottage Park, North Commons Park, Willard Park, Theodore Wirth Park, Farwell Park, Lovell Square, Bethune Park, Harrison Park Bassett's Creek Park, and Bryn Mawr Meadows Park.

7. PROPERTY CONDITIONS AND DEVELOPMENT

2010



94 Shingle Greek Humboldt Industrial Area 94 Victory 9 Camden Industrial Columbia Park Marshall Terrace r. Webber-Camden **1** Folwell McKinley 23 Cleveland Jordan Bottineau Hawthorne Sheridan Willard - Hay North St. Anthony West 152 North Loop 394 **Downtown West** Elliot Park

Land Use 2010 Farmstead Seasonal/Vacation Single Family Detached Manufactured Housing Park Single Family Attached Multifamily Retail and Other Commercial Office Mixed Use Residential Mixed Use Industrial Mixed Use Commercial and Other Industrial and Utility Extractive Institutional Park, Recreational or Preserve Golf Course Major Highway Railway Airport Agricultural Undeveloped Water

0 East Isles Data Source: Generalized Land Use 2010 for the Twin Cities Metropolitan Area, Metropolitan Council

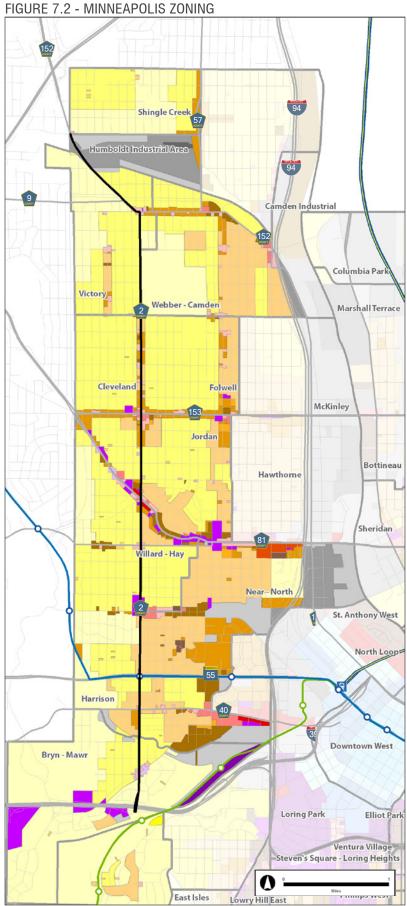
Loring Park

Ventura Village

Lowry Hill East Steven's Square - Loring Heights

ZONING

Much of the land along the Penn Avenue corridor is zoned residential (R1, R2, R3 and R4). The Humboldt Industrial Area is zoned I1 and I2. Several intersections along Penn Avenue include a mix of commercial (C1, C2 and C3A) and Office/Residential (OR1 and OR2). Zoning for residential generally increases in density moving east of Penn Avenue toward I-94.



Data Source: Primary Zoning Areas, City of Minneapolis

Primary Zoning Areas

	R1			
	R1A			
	R2			
	R2B			
	R3			
	R4			
F	R5			
E.	R6			
	OR1			
E	OR2			
E	OR3			
	C1			
	C2			
	C3A			
F	C3S			
	C4			
	B4N			
	B4-1			
	B4-2			
	B4C-1			
=	B4C-2			
扁	B4S-1			
	B4S-2			
	11			
12	12			
=	13			

VACANCY

There are several publicly and privately owned vacant properties along the Penn Avenue corridor. Many of these exist at or near intersections, with a heavy concentration of vacancies located in the Willard Hay and Jordan Neighborhoods near the West Broadway and Penn Avenue node. These sites provide opportunities for increased housing density, mixed-use, employment, and place-making.

OWNERSHIP

Land ownership along the Penn Avenue corridor includes publicly and privatelyowned properties. Most of the land is privately owned. Publicly-owned properties include schools, parks, and some institutions. These are scattered throughout the corridor, with some concentration at the Plymouth Avenue and Lowry Avenue nodes. In addition to the publicly-owned community lands, several single family lots have been assembled and are currently owned by public entities (City of Minneapolis and/or Hennepin County). These single-family lots may be utilized for residential, commercial or mixed-use development as these properties are sold to private developers.



FIGURE 7-3: VACANT PROPERTY BY OWNERSHIP Shinale Creek Humboldt Industrial Area 94 Industrial Victory Columbia Par Marshall Terrac Webber - Camder Folwell Clevelan McKinley dar Bottineau Hawthorne Sheridar llard - Hay Near - North St. Anthony West 152 Harrisor North Loop Downtown West Bryn - Mawr Loring Park Elliot Par entura Villag Steven's Square - Loring Heights 0 East Isles Lowry Hi Phillips We II cast

Data Source: Hennepin County Assessor's Office

BUILDING SCALE AND FORM

Building scale and form along the Penn Avenue corridor varies. Most of the corridor is characterized by two to threestory single-family detached homes fronting Penn Avenue and the parallel side streets. Most of the homes are located within 10-30 feet of the sidewalks on either side of the roadway. Many single-family homes have front porches. Some of the homes show signs of tornado damage and some are unoccupied and boarded.

Building scale and form at intersections generally include greater building mass and density along Penn Avenue and along the intersecting roadways (44th Avenue, Lowry Avenue, West Broadway Avenue, Plymouth Avenue, Highway 55, Glenwood Avenue, and Cedar Lake Road) including vertically mixed-use buildings, commercial, retail, office, and institutional buildings.

Several intersections include vacant properties, leaving gaps or voids in the continuity of the built form at these nodes. Other gaps in the built environment along the corridor occur at Bassett's Creek Park, Highway 55, Lincoln School Park, Crystal Lake Cemetery, Victory Memorial Parkway, and the rail corridor, just south of 49th Avenue.



Institutional Building



Vertical Mixed-Use Building



Building mass and scale intensifies at major intersections



Single Family Homes



Vacant properties along the corridor create gaps in the built form

PROPERTY CONDITIONS

Minneapolis assigns a property condition rating to all properties in the City. Properties are given a rating of Poor, Fair, Average Minus, Average, Average Plus, Good and Excellent. Property conditions were reviewed for parcels on the Penn Avenue corridor in addition to those near to the corridor, within about two blocks.

The condition of most properties along the corridor ranges from Average Plus to Average. Poor properties are interspersed along the corridor. The highest concentration of Poor properties is generally found from Golden Valley Road on the south to Lowry Avenue on the north. Many of these properties are single-family homes. Further analysis of the ownership and value of these properties is intended to result in strategies to improve these properties and/ or remove them and replace them with either new single-family or housing products that offer increased density and additional features and amenities.

