Minneapolis
City of Lakes

Community Planning and Economic Development
Development Services
505 4th Avenue South, Room 320
Minneapolis, MN 55415
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AVAILABILITY OF THE ENVIRONMENTAL ASSESSMENT WORKSHEET FOR
Union Stadium Village

This EAW studies the proposed Union Stadium Village development located at 2630 University Avenue Southeast in Minneapolis, MN. The project will remove an existing one-story building and construct a 617-unit apartment building with 4,625 square feet of first floor retail space. The building will consist of sixteen above ground floors including 3 levels of enclosed parking. It will share the city block with an existing 4-story mixed-use condominium building.

Copies of the EAW will be available for review at the downtown Minneapolis Central Library located at 300 Nicollet Mall. Notice will be published in the *EQB Monitor* on Tuesday, October 26, 2021. Public comments on the EAW must be made within the 30-day comment period, which ends at 4:00 p.m. on Thursday, November 25, 2021. It is anticipated that the Business, Housing, Inspections and Zoning (BIHZ) Committee at its regular meeting on Tuesday, November 30, 2021, or at a subsequent meeting, will receive a report and recommendation from City staff and consider the adequacy of this EAW and the need for an Environmental Impact Statement for this proposal. The City Council will act on the recommendation of this Committee at a subsequent meeting on Friday, December 10, 2021.

This EAW and supporting information will also be available for review on the City of Minneapolis web site: Environmental Review - City of Minneapolis (minneapolismn.gov). Copies of this EAW can also be provided to individuals by email. For further information or to submit comments on the EAW, contact Hilary Dvorak, Principal City Planner, at 612.673.2639 or via email hilary.dvorak@minneapolismn.gov.

July 2013 Version

ENVIRONMENTAL ASSESSMENT WORKSHEET

This Environmental Assessment Worksheet (EAW) form and EAW Guidelines are available at the Environmental Quality Board's website at:
http://www.eqb.state.mn.us/EnvRevGuidanceDocuments.htm. The EAW form provides information about a project that may have the potential for significant environmental effects. The EAW Guidelines provide additional detail and resources for completing the EAW form.
Cumulative potential effects can either be addressed under each applicable EAW Item, or can be addresses collectively under EAW Item 19.
Note to reviewers: Comments must be submitted to the RGU during the 30-day comment period following notice of the EAW in the *EQB Monitor*. Comments should address the accuracy and completeness of information, potential impacts that warrant further investigation and the need for an EIS.

1. **Project title: Union Stadium Village**

2. **Proposer: Greystar Development Central, LLC**
   Contact person: Ned Dodington
   Title: Director of Development
   Address: 3800 American Blvd W #950
   City, State, ZIP: Bloomington, MN 55431
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3. **RGU: City of Minneapolis**
   Contact person: Hilary Dvorak
   Title: Principal City Planner
   Address: 505 4th Avenue South #320
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   Phone: 612.673.2639
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4. **Reason for EAW Preparation:** (check one)

Required:	Discretionary:
☐ EIS Scoping	☐ Citizen petition
X Mandatory EAW	☐ RGU discretion
	☐ Proposer initiated

   If EAW or EIS is mandatory give EQB rule category subpart number(s) and name(s):
   Minnesota Rules, part 4410.4300, subpart 32 (mixed residential and industrial-commercial projects)

5. **Project Location:**
   County: Hennepin
   City/Township: Minneapolis
   PLS Location (S ½, NW ¼, Section 30, Township 29, Range 23):
   Watershed (81 major watershed scale): Mississippi Watershed Management Organization (MWMO)
   GPS Coordinates: N 44.9721, W -93.2195
   Tax Parcel Number: 30-029-23-24-0030

At a minimum attach each of the following to the EAW:

- County map showing the general location of the project;

Figure 1 – Location Map
Figure 2 – Section Map

- U.S. Geological Survey 7.5 minute, 1:24,000 scale map indicating project boundaries (photocopy acceptable); and

Figure 3 – USGS Topography

- Site plans showing all significant project and natural features. Pre-construction site plan and post-construction site plan.

Figure 4 – Pre-Construction Plan-Survey
Figure 5 – Block Plan
Figure 6 – Site Plan-Street Level Floor Plan
Figure 7 – Building Elevation Context to Surrounding Area

6. Project Description:

a. Provide the brief project summary to be published in the *EQB Monitor*, (approximately 50 words).

The project will remove an existing one-story building and construct a 617-unit apartment building with 4,625 square feet of first floor retail space. The building will consist of sixteen above ground floors including 3 levels of enclosed parking. It will share the city block with an existing 4-story mixed-use condominium building.

b. Give a complete description of the proposed project and related new construction, including infrastructure needs. If the project is an expansion include a description of the existing facility. Emphasize: 1) construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes, 2) modifications to existing equipment or industrial processes, 3) significant demolition, removal or remodeling of existing structures, and 4) timing and duration of construction activities.

The Union Stadium Village project is the redevelopment of a 1.41-acre commercial property at the intersection of University Avenue and 27th Ave SE, located in the Prospect Park Neighborhood of the City of Minneapolis. The proposed project will remove the existing Profile Event Center 1-story, (41,895 sq ft) building and construct a 16-story student-oriented housing building including three (3) levels of enclosed above-grade parking, and commercial uses at the ground floor along University Avenue. The development will have approximately 4,625 square feet of retail tenant space, 617 dwelling units with a mix of studio, 1-bedroom, 2-bedroom, and 4-bedroom units, and up to 280 parking stalls. The above grade parking levels will be wrapped by liner units creating residential connectivity along the University Avenue and 27th Street facades. The building will include amenities typically found in class A student high-rise structures including a lounge, outdoor pool, fitness area, club room, pet spa, private library, bike storage, mail room, and maker space. The building form reinforces the street edge with active uses. An amenity deck is placed at level 4 and added building articulation at level 15 for architectural relief.

Construction is proposed to begin in October of 2022 and be completed by June of 2025. Construction will start with the demolition of the existing structure, followed by excavation and foundation work.

Debris or construction waste from the demolition will be removed and deposited into trucks or bins then transported to an appropriate waste and/or recycling site as per standard practices and in accordance with local regulations. Building materials, if any, containing asbestos or lead paint will be removed as regulated by state and local permits. The site abuts the Uflats four-story mixed-use building on the west, and as an in-fill urban project construction measures will be taken to ensure public safety per city permit approvals.

The site is currently served by city sewer and water service with little improvement needed to the current infrastructure. The abutting streets and sidewalks will be maintained in their current conditions except for potential updates to improve transit/pedestrian accessibility.
Figure 8 – Street Level and 2-4 Floor Plans
Figure 9 – Floor Plans 5-16
Figure 10 – Building Unit Summary

c. Project magnitude:

Total project acreage	1.41 acres
Linear project length	NA
Number and type of residential units	617 apartments
Commercial building area (in square feet)	4,625 sq ft
Industrial building area (in square feet)	NA
Institutional building area (in square feet)	NA
Other uses – specify (in square feet)	NA
Structure height(s)	16-story, 180 feet

d. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.

The project is intended to provide a mixed-use student housing development that will create a variety of rental housing options with complementary retail space that supports the housing objectives of the city's comprehensive plan. The development will fill the housing demands of residents interested in being near the University of Minnesota and multi-model transit options.

e. Are future stages of this development including development on any other property planned or likely to happen? ☐ Yes X No
If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.

NA

f. Is this project a subsequent stage of an earlier project? ☐ Yes X No
If yes, briefly describe the past development, timeline and any past environmental review.

NA

7. **Cover types: Estimate the acreage of the site with each of the following cover types before and after development:**

	Before	**After**		**Before**	**After**
Wetlands	0	0	Lawn/landscaping	0.1 AC.	Street Level: 0.1 AC.
Deep water/streams	0	0	Impervious surface	1.31 AC.	1.31 AC.
Wooded/forest	0	0	Stormwater pond	0	0
Brush/grassland	0	0	Other (describe)	0	0
Cropland	0	0			
			TOTAL	**1.41 AC.**	**1.41 AC.**

8. **Permits and approvals required: List all known local, State and Federal permits, approvals, certifications and financial assistance for the project. Include modifications of any existing permits, governmental review of plans and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure.** ***All of these final decisions are prohibited until all appropriate environmental review has been completed. See Minnesota Rules, Chapter 4410.3100.***

Unit of Government	**Type of Application**	**Status**
STATE		
MPCA	NPDES SDS Construction Stormwater Permit	To be applied for
MPCA	Response Action Plan Approval	To be applied for
MN DNR	Groundwater Appropriation Permit	To be applied for, if needed
Met Council	SAC Determination Request	To be applied for, if needed
Met Council	Special Discharge Approval	To be applied for
Mississippi River Water Management Organization	Stormwater Management Plan Approval	To be applied for
CITY		
City of Minneapolis	Building Permits	To be applied for
City of Minneapolis	Demolition Permit	To be applied for
City of Minneapolis	Erosion & Sedimentation Control Plan Approval & Grading Permit	To be applied for
City of Minneapolis	Stormwater Management Plan Approval	To be applied for
City of Minneapolis	Temporary Water Discharge Permit	To be applied for, if needed

City of Minneapolis	Emergency Generator Fuel Permit	To be applied for, if needed
City of Minneapolis	After Hours Work Permit	To be applied for, if needed
City of Minneapolis	Lane Obstruction Permit	To be applied for, if needed
City of Minneapolis	Encroachment Permit	To be applied for, if needed
City of Minneapolis	Utility Repair Permit	To be applied for, if needed
City of Minneapolis	Sidewalk Construction Permit	To be applied for, if needed
City of Minneapolis	Testing and Inspection Permit	To be applied for, if needed
City of Minneapolis	Site Plan Review and other land use applications as needed	To be applied for
City of Minneapolis	Water Discharge from Dewatering or Stormwater Ponds	To be applied for, if needed
City of Minneapolis	Well Permit	To be applied for, if needed
City of Minneapolis	Temporary On-Site Storage of Impacted Soil Approval	To be applied for, if needed
City of Minneapolis	Approval if Impacted Soil Reuse	To be applied for, if needed
City of Minneapolis	Temporary Rock Crushing Permit	To be applied for, if needed

Cumulative potential effects may be considered and addressed in response to individual EAW Item Nos. 9-18, or the RGU can address all cumulative potential effects in response to EAW Item No. 19. If addressing cumulative effect under individual items, make sure to include information requested in EAW Item No. 19

9. Land use:

a. Describe:

i. Existing land use of the site as well as areas adjacent to and near the site, including parks, trails, prime or unique farmlands.

The existing land use is a 1-story 41,895 square foot commercial building that includes an event center and a few commercial tenants. On-site parking is provided along the east and south sides of the building. The building shares the city block with a four-story, mixed-use condominium building with first floor retail located on a separate lot to the west. The block is adjacent to University Avenue to the north, 27th Avenue SE to the east, Delaware Street to the south and 26th Avenue SE to the west. Surrounding land uses consist of a variety of single-story and multiple-story retail, office and residential uses with single and mixed tenant occupancies. There is a mix of uses along University Avenue, with lower density residential further to the south and east and older industrial buildings to the north. Redevelopment is currently occurring on the property south of the site across Delaware Street. That project, known as the Brickhouse Lofts, was initially approved in 2015 and then amended in 2019 to provide a total of 166 dwelling units and 62,303 square feet of office space.
Figure 11 - Generalized land use map

There are multiple parks and trails within a half-mile of the site. The East River Flats Park and East River Trail along the Mississippi River are approximately a half mile to the south, while Prospect Park and the Prospect Park Water Tower (Witch Hat Tower) are the same distance to the east. Luxton Park and Recreation Center is roughly a quarter-mile to the southeast. The site is approximately a quarter-mile from the University of Minnesota TCF Bank Stadium and 800-feet from the University Sport Field. A station for the Blue Line light rail line is 1,000 feet to the west at University Avenue and 29th Avenue.
Figure 12 – Mpls. District 3 Park Map

Figure 13 – Local Parks and Attractions

There is no prime or unique farmland in the area.

ii. Plans. Describe planned land use as identified in comprehensive plan (if available) and any other applicable plan for land use, water, or resources management by a local, regional, state, or federal agency.

The subject site is guided as Community Mixed-Use as designated on the Minneapolis 2040 Comprehensive Plan's Future Land Use map. The Comprehensive Plan describes Community Mixed-Use as follows:

Large-scale mixed-use development is encouraged throughout these areas, with commercial uses fronting on major streets. Commercial retail spaces are typically smaller in order to generate pedestrian activity, and are often a destination for customers coming from outside of the market area. Active uses that are accessible to the general public such as office, food service, retail, or medical establishments are required at the street level; therefore single-use residential development is not permitted. Contiguous expansion of commercial zoning is allowed.

University Avenue SE is designated as a Goods and Services Corridor on the Future Land Use map. Goods and Services Corridors serve two purposes:

1. *To indicate where commercial uses should front in relation to properties guided for commercial future land uses.*
2. *In addition to the guidance for the mixed-use land use categories found in this section, Goods and Services Corridors identify where the establishment or expansion of commercial uses can be considered. Properties immediately adjacent to a Goods and Services Corridor may be considered for commercial activity, allowing for uses similar in scale and scope to the Neighborhood and Corridor Mixed Use categories.*

Figure 14 – Land Use Category Description and Map

Per the Minneapolis 2040 Comprehensive Plan, the site is also designated within the Transit 30 Built Form District, which is described as follows:

The Transit 30 district is typically applied along high frequency transit routes, adjacent to METRO stations, in neighborhoods near downtown, and adjacent to the downtown office core.

Built Form Guidance: New and remodeled buildings in the Transit 30 district should reflect a variety of building types on both moderate and large sized lots. Upper floors of taller buildings should be set back to increase access to light and air. Building heights should be 10 to 30 stories. Building heights should be at least 10 stories in order to best take advantage of the access to transit, jobs, and goods and services provided by the Transit 30 district. Requests to exceed 30 stories will be evaluated on the basis of whether or not a taller building is a reasonable means for further achieving Comprehensive Plan goals.

Figure 15 – Transit 30 Built Form District Map

Figure 16 – Transit 30 Description

The related policies noted in the Minneapolis 2040 Comprehensive Plan for the community mixed-use land use designation and for the Transit 30 Built Form include Policies; 1: Access to Housing, Policy 2:

Access to Employment, and Policy 4: Access to Commercial Goods and Services. A short synopsis of the related policies is listed below with the full policy and action steps provided within the appendix.
Appendix A – Minneapolis 2040 Comprehensive Plan Policies

iii. Zoning, including special districts or overlays such as shoreland, floodplain, wild and scenic rivers, critical area, agricultural preserves, etc.

The site is not within a shoreland, floodplain or critical area districts and contains no wetlands.

The primary zoning of the site is C2, Neighborhood Corridor Commercial District. The purpose of the C2 district is to provide an environment of retail sales and commercial services. In addition to commercial uses, residential uses, institutional and public uses, parking facilities, limited production and processing and public services and utilities are allowed.
Figure 17 – Primary Zoning District Plate 22

In December of 2020 the city adopted the Built Form Overlay Districts (Chapter 552), which amended several other sections of the zoning code to coordinate with the Overlays. The C2 District regulations now refer to the Built Form Overlay for bulk regulations. The built form overlay districts were established to guide the scale of development in a manner that aligns with the planned development patterns of each district by regulating features such as building height, floor area, yards, lot coverage, impervious surfaces, and lot sizes. The site is within the BFT30, Transit 30 Built Form Overlay District. Although Chapter 552 will be the primary built form ordinance, there are other built form regulations elsewhere in the zoning code that have not been moved into this chapter that the project will need to comply.
Figure 18 – Transit 30, Built Form Overlay District

The site is within the PO, Pedestrian Oriented Overlay District and the UA, University Area Overlay District.

- The PO Pedestrian Oriented Overlay District was established to preserve and encourage the pedestrian character of commercial areas and to promote street life and activity by regulating building orientation and design and accessory parking facilities. Building placement shall reinforce the street wall, maximize natural surveillance and visibility, and facilitate pedestrian access and circulation. First floor of buildings shall be located not more than eight (8) feet from the front lot line, except where a greater yard is required by this zoning ordinance.

- The UA University Area Overlay District is established to ensure high quality residential development through site design and off-street parking regulations acknowledging the unique demands placed on land uses near a major center of educational employment and enrollment.

Figure 19 – Overlay Zoning Districts

b. Discuss the project's compatibility with nearby land uses, zoning, and plans listed in item 9a above, concentrating on implications for environmental effects.

The site is currently fully developed and contains no significant environmental features. The proposed redevelopment of the site as a mixed-use project provides the commercial and housing densities supported by the Community Mixed Use and Goods and Services Corridor future land use guidance of the Minneapolis 2040 Plan. The proposed 16-story building is also in conformance with the building height standard for Built Form Transit 30, which requires a minimum of 10-stories and a maximum of 30-

stories. The building will be taller than other buildings in the surrounding area where most of the existing buildings are under 11-stories. (WaHu, Quad, Link and the Pillars of Prospect Park residential buildings are at 10-11 stories) However, it will be smaller than the Hub, located on the 600 block on Washington (311 E Harvard) approximately ½ mile to the west. The Hub is 26 stories and 284 feet in height.
The site will be developed in conformance with other bulk regulations of the BFT30 Overlay District, including floor area ratio. A variance of the PO Overlay standards will be required to allow portions of the ground level of the building façade to be placed more than 8 feet from the street in order to create sufficient space and access for mechanical equipment. No other variances or conditional use permits are expected to be required for the project.

c. Identify measures incorporated into the proposed project to mitigate any potential incompatibility as discussed in Item 9b above.

As noted, a variance will be required to allow small sections of the ground-level façade to be set back more than 8 feet from the street to allow space and access for mechanical equipment. These setbacks have been located at the interior side lot line where they will have the least impact on the pedestrian character of the street and pedestrian experience. An amenity deck is placed at level 4 and added building articulation at level 15 for architectural relief.

10. Geology, soils and topography/land forms:

a. Geology - Describe the geology underlying the project area and identify and map any susceptible geologic features such as sinkholes, shallow limestone formations, unconfined/shallow aquifers, or karst conditions. Discuss any limitations of these features for the project and any effects the project could have on these features. Identify any project designs or mitigation measures to address effects to geologic features.

Reviewing the Geologic Atlas of Hennepin County (1989), bedrock geology of the project sites consists of Platteville and Glenwood Formations. These are comprised of fine-grained limestone containing thin shale partings near the top and base, underlain by green, sandy shale.

Based on the information from the September 7, 2021 Braun, Phase 1, Environmental Site Assessment (ESA) the unconsolidated sediment in the site vicinity are postglacial lower terrace deposits, which consist of sand gravel. The deposit may contain zones of cobbles. The depth to bedrock in the site vicinity is approximately 40 feet to 50 feet below ground surface.

No sinkholes or karst conditions are known to be present on the site. A shallow water table on the site is approximately 12 feet below ground surface and is representative of the regional water table aquifer. Since the proposed project involves redevelopment of a previously developed parcel, the construction of new buildings, stormwater basins and utility infrastructure are not anticipated to adversely affect the geologic conditions at the site.
Figure 20 – Geology
Figure 21 – Geological Atlas of Hennepin County
Appendix B – Phase 1; Braun ESA

b. Soils and topography - Describe the soils on the site, giving NRCS (SCS) classifications and descriptions, including limitations of soils. Describe topography, any special site conditions relating to erosion potential, soil stability or other soils limitations, such as steep slopes,

highly permeable soils. Provide estimated volume and acreage of soil excavation and/or grading. Discuss impacts from project activities (distinguish between construction and operational activities) related to soils and topography. Identify measures during and after project construction to address soil limitations including stabilization, soil corrections or other measures. Erosion/sedimentation control related to stormwater runoff should be addressed in response to Item 11.b.ii.

According to the Natural Resources Conservation Service (NRCS) Web Soil Survey the project area is made up of soil type, Urban Land-Udorthents (wet substratum), 0 to 2 percent slopes. Soils of this series are commonly found on stream terraces, moraines and outwash plains. The soils are well drained.

Braun conducted 6 soil borings on May 14, 2021 that shows silty sand soils in the top 2-7 feet followed by poorly graded sand and clayey sand to 23-28 feet below ground and silty sand. Shale was typically found at 35-38 feet with borings ending at 43-47 feet due to backfill of bentonite. Braun notes that the onsite soils are suitable for structure support with conventional spread footings after the removal of the existing fill. It is recommended that the top 2-4 feet of urban fill be removed. The non-organic, onsite poorly graded sand and poorly graded sand with silt soils may be reused as structural fill.

The site topography is relatively flat with a gentle slope downward from northeast to southwest at an elevation of approximately 841 to an elevation of 835 above mean sea level. Based on the location of the project site and the classification of the soils, the soils onsite are not rated as a hazard under normal conditions and once stabilized.

The building's lowest floor has a proposed elevation of approximately 840, matching the existing grade. It is expected that approximately 8 feet of soil correction will be needed, with an anticipated excavation volume of 16,000 cubic yards. There will be limited excavation for utility connections and pedestrian route improvements to comply with ADA accessibility regulations.
Figure 22 – NRCS Soils
Figure 23 – Geotech Soil Borings

NOTE: For silica sand projects, the EAW must include a hydrogeologic investigation assessing the potential groundwater and surface water effects and geologic conditions that could create an increased risk of potentially significant effects on groundwater and surface water. Descriptions of water resources and potential effects from the project in EAW Item 11 must be consistent with the geology, soils and topography/land forms and potential effects described in EAW Item 10.

11. Water resources:

a. Describe surface water and groundwater features on or near the site in a.i. and a.ii. below.

i. Surface water - lakes, streams, wetlands, intermittent channels, and county/judicial ditches. Include any special designations such as public waters, trout stream/lake, wildlife lakes, migratory waterfowl feeding/resting lake, and outstanding resource value water. Include water quality impairments or special designations listed on the current MPCA 303d Impaired Waters List that are within 1 mile of the project. Include DNR Public Waters Inventory number(s), if any.

The Mississippi River is approximately 0.42 miles (2,190 feet) from the project area and is a Minnesota Department of Natural Resources (DNR) Public Water. No other surface water resources (wetlands, lakes, streams, etc.) are located within or adjacent to the project area. There are four (4) impaired waters located within one mile of the project area. They are the Mississippi River (07010206-814), Mallard Marsh (62-0259-00), Kasota Pond West (62-0281-00), and the Kasota Pond North (62-0280-00).
Figure 24 – Impaired Waters
Figure 25 – Water Resources

ii. Groundwater – aquifers, springs, seeps. Include: 1) depth to groundwater; 2) if project is within a MDH wellhead protection area; 3) identification of any onsite and/or nearby wells, including unique numbers and well logs if available. If there are no wells known on site or nearby, explain the methodology used to determine this.

Based on recently completed soil borings by Braun as part of geotechnical evaluation services, the depth to groundwater at the site may range between 10 to 20 feet below ground surface (subject to seasonal fluctuations) and is representative of the regional water table aquifer at the site. The water table aquifer is not a significant source of groundwater within Hennepin County. The deeper Prairie du Chien – Jordan Aquifer is the most heavily used aquifer for public water supply within the site vicinity and in Hennepin County. The subject property/site does not overlie a sole source aquifer.

Braun further notes, according to published geologic information, the regional groundwater flow direction within the unconsolidated deposits in the site vicinity is generally south-southwest. However, the local direction of groundwater flow may be affected by nearby streams, lakes, wells, and/or wetlands and may vary seasonally. The site-specific groundwater flow direction was not determined through direct measurement during this Phase I ESA. Additional field investigation, beyond the Scope of Services of this Phase I ESA, would be required to determine this information.

Based on records and the Minnesota Well Index map from the Minnesota Department of Health (MDH) there are no known well records on file for the site. There is a sealed well located directly adjacent to the site within 27th Avenue SE, well #462330. This specific well was drilled to a depth of 19-feet on November 14, 1990. It was originally used as a monitor well and was sealed in June 1998. This information was gathered from the MDH Well and Boring Report with entry date of 11/25/1992 and update date of 02/09/2016. Braun's Phase 1 review of the MWI and Well Disclosure Certificate databases revealed no documentation of water wells located on the site, with the exception of a sealed monitoring well associated with the east adjoining former Amoco petroleum noted above.
Figure 26 – Well Index Map

b. Describe effects from project activities on water resources and measures to minimize or mitigate the effects in item b.i. through item b.iv. below.

i. Wastewater - For each of the following, describe the sources, quantities and composition of all sanitary, municipal/domestic and industrial wastewater produced or treated at the site.

1) If the wastewater discharge is to a publicly owned treatment facility, identify any pretreatment measures and the ability of the facility to handle the added water and waste loadings, including any effects on, or required expansion of, municipal wastewater infrastructure.

The existing and proposed building will discharge sanitary sewer to an existing 39-inch brick egg shaped sanitary sewer located within University Avenue.

Per Metropolitan Council, the existing building has 15 existing SAC credits allocated to the site, allowing a maximum sewer discharge rate of 4,110 gallon per day. The proposed use will require approximately 634 SAC credits allowing a maximum sewer discharge rate of 173,716 gallons per day or a net increase of 169,606 gallon per day.

Wastewater from these sites will be treated at Metropolitan Council's Metropolitan Wastewater Treatment plant, located on the Mississippi River in St. Paul, Minnesota. The Metro Plant treats an average of 172 million GPD of wastewater and has an overall capacity to treat 251 million GPD.

2) **If the wastewater discharge is to a subsurface sewage treatment systems (SSTS), describe the system used, the design flow, and suitability of site conditions for such a system.**

Not applicable- does not discharge into a SSTS

3) **If the wastewater discharge is to surface water, identify the wastewater treatment methods and identify discharge points and proposed effluent limitations to mitigate impacts. Discuss any effects to surface or groundwater from wastewater discharges.**

Not applicable – does not discharge into surface water

ii. **Stormwater - Describe the quantity and quality of stormwater runoff at the site prior to and post construction. Include the routes and receiving water bodies for runoff from the site (major downstream water bodies as well as the immediate receiving waters). Discuss any environmental effects from stormwater discharges. Describe stormwater pollution prevention plans including temporary and permanent runoff controls and potential BMP site locations to manage or treat stormwater runoff. Identify specific erosion control, sedimentation control or stabilization measures to address soil limitations during and after project construction.**

Stormwater from the site will be discharged in accordance the City of Minneapolis Municipal Code, Chapter 54 – Stormwater Management. Quantity and quality of stormwater runoff at the site prior to and post construction will also meet the aforementioned Chapter 54 requirements and will discharge to public storm sewer within the right-of-way, which ultimately discharges to the Mississippi River.

A Stormwater Pollution Prevention Plan (SWPPP) will be created in conformance with City of Minneapolis Municipal Code, Chapter 52 and the Minnesota Pollution Control Agency 2018 NPDE/SDS Permit for Construction Activity regulations. The SWPPP will identify proposed Best Management Practices (BMP's) to control soil erosions, sedimentation and stormwater pollutant discharge during construction activities. An erosion and sediment control plan will be included to implement Best Management Practices (BMPs) to control erosion, and that erosion controls be inspected after each

rainfall event. Erosion control practices that would be implemented on the site include, but are not limited to:

1) Silt fence, bio-rolls, and other erosion control features installed prior to initiation of earthwork and maintained until viable turf or ground cover is established on exposed areas.
2) Inlet protection.
3) Periodic street cleaning and installation of a rock construction entrance to reduce tracking of dirt onto public streets.
4) Stabilization of exposed soils, phased with grading.

Erosion control plans must be reviewed and accepted by the City of Minneapolis prior to project construction. Because the above BMPs would be implemented during and after construction, potential adverse effects from construction-related sediment and erosion on water quality would be minimized.

iii. Water appropriation - Describe if the project proposes to appropriate surface or groundwater (including dewatering). Describe the source, quantity, duration, use and purpose of the water use and if a DNR water appropriation permit is required. Describe any well abandonment. If connecting to an existing municipal water supply, identify the wells to be used as a water source and any effects on, or required expansion of, municipal water infrastructure. Discuss environmental effects from water appropriation, including an assessment of the water resources available for appropriation. Identify any measures to avoid, minimize, or mitigate environmental effects from the water appropriation.

Groundwater was encountered at a depth ranging from an elevation of 823.4 to 827.6, or 13 -17 feet below the surface. If perched groundwater or seasonably high groundwater is encountered during construction a DNR Temporary Projects General Permit 1997-0005 will be obtained for all temporary water appropriations. A City of Minneapolis Temporary Water Discharge Permit would also be obtained for any temporary dewatering for construction.

iv. Surface Waters

a) Wetlands - Describe any anticipated physical effects or alterations to wetland features such as draining, filling, permanent inundation, dredging and vegetative removal. Discuss direct and indirect environmental effects from physical modification of wetlands, including the anticipated effects that any proposed wetland alterations may have to the host watershed. Identify measures to avoid (e.g., available alternatives that were considered), minimize, or mitigate environmental effects to wetlands. Discuss whether any required compensatory wetland mitigation for unavoidable wetland impacts will occur in the same minor or major watershed, and identify those probable locations.

Not Applicable - No wetlands present.

b) Other surface waters - Describe any anticipated physical effects or alterations to surface water features (lakes, streams, ponds, intermittent channels, county/judicial ditches) such as draining, filling, permanent inundation, dredging, diking, stream diversion, impoundment, aquatic plant removal and riparian alteration. Discuss direct and indirect environmental effects from physical modification of water features. Identify measures to avoid, minimize, or mitigate environmental effects to

surface water features, including in-water Best Management Practices that are proposed to avoid or minimize turbidity/sedimentation while physically altering the water features. Discuss how the project will change the number or type of watercraft on any water body, including current and projected watercraft usage.

Not Applicable - No surface waters present. Flood Insurance Rate Maps, published by the Federal Emergency Management Agency, was performed. According to Panel Number 27053C0376F, dated 11/4/2016 the Site is located in Flood Zone X. Flood Zone X regions consist of areas outside the 0.2% annual chance flood plain.

12. Contamination/Hazardous Materials/Wastes:

a. Pre-project site conditions - Describe existing contamination or potential environmental hazards on or in close proximity to the project site such as soil or ground water contamination, abandoned dumps, closed landfills, existing or abandoned storage tanks, and hazardous liquid or gas pipelines. Discuss any potential environmental effects from pre-project site conditions that would be caused or exacerbated by project construction and operation. Identify measures to avoid, minimize or mitigate adverse effects from existing contamination or potential environmental hazards. Include development of a Contingency Plan or Response Action Plan.

A Phase 1 Environmental Site Assessment was prepared on September 7, 2021 by Braun Intertec Corporation (Braun) for Greystar Development Central, LLC, for the proposed project. A site reconnaissance visit was conducted on May 24, 2021. No indications of current and/or historic use, storage, staining, or spills of hazardous substances were observed at the site at the time of the reconnaissance, with the exception of less than 10 cumulative gallons of typical household cleaning compounds and approximately 100 used fluorescent bulbs. The assessment identified no recognized environmental conditions (REC), or identified controlled recognized environmental conditions (CREC). The report does note the potential of environmental impacts based on the following findings and opines that they are a recognized environmental condition:

- Based on historic and available aerial photography, the potential for undocumented regulated and/or contaminated fill to have been placed at the site prior to development exists and is considered a recognized environmental condition.

- A 15,000-gallon fuel oil tank was installed at the time of construction of the existing building in 1949 and was closed in place on August 6, 1993. The UST database listing indicates that the tank was sealed/taken out-of-service in accordance with local and state regulations. No indications of a release associated with the UST or RCRA database listings was identified in the ERIS report. Environmental soil investigation data in the vicinity of the closed tank indicates that a significant release from the closed tank is unlikely to have occurred. The Phase 1 notes that there is a potential to encounter petroleum impacts related to the tank and its removal during construction and in Braun's opinion it is a recognized environmental condition.

