

**Agenda  
Planning Commission  
City Of Edina, Minnesota  
City Hall, Council Chambers**

**Wednesday, September 22, 2021  
7:00 PM**

**Watch the meeting on cable TV or at [EdinaMN.gov/LiveMeetings](http://EdinaMN.gov/LiveMeetings) or [Facebook.com/EdinaMN](https://www.facebook.com/EdinaMN).**

**To participate in Public Hearings:  
Call 800-374-0221.**

**Enter Conference ID 1477052.**

**Give the operator your name, street address and telephone number.**

**Press \*1 on your telephone keypad when you would like to get in the queue to speak.**

**A City staff member will introduce you when it is your turn.**

**Or attend the meeting to provide testimony, City Hall Council Chambers, 4801 W.  
50<sup>th</sup> St.**

- I. Call To Order
- II. Roll Call
- III. Approval Of Meeting Agenda
- IV. Approval Of Meeting Minutes
  - A. Minutes: Planning Commission August 25, 2021
- V. Community Comment

*During "Community Comment," the Board/Commission will invite residents to share relevant issues or concerns. Individuals must limit their comments to three minutes. The Chair may limit the number of speakers on the same issue in the interest of time and topic. Generally speaking, items that are elsewhere on tonight's agenda may not be addressed during Community Comment. Individuals should not expect the Chair or Board/Commission Members to respond to their comments tonight. Instead, the Board/Commission might refer the matter to staff for consideration at a future meeting.*

- VI. Public Hearings
  - A. B-21-28: Front Yard Setback Variance at 313 Griffit Street
  - B. B-21-26, variance request for 5101 Windsor Ave.
  - C. B-21-29 Variance request 5615 Woodcrest

- D. Preliminary Rezoning & Preliminary Development Plan with Variances for City Homes at 4630 France Avenue
- E. Site Plan Review with Variances – 6500 Barrie Road

VII. Reports/Recommendations

- A. Zoning Ordinance Amendments - Impervious Surface, Basements, 1-foot rule and setback definitions
- B. 2022 Planning Commission Work Plan

VIII. Chair And Member Comments

IX. Staff Comments

X. Adjournment

The City of Edina wants all residents to be comfortable being part of the public process. If you need assistance in the way of hearing amplification, an interpreter, large-print documents or something else, please call 952-927-8861 72 hours in advance of the meeting.





## CITY OF EDINA

4801 West 50th Street

Edina, MN 55424

[www.edinamn.gov](http://www.edinamn.gov)

**Date:** September 22, 2021

**Agenda Item #:** IV.A.

**To:** Planning Commission

**Item Type:**

Minutes

**From:** Liz Olson, Administrative Support Specialist

**Item Activity:**

**Subject:** Minutes: Planning Commission August 25, 2021

Action

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### **ACTION REQUESTED:**

Approve the minutes from the August 25, 2021 Planning Commission.

### **INTRODUCTION:**

### **ATTACHMENTS:**

Minutes August 25, 2021



Minutes  
City Of Edina, Minnesota  
Planning Commission  
Edina City Hall Council Chambers  
August 25, 2021

**I. Call To Order**

Vice Chair Agnew called the meeting to order at 7:00 PM.

**II. Roll Call**

Answering the roll call were: Commissioners Miranda, Bennett, Berube, Strauss, Alkire, Olsen, Chair Nemerov (Virtual) and Vice Chair Agnew. Staff Present: Cary Teague, Community Development Director, Kris Aaker, Assistant Planner, Emily Bodeker, Assistant Planner, and Bill Neuendorf, Economic Development Manager.

Absent from the roll call: Commissioner Bartling.

**III. Approval Of Meeting Agenda**

**Commissioner Strauss moved to approve the August 25, 2021 agenda. Commissioner Berube seconded the motion. Motion carried unanimously.**

**IV. Approval Of Meeting Minutes**

**A. Minutes: Planning Commission, August 11, 2021**

**Commissioner Berube moved to approve the August 11, 2021, meeting minutes. Commissioner Alkire seconded the motion. Motion carried unanimously.**

**V. Community Comment**

Ms. Janie Weston, 6136 Brookview Avenue, addressed the Commission on “The View 44 Luxury Apartments” on Valleyview Road.

**VI. Public Hearings**

**A. B-21-25, a 3.75 Foot First Floor Elevation Variance for a New Home at 4230 Crocker Avenue S.**

Assistant Planner Aaker presented the request for a 3.75 first floor elevation variance. Staff recommended approval of the variance, as requested subject to the findings and conditions listed in the staff report.

Staff answered Commission questions.

### **Appearing for the Applicant**

Mr. Tim Bellin, representing owner of the property, introduced himself and addressed the Commission.

### **Public Hearing**

Ms. Janie Westin, 6136 Brookview Avenue, addressed the Commission and indicated she was in favor of the variance.

**Commissioner Berube moved to close the public hearing. Commissioner Miranda seconded the motion. Motion carried unanimously.**

The Commission discussed the variance.

### **Motion**

**Commissioner Strauss moved that the Planning Commission recommend approval to the City Council of the 3.75-foot first floor elevation variance for a new home at 4230 Crocker Avenue So. as outlined in the staff memo subject to the conditions and findings therein. Commissioner Alkire seconded the motion. Motion carried unanimously.**

Video of the meeting is available on the City website for review of detailed comments.

Commissioner Bennett arrived at 7:28 p.m.

### **B. B-21-9, an 81.4 Foot Variance from the Required 98.7 Foot Front Yard Setback for a New Home at 6716 Arrowhead Pass**

Assistant City Planner Bodeker presented the request for an 81.4-foot variance. Staff recommends approval of the variance, as requested subject to the findings and conditions listed in the staff report.

Staff answered Commission questions.

### **Appearing for the Applicant**

Mr. Nate Pribyl, Valley Partners, introduced himself and addressed the Commission and answered questions.

### **Public Hearing**

Mr. Eric Perkins, 6715 Indian Hills Road, addressed the Commission and indicated he did not have any issues with the project.

**Commissioner Alkire moved to close the public hearing. Commissioner Berube seconded the motion. Motion carried unanimously.**

The Commission discussed the variance and offered the following comments:

- Unusual lot with challenges.
- Almost impossible to meet the front yard setback without this variance.
- Significant distance from the street.
- There is nothing typical with this lot.

### **Motion**

**Commissioner Berube moved that the Planning Commission recommend approval to the City Council of the front yard setback variance as outlined in the staff memo subject to the conditions and findings therein. Commissioner Miranda seconded the motion. Motion carried unanimously.**

Video of the meeting is available on the City website for review of detailed comments.

## **VII. Reports/Recommendations**

### **A. Zoning Ordinance Amendments – Impervious Surface, Basements, 1-Foot Rule and Setback Definitions**

Director Teague presented the Zoning Ordinance Amendments. The Commission is asked to direct staff to set a public hearing date and post the ordinance on Better Together Edina.

Staff answered Commission questions. Staff will come back to the Planning Commission at its next meeting with an updated draft of the ordinance based on Commission feedback. No public hearing date was set.

Video of the meeting is available on the City website for review of detailed comments.

### **B. Sketch Plan Review – 7300 West Bush Lake Road**

Director Teague presented the request for a sketch plan review.

Staff answered Commission questions.

### **Appearing for the Applicant**

Mr. Nicholas Sperides, Sperides Reiners Architect, Inc, introduced himself and addressed the Commission and answered questions.

The Commission discussed the sketch plan and offered the following comments:

- Add more landscaping
- The future use of this being an industrial park and if it is the City's vision for the area
- Parking seems to be adequate for the area with on street parking available
- Rare opportunity to connect areas for bike and pedestrian traffic
- Needs bike and pedestrian pathways

Video of the meeting is available on the City website for review of detailed comments.

**C. Resolution B-21-27: Finding that the Southdale 2 Tax Increment Financing Plan with Modification #4 is Consistent with the Comprehensive Plan**

Economic Development Manager Bill Neuendorf presented the request for Southdale 2 TIF Plan. Staff recommends approval of the Southdale 2 TIF Plan, as requested subject to the findings and conditions listed in the staff report.

Staff answered Commission questions.

**Motion**

**Commissioner Berube moved that the Planning Commission recommend approval to the City Council of the Southdale 2 Tax Increment Financing Plan modifications as outlined in the staff memo subject to the conditions and findings therein. Commissioner Alkire seconded the motion. Motion carried unanimously.**

Video of the meeting is available on the City website for review of detailed comments.

**VIII. Chair and Member Comments**

Received.

**IX. Staff Comments**

Received.

**X. Adjournment**

**Commissioner Strauss moved to adjourn the August 25, 2021, Meeting of the Edina Planning Commission at 9:02 PM. Commissioner Berube seconded the motion. Motion carried unanimously.**



## CITY OF EDINA

4801 West 50th Street

Edina, MN 55424

[www.edinamn.gov](http://www.edinamn.gov)

**Date:** September 22, 2021

**Agenda Item #:** VI.A.

**To:** Planning Commission

**Item Type:**  
Report and Recommendation

**From:** Emily Bodeker, Assistant City Planner

**Item Activity:**  
Action

**Subject:** B-21-28: Front Yard Setback Variance at 313 Griffit Street

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### ACTION REQUESTED:

Approve the variance as submitted.

### INTRODUCTION:

The applicant is requesting a 6.3-foot front yard setback variance for a second-floor addition. The existing first floor of the home has a non-conforming front yard setback. The applicant is requesting the variance for an addition that continues the non-conformity on a new floor. The proposed addition will not be any closer to the front property line than the existing first floor.

### ATTACHMENTS:

Staff Report

Engineering Memo

Applicant Submittal

Site Location Map

Better Together Public Hearing Comment Report 9-16-21 Noon



**Date:** September 22, 2021

**To:** PLANNING COMMISSION

**From:** Emily Bodeker, Assistant City Planner

**Subject:** B-21-28, a 6.3-foot front yard setback variance for a second-floor addition at 313 Griffit Street

## **Information / Background:**

The subject property, 313 Griffit Street, is located on the east side of Griffit Street, north of Belmore Lane and south of Spruce Road. The existing structure is a split-level home with a two-car garage built in 1957.

The applicant is requesting a 6.3-foot front yard setback variance for a second-floor addition. The existing first floor of the home has a non-conforming front yard setback. The applicant is requesting the variance for an addition that continues the non-conformity on a new floor. The proposed addition will not be any closer to the front property line than the existing first floor.

The required front yard setback is 37.1 feet. The required front yard setback is based on the existing setback on the property to the north. The lot to the south of the subject property is a vacant, city owned parcel which is part of a pond.

With exception of the front yard setback, the proposed project meets all other zoning requirements.

## **Surrounding Land Uses**

Northerly:	Single Unit residential homes zoned R-I and guided low-density residential
Easterly:	Single Unit residential homes; zoned R-I and guided low-density residential.
Southerly:	Single Unit residential homes; zoned R-I and guided low-density residential.
Westerly:	Single Unit residential homes; zoned R-I and guided low-density residential.



## Existing Site Features

The subject property, 313 Griffit Street, was built in 1957. The lot is 13, 504 square feet and is located on the east side of Griffit Street, west of the pond. The existing dwelling is a split-level home with a two-car garage.

## Planning

Guide Plan designation: Low Density Residential  
Zoning: R-1, Single Dwelling Unit District

## Grading & Drainage

The Engineering Department has reviewed the application and submitted with comments as attached in their September 14, 2021, memorandum.

**Compliance Table**

	City Standard	Proposed
North Side – Side yard	10 feet	9.2 feet (Existing non-conforming, no change proposed)
West Side – Front Yard	37.1 feet	<b>30.8 feet*</b>
South Side – Side Yard	10 feet	27.6 feet
East Side – Rear Yard	50 feet (Required setback to naturally occurring lakes and ponds)	50.5 feet
Building Coverage Lots greater than 9,000sf	25%	22%
Height	37 feet	26'8 ½"

**\*Requires a variance**

## PRIMARY ISSUES & STAFF RECOMENDATION

### Primary Issue

#### Is the proposed variance justified?

Yes. Staff believes the variance criteria is met in this instance.

**Minnesota Statutes and Edina Ordinances require that the following conditions must be satisfied affirmatively to grant a variance. The proposed variance will:**

***1) Relieve practical difficulties that prevent a reasonable use from complying with ordinance requirements.***

Reasonable use does not mean that the applicant must show the land cannot be put to any reasonable use without the variance. Rather, the applicant must show that there are practical difficulties in complying with the code and that the proposed use is reasonable.

The proposed use is permitted in the R-I Single Dwelling Unit District and the proposed addition complies with zoning standards with the exception of the side yard setback requirement. The practical difficulty is caused by the existing location of the home and the required setbacks based on the house to the north. Due to the addition being on a different floor, the non-conforming setback standard does not apply. The home will be refurbished and modified within the existing setbacks. The original home was constructed without variances.

***2) There are circumstances that are unique to the property, not common to every similarly zoned property, and that are not self-created?***

The existing house has non-conforming setbacks and was built prior to the current ordinance requirements. There were no variances granted for the original construction of the home in 1957. The proposed addition will continue the non-conforming setback on the second floor that was allowed when the home was originally built. Setback requirements have changed over time and have created non-conformities. This was not self-created by the applicant. The proposed addition conforms to all other zoning requirements.

***3) Will the variance alter the essential character of the neighborhood?***

Granting the variance will not alter the character of the neighborhood. The addition will match the non-conforming first-floor setback.

### Staff Recommendation

Approve a 6.3-foot front yard setback variance for a second-floor addition at 313 Griffit Street.

Approval is subject to the following findings:

1. The proposal meets the variance criteria. The practical difficulty is caused by the existing location of the home and existing non-conforming front yard setback.
2. The proposed addition is reasonable and was not self-created. The current house has non-conforming front yard setback and was built prior to the current setback requirements.
3. Granting the variance will not alter the character of the neighborhood.

Approval is subject to the following conditions:

1. Plans date stamped September 2, 2021.
2. Comments and conditions listed in the September 14, 2021, Engineering Memo.



**DATE:** 9/14/2021  
**TO:** Cary Teague – Planning Director  
**FROM:** Zuleyka Marquez, PE – Graduate Engineer  
**RE:** **313 Griffit St - Variance Review**

The Engineering Department has reviewed the subject property for street and utility concerns, grading, stormwater, erosion and sediment control and for general adherence to the relevant ordinance sections.

This review was performed at the request of the Planning Department; a more detailed review will be performed at the time of building permit application. Plans reviewed included floor plans, elevations, and survey dated August and September 2021.

#### *Summary of Work*

The applicant proposes a second story addition and interior remodel. The request is for a variance to the front setback.

#### *Easements*

Show existing easement (for storage of water) on survey.

#### *Grading and Drainage*

Existing and proposed site drains to backyard flooding issue prior to draining through City of Hopkins to Minnehaha Creek.

#### *Stormwater Mitigation*

Stormwater precautions not triggered or required per SP-003 standards. Any site work requires re-review.

#### *Floodplain Development*

A local 1% annual chance floodplain and structural flooding issue with an elevation of 925.2' is located onsite. Provide proposed lowest opening elevation. Per sheet A1, new window casement proposed. Provide windowsill elevation on survey. Must be no less than 927.2'.

#### *Erosion and Sediment Control*

Erosion and sediment control plan precautions not triggered or required City of Edina Building Policy SP-002.

#### *Street and Driveway Entrance*

No comment.

#### *Public Utilities*

Water and sanitary is served from Griffit St. A one-inch water service line from the curb stop to the dwelling is required per the City's policy SP-024.

#### *Miscellaneous*

A Minnehaha Creek Watershed District permit may be required, applicant will need to verify with the district. A sealed well is located onsite. Thus, coordination with Minnesota Department of Health will not be required.

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#### **ENGINEERING DEPARTMENT**

7450 Metro Boulevard • Edina, Minnesota 55439  
www.EdinaMN.gov • 952-826-0371 • Fax 952-826-0392

Date: 09/01/21

To:  
City of Edina Planning Department  
4801 West 50<sup>th</sup> Street  
Edina, MN 55424

For:  
Trevor & Becky Fladwood  
313 Griffit St  
Edina, MN 55343

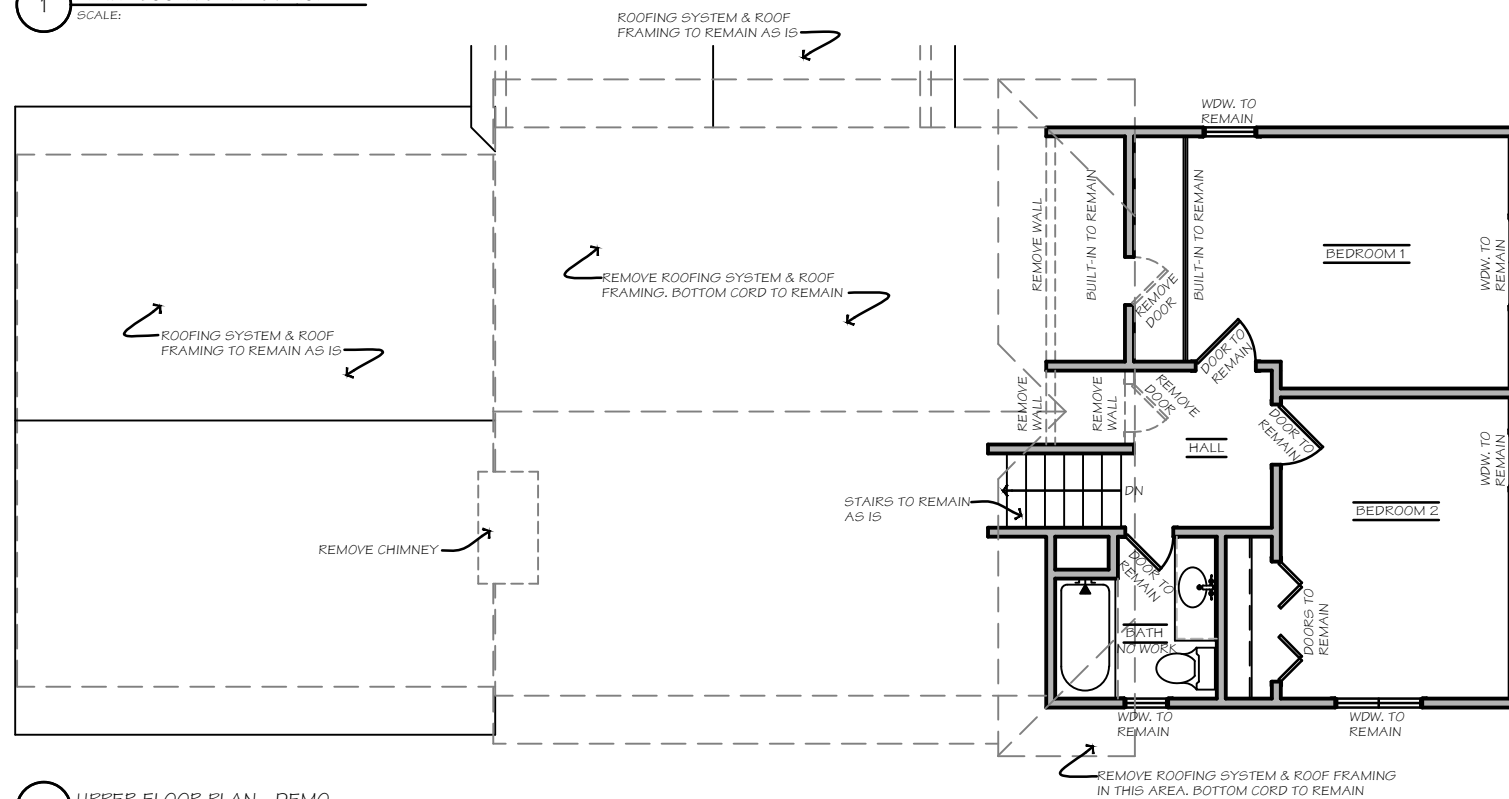
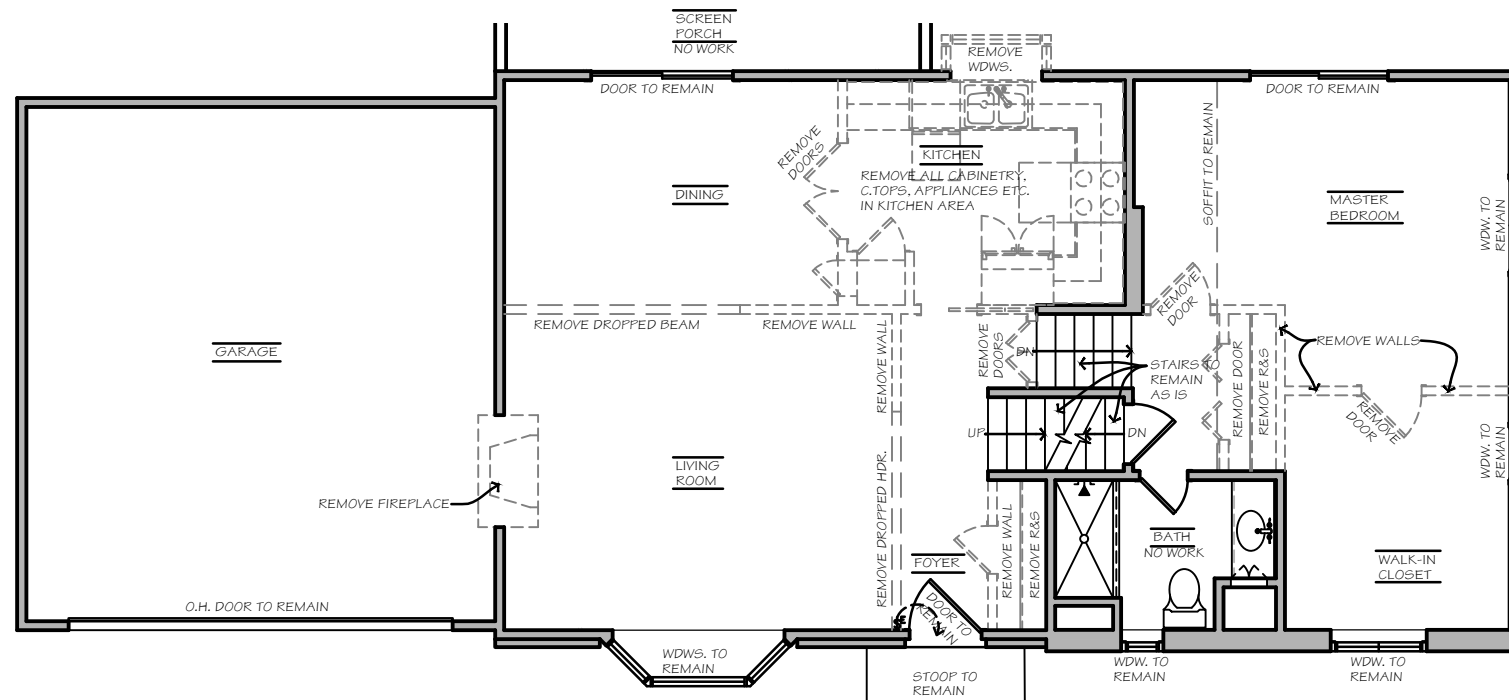
Designer/Builder:  
Plekkenpol Builders  
401 East 78<sup>th</sup> Street  
Bloomington, MN 55420

**Re: Variance Application**  
**313 Griffit St, Edina MN 55343**

**Lot description**  
**Lot 4, Block 4, Mendelssohn, Hennepin County, Minnesota**

**Variance Request:** We are requesting a front yard setback variance to allow for a second story addition. The new addition will be built directly above the existing home/foundation and does not move any portion of the home closer to the road than the existing structure. The current restrictions would prevent an addition that would allow for the desired size, aesthetic appeal, and would complicate standard building practice.

1. "Relieve practical difficulties in complying with zoning ordinance and that use is reasonable."  
Due to the language of the front yard setback requirements and the existing conditions of the home's location, the second story addition must match the front yard setback of the adjacent home or the front street setback of all other dwelling units on the same side of that street between intersections. Because the subject home is closer to the road than the 3 other homes on it's block it does not meet said requirements. The proposed addition would allow for additional bedrooms for a growing family. The homeowner would prefer to add space to the existing home rather than tear down and build new.
2. "Correct extraordinary circumstances applicable to this property but not applicable to the other property in the vicinity or zoning district."  
Although the home would meet the current 30 foot setback for new undeveloped subdivisions, it is uniquely excluded from being able to complete a second story addition because it was originally built closer to the street than the 3 neighboring homes on it's block. This presents the extraordinary circumstance that that prevents our subject home from making an improvement that the neighboring homes would have the capability to complete.
3. "Be in harmony with the general purposes and intent of the zoning ordinance."  
We believe that because the home is not moving any closer to the road than when it was originally built and because it falls within the 30 foot new subdivision requirements that it is in harmony with the general purposes/intent of the zoning ordinance.
4. "Not alter the essential Character of a neighborhood"  
The home's exterior has been designed to match it's existing style and is no taller than multiple 2 story homes within the neighborhood, specifically the block directly south of the subject home.



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**Plekkenpol**  
B U I L D E R S , I N C.  
401 East 78th Street, Bloomington, MN 55420  
tel: 952-888-2225 fax: 952-888-2259

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**REVISED:**  
8/8/21  
8/19/21

**DRAWN:**  
**DS**

2023 4: 9029

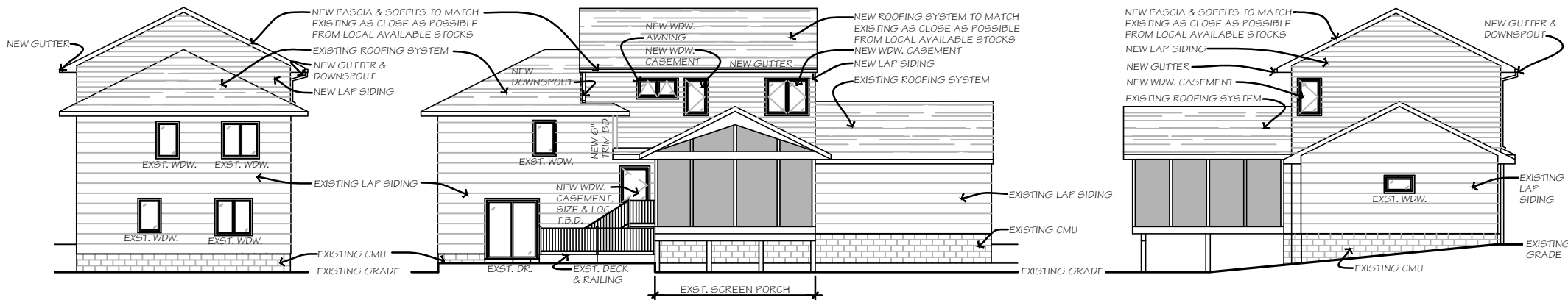
**HOME REMODEL & ADDITION**  
**FLADWOOD, TREVOR & HART, BECKY**  
212 CORSET STREET, ETOWA, MINN 55744

D1  
1 of 7





1 WEST ELEVATION  
SCALE:



2 SOUTH ELEVATION  
SCALE:



3 EAST ELEVATION  
SCALE:



4 NORTH ELEVATION  
SCALE:



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**Plekkenpol**

BUILDERS INC.

401 East 78th Street, Bloomington, MN 55420  
tel: 952-888-2225 fax: 952-888-7219

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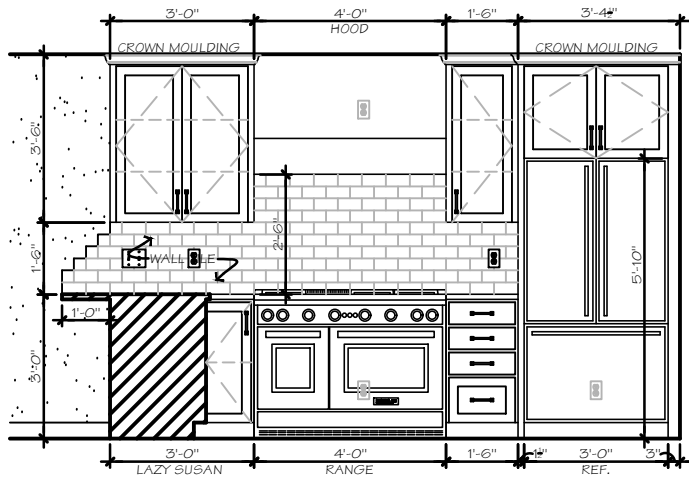
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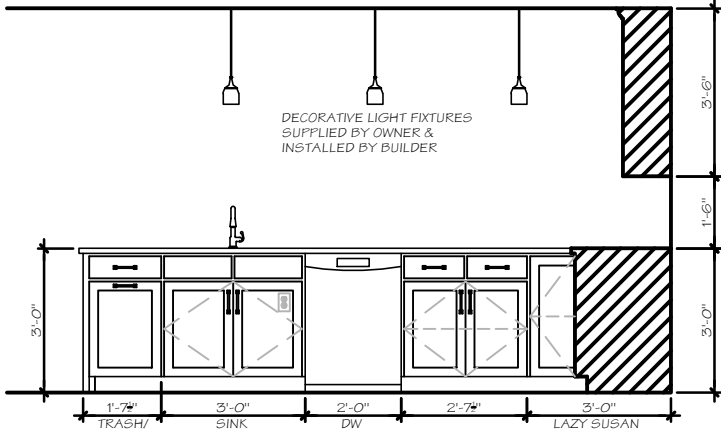
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HOME REMODEL & ADDITION  
FLADWOOD, TREVOR & HART, BECKY  
313 GRIFFIN STREET, EDINA, MN 55343  
SHEET NO. 3 of 7  
A2

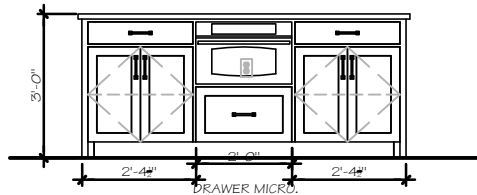




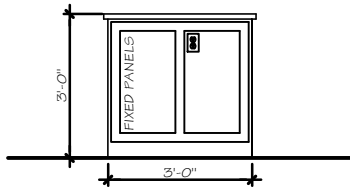
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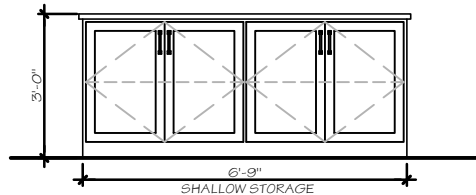
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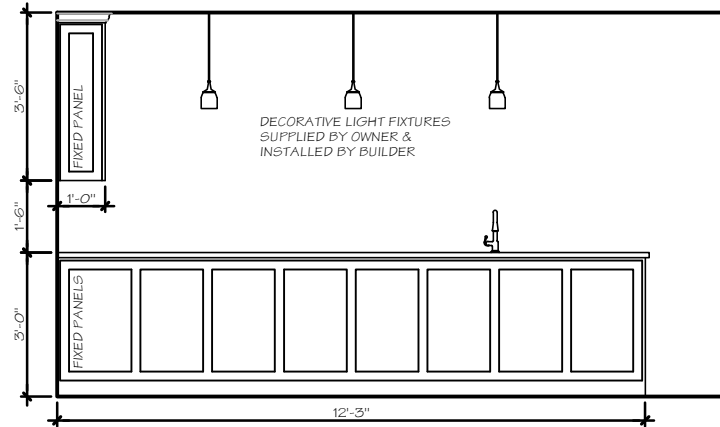
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4 KITCHEN ELEVATION  
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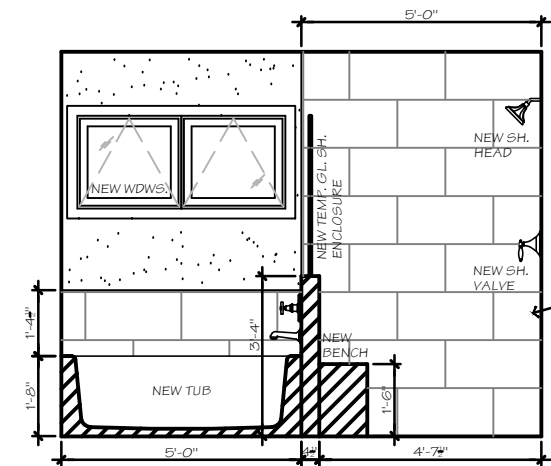
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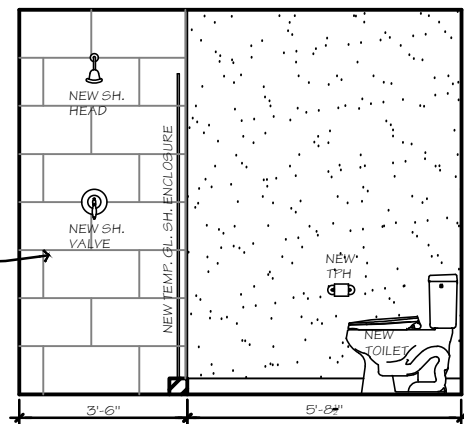
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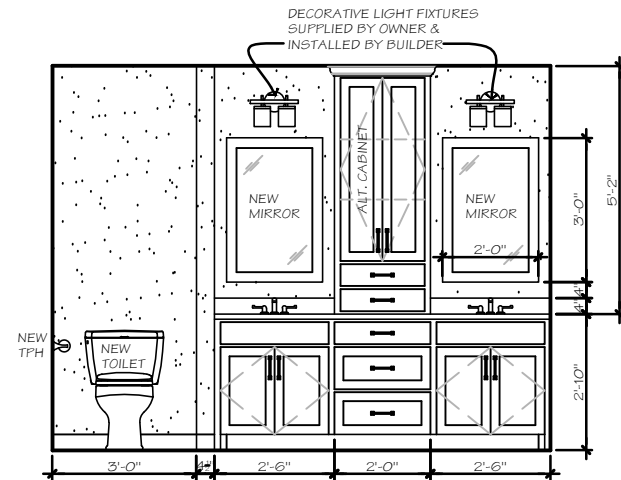
HOME REMODEL & ADDITION FLADWOOD, TREVOR & HART, BECKY 313 GRIFFIN STREET, EDINA, MN 55343 SHEET 35 A3 4 of 7		DATE: 6/10/21 JOB #: 8089	DESIGNED: 6/10/21 CHECKED: 6/10/21	REVISIONS: 6/10/21 6/10/21	RESIDENTIAL DESIGN-BUILD-REMODEL <b>Plekkenpol</b> BUILDERS, INC. 401 East 78th Street, Bloomington, MN 55420 Tel: 952-888-2225 Fax: 952-888-7219	
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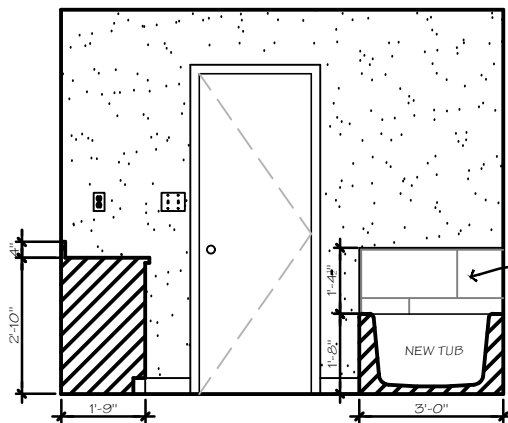
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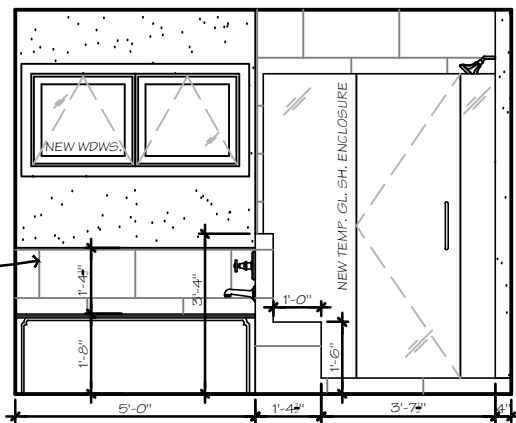
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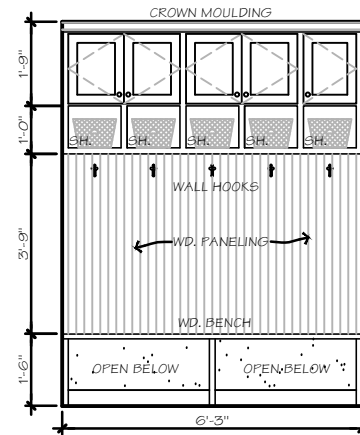
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5 MSTR. BATH ELEVATION  
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6 FOYER ELEVATION  
SCALE: 1/8" = 1'-0"



**HOME REMODEL & ADDITION**  
**FLADWOOD, TREVOR & HART, BECKY**  
 313 GRIFFIT STREET, EDINA, MN 55343  
 6/19/21

**REVISIONS:**  
 6/19/21  
 6/19/21

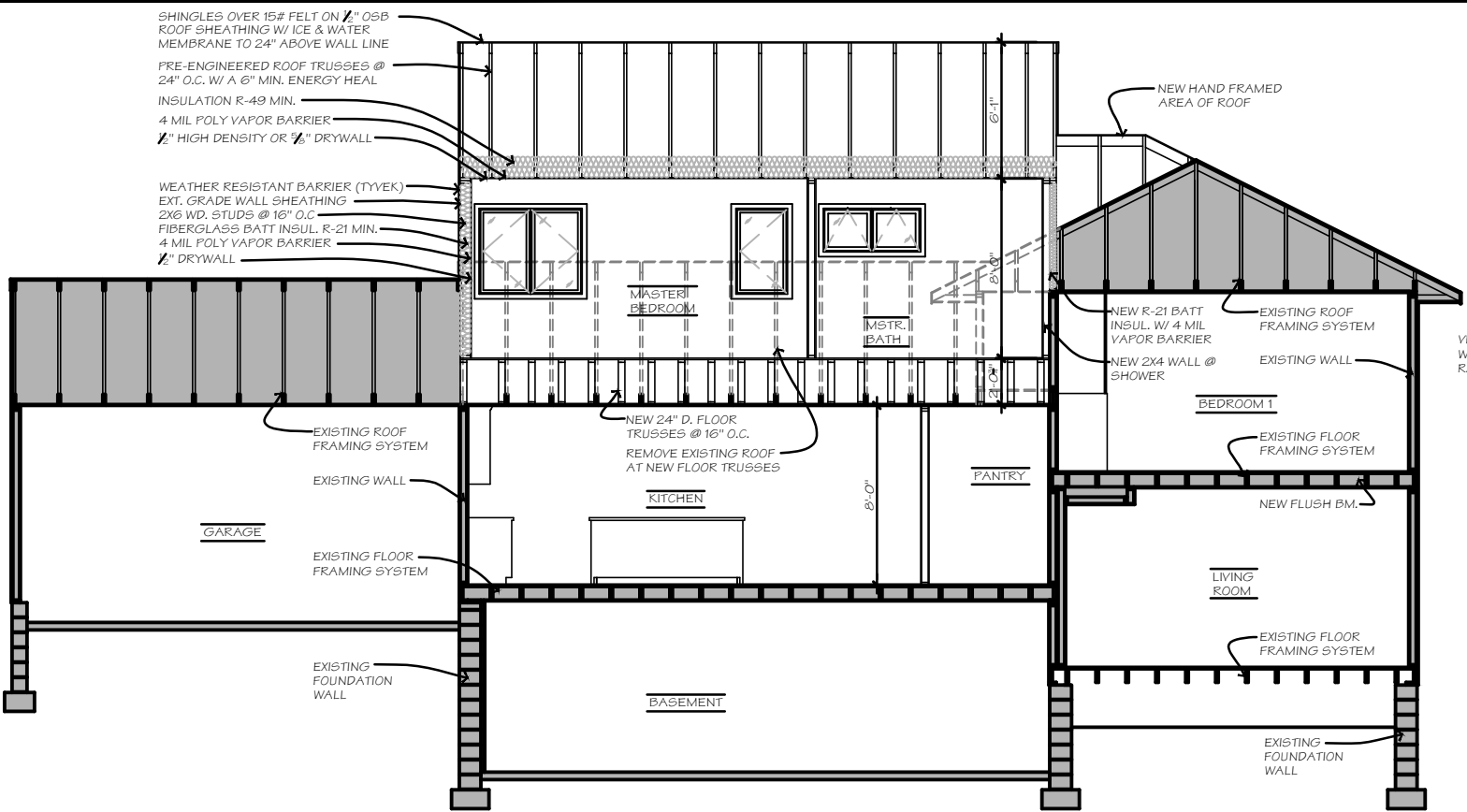
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**BY:**  
 BT / PV

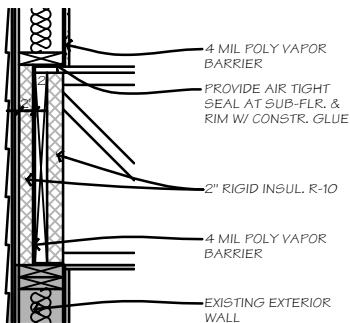
**RESIDENTIAL DESIGN-BUILD-REMODEL**  
**Plekkenpol BUILDERS INC.**  
 401 East 78th Street, Bloomington, MN 55420  
 Tel: 952-888-2225 Fax: 952-888-7219

**JOB #:** 8028

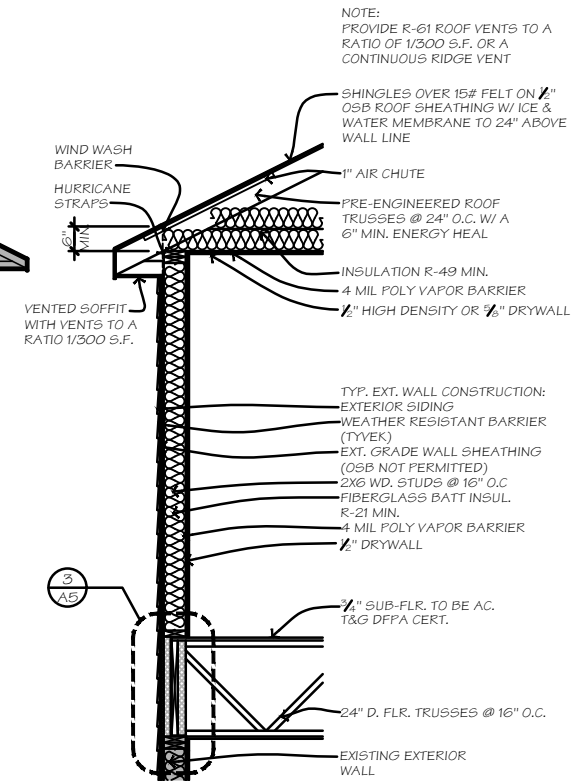
**SHEET #:** 5 of 7



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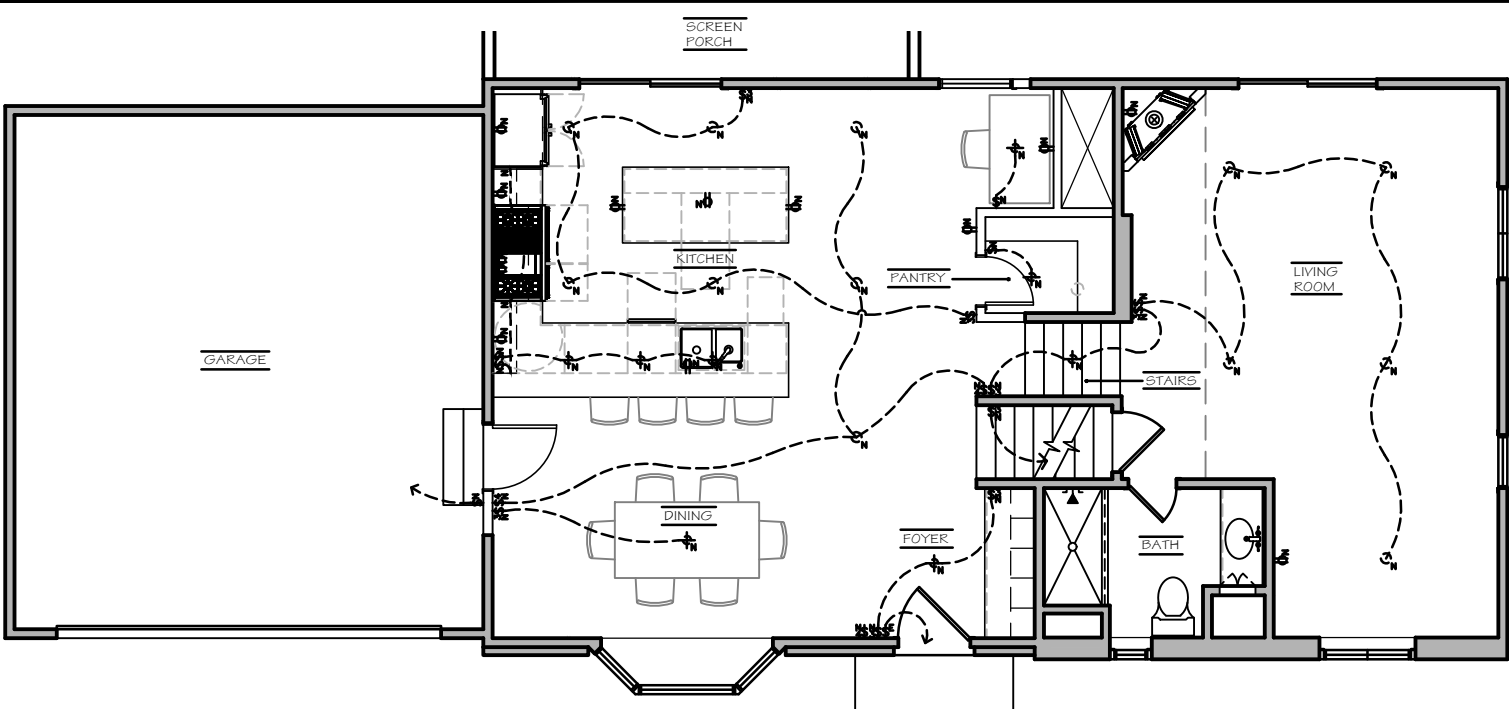


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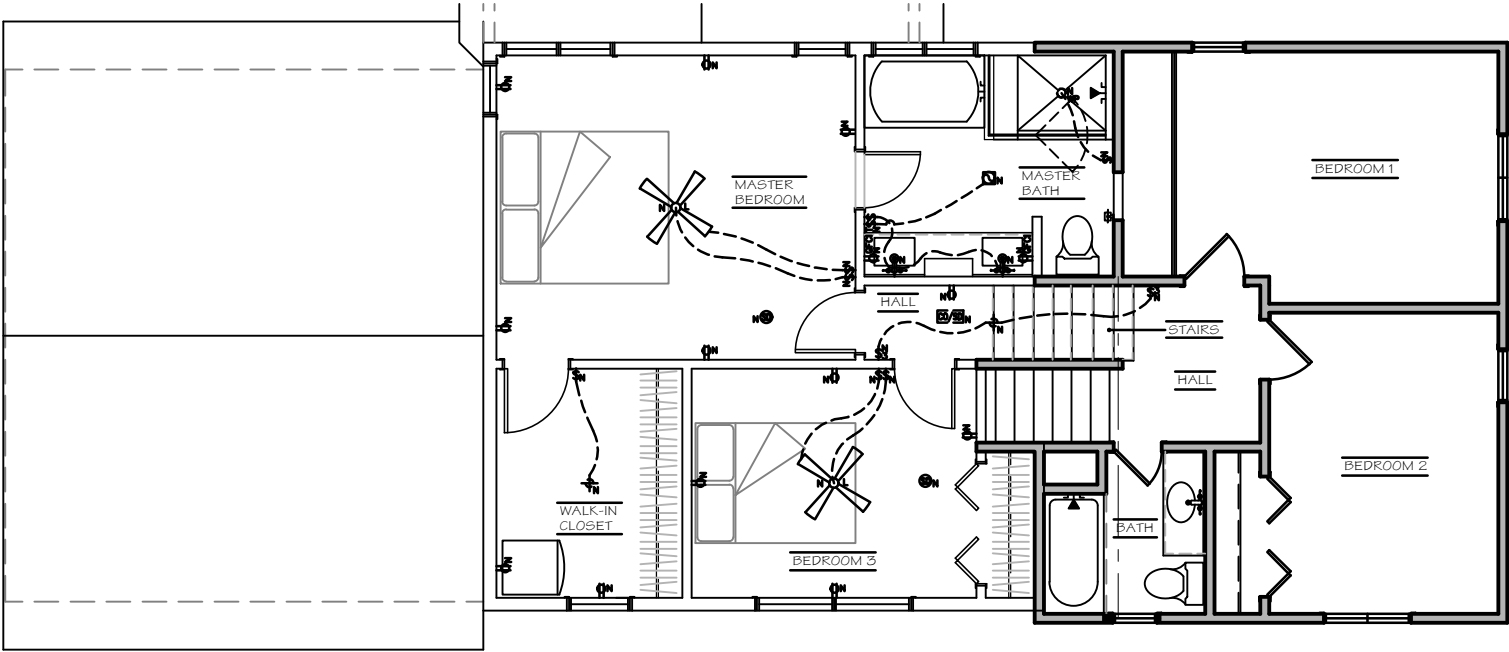


2 WALL SECTION - NEW  
SCALE: 0 1' 2' 4'

RESIDENTIAL DESIGN-BUILD-REMODEL	
<b>Plekkenpol</b>	
BUILDERS, INC.	
401 East 78th Street, Bloomington, MN 55420 Tel: 952-888-2225 Fax: 952-888-2219	
Copyright © Plekkenpol Builders, Inc. has assigned the named architect to prepare the architectural drawings for the project described herein. The architect shall retain all rights to the intellectual property of the drawings and shall not be responsible for the construction of the project. The architect shall not be responsible for the construction of the project. The architect shall not be responsible for the construction of the project.	
REVISIONS:	DATE: 6/19/21
DATE: 6/19/21	CHECKED: BT / PV
HOME REMODEL & ADDITION FLADWOOD, TREVOR & HART, BECKY 313 GRIFFIN STREET, EDINA, MN 55343 JOB #: 8089	
SHEET NO. A5 6 of 7	



1 MAIN FLOOR PLAN - ELEC.  
SCALE:



2 UPPER FLOOR PLAN - ELEC.  
SCALE:

ELECTRICAL LEGEND	
N	NEW
E	EXISTING
○	RECESSED LIGHT
○ <sub>WP</sub>	RECESSED WATER PROOF LIGHT
⊕	CEILING MOUNTED LIGHT FIXTURE
⊕	WALL MOUNTED LIGHT FIXTURE
---	UNDER CABINET TAPE LIGHT
Ⓢ	STANDARD SWITCH
Ⓢ <sub>3</sub>	3-WAY SWITCH
Ⓢ <sub>4</sub>	4-WAY SWITCH
Ⓢ <sub>W</sub>	SWITCH W/ DIMMER
Ⓢ <sub>T</sub>	TIMER SWITCH
Ⓢ	ELECTRICAL OUTLET
Ⓢ <sub>GF</sub>	GROUND FAULT RECEPTACLE
Ⓢ <sub>B</sub>	BATH FAN
Ⓢ <sub>C/S</sub>	COMBO C.O. & SMOKE DETECTOR
Ⓢ <sub>S</sub>	SMOKE DETECTOR
Ⓢ <sub>X</sub>	CEILING FAN W/ LIGHT



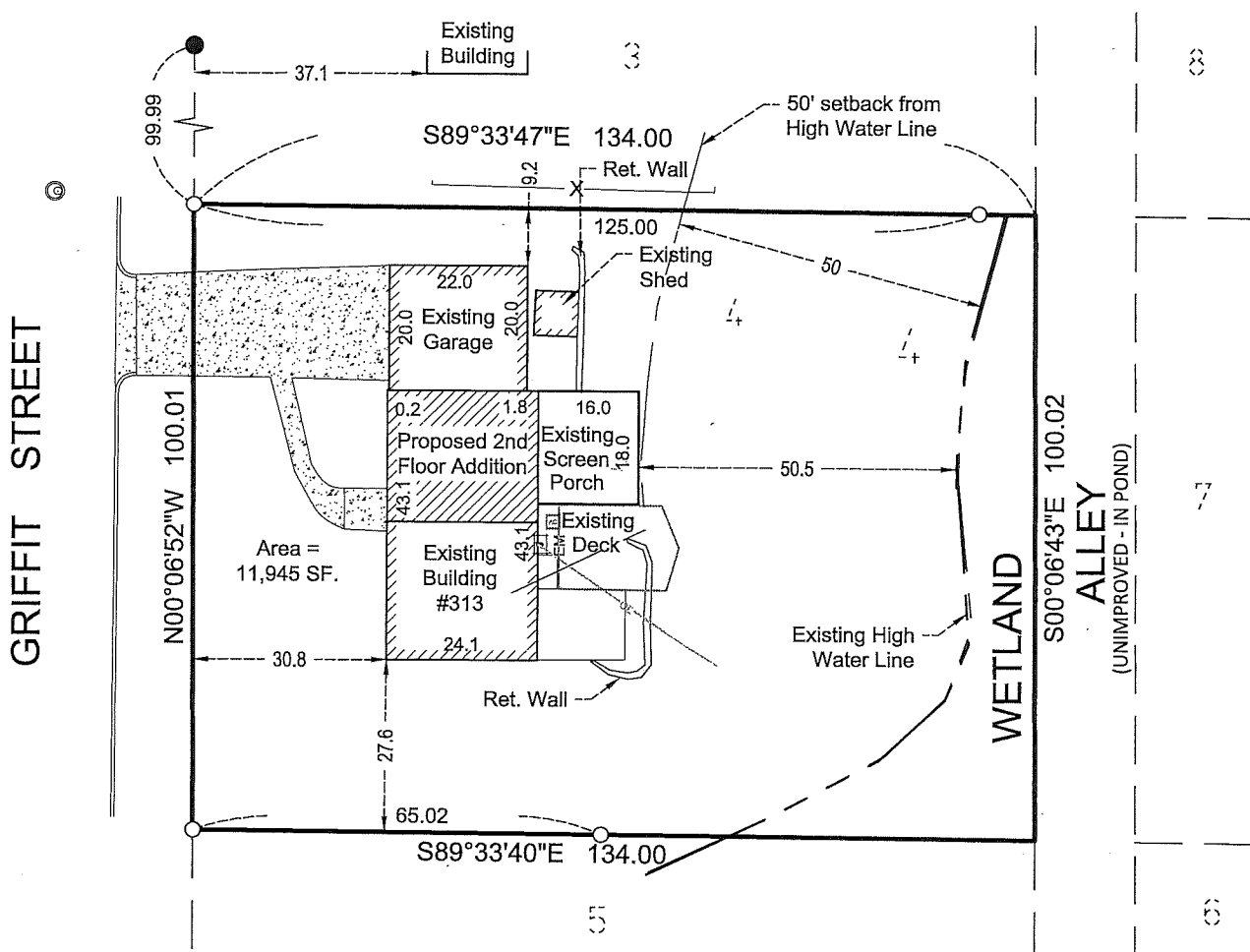
HOME REMODEL & ADDITION  
FLADWOOD, TREVOR & HART, BECKY  
313 GRIFFIT STREET, EDINA, MN 55343  
SHEET 5  
E1  
7 of 7

REVISIONS  
DATE  
BY  
CHECKED  
DATE  
BY  
JOB # 8028  
6/19/21

RESIDENTIAL DESIGN • BUILD • REMODEL  
**Plekkenpol**  
BUILDERS, INC.  
401 East 78th Street, Bloomington, MN 55420  
Tel: 952-888-2225 Fax: 952-888-7219

# CERTIFICATE OF SURVEY

FOR: Plekkenpol Builders



## IMPERVIOUS SURFACE COVERAGE

EXISTING = 2671 SF. = 22%  
PROPOSED = 2671 SF. = 22%

## PROPERTY DESCRIPTION

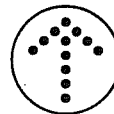
LOTS 4, BLOCK 4, MENDELSSOHN, HENNEPIN COUNTY, MINNESOTA

## SURVEY NOTES

- BACKGROUND INFORMATION SHOWN PER BOUNDARY SURVEY PERFORMED BY LANDFORM ON 8/4/2020 EXPRESSLY FOR THIS PROJECT.
- FOR THE PURPOSES OF THIS SURVEY THE BEARING SYSTEM IS BASED ON THE HENNEPIN COUNTY COORDINATE SYSTEM.

## SITE SYMBOLS

- 1/2" x 14" IRON PIPE SET WITH A PLASTIC CAP MARKED #13057 OR #24332
- IRON PIPE FOUND



NORTH



SCALE IN FEET

© LANDFORM 2020

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.

*Larry Huhn*

Larry Huhn

License. No. 24332

Date: 8/5/2020

Revised: 9/01/2021

LANDFORM  
From Site to Finish

105 South Fifth Avenue  
Suite 513  
Minneapolis, MN 55401  
Web: landform.net

Job No. ZZZ20541

Drawing: ZZZ20541 COS.dwg

By: SPK

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2013, Hennepin County, Edina, © WSB & Associates 2013

1 in = 50 ft



The CITY of  
**EDINA**



September 8, 202

# Survey Responses

30 January 2019 - 16 September 2021

## Public Hearing Comments-313 Griffit Street

### Better Together Edina

Project: Public Hearing: a 6.3 foot variance from the 37.1-foot front yard setback requirement for a second floor addition above the existing first floor at 313 Griffit Street



VISITORS					
7					
CONTRIBUTORS			RESPONSES		
5			5		
0	0	5	0	0	5
Registered	Unverified	Anonymous	Registered	Unverified	Anonymous





**Respondent No:** 1

**Login:** Anonymous

**Email:** n/a

**Responded At:** Sep 13, 2021 03:59:53 am

**Last Seen:** Sep 13, 2021 03:59:53 am

**IP Address:** n/a

Q1. **First and Last Name**

Christine Nowak

Q2. **Address**

316 Blake rd S 55343

Q3. **Comment**

We are in full support of the Fladwood's addition. they are great neighbors and would love to keep them in the neighborhood!



**Respondent No:** 2

**Login:** Anonymous

**Email:** n/a

**Responded At:** Sep 13, 2021 06:40:36 am

**Last Seen:** Sep 13, 2021 06:40:36 am

**IP Address:** n/a

Q1. **First and Last Name**

Sarah Dillon

Q2. **Address**

308 Blake Road So. Edina 55343

Q3. **Comment**

I fully support the family's desire to build an addition to their existing lower level of their home. Please feel free to reach out to me for further comment. 612-708-1060. Thank you.



**Respondent No:** 3

**Login:** Anonymous

**Email:** n/a

**Responded At:** Sep 13, 2021 13:02:33 pm

**Last Seen:** Sep 13, 2021 13:02:33 pm

**IP Address:** n/a

Q1. **First and Last Name**

Alexander Rollins

Q2. **Address**

309 Griffit St, Edina MN, 55343

Q3. **Comment**

I'm the neighbor to the north (309 Griffit St) and support this project, it should be approved without hesitation!



**Respondent No:** 4

**Login:** Anonymous

**Email:** n/a

**Responded At:** Sep 16, 2021 07:17:30 am

**Last Seen:** Sep 16, 2021 07:17:30 am

**IP Address:** n/a

Q1. **First and Last Name**

Louise Rollins

Q2. **Address**

309 Griffit St, Edina, MN 55343

Q3. **Comment**

We live nextdoor at 309 Griffit St and want to express our full support of this project!



**Respondent No:** 5

**Login:** Anonymous

**Email:** n/a

**Responded At:** Sep 16, 2021 07:55:02 am

**Last Seen:** Sep 16, 2021 07:55:02 am

**IP Address:** n/a

Q1. **First and Last Name**

Bonnie Hollinder

Q2. **Address**

305 Griffit St

Q3. **Comment**

No concerns. Please approve. Great neighbors to have on the block.





## CITY OF EDINA

4801 West 50th Street

Edina, MN 55424

[www.edinamn.gov](http://www.edinamn.gov)

**Date:** September 22, 2021

**Agenda Item #:** VI.B.

**To:** Planning Commission

**Item Type:**  
Report and Recommendation

**From:** Kris Aaker, Assistant Planner

**Item Activity:**  
Action

**Subject:** B-21-26, variance request for 5101 Windsor Ave.

---

### ACTION REQUESTED:

Approve the variance as submitted.

### INTRODUCTION:

A 25.9-foot setback variance from Kent/Windsor Ave., a 22.94-foot setback variance from Warwick Place and a 16-foot rear yard setback variance for an addition above the garage at 5101 Windsor Ave.

The applicant is requesting 3 variances to build a 2<sup>nd</sup> floor above the existing garage at 5101 Windsor Ave. The existing home is nonconforming regarding setback from the street frontages and rear yard setback.

### ATTACHMENTS:

Staff Report

Engineering Memo

Site Location

Narrative

Survey

Plans

Better Together Public Hearing Comment Report 9-16-21 Noon



**Date:** September 22, 2021

**To:** PLANNING COMMISSION

**From:** Kris Aaker, Assistant City Planner

**Subject:** B-21-26, A 25.4-foot setback variance from Kent/Windsor Ave., a 22.94-foot setback variance from Warwick Place and a 16-foot rear yard setback variance for an addition above an existing nonconforming garage at 5101 Windsor Ave.

## Information / Background:

The subject property, 5101 Windsor Avenue is located on the west side of Windsor Ave. and Warwick Place and south of Kent Ave. The existing home, built in 1953, is a two-story with an attached two car garage. The applicant is requesting 3 variances to build a 2<sup>nd</sup> floor above the existing garage at 5101 Windsor Ave. The existing home is nonconforming regarding setback from the street frontages and rear yard setback. The project scope includes adding a 2nd story master suite above the existing garage, with an additional full bathroom and walk in closet. To build above the existing garage requires a 25.4-foot variance from Kent/Windsor Ave., a 22.94-foot setback variance from Warwick Place and a 16-foot rear yard setback variance. The applicant is proposing to change the exterior of the house with a couple added gables and roof over front door to make the house fitting to the neighborhood. The plan includes installation of all new siding and trim to update the exterior of the house. The material will be a LP wood siding then site painted. The project will not change the current lot coverage and no soil disturbance on site other than digging two small footing holes for the proposed front porch addition. The setback variances to construct a second-floor addition above the existing garage aligns with the current non-conforming setbacks along the street and on the south side/rear yard setback of the existing house.

Except for the existing nonconforming street setbacks and rear yard setback, the proposed project meets all other zoning requirements.

## Surrounding Land Uses

Northerly:	Single Unit residential homes zoned R-I and guided low-density residential
Easterly:	Single Unit residential homes; zoned R-I and guided low-density residential.
Southerly:	Single Unit residential homes; zoned R-I and guided low-density residential.
Westerly:	Single Unit residential homes; zoned R-I and guided low-density residential.



## Existing Site Features

5101 Windsor Avenue S is a two-story built in 1953. The current home does not meet the setbacks required in today's code from the north, west or south lot lines. The existing setbacks to the property lines are nonconforming with the proposed addition maintaining the existing setback on the north, west and south sides of the house. The proposed addition is a second-floor addition, which does not fall within the allowable non-conforming alternate setback standard.

## Planning

Guide Plan designation: Low-Density Residential  
Zoning: R-1, Single-Dwelling District

## Grading & Drainage

The Engineering Department has reviewed the application and submitted comments as attached in their September 10, 2021, memorandum. Stormwater precautions per City of Edina Building Policy SP-003 are neither triggered nor required. The subject property currently drains to Melody Lake. Re-grading is not proposed.

**Compliance Table**

	<b>City Standard</b>	<b>Proposed</b>
North Windsor Front yard	61.2 feet 35.8 feet existing	<b>35.8 feet existing* (second floor)</b>
South Side –	25 feet 6.5 feet existing	<b>9 feet existing* (second floor)</b>
East Warwick Front yard	49.13 feet 26.2 feet existing	<b>26.2 feet existing* (second floor)</b>
West Side –	10 feet	13.8 feet
Building Coverage	25%	22.94%

**\*Requires a variance**

## PRIMARY ISSUES & STAFF RECOMMENDATION

## Primary Issues

- **Is the proposed variance justified?**

**Minnesota Statutes and Section 36-98 of the Edina Zoning Ordinance require that the following conditions must be satisfied affirmatively. The proposed variance will:**

***1. Relieve practical difficulties that prevent a reasonable use from complying with ordinance requirements.***

Reasonable use does not mean that the applicant must show the land cannot be put to any reasonable use without the variance. Rather, the applicant must show that there are practical difficulties in complying with the code and that the proposed use is reasonable. “Practical difficulties” may include functional and aesthetic concerns. The practical difficulty is caused by how the existing house is situated on the lot.

The proposed use is permitted in the R-1 Single Dwelling Unit District and the proposed addition complies with zoning standards with the exception of the street and rear yard setback requirement. The practical difficulty is caused by the existing location of the home and the required setbacks. Due to the addition being on a different floor, the non-conforming setback standard does not apply. The home will be added to and modified within the existing setbacks. The original home was constructed without variances.

***2. There are circumstances that are unique to the property, not common to every similarly zoned property, and that are not self-created?***

The existing house has non-conforming setbacks and was built prior to the current ordinance requirements. There were no variances granted for the original construction of the home in 1953. The proposed addition will continue the non-conforming setback on the second floor that was allowed in 1953 when the original home was built. There is a large portion of right-of-way along the intersection of the street frontages that provides green space between the existing garage and street. The added green space/boulevard provides additional distance from the street edge, so generous spacing to the street exists. Setback requirements have changed over time creating non-conformities. This was not self-created by the applicant. The proposed addition conforms to all other zoning standards.

***3. Will the variance alter the essential character of the neighborhood?***

Granting the variance will not alter the character of the neighborhood. The addition will match the existing homes setbacks on the first floor. All other aspects of the addition will conform to the ordinance requirements. The applicant will be changing the siding and look of the home to compliment the neighborhood.

**Recommended Action:**

Approve the 3 setback variances for an existing non-conforming home expansion at the same setbacks at 5101 Windsor Ave S.

Approval is subject to the following findings:

1. The proposal meets the variance criteria. The practical difficulty is caused by the existing location of the home and existing non-conforming setbacks.
2. The proposed addition is reasonable and was not self-created. The current house has non-conforming setbacks and was built prior to the current setback requirements.
3. Granting the variance will not alter the character of the neighborhood. The addition and new siding will complement the existing neighborhood.

Approval is subject to the following conditions:

1. Survey and plans date stamped August 17, 2021.
2. Comments and conditions listed in the September 10, 2021 Engineering Memo.



**DATE:** 9/10/2021  
**TO:** Cary Teague – Planning Director  
**FROM:** Zuleyka Marquez, PE – Graduate Engineer  
**RE:** **5101 Windsor Ave - Variance Review**

The Engineering Department has reviewed the subject property for street and utility concerns, grading, stormwater, erosion and sediment control and for general adherence to the relevant ordinance sections.

This review was performed at the request of the Planning Department; a more detailed review will be performed at the time of building permit application. Plans reviewed included a survey and elevations stamped August 17, 2021.

#### *Summary of Work*

The applicant proposes a second story addition and front porch. The request is for a variance to the front, side, and back setbacks.

#### *Easements*

No comment.

#### *Grading and Drainage*

The existing and proposed site drains to Melody Lake.

#### *Stormwater Mitigation*

Stormwater precautions per City of Edina Building Policy SP-003 are neither triggered nor required.

#### *Floodplain Development*

No comment.

#### *Erosion and Sediment Control*

An erosion and sediment control per City of Edina Building Policy SP-002 are neither triggered nor required.

#### *Street and Driveway Entrance*

No comment.

#### *Public Utilities*

No comment.

#### *Miscellaneous*

A Minnehaha Creek Watershed District permit may be required, applicant will need to verify with the district.

Watermain installed 1952. Structure built 1953. A well is not likely located onsite. Thus, coordination with Minnesota Department of Health will be required.

---

#### **ENGINEERING DEPARTMENT**

7450 Metro Boulevard • Edina, Minnesota 55439  
www.EdinaMN.gov • 952-826-0371 • Fax 952-826-0392



# 5101 Windsor Ave.



1 in = 94 ft



The CITY of  
**EDINA**



September 8, 202



# **Applicant Narrative for Variance Request**

Stackhouse Construction, LLC and Matt and Maggie Arnold would like to request a variance at 5101 Windsor Ave. The scope of the project would be to add a 2<sup>nd</sup> story master suite above the garage, including an additional full bathroom and walk in closet. Also adding more curb appeal to the exterior of the house with a couple added gables and roof over front door to make the house more fitting to the neighborhood. We also plan to install all new siding and trim to update the exterior of house, the material will be a LP wood siding then site painted. The project will not change the current lot coverage and we will not be disturbing any soil on site other than digging two small footing holes for the front porch. All work and storage of any materials will be done from the driveway not disturbing any of the existing vegetation or trees.

Matt and Maggie have Lived at 5101 Windsor for roughly 8 years now and have two little boys they are raising in the house. Matt has lived in Edina his whole life and is a loyal resident to the city. They have really grown to absolutely love the neighborhood they settled into and all the wonderful neighbors around them. They are just running out of room to grow in the house as is! They only have one full bathroom in the house currently. Last year they hired me to complete a large remodel of the main living area of the house and it turned out beautiful for them. They love the house so much but are in need of a little more space to grow in and another Full Bathroom. Given the very unique lot they live on we have decided the only way to get more space is to go above the garage.

Variance requested would include 3 sides of the house as it is a very unique lot to work with. Again, we are not trying to encroach into these set backs any more than existing structure sits, only going taller with the structure.

## **Front Yard Setback**

Required 61.5 feet

Current 35.8 feet

Requested 25.7 feet

## **Side yard Setback**

Required 48 feet

Current 26.2 feet

Requested 21.8 feet

## **Rear Yard Setback**

Required 25' feet

Current 6.5 feet

Requested 18.5 feet

## **The Proposed Variance Will:**

### **Relieve practical difficulties in complying with the zoning ordinance and that the use is reasonable**

The house is already non complying on 3 sides as is, we are only asking to go above garage to give the house more character and to make it more usable to current and future homeowners of the property. They currently only have 1 bathroom with a shower in it!

### **Correct extraordinary circumstances applicable to this property but not applicable to other property in the vicinity or zoning district**

This property sits in the point of three different streets that are all curving and makes it very difficult to meet any new current zoning rules on setbacks.

### **Be in harmony with the general purposes and intent of the zoning ordinance**

We are just trying to give the house a better curb appeal and make it more functional inside, with this said we are just going above garage rather than encroach into setbacks further.

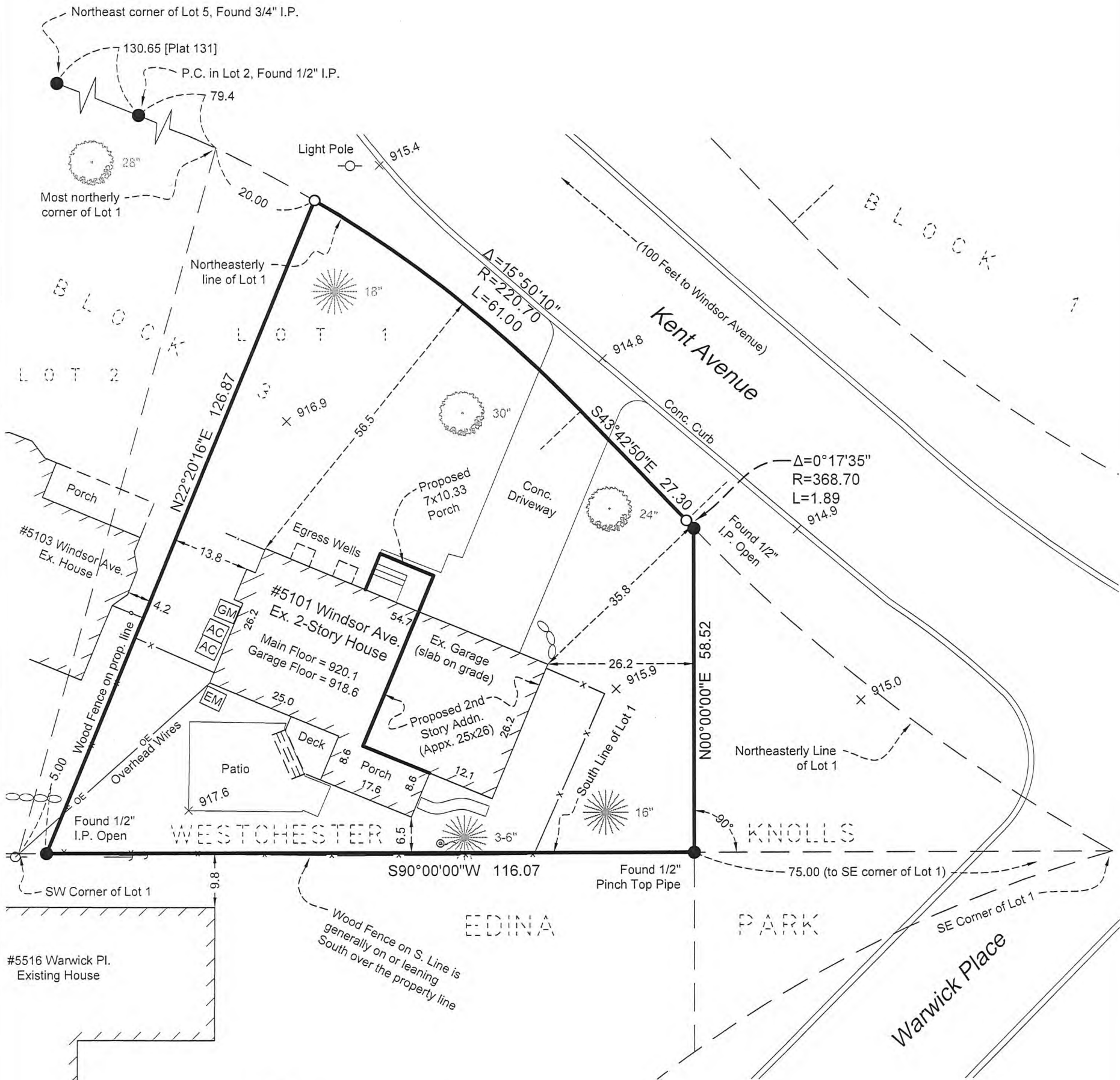
### **Not alter the essential Character of a neighborhood**

The house as it currently sits is the odd house in the neighborhood and really doesn't fit in with all the other houses, with this variance and project it will blend in and match other existing houses better and enhance the Character of the neighborhood.

# Certificate of Survey

Survey Prepared For: Stackhouse Construction / Matt and Maggie Arnold  
Property Description: According to Warranty Deed Hennepin County Doc. No. A10027934:

Lot 1, Block 3, WESTCHESTER KNOLLS, except that part lying northwesterly of a line drawn from a point on the northeasterly line of said Lot 1, distant 20 feet southeasterly measured along said northeasterly line from the most northerly corner thereof to a point on the South line of said Lot 1, distant 5 feet East of the southwest corner thereof. Also except that part of said Lot 1, described as follows: Commencing at the southeast corner of said Lot 1; thence West along the South line thereof 75 feet; thence at right angle North to the point of intersection with the northeasterly line of said Lot 1; thence southerly and easterly along the northeasterly line of said Lot 1 to the Point of Beginning, according to the plat thereof on file and of record in the office of the Register of Deeds in and for Hennepin County, Minnesota.



Notes - See Survey Notes on Sheet 2.

### Legend

- Found Monument (as noted)
- Set Iron Pipe Marked RLS 48176
- Electric Meter
- Power Pole
- Gas Meter
- Flag Pole
- Coniferous Tree
- Deciduous Tree

CITY OF EDINA

AUG 17 2021

PLANNING DEPARTMENT

**LINDGREN**  
Land Surveying

PO Box 217  
Chanhassen, MN 55317  
(952) 223-0063

I hereby certify that this survey, map, 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.