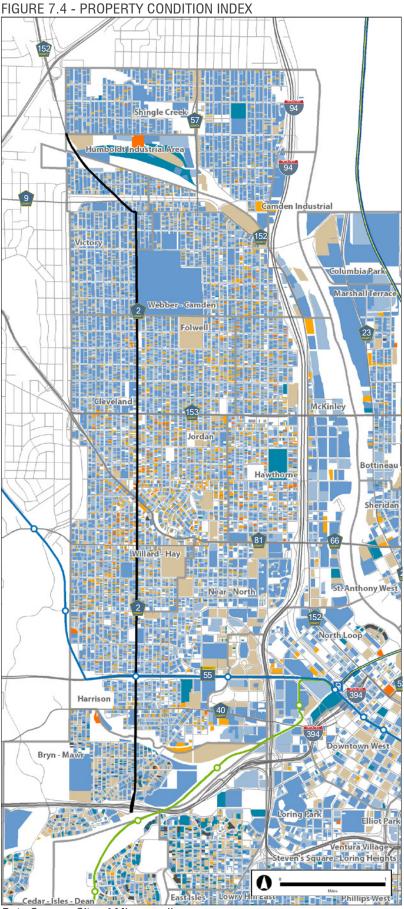
Commercial properties are also included in the property condition assessment. Although there are fewer commercial properties in the corridor, some commercial buildings were also identified as having a Fair or Poor condition. Strategies for improving commercial opportunities along the corridor may include such things as facade improvements and increasing housing densities to support retail and other commercial services.

Property Condition Rating 2013 Excellent

Average Minu:

Average Plus

Fair



Data Source: City of Minneapolis

CURRENT AND PLANNED REDEVELOPMENT SITES

There are several current and planned development projects in the corridor. Some projects are currently under construction, others are still in the conceptual stage, planning and/or approval process. Many of these projects are planned on sites that include vacant property. Below is a brief summary of current and planned redevelopment projects:

New Horizons Academy (Node: Lowry Avenue)

- Vacant site at 3354 Penn Avenue North (southeast corner of Penn Avenue and 34th Avenue)
- One large parcel (15,000 sq. ft.) equivalent to three single-family lots
- Property owned by the City
- Across the street from Lucy Craft Laney School (PK 8 public school)
- In the planning phase no land use approvals

Jordan Apartments (Node: Near the Lowry Avenue Node)

- Vacant site on east side of Penn Avenue between 27th and 28th Avenues, mid-block
- Five vacant lots (26,000 sq. ft.) equivalent to five single-family lots
- All properties owned by the City
- Proposed development project requires rezoning from R1A to R4 or R5
- Rental apartment building with 38 affordable housing units
- 18 studio, 15 one-bedroom, and 5 two-bedroom apartments
- Three-story residential building
- Underground parking for 20 cars



Rendering of Penn and Lowry Mayor's Great Cist Design Team Proposal

Penn and Lowry NW Quadrant (Node: Lowry Avenue)

- Penn & Lowry Mayor's Great City Design Team with AIA-Minneapolis, ULI, and MASLA (2007)
- Mix of vacant and developed properties, although 4 properties closest to corner are vacant
- · Substantial portion of properties owned by Hennepin County
- Retail and housing mix
- · Two redevelopment concepts created: horizontal mixed-use versus vertical mixed-use
- Horizontal mixed-use concept shows four-story buildings set back from the street with two-story retail/office buildings fronting onto Penn and Lowry
- Vertical mixed-use concept shows three-story buildings with two stories of housing above street-level retail
- The Minneapolis Comprehensive Plan identifies the Lowry/Penn intersection as a Neighborhood Commercial Node, designated for mixed-use with retail and/or service uses at three corners and high density housing.

Broadway Flats (Node: West Broadway Avenue)

- Vacant site at 2220 West Broadway Avenue (northwest quadrant of Penn Avenue and West Broadway Avenue)
- Nine properties (86,443 sq. ft.)
- · Properties owned by the Rose Development LLC and the City
- · Rental apartment building with 103 affordable housing units
- 10 studio, 78 one-bedroom, and 15 two-bedroom apartments
- · Four-story mixed-use building (residential above street-level retail)
- 19,000 sq. ft. of commercial space at street level
- Underground parking for 63 cars + surface parking for 90 cars



Rendering of Broadway Flats

West Broadway Crescent (Node: West Broadway Avenue)

- Vacant site at 2000 West Broadway Avenue (north side of West Broadway Avenue, east of Logan Avenue intersection)
- 10 properties (75,196 sq. ft.)
- Properties owned by CommonBond Communities
- · Rental apartment building with 54 affordable housing units
- 43 two-bedroom and 11 three-bedroom apartments
- Three-story residential building
- Enclosed parking (first floor) for 62 cars and surface parking for 10 cars
- · Pocket park located at south end of development

Capri Theater Expansion (Node: West Broadway Avenue)

- Vacant site west of existing Capri Theater building at 2027 West Broadway Avenue
- Expansion area consists of three additional parcels (approx. 10,000 sq. ft.) currently owned by the City, to be sold to Capri Theater
- Two-story theater building, including multi-purpose space and uses that complement the theater

The Commons at Penn Avenue (Node: Golden Valley Road)

- · Site at southwest quadrant of Penn Avenue and Golden Valley Road
- Five properties (four are vacant) between Penn and Oliver Aves
- · Properties owned by Building Blocks Community Developers (three) and the City (two)
- · Rental apartment building with 45 affordable housing units
- 11 one-bedroom, 21 two-bedroom, and 13 three-bedroom apartments
- · Four-story mixed-use building (street-level commercial at corner of Penn Ave)
- 4,500 sq. ft. of commercial space at street level (potential NorthPoint Health and Wellness clinic)
- · Underground parking for 43 cars and surface parking for 12 cars



Rendering of The Commons at Penn Avenue



Rendering of Praxis Marketplace

Praxis Marketplace (Node: Plymouth Avenue)

- Vacant site at 1256 Penn Avenue (southeast quadrant of Penn and Plymouth Avenue
- One large parcel (45,000 sq. ft.) plus three smaller parcels (12,000 sq. ft.) for total of 57,000 sq. ft.
- All properties owned by the City
- Two-story retail building for a 25,000–30,000 sq. ft. grocery store
- Underground parking for 50 cars and surface parking for 45 cars

NorthPoint Health & Wellness Center and NorthPoint, Inc. Expansion (Node: Plymouth Avenue)

- · Proposed expansion on existing siteson Penn Avenue, just north of Plymouth Avenue
- Two-story building
- 93,000 sq. ft. proposed for west side of Penn Avenue
- Structured parking proposed for east side of Penn Avenue
- NorthPoint, Inc. (which encompasses a number of non-profit initiatives, including a community food shelf) is proposed to be a partner in the possible expansion
- · Partnerships with other community partners are anticipated

PUSH @ Glenwood (Node: Glenwood Avenue)

- Redevelopment site at 225 Thomas Avenue N, three blocks west of Penn Avenue on Glenwood Avenue
- 123,525 sq. ft. site with existing buildings
- Future PUSH Interactive International Headquarters (corporate headquarters office)
- · Combination of building reuse and a new building
- New building will be 12,900 sq. ft., replacing a 11,700 sq. ft. building
- Four-story office building
- Surface parking for 66 cars
- · Existing buildings planned for future expansion and micro-brewery