- The existing site building has been occupied for carpet manufacturing, battery factory, manufacturing and medical research facility, and warehouse purposes from approximately 1949 through 1988. These past site occupants likely stored and/or used hazardous substances and/or petroleum products. Although limited soil data from the 1993

Environmental Investigation did not identify indications of a release, the potential remains for undocumented release(s) by past site occupants to have adversely affected the soil, groundwater, and/or soil vapor at the site.

- The site is located in an area that has been industrially developed for approximately 130 years with some of the adjoining properties listed on databases suggesting that some contamination was detected or is suspected per MPCA preferred files. There is a potential for the identified releases of hazardous substance and/or petroleum product from off-site sources to have impacted groundwater and/or soil vapor at the site. Available environmental data for the property north-northwest, and in the approximate upgradient groundwater flow direction, relative to the site indicate that shallow groundwater and soil vapor are impacted by chlorinated solvents PCE and TCE within the vicinity of the site. Therefore, the potential to encounter contaminated groundwater and/or soil vapor during construction in association with the identified petroleum and nonpetroleum impacts at the off-site properties is considered a recognized environmental condition for the proposed redevelopment project. No observations of environmental concern were noted on adjoining properties to the site at the time of the May 24, 2021 reconnaissance.

The Phase 1 identified additional considerations as part of the assessment. The report notes that it is unknown if the demolition debris associated with former buildings on the site were buried on the site or hauled away for disposal. The potential exists that buried materials are present at the site that require management as solid or hazardous waste. The report recommends that if fill soils, which could include demolition debris and other wastes, are encountered during redevelopment additional evaluation of the fill soils might be required for management and disposal purposes.

In addition, at the time of this assessment it was observed that various building materials may contain or are likely to contain asbestos, i.e., suspect Asbestos Containing Material (ACM). It is recommended that prior to demolition of the existing building a destructive hazardous building materials survey should be completed. If suspect materials are encountered during demolition activities, disturbance work will immediately stop until a determination regarding asbestos content within the material is discovered or removed by a licensed abatement contractor.

In review of the MPCA What's in My Neighborhood we found there is a MPCA Site (ID#21625) located just north of the site within University Ave SE with inactive activities of Hazardous Waste (MND982205536) and Underground Tanks (TS0011264) which may contain food products, petroleum products or other substances. MPCA Site (ID#40651) located NE of the project area named Bruce Printing with active Hazardous Waste (MND982419962) small generator site and an Industrial Stormwater (MNRNE33CL) inactive status. Another MPCA Site (ID#195041) is located on the adjacent site to the west, University Flats, has an inactive Investigation and Cleanup site (VP22100) for a brownfield voluntary cleanup. Just to the South of the project area MPCA Site (132398) is inactive and was for Construction Stormwater (C00031307) relating to 10th Ave Storm Tunnel Outlet Replacement. There are additional MPCA Sites all around the project area, but the ones listed above are the closest in proximity to the site.
Appendix B – Phase 1; Braun ESA
Figure 27 – What's in My Neighborhood

b. Project related generation/storage of solid wastes - Describe solid wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from solid waste handling, storage and disposal. Identify

measures to avoid, minimize or mitigate adverse effects from the generation/storage of solid waste including source reduction and recycling.

The generation of solid waste will include the removal of the existing building and parking lot. Materials removed will be deposited into trucks or bins then transported to an approved waste and/or recycling site. The removal collection and transporting of materials will be conducted under the conditions and permits approved during the city review process and best management practices established for the project.
The Phase 1 report noted several suspect building materials were found to contain asbestos, or asbestos containing material (ACM). The removal of asbestos or ACM's will be properly removed by a licensed contractor according to local, state and federal regulations.

Construction of the proposed development will generate construction-related waste materials such as concrete, drywall, packaging, excess materials, and other wastes, which will either be recycled or disposed of in the proper facilities in accordance with state regulations and guidelines.

c. **Project related use/storage of hazardous materials - Describe chemicals/hazardous materials used/stored during construction and/or operation of the project including method of storage. Indicate the number, location and size of any above or below ground tanks to store petroleum or other materials. Discuss potential environmental effects from accidental spill or release of hazardous materials. Identify measures to avoid, minimize or mitigate adverse effects from the use/storage of chemicals/hazardous materials including source reduction and recycling. Include development of a spill prevention plan**.

During construction, hazardous materials such as fuels (small quantities stored above ground) and specific construction materials would be on site and stored and handled in conformance with State and Federal regulations to prevent accidental spill or release of hazardous materials. Builders and contractors are responsible for proper management of hazardous materials utilized during construction. The contractor would minimize and mitigate adverse effects from the generation and storage of hazardous wastes by recycling wastes that can be recycled and by developing a spill prevention plan for the project.

d. **Project related generation/storage of hazardous wastes - Describe hazardous wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from hazardous waste handling, storage, and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of hazardous waste including source reduction and recycling.**

Regulated material and/or waste will be managed in accordance with state requirements. No known toxic or hazardous wastes are anticipated to be generated on the site. Toxic or hazardous waste to be stored on the site during construction will include fuel and oil necessary to operate heavy construction equipment and during operations may include commercial cleaning supplies.

13. Fish, wildlife, plant communities, and sensitive ecological resources (rare features):

a. **Describe fish and wildlife resources as well as habitats and vegetation on or in near the site.**

The project site is currently fully developed consisting of all impervious ground cover. There are no fish and/or wildlife resources or habitats on or near the site. The Mississippi River is located approximately one-half mile to the east and will not be impacted by the project.

b. Describe rare features such as state-listed (endangered, threatened or special concern) species, native plant communities, Minnesota County Biological Survey Sites of Biodiversity Significance, and other sensitive ecological resources on or within close proximity to the site. Provide the license agreement number (LA-____) and/or correspondence number (ERDB 20220034) from which the data were obtained and attach the Natural Heritage letter from the DNR. Indicate if any additional habitat or species survey work has been conducted within the site and describe the results.

Notification from the Natural Heritage Review was received on October 6, 2021. Given the project details the project is not believed to negatively affect any known occurrences of rare features.
Appendix C – DNR Letter

c. Discuss how the identified fish, wildlife, plant communities, rare features and ecosystems may be affected by the project. Include a discussion on introduction and spread of invasive species from the project construction and operation. Separately discuss effects to known threatened and endangered species.

There are no known fish, wildlife, plant communities, rare features and ecosystems on or near the site to be affected. If any are found, measure(s) will be taken to protect or manage them in accordance to city and regulatory requirements. It is possible that non-native invasive species could enter the site via materials or vehicles. Measures to inspect or wash in-bound items and the potential use of native non-invasive landscape plants will minimize the risk of introducing invasive species.

d. Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to fish, wildlife, plant communities, and sensitive ecological resources.

There are no known fish, wildlife, plant communities, rare features and ecosystems on or near the site to be affected. Bird-friendly building materials (opaque surfaces, punched window openings, limited areas with large expanses of glazing) and site lighting are proposed to avoid and minimize impacts to migrating birds to the extent practicable.

14. Historic properties:

a. Describe any historic structures, archeological sites, and/or traditional cultural properties on or in close proximity to the site. Include: 1) historic designations, 2) known artifact areas, and 3) architectural features. Attach letter received from the State Historic Preservation Office (SHPO). Discuss any anticipated effects to historic properties during project construction and operation. Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to historic properties.

A letter from the State Historic Preservation Office (SHPO) dated June 4, 2021 with a Project Reference # 2021-1935 was received stating the following:

*"**Archaeological Resources** – We have reviewed the documentation included with your submittal and based on information that is available to us at this time, it is our opinion that there is a low likelihood of intact archaeological resources being present with the proposed project area. Therefore, we do not believe that an archaeological survey is warranted for the project as it is currently defined.*

History/Architecture Properties *– Based on information that is available to us at this time, we have determined that there are no properties listed in the National or State Registers of Historic Places that will be affected by this project."*

The project site is two blocks west of the Prospect Park Residential Historic District. The entire 138-acre core of the neighborhood was listed on the National Register of Historic Places in 2015 as the Prospect Park Residential Historic District for its significance in the theme of social history. Per the United States Department of the Interior National Park Service National Register of Historic Places Registration Form the Prospect Park Residential Historic District is set apart from the surrounding area by virtue of its topography and its geography. The Prospect Park Water Tower is at the crest of Tower Hill Park off University Avenue (both NRHP, 1997) and dominates the skyline. The district also includes the Malcolm and Nancy Willey House (NRHP, 1984). The Prospect Park Residential Historic District is residential in character with related resources such as three churches, one school, and three small-scale commercial buildings that reinforce the architectural character and history of the area. Tower Hill and the Prospect Park Water Tower, designed by Frederick William Cappelen, are locally designated landmarks.

Union Stadium Village is not within the Prospect Park Residential Historic District and will not create any physical effects to the historical area. Public views of the water tower will be maintained on University Avenue and Delaware Street.

Given the developed character of the area and the site, there is a low likelihood of intact archaeological resources being present with the proposed project area.
Figure 28 – Historic Places
Figure 29 – Historic Prospect Park Residential District Map
Appendix D – SHPO Letter

15. Visual:

a. Describe any scenic views or vistas on or near the project site. Describe any project related visual effects such as vapor plumes or glare from intense lights. Discuss the potential visual effects from the project. Identify any measures to avoid, minimize, or mitigate visual effects.

The scenic views or vistas near the site would consist of the Prospect Park Water Tower and possibly the Mississippi River and East River Parkway, once you are above a certain height. Due to the height of the building, views of the water tower will be obstructed from the upper floors of the neighboring 4-story apartment building to the west.
Figure 30 – Views of Prospect Park Water Tower

There may be partial loss of views of the Mississippi River corridor from apartment units on the upper floors within the 6-story buildings along 4th Street (44 North Apartments). However, due to the fact that the apartments are over one-half mile away and there are multiple taller buildings between them and the river, any loss of view is unlikely and would be expected as new development to the area will need to meet the height standards of 10 to 30 stories.
Figure 31 – Elevation Images of Building

16. Air:

a. Stationary source emissions - Describe the type, sources, quantities and compositions of any emissions from stationary sources such as boilers or exhaust stacks. Include any hazardous air pollutants, criteria pollutants, and any greenhouse gases. Discuss effects to air quality including any sensitive receptors, human health or applicable regulatory criteria. Include a discussion of any methods used assess the project's effect on air quality and the results of that assessment. Identify pollution control equipment and other measures that will be taken to avoid, minimize, or mitigate adverse effects from stationary source emissions.

No stationary source air emissions are anticipated for the project that will require permitting or mitigation. No significant impacts are anticipated from the typical residential/commercial heating and cooling (HVAC) systems for the proposed development. Sensitive receptors in the area include outdoor seating at nearby restaurants, residential buildings, East River Flats Park and East River Trail, Luxton Park and Recreation Center, Prospect Park and the Prospect Park Historic District, and TCF Bank stadium. The sensitive receptors will be familiar to this type of activity and are not anticipated to be negatively impacted.

b. Vehicle emissions - Describe the effect of the project's traffic generation on air emissions. Discuss the project's vehicle-related emissions effect on air quality. Identify measures (e.g. traffic operational improvements, diesel idling minimization plan) that will be taken to minimize or mitigate vehicle-related emissions.

Typical of most urban-infill developments, the proposed project will concentrate motor vehicle activity in its immediate location. Air emissions as a result of increased motor vehicle activity may be anticipated on or near the site. Motor vehicles emit a variety of air pollutants including carbon monoxide (CO), hydrocarbons, nitrogen oxides, and particulates. The primary pollutant of concern is CO, which is a byproduct of the combustion process of motor vehicles. CO concentrations are highest where vehicles idle for extended periods of time. For this reason, CO concentrations are generally highest in vicinity of signalized intersections where vehicles are delayed and emitting CO. Generally, concentrations approaching state air quality standards are found within about 100 feet of a roadway source. Further from the road, the CO in the air is dispersed by the wind such that concentrations rapidly decrease.

The Minnesota Department of Transportation (MnDOT) has developed a screening method designed to identify intersections that will not cause a carbon monoxide (CO) impact above state standards. MnDOT has demonstrated that even the 10 highest traffic volume intersections in the Twin Cities do not experience CO impacts. Therefore, intersections with traffic volumes lower than these 10 highest intersections will not cause a CO impact above state standards. MnDOT's screening method demonstrates that intersections with total daily approaching traffic volumes below 82,300 vehicles per day will not have the potential for causing CO air pollution problems. None of the intersections in the study area exceed the criteria that would lead to a violation of the air quality standards.

Construction vehicles will create temporary exhaust emissions while developing the site. Construction activities will be conducted during daytime regulated hours and all vehicles will be to State and Federal standards. The project will not require an indirect source permit. No baseline air quality monitoring or modeling is proposed and no measures to mitigate for the increase in vehicle related emissions are being considered.

c. Dust and odors - Describe sources, characteristics, duration, quantities, and intensity of dust and odors generated during project construction and operation. (Fugitive dust may be

discussed under item 16a). Discuss the effect of dust and odors in the vicinity of the project including nearby sensitive receptors and quality of life. Identify measures that will be taken to minimize or mitigate the effects of dust and odors.

The construction of the Union Stadium Village project will require the demolition and removal of the existing one-story building currently on the site. The building removal will occur October of 2022 with an expected duration of 2-3 months to remove the debris. The construction of the project will create typical dust and odor related to urban construction. During construction, contractors will follow best management practices required per city ordinances and approved permits. The sensitive receptors near the site, consisting mostly of outdoor seating, nearby residential units and parks, are not anticipated to be negatively impacted by dust or odor created by the project.

The use of the buildings after construction (residential and commercial) is not expected to generate dust or odors.

17. Noise

a. Describe sources, characteristics, duration, quantities, and intensity of noise generated during project construction and operation. Discuss the effect of noise in the vicinity of the project including 1) existing noise levels/sources in the area, 2) nearby sensitive receptors, 3) conformance to state noise standards, and 4) quality of life. Identify measures that will be taken to minimize or mitigate the effects of noise.

Noise created by the project will be similar to recent developments in the area and what is typical of urban construction. The project will be subject to City and State noise standards and conditions as required during the city approval process and approved permits. City ordinances restrict the operation of construction equipment Monday through Friday from 7:00 a.m. to 6:00 p.m. without a permit. The project is within an urban area consisting of residential and commercial mixed uses surrounded by nearby major vehicle and transit corridors. The sensitive receptors in the area, including; outdoor restaurants, residential units, East River Flats Park and East River Trail, Luxton Park and Recreation Center, Prospect Park and the Prospect Park Historic District, and TCF Bank stadium will be familiar to this type of activity and are not anticipated to be negatively impacted.

18. Transportation

a. Describe traffic-related aspects of project construction and operation. Include: 1) existing and proposed additional parking spaces, 2) estimated total average daily traffic generated, 3) estimated maximum peak hour traffic generated and time of occurrence, 4) indicate source of trip generation rates used in the estimates, and 5) availability of transit and/or other alternative transportation modes.

<u>Parking</u>
There are presently 36 parking spaces within the development site. The development is planned to include 617 residential units and approximately 4,625 square feet of boutique retail space, and will provide 280 parking stalls located within a three-story above ground parking garage being constructed with the project, of which 273 are dedicated to resident parking and 7 spaces are for retail employees.

<u>Traffic Generation</u>

The trip generation estimate calculated for the proposed Union Stadium Village development is based on the Institute of Transportation Engineers' (ITE's) Trip Generation Manual, 10th Edition. The numbers shown in Table A reflect statistics from dense urban Off-Campus Student Housing and the potential retail uses. The land Use Codes 225 for the student housing, 863 for electronics store, 876 for apparel store, 879 for arts and crafts and 918 for hair salon were used to estimate the site generated traffic.

Table A – Trip Generation Forecasts

Vehicle Trip Generation Estimates – Proposed Land Use

Land Use	ITE Code	Size	AM Enter	AM Exit	PM Enter	PM Exit
Off-Campus Student Housing	225	617 units	30 Trips	44 Trips	77 Trips	77 Trips
Electronics Store	863	1,156 sf	N/A	N/A	2 Trips	2 Trips
Apparel Store	876	1,156 sf	N/A	N/A	2 Trips	2 Trips
Arts and Crafts	879	1,156 sf	N/A	N/A	3 Trips	3 Trips
Hair or Nail Salon	918	1,156 sf	1 Trip	0 Trips	0 Trips	1 Trip
Total Vehicle Trips			**75 Trips**		**169 Trips**	

A more detailed discussion of trip generation is available in the attached TDMP completed for the Union Stadium Village development.

Availability of Transit

There are multiple transit opportunities within a quarter mile of this development. University Avenue SE is a transit route in the vicinity of the site with stops at the intersections of University Avenue with 27th Avenue SE and 25th Avenue SE. It is noted the Huron Boulevard SE Routes 56, 59, and 60 with a stop at Delaware Street SE have been temporarily suspended due to COVID, but may be available when the Union Stadium Village is occupied. Further there are LRT stations, Prospect Park and Stadium Village located at approximately University Avenue SE and 29th Avenue SE, University Avenue SE and Huron Boulevard SE, respectively. Table 1 lists the routes that are within a quarter mile of the site.

Table B – Transit Routes

Transit Routes Serving Union Stadium Village

ROUTE #	TYPE OF SERVICE	DESTINATIONS	WEEKDAY	MIDDAY SERVICE w/≤ 30 MIN HEADWAYS	SATURDAY	SUNDAY
6	Local	Richfield to Union Stadium	5:00 a.m. – 1:30 a.m.	Yes	5:00 a.m. – 1:30 a.m.	5:00 a.m. – 1:30 a.m.
Green Ln	LRT	Downtown Minneapolis to Downtown St. Paul/Union Depot	5:20 a.m. – 9:30 p.m.	Yes	5:20 a.m. – 9:30 p.m.	5:20 a.m. – 9:30 p.m.

b. Discuss the effect on traffic congestion on affected roads and describe any traffic improvements necessary. The analysis must discuss the project's impact on the regional transportation system.
If the peak hour traffic generated exceeds 250 vehicles or the total daily trips exceeds 2,500, a traffic impact study must be prepared as part of the EAW. **Use the format and procedures described in the Minnesota Department of Transportation's Access Management Manual, Chapter 5** ***(available at: http://www.dot.state.mn.us/accessmanagement/resources.html)*** **or a similar local guidance,**

A traffic analysis was conducted as part of the TDMP to understand the impact of site-generated traffic. No-Build traffic operations at the surrounding intersections were reviewed for the year after build out 2025 and for the ten-year planning horizon 2031. It was assumed traffic would grow at a rate of approximately 0.5 percent per year for the No-Build estimates. The traffic estimated to be generated by the uses identified in the proposed site plan was then added to the roadway network. Operations at the intersections were again reviewed and compared to the No-Build conditions. The results of the operational analysis show that the addition of site-generated traffic has a negligible impact on the operations of the local roadway network. The full traffic impact study detailing the methodology and results of the analysis is attached as Appendix A of the TDMP.

c. Identify measures that will be taken to minimize or mitigate project related transportation effects.

Based on the traffic analysis provided in attachment C of the TDMP, there are no off-site mitigation measures needed as the intersections are anticipated to maintain the current level of service. As part of the development, the developer will commit to travel demand management strategies to work towards the mode split goals of the development.
Appendix E – TDMP

19. Cumulative potential effects: (Preparers can leave this item blank if cumulative potential effects are addressed under the applicable EAW Items)

a. Describe the geographic scales and timeframes of the project related environmental effects that could combine with other environmental effects resulting in cumulative potential effects.

The project encompasses a fully developed 1.4-acre site within an existing built urban neighborhood and will be developed in accordance to city zoning and built form standards. The building construction duration is expected to be 2.5 years and is typical for this type of development. The project creates minimal environmental effect and will not expound any future environmental effects in conjunction with expected neighboring developments.

b. Describe any reasonably foreseeable future projects (for which a basis of expectation has been laid) that may interact with environmental effects of the proposed project within the geographic scales and timeframes identified above.

Per Minneapolis 2040 Comprehensive Plan the City is expecting new development and redevelopment to occur in the surrounding area. The project is in conformance with the city's growth expectations and within anticipated environmental effects of traffic, views and sensitive receptors that may occur with future development.

c. Discuss the nature of the cumulative potential effects and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to these cumulative effects.

The City is expecting and has planned for re-development in this area as part of the Minneapolis 2040 Plan. The Minneapolis 2040 Plan was prepared in accordance to the Metropolitan Council standards and

through a significant public review process. The proposed project is designed to meet the goals and policies established for this area of the city as noted throughout this document.

20. Other potential environmental effects: If the project may cause any additional environmental effects not addressed by items 1 to 19, describe the effects here, discuss the how the environment will be affected, and identify measures that will be taken to minimize and mitigate these effects.

We are not aware of any other environmental effect that have not been addressed in the EAW document**.**

RGU CERTIFICATION. *(The Environmental Quality Board will only accept **SIGNED** Environmental Assessment Worksheets for public notice in the EQB Monitor.)*

I hereby certify that:

- The information contained in this document is accurate and complete to the best of my knowledge.
- The EAW describes the complete project; there are no other projects, stages or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minnesota Rules, parts 4410.0200, subparts 9c and 60, respectively.
- Copies of this EAW are being sent to the entire EQB distribution list.

Signature Hilary Dvorak Date October 19, 2021

Title Principal City Planner

This map was created using Loucks Geographic Information Systems (GIS), it is a compilation of information and data from various sources. This map is not a surveyed or legally recorded map and is intended to be used as a reference. Tom Loucks, Inc. is not responsible for any inaccuracies contained herein.

LOUCKS

Legend

Project Boundary

N

0 400

Scale In Feet

2630 University Ave. SE

Minneapolis, MN

Site Location

Figure 1

Prepared by:
Hennepin County, Minnesota
Resident and Real Estate Services
Survey Division

S1/2 NW1/4 SEC.30 T.29 R.23

MINNEAPOLIS - 01

This map is a compilation of data from various sources and is furnished "AS IS" with no representation or warranty express or implied, including fitness for any particular purpose, merchantability, or the accuracy and completeness of the information shown.

0 100 200 300 Feet

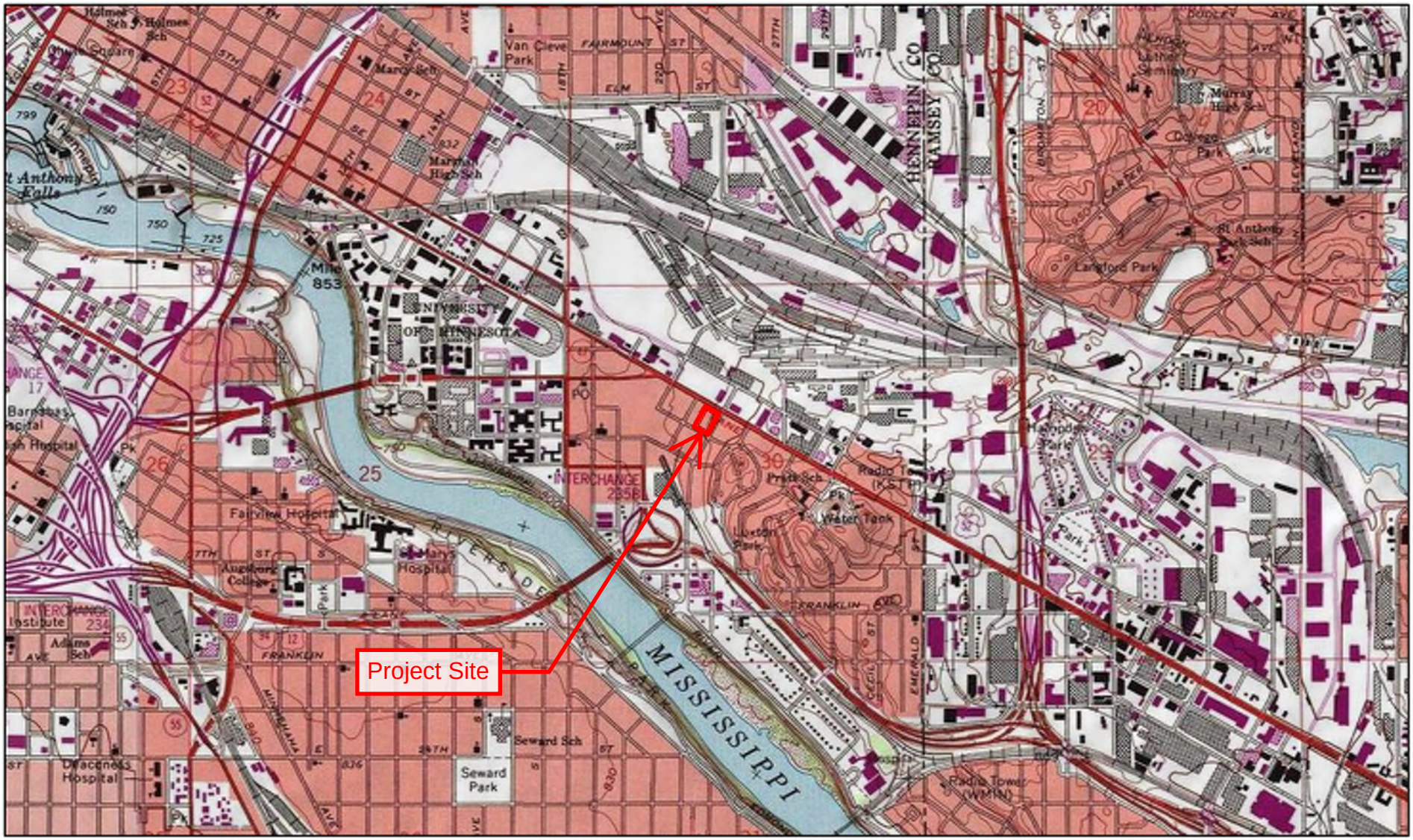
N

LEGEND

- STORM SEWER DISTRICT BOUNDARY
- SCHOOL DISTRICT BOUNDARY
- WATERSHED DISTRICT BOUNDARY
- TAX INCREMENT DISTRICT BOUNDARY
- MUNICIPAL BOUNDARY

Last Updated: Feb 3, 2021

Figure 2



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LOUCKS

Legend

Project Boundary
Sec. 30, T. 29, R. 23

N

0 2,000

Scale In Feet

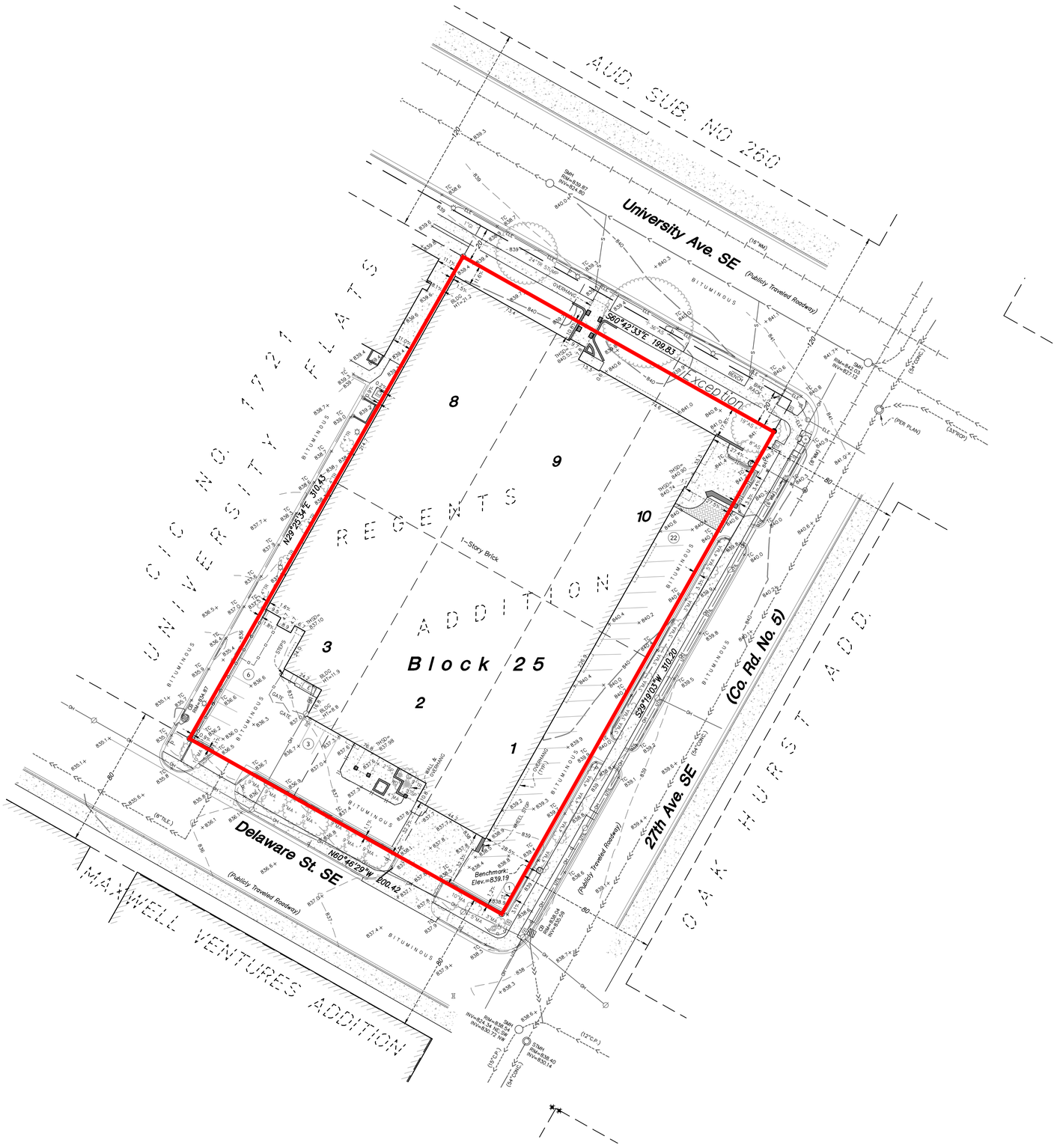
2630 University Ave. SE

Minneapolis, MN

USGS Topography

Figure 3

Pre Construction Plan



DESCRIPTION OF PROPERTY SURVEYED

(Per Hennepin County Tax Records)

Lots 1, 2, 3, 8, 9, and 10, Block 25, REGENTS ADDITION, Except that part taken for Street.