Signed: Eric B. Lindgren  
Eric B. Lindgren, Land Surveyor  
Minnesota License Number 48176

Date: July 28, 2021

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PROJ. NO.  
07921R

SHEET  
1 of 2

BOOK/PAGE  
002/094



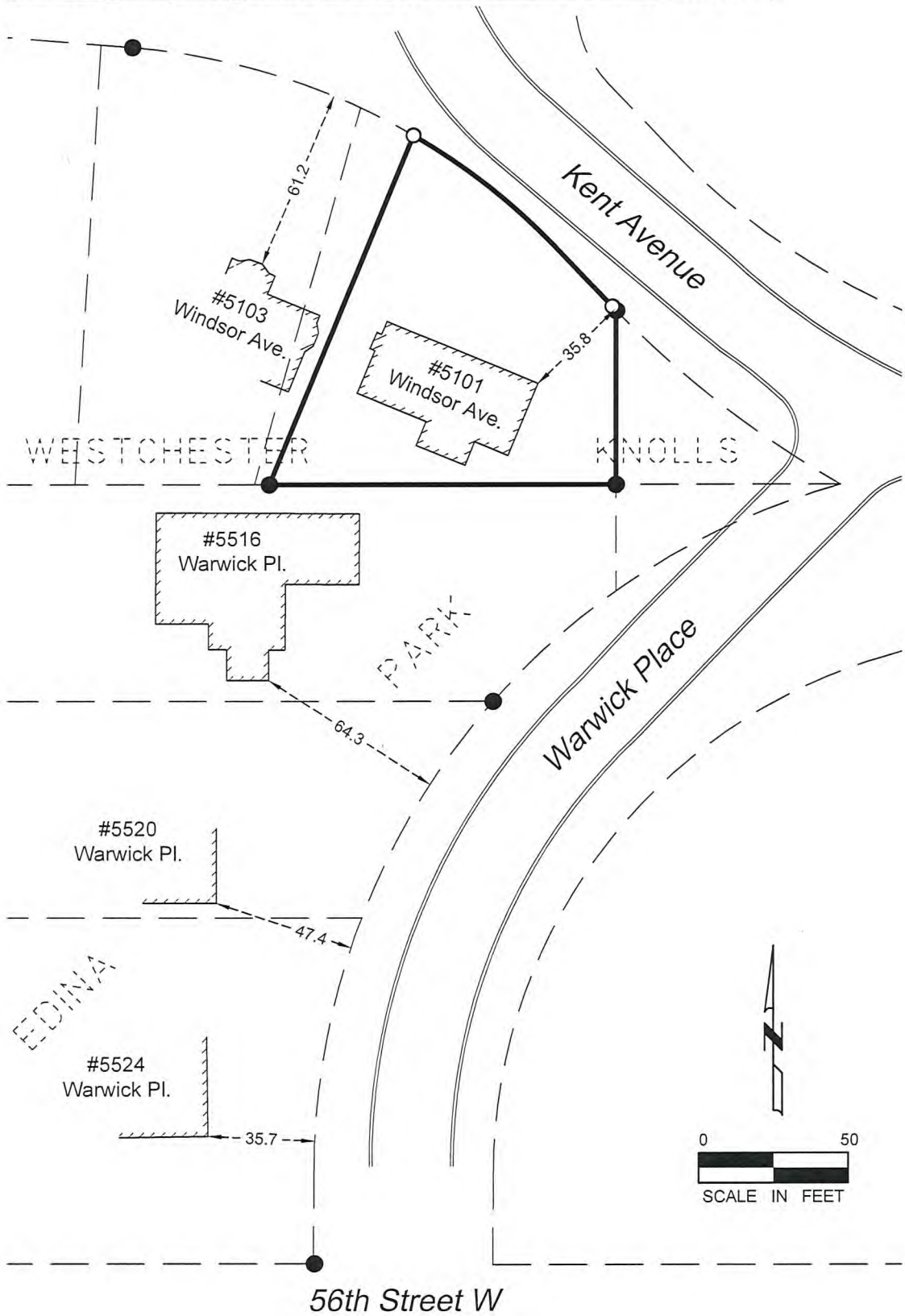
# Certificate of Survey

Survey Prepared For: Stackhouse Construction / Matt and Maggie Arnold

### Notes

- 1. This Survey intends to show the boundaries of the above described property and the location of certain existing and proposed improvements thereon. It does not purport to show all improvements or encroachments. A Title Report was not furnished to the Surveyor in preparation of this survey. Additional encumbrances on the property may be disclosed by such a report.
- 2. Bearings for this survey are assumed. The South line of Lot 1 is assumed to bear WEST. Measured bearings and distances are shown for the boundary. Where measured distances differ from plat distances, the [plat] dimension is also shown.
- 3. Benchmark: City of Edina Benchmark Number 1030, NE Quadrant of Windsor and Code Avenues. Top Nut of Hydrant = 923.12 (NGVD29).
- 4. Impervious Surface Measurements (Property Area 9,003 Sq. Ft.):
  - Existing Coverage: 2,799 Sq. Ft., 31.1% (does not include boulevard)
  - Proposed Coverage: 2,799 Sq. Ft., 31.1%
- 5. The existing conditions shown on this survey are representative of the site conditions on the date of last fieldwork: July 28, 2021

### Existing Building Front Setbacks on Warwick and Kent



CITY OF EDINA

AUG 17 2021

PLANNING DEPARTMENT

**LINDGREN**  
Land Surveying

PO Box 217  
Chanhassen, MN 55317  
(952) 223-0063

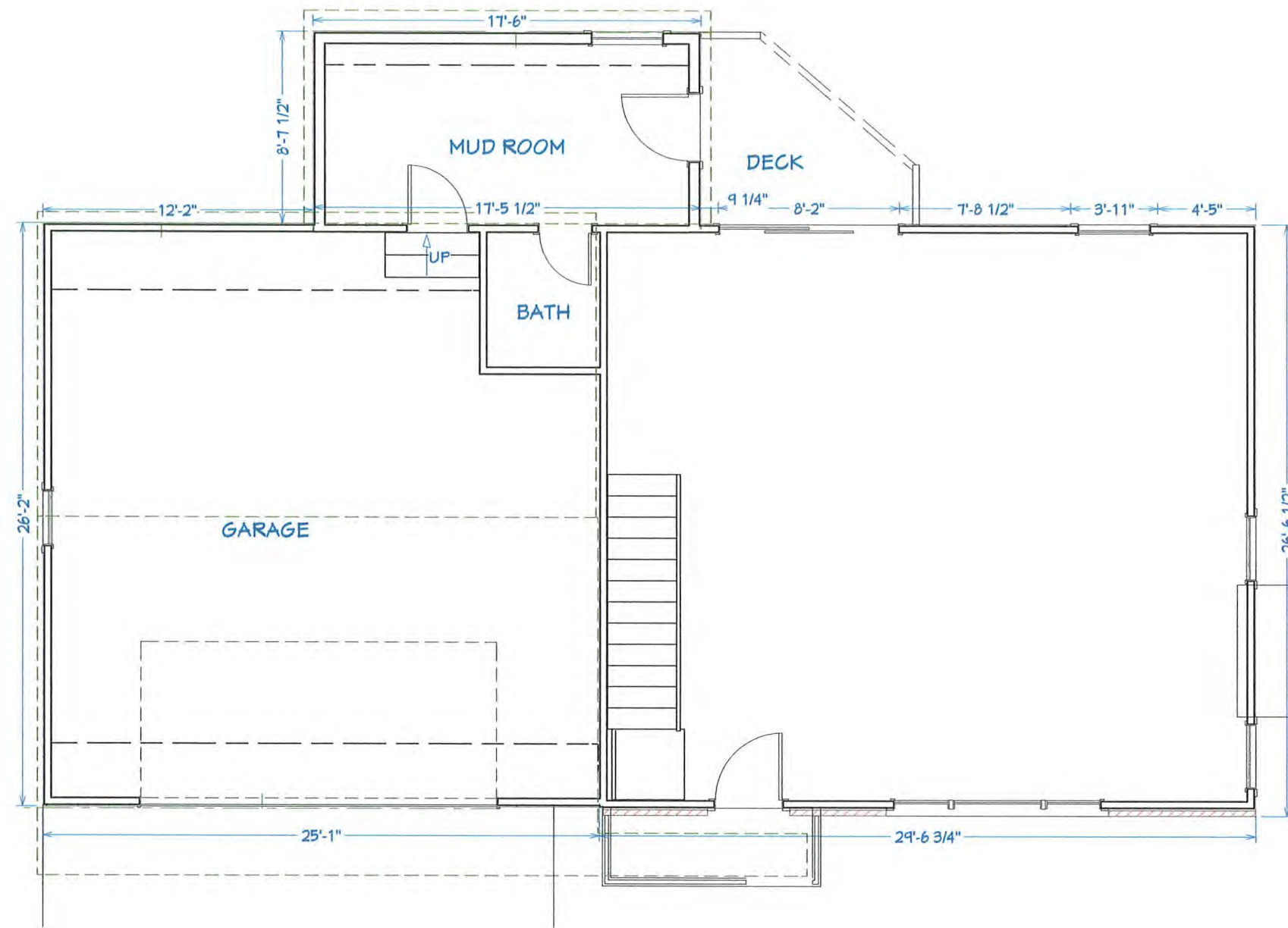
Copyright © 2021 by Lindgren Land  
Surveying, PLLC. All rights reserved.

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07921R

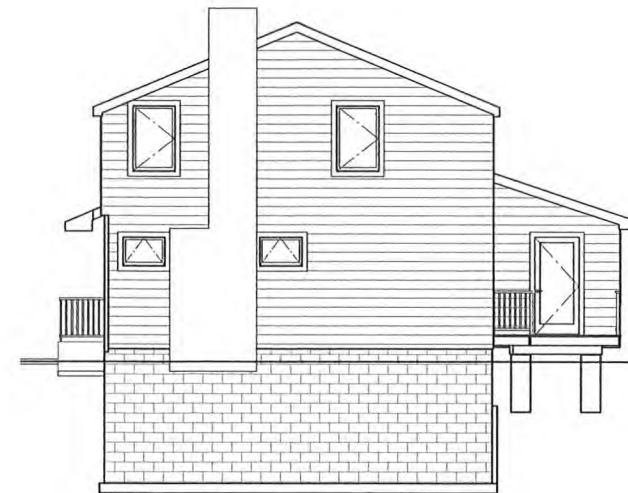
SHEET  
2 of 2

BOOK/PAGE  
002/094





EXISTING MAIN LEVEL



CITY OF EDINA  
AUG 17 2021  
PLANNING DEPARTMENT

REVISION TABLE	
NUMBER	DESCRIPTION

STACKHOUSE REMODELING  
SITE ADDRESS  
5101 WINDSOR AVE  
EDINA

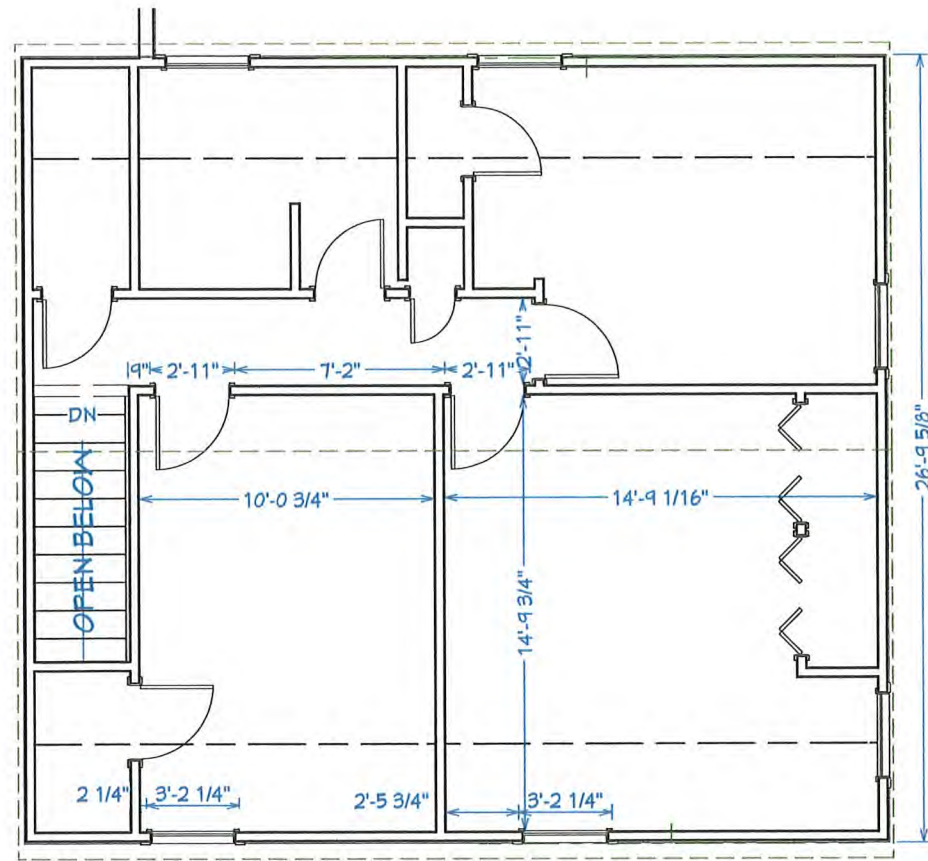
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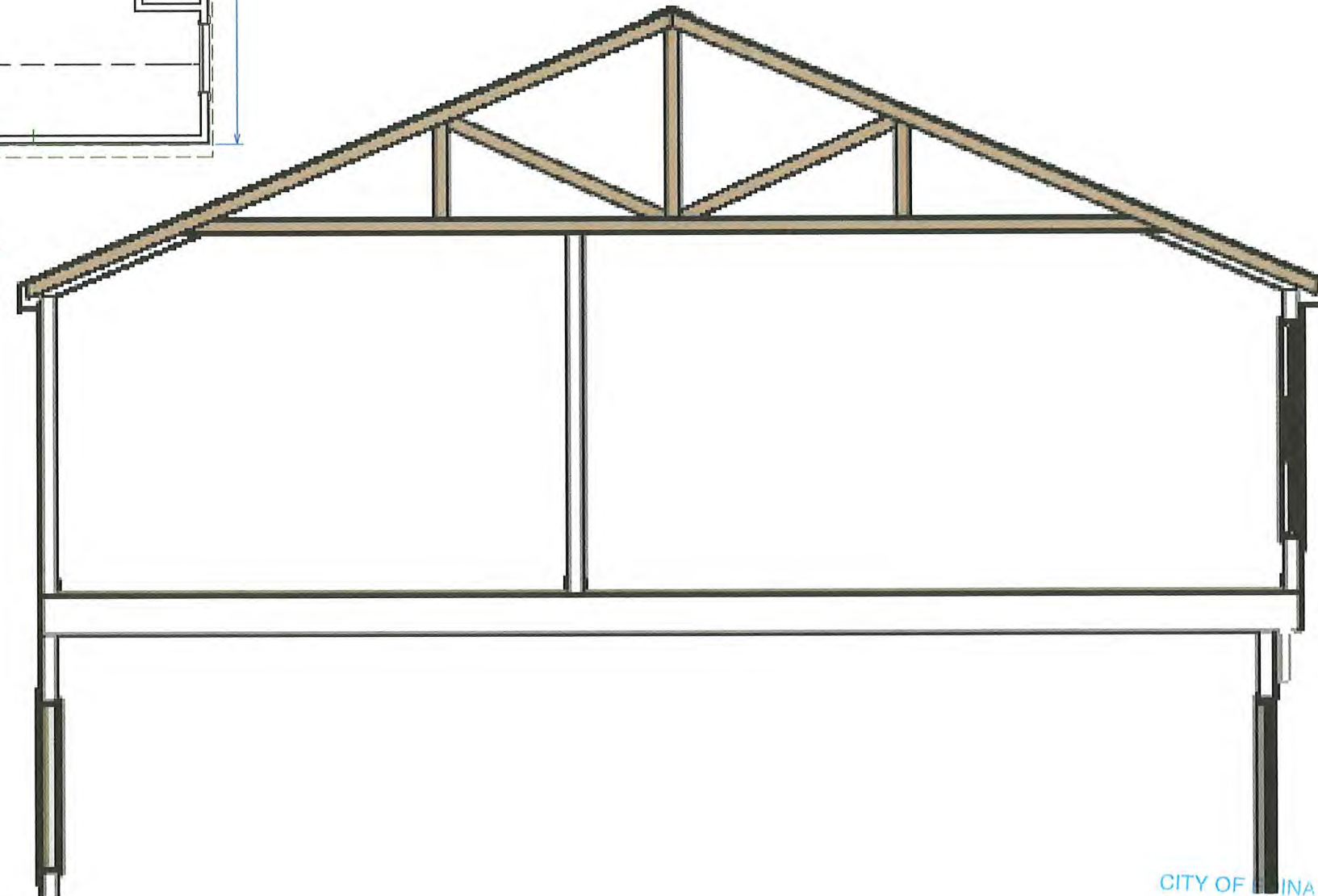
SHEET: 1

OF 1





EXISTING 2nd Floor



EXISTING Cross Section 1

CITY OF EDINA

AUG 17 2021

PLANNING DEPARTMENT

REVISION TABLE	
NUMBER	DATE

STACKHOUSE REMODELING

SITE ADDRESS  
5101 WINDSOR AVE  
EDINA

DATE:

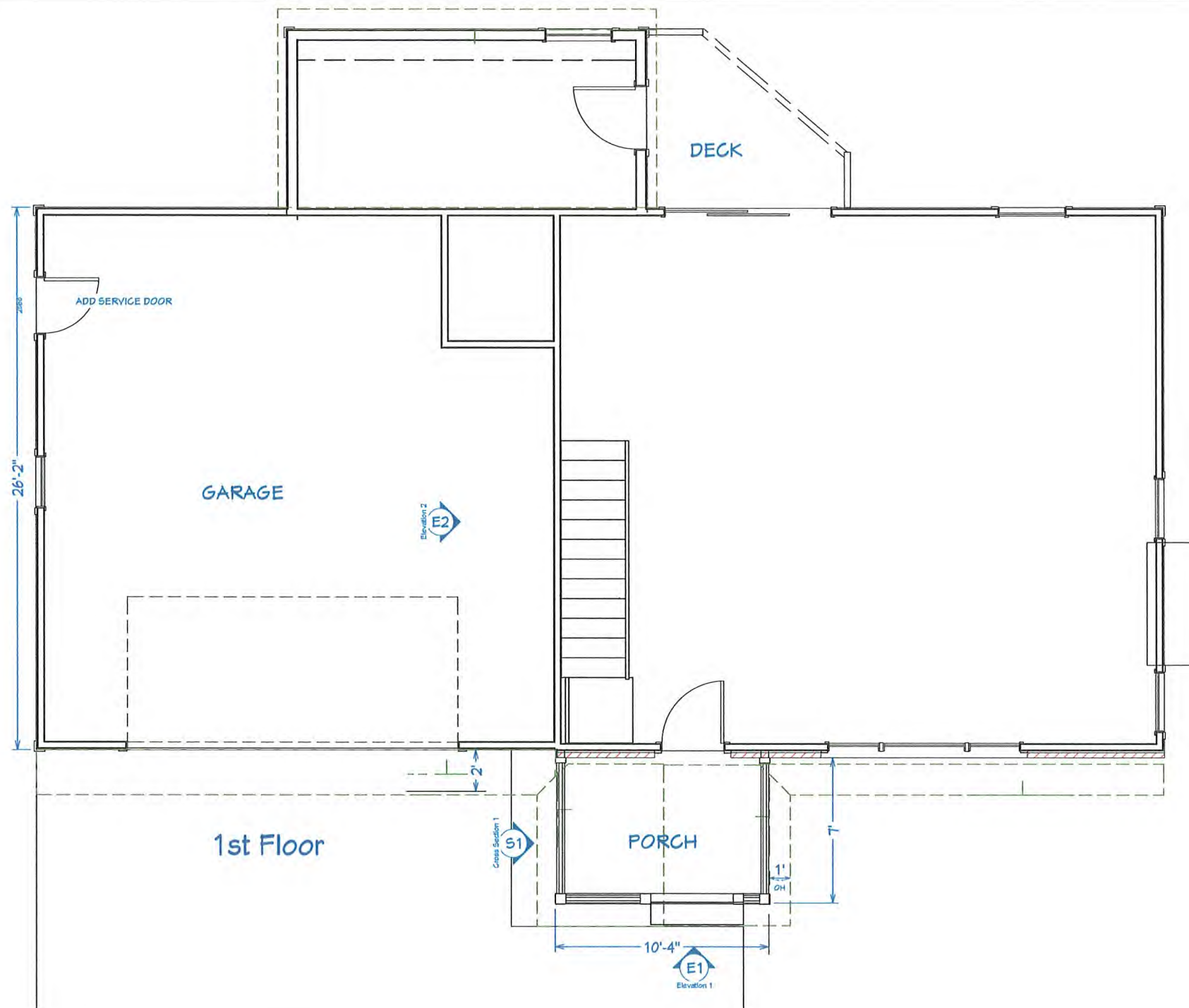
4/19/2021

SCALE:

SHEET: 2

OF 1





Elevation 1



Elevation 3



Elevation 4

REVISION TABLE	
NUMBER	DATE

STACKHOUSE REMODELING

SITE ADDRESS  
5101 WINDSOR AVE  
EDINA

DATE:

4/19/2021

SCALE:

SHEET: 3

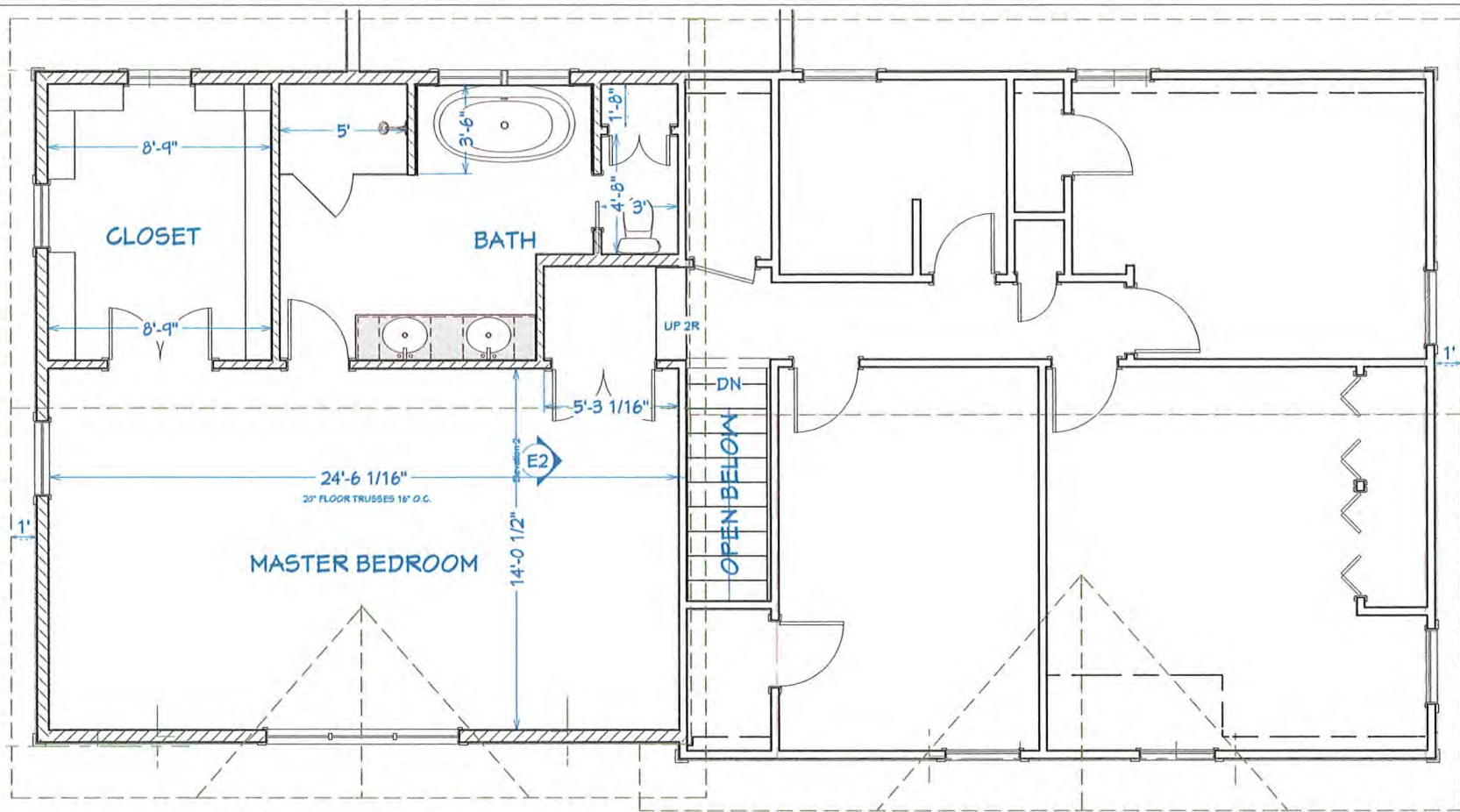
OF 1

CITY OF EDINA

AUG 17 2021

PLANNING DEPARTMENT

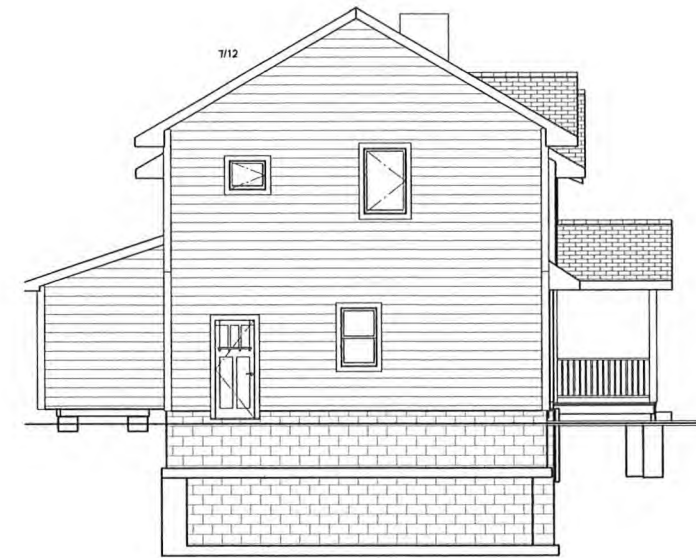




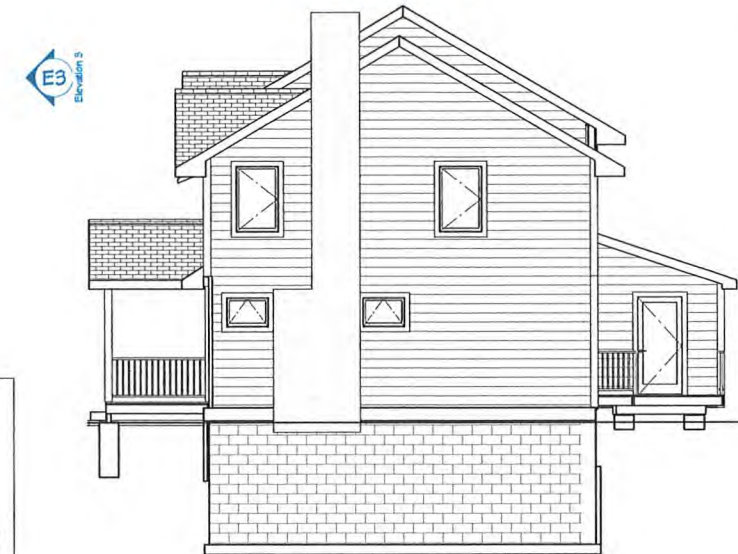
2ND FLOOR ADDITION



Elevation 1



Elevation 4



Elevation 3

REVISION TABLE	
NUMBER	DATE

STACKHOUSE REMODELING

SITE ADDRESS  
5101 WINDSOR AVE  
EDINA

DATE:

4/19/2021

SCALE:

SHEET: 4

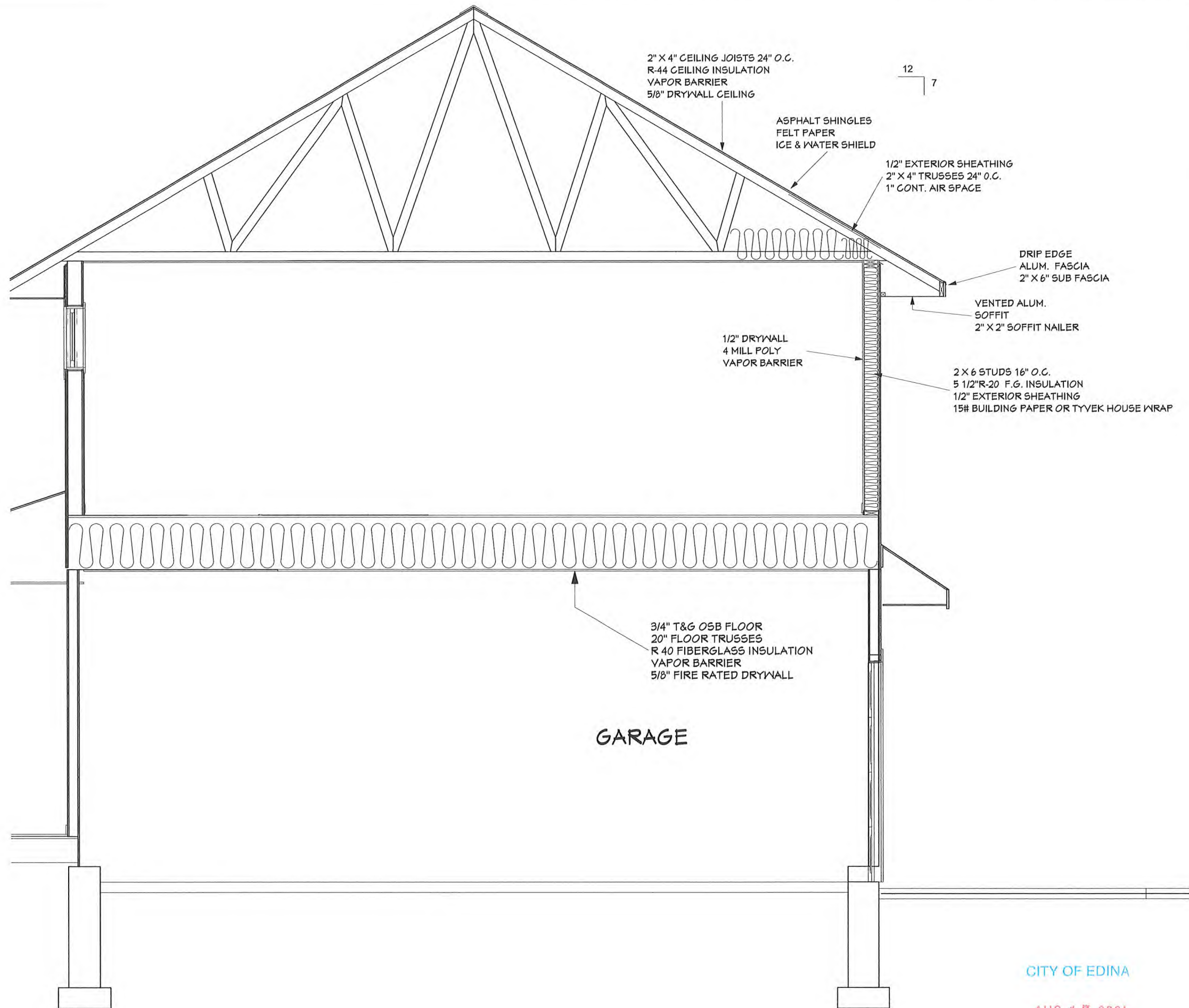
OF 1

CITY OF EDINA

AUG 17 2021

PLANNING DEPARTMENT





GARAGE SECTION

CITY OF EDINA  
AUG 17 2021  
PLANNING DEPARTMENT

REVISION TABLE	
NUMBER	DATE

STACKHOUSE REMODELING

SITE ADDRESS  
5101 WINDSOR AVE  
EDINA

DATE:

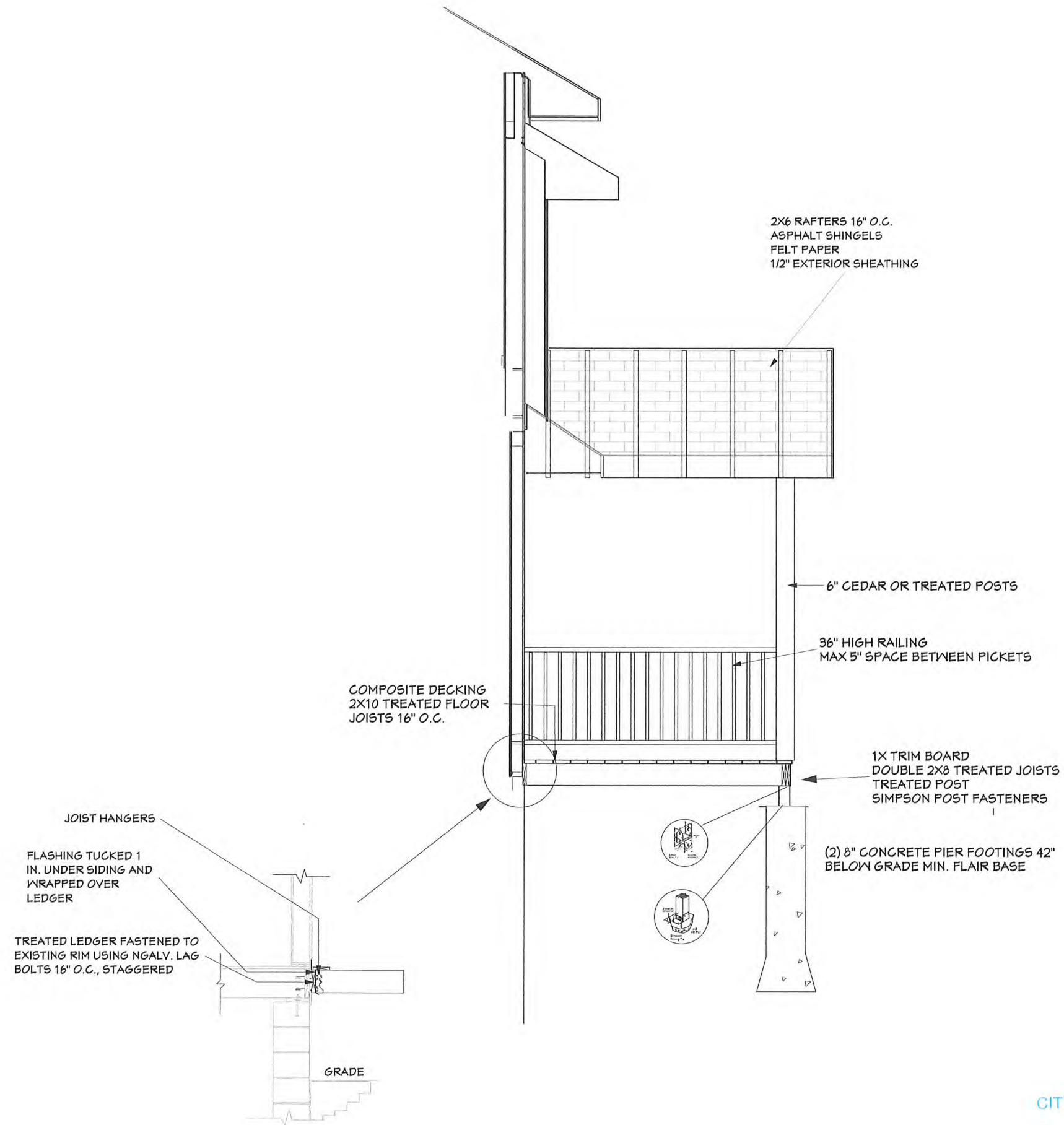
4/19/2021

SCALE:

1/2" = 1'-0

SHEET: 5

OF 1



# PORCH SECTION

CITY OF EDINA

AUG 17 2021

PLANNING DEPARTMENT

REVISION TABLE	
NUMBER	DATE

STACKHOUSE REMODELING

SITE ADDRESS  
5101 WINDSOR AVE  
EDINA

DATE:

4/19/2021

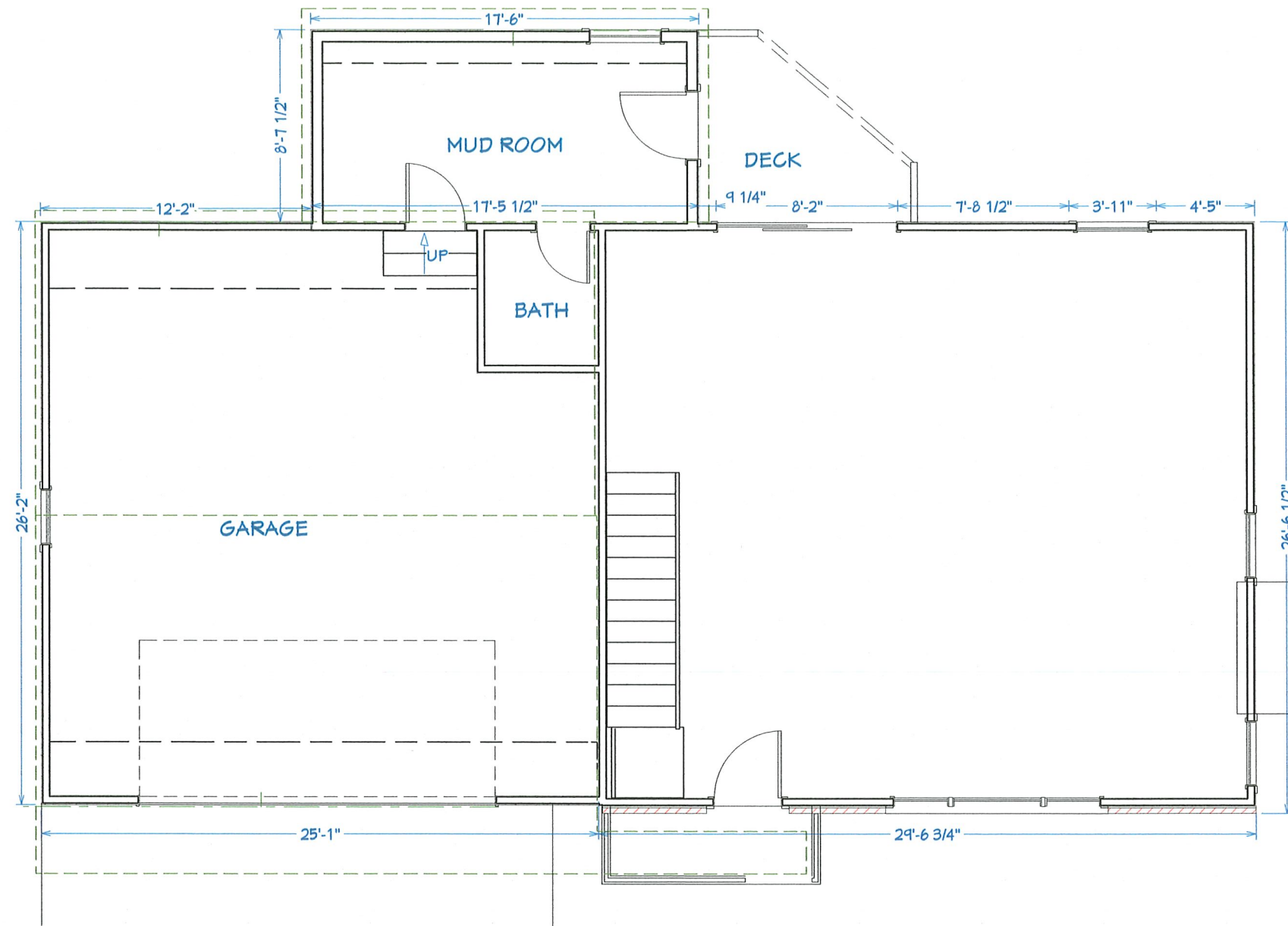
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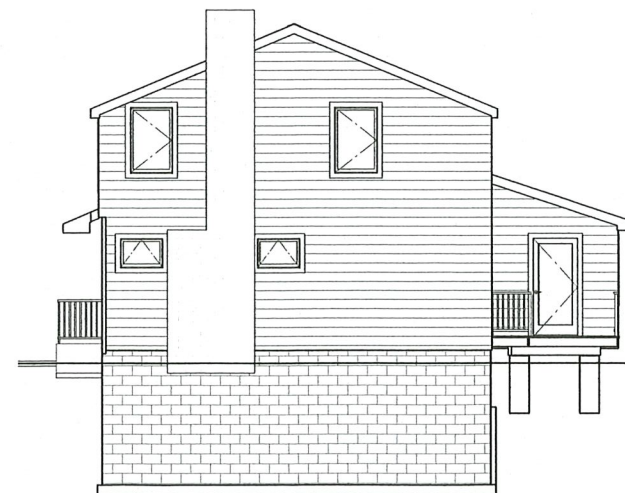
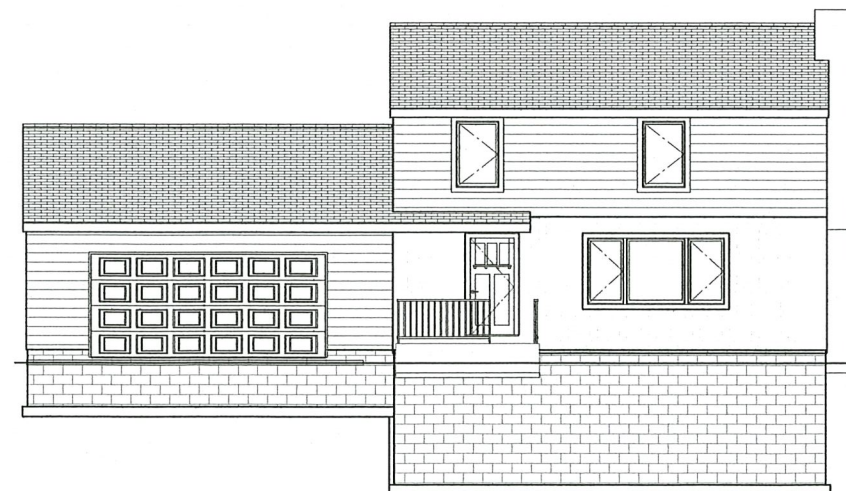
SHEET: 1

OF 1





EXISTING MAIN LEVEL



CITY OF EDINA

AUG 17 2021

PLANNING DEPARTMENT

REVISION TABLE	
NUMBER	DATE

STACKHOUSE REMODELING

SITE ADDRESS  
5101 WINDSOR AVE  
EDINA

DATE:

4/19/2021

SCALE:

SHEET: 1

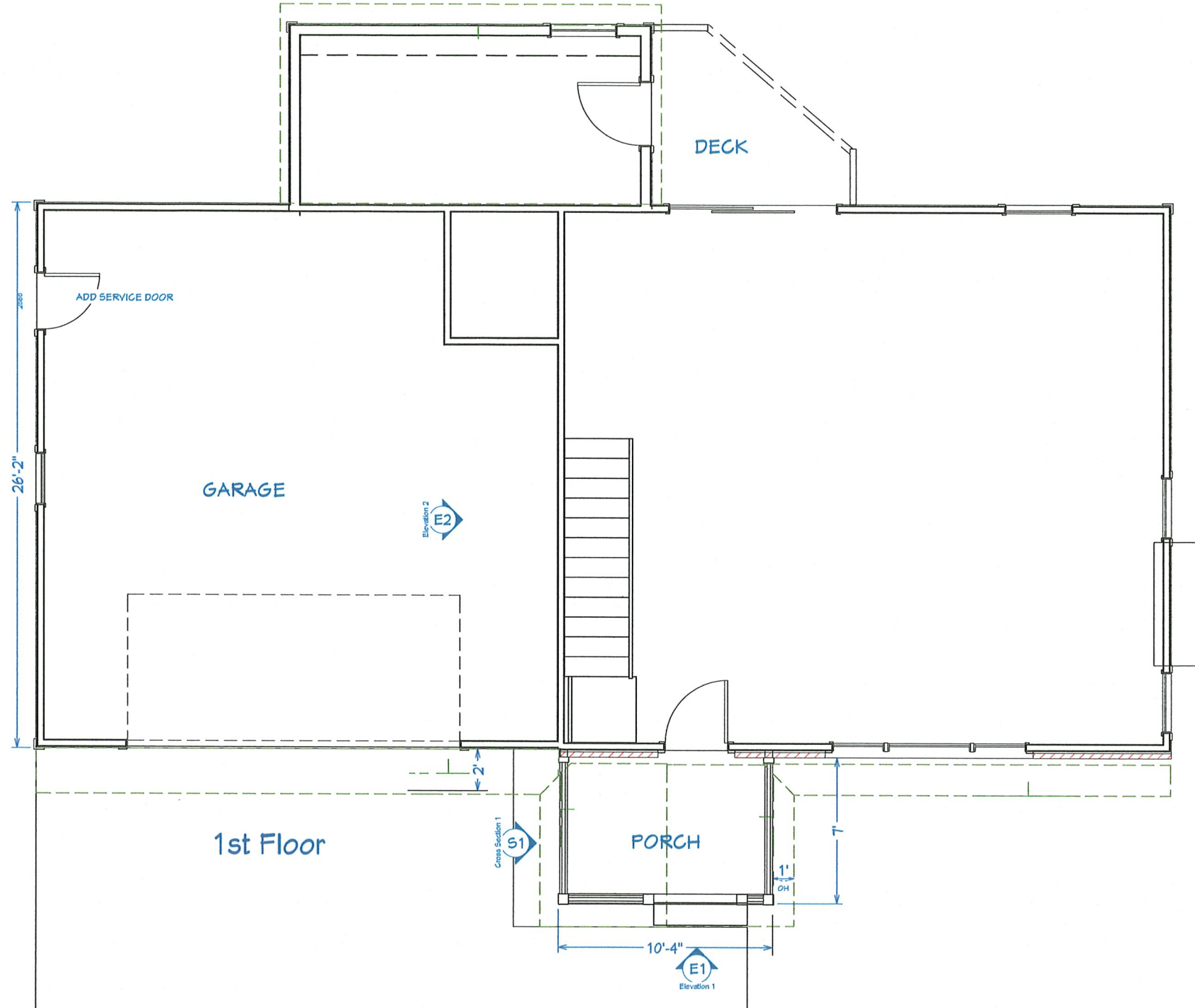
OF 1





PLANNING DEPARTMENT

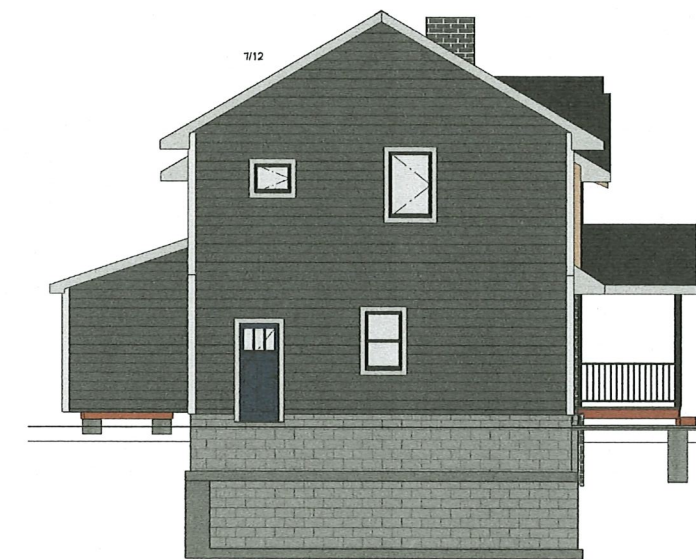
OF 7



Elevation 1



Elevation 3



Elevation 4

REVISION TABLE	
NUMBER	DATE

STACKHOUSE REMODELING

SITE ADDRESS  
5101 WINDSOR AVE  
EDINA

DATE:

4/19/2021

SCALE:

SHEET: 3

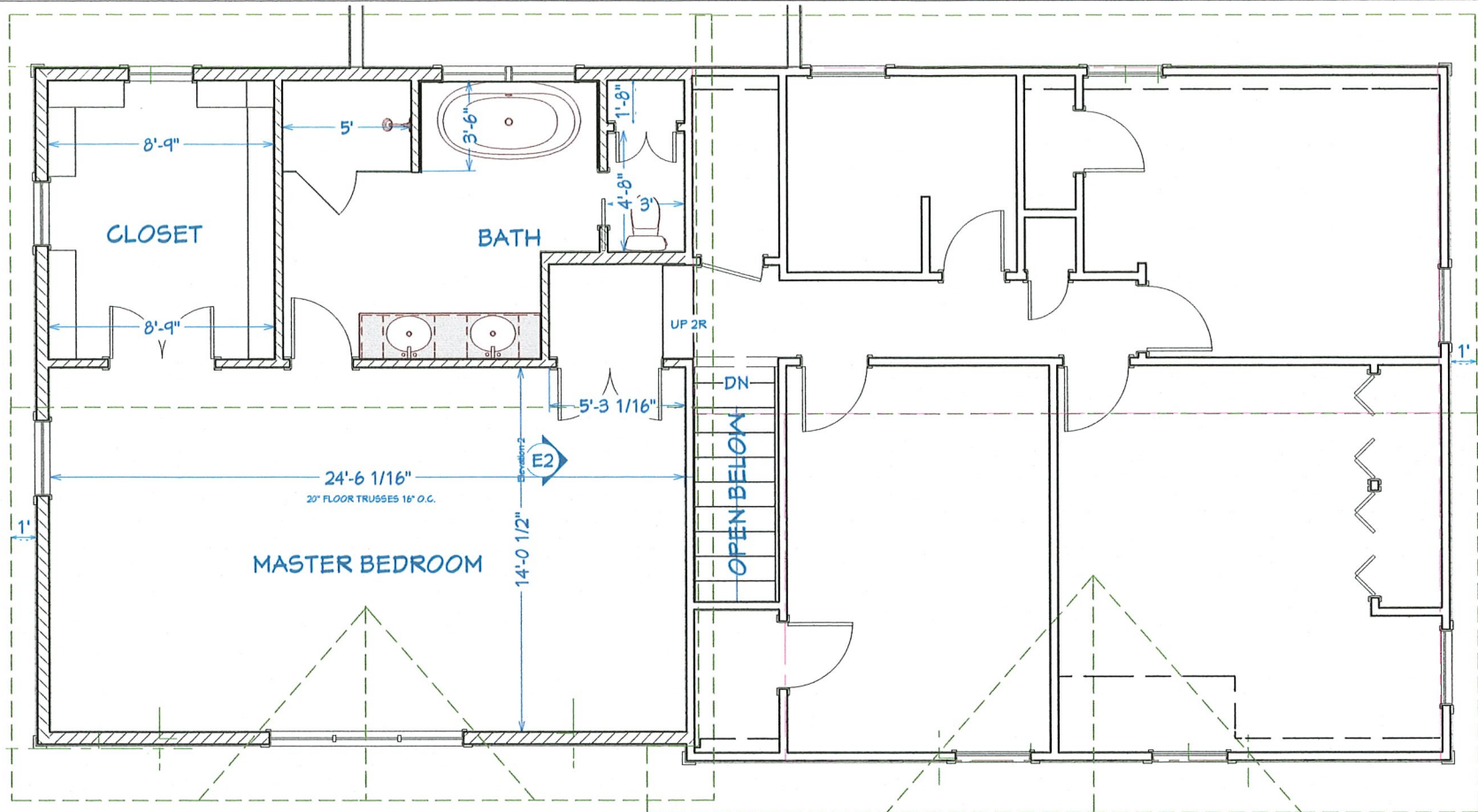
OF 1

CITY OF EDINA

AUG 17 2021

PLANNING DEPARTMENT

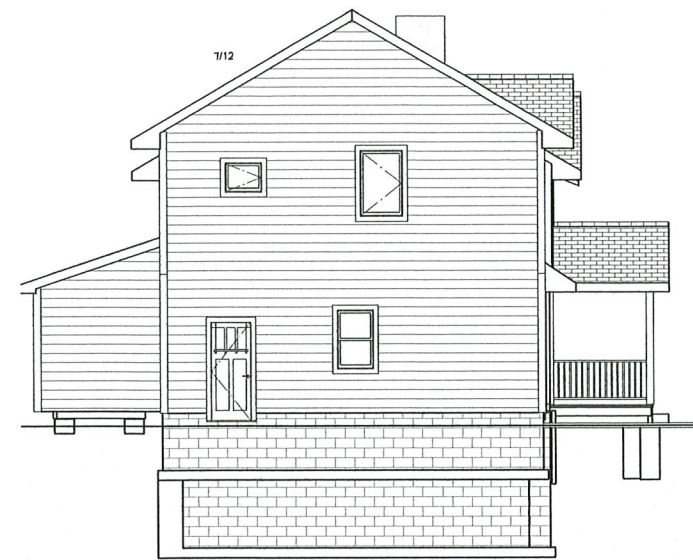




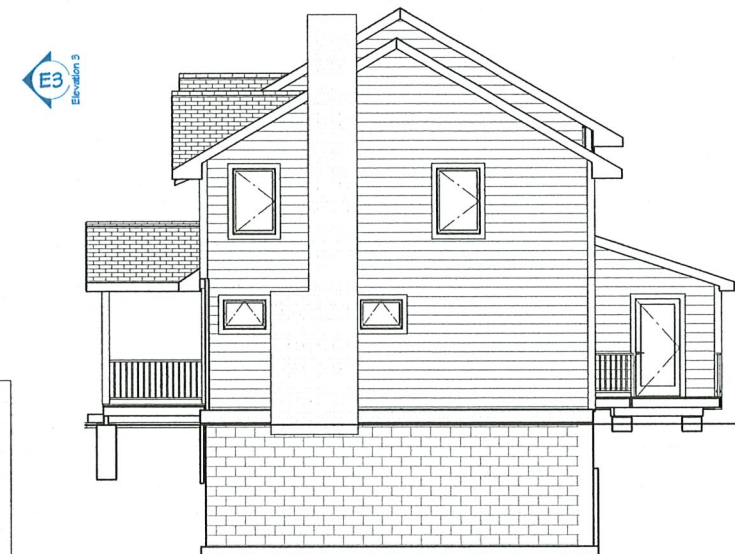
2ND FLOOR ADDITION



Elevation 1



Elevation 4



Elevation 3

CITY OF EDINA

AUG 17 2021

PLANNING DEPARTMENT

REVISION TABLE	
NUMBER	DATE

STACKHOUSE REMODELING

SITE ADDRESS  
5101 WINDSOR AVE  
EDINA

DATE:

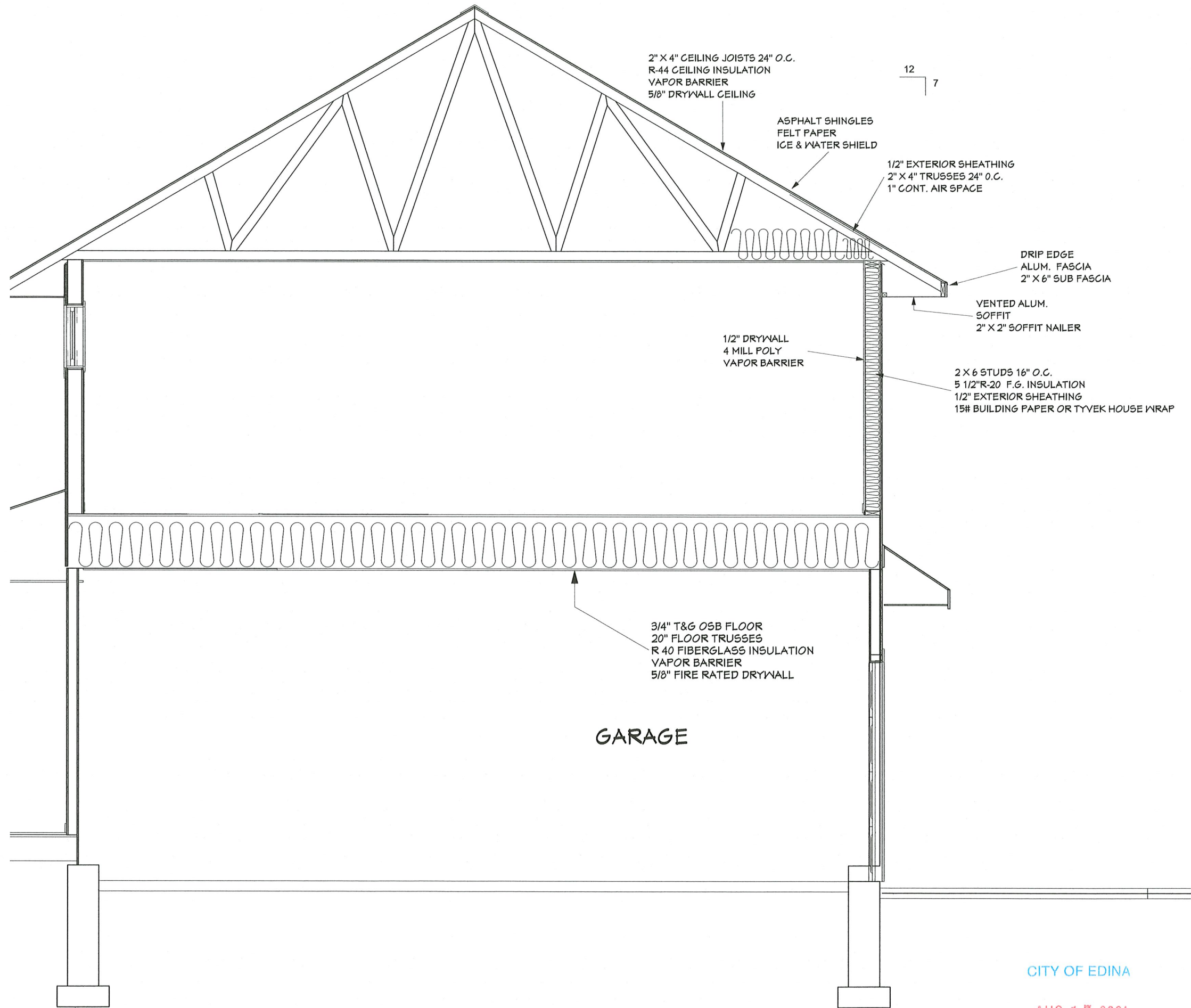
4/19/2021

SCALE:

SHEET: 4

OF 1





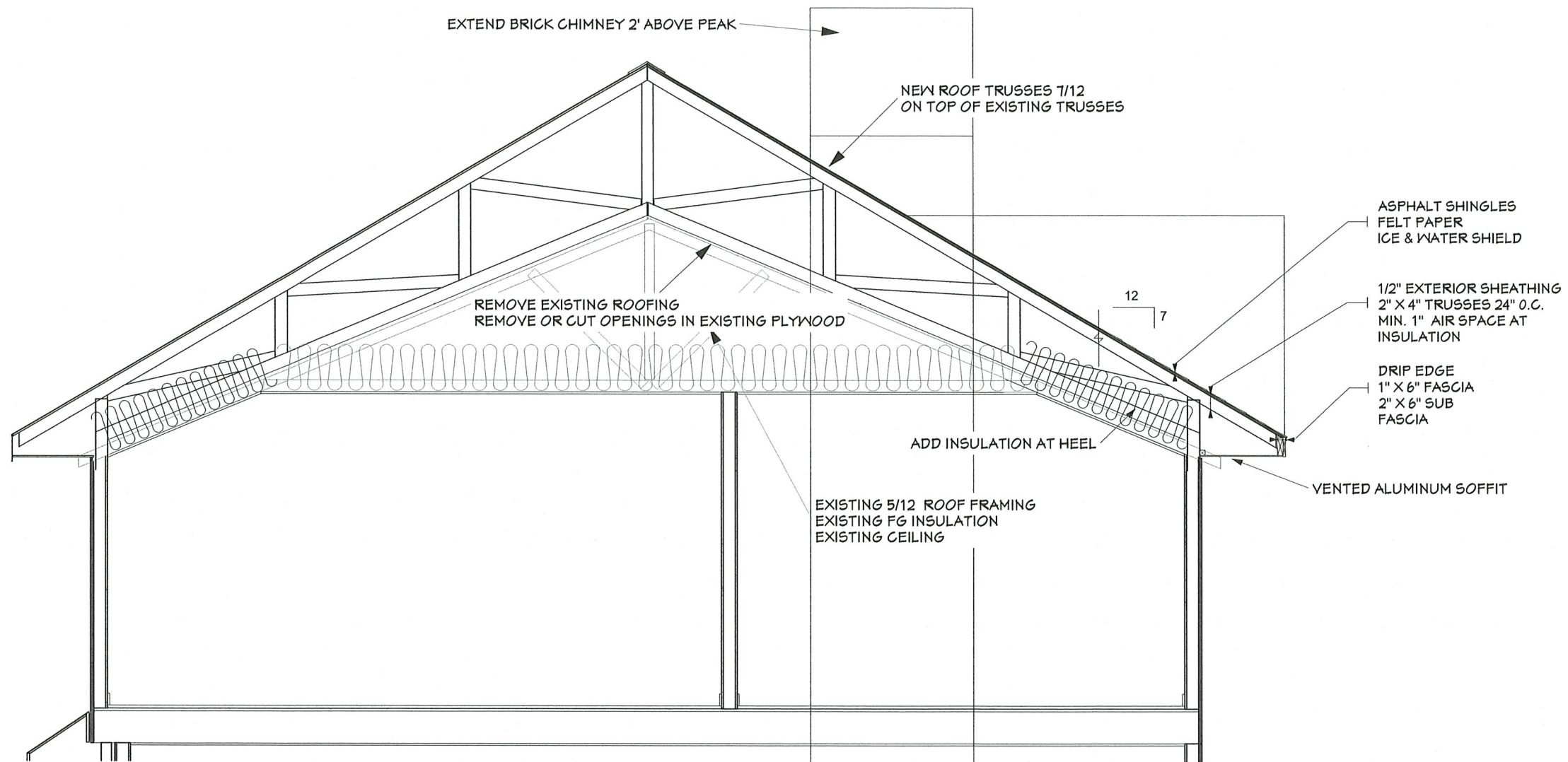
GARAGE SECTION

CITY OF EDINA  
AUG 17 2021  
PLANNING DEPARTMENT

REVISION TABLE	
NUMBER	DESCRIPTION

STACKHOUSE REMODELING  
SITE ADDRESS  
5101 WINDSOR AVE  
EDINA

DATE:
4/19/2021
SCALE:
1/2" = 1'-0
SHEET: 5
OF 1



Section old trusses

REVISION TABLE	
NUMBER	DATE

STACKHOUSE REMODELING  
 SITE ADDRESS  
 5101 WINDSOR AVE  
 EDINA

DATE:  
 4/19/2021

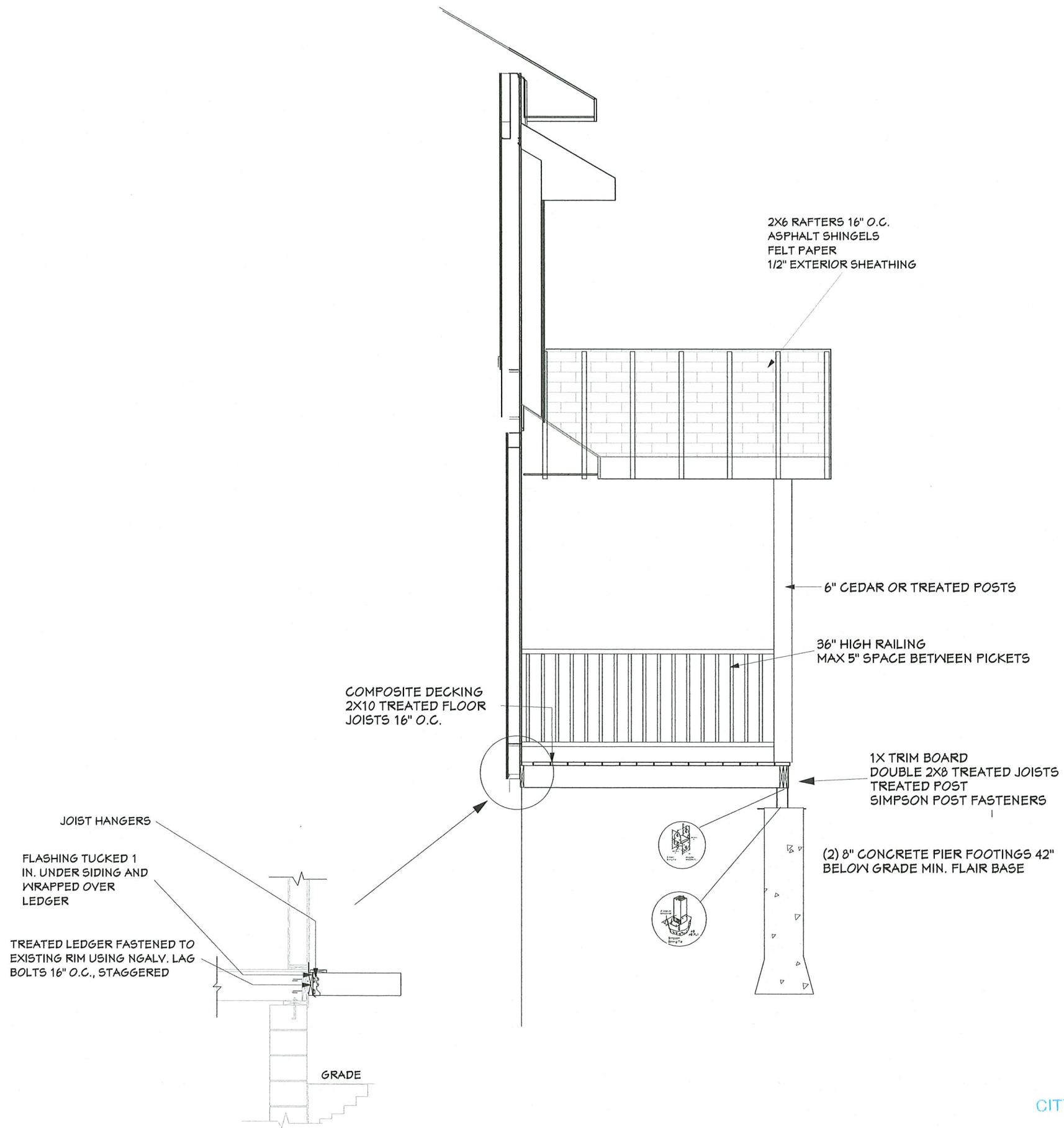
SCALE:  
 1/2" = 1'-0

SHEET: 6

OF 1

CITY OF EDINA  
 AUG 17 2021  
 PLANNING DEPARTMENT





# PORCH SECTION

CITY OF EDINA  
AUG 17 2021  
PLANNING DEPARTMENT

REVISION TABLE		
NUMBER	DATE	REVISION BY / DESCRIPTION

## STACKHOUSE REMODELING

SITE ADDRESS  
5101 WINDSOR AVE  
EDINA

DATE:

4/19/2021

SCALE:

1/2" = 1'-0

SHEET: 1

OF 1

# Survey Responses

30 January 2019 - 16 September 2021

## Public Hearing Comments-5101 Windsor Ave

### Better Together Edina

Project: Public Hearing: A 25.9-foot setback variance from Kent/Windsor Avenue, a 22.94-foot setback variance from Warwick Place and a 16-foot rear yard setback variance for an addition above an existing garage at 5101 Windsor Avenue



VISITORS					
2					
CONTRIBUTORS			RESPONSES		
1			1		
0	0	1	0	0	1
Registered	Unverified	Anonymous	Registered	Unverified	Anonymous



**Respondent No:** 1

**Login:** Anonymous

**Email:** n/a

**Responded At:** Sep 13, 2021 17:26:22 pm

**Last Seen:** Sep 13, 2021 17:26:22 pm

**IP Address:** n/a

Q1. **First and Last Name**

Benjamin Gervais

Q2. **Address**

5516 Warwick Place, Edina, MN 55436

Q3. **Comment**

As the property closest / potentially impacted by this remodel, I am completely supportive of their request. The design is thoughtful and the Arnold family has been extremely transparent on their intentions. It will have a positive aesthetic impact on the Melody Lake neighborhood,. Please feel free to contact me with additional questions (651-308-5482).







## CITY OF EDINA

4801 West 50th Street

Edina, MN 55424

[www.edinamn.gov](http://www.edinamn.gov)

**Date:** September 22, 2021

**Agenda Item #:** VI.C.

**To:** Planning Commission

**Item Type:**  
Report and Recommendation

**From:** Kris Aaker, Assistant Planner

**Item Activity:**

**Subject:** B-21-29 Variance request 5615 Woodcrest

Action

---

### ACTION REQUESTED:

Approve variance as submitted.

### INTRODUCTION:

A 4.4-foot side yard setback variance from the required 10-foot setback for an addition above the existing nonconforming garage at 5615 Woodcrest Ave.

The applicant is requesting a variance to build a 2<sup>nd</sup> floor above the existing nonconforming garage at 5615 Woodcrest Ave. The existing home is nonconforming regarding setback from the north, (garage side yard setback). The project scope includes adding a 2<sup>nd</sup> story master suite above the existing garage, with a full bathroom and walk in closet.

### ATTACHMENTS:

Staff Report

Engineering Memo

Site Location

Narrative

Survey

Better Together Public Hearing Comment Report 9-16-21 Noon



**Date:** September 22, 2020

**To:** PLANNING COMMISSION

**From:** Kris Aaker, Assistant City Planner

**Subject:** B-21-29, A 4.4-foot variance from the 10-foot side yard setback requirement for a second-floor addition above the existing garage at 5615 Woodcrest. The existing house and first floor have an existing non-conforming side yard setback of 5.6-feet.

## Information / Background:

The subject property is approximately 8,881 square feet in area, consisting of a two-story home with a two-car garage, located on the east side of Woodcrest Dr. The existing home was built in 1969 and is original in construction. The applicant is proposing a 4.4-foot north side yard setback variance from the property line to allow for a second-floor addition above the existing nonconforming two car garage located 5.6 feet from the side lot line. The ordinance requires a 10-foot side yard setback. The applicant is undergoing the addition to accommodate an extra bedroom, bath and closet area. The home complies with all required setbacks with the exception of north side yard setback. The home was constructed prior to current setback standards and did not require a variance for the garage setback. An addition above the existing nonconforming garage to the north side of the home will be no closer to the side lot line than the existing garage below. The proposed addition will encroach the 10-foot side yard setback by 4.4 feet and no closer than existing. The request is to allow the addition to simply match the setback of the garage below.

## Surrounding Land Uses

Northerly: Single Unit residential homes; zoned and guided low-density residential.

Easterly: Single Unit residential homes; zoned and guided low-density residential.

Southerly: Single Unit residential homes; zoned and guided low-density residential.

Westerly: Single Unit residential homes; zoned and guided low-density residential.

### Existing Site Features

The property consists of a two-story home with a two-car garage built in 1969. The proposed addition will include an added bedroom. The addition will be located 4.4 feet from the north lot line at the same setback as the existing garage below.

### Planning

Guide Plan designation: Low-Density Residential

Zoning: R-1, Single-Dwelling District

### Grading & Drainage

Proposed grading and drainage paths will remain as existing drainage paths. The Environmental Engineer has reviewed the application and submitted comments as attached in a memorandum dated September 10, 2021.

### Compliance Table

	City Standard	Proposed
North Side –	10 feet 4.4 feet existing	<b>*4.4 feet</b>
East Rear-	25 feet	50 feet
South Side–	10 feet	16.2 feet
West Front–	31.95 feet	32 feet
Building Coverage	30% 2,250 sq ft 2,591 sq ft existing	29.17% 2,291 sq ft

**\*Requires a variance**

## PRIMARY ISSUES & STAFF RECOMENDATION

### Primary Issues

- Is the proposed variance justified?

**Minnesota Statutes and Section 36-98 of the Edina Zoning Ordinance require that the following conditions must be satisfied affirmatively. The proposed variance will:**

- 1) *Relieve practical difficulties that prevent a reasonable use from complying with ordinance requirements.***

The practical difficulty is that the existing north side wall of the home is closer to the side lot line than the minimum 10 feet required. The home was built under different ordinance standards and did not require a variance at that time for a setback less than the 10 feet currently required.

- 2) *There are circumstances that are unique to the property, not common to every similarly zoned property, and that are not self-created?***

The existing house is nonconforming with the addition above the garage matching the nonconforming side yard setback. The existing garage is closer to the side lot line than currently allowed. The home was built closer to the north lot line under different setback requirements. The alternate setback standard does on apply to the second-floor addition.

- 3) *Will the variance alter the essential character of the neighborhood?***

Granting the variance will not alter the character of the neighborhood. The applicants are hoping to provide additional interior space above an existing two-car garage, like other homes in the neighborhood. The addition will be seamless and will look as if it were part of the original plan for the home. There are homes of similar scale in the area. The home is two-story and will match existing ridge height.

### Recommended Action:

Approve a 4.4 foot side yard setback variance for the property line at 5615 Woodcrest Dr. Staff recommends approval of the variance, as requested subject to the findings listed in the staff report above, and subject to the following conditions:

- Survey dated: August 30, 2021
- Elevations and building plans dated August 30, 2021.
- Compliance with the conditions and comments listed in the Environmental Engineer's memo dated September 10, 2021.







**DATE:** 9/10/2021  
**TO:** Cary Teague – Planning Director  
**FROM:** Zuleyka Marquez, PE – Graduate Engineer  
**RE:** **5615 Woodcrest Dr - Variance Review**

The Engineering Department has reviewed the subject property for street and utility concerns, grading, stormwater, erosion and sediment control and for general adherence to the relevant ordinance sections.

This review was performed at the request of the Planning Department; a more detailed review will be performed at the time of building permit application. Plans reviewed included a site plan and elevations stamped August 30, 2021.

#### *Summary of Work*

The applicant proposes an addition over the existing garage. The request is for a variance to the side yard setback.

#### *Easements*

Remove encroachments on drainage easement. Trees, shrubs, landscape materials, fences, driveways, and parking lots exempt per City Code Section 24-22.

#### *Grading and Drainage*

Site drains to Woodcrest Dr and Minnehaha Creek in both existing and proposed conditions.

#### *Stormwater Mitigation*

Stormwater precautions were not triggered by the proposed work and are thus not required. Swale between 5609 and 5615 Woodcrest Dr to be maintained.

#### *Floodplain Development*

FEMA base flood elevation is 860.3'. Lowest floor elevation required at no less than 862.3'. No issues since the addition is a second story addition.

#### *Erosion and Sediment Control*

Erosion and sediment control precautions not triggered by the proposed work and thus not required.

#### *Street, Driveway Entrance, and Public Utilities*

No comment.

#### *Miscellaneous*

A Minnehaha Creek Watershed District permit may be required, applicant will need to verify with the district.

Watermain installed 1966. Structure built 1968. A well is likely not located onsite. Thus, coordination with Minnesota Department of Health will not be required.

---

#### **ENGINEERING DEPARTMENT**

7450 Metro Boulevard • Edina, Minnesota 55439  
www.EdinaMN.gov • 952-826-0371 • Fax 952-826-0392



# 5615 Woodcrest



1 in = 94 ft



The CITY of  
**EDINA**



September 9, 202



## **5615 Woodcrest Dr Variance**

**Q: Relieve practical difficulties in complying with the zoning ordinance and that the use is reasonable.**

**A:** The practical difficulty of this property as to the code, is the original setback of the existing house does not meet current setback requirements. We would like to add a 2<sup>nd</sup> story over the existing foundation and main level. This will not work well if we are not allowed to utilize the existing house setback.

**Q: Correct extraordinary circumstances applicable to this property but not applicable to other property in the vicinity or zoning district.**

**A:** Many of the houses in this area were built with similar side yard setbacks to the project at 5615 Woodcrest Dr. For the project at 5615 Woodcrest Dr, we are using the existing house and foundation so I we are not able to move/alter the foundation without adding a significant cost. Please reference both neighboring houses on the Survey provided.

**Q: Be in harmony with the general purposes and intent of the zoning ordinance.**

**A:** The project at 5615 Woodcrest Dr will have the same side yard setbacks as we are staying within the footprint of the existing house on both sides. The false gable over the front door is to compensate the balance of the addition over the garage to be more aesthetically pleasing.

**Q: Not alter the essential Character of a neighborhood.**

**A:** Design elements of the addition have been made to stay in line with existing house and neighborhood such as roof pitches, gable orientation, and siding textures.

CITY OF EDINA

AUG 30 2021

PLANNING DEPARTMENT

This page and the following 3 are an explanation of the "deck under construction" on the most up to date survey:

Before the survey was started, the Homeowner, Bryan Brutlag, removed a portion of an existing deck on the Northeast side of the home. Before starting this project, Bryan did verify with the city in March that he did not need a permit for this, as the deck is not attached to the home and it's lower than 3ft off the ground. When the survey was performed, the Homeowner was replacing new deck boards on the existing joists of the same deck. This is what caused the deck to be titled "under construction" on the new survey.

Page 2 is an email from Bryan, explaining that he reduced the deck size by 120sqft with pictures.

Page 3 is an email with Bryan on it explaining that he only replaced deck boards.

Page 4 is a survey with markings made by Bryan showing the reduced size of the deck.

CITY OF EDINA

AUG 30 2021

PLANNING DEPARTMENT

**Griffin Jones**

---

**From:** Bryan Brutlag <brutlb@gmail.com>  
**Sent:** Tuesday, July 20, 2021 8:40 PM  
**To:** Tom VonRuden; Griffin Jones  
**Subject:** Re: 5615 Woodcrest Dr

Hey Griffin and Tom,

I'll plan on running over to the permit office this week to resolve if you can confirm that is the appropriate next step? For reference, the previous deck was ~320 sq ft, and we reduced to ~200 sq ft if it has any relevance to your application for a variance. Pictures below.



Bryan Brutlag

On Jul 20, 2021, at 6:15 PM, Tom VonRuden <tom@voncompanies.com> wrote:

CITY OF EDINA

AUG 30 2021

It was original to the house when he bought it and also made it smaller.

PLANNING DEPARTMENT

Get [Outlook for iOS](#)

---

**From:** Kris Aaker <KAaker@EdinaMN.gov>  
**Sent:** Tuesday, July 20, 2021 6:00:55 PM  
**To:** Tom VonRuden <tom@voncompanies.com>  
**Cc:** Bryan Brutlag <brutlb@gmail.com>; Griffin Jones <griffin@voncompanies.com>  
**Subject:** RE: 5615 Woodcrest Dr

Tom,



If Building Inspections doesn't need a permit for deck board replacement and it is the same configuration as the previous deck, then the property owner may apply for a variance.

Thanks,  
Kris

**Kris Aaker, Assistant City Planner**

<image001.gif> 952-826-0461 | Fax 952-826-0389  
4801 W. 50th St. | Edina, MN 55424  
[KAaker@EdinaMN.gov](mailto:KAaker@EdinaMN.gov) | [EdinaMN.gov/Planning](http://EdinaMN.gov/Planning)

Stay informed about the City's response to COVID-19 at [EdinaMN.gov/Coronavirus](http://EdinaMN.gov/Coronavirus). Need a hand or want to help? Visit [BetterTogetherEdina.org/COVID-19](http://BetterTogetherEdina.org/COVID-19).

**From:** Tom VonRuden <tom@voncompanies.com>  
**Sent:** Tuesday, July 20, 2021 3:25 PM  
**To:** Kris Aaker <KAaker@EdinaMN.gov>  
**Cc:** Bryan Brutlag <brutlb@gmail.com>; Griffin Jones <griffin@voncompanies.com>  
**Subject:** 5615 Woodcrest Dr

**EXTERNAL EMAIL ALERT:** This email originated from outside the City of Edina. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good afternoon Kris,

Thanks again for your help explaining the concerns with this project. I did confirm with the Homeowner, Bryan Brutlag, who is attached to this email, that he only replaced portions of the existing deck. He also said that he called the City to confirm that he did not need a permit for replacing. Can you let us know what needs to be done with the deck, so we can apply for variance on the addition? Let us know.

Sincerely,

Tom Von Ruden  
(612)414-3810  
[Von Companies](http://VonCompanies)  
BUILDER ID BC226349  
<image003.png>

CITY OF EDINA

AUG 30 2021

PLANNING DEPARTMENT



Surveyors Certificate

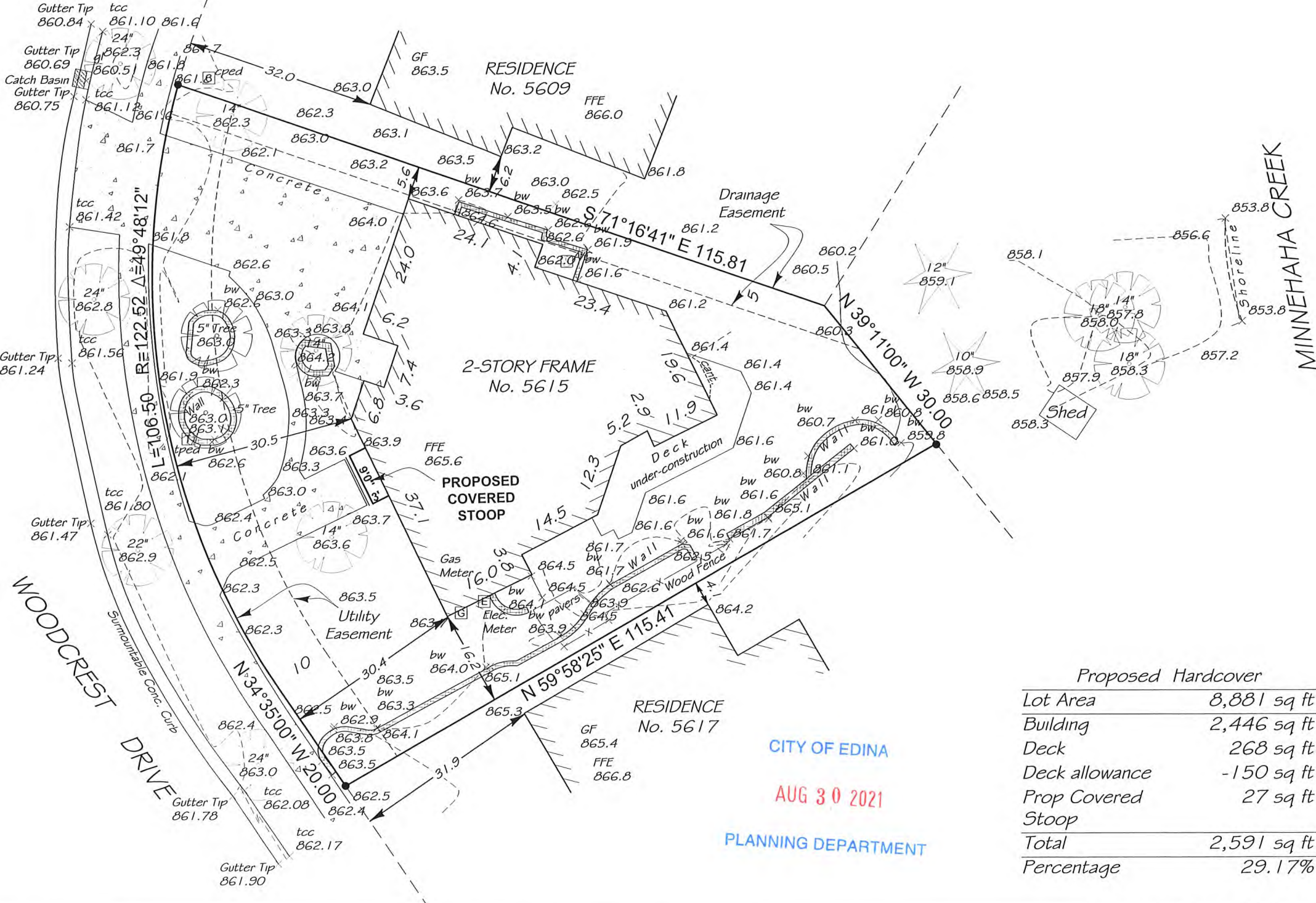
Site Plan Survey For:

VON COMPANIES

Property located in Section  
19, Township 28, Range 24,  
Hennepin County, Minnesota

- Denotes Found Iron Monument
- Denotes Iron Monument
- Denotes Wood Hub Set for excavation only
- Denotes Existing Contours
- - - Denotes Proposed Contours
- x000.0 Denotes Existing Elevation
- 000.0 Denotes Proposed Elevation
- Denotes Surface Drainage

Basis for  
bearings is  
assumed



Legal Description  
Lot 4, Block 2, COLONIAL GROVE SIXTH  
ADDITION  
Hennepin County, Minnesota

**DEMARC**  
LAND SURVEYING & ENGINEERING  
7601 73rd Avenue North (763) 560-3093  
Minneapolis, Minnesota 55428 DemarcInc.com

Project No. 89625 Scale: 1" = 20'  
F.B.No. \*\*\*\*\_\*\* Drawn By [Signature]

Address: 5615 Woodcrest Drive  
Edina, MN

rev

I 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.  
Surveyed this 15th day of June 2021.