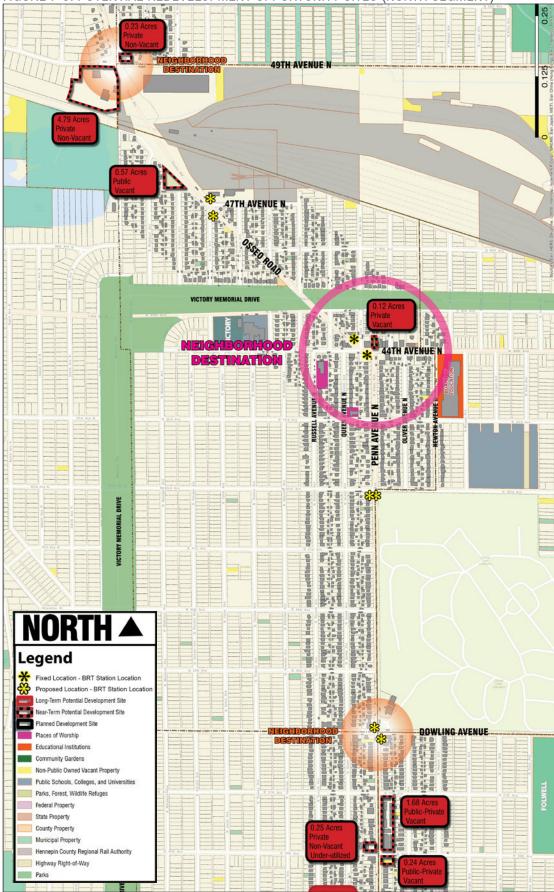
INVENTORY AND ANALYSIS



REDEVELOPMENT OPPORTUNITIES

Several opportunity sites for redevelopment and infill development have been identified along the Penn Avenue corridor. These sites are identified in Figure 7.5. The majority of these sites are either vacant properties and/ or underutilized sites. In some instances, site assembly may be required to aggregate larger sites for redevelopment. Opportunity sites consist of publicly and privately owned sites and are concentrated at nodes/ intersections.

The opportunity sites have been grouped into near-term and long-term potential for redevelopment and infill development. In most instances, the near-term opportunity sites include several continuous vacant sites, large enough for significant development. The long-term sites present opportunities that may require additional land assembly.





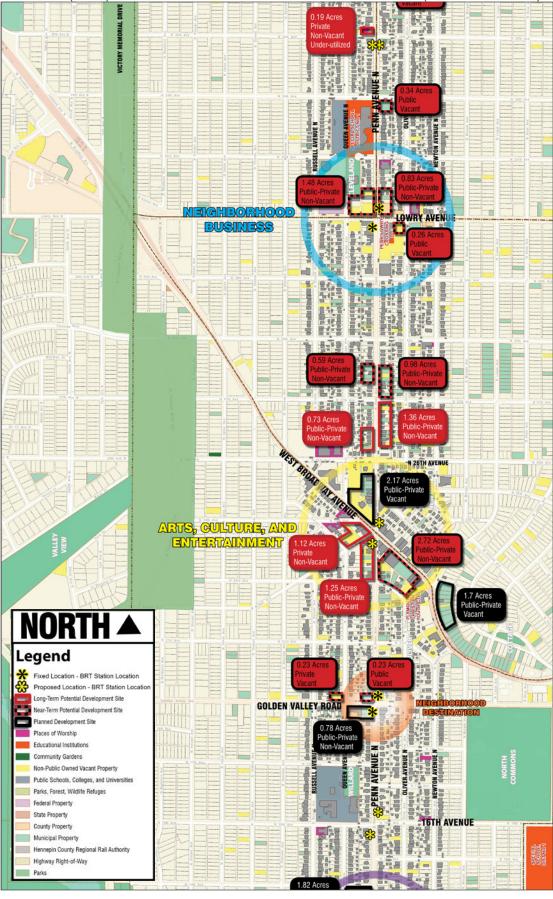


FIGURE 7-5(CONT): POTENTIAL REDEVELOPMENT OPPORTUNITY SITES (CENTER SEGMENT)

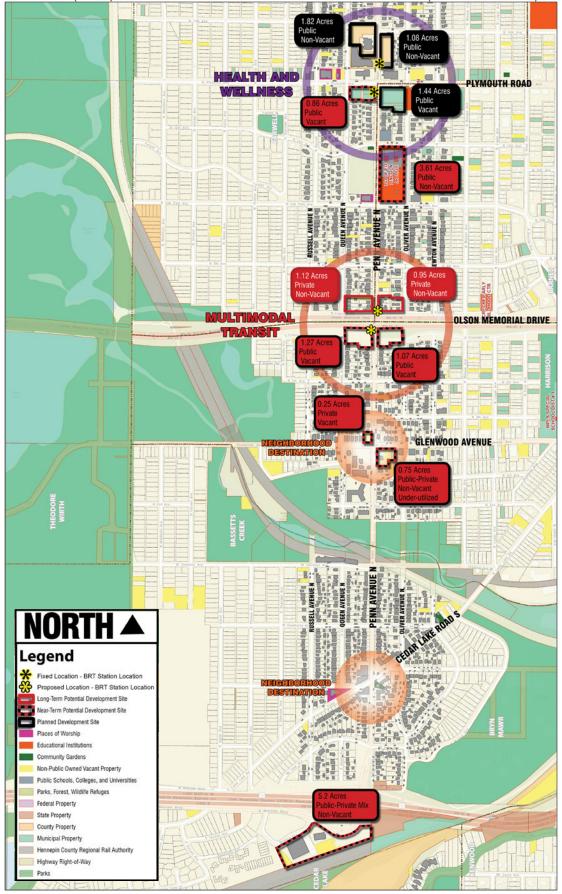


FIGURE 7-5(CONT): POTENTIAL REDEVELOPMENT OPPORTUNITY SITES (SOUTH SEGMENT)



Mixed-use/high density housing – infill on vacant properties at intersections



High density housing - infill on vacant properties at intersections



Medium density housing - infill on vacant parcels between intersections

INCREASED DENSITY OPPORTUNITIES

The project team has identified sites at key nodes along the corridor that offer the greatest opportunities to achieve success, and build on existing initiatives and development projects to create a critical mass that will be sustainable as the corridor grows and improves.

The nodes with the strongest potential for increased density include:

Cedar Lake Road and Penn Avenue

The Bryn Mawr neighborhood node is stable and thriving. At this time, little intervention is needed at this node. Over time, it is likely that private market investment will act to support redevelopment in the area as needed. Because of the current market strengths at this node, less attention is paid to the need for additional development options.

Plymouth Road and Penn Avenue

Anchored by NorthPoint Health & Wellness Center, the Minneapolis Urban League, and the University of Minnesota Research and Outreach Center, this node is already primed for future investment with NorthPoint's proposed building expansion, hiring of additional staff (employment growth with living wage jobs), and a critical concentration of employment to support additional retail goods and services.

West Broadway and Penn Avenue

Rose Investments is proposing a mixed use development (affordable housing and retail) in the northwest corner of the intersection; this development is awaiting final funding approval to move forward. New commercial development has already occurred on the north side of West Broadway just east of Penn Avenue with the opening of the new fitness center. Minneapolis CPED had issued an RFP for redevelopment of the Capri Block, but the City does not have complete site control; one property remains to be acquired. CPED has stated that the plan for the Capri Block should follow the goals stated in the West Broadway Alive plan. Structured parking to the rear of this block will likely be necessary for redevelopment to be successful at this intersection.

COMMERCIAL DEVELOPMENT OPPORTUNITIES

Cushman & Wakfield completed a retail market assessment for Lowry Avenue North as part of a proposal to provide retail services. Maxfield Research reviewed this document and completed an updated retail gaps analysis that quantified retail leakage throughout the North side. The analysis identified that 38 percent of all retail goods and services expenditures are being spent outside of the north side area. However, leakage in some categories is much higher than this percentage. Some retail uses may not be appropriate for the corridor because the current store formats require larger lot sizes than are available in the corridor.