SURVEY REPORT

1. This survey was prepared without the benefit of a Title Commitment. There may or may not be easements of record encumbering this property.
2. Monuments placed (or a reference monument or witness to the corner) at all major corners of the boundary of the property, unless already marked or reference by existing monuments or witness to the corners are shown hereon.
3. The address, if disclosed in documents provided to or obtained by the surveyor, or observed while conducting the fieldwork is 2630 SE University Ave Minneapolis, MN 55414.
4. The Gross land area is 62,100 +/- square feet or 1.43 +/- acres.
5. The bearings for this survey are based on the Hennepin County Coordinate System NAD 83 (1986 Adjust).
6. Benchmark: City of Minneapolis Monument No. 847, located at Seymour Avenue & Franklin Avenue, not shown hereon. Elevation = 885.40 feet (NGVD 29)

   Site Benchmark: Top of monitoring well, located near the southeast of the property, as shown hereon. Elevation = 839.19 (NGVD29)
7. We have shown underground utilities on and/or serving the surveyed property per Gopher State One-Call Ticket Nos. 211095117 & 211095281. The following utilities and municipalities were notified:

ARVIG	(218) 346-5500	CAMPUS COMMUNICATIONS	(217) 531-9036
CITY OF MINNEAPOLIS	(612) 673-5600	CITY OF MINNEAPOLIS TRAFFIC	(612) 221-6017
COMCAST	(800) 778-9140	CENTURYLINK	(800) 778-9140
EXTENET SYSTEMS INC	(866) 892-5327	MCI	(800) 624-9675
CENTER POINT ENERGY	(800) 778-9140	UNIVERSITY OF MINNESOTA	(612) 625-6537
VERIZON WIRELESS	(800) 624-9675	LEVEL 3 (CENTURYLINK)	(877) 366-8344
XCEL ENERGY	(800) 848-7558	ZAYO BANDWIDTH	(888) 267-1063

   i. Utility operators do not consistently respond to locate requests through the Gopher State One Call service for surveying purposes such as this. Those utility operators that do respond, often will not locate utilities from their main line to the customer's structure or facility. They consider those utilities "private" installations that are outside their jurisdiction. These "private" utilities on the surveyed property or adjoining properties, may not be located since most operators will not mark such "private" utilities. A private utility locator may be contacted to investigate these utilities further, if requested by the client.
   ii. Maps provided by those notified above, either along with a field location or in lieu of such a location, are very often inaccurate or inconclusive. EXTREME CAUTION MUST BE EXERCISED BEFORE AN EXCAVATION TAKES PLACE ON OR NEAR THIS SITE. BEFORE DIGGING, YOU ARE REQUIRED BY LAW TO NOTIFY GOPHER STATE ONE CALL AT LEAST 48 HOURS IN ADVANCE AT 811 or (651) 454-0002.
8. Trees shown hereon are measured at breast height.
9. The field work was completed on May 10, 2021.

LEGEND

- FOUND 1/2 INCH OPEN IRON MONUMENT UNLESS SHOWN OTHERWISE
- SET 1/2 INCH X 14 INCH IRON MONUMENT, MARKED "LS 48988"
- FOUND REBAR
- CATCH BASIN
- STORM MANHOLE
- SANITARY MANHOLE
- HYDRANT
- GATE VALVE
- CROSS WALK BUTTON
- ELECTRIC MANHOLE
- ELECTRIC TRANSFORMER
- GAS METER
- GAS VALVE
- GUARD POST
- GUY WIRE
- HAND HOLE
- LIGHT POLE
- MONITORING WELL
- POST INDICATOR VALVE
- POWER POLE
- ROOF DRAIN
- TELEPHONE PEDESTAL
- TRAFFIC SIGNAL
- SIGN
- WATER MANHOLE
- STORM SEWER
- MAPPED STORM SEWER
- SANITARY SEWER
- MAPPED SANITARY SEWER
- MAPPED WATERMAIN
- SANITARY SEWER SERVICE
- WATER SERVICE
- UNDERGROUND ELECTRIC
- UNDERGROUND 3"PVC PIPE
- OVERHEAD UTILITY
- CHAIN LINK FENCE
- WOOD FENCE
- IRON FENCE
- HANDRAIL / GUARDRAIL
- CONCRETE CURB
- RETAINING WALL
- CONCRETE
- NO PARKING
- EXISTING BUILDING OVERHANG
- 972 CONTOUR
- ×972.5 SPOT ELEVATION
- CONIFEROUS TREE
- SP SPRUCE
- DECIDUOUS TREE
- AS ASH
- GI GINKO
- MA MAPLE
- TR TREE (GENERAL)
- (2) PARKING STALL COUNT

Figure 4

N

0 30 60

SCALE IN FEET

Plotted: 05 /11 / 2021 1:52 PM W:\2021\21129\CADD DATA\SURVEY\S21129-MASTER

UNION STADIUM VILLAGE

2630 UNIVERSITY AVE SE
MINNNEAPOLIS, MN 55414

ESG

500 WASHINGTON AVE S
SUITE 1080
MINNEAPOLIS, MN 55415

LOUCKS

PLANNING
CIVIL ENGINEERING
LAND SURVEYING
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL

7200 Hemlock Lane, Suite 300
Maple Grove, MN 55369
763.424.5505
www.loucksinc.com

CADD QUALIFICATION

SUBMITTAL/REVISIONS

05/11/21	SURVEY ISSUED

PROFESSIONAL SIGNATURE

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota.

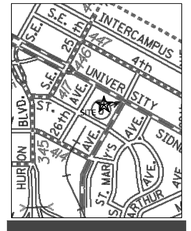
Max L. Stanislowski - PLS

License No. 48988
Date 05/11/21

QUALITY CONTROL

Loucks Project No.	21129
Project Lead	MLS
Drawn By	KMM
Checked By	MLS
Field Crew	MJA

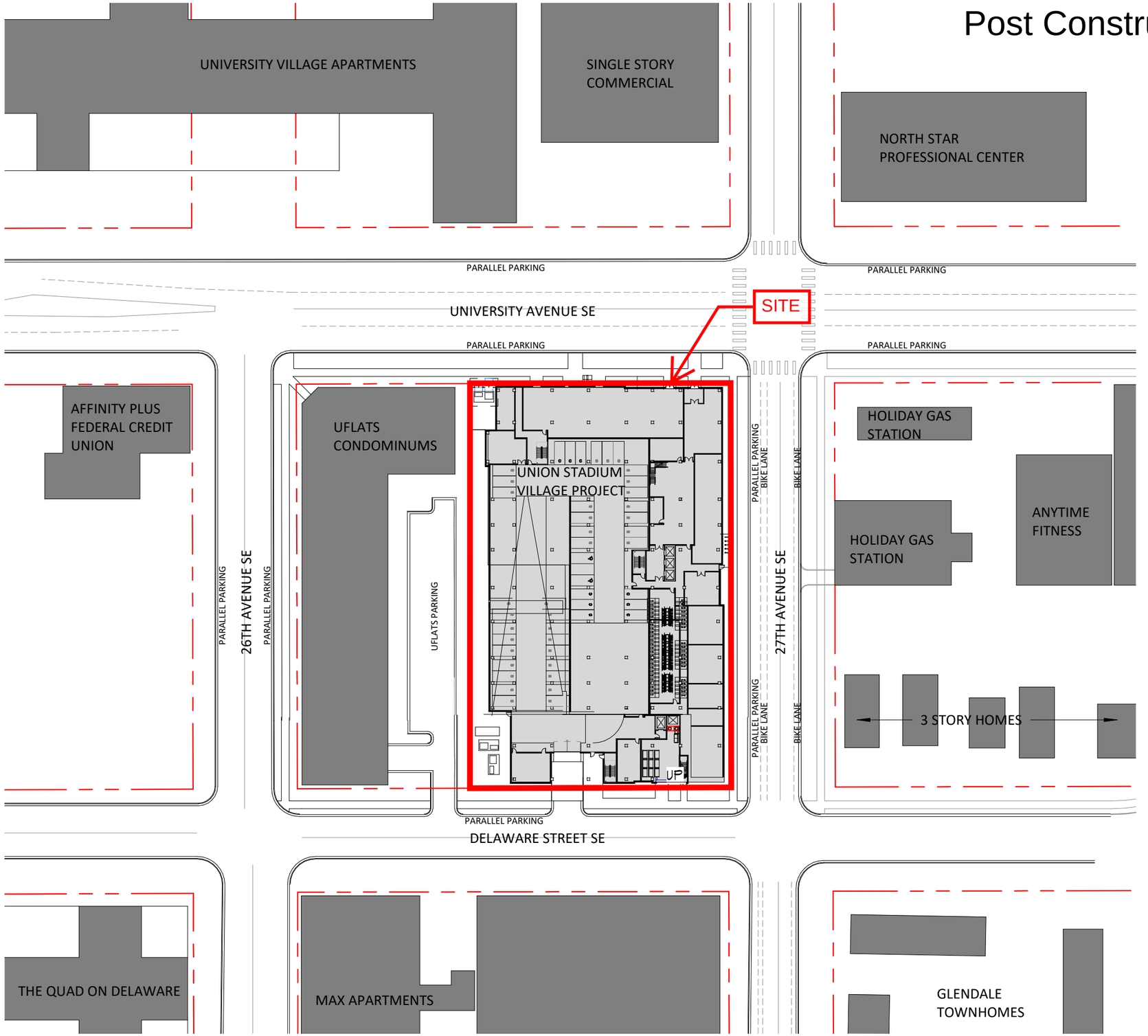
VICINITY MAP



BOUNDARY & TOPOGRAPHIC SURVEY

1 OF 1

Post Construction Plan - Block Plan



Scale: 1" = 80'-0"

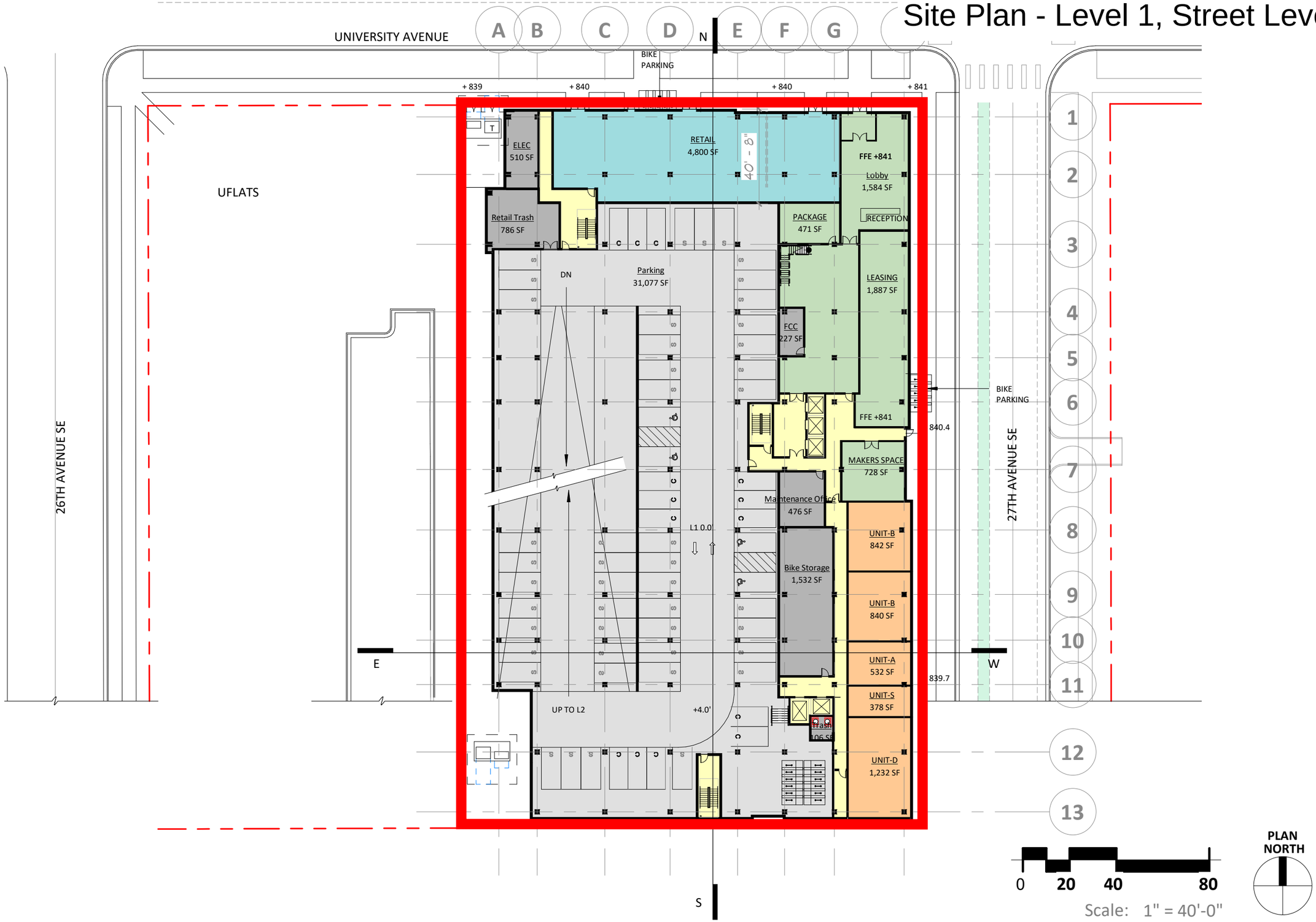
September 16, 2021

esg

UNION STADIUM VILLAGE
Minneapolis, MN

Figure 5

Site Plan - Level 1, Street Level



0 20 40 80

Scale: 1" = 40'-0"

PLAN NORTH

September 16, 2021

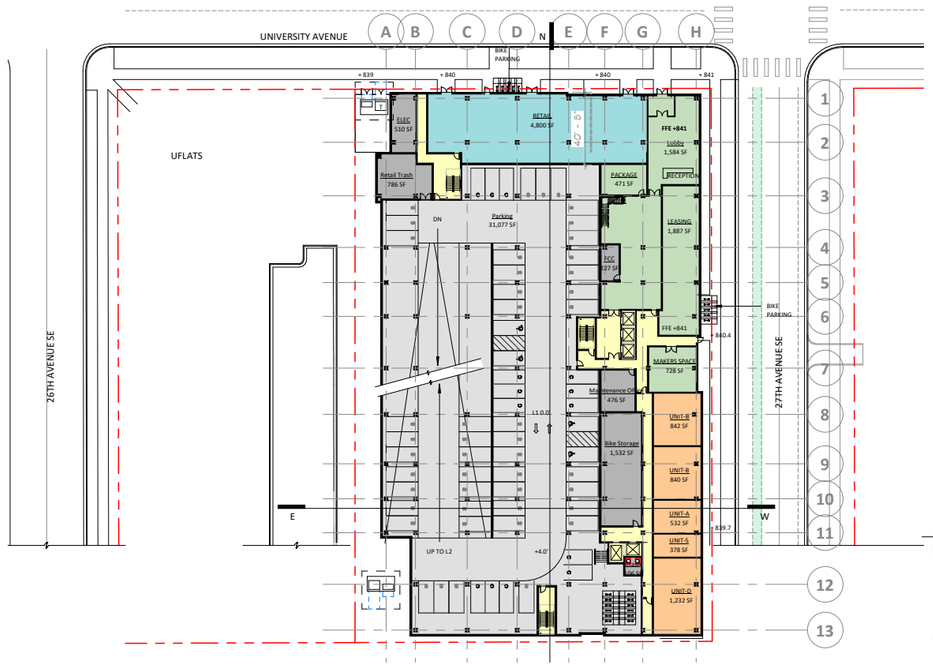
Building Elevation Context to Surrounding Area

Figure 7

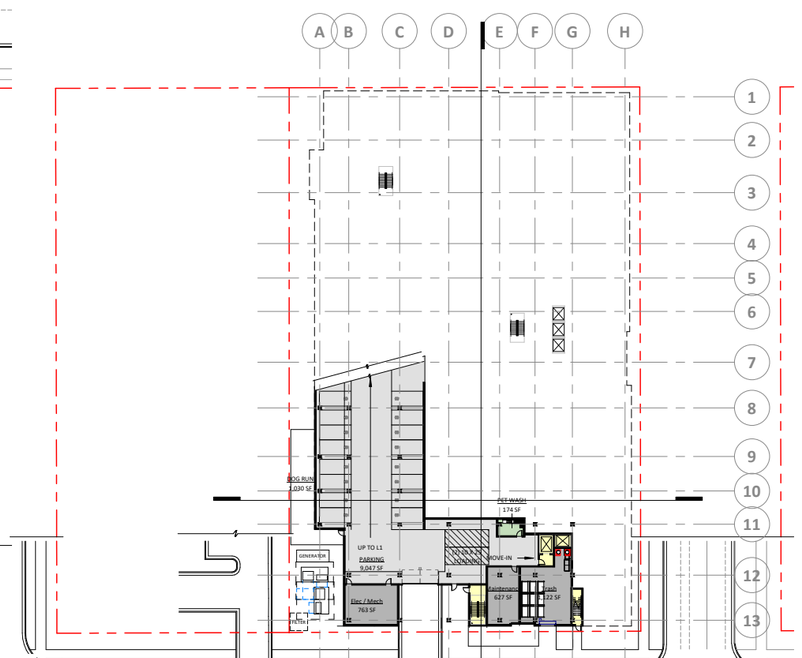
VIEW FROM WITCH'S TOWER

UNION STADIUM VILLAGE
05.07.21

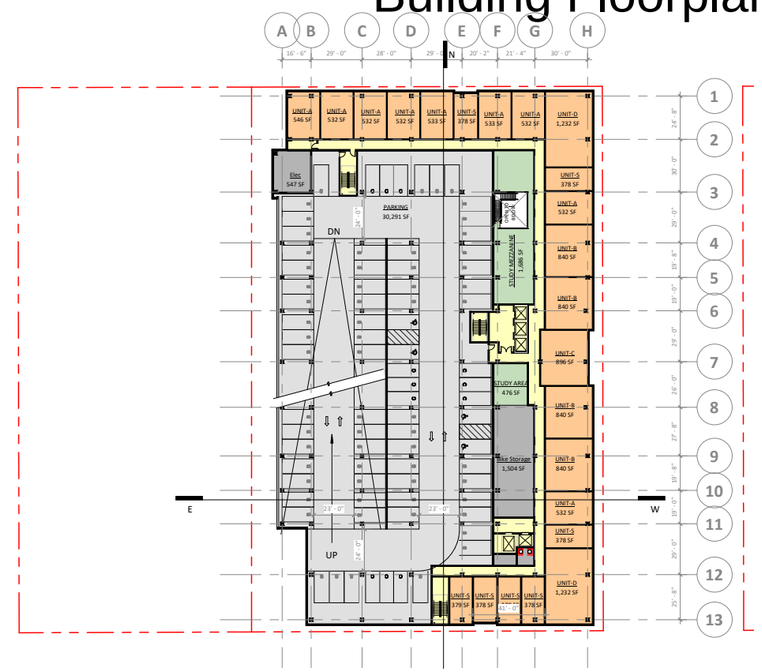
Building Floorplans



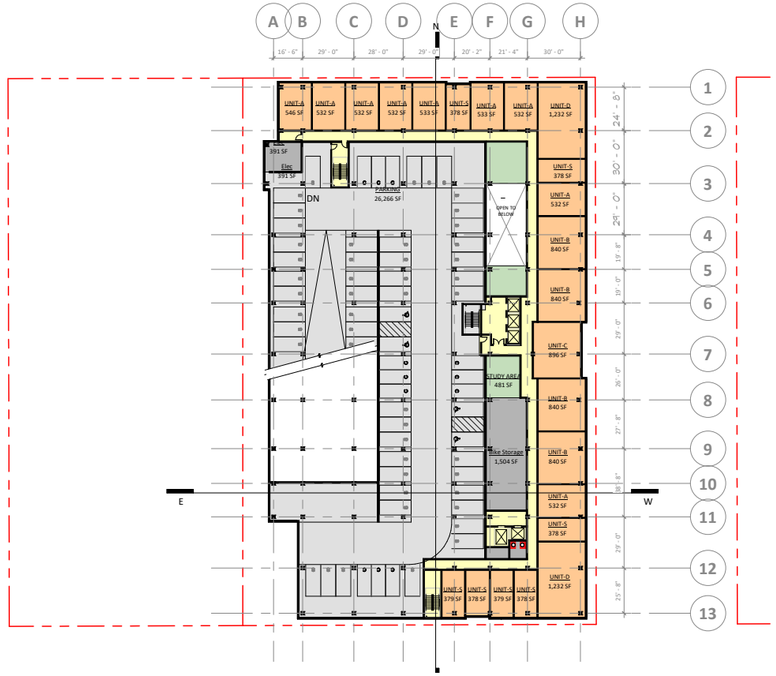
Level 1, Street Level



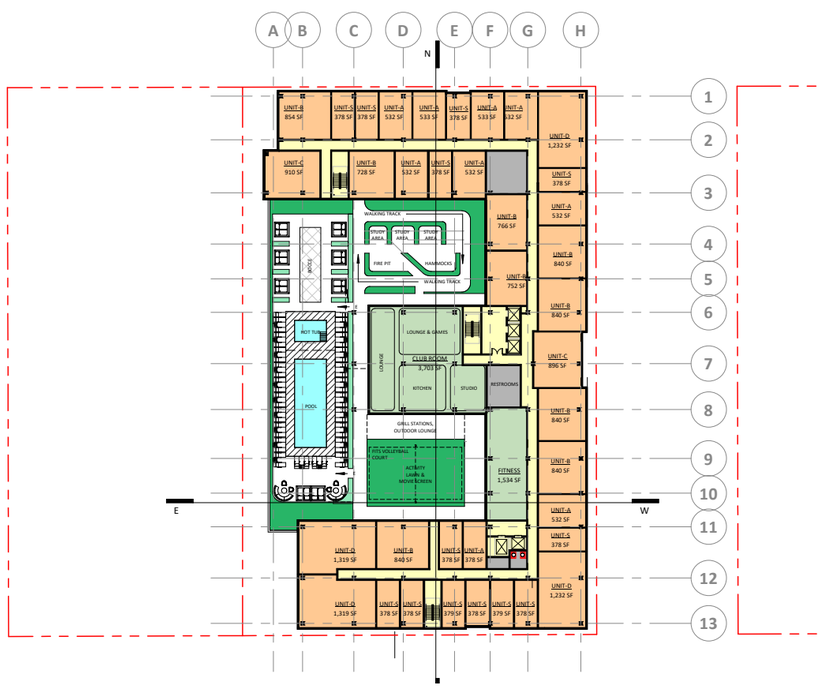
Level 0.5



Level 2



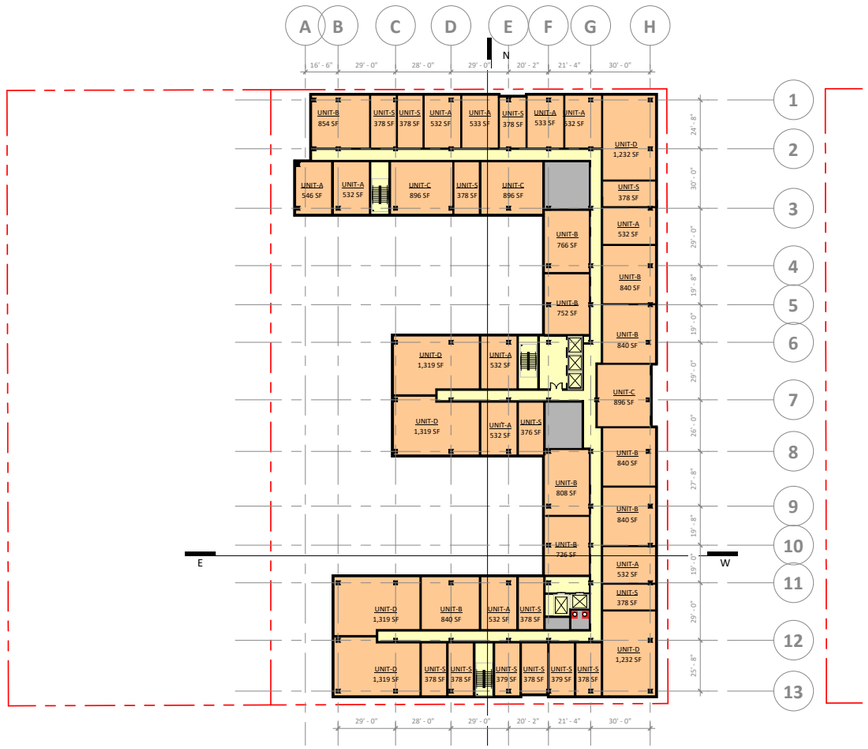
Level 3



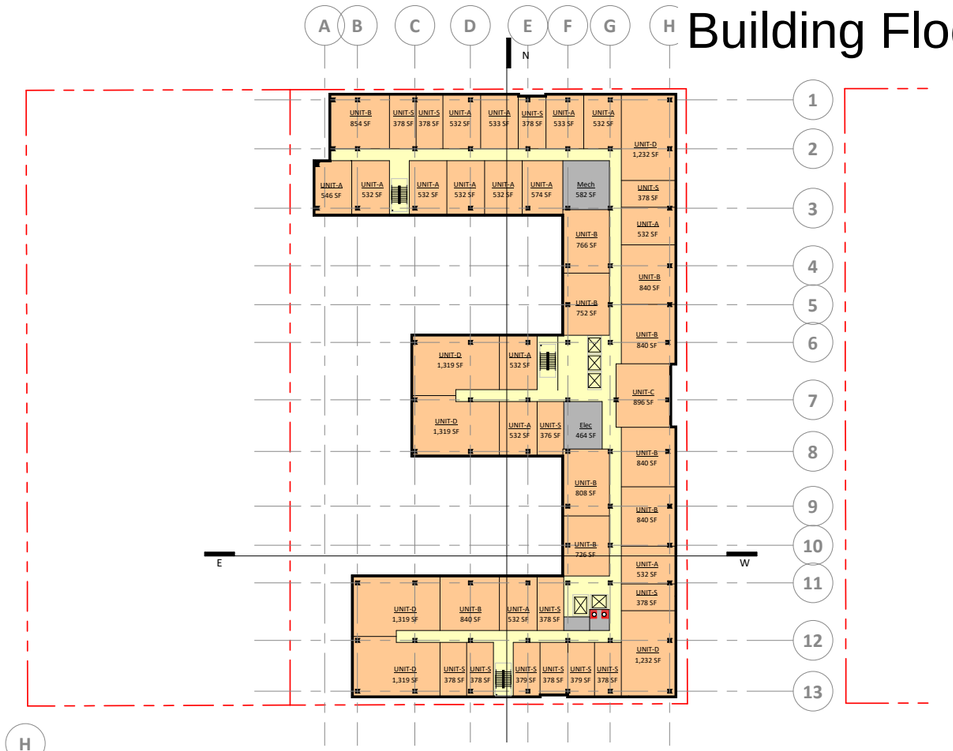
Level 4

September 16, 2021

Building Floorplans



Levels 5-14



Level 15

Level 16

Building Units Summary

Level	Unit Name	UNIT-A	UNIT-B	UNIT-C	UNIT-D	UNIT-S	
	Beds/Unit	1	2	4	4	1	
	Baths/Unit	1	2	2	4	1	
	SF/Unit (Average)	533	813	896	1285	378	
ROOF	0	0	0	0	0	0	
LEVEL 16	41	15	10	0	5	11	
LEVEL 15	45	15	10	1	6	13	
LEVEL 14	44	11	10	3	6	14	
LEVEL 13	44	11	10	3	6	14	
LEVEL 12	44	11	10	3	6	14	
LEVEL 11	44	11	10	3	6	14	
LEVEL 10	44	11	10	3	6	14	
LEVEL 9	44	11	10	3	6	14	
LEVEL 8	44	11	10	3	6	14	
LEVEL 7	44	11	10	3	6	14	
LEVEL 6	44	11	10	3	6	14	
LEVEL 5	44	11	10	3	6	14	
LEVEL 4	37	9	9	2	4	13	
LEVEL 3	23	9	4	1	2	7	
LEVEL 2	23	9	4	1	2	7	
LEVEL 1	5	1	2	0	1	1	
LEVEL 0.5	0	0	0	0	0	0	
	Total Units/Type	168	139	35	80	192	0
	Total Beds/Type	168	278	140	320	192	0
	Total Bath/Type	168	278	70	320	192	0
	Total SF/Type	89,517	112,979	31,374	102,807	72,561	-
	% of total beds	**15.3%**	**25.3%**	**12.8%**	**29.1%**	**17.5%**	**0.0%**
	% of total units	**27.4%**	**22.6%**	**5.7%**	**13.0%**	**31.3%**	**0.0%**

This map was created using Loucks Geographic Information Systems (GIS), it is a compilation of information and data from various sources. This map is not a surveyed or legally recorded map and is intended to be used as a reference. Tom Loucks, Inc. is not responsible for any inaccuracies contained herein.

LOUCKS

Legend

Project Boundary

N

0 500

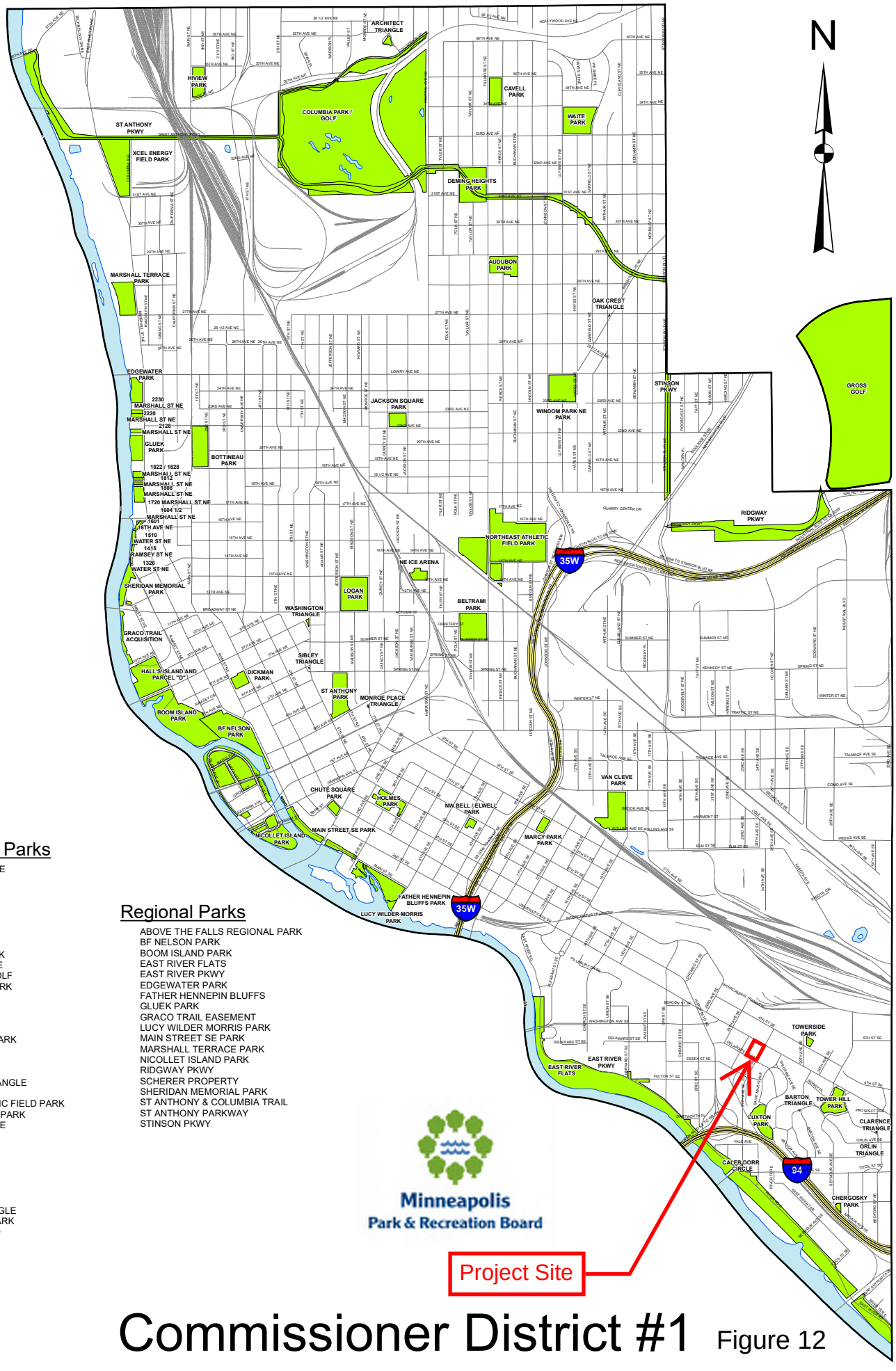
Scale In Feet

2630 University Ave. SE

Minneapolis, MN

Generalized Land Use

Figure 11



Neighborhood Parks

ARCHITECT TRIANGLE
AUDUBON PARK
BARTON TRIANGLE
BELTRAMI PARK
BOTTINEAU PARK
CALEB DORR CIRCLE
CAVELL PARK
CHERGOSKY PARK
CHUTE SQUARE PARK
CLARENCE TRIANGLE
COLUMBIA PARK / GOLF
DEMING HEIGHTS PARK
DICKMAN PARK
GROSS GOLF
HIVIEW PARK
HOLMES PARK
JACKSON SQUARE PARK
LOGAN PARK
LUXTON PARK
MARCY PARK PARK
MONROE PLACE TRIANGLE
NE ICE ARENA
NORTHEAST ATHLETIC FIELD PARK
NW BELL PROPERTY PARK
OAK CREST TRIANGLE
ORLIN TRIANGLE
SIBLEY TRIANGLE
ST ANTHONY PARK
TOWER HILL PARK
TOWERSIDE PARK
VAN CLEVE PARK
WAITE PARK
WASHINGTON TRIANGLE
WINDOM PARK NE PARK
XCEL ENERGY FIELD

Regional Parks

ABOVE THE FALLS REGIONAL PARK
BF NELSON PARK
BOOM ISLAND PARK
EAST RIVER FLATS
EAST RIVER PKWY
EDGEWATER PARK
FATHER HENNEPIN BLUFFS
GLUEK PARK
GRACO TRAIL EASEMENT
LUCY WILDER MORRIS PARK
MAIN STREET SE PARK
MARSHALL TERRACE PARK
NICOLLET ISLAND PARK
RIDGWAY PKWY
SCHERER PROPERTY
SHERIDAN MEMORIAL PARK
ST ANTHONY & COLUMBIA TRAIL
ST ANTHONY PARKWAY
STINSON PKWY

Commissioner District #1

Figure 12

10-7-2020

This map was created using Loucks Geographic Information Systems (GIS), it is a compilation of information and data from various sources. This map is not a surveyed or legally recorded map and is intended to be used as a reference. Tom Loucks, Inc. is not responsible for any inaccuracies contained herein.