Signed [Signature]  
Gregory R. Frasch, Minn. Reg. No. 24992

Proposed Hardcover	
Lot Area	8,881 sq ft
Building	2,446 sq ft
Deck	268 sq ft
Deck allowance	-150 sq ft
Prop Covered	27 sq ft
Stoop	
Total	2,591 sq ft
Percentage	29.17%



Surveyors Certificate

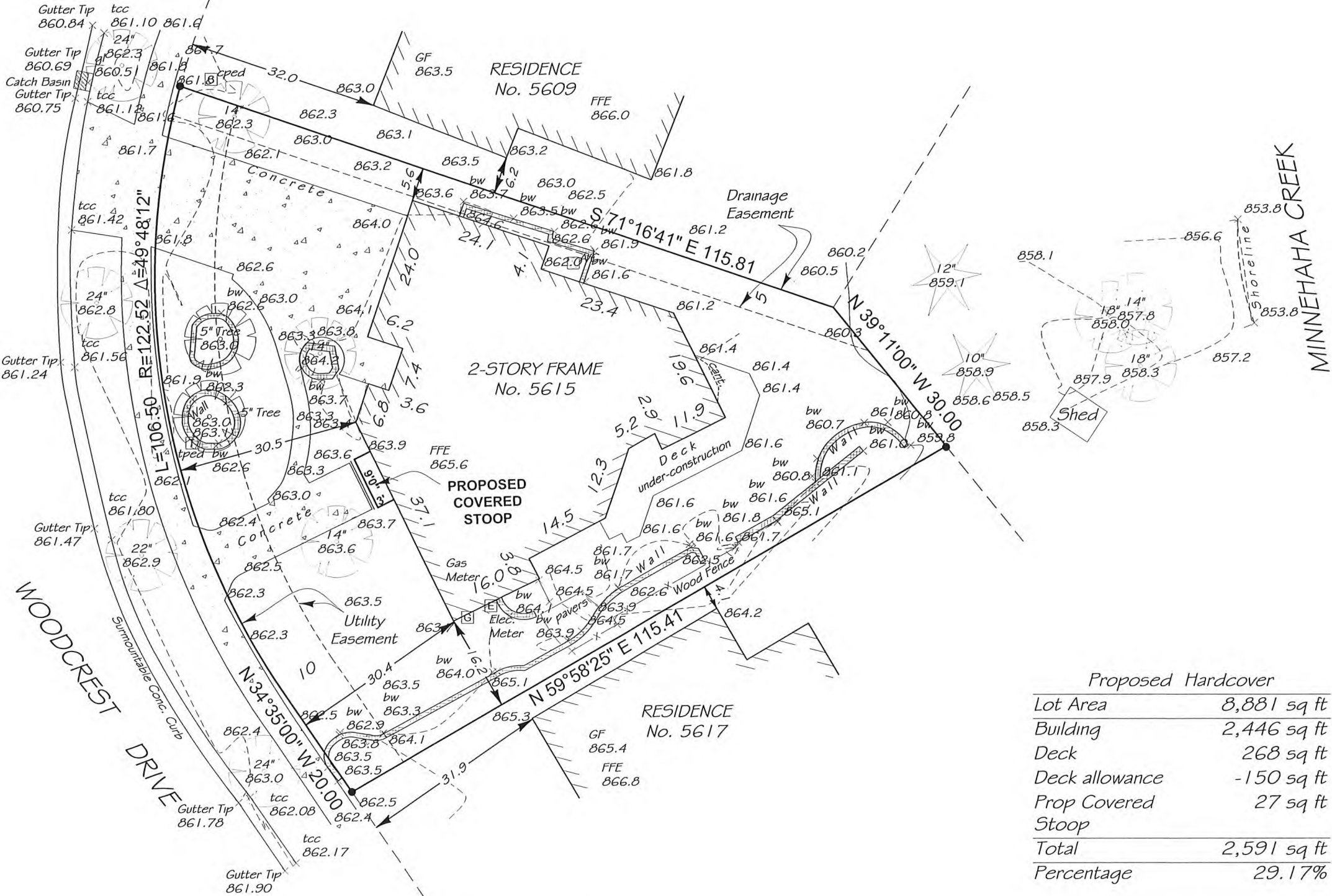
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assumed



CITY OF EDINA

AUG 30 2021

PLANNING DEPAR

Legal Description

Lot 4, Block 2, COLONIAL GROVE SIXTH  
ADDITION  
Hennepin County, Minnesota

**DEMARC**

LAND SURVEYING & ENGINEERING

7601 73rd Avenue North (763) 560-3093  
Minneapolis, Minnesota 55428 DemarcInc.com

Project No. 89625

Scale: 1" = 20'

F.B.No.

\*\*\*\*\_\*\*

Drawn By

CG

Address: 5615 Woodcrest Drive  
Edina, MN

rev

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I 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.  
Surveyed this 15th day of June 2021.

Signed

*Gregory R. Frasch*

Gregory R. Frasch, Mnn. Reg. No. 24992



# Surveyors Certificate

Site Plan Survey For:

VON COMPANIES

Property located in Section  
19, Township 28, Range 24,  
Hennepin County, Minnesota

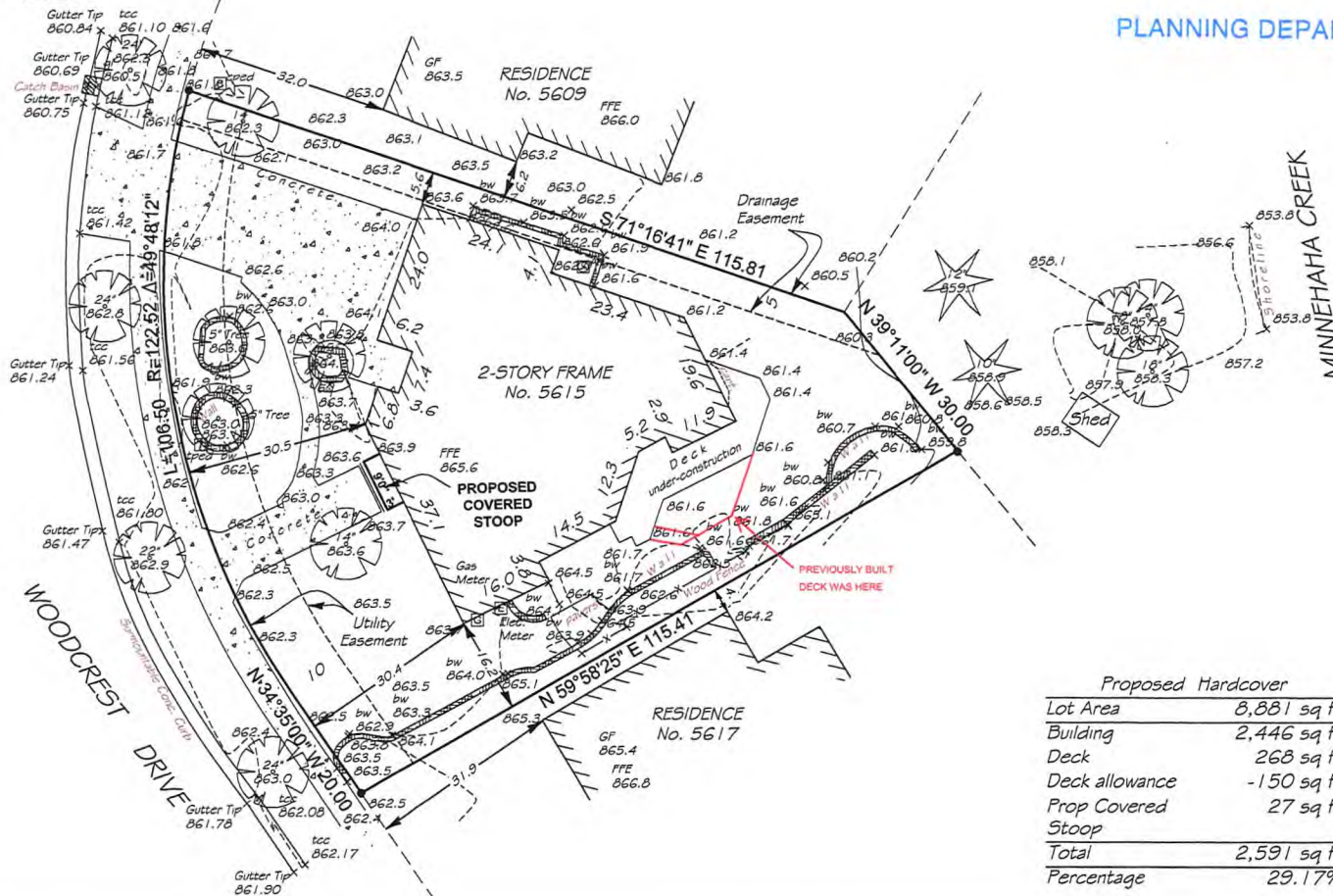
CITY OF EDINA

AUG 30 2021

PLANNING DEPARTMENT

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- Denotes Surface Drainage

Basis for  
bearings is  
assumed

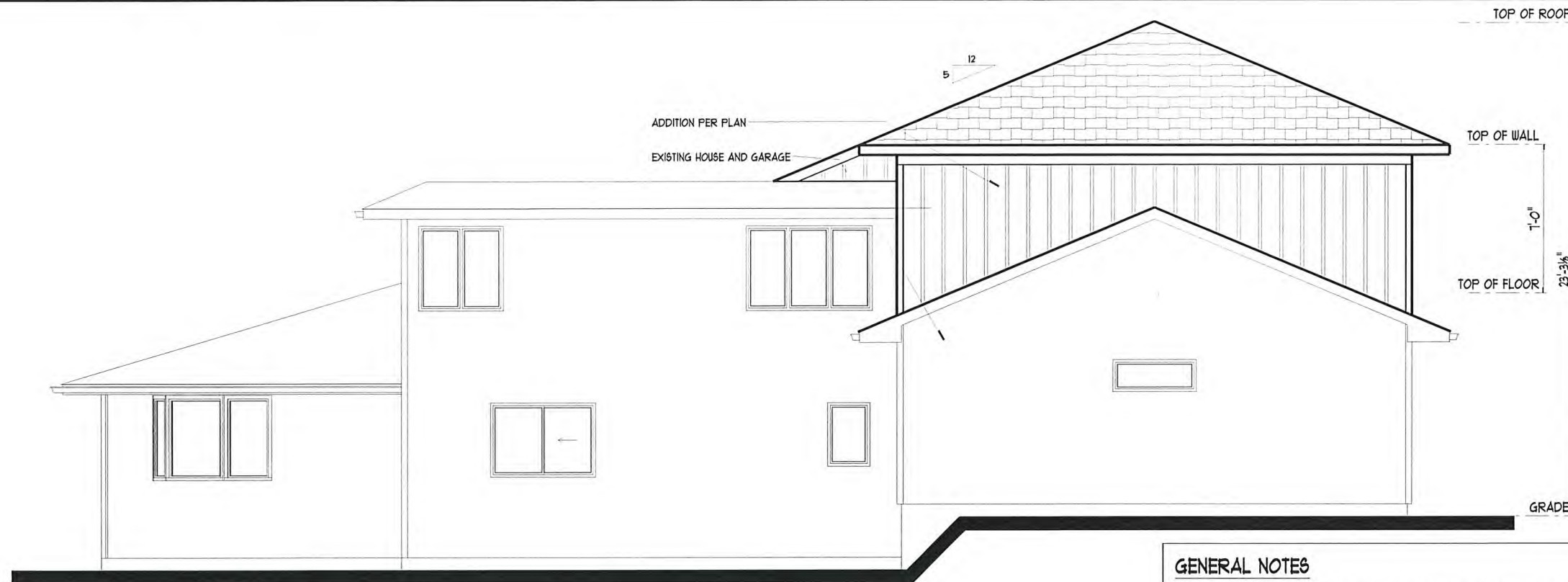


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Lot 4, Block 2, COLONIAL GROVE SIXTH ADDITION Hennepin County, Minnesota	
<b>DEMARC</b> LAND SURVEYING & ENGINEERING 7601 73rd Avenue North (763) 560-3093 Minneapolis, Minnesota 55428 Demarcinc.com	
Project No. 89625	Scale: 1" = 20'
F.B.No. ****	Drawn By <i>RG</i>
Address: 5615 Woodcrest Drive Edina, MN	
rev	
I 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. Surveyed this 15th day of June 2021.	
Signed <i>Gregory R. Frisch</i>	Gregory R. Frisch, Minn. Reg. No. 24992

EXPLANATION OF DECK UNDER CONSTRUCTION Pg 4 of 4



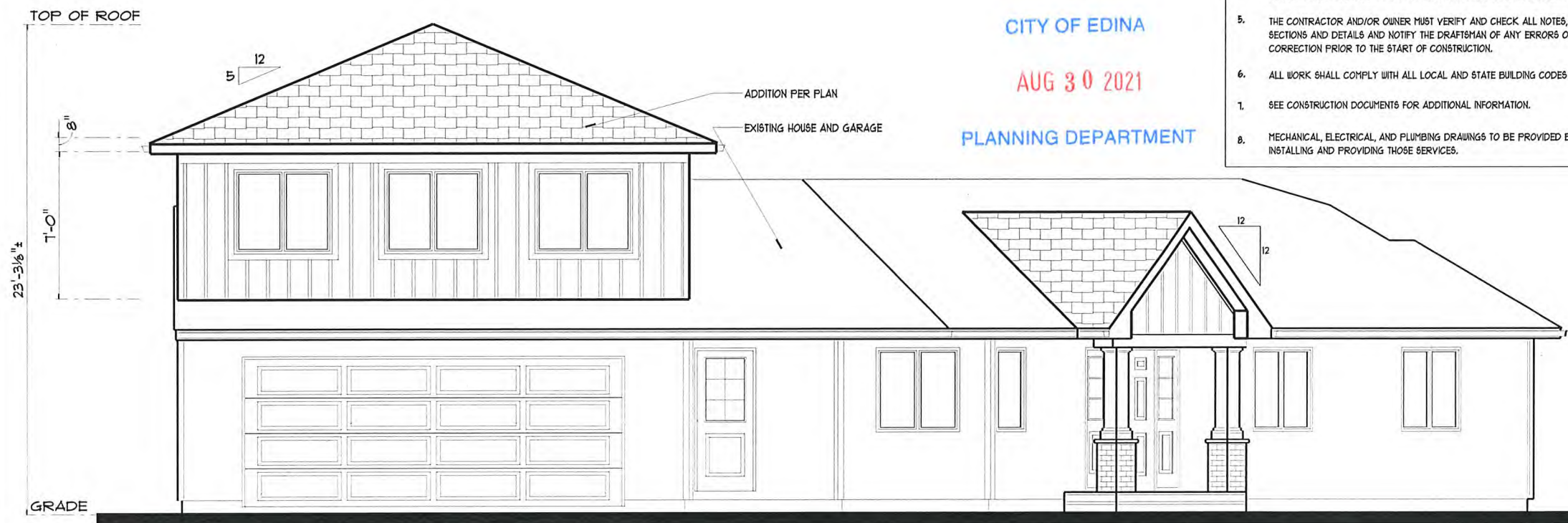


## LEFT SIDE (NORTH) ELEVATION

SCALE 1/4" = 1'-0"

### GENERAL NOTES

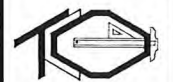
1. PLANS AND NOTES ASSUME WORK IS TO BE DONE BY CERTIFIED OR LICENSED CONTRACTORS. ADDITIONAL COSTS INCURRED BY NOT USING SUCH CONTRACTORS WILL BE BORNE SOLELY BY THE OWNER.
2. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL DIMENSIONS AND PLAN CONDITIONS.
3. SIMILAR MATERIALS INDICATED ON DIFFERENT PLANS, SECTIONS, AND DETAILS, AND ANNOTATED ON ONE OR MORE PLAN, SECTION OR DETAIL SHALL BE CONSIDERED ANNOTATED, NOTED OR LABELED COMPLETELY ON ALL PLANS, SECTION AND DETAILS.
4. IN THE CASE OF AMBIGUITIES, DISCREPANCIES OR IRREGULARITIES IN THE DRAWINGS, SPECIFICATIONS, MANUFACTURING INSTRUCTIONS, SITE CONDITIONS OR APPLICABLE CODES AND STANDARDS, REQUEST CLARIFICATION FROM THE DRAFTSMAN OR ENGINEER BEFORE PROCEEDING. THE COST OF CORRECTING WORK DONE AS A RESULT OF PROCEEDING WITHOUT OBTAINING CLARIFICATION WILL BE BORNE SOLELY BY THE CONTRACTOR/OWNER.
5. THE CONTRACTOR AND/OR OWNER MUST VERIFY AND CHECK ALL NOTES, FLOOR PLANS, ELEVATIONS, SECTIONS AND DETAILS AND NOTIFY THE DRAFTSMAN OF ANY ERRORS OR OMISSIONS FOR POSSIBLE CORRECTION PRIOR TO THE START OF CONSTRUCTION.
6. ALL WORK SHALL COMPLY WITH ALL LOCAL AND STATE BUILDING CODES AND ORDINANCES.
7. SEE CONSTRUCTION DOCUMENTS FOR ADDITIONAL INFORMATION.
8. MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS TO BE PROVIDED BY THE CONTRACTORS INSTALLING AND PROVIDING THOSE SERVICES.



## FRONT (WEST) ELEVATION

SCALE 1/4" = 1'-0"

PORCH POST ELEVATION



**TCO DESIGN**  
drafting and home design

**TCO DESIGN**  
drafting and home design

P.O. Box 41750  
Plymouth, MN 55441

Office 763-424-3676  
Cell 952-934-8276

dedication to excellence

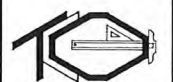
Prepared by:  
**Todd Ofsthun**

Office 763-424-3676  
Cell 952-934-8276

todd@tcoDesign.net

Plan Date  
PRE-FINAL 7-10-21  
FINAL 7-15-21

**VON COMPANIES**  
**BRYAN and TAYLOR BRUTLAG**  
Edina  
5615 Woodcrest Drive



**TCO DESIGN**  
drafting and home design

Design #

tco202077

**A1**  
A1 OF 4





**TCO DESIGN**  
drafting and home design

P.O. Box 41730  
Plymouth, MN 55441

Office 763-424-3676  
Cell 952-934-8276

dedication to excellence

Prepared by:  
Todd Ofsthun

Office 763-424-3676  
Cell 952-934-8716  
lodd@lcode.lgn.net

Plan Date  
PRE-FINAL 7-10-21  
FINAL 7-15-21

**VON COMPANIES**  
**BRYAN and TAYLOR BRUTLAG**

5615 Woodcrest Drive Edina

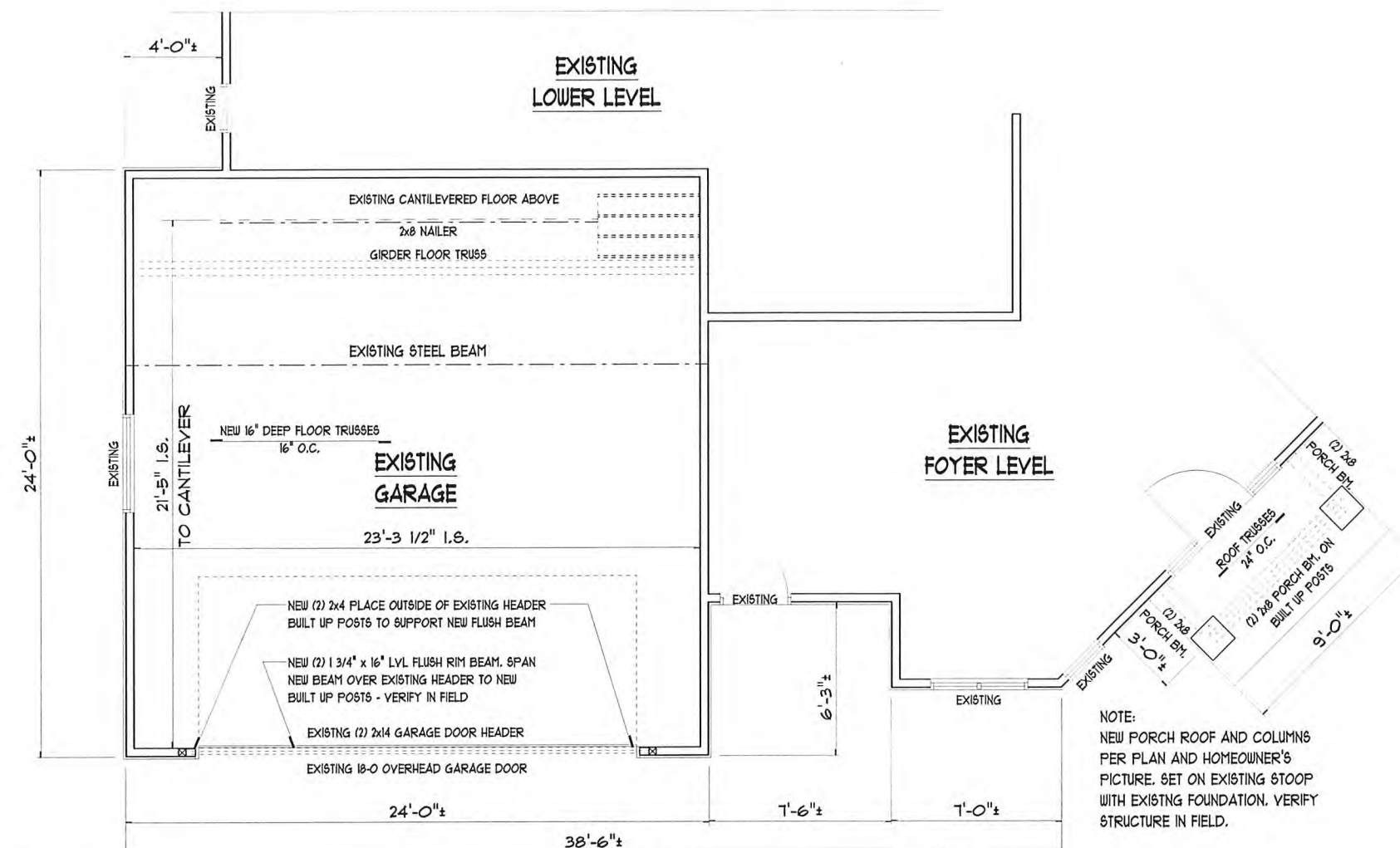


Design •

tco2020TT

A2

A2 OF 4



NOTE:  
NEW PORCH ROOF AND COLUMNS  
PER PLAN AND HOMEOWNER'S  
PICTURE. SET ON EXISTING STOOP  
WITH EXISTING FOUNDATION. VERIFY  
STRUCTURE IN FIELD.

## MAIN LEVEL RENOVATION PLAN

SCALE 1/4" = 1'-0"

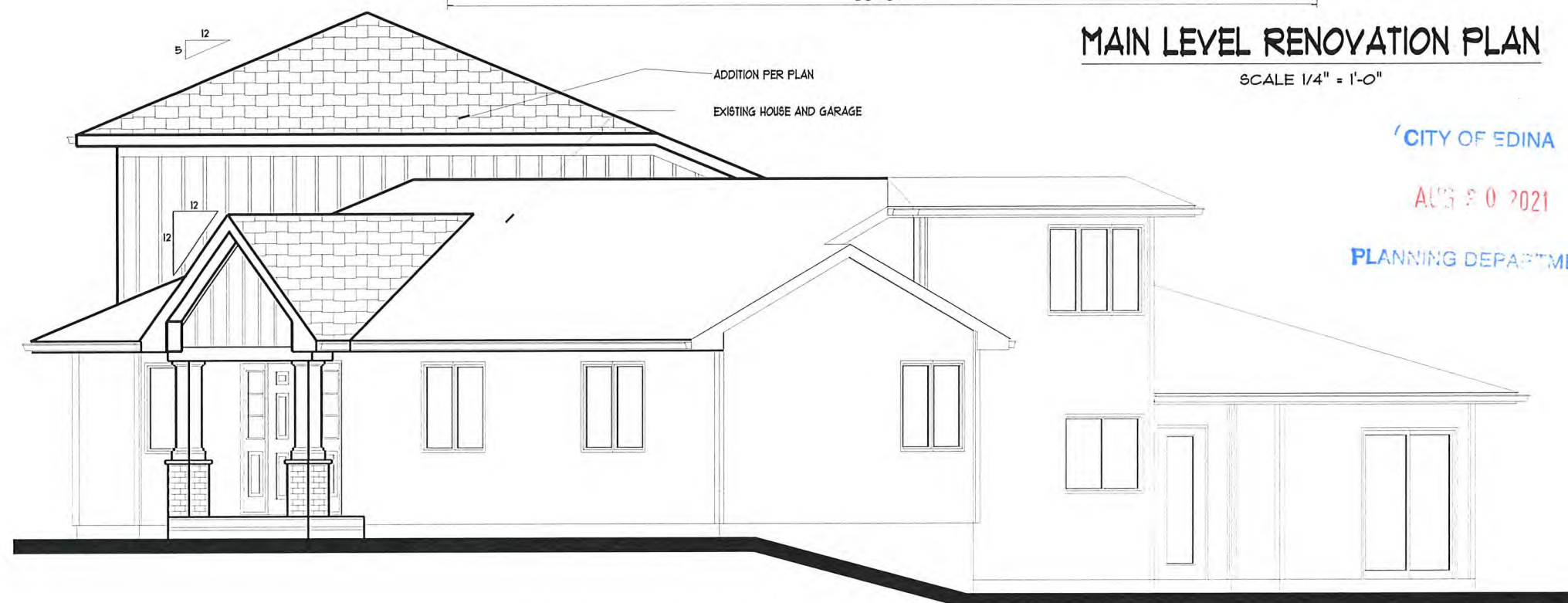
CITY OF EDINA

AUG 30 2021

PLANNING DEPARTMENT



### PORCH POST ELEVATION



RIGHT SIDE (SOUTH) ELEVATION

SCALE 1/4" = 1'-0"



**TCO DESIGN**  
drafting and home design

P.O. Box 41730  
Plymouth, MN 55441

Office 763-424-3676  
Cell 952-934-8276

dedication to excellence

Prepared by:  
Todd Ofsthun

Office 763-424-3676  
Cell 952-994-8716

todd@lcode1gr.net

Plan Date  
PRE-FINAL 7-10-21  
FINAL 7-15-21

**VON COMPANIES**  
**BRYAN and TAYLOR BRUTLAG**  
5615 Woodcrest Drive Edina

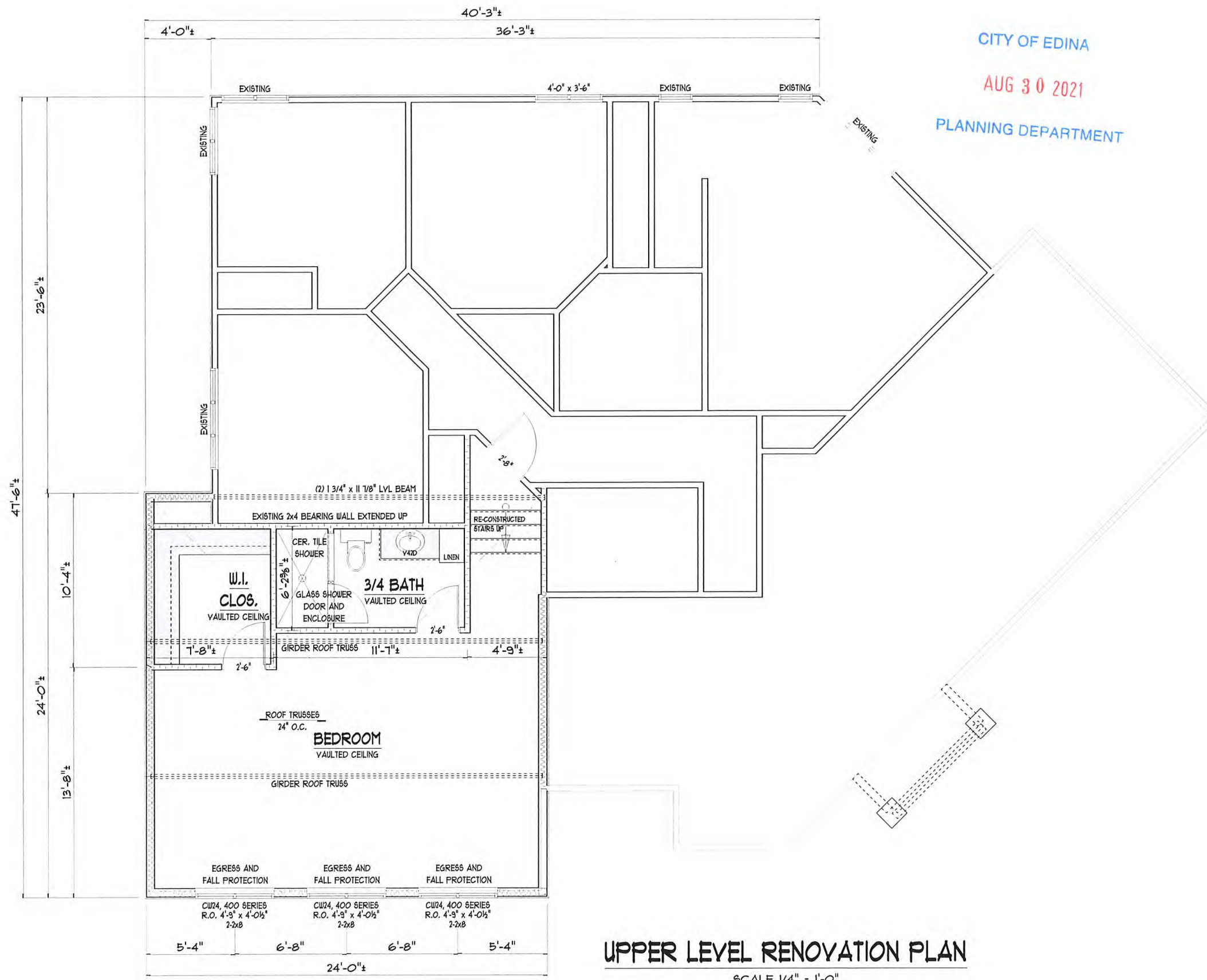


Design •

tco2020TT

A3

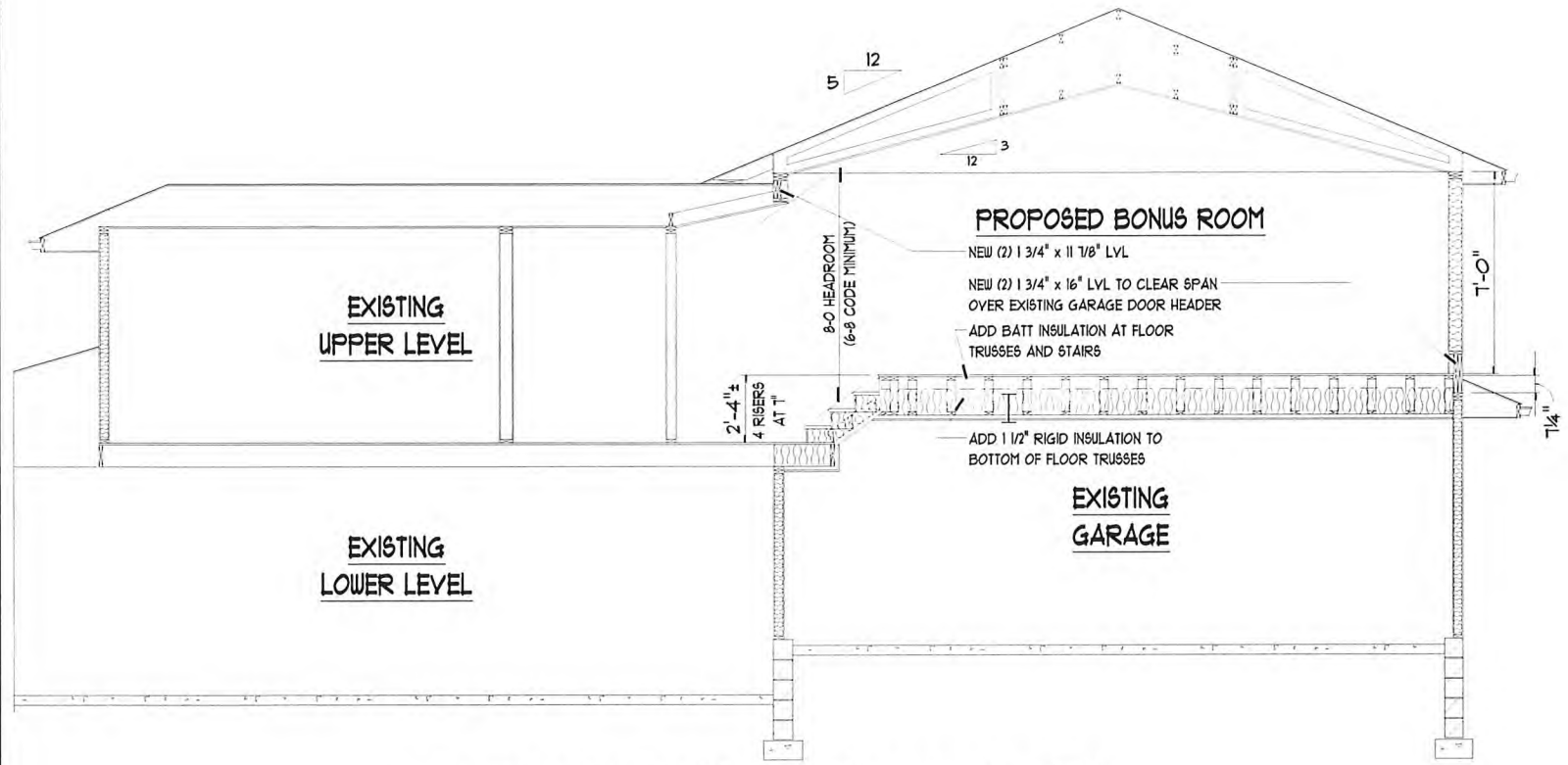
A3 OF 4



## UPPER LEVEL RENOVATION PLAN

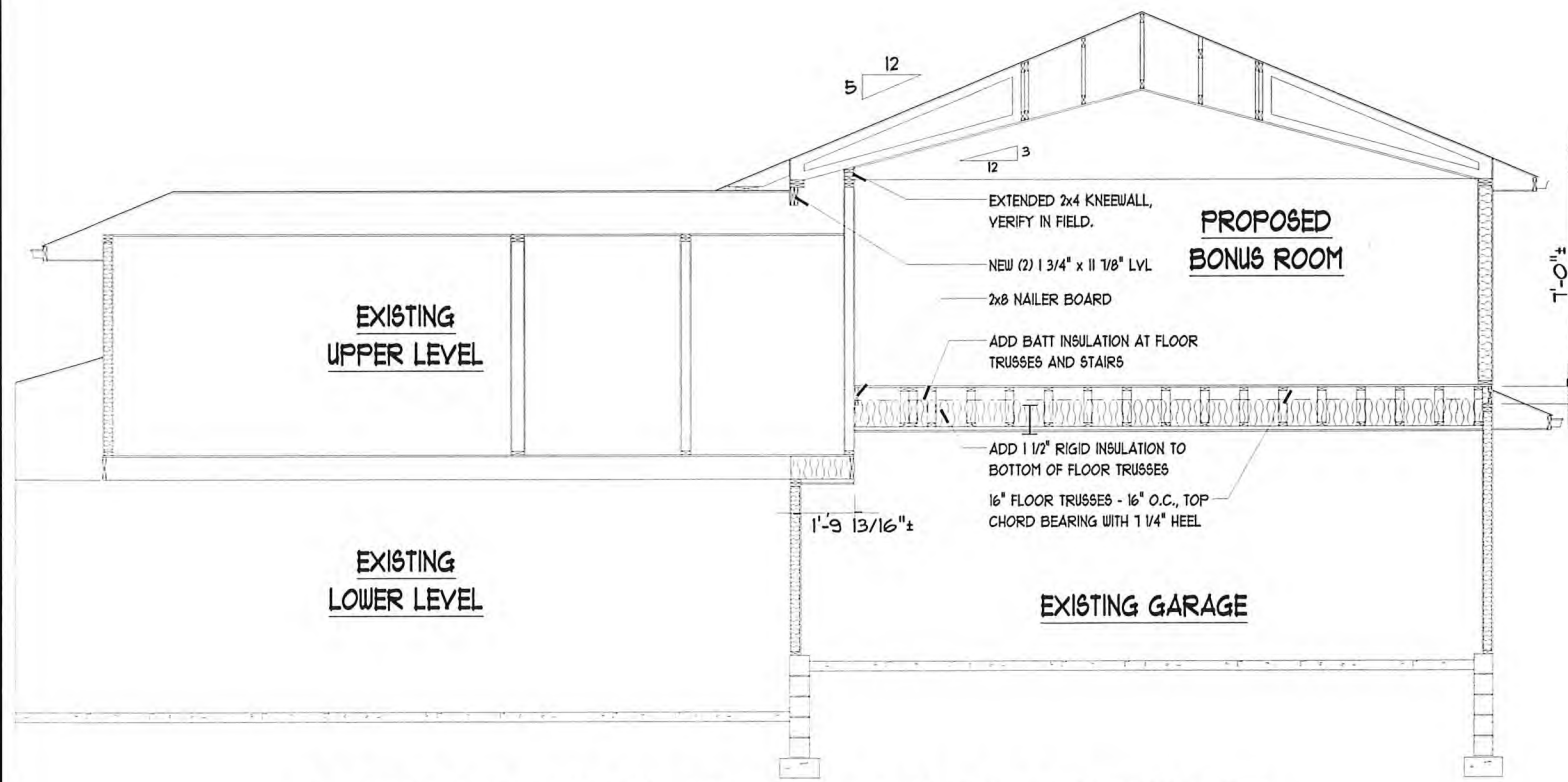
SCALE 1/4" = 1'-0"





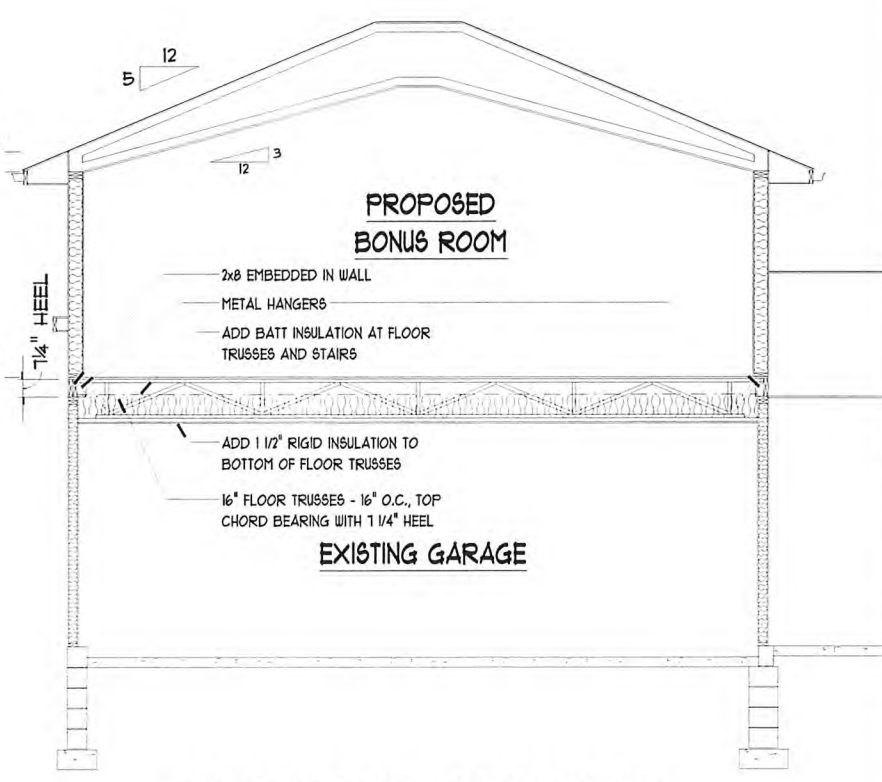
**ADDITION CROSS SECTION AT STAIRS**

SCALE 1/4" = 1'-0"



**ADDITION CROSS SECTION AT EXISTING CANTILEVER**

SCALE 1/4" = 1'-0"



**ADDITION CROSS SECTION**

SCALE 1/4" = 1'-0"

CITY OF EDINA

AUG 30 2021

PLANNING DEPARTMENT



**TCO DESIGN**  
drafting and home design

P.O. Box 41790  
Plymouth, MN 55441  
Office 763-424-3676  
Cell 952-934-8716  
dedication to excellence

Prepared by:  
Todd Ofsthun

Office 763-424-3676  
Cell 952-934-8716  
todd@tco-design.net

Plan Date  
PRE-FINAL 1-10-21  
FINAL 1-15-21

**VON COMPANIES**  
**BRYAN and TAYLOR BRUTLAG**  
5615 Woodcrest Drive Edina



Design #  
tco202077

**A4**  
A4 OF 4





5609 WOODCREST DRIVE

5615 WOODCREST DRIVE

## COMPUTER STREET VIEW RENDERINGS



5609 WOODCREST DRIVE

5615 WOODCREST DRIVE

5617 WOODCREST DRIVE

CITY OF EDINA

AUG 30 2021

PLANNING DEPARTMENT

5617 WOODCREST DRIVE



TCO DESIGN  
drafting and home design

TCO DESIGN  
drafting and home design

P.O. Box 41790  
Plymouth, MN 55441

Office 163-424-3616  
Cell 952-954-8716

dedication to excellence

Prepared by:  
Todd Ofethun

Office 163-424-3616  
Cell 952-954-8716

todd@tco2021.net

Plan Date  
VAR. APPL. 8-12-21

YON COMPANIES  
BRYAN and TAYLOR BRUTLAG  
5615 Woodcrest Drive Edina



TCO DESIGN  
drafting and home design

Design #  
tco202071

A5



# Survey Responses

30 January 2019 - 16 September 2021

## Public Hearing Comments- 5615woodcrestave

### Better Together Edina

Project: Public Hearing: a 4.4-foot side yard setback variance from the required 10-foot setback for an addition above an existing non-conforming garage at 5615 Woodcrest Ave



VISITORS

2

CONTRIBUTORS

0

RESPONSES

0

0

Registered

0

Unverified

0

Anonymous

0

Registered

0

Unverified

0

Anonymous

No Responses



## CITY OF EDINA

4801 West 50th Street

Edina, MN 55424

[www.edinamn.gov](http://www.edinamn.gov)

**Date:** September 22, 2021

**Agenda Item #:** VI.D.

**To:** Planning Commission

**Item Type:**

Report and Recommendation

**From:** Cary Teague, Community Development Director

**Item Activity:**

**Subject:** Preliminary Rezoning & Preliminary Development  
Plan with Variances for City Homes at 4630 France  
Avenue

Action

---

### ACTION REQUESTED:

Recommend the City Council approve the request for Preliminary Rezoning from R-1 to PRD-2, Preliminary Plat, Side yard setback variances from 20 feet to 7 and 15 feet, and a lot size variance from 7,300 square feet to 5,016 square feet.

Recommend the City Council deny the proposed rear yard setback variance and building coverage variance.

### INTRODUCTION:

The Planning Commission is asked to consider a re-development proposal to tear down the existing single-family home and build two villa style homes at 4630 France Avenue. A shared driveway off France Avenue would provide access for both homes. (See proposed plans and narrative.)

The property to the north contains a 4-unit townhome development zoned PRD-2, Planned Residential Development -2. The property to the south is a single-family home zoned R-1, Single Dwelling Unit District. Further south are duplexes zoned R-2, Double Dwelling Unit District.

### ATTACHMENTS:

Staff Report

Proposed Plans and Narrative

Memo from the City's Affordable Housing Development Manager

Memo from engineering

Memo - building official

Site Location, Zoning and Street View

Comprehensive Land Use Plan

Better Together Public Hearing Comment Report 9-16-21 Noon

Scott Fischmann public hearing testimony visual



**Date:** September 22, 2021

**To:** Planning Commission

**From:** Cary Teague, Community Development Director

**Subject:** Preliminary Rezoning & Preliminary Development Plan with Variances for City Homes at 4630 France Avenue.

## Information / Background:

The Planning Commission is asked to consider a re-development proposal to tear down the existing single-family home and build two villa style homes at 4630 France Avenue. A shared driveway off France Avenue would provide access for both homes. (See proposed plans and narrative.)

The property to the north contains a 4-unit townhome development zoned PRD-2, Planned Residential Development -2. The property to the south is a single-family home zoned R-1, Single Dwelling Unit District. Further south are duplexes zoned R-2, Double Dwelling Unit District. (See attached zoning map.)

To accommodate the request the following is required:

- A Rezoning from R-1, Single-Dwelling Unit District to PRD-2 Planned Residential District 2.
- Preliminary Plat.
- Side yard setback variances from 20 feet to 7 feet and 15 feet.
- Rear yard setback variance from 35 feet to 25 feet.
- Building coverage variance from 25% to 26.3%.
- Lot size variance from 7,300 square feet to 5,016 square feet.



## **SUPPORTING INFORMATION**

### **Surrounding Land Uses**

Northerly: A 4-unit single dwelling unit attached residential development; zoned PRD-2, Planned Residential District and guided Low Density Attached Residential.  
Easterly: France Avenue and the City of Minneapolis.  
Southerly: Single-family home, zoned R-I, and guided Low Density Attached Residential.  
Westerly: Single-family homes, zoned R-I, and guided Low Density Residential.

### **Existing Site Features**

The subject property is 10,032 acres in size and contains a single-family home.

### **Planning**

Guide Plan designation: LDAR, Low Density Residential Attached Residential (4-8 units per acre).  
Zoning: R-I, Single Dwelling Unit District

### **Rezoning**

Per Section 36-213 of the Zoning Ordinance “the commission may recommend approval by the council based upon, but not limited to, the following factors:”

(1) Is consistent with the comprehensive plan;

The subject property is guided low density residential attached, which is described as “two-family and attached dwellings of low densities and moderate heights. This category recognizes the historical role of these housing types as transitional districts between single-family residential areas and major thoroughfares or commercial districts. May include single-family detached dwellings.” “Introduction of more contemporary housing types, such as low- density townhouses, may be an appropriate replacement for two- family dwellings in some locations, provided that adequate transitions to and buffering of adjacent dwellings can be achieved.” The density allowed within this district is 4 - 8 residential dwelling units per acre.

The proposed project consists of two single-family detached dwellings in a configuration like the townhome development to the north. The proposed density is the same as the development to the north. The average lot size is 4,388 square feet in size to the north, which is smaller than the proposed two lots. (Proposed lots are 5,016 square feet in size.)

- (2) Will not be detrimental to properties surrounding the tract;

The project would not be detrimental to surrounding properties. The proposal is consistent with the lot sizes to the north, (slightly larger) and provides a buffer from the single-family homes to the west to France Avenue. The land use configuration is as described in the Comprehensive Plan “This category (Low Density Attached Residential) recognizes the historical role of these housing types as transitional districts between single-family residential areas and major thoroughfares or commercial districts.”

- (3) Will not result in an overly intensive land use;

With the reduction of the size of the homes provided to reduce the number of variances requested (rear yard setback variance and building coverage) the development would not result in an overly intensive land use. The density is consistent with the Comprehensive Plan and the lot sizes are consistent with the lot sizes to the north and similarly zoned property.

- (4) Will not result in undue traffic congestion or traffic hazards;

The addition of one single-family home would not result in an undue traffic congestion or hazards on France Avenue.

- (5) Conforms to the provisions of this section and other applicable provisions of this Code; and

There are several variances requested with this project. Staff is not in support of all of the variances as proposed. The size of the homes should be reduced to eliminate the building coverage variance and the rear yard setback variance. The other variances are reasonable due to the small lot size and narrow lot width.

- (6) Provides a proper relationship between the proposed improvements, existing structures, open space and natural features.

The proposed lot configuration and building location is similar to the development to the north. (See attached aerial photograph of the area.) There would be a 17-foot distance between the duplex to the north and the proposed home, and a 19-foot distance between the proposed home and the single-family home to the south. Within the City’s single-family residential areas with 50-foot-wide lots (Country Club and much of east Edina) the separation between single-family homes is often 10 feet. Therefore, staff believes the relationship between structures is reasonable.

### **Grading/Drainage/Utilities**

The city engineer has reviewed the proposed plans and has recommended some changes. These changes would be required at the time of building permit. (See attached.) Any approvals of this project would be subject to review and approval of the Minnehaha Creek Watershed District, as they are the City’s review authority over the grading of the site.

## Sustainability

The applicant has provided the sustainability questionnaire. (See attached.) Additionally, the City's sustainability coordinator has reviewed the plans and provided comments and recommendations in the engineering memo. (See attached engineering memo.) These shall be made conditions of approval.

## Park Dedication

Park dedication for one new lot would be required to be paid at the time of building permit in the amount of \$5,000.

### COMPLIANCE TABLE

	City Standard (PRD-2)	Proposed
<b><u>Structure Setbacks</u></b> Front – France Avenue Side – North Side – South Rear – West	30 feet 20 feet 20 feet 35 feet	30 feet <b>7 feet*</b> <b>15 feet*</b> <b>25 feet*</b>
Height	2-1/2 stories and 30 feet	2-1/2 stories and 30 feet
Density	Lot area per unit - 7,300 s.f.	<b>5,016 s.f.*</b>
Building Coverage	25%	<b>26%*</b>

**\*Variance Required**

## Variances – Setbacks & Building Size

This section considers the following variances: Side yard setback variances from 20 feet to 7 feet and 15 feet; rear yard setback variance from 35 feet to 25 feet; building coverage variance from 25% to 26.3%; lot size variance from 7,300 square feet to 5,016 square feet.

Per the Zoning Ordinance, a variance should not be granted unless it is found that the enforcement of the ordinance would cause practical difficulties in complying with the zoning ordinance and that the use is reasonable. As demonstrated below, staff believes the proposal does meet the variance standards, when applying the three conditions:

**Minnesota Statutes and Edina Ordinances require that the following conditions must be satisfied affirmatively. The Proposed Variance will:**

***1) Relieve practical difficulties that prevent a reasonable use from complying with ordinance requirements.***

Reasonable use does not mean that the applicant must show the land cannot be put to any reasonable use without the variance. Rather, the applicant must show that there are practical difficulties in complying with the code and that the proposed use is reasonable. “Practical difficulties” may include functional and aesthetic concerns.

Staff believes the proposed variances mentioned above are reasonable if the proposed building sizes are reduced. The practical difficulty is caused by the small size of the lot and narrow width. The proposed two lot development is the same as the 4-lot development to the north. Staff believes it is reasonable to development the subject lot in the same manner.

Staff recommends reducing the size of the buildings to meet the rear yard setback to maintain code compliant separation with the single-family development to the west and meet the building coverage requirement of 25%.

The proposed development is reasonable compared to the existing 4-lot detached single-dwelling unit development to the north. The proposed lot sizes are slightly larger than the existing lots to the north. The average lot size of the development to the north is 4,388 square feet in size, smaller than the proposed two lots. Proposed lots are 5,016 square feet in size.

***2) There are circumstances that are unique to the property, not common to every similarly zoned property, and that are not self-created?***

Yes. The circumstance of this single-dwelling unit lot being guided as low density attached residential in the Comprehensive Plan and located adjacent to a PRD-2 zoning district is unique to the property and not common to the vast majority of the R-1 zoning district lots.

***3) Will the variance alter the essential character of the neighborhood?***

No. The variance would not alter the essential character of the district. The proposed homes would be located similar on the site than the single family detached homes to the north that are also accessed by a shared driveway.

## **PRIMARY ISSUES/STAFF RECOMMENDATION**

### **Primary Issues**

- Is the proposed Rezoning reasonable?**

Yes. Staff does support the revised rezoning of the site, for the following reasons:

1. The proposed Rezoning is consistent with the adjacent 4-lot development to the north which has the same PRD-2 Zoning Designation.
2. The proposed lots are similar in size to the 4-lot development to the north. The average lot size of the development to the north is 4,388 square feet in size, smaller than the proposed two lots. Proposed lots are 5,016 square feet in size.
3. The relationship and spacing between adjacent structures is reasonable. There would be a 17-foot distance between the duplex to the north and the proposed home, and a 19-foot distance between the proposed home and the single-family home to the south. Within the City's single-family residential areas with 50-foot-wide lots (Country Club and much of east Edina) the separation between single-family homes is often 10 feet.
4. The proposed rezoning is consistent with the Comprehensive Plan.
5. The proposal meets the criteria for considering rezoning in Section 36-213 of the Zoning Ordinance as outlined on page 5-6 of this staff report.

- **Are the proposed variances reasonable?**

Yes. Staff does support the side yard setback variances and the lot size variances for the following reasons:

1. The practical difficulty is caused by the small size of the lot and narrow width. The proposed two lot development is the same as the 4-lot development to the north. Staff believes it is reasonable to development the subject lot in the same manner.
2. The requested rear yard setback and building coverage setbacks are not reasonable due to the large structure sizes. The size of the structures could be reduced and shifted to meet the rear yard setback and 25% building coverage requirement. The 35-foot rear yard setback provides a code compliant setback to the adjacent R-1 property to the west.
3. The proposed development is reasonable compared to the existing 4-lot detached single-dwelling unit development to the north. The proposed lot sizes are slightly larger than the existing lots to the north. The average lot size of the development to the north is 4,388 square feet in size, smaller than the proposed two lots. Proposed lots are 5,016 square feet in size.
4. The circumstance of this single-dwelling unit lot being guided as low density attached residential in the Comprehensive Plan and located adjacent to a PRD-2 zoning district is unique to the property and not common to the vast majority of the R-1 zoning district lots.
5. The variance would not alter the essential character of the district. The proposed homes would be located similar on the site than the located of the single family detached homes to the north that are also accessed by a shared driveway.



## Staff Recommendation

### Options for Consideration & Recommendation

A case can be made for approval and denial of this project. Below are options for the planning commission and city council to consider for approval and denial:

#### Approval

- A. Recommend the City Council approve the request for Preliminary Rezoning from R-1 to PRD-2, Preliminary Plat, Side yard setback variances from 20 feet to 7 and 15 feet, and a lot size variance from 7,300 square feet to 5,016 square feet. Approval is based on the following findings:
1. The practical difficulty is caused by the small size of the lot and narrow width. The proposed two lot development is the same as the 4-lot development to the north. Staff believes it is reasonable to development the subject lot in the same manner.
  2. The requested rear yard setback and building coverage setbacks are not reasonable due to the large structure sizes. The size of the structures could be reduced and shifted to meet the rear yard setback and 25% building coverage requirement. The 35-foot rear yard setback provides a code compliant setback to the adjacent R-1 property to the west.
  3. The proposed development is reasonable compared to the existing 4-lot attached residential development to the north. The proposed lot sizes are slightly larger than the existing lots to the north. The average lot size of the development to the north is 4,388 square feet in size, smaller than the proposed two lots. Proposed lots are 5,016 square feet in size.
  4. There would be a 17-foot distance between the duplex to the north and the proposed home, and a 19-foot distance between the proposed home and the single-family home to the south. Within the City's single-family residential areas with 50-foot-wide lots (Country Club and much of east Edina) the separation between single-family homes is often 10 feet. Therefore, staff believes the relationship between structures is reasonable.
  5. The circumstance of this single-dwelling unit lot being guided as low density attached residential in the Comprehensive Plan and located adjacent to a PRD-2 zoning district is unique to the property and not common to the vast majority of the R-1 zoning district lots.
  6. The variances would not alter the essential character of the district. The proposed homes would be located similar on the site than the located of the single family detached homes to the north that are also accessed by a shared driveway.
  7. The proposal meets the criteria for considering rezoning in Section 36-213 of the Zoning Ordinance as outlined on page 5-6 of this staff report.

B. Recommend the City Council deny the proposed rear yard setback variance and building coverage variance. Denial is based on the following findings:

1. There are no practical difficulties associated with these requests.
2. The proposed structures could be reduced in size to meet the rear yard setback requirement and building coverage requirement.

Approval is subject to the following Conditions:

1. The Final Plans and Final Plat must be adjusted to meet the following:
  - a. The rear yard setback for the structure on Lot 2 must meet the required setback of 35 feet.
  - b. The overall building coverage may not exceed 25%.
  - c. The front yard setback shall be no closer than 30 feet to the lot line on France Avenue.
  - d. All revisions required in the engineering memo dated September 14, 2021
  - e. The Final Plat must include a 10-foot easement along France Avenue for Pedestrians and future sidewalk improvements.
2. Submittal of a construction management plan subject to review and approval of city staff prior to issuance of a building permit. No dumpsters or construction material shall be stored in the street.
3. Hours of construction must be consistent with City Code.
4. Park Dedication of \$5,000 due at the time of building permit.
5. Compliance with the conditions required in the engineering memo dated September 14, 2021.
6. A shared driveway and maintenance agreement/easement must be established over the share driveway. The easement must be filed prior to issuance of a certificate of occupancy for the first structure.
7. A separate water and sewer service and permit are required for each unit.
8. A 13-D Fire Sprinkler System is required in each home. Provide the required size of the domestic water for each unit to ensure complies for the fire sprinkler system.

## **Denial**

Recommend the City Council deny the request for Preliminary Rezoning from R-1 to PRD-2, Preliminary Plat, side yard setback variances from 20 feet to 7 and 15 feet, rear yard setback variance from 35 to 25 feet, and a lot size variance from 7,300 square feet to 5,016 square feet. Approval is based on the following findings:

Denial is based on the following findings:

1. The proposed density is not reasonable for the site.
2. The proposal does not meet the criteria for considering rezoning in Section 36-213 of the Zoning Ordinance.
3. The proposed variances do not meet the findings for a variance.
4. The proposed development is too large for the site.

**Staff Recommendation**

Staff recommends approval of the request subject to the findings and conditions listed above, and denial of the rear yard setback variance and building coverage variance.

**Deadline for a City decision: December 7, 2021**



4630 France Avenue • Edina, Minnesota

## Villas on France

August 23, 2021

By City Homes + Simply Homes

## ***Intended Use and Proposal Request***

The ***Villas on France*** new development proposes the construction of two (2) villa type homes to be built on the 4630 France Avenue parcel. The existing home on site is vacant, listed as a teardown and been on the market for over a year, suggesting the renovation or demolition and construction of a new traditional single-family home has not been seen as a viable option.

The property to the north contains a 4-unit townhome development zoned PRD-2, Planned Residential Development -2. The property to the south is a single-family home zoned R-1, Single Dwelling Unit District. Further south are duplexes zoned R-2, Double Dwelling Unit District. This immediate context suggest single-family homes are the outlier within this stretch of France Avenue.

We commit to work with you the City and the neighborhood to develop a project that adheres to the city's guidelines and ordinance while being respectful to the neighborhood concerns. City Homes has significant experience within the city completing successful project in this manner.

We believe a villa style home is an ideal alternative to either a duplex, townhome, or other nearby condominiums. It is our goal to provide an aging population and empty-nester, their needs to downsize yet having a desire for a small yard. These homes present readily accessible attached garages; lawns for outdoor activity, presenting a more efficient and higher quality of single-family home alternative (homeowners do not share and common walls or floors). The homes share a common auto courtyard. Each villa home is planned for an elevator to accommodate an aging population.

The specifics of the new homes include the following:

- Approximately 2,800 SF of living space (each unit)
- 2 car garage (attached)
- Future elevators
- 3 Bedroom, 3 Bath including Home Office and Roof Deck
- 1 ½ story construction with a partial basement
- Architectural style is proposed to be more transitional urban contemporary

4630 France Avenue • Edina, Minnesota

**Villas on France**

August 23, 2021

By City Homes + Simply Homes



## Company and Similar Experience

The Villas on France are being co-developed by City Homes (located in Edina) and Simply Homes (located in Wayzata)

**City Homes** is a woman owned business construction and development company that has focused on high end residential development, primarily in the city of Edina and western suburbs. Founded in 2013, City Homes has strong trade relationships providing the highest quality service, trust, timeliness, pricing, and warranty. City Homes is focused on building homes that fit within the neighborhood context and constructed at a price people can afford.

Similar projects include:

**Sidell Trail** - City Homes first completed development in the beautiful Morningside neighborhood of Edina. Starting with just one home positioned on a three-acre lot, City Homes developed this property into a cul-de-sac with seven tree-lined lots. This prized community was built to assimilate the surrounding neighborhood and present the original Sidell family name by calling it Sidell Trail.

**Blake Circle** – a new development in Edina by City Homes off Blake Road, featuring custom luxury home sites in a highly sought-after cul-de-sac community. This five-lot development presents fabulous opportunities to design and build your dream home. Three of the lots have been purchased and construction underway or completed. The remaining two lots have been reserved, with construction to begin shortly.

**Edina Flats** – a new development in Edina by City Homes located at the corner of Kellogg Avenue and Valley View Drive. This four-story condominium complex features two-, three- and four-bedroom homes with attached two car garages. Each unit has a private entry lobby and elevator serving upper floors. The boutique condo development consists of 15 total units within four separate buildings. The condos range from 1,600 SF, 2-Bed, 2-Bath to 2,500 SF 3-Bed, 3-Bath in the price range of \$700K to \$1.3M. Each building contains an elevator and dedicated 2 garage stalls. One model unit remains on the market.

**Simply Homes** is an architectural design and development company that focuses on high end residential design and development, primarily in the western suburbs. Founded in 2005, Simply Homes seeks out opportunities requiring creative and forward-thinking design solutions that are cost efficient and beautifully crafted.

Similar projects include:

**197 Oak Street** – This current project, located in Excelsior, is being co-developed by Simply Homes. This original single family home site has been subdivided into two villa sites. These modest sized homes are targeting empty nester families seeking one-level living environments. One of the homes is under contract, with a fall construction start, the other home site remains on the market.

**45|55 Lilah Lane** – This project, located in the shoreline city of Tonka Bay was designed and developed by Simply homes in 2018-19. Originally a single-family home site, the 1+ acre, beautiful city park facing lot, located on a dead-end street within the city, was subdivided into two ½ acre lots. The original home was expanded, completely renovated, and transformed. The new parcel was sold, and a brand new, single-family custom home constructed. The project included the extension of city sewer, water, and the city road. The project was completed in 2019.

**2903|2909 Westwood** – Completed in 2016, this project, located in the beautiful village of Minnetonka Beach on the shores of Lake Minnetonka, demolished two dilapidated older homes. Simply Homes developed and designed two new custom homes on adjoining sites, creating a unique two-family home setting with a common driveway and shared 3-car garage.

4630 France Avenue • Edina, Minnesota

### Villas on France

August 23, 2021

By City Homes + Simply Homes



Proposed Site and Existing Buildings

**LEGAL DESCRIPTION:**

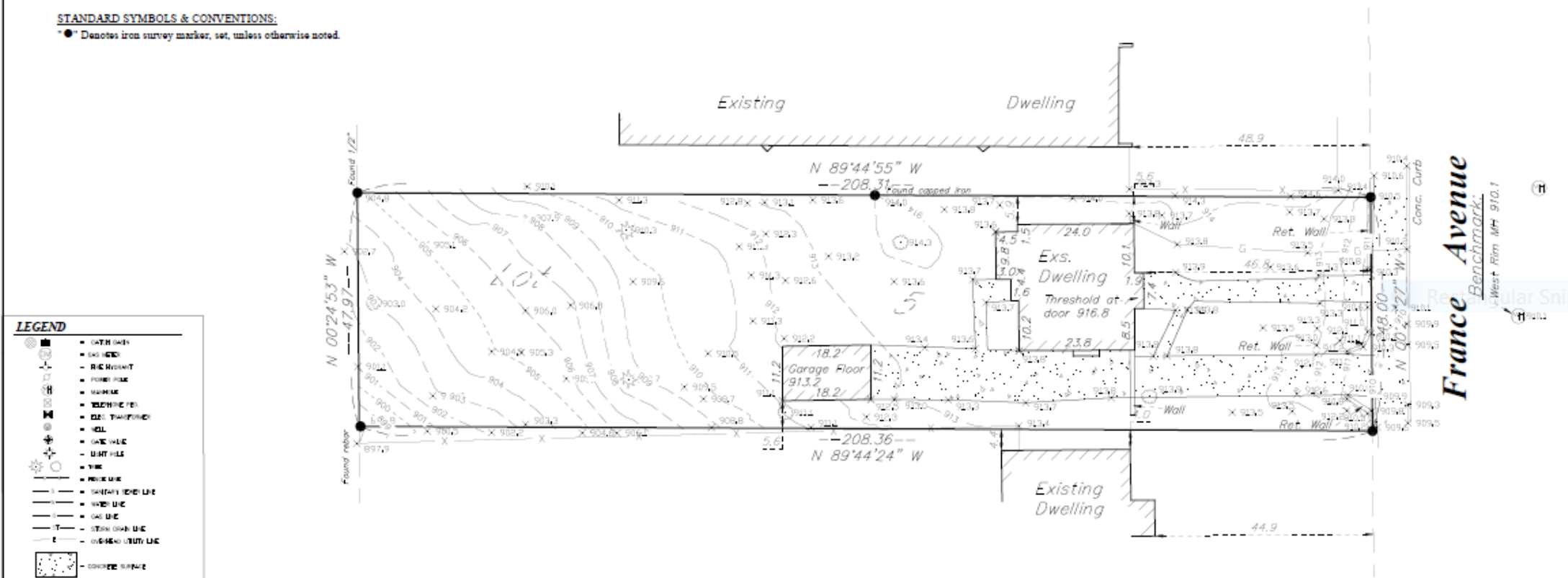
Lot 5, AUDITOR'S SUBDIVISION NO. 172, Hennepin County, Minnesota.

**SCOPE OF WORK & LIMITATIONS:**

1. Showing the length and direction of boundary lines of the legal description listed above. The scope of our services does not include determining what you own, which is a legal matter. Please check the legal description with your records or consult with competent legal counsel, if necessary, to make sure that it is correct and that any matters of record, such as easements, that you wish to be included on the survey have been shown.
2. Showing the location of observed existing improvements we deem necessary for the survey.
3. Setting survey markers or verifying existing survey markers to establish the corners of the property.
4. This survey has been completed without the benefit of a current title commitment. There may be existing easements or other encumbrances that would be revealed by a current title commitment. Therefore, this survey does not purport to show any easements or encumbrances other than the ones shown hereon.
5. Note that all building dimensions and building tie dimensions to the property lines, are taken from the siding and or stucco of the building.
6. Showing elevations on the site at selected locations to give some indication of the topography of the site. We have also provided a benchmark for your use in determining elevations for construction on this site. The elevations shown relate only to the benchmark provided on this survey. Use that benchmark and check at least one other feature shown on the survey when determining other elevations for use on this site or before beginning construction.

**STANDARD SYMBOLS & CONVENTIONS:**

"•" Denotes iron survey marker, set, unless otherwise noted.







# FIELD TREE INVENTORY LOG

PROJECT NAME:	Tree Survey at 4630 France Avenue S., Edina, MN			
DATE:	8/5/2018			
TIME:	7:00 PM	Sunny	75 Degrees F.	
TAG NO.	TREE DIA. (IN)	SPECIES	CONDITION	NOTES
154	10	Rocky Mountain Juniper	Fair	30' Hgt.
155	29	Black Walnut	Good	
156	16	Red Pine	Poor	Needle Blight, Less than 20% Canopy Remains
157	8	Hackberry	Fair	5 Trunks
158	17	Red Pine	Poor	Needle Blight, Less than 20% Canopy Remains
159	13	Slippery Elm	Fair	
160	10	Rocky Mountain Juniper	Fair	30' Hgt.
161	8	Slippery Elm	Poor	
	8	NO. OF SIGNIFICANT TREES INVENTORIED		
	111	TOTAL LIVE SIGNIFICANT INCHES ON PROPERTY		

**CALYX**  **DESIGN GROUP**

**Landscape Architecture + Planning**  
calyxdesigngroup.com | 651.788.9018

## City of Edina Tree Inventory Criteria:

Coniferous Trees 20' Tall or Greater

Deciduous Trees 8" + Diameter, except the following:

Willow, Box Elder, Poplar, Silver Maple, Black Locust, Fruit Tree Species, & Mulberry

## Condition Rating:

**Good** = Full Canopy, No Signs of Stress or Injury

**Fair** = Most of the Canopy, Some Stress or Minor Injury

**Poor** = Significant Canopy Loss, Extensive Damage or Disease, Short Life Expectancy



The site plan illustrates a residential development layout. It features two primary building footprints, E1 and E2, situated on a lot with varying topography indicated by contour lines. E1 is a larger structure on the right, while E2 is a smaller structure on the left. The plan includes detailed annotations for walls, thresholds, and existing features. A benchmark is located near the top right, and the adjacent France Avenue is shown on the right side of the lot.

