



Appendix A

List of Recipients



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Appendix A

List of Recipients

The following is a list of agencies, organizations, and persons to whom electronic copies of the Final Environmental Impact Statement (Final EIS) were sent. Copies of the Final EIS were sent to other interested businesses, individuals, and organizations as requested.

Federal Agencies

Advisory Council on Historic Preservation
National Park Service
Surface Transportation Board
United States Army Corps of Engineers
United States Department of Agriculture
United States Department of Commerce
United States Department of Energy
United States Department of Homeland Security, Federal Emergency Management Agency
United States Department of Housing and Urban Development
United States Department of the Interior, Office of Environmental Policy and Compliance
United States Environmental Protection Agency
United States Federal Aviation Administration
United States Federal Highway Administration
United States Federal Railroad Administration
United States Federal Transit Administration
United States Fish and Wildlife Service

United States Legislators

Honorable Al Franken, US Senator
Honorable Amy Klobuchar, US Senator
Honorable Erik Paulsen, US Representative (District 3)
Honorable Keith Ellison, US Representative (District 5)



Federal Agencies – Regional Offices

United States Army Corps of Engineers, St. Paul District

United States Department of Housing and Urban Development, Region V

United States Environmental Protection Agency, Region V

United States Federal Aviation Administration, Great Lakes Regional Office and Minneapolis
Airports District Office

United States Federal Highway Administration, Minnesota Division

United States Federal Railroad Administration, Region IV

United States Federal Transit Administration, Region V

Tribes

Flandreau Santee Sioux

Lower Sioux Indian Community Council

Mille Lacs Band of Ojibwe

Prairie Island Indian Community

Santee Sioux Nation

Shakopee Mdewakanton Sioux Community

Sisseton-Wahpeton

Sisseton-Wahpeton Oyate

Spirit Lake Nation

Turtle Mountain

Upper Sioux Indian Community

State Agencies

Minnesota Board of Water and Soil Resources

Minnesota Department of Agriculture

Minnesota Department of Commerce

Minnesota Department of Health

Minnesota Department of Natural Resources

Minnesota Department of Public Safety

Minnesota Department of Transportation

Minnesota Environmental Quality Board

Minnesota Historical Society

Minnesota Indian Affairs Council

Minnesota Office of the State Archaeologist

Minnesota Pollution Control Agency

Minnesota State Historic Preservation Office



Governor and State Legislators

Honorable Mark Dayton, Governor, State of Minnesota

Honorable John A. Hoffman, Minnesota State Senator (District 36)

Honorable Chris A. Eaton, Minnesota State Senator (District 40)

Honorable Ann H. Rest, Minnesota State Senator (District 45)

Honorable Bobby Joe Champion, Minnesota State Senator (District 59)

Honorable Melissa Hortman, Minnesota State Representative (District 36B)

Honorable Michael V. Nelson, Minnesota State Representative (District 40A)

Honorable Lyndon Carlson, Sr., Minnesota State Representative (District 45A)

Honorable Mike Freiberg, Minnesota State Representative (District 45B)

Honorable Raymond Dehn, Minnesota State Representative (District 59B)

Local Elected Officials

Honorable Mike Opat, Hennepin County Commissioner (District 1)

Honorable Linda Higgins, Hennepin County Commissioner (District 2)

Honorable Marion Greene, Hennepin County Commissioner (District 3)

Honorable Peter McLaughlin, Hennepin County Commissioner (District 4)

Honorable Randy Johnson, Hennepin County Commissioner (District 5)

Honorable Jan Callison, Hennepin County Commissioner (District 6, Chair)

Honorable Jeff Johnson, Hennepin County Commissioner (District 7)

Honorable Jeffrey Lunde, Mayor, City of Brooklyn Park

Honorable Peter Crema, Council Member, City of Brooklyn Park (East District)

Honorable Rich Gates, Council Member, City of Brooklyn Park (Central District)

Honorable John Jordan, Council Member, City of Brooklyn Park (West District)

Honorable Bob Mata, Council Member, City of Brooklyn Park (West District)

Honorable Terry Parks, Council Member, City of Brooklyn Park (East District)

Honorable Mike Trepanier, Council Member, City of Brooklyn Park (Central District)

Honorable Jim Adams, Mayor, City of Crystal

Honorable Laura Libby, Council Member, City of Crystal (Section I, Wards 1 and 2)

Honorable Olga Parsons, Council Member, City of Crystal (Section II, Wards 1 and 2)

Honorable Elizabeth Dahl, Council Member, City of Crystal (Ward 1)

Honorable Jeff Kolb, Council Member, City of Crystal (Ward 2)

Honorable Casey Peak, Council Member, City of Crystal (Ward 3)

Honorable Julie Deshler, Council Member, City of Crystal (Ward 4)

Honorable Shep Harris, Mayor, City of Golden Valley

Honorable Joanie Clausen, Council Member, City of Golden Valley

Honorable Larry Fonest, Council Member, City of Golden Valley

Honorable Steve Schmidgall, Council Member, City of Golden Valley

Honorable Andy Snope, Council Member, City of Golden Valley



Honorable Mark Steffenson, Mayor, City of Maple Grove

Honorable Betsy Hodges, Mayor, City of Minneapolis

Honorable Kevin Reich, Council Member, City of Minneapolis (Ward 1)

Honorable Cam Gordon, Council Member, City of Minneapolis (Ward 2)

Honorable Jacob Frey, Council Member, City of Minneapolis (Ward 3)

Honorable Barbara Johnson, Council President, City of Minneapolis (Ward 4)

Honorable Blong Yang, Council Member, City of Minneapolis (Ward 5)

Honorable Abdi Warsame, Council Member, City of Minneapolis (Ward 6)

Honorable Lisa Goodman, Council Member, City of Minneapolis (Ward 7)

Honorable Elizabeth Glidden, Council Member, City of Minneapolis (Ward 8)

Honorable Alondra Cano, Council Member, City of Minneapolis (Ward 9)

Honorable Lisa Bender, Council Member, City of Minneapolis (Ward 10)

Honorable John Quincy, Council Member, City of Minneapolis (Ward 11)

Honorable Andrew Johnson, Council Member, City of Minneapolis (Ward 12)

Honorable Linea Palmisano, Council Member, City of Minneapolis (Ward 13)

Honorable Kathi Hemken, Mayor, City of New Hope

Honorable Duane Poppe, Mayor, City of Osseo

Honorable Regan Murphy, Mayor, City of Robbinsdale

Honorable Bill Blonigan, Council Member, City of Robbinsdale (Ward 1)

Honorable Dan Rogan, Council Member, City of Robbinsdale (Ward 2)

Honorable George Selman, Council Member, City of Robbinsdale (Ward 3)

Honorable Pat Backen, Council Member, City of Robbinsdale (Ward 4)

County Agencies

Hennepin County

Hennepin Conservation District

Hennepin County, Department of Energy and Environment

Hennepin County, Department of Housing, Transit, and Community Works

Hennepin County, Department of Policy, Planning and Land Management

Hennepin County, Department of Transportation

Hennepin County Regional Railroad Authority



Municipalities

City of Brooklyn Park
City of Crystal
City of Golden Valley
City of Maple Grove
City of Minneapolis
City of New Hope
City of Osseo
City of Robbinsdale

Local and Regional Agencies

Bassett Creek Watershed Management Commission
Maple Grove Transit
Metropolitan Airports Commission (MAC)
Metropolitan Council/Metro Transit
Minneapolis Heritage Preservation Commission
Minneapolis Park and Recreation Board
Minneapolis Regional Chamber of Commerce
Mississippi Watershed Management Organization
Shingle Creek and West Mississippi Watershed Management Commission
Three Rivers Park District

Libraries

Brookdale Library
Brooklyn Park Library
Golden Valley Library
Hennepin County Library – Minneapolis Central
Maple Grove Library
Metropolitan Council Library
Minnesota Department of Transportation Library
North Regional Library
Osseo Library
Rockford Road Library
Sumner Library
Legislative Reference Library



Other

BNSF Railway

Canadian Pacific Railway

BLRT Extension Project Committees

BLRT Extension project – Corridor Management Committee

BLRT Extension project – Business Advisory Committee

BLRT Extension project – Community Advisory Committee

BLRT Extension project – Technical Project Advisory Committee



Appendix B

List of Preparers



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Appendix B

List of Preparers

Public Agencies

Federal Transit Administration

Region V Office, Chicago, IL

Marisol Simón
 Reginald Arkell, AICP
 Kathryn Loster

Office of Environmental Programs, Washington, DC

Maya Sarna

Metropolitan Council – BLRT Extension Project Office

Name	Degree	Role
Dan Soler, PE	BS, Civil Engineering	Project Director
MarySue Abel, PE	MS, Civil Engineering	Deputy Project Director
Kathryn O'Brien	BS, Speech MUP, Urban Planning	Assistant Director, Environmental and Agreements
Robin Cauffman	BS Environmental Studies MURP, Urban and Regional Planning	Assistant Director for Administration, Communication and Outreach
Sam O'Connell, AICP	BS, Geography	Manager, Public Involvement
Nick Landwer, PE	BS, Civil Engineering	Director, Transit Systems Design and Engineering
Alicia Vap	MUP, Urban Planning	Assistant Director, Land Use/ Stations/OMF
Jim Toulouse	BS, Civil & Environmental Engineering	Manager, Engineering
Kathryn Hansen	BS, Urban Land Economics MS, Real Estate Appraisal and Investment Analysis	Manager, TOD
Josh Haider	BS, Construction Management AAS, Construction Technology AAS, Architectural Drafting & Estimating Tech.	Manager, Project Controls
Judith Phillips	BA, Political Science MA, Organizational Communication	Manager, Project Offices
Caroline Miller	BA, Anthropology (Archaeology) MURP, Urban and Regional Planning	Environmental Specialist
Ella Rasp	BA, Urban Studies (Urban Infrastructure and Environment) – in progress	Environmental Intern



Minnesota Department of Transportation

Name	Degree	Role
Ryan Wilson	BS, Civil Engineering MS, Civil Engineering MURP, Urban and Regional Planning	Railroad Coordination Manager
Lee Williams	—	ROW/Permits Manager
James DeLuca	BS, Geology MS, Geology	Environmental Mitigation Specialist
Greg Mathis	BA, Geography MCRP, Community and Regional Planning	Cultural Resources Lead

Hennepin County

Name	Degree	Role
Brent Rusco	BS, Civil Engineering MA, Organizational Leadership	Senior Project Manager
Chad Ellos	BS, Civil Engineering	Project Manager

Final Environmental Impact Statement Consultants

Name	Degree	Contribution to Final EIS
HDR, Inc.		
Scott Reed, PG	BS, Geology MBA, Environmental Mgmt Concentration	Project Manager
Janet Kennison	BA, Environmental Studies MS, Environmental Management	Environmental Task Lead
Kimberly Slaughter	BA, Government/Pre-Law MS, Community and Region Planning	Quality Assurance Manager
Roben Armstrong	BS, Aviation Science MS, Transportation Planning and Management	Purpose and Need; Community and Social Analysis
Tim Burkhardt, AICP	BA, English MPH, Environmental Health	QC and Independent Technical Reviewer
Timothy Casey, INCE	BS, Biology	QC Reviewer
Jessica Dean, PE	BS, Civil Engineering	QC Reviewer
Michael DeRuyter	BS, Natural Resources	Wetlands; Biological Environment
Kelly Farrell	BS, Environmental Sciences/Studies (Natural Resources) BA, Visual and Performing Arts (Music) MBA, Business Administration	Section 4(f)
Steve Granson	BA, Accounting MS, Transportation Planning and Management	Economic Effects; Financial Considerations
Derek Green	BS, Zoology	QC Reviewer
Michael Justin, RPA	BS, Anthropology MS, Anthropology	QC Reviewer



Name	Degree	Contribution to Final EIS
Dax Kuhfuss, PE	BS, Civil Engineering	Independent Technical Reviewer
Cathy P. LaFata, AICP, CTP	BA, Psychology/Mathematics MA, Urban Planning, Transportation, and Environmental Planning	Environmental Justice; Section 6(f); Visual/Aesthetics
Edward J. Liebsch	BA, Earth Science MS, Meteorology	Air Quality
Agata Miszczyk	MGIS, Geographic Information Systems	GIS Technician
Thomas More, AICP	BA, Political Science MA, Urban and Regional Planning	QC Reviewer
Howard Newman, PE	BS Civil Engineering	QC Reviewer
Brandi Popenhagen, PE	BS, Civil Engineering	QC Reviewer
Jeanette Price	BS, Environmental Studies	Visual/Aesthetics
Shelley D. Richards, PE, ENV SP, STP	BS, Civil Engineering MS, Civil Engineering MBA, Business Administration	Draft EIS Comments/QC Reviewer
Hong Spores, CPG	BS, Geology MBA, Business Administration	Geology/Soils/Topography; Hazardous Materials Contamination
Carrie Ulrich	BS, Environmental Studies MS, English	Technical Editor
Ashley Ver Burg	BA, Environmental Studies	Executive Summary; Consultation and Coordination
Jennifer Walter	BA, Anthropology MA, Anthropology	GIS Manager
106 Group		
Jenny Bring	BA, Anthropology – Archaeology Emphasis	Cultural Resources Lead; QA/QC
Nicole Foss	BA, Anthropology MA, Anthropology (Historical Archaeology)	Cultural Resources
Nathan Moe	BA, Urban and Regional Studies	Cultural Resources GIS; Graphics
Kelly Wilder	BS, Ecology and Evolutionary Biology BA, New-Editorial Journalism JD, Law	Cultural Resources Editor
Cross-Spectrum Acoustics Inc.		
Scott Edwards, INCE Member	BSE, Acoustical Engineering and Music	Noise and Vibration
Lance Meister, INCE Member	BS, Civil Engineering	Noise and Vibration
SEH, Inc.		
Lisa Elliott	MA, Urban and Regional Planning	Joint Development
Chris Hiniker, AICP	BA, Geography	Independent Technical Reviewer
Jeffrey Olson, WDCP #1089	BS, Botany MS, Natural Resource Ecology	Wetlands; Aquatic Resources; Threatened and Endangered Species; Biological Environment



Name	Degree	Contribution to Final EIS
Robert Rogers, AICP	BA, Geography MA, Urban and Regional Planning	Section 4(f)
Stonebrooke Engineering Inc.		
Tim Arvidson, PE	BS, Civil Engineering	Utilities
Marc Briese, PE	BS, Civil Engineering MS, Infrastructure Systems Engineering	Vehicular Traffic
Ross Harris, AICP	BS, Community and Regional Planning MS, Business Management	Freight Rail Conditions; Bicyclists and Pedestrians; Parking; Aviation
Wally Marusenko, PE	BS, Civil Engineering MS, Civil Engineering	Utilities

Engineering Consultants

Name	Degree	Role
Kimley-Horn and Associates, Inc.		
Paul Danielson, PE	BS, Civil Engineering	Project Manager
Lisa Rasmussen, PE	BS, Civil Engineering	Civil Engineering Lead
JoNette Kuhnau, PE	BS, Civil Engineering MS, Civil Engineering	Traffic Engineering Lead
Tom Harrington, PLA	BS, Landscape Architecture	Architectural Design Lead
Derek Newbauer, PE	BS, Civil Engineering	Project Engineer
SRF Consulting Group, Inc.		
Lisa Goddard, PE, LEED AP	BS, Civil Engineering	Water Resources



Appendix C

Sources and References Cited



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Appendix C Sources and References Cited

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Hennepin County

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Hennepin County Regional Railroad Authority

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Woodward-Clyde

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January.



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Appendix D

Agency Coordination

The following is a list of agency coordination letters that have been transmitted since the Draft EIS was published in April 2014:

1. Metropolitan Council email to the Federal Aviation Administration seeking concurrence on proposed BLRT Extension project modifications in relation to its encroachment into the Crystal Airport Runway Protection Zone, November 20, 2015
2. Federal Aviation Administration letter to the Metropolitan Council concurring on the proposed BLRT Extension project modifications in relation to its encroachment into the Crystal Airport Runway Protection Zone, December 28, 2015
3. Minnesota Department of Natural Resources letter to the Metropolitan Council concurring on state-listed species that may be in the proposed BLRT Extension project area, February 9, 2016. This letter also includes a Blanding's turtle fact sheet and flyer
4. Federal Transit Administration letter to the US Fish and Wildlife Service seeking concurrence on Section 7 of the Endangered Species Act determinations, March, 7, 2016
5. Federal Transit Administration letter to the US Fish and Wildlife Service submitting the Northern Long-Eared Bat 4(d) Rule Streamlined Consultation Form, May 6, 2016
6. US Fish and Wildlife Service letter to the Federal Transit Administration concurring on Section 7 of the Endangered Species Act determinations, May 16, 2016
7. Federal Transit Administration letter to the US Environmental Protection Agency responding to their Draft EIS comments, June 16, 2016

Agency coordination with the Minnesota State Historic Preservation Office can be found in **Appendix H**.

Agency coordination with the US Army Corps of Engineers and local Wetland Conservation Act jurisdictions can be found in **Appendix I**.

Agency coordination with the Minnesota Department of Natural Resources, the US Department of the Interior, and the National Park Service regarding Section 6(f) can be found in **Appendix J**.

Agency coordination letters prior to 2015 can be found in the Bottineau Transitway Draft EIS at this website link:

metro council.org/Transportation/Projects/Current-Projects/METRO-Blue-Line-Extension/Publications-And-Resources/Environmental/DEIS/BLLRT_DEIS_App-D_AgencyCoordination.aspx



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From: O'Brien, Kathryn

Sent: Friday, November 20, 2015 9:04 AM

To: gina.mitchell@faa.gov

Cc: Bridget Rief; Abel, MarySue; Landwer, Nick; Reed, Scott; BPODMC

Subject: Blue Line Extension Project - RPZ Coordination

Gina, please find attached exhibits prepared by the Blue Line (formerly known as the Bottineau Transitway) Project Office that provide information on the Preferred Alternative for the Project, and, specifically, the Preferred Alternative relative to its encroachment into the Runway Protection Zone associated with Runway 6L-24R at the Crystal Airport.

As we discussed a week or so ago, the Project has changed slightly from its definition when the "FAA Great Lakes Region Runway Protection Zone Alternatives Analysis" was prepared for the Bottineau Transitway in February 2014. Namely, the alignment of the LRT tracks and associated overhead catenary system elements has shifted approximately 10-feet to the east, within the existing Burlington Northern Santa Fe (BNSF) railroad corridor. This shift resulted from coordination with the BNSF railway and is being made to provide sufficient separation from the LRT and the freight to minimize any potential for conflicts between these modes of rail operations.

Blue Line Project Office staff have reviewed the significance in this slight shift in guideway alignment in terms of its impact on the FAA approach surface as established for Runway 6L-24R. The assessment of our design team is that this shift to the east can be effected without breaking the plane of this approach surface – the calculation you will see on the typical section figure indicates that the overhead LRT elements are slightly more than 9-feet below the plane of the approach surface.

I look forward to your consideration of this information and to discussing with you how to best submit this in a more "official" transmittal as part of the process of bringing closure to the FAA Alternatives Analysis process, and for appropriate documentation in the forthcoming (June 2016) Blue Line Extension Project Final EIS and subsequent Record of Decision.

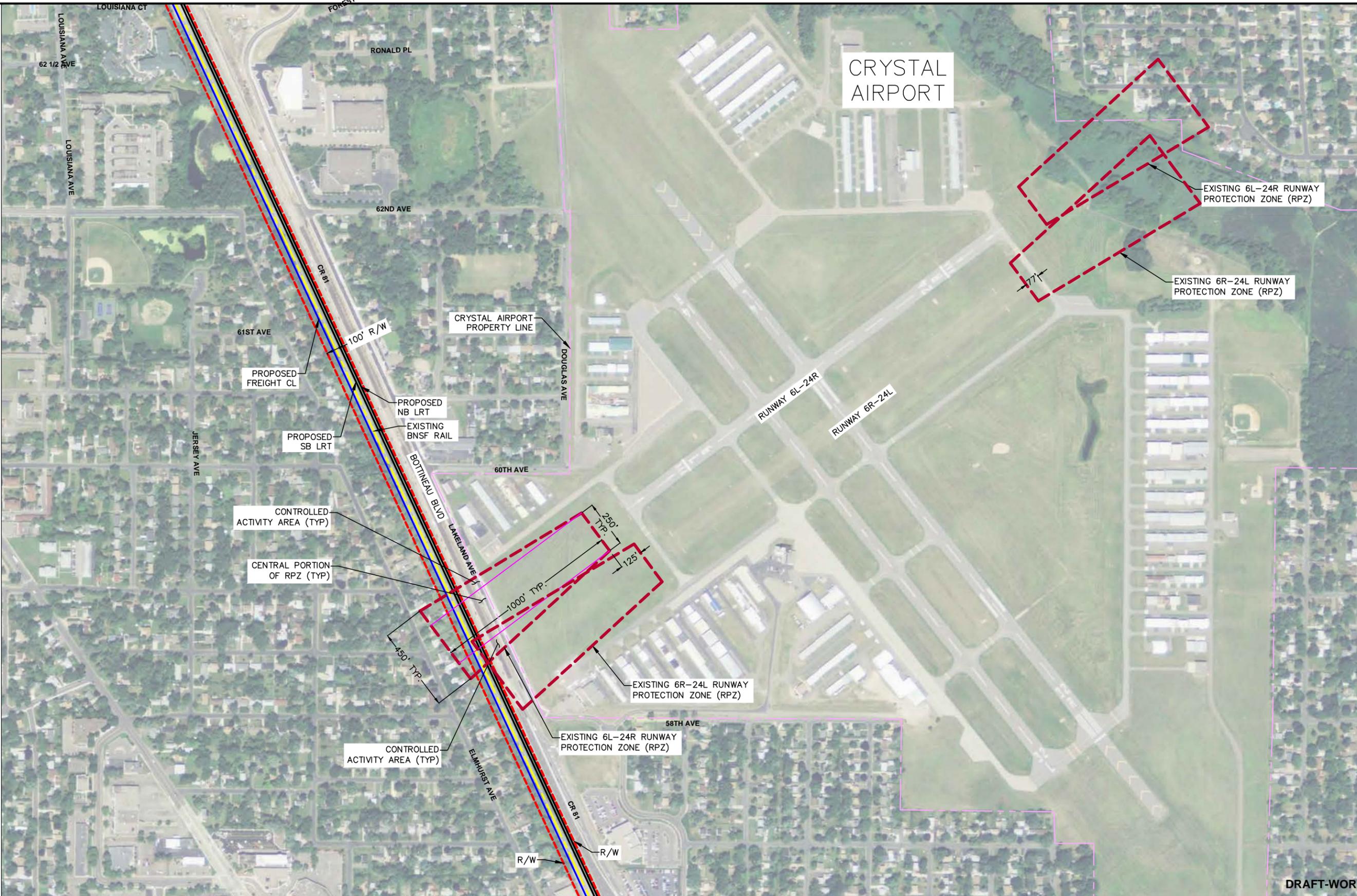
Please feel free to call or to e-mail and, as we discussed on the phone, please know that project office staff would be more than happy to sit down with you and other stakeholders in this matter to discuss any questions or concerns you may about the Blue Line Extension project.

Kathryn O'Brien

Assistant Director, Environmental & Agreements

MetroTransit- Transit Systems Development
Blue Line Extension Light Rail Transit Project Office
5514 West Broadway
Crystal, MN 55428
Direct: 612.373.5377

Nov. 19 2015 09:31 am H:\BPO\550_Design_Consultant\CAD\003-SEGMENT-C\MC\EXHIBITS\CIVIL\CrystalAirport\C-AirportRPZ.dwg By: V-SchmidEP



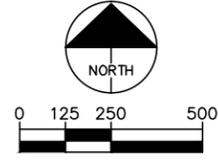
DRAFT-WORK IN PROCESS

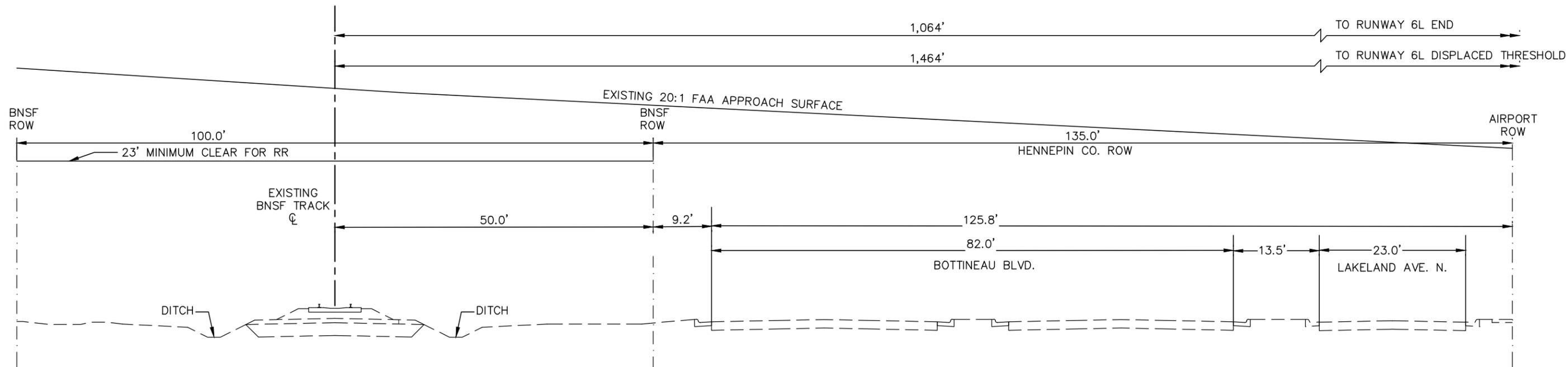


BLUE LINE LRT EXTENSION

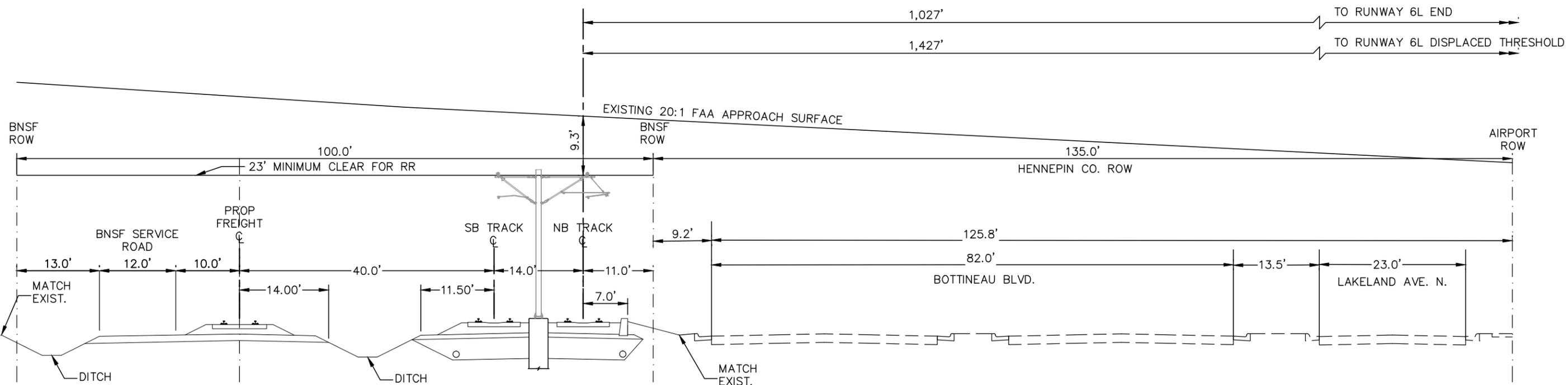
PREFERRED ALTERNATIVE WITHIN RUNWAY PROTECTION ZONE

FIGURE 1
11/19/2015





EXISTING SECTION



PROPOSED SECTION - LRT ALTERNATIVES

DRAFT-WORK IN PROCESS



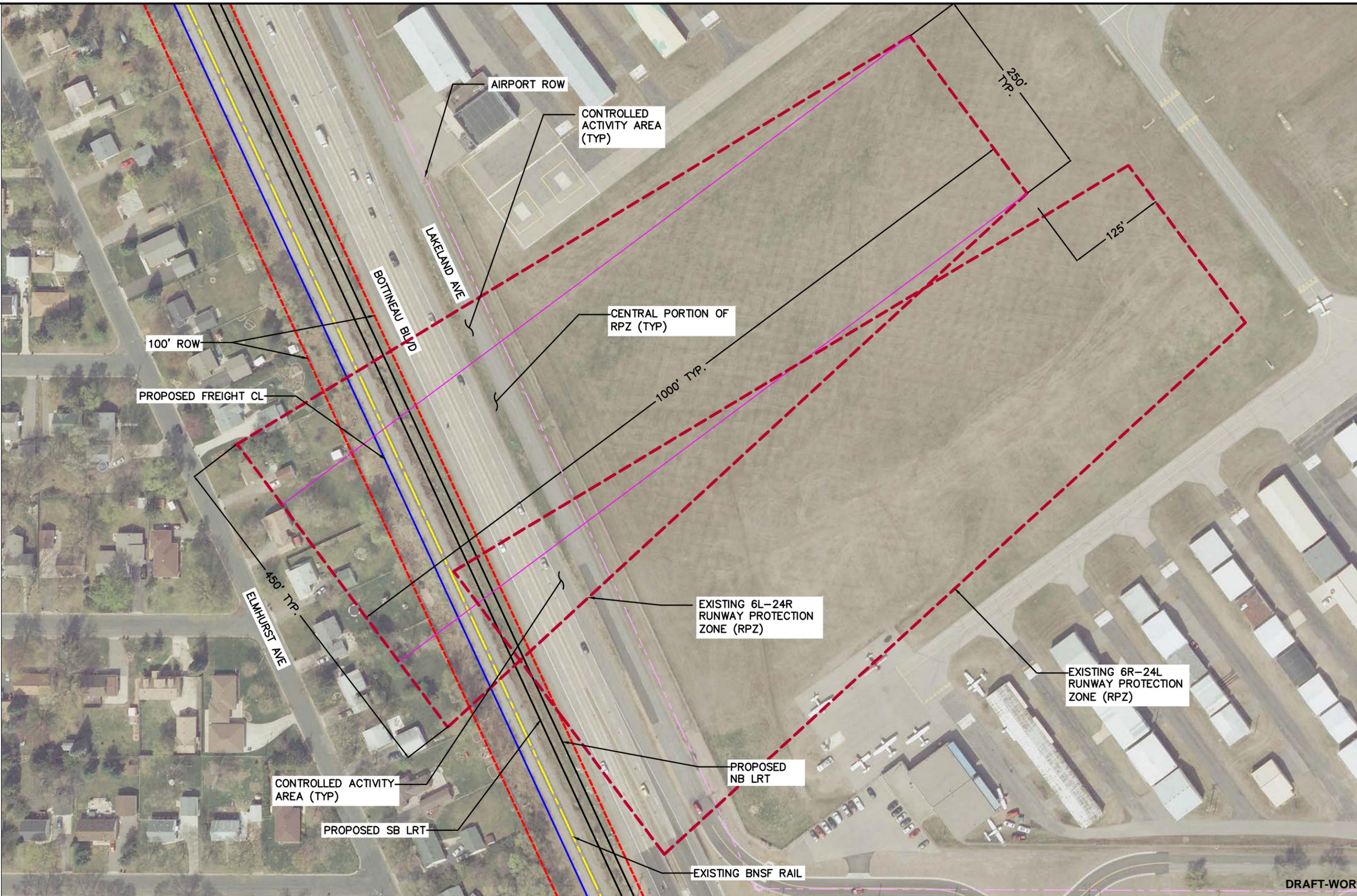
BLUE LINE LRT EXTENSION
PREFERRED ALTERNATIVE WITHIN RUNWAY PROTECTION ZONE

FIGURE 2
11/19/2015



Nov. 19 2015 09:31 am H:\BPO\550_Design_Consultant\CAD\003-SEGMENT-C\METRO\550_Design_Consultant\CAD\003-SEGMENT-C-AirportRPZ.dwg By: V-SchmidEP

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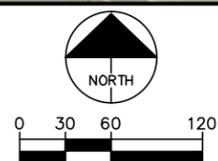


DRAFT-WORK IN PROCESS



BLUE LINE LRT EXTENSION
 PREFERRED ALTERNATIVE WITHIN RUNWAY PROTECTION ZONE

FIGURE 3
 11/19/2015



58TH AVE
Kimley»Horn



U.S. Department
of Transportation
**Federal Aviation
Administration**

Federal Aviation Administration
Dakota-Minnesota Airports District Office
Bismarck Office
2301 University Drive, Building 23B
Bismarck, ND 58504

Federal Aviation Administration
Dakota-Minnesota Airports District Office
Minneapolis Office
6020 28th Avenue South, Suite 102
Minneapolis, MN 55450

December 28, 2015

Ms. Kathryn O'Brien, Assistant Director, Environmental & Agreements
Blue Line Extension Light Rail Transit Project Office
5514 West Broadway
Crystal, MN 55428

Ms. O'Brien:

On November 20, 2015, the FAA Dakota-Minnesota Airports District Office (ADO) received an email stating the Blue Line Project, formerly known as the Bottineau Transitway Project, changed slightly from the alignment identified in the February 10, 2014, Crystal Airport Runway Protection Zone Alternatives Analysis (RPZ AA).

The FAA concurs with the November 20, 2015, proposed modifications to the February 10, 2014, RPZ AA. The ADO understands that this alignment and elevation information will be consistent with the Final EIS. Should the alignment or elevation change, please contact the ADO.

If you have any questions or would like to discuss this information further, please feel welcome to contact Gina Mitchell, Community Planner, at (612) 253-4641 or gina.mitchell@faa.gov.

Sincerely,

Lindsay Butler
Assistant Manager
Dakota-Minnesota Airports District Office, Minnesota Office

cc Maya Sarna, FTA (by email)
Bill Wheeler, FTA (by email)
Bridget Rief, Metropolitan Airports Commission (by email)
Barry Cooper, Regional Administrator, FAA Great Lakes Region (by email & mail)
Rich Kula, Planning & Programming Manager, FAA Great Lakes Airports Division
(by email)
Russ Owen, Metropolitan Council (by email)

From: [Miller, Caroline](#)
To: [Miller, Caroline](#)
Subject: RE: Blue Line Light Rail; seek concurrence on listed species
Date: Wednesday, May 04, 2016 9:04:21 AM

From: "Joyal, Lisa (DNR)" <Lisa.Joyal@state.mn.us>
To: Jeff Olson <jolson@sehinc.com>
Date: 02/09/2016 02:27 PM
Subject: RE: Blue Line Light Rail; seek concurrence on listed species

Hi Jeff,

I concur with your assessment, but would also add that the least darter and the pugnose shiner were documented in 2006 in Eagle Lake and have the potential to be present in Shingle Creek and perhaps other waterways crossed by the proposed project. As such, it is important that effective erosion and sediment control practices be implemented and maintained during construction and be incorporated into any stormwater management plan.