LOUCKS

Legend

Project Boundary

N

2630 University Ave. SE
Minneapolis, MN

Local Parks & Attractions

Figure 13

FIGURE T1.3c: FUTURE LAND USE MAP *East Sector*

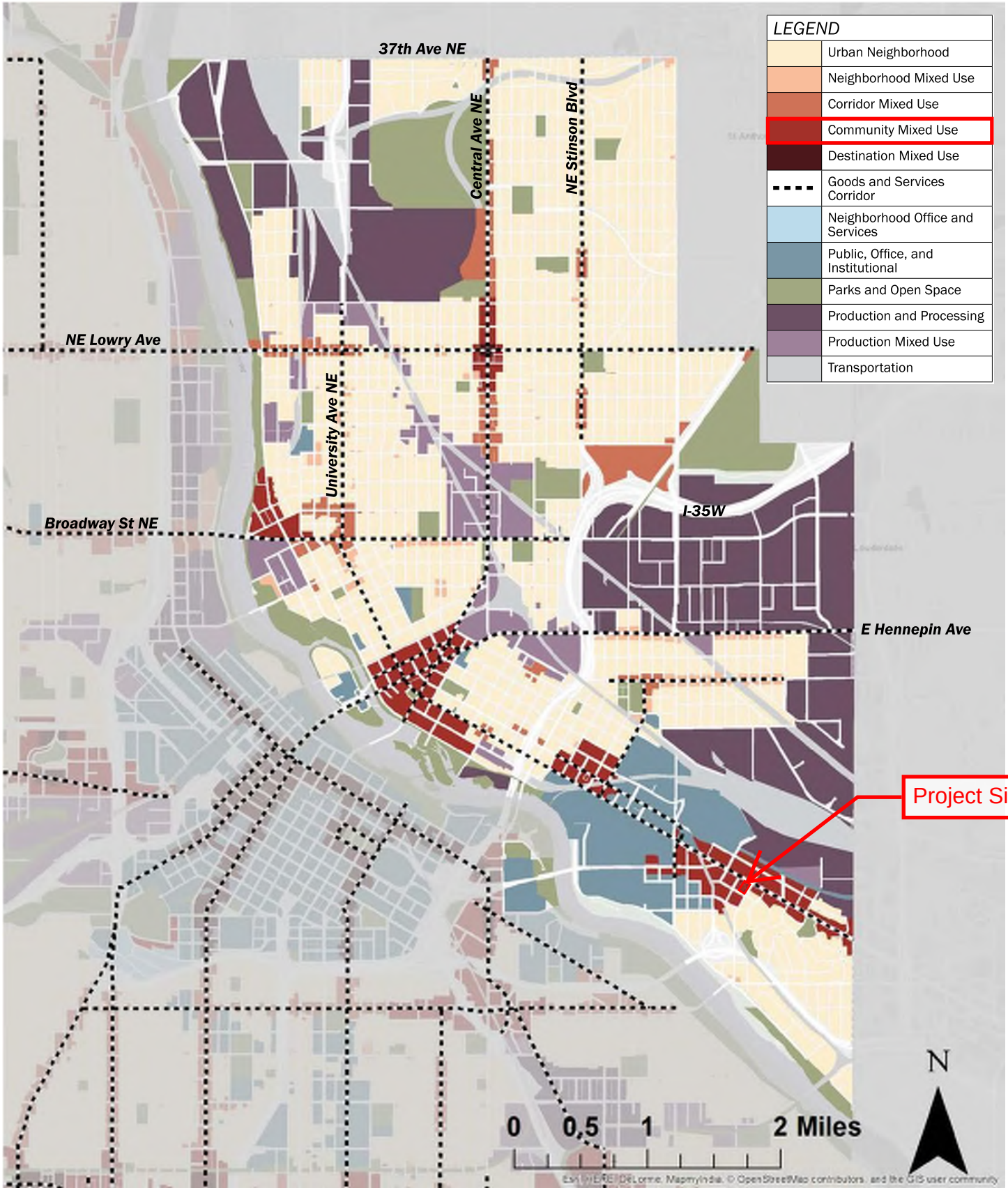
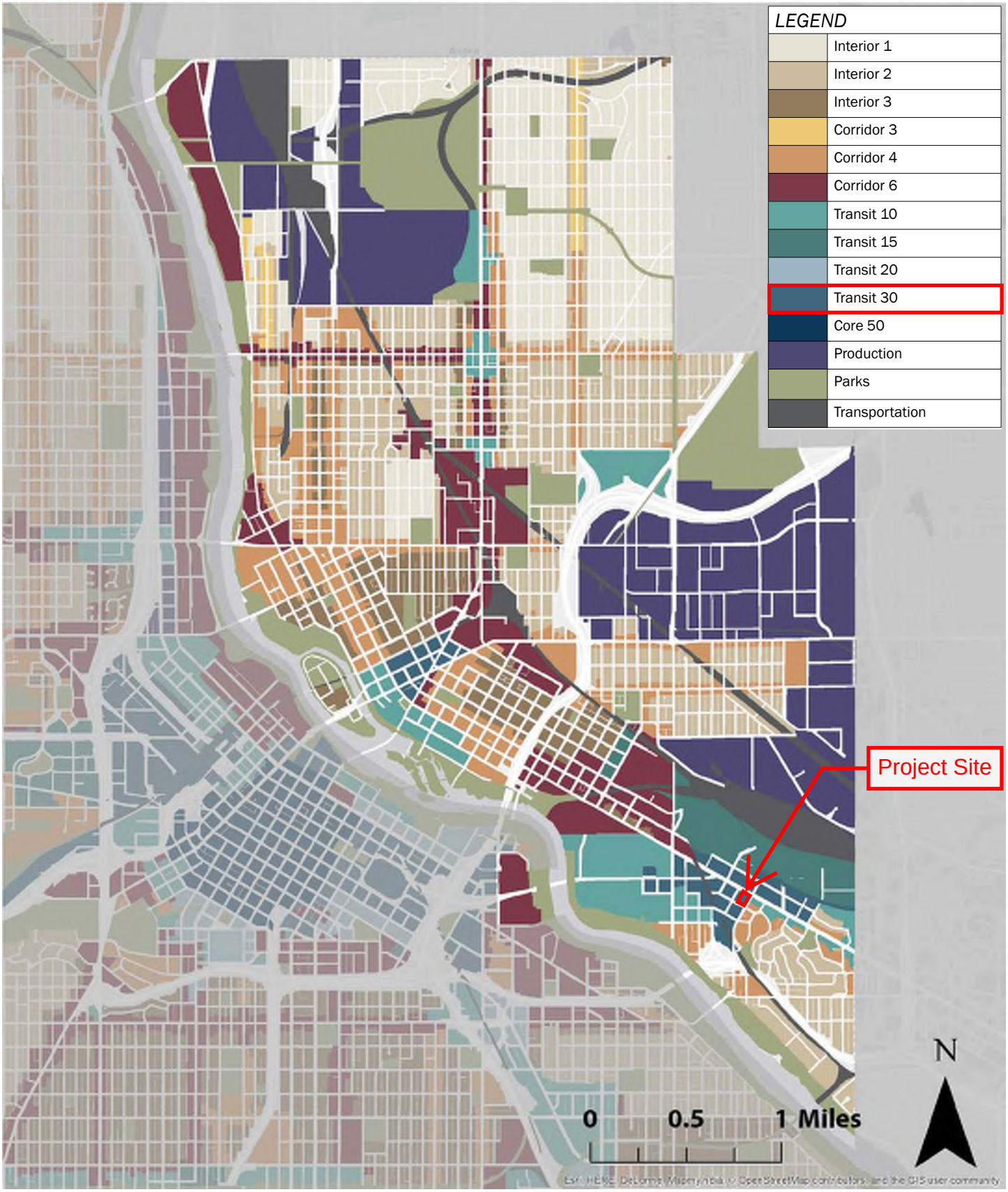


FIGURE T1.4c: BUILT FORM MAP *East Sector*



These maps provide an overview of the built form guidance, for parcel specific information refer to the online version at Minneapolis2040.com

Transit 30

The Transit 30 district is typically applied along high frequency transit routes, adjacent to METRO stations, in neighborhoods near downtown, and adjacent to the downtown office core.

Built Form Guidance: New development in the Transit 30 district should reflect a variety of building types on both moderate and large sized lots. As the lot size increases in this district, allowable building bulk should also increase. The length of buildings along the street should be limited in order to support a comfortable pedestrian environment. Upper floors of taller buildings should be set back to increase access to light and air. Building heights should be 8 to 30 stories. Building heights should be at least 8 stories in order to best take advantage of the access to transit, jobs, and goods and services provided by the Transit 30 district. Requests to exceed 30 stories will be evaluated on the basis of whether or not a taller building is a reasonable means for further achieving Comprehensive Plan goals.

Core 50

The Core 50 district is applied in the downtown central business district. The district supports the office core as the center of the region's economy by allowing the largest building types in the city.

Built Form Guidance: New development in the Core 50 district should reflect a variety of building types on both moderate and large sized lots, with multiple buildings per block. The length of buildings along the street should be limited in order to support a comfortable pedestrian environment. The Core 50 district supports the office core as the center of the region's economy, with the largest building types in the city. Building heights should be at least 8 stories, with no maximum.

PRIMARY ZONING DISTRICTS

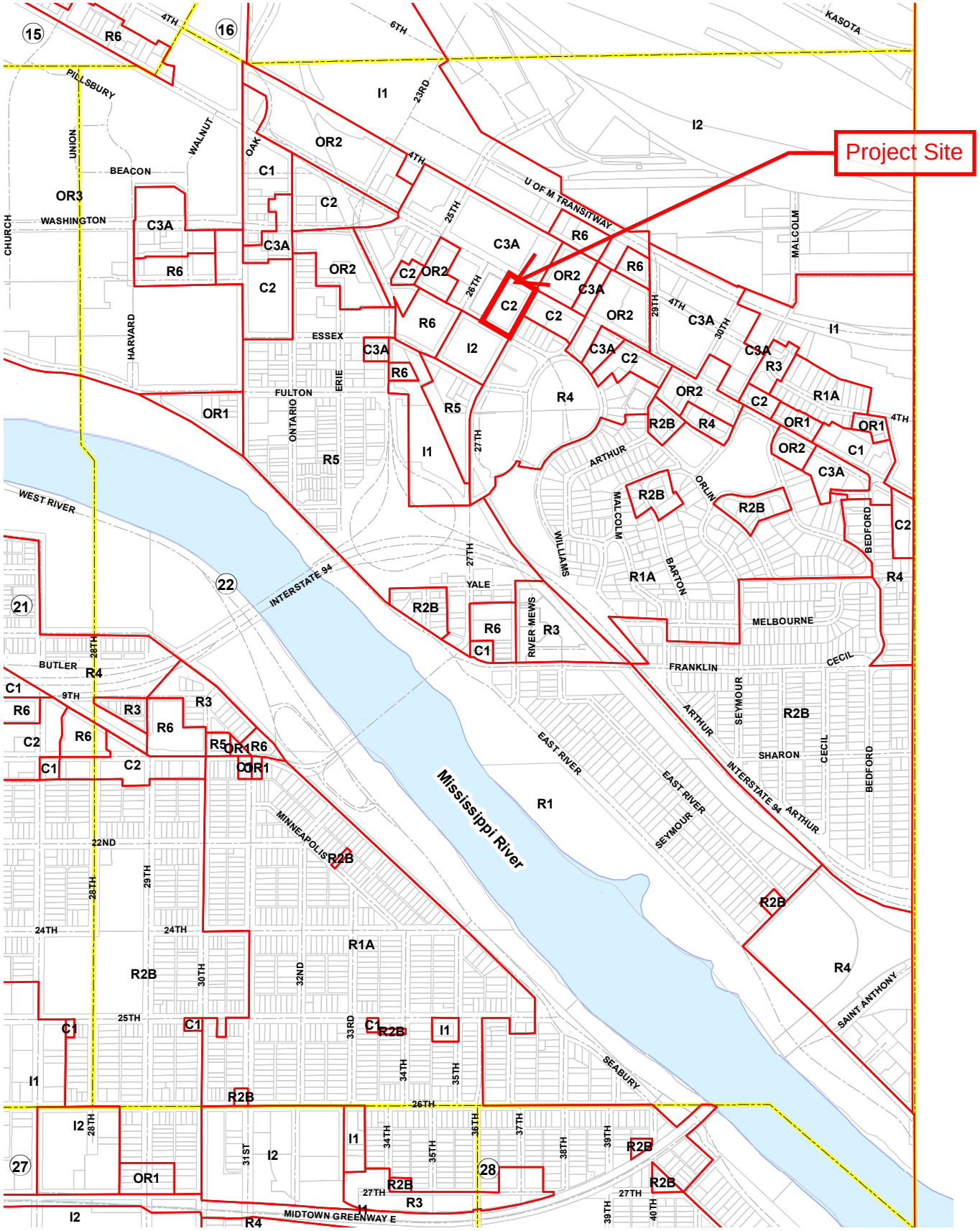


Figure 17

RESIDENCE DISTRICTS
LOW DENSITY
R1
R1A
R2
R2B
MEDIUM DENSITY DISTRICTS
R3
R4
HIGH DENSITY DISTRICTS
R5
R6

OFFICE RESIDENCE DISTRICTS
OR1
OR2
OR3

COMMERCIAL DISTRICTS
C1
C2
C3A
C3S
C4

DOWNTOWN DISTRICTS
B4
B4C
B4S

INDUSTRIAL DISTRICTS
I1
I2
I3

N

12 PLATE NUMBER

Last Amended : August 17, 2018

Primary Zoning
Plate Boundaries

0 250 500 1,000 1,500 Feet

MINNEAPOLIS ZONING PLATE 22

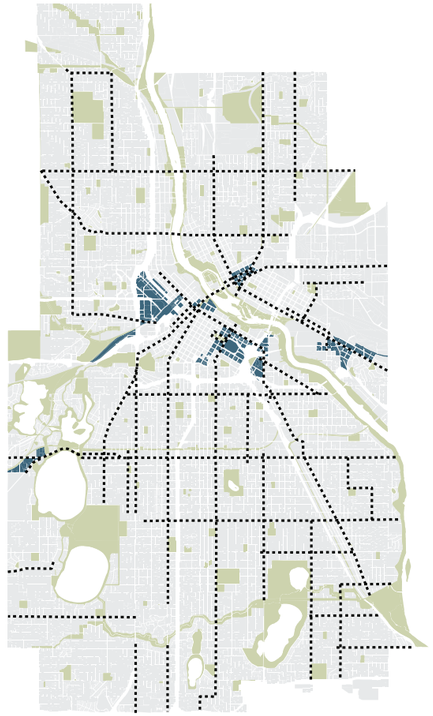
TRANSIT 30

DESCRIPTION

The Transit 30 district is typically applied along high frequency transit routes, adjacent to METRO stations, in neighborhoods near downtown, and adjacent to the downtown office core.

Built Form Guidance: New and remodeled buildings in the Transit 30 district should reflect a variety of building types on both moderate and large sized lots. Upper floors of taller buildings should be set back to increase access to light and air. Building heights should be 10 to 30 stories. Building heights should be at least 10 stories in order to best take advantage of the access to transit, jobs, and goods and services provided by the Transit 30 district. Requests to exceed 30 stories will be evaluated on the basis of whether or not a taller building is a reasonable means for further achieving Comprehensive Plan goals.

BUILT FORM MAP



FLOOR AREA RATIO (FAR)

Primary Zoning District	Minimum FAR	Base FAR Maximum	1 Premium	2 Premiums	3 Premiums	Max. FAR with all premiums
			Downtown premiums			
R, OR	3	10	Numerous options for premiums in Transit 30 and Core 50. No limit on the number that may be awarded.			Only limited by awarded bonuses
All other districts	3	10.4				

Built Form Vignette from Minneapolis 2040 Comprehensive Plan

LOT DIMENSIONS [1]

Minimum Lot Width	Lot Area (Residential 4+ units)	Lot Area (Congregate Living)	Lot Area (Commercial & Parking)
40 feet	5,000 sf min.	Minimum lot dimensions for congregate living uses are governed by the primary zoning districts.	Most commercial uses and mixed use development in commercial districts do not have a minimum lot width or lot area requirements.

[1] All built form overlay districts where the use is established as a legal nonconforming use the minimum lot width is 50 feet, minimum lot area is 9,000 sf and the maximum lot area is 14,000 sf (Table 552-15)

HEIGHT

Minimum Height	Maximum Height [2]
10 stories	420 feet *(30 stories)*

MAXIMUM LOT COVERAGE

Lot Coverage (R, OR)	Lot Coverage (other)
80%	100%

MAXIMUM IMPERIOUS SURFACE

Surface (R, OR)	Surface (other)
90%	100%

[2] Maximum height with authorized increase is 750 feet (50 stories). Allowed height exemptions, except in the SH Shoreland Overlay District and when not allowed in the MR Mississippi River Corridor Critical Area Overlay District are located in Chapter 552 - Article V. "Height of Principal Buildings" (552.410)

MINIMUM YARD SETBACKS FOR (R, OR) DISTRICTS [3, 4, 5]

Building Height in Feet	Interior Side Yards and Rear Yard	Corner Side Yard
Less than 42	5 feet min.	8 feet min.
42 - 52.99	7 feet min.	10 feet min.
53 - 63.99	9 feet min.	12 feet min.
64 - 74.99	11 feet min.	14 feet min.
75 - 85.99	13 feet min.	15 feet min.
86 - 96.99	15 feet min.	"
97 - 107.99	17 feet min.	"
108 - 119.99	19 feet min.	"
120 or greater	20 feet min.	"

Front Yard
15 feet min. [6]

[3] Minimum setback requirements generally do not apply in the C, B4, and I zoning districts except adjacent to R/OR districts or to maintain clearance from residential windows on adjacent properties.

[4] Table does not reflect setbacks based upon authorized height exemptions in Chapter 552 - Article V. "Height of Principal Buildings" (552.410)

[5] Increased setback requirement when properties in Corridor 6 and transit districts are adjacent to Interior 1 or 2 (552.810(e)(2)).

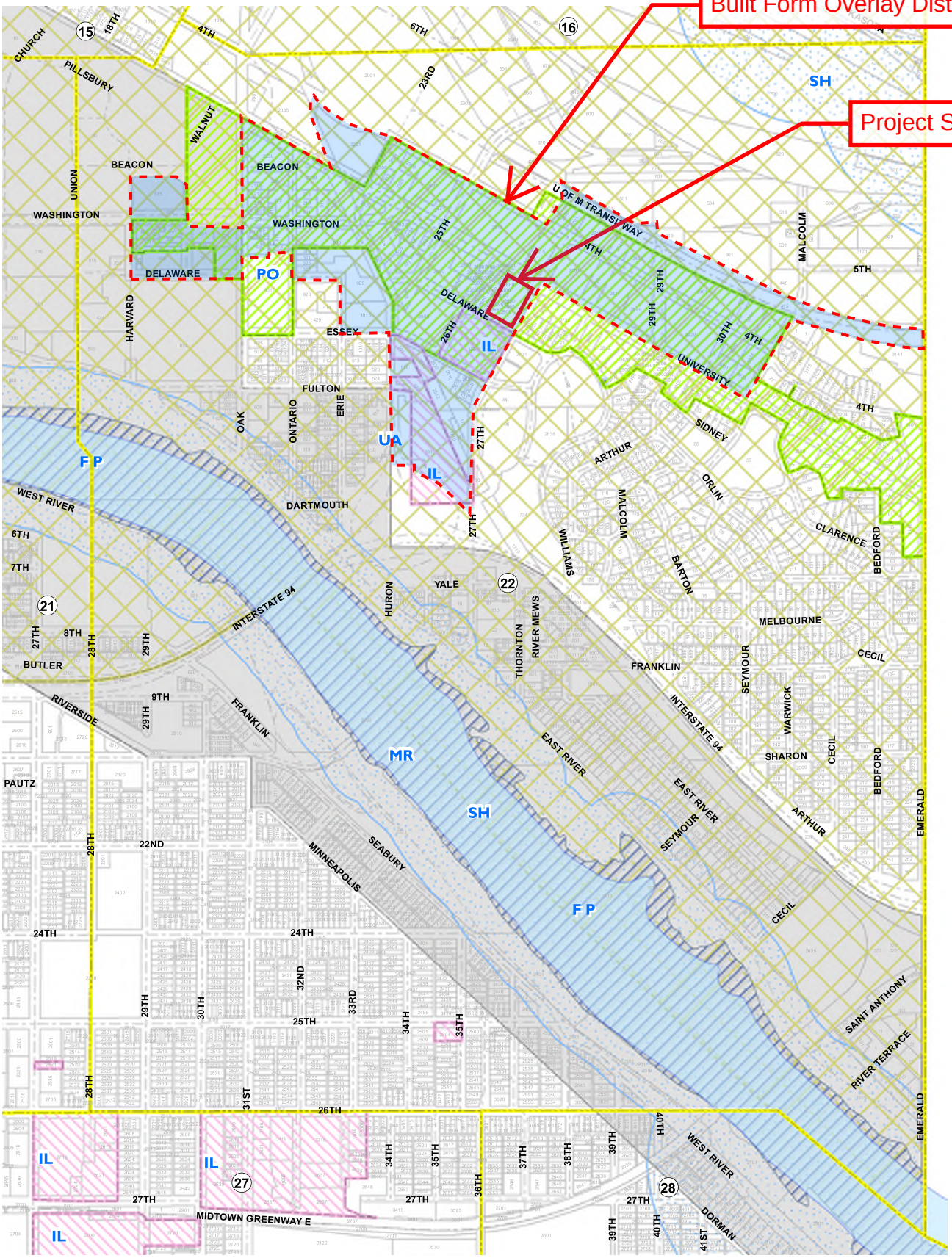
[6] Front yard setback requirements can also vary based on the established setbacks of the adjacent principal buildings. Further explanation is located in Chapter 552 - Article IX. "Yards" (552.810 a, b & c).

KEY PROVISIONS OF TRANSIT 30

- Minimum FAR requirements apply, but not when expanding existing buildings (552.130)
- No limit applies to the number of allowed FAR premiums (Table 552-5)
- More FAR premiums and greater values are available to properties in Transit 30 than other Transit districts (Table 552-13)
- Minimum height requirements apply to the majority of the building footprint and can also apply when expanding existing buildings (552.420)
- Height increases are allowed to be administrative for most uses, except 1-3 unit dwellings and cluster developments; subject to maximum allowed height increase, adequate required premiums, and required findings (Article VI)
- Minimum interior side yard requirements increase when the building exceeds 75% of the lot length or when a property is adjacent to Interior 1 or 2 (552.810(e)(1) and (2))

Figure 18

OVERLAY ZONING DISTRICTS



Overlay Districts

- Floodplain
- AP Airport
- DH Downtown Height
- B4H Downtown Housing
- DP Downtown Parking
- DS Downtown Shelter
- HA Harmon Area
- IL Industrial Living
- LH Linden Hills
- NM Nicollet Mall
- North Phillips
- PO Pedestrian Oriented
- HLLL_POBoundary
- TP Transitional Parking
- UA University Area
- WB West Broadway
- SH Shoreland
- MR Mississippi River Critical Area

Figure 19

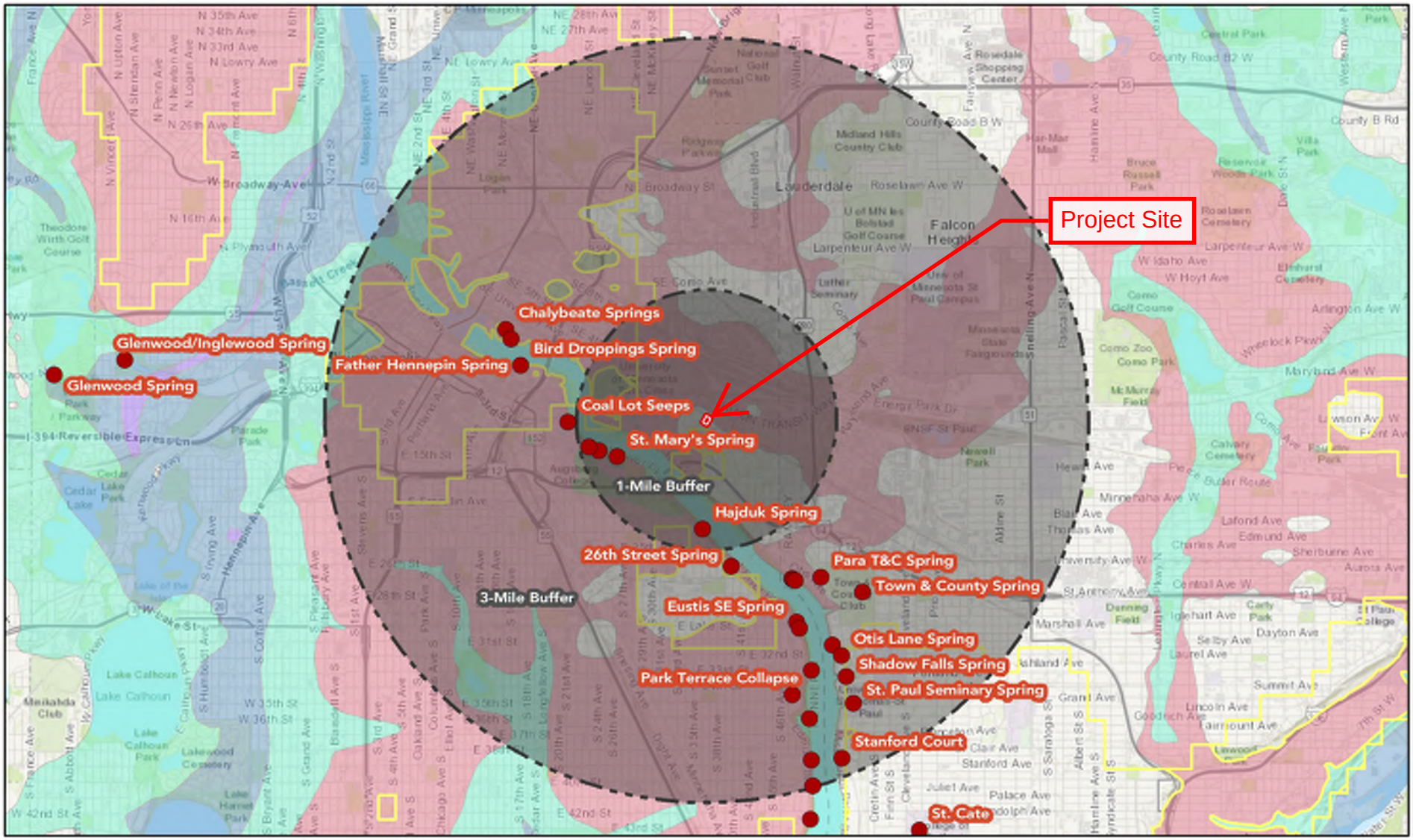
(12) Plate Number

Plate Boundaries

0 250 500 1,000 1,500 Feet

Last Amended: November 4, 2016

MINNEAPOLIS ZONING PLATE 22



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LOUCKS

Legend

- Project Boundary
- Karst Prone Areas
- Karst Feature

Bedrock Geology

- Decorah Shale
- Jordan Sandstone
- Platteville Formation and Glenwood Formation
- Prairie du Chien Group
- St. Peter Sandstone

N

0 6,000

Scale In Feet

2630 University Ave. SE

Minneapolis, MN

Geology

Figure 20

UNIVERSITY OF MINNESOTA
MINNESOTA GEOLOGICAL SURVEY
Priscilla C. Grew, Director

Prepared and Published with the Support of the
HENNEPIN COUNTY BOARD OF COMMISSIONERS AND THE
HENNEPIN SOIL AND WATER CONSERVATION DISTRICT

BEDROCK GEOLOGY

By

Bruce M. Olsen and Bruce A. Bloomgren

1989

LOCATION DIAGRAM

Base from U.S. Geological Survey, 1976.

SCALE 1:100 000

KILOMETERS 1 0 1 2 3 4 5 6 7 8 9 10

MILES 1 0 1 2 3 4 5

FEET 5000 0 5000 10000 15000 20000 25000

Figure 1. The Late Cambrian Hollandale embayment, together with the Ordovician Twin Cities basin, was a depositional basin into which sediments were washed from source areas in Wisconsin and central Minnesota (Mossler, 1987). Most of this sediment came from the Wisconsin uplands, but in Hennepin County some was derived from the Transcontinental Arch (Olsen, 1976).