The following categories exhibited the highest leakage rates, or the proportion of total potential retail dollars for each category that is being spent on these goods and services outside of the north side.

General Merchandise Stores	94.9%
Lawn and Garden Stores	77.1%
Building Materials/Supplies	76.7%
Gasoline Stations	70.8%
Specialty Food Stores	63.5%
Clothing Stores	59.3%
Full-Service Restaurants	42.3%
Limited Service Eating Places	41.7%

Leakage in these areas offers opportunities to reclaim a portion of these retail dollars back to the community. However, current retail formats for general merchandise retailers, building materials/supplies, and lawn and garden stores, are large big box stores with store sizes of 80,000 square feet or more. Retailers such as Target and Walmart are currently exploring smaller store formats in very dense population areas. Smaller grocery formats are also being developed in Downtown Minneapolis. Lund's has been at the forefront in the Twin Cities with two urban stores in Downtown Minneapolis and one in St. Paul. High population densities including high employment concentrations are needed to support these smaller store formats.

There are several opportunities to encourage the addition of neighborhood goods and services that would be located within walking distance of the immediate neighborhood and easily accessible via transit connections north-south and east-west. For example, incorporating a drugstore in a neighborhood can capture some of the leakage that currently goes to larger general merchandise retailers.

Neighborhood goods and services are those that customers purchase relatively frequently such as groceries, personal care products and services, gasoline, banking services, cleaning services, and pharmaceuticals. Most of these items tend to be purchased within no more than one or two miles from a customer's residence. Smaller store formats and smaller outlets are options for these types of goods and services including restaurants and limited service eating establishments where customers are often willing to pay slightly more for convenience.

Most pedestrians are willing to walk one-quarter mile. However, not every node will be able to support a full range of neighborhood goods and services. Some goods and services are already available at several of the nodes, but may need marketing support and strategies for enhancing the mix and customer awareness.

The retail market continues to remain highly competitive. Small business retailers today typically succeed on convenience, service, and niche products. The competitive advantage is to identify opportunities in each neighborhood to be able to satisfy local needs in one or more of these areas.

Future strategies will address not only development opportunities, but efforts to improve marketing for existing businesses at these key nodes.

Intersections where the greatest opportunities currently exist to add neighborhood goods and services include:

- Glenwood Avenue/Penn Avenue
- Golden Valley Road/Penn Avenue
- Plymouth Avenue/Penn Avenue

TABLE 7-1: RETAIL DEMAND POTENTIAL AND LEAKAGE IN NORTH MINNEAPOLIS (2013)

	Demand (Retail	Supply (Retail	Retail Gap (Demand -	Surplus/ Leakage	Number of
Industry Group (NAICS Code)	Potential)	Sales)	Supply)	Factor	Businesse
Summary	\$005 000 074	MATO TAC 774	040.007.400	07.7	057
Total Retail Trade and Food & Drink (NAICS 44-45, 722)	\$395,323,874	\$178,716,774	\$216,607,100	37.7	257
Total Retail Trade (NAICS 44-45)	\$356,063,597	\$151,801,877	\$204,261,720	40.2	210
Total Food & Drink (NAICS 722)	\$39,260,277	\$26,914,897	\$12,345,380	18.7	47
Expenditure Type			1.		1
Motor Vehicle & Parts Dealers (NAICS 441)	\$66,183,177	\$5,616,603	\$60,566,574	84.4	7
Automobile Dealers (NAICS 4411)	\$57,301,498	\$1,418,300	\$55,883,198	95.2	2
Other Motor Vehicle Dealers (NAICS 4412)	\$3,710,516	\$16,429,364	(\$12,718,848)	(63.2)	1
Auto Parts, Accessories, and Tire Stores (NAICS 4413)	\$5,171,163	\$4,023,705	\$1,147,458	12.5	4
Furniture & Home Furnishings Stores (NAICS 442)	\$7,218,659	\$16,429,364	(\$9,210,705)	(38.9)	18
Furniture Stores (NAICS 4421)	\$4,525,053	\$9,031,179	(\$4,506,126)	(33.2)	8
Home Furnishings Stores (NAICS 4422)	\$2,693,606	\$7,398,185	(\$4,704,579)	(46.6)	10
Electronics & Appliance Stores (NAICS 443/NAICS 4431)	\$8,450,167	\$3,507,790	\$4,942,377	41.3	7
Bldg Materials, Garden Equip. & Supply Stores (NAICS 444)	\$10,968,964	\$1,444,080	\$9,524,884	76.7	9
Building Material and Supplies Dealers (NAICS 4441)	\$8,875,980	\$1,147,411	\$7,728,569	77.1	8
Lawn and Garden Equipment and Supplies Stores (NAICS 4442)	\$2,092,984	\$296,669	\$1,796,315	75.2	1
Food & Beverage Stores (NAICS 445)	\$57,449,168	\$86,617,061	(\$29,167,893)	(20.2)	41
Grocery Stores (NAICS 4451)	\$50,133,695	\$78,612,837	(\$28,479,142)	(22.1)	33
Specialty Food Stores (NAICS 4452)	\$1,352,925	\$302,162	\$1,050,763	63.5	4
Beer, Wine, and Liquor Stores (NAICS 4453)	\$5,962,548	\$7,702,062	(\$1,739,514)	(12.7)	4
Health & Personal Care Stores (NAICS 446/NAICS 4461)	\$25,238,735	\$9,235,875	\$16,002,860	46.4	9
Gasoline Stations (NAICS 447/NAICS 4471)	\$41,640,029	\$7,131,201	\$34,508,828	70.8	2
Clothing and Clothing Accessories Stores (NAICS 448)	\$18,236,242	\$6,118,053	\$12,118,189	49.8	27
Clothing Stores (NAICS 4481)	\$14,272,550	\$3,648,392	\$10,624,158	59.3	23
Shoe Stores (NAICS 4482)	\$3,249,573	\$2,272,192	\$977,381	17.7	2
Jewelry, Luggage, and Leather Goods Stores (NAICS 4483)	\$724,119	\$197,469	\$526,650	57.1	2
Sporting Goods, Hobby, Book, and Music Stores (NAICS 451)	\$8,414,300	\$2,622,985	\$5,791,315	52.5	14
Sporting Goods/Hobby/Musical Instrument Stores (NAICS 4511)	\$6,483,010	\$1,496,117	\$4,986,893	62.5	9
Book, Periodical, and Music Stores (NAICS 4512)	\$1,931,290	\$1,126,868	\$804,422	26.3	5
General Merchandise Stores (NAICS 452)	\$69,166,890	\$1,803,441	\$67,363,449	94.9	5
Department Stores Excluding Leased Depts. (NAICS 4521)	\$28,886,815	\$1,157,209	\$27,729,606	92.3	1
Other General Merchandise Stores (NAICS 4529)	\$40,280,075	\$646,232	\$39,633,843	96.8	4
Miscellaneous Store Retailers (NAICS 453)	\$8,311,874	\$6,677,408	\$1,634,466	10.9	54
Florists (NAICS 4531)	\$427,848	\$982,862	(\$555,014)	(39.3)	8
Office Supplies, Stationery, and Gift Stores (NAICS 4532)	\$1,644,433	\$801,558	\$842,875	34.5	7
Used Merchandise Stores (NAICS 4533)	\$1,332,103	\$1,470,298	(\$138,195)	(4.9)	12
Other Miscellaneous Store Retailers (NAICS 4539)	\$4,907,490	\$3,422,690	\$1,484,800	17.8	27
Nonstore Retailers (NAICS 454)	\$34,775,392	\$4,598,016	\$30,177,376	76.6	17
Electronic Shopping and Mail-Order Houses (NAICS 4541)	\$30,688,888	\$2,359,189	\$28,329,699	85.7	2
Vending Machine Operators (NAICS 4542)	\$1,063,178	\$945,047	\$118,131	5.9	3
Direct Selling Establishments (NAICS 4543)	\$3,023,326	\$1,293,780	\$1,729,546	40.1	12
Food Services & Drinking Places (NAICS 722)	\$39,260,277	\$26,914,897	\$12,345,380	18.7	47
Full-Service Restaurants (NAICS 7221)	\$16,167,836	\$6,553,842	\$9,613,994	42.3	17
Limited-Service Eating Places (NAICS 7221)	\$20,157,650	\$8,258,703	\$11,898,947	42.5	12
Special Food Services (NAICS 7222)	\$20,137,030	\$8,856,090	(\$7,516,528)	(73.7)	7
Drinking Places - Alcoholic Beverages (NAICS 7224)	\$1,595,229	\$3,246,262	(\$1,651,033)	(73.7)	11
Note: All figures quoted in 2013 dollars. Supply (retail sales) estimates					