I've also attached the Blanding's Turtle Fact Sheet and Flyer for your reference.

Thank you,

Lisa Joyal

~~~~~  
Lisa Joyal  
Endangered Species Review Coordinator  
NHIS Data Distribution Coordinator  
Division of Ecological and Water Resources  
Minnesota Department of Natural Resources  
500 Lafayette Road, Box 25  
St. Paul, MN 55155

phone: 651-259-5109  
[lisa.joyal@state.mn.us](mailto:lisa.joyal@state.mn.us)  
[www.mndnr.gov/eco](http://www.mndnr.gov/eco)

**From:** Jeff Olson [<mailto:jolson@sehinc.com>]  
**Sent:** Wednesday, January 06, 2016 11:02 AM  
**To:** Joyal, Lisa (DNR)  
**Subject:** Blue Line Light Rail; seek concurrence on listed species

Hello Lisa,

Per our Natural Heritage Licensing Agreement, we have completed a database search of element

occurrences in the vicinity of the proposed Blue Line Light Rail. See attached figure (points and polygons), excel spreadsheet (attribute table), and general project location figure. We conclude that the only state-listed species that has a reasonable probability of being in the project area is the Blanding's Turtle (State Threatened). We also conclude that, with adherence to DNR guidelines concerning the minimization of impacts to Blanding's Turtle, that potential impacts to the species would be negligible.

We are aware of three Federally-listed (or monitored) species that are have some probability of being in the project area;

- Northern Long-Eared Bat. We are in consultation with the USFWS concerning potential summer roosting habitat within the project area.
- Bald Eagle. De-listed (but still monitored). We will monitor nest locations prior to and during the construction phase of the project and consult with USFWS if there is an issue.
- Minnesota Dwarf Trout Lily. Population known from the Harriet Butler Wildflower Sanctuary - not impacted by the proposed Blue Line Project.

We seek your concurrence that our conclusions are reasonable.

Thank you!

Best Regards,

**Jeffrey Olson**  
Senior Scientist

SEH, Inc.  
3535 Vadnais Center Drive  
St. Paul, MN 55110-5196  
651 318 0340 (office)  
612 598 4254 (mobile)  
[www.sehinc.com](http://www.sehinc.com)

**Endangered, Threatened, and Special Concern Species of Minnesota**

**Blanding's Turtle**  
*(Emydoidea blandingii)*

Minnesota Status: Threatened  
Federal Status: none

State Rank<sup>1</sup>: S2  
Global Rank<sup>1</sup>: G4

**HABITAT USE**

Blanding's turtles need both wetland and upland habitats to complete their life cycle. The types of wetlands used include ponds, marshes, shrub swamps, bogs, and ditches and streams with slow-moving water. In Minnesota, Blanding's turtles are primarily marsh and pond inhabitants. Calm, shallow water bodies (Type 1-3 wetlands) with mud bottoms and abundant aquatic vegetation (e.g., cattails, water lilies) are preferred, and extensive marshes bordering rivers provide excellent habitat. Small temporary wetlands (those that dry up in the late summer or fall) are frequently used in spring and summer -- these fishless pools are amphibian and invertebrate breeding habitat, which provides an important food source for Blanding's turtles. Also, the warmer water of these shallower areas probably aids in the development of eggs within the female turtle. Nesting occurs in open (grassy or brushy) sandy uplands, often some distance from water bodies. Frequently, nesting occurs in traditional nesting grounds on undeveloped land. Blanding's turtles have also been known to nest successfully on residential property (especially in low density housing situations), and to utilize disturbed areas such as farm fields, gardens, under power lines, and road shoulders (especially of dirt roads). Although Blanding's turtles may travel through woodlots during their seasonal movements, shady areas (including forests and lawns with shade trees) are not used for nesting. Wetlands with deeper water are needed in times of drought, and during the winter. Blanding's turtles overwinter in the muddy bottoms of deeper marshes and ponds, or other water bodies where they are protected from freezing.

**LIFE HISTORY**

Individuals emerge from overwintering and begin basking in late March or early April on warm, sunny days. The increase in body temperature which occurs during basking is necessary for egg development within the female turtle. Nesting in Minnesota typically occurs during June, and females are most active in late afternoon and at dusk. Nesting can occur as much as a mile from wetlands. The nest is dug by the female in an open sandy area and 6-15 eggs are laid. The female turtle returns to the marsh within 24 hours of laying eggs. After a development period of approximately two months, hatchlings leave the nest from mid-August through early-October. Nesting females and hatchlings are often at risk of being killed while crossing roads between wetlands and nesting areas. In addition to movements associated with nesting, all ages and both sexes move between wetlands from April through November. These movements peak in June and July and again in September and October as turtles move to and from overwintering sites. In late autumn (typically November), Blanding's turtles bury themselves in the substrate (the mud at the bottom) of deeper wetlands to overwinter.

**IMPACTS / THREATS / CAUSES OF DECLINE**

- loss of wetland habitat through drainage or flooding (converting wetlands into ponds or lakes)
- loss of upland habitat through development or conversion to agriculture
- human disturbance, including collection for the pet trade\* and road kills during seasonal movements
- increase in predator populations (skunks, raccoons, etc.) which prey on nests and young

\*It is illegal to possess this threatened species.

## RECOMMENDATIONS FOR AVOIDING AND MINIMIZING IMPACTS

These recommendations apply to typical construction projects and general land use within Blanding's turtle habitat, and are provided to help local governments, developers, contractors, and homeowners minimize or avoid detrimental impacts to Blanding's turtle populations. **List 1** describes minimum measures which we recommend to prevent harm to Blanding's turtles during construction or other work within Blanding's turtle habitat. **List 2** contains recommendations which offer even greater protection for Blanding's turtles populations; this list should be used *in addition to the first list* in areas which are known to be of state-wide importance to Blanding's turtles (contact the DNR's Natural Heritage and Nongame Research Program if you wish to determine if your project or home is in one of these areas), or in any other area where greater protection for Blanding's turtles is desired.

| List 1. Recommendations for all areas inhabited by Blanding's turtles.                                                                                                                                                                                                          | List 2. Additional recommendations for areas known to be of state-wide importance to Blanding's turtles.                                                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GENERAL                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                           |
| A flyer with an illustration of a Blanding's turtle should be given to all contractors working in the area. Homeowners should also be informed of the presence of Blanding's turtles in the area.                                                                               | Turtle crossing signs can be installed adjacent to road-crossing areas used by Blanding's turtles to increase public awareness and reduce road kills.                                                                                                                                                                                     |
| Turtles which are in imminent danger should be moved, by hand, out of harms way. Turtles which are not in imminent danger should be left undisturbed.                                                                                                                           | Workers in the area should be aware that Blanding's turtles nest in June, generally after 4pm, and should be advised to minimize disturbance if turtles are seen.                                                                                                                                                                         |
| If a Blanding's turtle nests in your yard, do not disturb the nest.                                                                                                                                                                                                             | If you would like to provide more protection for a Blanding's turtle nest on your property, see "Protecting Blanding's Turtle Nests" on page 3 of this fact sheet.                                                                                                                                                                        |
| Silt fencing should be set up to keep turtles out of construction areas. It is <u>critical</u> that silt fencing be removed after the area has been revegetated.                                                                                                                | Construction in potential nesting areas should be limited to the period between September 15 and June 1 (this is the time when activity of adults and hatchlings in upland areas is at a minimum).                                                                                                                                        |
| WETLANDS                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                           |
| Small, vegetated temporary wetlands (Types 2 & 3) should not be dredged, deepened, filled, or converted to storm water retention basins (these wetlands provide important habitat during spring and summer).                                                                    | Shallow portions of wetlands should not be disturbed during prime basking time (mid morning to mid-afternoon in May and June). A wide buffer should be left along the shore to minimize human activity near wetlands (basking Blanding's turtles are more easily disturbed than other turtle species).                                    |
| Wetlands should be protected from pollution; use of fertilizers and pesticides should be avoided, and run-off from lawns and streets should be controlled. Erosion should be prevented to keep sediment from reaching wetlands and lakes.                                       | Wetlands should be protected from road, lawn, and other chemical run-off by a vegetated buffer strip at least 50' wide. This area should be left unmowed and in a natural condition.                                                                                                                                                      |
| ROADS                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                           |
| Roads should be kept to minimum standards on widths and lanes (this reduces road kills by slowing traffic and reducing the distance turtles need to cross).                                                                                                                     | Tunnels should be considered in areas with concentrations of turtle crossings (more than 10 turtles per year per 100 meters of road), and in areas of lower density if the level of road use would make a safe crossing impossible for turtles. Contact your DNR Regional Nongame Specialist for further information on wildlife tunnels. |
| Roads should be ditched, not curbed or below grade. If curbs must be used, 4 inch high curbs at a 3:1 slope are preferred (Blanding's turtles have great difficulty climbing traditional curbs; curbs and below grade roads trap turtles on the road and can cause road kills). | Roads should be ditched, not curbed or below grade.                                                                                                                                                                                                                                                                                       |

| ROADS cont.                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Culverts between wetland areas, or between wetland areas and nesting areas, should be 36 inches or greater in diameter, and elliptical or flat-bottomed.                                                                                                                                          | Road placement should avoid separating wetlands from adjacent upland nesting sites, or these roads should be fenced to prevent turtles from attempting to cross them (contact your DNR Nongame Specialist for details).                                                                                                                   |
| Wetland crossings should be bridged, or include raised roadways with culverts which are 36 in or greater in diameter and flat-bottomed or elliptical (raised roadways discourage turtles from leaving the wetland to bask on roads).                                                              | Road placement should avoid bisecting wetlands, or these roads should be fenced to prevent turtles from attempting to cross them (contact your DNR Nongame Specialist for details). This is especially important for roads with more than 2 lanes.                                                                                        |
| Culverts under roads crossing streams should be oversized (at least twice as wide as the normal width of open water) and flat-bottomed or elliptical.                                                                                                                                             | Roads crossing streams should be bridged.                                                                                                                                                                                                                                                                                                 |
| UTILITIES                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                           |
| Utility access and maintenance roads should be kept to a minimum (this reduces road-kill potential).                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                           |
| Because trenches can trap turtles, trenches should be checked for turtles prior to being backfilled and the sites should be returned to original grade.                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                           |
| LANDSCAPING AND VEGETATION MANAGEMENT                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                           |
| Terrain should be left with as much natural contour as possible.                                                                                                                                                                                                                                  | As much natural landscape as possible should be preserved (installation of sod or wood chips, paving, and planting of trees within nesting habitat can make that habitat unusable to nesting Blanding's turtles).                                                                                                                         |