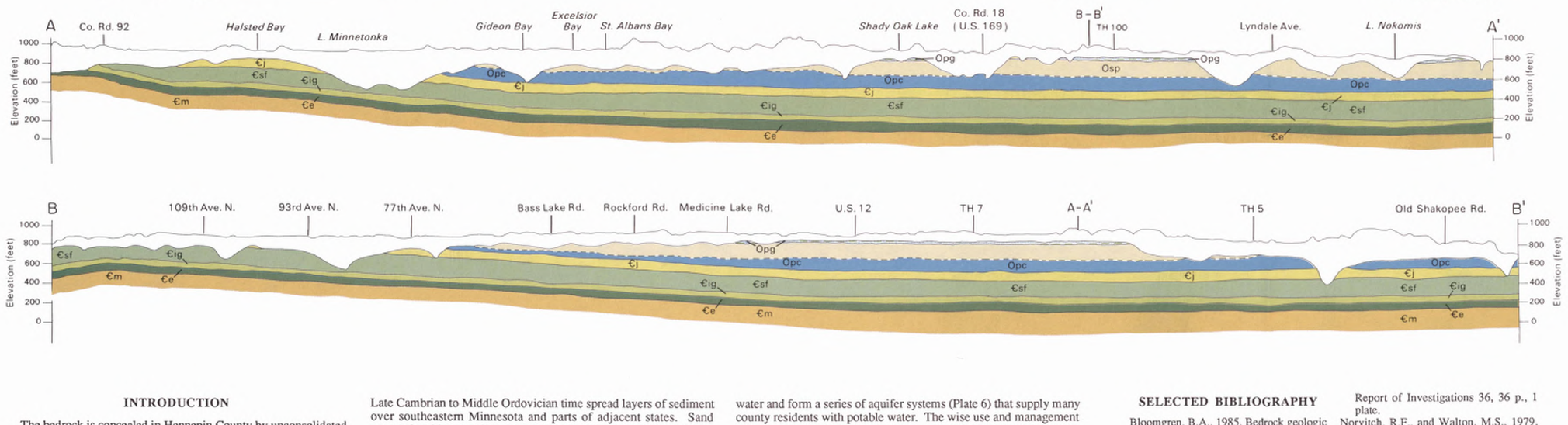
ERA	SYSTEM AND SERIES	FORMATION OR GROUP NAME	MAP SYMBOL	GENERAL LITHOLOGY	NATURAL GAMMA LOG (INCREASING COUNT →)	THICKNESS (IN FEET)
EARLY PALEOZOIC	MIDDLE ORDOVICIAN	DECORAH SHALE	Od			UP TO 25
		PLATTEVILLE & GLENWOOD FMS.	Opg			30 5
		ST. PETER SANDSTONE	Osp			ABOUT 160
	LOWER ORDOVICIAN	PRAIRIE DU CHIEN GROUP	Opc			ABOUT 120
	UPPER CAMBRIAN	JORDAN SANDSTONE	€j			95
		ST. LAWRENCE FORMATION	€sf			45
		FRANCONIA FORMATION	€sf			140
		IRONTON & GALESVILLE SANDSTONES	€ig			55
		EAU CLAIRE FORMATION	€e			80
		MT. SIMON SANDSTONE	€m			160
	MIDDLE PROTEROZOIC, UNDIVIDED		NOT SHOWN			

NOT EXPOSED IN HENNEPIN COUNTY

DOLOMITE
SANDY
LIMESTONE
SHALY
SHALE
SANDY
SILTSTONE
SANDSTONE
MEDIUM TO C
FINE TO VERY
BASAL

DOLOMITIC
CALCAREOUS
G GLAUCONITE
CONTACT MARKS A MAJOR EROSIONAL SURFACE

Project Site



INTRODUCTION

The bedrock is concealed in Hennepin County by unconsolidated Quaternary deposits thicker than 400 feet (Plate 4) except along the Mississippi River and its confluence with the Minnesota River. Therefore, the bedrock geology is known almost entirely from subsurface data (Plate 1), which vary considerably in quality and density. Interpretation is complicated by changes in the physical composition of some bedrock formations, not only across the seven-county metropolitan area, but also within Hennepin County. This variability makes it difficult to correlate between widely spaced drill holes and to compare different types of data–gamma logs, drillers' logs, well cuttings, and cores–that vary in their accuracy. This plate interprets more detailed information on the bedrock geology than previous studies. However, it was designed to show county-wide conditions and relationships. Determining the bedrock geology of smaller areas and specific properties should include using the databases and staff expertise at the Minnesota Geological Survey.

Plates 5 through 9 of this atlas show aspects of the bedrock geology combined with information on other geologic or hydrogeologic conditions that bear on the problems of resource management in Hennepin County. These plates are intended to assist citizens and county officials who are not trained geologists. The bedrock geologic map is a valuable basic tool, which can be used to prepare additional interpretive maps if a need arises in the future.

THE GEOLOGIC MAP

The map on this plate shows the bedrock units that are exposed or are covered only by unconsolidated deposits. The cross sections add the third dimension and describe the stratigraphy and structure of the bedrock units. On the cross sections, the rock formations would be only one tenth as thick as shown if the vertical scale were the same as the horizontal. This exaggeration, which is needed to show the thin formations, also exaggerates their dip or slope. The actual regional dip to the south and east is less than 20 feet per mile, or less than one fifth of a degree. Localized small-scale deviations from this dip also are overemphasized by the vertical exaggeration.

The thickness of unconsolidated deposits covering bedrock is highly variable, as shown by the cross sections. Plate 4 of this atlas describes the depth to bedrock and the topography of the bedrock surface. Our understanding of bedrock conditions decreases with the depth below the land surface, because subsurface information from test drilling or borehole geophysics becomes increasingly expensive to acquire. As a result, this plate shows bedrock conditions within 200 feet of the land surface more accurately than it shows conditions at a depth of 400 feet. Eventually a depth is reached below which little or no information is available. This depth is shown on the cross sections by the limits of coloring.

GEOLOGIC HISTORY AND STRUCTURE

All of the bedrock units shown on the map are marine sedimentary rocks of Early Paleozoic age (525-450 million years ago), although older bedrock units are known to exist beneath them. Several periods of Early Paleozoic marine deposition (Fig. 1) from Late Cambrian to Middle Ordovician time spread layers of sediment over southeastern Minnesota and parts of adjacent states. Sand accumulated in near-shore bars and dunes, silt and clay formed mud flats or settled out in quiet water farther from shore, and carbonate derived from remains of invertebrate shells and algae was precipitated from the seawater.

As section B-B' shows, the Prairie du Chien is significantly thinner beneath the St. Peter Sandstone near their northern limits, and the bedrock surface in Hennepin County was above sea level—and was eroded—prior to deposition of the St. Peter (Fig. 2). The uppermost bedrock is youngest along the eastern edge of the county and becomes progressively older to the west and north. This pattern reflects the general dip of the bedrock toward the center of the Twin Cities basin (Fig. 3). In Hennepin County, the basin structure consists of small-scale steps rather than just a uniform gradient. Very localized folding associated with these steps produced antiformal and synformal structures. Such folds generally have peak displacements of less than 100 feet relative to the surrounding rocks. An example of this is the remnants of Jordan Sandstone in a small structural depression in the extreme northwestern part of the county.

Two scenarios can explain the northward thinning of the Prairie du Chien beneath the St. Peter. Large-scale block faulting of the Proterozoic bedrock in the seven-county metropolitan area has been interpreted from gravity surveys and from a limited amount of drilling data. Faulting of Paleozoic bedrock with vertical displacements of as much as 50 to 150 feet is known conclusively in Dakota, Scott, and Washington Counties and appears to reflect reactivation of Proterozoic faults. The linear distribution of the Jordan Sandstone in the central part of Hennepin County may reflect the trend of such deep Proterozoic structures. If so, the Paleozoic bedrock may have been uplifted prior to St. Peter time by reactivation of Proterozoic faults or fault blocks. Bedrock to the west and north could have been elevated above sea level and subjected to erosion, so that the St. Peter was deposited on whatever bedrock remained.

Faulting in the Paleozoic bedrock of Hennepin County, however, cannot be documented on the basis of the subsurface data now available, and the data do not confirm the reactivation of the Proterozoic Douglas fault in north-central Hennepin County interpreted by Jirsa and others (1986). Uplift of the Paleozoic bedrock could be the result of folding with maximum dips of less than 3 degrees per mile, and local folding or differences in formation thickness may explain the apparently abrupt changes in the position of bedrock units. Further downwarping of the Paleozoic bedrock in the Twin Cities basin occurred after deposition of the Platteville limestone and the Decorah Shale, and it is possible that some faulting resulted as these sheet-like deposits adjusted into the basin structure.

The development of stream drainages has greatly affected the bedrock topography, because the carbonate bedrocks are more resistant to erosion than the other types. See Plate 4 for discussion.

Hennepin County was glaciated many times during the Pleistocene Epoch (Plate 3). Advancing glaciers planed off the bedrock surface and filled valleys with sediments that were re-eroded by meltwater and interglacial streams. In most of the county, the bedrock units beneath the glacial drift are now saturated with ground water and form a series of aquifer systems (Plate 6) that supply many county residents with potable water. The wise use and management of the county's ground-water resources will depend, in part, on understanding the physical makeup of the bedrock aquifers. This plate will help satisfy this need.

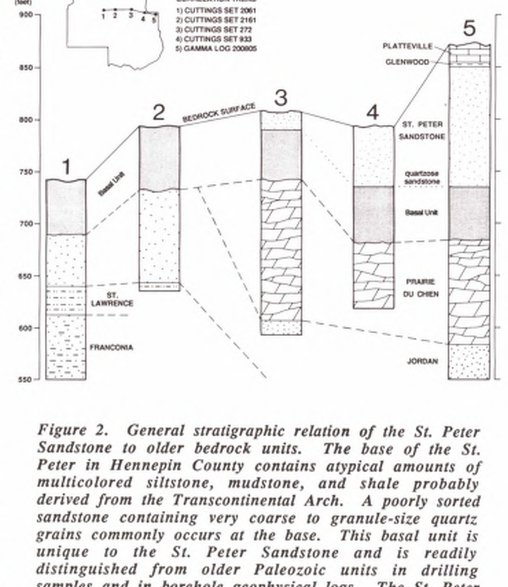


Figure 2. General stratigraphic relation of the St. Peter Sandstone to older bedrock units. The base of the St. Peter in Hennepin County contains atypical amounts of multicolored siltstone, mudstone, and shale probably derived from the Transcontinental Arch. A poorly sorted sandstone containing very coarse to granule-size quartz grains commonly occurs at the base. This basal unit is unique to the St. Peter Sandstone and is readily distinguished from older Paleozoic units in drilling samples and in borehole geophysical logs. The St. Peter Sandstone lies directly on the Jordan Sandstone or on the St. Lawrence Formation in parts of central Hennepin County. It may have been deposited directly on older Paleozoic bedrock elsewhere, but drilling records report the bedrock only as sandstone and shale, and subsurface samples are too few to show these areas accurately.

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Figure 3. Elevations in feet above sea level of the base of the Prairie du Chien Group show the configuration of the Twin Cities basin.

DESCRIPTION OF BEDROCK UNITS

Od DECORAH SHALE—Green, calcareous shale with thin interbeds of limestone. Limited to remnants in the extreme eastern parts of the county adjacent to the Mississippi River gorge

Opg PLATTEVILLE AND GLENWOOD FORMATIONS—Fine-grained limestone containing thin shale partings near the top and base, underlain by green, sandy shale of the Glenwood Formation, which is so thin that it is not always reported in well records. Crops out along the top of the Mississippi River valley in eastern and southeastern Hennepin County

Osp ST. PETER SANDSTONE—Upper half to two thirds is fine- to medium-grained, friable quartz sandstone. Exposures are limited to this part of the unit and commonly exhibit case-hardened weathered surfaces. The lower part of the St. Peter Sandstone contains multicolored beds of mudstone, siltstone, and shale with interbedded very coarse sandstone. Many sand grains in the lower part are dark gray in color. Base marks a major erosional surface

Opc PRAIRIE DU CHIEN GROUP—Dolostone that varies greatly in thickness because its top is a major erosional surface. It is thickest in the eastern parts of the county where it is sandy with minor amounts of shale in the upper third to half. The lower part is less sandy except within 10 or 15 feet of the base which marks a transitional boundary with the Jordan Sandstone. The Prairie du Chien Group is karsted and may be rubbly where remnants less than 50 feet thick are covered by the St. Peter Sandstone

€j JORDAN SANDSTONE—Quartzose sandstone that is carbonate cemented in the upper 10 to 15 feet. Middle part is coarse grained, and the basal 10 to 20 feet is finer grained and may contain minor amounts of shale

€sf ST. LAWRENCE AND FRANCONIA FORMATIONS—The St. Lawrence consists of dolomitic siltstone and shale in eastern Hennepin County. The fine-grained, glauconitic sandstone and shale of the Franconia becomes dolomitic in western Hennepin County, where the two units are distinguishable only by the higher glauconite content of the Franconia. Fine- to medium-grained quartzose sandstone with minor amounts of white or light-colored shale forms the upper part of the Franconia in parts of the north and west, where it may be confused with the basal Jordan Sandstone

€ig IRONTON AND GALESVILLE SANDSTONES—Silty, fine- to coarse-grained quartzose sandstone underlain by fine- to medium-grained sandstone containing interbedded shale. The Galesville typically contains dark-gray quartz grains near the base

€e EAU CLAIRE FORMATION—Siltstone and shale with minor amounts of very fine to fine sandstone and glauconite. The contact with the underlying Mt. Simon is transitional

€m MT. SIMON SANDSTONE—Quartzose sandstone that contains varying amounts of siltstone and shale in the upper third. The middle part consists of friable medium- to coarse-grained quartzose sandstone. The lower 10 to 30 feet is silty, poorly sorted, and commonly pink or light red. Very coarse to pebble-size grains of light-yellow quartz form the base at many localities. The base marks a major erosional surface throughout the region

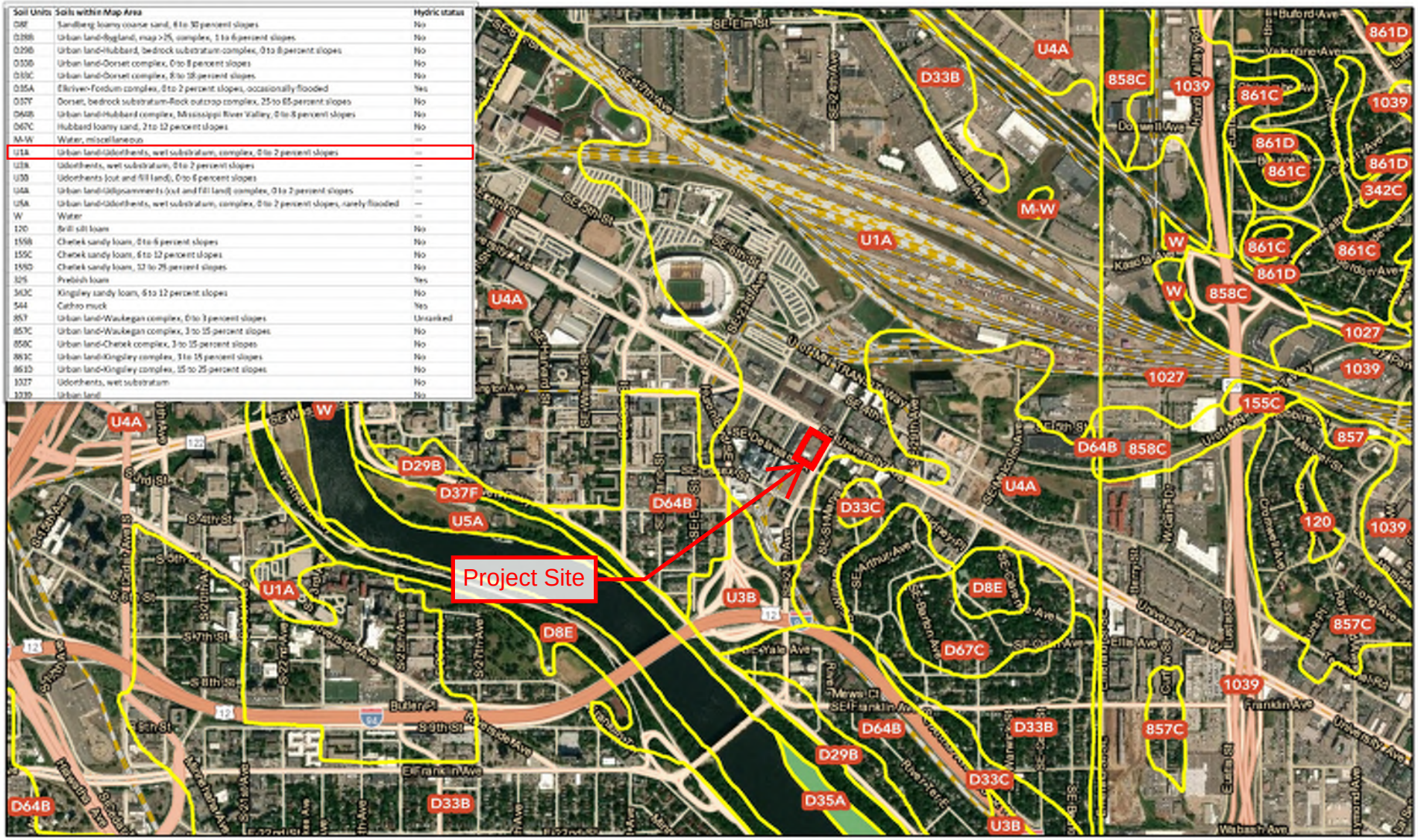
MIDDLE PROTEROZOIC ROCKS, UNDIVIDED—The topography of the upper surface of these rocks is very irregular. The Hinckley Sandstone, which is the uppermost unit stratigraphically, forms remnants generally less than 50 feet thick; it is salmon colored and quartzose, and is commonly mistaken for the basal Mt. Simon. Elsewhere, the Solor Church Formation is the uppermost Proterozoic unit. It consists of reddish-brown shale interbedded with lithic sandstone, and ranges in thickness from several tens to hundreds of feet. It is separated from the Hinckley by a profound unconformity, and covers an irregular surface formed on the basalt flows of the Chengwatana Volcanic Group. The total thickness of the Proterozoic volcanic and sedimentary rocks is unknown, but collectively they probably attain a thickness of at least 20,000 feet

GEOLOGIC CONTACT—Approximately located; dashed where inferred between lithologically similar units

Approximate erosional edge of the Prairie du Chien Group

Figure 21

Soil Units	Soils within Map Area	Hydric status
0387	Sandberg loamy coarse sand, 6 to 30 percent slopes	No
0388	Urban land-Bogland, map >75, complex, 1 to 6 percent slopes	No
0396	Urban land-Hubbard, bedrock substratum complex, 0 to 8 percent slopes	No
0398	Urban land-Dorset complex, 0 to 8 percent slopes	No
0398	Urban land-Dorset complex, 8 to 18 percent slopes	No
0395A	Elkriver-Fordum complex, 0 to 2 percent slopes, occasionally flooded	Yes
0397	Dorset, bedrock substratum-Rock outcrop complex, 25 to 65 percent slopes	No
0408	Urban land-Hubbard complex, Mississippi River Valley, 0 to 8 percent slopes	No
0407C	Hubbard loamy sand, 2 to 12 percent slopes	No
M-W	Water, miscellaneous	--
U1A	Urban land-Udorthents, wet substratum, complex, 0 to 2 percent slopes	--
U1B	Udorthents, wet substratum, 0 to 2 percent slopes	--
U3B	Udorthents (cut and fill land), 0 to 6 percent slopes	--
U4A	Urban land-Udipsamments (cut and fill land) complex, 0 to 2 percent slopes	--
U5A	Urban land-Udorthents, wet substratum, complex, 0 to 2 percent slopes, rarely flooded	--
W	Water	--
120	Brill silt loam	No
155B	Chetek sandy loam, 0 to 6 percent slopes	No
155C	Chetek sandy loam, 6 to 12 percent slopes	No
155D	Chetek sandy loam, 12 to 25 percent slopes	No
325	Prebish loam	Yes
343C	Kingsley sandy loam, 6 to 12 percent slopes	No
544	Cathro muck	Yes
857	Urban land-Waukegan complex, 0 to 3 percent slopes	Unranked
857C	Urban land-Waukegan complex, 3 to 15 percent slopes	No
858C	Urban land-Chetek complex, 3 to 15 percent slopes	No
861C	Urban land-Kingsley complex, 3 to 15 percent slopes	No
861D	Urban land-Kingsley complex, 15 to 25 percent slopes	No
1027	Udorthents, wet substratum	No
1039	Urban land	No



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LOUCKS

Legend

- Project Boundary
- Partially Hydric Soils
- Predominantly Non-Hydric Soils

N

0 1,520

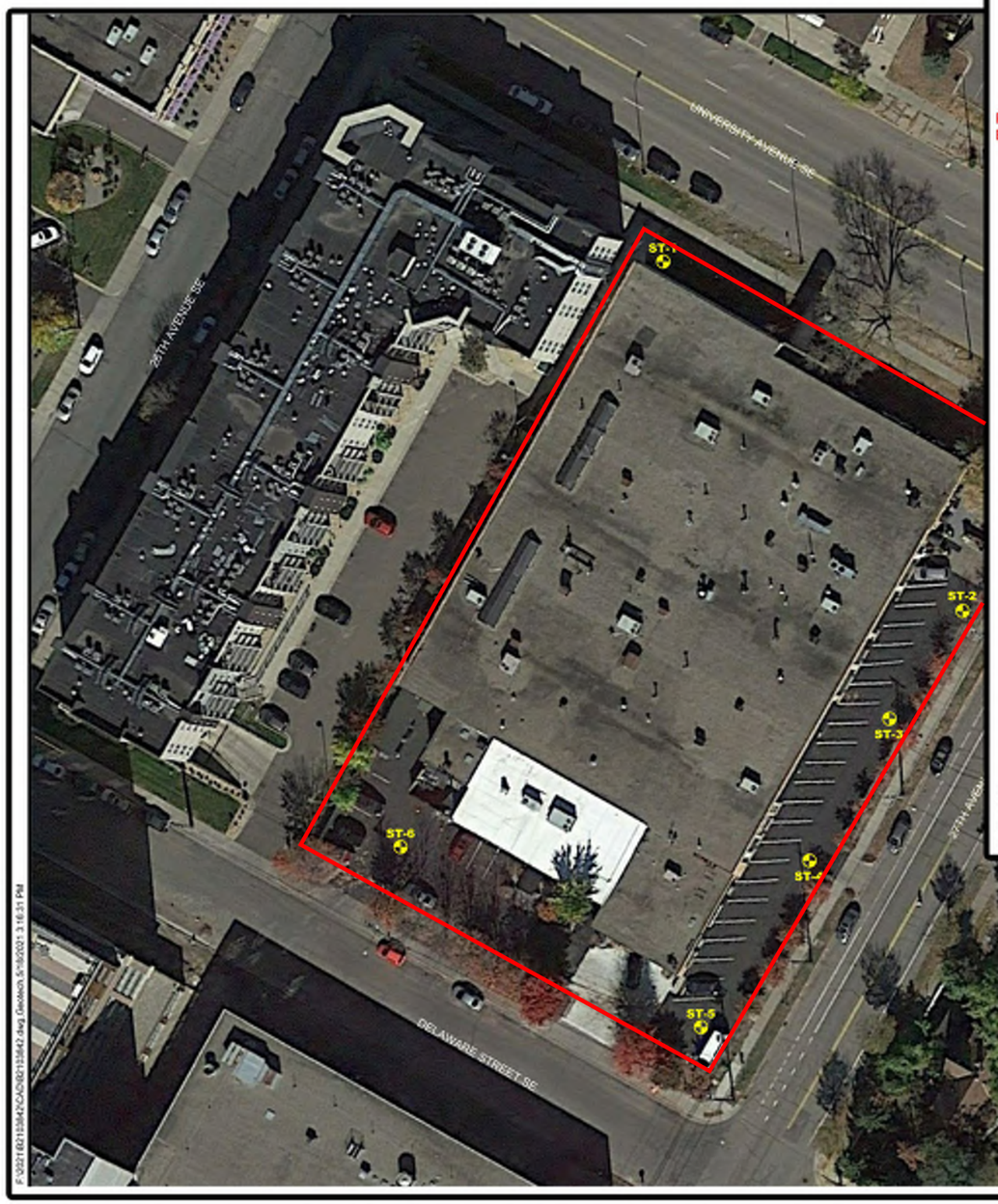
Scale In Feet

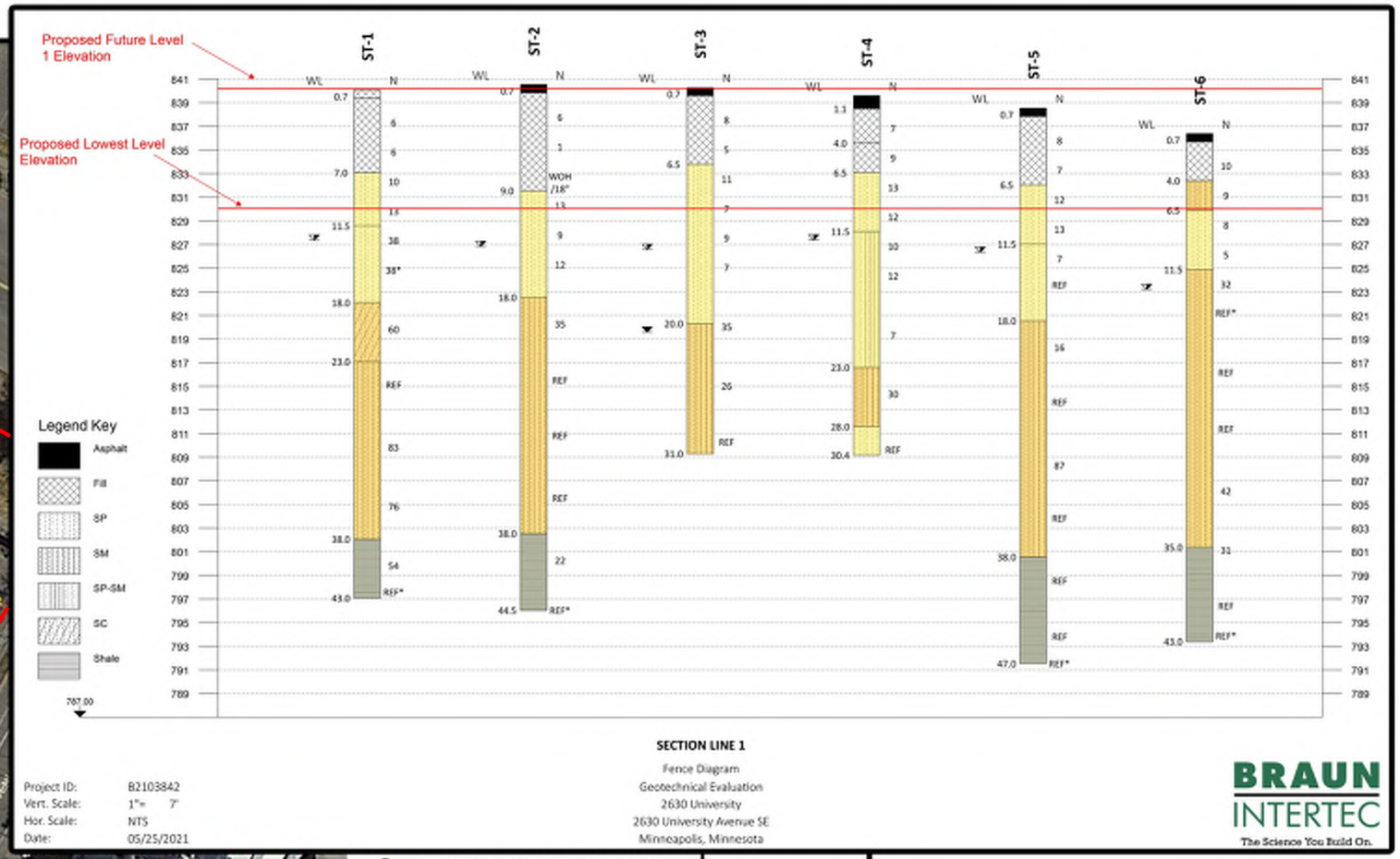
2630 University Ave. SE

Minneapolis, MN

NRCS Soils

Figure 22





DENOTES APPROXIMATE LOCATION OF STANDARD PENETRATION TEST BORING

25' 0 50'
SCALE: 1"= 50'

2630 University Avenue SE

Minneapolis, Minnesota

Soil Boring Location Sketch

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LOUCKS

Legend

Project Boundary

N

2630 University Ave. SE
Minneapolis, MN

Geotech Soil Borings
Figure 23

Construction Stormwater Special Waters Search

Minnesota Pollution Control Agency

Ely, MN

1 MILE RADIUS

Project Site

1 Mile Radius

(1 of 4)

Impaired lake: Kasota Pond North

AUID: 62-0280-00
Use class: 2B, 3C
Impaired use: AQL
New impairments: None
TMDL approved for: Cl-
TMDL not required for: None
Additional impairments: None

Zoom to

(1 of 4)

Impaired lake: Mallard Marsh

AUID: 62-0259-00
Use class: 2B, 3C
Impaired use: AQL
New impairments: None
TMDL approved for: Cl-
TMDL not required for: None
Additional impairments: None

Zoom to

(1 of 4)

Impaired lake: Kasota Pond West

AUID: 62-0281-00
Use class: 2B, 3C
Impaired use: AQL
New impairments: None
TMDL approved for: Cl-
TMDL not required for: None
Additional impairments: None

Zoom to

(1 of 5)

Impaired stream: Mississippi River

AUID: 07010206-814
Reach description: Upper St Anthony Falls to St Croix R
Use class: 2Bg, 3C
Impaired use: AQC,AQL,AQR
New impairments: Al
TMDL approved for: Hg-F; Hg-W; TSS
TMDL not required for: None
Additional impairments: Al; FC; Nutrients; PCB-F; PFOS-F; PFOS-W

Zoom to

Legend

- Trout Stream Tributary
- Scientific and Natural Area
- Trout Lake
- Lake Trout Lake
- Trout Lake and Lake Trout Lake
- Lake Superior ORVW - Restricted Discharge
- Lake Superior ORVW - Prohibited Discharge
- Impaired Streams with additional construction requirements
- Impaired Streams without additional construction requirements
- Impaired Wetlands with additional construction requirements
- Impaired Wetlands without additional construction requirements
- Impaired Lakes with additional construction requirements
- Impaired Lakes without additional construction requirements
- Waterbodies
  - Waterbody Units - Streams (1)
  - Waterbody Units - Lakes (1)

-93.242 44.995 Degrees

0.4mi

University of Minnesota, City of Minneapolis, County of Ramsey, Three Rivers Park District, Esri Canada, Esri, HERE, Garmi...