Note: All figures quoted in 2013 dollars. Supply (retail sales) estimates sales to consumers by establishments, sales to businesses are excluded. Demand (retail potential) estimates the expected amount spent by consumers at a retail establishment. Leakage/Surplus factor measures the relationship between supply and demand and ranges from +100 (total leakage) to -100 (total surplus). A positive value represents "leakage" of retail opportunity outside the trade area. A negative value represents a surplus of retail sales, a market where customers are drawn in from outside the trade area.

Sources: ESRI; Maxfield Research Inc.

- West Broadway Avenue/Penn Avenue
- Lowry Avenue/Penn Avenue

The following nodes can be characterized as having the following current focus with the potential to expand this focus as a strategy for strengthening the node from a commercial standpoint.

- Penn Avenue/-Plymouth Avenue Health Services
- West Broadway Avenue/Penn Avenue Central commercial district
- Lowry Avenue/Penn Avenue Neighborhood retail
- 44th Avenue/Penn Avenue Neighborhood services
- Humboldt Industrial Area Jobs concentration

Penn Avenue and Plymouth Avenue

NorthPoint Expansion Plans

NorthPoint Health & Wellness Center is the largest employer at this node and one of the largest employers in the Penn Avenue corridor. NorthPoint is proposing an expansion of its facilities to accommodate its growing business, and will be hiring additional staff as well as adding to its footprint. In order to accommodate increased traffic to the additional social services and clinic space, a structured parking facility is proposed for the site just north of the Urban League, which sits on the northeast quadrant of the Penn-Plymouth intersection. NorthPoint currently employs about 400 workers at their current location and pays living wages.

Health care and social services staff at NorthPoint currently lack food options for before work, lunch, and breaks. Staff has frequently identified the need for additional restaurants and/or take-out food/beverage options in the vicinity of the clinic. In addition to NorthPoint staff, patient and clients would also take advantage of these types of offerings at this location.

Other Employers and Development Projects

The University of Minnesota's Urban Research and Outreach Engagement Center, at Penn and Plymouth, could also take advantage of additional food options at this location.

Praxis Marketplace, a full-service grocer, has been granted exclusive development rights until December 31, 2014 by the City of Minneapolis for its property on the southeast quadrant of the Penn/Plymouth intersection. Praxis is seeking federal immigration EB5 funding in its innovative approach to bring healthy foods to urban food deserts while providing over 100 full-time jobs. The project has not secured financing or received any development approvals.

The expansion and new development occurring in this area supports future economic goals for the Penn Avenue Corridor. Finding appropriate solutions to parking challenges for NorthPoint is critical to their ability to effectively serve their customers and to grow their business, which serves many people in the community. The development of Praxis Marketplace will bring needed healthy food options to the corridor and the community at large.

West Broadway Avenue and Penn Avenue

West Broadway Avenue has long been a primary commercial corridor in North Minneapolis. New businesses have recently come to West Broadway including Anytime Fitness and CVS Pharmacy. A mixed-use development is currently being considered closer to Bryant Avenue that would bring upscale multi-family housing and new commercial users. Discussions have also centered on bringing more of an arts and entertainment focus to the area.

Lowry Avenue and Penn Avenue

The south side of of the Lowry/Penn intersection includes businesses such as North End Hardware and Rental, Lowry Cafe, a new used book store, Subway Sandwich, My Wireless, Employment Action Center, Aldi, Family Dollar store, and All Washed Up (laundromat). According to recommendations compiled by Cushman and Wakefield from their retail market analysis for the Lowry corridor, "Lowry Avenue benefitted in recent years from an upgraded streetscape. However, it still struggles due to a low density of commercial activity." Lowry businesses compete with West Broadway Avenue and other Penn Avenue stores, and the area is exporting sales to surrounding communities-Brookdale, Crystal, and Robbinsdale. Cushman and Wakefield's recommendation was to focus on additional commercial development on the north side parcels, increasing commercial activity to create a higher critical mass.

44th Avenue and Penn Avenue

Existing retail and service uses at this intersection have created a moderately strong commercial node. Residential values in the surrounding neighborhood are generally stable. This node could benefit from marketing enhancements to increase consumer awareness of the business and retail options that are available here. Future strategies should take into consideration the existing mix and how to support existing businesses that are stable.

Humboldt Industrial Area

The Humboldt Industrial Area presents an opportunity to build on the existing employment center at this location and increase living wage jobs in the corridor.

We will provide additional critical analysis for nodes that have greater challenges, developing creative strategies to build on their current strengths, such as concentration of neighborhood services or concentration of jobs, to improve the quality and amount of development for each node.

BUSINESS INVENTORY

Table 7-2 presents a summary of the business inventory in North Minneapolis by neighborhood. This information is from Hoover's Business Survey. Please note that Bryn Mawr was inadvertently excluded from this data.

There are 5,791 registered businesses in the north side of Minneapolis with a total of 14,548 employees. Six neighborhoods all of which abut the Penn Avenue corridor, account for just over two-thirds (67 percent) of the total employment base in the north side, including Near North (3,451), Hawthorne (2,087), Willard Hay (1,111), Harrison (1,170), Jordan (1,109) and Webber-Camden (1,001).

The average length of time these establishments have been in business is about 14 years (2000). The businesses have an average employment size of 8 workers. However, the Humboldt Industrial Area and the Camden Industrial Area have averages of 29 and 19 workers, respectively. The Near North neighborhood has an average of 11 workers.

Information on the principal streets was also inventoried. The principal east-west streets as well as Penn Avenue have a total of 307 registered businesses and a total of 2,072 employees. The average employment size on these streets is seven employees, although Highway 55 has 12 and Glenwood Avenue has 10.