SHEET SIZE 22 X 34  
SHEET NO. S2  
SHEET 3 OF 3

[illegible]

CLIENT NAME / JOB ADDRESS

JEFF ZEIBARTH  
4630 FRANCE AVENUE  
EDINA, MN

**Advance**  
Surveying & Engineering, Co.

17917 Highway 7  
Minnetonka, Minnesota 55345  
Phone (952) 474-7954  
Web: [www.advisor.com](http://www.advisor.com)

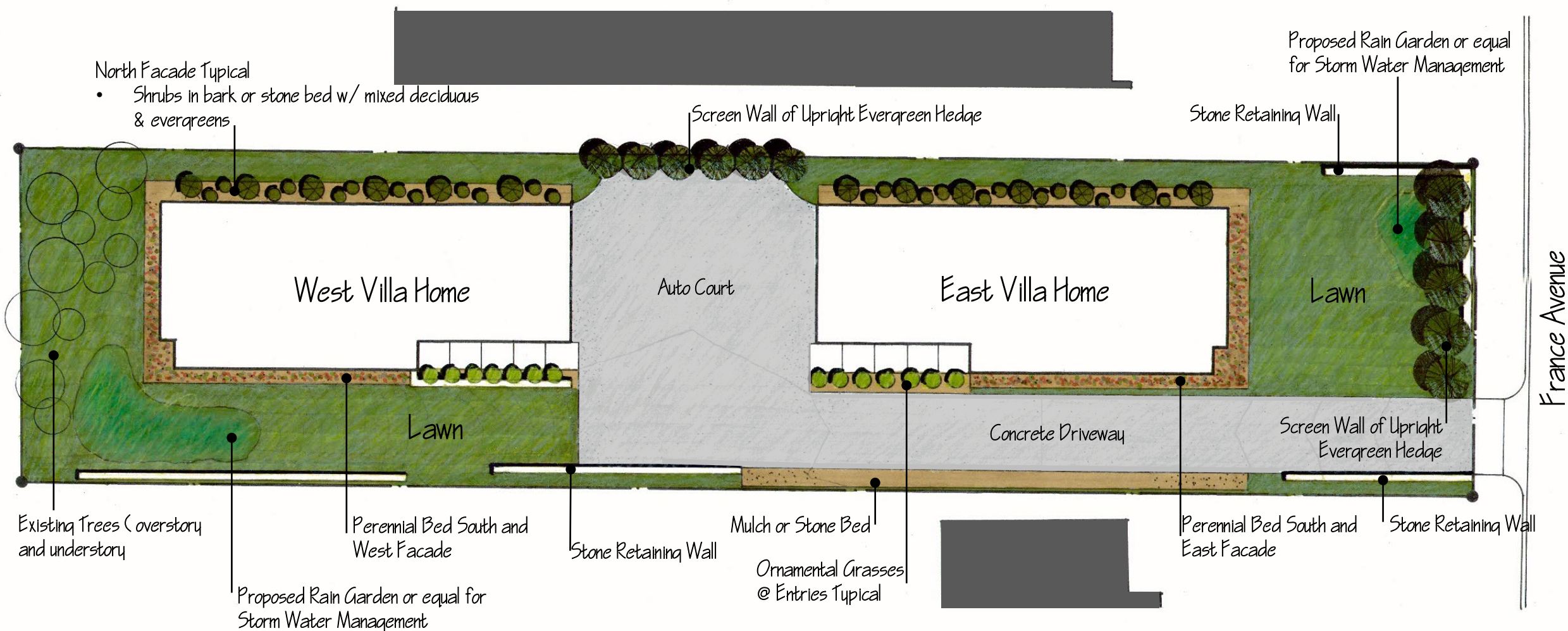
[illegible]

DATE SURVEYED: JULY 19, 2021

DATE DRAFTED: AUGUST 18, 2021

<u>SHEET TITLE</u>	<i>PRELIMINARY PLAT (STORMWATER MGMT.)</i>
<u>DRAWING NUMBER</u>	<i>211392 PRELIM PLAT</i>

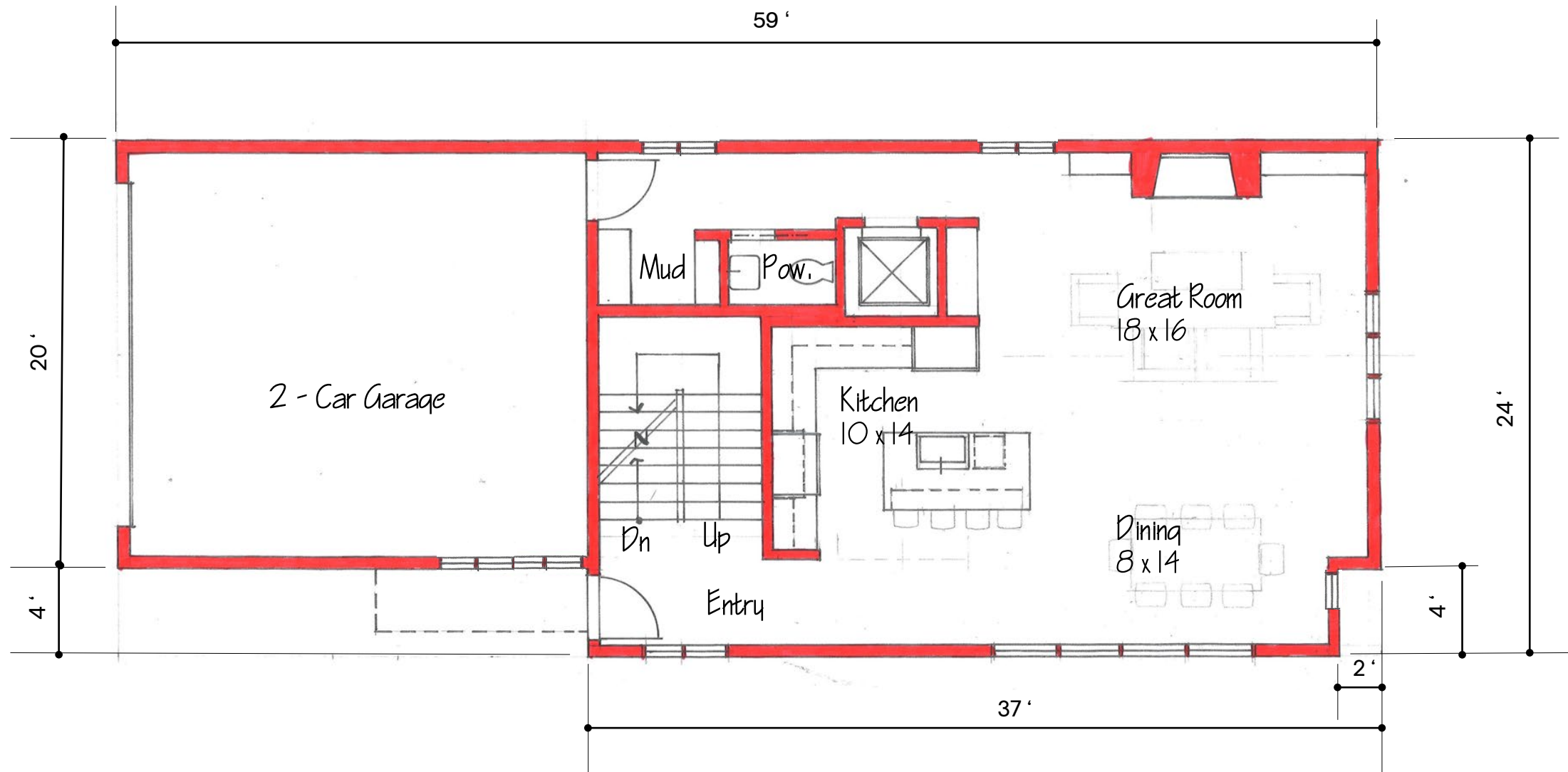
SHEET SIZE 22 X 34  
SHEET NO. S2  
SHEET 3 OF 3



## Site | Landscape Concept Plan



Villas on France  
4630 France Avenue | Edina MN

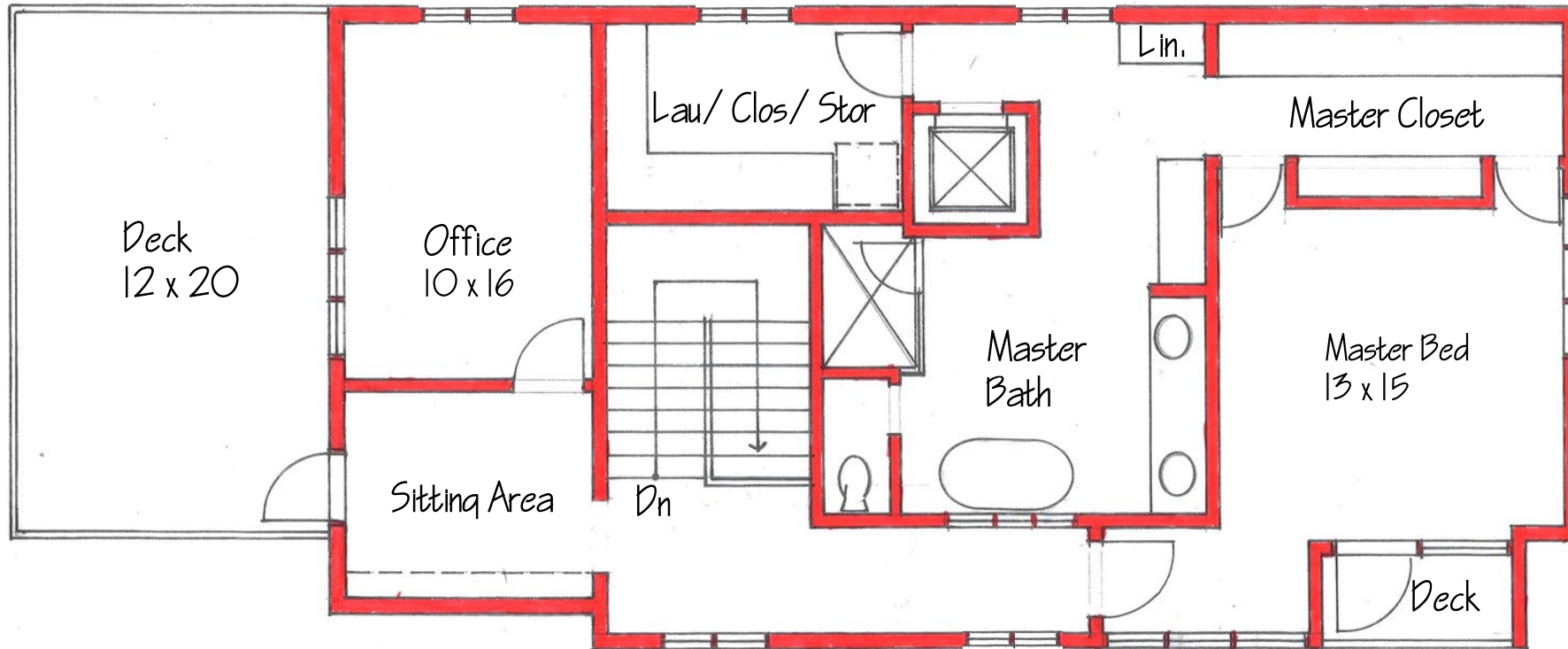


Main Level - East Villa  
880 SF

Villas on France  
4630 France Avenue | Edina MN

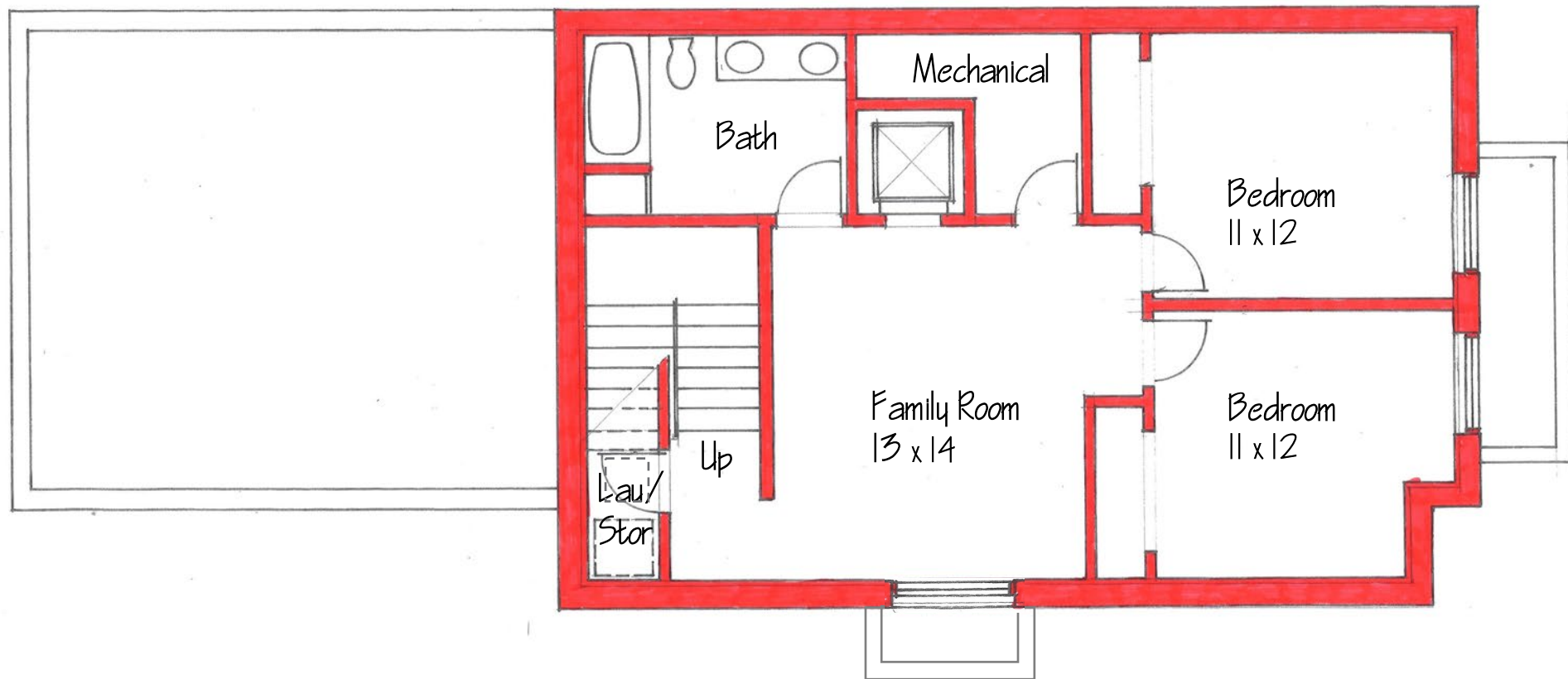






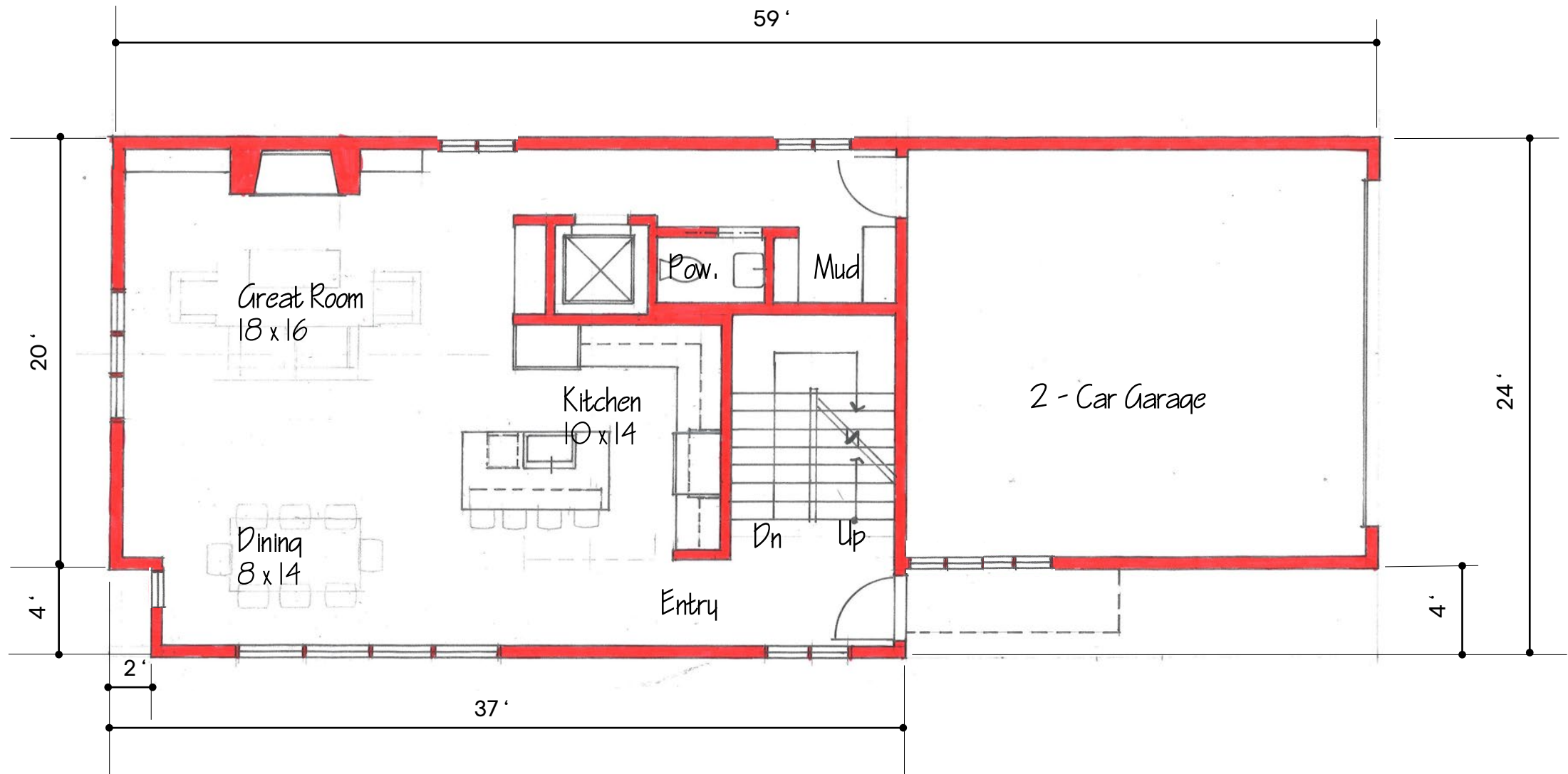
Upper Level - East Villa  
1128 SF

Villas on France  
4630 France Avenue | Edina MN

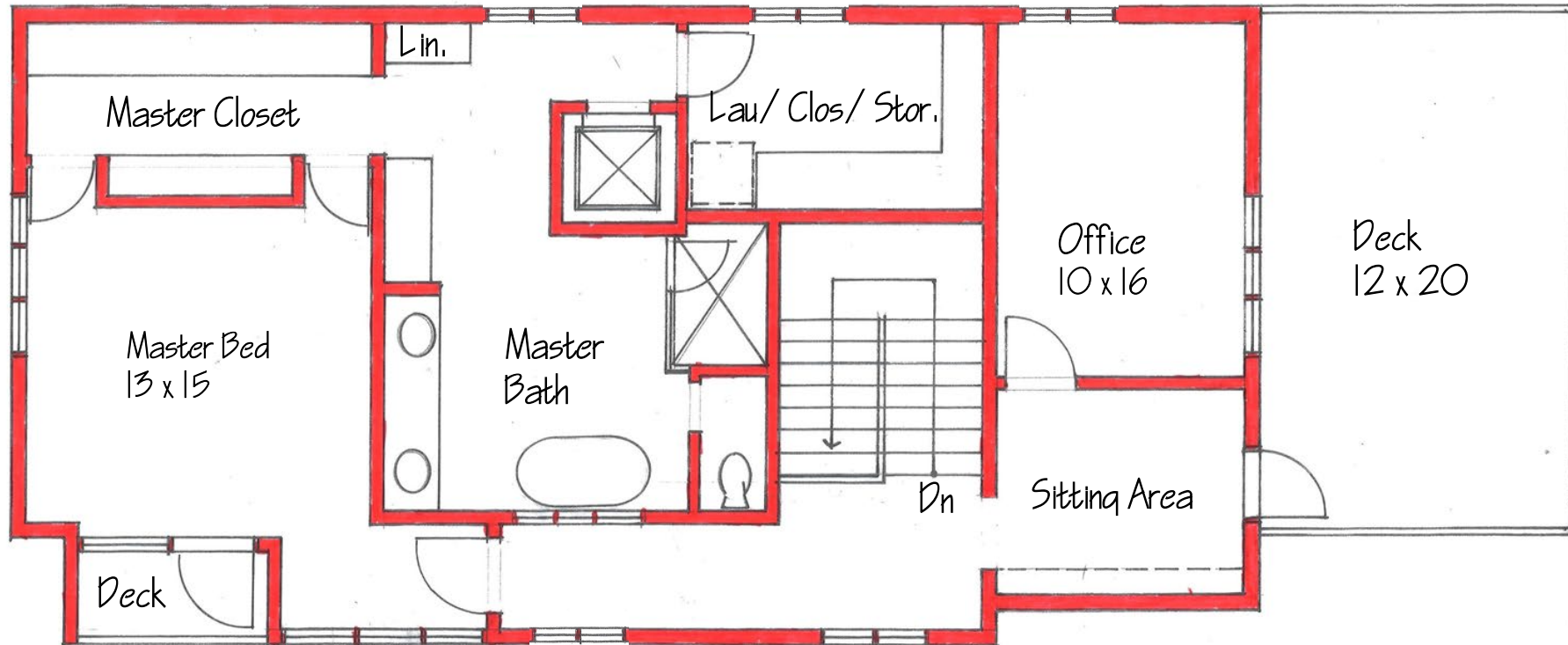


Lower Level - East Villa  
880 SF

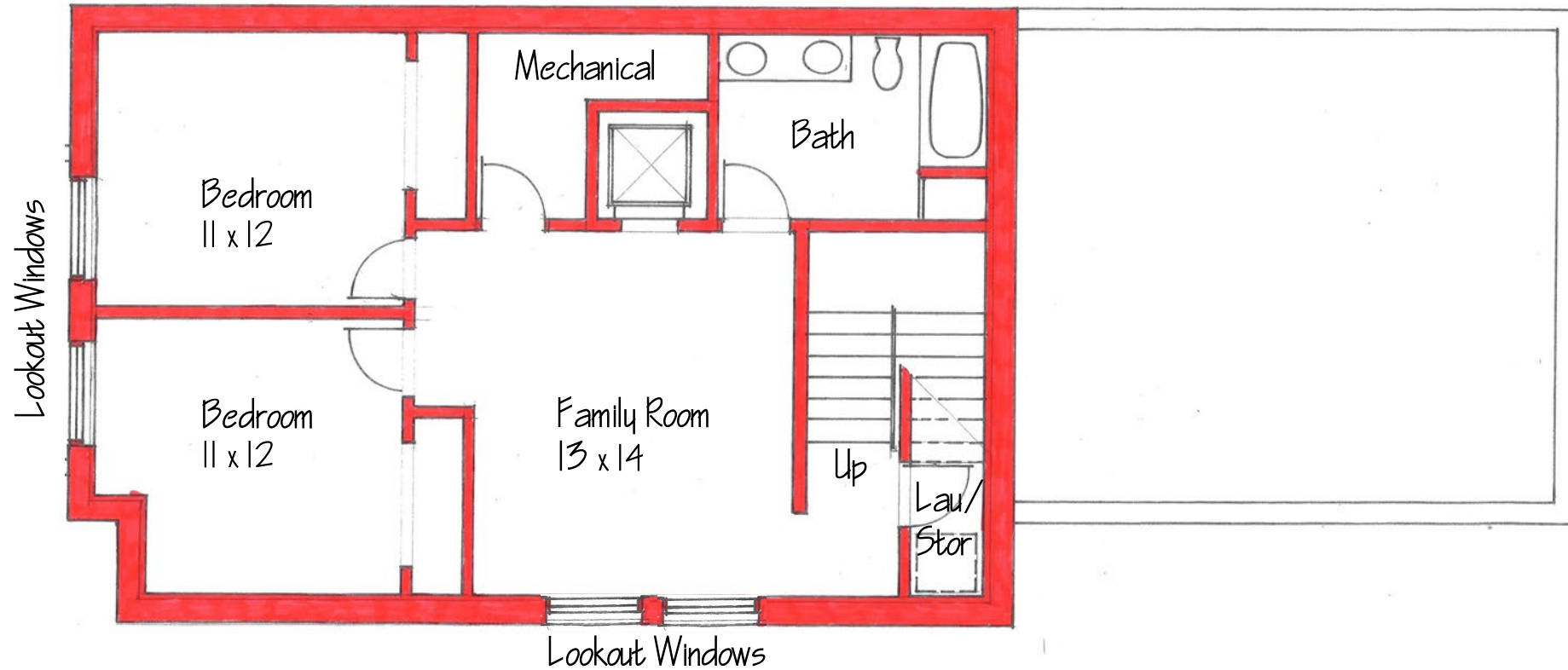




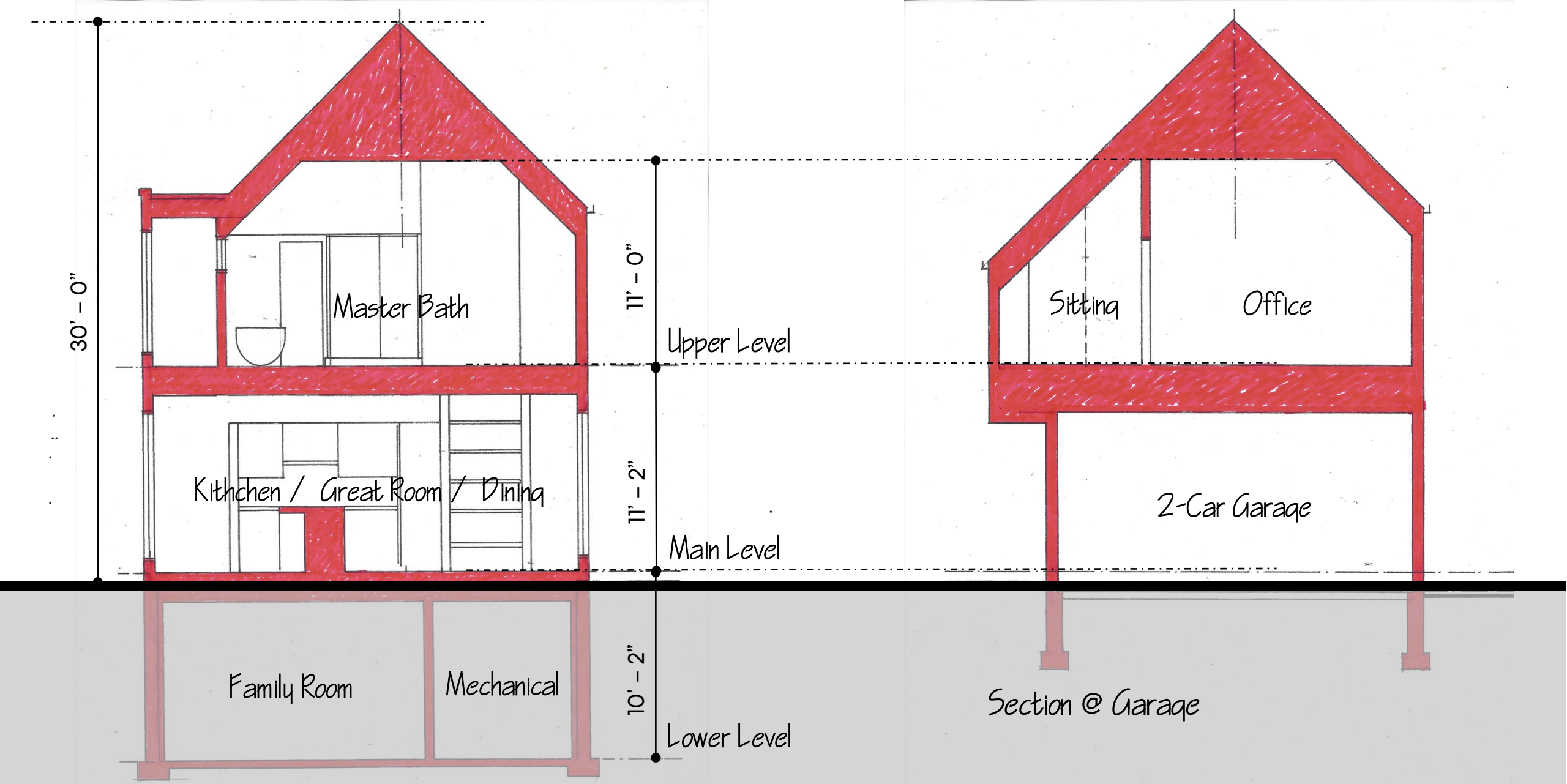
Main Level Plan - West Villa  
880 SF



Upper Level - West Villa  
1128 SF



Lower Level - West Villa  
880 SF



# Villas on France

4630 France Avenue | Edina MN







Conceptual Sketch (final rendering in progress)

Villas on France  
4630 France Avenue | Edina MN



West Elevation - East Villa ( West Similar)

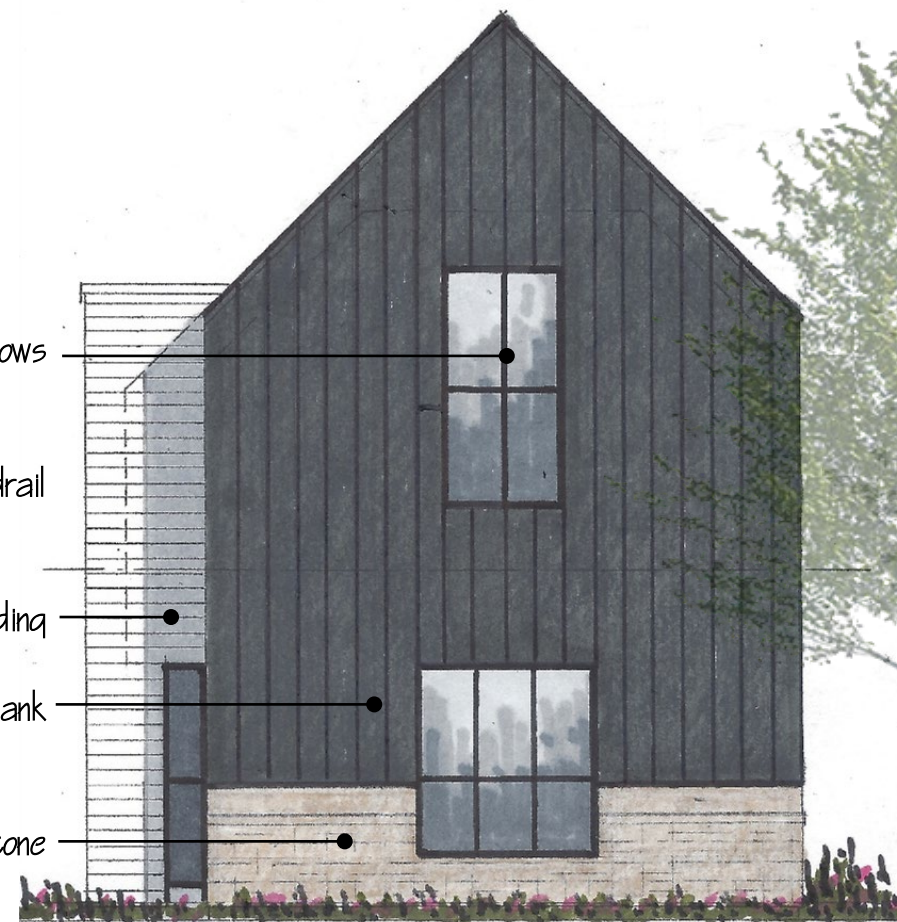
Marvin Windows

Glass and Metal Guardrail

Hardi Horizontal Lap Siding

Hardi Reverse Batten Plank

Natural Stone



East Elevation - East Villa ( West Similar)





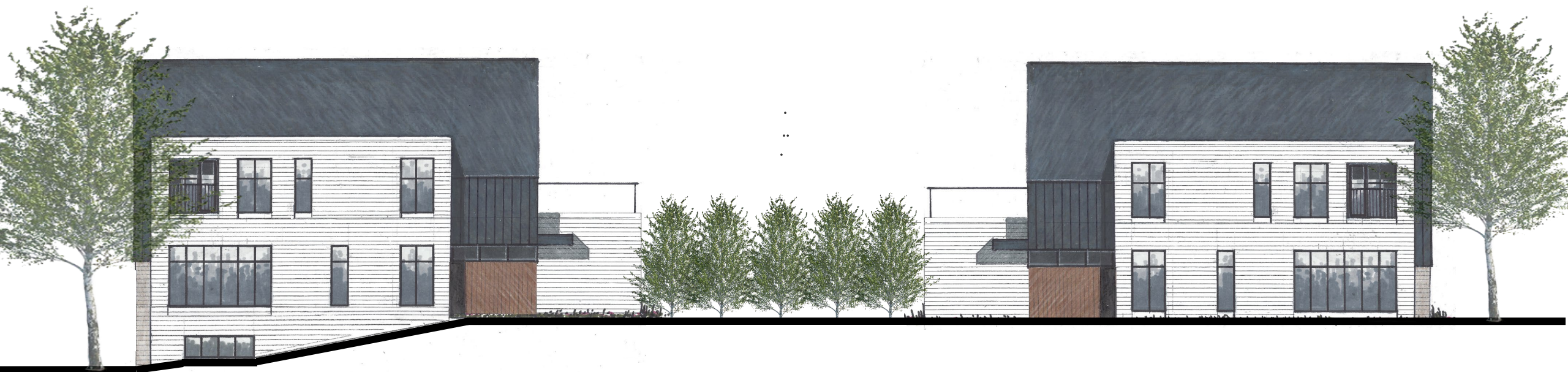
South Elevation - East Villa ( West Similar)





North Elevation - East Villa ( West Similar)





South Elevation - West Villa

South Elevation - East Villa

# Villas on France

4630 France Avenue | Edina MN



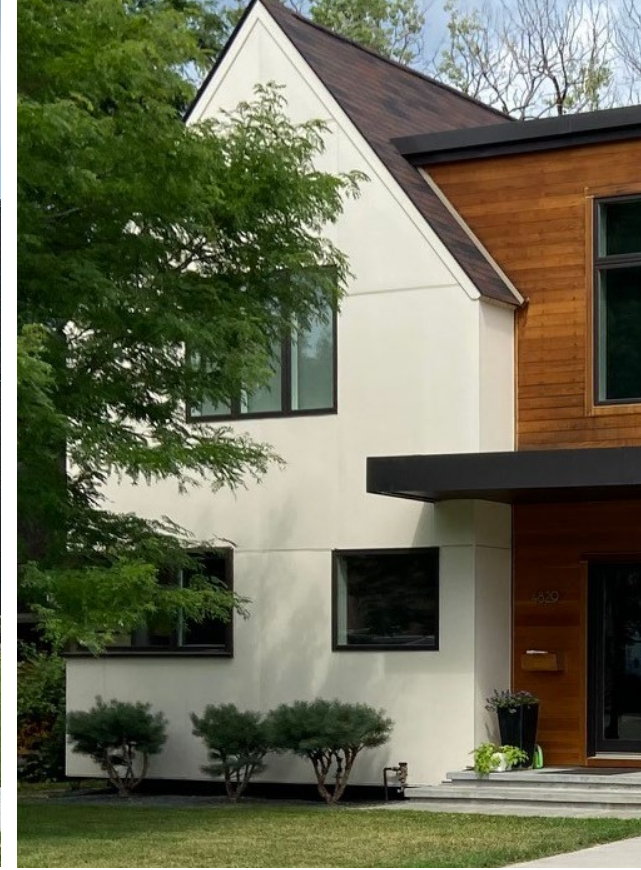


France Avenue Context

## Villas on France

4630 France Avenue | Edina MN





*Context and Design within the area*

Villas on France  
4630 France Avenue | Edina MN





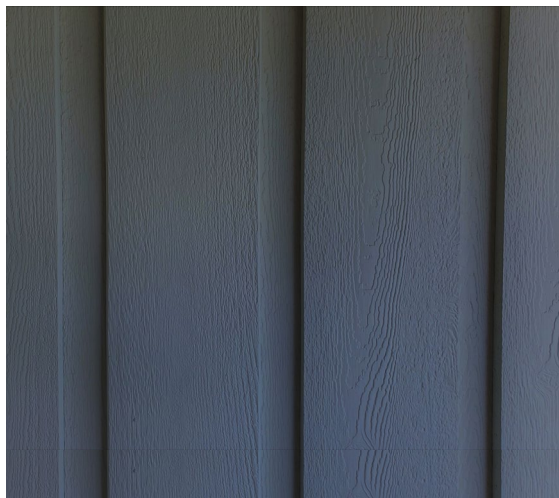
*Context and Design within the area*

Villas on France  
4630 France Avenue | Edina MN





4 inch Hardi-Board Horizontal Lap Siding



Reverse Batten Hardi Plank Vertical Siding



Natural Stone (Chilton Limestone or similar)



Hardi-Board Panels w/  
reveal Joints (alternate)

Black Clad Marvin Windows



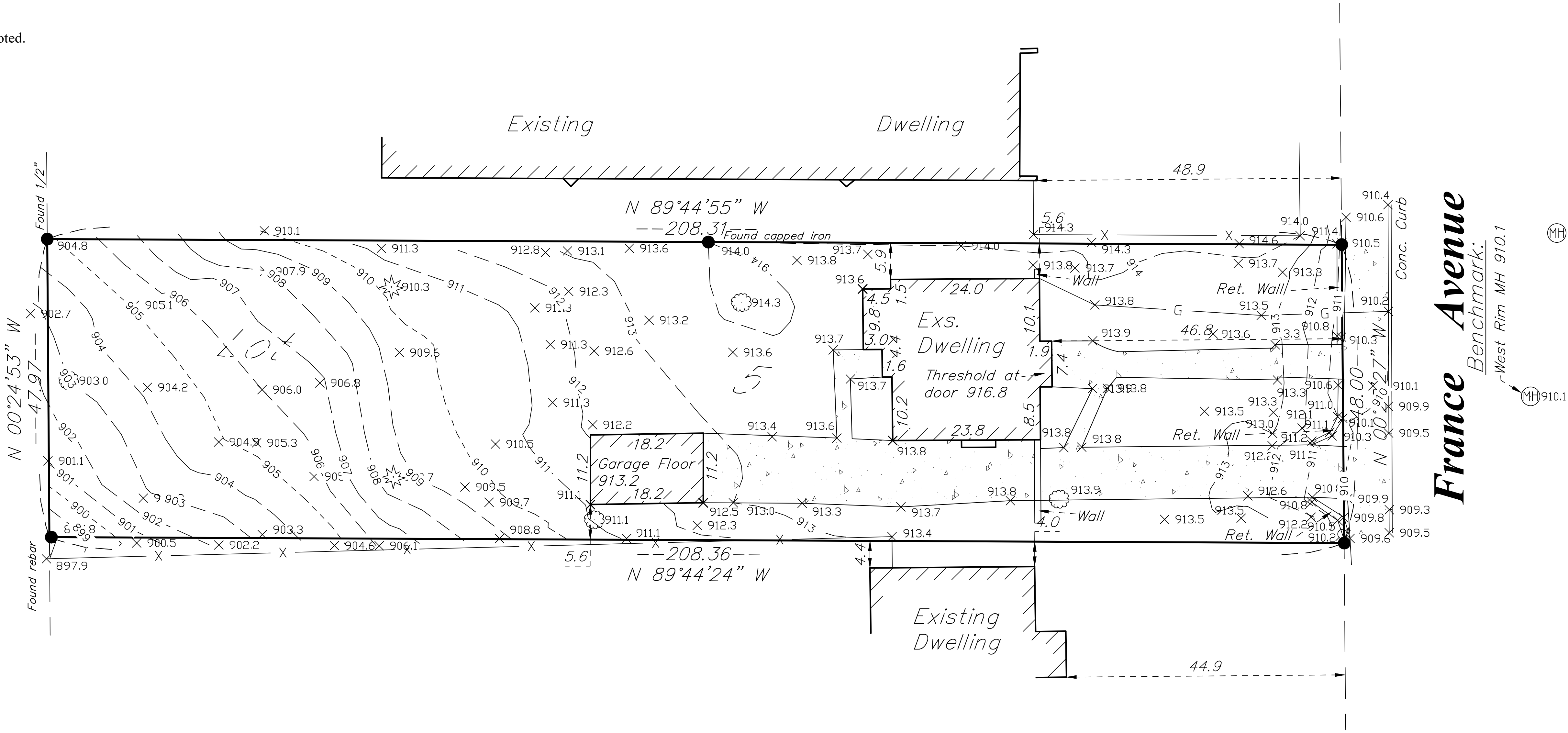
Natural Wood (Stained) Vertical T&G Siding (Entry)

Materiality

LEGAL DESCRIPTION:  
Lot 5, AUDITOR'S SUBDIVISION NO. 172, Hennepin County, Minnesota.

- SCOPE OF WORK & LIMITATIONS:
- Showing the length and direction of boundary lines of the legal description listed above. The scope of our services does not include determining what you own, which is a legal matter. Please check the legal description with your records or consult with competent legal counsel, if necessary, to make sure that it is correct and that any matters of record, such as easements, that you wish to be included on the survey have been shown.
  - Showing the location of observed existing improvements we deem necessary for the survey.
  - Setting survey markers or verifying existing survey markers to establish the corners of the property.
  - This survey has been completed without the benefit of a current title commitment. There may be existing easements or other encumbrances that would be revealed by a current title commitment. Therefore, this survey does not purport to show any easements or encumbrances other than the ones shown hereon.
  - Note that all building dimensions and building tie dimensions to the property lines, are taken from the siding and or stucco of the building.
  - Showing elevations on the site at selected locations to give some indication of the topography of the site. We have also provided a benchmark for your use in determining elevations for construction on this site. The elevations shown relate only to the benchmark provided on this survey. Use that benchmark and check at least one other feature shown on the survey when determining other elevations for use on this site or before beginning construction.

STANDARD SYMBOLS & CONVENTIONS:  
"●" Denotes iron survey marker, set, unless otherwise noted.



**LEGEND**

- = CATCH BASIN
- GM = GAS METER
- = FIRE HYDRANT
- = POWER POLE
- ⊗ = MANHOLE
- ⊗ = TELEPHONE PED.
- ⊗ = ELEC. TRANSFORMER
- ⊗ = WELL
- ⊗ = GATE VALVE
- ⊗ = LIGHT POLE
- ⊗ = TREE
- X—X— = FENCE LINE
- S— = SANITARY SEWER LINE
- W— = WATER LINE
- G— = GAS LINE
- ST— = STORM DRAIN LINE
- E— = OVERHEAD UTILITY LINE
- = CONCRETE SURFACE

DATE	REVISION DESCRIPTION	DRAWING ORIENTATION & SCALE	CLIENT NAME / JOB ADDRESS	Advance Surveying & Engineering, Co.	I HEREBY CERTIFY THAT THIS PLAN, SURVEY OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MINNESOTA. Thomas M. Bloom # 42379 JULY 19, 2021 DATE	DATE SURVEYED: JULY 19, 2021 DATE DRAFTED: JULY 19, 2021	SHEET TITLE EXISTING CONDITIONS SURVEY DRAWING NUMBER 211392 TB	SHEET SIZE 22 X 34 SHEET NO. S1 SHEET 1 OF 1
			JEFF ZEIBARTH 4630 FRANCE AVENUE EDINA, MN	17917 Highway 7 Minnetonka, Minnesota 55345 Phone (952) 474-7964 Web: www.advsur.com				



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- Note that all building dimensions and building tie dimensions to the property lines, are taken from the siding and or stucco of the building.
- Showing elevations on the site at selected locations to give some indication of the topography of the site. We have also provided a benchmark for your use in determining elevations for construction on this site. The elevations shown relate only to the benchmark provided on this survey. Use that benchmark and check at least one other feature shown on the survey when determining other elevations for use on this site or before beginning construction.
- While we show a proposed location for this home or addition, we are not as familiar with your proposed plans as you, your architect, or the builder are. Review our proposed location of the improvements and proposed yard grades carefully to verify that they match your plans before construction begins. Also, we are not as familiar with local codes and minimum requirements as the local building and zoning officials in this community are. Be sure to show this survey to said officials, or any other officials that may have jurisdiction over the proposed improvements and obtain their approvals before beginning construction or planning improvements to the property.

STANDARD SYMBOLS & CONVENTIONS:

"●" Denotes iron survey marker, set, unless otherwise noted.

GRADING & EROSION CONTROL NOTES:

BEFORE DEMOLITION AND GRADING BEGIN

- Install silt fence/bio roll around the perimeter of the construction area.
- Sediment control measures must remain in place until final stabilization has been established and then shall be removed. Sediment controls may be removed to accommodate short term construction activity but must be replaced before the next rain.
- A temporary rock construction entrance shall be established at each access point to the site and a 6 inch layer of 1 to 2 inch rock extending at least 50 feet from the street into the site and shall be underlain with permeable geotextile fabric. The entrance shall be maintained during construction by top dressing or washing to prevent tracking or flow of sediments onto public streets, walks or alleys. Potential entrances that are not so protected shall be closed by fencing to prevent unprotected exit from the site.
- Contractor shall install inlet protection on all existing storm sewer inlets in accordance with the city standard details. Inlet protection shall also be provided on all proposed storm sewer inlets immediately following construction of the inlet. Inlet protection must be installed in a manner that will not impound water for extended periods of time or in a manner that presents a hazard to vehicular or pedestrian traffic.

DURING CONSTRUCTION:

- When dirt stockpiles have been created, a double row of silt fence shall be placed to prevent escape of sediment laden runoff and if the piles or other disturbed areas are to remain in place for more than 14 days, they shall be seeded with Minnesota Department of Transportation Seed Mixture 22-111 at 100 lb/acre followed by covering with spray mulch.
- A dumpster shall be placed on the site for prompt disposal of construction debris. These dumpsters shall be serviced regularly to prevent overflowing and blowing onto adjacent properties. Disposal of solid wastes from the site shall in accordance with Minnesota Pollution Control Agency requirements.
- A separate container shall be placed for disposal of hazardous waste. Hazardous wastes shall be disposed of in accordance with MPCA requirements.
- Concrete truck washout shall be in the plastic lined ditch and dispose of washings as solid waste.

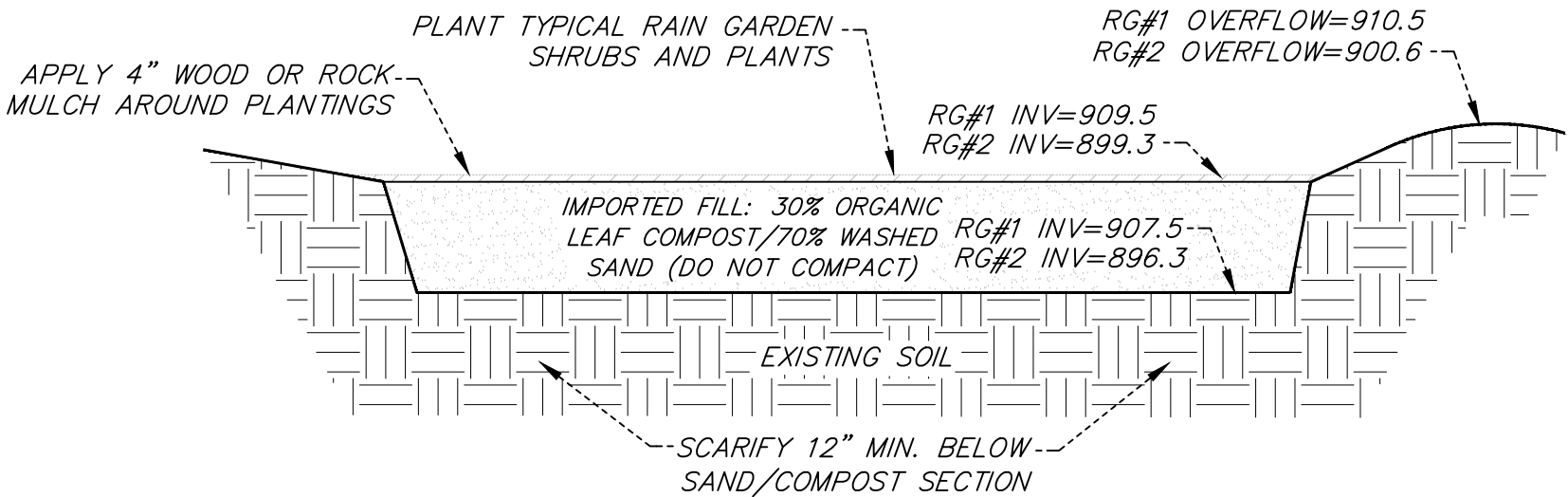
- Sediment control devices shall be regularly inspected and after major rainfall events and shall be cleaned and repaired as necessary to provide downstream protection.
- Streets and other public ways shall be inspected daily and if litter or soils has been deposited it shall promptly be removed.
- If necessary, vehicles, that have mud on their wheels, shall be cleaned before exiting the site in the rock entrance areas.
- Moisture shall be applied to disturbed areas to control dust as needed.
- Portable toilet facilities shall be placed on site for use by workers and shall be properly maintained.
- If it becomes necessary to pump the excavation during construction, pump discharge shall be into the stockpile areas so that the double silt fence around these areas can filter the water before it leaves the site.
- Temporary erosion control shall be installed no later than 14 days after the site is first disturbed and shall consist of broadcast seeding with Minnesota Department of Transportation Seed Mixture 22-111 at 100 lb/acre followed by covering with spray mulch.

- Erosion control measures shown on the erosion control plan are the absolute minimum. The contractor shall install temporary earth dikes, sediment traps or basins and additional silt fencing as deemed necessary to control erosion.

SITE WORK COMPLETION:

- When final grading has been completed but before placement of seed or sod an "as built" survey shall be done per City of Edina requirements to insure that grading was properly done.
- When any remedial grading has been completed, sod or seeding shall be completed including any erosion control blankets for steep areas.
- When turf is established, silt fence and inlet protection and other erosion control devices shall be disposed of and adjacent streets, alleys and walks shall be cleaned as needed to deliver a site that is erosion resistant and clean.
- Contractor shall maintain positive drainage of a minimum 2% slope away from proposed building.

EXISTING HARDCOVER - LOT 1		PROPOSED HARDCOVER - LOT 2		PROPOSED HARDCOVER - LOT 1	
HOUSE	682 Sq. Ft.	HOUSE	1,320 Sq. Ft.	HOUSE	1,320 Sq. Ft.
GARAGE	100 Sq. Ft.	DRIVEWAY	722 Sq. Ft.	DRIVEWAY	1,786 Sq. Ft.
DRIVEWAY	977 Sq. Ft.	WALK	92 Sq. Ft.	WALK	92 Sq. Ft.
WALKS	335 Sq. Ft.				
TOTAL EXISTING HARDCOVER		TOTAL PROPOSED HARDCOVER		TOTAL PROPOSED HARDCOVER	
AREA OF LOT		AREA OF LOT		AREA OF LOT	
PERCENTAGE OF HARDCOVER TO LOT		PERCENTAGE OF HARDCOVER TO LOT		PERCENTAGE OF HARDCOVER TO LOT	
EXISTING HARDCOVER - LOT 2		PROPOSED BUILDING COVERAGE - LOT 2		PROPOSED BUILDING COVERAGE - LOT 1	
GARAGE	104 Sq. Ft.	HOUSE	1,320 Sq. Ft.	HOUSE	1,320 Sq. Ft.
TOTAL EXISTING HARDCOVER		TOTAL PROPOSED COVERAGE		TOTAL PROPOSED COVERAGE	
AREA OF LOT		AREA OF LOT		AREA OF LOT	
PERCENTAGE OF HARDCOVER TO LOT		PERCENTAGE OF COVERAGE TO LOT		PERCENTAGE OF COVERAGE TO LOT	



RAIN GARDEN CROSS SECTION DETAIL

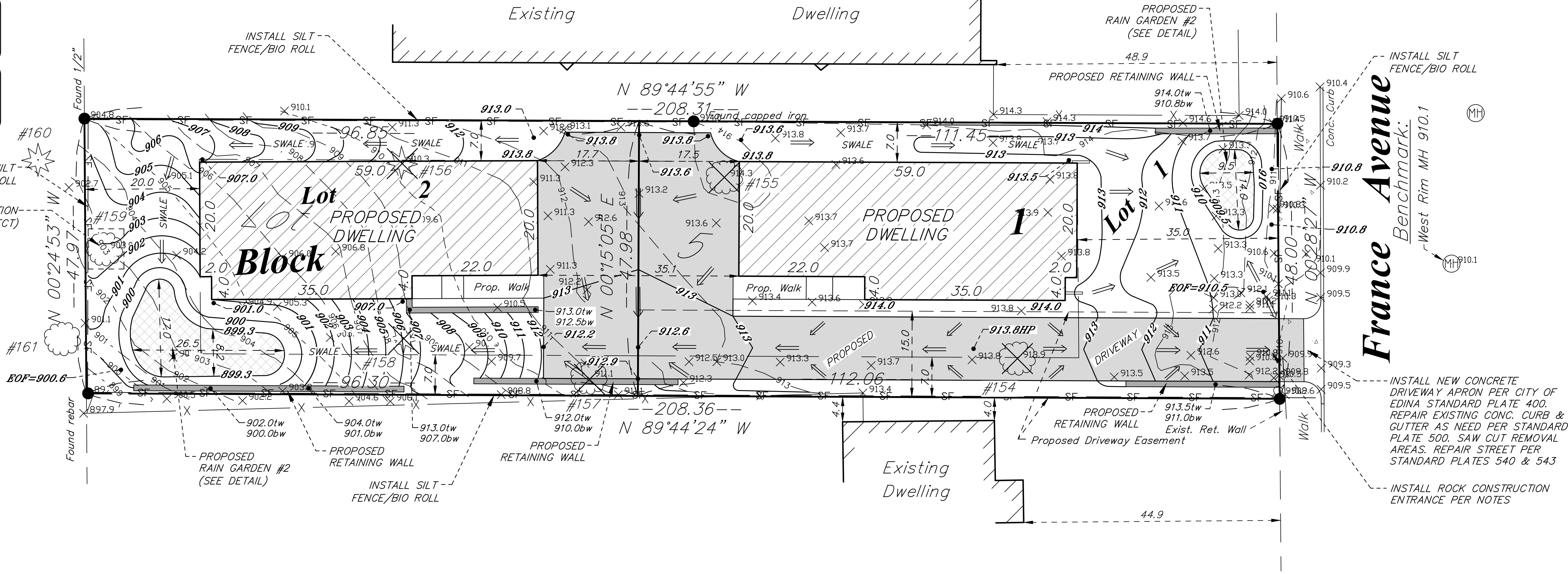
NO SCALE

PROPOSED ELEVATIONS - LOT 1  
FIRST FLOOR (SUB-FLOOR) = 915.00  
TOP OF FOUNDATION = 914.50  
BASEMENT FLOOR = 904.93  
GARAGE FLOOR = 914.00

PROPOSED ELEVATIONS - LOT 2  
FIRST FLOOR (SUB-FLOOR) = 915.00  
TOP OF FOUNDATION = 914.50  
BASEMENT FLOOR = 904.93  
GARAGE FLOOR = 914.00

LEGEND

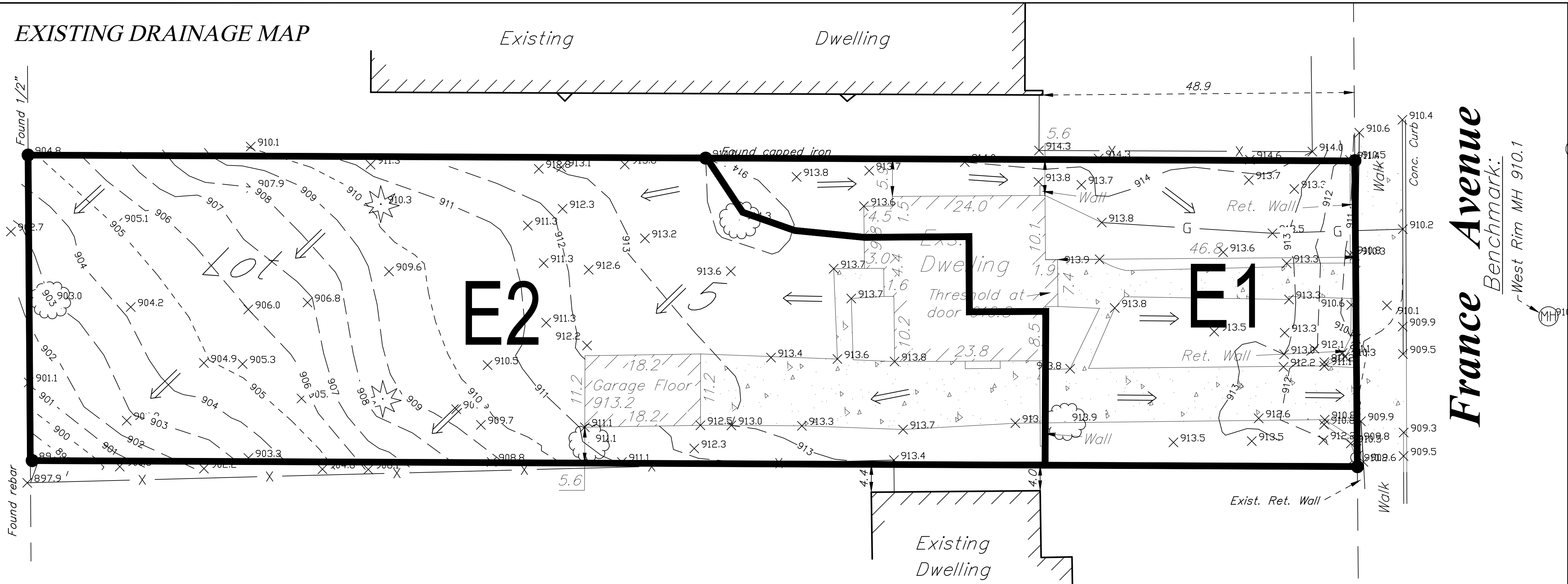
- CATCH BASIN
- GAS METER
- FIRE HYDRANT
- POWER POLE
- MANHOLE
- TELEPHONE PED.
- ELEC. TRANSFORMER
- WELL
- GATE VALVE
- LIGHT POLE
- TREE
- FENCE LINE
- SANITARY SEWER LINE
- WATER LINE
- GAS LINE
- STORM DRAIN LINE
- OVERHEAD UTILITY LINE
- CONCRETE SURFACE



DATE		REVISION DESCRIPTION	<div>DRAWING ORIENTATION &amp; SCALE</div> <div></div>	<div>CLIENT NAME / JOB ADDRESS</div> <div>JEFF ZEIBARTH</div> <div>4630 FRANCE AVENUE</div> <div>EDINA, MN</div>	<div>Advance</div> <div>Surveying &amp; Engineering, Co.</div> <div>17917 Highway 7</div> <div>Minnetonka, Minnesota 55345</div> <div>Phone (952) 474-7964</div> <div>Web: www.advsur.com</div>	<div>I HEREBY CERTIFY THAT THIS PLAN, SURVEY OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MINNESOTA.</div> <div></div> <div>Thomas M. Bloom</div> <div># 42379</div> <div>LICENSE NO.</div> <div>AUGUST 18, 2021</div> <div>DATE</div>	SHEET TITLE		SHEET SIZE 22 X 34
8/5/21		CONVERT TO A PRELIMINARY PLAT					PRELIMINARY PLAT		SHEET NO.
							DRAWING NUMBER		S1
							211392 PRELIM PLAT		
							DATE SURVEYED: JULY 19, 2021		
			DATE DRAFTED: AUGUST 18, 2021		SHEET 1 OF 2				



EXISTING DRAINAGE MAP



STORMWATER REQUIREMENTS

1. VOLUME CONTROL – ONSITE RETENTION OF MIDS 1.1-INCH STORM EVENT OVER PROPOSED IMPERVIOUS SURFACES.
- EAST  
EXISTING IMPERVIOUS AREA = 1,019 SQUARE FEET  
PROPOSED IMPERVIOUS AREA = 1,907 SQUARE FEET  
REQUIRED VOLUME TO RETAIN =  $888 \times (1.1/12) = 81.4$  CUBIC FEET  
VOLUME OF RETENTION PROVIDED (RAIN GARDEN) = 267 CUBIC FEET
- WEST  
EXISTING IMPERVIOUS AREA = 1,193 SQUARE FEET  
PROPOSED IMPERVIOUS AREA = 3,425 SQUARE FEET  
REQUIRED VOLUME TO RETAIN =  $2,232 \times (1.1/12) = 204.6$  CUBIC FEET  
VOLUME OF RETENTION PROVIDED (RAIN GARDEN) = 811 CUBIC FEET
2. RATE CONTROL – NO NET INCREASE IN RUNOFF RATE FROM EXISTING TO PROPOSED SITE CONDITIONS FOR THE ATLAS 14, 10 & 100-YEAR STORM EVENTS. REFER TO STORMWATER RUNOFF RATE SUMMARY TABLE.
3. NO INCREASE IN STORMWATER RUNOFF VOLUME FOR THE ATLAS 14, 100-YEAR STORM EVENT. REFER TO STORMWATER RUNOFF VOLUME SUMMARY TABLE.

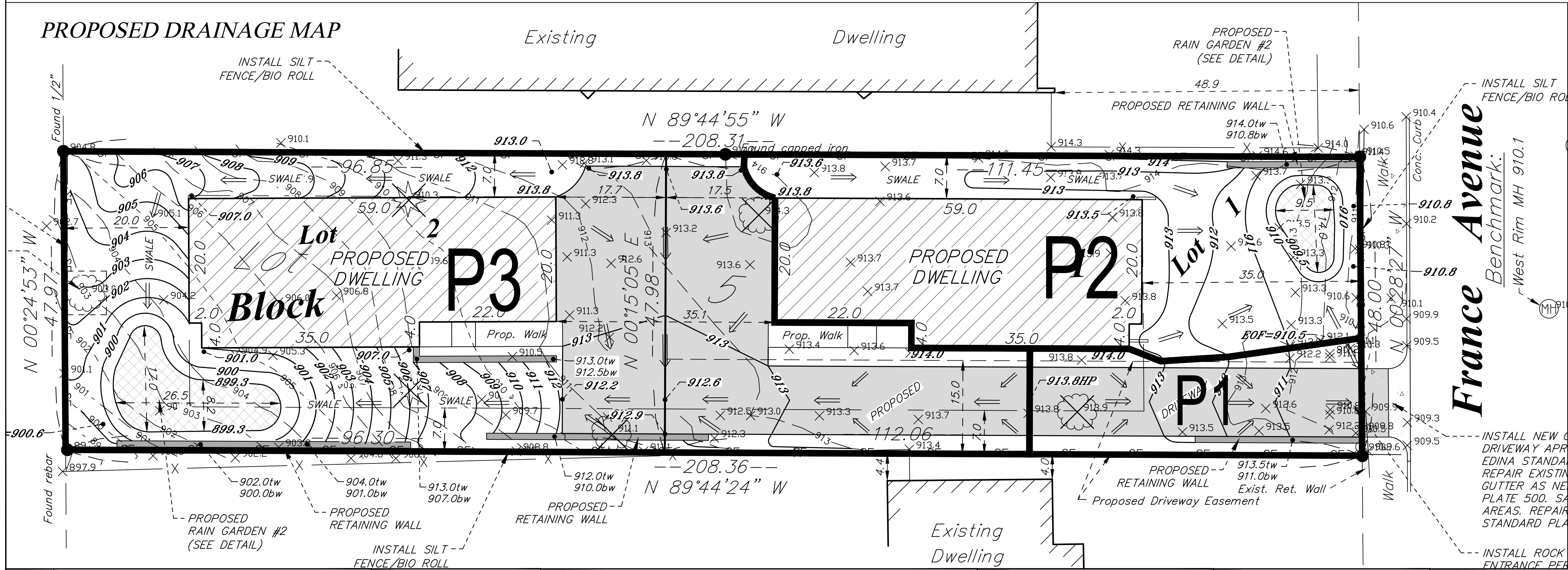
STORMWATER RUNOFF RATE SUMMARY (EAST)

STORM EVENT	EXISTING DISCHARGE EAST (CFS)	PROPOSED DISCHARGE EAST (CFS)
10-YEAR	0.09	0.09
100-YEAR	0.33	0.27

STORMWATER RUNOFF RATE SUMMARY (WEST)

STORM EVENT	EXISTING DISCHARGE WEST (CFS)	PROPOSED DISCHARGE WEST (CFS)
10-YEAR	0.05	0.00
100-YEAR	0.41	0.37

PROPOSED DRAINAGE MAP



STORMWATER RUNOFF VOLUME SUMMARY (EAST)

STORM EVENT	EXISTING VOLUME EAST (CF)	PROPOSED VOLUME EAST (CF)
100-YEAR	740.5	740.5

STORMWATER RUNOFF VOLUME SUMMARY (WEST)

STORM EVENT	EXISTING VOLUME WEST (CF)	PROPOSED VOLUME WEST (CF)
100-YEAR	1,089.0	871.2

- \*NOTES:
- RESULTS ARE DERIVED FROM HYDROCAD MODELING SOFTWARE UTILIZING ATLAS 14 STORM DATA.
  - TYPE A SOILS PER WEB SOILS SURVEY.
  - RESULTS CONFIRM THAT THE RATE & VOLUME CONTROL REQUIREMENTS HAVE BEEN MET.

LEGEND

EXISTING CONTOUR	--- 910 ---
EXISTING SPOT ELEVATION	x 910.5
PROPOSED CONTOUR	--- 910 ---
DRAINAGE ARROW - FLOW	==>
SILT FENCE/BIO ROLL	--- SF ---
EXISTING DRAINAGE AREA ID	E1
PROPOSED DRAINAGE AREA ID	P1

DATE	REVISION	DESCRIPTION

DRAWING ORIENTATION & SCALE

CLIENT NAME / JOB ADDRESS
JEFF ZEIBARTH
4630 FRANCE AVENUE
EDINA, MN

Advance  
Surveying & Engineering, Co.

17917 Highway 7  
Minnetonka, Minnesota 55345  
Phone (952) 474-7964  
Web: www.advsur.com

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.


Joshua S. Rinke  
# 52716  
LICENSE NO.  
AUGUST 18, 2021  
DATE

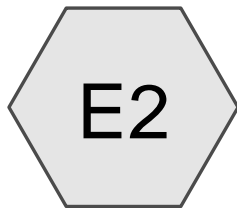
DATE SURVEYED: JULY 19, 2021
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SHEET TITLE
PRELIMINARY PLAT (STORMWATER MGMT.)
DRAWING NUMBER
211392 PRELIM PLAT

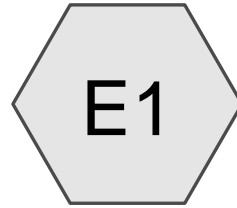
SHEET SIZE
22 X 34
SHEET NO.
S2
SHEET 2 OF 2

# FIELD TREE INVENTORY LOG

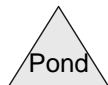
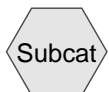
PROJECT NAME: Tree Survey at 4630 France Avenue S., Edina, MN				
DATE: 8/5/2018				
TIME: 7:00 PM		Sunny	75 Degrees F.	
TAG NO.	TREE DIA. (IN)	SPECIES	CONDITION	NOTES
154	10	Rocky Mountain Juniper	Fair	30' Hgt.
155	29	Black Walnut	Good	
156	16	Red Pine	Poor	Needle Blight, Less than 20% Canopy Remains
157	8	Hackberry	Fair	5 Trunks
158	17	Red Pine	Poor	Needle Blight, Less than 20% Canopy Remains
159	13	Slippery Elm	Fair	
160	10	Rocky Mountain Juniper	Fair	30' Hgt.
161	8	Slippery Elm	Poor	
	8	NO. OF SIGNIFICANT TREES INVENTORIED		
	111	TOTAL LIVE SIGNIFICANT INCHES ON PROPERTY		
 <p><b>LANDSCAPE ARCHITECTURE + PLANNING</b> calyxdesigngroup.com   651.788.9018</p>			<b>City of Edina Tree Inventory Criteria:</b>	
			Coniferous Trees 20' Tall or Greater	
			Deciduous Trees 8" + Diameter, except the following:	
			Willow, Box Elder, Poplar, Silver Maple, Black Locust, Fruit Tree Species, & Mulberry	
			<b>Condition Rating:</b>	
			<b>Good</b> = Full Canopy, No Signs of Stress or Injury	
			<b>Fair</b> = Most of the Canopy, Some Stress or Minor Injury	
			<b>Poor</b> = Significant Canopy Loss, Extensive Damage or Disease, Short Life Expectancy	



Uncontrolled Runoff  
(WEST)



Uncontrolled Runoff  
(EAST)





**Summary for Subcatchment E1: Uncontrolled Runoff (EAST)**

Runoff = 0.09 cfs @ 12.03 hrs, Volume= 0.005 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs  
Atlas 14 24-hr S0 10-yr Rainfall=4.28"

Area (sf)	CN	Description
2,044	39	>75% Grass cover, Good, HSG A
* 1,019	98	Impervious Area
3,063	59	Weighted Average
2,044		66.73% Pervious Area
1,019		33.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0					<b>Direct Entry,</b>

**Summary for Subcatchment E2: Uncontrolled Runoff (WEST)**

Runoff = 0.05 cfs @ 12.14 hrs, Volume= 0.005 af, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs  
Atlas 14 24-hr S0 10-yr Rainfall=4.28"

Area (sf)	CN	Description
5,740	39	>75% Grass cover, Good, HSG A
* 1,193	98	Impervious Area
6,933	49	Weighted Average
5,740		82.79% Pervious Area
1,193		17.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.0400	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.86"
0.1	25	0.3000	8.22		<b>Shallow Concentrated Flow,</b> Grassed Waterway Kv= 15.0 fps
4.6	75	Total			

**Summary for Subcatchment E1: Uncontrolled Runoff (EAST)**

Runoff = 0.33 cfs @ 12.02 hrs, Volume= 0.017 af, Depth= 2.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs  
Atlas 14 24-hr S0 100-yr Rainfall=7.49"

Area (sf)	CN	Description
2,044	39	>75% Grass cover, Good, HSG A
* 1,019	98	Impervious Area
3,063	59	Weighted Average
2,044		66.73% Pervious Area
1,019		33.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0					Direct Entry,

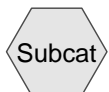
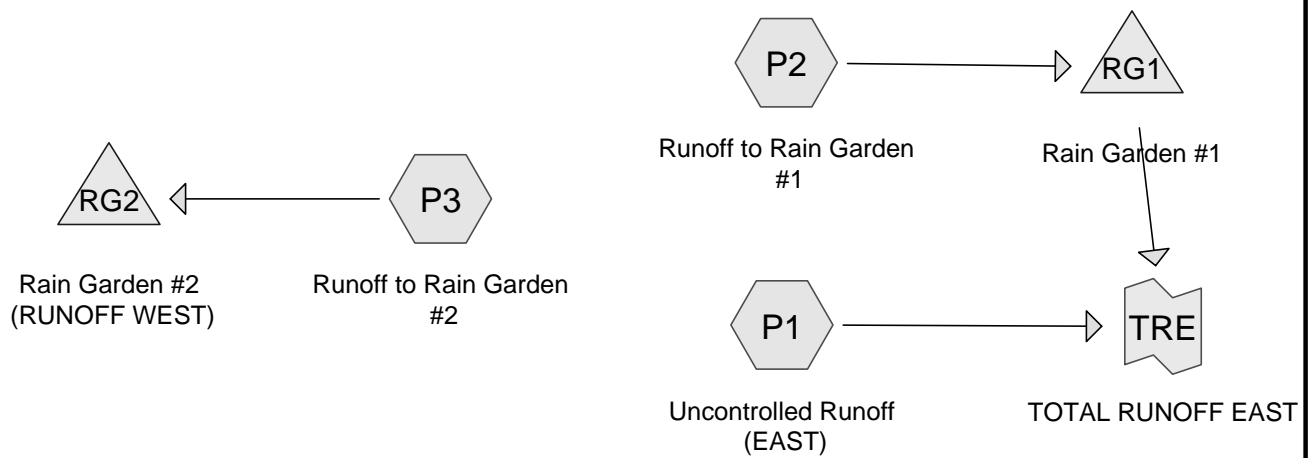
**Summary for Subcatchment E2: Uncontrolled Runoff (WEST)**

Runoff = 0.41 cfs @ 12.03 hrs, Volume= 0.025 af, Depth= 1.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs  
Atlas 14 24-hr S0 100-yr Rainfall=7.49"

Area (sf)	CN	Description
5,740	39	>75% Grass cover, Good, HSG A
* 1,193	98	Impervious Area
6,933	49	Weighted Average
5,740		82.79% Pervious Area
1,193		17.21% Impervious Area

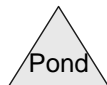
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.0400	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.86"
0.1	25	0.3000	8.22		<b>Shallow Concentrated Flow,</b> Grassed Waterway Kv= 15.0 fps
4.6	75	Total			



Subcat



Reach



Pond



Link

**Routing Diagram for Proposed Conditions - 4630 France Ave S Edina**

Prepared by Advance Surveying & Engineering, Printed 8/18/2021  
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### Summary for Subcatchment P1: Uncontrolled Runoff (EAST)

Runoff = 0.09 cfs @ 12.01 hrs, Volume= 0.004 af, Depth= 2.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs  
 Atlas 14 24-hr S0 10-yr Rainfall=4.28"

Area (sf)	CN	Description
305	39	>75% Grass cover, Good, HSG A
* 587	98	Impervious Area
892	78	Weighted Average
305		34.19% Pervious Area
587		65.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0					<b>Direct Entry,</b>

### Summary for Subcatchment P2: Runoff to Rain Garden #1

Runoff = 0.13 cfs @ 12.05 hrs, Volume= 0.007 af, Depth= 1.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs  
 Atlas 14 24-hr S0 10-yr Rainfall=4.28"

Area (sf)	CN	Description
1,552	39	>75% Grass cover, Good, HSG A
* 1,320	98	Impervious Area
2,872	66	Weighted Average
1,552		54.04% Pervious Area
1,320		45.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	50	0.0200	0.14		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.86"
0.1	35	0.0800	4.24		<b>Shallow Concentrated Flow,</b> Grassed Waterway Kv= 15.0 fps
6.1	85	Total			

### Summary for Subcatchment P3: Runoff to Rain Garden #2

Runoff = 0.41 cfs @ 12.03 hrs, Volume= 0.019 af, Depth= 1.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs  
 Atlas 14 24-hr S0 10-yr Rainfall=4.28"

Area (sf)	CN	Description
2,807	39	>75% Grass cover, Good, HSG A
* 3,425	98	Impervious Area
6,232	71	Weighted Average
2,807		45.04% Pervious Area
3,425		54.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	50	0.0500	0.20		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.86"
0.1	45	0.1800	6.36		<b>Shallow Concentrated Flow,</b> Grassed Waterway Kv= 15.0 fps
4.2	95	Total			

### Summary for Pond RG1: Rain Garden #1

Inflow Area = 0.066 ac, 45.96% Impervious, Inflow Depth = 1.26" for 10-yr event  
 Inflow = 0.13 cfs @ 12.05 hrs, Volume= 0.007 af  
 Outflow = 0.01 cfs @ 14.47 hrs, Volume= 0.007 af, Atten= 95%, Lag= 145.4 min  
 Discarded = 0.01 cfs @ 14.47 hrs, Volume= 0.007 af  
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2  
 Peak Elev= 910.16' @ 14.47 hrs Surf.Area= 206 sf Storage= 182 cf

Plug-Flow detention time= 422.0 min calculated for 0.007 af (100% of inflow)  
 Center-of-Mass det. time= 422.1 min ( 1,246.0 - 823.9 )

Volume	Invert	Avail.Storage	Storage Description			
#1	907.50'	441 cf	<b>Custom Stage Data (Irregular)</b> Listed below (Recalc)			

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
907.50	105	40.0	0.0	0	0	105
909.50	105	40.0	40.0	84	84	185
910.00	170	50.0	100.0	68	152	260
910.50	295	70.0	100.0	115	267	453
911.00	405	80.0	100.0	174	441	579

Device	Routing	Invert	Outlet Devices
#1	Primary	910.50'	<b>8.0' long x 6.0' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83
#2	Discarded	907.50'	<b>0.800 in/hr Exfiltration over Wetted area</b>

**Discarded OutFlow** Max=0.01 cfs @ 14.47 hrs HW=910.16' (Free Discharge)  
 ↗ **2=Exfiltration** (Exfiltration Controls 0.01 cfs)

**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=907.50' TW=0.00' (Dynamic Tailwater)  
 ↗ **1=Broad-Crested Rectangular Weir** ( Controls 0.00 cfs)

### Summary for Pond RG2: Rain Garden #2 (RUNOFF WEST)

Inflow Area = 0.143 ac, 54.96% Impervious, Inflow Depth = 1.59" for 10-yr event  
 Inflow = 0.41 cfs @ 12.03 hrs, Volume= 0.019 af  
 Outflow = 0.01 cfs @ 14.97 hrs, Volume= 0.019 af, Atten= 97%, Lag= 176.7 min  
 Discarded = 0.01 cfs @ 14.97 hrs, Volume= 0.019 af  
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2  
 Peak Elev= 899.95' @ 14.97 hrs Surf.Area= 413 sf Storage= 537 cf

Plug-Flow detention time= 534.1 min calculated for 0.019 af (100% of inflow)  
 Center-of-Mass det. time= 534.2 min ( 1,346.2 - 812.1 )

Volume	Invert	Avail.Storage	Storage Description			
#1	896.30'	1,072 cf	<b>Custom Stage Data (Irregular)</b> Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
896.30	265	75.0	0.0	0	0	265
899.30	265	75.0	40.0	318	318	490
900.00	425	90.0	100.0	239	557	695
900.80	570	100.0	100.0	397	954	864
901.00	610	105.0	100.0	118	1,072	949

Device	Routing	Invert	Outlet Devices											
#1	Primary	900.60'	<b>10.0' long x 6.0' breadth Broad-Crested Rectangular Weir</b>											
			Head (feet)	0.20	0.40	0.60	0.80	1.00	1.20	1.40	1.60	1.80	2.00	
				2.50	3.00	3.50	4.00	4.50	5.00	5.50				
			Coef. (English)	2.37	2.51	2.70	2.68	2.68	2.67	2.65	2.65	2.65	2.65	
				2.65	2.66	2.66	2.67	2.69	2.72	2.76	2.83			
#2	Discarded	896.30'	<b>0.800 in/hr Exfiltration over Wetted area</b>											

**Discarded OutFlow** Max=0.01 cfs @ 14.97 hrs HW=899.95' (Free Discharge)  
 ↗ **2=Exfiltration** (Exfiltration Controls 0.01 cfs)

**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=896.30' (Free Discharge)  
 ↗ **1=Broad-Crested Rectangular Weir** ( Controls 0.00 cfs)



**Summary for Link TRE: TOTAL RUNOFF EAST**

Inflow Area =        0.086 ac, 50.66% Impervious, Inflow Depth = 0.50"    for 10-yr event  
Inflow        =        0.09 cfs @ 12.01 hrs, Volume=                0.004 af  
Primary       =        0.09 cfs @ 12.01 hrs, Volume=                0.004 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

### Summary for Subcatchment P1: Uncontrolled Runoff (EAST)

Runoff = 0.18 cfs @ 12.01 hrs, Volume= 0.008 af, Depth= 4.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs  
 Atlas 14 24-hr S0 100-yr Rainfall=7.49"

Area (sf)	CN	Description
305	39	>75% Grass cover, Good, HSG A
* 587	98	Impervious Area
892	78	Weighted Average
305		34.19% Pervious Area
587		65.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0					Direct Entry,

### Summary for Subcatchment P2: Runoff to Rain Garden #1

Runoff = 0.36 cfs @ 12.04 hrs, Volume= 0.020 af, Depth= 3.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs  
 Atlas 14 24-hr S0 100-yr Rainfall=7.49"

Area (sf)	CN	Description
1,552	39	>75% Grass cover, Good, HSG A
* 1,320	98	Impervious Area
2,872	66	Weighted Average
1,552		54.04% Pervious Area
1,320		45.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	50	0.0200	0.14		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.86"
0.1	35	0.0800	4.24		<b>Shallow Concentrated Flow,</b> Grassed Waterway Kv= 15.0 fps
6.1	85	Total			

### Summary for Subcatchment P3: Runoff to Rain Garden #2

Runoff = 0.99 cfs @ 12.02 hrs, Volume= 0.049 af, Depth= 4.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs  
 Atlas 14 24-hr S0 100-yr Rainfall=7.49"

Area (sf)	CN	Description
2,807	39	>75% Grass cover, Good, HSG A
* 3,425	98	Impervious Area
6,232	71	Weighted Average
2,807		45.04% Pervious Area
3,425		54.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	50	0.0500	0.20		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.86"
0.1	45	0.1800	6.36		<b>Shallow Concentrated Flow,</b> Grassed Waterway Kv= 15.0 fps
4.2	95	Total			

### Summary for Pond RG1: Rain Garden #1

Inflow Area = 0.066 ac, 45.96% Impervious, Inflow Depth = 3.59" for 100-yr event  
 Inflow = 0.36 cfs @ 12.04 hrs, Volume= 0.020 af  
 Outflow = 0.22 cfs @ 12.16 hrs, Volume= 0.020 af, Atten= 39%, Lag= 6.7 min  
 Discarded = 0.01 cfs @ 12.16 hrs, Volume= 0.011 af  
 Primary = 0.21 cfs @ 12.16 hrs, Volume= 0.009 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2  
 Peak Elev= 910.55' @ 12.16 hrs Surf.Area= 305 sf Storage= 282 cf

Plug-Flow detention time= 253.6 min calculated for 0.020 af (100% of inflow)  
 Center-of-Mass det. time= 253.7 min ( 1,046.2 - 792.5 )

Volume	Invert	Avail.Storage	Storage Description			
#1	907.50'	441 cf	<b>Custom Stage Data (Irregular)</b> Listed below (Recalc)			

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
907.50	105	40.0	0.0	0	0	105
909.50	105	40.0	40.0	84	84	185
910.00	170	50.0	100.0	68	152	260
910.50	295	70.0	100.0	115	267	453
911.00	405	80.0	100.0	174	441	579

Device	Routing	Invert	Outlet Devices
#1	Primary	910.50'	<b>8.0' long x 6.0' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83
#2	Discarded	907.50'	<b>0.800 in/hr Exfiltration over Wetted area</b>



**Discarded OutFlow** Max=0.01 cfs @ 12.16 hrs HW=910.55' (Free Discharge)  
 ↑ **2=Exfiltration** (Exfiltration Controls 0.01 cfs)

**Primary OutFlow** Max=0.21 cfs @ 12.16 hrs HW=910.55' TW=0.00' (Dynamic Tailwater)  
 ↑ **1=Broad-Crested Rectangular Weir** (Weir Controls 0.21 cfs @ 0.53 fps)

### Summary for Pond RG2: Rain Garden #2 (RUNOFF WEST)

Inflow Area = 0.143 ac, 54.96% Impervious, Inflow Depth = 4.14" for 100-yr event  
 Inflow = 0.99 cfs @ 12.02 hrs, Volume= 0.049 af  
 Outflow = 0.39 cfs @ 12.18 hrs, Volume= 0.049 af, Atten= 61%, Lag= 9.6 min  
 Discarded = 0.02 cfs @ 12.18 hrs, Volume= 0.029 af  
 Primary = 0.37 cfs @ 12.18 hrs, Volume= 0.020 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2  
 Peak Elev= 900.66' @ 12.18 hrs Surf.Area= 544 sf Storage= 877 cf

Plug-Flow detention time= 407.7 min calculated for 0.049 af (100% of inflow)  
 Center-of-Mass det. time= 407.9 min ( 1,192.2 - 784.3 )

Volume	Invert	Avail.Storage	Storage Description			
#1	896.30'	1,072 cf	<b>Custom Stage Data (Irregular)</b> Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
896.30	265	75.0	0.0	0	0	265
899.30	265	75.0	40.0	318	318	490
900.00	425	90.0	100.0	239	557	695
900.80	570	100.0	100.0	397	954	864
901.00	610	105.0	100.0	118	1,072	949

Device	Routing	Invert	Outlet Devices											
#1	Primary	900.60'	<b>10.0' long x 6.0' breadth Broad-Crested Rectangular Weir</b>											
			Head (feet)	0.20	0.40	0.60	0.80	1.00	1.20	1.40	1.60	1.80	2.00	
				2.50	3.00	3.50	4.00	4.50	5.00	5.50				
			Coef. (English)	2.37	2.51	2.70	2.68	2.68	2.67	2.65	2.65	2.65	2.65	
				2.65	2.66	2.66	2.67	2.69	2.72	2.76	2.83			
#2	Discarded	896.30'	<b>0.800 in/hr Exfiltration over Wetted area</b>											

**Discarded OutFlow** Max=0.02 cfs @ 12.18 hrs HW=900.66' (Free Discharge)  
 ↑ **2=Exfiltration** (Exfiltration Controls 0.02 cfs)

**Primary OutFlow** Max=0.37 cfs @ 12.18 hrs HW=900.66' (Free Discharge)  
 ↑ **1=Broad-Crested Rectangular Weir** (Weir Controls 0.37 cfs @ 0.59 fps)

**Summary for Link TRE: TOTAL RUNOFF EAST**

Inflow Area = 0.086 ac, 50.66% Impervious, Inflow Depth = 2.40" for 100-yr event  
Inflow = 0.27 cfs @ 12.15 hrs, Volume= 0.017 af  
Primary = 0.27 cfs @ 12.15 hrs, Volume= 0.017 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs



TO: Cary Teague, Community Development Director

FROM: Stephanie Hawkinson, Affordable Housing Development Manager

DATE: August 30, 2021

RE: Proposed Villas on France

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The proposed Villas on France development entails demolishing a single family house at 4630 France Avenue and replacing with two single family houses. The rationale is that the property is too costly for a single family teardown, and there is a demand for houses for empty nesters who want to downsize.

Comments in support of proposal:

- The Housing Strategy Task Force recommended upzoning, or increasing density, along transit corridors.

As the proposed development is not small (each unit would be 2,800 square feet; 3 bedrooms and 3 baths and 2 car garages) and the sale prices is unknown, but anticipated to be market rate for the area, it is unlikely to help the City in reaching the affordable housing goals.





**DATE:** 9/14/2021

**TO:** 4630 France Ave, City Homes and Simply Homes

**CC:** Cary Teague – Community Development Director

**FROM:** Chad Millner, PE, Director of Engineering

**RE:** 4630 France Ave – Development Review

The Engineering Department has reviewed the subject property for pedestrian facilities, utility connections, grading, flood risk, and storm water. Plans reviewed included an existing survey, preliminary play, and stormwater management plan dated July and August 2021.

Review Comment		Required For
<b>General</b>		
1.	Deliver as-build records of public and private utility infrastructure post construction.	Certificate of Occupancy
<b>Survey</b>		
2.	An existing and proposed site condition survey is required.	Grading/Building Permit
2.1	Show all existing and proposed public and private easements.	Grading/Building Permit
<b>Living Streets</b>		
3.	Design sidewalks to meet ADA requirements.	Grading/Building Permit
4.	Saw cut concrete sidewalk joints on public sidewalks.	Grading/Building Permit
5.	Public sidewalk to match existing.	Grading/Building Permit
<b>Traffic and Street</b>		
6.	Review fire access requirements with fire department. Fire truck turning template attached.	Grading/Building Permit
7.	Hennepin County Access Permit required for entrance reconstruction.	Building Permit
8.	Road patching shall conform to Hennepin County standards.	Certificate of Occupancy
9.	Provide 10' easement along eastern side of property for future sidewalk improvements. Staff recommends minimal trees, plantings or other landscaping items within the easement.	Grading/Building Permit
<b>Sanitary and Water Utilities</b>		
10.	Served by City of Minneapolis. City of Minneapolis utility permits required.	Grading/Building Permit

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11.	Domestic water shall be sized by the developer's engineer.	Grading/Building Permit
12.	Domestic sanitary shall be sized by the developer's engineer.	Grading/Building Permit
13.	A SAC determination will be required by the Metropolitan Council. The SAC determination will be used by the City to calculate sewer and water connection charges	Grading/Building Permit
14.	A well may be located onsite. MDH to provide documentation as available. A licensed well contractor may be required to search the site for a well. Wells not in use must be sealed by a licensed well contractor per MN Rules, Chapter 4725.	Certificate of Occupancy
<b>Storm Water Utility</b>		
15.	Site drains to landlocked basins (MHN_65 and 66), a structural flooding issue (MHN_66), and private property (MHN_65). Demonstrate no increase in peak flood elevations for 1% annual chance flood event (NOAA Atlas 14, 100-year), volume control (1.1"x new contributing impervious), and rate control to private property (NOAA Atlas 14, 10-year). Provide existing and proposed hydrocad to confirm.	Grading/Building Permit
16.	The Minnesota Stormwater Manual recommends the 10' as the minimum distance between an infiltration practice (rain garden 2) and a structure's foundation. Revise.	Grading/Building Permit
17.	Rain garden #2's overflow creates a new concentration of drainage that will affect downstream structures. Revise design to eliminate new concentration of drainage.	Grading/Building Permit
18.	Mitigation is distributed unevenly between the two sites. Revise to proportionally distribute mitigation per site. Recommend engineered pervious driveway with drains to direct overflow to street.	Grading/Building Permit
19.	Indicate the rain garden responsibility maintenance.	Grading/Building Permit
20.	Proposed lowest floors (904.93') are above the required FEMA 1% annual chance 875.5' with more than 2' of freeboard.	General Comment
21.	Provide geotechnical report with soil borings.	Grading/Building Permit
22.	Provide hydraulic and hydrologic report meeting watershed and state construction site permit requirements.	Grading/Building Permit
23.	Submit watershed district permit and copies of private maintenance agreement in favor of watershed.	Grading/Building Permit

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## Grading Erosion and Sediment Control

24.	A SWPPP consistent with the State General Construction Site Stormwater Permit is required.	Grading/Building Permit
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## Constructability and Safety

25.	Construction staging, traffic control, and pedestrian access plans will be required.	Grading/Building Permit
26.	Retaining walls over 4-ft in height require design by a structural engineer. Hydrostatic pressure from nearby rain gardens shall be accounted for.	Grading/Building Permit

## Other Agency Coordination

27.	Hennepin County, City of Minneapolis, MDH, MPCA and MCES permits required as needed.	Grading/Building Permit
28.	Minnehaha Creek Watershed District permit is required.	Grading/Building Permit

## Sustainability

29.	Staff recommends considering EV charging infrastructure for residents.	General Comment
30.	The <a href="#">Metropolitan Council's Extreme Heat map</a> shows that during an extreme heat event (when air temperatures are 90 or above), this area of Edina can be 4 degrees F hotter than surrounding areas. Green roofs reduce the urban heat island effect, reducing amount of greenhouse gas emissions trapped in the atmosphere and energy needs to cool a building. Staff recommends adding a green roof or garden to reduce this urban heat island effect and energy costs to cool the building.	General Comment
31.	The <a href="#">University of Minnesota's Solar Suitability map</a> rates this property as "good" for solar roof installations with a grade of 83 out of 100. Staff recommends considering rooftop solar panels to maximize benefits of renewable energy.	General Comment
32.	Please complete marked "yes" items from Sustainable Design Questionnaire as described below: <ul style="list-style-type: none"><li>- utilize Xcel Energy's Energy Design Assistance and/or Centerpoint Energy's Builder and Developer programs for this development</li><li>- appliances and equipment be Energy Star or EPA WaterSense certified</li><li>- Rely on HERS rating system for energy design and construction strategies</li><li>- Protect existing healthy trees</li></ul>	General Comment

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	<ul style="list-style-type: none"><li>- Provide shade trees, native and pollinator-friendly landscaping</li><li>- outdoor landscaping watering system include a water sensor to automatically reduce watering in wet conditions</li><li>- site features included to make the use of public transit convenient and simple? Examples include sheltered waiting areas, paved sidewalks and clear site lines</li></ul>	
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**ENGINEERING DEPARTMENT**

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**Date:** September 16, 2021

**To:** Cary Teague, Community Development Director

**From:** David Fisher, Chief Building Official

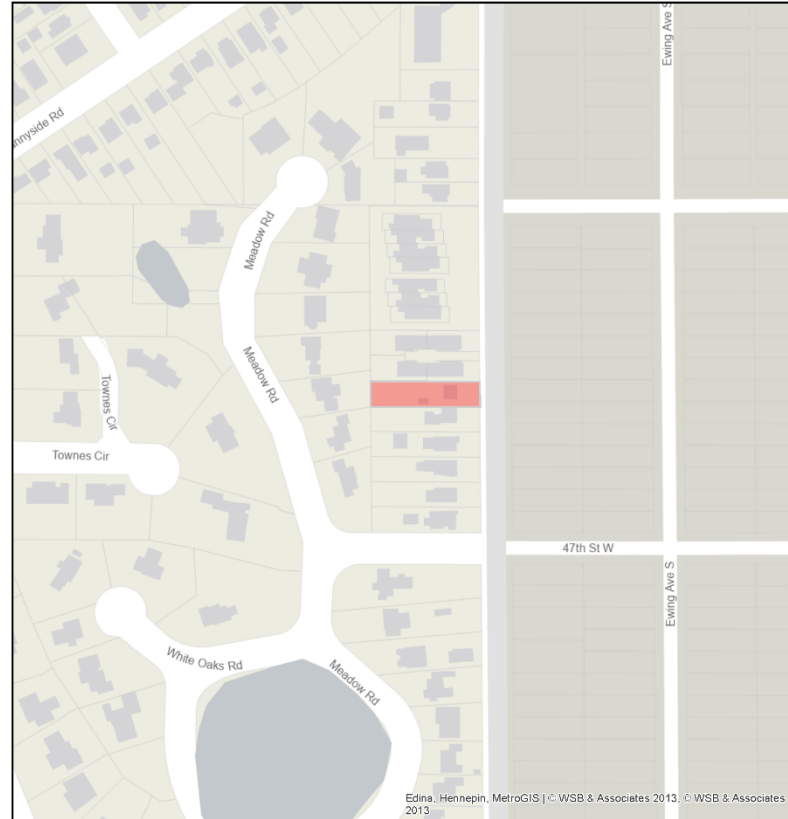
**Subject:** 4630 France Ave – Villas on France

## **Information / Background:**

Two separate single-family dwellings in a villa.