Legend

Project Boundary

LOUCKS

N

2630 University Ave. SE
Minneapolis, MN

Impaired Waters

Figure 24

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LOUCKS

Legend

- Project Boundary
- MN DNR PWI Watercourse
- MN DNR PWI Waterbody
- NHD Waterbody
- 100 yr. Flood
- 500 yr. Flood
- NWI Wetland

N

0 1,500

Scale In Feet

2630 University Ave. SE

Minneapolis, MN

Water Resources

Figure 25

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LOUCKS

Legend

Project Boundary

N

2630 University Ave. SE
Minneapolis, MN

MN Well Index Map
Figure 26

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Legend

Project Boundary

LOUCKS

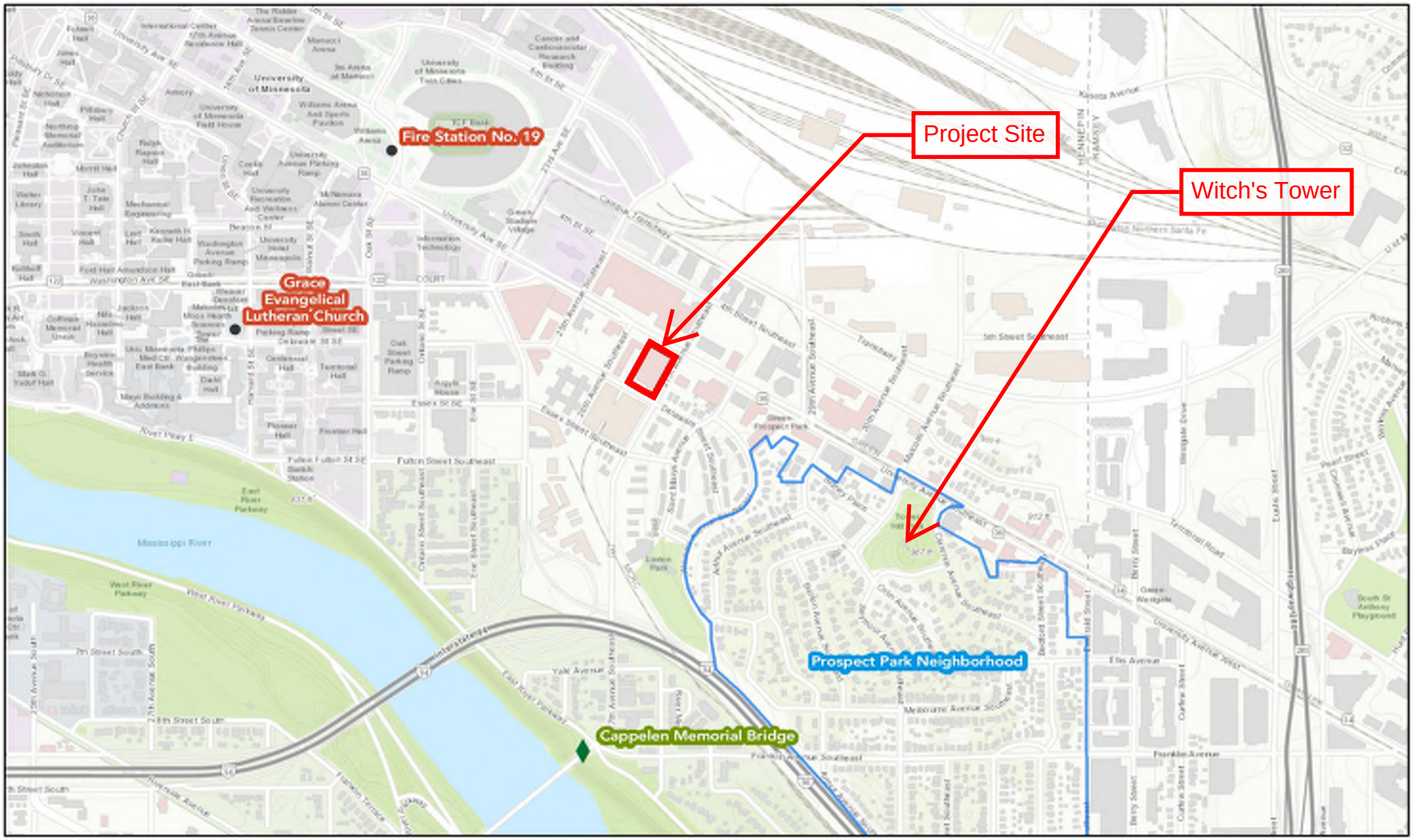
N

2630 University Ave. SE

Minneapolis, MN

Whats In My Neighborhood

Figure 27



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LOUCKS

Legend

Project Boundary

Cultural Resource Building Point

2630 University Ave. SE

Minneapolis, MN

N

0 1,000

Scale In Feet

Historic Places

Figure 28

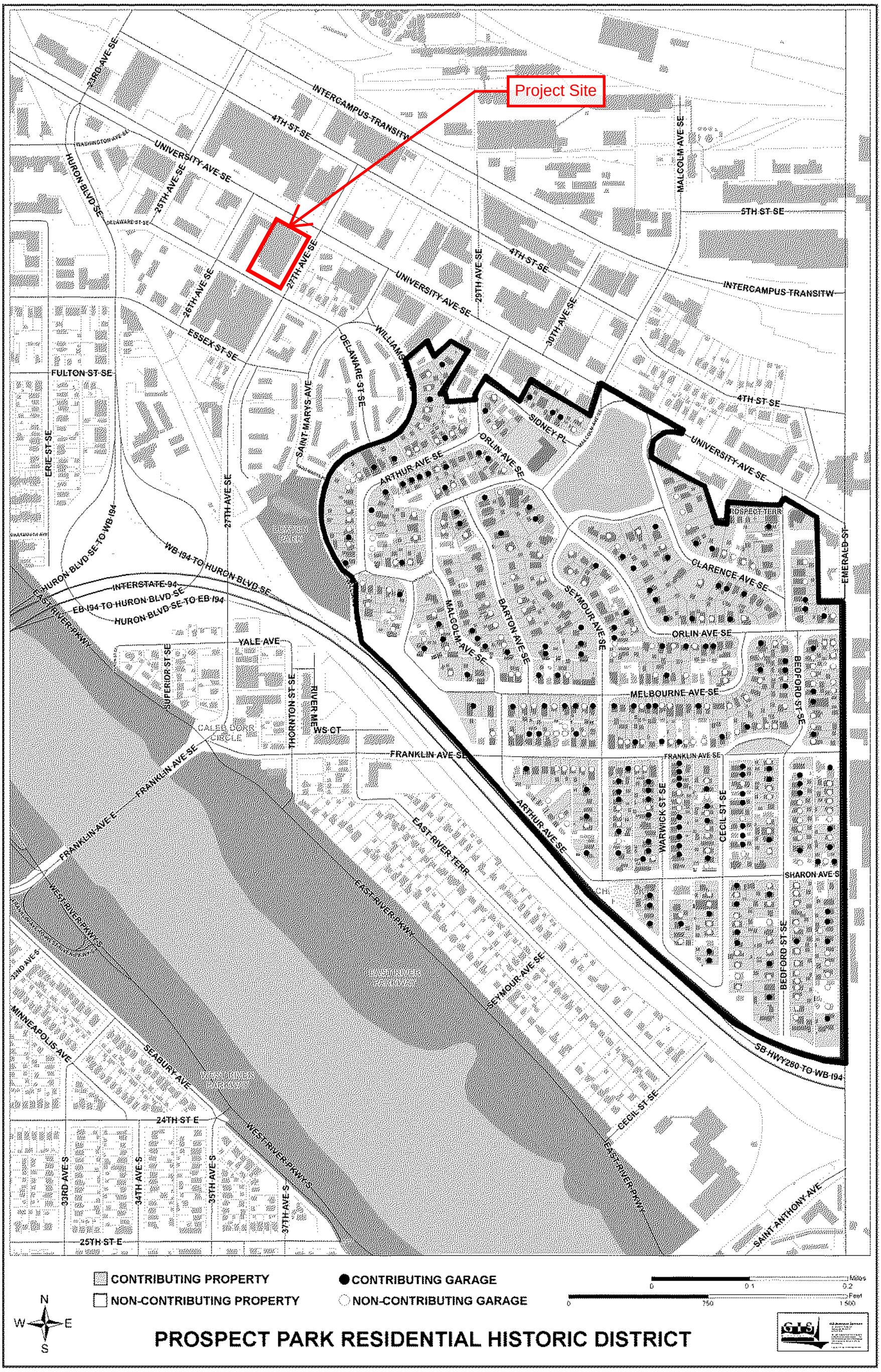
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Prospect Park Residential Historic District
Name of Property **Hennepin County, MN**
County and State **N/A**
Name of multiple listing (if applicable)

District Map Page 1

Figure 29



View of Prospect Park Tower East Down University

View of Prospect Tower East Down Delaware

View from Property West of Site

LOUCKS

N

2630 University Ave. SE
Minneapolis, MN

Views of Prospect Park Water Tower

Figure 30

Elevation Images of Buildings

PROPOSED APARTMENT BUILDING

Figure 31

VIEW FROM ARTHUR AVENUE SE

UNION STADIUM VILLAGE
05.07.21

POLICY 1

Access to Housing

Increase the supply of housing and its diversity of location and types

The population of Minneapolis is growing. Housing demand exceeds supply in many areas of the city, resulting in rising rents and sale prices. More and more residents are experiencing the strain of spending 30% or more of their income on housing, which is the U.S. Census threshold for identifying cost-burdened households. Between 2000 and 2015, approximately 15,000 housing units in Minneapolis became unaffordable to those making 50% of the Area Median Income (AMI). More housing is needed to meet the demand and help stem rising housing costs.

The Housing policies of this plan outline the City's approach to proactively meeting the housing needs of Minneapolis residents, including the production of affordable housing. In addition to those strategies, the Future Land Use and Built Form maps are intended to reduce barriers to new housing construction in the marketplace by allowing flexibility in the location of new housing along with clear guidance on built form in order to increase the predictability of approval processes.

Increased demand for housing is accompanied by demographic changes that affect the types of housing Minneapolis residents will need between now and 2040. The people of Minneapolis and the region as a whole are becoming older and more culturally diverse. In many parts of the city, aging single-family home dwellers do not have the option to move into multifamily housing close to their established social support networks. This further restricts access to single-family homes for households with growing families who desire that housing type and would prefer to stay in the city.

Areas of our city that lack housing choice today were built that way intentionally. In the first half of the twentieth century, zoning regulations and racist federal housing policies worked together to determine who could live where, and in what type of housing. This, in turn, shaped the opportunities available to multiple generations of Minneapolis residents.

Following the Great Depression, redlining and other loan underwriting guidance from the federal government steered where private investments in housing were made. This practice prevented access to mortgages in areas with Jews, African Americans and other minorities, as well as in the more densely-populated and mixed-use parts of the city. Related guidance in Federal Housing Administration Underwriting Manuals encouraged the segregation of land uses in order to reduce the financial risk of backing single-family home loans near land uses deemed undesirable, such as factories and even multifamily housing. This guidance, from 1934, reinforced the approach that Minneapolis and other cities in the United States began years earlier through the introduction of zoning ordinances.

The FHA promoted zoning as an effective tool for assuring a "homogenous and harmonious neighborhood." In the view of the FHA, however, zoning was not enough to accomplish the segregation of races as a means to protecting property values. The FHA underwriting manual made the case for racially restrictive covenants, using language that described people of color as undesirable neighbors in the same vein as nuisances such as odor and high traffic: "The more important among the adverse influential factors are the ingress of undesirable racial or nationality groups;

infiltration of business or commercial uses of properties; the presence of smoke, odors, fog, heavy trafficked streets and railroads."

These policies and regulations left a lasting effect on the physical characteristics of the city and the financial well-being of its people. Areas of Minneapolis with higher densities and a mix of land uses experienced disinvestment, in part because banks were not lending in these areas. On the outskirts of the city, a post-depression development pattern emerged with little variation in housing types and density, and few areas for commercial development. Today, the zoning map in these areas remains largely unchanged from the era of intentional racial segregation.

To address this, the Future land Use and Built Form maps allow a greater diversity of housing types in areas that today contain primarily single family homes through the following strategies:

- Allow multifamily housing on select public transit routes, with higher densities along high-frequency routes and near METRO stations.

- In neighborhood interiors that contain a mix of housing types from single family homes to apartments, allow new housing within that existing range.

- In neighborhood interiors farthest from downtown that today contain primarily single-family homes, achieve greater housing supply and diversity by allowing small-scale residential structures on traditional size city lots with up to four dwelling units, including single family, duplex, 3-unit, 4-unit, and accessory dwelling unit building types.

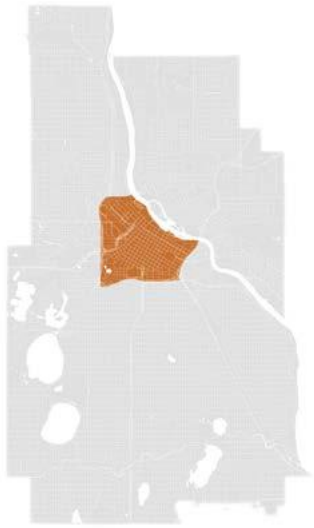
In Minneapolis, 9 out of 10 trips are taken in personal automobiles, accounting for approximately 24 percent of the annual greenhouse gas emissions in the city. Achieving the City's goal of an 80 percent reduction in greenhouse gas emissions by 2050 requires reducing the number of daily car trips by 37 percent. This ambitious goal is possible only if more people have access to employment and other

daily needs via frequent, fast, and reliable transit. Building more housing near transit provides the opportunity for people to live without a car, or with fewer cars in each household, helping to work toward a carbon-free future.

To address this, the Future Land Use and Built Form maps allow greater development intensities in these areas that have or will have frequent and fast transit connections through the following actions:

- Allow multifamily housing on public transit routes, with higher densities along high-frequency routes and near METRO stations.

- Allow the highest-density housing in and near Downtown.



ACTION STEPS:

The City will seek to accomplish the following action steps to increase the supply of housing and its diversity of location and types.

a. Allow housing to be built in all areas of the city, except in Production and Distribution areas.

b. Allow the highest-density housing in and near Downtown.

c. Allow multifamily housing on public transit routes, with higher densities along high-frequency routes and near METRO stations.

d. In neighborhood interiors that contain a mix of housing types from single family homes to apartments, allow new housing within that existing range.

e. In neighborhood interiors farthest from downtown that today contain primarily single-family homes, achieve greater housing supply and diversity by allowing small-scale residential structures on traditional size city lots with up to four dwelling units, including single family, duplex, 3-unit, 4-unit, and accessory dwelling unit building types.

POLICY 2

Access to Employment

Support employment growth downtown and in places well-served by public transportation.

The Metropolitan Council estimates that Minneapolis had 315,300 jobs in 2015, and projects that the City's employment will grow by 33,054 by 2040. Much of this job growth will happen in downtown Minneapolis, which is appropriate given the role of the central business district as the economic and transportation hub of the region. Growing employment downtown will require continued investment in the multimodal transportation system that makes downtown accessible to workers. It also means ensuring that land downtown is used as efficiently as possible.

Outside of downtown, non-production employment growth should be focused on areas well-served by public transportation. The City should continue to support large employers such as hospitals, universities, and cultural institutions, while ensuring that expansions of those facilities do not inhibit progress on other plan goals, including increasing the supply of housing.

ACTION STEPS:

The City will seek to accomplish the following action steps to support employment growth downtown and in places well-served by public transportation.

a. Develop minimum development densities for downtown and areas served by regional transit lines to ensure that enough land is available to accommodate projected employment growth.

b. Continue to allow office and institutional uses where they currently exist throughout the city.

c. Guide new office and institutional uses to locations well-served by public transportation.

d. Encourage large medical, educational, and cultural institutions to grow within their existing footprint, especially where territorial expansion would result in a reduction of housing stock.

POLICY 4

Access to Commercial Goods and Services

Improve access to goods and services via walking, biking and transit.

Today, 9 out of 10 trips in Minneapolis are taken in personal automobiles. While a portion of these trips are to school and work, residents in many parts of the city have no choice but to drive long distances to access regular goods and services such as grocery stores. Nationally, 45 percent of daily trips are taken for shopping and errands. In most of Minneapolis, demand for retail is much higher than supply, indicating an opportunity to make retail more convenient for everyone and thereby reduce car trips and greenhouse gas emissions. The city also has 11 low-income census tracts in which residents live more than a mile from a full-service grocery store.

Increasing retail options close to where people live will allow people the option of accessing daily needs without using a car. This will help achieve the City's greenhouse gas reduction goal, improve health through increased physical activity, and enrich the quality of life in our communities.

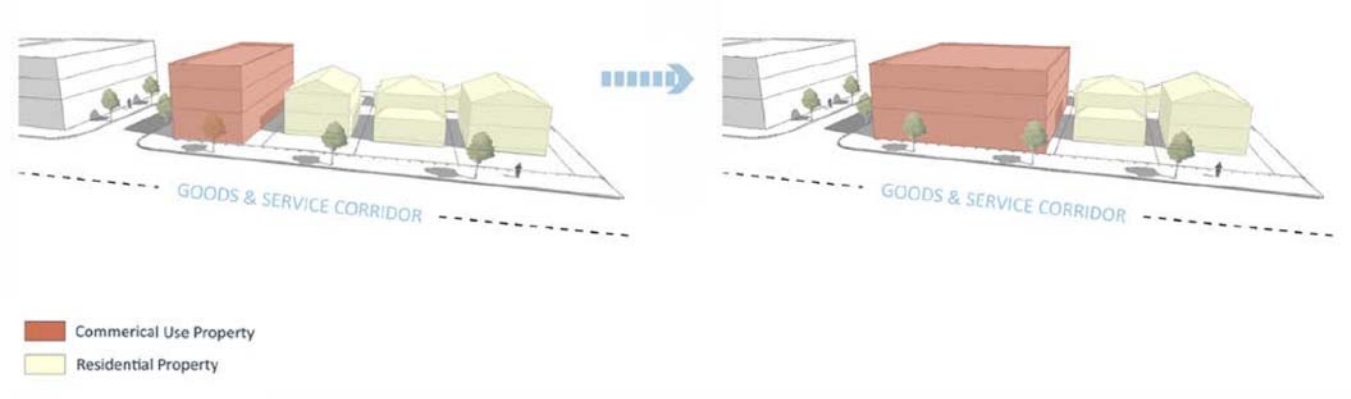
ACTION STEPS

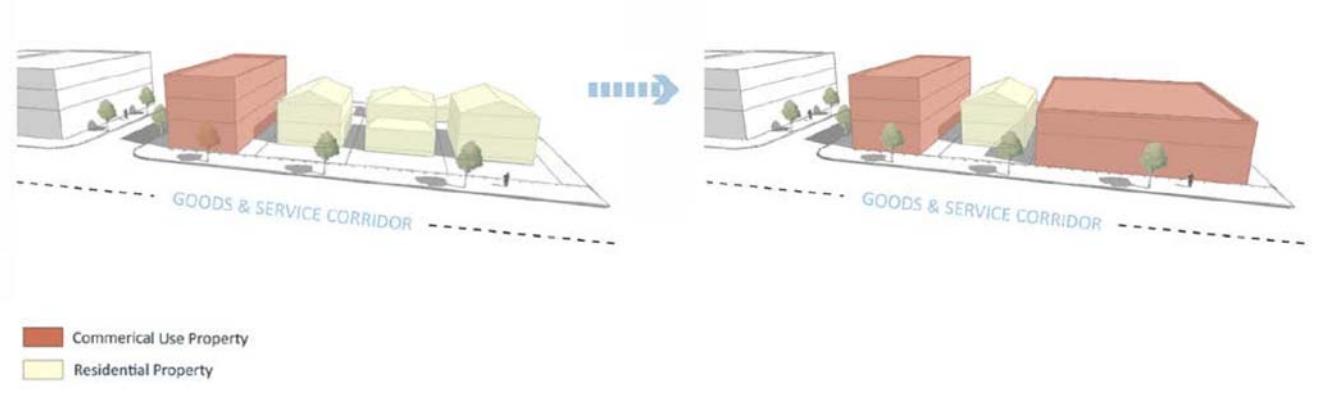
The City will seek to accomplish the following action steps to improve access to goods and services via walking, biking and transit.

a. Allow commercial uses where they currently exist throughout the city.

b. Designate additional areas for commercial uses in parts of the city where demand for retail goods and services exceeds the supply, and that are well-served by public transportation.

c. Allow property owners to request further expansion of commercial areas where such expansion would improve access to goods and services via walking, biking, and transit.





d. Require retail to be incorporated into new buildings in select areas of the city with the highest residential densities, highest pedestrian traffic, and most frequent transit service.

e. Allow increased housing density within and adjacent to Commercial areas.

f. Allow a full range of uses in Commercial areas intended to provide goods and services to surrounding communities.

g. Utilize regulatory tools to minimize the impacts that commercial uses have on nearby residential uses.

h. Develop new analytical frameworks and tools to accurately track and study the dynamics of urban retail in order to guide the development, revision, and deployment of City programs, tools, and regulations.

DEPARTMENT OF NATURAL RESOURCES

Division of Ecological & Water Resources
500 Lafayette Road, Box 25
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October 6, 2021
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Tom Goodrum
Loucks
7200 Hemlock Lane, Suite 300
Maple Grove, MN 55369

RE: Natural Heritage Review of the proposed Union Stadium Village,
T29N R23W Section 30, Hennepin County

Dear Tom Goodrum,

As requested, the above project has been reviewed for potential effects to known occurrences of rare features. Given the project details provided with the data request form, I do not believe the proposed project will negatively affect any known occurrences of state-listed threatened or endangered species. To ensure compliance with federal law, conduct a federal regulatory review using the U.S. Fish and Wildlife Service's (USFWS) online Information for Planning and Consultation (IPaC) tool.

The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area. **If additional information becomes available regarding rare features in the vicinity of the project, further review may be necessary.**

For environmental review purposes, the results of this Natural Heritage Review are valid for one year; the results are only valid for the project location (noted above) and the project description provided on the NHIS Data Request Form. Please contact me if project details change or construction has not occurred within one year as additional review may be required.

The Natural Heritage Review does not constitute review or approval by the Department of Natural Resources as a whole. Instead, it identifies issues regarding known occurrences of rare features and potential effects to these rare features. For information on the environmental review process or other natural resource concerns, you may contact your DNR Regional Environmental Assessment Ecologist.

Thank you for consulting us on this matter, and for your interest in preserving Minnesota's rare natural resources. Please include a copy of this letter in any state or local license or permit application. An invoice will be mailed to you under separate cover.

Sincerely,

Samantha Bump
Natural Heritage Review Specialist
Samantha.Bump@state.mn.us

Links: DNR Regional Environmental Assessment Ecologist Contact Info
http://www.dnr.state.mn.us/eco/ereview/erp_regioncontacts.html
USFWS IPaC Tool
https://ecos.fws.gov/ipac/

DEPARTMENT OF ADMINISTRATION
STATE HISTORIC PRESERVATION OFFICE

June 4, 2021

Thomas Goodrum
Loucks
7200 Hemlock Lane, Suite 300
Maple Grove, MN 55369

RE: Union Stadium Village
Construction of a 16-story residential building at 2630 University Avenue SE
Minneapolis, Hennepin County
SHPO Number: 2021-1935

Dear Thomas Goodrum:

Thank you for consulting with our office during the preparation of an Environmental Assessment Worksheet for the above-referenced project.

According your submittal, the proposed project is the construction of a 16-story residential building at 2630 University Avenue SE in Minneapolis. The project will consist of one story of below-grade parking and 15 stories of above-grade floors. There will be approximately 680 residential units with retail space on the first floor. The existing building, the Profile event Center, will be demolished to accommodate this new construction.

Archaeological Resources
We have reviewed the documentation included with your submittal and based on information that is available to us at this time, it is our opinion that there is a low likelihood of intact archaeological resources being present within the proposed project area. Therefore, we do not believe that an archaeological survey is warranted for the project as it is currently defined.

History/Architecture Properties
Based on information that is available to us at this time, we have determined that there are no properties listed in the National or State Registers of Historic Places that will be affected by this project.

Please note that this comment letter does not address the requirements of Section 106 of the National Historic Preservation Act of 1966 and 36 CFR § 800. If this project is considered for federal financial assistance, or requires a federal permit or license, then review and consultation with our office will need to be initiated by the lead federal agency. Be advised that comments and recommendations provided by our office for this state-level review may differ from findings and determinations made by the federal agency as part of review and consultation under Section 106.

Please contact Kelly Gragg-Johnson in our Environmental Review Program at kelly.graggjohnson@state.mn.us if you have any questions regarding our review of this project.

Sincerely,

Sarah J. Beimers
Environmental Review Program Manager

TRAVEL DEMAND MANAGEMENT PLAN

STS

Swing Traffic Solutions

Union Stadium Village

in

MINNEAPOLIS, MN

September 23, 2021

Travel Demand Management Plan

For
Union Stadium Village
Minneapolis, MN

Swing Traffic Solutions, LLC Project No. 2021025

September 23, 2021

I hereby certify that this plan, specification, or report was prepared by me, or under my direct supervision, and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota:

Vernon E. Swing, PE

Date: *September 23, 2021* Lic. No.: *41417*

Travel Demand Management Plan

For
Union Stadium Village
Minneapolis, MN

September 23, 2021

Prepared For:

Greystar
3800 American Boulevard West, Suite 950
Bloomington, MN 55431

Prepared By:

Swing Traffic Solutions, LLC
4290 Norwood Lane North
Plymouth, MN 55442
612-968-4142

Swing Traffic Solutions, LLC
Project # 2021025

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1.0 INTRODUCTION

Greystar is proposing to develop an 16-story apartment building near the University of Minnesota for off-campus student housing. The development will include 617 units with 1031 bedrooms, and 4,625 square feet of supporting retail, and will include 280 vehicle parking spaces of which 273 are dedicated to residential parking and 7 are dedicated to retail employee parking. The supporting retail is expected to be divided into four equal spaces and could include a salon, an apparel store, a small electronics store, etc. The site is located in the southwest quadrant of the 27th Avenue SE and University Avenue SE intersection, and the northwest corner of the 27th Avenue SE and Delaware Street SE (See Figure 1, Vicinity Map).

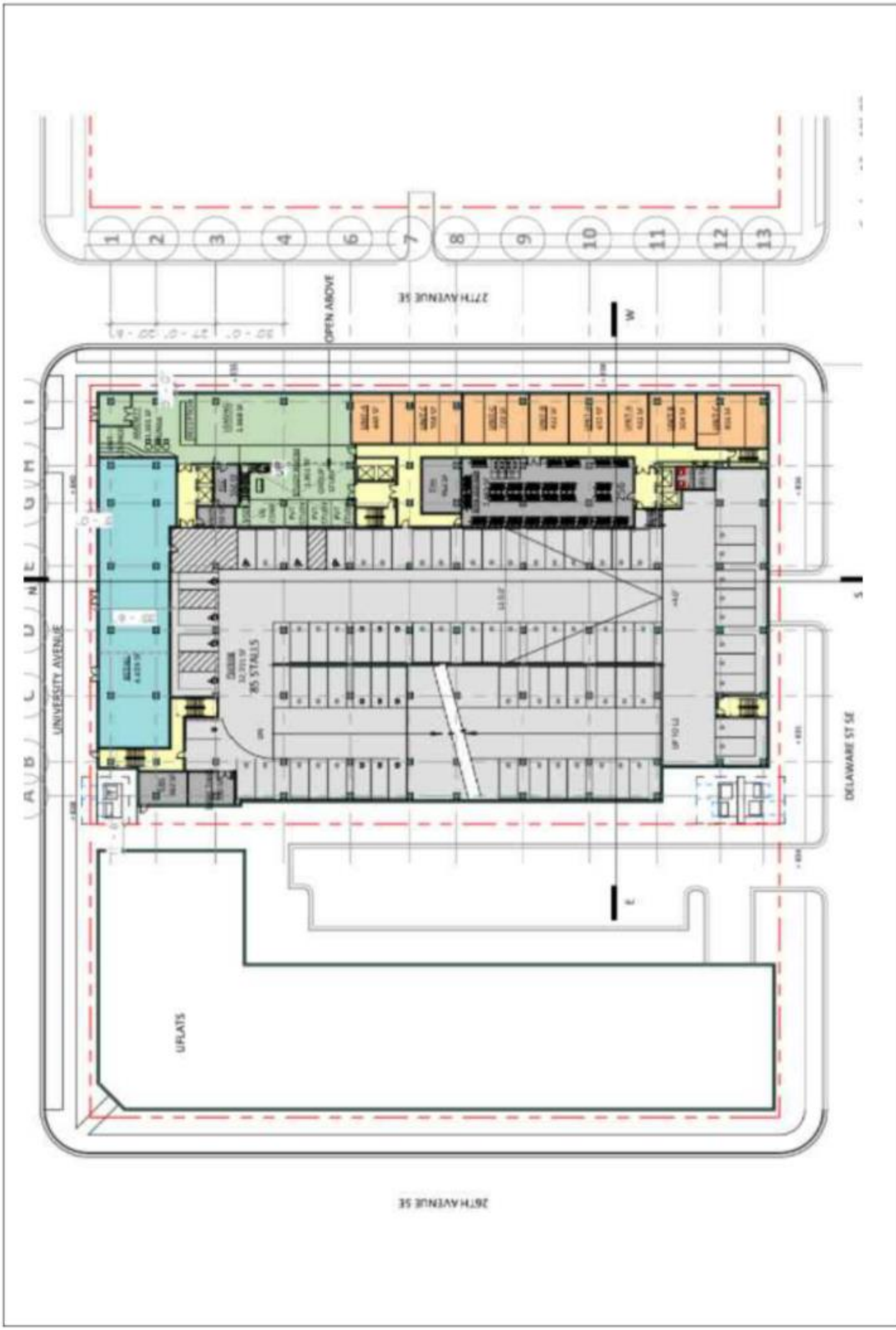
The development will remove the existing Profile Event Center and replace it with the 16-story building and the on-site parking garage. The 280-space parking garage will include three above ground enclosed levels. The three parking levels will also include 1,031 bicycle parking spaces. Access to the parking garage will be available from Delaware Street SE, and the two existing driveways to 27th Avenue SE will be removed. Figure 2 illustrates the current site plan.

This TDMP will identify alternative transportation options in the vicinity of the site, will discuss the parking and site generated traffic, and will include strategies to encourage the use of these alternative modes.

VICINITY MAP
FIGURE 1

Union Stadium Village
Minneapolis, Minnesota

STS
Swing Traffic Solutions



SITE MAP
FIGURE 2

Union Stadium Village
Minneapolis, Minnesota

STS
Swing Traffic Solutions

2.0 PEDESTRIAN, BICYCLE AND TRANSIT CONSIDERATIONS

The proposed development's location on University Avenue SE, 27th Avenue SE and Delaware Street SE affords the future residents of the proposed off-campus student housing/mixed use development many opportunities to use alternative transportation modes. The site is adjacent to roadways with sidewalks, and 27th Avenue SE has on-street designated bike lanes which connect with the regional trail system including the East and West River Trails. (See Exhibit 1 on the following page.) The site is located near transit options on University Avenue SE and on nearby Huron Boulevard SE. Further, the site is within a quarter mile of the Green line LRT stops at Prospect Park and Stadium Village (See Exhibits 2).

The on-street bike routes and the designated recreational trails, East River Trail and West River Trail, tie into the elaborate bike trail system of Minneapolis, St. Paul and the suburbs. This system will enable future residents to easily travel to other downtown locations such as the US Bank Stadium, the central business district and Nicollet Mall, as well as venture west to the University of Minnesota area and east into St. Paul. The West River Trail bike route also connects with the Cedar Lake Trail which accesses communities to the west. There is a Nice Ride Station located across University Avenue SE from the site. Nice Ride Minnesota is a non-profit bike sharing program being deployed throughout the Twin Cities and is an available strategy to reduce trips.

1,031 secure bicycle stalls will be provided for the residents of Union Stadium Village, distributed as follows: 344 spaces will be provided on the street level and level 2, and 343 spaces will be provided on level 3 in the parking area. Bicycle amenities for residents include a tuning area.

This project will work with HOURCAR to provide one or two vehicles for tenant use. HOURCAR, is an hourly rental car, which is a viable strategy for travel demand management. For those apartment residents who do not own a personal vehicle and who typically rely on transit or non-motorized transportation, an HOURCAR option is a positive amenity when a personal vehicle is needed on a temporary basis.

Sidewalks exist along the public streets that are adjacent to the project site. This project will enhance the pedestrian environment by providing enhanced lighting and landscaping. These sidewalks provide pedestrian access to the robust sidewalk and pedestrian trail network of Minneapolis. The building will include retail uses along University Avenue SE with on-street parking available for the patrons of the stores.

There are multiple transit opportunities within a quarter mile of this development. University Avenue SE is a transit route in the vicinity of the site with stops at the intersections of University Avenue with 27th Avenue SE and 25th Avenue SE. It is noted the Huron Boulevard SE Routes 56, 59, and 60 with a stop at Delaware Street SE have been temporarily suspended due to COVID, but may be available when the Union Stadium Village is occupied. Further there are LRT stations, Prospect Park and Stadium Village located at approximately University Avenue SE and 29th Avenue SE, University Avenue SE and Huron Boulevard SE, respectively. Table 1 lists the routes that are within a quarter mile of the site.