| Graded areas should be revegetated with native grasses and forbs (some non-natives form dense patches through which it is difficult for turtles to travel).                                                                                                                                       | Open space should include some areas at higher elevations for nesting. These areas should be retained in native vegetation, and should be connected to wetlands by a wide corridor of native vegetation.                                                                                                                                  |
| Vegetation management in infrequently mowed areas -- such as in ditches, along utility access roads, and under power lines -- should be done mechanically (chemicals should not be used). Work should occur fall through spring (after October 1 <sup>st</sup> and before June 1 <sup>st</sup> ). | Ditches and utility access roads should not be mowed or managed through use of chemicals. If vegetation management is required, it should be done mechanically, as infrequently as possible, and fall through spring (mowing can kill turtles present during mowing, and makes it easier for predators to locate turtles crossing roads). |

**Protecting Blanding's Turtle Nests:** Most predation on turtle nests occurs within 48 hours after the eggs are laid. After this time, the scent is gone from the nest and it is more difficult for predators to locate the nest. Nests more than a week old probably do not need additional protection, unless they are in a particularly vulnerable spot, such as a yard where pets may disturb the nest. Turtle nests can be protected from predators and other disturbance by covering them with a piece of wire fencing (such as chicken wire), secured to the ground with stakes or rocks. The piece of fencing should measure at least 2 ft. x 2 ft., and should be of medium sized mesh (openings should be about 2 in. x 2 in.). It is *very important* that the fencing be **removed before August 1<sup>st</sup>** so the young turtles can escape from the nest when they hatch!

## REFERENCES

- <sup>1</sup>Association for Biodiversity Information. "Heritage Status: Global, National, and Subnational Conservation Status Ranks." NatureServe. Version 1.3 (9 April 2001). <http://www.natureserve.org/ranking.htm> (15 April 2001).
- Coffin, B., and L. Pfannmuller. 1988. Minnesota's Endangered Flora and Fauna. University of Minnesota Press, Minneapolis, 473 pp.

**REFERENCES (cont.)**

- Moriarty, J. J., and M. Linck. 1994. Suggested guidelines for projects occurring in Blanding's turtle habitat. Unpublished report to the Minnesota DNR. 8 pp.
- Oldfield, B., and J. J. Moriarty. 1994. Amphibians and Reptiles Native to Minnesota. University of Minnesota Press, Minneapolis, 237 pp.
- Sajwaj, T. D., and J. W. Lang. 2000. Thermal ecology of Blanding's turtle in central Minnesota. *Chelonian Conservation and Biology* 3(4):626-636.

# CAUTION



## BLANDING'S TURTLES MAY BE ENCOUNTERED IN THIS AREA

The unique and rare Blanding's turtle has been found in this area. Blanding's turtles are state-listed as Threatened and are protected under Minnesota Statute 84.095, Protection of Threatened and Endangered Species. Please be careful of turtles on roads and in construction sites. For additional information on turtles, or to report a Blanding's turtle sighting, contact the DNR Nongame Specialist nearest you: Bemidji (218-308-2641); Grand Rapids (218-327-4518); New Ulm (507-359-6033); Rochester (507-206-2820); or St. Paul (651-259-5772).

**DESCRIPTION:** The Blanding's turtle is a medium to large turtle (5 to 10 inches) with a black or dark blue, dome-shaped shell with muted yellow spots and bars. The bottom of the shell is hinged across the front third, enabling the turtle to pull the front edge of the lower shell firmly against the top shell to provide additional protection when threatened. The head, legs, and tail are dark brown or blue-gray with small dots of light brown or yellow. A distinctive field mark is the bright yellow chin and neck.

**BLANDING'S TURTLES DO NOT MAKE GOOD PETS  
IT IS ILLEGAL TO KEEP THIS THREATENED SPECIES IN CAPTIVITY**

## **SUMMARY OF RECOMMENDATIONS FOR AVOIDING AND MINIMIZING IMPACTS TO BLANDING'S TURTLE POPULATIONS**

*(see Blanding's Turtle Fact Sheet for full recommendations)*

- This flyer should be given to all contractors working in the area. Homeowners should also be informed of the presence of Blanding's turtles in the area.
- Turtles that are in imminent danger should be moved, by hand, out of harm's way. Turtles that are not in imminent danger should be left undisturbed to continue their travel among wetlands and/or nest sites.
- If a Blanding's turtle nests in your yard, do not disturb the nest and do not allow pets near the nest.
- Silt fencing should be set up to keep turtles out of construction areas. It is critical that silt fencing be removed after the area has been revegetated.
- Small, vegetated temporary wetlands should not be dredged, deepened, or filled.
- All wetlands should be protected from pollution; use of fertilizers and pesticides should be avoided, and run-off from lawns and streets should be controlled. Erosion should be prevented to keep sediment from reaching wetlands and lakes.
- Roads should be kept to minimum standards on widths and lanes.
- Roads should be ditched, not curbed or below grade. If curbs must be used, 4" high curbs at a 3:1 slope are preferred.
- Culverts under roads crossing wetland areas, between wetland areas, or between wetland and nesting areas should be at least 36 in. diameter and flat-bottomed or elliptical.
- Culverts under roads crossing streams should be oversized (at least twice as wide as the normal width of open water) and flat-bottomed or elliptical.
- Utility access and maintenance roads should be kept to a minimum.
- Because trenches can trap turtles, trenches should be checked for turtles prior to being backfilled and the sites should be returned to original grade.
- Terrain should be left with as much natural contour as possible.
- Graded areas should be revegetated with native grasses and forbs.
- Vegetation management in infrequently mowed areas -- such as in ditches, along utility access roads, and under power lines -- should be done mechanically (chemicals should not be used). Work should occur fall through spring (after October 1<sup>st</sup> and before June 1<sup>st</sup>).



U.S. Department  
of Transportation  
**Federal Transit  
Administration**

REGION V  
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March 7, 2016

Peter Fasbender, Field Office Supervisor  
U.S. Fish and Wildlife Service  
Ecological Services Field Office  
4101 American Boulevard East  
Bloomington, MN 55425

RE: METRO Blue Line Light Rail Extension Project – Consultation under Section 7 of the  
Endangered Species Act

Dear Mr. Horton:

The purpose of this letter is to advance informal consultation under Section 7 of the Endangered Species Act (ESA) between the Federal Transit Administration (FTA) and the U. S. Fish and Wildlife Service (USFWS) as it relates to the proposed Blue Line Light Rail Transit (BLRT) Extension project. The BLRT Extension project is a 13-mile light rail transit line that would be located in Hennepin County and extend westward along Trunk Highway (TH) 55 from Target Field Station to the BNSF Railway Monticello Subdivision at the eastern edge of Theodore Wirth Regional Park. It then would follow the BNSF corridor from TH 55 to just south of 73rd Avenue in Brooklyn Park. From that point it would cross eastward to West Broadway Avenue and extend north to a point just north of TH 610.

The Metropolitan Council has reviewed the USFWS publication “County Distribution of Federally Listed Threatened, Endangered, Proposed and Candidate Species.” Accordingly, FTA has determined the following regarding these species in Hennepin County:

- **Northern long-eared bat** (*Myotis septentrionalis*). Federally Threatened. Based on review of the Natural Heritage Information System (NHIS) database, a known hibernacula is located along the Mississippi River near downtown Minneapolis; however the BLRT Extension will not be near the hibernacula. Based on NHIS database review and consultation with the USFWS, there are no known maternity colonies in all of Hennepin County. Based on USFWS documentation, forested areas throughout much of Minnesota provide potential summer roosting habitat for the Northern Long-Eared Bat (NLEB). Appropriate conclusions pertaining to impacts to the NLEB resulting from the BLRT Extension project are discussed below.
- **Higgins eye pearl mussel** (*Lampsilis higginsii*). Federally Threatened. This species occurs in the Mississippi River. The BLRT Extension project will not impact the Mississippi River, therefore the appropriate conclusion with respect to impacts to this mussel species is “No Effect”.

RE: METRO Blue Line Light Rail Extension Project – Consultation under Section 7 of the Endangered Species Act

- **Snuffbox mussel** (*Epioblasma triquetra*). Federally Endangered. This species occurs in the Mississippi River. The BLRT Extension project will not impact the Mississippi River, therefore the appropriate conclusion with respect to impacts to this mussel species is “No Effect”.

The BLRT Extension project is now in the FTA New Starts Project Development process; current activities include preliminary design and completion of a Final Environmental Impact Statement (EIS). As part of the environmental review process and in compliance with Section 7 requirements, the FTA has assessed potential impacts to the NLEB as a result of the BLRT Extension project. Potential impacts to the NLEB take into account the ESA Final 4(d) Rule, published on January 14, 2016 and in effect as of February 16, 2016. The BLRT Extension project traverses a few larger forested areas that could be potential NLEB summer habitat.

This letter:

- Summarizes past consultation with the USFWS concerning the NLEB and the BLRT Extension project;
- Presents current information concerning impacts to forested areas within the project area;
- Proposes a project implementation strategy in compliance with the Final 4(d) NLEB Rule, specifically portions relevant to federal actions. As noted in the USFWS on-line guidance, “the [USFWS] has provided a framework to streamline Section 7 consultations when federal actions may affect the northern long-eared bat but not cause prohibited take.” (See <http://www.fws.gov/midwest/endangered/mammals/nleb/S7.html>).
- Presents the assertion that implementation of the BLRT Extension project under this framework would lead to a decision regarding the NLEB of “May Affect, Incidental Take Not Prohibited”, and requests concurrence with that decision;
- Presents information regarding proposed bald eagle nesting activity monitoring.

### **Past Consultation**

On May 21, 2015 staff from the BLRT Extension project office (BPO) and the USFWS discussed (via teleconference call) the project, the recent listing of the NLEB as Federally Threatened, and the Interim 4(d) Rule established by the USFWS to help protect this species.

On November 19, 2015, BPO staff met with you at the USFWS Field Office to discuss the quantification of impacts to forested areas as it relates to summer roosting habitat for the NLEB. At this meeting, the parties discussed an early iteration of potential forest impacts. Table 1 (as follows) presents an updated quantification of forest impacts. Discussion also included scenarios under which seasonal clearing and grubbing restrictions would and would not be imposed within the BLRT Extension project area in compliance with the Interim 4(d) Rule, in place during late Fall 2015. These scenarios included no clearing restrictions for tree removal within smaller forested areas (less than 15 acres), and the possibility of conducting acoustic bat surveys in the spring and/or summer of 2016. However, with the adoption of the Final 4(d) Rule concerning NLEB and the absence of known maternity roost trees and hibernacula in or near the BLRT Extension project area, no acoustic bat surveys would be required and no seasonal clearing and grubbing restrictions would be imposed.

### **NLEB Summer Habitat Data Within/Near the Blue Line Light Rail Extension Project Area**

BPO has compiled data on the extent of forested habitat in the vicinity of the BLRT Extension project area and potential impacts to forested habitat. These data are presented in the enclosed NLEB Map book and in Table 1.

RE: METRO Blue Line Light Rail Extension Project – Consultation under Section 7 of the Endangered Species Act

GIS data on forest cover types within the project area were gathered from the Minnesota Land Cover Classification System (MLCCS). These data were overlain on modern aerial photography and MLCCS polygons were trimmed where it was clear that deforestation had occurred since the cover type GIS information had been acquired. Ten (10) large forest complexes within approximately ¼ mile of the proposed BLRT Extension project were identified and digitized. The size of the forest complexes ranged from approximately 7 acres to 62 acres. Other fragmented forest remnants outside of the forest complexes were identified throughout the project area as well. Table 1 summarizes the extent of and impacts to forested habitat (forest complexes and other forest remnants) in the vicinity of the project area.

**Table 1: Forested Habitat Summary of Extent and Impacts Within the Project Area**

| <b>Forest Complex Name</b>                                | <b>Extent (ac)</b> | <b>Impacts (ac) within existing linear transportation ROW</b> | <b>Impacts (ac) within 100 foot buffer outside of existing ROW</b> | <b>Impacts (ac) within ROW plus 100 foot buffer outside of ROW</b> | <b>Impacts (ac) outside of the 100 foot buffer</b> | <b>Total Forest Impacts (ac)</b> |
|-----------------------------------------------------------|--------------------|---------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------------|----------------------------------|
| <b>101<sup>st</sup> Avenue North</b>                      | 16.8               | 0.00                                                          | 0.00                                                               | 0.00                                                               | 0.00                                               | 0.00                             |
| <b>Target Corp #1</b>                                     | 20.4               | 0.06                                                          | 0.00                                                               | 0.06                                                               | 0.46                                               | 0.51                             |
| <b>Target Corp #2</b>                                     | 23.2               | 0.16                                                          | 1.74                                                               | 1.90                                                               | 2.81                                               | 4.70                             |
| <b>Shingle Creek</b>                                      | 20.7               | 0.00                                                          | 0.00                                                               | 0.00                                                               | 0.00                                               | 0.00                             |