The major North American Industrial Classification System or NAICS codes were analyzed to determine the principal types of businesses found in each of the neighborhoods. Industry sectors that had a higher proportion of businesses included construction, retail trade, professional and technical services, education, health services, administrative support, food service, and other services. The industrial areas had higher proportions of manufacturing jobs within those areas.

This information is useful in identifying business dynamics at each of the nodes and in developing employment growth and business development strategies.

TABLE 7-2: BUSINESS ESTABLISHMENT BY NEIGHBORHOOD

Geographic Area	Total Establishments	Total Employment	Avg. Employment Size	Avg. Year Founded	Principle NAICS Codes	Principle NAICS Codes Descriptions
Neighborhood						
Camden Industrial Area	38	708	19	1995	581,735,753	Eating Places, Manufacturing, Warehousing
Cleveland	81	142	2	2005	54,56,62,72,81	Prof/Tech Services, Adm., Food Service, Other Serv.
Folwell	99	289	3	2000	23,54,56,62,81	Const., Prof/Tech, Adm, Health Care, Other Serv.
Harrison	153	1,170	8	1996	44,55,56,61,81	Eating Places, Retail Trade, Adm. Ser. Other Serv.
Hawthorne	228	2,087	9	2004	23,59,85,86	Const., Other Services
Humboldt Industrial Area	21	616	29	1998	33,42	Manufacturing, Wholesale Trade
Jordan	195	1,109	6	2000	23,56,62,81	Const., Adm, Health Care/Social, Other Serv.
Lind-Bohanon	117	593	5	2003	23,54,56,62,81	Const., Prof/Tech, Adm, Health Care, Other Serv.
McKinley	87	474	5	2001	23,44,54,56,81	Const. Retail, Prof/Tech, Adm. Other Serv.
Near North	316	3,451	11	1996	33,56,61,62,81	Const. Admin. Serv., Educ., Health Services
Shingle Creek	78	278	4	2005	54,56,62	Prof/Tech Servi., Adm. Health Care
Sumner Glenwood	169	958	6	2000	42,53,54,56,71	Wholesale Trade, Real Estate, Prof/Tech, Arts
Victory	181	561	3	2005	15,72,73,86,87,89	Accomm/Food Service, Other Services
Webber-Camden	167	1,001	6	2002	59,73,76,79	Adm. Support, Food Services
Willard-Hay	254	1,111	4	2000	44,51,54,56,71,81	Retail, Infor, Prof/Tech, Adm., Arts/Ent. Other Serv.
Street						
Penn Avenue	89	604	7	2005	44,45,56,62,81	Retail Trade, Adm. Support, Health Care, Other Serv.
West Broadway Avenue	36	271	8	1999	44,56,61,72,81	Retail Trade, Adm. Support, Education, Food, Other
Glenwood Avenue	57	428	8	1996	54,61,62,81	Prof/Tech, Education, Health Services, Other Serv.
44th Avenue North	35	338	10	2001	54,62,72,81	Prof/Tech, Health Services, Food Services, Other Ser.
Plymouth Avenue	20	77	4	1986	44,56,61	Retail Trade, Adm. Support, Education
Golden Valley Road	11	87	8	2001	23,53,81	Real Estate, Building Services, Health Services
Highway 55	13	154	12	2002	61, 62	Education, Child Care
Lowry Avenue	43	103	2	1999	62, 81	Health Care, Auto-Related
Dowling Avenue	3	10	3	1974	56,45	Florist, Landscape Services
Note: Bryn Mawr Neig	ghborhood was exclu	ided from this da	ita.			

ENVIRONMENTAL SCREENING

An initial screening of resources from the surrounding natural and built environment was completed to identify major issues and potential impacts that may be associated with the Penn Avenue corridor. The limits of this screening consist of an approximately 1/2-mile wide buffer along Penn Avenue from I-394 to 44th Avenue. North of 44th Avenue, the corridor follows Osseo Road to the northern study limit terminus at 49th Avenue. The environmental screening study area is shown in Figure 7-6.

While the presence of issues identified in this scan may require additional review and mitigation efforts, they do not preclude the viability of future projects along the Penn Avenue corridor. Of note, this review focused on issues that may require future coordination and permitting with local, state, and federal agencies.

WILDLIFE AND VEGETATION

Section 7 of the Endangered Species Act (ESA) of 1973 (16 USC 1531-1544) requires that all federal agencies consider and avoid, if possible, adverse impacts to federally listed threatened or endangered species or their critical habitats, which may result from their direct, regulatory, or funding actions. Information from the U.S. Fish and Wildlife Service indicates that there are three known threatened or endangered species occurring within Hennepin County, including the Higgins eye pearlymussel (endangered), snuffbox mussel (endangered), and the northern long-eared bat (proposed endangered).

The Penn Avenue corridor is located approximately 1.5 miles from the Mississippi River; therefore, it is unlikely that any critical habitat of the mussel species would be affected. The Penn Avenue corridor is located in an area that has been previously disturbed or developed with impervious surfaces and buildings; therefore, it is unlikely that the corridor contains any critical habitat (e.g., wooded areas, caves, or mines) for the northern long-eared bat. Additional coordination and review with Minnesota Department of Transportation's (MNDOT) Office of Environmental Stewardship would be required to confirm a Section 7 determination of no effect as part of future environmental documentation.

A review of the Minnesota County Biological Survey (MCBS) map for Hennepin County does not indicate the presence of rare species within the study area. There is one area of biodiversity significance located just to the west of the study area within Theodore Wirth Park (Figure 7-7).

Additionally, according to data from the Minnesota Department of Natural Resources (DNR), there are no Regionally Significant Ecological Areas within the study area. A more detailed DNR National Heritage data review for known locations of state-listed rare plants, animals, native plant communities, and other rare features would likely be required as part of future environmental documentation.

WATER RESOURCES

Wetlands

Wetlands are federally protected through Section 404 and 401 of the Clean Water Act, with the exception of those that are isolated hydrologically on the landscape. Section 404 of the Clean Water Act requires a permit from the United States Army Corps of Engineers prior to the placement of any dredged or fill material into any waters of the United States, including wetlands. In Minnesota, wetland protection is augmented through the Minnesota Wetland Conservation Act (WCA), except where specific exemptions apply.

As shown in Figure 7-7, there are several NWI-mapped wetlands within the northern portion of the study area. Three NWI-mapped wetland areas associated with Bassett Creek are

Key Terminology:

Section 7 of the Endangered Species Act requires consideration of a project's impacts to federally listed threatened and endangered species and their habitats.

Biodiversity significance is based on the presence of rare species populations, the size and condition of native plant communities within the site, and the landscape context of the site.

Section 404 and 401 of the Clean Water Act regulate the discharge of fill material into waters of the United States, including wetlands.