Table 1
Transit Routes Serving Union Stadium Village

ROUTE #	TYPE OF SERVICE	DESTINATIONS	WEEKDAY	MIDDAY SERVICE w/≤ 30 MIN HEADWAYS	SATURDAY	SUNDAY
6	Local	Richfield to Union Stadium	5:00 a.m. – 1:30 a.m.	Yes	5:00 a.m. – 1:30 a.m.	5:00 a.m. – 1:30 a.m.
Green Ln	LRT	Downtown Minneapolis to Downtown St. Paul/Union Depot	5:20 a.m. – 9:30 p.m.	Yes	5:20 a.m. – 9:30 p.m.	5:20 a.m. – 9:30 p.m.

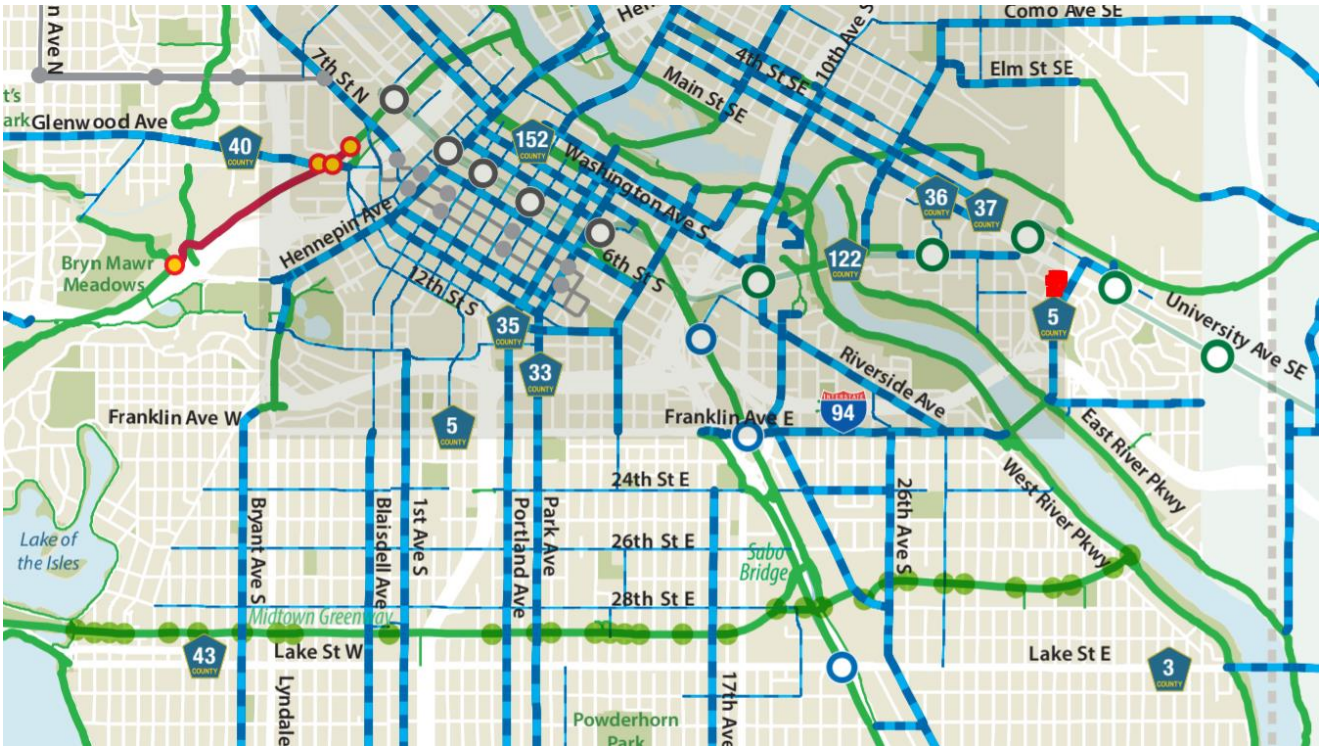


Exhibit 1 – Bicycle Routes

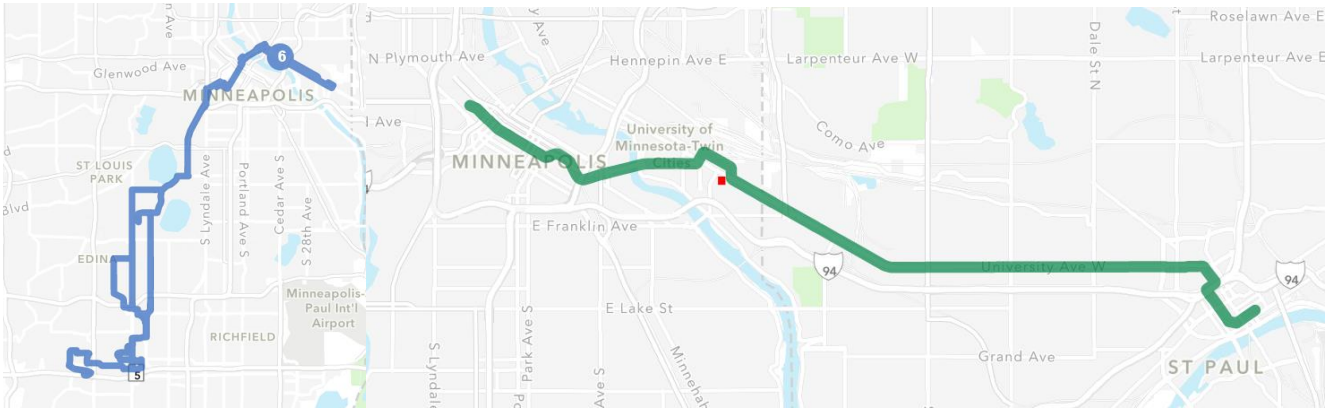


Exhibit 2 – Transit Route 6 and LRT Green Line

3.0 PARKING CONSIDERATIONS

Parking demand is anticipated to be accommodated on-site. The development is planned to include 617 residential units with 1,031 beds and approximately 4,625 square feet of retail space, and will provide 280 vehicle parking stalls in a three level garage. Of the 280 spaces, 273 are designated as resident parking and 7 spaces are available for employees of the retail uses. The garage will have three above-grade levels, enclosed within the mixed-use building.

Parking requirements for the site have been calculated using the City of Minneapolis Zoning Code requirements for Off-Street Parking, as found in Chapter 541, Section 541.310, Vehicle Parking Requirements. The site is located in the C2, Corridor Commercial District with BFT30, Transit 30 Built Form Overlay District, PO, Pedestrian Oriented Overlay District, and UA, University Area Overlay District, in which there are no minimum parking requirements for the uses. The maximum number of spaces permitted is 1.5 per dwelling unit. Table 2 summarizes the parking requirements.

Table 2
Estimated Parking Requirements per City Code

Land Use	Units	Required Spaces from Table 541-1	Maximum Spaces allowed, Table 541-1	Off-Street Parking Provided
Apartments	617 Units	0	926	273
Retail	4,625 SF	0	1 space per 500 SF	7

The proposed Union Stadium Village development is providing 273 spaces dedicated to residential parking and 7 spaces for employees of the retail uses. Bicycle parking demand was also reviewed. Bike parking for residents will be provided within 3 secure bike parking areas in the building distributed as follows: 344 spaces provided on the street level and level 2, and 343 spaces on level 3. Table 3 outlines the minimum bicycle parking required by the City of Minneapolis for this development, per City Code 541.

Table 3
Bicycle Parking Requirements per City Code

Land Use	Units	Required Bicycle Spaces from Table 541-2	Number of Bicycle Stalls Being Provided
Apartments	1,031 Bedrooms	1,031	1,031

The proposed development will satisfy City Code and provide sufficient bicycle parking on-site.

Loading Space

The loading requirement for the proposed 617 residential units is two small loading or one large space. There is no loading requirement for the proposed 4,625 SF of retail use. The project will include 2 small loading spaces within the building on the P-1 level. Loading activity for the retail uses will occur during non-peak times.

4.0 TRAFFIC CONSIDERATIONS

Table 4 summarizes the vehicle trip generation estimate calculated for the proposed Union Stadium Village development using the Institute of Transportation Engineers' (ITE's) Trip Generation Manual, 10th Edition. The numbers shown reflect statistics from dense urban Off-Campus Student Housing and the potential retail uses. The land Use Codes 225 for the student housing, 863 for electronics store, 876 for apparel store, 879 for arts and crafts and 918 for hair salon were used to estimate the site-generated traffic.

Table 4
Vehicle Trip Generation Estimates – Proposed Land Use

Land Use	ITE Code	Size	AM Enter	AM Exit	PM Enter	PM Exit
Off-Campus Student Housing	225	617 units	30 Trips	44 Trips	77 Trips	77 Trips
Electronics Store	863	1,156 sf	N/A	N/A	2 Trips	2 Trips
Apparel Store	876	1,156 sf	N/A	N/A	2 Trips	2 Trips
Arts and Crafts	879	1,156 sf	N/A	N/A	3 Trips	3 Trips
Hair or Nail Salon	918	1,156 sf	1 Trip	0 Trips	0 Trips	1 Trip
Total Vehicle Trips			**75 Trips**		**169 Trips**	

Table 5 summarizes the forecasted person trips associated with the residential development. In this case, there are not statistics available for student housing, so statics from High Rise Multi-family housing was used.

Table 5
Person Trip Generation Estimates – Proposed Land Use

Land Use	ITE Code	Size	AM Enter	AM Exit	PM Enter	PM Exit
High Rise Multi-Family	222	617 units	95 Trips	355 Trips	218 Trips	152 Trips
Total Person Trips			**450 Trips**		**370 Trips**	

It is noted, that person trips refer to trips made to or from a site by each individual person using any mode of transportation (walking, bicycling, transit, etc.). In this case, the site is expected to generate 450 person trips during the AM peak of which 75 will be vehicle trips, and 370 person trips during the PM peak 169 of which will be vehicle trips.

Swing Traffic Solutions analyzed several intersections around the proposed Union Stadium Village development, and assessed for traffic operational performance. Intersections analyzed include:

- Huron Boulevard SE and Essex Street SE
- Huron Boulevard SE and Delaware Street SE
- 26th Avenue SE and Delaware Street SE
- 26th Avenue SE and University Avenue SE
- 27th Avenue SE and Essex Street SE
- 27th Avenue SE and Delaware Street SE
- 27th Avenue SE and University Avenue SE

To understand the impact of site-generated traffic, No-Build operations at these intersections were reviewed for the year after build out 2026 and for the ten year from today planning horizon 2031. It was assumed traffic would grow at a rate of approximately 0.5 percent per year for 2026 and 2031 No-Build estimates. The traffic estimated to be generated by the uses identified in the proposed site plan was then added to the

roadway network. Operations at the intersections were again reviewed and compared to the No-Build conditions. The results of the operational analysis show that the addition of site-generated traffic has a negligible impact on the operations of the local roadway network. A full traffic impact study detailing the methodology and results of the analysis has been completed and is attached as Appendix A.

5.0 TRAVEL DEMAND MANAGEMENT STRATEGIES

A. City of Minneapolis Transportation Goals

The City of Minneapolis has developed Transportation Policies from "Minneapolis 2040". Key goals of the Minneapolis 2040 plan include:

- Eliminate disparity
- More residents and jobs
- Affordable and accessible housing
- Living wage jobs
- Healthy safe and connected people
- High quality physical environment
- History and culture
- Creative, cultural and natural amenities
- Complete neighborhoods
- Climate change resilience
- Clean environment
- Healthy, sustainable, diverse economy
- Proactive, sustainable, diverse government
- Equitable civic participation system

B. City of Minneapolis Transportation Policy Points

The following policy points for transportation are identified in the Minneapolis 2040 plan to enable the City to attain its stated goals:

- Transportation and Equity: Ensure that the quality and function of the transportation system contributes to equitable outcomes for all people;
- Environmental Impacts of Transportation: Reduce the energy, carbon, and health impacts of transportation through reduced single-occupancy vehicle trips and phasing out of fossil fuel vehicles;
- Complete Streets: Plan, design, build, maintain, and operate the city's transportation system in a way that prioritizes pedestrians first, followed by bicycling and transit use, and lastly motor vehicle use;
- Pedestrians: Improve the pedestrian environment in order to encourage walking and the use of mobility aids as a mode of transportation;
- Bicycling: Improve and expand bicycle facilities in order to encourage bicycling as a mode of transportation;
- Transit: Increase the frequency, speed, and reliability of the public transit system in order to increase ridership and support new housing and jobs;
- Public Realm: Proactively improve the public realm to support a pedestrian friendly, high-quality and distinctive built environment;
- Pedestrian-Oriented Building and Site Design: Regulate land uses, building design, and site design of new development consistent with a transportation system that prioritizes walking first, followed by bicycling and transit use, and lastly motor vehicle use;
- Skyways: Improve the Skyway system that connects buildings Downtown;
- Street Grid: Restore and maintain the traditional street and sidewalk grid;

- Freight: Accommodate freight movement and facilities in order to support the local and regional economy;
- Development Near METRO Stations: Support development and public realm improvements near existing and planned METRO stations that result in walkable districts for living, working, shopping, and recreating;
- Coordinated Development Strategy: Coordinate the development of housing, businesses, and infrastructure in geographic areas where a district-wide approach has the greatest opportunity for achieving Minneapolis 2040 goals;
- Shared Mobility: Position Minneapolis to benefit from upcoming changes to vehicle ownership models while supporting a shared use mobility network;
- Innovations in Transportation and Infrastructure: Support the development and deployment of new transportation technologies that positions Minneapolis to benefit from these advancements;
- Transportation Partnerships: Create and seize opportunities to identify and achieve shared goals, responsibilities, and participation while leveraging funding opportunities with regional partners or others making investments in the city;
- MSP Airport: Ensure Minneapolis-Saint Paul International Airport is efficient, connected, and environmentally sound;
- Vision Zero: Eliminate fatalities and severe injuries that are a result of crashes on City streets by 2027;
- Affordable Housing near Transit and Job Centers: Create more affordable housing near transit and job centers;
- Cultural Districts: Strengthen neighborhoods by prioritizing and accelerating economic development, public transit, and affordable housing policies, practices, and resources to protect the racial diversity and uplift the cultural identity of the city's areas where a significant portion of the population is comprised of people of color, Indigenous people, and/or immigrant (POCII) communities;
- Freeway Remediation: Recover and repurpose space taken by construction of the interstate highway system in Minneapolis and use it to reconnect neighborhoods and provide needed housing, employment, greenspace, clean energy and other amenities consistent with City goals;
- Innovation Districts: Establish and support Innovation Districts to employ district-scale infrastructure and systems and to implement flexible policies and practices that allow for experimentation and innovation consistent with City goals;
- Place-based Neighborhood Engagement: Strengthen the City's robust neighborhood-based community engagement system to ensure that it effectively and equitably builds people's capacity to organize to improve their neighborhoods.

C. Goal of the Travel Demand Management Plan

To succeed, this Travel Demand Management (TDM) plan must assist the City of Minneapolis to achieve its transportation goals. Based on previous TDM Plans in the area and the types of proposed land uses, the following mode split goals for the project have been identified by the developer:

Table 6
Mode Split Goals

Mode Split	Goal
Auto	30%
Transit	40%
Bike/Walk	30%

The owners and/or TDM Liaison will work to achieve a mode share goal percentage of 30% non-single-occupant-vehicles for the residential development.

D. Specific Travel Demand Management Strategies

This section outlines specific Travel Demand Management strategies to be implemented by the owner/end user/property manager/etc. of this site. The strategies detail the responsibilities of the site's responsible party in addressing the issues regarding transportation cited above. Greystar, LLC and their successors, by accepting the responsibility of implementing the items below, desire to help Minneapolis achieve its goals for enhancing the local transportation system. Implementation of the items noted will help to encourage use of alternate modes of travel, enhance pedestrian friendliness, and balance the needs of all users of the transportation system. Greystar, LLC and their successors specifically commits to the implementation of the following measures:

General

1. The owners and/or property managers of the development will appoint designated TDM Liaisons to coordinate the various TDM strategies that require ongoing attention. The responsibilities of the TDM Liaison would include upkeep of transit information and other communications, carpool program coordination, and administration of a shared car program.

2. The owner/TDM Liaison of the apartment building will maintain commuter information in common areas for residents/guests including the installation of a Real Time Transit variable message screen from Metro Transit, in all three buildings, that provides real time transit arrival information. Other information should include items such as transit schedules, Metro Transit commuter/carpool program information (Rideshare and the Guaranteed Ride Home), and bicycle/pedestrian commuter information or maps.

3. Assemble and disseminate a move-in package for all new residents. The move-in package will include all the pertinent information on travel information such as parking, alternate modes of travel, bus routes and bike routes.

4. Each resident will also be provided a link to the Minneapolis Transportation Management Organization's Commuter Connection webpage, http://www.commuter-connection.org/, that provides a host of links to transit, biking, LRT, rideshare and walking opportunities in the Dinkytown area of Minneapolis.

Transit/Carpool

1. Residents will be informed of Met Transit's "Go-Card" passes for hassle-free transit, and their U-Pass for substantial fare savings. The link http://www.metrotransit.org/passes-go-to-cards.aspx will be provided to residents at move-in.

2. The building owner will work with the University of Minnesota Transportation Services to establish a shuttle stop on University Avenue SE or SE 27th Avenue adjacent to the site.

Bicycles and Pedestrians

1. 1,031 secure bicycle stalls will be provided for the residents of Union Stadium Village. Bicycle amenities for residents include a tuning area.

2. The Union Stadium Village development will bring the pedestrian space into compliance with the City of Minneapolis Street Design Guide. Sidewalks will be paved with materials that meet or exceed city standards for sidewalk finishes. Street trees and landscaping, and illumination will be

installed to enhance the pedestrian environment. Street furniture appropriate for the site's context, not disrupting the pedestrian throughway, will be installed.

3. The Union Stadium Village development will work with scooter providers to provide internal or external parking for rental scooters for the residents of the new development.

Deliveries

1. Owners/property managers shall develop and maintain a policy that encourages truck and service deliveries to occur outside of peak traffic times. This would not include FedEx/UPS-type deliveries.

Parking

1. The Union Stadium Village is providing parking for the residents of the new development at a rate less than 0.5 spaces per unit to encourage modal shift.

2. No residential parking spaces shall be used or sold to anyone who does not own or rent property in the development. No residential parking spaces within the development will be sold to the general public.

3. Residential parking will be leased to the resident at a rate separate from the monthly rent. Excluding the monthly cost of leasing residential parking stalls from the monthly apartment rent is believed to be an effective way to reduce overall residential parking demand.

4. Adequate parking is provided by the developer. The developer and property manager are aware of the parking conditions on nearby streets may change at the discretion of the City of Minneapolis. The developer or building owner/manager (and Building residents and employees) will not be allowed to create or join any existing or future Critical Parking Area.

Resident Surveys and TDMP Plan Status Reports

1. With the assistance of Commuter Connection, conduct a statistically valid baseline resident commuting survey with the first 6 months after 50% occupancy of the site. Continue to conduct this survey every two years after that, for ten years or until the TDM Plan mode split goals are achieved.

<u>TDM Points Proposed by Applicant (6 Required for Major TDMP):</u>

Reduced Parking - 273 for 617 Units – 3 points
Pedestrian Enhancements – Improved Lighting, Landscape, Benches – 3 Points
Real Time Transit Monitor – 1 Point
Unbundled Pricing for Parking – 1 Point
Amenities Proposed by Applicant – Scooter Parking, University Shuttle Stop – Possible 2 Points
TOTAL – 10 Points (Exceeds 6 point requirement)

TRAVEL DEMAND MANAGEMENT PLAN
UNION STADIUM VILLAGE
MINNEAPOLIS, MN

PLAN APPROVAL

Greystar, LLC

By:_____Dated: _____
Greystar, LLC

Minneapolis Community and Economic Development Department

By:_____Dated: _____

_____
Steve Poor, CPED Director of Development Services

Minneapolis Public Works Department

By:_____Dated: _____

_____
Allan Klugman, Traffic Operations Engineer

APPENDIX A
TRAFFIC IMPACT STUDY

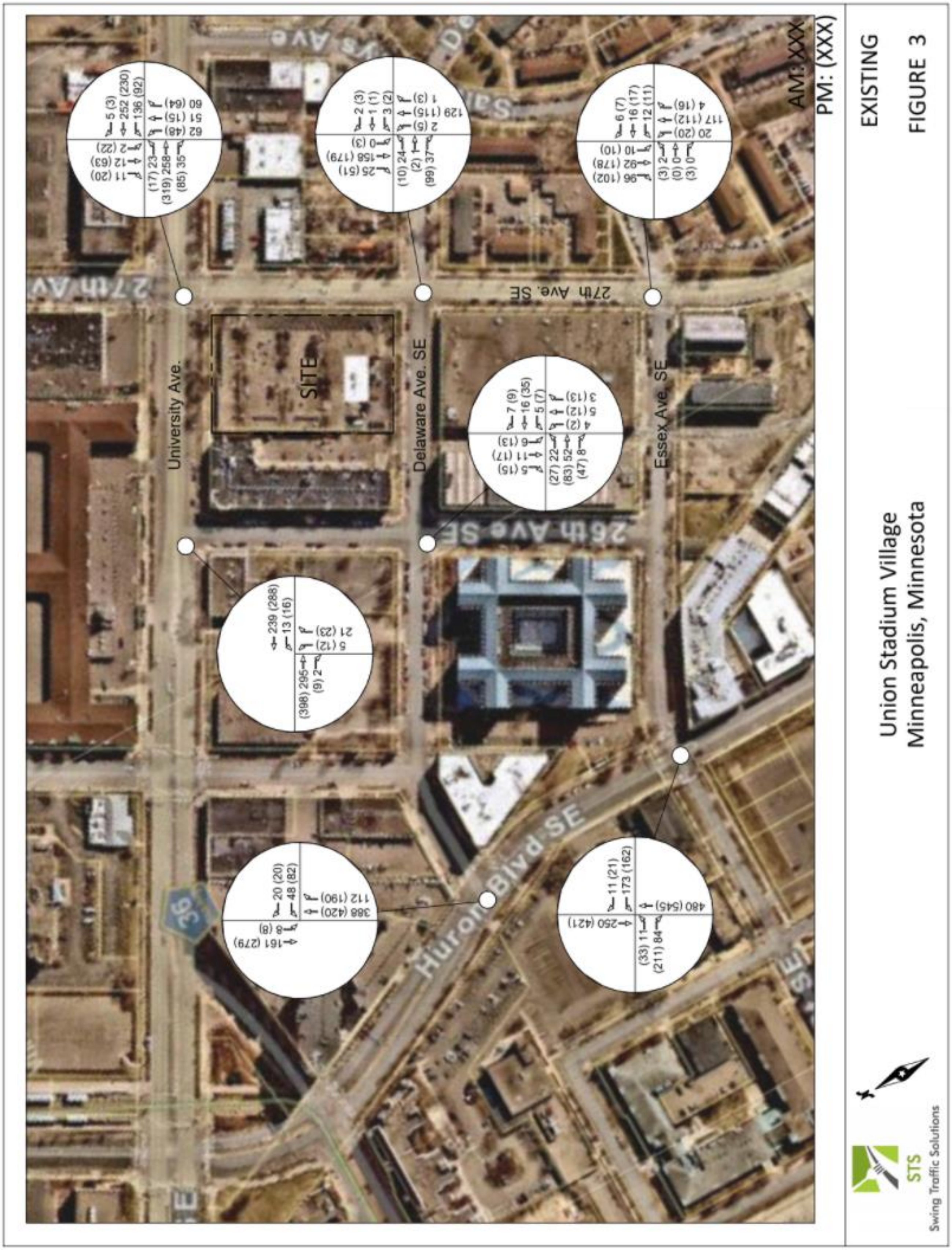
A-1. EXISTING TRAFFIC CONDITIONS

A. Data Collection

Traffic volumes were analyzed at the following intersections adjacent to the Union Stadium Village development:

- Huron Boulevard SE and Essex Street SE
- Huron Boulevard SE and Delaware Street SE
- 26th Avenue SE and Delaware Street SE
- 26th Avenue SE and University Avenue SE
- 27th Avenue SE and Essex Street SE
- 27th Avenue SE and Delaware Street SE
- 27th Avenue SE and University Avenue SE

In addition to the intersections listed above, the future site access driveway was also accounted for. Turning movement counts at the study intersections were conducted by Swing Traffic Solutions during the week of May 16,2021, and the current observed signal timings were used in our analysis. The traffic volumes at the intersections at University and 27th Avenue SE, and at Huron Boulevard and Delaware Street were estimated based on the approach traffic and historical counts. For University Avenue SE and 27th Avenue SE, the approach traffic from the adjacent intersections of University Avenue SE with 26th Avenue SE, and 27th Avenue SE with Delaware Street SE were used, and at Huron Boulevard SE and Delaware Street SE the approach traffic from the adjacent intersection of Delaware Street SE and 26th Avenue SE, and Huron Boulevard SE and Essex Street SE were used. Figures 3 illustrates the existing AM Peak Hour and PM Peak Hour turning movement traffic counts.


University Ave.
Delaware Ave. SE
Essex Ave. SE
27th Ave. SE
26th Ave SE
Huron Blvd SE
SITE
AM: XXX
PM: (XXX)
EXISTING
FIGURE 3
Union Stadium Village
Minneapolis, Minnesota
STS
Swing Traffic Solutions

A-2. NO-BUILD ALTERNATIVE

To address the impacts of a development on the surrounding roadway system, it is necessary to first analyze traffic conditions that are present on the roadway system without the inclusion of the proposed development. In this case the year after buildout, 2026, and the 10-year from today planning horizon, 2031, years were analyzed. The 2026 and 2031 traffic volumes were estimated by growing the existing traffic at a rate of 0.5 percent per year, and by including the forecast traffic from the nearby future development of Union Stadium Village. The 2026 and 2031 No-Build volumes are shown on Figures 4 and 5, respectively.

A. Operational Analysis Methodology

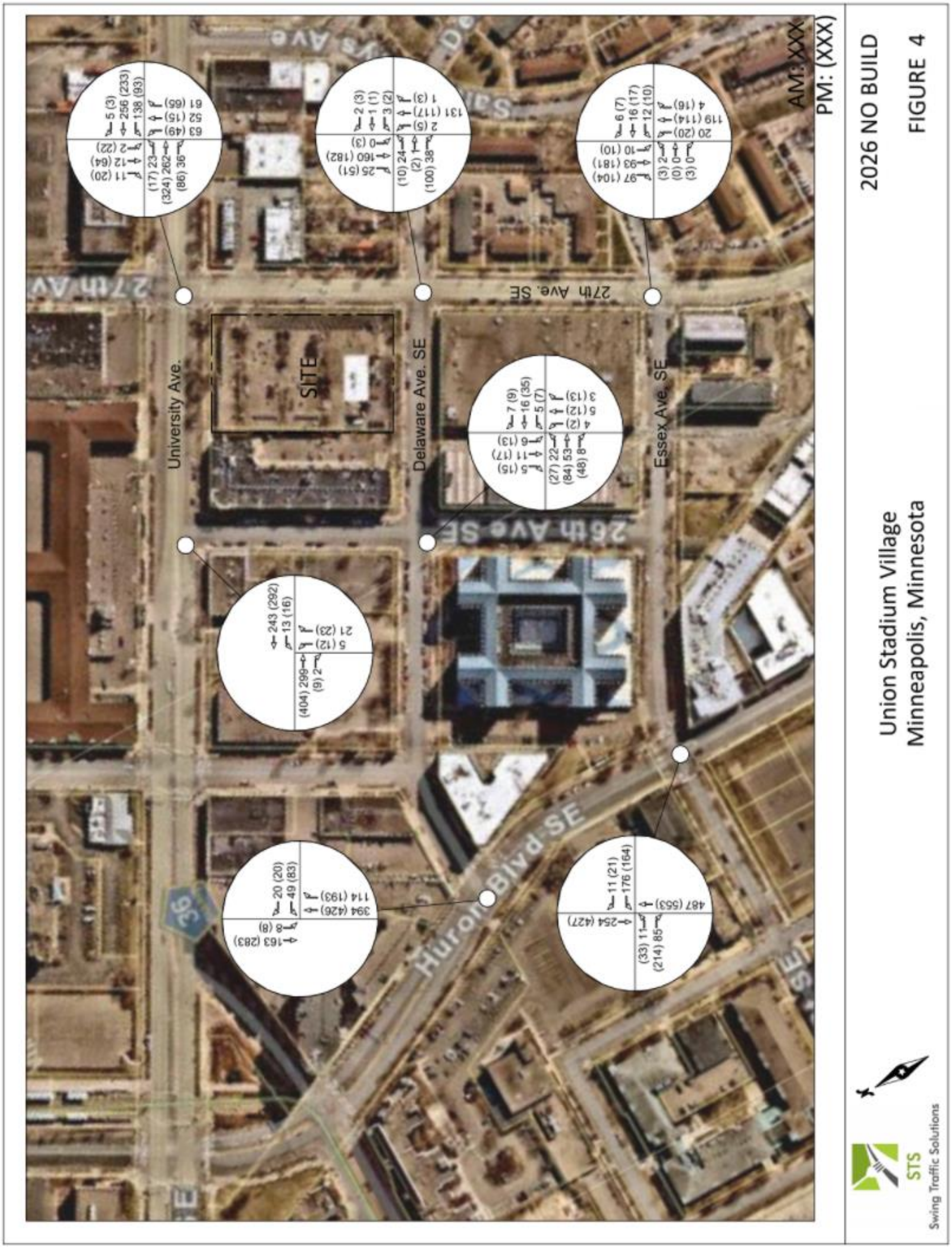
Traffic operations for peak hour conditions within the study area were analyzed using the industry-standard Synchro/SimTraffic 11 software package, which uses the data and methodology contained in the 6th Edition, Highway Capacity Manual, published by the Transportation Research Board. The software model was calibrated using existing conditions before being used to assess future conditions.