- This would be an R-3 building using the International Residential Code.
- A separate water and sewer service and permit are required for each unit.
- I would recommend a 13-D Fire Sprinkler System in in each home. Provide the required size of the domestic water for each unit to ensure complies for the fire sprinkler system.
- New address numbers will be required.
- Recommend escrow is provided with the demo and new building permits to assure City standards are met for code compliance.

## Site Location



1 in = 188 ft



# The CITY of EDINA

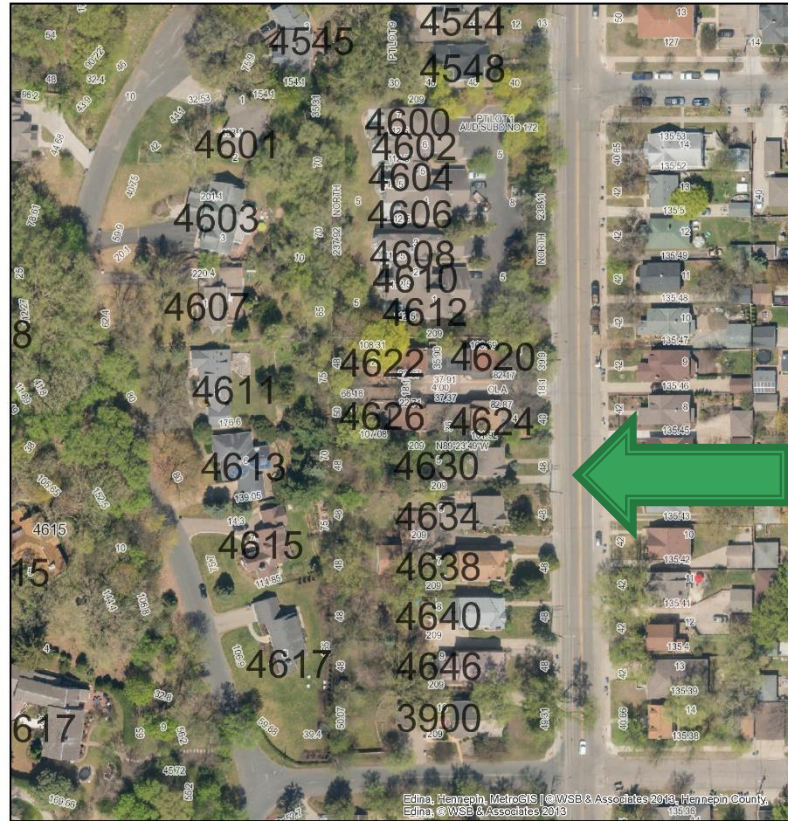


The CITY of  
EDINA



April 9, 2021

## Site Location



# The CITY of EDINA



The CITY of  
EDINA



April 9, 2021



# The CITY of EDINA

DataLink | Edina

- R-2 - Double Dwelling Unit
- PRD-1 - Planned Residence
- PRD-2 - Planned Residence
- PRD-3 - Planned Residence
- PRD-4 - Planned Residence
- PRD-5 - Planned Residence
- PCD-1 - Planned Commercial
- PCD-2 - Planned Commercial
- PCD-3 - Planned Commercial
- PCD-4 - Planned Commercial
- POD-1 - Planned Office
- POD-2 - Planned Office
- RMD - Regional Medical
- PID - Planned Industrial
- PUD - Planned Unit Development
- APD - Automotive Parking
- PSR-4 - Planned Residence
- MDD-4 - Mixed Development
- MDD-5 - Mixed Development
- MDD-6 - Mixed Development

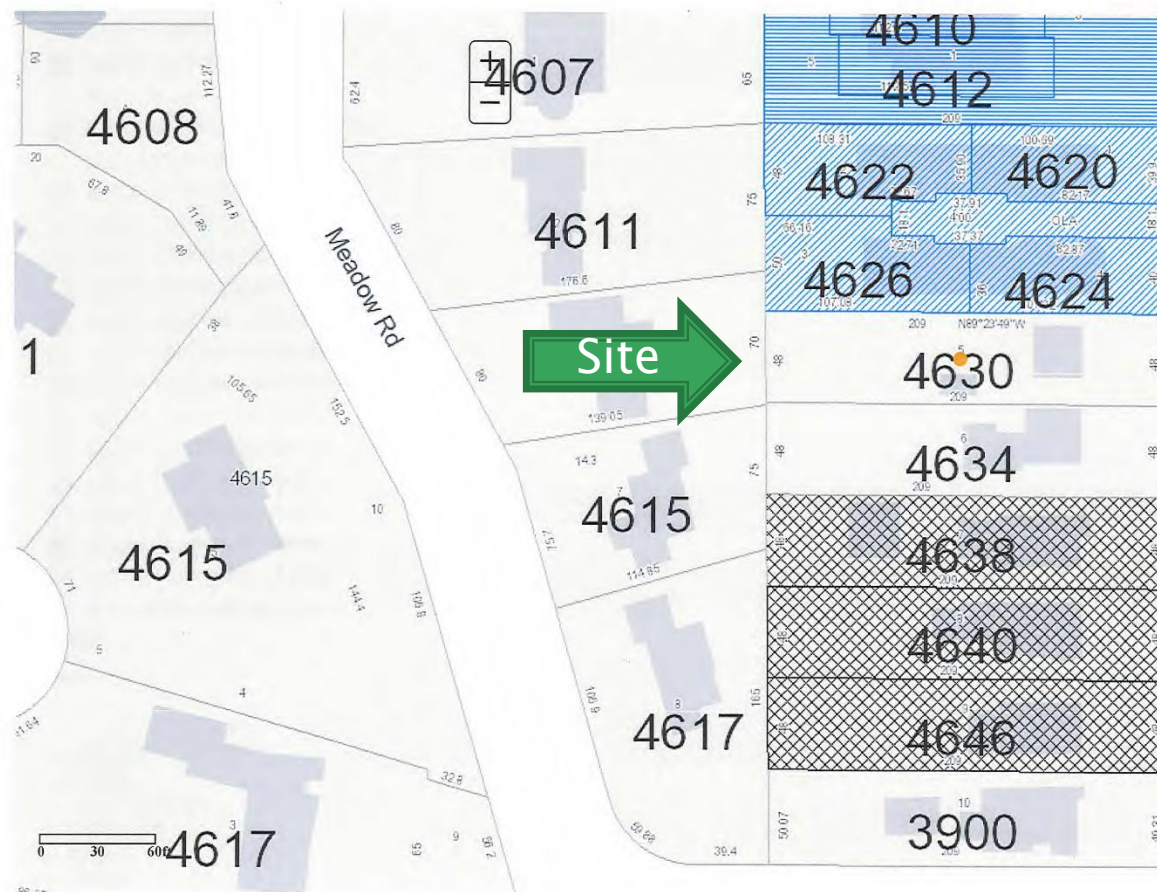
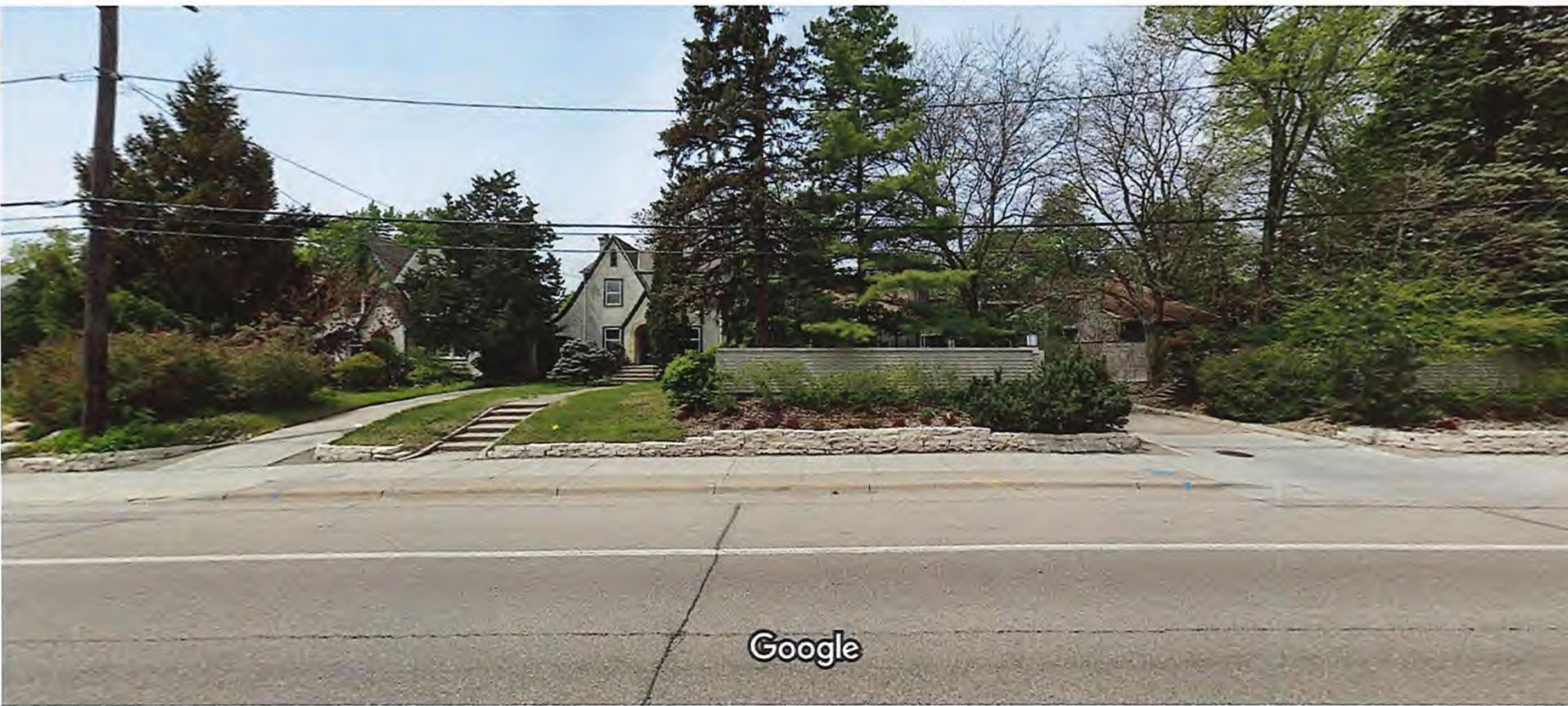


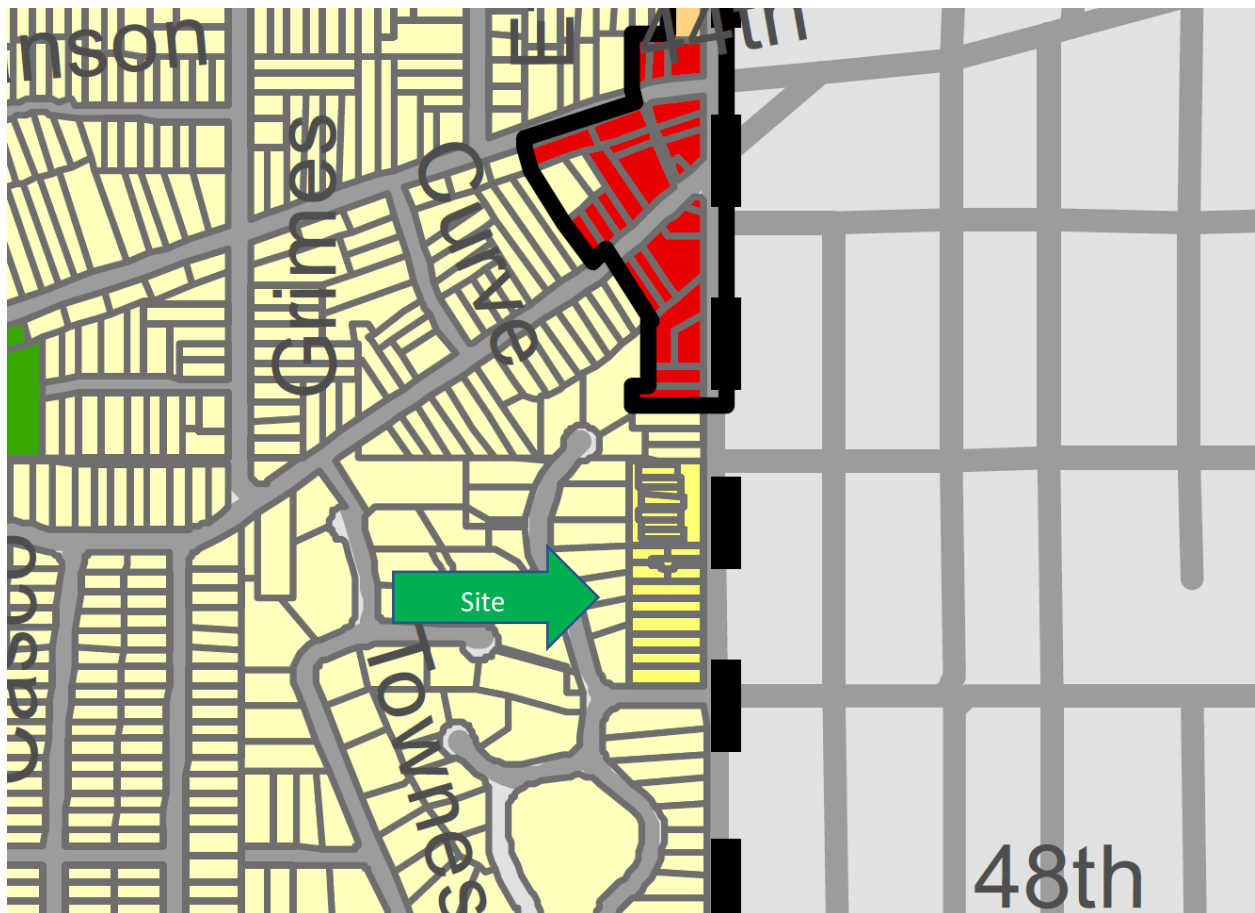




Image capture: May 2019 © 2021 Google







## Legend

	Low Density Residential		Neighborhood Node
	Low Density Attached Residential		Mixed Use Center
	Medium Density Residential		Community Activity Center
	High Density Residential		Industrial
	Greater Southdale District Residential		Open Space and Parks
	Office Residential		Public/Semi Public
	Office		Regional Medical
			City Limits



0 3,700 Feet

Source: City of Edina, Hennepin County, MetCouncil, MnDOT

Comprehensive Land Use Plan

## Survey Responses

30 January 2019 - 16 September 2021

# Public Hearing Comments-4630 France Ave. S.

## Better Together Edina

Project: Public Hearing: Proposal by City Homes to tear down the existing single-family home and build two villa type homes at 4630 France Avenue



VISITORS					
6					
CONTRIBUTORS			RESPONSES		
2			2		
0	0	2	0	0	2
Registered	Unverified	Anonymous	Registered	Unverified	Anonymous





**Respondent No:** 1

**Login:** Anonymous

**Email:** n/a

**Responded At:** Sep 13, 2021 10:38:54 am

**Last Seen:** Sep 13, 2021 10:38:54 am

**IP Address:** n/a

Q1. **First and Last Name**

Katharine Winston

Q2. **Address**

4634 FRANCE AVE S

Q3. **Comment**

STUCCO on the exterior for a better blend between the old on the South side (1929 home) and newer on the North side (townhouses)

**Respondent No:** 2**Login:** Anonymous**Email:** n/a**Responded At:** Sep 16, 2021 09:12:49 am**Last Seen:** Sep 16, 2021 09:12:49 am**IP Address:** n/a**Q1. First and Last Name**

Laura J. Westlund

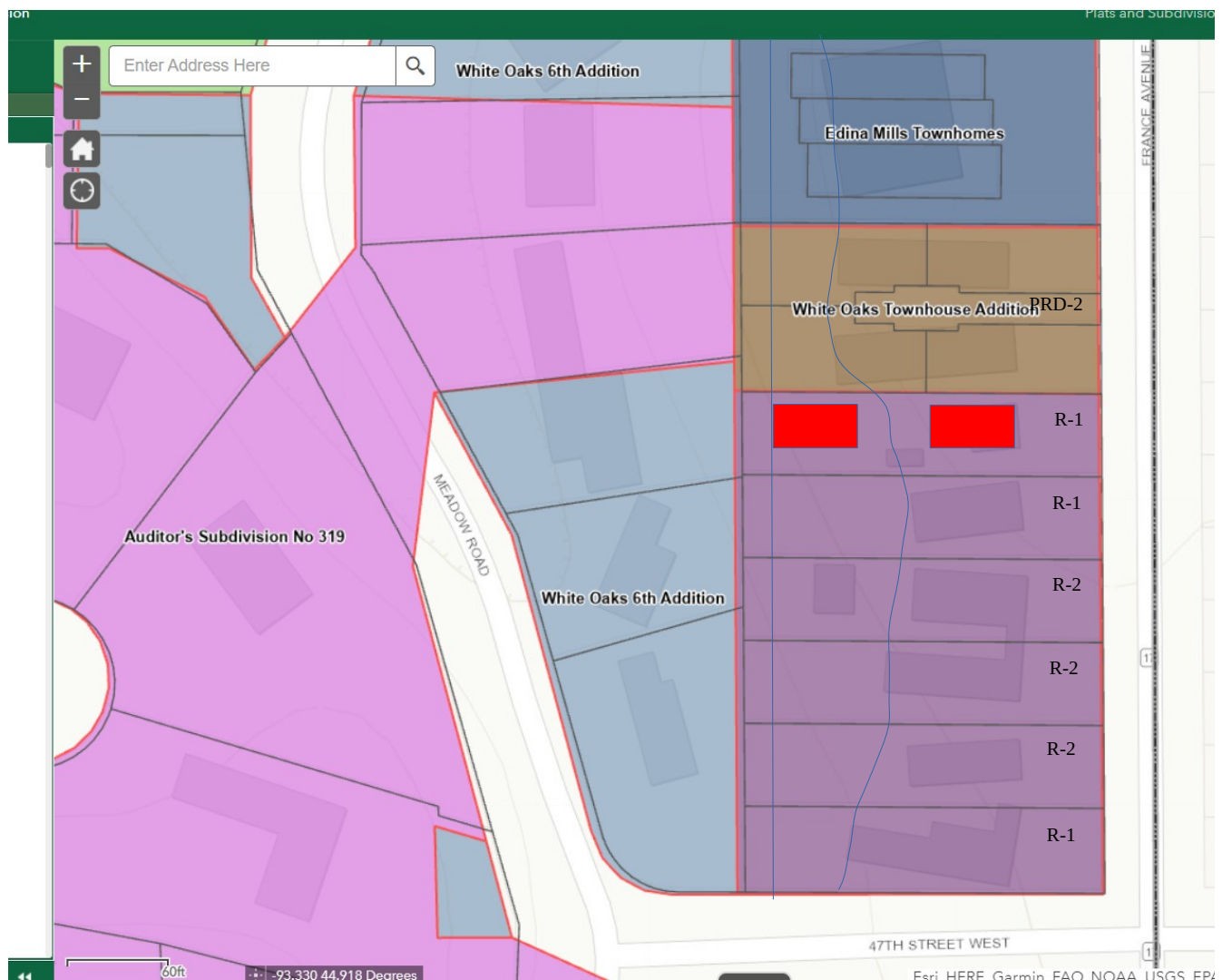
**Q2. Address**

4626 France Avenue South, Edina, MN 55410

**Q3. Comment**

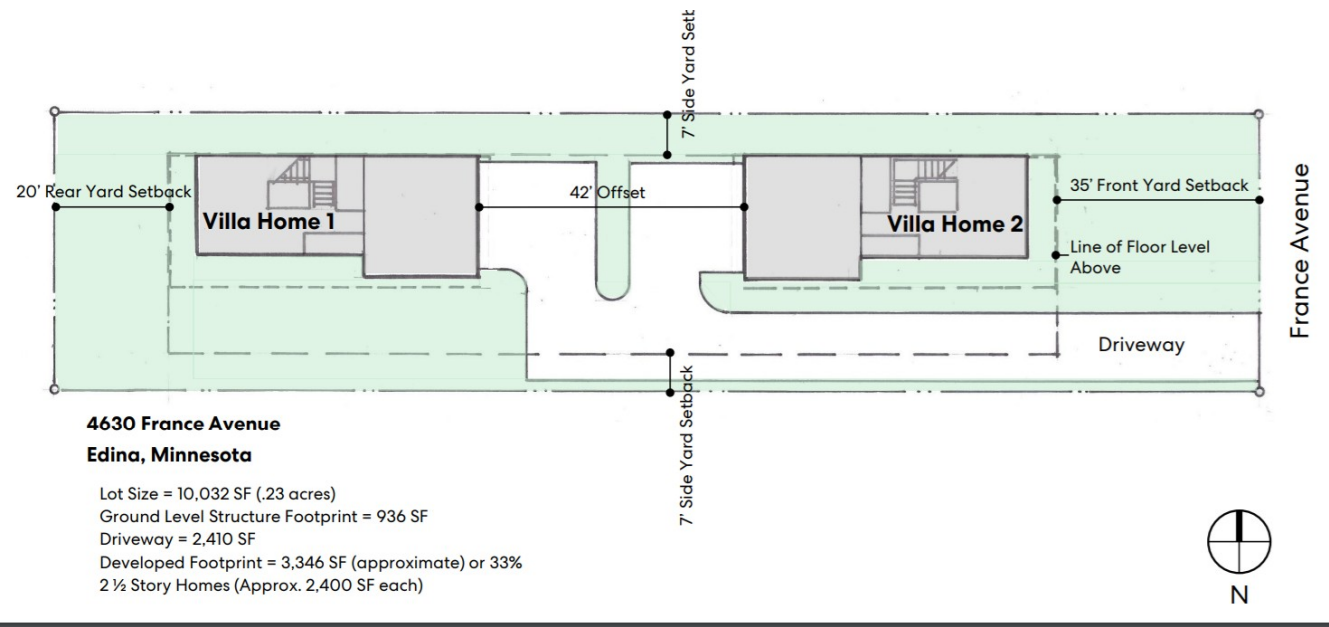
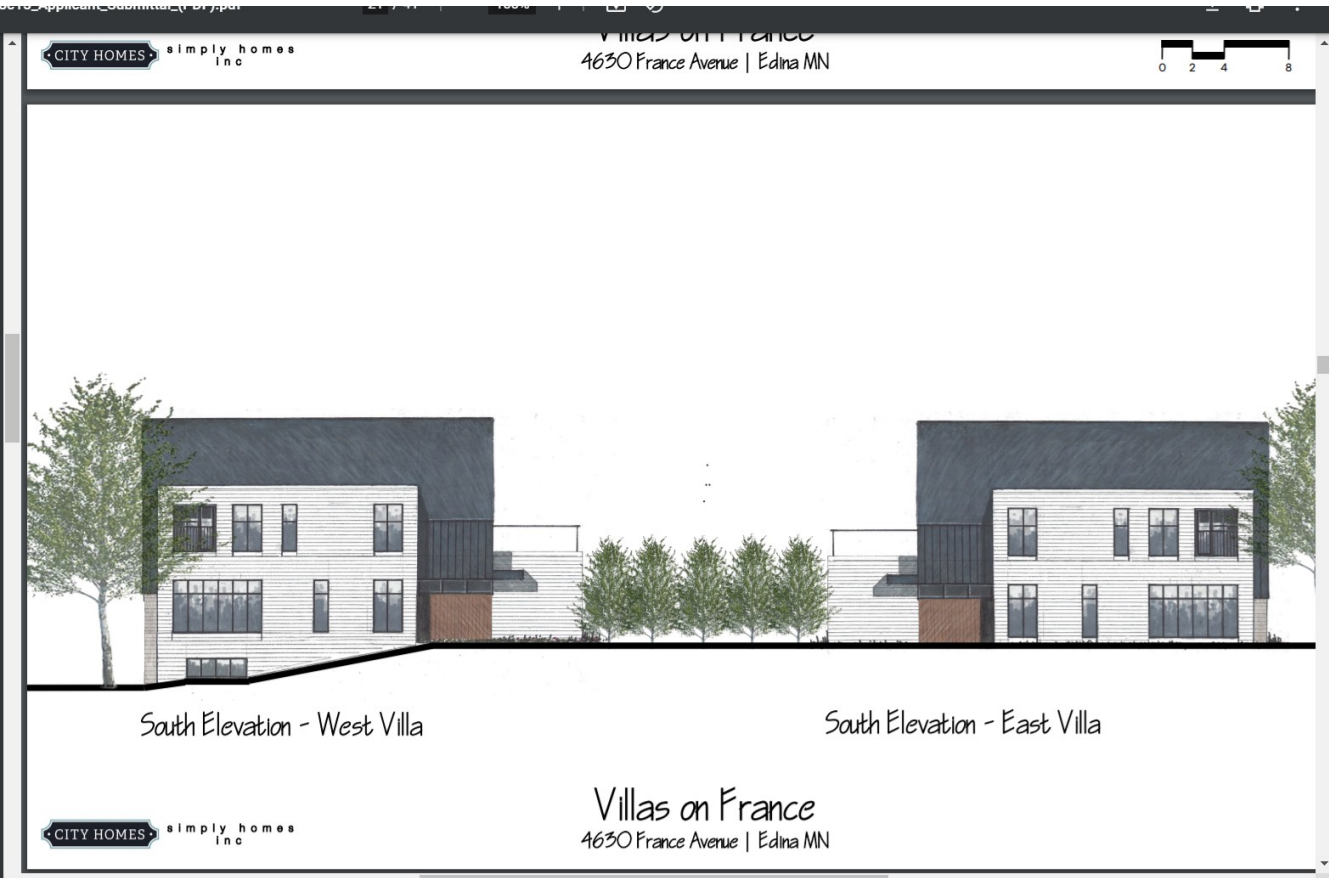
Comments for Edina Planning Commission meeting, September 22, 2021, regarding sketch plan proposal for development and rezoning at 4630 France Avenue South I strongly urge members of Edina's Planning Commission and City Council to visit the site of 4630 France Avenue South in person in order to appreciate the impact of the construction of proposed Villa Home 1 on this neighborhood and adjacent residents on France Avenue and Meadow Road. The construction of a second home on this property is incongruent with the White Oaks neighborhood, and the area between France Avenue South and Meadow Road, and 46th and 47th Streets, is an extraordinary, unique landscape in our urban environment, characterized by dense vegetation and a remarkable array of wildlife; the block is extremely private and dominated by natural beauty. The affect of the rezoning proposal and the construction of Villa Home 1 on current residents of the neighborhood cannot be fully understood by viewing the property online or by driving by on France Avenue. Laura Westlund 4626 France Avenue South, Edina





By Simply Homes 4630 France Avenue Edina, Minnesota by Simply Homes The new development would propose the construction of two (2) villa type homes to be built on the 4630 France Avenue lot/parcel. The existing home on site is vacant, listed as a teardown and been on the market for many months. In this specific setting, we believe there is a market for smaller single family detached homes as a viable option to a town home setting or condominium. There are several townhome developments nearby this location (one directly north and adjacent this site). The specifics of the new homes include the following: • Approximately 2,400 SF of living space (each unit) • 2 car garage • 3 Bedroom, 4 Bath including Recreation Room (or 4th Bedroom) and Home Office • 2 ½ story construction (slab on grade), ground level floor depressed (verify grading) to reduce overall height • Architectural style would be urban cottage • Exterior materials to include (several study options and combinations): Board and batten siding, vertical siding in combination with stained (or painted) wood siding and shingle or metal roofs. Planning variances and rezoning request would include the following: • Re-zoning to enable 2 units on this lot/parcel • Proposed Rear Yard Setback reduced to 20' – 0" versus 25' – 0" required • Assumes Side Yard Setbacks of 7' - 0" (verify requirement) • Assume 35' – 0" Front Yard Setback (verify requirement) • Lot Coverage: Proposed building and hardscape at 33% of lot area, not including reduction for pervious paving (verify requirement)

















## CITY OF EDINA

4801 West 50th Street

Edina, MN 55424

[www.edinamn.gov](http://www.edinamn.gov)

**Date:** September 22, 2021

**Agenda Item #:** VI.E.

**To:** Planning Commission

**Item Type:**

Report and Recommendation

**From:** Cary Teague, Community Development Director

**Item Activity:**

**Subject:** Site Plan Review with Variances – 6500 Barrie Road

Action

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### **ACTION REQUESTED:**

Recommend the City Council approve the requests subject to the findings and conditions outlined in the staff report.

### **INTRODUCTION:**

The Planning Commission is asked to consider and make recommendation to the City Council on a proposal to tear down the existing 16,032 square foot medical office building and build a new 3-story, 24,000 square foot medical office and surgery center. (See applicant narrative and plans.)

The site is currently zoned POD-1, Planned Office District, and guided Regional Medical District. The height overlay district allows up to 12 stories. (See attached location, zoning, comp. plan and height overlay zone.) The site is very small (30,492 square feet), and narrow (100 feet wide) for a medical office site. Given the required setbacks on the site, a variance would be likely for any new structure. The table on the following page demonstrates existing and proposed setbacks.

Mic Johnson, Architecture Field Office has provided a review of the proposed project. The applicant will respond to the suggestions at the Planning Commission meeting.

### **ATTACHMENTS:**

Staff Report

Engineering Review Memo

Revised Parking Plan

Applicant Narrative

Site Location, Zoning, & Comp. Plan

Traffic and Parking Study

Proposed Plans 1 of 3

Proposed Plans 2 of 3

Proposed Plans 3 of 3

Review comments fromAFO (Mic Johnson)

Building Official Review Memo

Better Together Public Hearing Comment Report 9-16-21 Noon



**Date:** September 22, 2021

**To:** Planning Commission

**From:** Cary Teague, Community Development Director

**Subject:** Site Plan Review with Variances – 6500 Barrie Road.

## Information / Background:

The Planning Commission is asked to consider and make recommendation to the City Council on a proposal to tear down the existing 16,032 square foot medical office building and build a new 3-story, 24,000 square foot medical office and surgery center. (See applicant narrative and plans.)

The site is currently zoned POD-I, Planned Office District, and guided Regional Medical District. The height overlay district allows up to 12 stories. (See attached location, zoning, comp. plan and height overlay zone.) The site is very small (30,492 square feet), and narrow (100 feet wide) for a medical office site. Given the required setbacks on the site, a variance would be likely for any new structure. The table on the following page demonstrates existing and proposed setbacks.

To accommodate the request the following is required:

- Site Plan Review.
- Front Street (65<sup>th</sup>) Setback Variance from 30 feet to 18 feet on the north lot line (measured from the front of the building to the curb).
- Side Yard Setback Variance from 20 feet to 10 feet.
- Building Coverage Variance from 30% to 45%.
- Floor Area Ratio (FAR) Variance from 50% to 80%.
- Parking Stall Variance from 120 stalls to 73 stalls.

## Surrounding Land Uses

Northerly: The Colony, three story condominiums; zoned PRD-4, Planned Residential District and guided Regional Medical

Easterly: Single-story office and medical office; zoned POD-I, Planned Office District and guided Regional Medical

Southerly: Four-story medical office building; zoned POD-I, Planned Office District and guided Regional Medical  
Westerly: Large surface parking lot for medical office; zoned POD-I, Planned Office District and guided Regional Medical

### **Existing Site Features**

The subject property is 30,286 square feet in size and contains a medical office building with parking under the building.

### **Planning**

Guide Plan designation: RM, Regional Medical  
Zoning: POD-I, Planned Office District

### **Site Access**

The primary access to the site would be off Barrie Road, and a new access provided off 65<sup>th</sup> Street West.

### **Parking**

As mentioned above, a parking space variance is requested to accommodate the required number of parking spaces for the site. Based on the square footage of the facility 120 parking spaces are required for the entire site. (Under the proposed parking ordinance revisions, 80 stalls would be required.) The proposed plans demonstrate 73 parking stalls. (Plans were revised to add three stalls.)

Wenck Associates completed a parking study for the use. (See attached study.) The study concludes that there would be adequate parking.

### **Traffic**

Wenck Associates also completed a traffic study for the use. (See attached study.) The study concludes that the existing roadways would support the project.

Per City requirements, a Tier 2 Travel Demand Management (TDM) plan is required for this project. TDM strategies for this site include:

- Providing maps that show the area bus routes, bus schedules, and bicycle and pedestrian facilities.
- Providing information on starting and joining commuter programs.
- Providing bicycle parking spaces for employees.
- Offering a pre-paid Metro Transit Go-To Card to all employees during orientation.

The TDM plan strategies should be implemented at the time the project is complete and fully operational. The overall cost of the strategies is estimated at \$1,000.



## Landscaping

The existing landscaping exceeds the City's requirements. Based on the perimeter of the site, 19 over story trees and a full complement of understory trees and shrubs are required. The site contains 20 proposed over story trees around the site & a full complement of understory trees and shrubs.

## Building Materials

The proposed building would be made primarily of brick, glass and metal panel. (See attached building plans.)

## Signage

Any proposed signage must meet the City's sign ordinance, and not to exceed 86 square feet total and no individual sign larger than 50 square feet. Setback must be 20 feet back from the street.

The following table demonstrates compliance with POD-I Zoning:

**COMPLIANCE TABLE**

	City Standard (POD-I)	Proposed
<b><u>Structure Setbacks</u></b>		
Front – 65 <sup>th</sup> Street	30 feet to the curb	<b><i>18 feet to the curb*</i></b> (10 feet to lot line)
Front – Barrie Road	30 feet to the curb	35 feet (25 feet to lot line)
Side – West	20 feet	<b><i>10 feet*</i></b>
Rear – South	20 feet	50 feet
Height	12 stories and 144 feet	3 stories and 40 feet
Floor Area Ratio (FAR)	.50% (.53 existing)	<b><i>.80 s.f.*</i></b>
Building Coverage	30% (28% existing)	<b><i>45%</i></b>
Parking	1 stall per 200 s.f. plus one space per physician = 120 stalls (1 per 300 s.f. proposed Ord) = 80 stalls	<b><i>73 stalls*</i></b>

**\*Variance Required**

## **Variance – Parking Stalls**

Per the Zoning Ordinance, a variance should not be granted unless it is found that the enforcement of the ordinance would cause practical difficulties in complying with the zoning ordinance and that the use is reasonable. As demonstrated below, staff believes the proposal does meet the variance standards, when applying the three conditions:

**Minnesota Statutes and Edina Ordinances require that the following conditions must be satisfied affirmatively. The Proposed Variance will:**

***1) Relieve practical difficulties that prevent a reasonable use from complying with ordinance requirements.***

Reasonable use does not mean that the applicant must show the land cannot be put to any reasonable use without the variance. Rather, the applicant must show that there are practical difficulties in complying with the code and that the proposed use is reasonable. “Practical difficulties” may include functional and aesthetic concerns.

Staff believes the proposed parking stall variance is reasonable. A parking study was conducted by Wenck Associates that demonstrates that the use would be supported by the 73 parking stalls that are proposed. The plans originally called for 70 stalls. As a result of the parking study, the parking area was revised to accommodate the three stalls that were short.

***2) There are circumstances that are unique to the property, not common to every similarly zoned property, and that are not self-created?***

Yes. The site is unique in terms of its size and shape. The city is in the process of amending the zoning ordinance in regard to the number of parking spaces required for medical uses. Under the proposed ordinance, the proposal would only be short parked by 7 spaces. The parking study has demonstrated that the 73 spaces would be adequate to accommodate the proposed use.

***3) Will the variance alter the essential character of the neighborhood?***

No. The variance would not alter the essential character of the district. There are a variety of building sizes and height in this neighborhood, and there are a variety of ways the uses are parked including surface lots and ramps. The reduction in parking would not be noticed in the neighborhood.

## **Variances – Setbacks & Building Size**

This section considers the following variances: front street setback variance from 30 feet to 18 feet (measured from building to curb); side yard setback variance from 20 feet to 10 feet; building coverage variance from 30% to 45%; floor area ratio (FAR) variance from 50% to 80%.

Per the Zoning Ordinance, a variance should not be granted unless it is found that the enforcement of the ordinance would cause practical difficulties in complying with the zoning ordinance and that the use is reasonable. As demonstrated below, staff believes the proposal does meet the variance standards, when applying the three conditions:

**Minnesota Statutes and Edina Ordinances require that the following conditions must be satisfied affirmatively. The Proposed Variance will:**

***1) Relieve practical difficulties that prevent a reasonable use from complying with ordinance requirements.***

Reasonable use does not mean that the applicant must show the land cannot be put to any reasonable use without the variance. Rather, the applicant must show that there are practical difficulties in complying with the code and that the proposed use is reasonable. "Practical difficulties" may include functional and aesthetic concerns.

Staff believes the proposed variances mentioned above are reasonable. The practical difficulty is caused by the small size of the lot and narrow width. The proposed building is slightly larger than the existing building on the site. Given the property values in this area, the proposed building is reasonably sized, and far below the maximum height allowed for the site.

***2) There are circumstances that are unique to the property, not common to every similarly zoned property, and that are not self-created?***

Yes. This lot is the narrowest in the district. The lot to the south that is the same size is held in common ownership with the larger property to the west. The circumstance of the small lot size and narrow width are not common in this area and zoning district. These circumstances were not created by the applicant.

***3) Will the variance alter the essential character of the neighborhood?***

No. The variance would not alter the essential character of the district. There are a variety of building sizes and height in this neighborhood. The building would still be one of the small structures in the area. There is a large surface parking lot to the south and to the west, which would make the building appear to be located on a larger lot.

## PRIMARY ISSUE/STAFF RECOMMENDATION

### Primary Issue

- **Is the proposal reasonable to justify the proposed variances?**

Yes. Staff does support the site plan and the requested variances on the site for the following reasons:

1. The Wenck parking study demonstrates there would be adequate parking to support the project.
2. The proposed setback, building coverage and floor area ratio variances are reasonable. The practical difficulty is caused by the small size of the lot and narrow width.
3. The proposed building is slightly larger than the existing building on the site. Given the property values in this area, the proposed building is reasonably sized, and far below the maximum height allowed for the site.
4. This lot is the narrowest in the district. The lot to the south that is the same width is held in common ownership with the larger property to the west. Therefore, the circumstance of the small lot size and narrow width are not common in this area and zoning district. These circumstances were not created by the applicant.
5. The variance would not alter the essential character of the district. There are a variety of building sizes and height in this neighborhood. The building would still be one of the smallest structures in the area. There is a large surface parking lot to the south and to the west, which would make the building appear to be located on a larger lot.
6. The proposed sidewalk would be an improvement to the area where there are currently no sidewalks. This sidewalk would allow residents to the north to walk to Southdale and surrounding area more safely.

### Staff Recommendation

Recommend that the City Council approve the Site Plan with Variances at 6500 Barrie Road.

Approval is based on the following findings:

1. Wenck conducted a parking and traffic impact study. The study concluded that the existing roadway system would support the proposed project. No improvements are necessary to the adjacent roadway. Additionally, the proposed 73 parking spaces provided would adequately serve the development.
2. The building is reasonably sized given the context of the immediate area and neighborhood.



3. The practical difficulty is due to the narrow lot width and small area of the lot.
4. The project would improve pedestrian movement in the area with the construction of the boulevard style sidewalks.
5. The proposed building is slightly larger than the existing building on the site. Given the property values in this area, the proposed building is reasonably sized, and far below the maximum height allowed for the site.
6. Consider the recommendations of Mic Johnson, Architecture Field Office in the review memo dated September 16, 2021.

Approval of the Site Plan is subject to the following conditions:

1. Subject to staff approval, the site must be developed and maintained in substantial conformance with the following plans, unless modified by the conditions below:
  - Site plan dated August 20, 2021.
  - Grading plan dated August 20, 2021.
  - Building elevations dated August 20, 2021.
  - Landscape plans dated August 20, 2021.
  - Utility plans dated August 20, 2021
  - Building materials plans dated August 20, 2021.
2. If required, submit a copy of the Minnehaha Creek Watershed District permit. The City may require revisions to the approved plans to meet the district's requirements.
3. Per City requirements, a Tier 2 Travel Demand Management (TDM) plan is required for this project. TDM strategies for this site include:
  - Providing maps that show the area bus routes, bus schedules, and bicycle and pedestrian facilities.
  - Providing information on starting and joining commuter programs.
  - Providing bicycle parking spaces for employees.
  - Offering a pre-paid Metro Transit Go-To Card to all employees during orientation.

The TDM plan strategies should be implemented at the time the project is complete and fully operational.

4. Public sidewalk to be minimum 5 feet in width with a 5-foot boulevard extended to property line on both 65th Street and Barrie Road. Sidewalks to be maintained by the property owner, including snow plowing.
5. Provide 6 bicycle parking stalls (minimum) on site (5% of the required parking per City Code). These stalls should be in convenient, well-lit locations within 50' of a public entrance to the building. Rack style and spacing should follow the recommendations of the Association of Pedestrian and Bicycle Professionals (APBP).

6. Compliance with the conditions required in the engineering memo dated September 14, 2021, including the items marked “yes” in the sustainability questionnaire.
7. Compliance with the building official’s memo dated September 16, 2021.
8. Any proposed signage must meet the City’s sign ordinance.

**Deadline for a city decision:** December 7, 2021



**DATE:** 9/14/2021

**TO:** 6500 Barrie Rd , Owner and Development Team

**CC:** Cary Teague – Community Development Director

**FROM:** Chad Millner, PE, Director of Engineering

**RE:** 6500 Barrie Rd – Development Review

The Engineering Department has reviewed the subject property for pedestrian facilities, utility connections, grading, flood risk, and storm water. Plans reviewed included civil, landscape, and survey drawings dated August 2021.

Review Comment		Required For
<b>General</b>		
1.	Deliver as-build records of public and private utility infrastructure post construction.	Certificate of Occupancy
2.	Indicate the location for snow storage and removal plan for garage access locations. Snow may not be stored in the public ROW.	General Comment
<b>Survey</b>		
3.	An existing and proposed site condition survey is required.	Grading/Building Permit
3.1	Show all existing and proposed public and private easements.	Grading/Building Permit
<b>Living Streets</b>		
4.	Design sidewalks to meet ADA requirements.	Grading/Building Permit
5.	Saw cut concrete sidewalk joints on public sidewalks.	Grading/Building Permit
6.	Public sidewalk to be minimum 5' in width with a 5' boulevard extended to property line on both 65 <sup>th</sup> Street and Barrie Road. Sidewalks to be maintained by the property owner, including snow plowing.	Grading/Building Permit
7.	Provide 6 bicycle parking stalls (minimum) on site (5% of the required parking per City Code). These stalls should be in convenient, well-lit locations within 50' of a public entrance to the building. Rack style and spacing should follow the recommendations of the Association of Pedestrian and Bicycle Professionals (APBP).	Grading/Building Permit
8.	Engage Metro Transit regarding the southbound bus stop for Express Route 578 on Barrie Road north of the project site. If	General Comment

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	desired by Metro Transit, consider relocating the stop onto this site and provide enhanced amenities like a bench or shelter.	
<b>Traffic and Street</b>		
9.	Review fire access requirements with fire department. Fire truck turning template attached. Size and distance from street may not require onsite fire access.	Grading/Building Permit
10.	Provide traffic study and implement City-approved recommendations.	Grading/Building Permit
11.	Driveway Entrance permit required for entrance relocation and curb and gutter work. Proposing to remove three and install two. Note, 50' minimum separation between driveway entrance and intersection return.	Building Permit
12.	Add reference to standard plate 415 on sheet C5.0. Note, maximum width for two-way entrances is 30'. Revise north entrance width; currently shown at 42' wide.	Grading/Building Permit
13.	Damage to Barrie Rd shall be repaired per standard plates 540 and 545. Street reconstruction is scheduled for 2023. 65 <sup>th</sup> St W was milled and overlaid in 2011 and shall be repaired.	Certificate of Occupancy
14.	Proposing to remove City light pole at NW corner. Work with electrical supervisor on replacement requirements.	Grading/Building Permit
15.	Traffic study recommends keeping the northeast corner of the site free of obstructions such as signs, trees or other landscaping to maintain clear sight lines for vehicles. All proposed trees, vegetation, signage and other items adjacent to the intersections and driveway accesses should maintain a clear view as defined in Section 26-190 of City Code.	Grading/Building Permit
16.	<p>Implement strategies (3 minimum) identified in Tier 2 Travel Demand Management Plan;</p> <ol style="list-style-type: none"> <li>1. Provide maps that show the area bus routes, bus schedules, and bicycle and pedestrian facilities.</li> <li>2. Provide information on starting and joining commuter programs.</li> <li>3. Provide bicycle parking spaces for employees.</li> <li>4. Offer a pre-paid Metro Transit Go-To Card to all employees during orientation.</li> </ol> <p>Other strategies recommended by staff include;</p> <ol style="list-style-type: none"> <li>1. Provide indoor bike parking/lockers for employees.</li> <li>2. Provide maps and information on the City's CloverRide circulator bus.</li> </ol>	Certificate of Occupancy

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	3. Designate parking stalls for car sharing services (i.e. HourCar, Zipcar).	
<b>Sanitary and Water Utilities</b>		
17.	Verify fire demand and hydrant locations.	Grading/Building Permit
18.	Domestic water shall be sized by the developer's engineer.	Grading/Building Permit
19.	Domestic sanitary shall be sized by the developer's engineer.	Grading/Building Permit
20.	Apply for a sewer and water connection permit with Public Works.	Prior to Starting Utility Work
20.1	Meter required for building service line and combined lines. No meter required for fire only service line.	Grading/Building Permit
20.2	Public Works to determine acceptable installation methods.	Grading/Building Permit
21.	Disconnected sanitary and water services to be capped at main.	
22.	A SAC determination will be required by the Metropolitan Council. The SAC determination will be used by the City to calculate sewer and water connection charges	Grading/Building Permit
23.	Single connection from main for fire and domestic, split after main connection.	Grading/Building Permit
24.	Watermain installed 1961. Structure built 1971. A well is likely not located onsite. Contact MDH and the City of Edina should one be discovered during the project.	
<b>Storm Water Utility</b>		
25.	Provide geotechnical report with soil borings.	Grading/Building Permit
26.	A local 1% annual chance flood plain (883.5') is located just west of the property. Lowest opening is required at no less than 885.5'. Indicate the lowest opening elevation. Per grading plan sheet C3.0, below grade parking entrances appear to be less than the required lowest opening elevation.	Grading/Building Permit
27.	Construction of below-grade parking garages in local flood is permitted, provided the structure (including the parking garage) is flood proofed to two feet above 883.5' in accordance with the following design standards: a. Together with associated utility and sanitary facilities, the structure must be designed so that below two feet above 883.5' the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.	Grading/Building Permit

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	<p>b. A Floodproofing Certificate and Inspection and Maintenance Plan must be provided by a registered professional engineer or architect.</p> <p>c. A floodproofing design that entails human intervention, such as the installation of flood gates or flood shields, will require a Flood Emergency Operation Plan.</p>	
28.	Provide hydraulic and hydrologic report meeting watershed and state construction site permit requirements.	Grading/Building Permit
29.	Total site impervious reduced from existing to proposed condition. Provide drainage area maps and calculations to confirm impervious draining to private is also reduced.	Grading/Building Permit
30.	Submit watershed district permit and copies of private maintenance agreement in favor of watershed as required.	Grading/Building Permit
<b>Grading Erosion and Sediment Control</b>		
31.	A SWPPP consistent with the State General Construction Site Stormwater Permit is required.	Grading/Building Permit
<b>Constructability and Safety</b>		
32.	Construction staging, traffic control, and pedestrian access plans will be required. Note, no parking along Barrie Rd and 65 <sup>th</sup> St W. Apply for lane/road closure permits with Public Works as needed.	Grading/Building Permit
33.	Retaining walls over 4-ft in height require design by a structural engineer.	Grading/Building Permit
<b>Other Agency Coordination</b>		
34.	MDH, MPCA and MCES permits required as needed.	Grading/Building Permit
35.	Minnehaha Creek Watershed District permit is required.	Grading/Building Permit
36.	Coordinate relocation of private utility pedestals for proposed sidewalk.	
<b>Sustainability</b>		
37.	Staff recommends installing EV chargers for a minimum of 5% of proposed parking (4 stalls) in addition to wiring 10% (7 stalls) for EV conversion in the future.	General Comment
38.	The <a href="#">Metropolitan Council's Extreme Heat map</a> shows that during an extreme heat event (when air temperatures are 90 or above), this area of Edina can be 4-9 degrees F hotter than surrounding areas. Green roofs reduce the urban heat island effect, reducing	General Comment

## ENGINEERING DEPARTMENT

7450 Metro Boulevard • Edina, Minnesota 55439  
 www.EdinaMN.gov • 952-826-0371 • Fax 952-826-0392



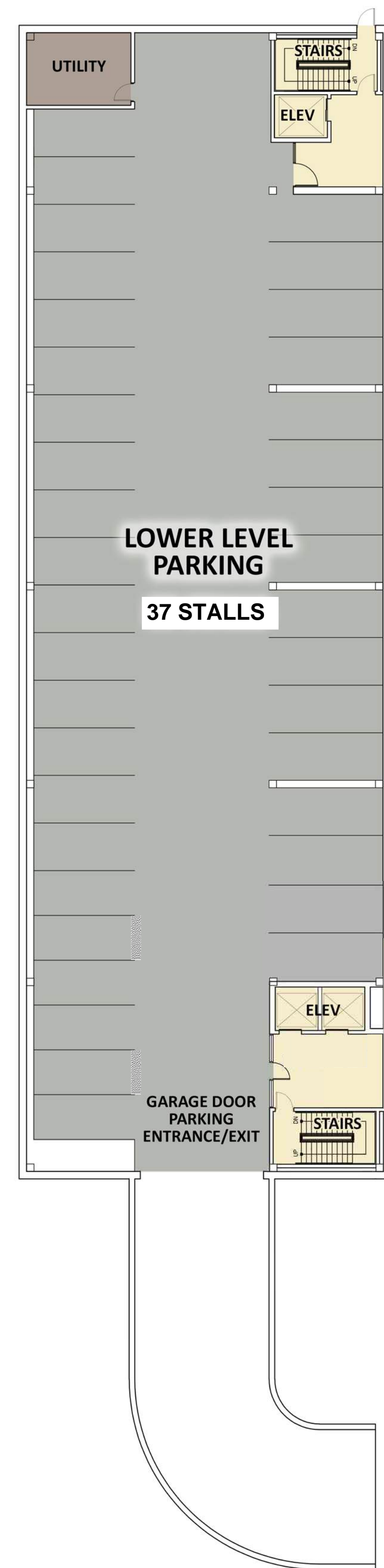
	amount of greenhouse gas emissions trapped in the atmosphere and energy needs to cool a building. Staff recommends adding a green roof or garden to reduce this urban heat island effect and energy costs to cool the building.	
39.	The <a href="#">University of Minnesota's Solar Suitability map</a> rates this property as "good" for solar roof installations with a grade of 83 out of 100. Staff recommends considering rooftop solar panels to maximize benefits of renewable energy.	General Comment
40.	<p>Please complete marked "yes" items from Sustainable Design Questionnaire as described below:</p> <ul style="list-style-type: none"><li>- utilize Xcel Energy's <a href="#">Energy Design Assistance</a> and/or Centerpoint Energy's <a href="#">Builder and Developer programs</a> for this development</li><li>- all appliances and equipment be EnergyStar or EPA WaterSense certified</li><li>- shade trees be provided along roadways, drives and surface parking areas beyond those required by code</li><li>- native plantings be used in the landscaping</li><li>- landscaping include pollinator-friendly varieties</li><li>- scrap and excess construction materials being separated and recycled</li><li>- outdoor landscaping watering system include a water sensor to automatically reduce watering in wet conditions</li><li>- workers provided with separate recycling dumpsters and training in proper use</li><li>- recycling service provided on site</li><li>- future users of the building be provided with education and training regarding proper recycling practices</li><li>- site features included to make the use of public transit convenient and simple</li></ul>	General Comment

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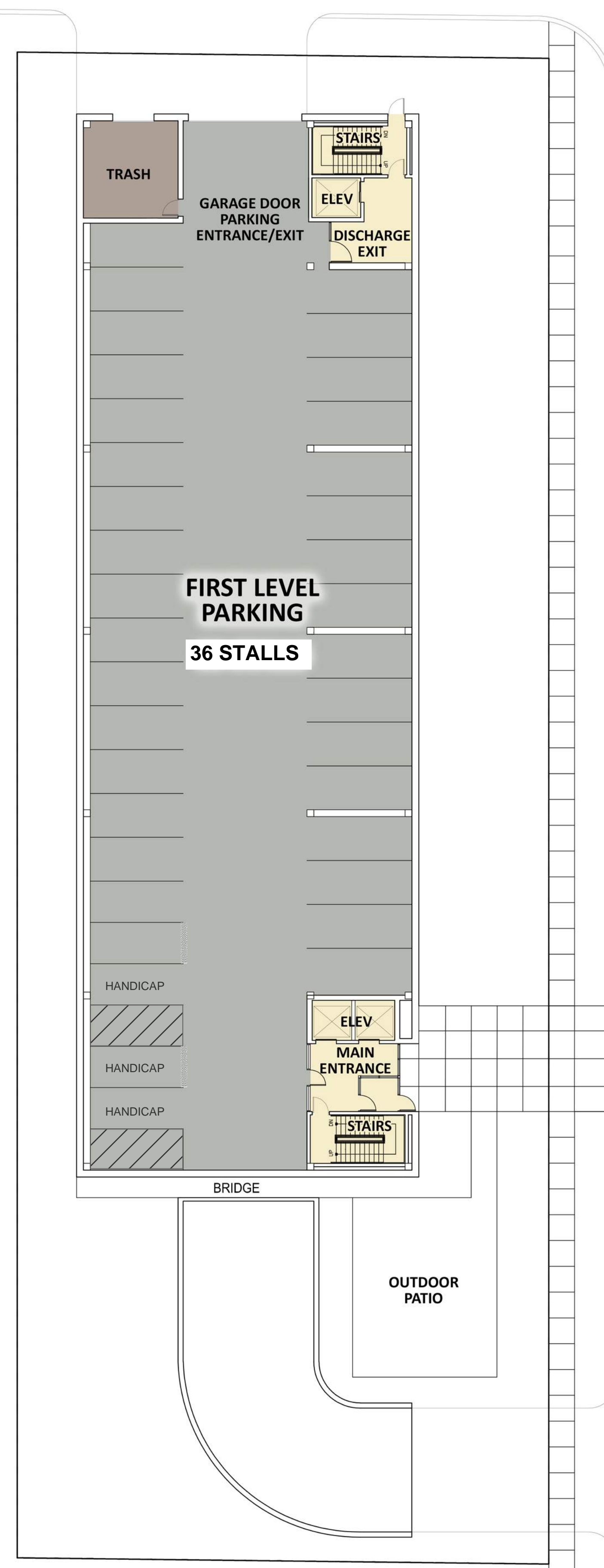
## ENGINEERING DEPARTMENT

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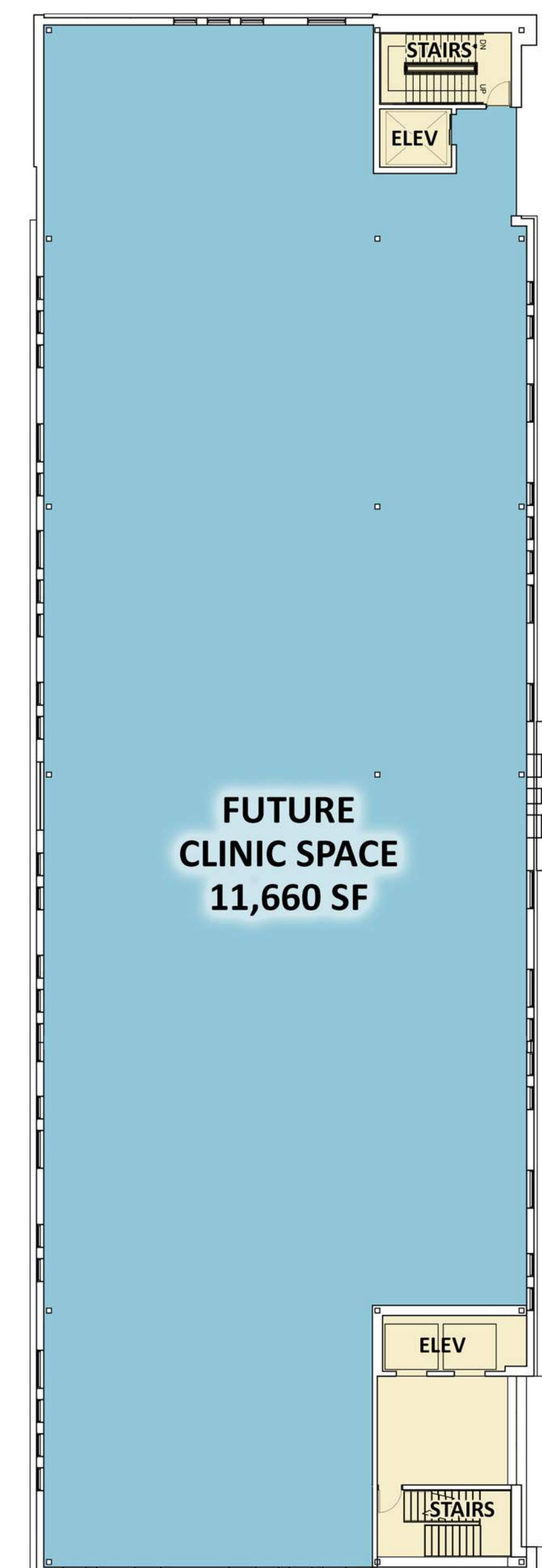




LOWER LEVEL PARKING PLAN



LEVEL 1 PARKING PLAN



LEVEL 2 PLAN



LEVEL 3 PLAN



08/20/2021



Cary Teague  
Community Development Director, City of Edina  
4801 W. 50<sup>th</sup> Street  
Edina, MN 55424

**RE: Site Plan Submittal - Project Narrative**

**PROJECT: Bhatti G.I. Consultant, P.A. Medical Office Building and Surgery Center  
6500 Barrie Road, Edina, MN 55435**

**Project Team:**

**Developer**

MSP Commercial  
1215 Town Centre Drive  
Eagan, MN 55123  
Contact: Alex Young, President  
Phone: (651) 287-8891  
Email: [ayoung@MSPCommercial.net](mailto:ayoung@MSPCommercial.net)

**Design Team / Architecture**

Pope Architects, Inc.  
1295 Bandana Boulevard N. Suite 200  
St. Paul, MN 55108-2735  
Contact: Don Rolf, AIA, Senior Project Manager  
Phone: (651) 789-1628  
Email: [drolf@popearch.com](mailto:drolf@popearch.com)

**Property Owner**

Bhatti G.I. Consultants, P.A.  
1447 White Oak Drive  
Chaska, MN 55318  
Contact: Dr. Ahsan Bhatti  
Phone: 952-361-3800

The intended use of this property is to remove the existing outdated structure and provide a new Class A type medical office building within the existing POD 1 zoning district. The proposed site layout will increase the overall greenspace and provides a generous amount of landscape. The project also introduces a pedestrian sidewalk along Barrie Road and 65<sup>th</sup> Street to improve pedestrian circulation and safety. The building aesthetics will comprise of finish materials as outlined in the city ordinance for this zoned district.

We are asking for your approval of this project that would allow Bhatti G.I. Consultants, P.A. to offer healthcare services to the communities within the city of Edina.

Pope Architects, founded in 1974, is an architecture and interior design firm of creative professionals together shaping environments that enhance lives. The firm has a diverse practice encompassing work in Senior Living, Multi-Family Housing, Workplace, Industrial, Healthcare, Education, Worship and Community markets.

**POPE ARCHITECTS, INC.**

1295 BANDANA BOULEVARD N, SUITE 200  
ST. PAUL, MN 55108-2735  
(651) 642-9200 | FAX (651) 642-1101

[www.popearch.com](http://www.popearch.com)

**Similar Projects:**

Summit Orthopedics Surgery Centers and Clinics:

Lakeville, MN

Woodbury, MN

Eagan, MN

Mercy Specialty Center, Coon Rapids, MN

Aris Clinic, Woodbury, MN

VA Clinic, Shakopee, MN

Please contact me through email or 612-209-3042 with any comments or questions. I look forward to hearing from you.

A handwritten signature in black ink that reads "Don Rolf". The signature is stylized with a large, looped "D" and a cursive "Rolf".

Don Rolf, AIA, GGP

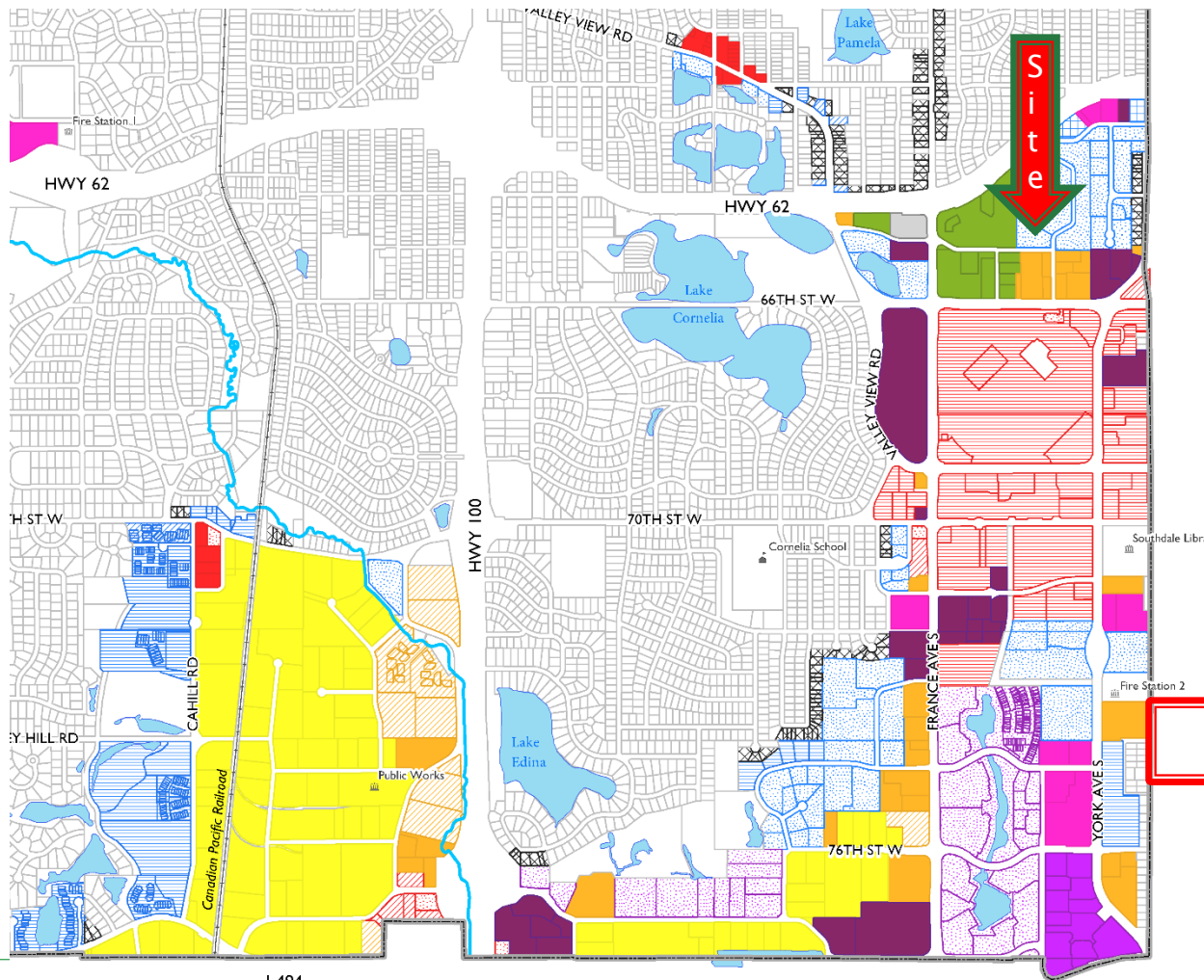
Senior Project Manager



# Zoning Map

## Legend

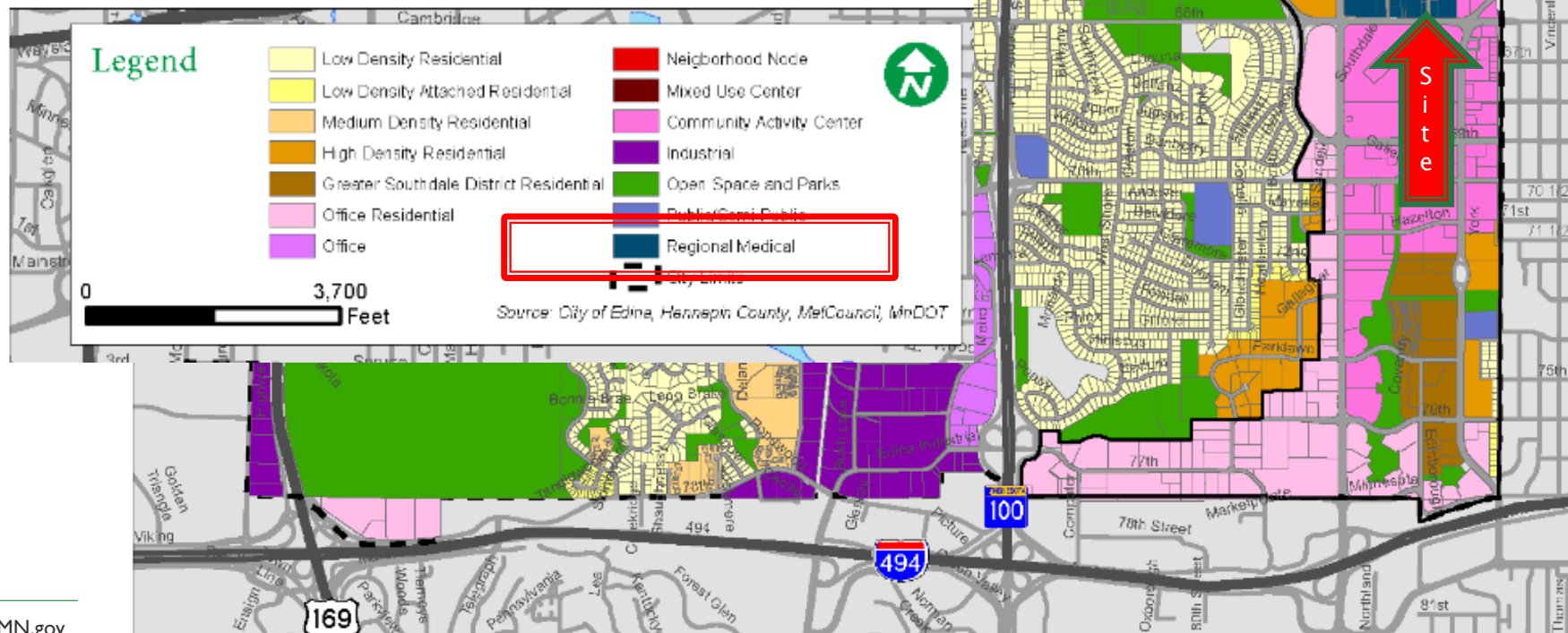
- R-1 - Single Dwelling Unit
- R-2 - Double Dwelling Unit
- PRD-1 - Planned Residence
- PRD-2 - Planned Residence
- PRD-3 - Planned Residence
- PRD-4 - Planned Residence
- PRD-5 - Planned Residence
- PCD-1 - Planned Commercial
- PCD-2 - Planned Commercial
- PCD-3 - Planned Commercial
- PCD-4 - Planned Commercial
- POD-1 - Planned Office
- POD-2 - Planned Office
- RMD - Regional Medical
- PID - Planned Industrial
- PUD - Planned Unit Development
- APD - Automotive Parking





## Edina 2040 Comprehensive Plan

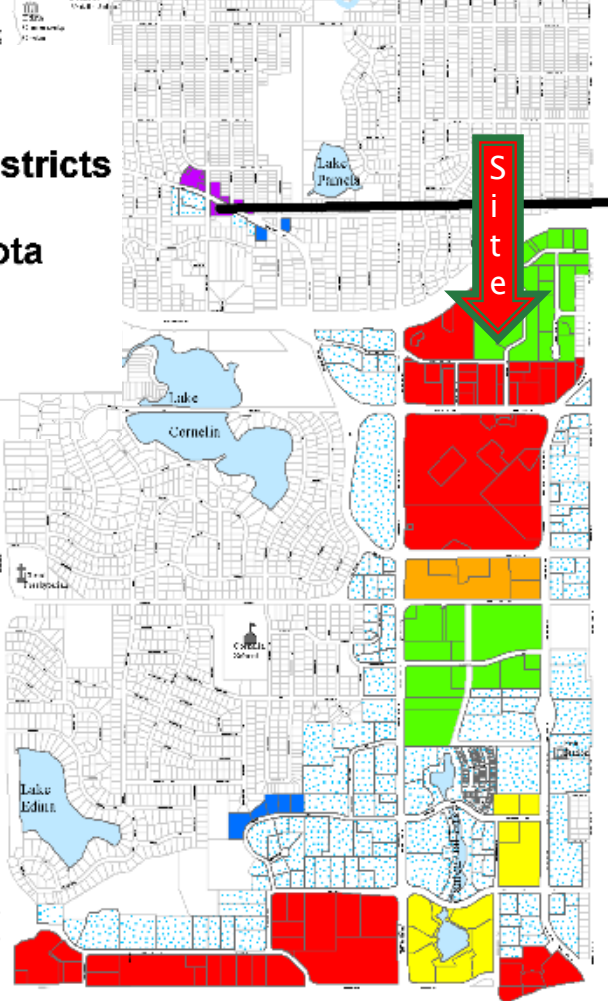
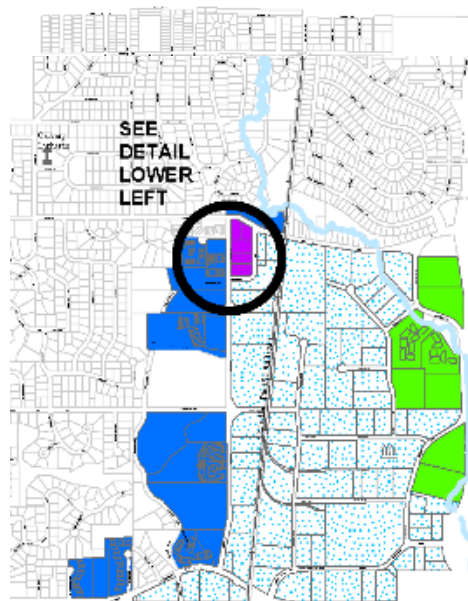
Edina, Minnesota














# Building Height Overlay Districts City of Edina Hennepin County, Minnesota Appendix A



## The CITY of EDINA

### Legend

-  HOD-2 Building height shall be determined by required setbacks, but shall not exceed 2 stories or 24 feet, whichever is less.
-  HOD-3 Building height shall be determined by required setbacks, but shall not exceed 3 stories or 36 feet, whichever is less.
-  HOD-4 Building height shall be determined by required setbacks, but shall not exceed 4 stories or 48 feet, whichever is less.
-  HOD-8 Building height shall be determined by required setbacks, but shall not exceed 8 stories or 96 feet, whichever is less.
-  HOD-9 Building height shall be determined by required setbacks, but shall not exceed 9 stories or 108 feet, whichever is less.
-  HOD-10 Building height shall be determined by required setbacks, but shall not exceed 10 stories or 120 feet, whichever is less.
-  HOD-12 Building height shall be determined by required setbacks, but shall not exceed 12 stories or 144 feet, whichever is less.

Shaded

 City Buildings

 Private School

 Public School



Planning Dept  
December, 2013

# Traffic and Parking Study for 6500 Barrie Road in Edina, MN

*Prepared for:*  
**City of Edina**

4801 W. 50th Street  
Edina, MN 55424



*Prepared by:*

**Stantec Consulting  
Services Inc.**

1800 Pioneer Creek Center  
Maple Plain, MN 55359  
Phone: 7963-479-4200  
Fax: 763-479-4242

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I hereby certify that this report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.



DATE: September 15, 2021

Edward F. Terhaar  
License No. 24441

# 1.0 Executive Summary

---

The purpose of this Traffic and Parking Study is to evaluate the impacts of a proposed new medical office building located at 6500 Barrie Road in Edina, MN. The project site is located in the southwest quadrant of the Barrie Road/W. 65<sup>th</sup> Street intersection. The proposed project location is currently occupied by a medical office building and parking lot.

This study examined weekday a.m. and p.m. peak hour traffic impacts of the proposed development at the following intersections:

- W. 66<sup>th</sup> Street/Barrie Road
- W. 65<sup>th</sup> Street/Barrie Road
- France Avenue/W. 65<sup>th</sup> Street
- France Avenue/W. 66<sup>th</sup> Street
- York Avenue/W. 66<sup>th</sup> Street
- W. 65<sup>th</sup> Street/proposed access
- Barrie Road/proposed access

The proposed project will involve removal of the existing building and constructing a new 23,320 square foot medical office building. The project includes 73 underground parking stalls. As shown in the site plan, one access point is provided on W. 65<sup>th</sup> Street and one on Barrie Road. The project is expected to be completed by the end of 2022.

The conclusions drawn from the information and analyses presented in this report are as follows:

- The proposed development is expected to generate 20 net trips during the a.m. peak hour, 26 net trips during the p.m. peak hour, and 254 net trips daily.
- The proposed project is expected to have minimal impact on the surrounding roadway system during the a.m. and p.m. peak hours. No improvements are needed at the subject intersections to accommodate the proposed project.
- Traffic volume data collected in 2018 for previous studies in this area was used whenever possible to avoid traffic volume reductions that have occurred due to the COVID-19 pandemic impacts. However, some intersections included in the study did not have previous data and therefore new data was collected. This data was carefully reviewed and adjusted using data from nearby intersections to account for pandemic related traffic volume reductions. This process resulted in reasonable estimates for the weekday peak hours that would occur under non-pandemic conditions.
- Future plans for this area include adding sidewalk on both Barrie Road and 65<sup>th</sup> Street near the project site. Sidewalk is also planned for the south side of 66<sup>th</sup> Street to connect to existing sidewalk to the east and west. Plans also include a shared use path on France Avenue north of 69<sup>th</sup> Street, a standard bike lane on 66<sup>th</sup> Street, and a buffered bike lane on York Avenue. The proposed project will benefit from the existing and proposed sidewalk and bicycle facilities in this area.



- In order to maintain clear sight lines for vehicles exiting onto W. 65<sup>th</sup> Street at the proposed access locations, it is recommended that the area north and east of the northeast corner of the building is free of obstructions such as signs, trees, or other landscaping.
- The proposed project includes sidewalk on the west side of Barrie Road and the south side of 65<sup>th</sup> Street to the access drive. The site plan also shows an outdoor patio near the Barrie Road access.
- The project includes 73 underground parking spaces. The peak parking demand using ITE data is 73 spaces, which equals the proposed parking supply.
- The current Edina City code requires 120 parking spaces. The proposed draft parking ordinance that is in front of the City Council requires 80 parking stalls.
- Per City requirements, a Tier 2 Travel Demand Management (TDM) plan is required for this project. TDM strategies for this site include:
  - Providing maps that show the area bus routes, bus schedules, and bicycle and pedestrian facilities.
  - Providing information on starting and joining commuter programs.
  - Providing bicycle parking spaces for employees.
  - Offering a pre-paid Metro Transit Go-To Card to all employees during orientation.

The TDM plan strategies should be implemented at the time the project is complete and fully operational. The overall cost of the strategies is estimated at \$1,000.

## 2.0 Purpose and Background

---

The purpose of this Traffic and Parking Study is to evaluate the impacts of a proposed new medical office building located at 6500 Barrie Road in Edina, MN. The project site is located in the southwest quadrant of the Barrie Road/W. 65<sup>th</sup> Street intersection. The proposed project location is currently occupied by a medical office building and parking lot. The project location is shown in **Figure 1**.