| <b>Grimes Pond</b>                                        | 11.9               | 0.01                                                          | 0.06                                                               | 0.06                                                               | 0.00                                               | 0.06                             |
| <b>North Rice Pond – Mary Hills</b>                       | 57.5               | 2.59                                                          | 0.70                                                               | 3.29                                                               | 0.01                                               | 3.30                             |
| <b>St. Mary Margaret – MPRB</b>                           | 6.9                | 0.07                                                          | 0.05                                                               | 0.12                                                               | 0.18                                               | 0.29                             |
| <b>Theodore Wirth</b>                                     | 62.1               | 2.80                                                          | 2.40                                                               | 5.20                                                               | 3.49                                               | 8.69                             |
| <b>Highway 55</b>                                         | 24.7               | 0.31                                                          | 0.07                                                               | 0.38                                                               | 0.00                                               | 0.38                             |
| <b>Xerxes</b>                                             | 24.9               | 0.00                                                          | 0.00                                                               | 0.00                                                               | 0.00                                               | 0.00                             |
| <b>Forest Complex Total</b>                               | <b>269.1</b>       | <b>5.99</b>                                                   | <b>5.01</b>                                                        | <b>10.99</b>                                                       | <b>6.94</b>                                        | <b>17.93</b>                     |
| <b>Individual Forest Remnant Total</b>                    | <b>198.6</b>       | <b>6.44</b>                                                   | <b>2.53</b>                                                        | <b>8.97</b>                                                        | <b>1.64</b>                                        | <b>10.61</b>                     |
| <b>Forest Complex and Individual Forest Remnant Total</b> | <b>467.6</b>       | <b>12.43</b>                                                  | <b>7.54</b>                                                        | <b>19.96</b>                                                       | <b>8.57</b>                                        | <b>28.54</b>                     |

In summary, the total extent of forest complexes in the vicinity of the BLRT Extension project area is approximately 269 acres. Of this total extent, about 18 acres would be impacted of which about 11 acres are within the right-of-way (ROW) and a 100-foot buffer outside of the ROW, and about 7 acres are outside of the 100-foot ROW buffer. Additionally, the total extent of small fragmented forested remnants in the vicinity of the BLRT alignment is about 199 acres. Of this total extent, approximately 11 acres of fragmented forest remnants would be impacted. Approximately 9 acres of impacts to forest fragments are within the ROW and 100-foot ROW buffer, and about 2 acres are outside of the 100-foot ROW buffer. These impacts are distributed over 77 individual small forest fragments.

### **Final 4(d) Rule for NLEB**

On January 14, 2016 the USFWS published the Final 4(d) Rule for the NLEB. The Final 4(d) Rule is less restrictive than the Interim 4(d) Rule because it was determined that the overwhelming cause of the decline of the NLEB (and other bat species) is White Nose Syndrome. Habitat loss as a result of human activity was determined to be a considerably less important factor in the decline of bat populations. See USFWS Briefing at:

<http://www.fws.gov/Midwest/endangered/mammals/nleb/pdf/BriefingFinal4dRuleNLEB13Jan2016.pdf>

The Final 4(d) Rule states that if tree clearing will occur at a distance of greater than ¼ mile of a hibernacula entrance or greater than 150 feet from a known maternity roost tree, then no seasonal restrictions on tree clearing would be imposed. See Question #7 in the “*Key to the Northern Long-Eared Bat 4(d) Rule for Federal Actions That May Affect Northern Long-Eared Bats*”

([http://www.fws.gov/midwest/endangered/mammals/nleb/pdf/KeyFinal4dNLEB\\_FedAgencies17Feb2016.pdf](http://www.fws.gov/midwest/endangered/mammals/nleb/pdf/KeyFinal4dNLEB_FedAgencies17Feb2016.pdf)). Also, tree clearing outside of the ¼ mile hibernacula buffer and outside of the 150-foot maternity roost tree buffer would lead to the appropriate conclusion of “May Affect, Incidental Take Not Prohibited”.

### **Bald Eagle**

The FTA is aware that the bald eagle (*Haliaeetus leucocephalus*) has been documented to nest within approximately one mile of the BLRT Extension project area. Nest locations often change and nesting could occur within the project area prior to construction, during construction and in the post-construction phase. While the Bald Eagle has been de-listed from the Federal Endangered Species List and is outside of the scope of Section 7 Consultation, it is still afforded protections under the Bald and Golden Eagle Protection Act (BGEPA), the Migratory Bird Treaty Act (MBTA), and the Lacey Act. The Metropolitan Council will monitor potential nesting activity in the vicinity of the project area and will consult with the USFWS if it is evident that construction activities may disturb bald eagles or their nests.

### **Conclusions and Path Forward**

Based on the aforementioned consultation with the USFWS, the FTA concludes the following:

- 1) There are no NLEB hibernacula within the BLRT Extension project area per consultation with USFWS and review of the NHIS database. Per NHIS database review and USFWS consultation, there is a known hibernacula along the Mississippi River in the City of Minneapolis; however, the BLRT Extension project will not impact this hibernacula.
- 2) There are no known NLEB maternity colonies within Hennepin County which includes the entire BLRT Extension project area per consultation with the USFWS and NHIS database review.
- 3) Based on the Final 4(d) Rule, FTA, in consultation with the USFWS, has determined that the appropriate finding under the ESA for the NLEB is: “May Affect, Incidental Take Not Prohibited”.
- 4) Based on the Final 4(d) Rule and project site characteristics, FTA, in consultation with the USFWS, concludes that there would be no seasonal restrictions imposed on tree clearing throughout the entire BLRT Extension project area.
- 5) Based on the Final 4(d) Rule, FTA, in consultation with the USFWS, concludes that no acoustic bat surveys would be required throughout the BLRT Extension project area.

RE: METRO Blue Line Light Rail Extension Project – Consultation under Section 7 of the Endangered Species Act

The FTA requests USFWS concurrence on the determination of “May Affect, Incidental Take Not Prohibited” for the BLRT Extension project relative to the NLEB. Please contact Reggie Arkell, Community Planner, at (312) 886-3704 or [reginald.arkell@dot.gov](mailto:reginald.arkell@dot.gov) if you have any questions. Thank you.

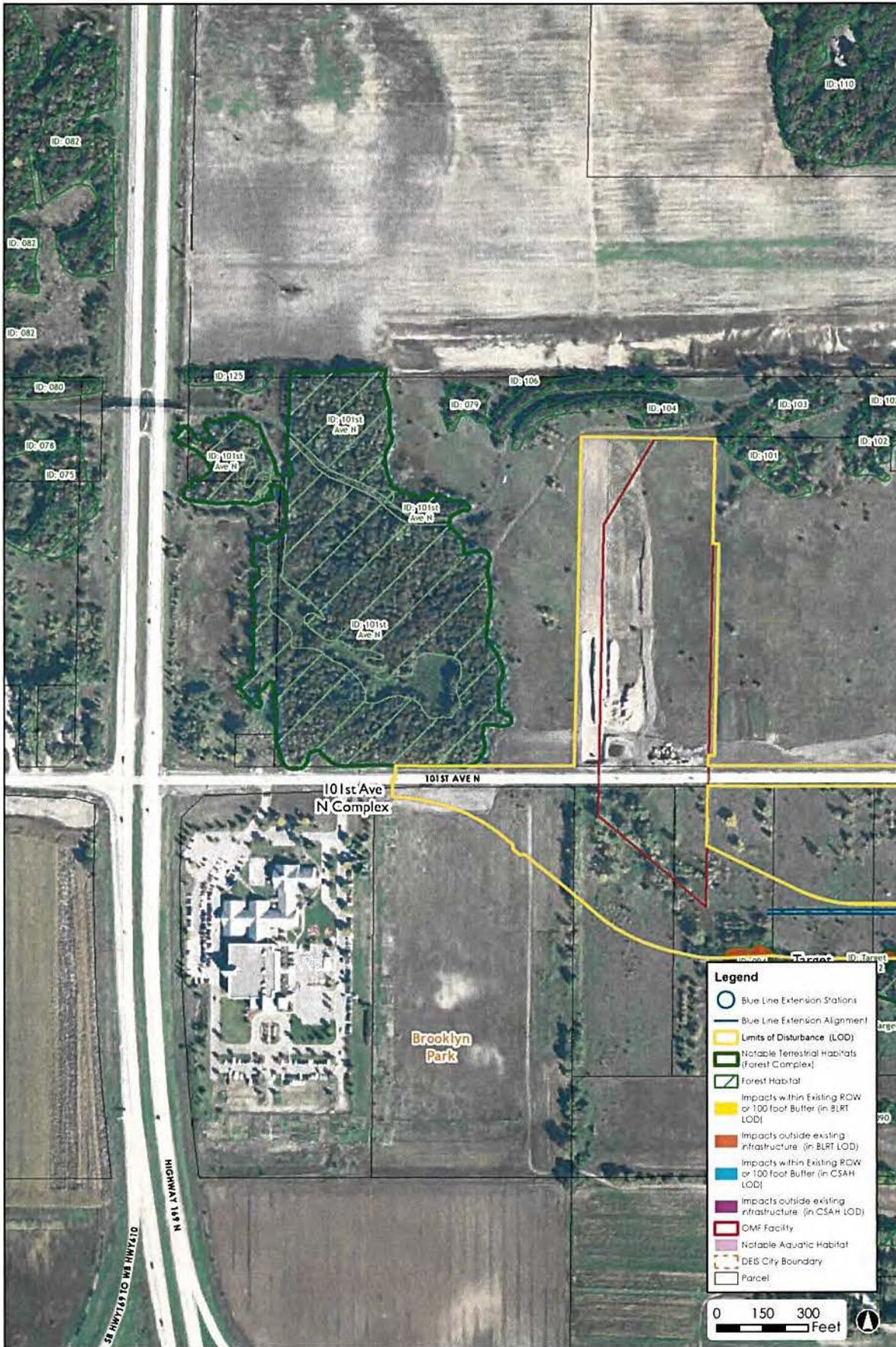
Sincerely,

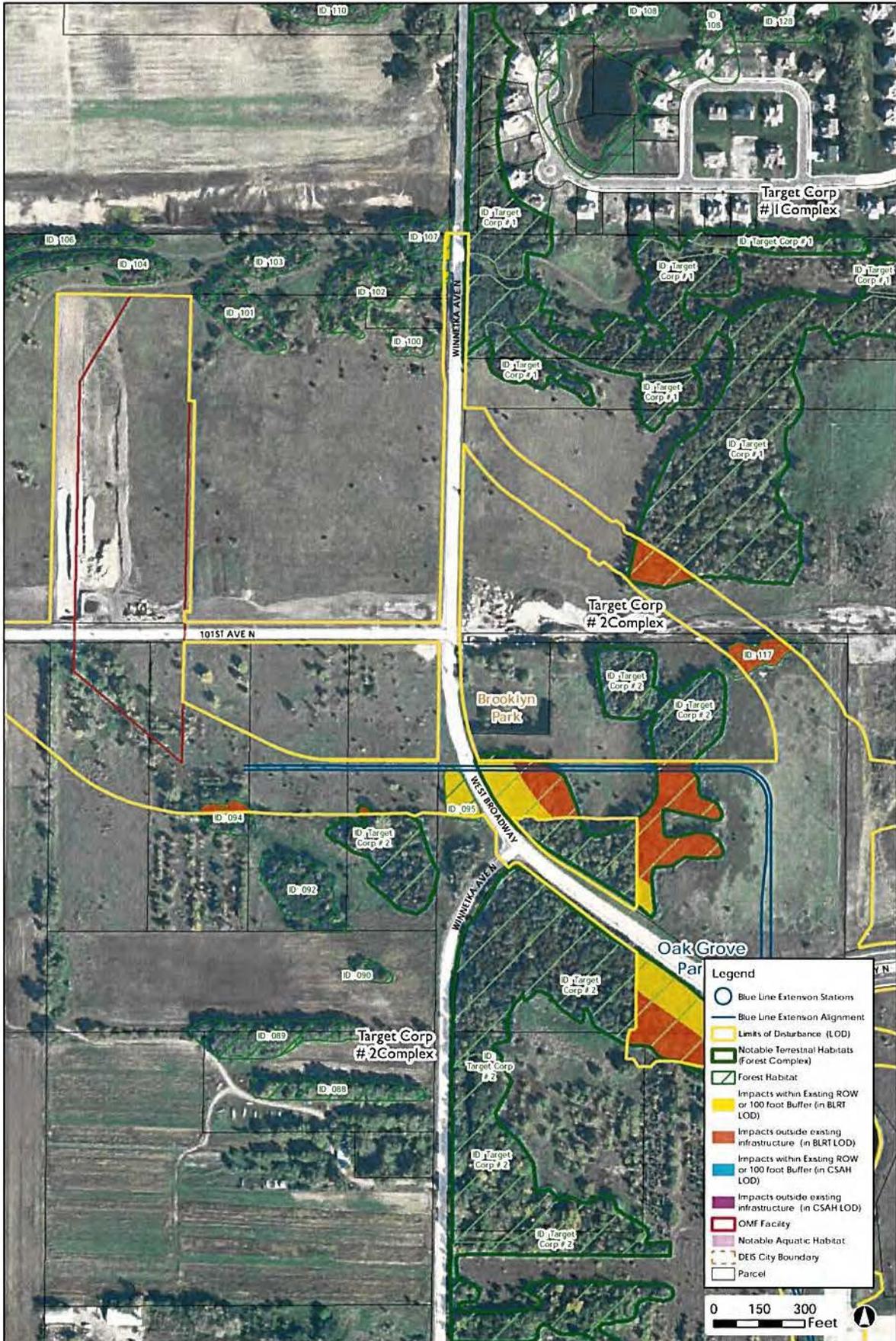
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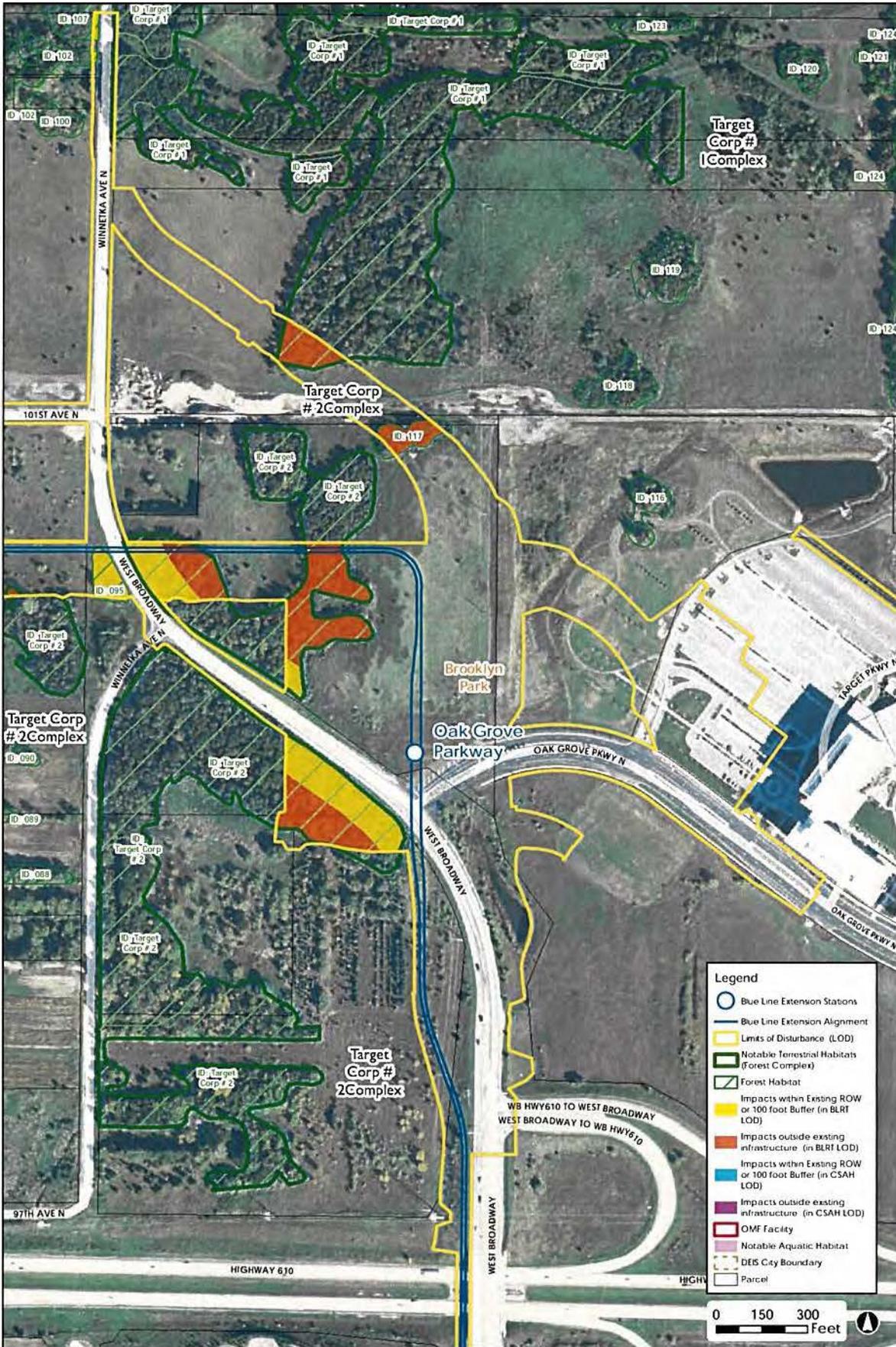
Marisol R. Simón  
Regional Administrator

Enclosure

cc: Kathryn O'Brien, Metropolitan Council  
Reggie Arkell, Federal Transit Administration





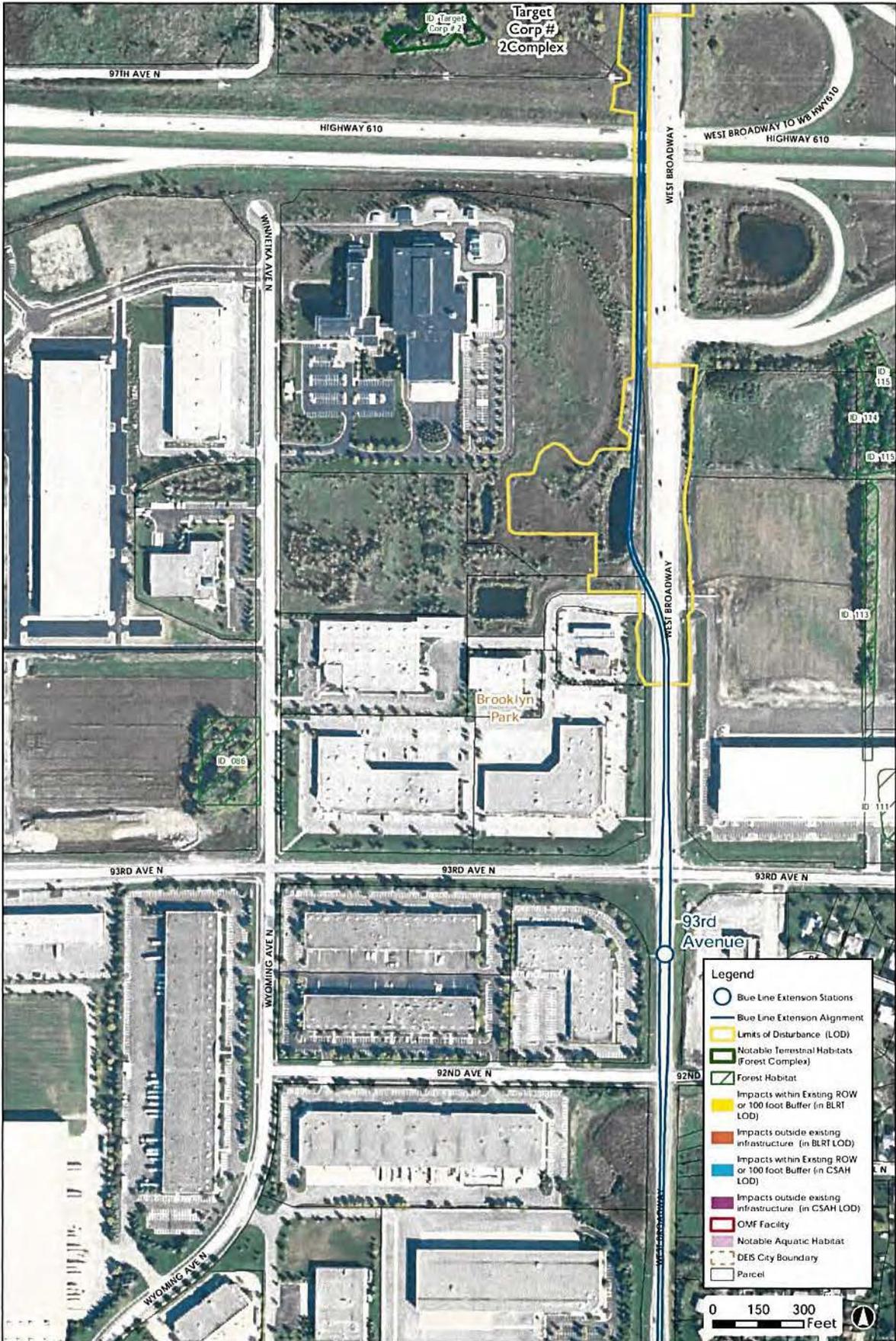



 Projection: Hennepin County NAD83  
 Source: Hennepin County, Map Transk,  
 MnDOT, MnDNR, HDR Engineering Inc.,  
 and SEH Inc

**Wildlife Habitat Impacts**  
 Page 3  
 METRO Blue Line Extension

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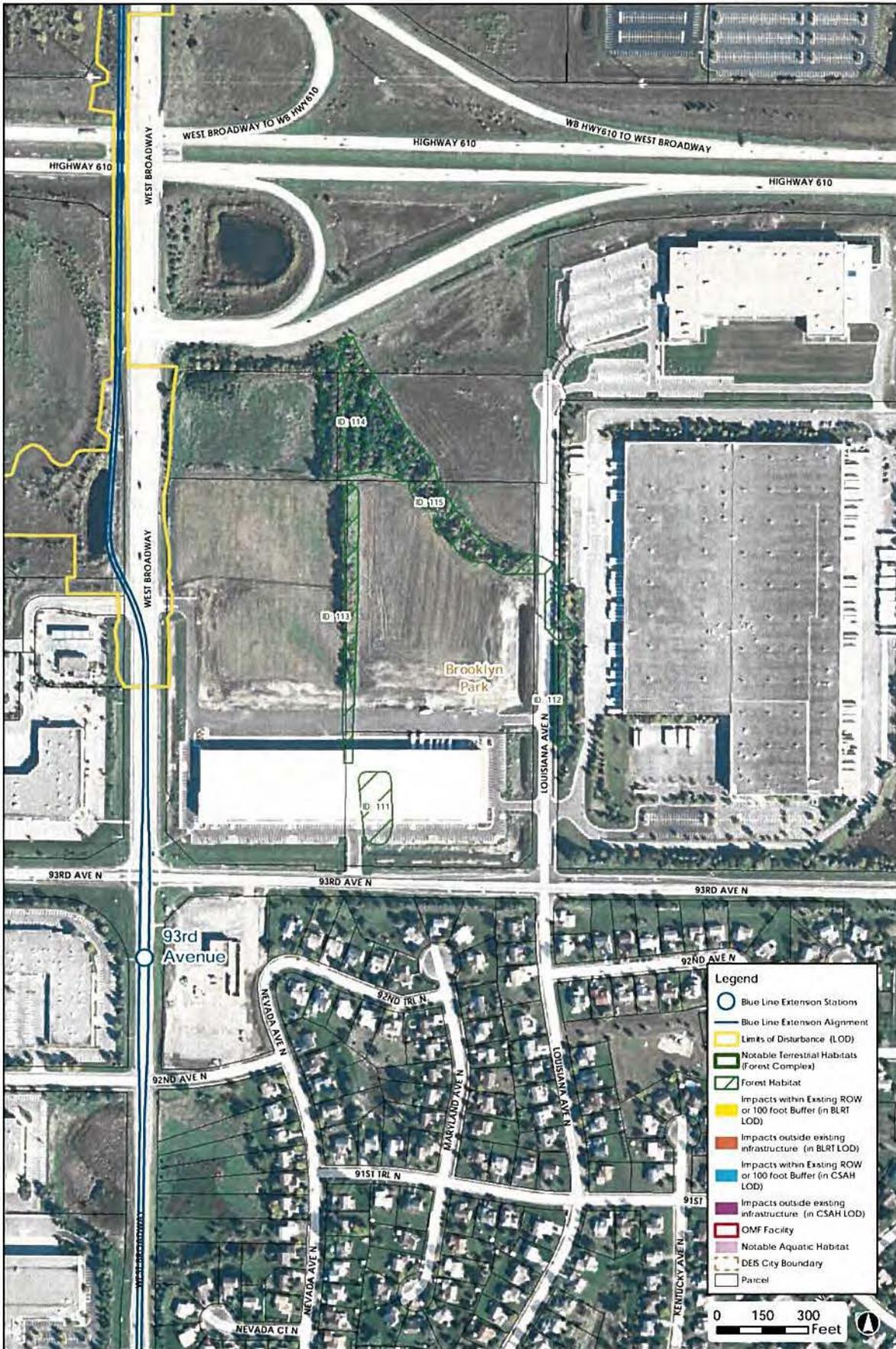


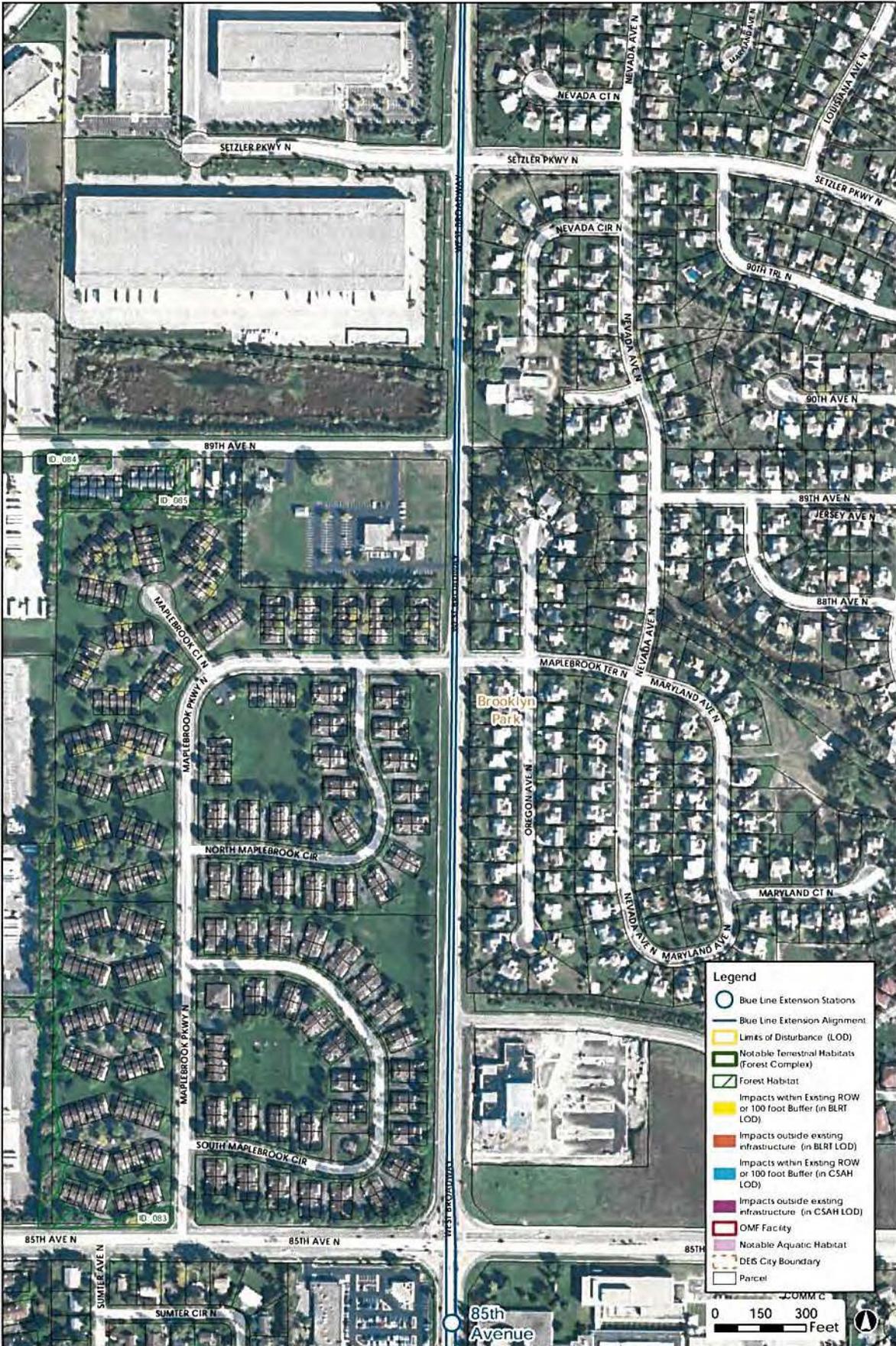
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**Wildlife Habitat Impacts**  
 Page 4  
 METRO Blue Line Extension

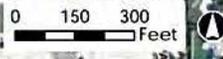
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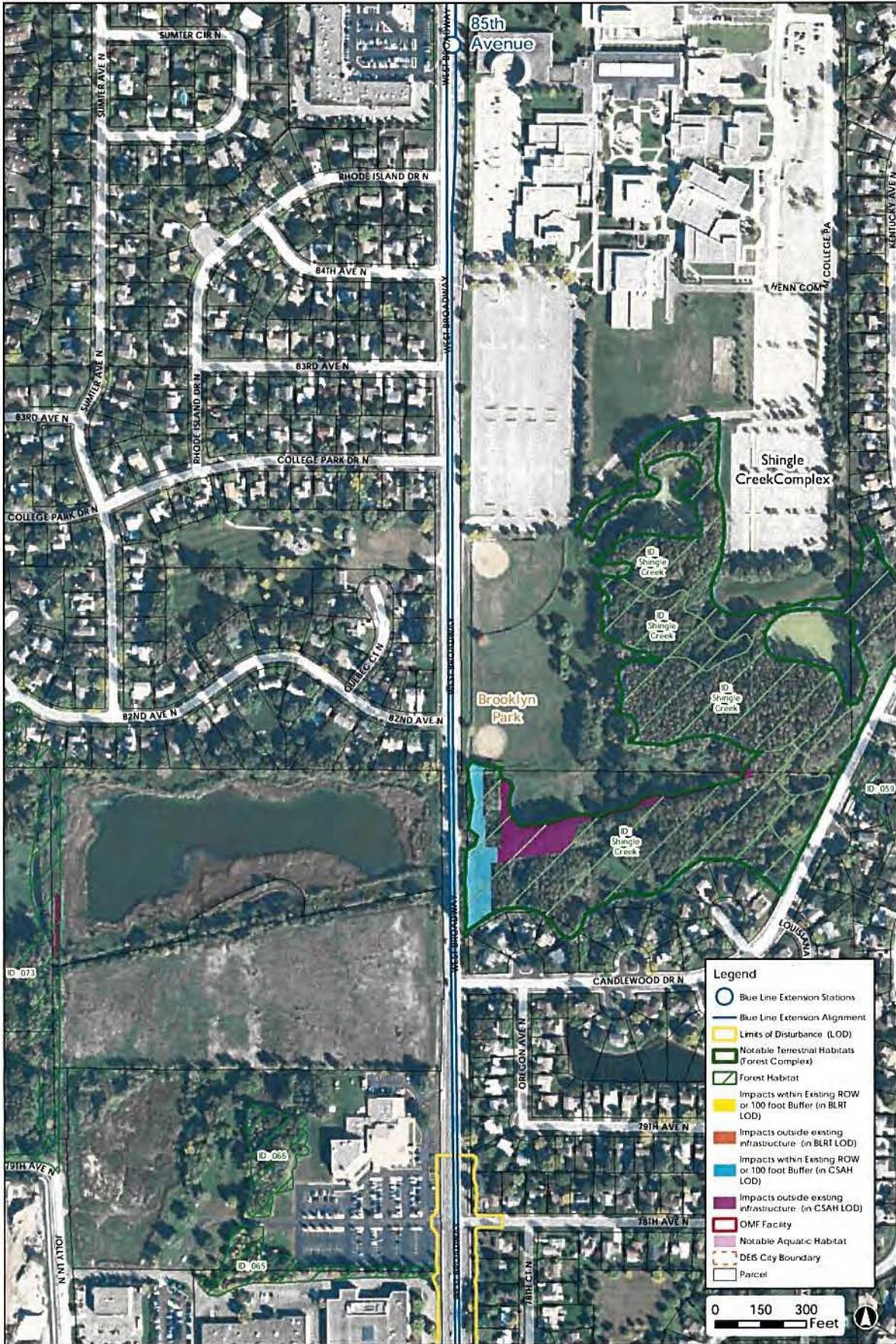




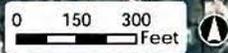


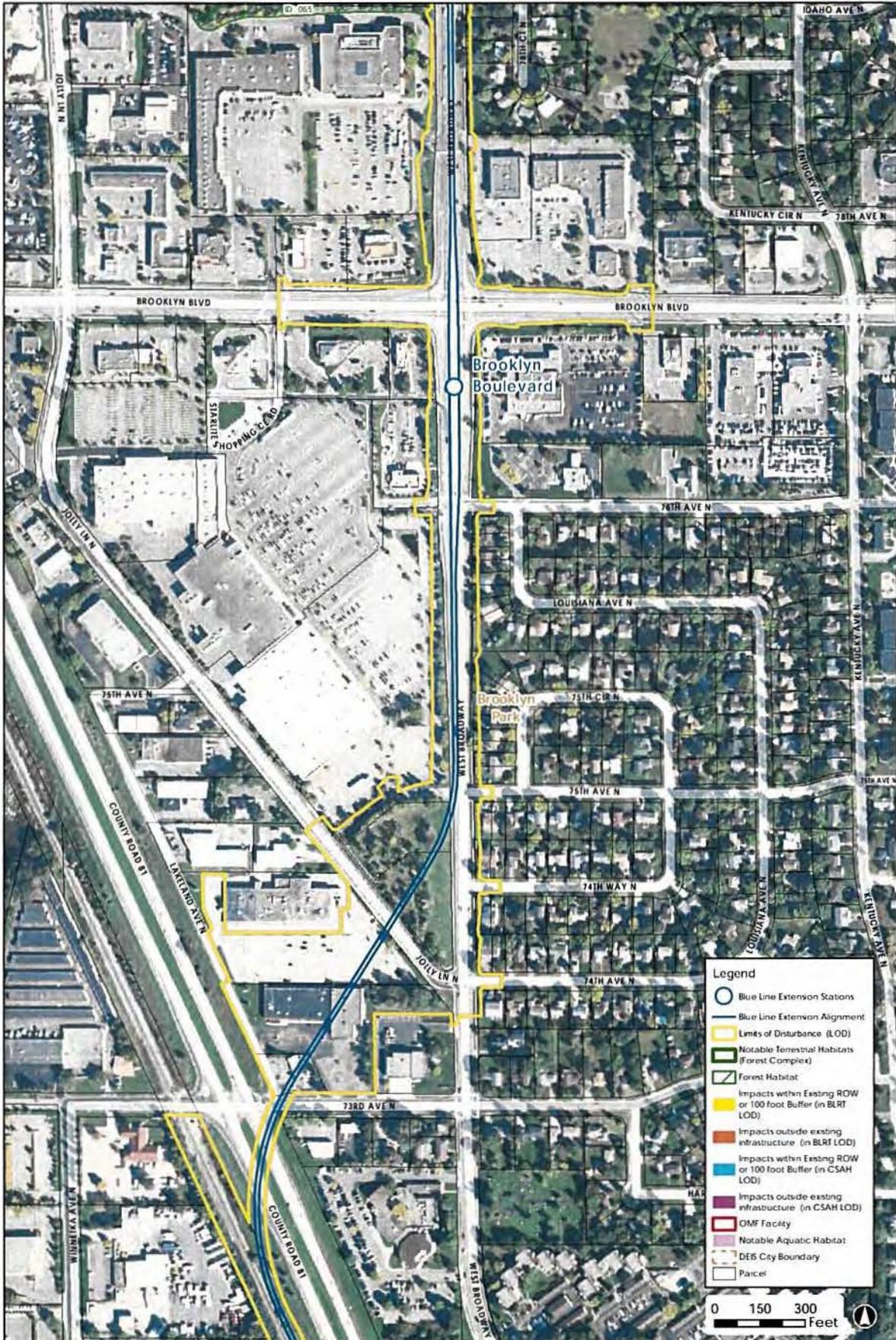
- Legend**
- Blue Line Extension Stations
  - Blue Line Extension Alignment
  - Limits of Disturbance (LOD)
  - Notable Terrestrial Habitats (Forest Complex)
  - Forest Habitat
  - Impacts within Existing ROW or 100 foot Buffer (in BLRT LOD)
  - Impacts outside existing infrastructure (in BLRT LOD)
  - Impacts within Existing ROW or 100 foot Buffer (in CSAH LOD)
  - Impacts outside existing infrastructure (in CSAH LOD)
  - OMF Facility
  - Notable Aquatic Habitat
  - DE6 City Boundary
  - Parcel



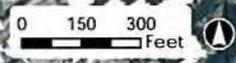


- Legend**
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  - Impacts outside existing infrastructure (in CSAH LOD)
  - OMF Facility
  - Notable Aquatic Habitat
  - DES City Boundary
  - Parcel





- Legend**
- Blue Line Extension Stations
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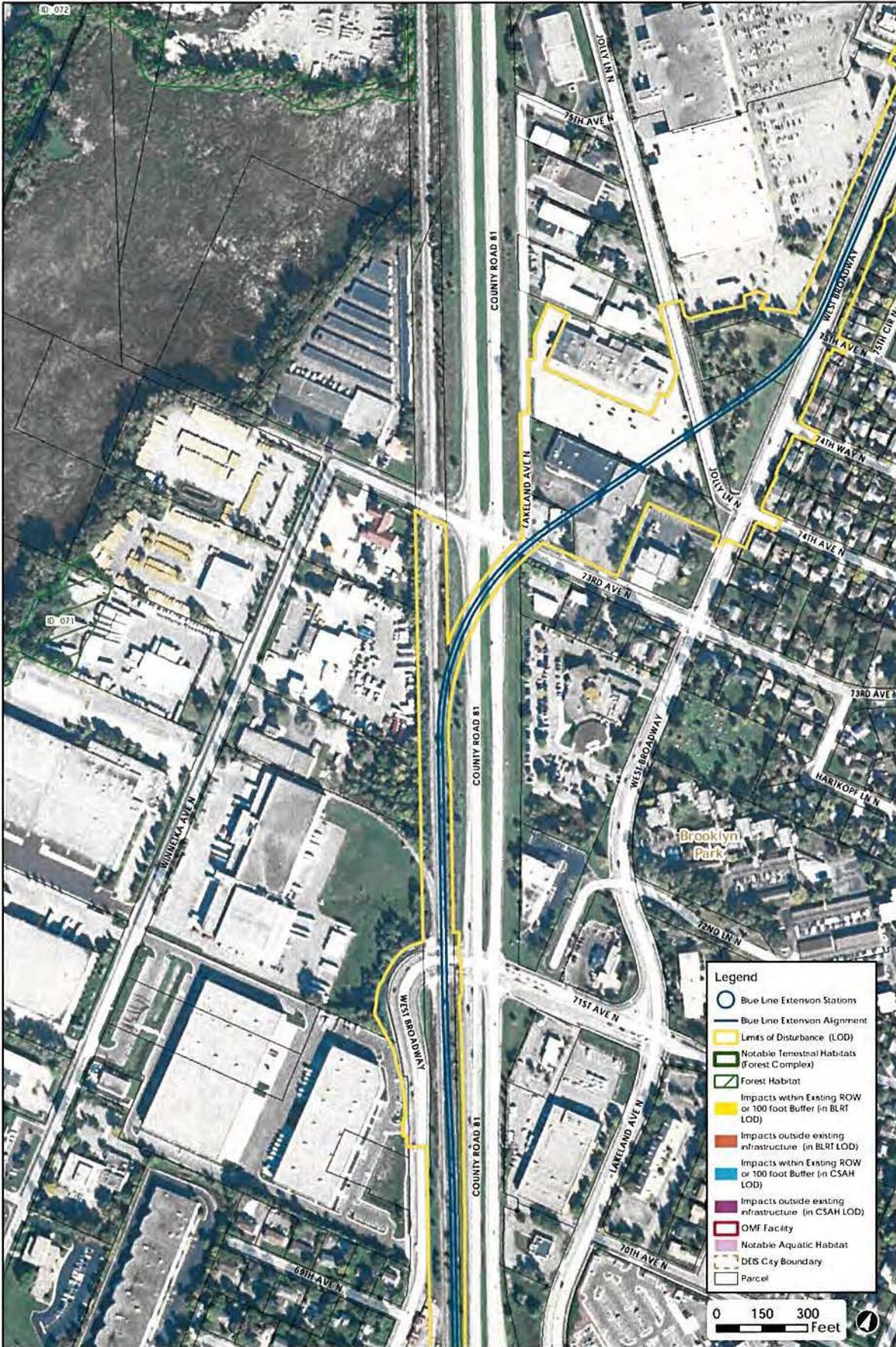


Projection: Hennepin County NAD83  
 Source: Hennepin County, Metro Transit, MNDOT, MNDNR, HCN Engineering Inc., and SEH Inc.

**Wildlife Habitat Impacts**  
 Page 8  
 METRO Blue Line Extension

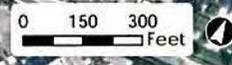
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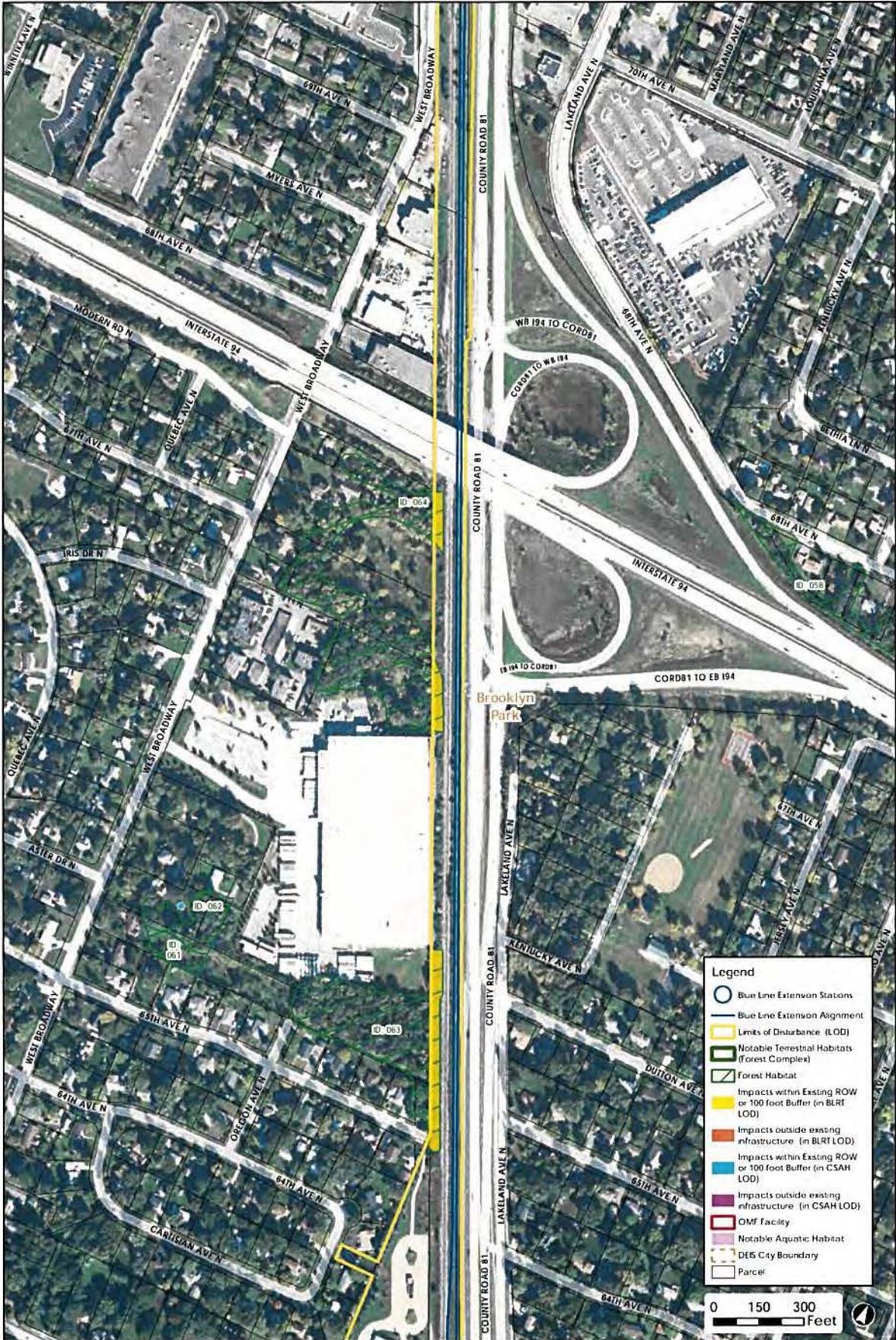




**Legend**

- Blue Line Extension Stations
- Blue Line Extension Alignment
- Limits of Disturbance (LOD)
- Notable Terrestrial Habitats (Forest Complex)
- Forest Habitat
- Impacts within Existing ROW or 100 foot Buffer (in BLRT LOD)
- Impacts outside existing infrastructure (in BLRT LOD)
- Impacts within Existing ROW or 100 foot Buffer (in CSAH LOD)
- Impacts outside existing infrastructure (in CSAH LOD)
- OMF Facility
- Notable Aquatic Habitat
- DES City Boundary
- Parcel



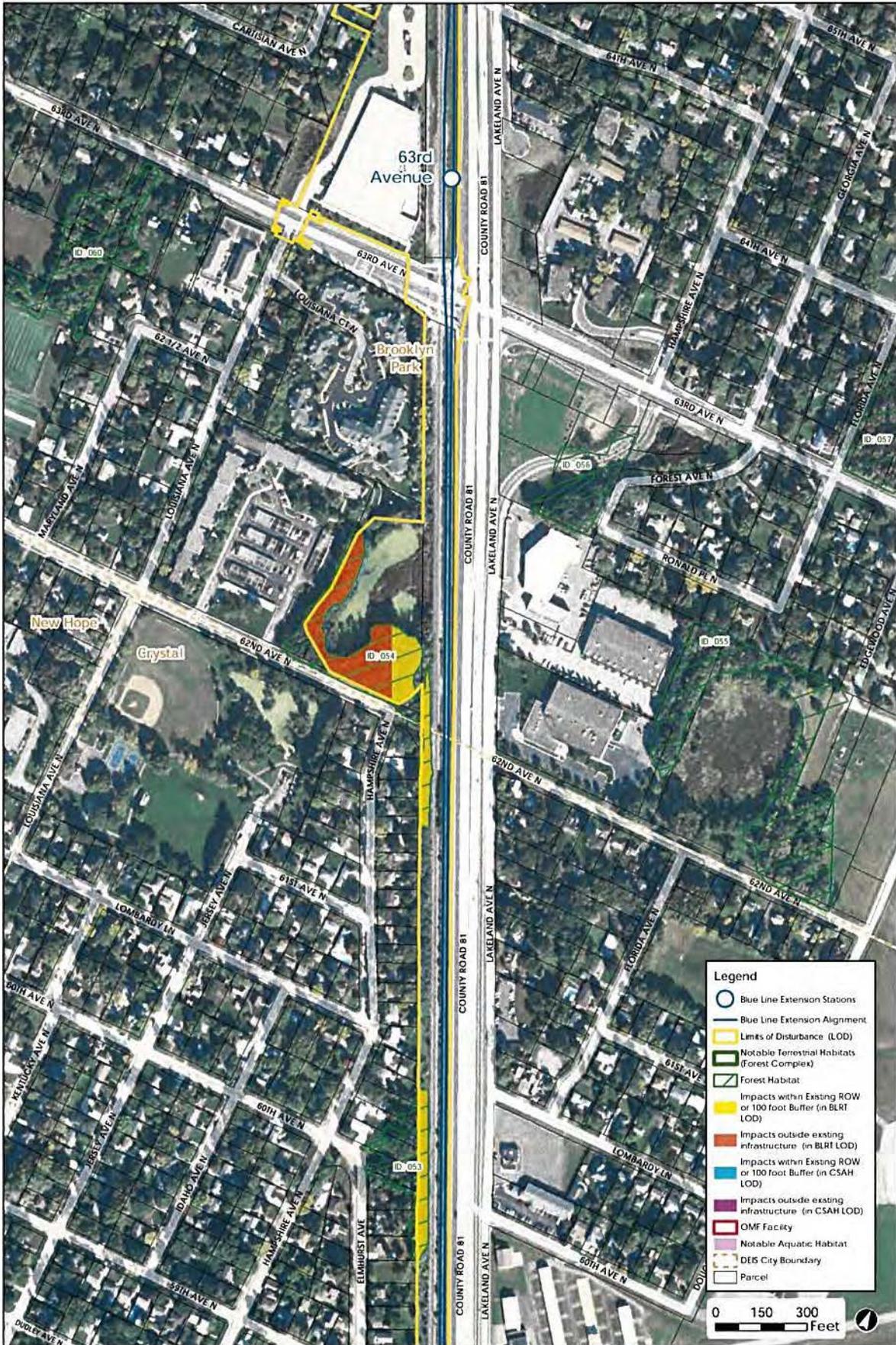


Projection: Hearnep in County NAD83  
 Source: Henneep County, Metro Transit, MnDOT, MnDNR, HDR Engineering Inc. and SEH Inc.

**Wildlife Habitat Impacts**  
 Page 10  
 METRO Blue Line Extension

**DRAFT**







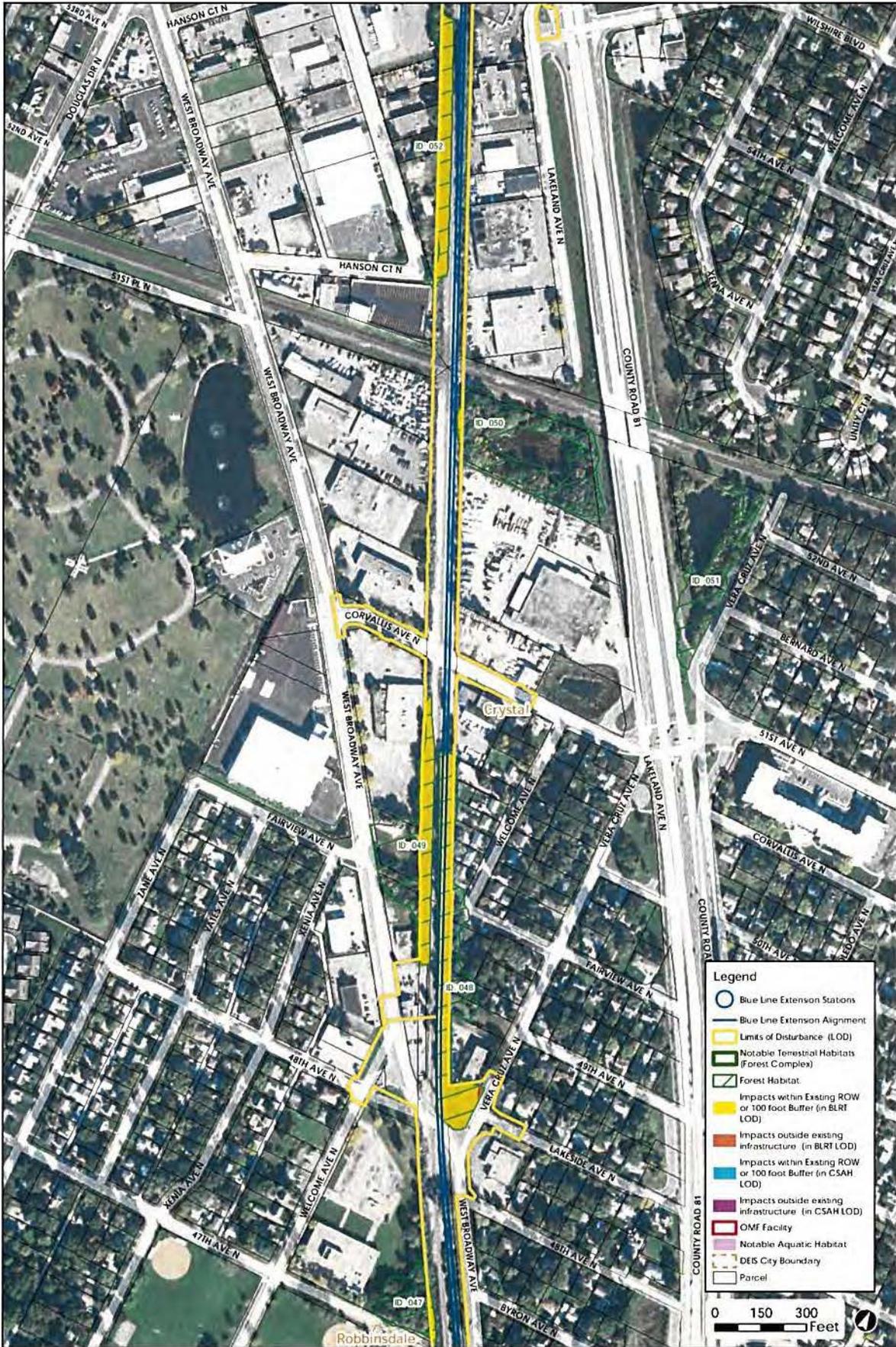
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 Source: Hennepin County, Metro Transit, MnDOT, MnDNR, HDR Engineering Inc., and SEH Inc.

**Wildlife Habitat Impacts**  
 Page 12

METRO Blue Line Extension

**DRAFT**







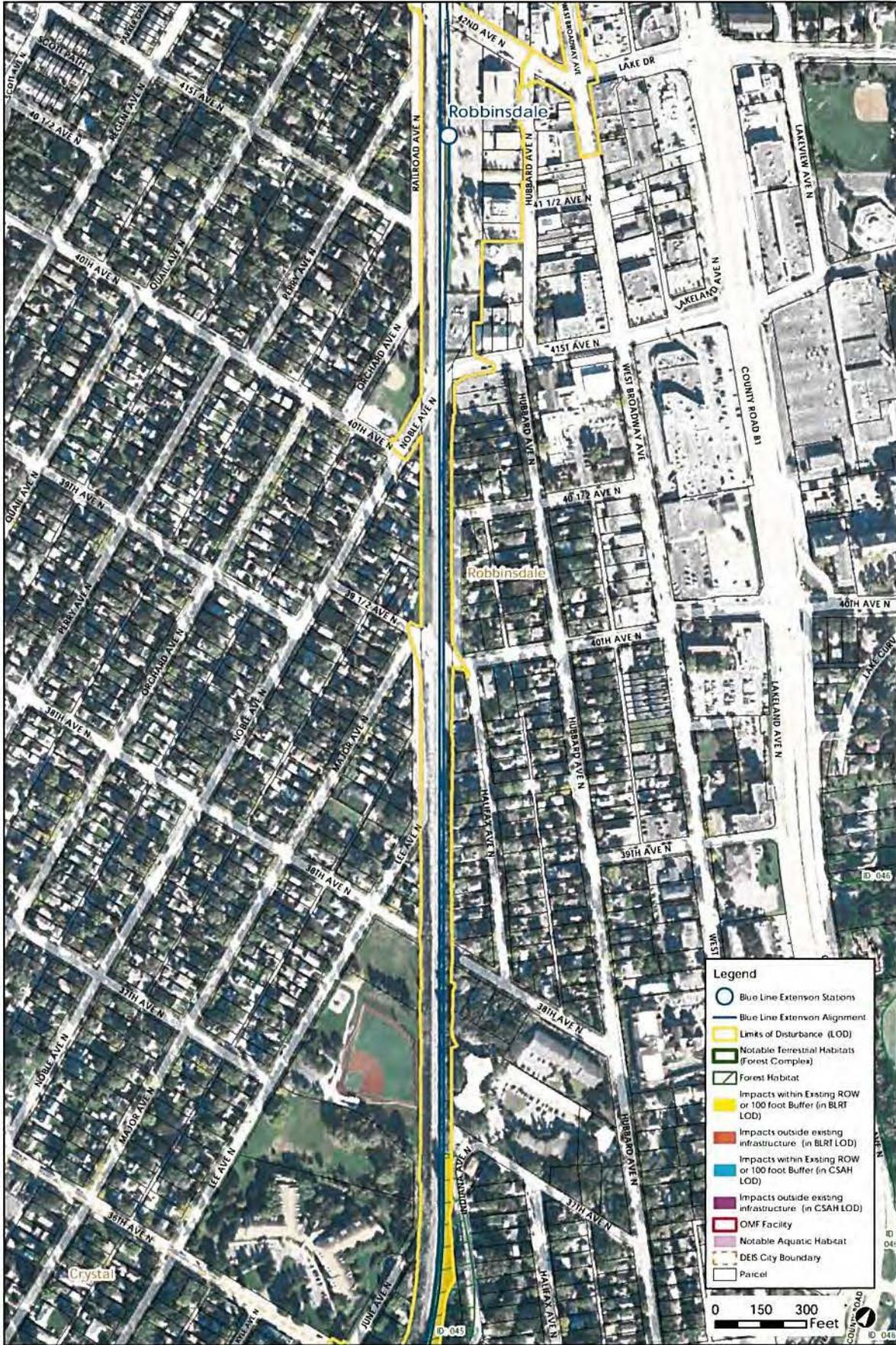
Projection: Hennepin County NAD83  
 Source: Hennepin County, Metro Transit, MnDOT, MnDNR, HDR Engineering Inc., and SEH Inc.

Wildlife Habitat Impacts  
 Page 14

METRO Blue Line Extension

**DRAFT**



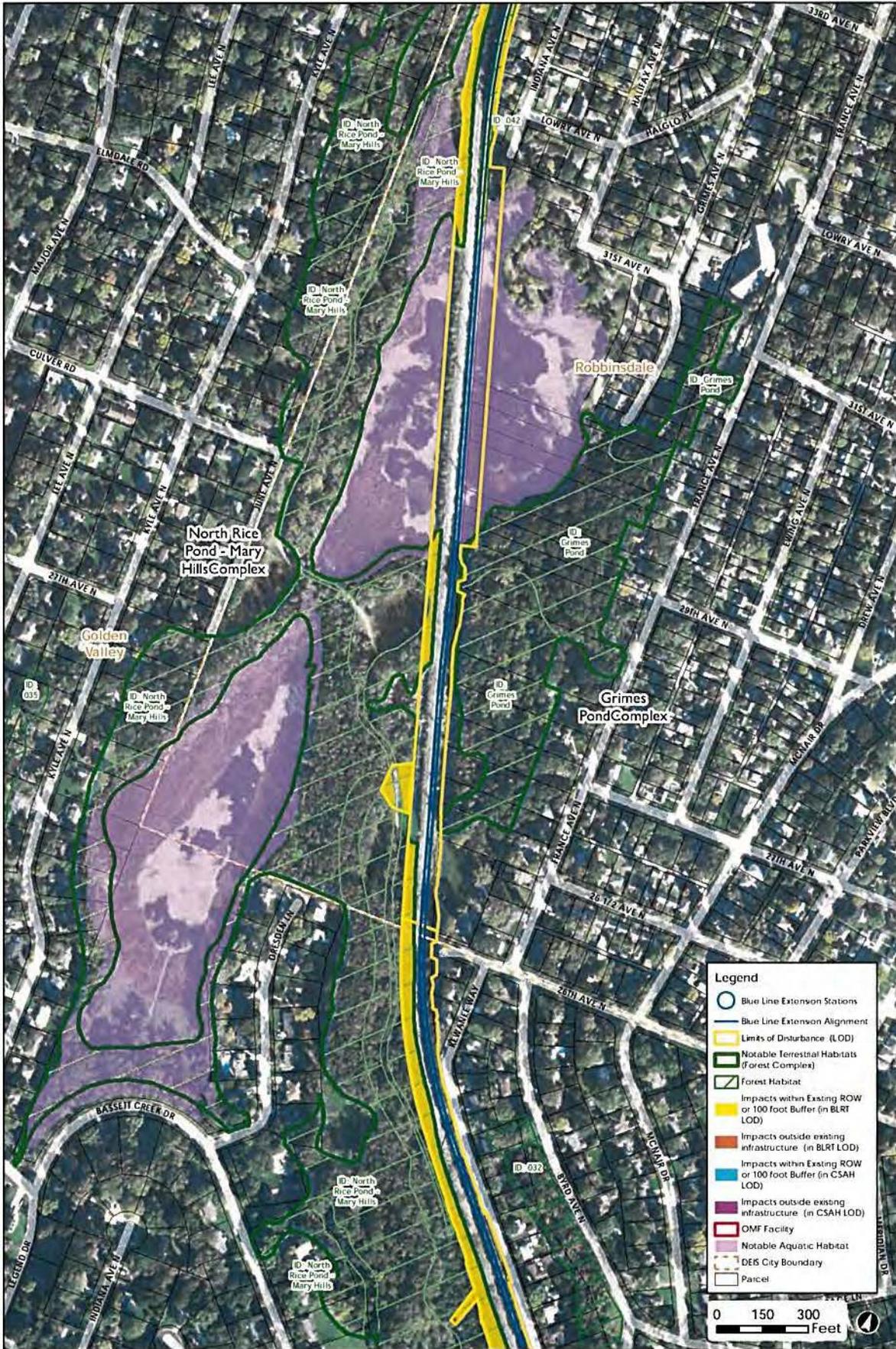


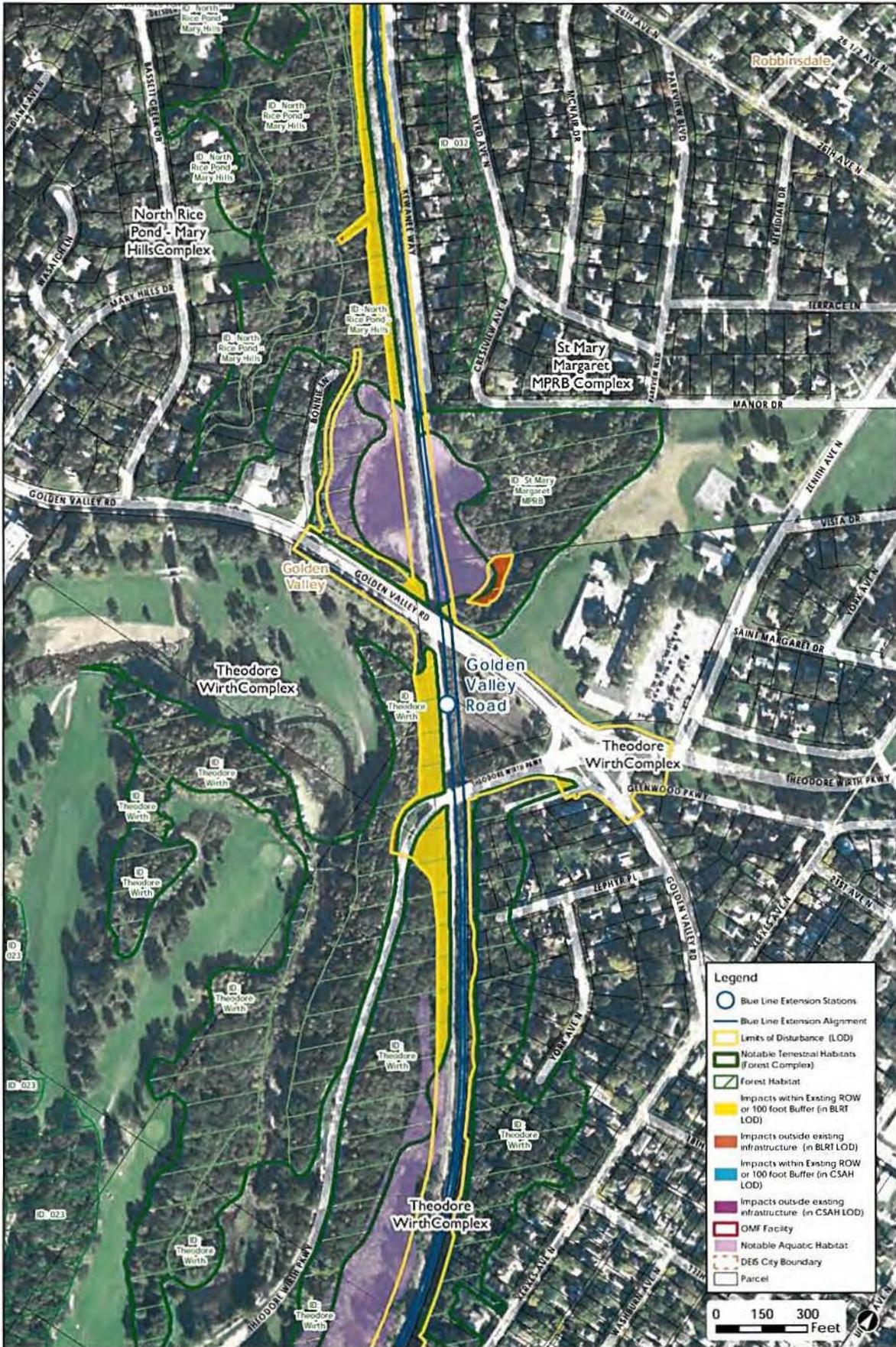


Projection: Hennepin County NAD83  
 Source: Hennepin County, Metro Transit,  
 MIDDT, MnDNR, HDR Engineering Inc.,  
 and SEH Inc.

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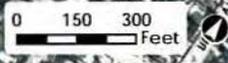


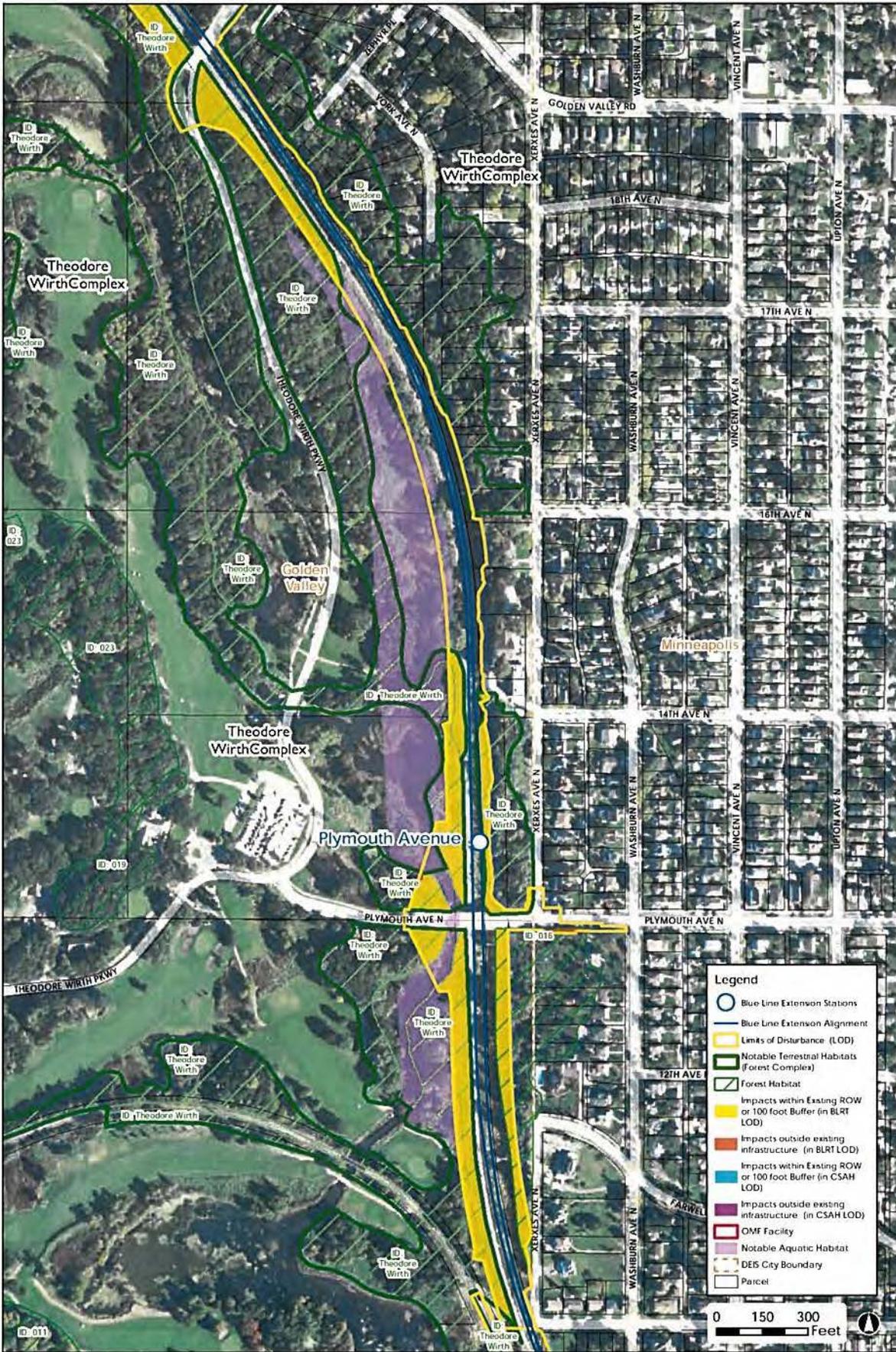




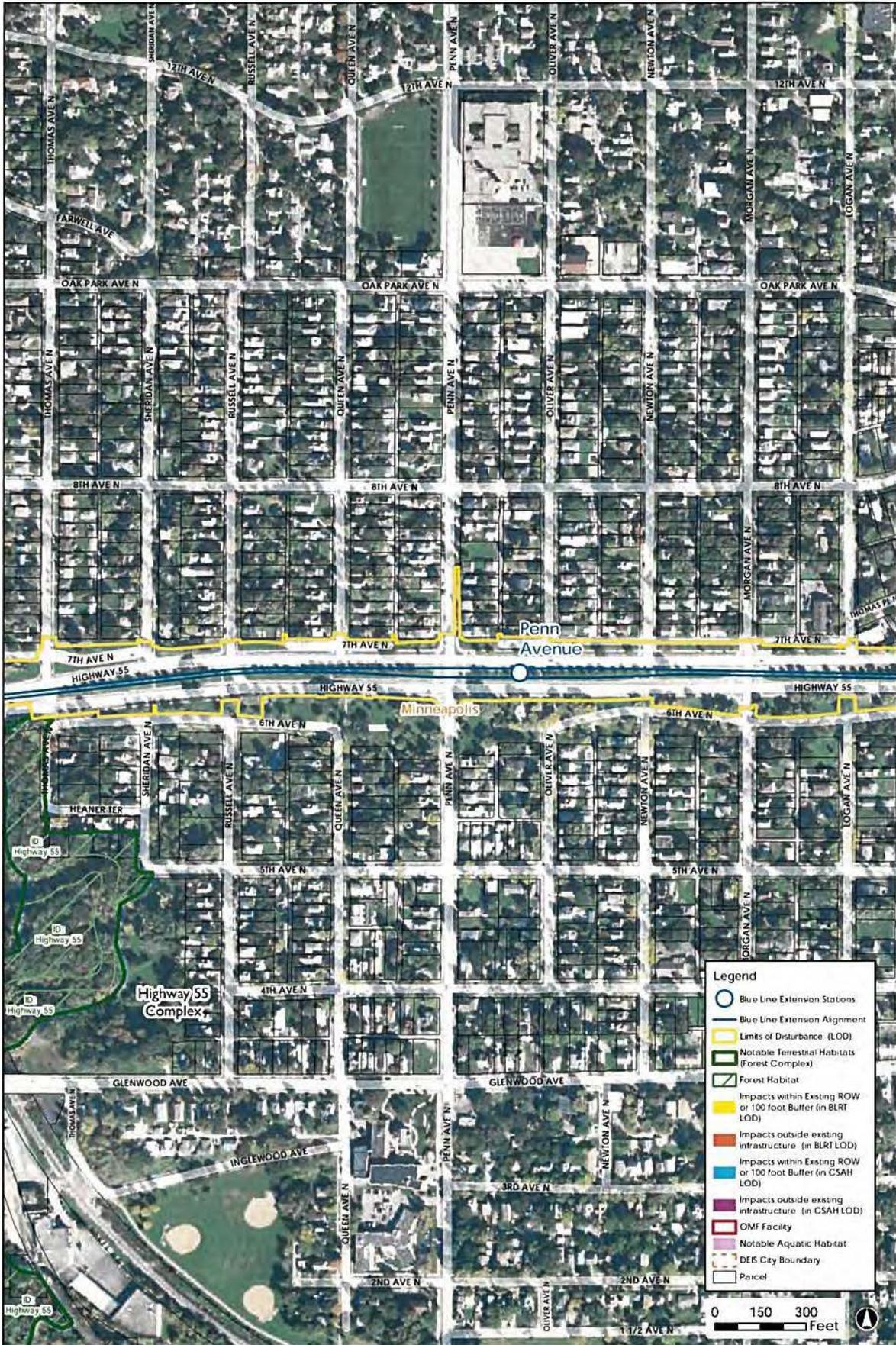
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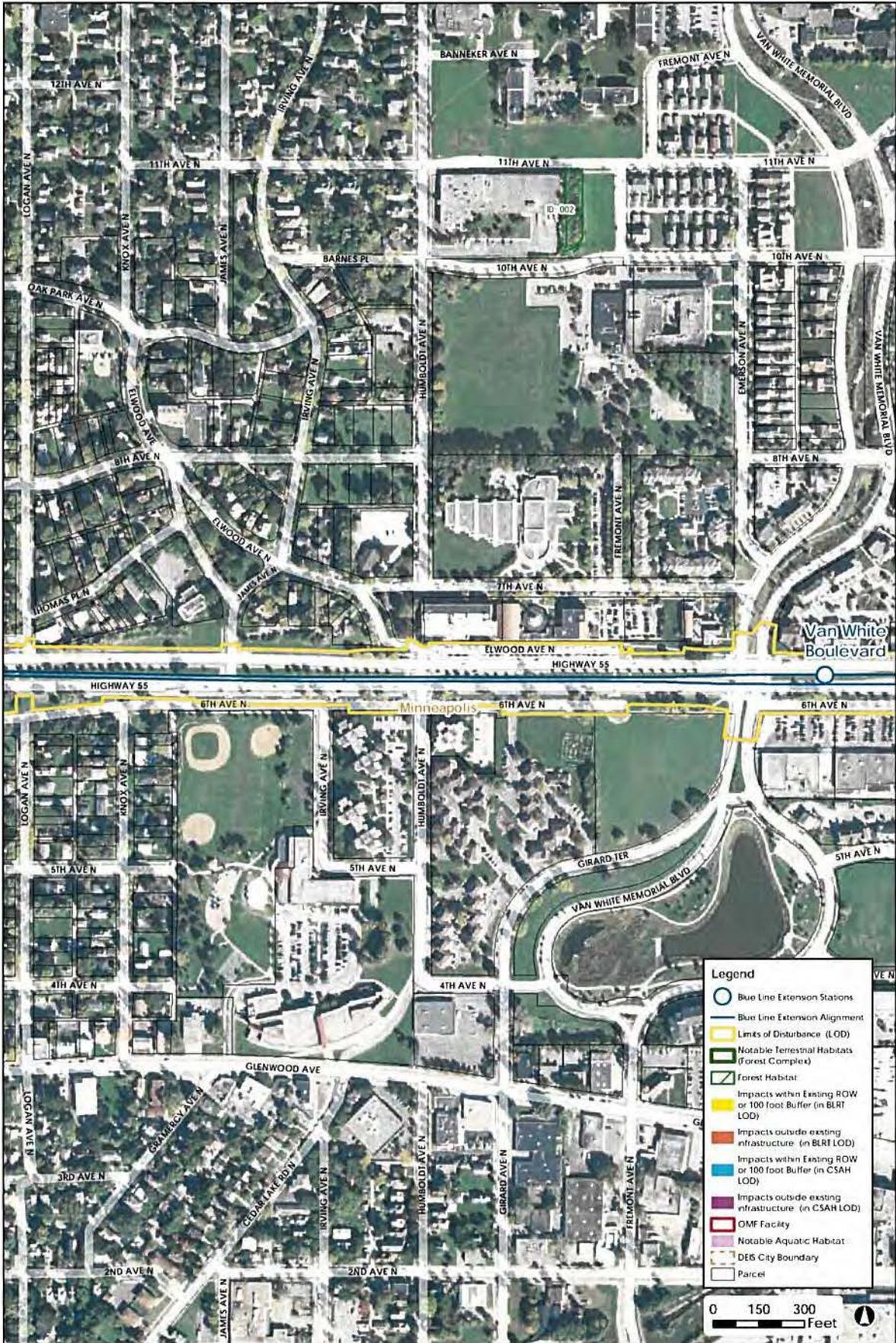
- Blue Line Extension Stations
- Blue Line Extension Alignment
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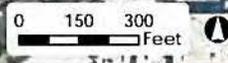








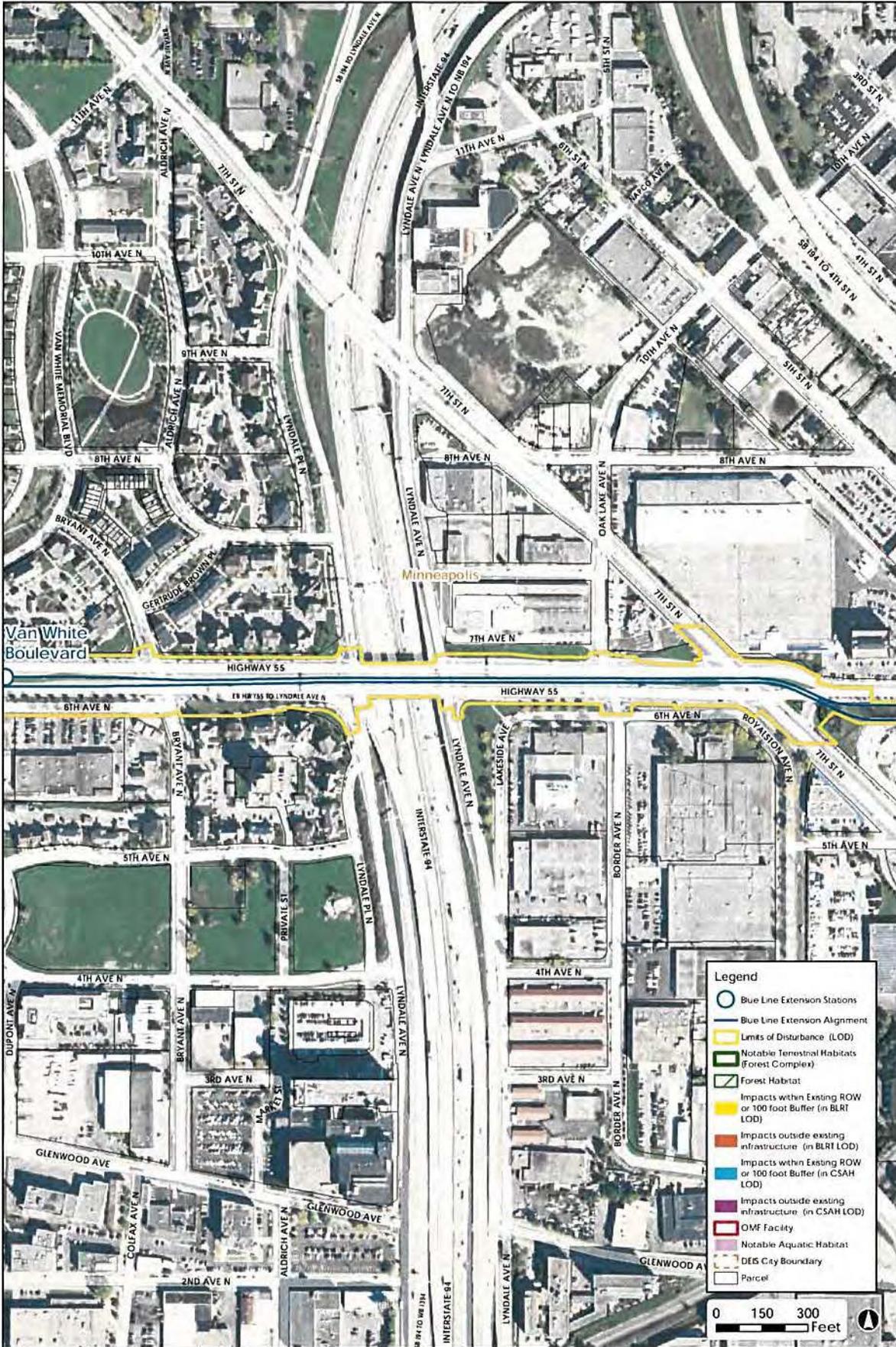
- Legend**
- Blue Line Extension Stations
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Projection: Hennepin County NAD83  
 Source: Hennepin County, Metro Transit, MnDOT, MnDNR, HDR Engineering Inc., and SEH Inc.

**DRAFT**







Projection: Hennepin County NAD83  
 Source: Hennepin County, Metro Transit, MnDOT, MnDNR, HDR Engineering Inc. and SEH Inc.

Wildlife Habitat Impacts  
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METRO Blue Line Extension

**DRAFT**



**From:** [Arkell, Reginald \(FTA\)](#)  
**To:** [andrew\\_horton@fws.gov](mailto:andrew_horton@fws.gov)  
**Cc:** [Sarna, Maya \(FTA\)](#); [O'Brien, Kathryn](#); [Miller, Caroline](#); [Reed, Scott](#)  
**Subject:** Metro BLRT Project - FTA NLEB 4f Consultation Form to USFWS  
**Date:** Friday, May 06, 2016 1:10:20 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[2016-05-05 Metro BLRT - FTA NLEB 4d Consultation Form to USFWS.pdf](#)

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Andrew:

Pursuant to our conversation on 5/5/16, please see the attached *Northern Long-Eared Bat 4(d) Rule Streamlined Consultation Form* (NLEB Form) completed and signed by FTA. I understand from you that submission of this form by email is sufficient. This is follow-up documentation you had requested in relation to FTA's 3/7/16 Section 7 ESA consultation and concurrence request to USFWS concerning the Metro Blue Line Light Rail Transit Extension Project. FTA is requesting a response from USFWS at your earliest convenience on the information and conclusions/determinations provided in our 3/7/16 letter and the NLEB form. Thank you very much for your assistance.

Reggie Arkell, AICP - Community Planner  
U.S. DOT, Federal Transit Administration, Region 5  
200 West Adams Street, Suite 320  
Chicago, Illinois 60606  
Telephone: 312-886-3704  
Facsimile: 312-886-0351  
Email: [reginald.arkell@dot.gov](mailto:reginald.arkell@dot.gov)  
<http://www.fta.dot.gov/>



## Northern Long-Eared Bat 4(d) Rule Streamlined Consultation Form

Federal agencies should use this form for the optional streamlined consultation framework for the northern long-eared bat (NLEB). This framework allows federal agencies to rely upon the U.S. Fish and Wildlife Service's (USFWS) January 5, 2016, intra-Service Programmatic Biological Opinion (BO) on the final 4(d) rule for the NLEB for section 7(a)(2) compliance by: (1) notifying the USFWS that an action agency will use the streamlined framework; (2) describing the project with sufficient detail to support the required determination; and (3) enabling the USFWS to track effects and determine if reinitiation of consultation is required per 50 CFR 402.16.

This form is not necessary if an agency determines that a proposed action will have no effect to the NLEB or if the USFWS has concurred in writing with an agency's determination that a proposed action may affect, but is not likely to adversely affect the NLEB (i.e., the standard informal consultation process). Actions that may cause prohibited incidental take require separate formal consultation. Providing this information does not address section 7(a)(2) compliance for any other listed species.