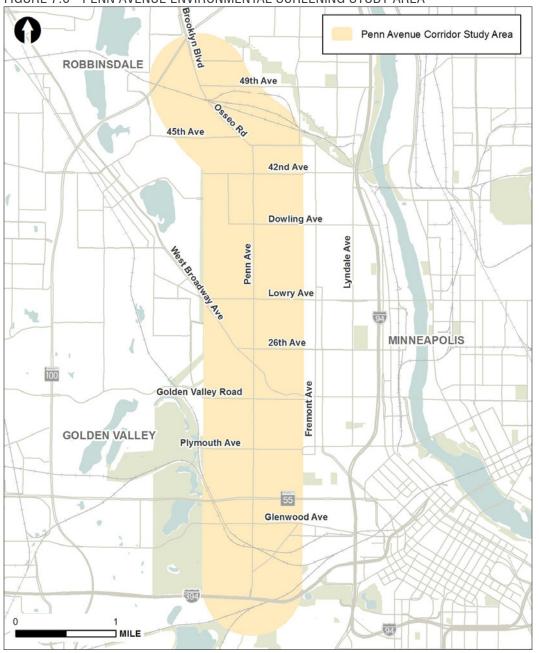


FIGURE 7.6 - PENN AVENUE ENVIRONMENTAL SCREENING STUDY AREA

located in the southern portion of the study area. None of these wetland areas are located within the right-of-way of Penn Avenue or directly adjacent to the Penn Avenue corridor.

More detailed evaluation of wetlands for future environmental documentation would include identification of wetland type, field verification, and discussion of mitigation measures for any impacted wetlands. A Wetland Conservation Act/Section 404 Army Corps Joint Permit Application would be obtained if necessary. The Penn Avenue project corridor is located within the boundaries of the Basset Creek Watershed Management Organization (WMO), the Middle Mississippi WMO, and the Shingle Creek WMO.

DNR Public Waters

One of the NWI wetlands identified in the study area is also a DNR-Protected Water Wetlands, requiring DNR Public Waters Work Permit for proposed impacts below the Ordinary High Water Level (OHWL). This is the public water basin associated with Ryan Lake (DNR Public Water #648P) located in the northern portion of the study area.

Key Terminology:

Ordinary High Water Level (OHWL): Elevation of the highest water level that has been maintained for a sufficient period of time to leave evidence upon the landscape. Commonly the point where vegetation changes from aquatic to terrestrial.

Key Terminology:

100-year and 500-year floodplain boundaries: A 100year flood has a 1% chance of happening in any given year. A 500-year flood has a 0.2% chance of happening in any year.

Wellhead Protection Area

(WHPA): A defined area designated to prevent drinking water from becoming polluted by managing potential sources of contamination in the area which supplies water to a public well.

Drinking Water Supply

Management Area: A defined surface and subsurface area surrounding a public water supply well that completely contains the Wellhead Protection Area.

Section 4(f) of the Department of Transportation

Act of 1966 requires consideration of a project's impacts to publicly owned parks, recreation areas, historic sites, wildlife, and/or waterfowl refuges.

Floodplains

The 100-year and 500-year floodplain boundaries for many water bodies are established via the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) program. The Penn Avenue corridor crosses the FEMA-mapped 100-year floodplain of Basset Creek just south of Glenwood Avenue. The Penn Avenue corridor is also within 1/2-mile of a FEMA-mapped 100-year floodplain associated with Ryan Lake (near the northern study limits). The FEMA mapped 100-year floodplain areas associated with Basset Creek and Ryan Lake are shown in Figure 7-7.

If necessary, further floodplain assessment would be completed as part of future environmental documentation, including coordination with the Minnesota DNR and local WMOs.

Drinking Water

A Wellhead Protection Area (WHPA) is the recharge area to a public well and is the area managed by the public water supplier, as identified in the wellhead protection plan. Wellhead protection is a way to prevent drinking water from becoming polluted by managing potential sources of contamination in the area which supplies water to a public well. Wellhead Protection Areas typically have additional regulatory requirements to protect wells. Wellhead protection planning is administered by the Minnesota Department of Health.

A Drinking Water Supply Management Area (DWSMA) is the Minnesota Department of Health approved surface and subsurface area surrounding a public water supply well that completely contains the scientifically calculated wellhead protection area and is managed by the entity identified in a wellhead protection plan.

As shown in Figure 7-7, the central portion of the study area is located within a Wellhead Protection Area (WHPA) and a DWSMA.

PARKS, RECREATION AREAS, AND WILDLIFE REFUGES

Section 4(f)

The Section 4(f) legislation, as established under the Department of Transportation Act of 1966 (40 USC 303, 23 USC 138), provides protection for publicly owned parks, recreation areas, historic sites, wildlife, and/or waterfowl refuges from conversion to transportation use. Conversion to transportation uses is not allowed unless all prudent and feasible alternatives to the Section 4(f) use and all possible planning activities to minimize harm have been considered.

Table 7-3 provides a list of Section 4(f) resources that are located within a 1/2-mile buffer of the Penn Avenue corridor from I-394 to 49th Avenue North. Additional information such as ownership, location, and facilities is also provided in Table 7-3. Parks, trails, and other potential Section 4(f) resources are identified in Figure 7-7. There are a total of 26 parks, recreation areas, and trails located within the study area, including neighborhood parks, city parks, local trails, regional trails, a cemetery, and school playfields. Many of the park and trail resources in the study area are owned by the Minneapolis Park and Recreation Board (MPRB).

lame of Resource Ownership		Location	Uses/Facilities Description		
Happy Hollow Park	City of Brooklyn Center	West of Osseo Road between Highway 100 and 50th Avenue North	Playground, baseball field		
Victory Memorial Parkway	MPRB	From Theodore Wirth Parkway to 45th Avenue North then east to Lyndale Avenue North	2.8 mile parkway, WW I monument, part of Grand Rounds Scenic Byway		
Victory Park	MPRB	Upton Avenue North and 44th Avenue North	Playground, totlot, wading pool, picnic facilities, tennis court, basketball court.		
Washburn-McReavy Cemetery	Private	East of Penn Avenue between 42nd and Dowling Avenues	Cemetery, trails, cemetery buildings		
Folwell Park	MPRB	Knox Avenue North and 36th Avenue North	Recreation center, walking paths, picnic facilities, playground		
Cleveland Park	MPRB	Queen Avenue and 33rd Avenue North	Baseball/softball field, basketball court, picnic area, playground, wading pool		
Jordan Park	MPRB	Irving Avenue North and 29th Avenue North	Playground, family picnic area, benches, horseshoe pits		
Theodore Wirth Parkway	MPRB	From I-394 north to Lowry Avenue	3.5 mile parkway, part of the Grand Rounds National Scenic Byway		
Memorial Parkway Regional Trail	MPRB	Trail runs along Theodore Wirth Parkway and Victory Memorial Parkway	Regional trail, part of the Grand Rounds National Scenic Byway		
Glen Gale Park	MPRB	Irving and 23rd Avenue North	Playground, open play field, and horseshoe pit		
Cottage Park	MPRB	James and Ilion Avenues	Picnic area, playground, garden areas		
North Commons Park	MPRB	James Avenue North and 16th Avenue North	Baseball field, basketball court, picnic area, playground, soccer field, tennis court, swimming and wading pools		
Willard Park	MPRB	Queen Avenue North and 17th Avenue North	Basketball court, picnic area, playground, wading pool		
Farwell Park	MPRB	Sheridan Avenue North and Farwell Place	Picnic area, playground, playfield		
Lincoln Junior High School Playfields	Minneapolis Board of Education	West of Penn Avenue between 12th and Oak Park Avenues	Football Field		
Lovell Square	MPRB	Irving and 10th Avenue North	Walking path, picnic area, totlot playground		
Barnes Place	MPRB	Elwood and 8th Avenue North	Green space		
Theodore Wirth Park	MPRB	Between France Avenue and Xerxes Avenue from I-394 to Golden Valley Road	Fishing pier, boat launch, swimming beach, floating boardwalk, volleyball courts, basketball court, tennis court, playground, picnic facilities, indoor picnic pavilion, restrooms, snowboard park, Swiss chalet-style clubhouse, 18-hole and par- three golf courses, 18-hole disc golf course. J.D. Rivers' Children's Garden, Eloise Butler Wildflower Garden and Bird Sanctuary, the Quaking Bog, and Birch Pond, part of the Grand Rounds National Scenic Byway		
Luce Line Extension Trail	MPRB	Trail runs east from Theodore Wirth Parkway along the north side of TH 55 then passes under TH 55 and travels through Bassett's Creek Valley Park	Paved trail, connects with the Cedar Lake Trail to downtown Minneapolis		