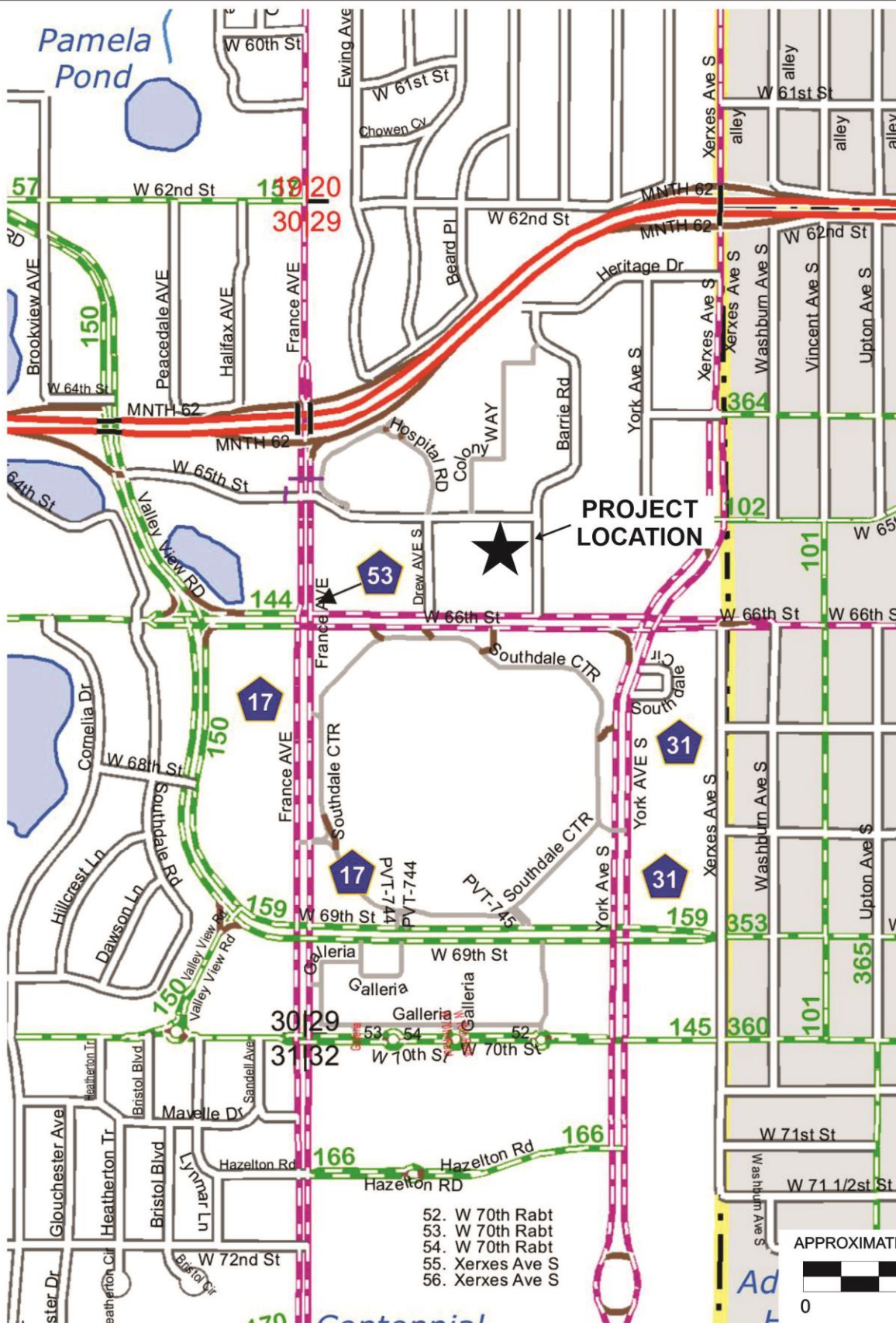
This study examined weekday a.m. and p.m. peak hour traffic impacts of the proposed development at the following intersections:

- W. 66<sup>th</sup> Street/Barrie Road
- W. 65<sup>th</sup> Street/Barrie Road
- France Avenue/W. 65<sup>th</sup> Street
- France Avenue/W. 66<sup>th</sup> Street
- York Avenue/W. 66<sup>th</sup> Street
- W. 65<sup>th</sup> Street/proposed access
- Barrie Road/proposed access

### Proposed Development Characteristics

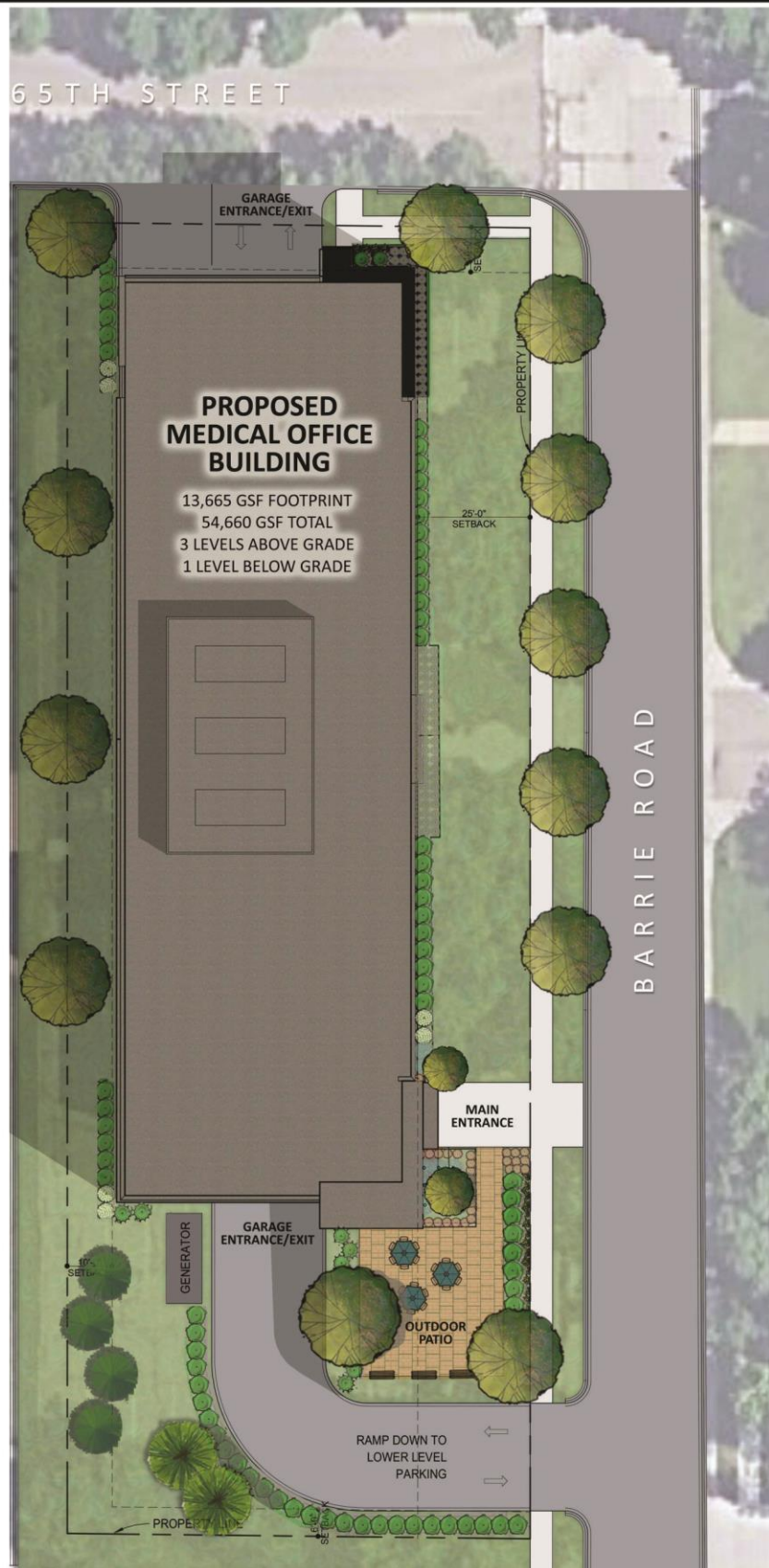
The proposed project will involve removal of the existing building and constructing a new 23,320 square foot medical office building. The project includes 73 underground parking stalls. As shown in the site plan, one access point is provided on W. 65<sup>th</sup> Street and one on Barrie Road.

The project is expected to be completed by the end of 2022. The current site plan is shown in **Figure 2**.



TRAFFIC AND PARKING  
STUDY FOR  
6500 BARRIE ROAD  
IN EDINA, MN

**FIGURE 1**  
**PROJECT LOCATION**





## 3.0 Existing Conditions

---

The proposed site is currently occupied by a medical office building with 16,032 square feet of office space. The site is bounded by W. 65<sup>th</sup> Street on the north, Barrie Road on the east, and commercial uses on the west and south.

Near the site location, both Barrie Road and W. 65<sup>th</sup> Street are two-lane roadways. To the west of the site, France Avenue is a six-lane divided roadway with turn lanes and signal control at major intersections. To the south of the site, 66<sup>th</sup> Street is a four-lane divided roadway. The speed limit on streets in the study area is 30 miles per hour.

Existing conditions at the proposed project location are shown in **Figure 3** and described below.

### France Avenue/W. 65<sup>th</sup> Street

This four-way intersection is controlled with a traffic signal. The eastbound approach provides one left turn lane and one through/right turn lane. The westbound approach provides one left turn/through/right turn lane. The northbound and southbound approaches provide one left turn lane, two through lanes, and one through/right turn lane.

### France Avenue/W. 66<sup>th</sup> Street

This four-way intersection is controlled with a traffic signal. The eastbound approach provides one left turn lane, two through lanes, and one right turn lane. The westbound approach provides two left turn lanes, two through lanes, and one right turn lane. The northbound approach provides one left turn lane, three through lanes, and one right turn lane. The southbound approach provides one left turn lane, two through lanes, and one through/right turn lane.

### W. 65<sup>th</sup> Street/Barrie Road

This four-way intersection is controlled with stop signs on the eastbound and westbound approaches. All approaches provide one left turn/through/right turn lane.

### W. 66<sup>th</sup> Street/Barrie Road

This three-way intersection is controlled with a stop sign on the southbound approach. The eastbound approach provides one left turn lane and two through lanes. The westbound approach provides two through lanes and one through/right turn lane. This is a three-quarter access intersection with southbound through and left turn movements prohibited.

### York Avenue/W. 66<sup>th</sup> Street

This four-way intersection is controlled with a traffic signal. The eastbound and westbound approaches provide two left turn lanes, two through lanes, and one channelized right turn lane. The northbound approach provides two left turn lanes, two through lanes, and one right turn lane. The southbound approach provides one left turn lane, two through lanes, and one right turn lane.

### Traffic Volume Data

Existing turn movement data previously collected for other studies in the area was obtained for the following intersections:

- France Avenue/W. 65<sup>th</sup> Street
- France Avenue/W. 66<sup>th</sup> Street
- York Avenue/W. 66<sup>th</sup> Street

Turn movement data for the following intersections was collected during the weekday a.m. (7:00 - 9:00 a.m.) and p.m. (4:00 - 6:00 p.m.) peak periods in August 2021:

- W. 66<sup>th</sup> Street/Barrie Road
- W. 65<sup>th</sup> Street/Barrie Road



**FIGURE 3**  
**EXISTING CONDITIONS**

TRAFFIC AND PARKING  
STUDY FOR  
6500 BARRIE ROAD  
IN EDINA, MN



## 4.0 Traffic Forecasts

### Traffic Forecast Scenarios

To adequately address the impacts of the proposed project, forecasts and analyses were completed for the year 2023. Specifically, weekday a.m. and p.m. peak hour traffic forecasts were completed for the following scenarios:

- *2021 Existing.* Existing volumes were determined through traffic counts at the subject intersections. The existing volume information includes trips generated by the uses near the project site.
- *2023 No-Build.* Existing volumes at the subject intersections were increased by 0.5 percent per year to determine 2023 No-Build volumes. The 0.5 percent per year growth rate was calculated based on both recent growth experienced near the site and projected growth due to additional development in the area.
- *2023 Build.* Trips generated by the proposed development were added to the 2023 No-Build volumes to determine 2023 Build volumes.

### Estimation of Existing Volumes Due to COVID-19 Impacts

The impacts of COVID-19 have resulted in significant reductions in traffic volumes due to changes in work and travel habits. Traffic volume data collected for studies completed prior to the pandemic was used to adjust the existing counts, resulting in reasonable estimates for the weekday peak hours that would occur under non-pandemic conditions. These volumes were used for the traffic forecasts presented in this report.

### Trip Generation for Proposed Project

Weekday a.m. and p.m. peak hour trip generation for the proposed development were calculated based on data presented in the tenth edition of Trip Generation, published by the Institute of Transportation Engineers (ITE). The resultant trip generation estimates are shown in **Table 4-1**.

**Table 4-1**  
**Trip Generation for Proposed Project and Existing Uses**

Trip Generation for Proposed Project and Existing Uses								
Land Use	Size	Weekday AM Peak Hour			Weekday PM Peak Hour			Weekday Daily
		In	Out	Total	In	Out	Total	Total
Proposed use								
Medical Office Building	23,320 SF	51	14	65	23	58	81	812
Existing use to be removed								
Medical Office Building	16,032 SF	35	10	45	15	40	55	558
Total net trips		16	4	20	8	18	26	254

SF=square feet



As shown, the project generates 20 net trips during the a.m. peak hour, 26 net trips during the p.m. peak hour, and 254 net trips daily.

#### Trip Distribution Percentages

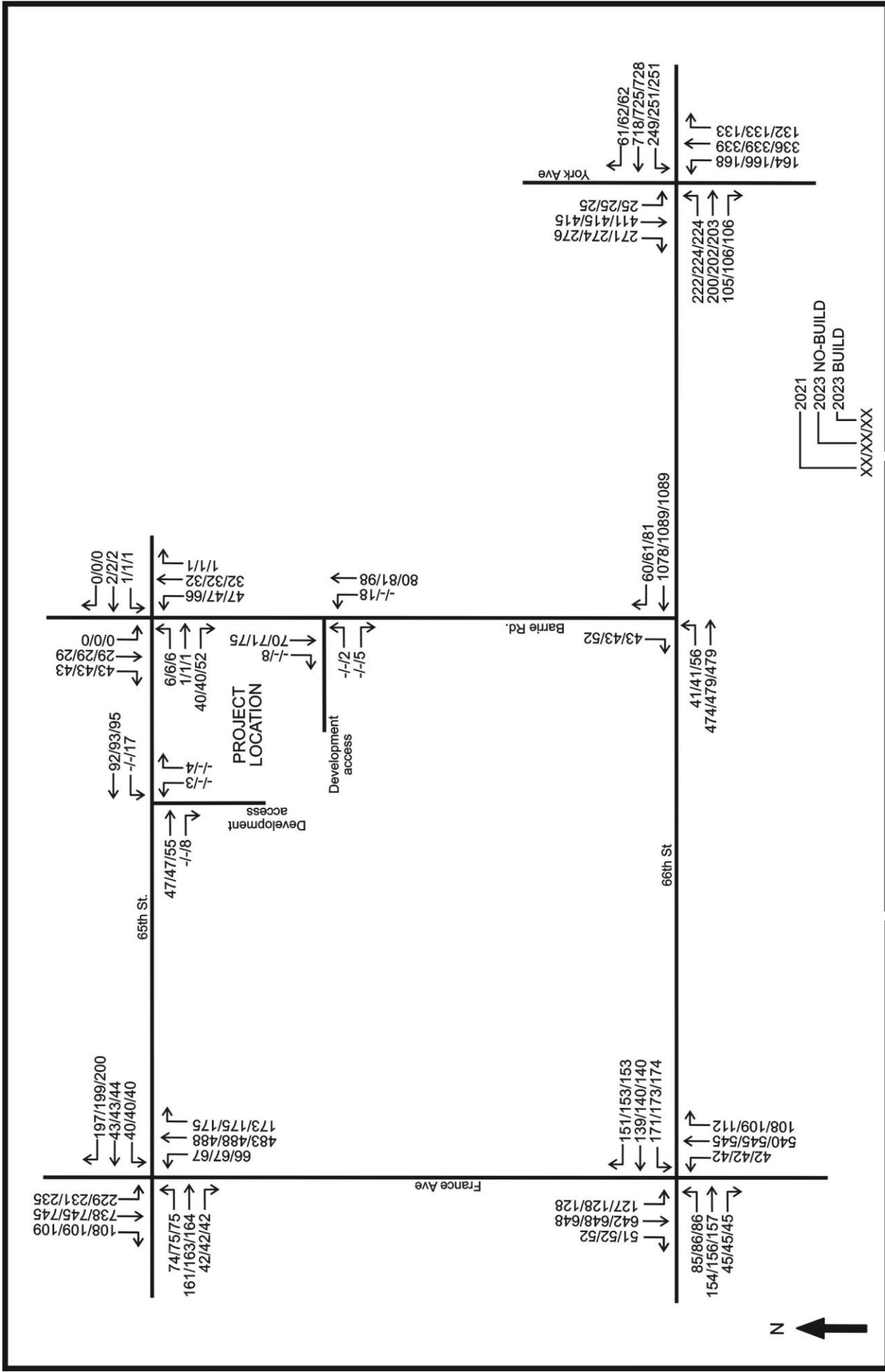
Trip distribution percentages for the subject development trips were established based on the nearby roadway network, existing and expected future traffic patterns, and location of the subject development in relation to major attractions and population concentrations.

The distribution percentages for trips generated by the proposed development are as follows:

- 25 percent to/from the north on France Avenue
- 20 percent to/from the south on France Avenue
- 20 percent to/from the east on 66<sup>th</sup> Street
- 10 percent to/from the west on 66<sup>th</sup> Street
- 5 percent to/from the west on 65<sup>th</sup> Street
- 10 percent to/from the north on York Avenue
- 10 percent to/from the south on York Avenue

#### Traffic Volumes

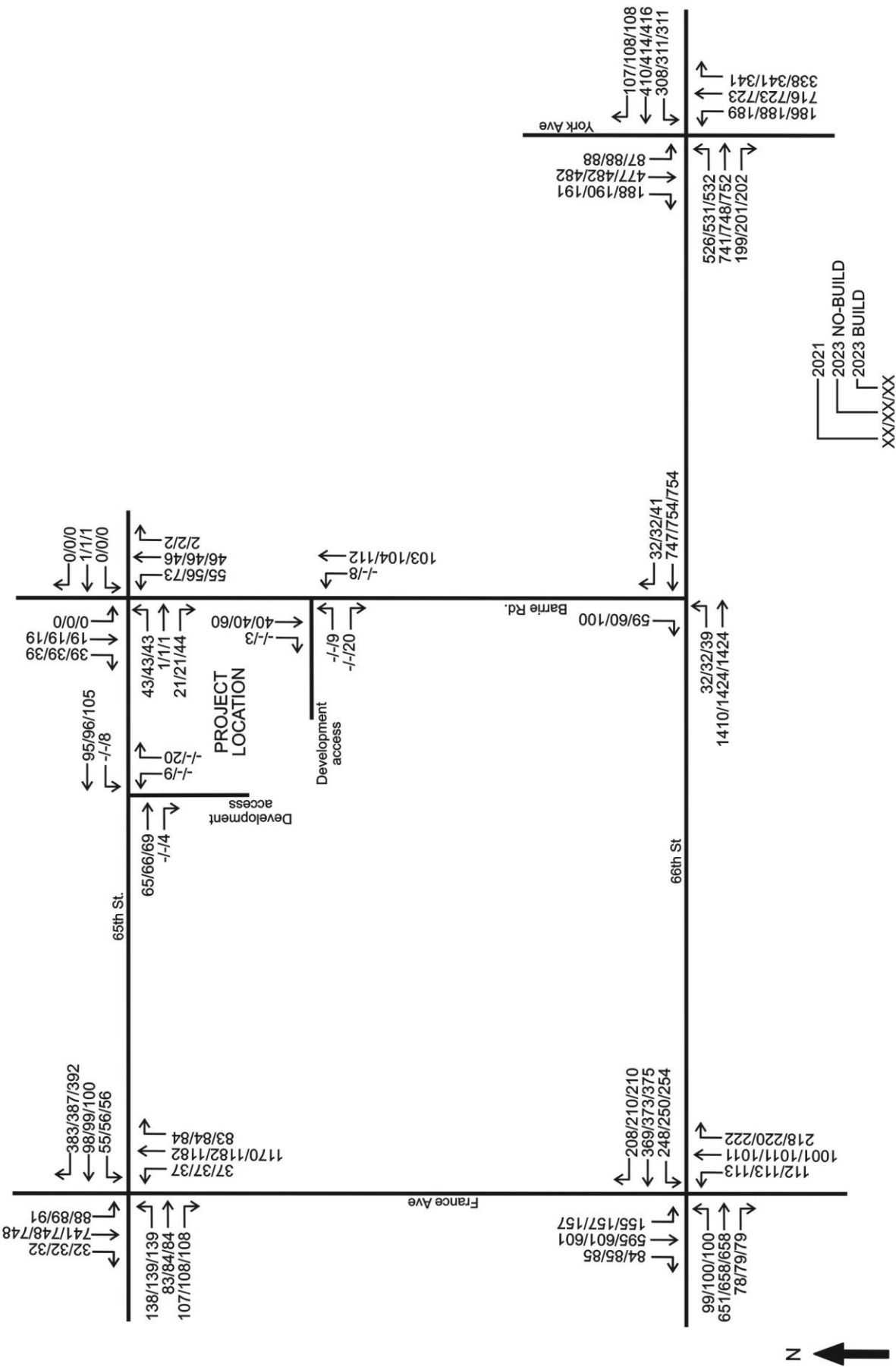
Development trips were assigned to the surrounding roadway network using the preceding trip distribution percentages. Traffic volumes were established for all the forecasting scenarios described earlier during the weekday a.m. and p.m. peak hours. The resultant traffic volumes are presented in **Figures 4 and 5**.



**FIGURE 4**  
**WEEKDAY AM PEAK**  
**HOUR TRAFFIC VOLUMES**

TRAFFIC AND PARKING  
 STUDY FOR  
 6500 BARRIE ROAD  
 IN EDINA, MN





**FIGURE 5**  
**WEEKDAY PM PEAK**  
**HOURLY TRAFFIC VOLUMES**

TRAFFIC AND PARKING  
 STUDY FOR  
 6500 BARRIE ROAD  
 IN EDINA, MN



## 5.0 Traffic Analysis

---

### Intersection Level of Service Analysis

Traffic analyses were completed for the subject intersections for all scenarios described earlier during the weekday a.m. and p.m. peak hours using Synchro software. Initial analysis was completed using existing geometrics and intersection control.

Capacity analysis results are presented in terms of level of service (LOS), which is defined in terms of traffic delay at the intersection. LOS ranges from A to F. LOS A represents the best intersection operation, with little delay for each vehicle using the intersection. LOS F represents the worst intersection operation with excessive delay. The following is a detailed description of the conditions described by each LOS designation:

- Level of service A corresponds to a free flow condition with motorists virtually unaffected by the intersection control mechanism. For a signalized or an unsignalized intersection, the average delay per vehicle would be approximately 10 seconds or less.
- Level of service B represents stable flow with a high degree of freedom, but with some influence from the intersection control device and the traffic volumes. For a signalized intersection, the average delay ranges from 10 to 20 seconds. An unsignalized intersection would have delays ranging from 10 to 15 seconds for this level.
- Level of service C depicts a restricted flow which remains stable, but with significant influence from the intersection control device and the traffic volumes. The general level of comfort and convenience changes noticeably at this level. The delay ranges from 20 to 35 seconds for a signalized intersection and from 15 to 25 seconds for an unsignalized intersection at this level.
- Level of service D corresponds to high-density flow in which speed and freedom are significantly restricted. Though traffic flow remains stable, reductions in comfort and convenience are experienced. The control delay for this level is 35 to 55 seconds for a signalized intersection and 25 to 35 seconds for an unsignalized intersection.
- Level of service E represents unstable flow of traffic at or near the capacity of the intersection with poor levels of comfort and convenience. The delay ranges from 55 to 80 seconds for a signalized intersection and from 35 to 50 seconds for an unsignalized intersection at this level.
- Level of service F represents forced flow in which the volume of traffic approaching the intersection exceeds the volume that can be served. Characteristics often experienced include long queues, stop-and-go waves, poor travel times, low comfort and convenience, and increased accident exposure. Delays over 80 seconds for a signalized intersection and over 50 seconds for an unsignalized intersection correspond to this level of service.



The LOS results for the study intersections are shown in **Figures 5 and 6** and are discussed below.

France Avenue/W. 65<sup>th</sup> Street (traffic signal control)

During the a.m. peak hour under 2021, 2023 No-Build, and 2023 Build conditions, all movements operate at LOS C or better. The overall intersection operates at LOS B for all scenarios.

During the p.m. peak hour under 2021, 2023 No-Build, and 2023 Build conditions, all movements operate at LOS C or better. The overall intersection operates at LOS B for all scenarios.

France Avenue/W. 66<sup>th</sup> Street (traffic signal control)

During the a.m. peak hour under 2021, 2023 No-Build, and 2023 Build conditions, all movements operate at LOS D or better. The overall intersection operates at LOS C for all scenarios.

During the p.m. peak hour under 2021, 2023 No-Build, and 2023 Build conditions, all movements operate at LOS D or better. The overall intersection operates at LOS C for all scenarios.

W. 65<sup>th</sup> Street/Barrie Road (minor street stop control)

During the a.m. peak hour under 2021, 2023 No-Build, and 2023 Build conditions, all movements operate at LOS B or better. The overall intersection operates at LOS A for all scenarios.

During the p.m. peak hour under 2021, 2023 No-Build, and 2023 Build conditions, all movements operate at LOS B or better. The overall intersection operates at LOS A for all scenarios.

W. 66<sup>th</sup> Street/Barrie Road (minor street stop control)

During the a.m. peak hour under 2021, 2023 No-Build, and 2023 Build conditions, all movements operate at LOS C or better. The overall intersection operates at LOS A for all scenarios.

During the p.m. peak hour under 2021, 2023 No-Build, and 2023 Build conditions, all movements operate at LOS B or better. The overall intersection operates at LOS A for all scenarios.

York Avenue/W. 66<sup>th</sup> Street (traffic signal control)

During the a.m. peak hour under 2021, 2023 No-Build, and 2023 Build conditions, all movements operate at LOS D or better. The overall intersection operates at LOS C for all scenarios.

During the p.m. peak hour under 2021, 2023 No-Build, and 2023 Build conditions, all movements operate at LOS D or better. The overall intersection operates at LOS C for all scenarios.

#### W. 65<sup>th</sup> Street/development access (minor street stop control)

During the a.m. peak hour under 2023 Build conditions, all movements operate at LOS A. The overall intersection operates at LOS A for all scenarios.

During the p.m. peak hour under 2023 Build conditions, all movements at LOS A. The overall intersection operates at LOS A for all scenarios.

#### Barrie Road/development access (minor street stop control)

During the a.m. peak hour under 2023 Build conditions, all movements operate at LOS A. The overall intersection operates at LOS A for all scenarios.

During the p.m. peak hour under 2023 Build conditions, all movements at LOS A. The overall intersection operates at LOS A for all scenarios.

#### Overall Traffic Impact

The proposed project is expected to have minimal impact on the surrounding roadway system during the a.m. and p.m. peak hours. No improvements are needed at the subject intersections to accommodate the proposed project.

#### Proposed Access Locations

The project includes an access on W. 65<sup>th</sup> Street located approximately 60 feet west of Barrie Road and an access on Barrie Road located approximately 270 south of W. 65<sup>th</sup> Street. As described above, both access points are expected to operate at acceptable levels of service during the weekday a.m. and p.m. peak periods.

In order to maintain clear sight lines for vehicles exiting onto W. 65<sup>th</sup> Street at the proposed access locations, it is recommended that the area north and east of the northeast corner of the building is free of obstructions such as signs, trees, or other landscaping.

#### Bicycle and Pedestrian Facilities

Under existing conditions, sidewalk is provided on both sides of France Avenue and York Avenue. Sidewalk is provided on the north side of 66<sup>th</sup> Street. Sidewalk is not provided on 65<sup>th</sup> Street or Barrie Road near the project site. All signalized intersections in the study have crosswalks across all or a portion of the approaches. Bicycles are allowed on all the surrounding streets.

Future plans for this area include adding sidewalk on both Barrie Road and 65<sup>th</sup> Street near the project site. Sidewalk is also planned for the south side of 66<sup>th</sup> Street to connect to existing sidewalk to the east and west. Plans also include a shared use path on France Avenue north of 69<sup>th</sup> Street, a standard bike lane on 66<sup>th</sup> Street, and a buffered bike lane on York Avenue. The proposed project will benefit from the existing and proposed sidewalk and bicycle facilities in this area.

The proposed project includes sidewalk on the west side of Barrie Road and the south side of 65<sup>th</sup> Street to the access point. The site plan also shows an outdoor patio near the Barrie Road access.

### Transit Facilities

The subject site presently is served by the Metro Transit bus routes 6, 515, 578, and 579. Bus stops exist on Barrie Road at 65<sup>th</sup> Street, on 66<sup>th</sup> Street, and on York Avenue.

### Travel Demand Management Plan (TDM)

Per City requirements, a Tier 2 Travel Demand Management (TDM) plan is required for this project. The goal of the TDM plan is to reduce vehicular trips during peak hours and carbon emissions from vehicles. TDM strategies for this site include:

- Providing maps that show the area bus routes, bus schedules, and bicycle and pedestrian facilities.
- Providing information on starting and joining commuter programs.
- Providing bicycle parking spaces for employees.
- Offering a pre-paid Metro Transit Go-To Card to all employees during orientation.

The TDM plan strategies should be implemented at the time the project is complete and fully operational. The overall cost of the strategies is estimated at \$1,000.



## WEEKDAY AM PEAK HOUR LOS RESULTS

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## 6.0 Parking Analysis

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As described earlier, the project includes 73 underground parking stalls. The proposed amount of parking was compared to industry standards to determine adequacy.

Parking data from the Institute of Transportation Engineers (ITE) was used to determine the expected parking demand for the proposed land uses. Data provided in the ITE publication *Parking Generation*, 5<sup>th</sup> Edition, indicates the various proposed uses peak at different times during the day. The ITE data was adjusted to account for the expected modal split for the site.

Based on the ITE data, the peak weekday parking demand for the overall site 73 spaces. The total of 73 spaces provided equals peak parking demand.

The current Edina City code requires 120 parking spaces. The proposed draft parking ordinance that is in from of the City Council requires 80 parking stalls.

## 7.0 Conclusions and Recommendations

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The conclusions drawn from the information and analyses presented in this report are as follows:

- The proposed development is expected to generate 20 net trips during the a.m. peak hour, 26 net trips during the p.m. peak hour, and 254 net trips daily.
- The proposed project is expected to have minimal impact on the surrounding roadway system during the a.m. and p.m. peak hours. No improvements are needed at the subject intersections to accommodate the proposed project.
- Traffic volume data collected in 2018 for previous studies in this area was used whenever possible to avoid traffic volume reductions that have occurred due to the COVID-19 pandemic impacts. However, some intersections included in the study did not have previous data and therefore new data was collected. This data was carefully reviewed and adjusted using data from nearby intersections to account for pandemic related traffic volume reductions. This process resulted in reasonable estimates for the weekday peak hours that would occur under non-pandemic conditions.
- Future plans for this area include adding sidewalk on both Barrie Road and 65<sup>th</sup> Street near the project site. Sidewalk is also planned for the south side of 66<sup>th</sup> Street to connect to existing sidewalk to the east and west. Plans also include a shared use path on France Avenue north of 69<sup>th</sup> Street, a standard bike lane on 66<sup>th</sup> Street, and a buffered bike lane on York Avenue. The proposed project will benefit from the existing and proposed sidewalk and bicycle facilities in this area.
- In order to maintain clear sight lines for vehicles exiting onto W. 65<sup>th</sup> Street at the proposed access locations, it is recommended that the area north and east of the northeast corner of the building is free of obstructions such as signs, trees, or other landscaping.
- The proposed project includes sidewalk on the west side of Barrie Road and the south side of 65<sup>th</sup> Street to the access drive. The site plan also shows an outdoor patio near the Barrie Road access.
- The project includes 73 underground parking spaces. The peak parking demand using ITE data is 73 spaces, which equals the proposed parking supply.
- The current Edina City code requires 120 parking spaces. The proposed draft parking ordinance that is in front of the City Council requires 80 parking stalls.
- Per City requirements, a Tier 2 Travel Demand Management (TDM) plan is required for this project. TDM strategies for this site include:
  - Providing maps that show the area bus routes, bus schedules, and bicycle and pedestrian facilities.
  - Providing information on starting and joining commuter programs.
  - Providing bicycle parking spaces for employees.

- Offering a pre-paid Metro Transit Go-To Card to all employees during orientation.

The TDM plan strategies should be implemented at the time the project is complete and fully operational. The overall cost of the strategies is estimated at \$1,000.



## 8.0 Appendix























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- Level of Service Worksheets

# HCM 6th Signalized Intersection Summary

## 6: France Ave & 65th Street

09/15/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	161	42	40	43	197	66	483	173	229	738	108
Future Volume (veh/h)	74	161	42	40	43	197	66	483	173	229	738	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	175	46	43	47	0	72	525	0	249	802	117
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	294	242	64	112	97		498	2784		703	2640	383
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.00	0.05	0.55	0.00	0.09	0.59	0.59
Sat Flow, veh/h	1359	1428	375	219	573	1585	1781	5274	0	1781	4504	653
Grp Volume(v), veh/h	80	0	221	90	0	0	72	525	0	249	605	314
Grp Sat Flow(s),veh/h/ln	1359	0	1803	792	0	1585	1781	1702	0	1781	1702	1753
Q Serve(g_s), s	0.0	0.0	8.2	1.5	0.0	0.0	1.2	3.7	0.0	4.1	6.3	6.4
Cycle Q Clear(g_c), s	4.7	0.0	8.2	9.7	0.0	0.0	1.2	3.7	0.0	4.1	6.3	6.4
Prop In Lane	1.00		0.21	0.48		1.00	1.00		0.00	1.00		0.37
Lane Grp Cap(c), veh/h	294	0	306	210	0		498	2784		703	1995	1027
V/C Ratio(X)	0.27	0.00	0.72	0.43	0.00		0.14	0.19		0.35	0.30	0.31
Avail Cap(c_a), veh/h	553	0	649	485	0		642	2784		1126	1995	1027
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.4	0.0	27.8	27.4	0.0	0.0	6.0	8.2	0.0	5.3	7.4	7.4
Incr Delay (d2), s/veh	0.5	0.0	3.2	1.4	0.0	0.0	0.1	0.2	0.0	0.3	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	3.7	1.5	0.0	0.0	0.4	1.2	0.0	1.2	2.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.8	0.0	31.0	28.8	0.0	0.0	6.2	8.3	0.0	5.7	7.8	8.2
LnGrp LOS	C	A	C	C	A		A	A		A	A	A
Approach Vol, veh/h	301			90			A			1168		
Approach Delay, s/veh	29.9			28.8			8.1			7.4		
Approach LOS	C			C			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.2	43.1		16.5	8.3	46.0		16.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	23.5	27.5		25.5	9.5	41.5		25.5				
Max Q Clear Time (g_c+I1), s	6.1	5.7		10.2	3.2	8.4		11.7				
Green Ext Time (p_c), s	0.7	3.6		1.3	0.1	7.2		0.3				

### Intersection Summary

HCM 6th Ctrl Delay	11.6
HCM 6th LOS	B
































### Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

# HCM 6th Signalized Intersection Summary

## 5: France Ave & 66th Street

09/15/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 	 			  			  	
Traffic Volume (veh/h)	85	154	45	171	139	151	42	540	108	127	642	51
Future Volume (veh/h)	85	154	45	171	139	151	42	540	108	127	642	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	167	49	186	151	164	46	587	117	138	698	55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	120	455	203	288	512	228	76	2157	670	179	2317	182
Arrive On Green	0.07	0.13	0.13	0.08	0.14	0.14	0.04	0.42	0.42	0.10	0.48	0.48
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	5106	1585	1781	4828	378
Grp Volume(v), veh/h	92	167	49	186	151	164	46	587	117	138	491	262
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1702	1585	1781	1702	1802
Q Serve(g_s), s	3.4	2.9	1.9	3.5	2.6	6.7	1.7	5.1	3.1	5.1	5.9	6.0
Cycle Q Clear(g_c), s	3.4	2.9	1.9	3.5	2.6	6.7	1.7	5.1	3.1	5.1	5.9	6.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	120	455	203	288	512	228	76	2157	670	179	1634	865
V/C Ratio(X)	0.77	0.37	0.24	0.65	0.29	0.72	0.60	0.27	0.17	0.77	0.30	0.30
Avail Cap(c_a), veh/h	329	1076	480	587	1023	456	197	2157	670	434	1634	865
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	27.0	26.6	30.1	25.9	27.7	31.8	12.8	12.2	29.7	10.7	10.7
Incr Delay (d2), s/veh	9.8	0.5	0.6	2.4	0.3	4.2	7.5	0.3	0.6	6.9	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.2	0.7	1.5	1.1	2.7	0.9	1.8	1.1	2.4	2.1	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	27.5	27.2	32.5	26.2	31.9	39.3	13.1	12.8	36.6	11.2	11.6
LnGrp LOS	D	C	C	C	C	C	D	B	B	D	B	B
Approach Vol, veh/h		308			501			750			891	
Approach Delay, s/veh		31.4			30.4			14.6			15.2	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.3	33.1	10.1	13.2	7.4	37.0	9.1	14.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	16.5	23.5	11.5	20.5	7.5	32.5	12.5	19.5				
Max Q Clear Time (g_c+I1), s	7.1	7.1	5.5	4.9	3.7	8.0	5.4	8.7				
Green Ext Time (p_c), s	0.2	4.1	0.3	1.0	0.0	5.2	0.1	1.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			20.2									
HCM 6th LOS			C									

HCM 6th TWSC  
1: Barrie Road & 65th Street






09/15/2021

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	1	40	1	2	0	47	32	1	0	29	43
Future Vol, veh/h	6	1	40	1	2	0	47	32	1	0	29	43
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	1	43	1	2	0	51	35	1	0	32	47
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	195	194	56	216	217	36	79	0	0	36	0	0
Stage 1	56	56	-	138	138	-	-	-	-	-	-	-
Stage 2	139	138	-	78	79	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	764	701	1011	740	681	1037	1519	-	-	1575	-	-
Stage 1	956	848	-	865	782	-	-	-	-	-	-	-
Stage 2	864	782	-	931	829	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	743	677	1011	689	658	1037	1519	-	-	1575	-	-
Mov Cap-2 Maneuver	743	677	-	689	658	-	-	-	-	-	-	-
Stage 1	923	848	-	836	755	-	-	-	-	-	-	-
Stage 2	832	755	-	890	829	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	9		10.4			4.4			0			
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1519	-	-	957 668	1575	-	-					
HCM Lane V/C Ratio	0.034	-	-	0.053 0.005	-	-	-					
HCM Control Delay (s)	7.5	0	-	9 10.4	0	-	-					
HCM Lane LOS	A	A	-	A B	A	-	-					
HCM 95th %tile Q(veh)	0.1	-	-	0.2 0	0	-	-					



HCM 6th TWSC  
9: 66th Street & Barrie Road

























09/15/2021

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			 			
Traffic Vol, veh/h	41	474	1078	60	0	43
Future Vol, veh/h	41	474	1078	60	0	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	515	1172	65	0	47
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	1237	0	-	0	-	619
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	-	-	3.92
Pot Cap-1 Maneuver	300	-	-	-	0	370
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	300	-	-	-	-	370
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.5	0		16.1		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	300	-	-	-	370	
HCM Lane V/C Ratio	0.149	-	-	-	0.126	
HCM Control Delay (s)	19.1	-	-	-	16.1	
HCM Lane LOS	C	-	-	-	C	
HCM 95th %tile Q(veh)	0.5	-	-	-	0.4	

# HCM 6th Signalized Intersection Summary

## 11: York Avenue & 66th Street

09/15/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	222	200	105	249	718	61	164	336	132	25	411	271
Future Volume (veh/h)	222	200	105	249	718	61	164	336	132	25	411	271
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	241	217	0	271	780	66	178	365	143	27	447	295
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	339	991		373	1025	457	268	1216	542	51	1042	465
Arrive On Green	0.10	0.28	0.00	0.11	0.29	0.29	0.08	0.34	0.34	0.03	0.29	0.29
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	241	217	0	271	780	66	178	365	143	27	447	295
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.0	3.5	0.0	5.6	14.9	2.3	3.7	5.6	4.8	1.1	7.6	12.0
Cycle Q Clear(g_c), s	5.0	3.5	0.0	5.6	14.9	2.3	3.7	5.6	4.8	1.1	7.6	12.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	339	991		373	1025	457	268	1216	542	51	1042	465
V/C Ratio(X)	0.71	0.22		0.73	0.76	0.14	0.66	0.30	0.26	0.53	0.43	0.63
Avail Cap(c_a), veh/h	535	1364		582	1412	630	442	1216	542	134	1042	465
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.5	20.6	0.0	32.1	24.1	19.6	33.3	17.9	17.7	35.6	21.2	22.8
Incr Delay (d2), s/veh	2.7	0.1	0.0	2.7	1.6	0.1	2.8	0.6	1.2	8.2	1.3	6.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	1.4	0.0	2.4	6.1	0.8	1.6	2.3	1.9	0.6	3.2	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.2	20.7	0.0	34.8	25.7	19.8	36.1	18.5	18.9	43.7	22.5	29.2
LnGrp LOS	D	C		C	C	B	D	B	B	D	C	C
Approach Vol, veh/h		458	A		1117			686			769	
Approach Delay, s/veh		28.3			27.6			23.2			25.8	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.6	29.9	12.5	25.2	10.3	26.3	11.8	25.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.6	25.4	12.5	28.5	9.5	21.5	11.5	29.5				
Max Q Clear Time (g_c+I1), s	3.1	7.6	7.6	5.5	5.7	14.0	7.0	16.9				
Green Ext Time (p_c), s	0.0	2.7	0.4	1.3	0.2	2.4	0.3	4.6				

### Intersection Summary

HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C























### Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

# HCM 6th Signalized Intersection Summary

## 6: France Ave & 65th Street

09/15/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	163	42	40	43	199	67	488	175	231	745	109
Future Volume (veh/h)	75	163	42	40	43	199	67	488	175	231	745	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	177	46	43	47	0	73	530	0	251	810	118
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	295	244	64	112	97		495	2777		700	2636	382
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.00	0.05	0.54	0.00	0.10	0.59	0.59
Sat Flow, veh/h	1359	1431	372	218	569	1585	1781	5274	0	1781	4505	652
Grp Volume(v), veh/h	82	0	223	90	0	0	73	530	0	251	611	317
Grp Sat Flow(s),veh/h/ln	1359	0	1803	786	0	1585	1781	1702	0	1781	1702	1753
Q Serve(g_s), s	0.0	0.0	8.3	1.5	0.0	0.0	1.2	3.7	0.0	4.1	6.4	6.5
Cycle Q Clear(g_c), s	4.8	0.0	8.3	9.8	0.0	0.0	1.2	3.7	0.0	4.1	6.4	6.5
Prop In Lane	1.00		0.21	0.48		1.00	1.00		0.00	1.00		0.37
Lane Grp Cap(c), veh/h	295	0	308	209	0		495	2777		700	1992	1026
V/C Ratio(X)	0.28	0.00	0.72	0.43	0.00		0.15	0.19		0.36	0.31	0.31
Avail Cap(c_a), veh/h	551	0	648	482	0		638	2777		1121	1992	1026
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.4	0.0	27.8	27.5	0.0	0.0	6.1	8.2	0.0	5.4	7.4	7.5
Incr Delay (d2), s/veh	0.5	0.0	3.2	1.4	0.0	0.0	0.1	0.2	0.0	0.3	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	3.7	1.5	0.0	0.0	0.4	1.2	0.0	1.2	2.1	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.9	0.0	31.1	28.8	0.0	0.0	6.2	8.4	0.0	5.7	7.8	8.2
LnGrp LOS	C	A	C	C	A		A	A		A	A	A
Approach Vol, veh/h	305			90			A			1179		
Approach Delay, s/veh	29.9			28.8			8.1			7.5		
Approach LOS	C			C			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.2	43.1		16.6	8.3	46.0		16.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	23.5	27.5		25.5	9.5	41.5		25.5				
Max Q Clear Time (g_c+I1), s	6.1	5.7		10.3	3.2	8.5		11.8				
Green Ext Time (p_c), s	0.7	3.6		1.3	0.1	7.3		0.3				

### Intersection Summary

HCM 6th Ctrl Delay 11.7

HCM 6th LOS B

























### Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

# HCM 6th Signalized Intersection Summary

## 5: France Ave & 66th Street

09/15/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	156	45	173	140	153	42	545	109	128	648	52
Future Volume (veh/h)	86	156	45	173	140	153	42	545	109	128	648	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	93	170	49	188	152	166	46	592	118	139	704	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	121	460	205	290	516	230	76	2148	667	180	2306	186
Arrive On Green	0.07	0.13	0.13	0.08	0.15	0.15	0.04	0.42	0.42	0.10	0.48	0.48
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	5106	1585	1781	4817	388
Grp Volume(v), veh/h	93	170	49	188	152	166	46	592	118	139	496	265
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1702	1585	1781	1702	1801
Q Serve(g_s), s	3.5	3.0	1.9	3.6	2.6	6.8	1.7	5.2	3.2	5.2	6.0	6.1
Cycle Q Clear(g_c), s	3.5	3.0	1.9	3.6	2.6	6.8	1.7	5.2	3.2	5.2	6.0	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	121	460	205	290	516	230	76	2148	667	180	1630	862
V/C Ratio(X)	0.77	0.37	0.24	0.65	0.29	0.72	0.60	0.28	0.18	0.77	0.30	0.31
Avail Cap(c_a), veh/h	328	1073	479	585	1021	455	197	2148	667	433	1630	862
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	27.0	26.5	30.1	25.9	27.7	31.9	12.9	12.3	29.8	10.8	10.8
Incr Delay (d2), s/veh	9.7	0.5	0.6	2.4	0.3	4.2	7.5	0.3	0.6	6.9	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	1.2	0.7	1.5	1.1	2.7	0.9	1.9	1.1	2.5	2.1	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	27.5	27.1	32.6	26.2	31.9	39.4	13.2	12.9	36.7	11.3	11.7
LnGrp LOS	D	C	C	C	C	C	D	B	B	D	B	B
Approach Vol, veh/h		312			506			756			900	
Approach Delay, s/veh		31.4			30.4			14.8			15.3	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.3	33.1	10.2	13.3	7.4	37.0	9.1	14.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	16.5	23.5	11.5	20.5	7.5	32.5	12.5	19.5				
Max Q Clear Time (g_c+I1), s	7.2	7.2	5.6	5.0	3.7	8.1	5.5	8.8				
Green Ext Time (p_c), s	0.2	4.1	0.3	1.0	0.0	5.3	0.1	1.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				20.3								
HCM 6th LOS				C								








HCM 6th TWSC  
1: Barrie Road & 65th Street

09/15/2021

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	1	40	1	2	0	47	32	1	0	29	43
Future Vol, veh/h	6	1	40	1	2	0	47	32	1	0	29	43
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	1	43	1	2	0	51	35	1	0	32	47
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	195	194	56	216	217	36	79	0	0	36	0	0
Stage 1	56	56	-	138	138	-	-	-	-	-	-	-
Stage 2	139	138	-	78	79	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	764	701	1011	740	681	1037	1519	-	-	1575	-	-
Stage 1	956	848	-	865	782	-	-	-	-	-	-	-
Stage 2	864	782	-	931	829	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	743	677	1011	689	658	1037	1519	-	-	1575	-	-
Mov Cap-2 Maneuver	743	677	-	689	658	-	-	-	-	-	-	-
Stage 1	923	848	-	836	755	-	-	-	-	-	-	-
Stage 2	832	755	-	890	829	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	9		10.4			4.4			0			
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1519	-	-	957	668	1575	-	-				
HCM Lane V/C Ratio	0.034	-	-	0.053	0.005	-	-	-				
HCM Control Delay (s)	7.5	0	-	9	10.4	0	-	-				
HCM Lane LOS	A	A	-	A	B	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0	0	-	-				

HCM 6th TWSC  
9: 66th Street & Barrie Road

























09/15/2021

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	41	479	1089	61	0	43
Future Vol, veh/h	41	479	1089	61	0	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	521	1184	66	0	47
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	1250	0	-	0	-	625
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	-	-	3.92
Pot Cap-1 Maneuver	296	-	-	-	0	367
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	296	-	-	-	-	367
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.5	0		16.2		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	296	-	-	-	-	367
HCM Lane V/C Ratio	0.151	-	-	-	-	0.127
HCM Control Delay (s)	19.3	-	-	-	-	16.2
HCM Lane LOS	C	-	-	-	-	C
HCM 95th %tile Q(veh)	0.5	-	-	-	-	0.4

# HCM 6th Signalized Intersection Summary

## 11: York Avenue & 66th Street

09/15/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	224	202	106	251	725	62	166	339	133	25	415	274
Future Volume (veh/h)	224	202	106	251	725	62	166	339	133	25	415	274
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	243	220	0	273	788	67	180	368	145	27	451	298
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	341	998		374	1032	460	270	1211	540	51	1036	462
Arrive On Green	0.10	0.28	0.00	0.11	0.29	0.29	0.08	0.34	0.34	0.03	0.29	0.29
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	243	220	0	273	788	67	180	368	145	27	451	298
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.1	3.5	0.0	5.7	15.1	2.3	3.8	5.7	4.9	1.1	7.7	12.2
Cycle Q Clear(g_c), s	5.1	3.5	0.0	5.7	15.1	2.3	3.8	5.7	4.9	1.1	7.7	12.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	341	998		374	1032	460	270	1211	540	51	1036	462
V/C Ratio(X)	0.71	0.22		0.73	0.76	0.15	0.67	0.30	0.27	0.53	0.44	0.65
Avail Cap(c_a), veh/h	533	1359		579	1406	627	440	1211	540	134	1036	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.6	20.6	0.0	32.2	24.1	19.6	33.4	18.1	17.8	35.7	21.4	23.0
Incr Delay (d2), s/veh	2.8	0.1	0.0	2.7	1.7	0.1	2.8	0.6	1.2	8.2	1.3	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	1.4	0.0	2.5	6.2	0.8	1.6	2.3	1.9	0.6	3.2	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.3	20.7	0.0	34.9	25.8	19.7	36.3	18.7	19.1	43.9	22.8	29.8
LnGrp LOS	D	C		C	C	B	D	B	B	D	C	C
Approach Vol, veh/h		463	A		1128			693			776	
Approach Delay, s/veh		28.4			27.7			23.3			26.2	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.6	29.9	12.6	25.4	10.3	26.2	11.9	26.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.6	25.4	12.5	28.5	9.5	21.5	11.5	29.5				
Max Q Clear Time (g_c+I1), s	3.1	7.7	7.7	5.5	5.8	14.2	7.1	17.1				
Green Ext Time (p_c), s	0.0	2.7	0.4	1.3	0.2	2.4	0.3	4.6				

### Intersection Summary

HCM 6th Ctrl Delay	26.4
HCM 6th LOS	C






















### Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

# HCM 6th Signalized Intersection Summary

## 6: France Ave & 65th Street

09/15/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	164	42	40	44	200	67	488	175	235	745	109
Future Volume (veh/h)	75	164	42	40	44	200	67	488	175	235	745	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	178	46	43	48	0	73	530	0	255	810	118
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	294	245	63	111	99		494	2769		700	2634	381
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.00	0.05	0.54	0.00	0.10	0.58	0.58
Sat Flow, veh/h	1357	1433	370	215	576	1585	1781	5274	0	1781	4505	652
Grp Volume(v), veh/h	82	0	224	91	0	0	73	530	0	255	611	317
Grp Sat Flow(s),veh/h/ln	1357	0	1804	791	0	1585	1781	1702	0	1781	1702	1753
Q Serve(g_s), s	0.0	0.0	8.3	1.5	0.0	0.0	1.2	3.8	0.0	4.2	6.4	6.5
Cycle Q Clear(g_c), s	4.9	0.0	8.3	9.8	0.0	0.0	1.2	3.8	0.0	4.2	6.4	6.5
Prop In Lane	1.00		0.21	0.47		1.00	1.00		0.00	1.00		0.37
Lane Grp Cap(c), veh/h	294	0	309	210	0		494	2769		700	1991	1025
V/C Ratio(X)	0.28	0.00	0.73	0.43	0.00		0.15	0.19		0.36	0.31	0.31
Avail Cap(c_a), veh/h	549	0	648	483	0		637	2769		1119	1991	1025
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.4	0.0	27.8	27.4	0.0	0.0	6.1	8.3	0.0	5.4	7.5	7.5
Incr Delay (d2), s/veh	0.5	0.0	3.2	1.4	0.0	0.0	0.1	0.2	0.0	0.3	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	3.7	1.5	0.0	0.0	0.4	1.2	0.0	1.3	2.1	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.9	0.0	31.1	28.8	0.0	0.0	6.3	8.4	0.0	5.7	7.9	8.3
LnGrp LOS	C	A	C	C	A		A	A		A	A	A
Approach Vol, veh/h		306			91	A		603	A		1183	
Approach Delay, s/veh		30.0			28.8			8.2			7.5	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.3	43.0		16.7	8.3	46.0		16.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	23.5	27.5		25.5	9.5	41.5		25.5				
Max Q Clear Time (g_c+I1), s	6.2	5.8		10.3	3.2	8.5		11.8				
Green Ext Time (p_c), s	0.7	3.6		1.3	0.1	7.3		0.3				

### Intersection Summary

HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

























### Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



# HCM 6th Signalized Intersection Summary 5: France Ave & 66th Street

09/15/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	157	45	174	140	153	42	545	112	128	648	52
Future Volume (veh/h)	86	157	45	174	140	153	42	545	112	128	648	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	93	171	49	189	152	166	46	592	122	139	704	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	121	459	205	291	516	230	76	2148	667	180	2306	186
Arrive On Green	0.07	0.13	0.13	0.08	0.15	0.15	0.04	0.42	0.42	0.10	0.48	0.48
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	5106	1585	1781	4817	388
Grp Volume(v), veh/h	93	171	49	189	152	166	46	592	122	139	496	265
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1702	1585	1781	1702	1801
Q Serve(g_s), s	3.5	3.0	1.9	3.6	2.6	6.8	1.7	5.2	3.3	5.2	6.0	6.1
Cycle Q Clear(g_c), s	3.5	3.0	1.9	3.6	2.6	6.8	1.7	5.2	3.3	5.2	6.0	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	121	459	205	291	516	230	76	2148	667	180	1630	862
V/C Ratio(X)	0.77	0.37	0.24	0.65	0.29	0.72	0.60	0.28	0.18	0.77	0.30	0.31
Avail Cap(c_a), veh/h	328	1073	479	585	1021	455	197	2148	667	433	1630	862
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	27.0	26.6	30.1	25.9	27.7	31.9	12.9	12.3	29.8	10.8	10.8
Incr Delay (d2), s/veh	9.7	0.5	0.6	2.4	0.3	4.2	7.5	0.3	0.6	6.9	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	1.2	0.7	1.5	1.1	2.7	0.9	1.9	1.2	2.5	2.1	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	27.5	27.2	32.5	26.2	31.9	39.4	13.2	12.9	36.7	11.3	11.7
LnGrp LOS	D	C	C	C	C	C	D	B	B	D	B	B
Approach Vol, veh/h		313			507			760			900	
Approach Delay, s/veh		31.4			30.4			14.8			15.3	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.3	33.1	10.2	13.3	7.4	37.0	9.1	14.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	16.5	23.5	11.5	20.5	7.5	32.5	12.5	19.5				
Max Q Clear Time (g_c+I1), s	7.2	7.2	5.6	5.0	3.7	8.1	5.5	8.8				
Green Ext Time (p_c), s	0.2	4.1	0.3	1.0	0.0	5.3	0.1	1.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			20.3									
HCM 6th LOS			C									

HCM 6th TWSC  
1: Barrie Road & 65th Street

09/15/2021






Intersection												
Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	1	52	1	2	0	66	32	1	0	29	43
Future Vol, veh/h	6	1	52	1	2	0	66	32	1	0	29	43
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	1	57	1	2	0	72	35	1	0	32	47
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	237	236	56	265	259	36	79	0	0	36	0	0
Stage 1	56	56	-	180	180	-	-	-	-	-	-	-
Stage 2	181	180	-	85	79	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	717	665	1011	688	645	1037	1519	-	-	1575	-	-
Stage 1	956	848	-	822	750	-	-	-	-	-	-	-
Stage 2	821	750	-	923	829	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	689	633	1011	625	614	1037	1519	-	-	1575	-	-
Mov Cap-2 Maneuver	689	633	-	625	614	-	-	-	-	-	-	-
Stage 1	910	848	-	783	714	-	-	-	-	-	-	-
Stage 2	779	714	-	870	829	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	9		10.9		5		0					
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1519	-	-	956	618	1575	-	-				
HCM Lane V/C Ratio	0.047	-	-	0.067	0.005	-	-	-				
HCM Control Delay (s)	7.5	0	-	9	10.9	0	-	-				
HCM Lane LOS	A	A	-	A	B	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0	0	-	-				

HCM 6th TWSC  
9: 66th Street & Barrie Road

09/15/2021

Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	56	479	1089	68	0	52
Future Vol, veh/h	56	479	1089	68	0	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	61	521	1184	74	0	57

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1258	0	629
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	5.34	-	7.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	3.12	-	3.92
Pot Cap-1 Maneuver	293	-	364
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	293	-	364
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

























Approach	EB	WB	SB
HCM Control Delay, s	2.1	0	16.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	293	-	-	-	364
HCM Lane V/C Ratio	0.208	-	-	-	0.155
HCM Control Delay (s)	20.5	-	-	-	16.7
HCM Lane LOS	C	-	-	-	C
HCM 95th %tile Q(veh)	0.8	-	-	-	0.5

# HCM 6th Signalized Intersection Summary

## 11: York Avenue & 66th Street

09/15/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	224	203	106	251	728	62	168	339	133	25	415	276
Future Volume (veh/h)	224	203	106	251	728	62	168	339	133	25	415	276
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	243	221	0	273	791	67	183	368	145	27	451	300
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	341	1000		374	1034	461	273	1209	539	51	1031	460
Arrive On Green	0.10	0.28	0.00	0.11	0.29	0.29	0.08	0.34	0.34	0.03	0.29	0.29
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	243	221	0	273	791	67	183	368	145	27	451	300
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.1	3.6	0.0	5.7	15.1	2.3	3.8	5.7	5.0	1.1	7.7	12.4
Cycle Q Clear(g_c), s	5.1	3.6	0.0	5.7	15.1	2.3	3.8	5.7	5.0	1.1	7.7	12.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	341	1000		374	1034	461	273	1209	539	51	1031	460
V/C Ratio(X)	0.71	0.22		0.73	0.76	0.15	0.67	0.30	0.27	0.53	0.44	0.65
Avail Cap(c_a), veh/h	532	1357		579	1405	627	440	1209	539	134	1031	460
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.6	20.5	0.0	32.2	24.1	19.6	33.4	18.1	17.9	35.7	21.5	23.2
Incr Delay (d2), s/veh	2.8	0.1	0.0	2.7	1.8	0.1	2.8	0.6	1.2	8.2	1.4	7.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	1.4	0.0	2.5	6.3	0.8	1.7	2.3	1.9	0.6	3.2	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.4	20.7	0.0	35.0	25.9	19.7	36.3	18.8	19.1	43.9	22.9	30.2
LnGrp LOS	D	C		C	C	B	D	B	B	D	C	C
Approach Vol, veh/h	464		A	1131			696			778		
Approach Delay, s/veh	28.4			27.7			23.4			26.5		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.6	29.9	12.6	25.5	10.4	26.1	11.9	26.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.6	25.4	12.5	28.5	9.5	21.5	11.5	29.5				
Max Q Clear Time (g_c+I1), s	3.1	7.7	7.7	5.6	5.8	14.4	7.1	17.1				
Green Ext Time (p_c), s	0.0	2.7	0.4	1.3	0.2	2.4	0.3	4.6				

### Intersection Summary

HCM 6th Ctrl Delay	26.5
HCM 6th LOS	C

### Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.






HCM 6th TWSC  
14: access & 65th Street

09/15/2021

Intersection

Int Delay, s/veh 1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	55	8	17	95	3	4
Future Vol, veh/h	55	8	17	95	3	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	60	9	18	103	3	4

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	69
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1532
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1532
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	9.1
HCM LOS			A




Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	889	-	-	1532	-
HCM Lane V/C Ratio	0.009	-	-	0.012	-
HCM Control Delay (s)	9.1	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC  
17: Barrie Road & access

09/15/2021

Intersection

Int Delay, s/veh 1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	5	18	98	75	8
Future Vol, veh/h	2	5	18	98	75	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	5	20	107	82	9

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	234	87	91
Stage 1	87	-	-
Stage 2	147	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	754	971	1504
Stage 1	936	-	-
Stage 2	880	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	743	971	1504
Mov Cap-2 Maneuver	743	-	-
Stage 1	923	-	-
Stage 2	880	-	-






















Approach	EB	NB	SB
HCM Control Delay, s	9.1	1.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1504	-	893	-	-
HCM Lane V/C Ratio	0.013	-	0.009	-	-
HCM Control Delay (s)	7.4	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

# HCM 6th Signalized Intersection Summary

## 6: France Ave & 65th Street

09/15/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	138	83	107	55	98	383	37	1170	83	88	741	32
Future Volume (veh/h)	138	83	107	55	98	383	37	1170	83	88	741	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	150	90	116	60	107	0	40	1272	0	96	805	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	314	153	198	125	187		484	2744		380	2807	122
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.00	0.04	0.54	0.00	0.06	0.56	0.56
Sat Flow, veh/h	1287	742	956	260	907	1585	1781	5274	0	1781	5018	218
Grp Volume(v), veh/h	150	0	206	167	0	0	40	1272	0	96	545	295
Grp Sat Flow(s),veh/h/ln	1287	0	1698	1167	0	1585	1781	1702	0	1781	1702	1831
Q Serve(g_s), s	0.1	0.0	7.6	3.0	0.0	0.0	0.7	10.6	0.0	1.6	5.8	5.8
Cycle Q Clear(g_c), s	10.6	0.0	7.6	10.6	0.0	0.0	0.7	10.6	0.0	1.6	5.8	5.8
Prop In Lane	1.00		0.56	0.36		1.00	1.00		0.00	1.00		0.12
Lane Grp Cap(c), veh/h	314	0	351	312	0		484	2744		380	1905	1025
V/C Ratio(X)	0.48	0.00	0.59	0.54	0.00		0.08	0.46		0.25	0.29	0.29
Avail Cap(c_a), veh/h	653	0	798	718	0		552	2744		508	1905	1025
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.0	0.0	24.8	25.5	0.0	0.0	6.5	9.9	0.0	6.9	8.0	8.0
Incr Delay (d2), s/veh	1.1	0.0	1.6	1.4	0.0	0.0	0.1	0.6	0.0	0.3	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	3.0	2.6	0.0	0.0	0.2	3.5	0.0	0.5	1.9	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	0.0	26.3	26.9	0.0	0.0	6.6	10.4	0.0	7.3	8.4	8.7
LnGrp LOS	C	A	C	C	A		A	B		A	A	A
Approach Vol, veh/h		356			167	A		1312	A		936	
Approach Delay, s/veh		26.7			26.9			10.3			8.4	
Approach LOS		C			C			B			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	41.7		18.8	7.2	43.2		18.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	9.2	34.8		32.5	5.3	38.7		32.5				
Max Q Clear Time (g_c+I1), s	3.6	12.6		12.6	2.7	7.8		12.6				
Green Ext Time (p_c), s	0.1	9.9		1.7	0.0	6.3		0.9				

### Intersection Summary

HCM 6th Ctrl Delay 12.8

HCM 6th LOS B
































### Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

# HCM 6th Signalized Intersection Summary

## 5: France Ave & 66th Street

09/15/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 	 			  			  	
Traffic Volume (veh/h)	99	651	78	248	369	208	112	1001	218	155	595	84
Future Volume (veh/h)	99	651	78	248	369	208	112	1001	218	155	595	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	108	708	85	270	401	226	122	1088	237	168	647	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	139	860	384	357	950	424	156	1612	501	207	1561	217
Arrive On Green	0.08	0.24	0.24	0.10	0.27	0.27	0.09	0.32	0.32	0.12	0.34	0.34
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	5106	1585	1781	4531	630
Grp Volume(v), veh/h	108	708	85	270	401	226	122	1088	237	168	484	254
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1702	1585	1781	1702	1757
Q Serve(g_s), s	4.8	15.2	3.5	6.1	7.5	9.8	5.4	15.0	9.7	7.4	8.8	8.9
Cycle Q Clear(g_c), s	4.8	15.2	3.5	6.1	7.5	9.8	5.4	15.0	9.7	7.4	8.8	8.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.36
Lane Grp Cap(c), veh/h	139	860	384	357	950	424	156	1612	501	207	1173	605
V/C Ratio(X)	0.78	0.82	0.22	0.76	0.42	0.53	0.78	0.67	0.47	0.81	0.41	0.42
Avail Cap(c_a), veh/h	265	990	442	449	950	424	280	1612	501	298	1173	605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.5	29.0	24.5	35.2	24.4	25.3	36.1	24.0	22.2	34.8	20.2	20.3
Incr Delay (d2), s/veh	9.0	5.1	0.3	5.6	0.3	1.3	8.4	2.3	3.2	10.6	1.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	6.8	1.3	2.8	3.1	3.7	2.7	6.1	3.9	3.8	3.5	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.6	34.0	24.8	40.8	24.7	26.6	44.5	26.3	25.4	45.5	21.3	22.4
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		901			897			1447			906	
Approach Delay, s/veh		34.5			30.0			27.7			26.1	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.9	30.0	12.8	24.0	11.6	32.3	10.8	26.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	25.5	10.5	22.5	12.7	26.3	12.0	21.0				
Max Q Clear Time (g_c+I1), s	9.4	17.0	8.1	17.2	7.4	10.9	6.8	11.8				
Green Ext Time (p_c), s	0.2	5.1	0.2	2.3	0.1	4.3	0.1	2.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			29.3									
HCM 6th LOS			C									



HCM 6th TWSC  
1: Barrie Road & 65th Street

09/15/2021

Intersection												
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	43	1	21	0	1	0	55	46	2	0	19	39
Future Vol, veh/h	43	1	21	0	1	0	55	46	2	0	19	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	47	1	23	0	1	0	60	50	2	0	21	42






Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	214	214	42	225	234	51	63	0	0	52	0	0
Stage 1	42	42	-	171	171	-	-	-	-	-	-	-
Stage 2	172	172	-	54	63	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	743	684	1029	730	666	1017	1540	-	-	1554	-	-
Stage 1	972	860	-	831	757	-	-	-	-	-	-	-
Stage 2	830	756	-	958	842	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	719	657	1029	691	639	1017	1540	-	-	1554	-	-
Mov Cap-2 Maneuver	719	657	-	691	639	-	-	-	-	-	-	-
Stage 1	933	860	-	798	727	-	-	-	-	-	-	-
Stage 2	796	726	-	936	842	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10		10.6		4		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1540	-	-	795	639	1554	-
HCM Lane V/C Ratio	0.039	-	-	0.089	0.002	-	-
HCM Control Delay (s)	7.4	0	-	10	10.6	0	-
HCM Lane LOS	A	A	-	B	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0	0	-

HCM 6th TWSC  
9: 66th Street & Barrie Road

























09/15/2021

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	32	1410	747	32	0	59
Future Vol, veh/h	32	1410	747	32	0	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	1533	812	35	0	64
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	847	0	-	0	-	424
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	-	-	3.92
Pot Cap-1 Maneuver	464	-	-	-	0	495
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	464	-	-	-	-	495
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.3	0		13.4		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	464	-	-	-	-	495
HCM Lane V/C Ratio	0.075	-	-	-	-	0.13
HCM Control Delay (s)	13.4	-	-	-	-	13.4
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0.4

# HCM 6th Signalized Intersection Summary

## 11: York Avenue & 66th Street

09/15/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	526	741	199	308	410	107	186	716	338	87	477	188
Future Volume (veh/h)	526	741	199	308	410	107	186	716	338	87	477	188
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	572	805	0	335	446	116	202	778	367	95	518	204
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	677	970		420	706	315	287	1128	503	122	1076	480
Arrive On Green	0.20	0.27	0.00	0.12	0.20	0.20	0.08	0.32	0.32	0.07	0.30	0.30
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	572	805	0	335	446	116	202	778	367	95	518	204
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	13.1	17.4	0.0	7.7	9.4	5.2	4.7	15.7	16.8	4.3	9.7	8.4
Cycle Q Clear(g_c), s	13.1	17.4	0.0	7.7	9.4	5.2	4.7	15.7	16.8	4.3	9.7	8.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	677	970		420	706	315	287	1128	503	122	1076	480
V/C Ratio(X)	0.85	0.83		0.80	0.63	0.37	0.70	0.69	0.73	0.78	0.48	0.42
Avail Cap(c_a), veh/h	823	1128		485	781	348	422	1128	503	185	1076	480
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	28.0	0.0	35.0	30.1	28.4	36.6	24.4	24.8	37.5	23.3	22.8
Incr Delay (d2), s/veh	6.9	4.7	0.0	8.0	1.4	0.7	3.2	3.5	9.0	11.1	1.5	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	7.7	0.0	3.6	4.1	2.0	2.1	6.8	7.3	2.2	4.2	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.6	32.7	0.0	43.0	31.5	29.1	39.8	27.9	33.8	48.7	24.8	25.6
LnGrp LOS	D	C		D	C	C	D	C	C	D	C	C
Approach Vol, veh/h	1377		A	897			1347			817		
Approach Delay, s/veh	35.2			35.5			31.3			27.8		
Approach LOS	D			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.1	30.5	14.5	26.9	11.3	29.3	20.5	20.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	26.0	11.5	26.0	10.0	24.5	19.5	18.0				
Max Q Clear Time (g_c+I1), s	6.3	18.8	9.7	19.4	6.7	11.7	15.1	11.4				
Green Ext Time (p_c), s	0.0	3.8	0.2	2.9	0.2	3.4	1.0	1.8				

### Intersection Summary

HCM 6th Ctrl Delay	32.7
HCM 6th LOS	C






















### Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

# HCM 6th Signalized Intersection Summary

## 6: France Ave & 65th Street

09/15/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	84	108	56	99	387	37	1182	84	89	748	32
Future Volume (veh/h)	139	84	108	56	99	387	37	1182	84	89	748	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	151	91	117	61	108	0	40	1285	0	97	813	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	315	155	199	125	188		480	2735		376	2800	120
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.00	0.04	0.54	0.00	0.06	0.56	0.56
Sat Flow, veh/h	1286	743	955	262	900	1585	1781	5274	0	1781	5020	216
Grp Volume(v), veh/h	151	0	208	169	0	0	40	1285	0	97	551	297
Grp Sat Flow(s),veh/h/ln	1286	0	1698	1162	0	1585	1781	1702	0	1781	1702	1832
Q Serve(g_s), s	0.1	0.0	7.7	3.1	0.0	0.0	0.7	10.8	0.0	1.6	5.9	5.9
Cycle Q Clear(g_c), s	10.8	0.0	7.7	10.8	0.0	0.0	0.7	10.8	0.0	1.6	5.9	5.9
Prop In Lane	1.00		0.56	0.36		1.00	1.00		0.00	1.00		0.12
Lane Grp Cap(c), veh/h	315	0	355	313	0		480	2735		376	1899	1022
V/C Ratio(X)	0.48	0.00	0.59	0.54	0.00		0.08	0.47		0.26	0.29	0.29
Avail Cap(c_a), veh/h	649	0	796	713	0		547	2735		511	1899	1022
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.0	0.0	24.7	25.5	0.0	0.0	6.6	10.0	0.0	7.1	8.1	8.1
Incr Delay (d2), s/veh	1.1	0.0	1.5	1.4	0.0	0.0	0.1	0.6	0.0	0.4	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	3.1	2.7	0.0	0.0	0.2	3.6	0.0	0.5	2.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	0.0	26.3	27.0	0.0	0.0	6.7	10.6	0.0	7.4	8.5	8.8
LnGrp LOS	C	A	C	C	A		A	B		A	A	A
Approach Vol, veh/h	359			169			A			1325		
Approach Delay, s/veh	26.6			27.0			10.5			8.5		
Approach LOS	C			C			B			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	41.7		19.0	7.2	43.2		19.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	9.5	34.5		32.5	5.3	38.7		32.5				
Max Q Clear Time (g_c+I1), s	3.6	12.8		12.8	2.7	7.9		12.8				
Green Ext Time (p_c), s	0.1	9.9		1.7	0.0	6.4		0.9				

### Intersection Summary

HCM 6th Ctrl Delay 12.9

HCM 6th LOS B

### Notes

























Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



# HCM 6th Signalized Intersection Summary

## 5: France Ave & 66th Street

09/15/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	658	79	250	373	210	113	1011	220	157	601	85
Future Volume (veh/h)	100	658	79	250	373	210	113	1011	220	157	601	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	715	86	272	405	228	123	1099	239	171	653	92
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	140	863	385	358	953	425	157	1603	498	210	1557	217
Arrive On Green	0.08	0.24	0.24	0.10	0.27	0.27	0.09	0.31	0.31	0.12	0.34	0.34
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	5106	1585	1781	4530	631
Grp Volume(v), veh/h	109	715	86	272	405	228	123	1099	239	171	489	256
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1702	1585	1781	1702	1757
Q Serve(g_s), s	4.9	15.5	3.5	6.2	7.6	10.0	5.5	15.3	9.9	7.6	8.9	9.1
Cycle Q Clear(g_c), s	4.9	15.5	3.5	6.2	7.6	10.0	5.5	15.3	9.9	7.6	8.9	9.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.36
Lane Grp Cap(c), veh/h	140	863	385	358	953	425	157	1603	498	210	1170	604
V/C Ratio(X)	0.78	0.83	0.22	0.76	0.43	0.54	0.79	0.69	0.48	0.82	0.42	0.42
Avail Cap(c_a), veh/h	265	985	439	447	953	425	281	1603	498	296	1170	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.7	29.1	24.6	35.4	24.5	25.4	36.3	24.3	22.5	35.0	20.4	20.5
Incr Delay (d2), s/veh	9.0	5.4	0.3	5.8	0.3	1.3	8.4	2.4	3.3	11.3	1.1	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	7.0	1.3	2.8	3.2	3.8	2.7	6.2	4.0	3.9	3.6	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.7	34.5	24.9	41.2	24.9	26.7	44.6	26.8	25.8	46.3	21.5	22.6
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h	910			905			1461			916		
Approach Delay, s/veh	34.9			30.2			28.1			26.4		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.1	30.0	12.9	24.2	11.6	32.4	10.9	26.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	25.5	10.5	22.5	12.8	26.2	12.1	20.9				
Max Q Clear Time (g_c+I1), s	9.6	17.3	8.2	17.5	7.5	11.1	6.9	12.0				
Green Ext Time (p_c), s	0.2	5.0	0.2	2.2	0.1	4.3	0.1	2.3				
Intersection Summary												
HCM 6th Ctrl Delay	29.7											
HCM 6th LOS	C											

HCM 6th TWSC  
1: Barrie Road & 65th Street

09/15/2021

Intersection												
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	43	1	21	0	1	0	56	46	2	0	19	39
Future Vol, veh/h	43	1	21	0	1	0	56	46	2	0	19	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	47	1	23	0	1	0	61	50	2	0	21	42






Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	216	216	42	227	236	51	63	0	0	52	0	0
Stage 1	42	42	-	173	173	-	-	-	-	-	-	-
Stage 2	174	174	-	54	63	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	740	682	1029	728	665	1017	1540	-	-	1554	-	-
Stage 1	972	860	-	829	756	-	-	-	-	-	-	-
Stage 2	828	755	-	958	842	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	716	654	1029	689	638	1017	1540	-	-	1554	-	-
Mov Cap-2 Maneuver	716	654	-	689	638	-	-	-	-	-	-	-
Stage 1	932	860	-	795	725	-	-	-	-	-	-	-
Stage 2	793	724	-	936	842	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10		10.7		4		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1540	-	-	793	638	1554	-
HCM Lane V/C Ratio	0.04	-	-	0.089	0.002	-	-
HCM Control Delay (s)	7.4	0	-	10	10.7	0	-
HCM Lane LOS	A	A	-	B	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0	0	-

HCM 6th TWSC  
9: 66th Street & Barrie Road

























09/15/2021

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	32	1424	754	32	0	60
Future Vol, veh/h	32	1424	754	32	0	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	1548	820	35	0	65
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	855	0	-	0	-	428
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	-	-	3.92
Pot Cap-1 Maneuver	460	-	-	-	0	492
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	460	-	-	-	-	492
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		SB	
HCM Control Delay, s	0.3		0		13.4	
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	460	-	-	-	-	492
HCM Lane V/C Ratio	0.076	-	-	-	-	0.133
HCM Control Delay (s)	13.5	-	-	-	-	13.4
HCM Lane LOS	B	-	-	-	B	
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0.5

# HCM 6th Signalized Intersection Summary

## 11: York Avenue & 66th Street

09/15/2021






















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	531	748	201	311	414	108	188	723	341	88	482	190
Future Volume (veh/h)	531	748	201	311	414	108	188	723	341	88	482	190
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	577	813	0	338	450	117	204	786	371	96	524	207
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	677	967		421	703	314	287	1144	510	123	1093	488
Arrive On Green	0.20	0.27	0.00	0.12	0.20	0.20	0.08	0.32	0.32	0.07	0.31	0.31
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	577	813	0	338	450	117	204	786	371	96	524	207
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	13.5	18.0	0.0	8.0	9.7	5.3	4.8	16.1	17.3	4.4	10.0	8.7
Cycle Q Clear(g_c), s	13.5	18.0	0.0	8.0	9.7	5.3	4.8	16.1	17.3	4.4	10.0	8.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	677	967		421	703	314	287	1144	510	123	1093	488
V/C Ratio(X)	0.85	0.84		0.80	0.64	0.37	0.71	0.69	0.73	0.78	0.48	0.42
Avail Cap(c_a), veh/h	806	1101		480	765	341	418	1144	510	162	1093	488
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	28.7	0.0	35.7	30.8	29.0	37.3	24.7	25.1	38.3	23.5	23.0
Incr Delay (d2), s/veh	7.6	5.4	0.0	8.6	1.6	0.7	3.2	3.4	8.8	16.3	1.5	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	8.1	0.0	3.8	4.2	2.0	2.1	7.0	7.5	2.5	4.3	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.0	34.1	0.0	44.3	32.4	29.8	40.6	28.1	33.9	54.6	25.0	25.7
LnGrp LOS	D	C		D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1390	A		905			1361			827	
Approach Delay, s/veh		36.5			36.5			31.5			28.6	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.3	31.4	14.7	27.2	11.4	30.2	20.9	21.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	7.6	26.9	11.6	25.9	10.1	24.4	19.5	18.0				
Max Q Clear Time (g_c+I1), s	6.4	19.3	10.0	20.0	6.8	12.0	15.5	11.7				
Green Ext Time (p_c), s	0.0	4.0	0.2	2.7	0.2	3.4	0.9	1.8				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			33.5									
HCM 6th LOS			C									
<b>Notes</b>												
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.												