### Information to Determine 4(d) Rule Compliance:

|                                                                                                                                                                                  | YES                                 | NO                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1. Does the project occur wholly outside of the WNS Zone <sup>1</sup> ?                                                                                                          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 2. Have you contacted the appropriate agency <sup>2</sup> to determine if your project is near known hibernacula or maternity roost trees?                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 3. Could the project disturb hibernating NLEBs in a known hibernaculum?                                                                                                          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 4. Could the project alter the entrance or interior environment of a known hibernaculum?                                                                                         | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 5. Does the project remove any trees within 0.25 miles of a known hibernaculum at any time of year?                                                                              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 6. Would the project cut or destroy known occupied maternity roost trees, or any other trees within a 150-foot radius from the maternity roost tree from June 1 through July 31. | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

You are eligible to use this form if you have answered yes to question #1 **or** yes to question #2 **and** no to questions 3, 4, 5 and 6. The remainder of the form will be used by the USFWS to track our assumptions in the BO.

**Agency and Applicant**<sup>3</sup> (Name, Email, Phone No.): *Marisol R. Simon, Regional Administrator, Federal Transit Administration Region 5; contact person – Reginald Arkell, Community Planner, [reginald.arkell@dot.gov](mailto:reginald.arkell@dot.gov), (312) 886-3704*

**Project Name:** *METRO Blue Line Light Rail Transit Extension Project (BLRT Extension project)*

**Project Location** (include coordinates if known): *Western Minneapolis, Golden Valley, Robbinsdale, Crystal, and Brooklyn Park, MN*

**Basic Project Description** (provide narrative below or attach additional information): *The BLRT Extension project is a 13-mile light rail transit line that would be located in Hennepin county and extend westward along Trunk Highway (TH) 55 from Target Field Station to the BNSF Railway Monticello Subdivision at the eastern edge of Theodore Wirth Regional Park. It would then follow the BNSF*

<sup>1</sup> <http://www.fws.gov/midwest/endangered/mammals/nleb/pdf/WNSZone.pdf>

<sup>2</sup> See <http://www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html>

<sup>3</sup> If applicable - only needed for federal actions with applicants (e.g., for a permit, etc.) who are party to the consultation.

corridor from TH 55 to just south of 73<sup>rd</sup> Avenue in Brooklyn Park. From that point it would cross eastward to West Broadway Avenue and extend north to a point just north of TH 610.

| General Project Information                                                              | YES                                 | NO                                  |
|------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| Does the project occur within 0.25 miles of a known hibernaculum?                        | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Does the project occur within 150 feet of a known maternity roost tree?                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Does the project include forest conversion <sup>4</sup> ? (if yes, report acreage below) | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Estimated total acres of forest conversion                                               | 28.54                               |                                     |
| If known, estimated acres <sup>5</sup> of forest conversion from April 1 to October 31   |                                     |                                     |
| If known, estimated acres of forest conversion from June 1 to July 31 <sup>6</sup>       |                                     |                                     |
| Does the project include timber harvest? (if yes, report acreage below)                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Estimated total acres of timber harvest                                                  |                                     |                                     |
| If known, estimated acres of timber harvest from April 1 to October 31                   |                                     |                                     |
| If known, estimated acres of timber harvest from June 1 to July 31                       |                                     |                                     |
| Does the project include prescribed fire? (if yes, report acreage below)                 | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Estimated total acres of prescribed fire                                                 |                                     |                                     |
| If known, estimated acres of prescribed fire from April 1 to October 31                  |                                     |                                     |
| If known, estimated acres of prescribed fire from June 1 to July 31                      |                                     |                                     |
| Does the project install new wind turbines? (if yes, report capacity in MW below)        | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Estimated wind capacity (MW)                                                             |                                     |                                     |

Agency Determination:

By signing this form, the action agency determines that this project may affect the NLEB, but that any resulting incidental take of the NLEB is not prohibited by the final 4(d) rule.

If the USFWS does not respond within 30 days from submittal of this form, the action agency may presume that its determination is informed by the best available information and that its project responsibilities under 7(a)(2) with respect to the NLEB are fulfilled through the USFWS January 5, 2016, Programmatic BO. The action agency will update this determination annually for multi-year activities.

The action agency understands that the USFWS presumes that all activities are implemented as described herein. The action agency will promptly report any departures from the described activities to the appropriate USFWS Field Office. The action agency will provide the appropriate USFWS Field Office with the results of any surveys conducted for the NLEB. Involved parties will promptly notify the appropriate USFWS Field Office upon finding a dead, injured, or sick NLEB.

Signature: 

Date Submitted: 5/5/2016

<sup>4</sup> Any activity that temporarily or permanently removes suitable forested habitat, including, but not limited to, tree removal from development, energy production and transmission, mining, agriculture, etc. (see page 48 of the BO).

<sup>5</sup> If the project removes less than 10 trees and the acreage is unknown, report the acreage as less than 0.1 acre.

<sup>6</sup> If the activity includes tree clearing in June and July, also include those acreage in April to October.

**From:** [Horton, Andrew](#)  
**To:** [Arkell, Reginald \(FTA\)](#)  
**Cc:** [Sarna, Maya \(FTA\)](#); [O'Brien, Kathryn](#); [Miller, Caroline](#); [Reed, Scott](#)  
**Subject:** Re: Metro BLRT Project - FTA NLEB 4f Consultation Form to USFWS  
**Date:** Monday, May 16, 2016 1:35:40 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)

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Mr. Arkell,

We have received your determination that this project will fall under the "may affect, but take not prohibited" determination of the Final 4(d) Rule. I have reviewed this project and the action area is greater than 0.25 acres from any known northern long-eared bat hibernacula and more than 150-feet from any known occupied maternity roost tree. This project meets the requirements under the Final 4(d) Rule and tree clearing may proceed without waiting the 30-days from the date submitted.

This project has also been reviewed in regards to Higgins eye pearlymussel and snuffbox and no impacts are anticipated. There are no known bald eagle nests within 660 feet of the proposed project, however, if an active nest is discovered within 660 feet from your work area or removal of an inactive nest is unavoidable, our office should be contacted. Thank you and let me know if you have any additional questions.

- Andrew

Andrew Horton  
Twin Cities Ecological Services Field Office  
U.S. Fish and Wildlife Service  
4101 American Blvd East  
Bloomington, MN 55425-1665  
(952) 252-0092, ext. 208 **(New Phone Number!)**

On Fri, May 6, 2016 at 1:10 PM, Arkell, Reginald (FTA) <[reginald.arkell@dot.gov](mailto:reginald.arkell@dot.gov)> wrote:

Andrew:

Pursuant to our conversation on 5/5/16, please see the attached *Northern Long-Eared Bat 4(d) Rule Streamlined Consultation Form* (NLEB Form) completed and signed by FTA. I understand from you that submission of this form by email is sufficient. This is follow-up documentation you had requested in relation to FTA's 3/7/16 Section 7 ESA consultation and concurrence request to USFWS concerning the Metro Blue Line Light Rail Transit Extension Project. FTA is requesting a response from USFWS at your earliest convenience on the information and conclusions/determinations provided in our 3/7/16 letter and the NLEB form. Thank you very much for your assistance.



U.S. Department  
of Transportation  
**Federal Transit  
Administration**

REGION V  
Illinois, Indiana,  
Michigan, Minnesota,  
Ohio, Wisconsin

200 West Adams Street  
Suite 320  
Chicago, IL 60606-5253  
312-353-2789  
312-886-0351 (fax)

June 16, 2016

Kenneth A. Westlake  
Chief, NEPA Implementation Section  
United States Environmental Protection Agency, Region 5  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

Re: USEPA Comments on the Draft Environmental Impact Statement (DEIS)  
Bottineau Transitway, Hennepin County, Minnesota – CEQ No. 20140108

Dear Mr. Westlake:

Thank you for the U.S. Environmental Protection Agency's (EPA's) letter dated May 27, 2014, commenting on the Bottineau Transitway (now referred to as the Blue Line Light Rail Extension, or BLRT) Draft Environmental Impact Statement (Draft EIS), published in April 2014 by the Federal Transit Administration (FTA), the Metropolitan Council (Council), and the Hennepin County Regional Railroad Authority. Since publication of the Draft EIS, the Council has taken sole responsibility as the local Project sponsor and has been working with stakeholders and the FTA to prepare the Project's Final Environmental Impact Statement (Final EIS). The publication of the Final EIS is anticipated in July 2016. Although the FTA indicated in the project's Draft EIS its intent to publish a combined Final EIS/Record of Decision (ROD), the decision has subsequently been made to publish these documents separately.

This response letter is not intended to be the official response to your comments as required under 23 CFR Part 771.125 (a)(1) and under 23 CFR Part 774, but rather to provide USEPA context on how the Project has been defined as a Preferred Alternative for inclusion in the Final EIS. The FTA and the Council are available to meet to discuss USEPA's comments on the Draft EIS prior to publication of the Final EIS if you would like to discuss any issues in greater detail.

The letter is organized by the themes identified in EPA's letter of May 27, 2014 – a copy of which is attached for ease of reference. Under each theme, the EPA made recommendations, which are re-stated below along with a summary of the ways in which the issue will be addressed in the Final EIS and Record of Decision (ROD).

### **ALTERNATIVES**

***Recommendation: EPA recommends the FEIS identify how station location decisions will be made. These decisions should be documented based on how alternatives fulfill project purpose and need and their impacts.***

Re: USEPA Comments on the Draft Environmental Impact Statement (DEIS)  
Bottineau Transitway, Hennepin County, Minnesota – CEQ No. 20140108

**FTA Response:**

Decisions regarding the locations of stations for the proposed BLRT Extension project were made consistent with the Metropolitan Council's *Regional Transitway Guidelines* document (February 2012), which states that the identification of transitway station areas should be based on travel demand demonstrated through rigorous market analysis of existing and planned future conditions and articulates standards for station spacing and configuration based on transitway mode. This reference is included in Chapter 2 of the Final EIS with a link to the guidance document: <http://www.metrocouncil.org/Transportation/Publications-And-Resources/RegionalTransitwayGuidelines-pdf.aspx>.

EPA's recommendation was prefaced by the observation that two station locations, at Plymouth Avenue and at Golden Valley Road, were identified as part of the locally preferred alternative (LPA) alignment in the Draft EIS, but only one station was presumed for ultimate selection as part of the Preferred Alternative. Selecting one, or both, of these stations and identifying the basis for this decision in the Project's Final EIS was one of the key technical issues identified for resolution by the Met Council early in the Project Development phase.

Input received on resolving the issue of whether both a Golden Valley Road and a Plymouth Avenue station should be included in the Final EIS Preferred Alternative included comments received during the Draft EIS period. The City of Golden Valley, in their comment letter, pointed out the importance of the Golden Valley Road station to serve their residents, to provide a transit connection for existing bus routes on Golden Valley Road, and to serve nearby businesses, including the Kenny Courage Rehabilitation Institute located approximately 1/3-mile from the Golden Valley Road Station. The City of Minneapolis, in their Draft EIS comment letter, supported the construction of the Plymouth Avenue and Golden Valley Road stations, stating "both [are] necessary to adequately serve the corridor travelshed, including a significant portion of North Minneapolis."

Input received by the Council after publication of the Draft EIS further clarified the need for both stations to serve distinct travel markets. This input included a resolution passed by the Minneapolis Park and Recreation Board in November 2015 supporting the construction of both stations as well as an action by the Project's Corridor Management Committee to include the construction of both stations as part of the Project's scope and budget.

The Project's Final EIS will provide a through discussion of both the technical and public input process that led to decision-making regarding the decision to construct both the Plymouth Avenue and the Golden Valley Road stations. This information will include ridership estimates, constructability, design requirements, environmental impacts, any mitigation requirements, and stakeholder input.

***Recommendation:*** *We [EPA] recommend the FEIS identify how the OMF location decision will be made. We recommend selection of the alternative at CR 103 and 93<sup>rd</sup> Avenue because of its apparent fewer impacts.*

Re: USEPA Comments on the Draft Environmental Impact Statement (DEIS)  
Bottineau Transitway, Hennepin County, Minnesota – CEQ No. 20140108