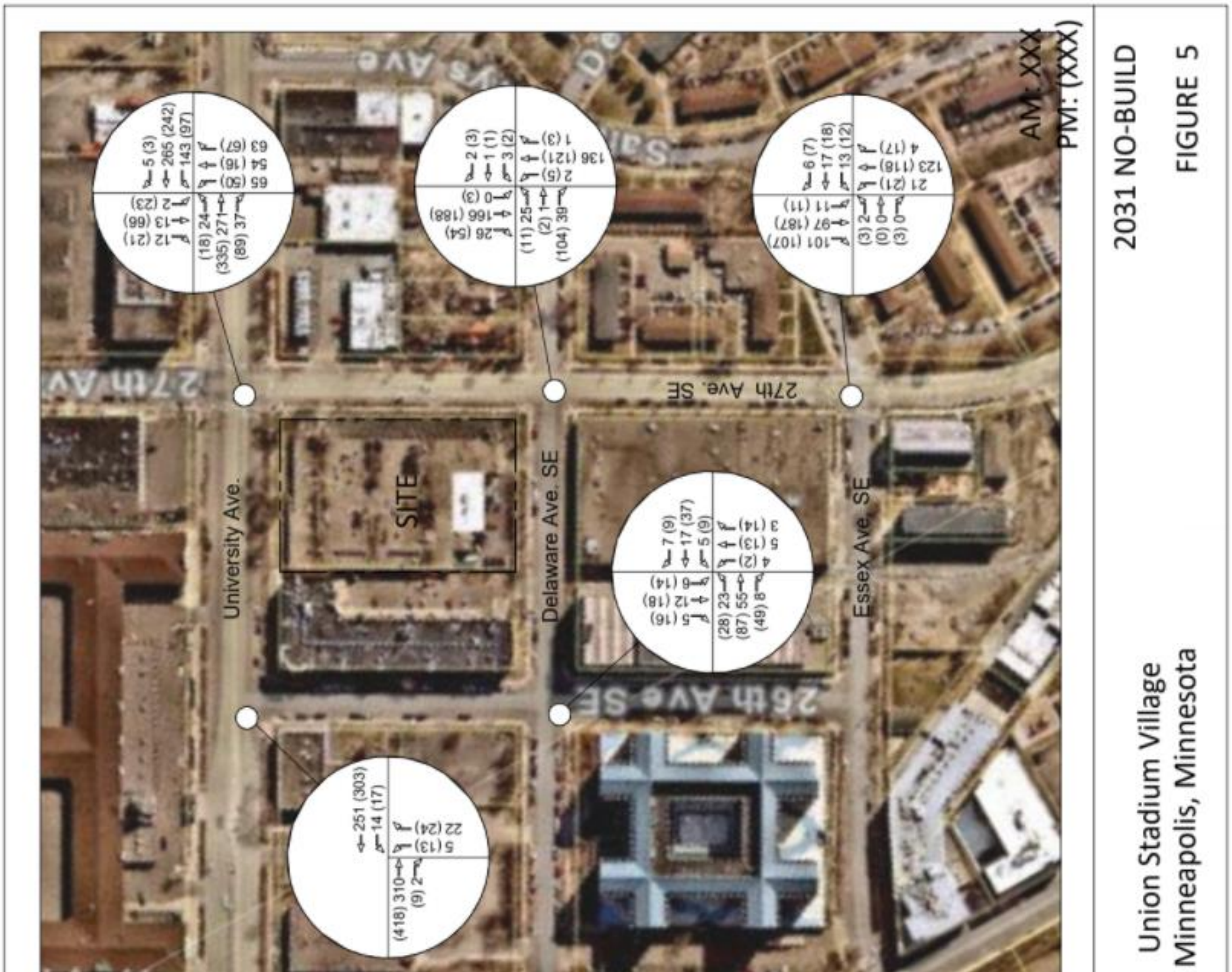
The operating conditions of transportation facilities, such as traffic signals and stop-controlled intersections, are evaluated based on the relationship of the theoretical capacity of a facility to the actual traffic volumes on that facility. Various factors affect capacity, including travel speed, roadway geometry, grade, number and width of travel lanes, and intersection control. The procedures describe operating conditions in terms of a Level of Service (LOS). Facilities are given letter designations from "A," representing the best operating conditions, to "F," representing the worst. Generally, Level of Service "D" represents the threshold for acceptable overall intersection operating conditions during a peak hour. The Chart below summarizes the level of service and delay criteria for signalized and unsignalized intersections.

LOS Designation	Signalized Intersection Average Delay/Vehicle (Sec.)	Unsignalized Intersection Average Delay/Vehicle (Sec.)
A	≤ 10	≤ 10
B	> 10-20	> 10-15
C	> 20-35	> 15-25
D	> 35-55	> 25-35
E	> 55-80	> 35-50
F	> 80	> 50

The acceptable threshold for a particular movement at an intersection depends on both the priority assigned to that movement and its traffic volume. In general, the higher the priority and the higher the traffic volume, the more stringent the acceptable threshold will be. For example, the acceptable threshold for a high-priority/high-volume suburban movement might be "C," while LOS "F" on a low-priority/low-volume urban movement might be appropriate. For side-street stop-controlled intersections, a key measure of operational effectiveness is the side-street LOS. Long delays and poor LOS can sometimes result on the side street, even if the overall intersection is functioning well, making it a valuable design criterion.

A final fundamental component of operational analyses is a study of vehicular queuing, or the lineup of vehicles waiting to pass through an intersection. An intersection can operate with an acceptable level of service, but if queues from the intersection extend back to block entrances to turn lanes or accesses to adjacent land uses, unsafe operating conditions could result. The 95th percentile queue, or the maximum


University Ave.
Delaware Ave. SE
Essex Ave. SE
27th Ave. SE
26th Ave SE
Huron Blvd SE
SITE
AM: XXX
PM: (XXX)
2026 NO BUILD
FIGURE 4
Union Stadium Village
Minneapolis, Minnesota
STS
Swing Traffic Solutions



2031 NO-BUILD
FIGURE 5
AM: XXX
PM: (XXX)
Union Stadium Village
Minneapolis, Minnesota
University Ave.
Delaware Ave. SE
Essex Ave. SE
27th Ave. SE
26th Ave SE
Huron Blvd SE
SITE
STS
Swing Traffic Solutions

length of queue with a 5% chance of occurring during the peak hour, is considered the standard for design purposes.

B. Results of Analysis; No-Build Scenario

The existing roadway infrastructure, in terms of roadway cross sections and intersection control, has the capacity to support the current traffic. Tables 7 and 8, which summarize the AM (7:45 AM to 8:45 AM) and PM (4:30 PM to 5:30 PM) peak hour results of the 2026 No-Build operational analysis, and Tables 9 and 10, which summarize the AM and PM peak hour results of the 2031 No-Build operational analysis, include the LOS for each study area intersection and the LOS for the movement with the greatest delay. It is noted that the observed signal timings were incorporated into the No-Build analysis. The complete operational analysis output is available upon request.

Table 7
Results of 2026 No-Build Analysis – AM Peak Hour

Intersection	Level of Service[1.]	Notes/95th Percentile Queues[2]
Essex St SE & Huron Blvd SE	A/C (WBL)	WBL queue is forecast at 154 feet
Delaware St SE & Huron Blvd SE	A/C (WBL)	WBL queue is forecast at 58 feet
Delaware St SE & 26th Ave SE	a/a (nbt)	SB queue is forecast at 46 feet
University Ave SE & 26th Ave SE	a/a (nbl)	NB queue is forecast at 43 feet
Essex St SE & 27th Ave SE	A/C (WBT)	WB queue is forecast at 62 feet
Delaware St SE & 27th Ave SE	a/a (ebl)	EB queue is forecast at 51 feet
University Ave Se & 27th Ave SE	B/C (WBTL)	WBLT is forecast at 225 feet

1. Overall LOS reported from SimTraffic delay calculations. First letter represents intersection LOS, while second letter represents worst LOS of individual approach. Upper case letters indicate signalized intersections, and lower case letters indicate unsignalized intersections.
2. 95th percentile queues are a result from an average of 10 SimTraffic simulations.

Table 8
Results of 2026 No-Build Analysis – PM Peak Hour

Intersection	Level of Service[1.]	Notes/95th Percentile Queues[2]
Essex St SE & Huron Blvd SE	A/C (WBL)	WBL queue is forecast at 164 feet
Delaware St SE & Huron Blvd SE	A/D (WBL)	WBL queue is forecast at 103 feet
Delaware St SE & 26th Ave SE	a/a (nbt)	SB queue is forecast at 50 feet
University Ave SE & 26th Ave SE	a/b (nbl)	NB queue is forecast at 43 feet
Essex St SE & 27th Ave SE	A/C (WBT)	SB queue is forecast at 62 feet
Delaware St SE & 27th Ave SE	a/a (wbl)	EB queue is forecast at 56 feet
University Ave Se & 27th Ave SE	B/C (WBTL)	WBLT is forecast at 197 feet

1. Overall LOS reported from SimTraffic delay calculations. First letter represents intersection LOS, while second letter represents worst LOS of individual approach. Upper case letters indicate signalized intersections, and lower case letters indicate unsignalized intersections.
2. 95th percentile queues are a result from an average of 10 SimTraffic simulations.

Table 9
Results of 2031 No-Build Analysis – AM Peak Hour

Intersection	Level of Service[1.]	Notes/95th Percentile Queues[2]
Essex St SE & Huron Blvd SE	A/C (EBL)	WBL queue is forecast at 136 feet
Delaware St SE & Huron Blvd SE	A/C (WBL)	WBL queue is forecast at 55 feet
Delaware St SE & 26th Ave SE	a/a (nbt)	SB queue is forecast at 37 feet
University Ave SE & 26th Ave SE	a/a (nbl)	NB queue is forecast at 43 feet
Essex St SE & 27th Ave SE	A/D (WBT)	WB queue is forecast at 52 feet
Delaware St SE & 27th Ave SE	a/a (ebl)	EB queue is forecast at 51 feet
University Ave Se & 27th Ave SE	B/C (WBTL)	WBLT is forecast at 196 feet

1. Overall LOS reported from SimTraffic delay calculations. First letter represents intersection LOS, while second letter represents worst LOS of individual approach. Upper case letters indicate signalized intersections, and lower case letters indicate unsignalized intersections.
2. 95th percentile queues are a result from an average of 10 SimTraffic simulations.

Table 10
Results of 2031 No-Build Analysis – PM Peak Hour

Intersection	Level of Service[1.]	Notes/95th Percentile Queues[2]
Essex St SE & Huron Blvd SE	A/C (WBL)	WBL queue is forecast at 161 feet
Delaware St SE & Huron Blvd SE	A/C (WBL)	WBL queue is forecast at 117 feet
Delaware St SE & 26th Ave SE	a/a (nbt)	SB queue is forecast at 51 feet
University Ave SE & 26th Ave SE	a/a (nbl)	NB queue is forecast at 41 feet
Essex St SE & 27th Ave SE	A/D (WBT)	WB queue is forecast at 67 feet
Delaware St SE & 27th Ave SE	a/a (ebl)	EB queue is forecast at 62 feet
University Ave Se & 27th Ave SE	B/C (WBTL)	WBLT is forecast at 222 feet

1. Overall LOS reported from SimTraffic delay calculations. First letter represents intersection LOS, while second letter represents worst LOS of individual approach. Upper case letters indicate signalized intersections, and lower case letters indicate unsignalized intersections.
2. 95th percentile queues are a result from an average of 10 SimTraffic simulations.

Results of the analysis contained in Tables 7, 8, 9, and 10 indicate that all study area intersections are projected to operate at an acceptable overall LOS for the 2026 and 2031 No-Build conditions. The 95th percentile queues are managed within the existing infrastructure without impacting turning movements at adjacent intersections. Observation of the SimTraffic simulation indicate the forecast queues clear within one cycle.

A-3. BUILD ALTERNATIVE

A. Site-Generated Traffic

Table 11 summarizes the vehicle trip generation estimate calculated for the proposed Union Stadium Village development using the Institute of Transportation Engineers' (ITE's) Trip Generation Manual, 10th Edition. The numbers shown reflect statistics from dense urban Off-Campus Student Housing and the potential retail uses. The land Use Codes 225 for the student housing, 863 for electronics store, 876 for apparel store, 879 for arts and crafts and 918 for hair salon were used to estimate the site-generated traffic.

Table 11
Vehicle Trip Generation Estimates – Proposed Land Use

Land Use	ITE Code	Size	AM Enter	AM Exit	PM Enter	PM Exit
Off-Campus Student Housing	225	617 units	30 Trips	44 Trips	77 Trips	77 Trips
Electronics Store	863	1,156 sf	N/A	N/A	2 Trips	2 Trips
Apparel Store	876	1,156 sf	N/A	N/A	2 Trips	2 Trips
Arts and Crafts	879	1,156 sf	N/A	N/A	3 Trips	3 Trips
Hair or Nail Salon	918	1,156 sf	1 Trip	0 Trips	0 Trips	1 Trip
Total Vehicle Trips			**75 Trips**		**169 Trips**	

The area surrounding the University of Minnesota has multi-modal character. Table 12 summarizes the forecasted person trips associated with the residential development. In this case, there are not statistics available for student housing, so statics from High Rise Multi-family housing was used.

Table 12
Person Trip Generation Estimates – Proposed Land Use

Land Use	ITE Code	Size	AM Enter	AM Exit	PM Enter	PM Exit
High Rise Multi-Family	222	617 units	95 Trips	355 Trips	218 Trips	152 Trips
Total Person Trips			**450 Trips**		**370 Trips**	

It is noted, that person trips refer to trips made to or from a site by each individual person using any mode of transportation (personal vehicle, walking, bicycling, transit, etc.). In this case, the site is expected to generate 450 person trips during the AM peak of which 75 will be vehicle trips, and 370 person trips during the PM peak 169 of which will be vehicle trips.

B. Trip Distribution and Assignment

The distribution of site-generated vehicle traffic from and to the adjacent street system was based on distribution patterns within the study area. The estimated vehicle trips from Table 11 were assigned across the study area roadway network. Figure 6 illustrates the AM and PM trip assignment on the network. These trips were combined with the 2026 and 2031 No-Build peak hour volumes to represent the 2026 and 2031 Build volumes. Figures 7 and 8 illustrate the 2026 and 2031 Build AM and PM Peak Hour volumes through the study area, respectively.

C. Results of Analysis: Build Scenario

This section contains the results of the Build intersection operational analyses and provides recommendations for mitigating project-related traffic impacts, as necessary. It is noted that the observed signal timings were utilized in the Build analysis. A summary of the results from the analysis representing the 2026 Build conditions are presented in Table 13 for the AM Peak hour and Table 14 for the PM Peak hour, and summary of the 2031 Build conditions are presented in Table 15 for the AM Peak hour and Table 16 for the PM Peak hour.

Table 13
Results of 2026 Build Analysis – AM Peak Hour

Intersection	Level of Service[1.]	Notes/95th Percentile Queues[2]
Essex St SE & Huron Blvd SE	A/C (EBL)	WBL queue is forecast at 171 feet
Delaware St SE & Huron Blvd SE	A/C (WBL)	WBL queue is forecast at 59 feet
Delaware St SE & 26th Ave SE	a/a (nbt)	SB queue is forecast at 44 feet
University Ave SE & 26th Ave SE	a/a (nbl)	NB queue is forecast at 48 feet
Essex St SE & 27th Ave SE	A/D (WBT)	WB queue is forecast at 66 feet
Delaware St SE & 27th Ave SE	a/a (wbt)	EB queue is forecast at 58 feet
University Ave Se & 27th Ave SE	B/C (WBTL)	WBLT is forecast at 175 feet
Delaware St SE & Site Access	a/a (sbl)	SB queue is forecast at 56 feet

1. Overall LOS reported from SimTraffic delay calculations. First letter represents intersection LOS, while second letter represents worst LOS of individual approach. Upper case letters indicate signalized intersections, and lowercase letters indicate unsignalized intersections.
2. 95th percentile queues are a result from an average of 10 SimTraffic simulations.

Table 14
Results of 2026 Build Analysis – PM Peak Hour

Intersection	Level of Service[1.]	Notes/95th Percentile Queues[2]
Essex St SE & Huron Blvd SE	A/C (WBL)	WBL queue is forecast at 175 feet
Delaware St SE & Huron Blvd SE	A/C (WBL)	WBL queue is forecast at 117 feet
Delaware St SE & 26th Ave SE	a/a (nbt)	SB queue is forecast at 41 feet
University Ave SE & 26th Ave SE	a/b (nbl)	NB queue is forecast at 48 feet
Essex St SE & 27th Ave SE	A/D (WBL)	WB queue is forecast at 62 feet
Delaware St SE & 27th Ave SE	a/a (wbt)	EB queue is forecast at 72 feet
University Ave Se & 27th Ave SE	B/D (WBTL)	WBLT is forecast at 184 feet
Delaware St SE & Site Access	a/a (sbl)	SB queue is forecast at 62 feet

1. Overall LOS reported from SimTraffic delay calculations. First letter represents intersection LOS, while second letter represents worst LOS of individual approach. Upper case letters indicate signalized intersections, and lowercase letters indicate unsignalized intersections.
2. 95th percentile queues are a result from an average of 10 SimTraffic simulations.

Table 15
Results of 2031 Build Analysis – AM Peak Hour

Intersection	Level of Service[1.]	Notes/95th Percentile Queues[2]
Essex St SE & Huron Blvd SE	A/C (EBL)	WBL queue is forecast at 149 feet
Delaware St SE & Huron Blvd SE	A/C (WBL)	SBTL queue is forecast at 56 feet
Delaware St SE & 26th Ave SE	a/a (nbt)	SB queue is forecast at 41 feet
University Ave SE & 26th Ave SE	a/a (nbl)	NB queue is forecast at 43 feet
Essex St SE & 27th Ave SE	A/C (WBT)	WB queue is forecast at 47 feet
Delaware St SE & 27th Ave SE	a/a (wbt)	EB queue is forecast at 57 feet
University Ave Se & 27th Ave SE	B/C (WBTL)	WBLT is forecast at 206 feet
Delaware St SE & Site Access	a/a (sbl)	SB queue is forecast at 53 feet

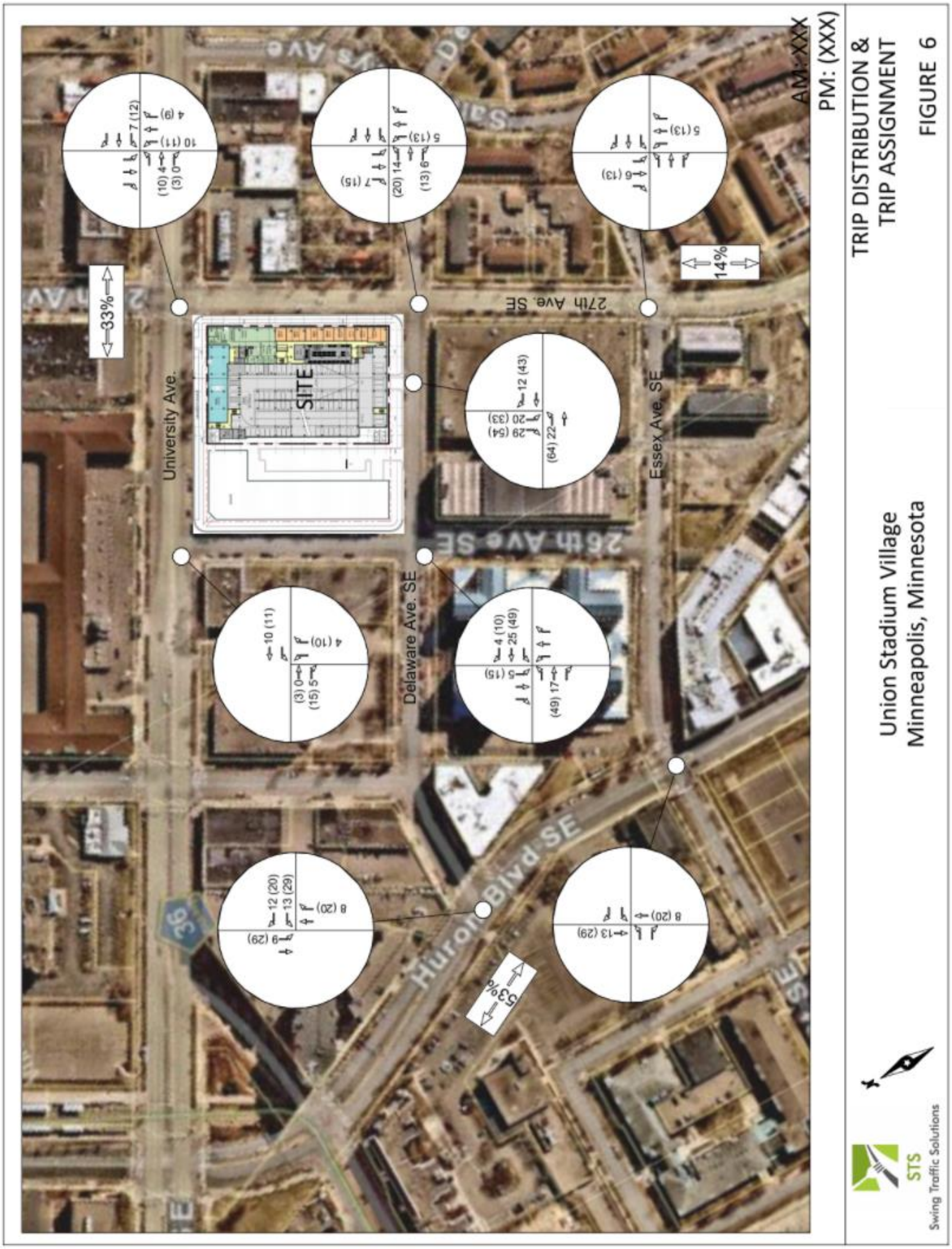
1. Overall LOS reported from SimTraffic delay calculations. First letter represents intersection LOS, while second letter represents worst LOS of individual approach. Upper case letters indicate signalized intersections, and lower case letters indicate unsignalized intersections.
2. 95th percentile queues are a result from an average of 10 SimTraffic simulations.

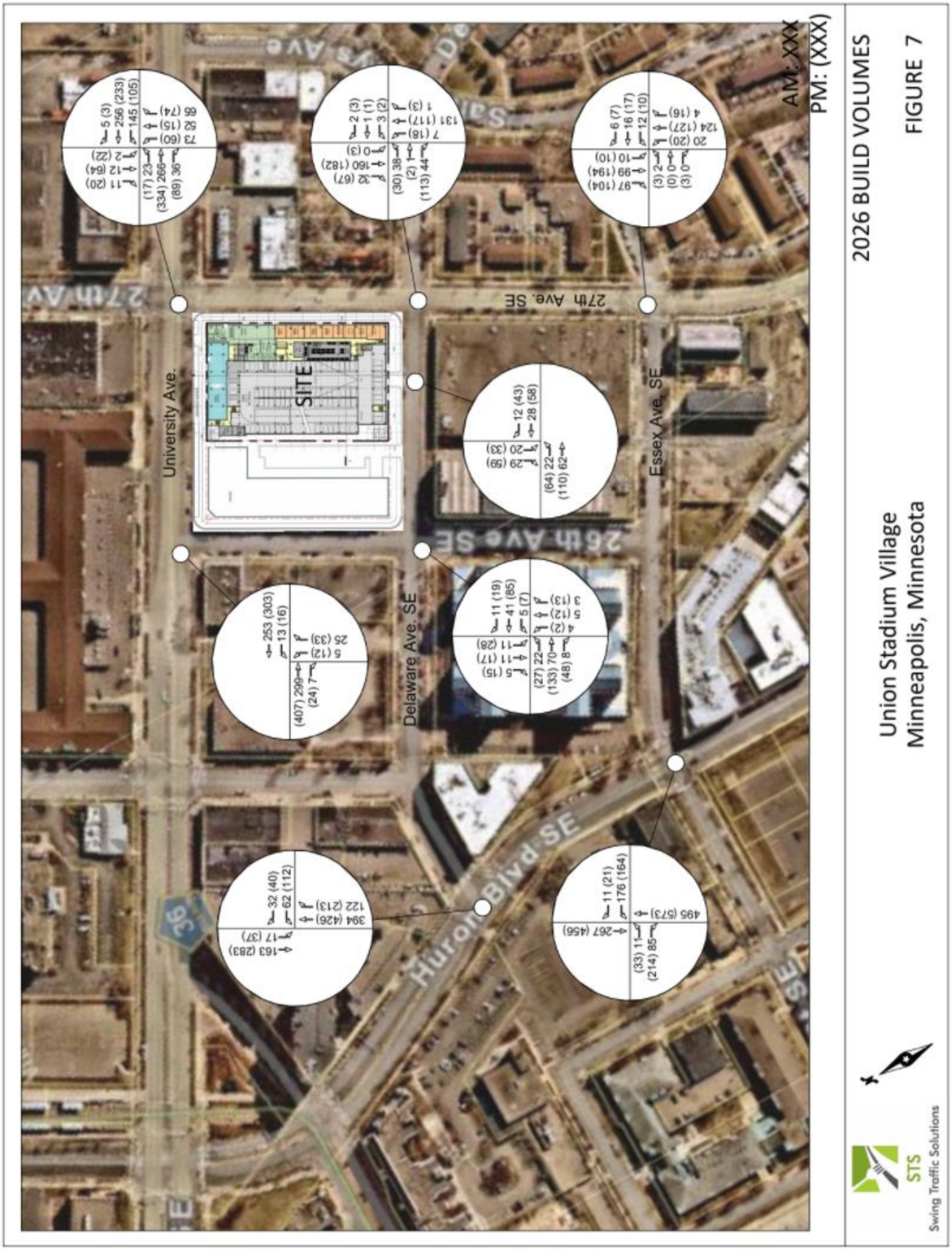
Table 16
Results of 2031 Build Analysis – PM Peak Hour

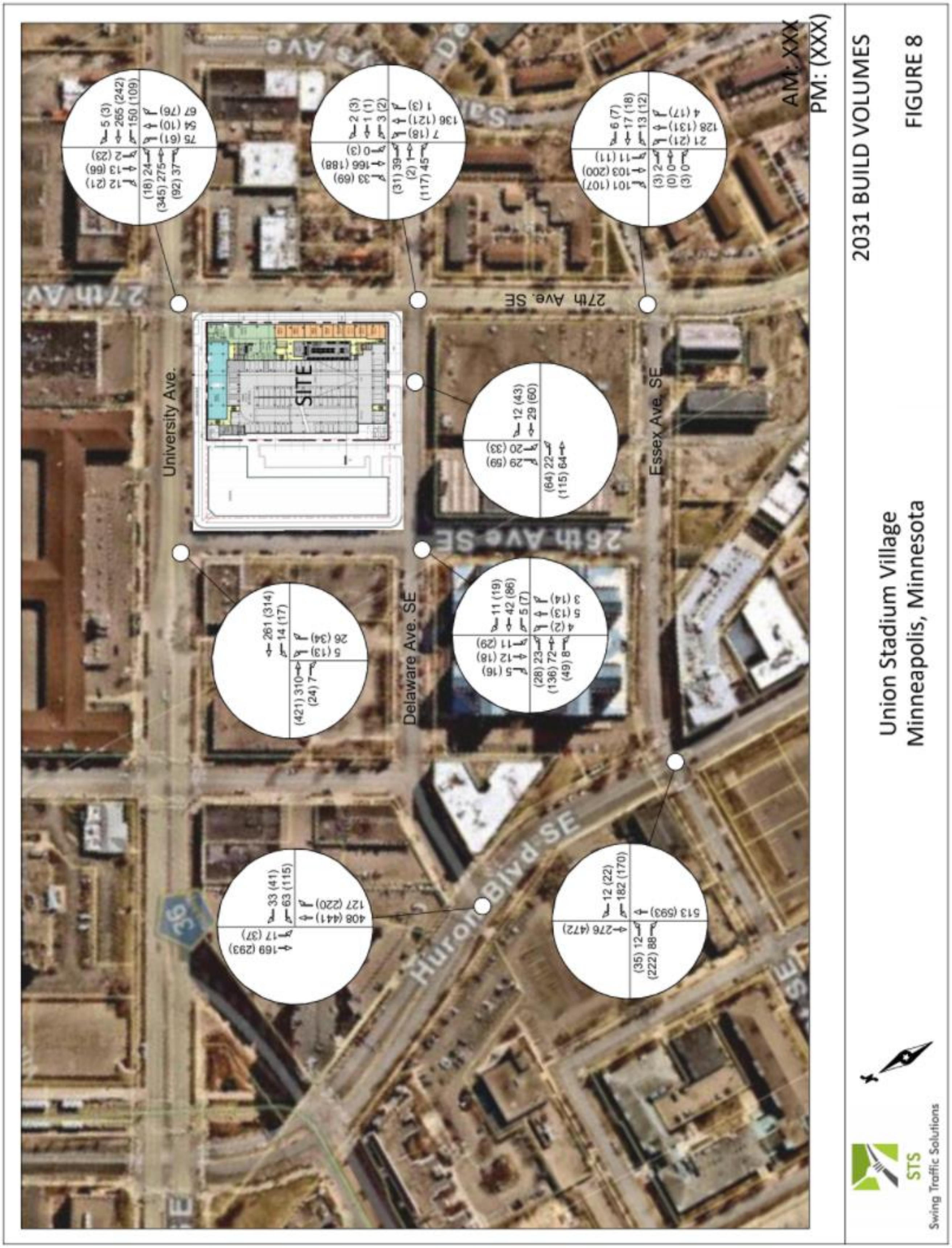
Intersection	Level of Service[1.]	Notes/95th Percentile Queues[2]
Essex St SE & Huron Blvd SE	A/C (WBL)	WBL queue is forecast at 172 feet
Delaware St SE & Huron Blvd SE	A/C (WBL)	WBL queue is forecast at 111 feet
Delaware St SE & 26th Ave SE	a/a (nbt)	SB queue is forecast at 51 feet
University Ave SE & 26th Ave SE	a/a (nbl)	NB queue is forecast at 44 feet
Essex St SE & 27th Ave SE	A/C (WBL)	SB queue is forecast at 74 feet
Delaware St SE & 27th Ave SE	a/a (wbt)	EB queue is forecast at 56 feet
University Ave Se & 27th Ave SE	B/C (WBTL)	WBLT is forecast at 202 feet
Delaware St SE & Site Access	a/a (sbl)	SB queue is forecast at 55 feet

1. Overall LOS reported from SimTraffic delay calculations. First letter represents intersection LOS, while second letter represents worst LOS of individual approach. Upper case letters indicate signalized intersections, and lower case letters indicate unsignalized intersections.
2. 95th percentile queues are a result from an average of 10 SimTraffic simulations.

Results of the analysis of the 2026 and 2031 Build conditions for the proposed Union Stadium Village student housing development summarized in Tables 13, 14, 15, and 16 indicate that all study area intersections are projected to operate at an acceptable overall LOS with the addition of site-generated traffic. Again, the 95th percentile queues are accommodated within the existing infrastructure without impacting turning movements at the adjacent intersections, and observations of the SimTraffic simulation indicate the forecast 95th percentile queues clear within one cycle.


AM: XXX
PM: (XXX)
TRIP DISTRIBUTION &
TRIP ASSIGNMENT
FIGURE 6
Union Stadium Village
Minneapolis, Minnesota
STS
Swing Traffic Solutions
University Ave.
Delaware Ave. SE
Essex Ave. SE
27th Ave. SE
26th Ave SE
Huron Blvd SE
SITE
33%
14%
53%


2026 BUILD VOLUMES
FIGURE 7
Union Stadium Village
Minneapolis, Minnesota
AM: XXX
PM: (XXX)
University Ave.
Delaware Ave. SE
Essex Ave. SE
27th Ave. SE
26th Ave SE
Huron Blvd SE
SITE
STS
Swing Traffic Solutions


2031 BUILD VOLUMES
FIGURE 8
Union Stadium Village
Minneapolis, Minnesota
AM: XXX
PM: (XXX)
University Ave.
Delaware Ave. SE
Essex Ave. SE
27th Ave. SE
26th Ave SE
Huron Blvd SE
SITE
STS
Swing Traffic Solutions

A-4. CONCLUSIONS

The preceding analysis has evaluated the potential traffic impacts of the proposed 16-story Union Stadium Village off campus student housing development, with approximately 4,625 square feet of supporting retail, on the operations of the study area intersections surrounding the site. The site is located within half a mile east of the University of Minnesota campus.

Four scenarios, 2026 and 2031 No-Build, and 2026 and 2031 Build, were analyzed and compared to assess the development's impact of vehicular traffic to the roadway system. The Proposed Plan consists of 617 - apartment units and approximately 4,625 square feet of retail uses. The results of the traffic operational analysis indicate no change in operations at the studied intersections and good operations at the site access.

Development of the Proposed Plan is expected to generate 75 AM Peak hour vehicle trips and 169 PM Peak hour vehicle trips on the study area roadways. Further the Proposed Plan will generate 375 AM Peak hour non-vehicle trips and 201 PM Peak hour non-vehicle trips. It is noted with all the bicycle, pedestrian and transit opportunities present in and around the site, vehicular trip generation will remain low.