# HCM 6th Signalized Intersection Summary

## 6: France Ave & 65th Street

09/15/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	84	108	56	100	392	37	1182	84	91	748	32
Future Volume (veh/h)	139	84	108	56	100	392	37	1182	84	91	748	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	151	91	117	61	109	0	40	1285	0	99	813	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	315	155	200	125	189		479	2731		376	2799	120
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.00	0.04	0.53	0.00	0.06	0.56	0.56
Sat Flow, veh/h	1284	743	955	262	904	1585	1781	5274	0	1781	5020	216
Grp Volume(v), veh/h	151	0	208	170	0	0	40	1285	0	99	551	297
Grp Sat Flow(s),veh/h/ln	1284	0	1698	1166	0	1585	1781	1702	0	1781	1702	1832
Q Serve(g_s), s	0.1	0.0	7.7	3.1	0.0	0.0	0.7	10.9	0.0	1.6	5.9	6.0
Cycle Q Clear(g_c), s	10.9	0.0	7.7	10.8	0.0	0.0	0.7	10.9	0.0	1.6	5.9	6.0
Prop In Lane	1.00		0.56	0.36		1.00	1.00		0.00	1.00		0.12
Lane Grp Cap(c), veh/h	315	0	355	314	0		479	2731		376	1898	1021
V/C Ratio(X)	0.48	0.00	0.59	0.54	0.00		0.08	0.47		0.26	0.29	0.29
Avail Cap(c_a), veh/h	647	0	795	714	0		546	2731		510	1898	1021
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.0	0.0	24.7	25.5	0.0	0.0	6.6	10.0	0.0	7.1	8.1	8.1
Incr Delay (d2), s/veh	1.1	0.0	1.5	1.4	0.0	0.0	0.1	0.6	0.0	0.4	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	3.1	2.7	0.0	0.0	0.2	3.6	0.0	0.5	2.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	0.0	26.3	27.0	0.0	0.0	6.7	10.6	0.0	7.5	8.5	8.8
LnGrp LOS	C	A	C	C	A		A	B		A	A	A
Approach Vol, veh/h	359			170			1325			947		
Approach Delay, s/veh	26.6			27.0			10.5			8.5		
Approach LOS	C			C			B			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.8	41.6		19.0	7.2	43.2		19.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	9.5	34.5		32.5	5.3	38.7		32.5				
Max Q Clear Time (g_c+I1), s	3.6	12.9		12.9	2.7	8.0		12.8				
Green Ext Time (p_c), s	0.1	9.9		1.7	0.0	6.4		0.9				

### Intersection Summary

HCM 6th Ctrl Delay 12.9

HCM 6th LOS B

























### Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

# HCM 6th Signalized Intersection Summary

## 5: France Ave & 66th Street

09/15/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	658	79	254	375	210	113	1011	222	157	601	85
Future Volume (veh/h)	100	658	79	254	375	210	113	1011	222	157	601	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	715	86	276	408	228	123	1099	241	171	653	92
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	140	863	385	362	956	426	157	1601	497	210	1555	217
Arrive On Green	0.08	0.24	0.24	0.10	0.27	0.27	0.09	0.31	0.31	0.12	0.34	0.34
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	5106	1585	1781	4530	631
Grp Volume(v), veh/h	109	715	86	276	408	228	123	1099	241	171	489	256
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1702	1585	1781	1702	1757
Q Serve(g_s), s	4.9	15.5	3.5	6.3	7.7	10.0	5.5	15.3	10.0	7.6	9.0	9.1
Cycle Q Clear(g_c), s	4.9	15.5	3.5	6.3	7.7	10.0	5.5	15.3	10.0	7.6	9.0	9.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.36
Lane Grp Cap(c), veh/h	140	863	385	362	956	426	157	1601	497	210	1168	603
V/C Ratio(X)	0.78	0.83	0.22	0.76	0.43	0.53	0.79	0.69	0.48	0.82	0.42	0.42
Avail Cap(c_a), veh/h	265	983	438	446	956	426	280	1601	497	296	1168	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	29.2	24.7	35.4	24.6	25.4	36.3	24.4	22.6	35.0	20.5	20.5
Incr Delay (d2), s/veh	9.0	5.4	0.3	6.1	0.3	1.3	8.4	2.4	3.4	11.3	1.1	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	7.0	1.3	2.9	3.2	3.8	2.7	6.3	4.0	3.9	3.6	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.8	34.6	24.9	41.5	24.9	26.7	44.7	26.8	26.0	46.4	21.6	22.7
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		910			912			1463			916	
Approach Delay, s/veh		35.0			30.4			28.2			26.5	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.1	30.0	13.0	24.2	11.7	32.4	10.9	26.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	25.5	10.5	22.5	12.8	26.2	12.1	20.9				
Max Q Clear Time (g_c+I1), s	9.6	17.3	8.3	17.5	7.5	11.1	6.9	12.0				
Green Ext Time (p_c), s	0.2	5.0	0.2	2.2	0.1	4.3	0.1	2.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			29.8									
HCM 6th LOS			C									

HCM 6th TWSC  
1: Barrie Road & 65th Street

09/15/2021

Intersection												
Int Delay, s/veh	5.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	43	1	44	0	1	0	73	46	2	0	19	39
Future Vol, veh/h	43	1	44	0	1	0	73	46	2	0	19	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	47	1	48	0	1	0	79	50	2	0	21	42






Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	252	252	42	276	272	51	63	0	0	52	0	0
Stage 1	42	42	-	209	209	-	-	-	-	-	-	-
Stage 2	210	210	-	67	63	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	701	651	1029	676	635	1017	1540	-	-	1554	-	-
Stage 1	972	860	-	793	729	-	-	-	-	-	-	-
Stage 2	792	728	-	943	842	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	672	616	1029	618	601	1017	1540	-	-	1554	-	-
Mov Cap-2 Maneuver	672	616	-	618	601	-	-	-	-	-	-	-
Stage 1	920	860	-	751	690	-	-	-	-	-	-	-
Stage 2	749	689	-	898	842	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10		11		4.5		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1540	-	-	812 601	1554	-	-
HCM Lane V/C Ratio	0.052	-	-	0.118 0.002	-	-	-
HCM Control Delay (s)	7.5	0	-	10 11	0	-	-
HCM Lane LOS	A	A	-	B B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.4 0	0	-	-

HCM 6th TWSC  
9: 66th Street & Barrie Road

09/15/2021

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	39	1424	754	36	0	100
Future Vol, veh/h	39	1424	754	36	0	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	1548	820	39	0	109

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	859	0	430
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	5.34	-	7.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	3.12	-	3.92
Pot Cap-1 Maneuver	458	-	490
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	458	-	490
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	14.4
HCM LOS	B		

























Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	458	-	-	-	490
HCM Lane V/C Ratio	0.093	-	-	-	0.222
HCM Control Delay (s)	13.7	-	-	-	14.4
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.8



# HCM 6th Signalized Intersection Summary

## 11: York Avenue & 66th Street

09/15/2021




												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	532	752	202	311	416	108	189	723	341	88	482	191
Future Volume (veh/h)	532	752	202	311	416	108	189	723	341	88	482	191
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	578	817	0	338	452	117	205	786	371	96	524	208
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	678	970		420	705	314	288	1142	510	123	1091	487
Arrive On Green	0.20	0.27	0.00	0.12	0.20	0.20	0.08	0.32	0.32	0.07	0.31	0.31
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	578	817	0	338	452	117	205	786	371	96	524	208
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	13.5	18.2	0.0	8.0	9.8	5.3	4.8	16.1	17.4	4.4	10.0	8.8
Cycle Q Clear(g_c), s	13.5	18.2	0.0	8.0	9.8	5.3	4.8	16.1	17.4	4.4	10.0	8.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	678	970		420	705	314	288	1142	510	123	1091	487
V/C Ratio(X)	0.85	0.84		0.80	0.64	0.37	0.71	0.69	0.73	0.78	0.48	0.43
Avail Cap(c_a), veh/h	805	1100		479	764	341	417	1142	510	162	1091	487
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.5	28.7	0.0	35.8	30.8	29.0	37.4	24.7	25.2	38.3	23.6	23.1
Incr Delay (d2), s/veh	7.7	5.5	0.0	8.6	1.6	0.7	3.2	3.4	8.8	16.4	1.5	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	8.2	0.0	3.8	4.2	2.1	2.1	7.0	7.5	2.5	4.3	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.1	34.2	0.0	44.4	32.4	29.8	40.6	28.1	34.0	54.7	25.1	25.9
LnGrp LOS	D	C		D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1395	A		907			1362			828	
Approach Delay, s/veh		36.7			36.5			31.6			28.7	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.3	31.4	14.7	27.3	11.5	30.2	20.9	21.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	7.6	26.9	11.6	25.9	10.1	24.4	19.5	18.0				
Max Q Clear Time (g_c+I1), s	6.4	19.4	10.0	20.2	6.8	12.0	15.5	11.8				
Green Ext Time (p_c), s	0.0	3.9	0.2	2.7	0.2	3.4	0.9	1.8				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			33.6									
HCM 6th LOS			C									
<b>Notes</b>												
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th TWSC  
14: access & 65th Street

09/15/2021

Intersection

Int Delay, s/veh 1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	69	4	8	105	9	20
Future Vol, veh/h	69	4	8	105	9	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	75	4	9	114	10	22

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	79
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1519
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1519
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	908	-	-	1519	-
HCM Lane V/C Ratio	0.035	-	-	0.006	-
HCM Control Delay (s)	9.1	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th TWSC  
17: Barrie Road & access

09/15/2021

Intersection

Int Delay, s/veh 1.5

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 9 20 8 112 60 3

Future Vol, veh/h 9 20 8 112 60 3

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 10 22 9 122 65 3

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 207 67 68 0 - 0

Stage 1 67 - - - - -

Stage 2 140 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 781 997 1533 - - -

Stage 1 956 - - - - -

Stage 2 887 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 776 997 1533 - - -

Mov Cap-2 Maneuver 776 - - - - -

Stage 1 950 - - - - -

Stage 2 887 - - - - -

Approach EB NB SB

HCM Control Delay, s 9.1 0.5 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1533 - 916 - -

HCM Lane V/C Ratio 0.006 - 0.034 - -

HCM Control Delay (s) 7.4 0 9.1 - -

HCM Lane LOS A A A - -

HCM 95th %tile Q(veh) 0 - 0.1 - -





M S P  
COMMERCIAL

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CITY OF EDINA  
SITE PLAN SUBMITTAL  
AUGUST 20, 2021



**PROJECT TEAM**

APPLICANT IS A PARTNERSHIP OF MSP COMMERCIAL AND BHATTI G.I. CONSULTANTS, P.A.

**DEVELOPER**  
MSP COMMERCIAL  
1215 TOWN CENTRE DRIVE, EAGAN, MN 55123  
CONTACT: ALEX YOUNG, PRESIDENT  
AYOUNG@MSPCOMMERCIAL.NET | (651) 287-8891

**ARCHITECT**  
POPE ARCHITECTS  
1295 BANDANA BLVD N, SUITE 200, ST. PAUL, MN 55108  
DON ROLF, ARCHITECT – DROLF@POPEARCH.COM

**PROPERTY OWNER / TENANT**  
BHATTI G.I. CONSULTANTS, P.A.  
1447 WHITE OAK DRIVE, CHASKA, MN 55318  
CONTACT: DR. AHSAN BHATTI  
AHSANMD@BHATTIGI.COM | (952) 361-3800

**CIVIL ENGINEER**  
CIVIL SITE GROUP  
4931 W. 35TH ST, SUITE 200, ST. LOUIS PARK, MN 55416  
PATRICK SARVER, LANDSCAPE ARCHITECT/PARTNER – PSARVER@CIVILSITEGROUP.COM

**SHEET INDEX**

**EXISTING SITE**

- 01 EXISTING CONDITIONS & CONTEXT
- 02 CONTEXT PLAN

**ARCHITECTURAL**

- 03 ARCHITECTURAL SITE PLAN WITH DIMENSIONS
- 04 FLOOR PLANS
- 05 ELEVATION DRAWINGS
- 06 EXTERIOR RENDERINGS
- 07 EXTERIOR MATERIALS

**CIVIL**

- C0.0 TITLE SHEET
- V1.0 SITE SURVEY
- C1.0 REMOVALS PLAN
- C2.0 SITE PLAN
- C3.0 GRADING PLAN
- C4.0 UTILITY PLAN
- C5.0 CIVIL DETAILS
- C5.1 CIVIL DETAILS
- L1.0 LANDSCAPE PLAN
- SW1.0 SWPPP - EXISTING CONDITIONS
- SW1.1 SWPPP - PROPOSED CONDITIONS
- SW1.2 SWPPP - DETAILS
- SW1.3 SWPPP - NARRATIVE

*\*NOTE: SCALE IS PRESERVED ONLY WHEN PRINTED AT 24X36.*

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**COVER SHEET**





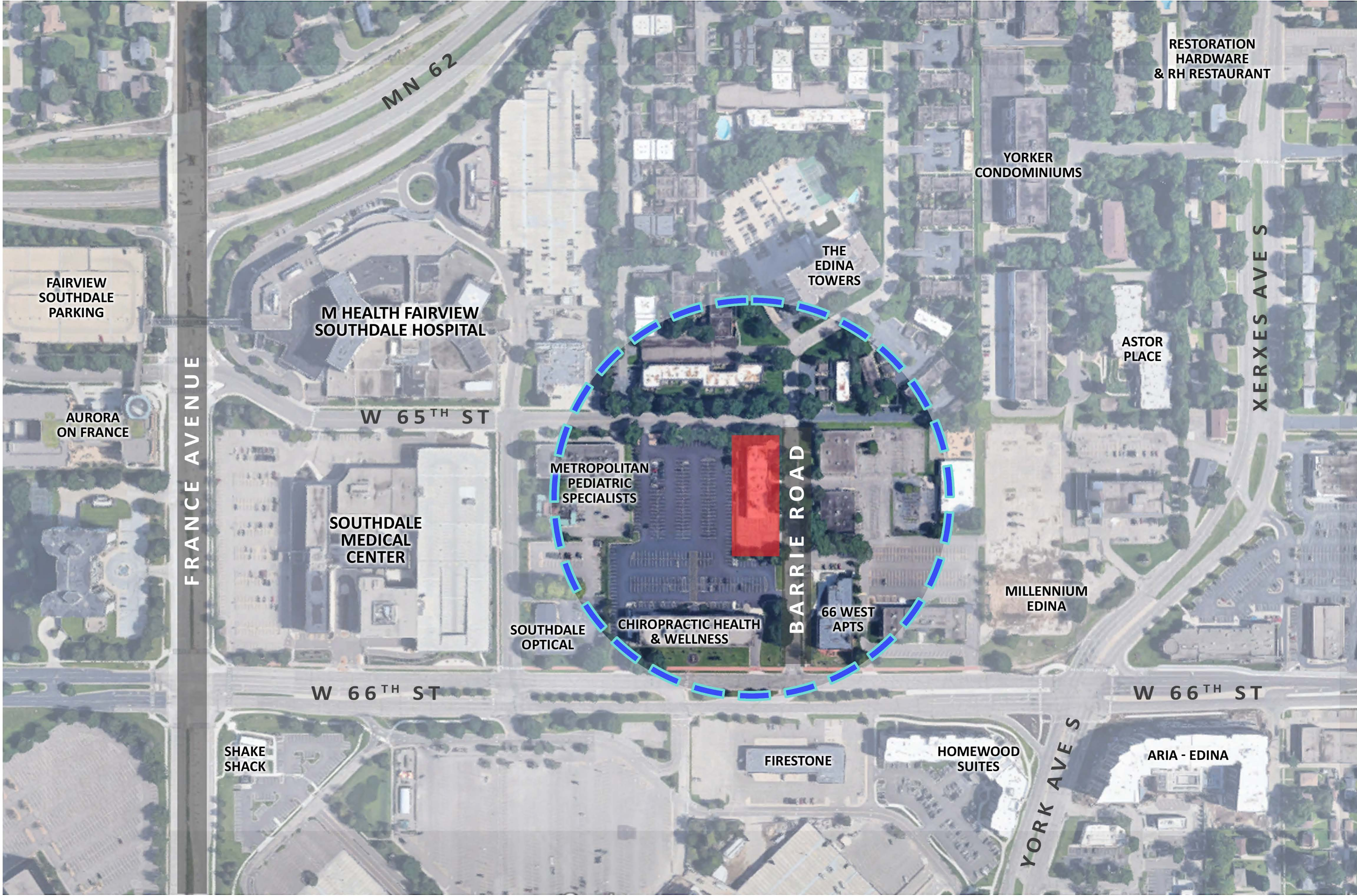
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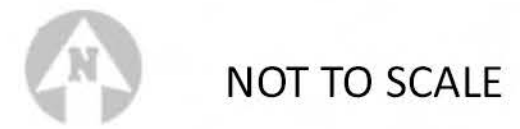




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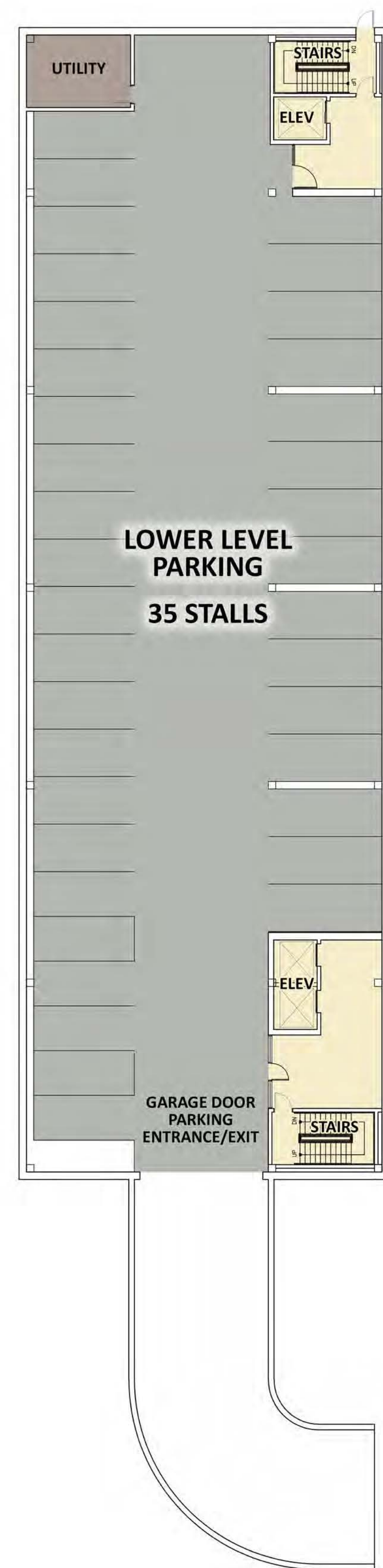
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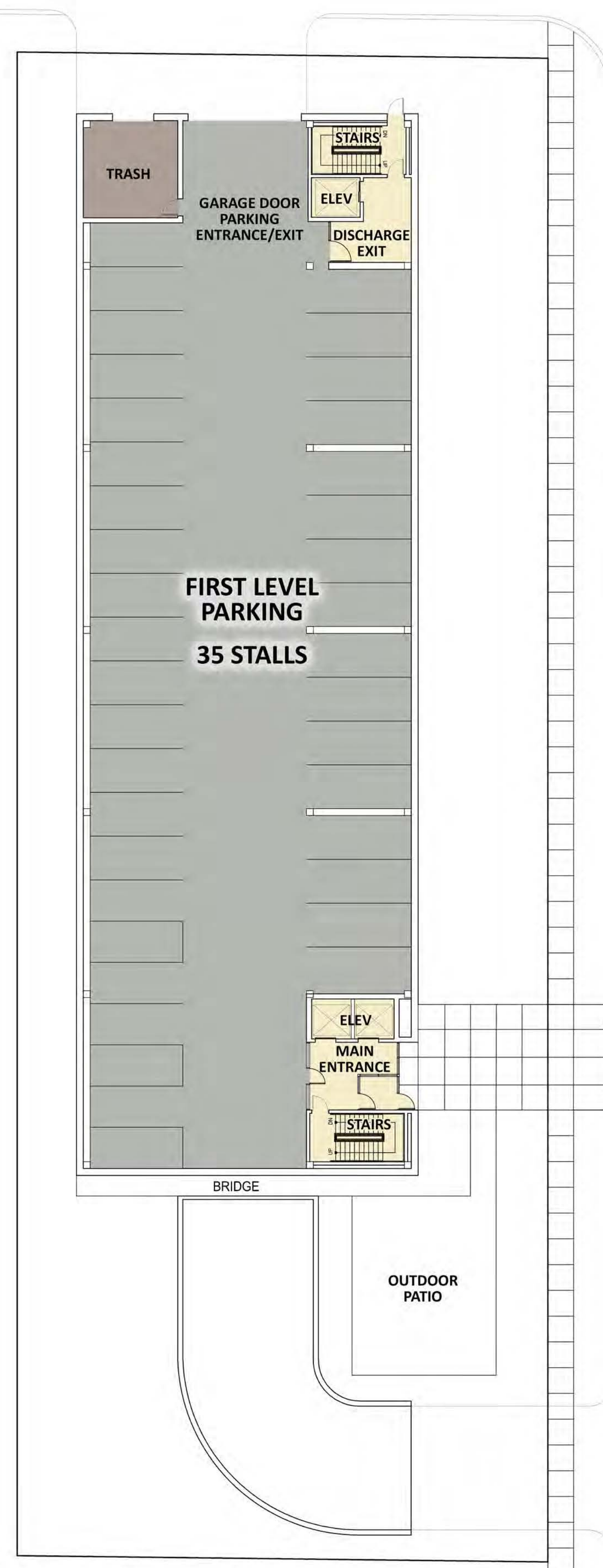
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**ARCHITECTURAL  
SITE PLAN**

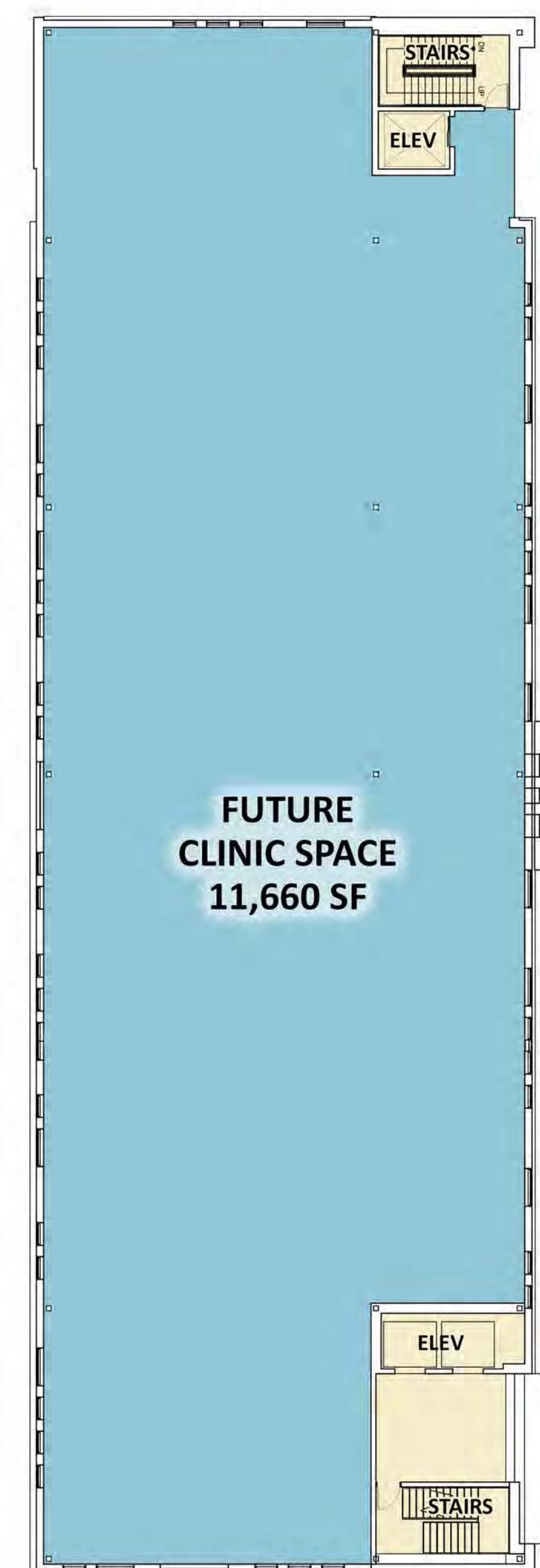




LOWER LEVEL PARKING PLAN



LEVEL 1 PARKING PLAN



LEVEL 2 PLAN



LEVEL 3 PLAN



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**POPE**  
ARCHITECTS

**Civil  
Site**  
GROUP



1"=16'

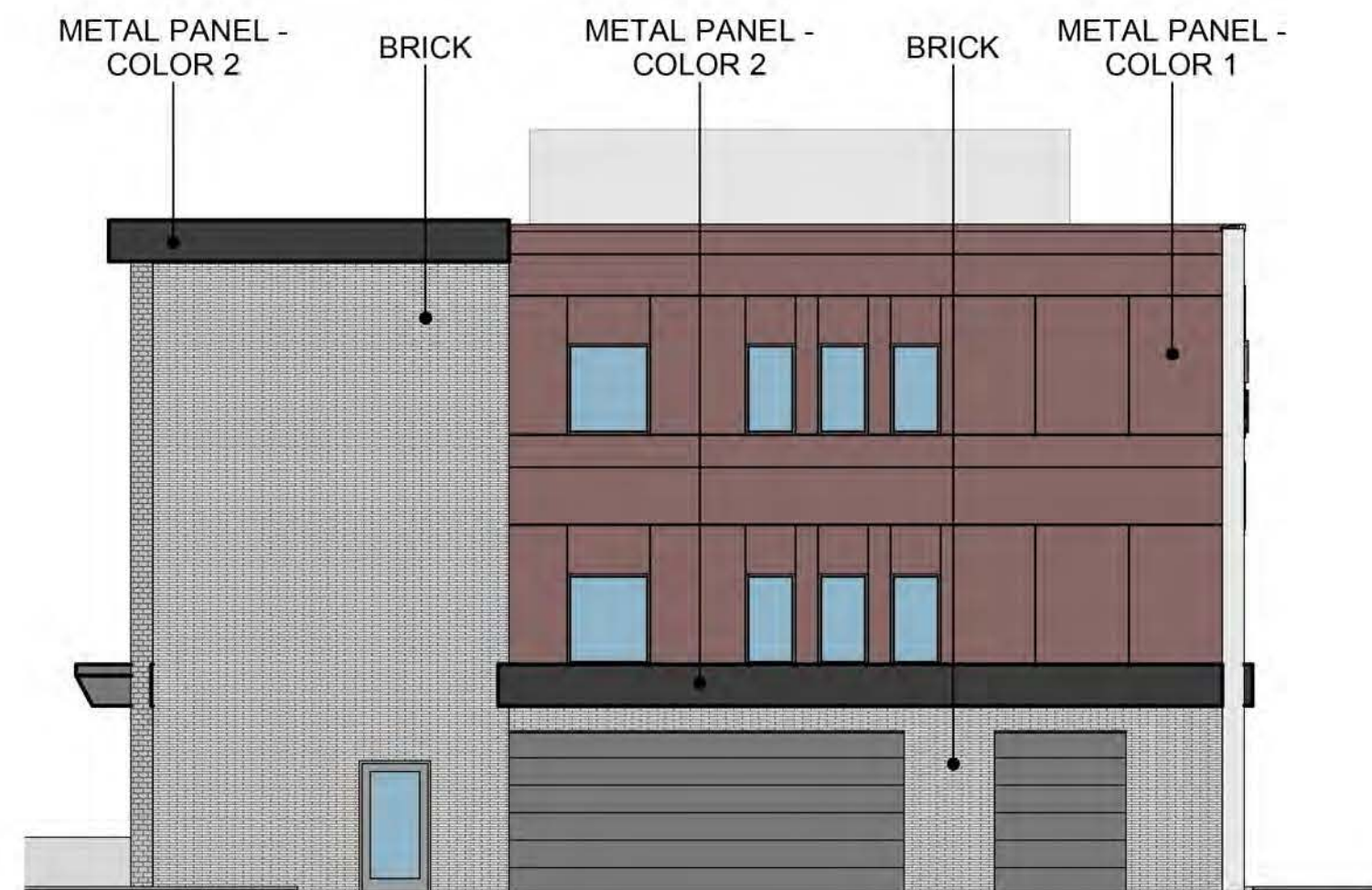
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FLOOR PLANS

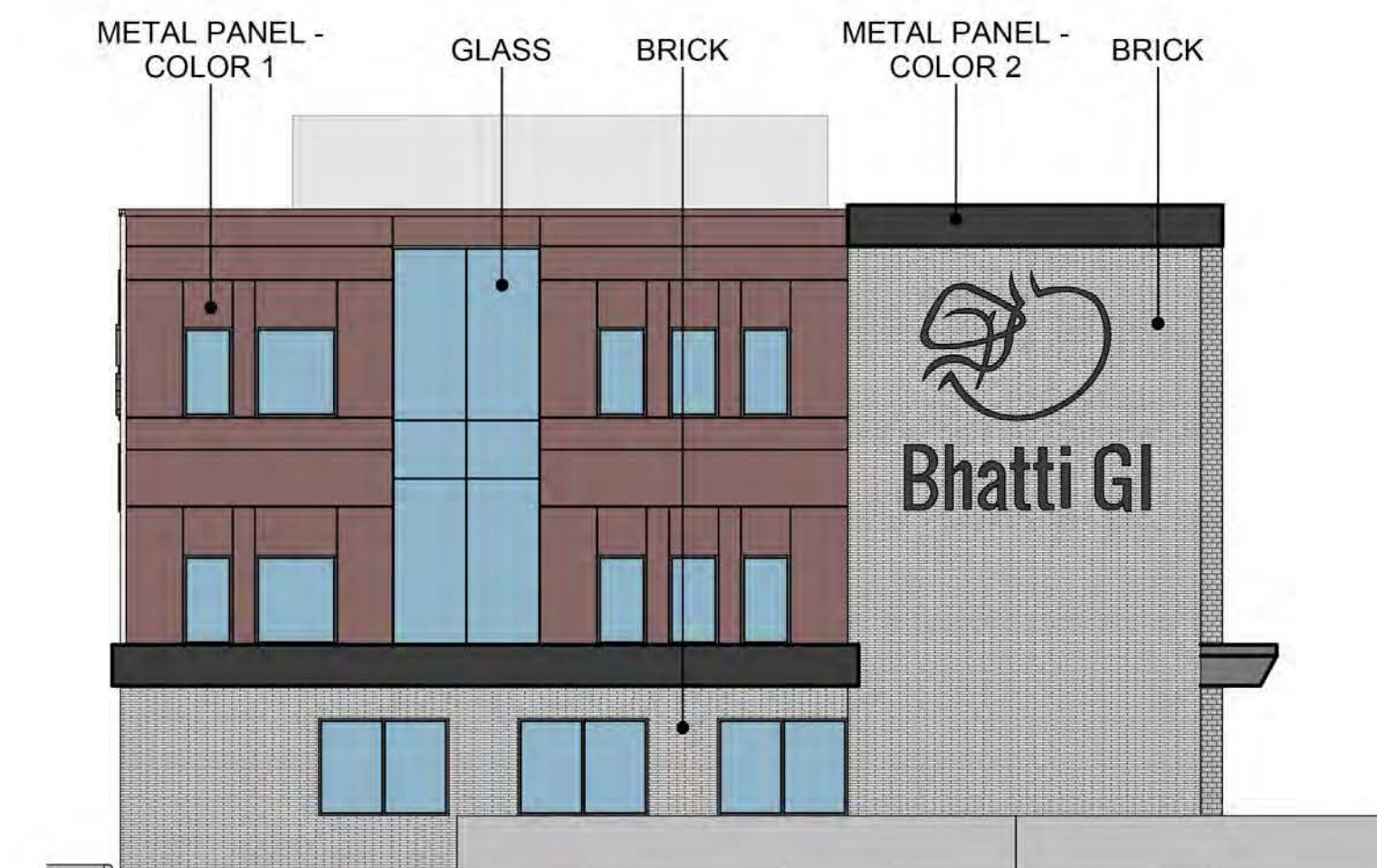




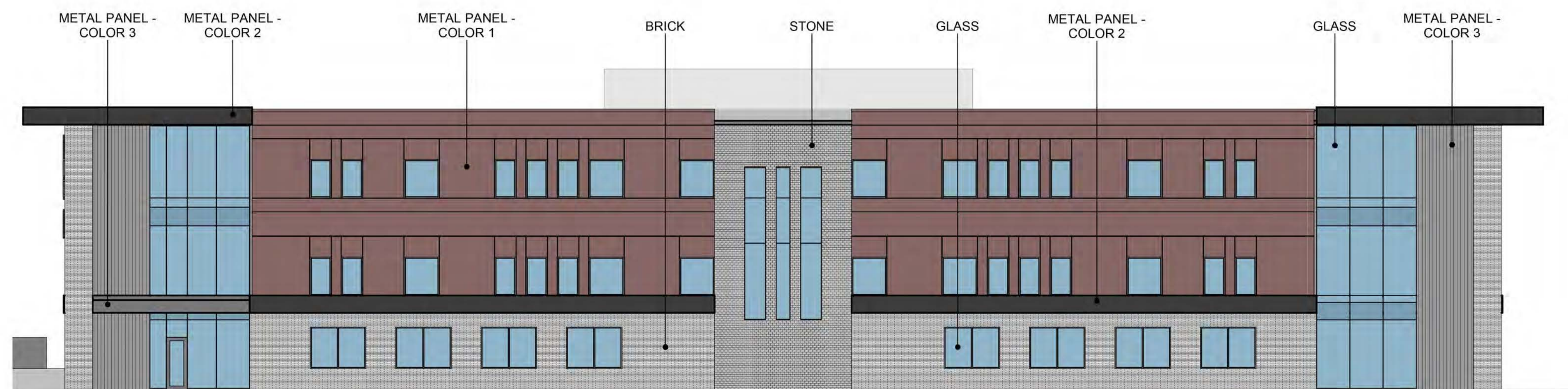
**WEST ELEVATION**



**NORTH ELEVATION**



**SOUTH ELEVATION**



**EAST ELEVATION**



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3/32"=1'0"

**05**

**ELEVATIONS**





SOUTHEAST PERSPECTIVE | VIEW FROM BARRIE ROAD



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NORTHWEST PERSPECTIVE | VIEW FROM W 65TH STREET



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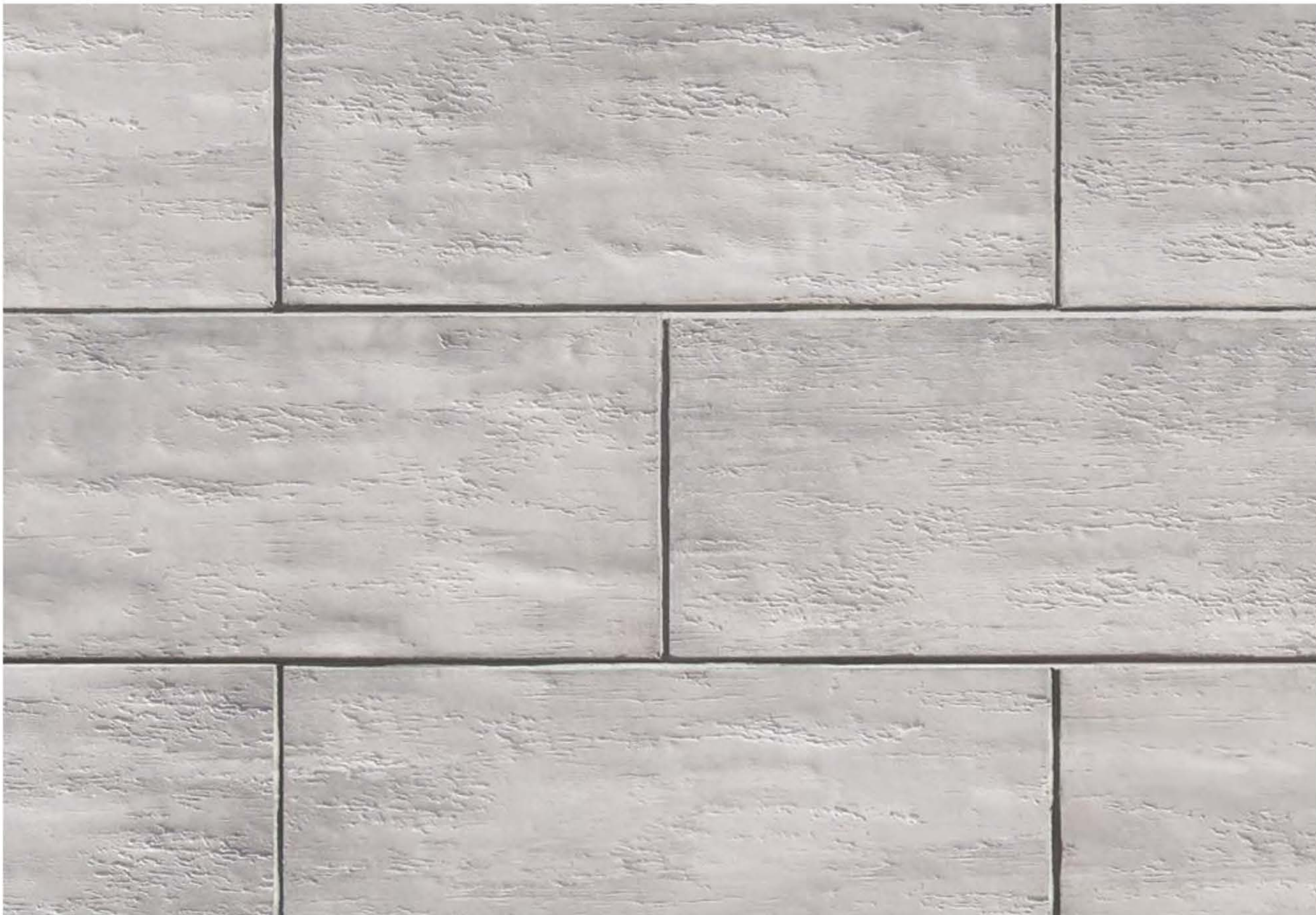
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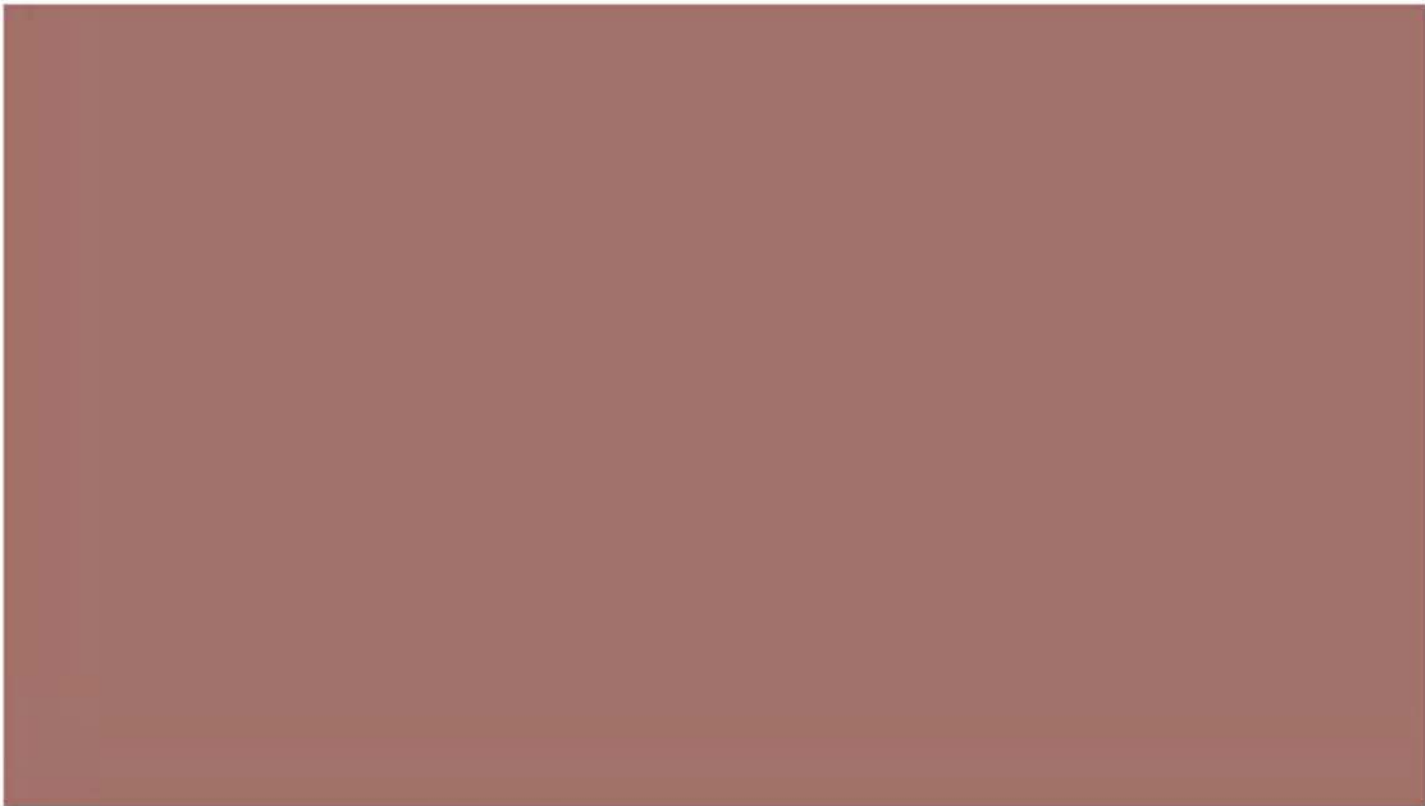




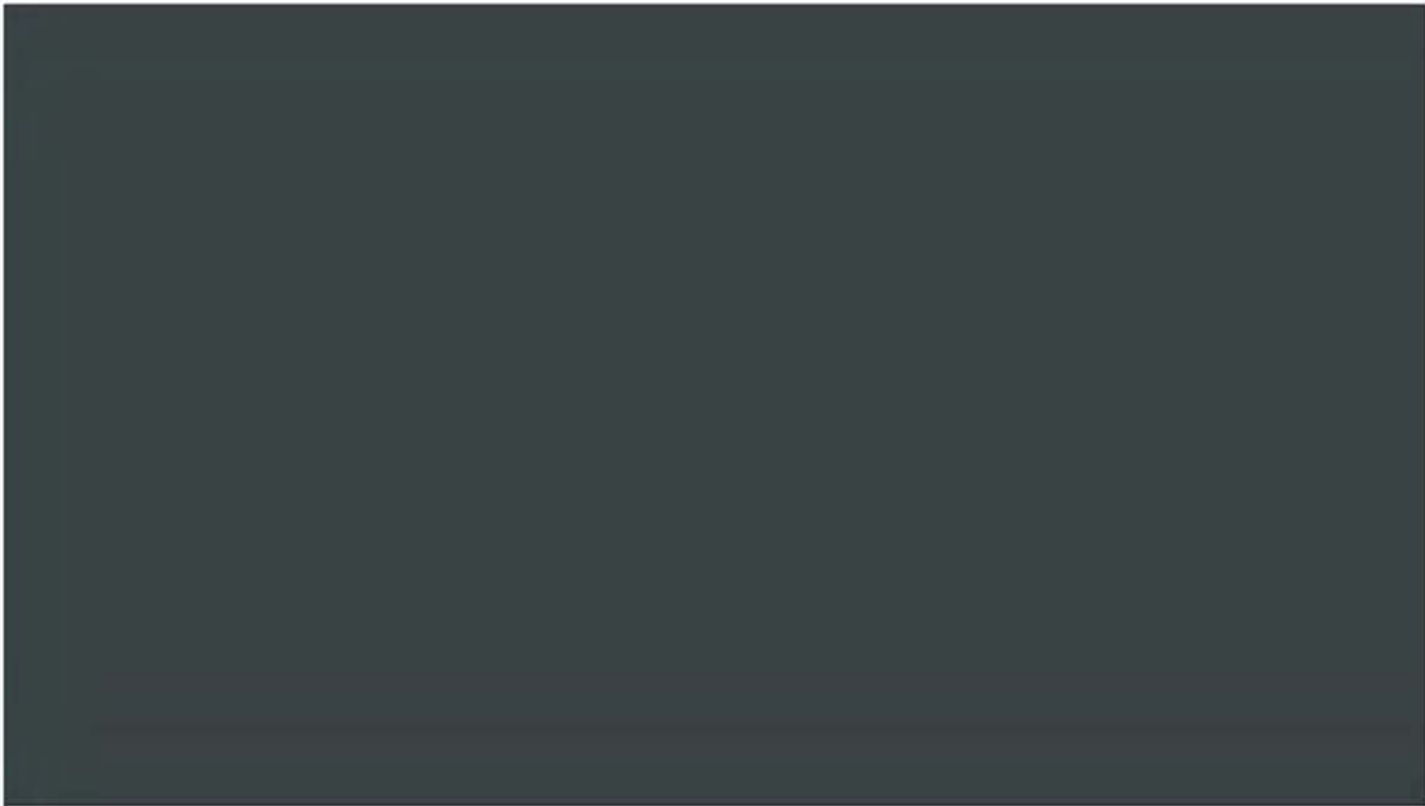
BRICK – ROMAN SIZE



MANUFACTURED STONE



METAL PANEL – COLOR 1



METAL PANEL – COLOR 2



METAL PANEL – COLOR 3



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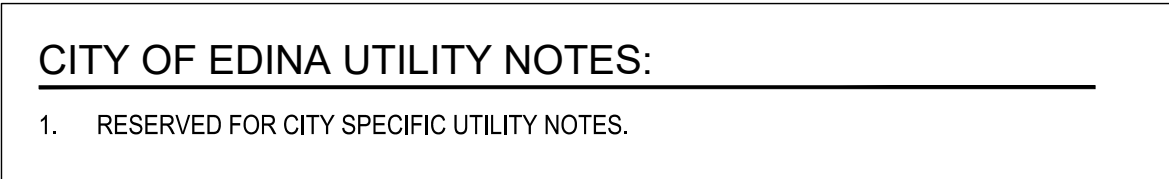








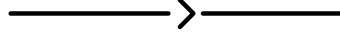





[illegible]





- ### UTILITY LEGEND:
- |   |                          |
|---|--------------------------|
|  | CATCH BASIN              |
|  | MANHOLE                  |
|  | GATE VALVE AND VALVE BOX |
|  | PROPOSED FIRE HYDRANT    |
|  | WATER MAIN               |
|  | SANITARY SEWER           |
|  | STORM SEWER              |
|  | FES AND RIP RAP          |





THE CONTRACTOR AND ALL SUBCONTRACTORS INVOLVED WITH A CONSTRUCTION ACTIVITY THAT DISTURBS SITE SOIL OR WHO IMPLEMENT A POLLUTANT CONTROL MEASURE IDENTIFIED IN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MUST COMPLY WITH THE REQUIREMENTS OF THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT (DATED AUGUST 1, 2018 #MNR10001) AND ANY LOCAL GOVERNING AGENCY HAVING JURISDICTION CONCERNING EROSION AND SEDIMENTATION CONTROL.

## STORMWATER DISCHARGE DESIGN REQUIREMENTS

### SWPPP

THE NATURE OF THIS PROJECT WILL BE CONSISTENT WITH WHAT IS REPRESENTED IN THIS SET OF CONSTRUCTION PLANS AND SPECIFICATIONS. SEE THE SWPPP PLAN SHEETS AND SWPPP NARRATIVE (ATTACHMENT A: CONSTRUCTION SWPPP TEMPLATE) FOR ADDITIONAL SITE SPECIFIC SWPPP INFORMATION, THE PLANS SHOW LOCATIONS AND TYPES OF ALL TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL BMP'S. STANDARD DETAILS ARE ATTACHED TO THIS SWPPP DOCUMENT.

THE INTENDED SEQUENCING OF MAJOR CONSTRUCTION ACTIVITIES IS AS FOLLOWS:

1. INSTALL STABILIZED ROCK CONSTRUCTION ENTRANCE
2. INSTALLATION OF SILT FENCE AROUND SITE
3. INSTALL ORANGE CONSTRUCTION FENCING AROUND INFILTRATION AREAS
4. INSTALL INLET PROTECTION AT ALL ADJACENT AND DOWNSTREAM CATCH BASINS
5. CLEAR AND GRUB FOR TEMPORARY SEDIMENT BASIN / POND INSTALL
6. CONSTRUCT TEMPORARY SEDIMENT BASIN / POND (SECTION 14)
7. CLEAR AND GRUB REMAINDER OF SITE
8. STRIP AND STOCKPILE TOPSOIL
9. ROUGH GRADING OF SITE
10. STABILIZE DENUDED AREAS AND STOCKPILES
11. INSTALL SANITARY SEWER, WATER MAIN STORM SEWER AND SERVICES
12. INSTALL SILT FENCE / INLET PROTECTION AROUND CBS
13. INSTALL STREET SECTION
14. INSTALL CURB AND GUTTER
15. BITUMINOUS ON STREETS
16. FINAL GRADE BOULEVARD, INSTALL SEED AND MULCH
17. REMOVE ACCUMULATED SEDIMENT FROM BASIN / POND
18. FINAL GRADE POND / INFILTRATION BASINS (DO NOT COMPACT SOLS IN INFILTRATION AREAS.)
19. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED BY EITHER SEED OR SOD/LANDSCAPING, REMOVE SILT FENCE AND RESEED ANY AREAS DISTURBED BY THE REMOVAL.

### RECORDS RETENTION:

THE SWPPP (ORIGINAL OR COPIES) INCLUDING, ALL CHANGES TO IT, AND INSPECTIONS AND MAINTENANCE RECORDS MUST BE KEPT AT THE SITE DURING CONSTRUCTION BY THE PERMITTEE WHO HAS OPERATIONAL CONTROL OF THAT PORTION OF THE SITE. THE SWPPP CAN BE KEPT IN EITHER THE FIELD OFFICE OR IN AN ON SITE VEHICLE DURING NORMAL WORKING HOURS.

ALL OWNER(S) MUST KEEP THE SWPPP, ALONG WITH THE FOLLOWING ADDITIONAL RECORDS, ON FILE FOR THREE (3) YEARS AFTER SUBMITTAL OF THE NOT AS OUTLINED IN SECTION 4. THIS DOES NOT INCLUDE ANY RECORDS AFTER SUBMITTAL OF THE NOT.

1. THE FINAL SWPPP.
2. ANY OTHER STORMWATER RELATED PERMITS REQUIRED FOR THE PROJECT.
3. RECORDS OF ALL INSPECTION AND MAINTENANCE CONDUCTED DURING CONSTRUCTION (SEE SECTION 11, INSPECTIONS AND MAINTENANCE).
4. ALL PERMIT OPERATION AND MAINTENANCE AGREEMENTS THAT HAVE BEEN IMPLEMENTED, INCLUDING ALL RIGHT OF WAY, CONTRACTS, COVENANTS AND OTHER BINDING REQUIREMENTS REGARDING PERPETUAL MAINTENANCE, AND
5. ALL REQUIRED CALCULATIONS FOR DESIGN OF THE TEMPORARY AND PERMANENT STORMWATER MANAGEMENT SYSTEMS.

### SWPPP IMPLEMENTATION RESPONSIBILITIES:

1. THE OWNER AND CONTRACTOR ARE PERMITTEE(S) AS IDENTIFIED BY THE NPDES PERMIT.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE IMPLEMENTATION OF THE SWPPP, INCLUDING THE ACTIVITIES OF ALL OF THE CONTRACTOR'S SUBCONTRACTORS.
3. CONTRACTOR SHALL PROVIDE A PERSON(S) KNOWN/GEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMP'S TO OVERSEE ALL INSTALLATION AND MAINTENANCE OF BMP'S AND IMPLEMENTATION OF THE SWPPP.
4. CONTRACTOR SHALL PROVIDE PERSON(S) MEETING THE TRAINING REQUIREMENTS OF THE NPDES PERMIT TO CONDUCT INSPECTION AND MAINTENANCE OF ALL EROSION PREVENTION AND SEDIMENT CONTROL BMP'S IN ACCORDANCE WITH THE REQUIREMENTS OF THE PERMIT. ONE OF THESE INDIVIDUAL(S) MUST BE AVAILABLE FOR AN ON-SITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY MPCA. CONTRACTOR SHALL PROVIDE TRAINING DOCUMENTATION FOR THESE INDIVIDUAL(S) AS REQUIRED BY THE NPDES PERMIT. THIS TRAINING DOCUMENTATION SHALL BE RECORDED IN OR WITH THE SWPPP BEFORE THE START OF CONSTRUCTION OR AS SOON AS THE PERSONNEL FOR THE PROJECT HAVE BEEN DETERMINED. DOCUMENTATION SHALL INCLUDE:
  - 4.1. NAMES OF THE PERSONNEL ASSOCIATED WITH THE PROJECT THAT ARE REQUIRED TO BE TRAINED PER SECTION 21 OF THE PERMIT.
  - 4.2. DATES OF TRAINING AND NAME OF INSTRUCTOR AND ENTITY PROVIDING TRAINING.
  - 4.3. CONTENT OF TRAINING COURSE OR WORKSHOP INCLUDING THE NUMBER OF HOURS OF TRAINING.
5. FOLLOWING FINAL STABILIZATION AND THE TERMINATION OF COVERAGE FOR THE NPDES PERMIT, THE OWNER IS EXPECTED TO FURNISH LONG TERM OPERATION AND MAINTENANCE (O & M) OF THE PERMANENT STORM WATER MANAGEMENT SYSTEM.

## CONSTRUCTION ACTIVITY REQUIREMENTS

### SWPPP AMENDMENTS (SECTION 6):

1. ONE OF THE INDIVIDUALS DESCRIBED IN ITEM 21.2.A OR ITEM 21.2.B OR ANOTHER QUALIFIED INDIVIDUAL MUST COMPLETE ALL SWPPP CHANGES. CHANGES INVOLVING THE USE OF A LESS STRINGENT BMP MUST INCLUDE A JUSTIFICATION DESCRIBING HOW THE REPLACEMENT BMP IS EFFECTIVE FOR THE SITE CHARACTERISTICS.
2. PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMP'S AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS HAVING A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATERS.
3. PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMP'S AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER INSPECTIONS OR INVESTIGATIONS BY THE SITE OWNER OR OPERATOR, USEPA OR MPCA OFFICIALS INDICATE THE SWPPP IS NOT EFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING THE DISCHARGE OF POLLUTANTS TO SURFACE WATER OR GROUNDWATER OR THE DISCHARGES ARE CAUSING WATER QUALITY STANDARD EXCEEDANCES (E.G., NUISANCE CONDITIONS AS DEFINED IN MINN. R. 7050.0210, SUBP. 2) OR THE SWPPP IS NOT CONSISTENT WITH THE OBJECTIVES OF A USEPA APPROVED TMDL.

### BMP SELECTION AND INSTALLATION (SECTION 7):

1. PERMITTEES MUST SELECT, INSTALL, AND MAINTAIN THE BMP'S IDENTIFIED IN THE SWPPP AND IN THIS PERMIT IN AN APPROPRIATE AND FUNCTIONAL MANNER AND IN ACCORDANCE WITH RELEVANT MANUFACTURER SPECIFICATIONS AND ACCEPTED ENGINEERING PRACTICES.

### EROSION PREVENTION (SECTION 8):

1. BEFORE WORK BEGINS, PERMITTEES MUST DELINEATE THE LOCATION OF AREAS NOT TO BE DISTURBED.
2. PERMITTEES MUST MINIMIZE THE NEED FOR DISTURBANCE OF PORTIONS OF THE PROJECT WITH STEEP SLOPES. WHEN STEEP SLOPES MUST BE DISTURBED, PERMITTEES MUST USE TECHNIQUES SUCH AS PHASING AND STABILIZATION PRACTICES DESIGNED FOR STEEP SLOPES (E.G., SLOPE DRAINING AND TERRACING).
3. PERMITTEES MUST STABILIZE ALL EXPOSED SOIL AREAS, INCLUDING STOCKPILES. STABILIZATION MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION WHEN CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. STABILIZATION MUST BE COMPLETED NO LATER THAN 14 CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY HAS CEASED. STABILIZATION IS NOT REQUIRED ON CONSTRUCTED BASE COMPONENTS OF ROADS, PARKING LOTS AND SIMILAR SURFACES. STABILIZATION IS NOT REQUIRED ON TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY OR ORGANIC COMPONENTS (E.G., CLEAN AGGREGATE STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) BUT PERMITTEES MUST PROVIDE SEDIMENT CONTROLS AT THE BASE OF THE STOCKPILE.
4. FOR PUBLIC WATERS THAT THE MINNESOTA DNR HAS PROMULGATED 'WORK IN WATER RESTRICTIONS' DURING SPECIFIED FISH SPAWNING TIME FRAMES, PERMITTEES MUST COMPLETE STABILIZATION OF ALL EXPOSED SOIL AREAS WITHIN 200 FEET OF THE WATERS EDGE, AND THAT DRAIN TO THESE WATERS, WITHIN 24 HOURS DURING THE RESTRICTION PERIOD.
5. PERMITTEES MUST STABILIZE THE NORMAL WETTED PERIMETER OF THE LAST 200 LINEAR FEET OF TEMPORARY OR PERMANENT DRAINAGE DITCHES OR SWALES THAT DRAIN WATER FROM THE SITE WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE. PERMITTEES MUST COMPLETE STABILIZATION OF REMAINING PORTIONS OF TEMPORARY OR PERMANENT DITCHES OR SWALES WITHIN 14 CALENDAR DAYS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE AND CONSTRUCTION IN THAT PORTION OF THE DITCH TEMPORARILY OR PERMANENTLY CEASES.
6. TEMPORARY OR PERMANENT DITCHES OR SWALES BEING USED AS A SEDIMENT CONTAINMENT SYSTEM DURING CONSTRUCTION (WITH PROPERLY DESIGNED ROCK-DITCH CHECKS, BIO ROLLS, SILT DIKES, ETC.) DO NOT NEED TO BE STABILIZED. PERMITTEES MUST STABILIZE THESE AREAS WITHIN 24 HOURS AFTER THEIR USE AS A SEDIMENT CONTAINMENT SYSTEM CEASES.
7. PERMITTEES MUST NOT USE MULCH, HYDROMULCH, TACKIFIER, POLYACRYLAMIDE OR SIMILAR EROSION PREVENTION PRACTICES WITHIN ANY PORTION OF THE NORMAL WETTED PERIMETER OF A TEMPORARY OR PERMANENT DRAINAGE DITCH OR SWALE SECTION WITH A CONTINUOUS SLOPE OF GREATER THAN 2 PERCENT.
8. PERMITTEES MUST PROVIDE TEMPORARY OR PERMANENT ENERGY DISSIPATION AT ALL PIPE OUTLETS WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER OR PERMANENT STORMWATER TREATMENT SYSTEM.
9. PERMITTEES MUST NOT DISTURB MORE LAND (I.E., PHASING) THAN CAN BE EFFECTIVELY INSPECTED AND MAINTAINED IN ACCORDANCE WITH SECTION 11.

### SEDIMENT CONTROL (SECTION 9):

1. PERMITTEES MUST ESTABLISH SEDIMENT CONTROL BMP'S ON ALL DOWNGRADE PERIMETERS OF THE SITE AND DOWNGRADE AREAS OF THE SITE THAT DRAIN TO ANY SURFACE WATER, INCLUDING CURB AND GUTTER SYSTEMS. PERMITTEES MUST LOCATE SEDIMENT CONTROL PRACTICES UPGRADIENT OF ANY BUFFER ZONES. PERMITTEES MUST INSTALL SEDIMENT CONTROL PRACTICES BEFORE ANY UPGRADIENT LAND-DISTURBING ACTIVITIES BEGIN AND MUST KEEP THE SEDIMENT CONTROL PRACTICES IN PLACE UNTIL THEY ESTABLISH PERMANENT COVER.
2. IF DOWNGRADE SEDIMENT CONTROLS ARE OVERLOADED, BASED ON FREQUENT FAILURE OR EXCESSIVE MAINTENANCE REQUIREMENTS, PERMITTEES MUST INSTALL ADDITIONAL UPGRADIENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMP'S TO ELIMINATE THE OVERLOADING AND AMEND THE SWPPP TO IDENTIFY THESE ADDITIONAL PRACTICES AS REQUIRED IN ITEM 6.3.

3. TEMPORARY OR PERMANENT DRAINAGE DITCHES AND SEDIMENT BASINS DESIGNED AS PART OF A SEDIMENT CONTAINMENT SYSTEM (E.G., DITCHES WITH ROCK-CHECK DAMS) REQUIRE SEDIMENT CONTROL PRACTICES ONLY AS APPROPRIATE FOR SITE CONDITIONS.
4. A FLOATING SILT CURTAIN PLACED IN THE WATER IS NOT A SEDIMENT CONTROL BMP TO SATISFY ITEM 9.2 EXCEPT WHEN WORKING ON A SHORELINE OR BELOW THE WATERLINE. IMMEDIATELY AFTER THE SHORT-TERM CONSTRUCTION ACTIVITY (E.G., INSTALLATION OF RIP RAP ALONG THE SHORELINE) IN THAT AREA IS COMPLETE, PERMITTEES MUST INSTALL AN UPLAND PERIMETER CONTROL PRACTICE IF EXPOSED SOILS STILL DRAIN TO A SURFACE WATER.
5. PERMITTEES MUST RE-INSTALL ALL SEDIMENT CONTROL PRACTICES ADJUSTED OR REMOVED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES. IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY IS COMPLETED, PERMITTEES MUST RE-INSTALL SEDIMENT CONTROL PRACTICES BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE.
6. PERMITTEES MUST PROTECT ALL STORM DRAIN INLETS USING APPROPRIATE BMP'S DURING CONSTRUCTION UNTIL THEY ESTABLISH PERMANENT COVER ON ALL AREAS WITH POTENTIAL FOR DISCHARGES TO THE INLET.
7. PERMITTEES MAY REMOVE INLET PROTECTION FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN (E.G. STREET FLOODING/FREEZING) IS IDENTIFIED BY THE PERMITTEES OR BY THE JURISDICTIONAL AUTHORITY (E.G., CITY/COUNTY/TOWNSHIP/MINNESOTA DEPARTMENT OF TRANSPORTATION ENGINEER). PERMITTEES MUST DOCUMENT THE NEED FOR REMOVAL IN THE SWPPP.
8. PERMITTEES MUST PROVIDE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS AT THE BASE OF STOCKPILES ON THE DOWNGRADE PERIMETER.
9. PERMITTEES MUST LOCATE STOCKPILES OUTSIDE OF NATURAL BUFFERS OR SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER.
10. PERMITTEES MUST INSTALL A VEHICLE TRACKING BMP TO MINIMIZE THE TRACK OUT OF SEDIMENT FROM THE CONSTRUCTION SITE OR ONTO PAVED ROADS WITHIN THE SITE.
11. PERMITTEES MUST USE STREET SWEEPING IF VEHICLE TRACKING BMP'S ARE NOT ADEQUATE TO PREVENT SEDIMENT TRACKING ONTO THE STREET.
12. PERMITTEES MUST INSTALL TEMPORARY SEDIMENT BASINS AS REQUIRED IN SECTION 14.
13. IN ANY AREAS OF THE SITE WHERE FINAL VEGETATIVE STABILIZATION WILL OCCUR, PERMITTEES MUST RESTRICT VEHICLE AND EQUIPMENT USE TO MINIMIZE SOIL COMPACTION.
14. PERMITTEES MUST PRESERVE TOPSOIL ON THE SITE, UNLESS INFEASIBLE.
15. PERMITTEES MUST DIRECT DISCHARGES FROM BMP'S TO VEGETATED AREAS UNLESS INFEASIBLE.
16. PERMITTEES MUST PRESERVE A 50 FOOT NATURAL BUFFER OR, IF A BUFFER IS INFEASIBLE ON THE SITE, PROVIDE REDUNDANT (DOUBLE) PERIMETER SEDIMENT CONTROLS WHEN A SURFACE WATER IS LOCATED WITHIN 50 FEET OF THE PROJECT'S EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER. PERMITTEES MUST INSTALL PERIMETER SEDIMENT CONTROLS AT LEAST 5 FEET APART UNLESS LIMITED BY LACK OF AVAILABLE SPACE. NATURAL BUFFERS ARE NOT REQUIRED ADJACENT TO ROAD DITCHES, JUDICIAL DITCHES, COUNTY DITCHES, STORMWATER CONVEYANCE CHANNELS, STORM DRAIN INLETS, AND SEDIMENT BASINS. IF PRESERVING THE BUFFER IS INFEASIBLE, PERMITTEES MUST DOCUMENT THE REASONS IN THE SWPPP. SHEET PILING IS A REDUNDANT PERIMETER CONTROL IF INSTALLED IN A MANNER THAT RETAINS ALL STORMWATER.
17. PERMITTEES MUST USE POLYMERS, FLOCCULANTS, OR OTHER SEDIMENTATION TREATMENT CHEMICALS IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES, DOSING SPECIFICATIONS AND SEDIMENT REMOVAL DESIGN SPECIFICATIONS PROVIDED BY THE MANUFACTURER OR SUPPLIER. THE PERMITTEES MUST USE CONVENTIONAL EROSION AND SEDIMENT CONTROLS PRIOR TO CHEMICAL ADDITION AND MUST DIRECT TREATED STORMWATER TO A SEDIMENT CONTROL SYSTEM FOR FILTRATION OR SETTLEMENT OF THE FLOC PRIOR TO DISCHARGE.

### DEWATERING AND BASIN DRAINING (SECTION 10):

1. PERMITTEES MUST DISCHARGE TURBID OR SEDIMENT-LADEN WATERS RELATED TO DEWATERING OR BASIN DRAINING (E.G., PUMPED DISCHARGES, TRENCH/DITCH CUTS FOR DRAINAGE) TO A TEMPORARY OR PERMANENT SEDIMENT BASIN ON THE PROJECT SITE UNLESS INFEASIBLE. PERMITTEES MAY DEWATER TO SURFACE WATERS IF THEY VISUALLY CHECK TO ENSURE ADEQUATE TREATMENT HAS BEEN OBTAINED AND NUISANCE CONDITIONS (SEE MINN. R. 7050.0210, SUBP. 2) WILL NOT RESULT FROM THE DISCHARGE. IF PERMITTEES CANNOT DISCHARGE THE WATER TO A SEDIMENTATION BASIN PRIOR TO ENTERING A SURFACE WATER, PERMITTEES MUST TREAT IT WITH APPROPRIATE BMP'S SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE SURFACE WATER OR DOWNSTREAM PROPERTIES.
2. IF PERMITTEES MUST DISCHARGE WATER CONTAINING OIL OR GREASE, THEY MUST USE AN OIL-WATER SEPARATOR OR SUITABLE FILTRATION DEVICE (E.G., CARTRIDGE FILTERS, ABSORBENTS PADS) PRIOR TO DISCHARGE.
3. PERMITTEES MUST DISCHARGE ALL WATER FROM DEWATERING OR BASIN-DRAINING ACTIVITIES IN A MANNER THAT DOES NOT CAUSE EROSION OR SCOUR IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS OR INUNDATION OF WETLANDS IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS THAT CAUSES SIGNIFICANT ADVERSE IMPACT TO THE WETLAND.
4. IF PERMITTEES USE FILTERS WITH BACKWASH WATER, THEY MUST HAUL THE BACKWASH WATER AWAY FOR DISPOSAL, RETURN THE BACKWASH WATER TO THE BEGINNING OF THE TREATMENT PROCESS, OR INCORPORATE THE BACKWASH WATER INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION.

### INSPECTIONS AND MAINTENANCE (SECTION 11):

1. PERMITTEES MUST ENSURE A TRAINED PERSON, AS IDENTIFIED IN ITEM 21.2.B, WILL INSPECT THE ENTIRE CONSTRUCTION SITE AT LEAST ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 1/2 INCH IN 24 HOURS.
2. PERMITTEES MUST INSPECT AND MAINTAIN ALL PERMANENT STORMWATER TREATMENT BMP'S.
3. PERMITTEES MUST INSPECT ALL EROSION PREVENTION AND SEDIMENT CONTROL BMP'S AND POLLUTION PREVENTION MANAGEMENT MEASURES TO ENSURE INTEGRITY AND EFFECTIVENESS. PERMITTEES MUST REPAIR, REPLACE OR SUPPLEMENT ALL NON-FUNCTIONAL BMP'S WITH FUNCTIONAL BMP'S BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY UNLESS ANOTHER TIME FRAME IS SPECIFIED IN ITEM 11.5 OR 11.6. PERMITTEES MAY TAKE ADDITIONAL TIME IF FIELD CONDITIONS PREVENT ACCESS TO THE AREA.
4. DURING EACH INSPECTION, PERMITTEES MUST INSPECT SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS BUT NOT CURB AND GUTTER SYSTEMS, FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION. PERMITTEES MUST REMOVE ALL DELTAS AND SEDIMENT DEPOSITION IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS AND RESTABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. PERMITTEES MUST COMPLETE REMOVAL AND STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. PERMITTEES MUST USE ALL REASONABLE EFFORTS TO OBTAIN ACCESS, IF PRECLUDED, REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) DAYS OF OBTAINING ACCESS. PERMITTEES ARE RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK IN SURFACE WATERS.
5. PERMITTEES MUST INSPECT CONSTRUCTION SITE VEHICLE EXIT LOCATIONS, STREETS AND CURB AND GUTTER SYSTEMS WITHIN AND ADJACENT TO THE PROJECT FOR SEDIMENTATION FROM EROSION OR TRACKED SEDIMENT FROM VEHICLES. PERMITTEES MUST REMOVE SEDIMENT FROM ALL PAVED SURFACES WITHIN ONE (1) CALENDAR DAY OF DISCOVERY OR, IF APPLICABLE, WITHIN A SHORTER TIME TO AVOID A SAFETY HAZARD TO USERS OF PUBLIC STREETS.
6. PERMITTEES MUST REPAIR, REPLACE OR SUPPLEMENT ALL PERIMETER CONTROL DEVICES WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE HEIGHT OF THE DEVICE.
7. PERMITTEES MUST MAINTAIN TEMPORARY AND PERMANENT SEDIMENTATION BASINS AND REMOVE THE SEDIMENT WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME.
8. PERMITTEES MUST ENSURE THAT AT LEAST ONE INDIVIDUAL PRESENT ON THE SITE (OR AVAILABLE TO THE PROJECT SITE IN THREE (3) CALENDAR DAYS) IS TRAINED IN THE JOB DUTIES DESCRIBED IN ITEM 11.2 AS FOLLOWS:
  - a. INSPECTIONS OF AREAS WITH PERMANENT COVER CAN BE REDUCED TO ONCE PER MONTH, EVEN IF CONSTRUCTION ACTIVITY CONTINUES ON OTHER PORTIONS OF THE SITE, OR
  - b. WHERE SITES HAVE PERMANENT COVER ON ALL EXPOSED SOIL AND NO CONSTRUCTION ACTIVITY IS OCCURRING ANYWHERE ON THE SITE, INSPECTIONS CAN BE REDUCED TO ONCE PER MONTH AND, AFTER 12 MONTHS, MAY BE SUSPENDED COMPLETELY UNTIL CONSTRUCTION ACTIVITY RESUMES. THE MPCA MAY REQUIRE INSPECTIONS TO RESUME IF CONDITIONS WARRANT, OR
  - c. WHERE CONSTRUCTION ACTIVITY HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, INSPECTIONS MAY BE SUSPENDED. INSPECTIONS MUST RESUME WITHIN 24 HOURS OF RUNOFF OCCURRING, OR UPON RESUMING CONSTRUCTION, WHICHEVER COMES FIRST.
10. PERMITTEES MUST RECORD ALL INSPECTIONS AND MAINTENANCE ACTIVITIES WITHIN 24 HOURS OF BEING CONDUCTED AND THESE RECORDS MUST BE RETAINED WITH THE SWPPP. THESE RECORDS MUST INCLUDE:
  - a. DATE AND TIME OF INSPECTIONS; AND
  - b. NAME OF PERSONS CONDUCTING INSPECTIONS; AND
  - c. ACCURATE FINDINGS OF INSPECTIONS, INCLUDING THE SPECIFIC LOCATION WHERE CORRECTIVE ACTIONS ARE NEEDED; AND
  - d. CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES); AND
  - e. DATE OF ALL RAINFALL EVENTS GREATER THAN 1/2 INCHES IN 24 HOURS, AND THE AMOUNT OF RAINFALL FOR EACH EVENT. PERMITTEES MUST OBTAIN RAINFALL AMOUNTS BY EITHER A PROPERLY MAINTAINED RAIN GAUGE INSTALLED ON-SITE, A WEATHER STATION THAT IS WITHIN ONE (1) MILE OF YOUR LOCATION, OR A WEATHER REPORTING SYSTEM THAT PROVIDES SITE SPECIFIC RAINFALL DATA FROM RADAR SUMMARIES; AND
  - f. IF PERMITTEES OBSERVE A DISCHARGE DURING THE INSPECTION, THEY MUST RECORD AND SHOULD PHOTOGRAPH AND DESCRIBE THE LOCATION OF THE DISCHARGE (I.E., COLOR, ODOR, SETTLED OR SUSPENDED SOLIDS, OIL SHEEN, AND OTHER OBVIOUS INDICATORS OF POLLUTANTS); AND
  - g. ANY AMENDMENTS TO THE SWPPP PROPOSED AS A RESULT OF THE INSPECTION MUST BE DOCUMENTED AS REQUIRED IN SECTION 6 WITHIN SEVEN (7) CALENDAR DAYS.

### POLLUTION PREVENTION MANAGEMENT (SECTION 12):

1. PERMITTEES MUST PLACE BUILDING PRODUCTS AND LANDSCAPE MATERIALS UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) OR PROTECT THEM BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER. PERMITTEES ARE NOT REQUIRED TO COVER OR PROTECT PRODUCTS WHICH ARE EITHER NOT A SOURCE OF CONTAMINATION TO STORMWATER OR ARE DESIGNED TO BE EXPOSED TO STORMWATER.
2. PERMITTEES MUST PLACE PESTICIDES, FERTILIZERS AND TREATMENT CHEMICALS UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) OR PROTECT THEM BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER.
3. PERMITTEES MUST STORE HAZARDOUS MATERIALS AND TOXIC WASTE, INCLUDING OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT, SOLVENTS, PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH. 7045 INCLUDING SECONDARY CONTAINMENT AS APPLICABLE.
4. PERMITTEES MUST PROPERLY STORE, COLLECT AND DISPOSE SOLID WASTE IN COMPLIANCE WITH MINN. R. CH. 7035.
5. PERMITTEES MUST POSITION PORTABLE TOILETS SO THEY ARE SECURE AND WILL NOT TIP OR BE KNOCKED OVER. PERMITTEES MUST PROPERLY DISPOSE SANITARY WASTE IN ACCORDANCE WITH MINN. R. CH. 7041.
6. PERMITTEES MUST TAKE REASONABLE STEPS TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS, INCLUDING FUEL, FROM ANY AREA WHERE CHEMICALS OR FUEL WILL BE LOADED OR UNLOADED INCLUDING THE USE OF DRIP PANS OR ABSORBENTS UNLESS INFEASIBLE. PERMITTEES MUST ENSURE ADEQUATE SUPPLIES ARE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS AND THAT AN APPROPRIATE DISPOSAL METHOD IS AVAILABLE FOR RECOVERED SPILLED MATERIALS.
7. PERMITTEES MUST CLEAN AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINN. STAT. 115.081, USING DRY CLEAN UP MEASURES WHERE POSSIBLE.
8. PERMITTEES MUST LIMIT VEHICLE EXTERIOR WASHING AND EQUIPMENT TO A DEFINED AREA OF THE SITE. PERMITTEES MUST

CONTAIN RUNOFF FROM THE WASHING AREA IN A SEDIMENT BASIN OR OTHER SIMILARLY EFFECTIVE CONTROLS AND MUST DISPOSE WASTE FROM THE WASHING ACTIVITY PROPERLY. PERMITTEES MUST PROPERLY USE AND STORE SOAPS, DETERGENTS, OR SOLVENTS.

8. PERMITTEES MUST PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS (E.G., CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS) RELATED TO THE CONSTRUCTION ACTIVITY. PERMITTEES MUST PREVENT LIQUID AND SOLID WASHOUT WASTES FROM CONTACTING THE GROUND AND MUST DESIGN THE CONTAINMENT SO IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR AREAS. PERMITTEES MUST PROPERLY DISPOSE LIQUID AND SOLID WASTES IN COMPLIANCE WITH MPCA RULES. PERMITTEES MUST INSTALL A SIGN INDICATING THE LOCATION OF THE WASHOUT FACILITY.

### PERMIT TERMINATION (SECTION 4 AND SECTION 13):

1. PERMITTEES MUST SUBMIT A NOT WITHIN 30 DAYS AFTER ALL TERMINATION CONDITIONS LISTED IN SECTION 13 ARE COMPLETE.
2. PERMITTEES MUST SUBMIT A NOT WITHIN 30 DAYS AFTER SELLING OR OTHERWISE LEGALLY TRANSFERRING THE ENTIRE SITE, INCLUDING PERMIT RESPONSIBILITY FOR ROADS (E.G., STREET SWEEPING) AND STORMWATER INFRASTRUCTURE FINAL CLEAN OUT, OR TRANSFERRING PORTIONS OF A SITE TO ANOTHER PARTY. THE PERMITTEES' COVERAGE UNDER THIS PERMIT TERMINATES AT MIDNIGHT ON THE SUBMISSION DATE OF THE NOT.
3. PERMITTEES MUST COMPLETE ALL CONSTRUCTION ACTIVITY AND MUST INSTALL PERMANENT COVER OVER ALL AREAS PRIOR TO SUBMITTING THE NOT. VEGETATIVE COVER MUST CONSIST OF A UNIFORM PERENNIAL VEGETATION WITH A DENSITY OF 70 PERCENT OF ITS EXPECTED FINAL GROWTH. VEGETATION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA DICTATES NO VEGETATION, SUCH AS IMPERVIOUS SURFACES OR THE BASE OF A SAND FILTER.
4. PERMITTEES MUST CLEAN THE PERMANENT STORMWATER TREATMENT SYSTEM OF ANY ACCUMULATED SEDIMENT AND MUST ENSURE THE SYSTEM MEETS ALL APPLICABLE REQUIREMENTS IN SECTION 15 THROUGH 19 AND IS OPERATING AS DESIGNED.
5. PERMITTEES MUST REMOVE ALL SEDIMENT FROM CONVEYANCE SYSTEMS PRIOR TO SUBMITTING THE NOT.
6. PERMITTEES MUST REMOVE ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMP'S PRIOR TO SUBMITTING THE NOT. PERMITTEES MAY LEAVE BMP'S DESIGNED TO DECOMPOSE ON-SITE IN PLACE.
7. FOR RESIDENTIAL CONSTRUCTION ONLY, PERMIT COVERAGE TERMINATES ON INDIVIDUAL LOTS IF THE STRUCTURES ARE FINISHED AND TEMPORARY EROSION PREVENTION AND DOWNGRADE PERIMETER CONTROL IS COMPLETE. THE RESIDENCE SELLS TO THE HOMEOWNER, AND THE PERMITTEE DISTRIBUTES THE MPCA'S 'HOMEOWNER FACT SHEET' TO THE HOMEOWNER.
8. FOR CONSTRUCTION PROJECTS ON AGRICULTURAL LAND (E.G., PIPELINES ACROSS CROPLAND), PERMITTEES MUST RETURN THE DISTURBED LAND TO ITS PRECONSTRUCTION AGRICULTURAL USE PRIOR TO SUBMITTING THE NOT.

### SEED NOTES:

ALL SEED MIXES AND APPLICATION SHALL BE IN ACCORDANCE WITH THE MNDOT SEEDING MANUAL.

### GENERAL RECOMMENDATIONS:

THE CONTRACTOR IS RESPONSIBLE TO SALVAGE AND PRESERVE EXISTING TOPSOIL NECESSARY FOR FINAL STABILIZATION AND TO ALSO MINIMIZE COMPACTION IN ALL LANDSCAPE AREAS. IMMEDIATELY BEFORE SEEDING THE SOIL SHALL BE TILLED TO A MINIMUM DEPTH OF 3 INCHES.

### TEMPORARY EROSION CONTROL SEEDING, MULCHING & BLANKET.

#### SEED

- TEMPORARY SEED SHALL BE MNDOT SEED MIX 21-112 (WINTER WHEAT COVER CROP) FOR WINTER AND 21-111 (OATS COVER CROP) FOR SPRING/SUMMER APPLICATIONS. BOTH SEED MIXES SHALL BE APPLIED AT A SEEDING RATE OF 100 LBS/ACRE.

#### MULCH

- IMMEDIATELY AFTER SEEDING, WITHIN 24 HOURS, MNDOT TYPE 1 MULCH SHOULD BE APPLIED TO PROTECT AND ENHANCE SEED GERMINATION. MULCH SHALL BE APPLIED AT 80% COVERAGE (2 TONS PER ACRE OF STRAW MULCH)

#### SLOPES

- 3:1 (HORIZ/VERT.) OR FLATTER MULD SHALL BE COVERED WITH MULCH
- SLOPES STEEPER THAN 3:1 OR DITCH CHANNELS SHALL BE COVERED WITH EROSION CONTROL BLANKET.
- SEE PLAN FOR MORE DETAILED DITCH AND STEEP SLOPE EROSION CONTROL TREATMENTS.

## TRAINING SECTION 21

DESIGN ENGINEER: MATTHEW R. PAVEK P.E.  
TRAINING COURSE: DESIGN OF SWPPP  
TRAINING ENTITY: UNIVERSITY OF MINNESOTA  
INSTRUCTOR: JOHN CHAPMAN  
DATES OF TRAINING COURSE: 5/15/2011 - 5/16/2011  
TOTAL TRAINING HOURS: 12  
RE-CERTIFICATION: 2/27/2020 (8 HOURS), EXP. 5/31/2023

## AREAS AND QUANTITIES:

SITE AREA CALCULATIONS	EXISTING CONDITION	PROPOSED CONDITION
BUILDING COVERAGE	3,846 SF 11.6%	13,617 SF 41.1%
ALL PAVEMENTS	22,561 SF 68.0%	8,212 SF 24.8%
ALL NON-PAVEMENTS	6,753 SF 20.4%	11,331 SF 34.2%
TOTAL SITE AREA	33,160 SF 100.0%	33,160 SF 100.0%

IMPERVIOUS SURFACE		
EXISTING CONDITION	26,407 SF	79.6%
PROPOSED CONDITION	21,829 SF	65.8%
DIFFERENCE (EX. VS PROP.)	-4,578 SF	-13.8%

EROSION CONTROL QUANTITIES	
DISTURBED AREA	35,840 SF
SILT FENCE/BIO-ROLL	=829 LF
EROSION CONTROL BLANKET	0 SF
INLET PROTECTION DEVICES	3 EA

NOTE: QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL DETERMINE FOR THEMSELVES THE EXACT QUANTITIES FOR BIDDING AND CONSTRUCTION.