**FTA Response:**

The OMF location decision was made based on availability of sufficient property, design and operational requirements, environmental impact analyses, and stakeholder input. Summary-level discussion of this process is included in Chapter 2 of the Final EIS and the siting of the proposed Blue Line Extension project OMF is identified as Issue 12 of the project's issues resolution process (also described in Chapter 2 of the Final EIS). Since the publication of the Draft EIS, a private developer has acquired the proposed OMF site at CR 103 and 93<sup>rd</sup> Avenue and has started construction of a series of office/warehouse buildings; therefore, this site is no longer under consideration. The proposed OMF site at CR 103 and 101<sup>st</sup> Avenue will be the location identified as the Preferred Alternative in the Final EIS. The project design team has evaluated different layouts for the OMF facility that take into consideration park property, wetlands, long range development plans, and stakeholder input. The adverse effects associated with the CR 103 and 101<sup>st</sup> Avenue site, noted in the Draft EIS, have been avoided through a process of local stakeholder coordination and engineering solutions. Specifically, the Preferred Alternative OMF has been re-oriented in a north-south direction to avoid the potential permanent impacts to Three Rivers Park District property noted in the Draft EIS and to minimize wetland impacts. This location is also removed from any residents or other types of land uses potentially affected by noise or other activities associated with the OMF. Furthermore, the OMF siting accommodates the City of Brooklyn Park's plans for future development in this area and is consistent with these planned land uses and development.

***Recommendation:*** *We [EPA] recommend the FEIS acknowledge that Alternative B-C-D1 does not cause the least damage to the biological and natural resources of the physical environment.*

**FTA Response:**

The FTA concurs that Alternative B-C-D1 does not cause the least damage to the biological and natural resources of the physical environment. This will be acknowledged in the Project's Final EIS. In addition, an explanation of the selection of the locally preferred alternative, especially the potential for disproportionately high and adverse impacts on minority and low-income populations associated with the alternative not selected, will be provided in the Final EIS as well.

**AIR QUALITY**

***Recommendation:*** *Because MSATs [Mobile Source Air Toxics] can cause adverse health impact, especially to vulnerable populations such as children, the elderly, and those with existing respiratory health issues, EPA recommends the FEIS identify potential mitigation measures to decrease the exposure of these populations to MSATs emissions during construction and operation of the proposed project. Such measures may include, but should not be limited to, strategies to reduce diesel emissions, such as project construction contracts that require the use of equipment with clean diesel engines and the use of clean diesel fuels, and limits on the length of*

Re: USEPA Comments on the Draft Environmental Impact Statement (DEIS)  
Bottineau Transitway, Hennepin County, Minnesota – CEQ No. 20140108

*time equipment is allowed to idle when not in active use (EPA recommends idling not exceed 5 minutes).*

**FTA Response:**

The current understanding of Mobile Source Air Toxics (MSATs) indicates that in general, MSATs will decline even if vehicle miles traveled increase. This is demonstrated in an FHWA analysis using the EPA's MOVES2012b model, where a 102% increase in VMT between 2010 and 2050 still allows an 83% reduction in priority MSATs. This reduction, even under a VMT growth scenario, is attributable to emission control technology and modern fuels<sup>1</sup>. The proposed BLRT project will result in a slight reduction of VMT in the project area, therefore an increase in MSATs from LRT operations is highly unlikely. A qualitative discussion of MSATs will be included in the Final EIS to document these findings.

Construction activities do indeed have the potential for temporary increases in MSAT emissions; the Final EIS will discuss mitigation measures to reduce such emissions during construction activities, including identifying potential equipment types and operational parameters to reduce MSAT emissions.

***Recommendation:*** *We [EPA] recommend that the FEIS identify and discuss any anticipated effects of climate change on the project and possible adaptation measures. For example, discuss any effects that predicted increase in the number and/or intensity of precipitation events associated with climate change may have on sizing bridge spans, culvert openings, and stormwater management measures in order to accommodate such events and ensure project longevity, public health, and safety.*

**FTA Response:**

The potential effects of climate change will be discussed in the Final EIS. The requirements of Executive Order 13690 (pertaining to infrastructure resiliency relative to extreme precipitation/flood events and the frequency of such events) is also included in the FEIS, and are being incorporated into the Project design. The necessary mitigation for water resource impacts associated with these designs will be disclosed in the Final EIS.

**WATER RESOURCES – WETLANDS AND STREAMS**

***Recommendations:*** *EPA recommends the FEIS include:*

- *A specific discussion of how sequencing established by the Clean Water Act Section 404(b)(1) guidelines has been applied. This sequence is: avoidance first, then demonstrated impact minimization, then mitigation remaining unavoidable, minimized impacts;*
- *A 404(b)(1) analysis; and,*

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<sup>1</sup> FHWA Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA, December 6, 2012.

Re: USEPA Comments on the Draft Environmental Impact Statement (DEIS)  
Bottineau Transitway, Hennepin County, Minnesota – CEQ No. 20140108

- *A discussion on proposed mitigation for unavoidable, minimized wetland and stream impacts.*

**FTA Response:**

The United States Army Corps of Engineers (USACE) is a cooperating agency on the proposed BLRT Extension project, which is being advanced under the NEPA/404 Merger process. The NEPA/404 Merger process provides a series of concurrence points that can be considered formal documentation of the sequencing process in accordance with the 404(b)(1) guidelines. Specifically:

- Concurrence point 1 is agreement on the purpose and need for the proposed project. The USACE provided input to the FTA and the local project sponsor regarding the purpose and need, and agreed on the final purpose and need for the project as documented in their letter dated June 19, 2013.
- Concurrence point 2 is agreement on the alternatives to be evaluated in the NEPA document; the USACE reviewed the alternatives considered in the studies leading up to the Draft EIS, and agreed with the set of alternatives carried forward in the Draft EIS. This concurrence point was documented in the same June 19, 2013 USACE letter.
- Concurrence point 3 is the agreement on the Least Environmentally Damaging Practicable Alternative (LEDPA). The USACE reviewed the social, economic, and environmental impacts associated with the alternatives analyzed in the Draft EIS, and concluded that the locally preferred alternative (Draft EIS alternative B-C-D1) was the LEDPA when taking into account impacts to all resources. The USACE documented their agreement on concurrence point 3 in a letter dated October 1, 2013.
- Concurrent point 4 is the agreement on minimization and mitigation strategies. The Council submitted a Minnesota Interagency Water Resource Application (a joint Section 404/Minnesota Wetland Conservation Act (WCA) permit application) for the proposed BLRT Extension project on May 16, 2016. Section 5.5.1 of the application document provides a summary of the engineering measures taken to minimize wetland impacts, and Section 5.6 presents proposed wetland mitigation. The USACE reviewed the permit application and provided agreement on concurrence point 4 in a letter dated June 16, 2016.

A copy of the Minnesota Interagency Water Resource Application, including copies of the concurrence point letters from the USACE, will be included in the Final EIS appendices.

**Recommendations:**

- *The FEIS should include wetland delineations, USACE jurisdictional determinations, and wetland and stream quality assessments. This information should encompass all areas of right-of-way (ROW, adjacent construction access and access road locations, staging areas, station locations, and park-and-ride lots) associated with the Preferred*

Re: USEPA Comments on the Draft Environmental Impact Statement (DEIS)  
Bottineau Transitway, Hennepin County, Minnesota – CEQ No. 20140108

*Alternative. This information will provide accurate baseline data on existing wetlands and water resources, and accurate quantification of potential impacts.*

- *To help inform decisions regarding the location of the OMF and choice between two station locations in Alignment D1, the FEIS should include potential aquatic resource impacts for all options, based on wetland delineations, and wetland and stream quality assessments.*
- *Potential permanent and temporary wetlands and stream impacts noted on FEIS impact summary tables and impact narratives in the FEIS should be based on the delineations and assessments. The FEIS should address and discuss construction staging and access, and identify how wetlands adjacent to construction areas will be protected from incidental fill during construction. Restoration of all temporary wetland impacts should also be discussed.*
- *The FEIS should discuss stream impacts associated with each alignment, station locations, and potential OMF locations. The FEIS should provide impact summary totals for the preferred alignments [i.e., linear footage of impact, stream impact location maps (including new or modified stream crossings or culvert work, with narrative discussion of impacts), and a description of stream impacts].*

**FTA Response:**

During the development of the Final EIS, wetland delineations were conducted along the entire proposed BLRT Extension project corridor, including all stations, park-and-ride locations, construction access areas, and the OMF. The delineations were reviewed and approved by USACE staff as well as state and local staff responsible for implementation of the Minnesota WCA. Jurisdictional determinations were made for the entire project; a total of about 4.16 acres of USACE-jurisdictional wetland impact and about 6.28 acres of WCA-jurisdictional wetland impact were identified.

The proposed BLRT Extension project includes stations at both the Plymouth Avenue and Golden Valley Road locations; the wetland delineation information indicated that the majority of wetland impacts in these locations was from the freight rail and light rail alignments and not the footprint of the stations. The difference in wetland impact between constructing one, the other, or both stations was negligible, and was not a determining factor in the selection of the stations.

The OMF was reoriented from what was shown in the Draft EIS and the footprint of the facility was reduced to avoid park property and minimize wetland impacts.

Chapter 5 of the Final EIS will include a summary of the anticipated temporary and permanent wetland and stream impacts, and will also include a discussion of minimization and mitigation requirements for permanent and temporary water resource impacts. A copy of the Minnesota Interagency Resource Application will be included in the final EIS appendices; this application

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also includes a copy of the USACE letter approving concurrence point 4 (agreement on minimization/mitigation strategies). The Final EIS

***Recommendation:*** *The FEIS should provide information on the location and number of proposed stream crossings or stream impacts (associated with culvert repair, extension, etc.), whether or not the waterbody is a 303(d)-listed waterbody or upstream of a 303(d)-listed waterbody, and describe how the project could potentially affect each listed waterbody with regard to specific listed impairments.*

**FTA Response:**

The Water Quality and Stormwater section of the Final EIS will disclose the number of stream crossings (two – Shingle Creek and Bassett Creek). A discussion of impaired (303(d)-listed) waters will be included in the Water Quality and Stormwater section (see table below), along with short- and long-term mitigation measures to avoid impacts to receiving waters.

**Table 5.9-2. Downstream Impaired Waters within 1 Mile of the BLRT Extension Project**

| <b>Impaired Receiving Water</b>      | <b>Impairments</b>                                                                                                                         | <b>Total Maximum Daily Load (TMDL) Status</b>                                                                                                     |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Mississippi River                    | Mercury In fish tissue; fecal coliform; polychlorinated biphenyls (PCB) in fish tissue                                                     | <i>Upper Mississippi River Bacteria TMDL and Protection Plan (2014)</i>                                                                           |
| Bassett Creek                        | Chloride; fecal coliform; fishes bioassessments                                                                                            | Included in the above TMDL plan                                                                                                                   |
| Crystal Lake                         | Nutrient/eutrophication biological indicators                                                                                              | <i>Crystal Lake Nutrient TMDL Implementation Plan (2009)</i>                                                                                      |
| Twin Lakes: Lower, Middle, and Upper | Mercury in fish tissue; nutrient/eutrophication biological indicators; PCB in fish tissue; perfluorooctane sulfonate (PFOS) in fish tissue | <i>Twin and Ryan Lakes Nutrient TMDL (2007); plans are required for mercury, PCB, and PFOS</i>                                                    |
| Shingle Creek                        | Aquatic macroinvertebrate bioassessments; chloride; dissolved oxygen                                                                       | <i>Shingle and Bass Creeks Biota and Dissolved Oxygen TMDL Implementation Plan (2012); Shingle Creek Chloride TMDL Implementation Plan (2007)</i> |

***Recommendations:***

- ***EPA recommends that FTA coordinate with the USACE, U.S. Fish and Wildlife Service (USFWS), EPA and Minnesota Department of Natural Resources (MnDNR) to determine if wetland mitigation for indirect impacts is expected and required. If mitigation for indirect impact, to include shading, is required, the FEIS should discuss this point.***

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- *The FEIS should discuss acreages of impact from both direct and indirect impacts, as well as proposed mitigation ratios for both direct and indirect wetland impacts.*
- *The FEIS should discuss temporary wetland impacts, and how those wetland impacts will be restored. Monitoring of restored wetland areas to ensure full restoration is expected. Conceptual monitoring plans should be included in the FEIS.*
- *To avoid confusion or misunderstanding of the information depicted on project figures, we also recommend that FEIS project figures/drawings include comprehensive legends.*