TABLE 7-3: SECTION 4(F) RESOURCES

Name of Resource	Resource Ownership	Location	Uses/Facilities Description	
Bassett's Creek Park	MPRB	Valley of Bassett's Creek from Theodore Wirth Park to Morgan Avenue North	Tennis courts, volley ball court, baseball/softball fields, soccer fields, playground, Bassets Creek	
Bassett's Creek Trail	Three Rivers Park District	Through Theodore Wirth Park and Bassets Creek Park to I-394	Paved trail	
Bryn Mawr Meadows	MPRB	Morgan Avenue and Wayzata Boulevard	Sports complex, baseball fields, picnic area, wading pool	
Cedar Lake Park	MPRB	Cedar Lake Parkway and Basswood Road	Beaches, fishing dock, canoe launch, canoe/kayak rental, paths; part of the Grand Rounds National Scenic Byway	
Cedar Lake Regional Trail	Three Rivers Park District	Runs along former railroad lines from downtown Minneapolis to Hopkins	Paved trail	
Kenwood Park	MPRB	Logan Avenue South and Mt. Curve Boulevard	Playground, tennis courts, baseball fields, picnic facilities	
Kenilworth Trail	HCRRA	Trail connection between Cedar Lake Trail and Midtown Greenway	Paved trail	

TABLE 7.-3: SECTION 4(F) RESOURCES (CONTINUED)

Key Terminology:

Section 6(f) of the Land and Water Conservation Fund Act of 1965 protects outdoor recreation properties planned, developed, or improved with funds from the Land and Water Conservation Fund. These properties cannot be converted to other uses unless replacement land of equal fair market value and equivalent usefulness is provided. There are also many vacant properties located along the Penn Avenue corridor that are owned by the City of Minneapolis. If these properties are used for park, trail, or other recreational purposes in the future, these properties may qualify as Section 4(f) resources.

Potential impacts to Section 4(f) properties would need to be further evaluated during future environmental documentation depending upon the type of work and construction limits of any future projects. The use of any Section 4(f) resource would require further evaluation. The extent of the use will determine the appropriate Section 4(f) evaluation process.

Section 6(f)

Section 6(f) of the Land and Water Conservation Act of 1965 protects outdoor recreation properties planned, developed, or improved with funds from the Land and Water Conservation Fund (LAWCON). These properties cannot be converted to other uses unless replacement land of equal fair market value and equivalent usefulness is provided.

According to data from the Minnesota DNR, the following six resources identified in Figure 7-7 were funded through the LAWCON program: Victory Memorial Parkway, Jordan Park, North Commons Park, Willard Park, Bryn Mawr Meadows, and Kenwood Park. These properties are subject to Section 6(f) considerations.



FIGURE 7.7 - ENVIRONMENTAL SCREENING ISSUES MAP

POTENTIALLY CONTAMINATED SITES

The presence of potentially contaminated properties (defined as properties where soil and/or groundwater is impacted with pollutants, contaminants, or hazardous wastes) is a concern in the development of roadway projects because of potential liabilities associated with ownership of such properties, potential cleanup costs, and safety concerns associated with construction personnel encountering unsuspected wastes or contaminated soil or groundwater.

A Limited Phase I Environmental Site Assessment (Phase I ESA) for the Penn Avenue corridor was completed by Carlson McCain on behalf of Hennepin County on November 8, 2013. Potentially contaminated properties were identified through review of historic land use records and aerial photographs, federal Environmental Protection Agency (EPA), MPCA, and county/city records, as well as through reconnaissance of current property conditions. Sites of potential concern identified by the Phase I ESA were categorized into Low, Medium, and High Potential for contamination.

Parcels with Low Potential for contamination are defined as hazardous waste generators that are not related to vehicle repair activities and possibly some farmsteads and residences. Low Potential sites also include closed spill sites (SPILLS) if relatively small quantities of products were released and/or cleanup actions were noted as adequately addressing the release. The Phase I ESA identified 133 parcels with a Low Potential for contamination within the corridor.

Parcels with a Medium Potential for contamination include all closed leaking underground storage tank (LUST) sites, all parcels with underground storage tanks (USTs) or above ground storage tanks (ASTs) and all parcels with historic vehicle repair activities. The Phase I ESA identified 50 parcels with Medium Potential for contamination within the corridor.

Parcels with High Potential for contamination include active and inactive Minnesota Pollution Control Agency (MPCA) Voluntary Investigation and Cleanup (VIC) and Minnesota Environmental Response and Liability Act (MERLA) sites, active and inactive dump sites, active MPCA LUST sites and historic industrial sites with likely chemical use on the premises. The Phase I ESA identified 61 parcels with High Potential for contamination within the corridor.

Sites with Low, Medium, and High Potential for contamination are identified in Figures 7-8(a) though 7-8(e).

Potentially contaminated properties identified in the Phase I ESA would be evaluated in future environmental documentation for their potential to be impacted by construction and/ or acquired as right-of-way. Any properties with a potential to be impacted by the project will be drilled and sampled, if necessary, to determine the extent and magnitude of the contaminated soil and groundwater within the construction zone. The results of the drilling investigation will be used to determine if the contaminated materials can be avoided and/ or minimized. If necessary, a plan would be developed for properly handling and treating contaminated soil and/or groundwater during construction.

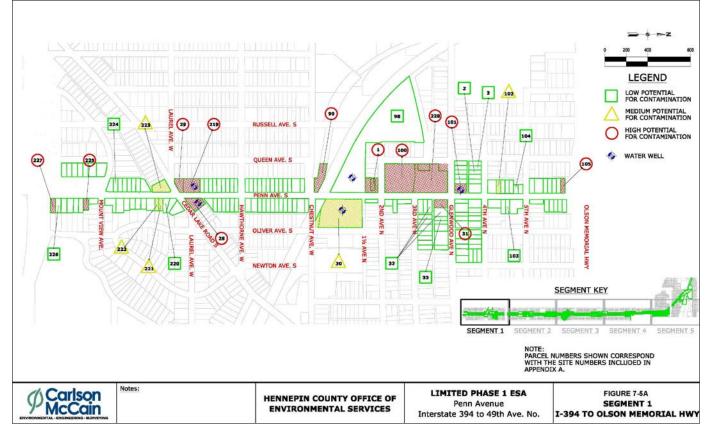


FIGURE 7.8(A) - LIMITED PHASE 1 ESA - POTENTIALLY CONTAMINATED SITES (SEGMENT 1)

FIGURE 7.8(B) - LIMITED PHASE 1 ESA - POTENTIALLY CONTAMINATED SITES (SEGMENT 2)