**FTA Response:**

- Coordination has taken place with the USACE, DNR, Minnesota Board of Water and Soil Resources, and local agencies responsible for implementing WCA regarding indirect impacts to wetlands. The USFWS was also consulted regarding the proposed BLRT Extension project; however, they did not express concerns regarding impacts to wetland resources.
- The Final EIS will discuss acreages of wetland impact. Two locations where shading from bridges over wetland areas could create indirect impacts were identified; however, the impacts were calculated conservatively using the footprint of the bridge deck rather than the cross-section of the bridge piers, and were reported as direct impacts. Mitigation has been calculated using direct impact ratios of 2 (mitigation):1 (impact) which is more conservative than indirect wetland impact mitigation ratios.
- Temporary wetland impacts are disclosed in the Minnesota Interagency Water Resource Application and will be summarized in the Final EIS. Restoration of temporary wetland impacts will be subject to monitoring to document restoration. It is anticipated that restored wetland areas will be monitored on the same schedule as on-site wetland mitigation areas.
- All figures in the Final EIS will include comprehensive legends..

**THREATENED OR ENDANGERED SPECIES**

***Recommendation:*** *EPA recommends that FTA continue to coordinate with USFWS and the MnDNR to determine if any of the proposed activities would or could detrimentally affect any Federally- or state-listed species, species proposed for listing, or their critical habitat. The FEIS should include updated correspondence from USFWS and MnDNR confirming whether the proposed project will, or will not, affect any Federally- or state-listed threatened or endangered species, including the northern long-eared bat and the Blanding's turtle.*

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**FTA Response:**

The Final EIS design and planning team has worked in close coordination with the USFWS and MnDNR concerning the potential for impacts to federal and state-listed species including the northern long-eared bat and Blanding's turtle. USFWS has concurred with FTA's determination that the proposed BLRT Extension project falls under the "may affect, incidental take not prohibited" determination of the Final 4(f) Rule for the northern long-eared bat; this concurrence is documented in an e-mail dated May 16, 2016. No other impacts to federal-listed species is anticipated. The Minnesota DNR concurred with the assessment of impacts to state-listed species in an e-mail on February 9, 2016.

***Recommendation:*** *These [standards for avoiding impacts to bald eagle nesting sites and future eagle nest surveys] guidelines and surveys are commitments that should be reiterated and formalized in the FEIS/ROD.*

**FTA Response:**

Eagle nest locations are currently known, though nest locations do change from year to year. As noted in Section 5.8 of the Final EIS, appropriate and reasonable measures to avoid and minimize impacts to eagles, their nests and habitat will be taken and these measures will be documented in the Final EIS.

***Recommendation:*** *[In reference to pre-construction surveys of bridge structures and forested areas within the construction limits for the presence of Migratory Bird Treaty Act species' nests] The FEIS should specify the agencies with which consultation will be undertaken, and specify the timeframes during which mitigation measures will be implemented. These surveys and mitigation measures should be commitments in the FEIS/ROD.*

**FTA Response:**

Bridges and structures have been surveyed for the presence of swallow's nests (afforded protections under the Migratory Bird Treaty Act) during the 2015 field season. Forested areas that will be impacted as a result of the proposed BLRT are disturbed from urban fragmentation and as a result, nests present within them likely have a high rate of nest parasitism from brown-headed cowbirds, an aggressive species. As noted in Section 5.8, appropriate and reasonable measures will be taken to avoid and minimize impacts to migratory nesting bird species. These measures and commitments, developed in consultation with the USFWS, will be described in the Final EIS and ROD.

***Recommendation:*** *EPA recommends that FTA continue coordination efforts with USFWS and state wildlife agencies as appropriate to meet the conditions of the Fish and Wildlife Coordination Act. Correspondence to and received from coordinating agencies documenting FWCA coordination should be included in the FEIS/ROD.*

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**FTA Response:**

FTA agrees and the requested correspondence documenting coordination efforts with US Fish and Wildlife and with the Minnesota Department of Natural Resources will be included in the Final EIS.

**FLOODPLAINS**

**Recommendation: We [EPA] recommend the FEIS provide information on potential floodplain impacts (acres of impact plus acre-feet of impact), and potential floodplain mitigation information (including expected mitigation ratios, updates on status of coordination with permitting entities, and identification of potential mitigation sites that are not currently forested).**

**FTA Response:**

The Final EIS will include information regarding the extent of floodplain impacts based on more detailed design information than was available at the time of the Draft EIS publication. Section 5.2 of the Final EIS and/or Appendix F of the Final EIS supporting documentation will disclose the length of floodplain impact, whether the impact is linear or transverse, and the overall volume of floodplain impact by stream reach. Mitigation for floodplain impacts is being discussed with owners of the properties that lie within each stream reach. Mitigation will be in the form of compensatory flood storage, and will be provided at a one-to-one ratio. At this time, the mitigation site identified in the Draft EIS is a viable option. This option will be identified as floodplain mitigation in the Final EIS and is supported by the Minneapolis Park and Recreation Board (on whose property this site is partially located) as articulated in a resolution passed by the Board in November 2015. The site was damaged during a tornado in 2011; the opportunity exists to create compensatory flood storage, and introduce floodplain forest tree species to restore the forested nature of the area.

**STORMWATER**

**Recommendation: All stormwater BMPs and detention area should be built and located outside of natural wetlands and streams. Existing natural wetlands should not be used as primary detention facilities, and any treated stormwater discharged to natural wetlands should not cause a change of existing wetland type and function (i.e., should not change an emergent wetland to an open water wetland, etc.). Sustainable stormwater technologies, including the use of pervious or porous pavement, should be utilized throughout the project.**

**FTA Response:**

Areas suitable for certain BMPs are somewhat limited in linear projects. In some cases, stormwater management may require BMPs (stormwater ponds, sediment forebays) to be placed at the perimeter of existing wetlands. Adjacent wetlands would then benefit from added hydrology which has been cleaned of sediments and pollutants in the BMP. Many wetlands in the project area are severely degraded as a result of a general lowering of the water table over

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the past century. The team will strive to maintain the current functionality of wetlands, though addition of hydrology in some cases may enhance wetland functionality.

### **FORESTED IMPACTS**

**Recommendations: We [EPA] recommend the FEIS quantify acreage and number of upland trees to be removed by the project. EPA recommends further coordination with USFWS, MnDNR, and local municipalities regarding providing voluntary upland forested mitigation for these losses. The FEIS should include specific information on what forest mitigation is being offered (e.g., a summary of mitigation ratios, a summary of how mitigation will be offered). If applicable, the FEIS should clarify forest mitigation provided for bat habitat impacts versus forest mitigation provided for impacts to upland forest.**

#### **FTA Response:**

The FTA understands that the Council, as part of its preliminary design efforts, is conducting a detailed survey of existing trees that may be affected by project construction. This survey is anticipated to be complete in early fall 2016 (shortly after the publication of the Final EIS). This list will include the size and species of each tree greater than 6” diameter breast height (DBH) for trees within Minneapolis, Golden Valley, Robbinsdale, and Crystal; and greater than 4” DBH for trees within Brooklyn Park. FTA will document the process of coordinating with USFWS in the Project’s Final EIS, including findings regarding potential impacts to the northern long-eared bat and its habitat. This coordination includes an inventory of existing forested complex areas and an assessment of Project impacts.

### **ADDITIONAL COMMENTS**

**Recommendations: We [EPA] recommend the FEIS include a vegetative management plan that addresses the identification and control of noxious weed/invasive species in and near the project ROW and associated facilities during project construction and operation. The plan should list the noxious weeds and exotic plants that occur in the resource area. In cases where noxious weeds are a threat, EPA recommends the document detail a strategy for prevention, early detection of invasion, and control procedures for each species.**

#### **FTA Response:**

The FTA takes the issues of noxious weeds and invasive plant species seriously. Through discussions with the Council, FTA understands that detailed noxious weed and invasive plant management strategies vary depending on the type of weed/plant to be controlled, the setting in which the weed/plant grows, and the construction and operating parameters of the light rail system. Rather than attempting to develop a detailed vegetative management plan at an early stage of design when little is known about construction staging, means and methods, and operational specifics; the Final EIS includes a commitment to develop a vegetation management plan including measures such as spot-spraying with appropriate herbicides and

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cleaning equipment as it enters and exits the construction area along the proposed BLRT Extension Project. However, permanent eradication of invasive or noxious weeds in the study area would not be feasible. These measures are discussed in section 5.8.5.4 in the Final EIS.

**Recommendation: EPA recommends project proponents consider using green building strategies for the Bottineau Transitway project.**

**FTA Response:**

To the extent feasible, the design of the BLRT project will incorporate green building strategies. These considerations will be more fully articulated as the Project proceeds into the Engineering phase of New Starts Project Development, which will occur at some point following FTA's issuance of a Project Record of Decision.

**DEIS CORRECTIONS / ADDITIONS**

**Recommendation: In order to help avoid reader confusion, EPA recommends each of the above referenced terms [Locally Preferred Alternative or LPA, Preferred Alternative, Environmentally Preferred Alternative, Least Environmentally Damaging Preferred Alternative or LEDPA, and Least Environmentally Damaging Practicable Alternative or LEDPA] be defined in the FEIS Glossary of Terms and their associated acronyms included in the Acronyms section of the FEIS.**

**FTA Response:**

The Final EIS has been drafted to help avoid reader confusion, using clear and consistent terms for the proposed undertaking (the proposed BLRT Extension project), defining the Locally Preferred Alternative (LPA) and other technical terms. The Final EIS will include a glossary, and will provide a comprehensive list of acronyms used in the document. To the extent that the terms listed in the EPA's comment letter are confusing or synonymous, the FTA will strive to avoid using more than one term to explain or describe the same issue or item in the Final EIS.

**Recommendation: EPA recommends the Acronym section of the FEIS identify the LEDPA acronym to mean "the least environmental damaging practicable alternative."**

**FTA Response:**

The FTA concurs that the acronym "LEDPA" means the "least environmentally damaging practicable alternative," and will document it as such in appropriate sections of the Final EIS.

We hope this additional information is useful and provides background information for how EPA's recommendations were responded to in the Project's forthcoming Final EIS, which is anticipated for publication later this summer.

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If you require additional assistance, please contact Maya Sarna at (202) 366-5811 ([maya.sarna@dot.gov](mailto:maya.sarna@dot.gov)) or Reginald Arkell at (312) 886-3704 ([reginald.arkell@dot.gov](mailto:reginald.arkell@dot.gov)). Thank you for your coordination on this important regional project.

Sincerely,

A handwritten signature in black ink, appearing to read "Marisol R. Simon". The signature is fluid and cursive, written over the word "Sincerely,".

Marisol R. Simon  
Regional Administrator

Cc: Maya Sarna, FTA HQ  
Reginald Arkell, FTA Region V  
Mark Fuhrmann, Program Director, Metropolitan Council  
Dan Soler, Project Director, Metropolitan Council – Blue Line Project Office  
Kathryn O'Brien, Assistant Director, Metropolitan Council – Blue Line Project Office



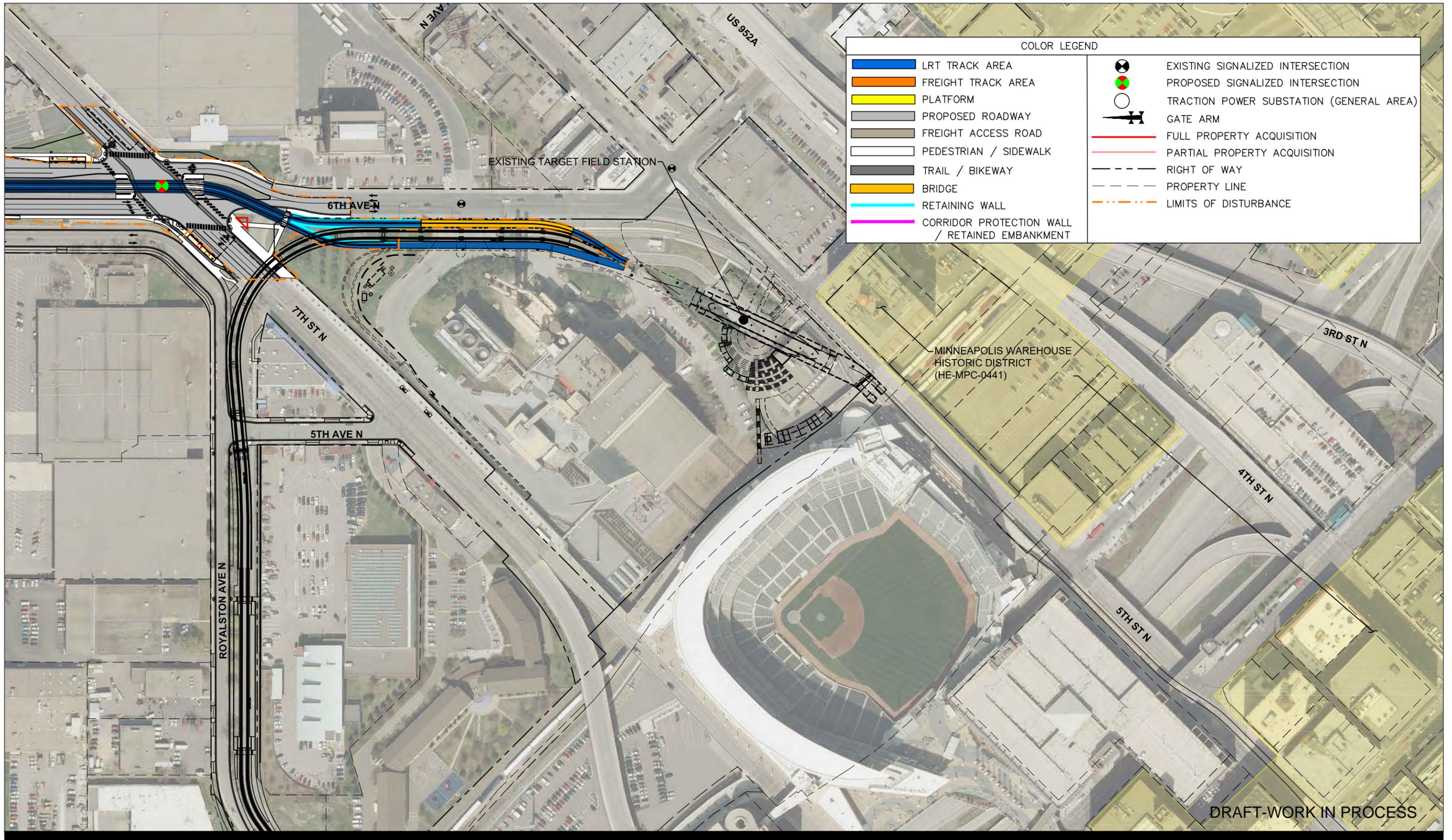
# Appendix E

## Engineering Drawings



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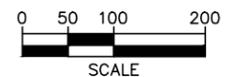
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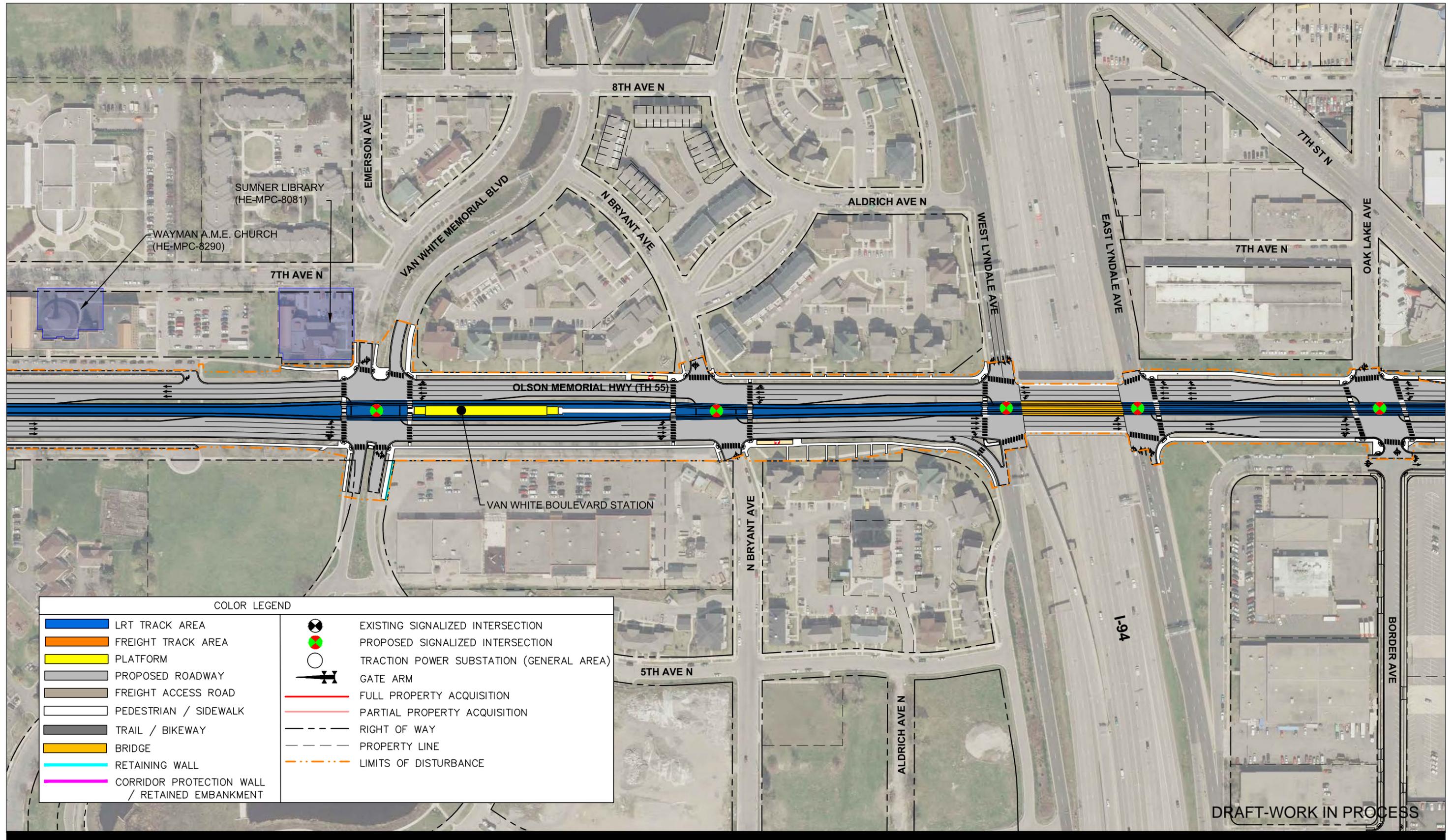
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# BLUE LINE LRT EXTENSION

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|              | FREIGHT ACCESS ROAD                            |  | FULL PROPERTY ACQUISITION                |
|              | PEDESTRIAN / SIDEWALK                          |  | PARTIAL PROPERTY ACQUISITION             |
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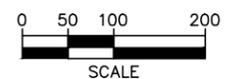
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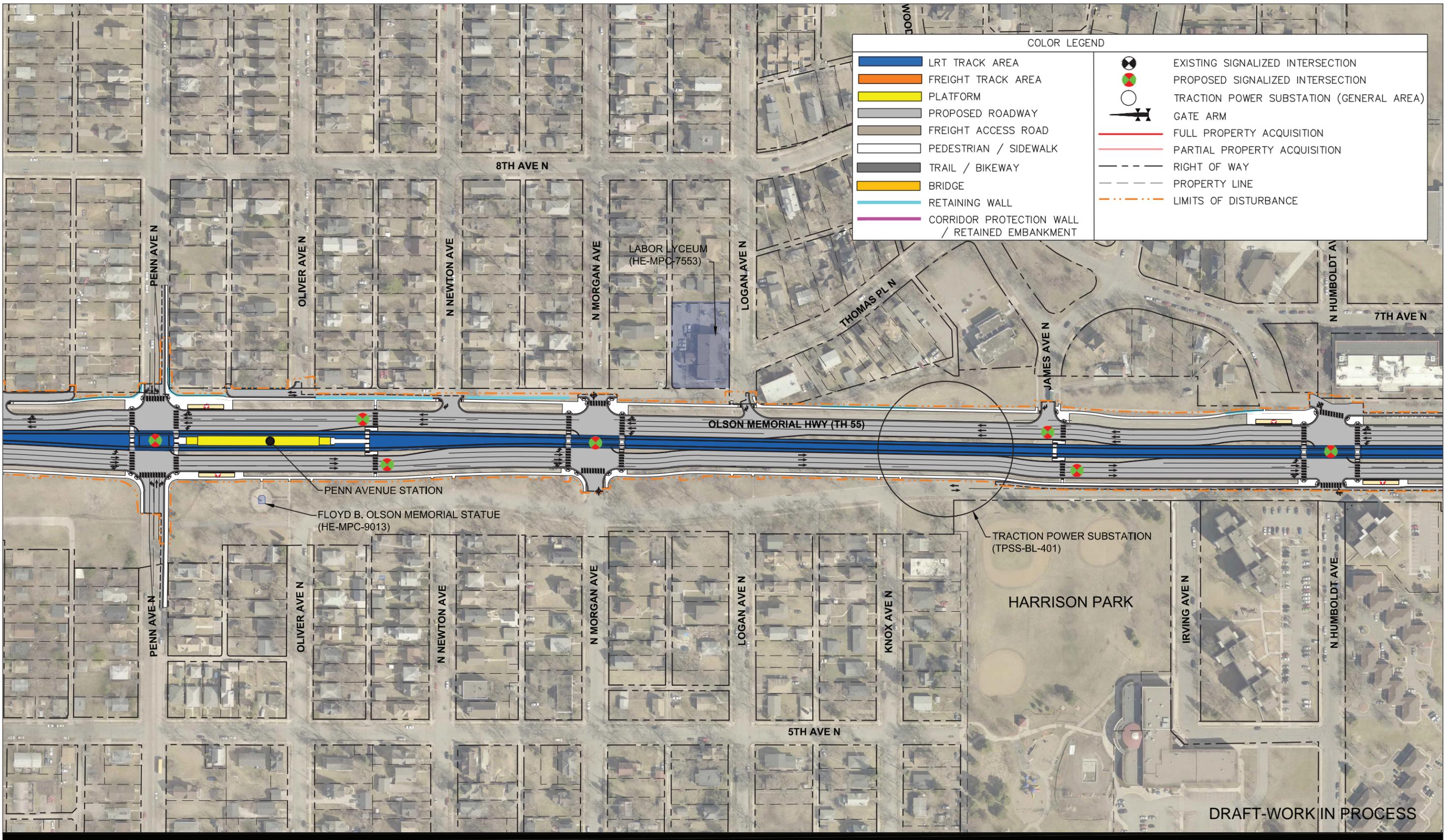
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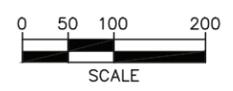


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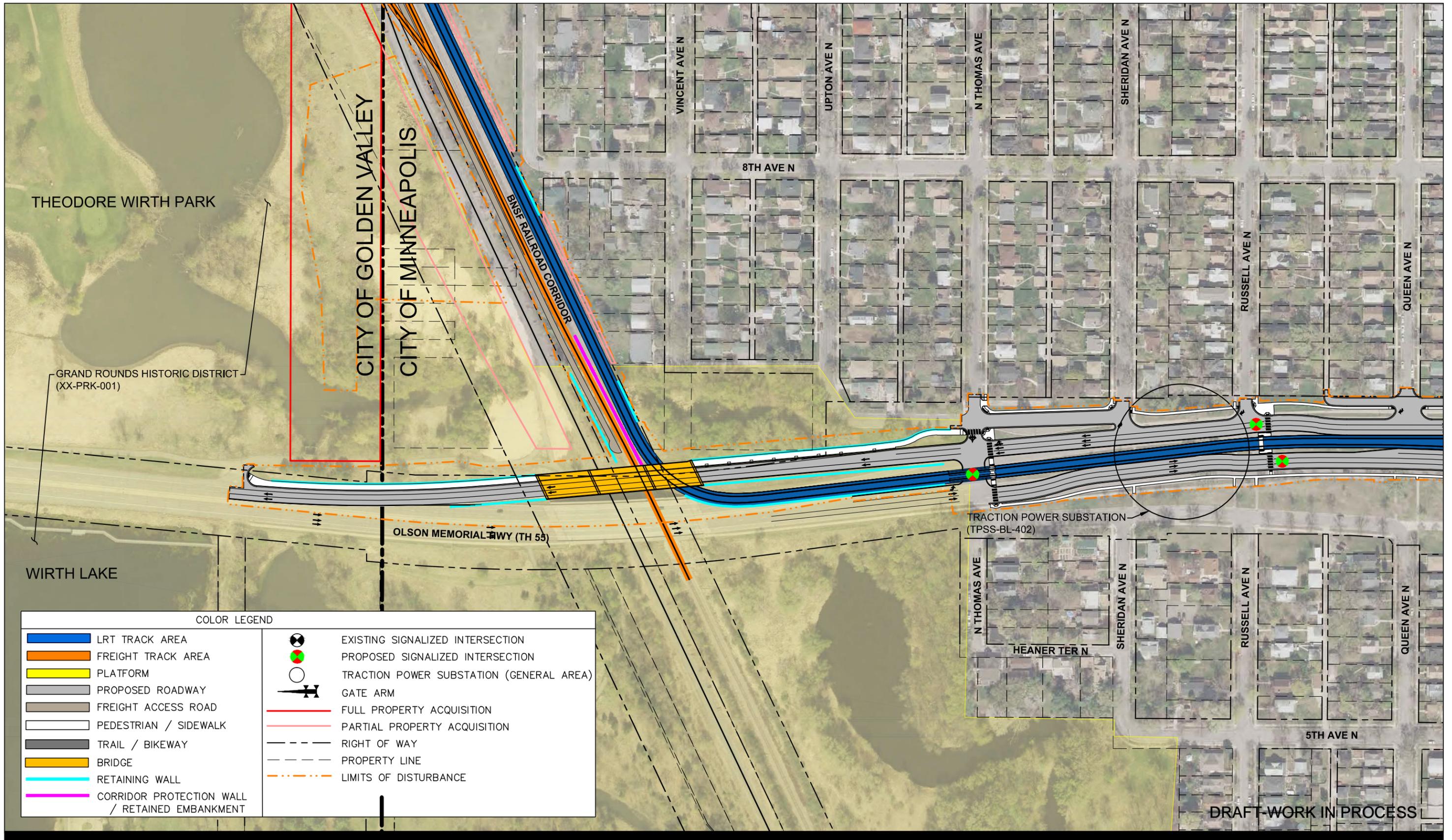


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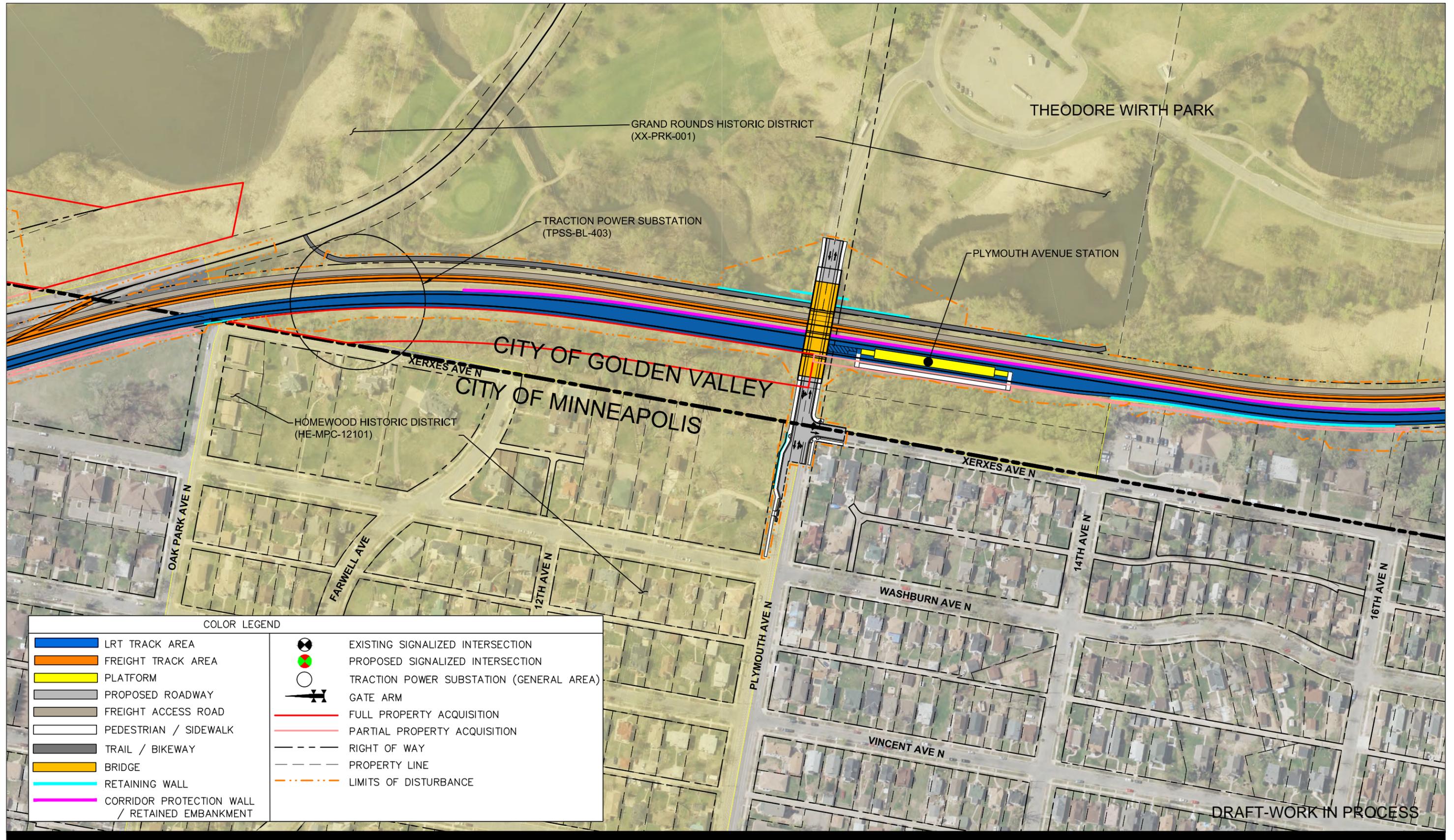
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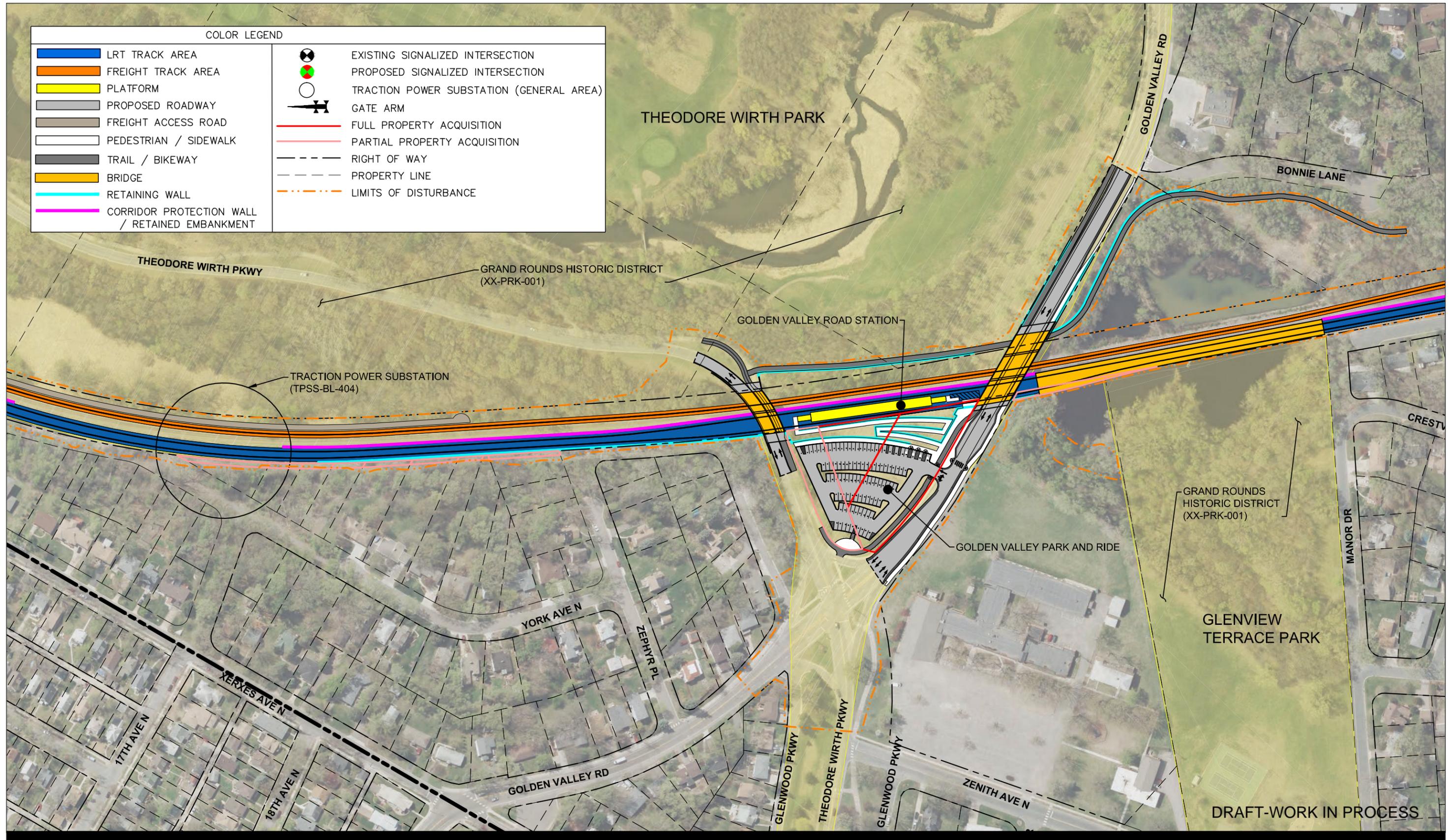
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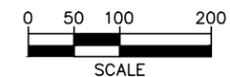
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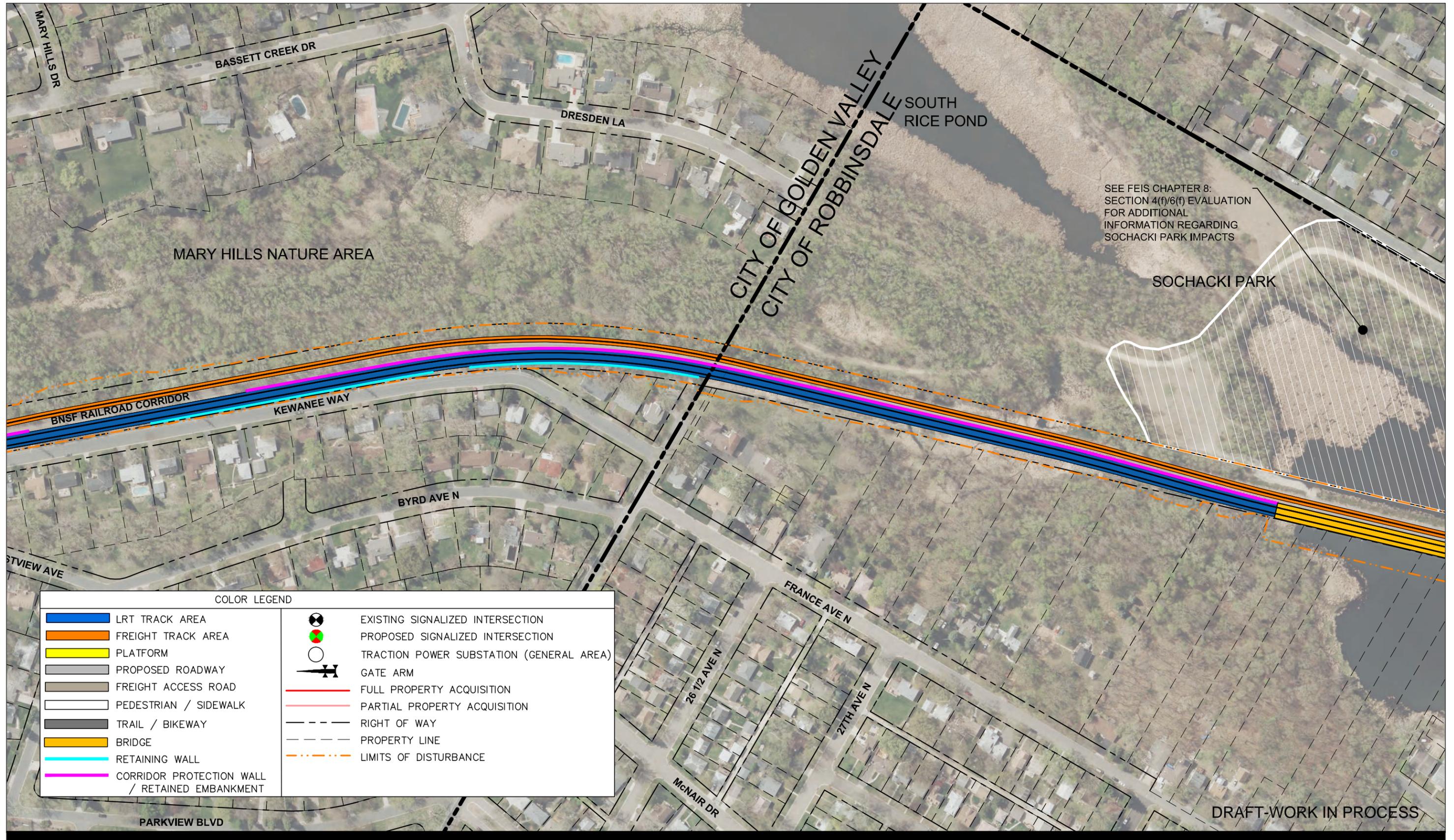
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SEE FEIS CHAPTER 8: SECTION 4(f)/6(f) EVALUATION FOR ADDITIONAL INFORMATION REGARDING SOCHACKI PARK IMPACTS

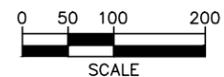
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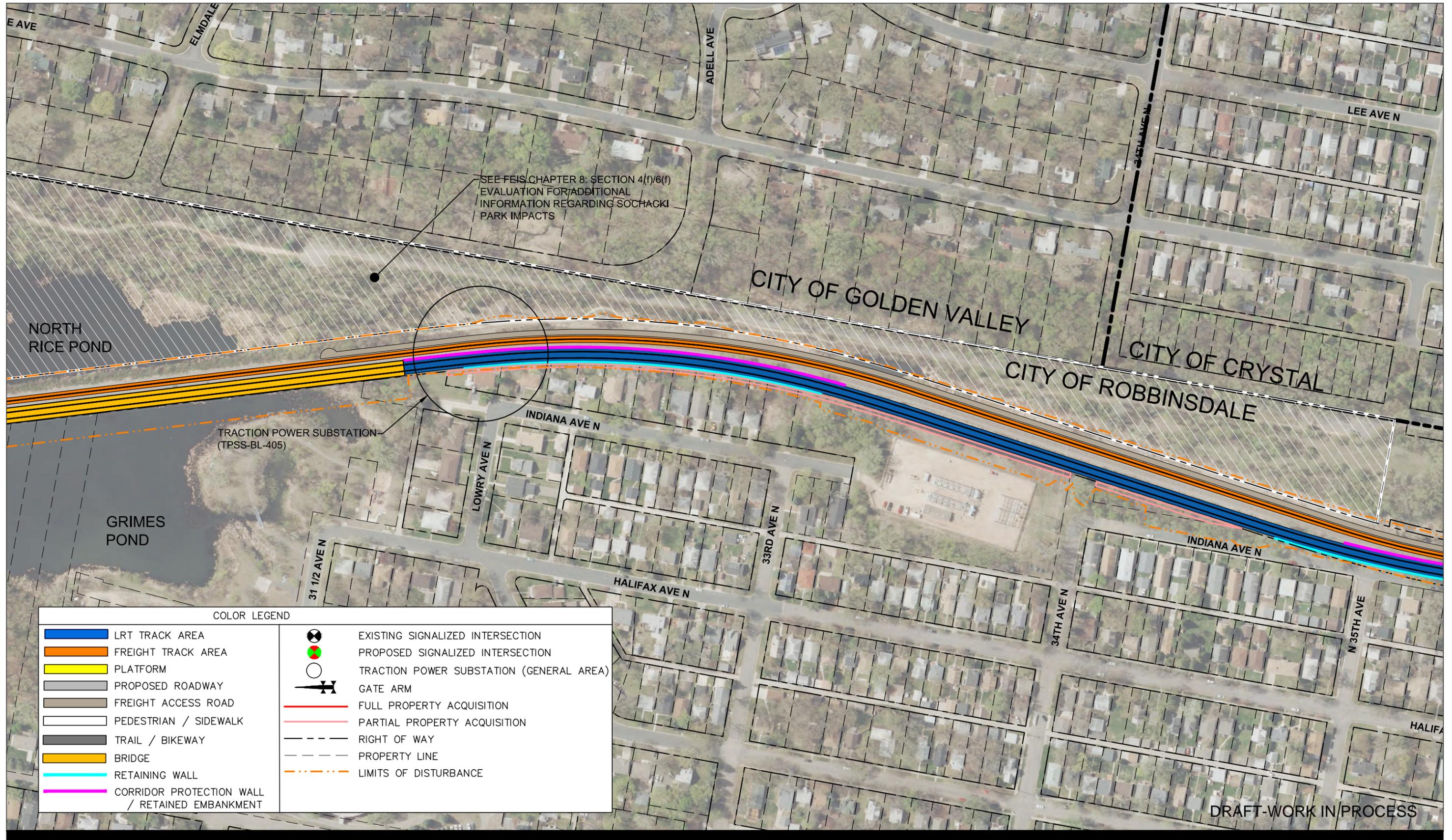
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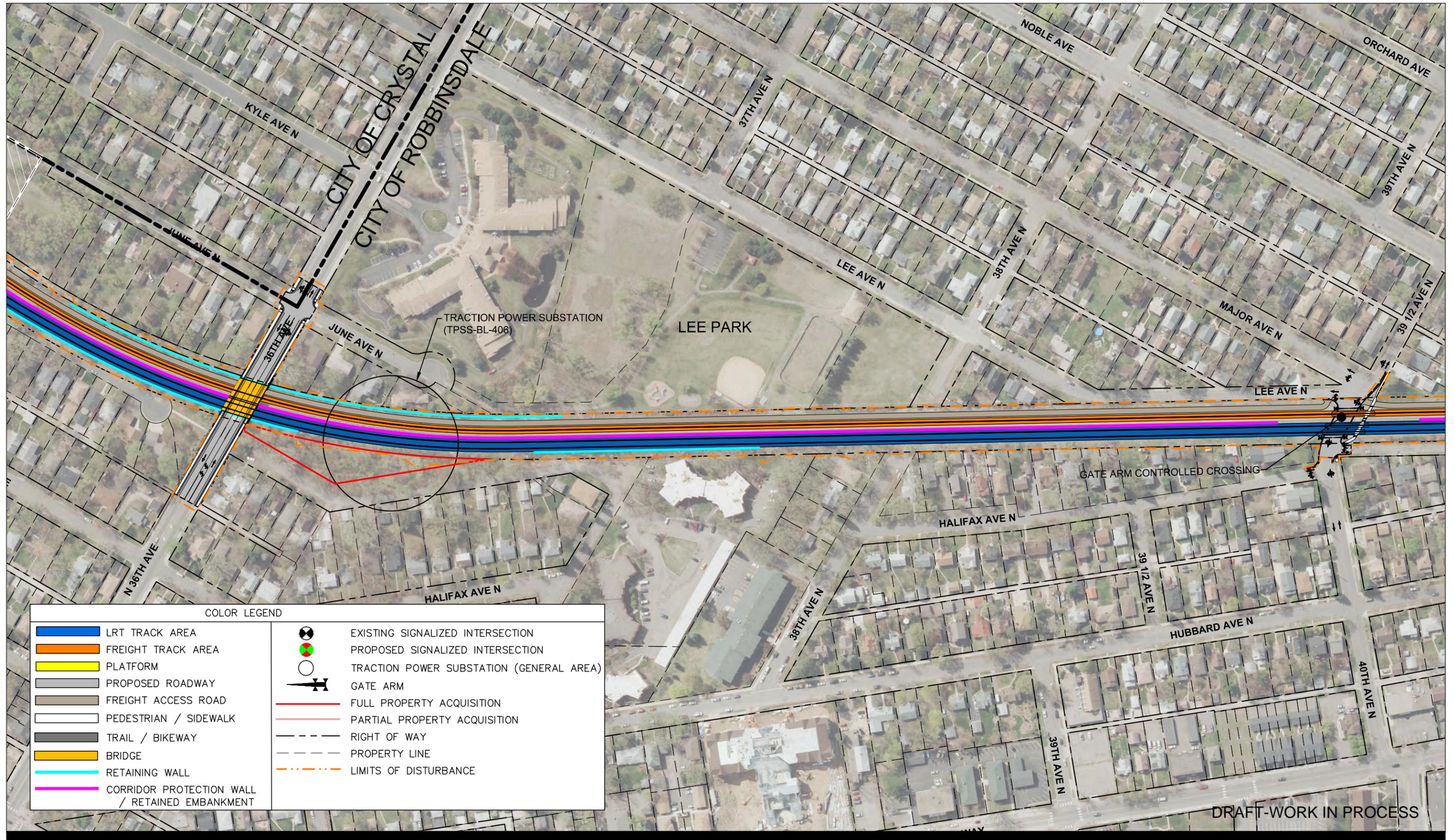
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# BLUE LINE LRT EXTENSION

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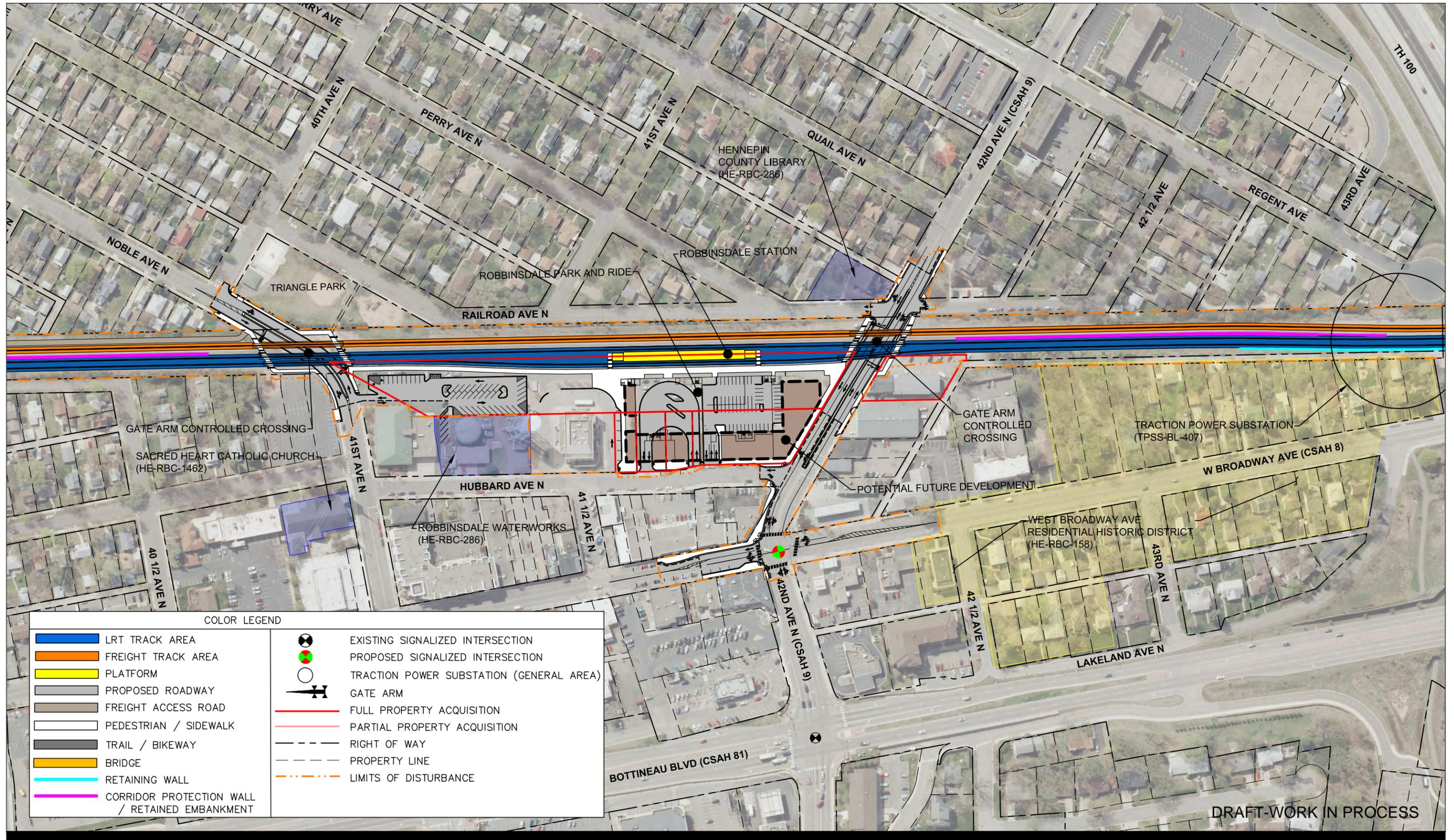
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# BLUE LINE LRT EXTENSION

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|              | PROPOSED SIGNALIZED INTERSECTION               |
|              | TRACTION POWER SUBSTATION (GENERAL AREA)       |
|              | GATE ARM                                       |
|              | FULL PROPERTY ACQUISITION                      |
|              | PARTIAL PROPERTY ACQUISITION                   |
|              | RIGHT OF WAY                                   |
|              | PROPERTY LINE                                  |
|              | LIMITS OF DISTURBANCE                          |

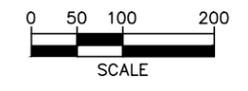
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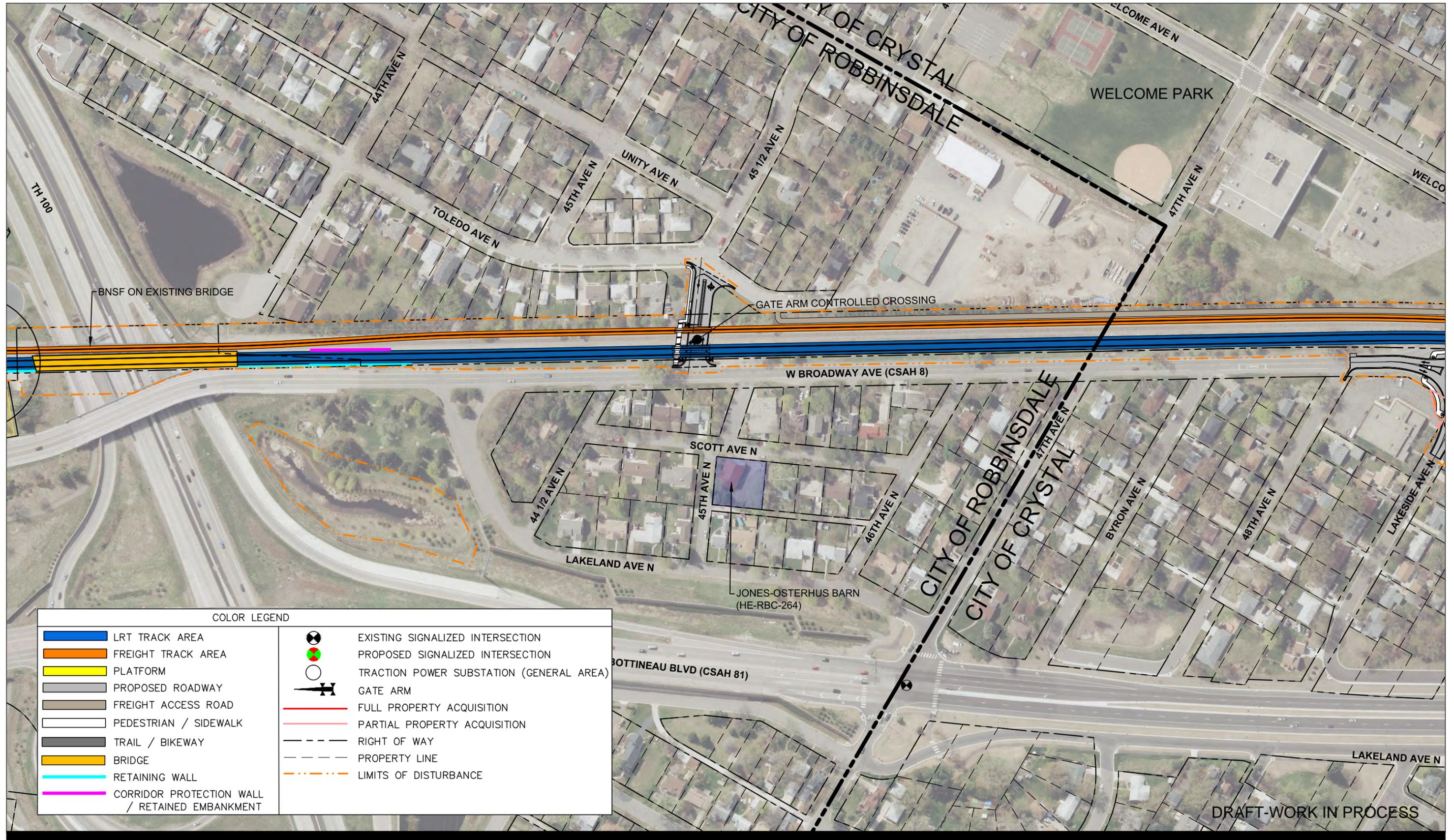
**Kimley»Horn**

# BLUE LINE LRT EXTENSION

CITY OF ROBBINSDALE  
FEIS PLAN SHEET



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| COLOR LEGEND |                                                |  |                                          |
|--------------|------------------------------------------------|--|------------------------------------------|
|              | LRT TRACK AREA                                 |  | EXISTING SIGNALIZED INTERSECTION         |
|              | FREIGHT TRACK AREA                             |  | PROPOSED SIGNALIZED INTERSECTION         |
|              | PLATFORM                                       |  | TRACTION POWER SUBSTATION (GENERAL AREA) |
|              | PROPOSED ROADWAY                               |  | GATE ARM                                 |
|              | FREIGHT ACCESS ROAD                            |  | FULL PROPERTY ACQUISITION                |
|              | PEDESTRIAN / SIDEWALK                          |  | PARTIAL PROPERTY ACQUISITION             |
|              | TRAIL / BIKEWAY                                |  | RIGHT OF WAY                             |
|              | BRIDGE                                         |  | PROPERTY LINE                            |
|              | RETAINING WALL                                 |  | LIMITS OF DISTURBANCE                    |
|              | CORRIDOR PROTECTION WALL / RETAINED EMBANKMENT |  |                                          |

DRAFT-WORK IN PROCESS



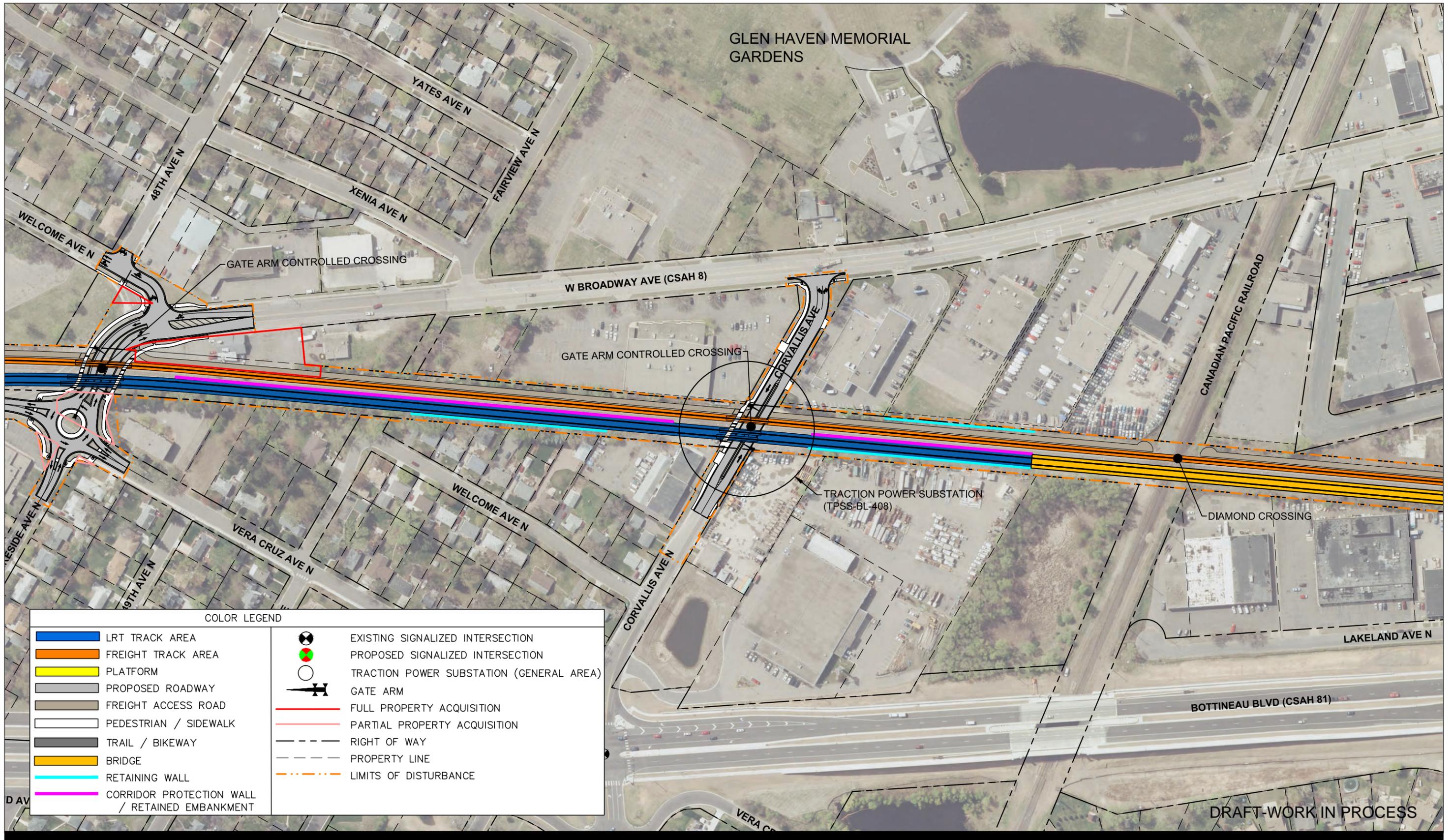
**Kimley»Horn**

# BLUE LINE LRT EXTENSION

CITY OF ROBBINSDALE / CITY OF CRYSTAL  
FEIS PLAN SHEET



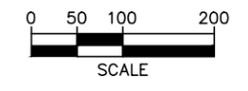
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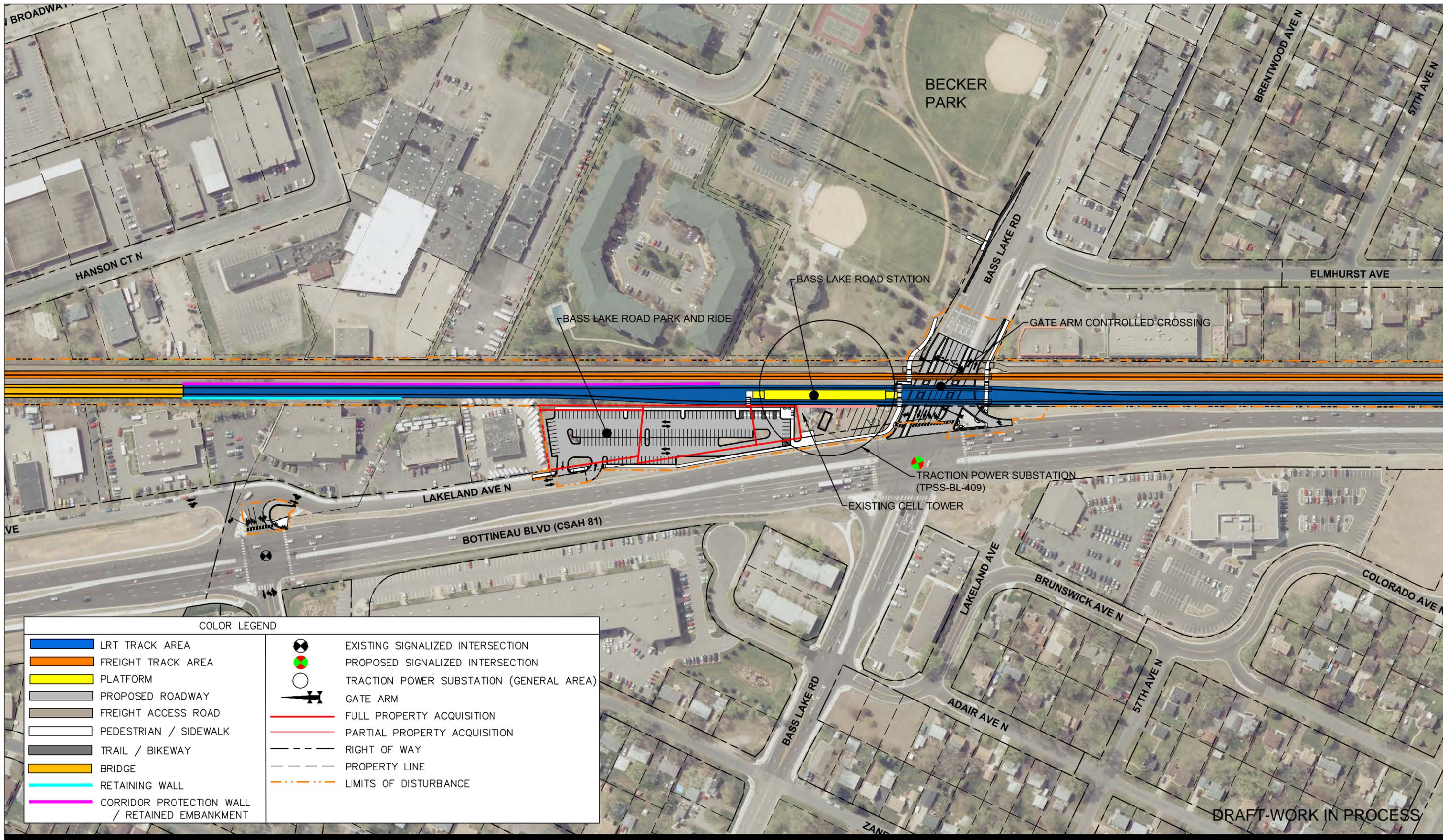
# BLUE LINE LRT EXTENSION

CITY OF CRYSTAL  
FEIS PLAN SHEET



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Jan\_27\_2016 04:17 pm H:\BPO\550\_Design\_Consultant\CAD\000-OVERALL\PE\PLAN SHEETS\CIVIL\O-FEIS-002.dwg By: V-DordaiJD



| COLOR LEGEND |                                                |
|--------------|------------------------------------------------|
|              | LRT TRACK AREA                                 |
|              | FREIGHT TRACK AREA                             |
|              | PLATFORM                                       |
|              | PROPOSED ROADWAY                               |
|              | FREIGHT ACCESS ROAD                            |
|              | PEDESTRIAN / SIDEWALK                          |
|              | TRAIL / BIKEWAY                                |
|              | BRIDGE                                         |
|              | RETAINING WALL                                 |
|              | CORRIDOR PROTECTION WALL / RETAINED EMBANKMENT |
|              | EXISTING SIGNALIZED INTERSECTION               |
|              | PROPOSED SIGNALIZED INTERSECTION               |
|              | TRACTION POWER SUBSTATION (GENERAL AREA)       |
|              | GATE ARM                                       |
|              | FULL PROPERTY ACQUISITION                      |
|              | PARTIAL PROPERTY ACQUISITION                   |
|              | RIGHT OF WAY                                   |
|              | PROPERTY LINE                                  |
|              | LIMITS OF DISTURBANCE                          |

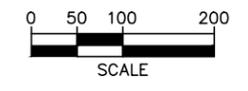
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# BLUE LINE LRT EXTENSION

CITY OF CRYSTAL  
FEIS PLAN SHEET



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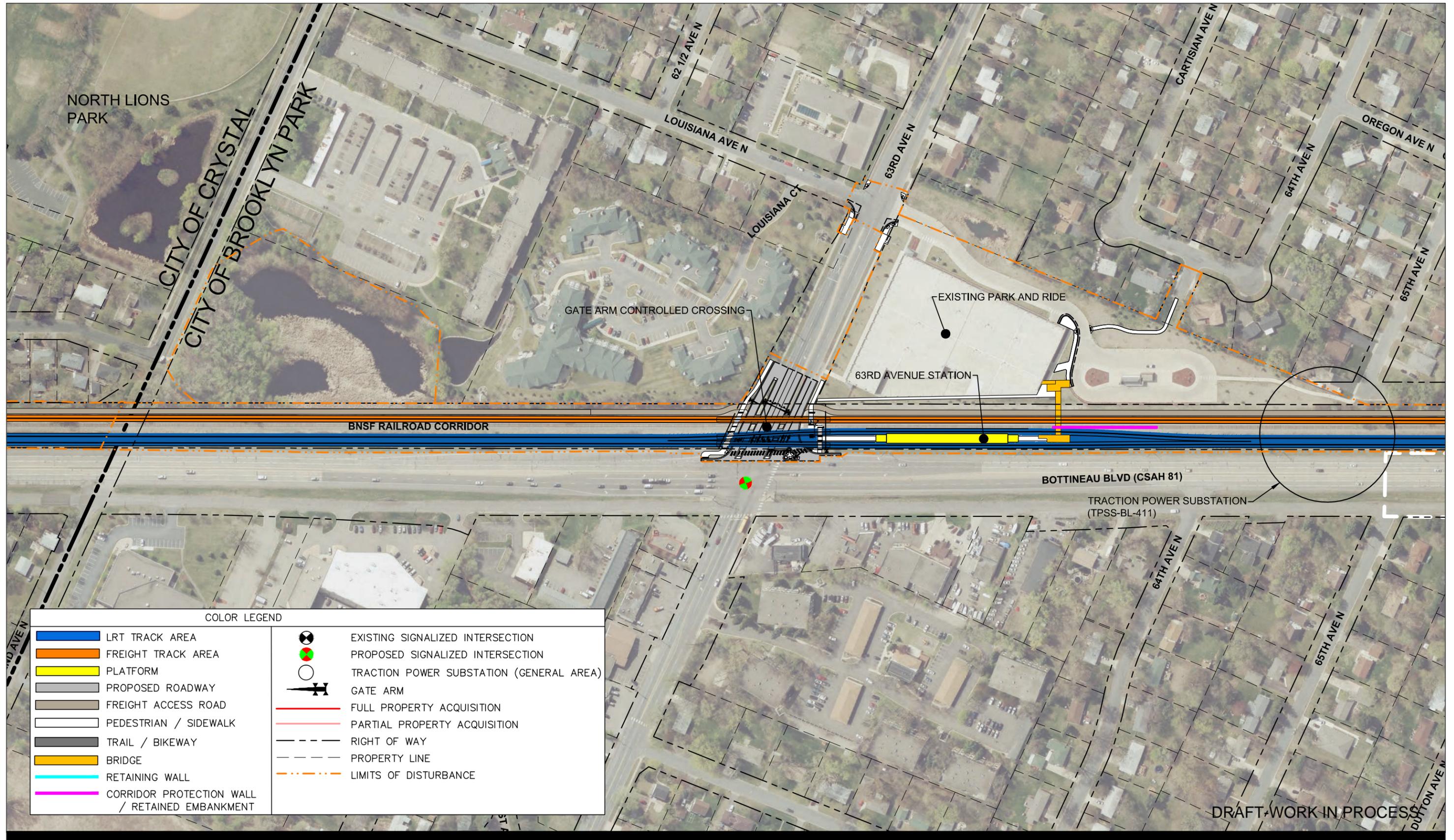
CITY OF CRYSTAL  
FEIS PLAN SHEET



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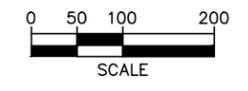
| COLOR LEGEND |                                                |
|--------------|------------------------------------------------|
|              | LRT TRACK AREA                                 |
|              | FREIGHT TRACK AREA                             |
|              | PLATFORM                                       |
|              | PROPOSED ROADWAY                               |
|              | FREIGHT ACCESS ROAD                            |
|              | PEDESTRIAN / SIDEWALK                          |
|              | TRAIL / BIKEWAY                                |
|              | BRIDGE                                         |
|              | RETAINING WALL                                 |
|              | CORRIDOR PROTECTION WALL / RETAINED EMBANKMENT |
|              | EXISTING SIGNALIZED INTERSECTION               |
|              | PROPOSED SIGNALIZED INTERSECTION               |
|              | TRACTION POWER SUBSTATION (GENERAL AREA)       |
|              | GATE ARM                                       |
|              | FULL PROPERTY ACQUISITION                      |
|              | PARTIAL PROPERTY ACQUISITION                   |
|              | RIGHT OF WAY                                   |
|              | PROPERTY LINE                                  |
|              | LIMITS OF DISTURBANCE                          |



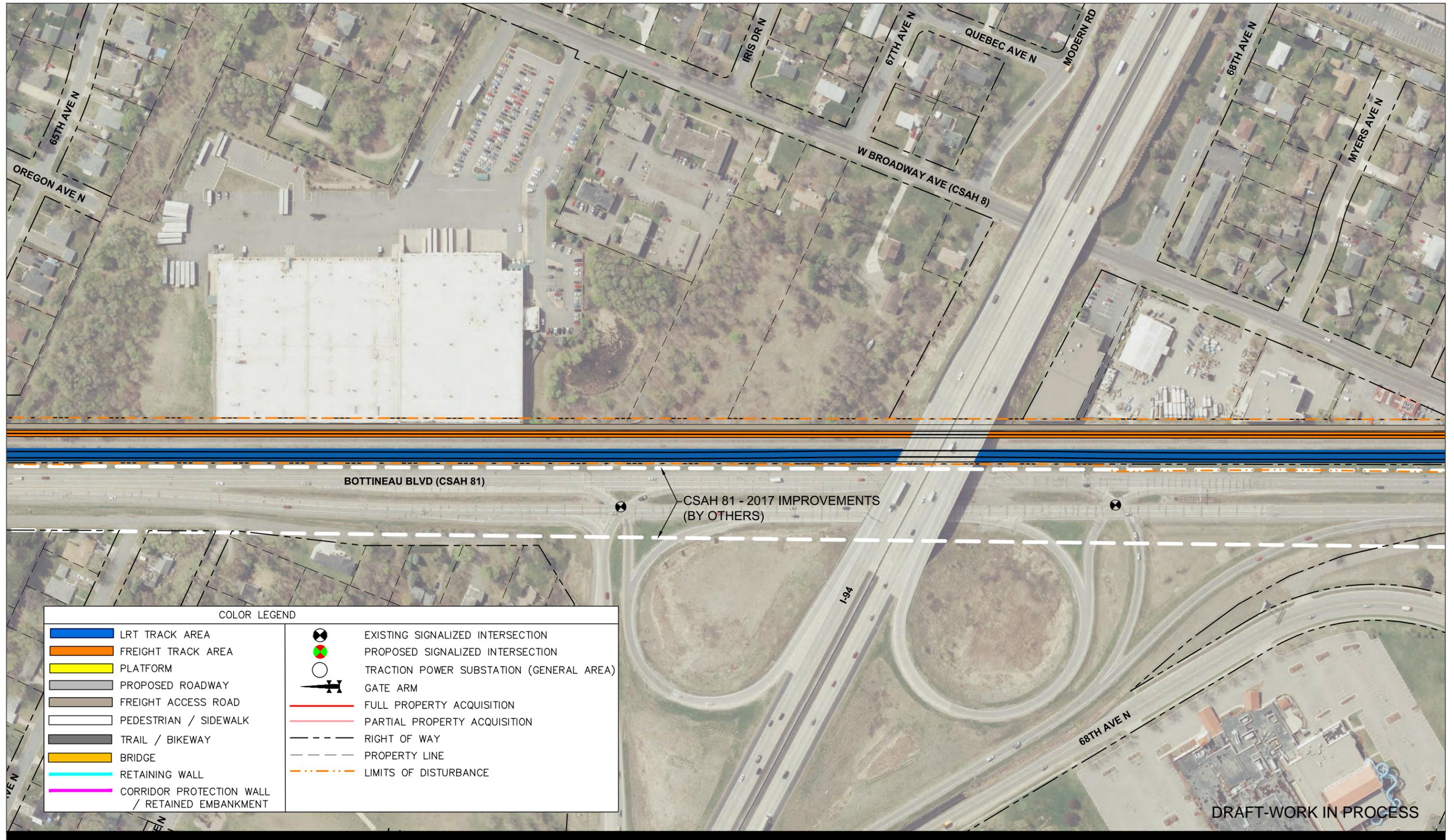
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# BLUE LINE LRT EXTENSION

CITY OF CRYSTAL / CITY OF BROOKLYN PARK  
FEIS PLAN SHEET



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| COLOR LEGEND |                                                |  |                                          |
|--------------|------------------------------------------------|--|------------------------------------------|
|              | LRT TRACK AREA                                 |  | EXISTING SIGNALIZED INTERSECTION         |
|              | FREIGHT TRACK AREA                             |  | PROPOSED SIGNALIZED INTERSECTION         |
|              | PLATFORM                                       |  | TRACTION POWER SUBSTATION (GENERAL AREA) |
|              | PROPOSED ROADWAY                               |  | GATE ARM                                 |
|              | FREIGHT ACCESS ROAD                            |  | FULL PROPERTY ACQUISITION                |
|              | PEDESTRIAN / SIDEWALK                          |  | PARTIAL PROPERTY ACQUISITION             |
|              | TRAIL / BIKEWAY                                |  | RIGHT OF WAY                             |
|              | BRIDGE                                         |  | PROPERTY LINE                            |
|              | RETAINING WALL                                 |  | LIMITS OF DISTURBANCE                    |
|              | CORRIDOR PROTECTION WALL / RETAINED EMBANKMENT |  |                                          |

DRAFT-WORK IN PROCESS



**Kimley»Horn**

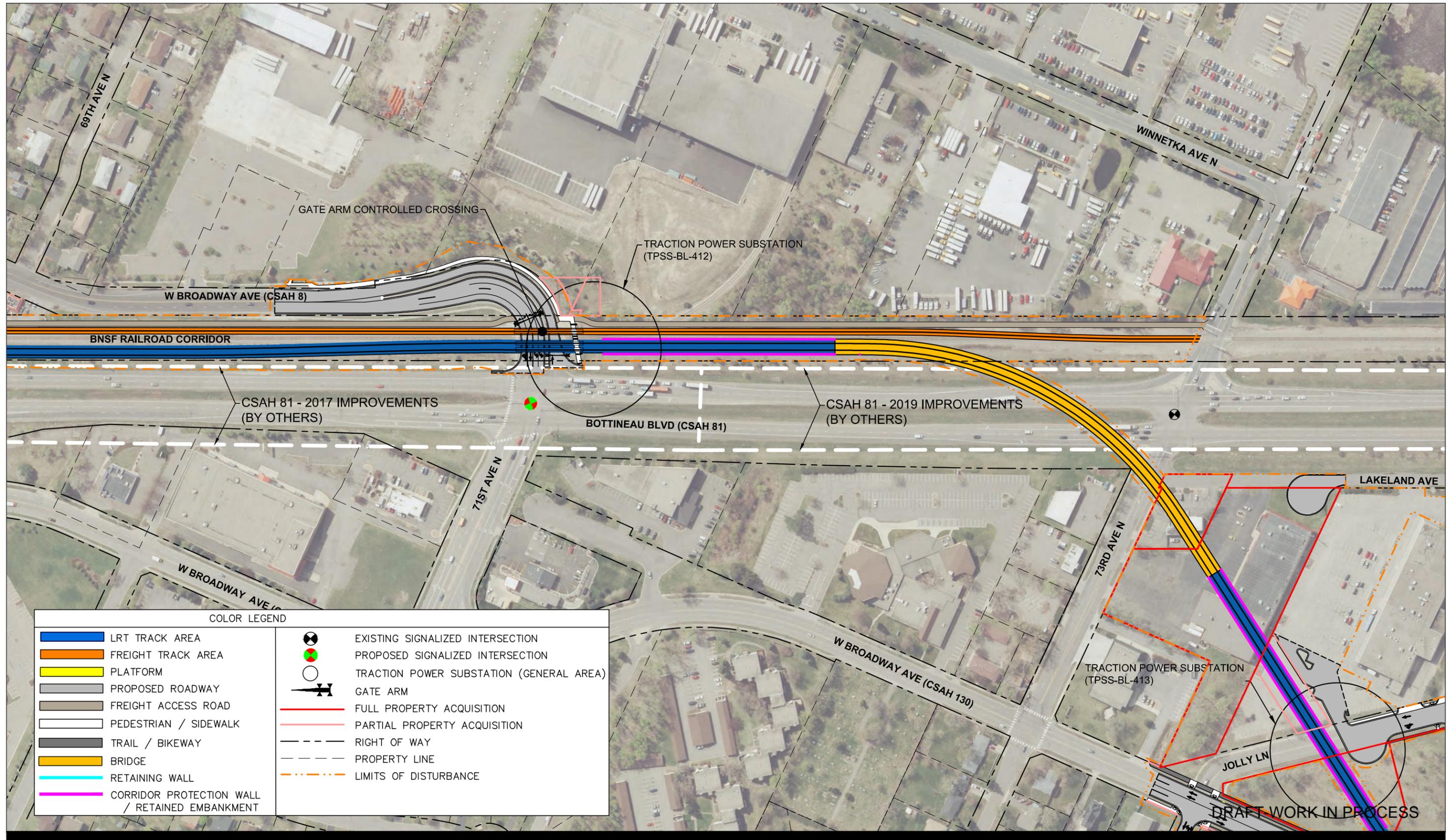
# BLUE LINE LRT EXTENSION

FEIS PLAN SHEET



16

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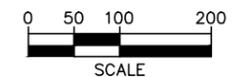
| COLOR LEGEND |                                                |  |                                          |
|--------------|------------------------------------------------|--|------------------------------------------|
|              | LRT TRACK AREA                                 |  | EXISTING SIGNALIZED INTERSECTION         |
|              | FREIGHT TRACK AREA                             |  | PROPOSED SIGNALIZED INTERSECTION         |
|              | PLATFORM                                       |  | TRACTION POWER SUBSTATION (GENERAL AREA) |
|              | PROPOSED ROADWAY                               |  | GATE ARM                                 |
|              | FREIGHT ACCESS ROAD                            |  | FULL PROPERTY ACQUISITION                |
|              | PEDESTRIAN / SIDEWALK                          |  | PARTIAL PROPERTY ACQUISITION             |
|              | TRAIL / BIKEWAY                                |  | RIGHT OF WAY                             |
|              | BRIDGE                                         |  | PROPERTY LINE                            |
|              | RETAINING WALL                                 |  | LIMITS OF DISTURBANCE                    |
|              | CORRIDOR PROTECTION WALL / RETAINED EMBANKMENT |  |                                          |



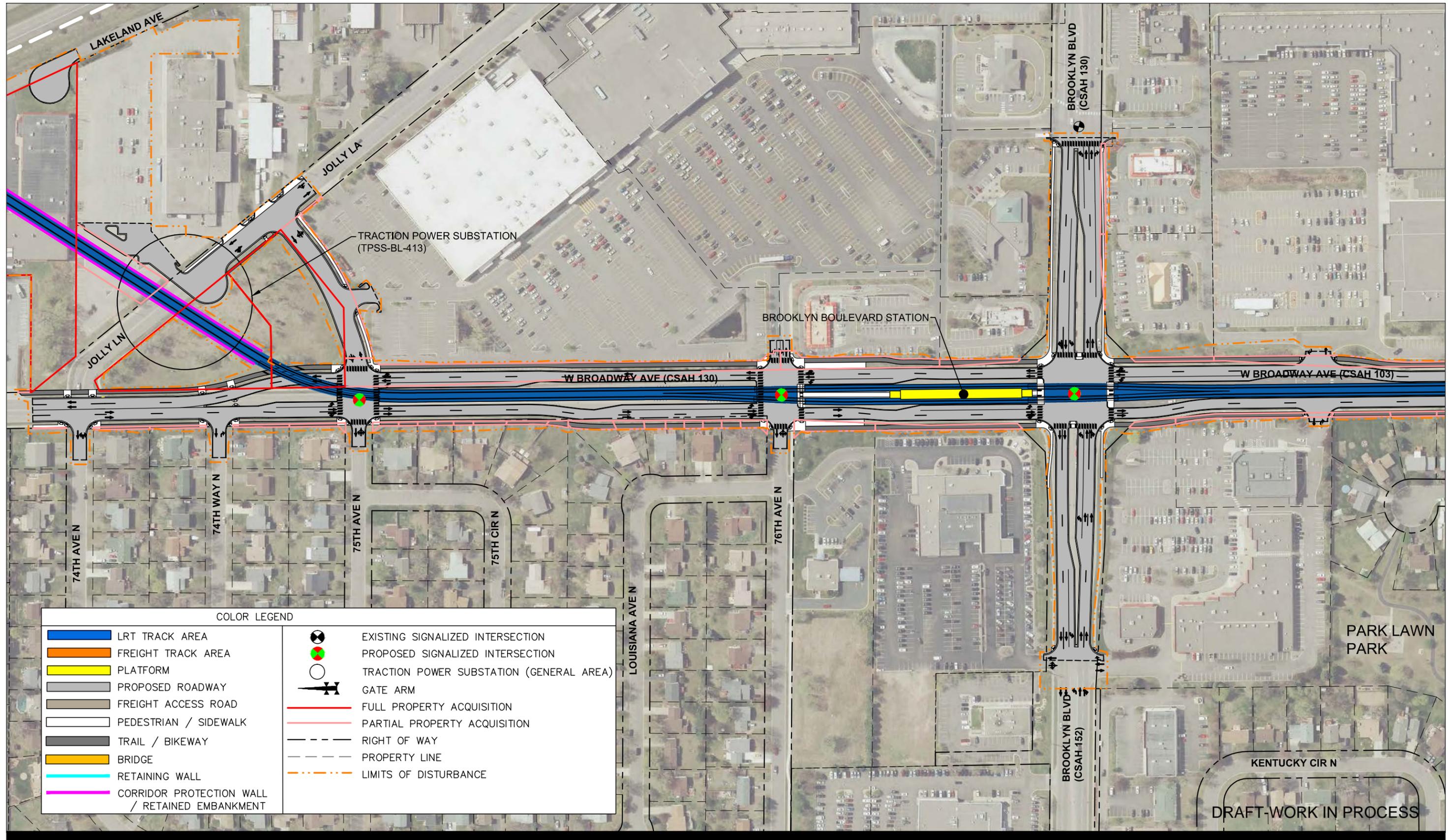
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# BLUE LINE LRT EXTENSION

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FEIS PLAN SHEET



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| COLOR LEGEND |                                                |
|--------------|------------------------------------------------|
|              | LRT TRACK AREA                                 |
|              | FREIGHT TRACK AREA                             |
|              | PLATFORM                                       |
|              | PROPOSED ROADWAY                               |
|              | FREIGHT ACCESS ROAD                            |
|              | PEDESTRIAN / SIDEWALK                          |
|              | TRAIL / BIKEWAY                                |
|              | BRIDGE                                         |
|              | RETAINING WALL                                 |
|              | CORRIDOR PROTECTION WALL / RETAINED EMBANKMENT |
|              | EXISTING SIGNALIZED INTERSECTION               |
|              | PROPOSED SIGNALIZED INTERSECTION               |
|              | TRACTION POWER SUBSTATION (GENERAL AREA)       |
|              | GATE ARM                                       |
|              | FULL PROPERTY ACQUISITION                      |
|              | PARTIAL PROPERTY ACQUISITION                   |
|              | RIGHT OF WAY                                   |
|              | PROPERTY LINE                                  |
|              | LIMITS OF DISTURBANCE                          |



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# BLUE LINE LRT EXTENSION

CITY OF BROOKLYN PARK  
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BEGIN HENNEPIN COUNTY PROJECT  
NOS. 9239, 0514, AND 1411

ALL AREAS LOCATED OUTSIDE OF THE  
GUIDEWAY MEDIAN CURB ARE INCLUDED AS  
PART OF HENNEPIN COUNTY PROJECTS

TRACTION POWER SUBSTATION  
(TPSS-BL-414)

| COLOR LEGEND |                                                |
|--------------|------------------------------------------------|
|              | LRT TRACK AREA                                 |
|              | FREIGHT TRACK AREA                             |
|              | PLATFORM                                       |
|              | PROPOSED ROADWAY                               |
|              | FREIGHT ACCESS ROAD                            |
|              | PEDESTRIAN / SIDEWALK                          |
|              | TRAIL / BIKEWAY                                |
|              | BRIDGE                                         |
|              | RETAINING WALL                                 |
|              | CORRIDOR PROTECTION WALL / RETAINED EMBANKMENT |
|              | EXISTING SIGNALIZED INTERSECTION               |
|              | PROPOSED SIGNALIZED INTERSECTION               |
|              | TRACTION POWER SUBSTATION (GENERAL AREA)       |
|              | GATE ARM                                       |
|              | FULL PROPERTY ACQUISITION                      |
|              | PARTIAL PROPERTY ACQUISITION                   |
|              | RIGHT OF WAY                                   |
|              | PROPERTY LINE                                  |
|              | LIMITS OF DISTURBANCE                          |

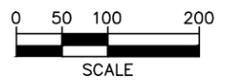
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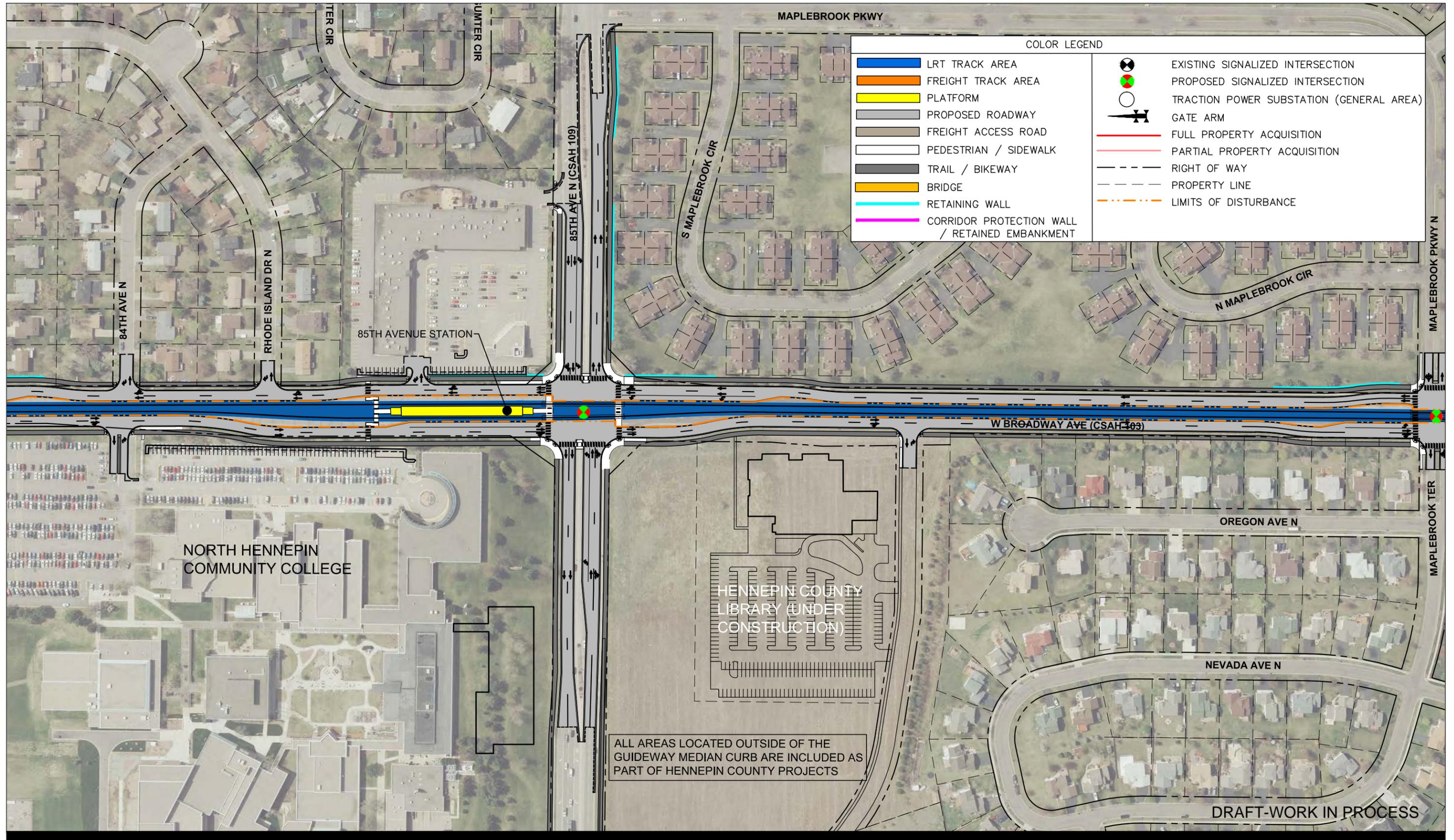
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# BLUE LINE LRT EXTENSION

CITY OF BROOKLYN PARK  
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ALL AREAS LOCATED OUTSIDE OF THE GUIDEWAY MEDIAN CURB ARE INCLUDED AS PART OF HENNEPIN COUNTY PROJECTS

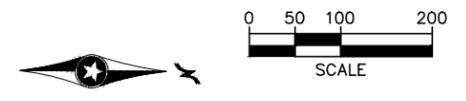
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# BLUE LINE LRT EXTENSION

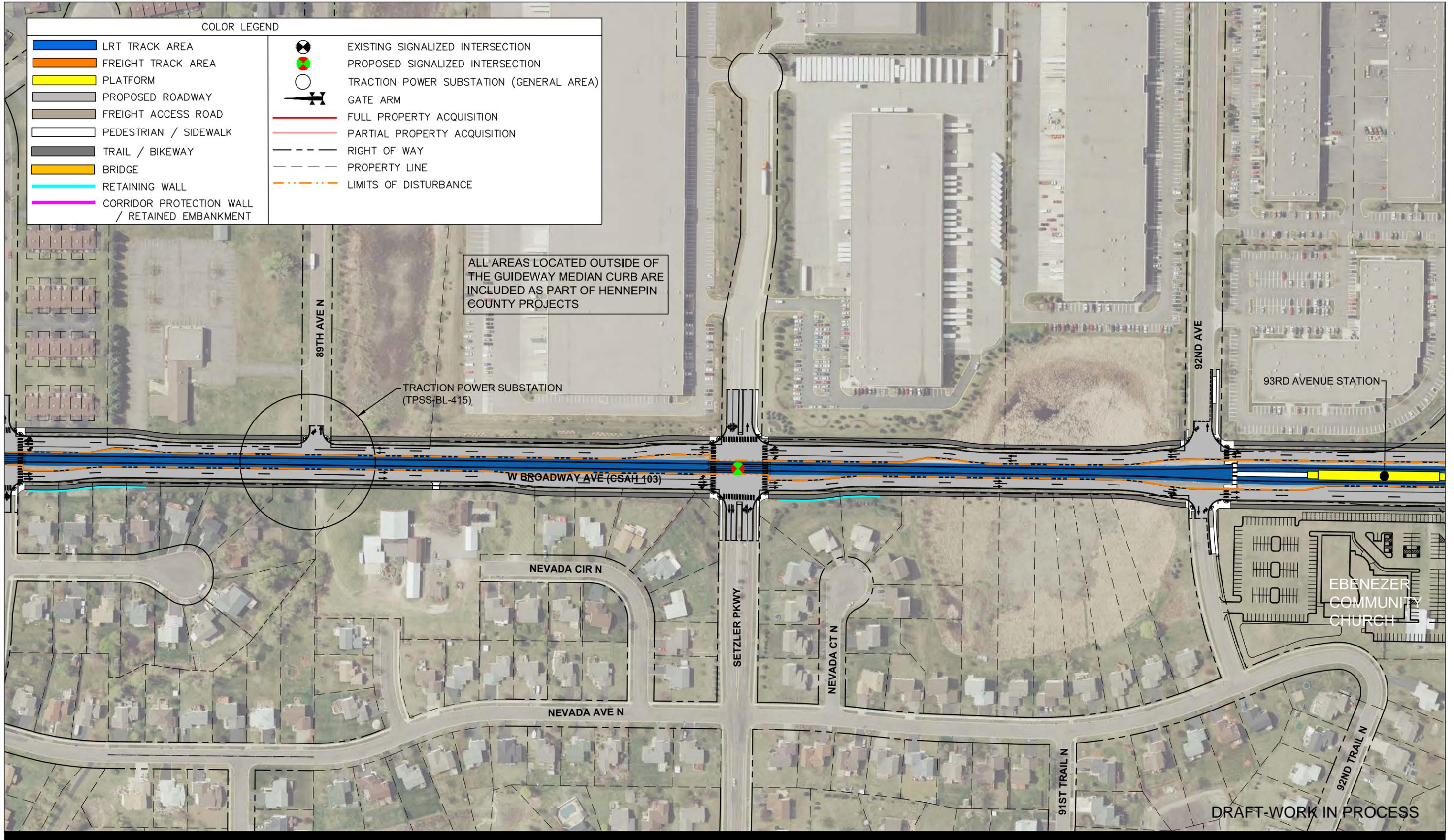
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| COLOR LEGEND                                                                      |                                                |                                                                                   |                                          |
|-----------------------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------|
|  | LRT TRACK AREA                                 |  | EXISTING SIGNALIZED INTERSECTION         |
|  | FREIGHT TRACK AREA                             |  | PROPOSED SIGNALIZED INTERSECTION         |
|  | PLATFORM                                       |  | TRACTION POWER SUBSTATION (GENERAL AREA) |
|  | PROPOSED ROADWAY                               |  | GATE ARM                                 |
|  | FREIGHT ACCESS ROAD                            |  | FULL PROPERTY ACQUISITION                |
|  | PEDESTRIAN / SIDEWALK                          |  | PARTIAL PROPERTY ACQUISITION             |
|  | TRAIL / BIKEWAY                                |  | RIGHT OF WAY                             |
|  | BRIDGE                                         |  | PROPERTY LINE                            |
|  | RETAINING WALL                                 |  | LIMITS OF DISTURBANCE                    |
|  | CORRIDOR PROTECTION WALL / RETAINED EMBANKMENT |                                                                                   |                                          |

ALL AREAS LOCATED OUTSIDE OF THE GUIDEWAY MEDIAN CURB ARE INCLUDED AS PART OF HENNEPIN COUNTY PROJECTS



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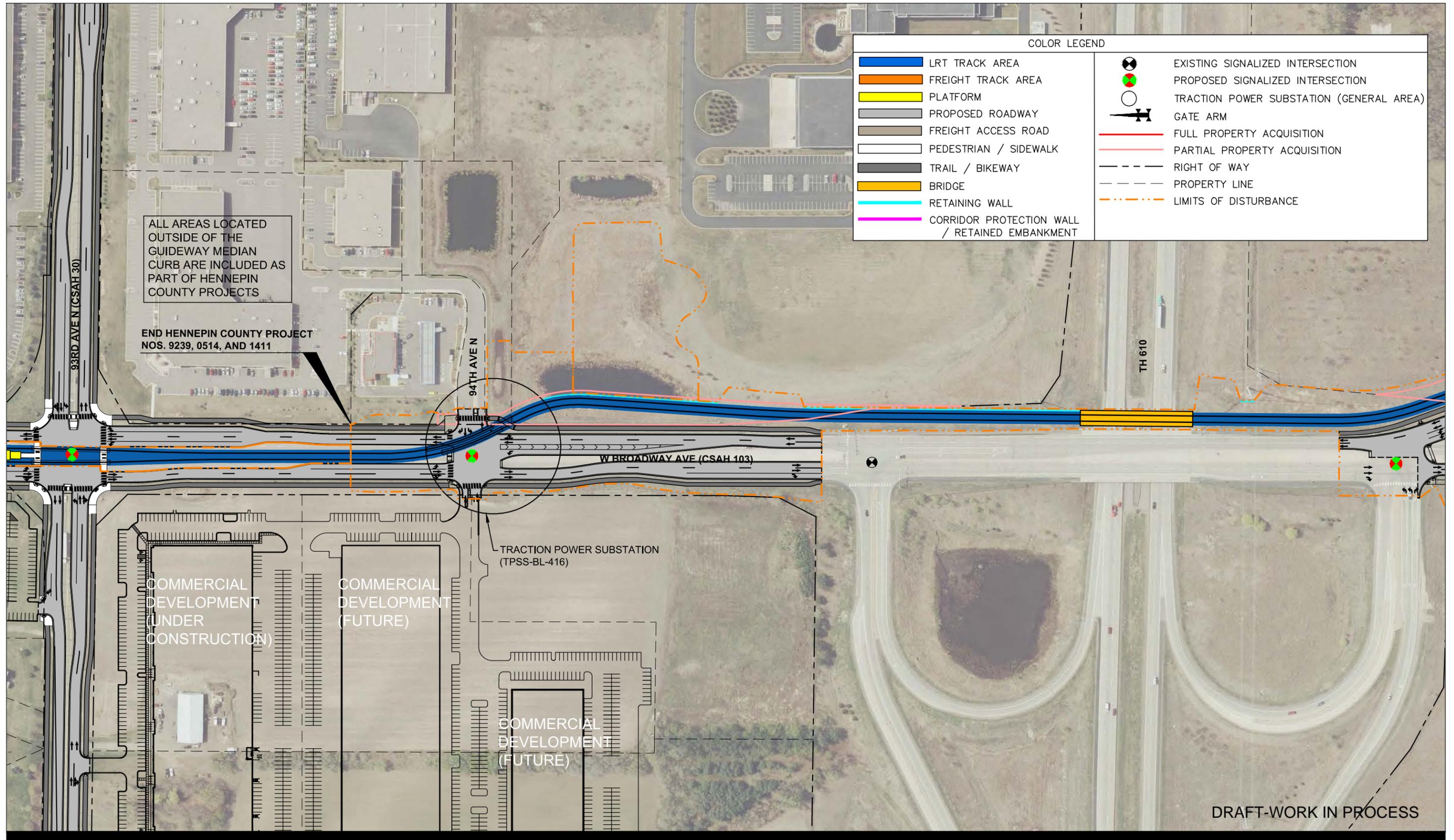
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# BLUE LINE LRT EXTENSION

CITY OF BROOKLYN PARK  
FEIS PLAN SHEET



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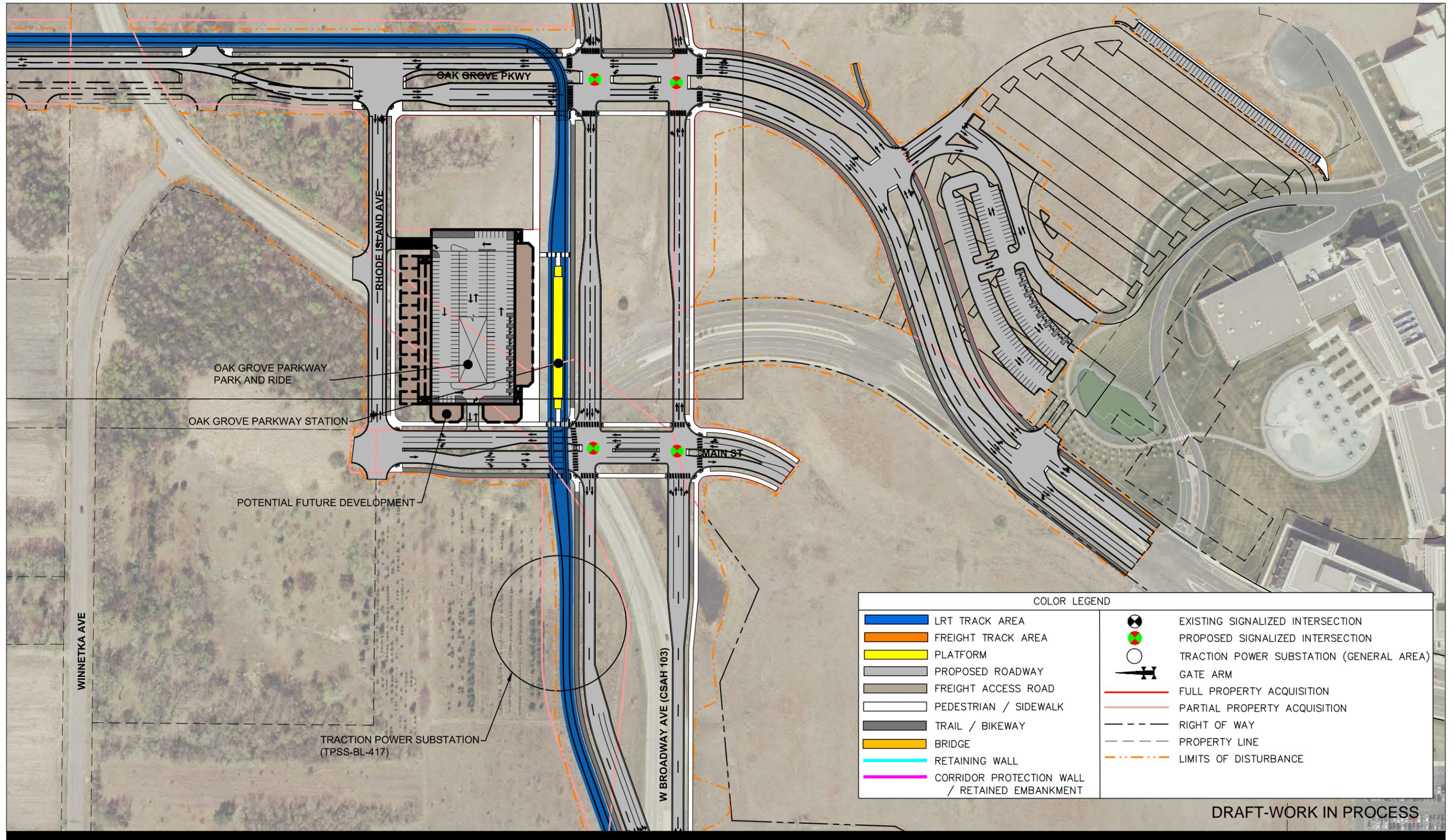
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# BLUE LINE LRT EXTENSION

CITY OF BROOKLYN PARK  
FEIS PLAN SHEET



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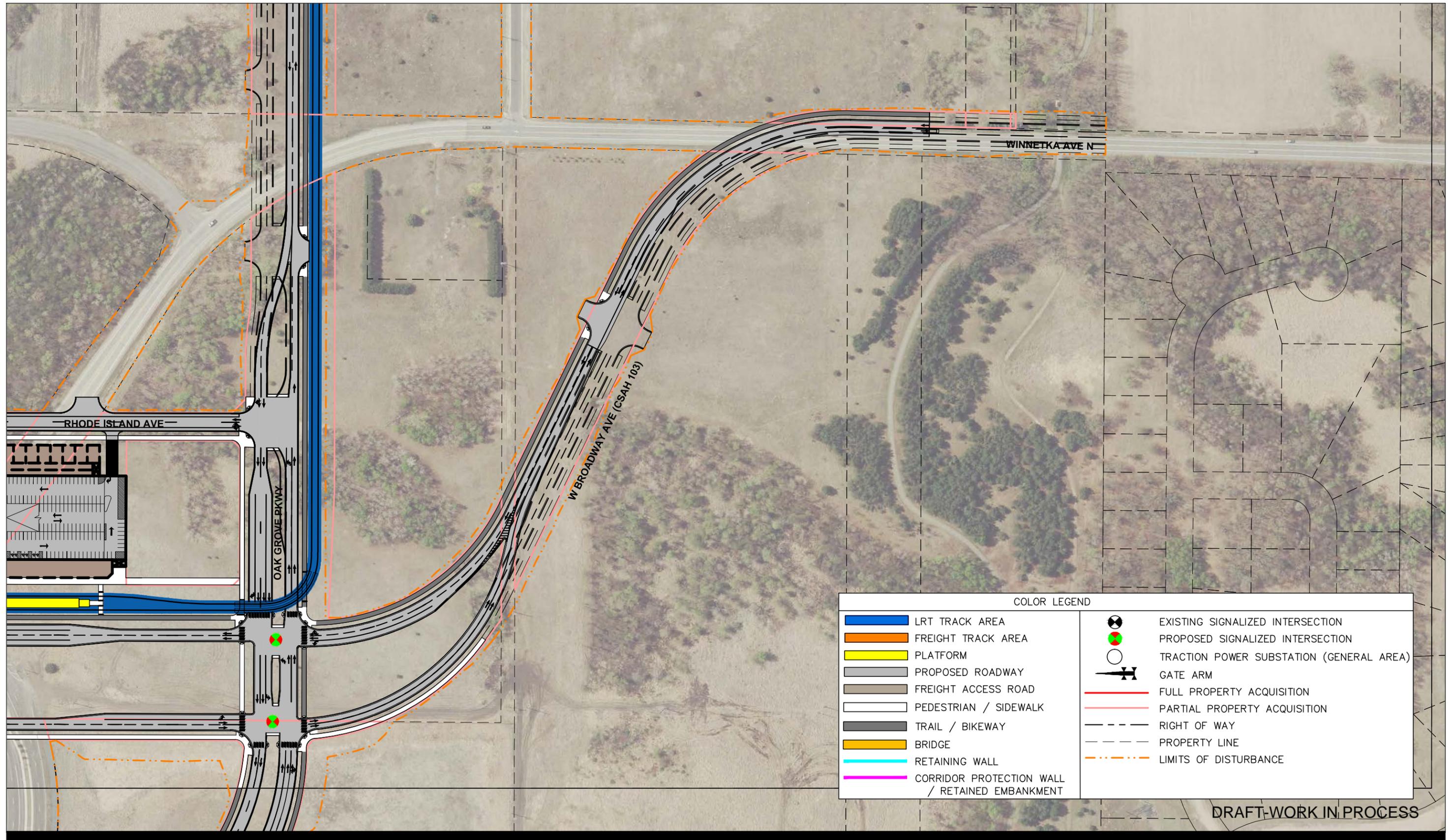
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# BLUE LINE LRT EXTENSION

CITY OF BROOKLYN PARK  
FEIS PLAN SHEET



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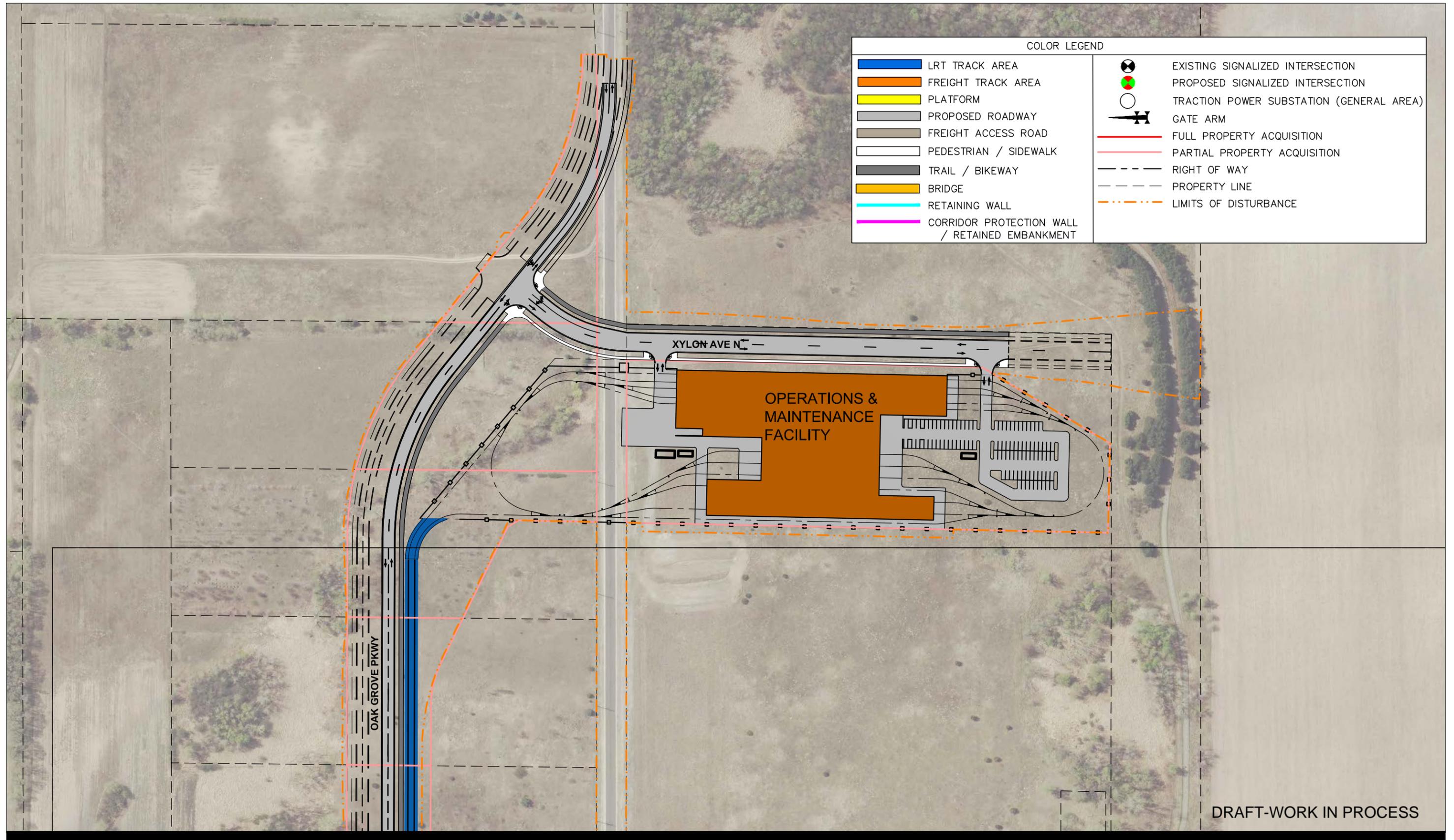
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# BLUE LINE LRT EXTENSION

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# BLUE LINE LRT EXTENSION

CITY OF BROOKLYN PARK  
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