## SWPPP CONTACT PERSON

### CONTRACTOR:

### SWPPP INSPECTOR TRAINING:

ALL SWPPP INSPECTIONS MUST BE PERFORMED BY A PERSON THAT MEETS THE TRAINING REQUIREMENTS OF THE NPDES CONSTRUCTION SITE PERMIT. TRAINING CREDENTIALS SHALL BE PROVIDED BY THE CONTRACTOR AND KEPT ON SITE WITH THE SWPPP

## PARTY RESPONSIBLE FOR LONG TERM OPERATION AND MAINTENANCE OF PERMANENT STORM WATER MANAGEMENT SYSTEM

PERMANENT STORMWATER MANAGEMENT IS NOT REQUIRED AS PART OF THIS PROJECT TO MEET NPDES PERMIT REQUIREMENTS. THE PROJECT OWNER IS RESPONSIBLE FOR THE LONG TERM OPERATION AND MAINTENANCE OF THE PROPOSED STORMWATER SYSTEM.

## SWPPP ATTACHMENTS (ONLY APPLICABLE IF SITE IS 1 ACRE OR GREATER):

CONTRACTOR SHALL OBTAIN A COPY OF THE FOLLOWING SWPPP ATTACHMENTS WHICH ARE A PART OF THE OVERALL SWPPP PACKAGE:

ATTACHMENT A: CONSTRUCTION SWPPP TEMPLATE - SITE SPECIFIC SWPPP DOCUMENT

ATTACHMENT B: CONSTRUCTION STORMWATER INSPECTION CHECKLIST

ATTACHMENT C: MAINTENANCE PLAN FOR PERMANENT STORM WATER TREATMENT SYSTEMS

ATTACHMENT D: STORMWATER MANAGEMENT REPORT - ON FILE AT THE OFFICE OF PROJECT ENGINEER, AVAILABLE UPON REQUEST.

ATTACHMENT E: GEOTECHNICAL EVALUATION REPORT - ON FILE AT THE OFFICE OF PROJECT ENGINEER, AVAILABLE UPON REQUEST.

## SUPPLEMENTARY SITE SPECIFIC EROSION CONTROL NOTES:

THESE NOTES SUPERCEDE ANY GENERAL SWPPP NOTES.

THIS PROJECT IS LESS THAN 1.0 ACRES SO AN NPDES PERMIT IS NOT REQUIRED AND DOES NOT NEED TO BE SUBMITTED TO THE MPCA. THE CONTRACTOR IS REQUIRED TO FOLLOW THE GUIDELINES IN THE NPDES PERMIT THROUGHOUT CONSTRUCTION.

### PROJECT NARRATIVE:

PROJECT IS A REDEVELOPMENT OF AN EXISTING BUILDING INTO A NEW MEDICAL BUILDING. SITE AND LANDSCAPE IMPROVEMENTS WILL OCCUR.

### NATIVE BUFFER NARRATIVE:

PRESERVING A 50' NATURAL BUFFER AROUND WATER BODIES IS NOT REQUIRED AS PART OF THIS PROJECT BECAUSE WATER BODIES ARE NOT LOCATED ON SITE.

### INFILTRATION NARRATIVE:

INFILTRATION IS NOT REQUIRED AS PART OF THE PROJECT BECAUSE PERMANENT STORM WATER MANAGEMENT IS NOT REQUIRED.

### SOIL CONTAMINATION NARRATIVE:

SOILS ON-SITE HAVE NOT BEEN IDENTIFIED AS CONTAMINATED. AN MPCA SOILS ASSESSMENT WAS COMPLETED AND IT WAS DETERMINED THAT THIS SITE IS APPROPRIATE FOR INFILTRATION.

### SPECIAL TMDL BMP REQUIREMENTS SITE SPECIFIC (IF REQUIRED):

THIS PROJECT IS WITHIN ONE MILE AND DISCHARGES TO BOTH MEDICINE LAKE AND NORTHWOOD LAKE - MEDICINE LAKE AND NORTHWOOD LAKE ARE IDENTIFIED AS IMPAIRED WATER BODIES PER THE MPCA'S 303(D) IMPAIRED WATERS LIST. MEDICINE LAKE AND NORTHWOOD LAKE ARE IMPAIRED FOR NUTRIENT EUTROPHICATION BIOLOGICAL INDICATORS. BECAUSE THESE WATERS ARE LOCATED WITHIN ONE MILE OF THE SITE, BMP'S AS DEFINED IN THE NPDES PERMIT ITEMS 23.9 AND 23.10 APPLY. THESE ARE AS FOLLOWS:

1. DURING CONSTRUCTION:
  - a. STABILIZATION OF ALL EXPOSED SOIL AREAS MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION BUT IN NO CASE COMPLETED LATER THAN SEVEN (7) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
  - b. TEMPORARY SEDIMENT BASIN REQUIREMENTS DESCRIBED IN SECTION 14. MUST BE USED FOR COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH FIVE (5) OR MORE ACRES DISTURBED AT ONE TIME.

### PERMANENT STABILIZATION NOTES SITE SPECIFIC:

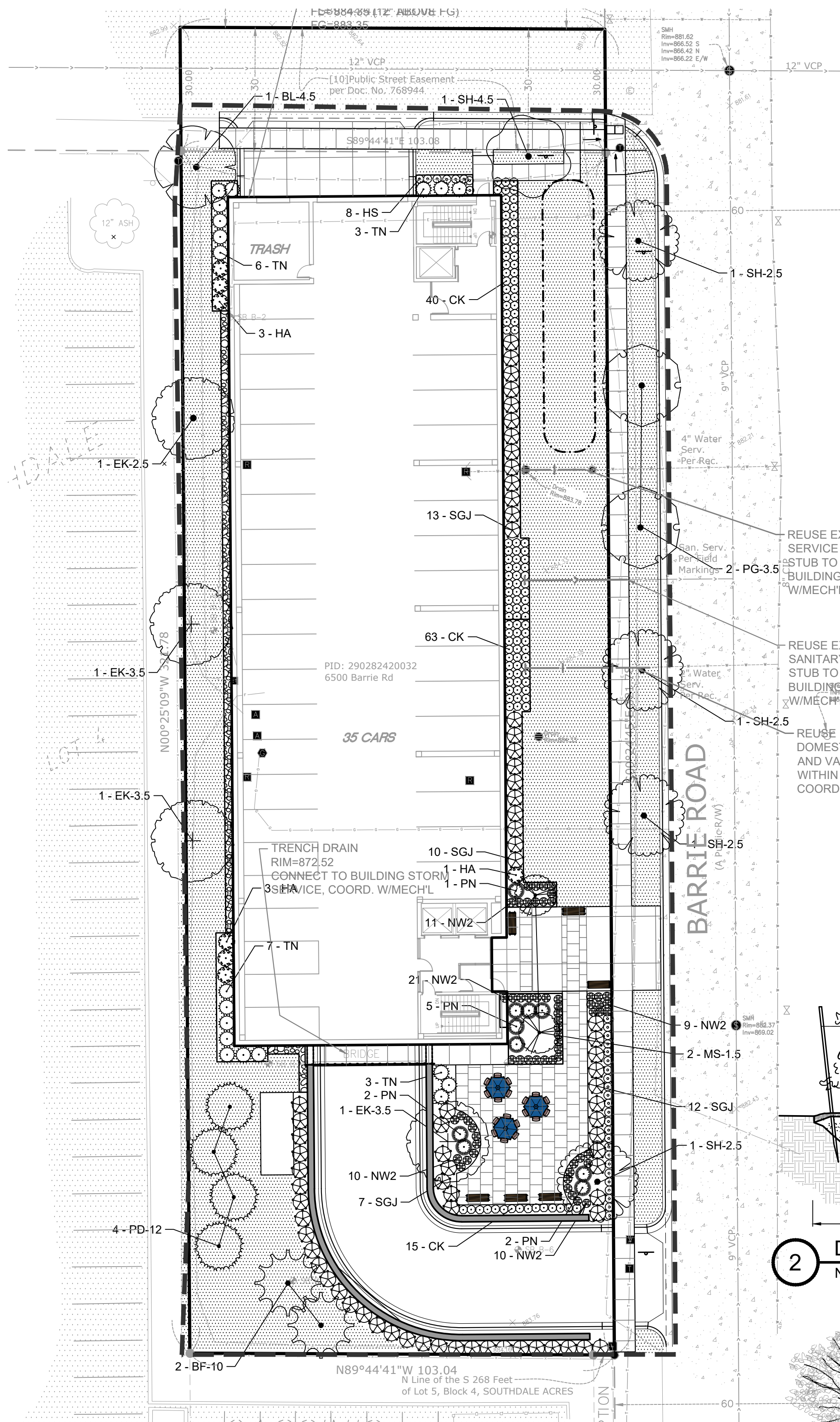
#### PERMANENT SEED MIX

- FOR THIS PROJECT ALL AREAS THAT ARE NOT TO BE SODDED OR LANDSCAPED SHALL RECEIVE A NATIVE PERMANENT SEED MIX.
- AREAS IN BUFFERS AND ADJACENT TO OR IN WET AREAS MNDOT SEED MIX 35-261 (STORMWATER SOUTH AND WEST) AT 35 LBS PER ACRE.
- DRY AREAS MNDOT SEED MIX 35-221 (DRY PRAIRIE GENERAL) AT 40 LBS PER ACRE.
- MAINTENANCE SHALL BE IN ACCORDANCE TO THE MNDOT



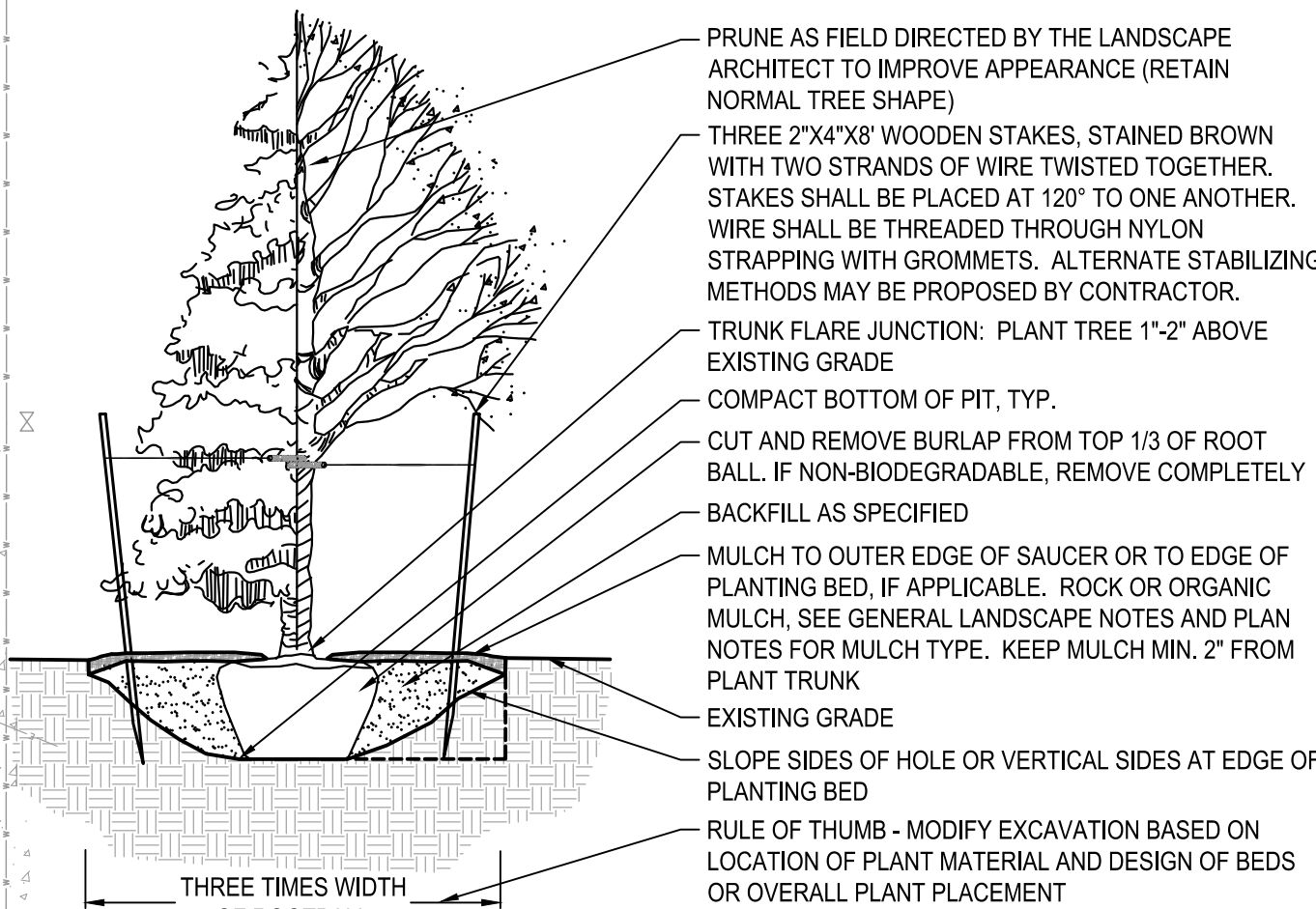




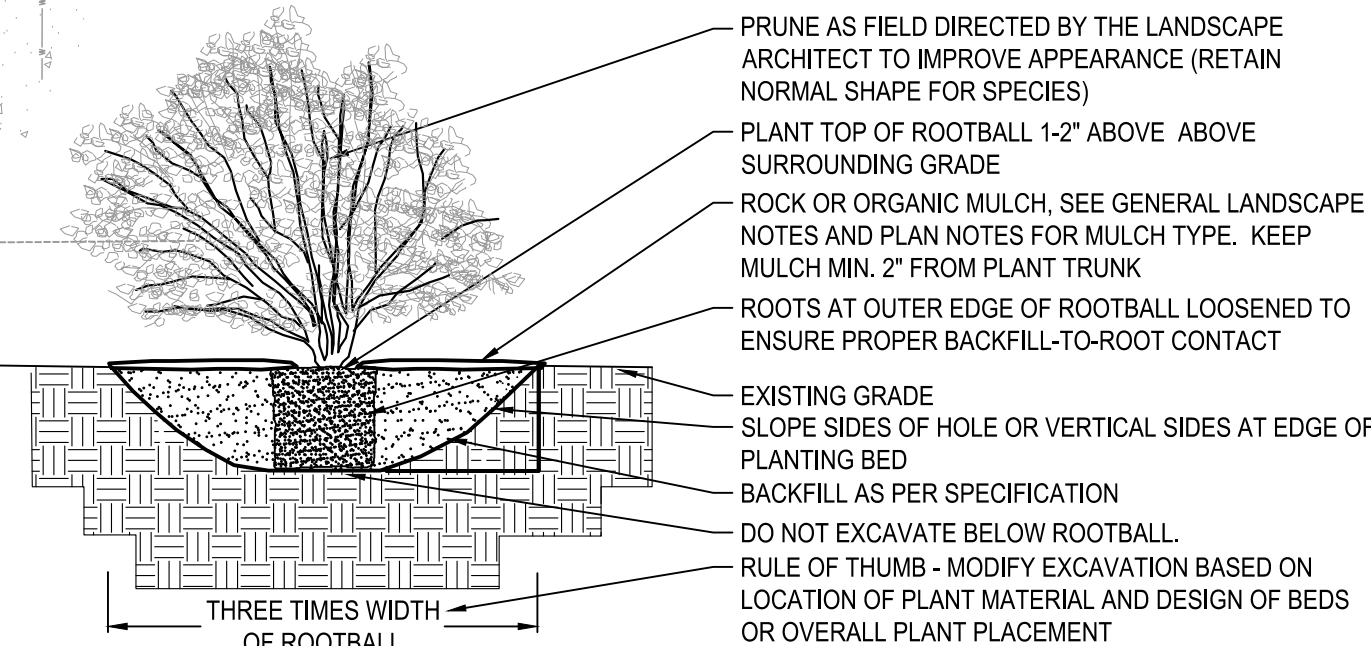


PLANT SCHEDULE

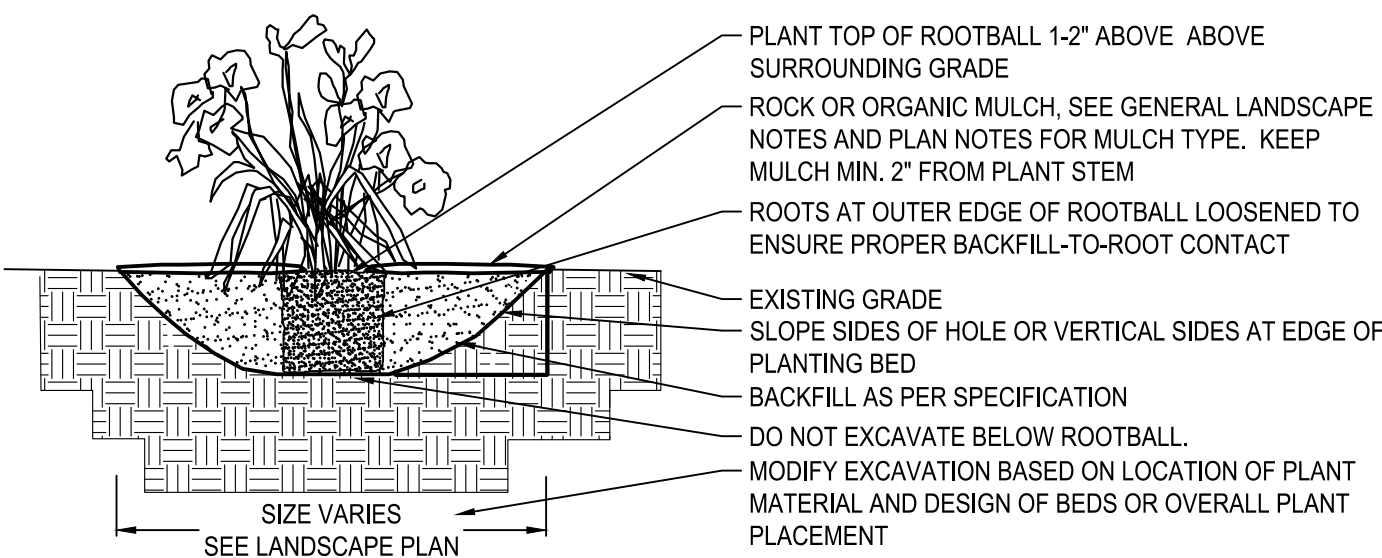
TREES	QTY	COMMON / BOTANICAL NAME	CONT
PG-3.5	2	Princeton Sentry Ginkgo / Ginkgo biloba 'Princeton Sentry'	3.5" CAL. B&B
SH-2.5	4	Skyline Thornless Honey Locust / Gleditsia triacanthos inermis 'Skycole' TM	2.5" Cal. B&B
SH-4.5	1	Skyline Thornless Honey Locust / Gleditsia triacanthos inermis 'Skycole' TM	4.5" CAL. B&B
EK-2.5	1	Espresso Kentucky Coffeetree / Gymnocladus dioica 'Espresso'	2.5" Cal. B&B
EK-3.5	3	Espresso Kentucky Coffeetree / Gymnocladus dioica 'Espresso'	3.5" CAL. B&B
BL-4.5	1	Boulevard Linden / Tilia americana 'Boulevard'	4.5" CAL. B&B
EVERGREEN TREES	QTY	COMMON / BOTANICAL NAME	CONT
BF-10	2	Balsam Fir / Abies balsamea	10' B&B
PD-12	4	Black Hills Spruce / Picea glauca 'Densata'	12' B&B
ORNAMENTAL TREES	QTY	COMMON / BOTANICAL NAME	CONT
MS-1.5	2	Spring Snow Crabapple / Malus x 'Spring Snow'	1.5" Cal. B&B
SHRUBS	QTY	COMMON / BOTANICAL NAME	SIZE
HA	7	Annabelle Hydrangea / Hydrangea arborescens 'Annabelle'	#5 CONT
SGJ	72	Sea Green Juniper / Juniperus chinensis 'Sea Green'	5 gal.
PN	10	Bird's Nest Spruce / Picea abies 'Nidiformis'	#5 CONT
TN	19	Nova Japanese Yew / Taxus cuspidata 'Nova'	#5 CONT
GRASSES	QTY	COMMON / BOTANICAL NAME	SIZE
CK	118	Feather Reed Grass / Calamagrostis x acutiflora 'Karl Foerster'	#1 CONT
PERENNIALS	QTY	COMMON / BOTANICAL NAME	SIZE
HS	32	Stella Supreme Daylily / Hemerocallis x 'Stella Supreme'	#1 CONT
NW2	61	Walkers Low Catmint / Nepeta x faassenii 'Walkers Low'	#1 CONT
GROUND COVERS	QTY	COMMON / BOTANICAL NAME	SIZE
	337 sf	Rock Maintenance Strip / Rock Maintenance Strip	Mulch
	9,795 sf	Blue Grass Based / Sod	Sod



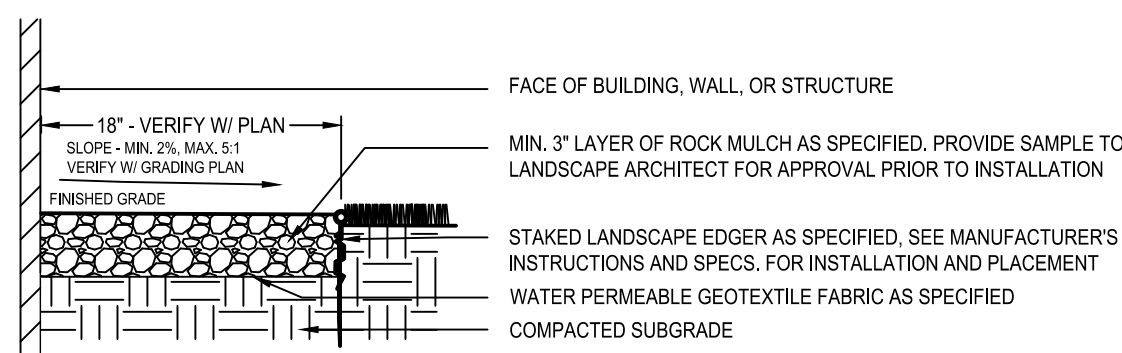
2 DECIDUOUS & CONIFEROUS TREE PLANTING  
N T S



3 DECIDUOUS & CONIFEROUS SHRUB PLANTING  
N T S



4 PERENNIAL BED PLANTING  
N T S



1 AGGREGATE MAINTENANCE STRIP  
N T S

LANDSCAPE NOTES:

- WHERE SHOWN, SHRUB & PERENNIAL BEDS SHALL BE MULCHED WITH 4" DEPTH (MINIMUM AFTER INSTALLATION AND/OR TOP DRESSING OPERATIONS) OF SHREDDED CEDAR MULCH.
- ALL TREES SHALL BE MULCHED WITH SHREDDED CEDAR MULCH TO OUTER EDGE OF SAUCER OR TO EDGE OF PLANTING BED, IF APPLICABLE. ALL MULCH SHALL BE KEPT WITHIN A MINIMUM OF 2" FROM TREE TRUNK.
- IF SHOWN ON PLAN, RANDOM SIZED LIMESTONE BOULDERS COLOR AND SIZE TO COMPLIMENT NEW LANDSCAPING. OWNER TO APPROVE BOULDER SAMPLES PRIOR TO INSTALLATION.
- PLANT MATERIALS SHALL CONFORM WITH THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS AND SHALL BE OF HARDY STOCK, FREE FROM DISEASE, DAMAGE AND DISFIGURATION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PLUMPNESS OF PLANT MATERIAL FOR DURATION OF ACCEPTANCE PERIOD.
- UPON DISCOVERY OF A DISCREPANCY BETWEEN THE QUANTITY OF PLANTS SHOWN ON THE SCHEDULE AND THE QUANTITY SHOWN ON THE PLAN, THE PLAN SHALL GOVERN.
- CONDITION OF VEGETATION SHALL BE MONITORED BY THE LANDSCAPE ARCHITECT THROUGHOUT THE DURATION OF THE CONTRACT. LANDSCAPE MATERIALS PART OF THE CONTRACT SHALL BE WARRANTED FOR ONE (1) FULL GROWING SEASONS FROM SUBSTANTIAL COMPLETION DATE.
- ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL RECEIVE 4" LAYER TOPSOIL AND SOD AS SPECIFIED UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- COORDINATE LOCATION OF VEGETATION WITH UNDERGROUND AND OVERHEAD UTILITIES, LIGHTING FIXTURES, DOORS AND WINDOWS. CONTRACTOR SHALL STAKE IN THE FIELD FINAL LOCATION OF TREES AND SHRUBS FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- ALL PLANT MATERIALS SHALL BE WATERED AND MAINTAINED UNTIL ACCEPTANCE.
- REPAIR AT NO COST TO OWNER ALL DAMAGE RESULTING FROM LANDSCAPE CONTRACTOR'S ACTIVITIES.
- SWEEP AND MAINTAIN ALL PAVED SURFACES FREE OF DEBRIS GENERATED FROM LANDSCAPE CONTRACTOR'S ACTIVITIES.
- REPAIR AT NO COST TO THE OWNER IRRIGATION SYSTEM DAMAGED FROM LANDSCAPE CONSTRUCTION ACTIVITIES.
- PROVIDE SITE WIDE IRRIGATION SYSTEM DESIGN AND INSTALLATION. SYSTEM SHALL BE FULLY PROGRAMMABLE AND CAPABLE OF ALTERNATE DATE WATERING. THE SYSTEM SHALL PROVIDE HEAD TO HEAD OR DRIP COVERAGE AND BE CAPABLE OF DELIVERING ONE INCH OF PRECIPITATION PER WEEK. SYSTEM SHALL EXTEND INTO THE PUBLIC RIGHT-OF-WAY TO THE EDGE OF PAVEMENT/BACK OF CURB.
- CONTRACTOR SHALL SECURE APPROVAL OF PROPOSED IRRIGATION SYSTEM INCLUDING PRICING FROM OWNER, PRIOR TO INSTALLATION.

IRRIGATION NOTES:

- ENTIRE SITE SHALL BE FULLY IRRIGATED, THE CONTRACTOR SHALL SUBMIT IRRIGATION SHOP DRAWINGS FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- SEE MECHANICAL AND ELECTRICAL PLANS AND SPECIFICATIONS FOR IRRIGATION WATER, METER, AND POWER CONNECTIONS.
- CONTRACTOR TO VERIFY LOCATION OF ALL UNDERGROUND/ABOVE GROUND FACILITIES PRIOR TO ANY EXCAVATION/INSTALLATION. ANY DAMAGE TO UNDERGROUND/ABOVE GROUND FACILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND COSTS ASSOCIATED WITH CORRECTING DAMAGES SHALL BE BORNE ENTIRELY BY THE CONTRACTOR.
- SERVICE EQUIPMENT AND INSTALLATION SHALL BE PER LOCAL UTILITY COMPANY STANDARDS AND SHALL BE PER NATIONAL AND LOCAL CODES. EXACT LOCATION OF SERVICE EQUIPMENT SHALL BE COORDINATED WITH THE LANDSCAPE ARCHITECT OR EQUIVALENT AT THE JOB SITE.
- CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANY FOR THE PROPOSED ELECTRICAL SERVICE AND METERING FACILITIES.
- IRRIGATION WATER LINE CONNECTION SIZE IS 1-1/2" AT BUILDING. VERIFY WITH MECHANICAL PLANS/COVAGE.
- ALL MAIN LINES SHALL BE 18" BELOW FINISHED GRADE.
- ALL LATERAL LINES SHALL BE 12" BELOW FINISHED GRADE.
- ALL EXPOSED PVC RISERS, IF ANY, SHALL BE GRAY IN COLOR.
- CONTRACTOR SHALL LAY ALL SLEEVES AND CONDUIT AT 2'-0" BELOW THE FINISHED GRADE OF THE TOP OF PAVEMENT, EXTEND SLEEVES TO 2'-0" BEYOND PAVEMENT.
- CONTRACTOR SHALL MARK THE LOCATION OF ALL SLEEVES AND CONDUIT WITH THE SLEEVING MATERIAL "ELED" TO 2'-0" ABOVE FINISHED GRADE AND CAPPED.
- FABRICATE ALL PIPE TO MANUFACTURE'S SPECIFICATIONS WITH CLEAN AND SQUARE CUT JOINTS. USE QUALITY GRADE PRIMER AND SOLVENT CEMENT FORMULATED FOR INTENDED TYPE OF CONNECTION.
- BACKFILL ALL TRENCHES WITH SOIL FREE OF SHARP OBJECTS AND DEBRIS.
- ALL VALVE BOXES AND COVERS SHALL BE BLACK IN COLOR.
- GROUP VALVE BOXES TOGETHER FOR EASE WHEN SERVICE IS REQUIRED. LOCATE IN PLANT BED AREAS WHENEVER POSSIBLE.
- IRRIGATION CONTROLLER LOCATION SHALL BE VERIFIED ON-SITE WITH OWNER'S REPRESENTATIVE.
- CONTROL WIRES: 14 GAUGE DIRECT BURIAL, SOLID COPPER IRRIGATION WIRE. RUN UNDER MAIN LINE. USE MOISTURE-PROOF SPLICES AND SPLICE ONLY AT VALVES OR PULL BOXES. RUN SEPARATE HOT AND COMMON WIRE TO EACH VALVE AND ONE (1) SPARE WIRE AND GROUND TO FURTHEST VALVE FROM CONTROLLER. LABEL OR COLOR CODE ALL WIRES.
- AVOID OVER SPRAY ON BUILDINGS, PAVEMENT, WALLS AND ROADWAYS BY INDIVIDUALLY ADJUSTING RADIUS OR ARC ON SPRINKLER HEADS AND FLOW CONTROL ON AUTOMATIC VALVE.
- ADJUST PRESSURE REGULATING VALVES FOR OPTIMUM PRESSURE ON SITE.
- USE SCREENS ON ALL HEADS.
- A SET OF AS-BUILT DRAWINGS SHALL BE MAINTAINED ON-SITE AT ALL TIMES IN AN UPDATED CONDITION.
- ALL PIPE 3" AND OVER SHALL HAVE THRUST BLOCKING AT EACH TURN.
- ALL AUTOMATIC REMOTE CONTROL VALVES WILL HAVE 3" MINIMUM DEPTH OF 3/4" WASHED GRAVEL UNDERNEATH VALVE AND VALVE BOX. GRAVEL SHALL EXTEND 3' BEYOND PERIMETER OF VALVE BOX.
- THERE SHALL BE 3" MINIMUM SPACE BETWEEN BOTTOM OF VALVE BOX COVER AND TOP OF VALVE STRUCTURE.

POLLINATOR SAFE PLANT MATERIAL:

- THE CONTRACTOR SHALL PROVIDE ONLY PLANT MATERIAL FREE OF NEONICOTINOID BASED INSECTICIDES AND/OR TREATMENTS OF ANY KIND, INCLUDING BUT NOT LIMITED TO IMIDACLOPRID (CONFIDOR, ADMIRE, GAUCHO, ADVOCATE), THIAMETHOXAM (ACTARA, PLATINUM, CRUISER), CLOTHIANIDIN (PONCHO, DANTOSO, DANTOP), ACETAMIPRID (MOSPIRAN, ASSAIL, CHIPCOTRISTAR), THIAMICLOPRID (CALYPSO), DINOTEFURAN (STARKLE, SAFARI, VENOM), AND NITENPYRAN (CAPSTAR, GUARDIAN).
- CONTRACTOR SHALL CERTIFY, THROUGH SUPPLIERS POLICY STATEMENT OR AFFIDAVIT, THAT NO NEONICOTINOID BASED INSECTICIDES HAVE BEEN USED ON SITE OR DIRECTLY ADJACENT TO THE GROWING OR STORAGE PLOTS OF THE SUPPLIED PLANT MATERIAL, INCLUDING THE PLANTING OF AGRICULTURAL (OR OTHER) SEED TREATED WITH NEONICS..

LANDSCAPE CALCULATIONS:

REQUIRED LANDSCAPE TREES <sup>1</sup>			
LOT PERIMETER	REQUIRED TREES (DIVIDE BY 40)	PRESERVED TREES	TOTAL
790	20	1	19

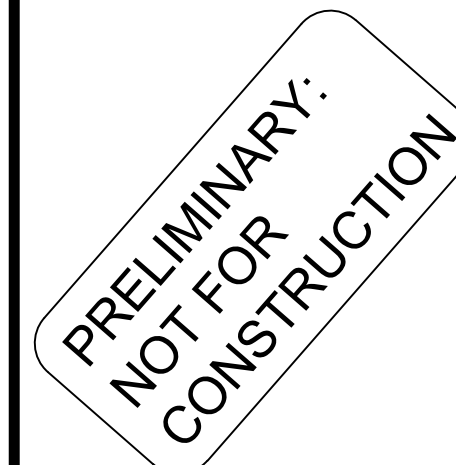
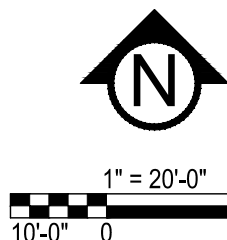
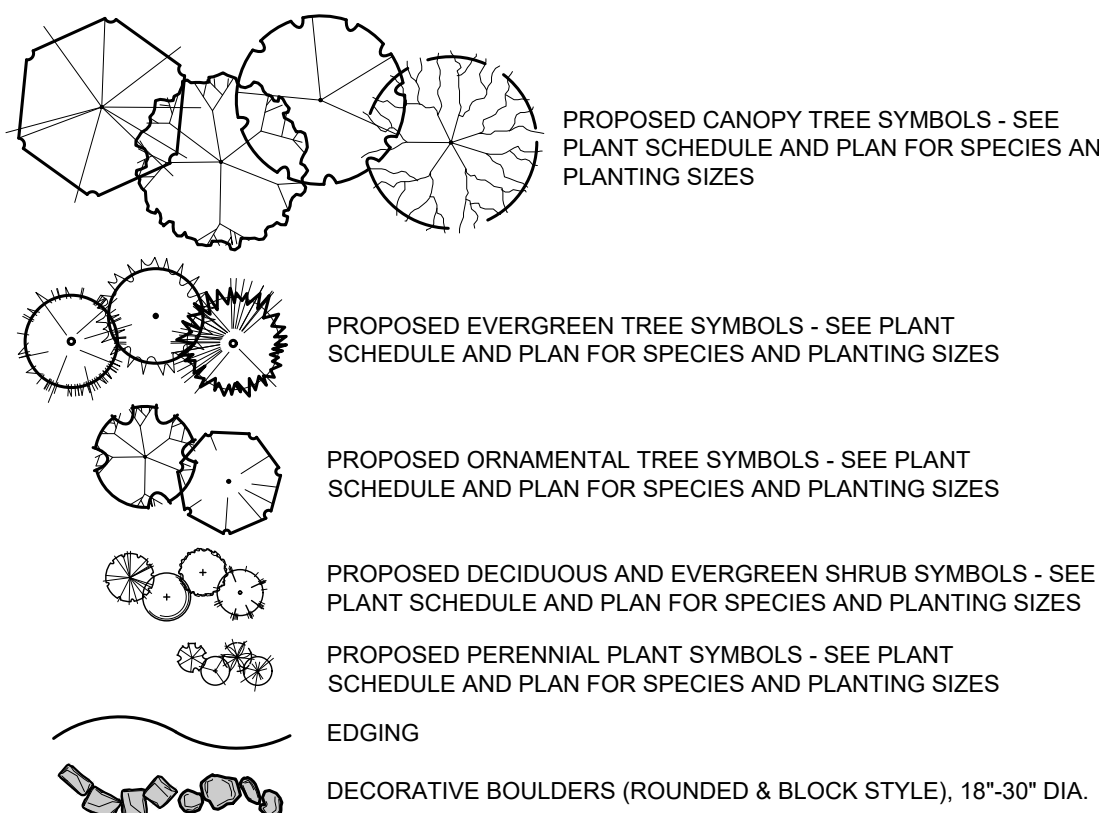
TREE CATEGORY	Deciduous (CAL. IN.)	Coniferous (HEIGHT IN FEET)	Front Building Height		NUMBER OF REQUIRED TREES PER CATEGORY
			Less than 24'	24' or Greater	
Ornamental	2 or less	5 or less	5%	10%	2
Complimentary	2 1/4 or greater	6 or greater	60%	25%	5
Accent	3 1/4 or greater	8 or greater	20%	25%	5
Primary	4 1/4 or greater	10 or greater	10%	20%	4
Full	5 1/4 or greater	12 or greater	5%	20%	4
TOTAL <sup>1</sup>					20

- <sup>1</sup> Sec. 36-1438. - Minimum requirements.  
All open areas of a lot which are not used and improved for required parking areas, drives or storage shall be landscaped with a combination of overstory trees, understory trees, shrubs, flowers and ground cover materials.  
(1) Minimum number of overstory trees. The number of overstory trees on the lot or tract shall be not less than the perimeter of the lot or tract as measured in feet divided by 40.  
(2) Understory trees and shrubs. In addition to the required number of overstory trees, a full complement of understory trees and shrubs shall be provided to complete a quality landscape treatment of the site.

- <sup>2</sup> Minimum for ornamental category on buildings 24' or greater is actually 5%. 10% shown as target and to allow category break down to match proposed trees calculation. See plant schedule for actual numbers of trees in each tree category proposed.

- <sup>3</sup> Per City, tree category requirement shall be rounded up to a full tree if a partial is calculated, therefore, this total may exceed the raw tree requirement as calculated in the "Required Landscape Trees" formula (site perimeter / 40).

LEGEND



BHATTI GI MEDICAL

6500 BARRIE ROAD, EDINA, MN 55435

TERRAIN HOLDINGS LLC.

915 CASCADE DRIVE, CHASKA, MN 55318

PROJECT

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

Robert L. Binder  
DATE 08/20/21 LICENSE NO. 25821

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
08/20/21	CITY SUBMITTAL

DRAWN BY: MW, RB, PS REVIEWED BY: JD, PS  
PROJECT NUMBER: 21004

REVISION SUMMARY

DATE	DESCRIPTION

LANDSCAPE PLAN

L1.0













**TERRAIN HOLDINGS LLC.**

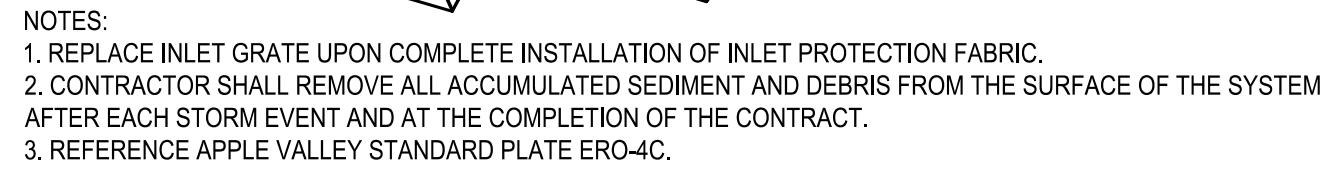
I HEREBY CERTIFY THAT THIS PLAN,  
SPECIFICATION, OR REPORT WAS  
PREPARED BY ME OR UNDER MY DIRECT  
SUPERVISION AND THAT I AM A DULY  
LICENSED LANDSCAPE ARCHITECT UNDER  
THE LAWS OF THE STATE OF MINNESOTA.

ISSUE/SUBMITTAL SUMMARY

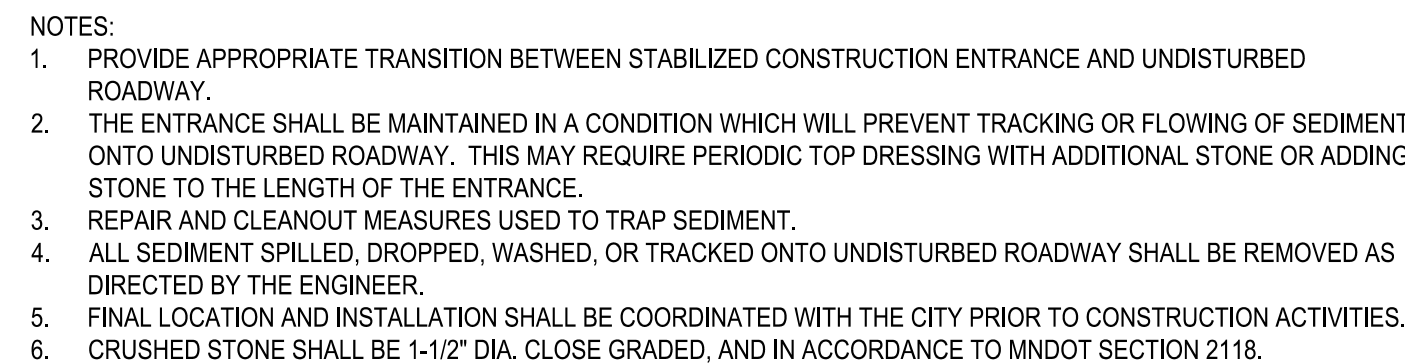
DRAWN BY: MW, RB, PS    REVIEWED BY: JD, PS  
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SWPPP - DETAILS

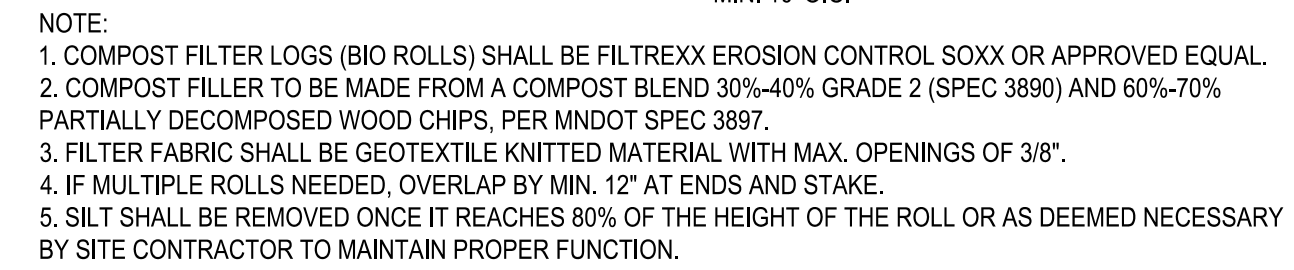
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## NTS



## NTS



## NTS





THE CONTRACTOR AND ALL SUBCONTRACTORS INVOLVED WITH A CONSTRUCTION ACTIVITY THAT DISTURBS SITE SOIL OR WHO IMPLEMENT A POLLUTANT CONTROL MEASURE IDENTIFIED IN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MUST COMPLY WITH THE REQUIREMENTS OF THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT (DATED AUGUST 1, 2018 #MNR10001) AND ANY LOCAL GOVERNING AGENCY HAVING JURISDICTION CONCERNING EROSION AND SEDIMENTATION CONTROL.

## STORMWATER DISCHARGE DESIGN REQUIREMENTS

### SWPPP

THE NATURE OF THIS PROJECT WILL BE CONSISTENT WITH WHAT IS REPRESENTED IN THIS SET OF CONSTRUCTION PLANS AND SPECIFICATIONS. SEE THE SWPPP PLAN SHEETS AND SWPPP NARRATIVE (ATTACHMENT A: CONSTRUCTION SWPPP TEMPLATE) FOR ADDITIONAL SITE SPECIFIC SWPPP INFORMATION, THE PLANS SHOW LOCATIONS AND TYPES OF ALL TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL BMP'S. STANDARD DETAILS ARE ATTACHED TO THIS SWPPP DOCUMENT.

THE INTENDED SEQUENCING OF MAJOR CONSTRUCTION ACTIVITIES IS AS FOLLOWS:

1. INSTALL STABILIZED ROCK CONSTRUCTION ENTRANCE
2. INSTALLATION OF SILT FENCE AROUND SITE
3. INSTALL ORANGE CONSTRUCTION FENCING AROUND INFILTRATION AREAS
4. INSTALL INLET PROTECTION AT ALL ADJACENT AND DOWNSTREAM CATCH BASINS
5. CLEAR AND GRUB FOR TEMPORARY SEDIMENT BASIN / POND INSTALL
6. CONSTRUCT TEMPORARY SEDIMENT BASIN / POND (SECTION 14)
7. CLEAR AND GRUB REMAINDER OF SITE
8. STRIP AND STOCKPILE TOPSOIL
9. ROUGH GRADING OF SITE
10. STABILIZE DENUDED AREAS AND STOCKPILES
11. INSTALL SANITARY SEWER, WATER MAIN STORM SEWER AND SERVICES
12. INSTALL SILT FENCE / INLET PROTECTION AROUND CBS
13. INSTALL STREET SECTION
14. INSTALL CURB AND GUTTER
15. BITUMINOUS ON STREETS
16. FINAL GRADE BOULEVARD, INSTALL SEED AND MULCH
17. REMOVE ACCUMULATED SEDIMENT FROM BASIN / POND
18. FINAL GRADE POND / INFILTRATION BASINS (DO NOT COMPACT SOLS IN INFILTRATION AREAS.)
19. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED BY EITHER SEED OR SOD/LANDSCAPING, REMOVE SILT FENCE AND RESEED ANY AREAS DISTURBED BY THE REMOVAL.

### RECORDS RETENTION:

THE SWPPP (ORIGINAL OR COPIES) INCLUDING, ALL CHANGES TO IT, AND INSPECTIONS AND MAINTENANCE RECORDS MUST BE KEPT AT THE SITE DURING CONSTRUCTION BY THE PERMITTEE WHO HAS OPERATIONAL CONTROL OF THAT PORTION OF THE SITE. THE SWPPP CAN BE KEPT IN EITHER THE FIELD OFFICE OR IN AN ON SITE VEHICLE DURING NORMAL WORKING HOURS.

ALL OWNER(S) MUST KEEP THE SWPPP, ALONG WITH THE FOLLOWING ADDITIONAL RECORDS, ON FILE FOR THREE (3) YEARS AFTER SUBMITTAL OF THE NOT AS OUTLINED IN SECTION 4. THIS DOES NOT INCLUDE ANY RECORDS AFTER SUBMITTAL OF THE NOT.

1. THE FINAL SWPPP.
2. ANY OTHER STORMWATER RELATED PERMITS REQUIRED FOR THE PROJECT.
3. RECORDS OF ALL INSPECTION AND MAINTENANCE CONDUCTED DURING CONSTRUCTION (SEE SECTION 11, INSPECTIONS AND MAINTENANCE).
4. ALL PERMIT OPERATION AND MAINTENANCE AGREEMENTS THAT HAVE BEEN IMPLEMENTED, INCLUDING ALL RIGHT OF WAY, CONTRACTS, COVENANTS AND OTHER BINDING REQUIREMENTS REGARDING PERPETUAL MAINTENANCE, AND
5. ALL REQUIRED CALCULATIONS FOR DESIGN OF THE TEMPORARY AND PERMANENT STORMWATER MANAGEMENT SYSTEMS.

### SWPPP IMPLEMENTATION RESPONSIBILITIES:

1. THE OWNER AND CONTRACTOR ARE PERMITTEE(S) AS IDENTIFIED BY THE NPDES PERMIT.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE IMPLEMENTATION OF THE SWPPP, INCLUDING THE ACTIVITIES OF ALL OF THE CONTRACTOR'S SUBCONTRACTORS.
3. CONTRACTOR SHALL PROVIDE A PERSON(S) KNOWN/GEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMP'S TO OVERSEE ALL INSTALLATION AND MAINTENANCE OF BMP'S AND IMPLEMENTATION OF THE SWPPP.
4. CONTRACTOR SHALL PROVIDE PERSON(S) MEETING THE TRAINING REQUIREMENTS OF THE NPDES PERMIT TO CONDUCT INSPECTION AND MAINTENANCE OF ALL EROSION PREVENTION AND SEDIMENT CONTROL BMP'S IN ACCORDANCE WITH THE REQUIREMENTS OF THE PERMIT. ONE OF THESE INDIVIDUAL(S) MUST BE AVAILABLE FOR AN ON-SITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY MPCA. CONTRACTOR SHALL PROVIDE TRAINING DOCUMENTATION FOR THESE INDIVIDUAL(S) AS REQUIRED BY THE NPDES PERMIT. THIS TRAINING DOCUMENTATION SHALL BE RECORDED IN OR WITH THE SWPPP BEFORE THE START OF CONSTRUCTION OR AS SOON AS THE PERSONNEL FOR THE PROJECT HAVE BEEN DETERMINED. DOCUMENTATION SHALL INCLUDE:
  - 4.1. NAMES OF THE PERSONNEL ASSOCIATED WITH THE PROJECT THAT ARE REQUIRED TO BE TRAINED PER SECTION 21 OF THE PERMIT.
  - 4.2. DATES OF TRAINING AND NAME OF INSTRUCTOR AND ENTITY PROVIDING TRAINING.
  - 4.3. CONTENT OF TRAINING COURSE OR WORKSHOP INCLUDING THE NUMBER OF HOURS OF TRAINING.
5. FOLLOWING FINAL STABILIZATION AND THE TERMINATION OF COVERAGE FOR THE NPDES PERMIT, THE OWNER IS EXPECTED TO FURNISH LONG TERM OPERATION AND MAINTENANCE (O & M) OF THE PERMANENT STORM WATER MANAGEMENT SYSTEM.

## CONSTRUCTION ACTIVITY REQUIREMENTS

### SWPPP AMENDMENTS (SECTION 6):

1. ONE OF THE INDIVIDUALS DESCRIBED IN ITEM 21.2.A OR ITEM 21.2.B OR ANOTHER QUALIFIED INDIVIDUAL MUST COMPLETE ALL SWPPP CHANGES. CHANGES INVOLVING THE USE OF A LESS STRINGENT BMP MUST INCLUDE A JUSTIFICATION DESCRIBING HOW THE REPLACEMENT BMP IS EFFECTIVE FOR THE SITE CHARACTERISTICS.
2. PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMP'S AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS HAVING A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER.
3. PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMP'S AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER INSPECTIONS OR INVESTIGATIONS BY THE SITE OWNER OR OPERATOR, USEPA OR MPCA OFFICIALS INDICATE THE SWPPP IS NOT EFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING THE DISCHARGE OF POLLUTANTS TO SURFACE WATER OR GROUNDWATER OR THE DISCHARGES ARE CAUSING WATER QUALITY STANDARD EXCEEDANCES (E.G., NUISANCE CONDITIONS AS DEFINED IN MINN. R. 7050.0210, SUBP. 2) OR THE SWPPP IS NOT CONSISTENT WITH THE OBJECTIVES OF A USEPA APPROVED TMDL.

### BMP SELECTION AND INSTALLATION (SECTION 7):

1. PERMITTEES MUST SELECT, INSTALL, AND MAINTAIN THE BMP'S IDENTIFIED IN THE SWPPP AND IN THIS PERMIT IN AN APPROPRIATE AND FUNCTIONAL MANNER AND IN ACCORDANCE WITH RELEVANT MANUFACTURER SPECIFICATIONS AND ACCEPTED ENGINEERING PRACTICES.

### EROSION PREVENTION (SECTION 8):

1. BEFORE WORK BEGINS, PERMITTEES MUST DELINEATE THE LOCATION OF AREAS NOT TO BE DISTURBED.
2. PERMITTEES MUST MINIMIZE THE NEED FOR DISTURBANCE OF PORTIONS OF THE PROJECT WITH STEEP SLOPES. WHEN STEEP SLOPES MUST BE DISTURBED, PERMITTEES MUST USE TECHNIQUES SUCH AS PHASING AND STABILIZATION PRACTICES DESIGNED FOR STEEP SLOPES (E.G., SLOPE DRAINING AND TERRACING).
3. PERMITTEES MUST STABILIZE ALL EXPOSED SOIL AREAS, INCLUDING STOCKPILES. STABILIZATION MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION WHEN CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. STABILIZATION MUST BE COMPLETED NO LATER THAN 14 CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY HAS CEASED. STABILIZATION IS NOT REQUIRED ON CONSTRUCTED BASE COMPONENTS OF ROADS, PARKING LOTS AND SIMILAR SURFACES. STABILIZATION IS NOT REQUIRED ON TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY OR ORGANIC COMPONENTS (E.G., CLEAN AGGREGATE STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) BUT PERMITTEES MUST PROVIDE SEDIMENT CONTROLS AT THE BASE OF THE STOCKPILE.
4. FOR PUBLIC WATERS THAT THE MINNESOTA DNR HAS PROMULGATED 'WORK IN WATER RESTRICTIONS' DURING SPECIFIED FISH SPAWNING TIME FRAMES, PERMITTEES MUST COMPLETE STABILIZATION OF ALL EXPOSED SOIL AREAS WITHIN 200 FEET OF THE WATERS EDGE, AND THAT DRAIN TO THESE WATERS, WITHIN 24 HOURS DURING THE RESTRICTION PERIOD.
5. PERMITTEES MUST STABILIZE THE NORMAL WETTED PERIMETER OF THE LAST 200 LINEAR FEET OF TEMPORARY OR PERMANENT DRAINAGE DITCHES OR SWALES THAT DRAIN WATER FROM THE SITE WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE. PERMITTEES MUST COMPLETE STABILIZATION OF REMAINING PORTIONS OF TEMPORARY OR PERMANENT DITCHES OR SWALES WITHIN 14 CALENDAR DAYS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE AND CONSTRUCTION IN THAT PORTION OF THE DITCH TEMPORARILY OR PERMANENTLY CEASES.
6. TEMPORARY OR PERMANENT DITCHES OR SWALES BEING USED AS A SEDIMENT CONTAINMENT SYSTEM DURING CONSTRUCTION (WITH PROPERLY DESIGNED ROCK-DITCH CHECKS, BIO ROLLS, SILT DIKES, ETC.) DO NOT NEED TO BE STABILIZED. PERMITTEES MUST STABILIZE THESE AREAS WITHIN 24 HOURS AFTER THEIR USE AS A SEDIMENT CONTAINMENT SYSTEM CEASES.
7. PERMITTEES MUST NOT USE MULCH, HYDROMULCH, TACKIFIER, POLYACRYLAMIDE OR SIMILAR EROSION PREVENTION PRACTICES WITHIN ANY PORTION OF THE NORMAL WETTED PERIMETER OF A TEMPORARY OR PERMANENT DRAINAGE DITCH OR SWALE SECTION WITH A CONTINUOUS SLOPE OF GREATER THAN 2 PERCENT.
8. PERMITTEES MUST PROVIDE TEMPORARY OR PERMANENT ENERGY DISSIPATION AT ALL PIPE OUTLETS WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER OR PERMANENT STORMWATER TREATMENT SYSTEM.
9. PERMITTEES MUST NOT DISTURB MORE LAND (I.E., PHASING) THAN CAN BE EFFECTIVELY INSPECTED AND MAINTAINED IN ACCORDANCE WITH SECTION 11.

### SEDIMENT CONTROL (SECTION 9):

1. PERMITTEES MUST ESTABLISH SEDIMENT CONTROL BMP'S ON ALL DOWNGRADE PERIMETERS OF THE SITE AND DOWNGRADE AREAS OF THE SITE THAT DRAIN TO ANY SURFACE WATER, INCLUDING CURB AND GUTTER SYSTEMS. PERMITTEES MUST LOCATE SEDIMENT CONTROL PRACTICES UPGRADIENT OF ANY BUFFER ZONES. PERMITTEES MUST INSTALL SEDIMENT CONTROL PRACTICES BEFORE ANY UPGRADIENT LAND-DISTURBING ACTIVITIES BEGIN AND MUST KEEP THE SEDIMENT CONTROL PRACTICES IN PLACE UNTIL THEY ESTABLISH PERMANENT COVER.
2. IF DOWNGRADE SEDIMENT CONTROLS ARE OVERLOADED, BASED ON FREQUENT FAILURE OR EXCESSIVE MAINTENANCE REQUIREMENTS, PERMITTEES MUST INSTALL ADDITIONAL UPGRADIENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMP'S TO ELIMINATE THE OVERLOADING AND AMEND THE SWPPP TO IDENTIFY THESE ADDITIONAL PRACTICES AS REQUIRED IN ITEM 6.3.

3. TEMPORARY OR PERMANENT DRAINAGE DITCHES AND SEDIMENT BASINS DESIGNED AS PART OF A SEDIMENT CONTAINMENT SYSTEM (E.G., DITCHES WITH ROCK-CHECK DAMS) REQUIRE SEDIMENT CONTROL PRACTICES ONLY AS APPROPRIATE FOR SITE CONDITIONS.
4. A FLOATING SILT CURTAIN PLACED IN THE WATER IS NOT A SEDIMENT CONTROL BMP TO SATISFY ITEM 9.2 EXCEPT WHEN WORKING ON A SHORELINE OR BELOW THE WATERLINE. IMMEDIATELY AFTER THE SHORT TERM CONSTRUCTION ACTIVITY (E.G., INSTALLATION OF RIP RAP ALONG THE SHORELINE) IN THAT AREA IS COMPLETE, PERMITTEES MUST INSTALL AN UPLAND PERIMETER CONTROL PRACTICE IF EXPOSED SOILS STILL DRAIN TO A SURFACE WATER.
5. PERMITTEES MUST RE-INSTALL ALL SEDIMENT CONTROL PRACTICES ADJUSTED OR REMOVED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES. IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY IS COMPLETED, PERMITTEES MUST RE-INSTALL SEDIMENT CONTROL PRACTICES BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE.
6. PERMITTEES MUST PROTECT ALL STORM DRAIN INLETS USING APPROPRIATE BMP'S DURING CONSTRUCTION UNTIL THEY ESTABLISH PERMANENT COVER ON ALL AREAS WITH POTENTIAL FOR DISCHARGES TO THE INLET.
7. PERMITTEES MAY REMOVE INLET PROTECTION FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN (E.G. STREET FLOODING/FREEZING) IS IDENTIFIED BY THE PERMITTEES OR BY THE JURISDICTIONAL AUTHORITY (E.G., CITY/COUNTY/TOWNSHIP/MINNESOTA DEPARTMENT OF TRANSPORTATION ENGINEER). PERMITTEES MUST DOCUMENT THE NEED FOR REMOVAL IN THE SWPPP.
8. PERMITTEES MUST PROVIDE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS AT THE BASE OF STOCKPILES ON THE DOWNGRADE PERIMETER.
9. PERMITTEES MUST LOCATE STOCKPILES OUTSIDE OF NATURAL BUFFERS OR SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER.
10. PERMITTEES MUST INSTALL A VEHICLE TRACKING BMP TO MINIMIZE THE TRACK OUT OF SEDIMENT FROM THE CONSTRUCTION SITE OR ONTO PAVED ROADS WITHIN THE SITE.
11. PERMITTEES MUST USE STREET SWEEPING IF VEHICLE TRACKING BMP'S ARE NOT ADEQUATE TO PREVENT SEDIMENT TRACKING ONTO THE STREET.
12. PERMITTEES MUST INSTALL TEMPORARY SEDIMENT BASINS AS REQUIRED IN SECTION 14.
13. IN ANY AREAS OF THE SITE WHERE FINAL VEGETATIVE STABILIZATION WILL OCCUR, PERMITTEES MUST RESTRICT VEHICLE AND EQUIPMENT USE TO MINIMIZE SOIL COMPACTION.
14. PERMITTEES MUST PRESERVE TOPSOIL ON THE SITE, UNLESS INFEASIBLE.
15. PERMITTEES MUST DIRECT DISCHARGES FROM BMP'S TO VEGETATED AREAS UNLESS INFEASIBLE.
16. PERMITTEES MUST PRESERVE A 50 FOOT NATURAL BUFFER OR, IF A BUFFER IS INFEASIBLE ON THE SITE, PROVIDE REDUNDANT (DOUBLE) PERIMETER SEDIMENT CONTROLS WHEN A SURFACE WATER IS LOCATED WITHIN 50 FEET OF THE PROJECT'S EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER. PERMITTEES MUST INSTALL PERIMETER SEDIMENT CONTROLS AT LEAST 5 FEET APART UNLESS LIMITED BY LACK OF AVAILABLE SPACE. NATURAL BUFFERS ARE NOT REQUIRED ADJACENT TO ROAD DITCHES, JUDICIAL DITCHES, COUNTY DITCHES, STORMWATER CONVEYANCE CHANNELS, STORM DRAIN INLETS, AND SEDIMENT BASINS. IF PRESERVING THE BUFFER IS INFEASIBLE, PERMITTEES MUST DOCUMENT THE REASONS IN THE SWPPP. SHEET PILING IS A REDUNDANT PERIMETER CONTROL IF INSTALLED IN A MANNER THAT RETAINS ALL STORMWATER.
17. PERMITTEES MUST USE POLYMERS, FLOCCULANTS, OR OTHER SEDIMENTATION TREATMENT CHEMICALS IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES, DOSING SPECIFICATIONS AND SEDIMENT REMOVAL DESIGN SPECIFICATIONS PROVIDED BY THE MANUFACTURER OR SUPPLIER. THE PERMITTEES MUST USE CONVENTIONAL EROSION AND SEDIMENT CONTROLS PRIOR TO CHEMICAL ADDITION AND MUST DIRECT TREATED STORMWATER TO A SEDIMENT CONTROL SYSTEM FOR FILTRATION OR SETTLEMENT OF THE FLOC PRIOR TO DISCHARGE.

### DEWATERING AND BASIN DRAINING (SECTION 10):

1. PERMITTEES MUST DISCHARGE TURBID OR SEDIMENT-LADEN WATERS RELATED TO DEWATERING OR BASIN DRAINING (E.G., PUMPED DISCHARGES, TRENCH/DITCH CUTS FOR DRAINAGE) TO A TEMPORARY OR PERMANENT SEDIMENT BASIN ON THE PROJECT SITE UNLESS INFEASIBLE. PERMITTEES MAY DEWATER TO SURFACE WATERS IF THEY VISUALLY CHECK TO ENSURE ADEQUATE TREATMENT HAS BEEN OBTAINED AND NUISANCE CONDITIONS (SEE MINN. R. 7050.0210, SUBP. 2) WILL NOT RESULT FROM THE DISCHARGE. IF PERMITTEES CANNOT DISCHARGE THE WATER TO A SEDIMENTATION BASIN PRIOR TO ENTERING A SURFACE WATER, PERMITTEES MUST TREAT IT WITH APPROPRIATE BMP'S SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE SURFACE WATER OR DOWNSTREAM PROPERTIES.
2. IF PERMITTEES MUST DISCHARGE WATER CONTAINING OIL OR GREASE, THEY MUST USE AN OIL-WATER SEPARATOR OR SUITABLE FILTRATION DEVICE (E.G., CARTRIDGE FILTERS, ABSORBENTS PADS) PRIOR TO DISCHARGE.
3. PERMITTEES MUST DISCHARGE ALL WATER FROM DEWATERING OR BASIN-DRAINING ACTIVITIES IN A MANNER THAT DOES NOT CAUSE EROSION OR SCOUR IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS OR INUNDATION OF WETLANDS IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS THAT CAUSES SIGNIFICANT ADVERSE IMPACT TO THE WETLAND.
4. IF PERMITTEES USE FILTERS WITH BACKWASH WATER, THEY MUST HAUL THE BACKWASH WATER AWAY FOR DISPOSAL, RETURN THE BACKWASH WATER TO THE BEGINNING OF THE TREATMENT PROCESS, OR INCORPORATE THE BACKWASH WATER INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION.

### INSPECTIONS AND MAINTENANCE (SECTION 11):

1. PERMITTEES MUST ENSURE A TRAINED PERSON, AS IDENTIFIED IN ITEM 21.2.B, WILL INSPECT THE ENTIRE CONSTRUCTION SITE AT LEAST ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 1/2 INCH IN 24 HOURS.
2. PERMITTEES MUST INSPECT AND MAINTAIN ALL PERMANENT STORMWATER TREATMENT BMP'S.
3. PERMITTEES MUST INSPECT ALL EROSION PREVENTION AND SEDIMENT CONTROL BMP'S AND POLLUTION PREVENTION MANAGEMENT MEASURES TO ENSURE INTEGRITY AND EFFECTIVENESS. PERMITTEES MUST REPAIR, REPLACE OR SUPPLEMENT ALL NON-FUNCTIONAL BMP'S WITH FUNCTIONAL BMP'S BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY UNLESS ANOTHER TIME FRAME IS SPECIFIED IN ITEM 11.5 OR 11.6. PERMITTEES MAY TAKE ADDITIONAL TIME IF FIELD CONDITIONS PREVENT ACCESS TO THE AREA.
4. DURING EACH INSPECTION, PERMITTEES MUST INSPECT SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS BUT NOT CURB AND GUTTER SYSTEMS, FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION. PERMITTEES MUST REMOVE ALL DELTAS AND SEDIMENT DEPOSITION IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS AND RESTABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. PERMITTEES MUST COMPLETE REMOVAL AND STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. PERMITTEES MUST USE ALL REASONABLE EFFORTS TO OBTAIN ACCESS, IF PRECLUDED, REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) DAYS OF OBTAINING ACCESS. PERMITTEES ARE RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK IN SURFACE WATERS.
5. PERMITTEES MUST INSPECT CONSTRUCTION SITE VEHICLE EXIT LOCATIONS, STREETS AND CURB AND GUTTER SYSTEMS WITHIN AND ADJACENT TO THE PROJECT FOR SEDIMENTATION FROM EROSION OR TRACKED SEDIMENT FROM VEHICLES. PERMITTEES MUST REMOVE SEDIMENT FROM ALL PAVED SURFACES WITHIN ONE (1) CALENDAR DAY OF DISCOVERY OR, IF APPLICABLE, WITHIN A SHORTER TIME TO AVOID A SAFETY HAZARD TO USERS OF PUBLIC STREETS.
6. PERMITTEES MUST REPAIR, REPLACE OR SUPPLEMENT ALL PERIMETER CONTROL DEVICES WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE HEIGHT OF THE DEVICE.
7. PERMITTEES MUST MAINTAIN TEMPORARY AND PERMANENT SEDIMENTATION BASINS AND REMOVE THE SEDIMENT WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME.
8. PERMITTEES MUST ENSURE THAT AT LEAST ONE INDIVIDUAL PRESENT ON THE SITE (OR AVAILABLE TO THE PROJECT SITE IN THREE (3) CALENDAR DAYS) IS TRAINED IN THE JOB DUTIES DESCRIBED IN ITEM 11.2 AS FOLLOWS.
9. PERMITTEES MAY ADJUST THE INSPECTION SCHEDULE DESCRIBED IN ITEM 11.2 AS FOLLOWS:
  - a. INSPECTIONS OF AREAS WITH PERMANENT COVER CAN BE REDUCED TO ONCE PER MONTH, EVEN IF CONSTRUCTION ACTIVITY CONTINUES ON OTHER PORTIONS OF THE SITE, OR
  - b. WHERE SITES HAVE PERMANENT COVER ON ALL EXPOSED SOIL AND NO CONSTRUCTION ACTIVITY IS OCCURRING ANYWHERE ON THE SITE, INSPECTIONS CAN BE REDUCED TO ONCE PER MONTH AND, AFTER 12 MONTHS, MAY BE SUSPENDED COMPLETELY UNTIL CONSTRUCTION ACTIVITY RESUMES. THE MPCA MAY REQUIRE INSPECTIONS TO RESUME IF CONDITIONS WARRANT, OR
  - c. WHERE CONSTRUCTION ACTIVITY HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, INSPECTIONS MAY BE SUSPENDED. INSPECTIONS MUST RESUME WITHIN 24 HOURS OF RUNOFF OCCURRING, OR UPON RESUMING CONSTRUCTION, WHICHEVER COMES FIRST.
10. PERMITTEES MUST RECORD ALL INSPECTIONS AND MAINTENANCE ACTIVITIES WITHIN 24 HOURS OF BEING CONDUCTED AND THESE RECORDS MUST BE RETAINED WITH THE SWPPP. THESE RECORDS MUST INCLUDE:
  - a. DATE AND TIME OF INSPECTIONS; AND
  - b. NAME OF PERSONS CONDUCTING INSPECTIONS; AND
  - c. ACCURATE FINDINGS OF INSPECTIONS, INCLUDING THE SPECIFIC LOCATION WHERE CORRECTIVE ACTIONS ARE NEEDED; AND
  - d. CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES); AND
  - e. DATE OF ALL RAINFALL EVENTS GREATER THAN 1/2 INCHES IN 24 HOURS, AND THE AMOUNT OF RAINFALL FOR EACH EVENT. PERMITTEES MUST OBTAIN RAINFALL AMOUNTS BY EITHER A PROPERLY MAINTAINED RAIN GAUGE INSTALLED ON-SITE, A WEATHER STATION THAT IS WITHIN ONE (1) MILE OF YOUR LOCATION, OR A WEATHER REPORTING SYSTEM THAT PROVIDES SITE SPECIFIC RAINFALL DATA FROM RADAR SUMMARIES; AND
  - f. IF PERMITTEES OBSERVE A DISCHARGE DURING THE INSPECTION, THEY MUST RECORD AND SHOULD PHOTOGRAPH AND DESCRIBE THE LOCATION OF THE DISCHARGE (I.E., COLOR, ODOR, SETTLED OR SUSPENDED SOLIDS, OIL SHEEN, AND OTHER OBVIOUS INDICATORS OF POLLUTANTS); AND
  - g. ANY AMENDMENTS TO THE SWPPP PROPOSED AS A RESULT OF THE INSPECTION MUST BE DOCUMENTED AS REQUIRED IN SECTION 6 WITHIN SEVEN (7) CALENDAR DAYS.

### POLLUTION PREVENTION MANAGEMENT (SECTION 12):

1. PERMITTEES MUST PLACE BUILDING PRODUCTS AND LANDSCAPE MATERIALS UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) OR PROTECT THEM BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER. PERMITTEES ARE NOT REQUIRED TO COVER OR PROTECT PRODUCTS WHICH ARE EITHER NOT A SOURCE OF CONTAMINATION TO STORMWATER OR ARE DESIGNED TO BE EXPOSED TO STORMWATER.
2. PERMITTEES MUST PLACE PESTICIDES, FERTILIZERS AND TREATMENT CHEMICALS UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) OR PROTECT THEM BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER.
3. PERMITTEES MUST STORE HAZARDOUS MATERIALS AND TOXIC WASTE, INCLUDING OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT, SOLAR FLUORESCENT LIGHTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH. 7045 INCLUDING SECONDARY CONTAINMENT AS APPLICABLE.
4. PERMITTEES MUST PROPERLY STORE, COLLECT AND DISPOSE SOLID WASTE IN COMPLIANCE WITH MINN. R. CH. 7035.
5. PERMITTEES MUST POSITION PORTABLE TOILETS SO THEY ARE SECURE AND WILL NOT TIP OR BE KNOCKED OVER. PERMITTEES MUST PROPERLY DISPOSE SANITARY WASTE IN ACCORDANCE WITH MINN. R. CH. 7041.
6. PERMITTEES MUST TAKE REASONABLE STEPS TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS, INCLUDING FUEL, FROM ANY AREA WHERE CHEMICALS OR FUEL WILL BE LOADED OR UNLOADED INCLUDING THE USE OF DRIP PANS OR ABSORBENTS UNLESS INFEASIBLE. PERMITTEES MUST ENSURE ADEQUATE SUPPLIES ARE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS AND THAT AN APPROPRIATE DISPOSAL METHOD IS AVAILABLE FOR RECOVERED SPILLED MATERIALS.
7. PERMITTEES MUST CLEAN AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINN. STAT. 115.061, USING DRY CLEAN UP MEASURES WHERE POSSIBLE.
8. PERMITTEES MUST LIMIT VEHICLE EXTERIOR WASHING AND EQUIPMENT TO A DEFINED AREA OF THE SITE. PERMITTEES MUST

CONTAIN RUNOFF FROM THE WASHING AREA IN A SEDIMENT BASIN OR OTHER SIMILARLY EFFECTIVE CONTROLS AND MUST DISPOSE WASTE FROM THE WASHING ACTIVITY PROPERLY. PERMITTEES MUST PROPERLY USE AND STORE SOAPS, DETERGENTS, OR SOLVENTS.

8. PERMITTEES MUST PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS (E.G., CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS) RELATED TO THE CONSTRUCTION ACTIVITY. PERMITTEES MUST PREVENT LIQUID AND SOLID WASHOUT WASTES FROM CONTACTING THE GROUND AND MUST DESIGN THE CONTAINMENT SO IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR AREAS. PERMITTEES MUST PROPERLY DISPOSE LIQUID AND SOLID WASTES IN COMPLIANCE WITH MPCA RULES. PERMITTEES MUST INSTALL A SIGN INDICATING THE LOCATION OF THE WASHOUT FACILITY.

### PERMIT TERMINATION (SECTION 4 AND SECTION 13):

1. PERMITTEES MUST SUBMIT A NOT WITHIN 30 DAYS AFTER ALL TERMINATION CONDITIONS LISTED IN SECTION 13 ARE COMPLETE.
2. PERMITTEES MUST SUBMIT A NOT WITHIN 30 DAYS AFTER SELLING OR OTHERWISE LEGALLY TRANSFERRING THE ENTIRE SITE, INCLUDING PERMIT RESPONSIBILITY FOR ROADS (E.G., STREET SWEEPING) AND STORMWATER INFRASTRUCTURE FINAL CLEAN OUT, OR TRANSFERRING PORTIONS OF A SITE TO ANOTHER PARTY. THE PERMITTEES' COVERAGE UNDER THIS PERMIT TERMINATES AT MIDNIGHT ON THE SUBMISSION DATE OF THE NOT.
3. PERMITTEES MUST COMPLETE ALL CONSTRUCTION ACTIVITY AND MUST INSTALL PERMANENT COVER OVER ALL AREAS PRIOR TO SUBMITTING THE NOT. VEGETATIVE COVER MUST CONSIST OF A UNIFORM PERENNIAL VEGETATION WITH A DENSITY OF 70 PERCENT OF ITS EXPECTED FINAL GROWTH. VEGETATION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA DICTATES NO VEGETATION, SUCH AS IMPERVIOUS SURFACES OR THE BASE OF A SAND FILTER.
4. PERMITTEES MUST CLEAN THE PERMANENT STORMWATER TREATMENT SYSTEM OF ANY ACCUMULATED SEDIMENT AND MUST ENSURE THE SYSTEM MEETS ALL APPLICABLE REQUIREMENTS IN SECTION 15 THROUGH 19 AND IS OPERATING AS DESIGNED.
5. PERMITTEES MUST REMOVE ALL SEDIMENT FROM CONVEYANCE SYSTEMS PRIOR TO SUBMITTING THE NOT.
6. PERMITTEES MUST REMOVE ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMP'S PRIOR TO SUBMITTING THE NOT. PERMITTEES MAY LEAVE BMP'S DESIGNED TO DECOMPOSE ON-SITE IN PLACE.
7. FOR RESIDENTIAL CONSTRUCTION ONLY, PERMIT COVERAGE TERMINATES ON INDIVIDUAL LOTS IF THE STRUCTURES ARE FINISHED AND TEMPORARY EROSION PREVENTION AND DOWNGRADE PERIMETER CONTROL IS COMPLETE. THE RESIDENCE SELLS TO THE HOMEOWNER, AND THE PERMITTEE DISTRIBUTES THE MPCA'S 'HOMEOWNER FACT SHEET' TO THE HOMEOWNER.
8. FOR CONSTRUCTION PROJECTS ON AGRICULTURAL LAND (E.G., PIPELINES ACROSS CROPLAND), PERMITTEES MUST RETURN THE DISTURBED LAND TO ITS PRECONSTRUCTION AGRICULTURAL USE PRIOR TO SUBMITTING THE NOT.

### SEED NOTES:

ALL SEED MIXES AND APPLICATION SHALL BE IN ACCORDANCE WITH THE MNDOT SEEDING MANUAL.

### GENERAL RECOMMENDATIONS:

THE CONTRACTOR IS RESPONSIBLE TO SALVAGE AND PRESERVE EXISTING TOPSOIL NECESSARY FOR FINAL STABILIZATION AND TO ALSO MINIMIZE COMPACTION IN ALL LANDSCAPE AREAS. IMMEDIATELY BEFORE SEEDING THE SOIL SHALL BE TILLED TO A MINIMUM DEPTH OF 3 INCHES.

### TEMPORARY EROSION CONTROL SEEDING, MULCHING & BLANKET.

#### SEED

- TEMPORARY SEED SHALL BE MNDOT SEED MIX 21-112 (WINTER WHEAT COVER CROP) FOR WINTER AND 21-111 (OATS COVER CROP) FOR SPRING/SUMMER APPLICATIONS. BOTH SEED MIXES SHALL BE APPLIED AT A SEEDING RATE OF 100 LBS/ACRE.

#### MULCH

- IMMEDIATELY AFTER SEEDING, WITHIN 24 HOURS, MNDOT TYPE 1 MULCH SHOULD BE APPLIED TO PROTECT AND ENHANCE SEED GERMINATION. MULCH SHALL BE APPLIED AT 80% COVERAGE (2 TONS PER ACRE OF STRAW MULCH)

#### SLOPES

- 3:1 (HORIZ/VERT.) OR FLATTER MULD SHALL BE COVERED WITH MULCH
- SLOPES STEEPER THAN 3:1 OR DITCH CHANNELS SHALL BE COVERED WITH EROSION CONTROL BLANKET.
- SEE PLAN FOR MORE DETAILED DITCH AND STEEP SLOPE EROSION CONTROL TREATMENTS.

## TRAINING SECTION 21

DESIGN ENGINEER: MATTHEW R. PAVEK P.E.  
TRAINING COURSE: DESIGN OF SWPPP  
TRAINING ENTITY: UNIVERSITY OF MINNESOTA  
INSTRUCTOR: JOHN CHAPMAN  
DATES OF TRAINING COURSE: 5/15/2011 - 5/16/2011  
TOTAL TRAINING HOURS: 12  
RE-CERTIFICATION: 2/27/2020 (8 HOURS), EXP. 5/31/2023

## AREAS AND QUANTITIES:

SITE AREA CALCULATIONS	EXISTING CONDITION	PROPOSED CONDITION
BUILDING COVERAGE	3,846 SF 11.6%	13,617 SF 41.1%
ALL PAVEMENTS	22,561 SF 68.0%	8,212 SF 24.8%
ALL NON-PAVEMENTS	6,753 SF 20.4%	11,331 SF 34.2%
TOTAL SITE AREA	33,160 SF 100.0%	33,160 SF 100.0%

IMPERVIOUS SURFACE		
EXISTING CONDITION	26,407 SF 79.6%	
PROPOSED CONDITION	21,829 SF 65.8%	
DIFFERENCE (EX. VS PROP.)	-4,578 SF -13.8%	

EROSION CONTROL QUANTITIES	
DISTURBED AREA	35,840 SF
SILT FENCE/BIO-ROLL	=829 LF
EROSION CONTROL BLANKET	0 SF
INLET PROTECTION DEVICES	3 EA

NOTE: QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL DETERMINE FOR THEMSELVES THE EXACT QUANTITIES FOR BIDDING AND CONSTRUCTION.

## SWPPP CONTACT PERSON

### CONTRACTOR:

### SWPPP INSPECTOR TRAINING:

ALL SWPPP INSPECTIONS MUST BE PERFORMED BY A PERSON THAT MEETS THE TRAINING REQUIREMENTS OF THE NPDES CONSTRUCTION SITE PERMIT. TRAINING CREDENTIALS SHALL BE PROVIDED BY THE CONTRACTOR AND KEPT ON SITE WITH THE SWPPP

## PARTY RESPONSIBLE FOR LONG TERM OPERATION AND MAINTENANCE OF PERMANENT STORM WATER MANAGEMENT SYSTEM

PERMANENT STORMWATER MANAGEMENT IS NOT REQUIRED AS PART OF THIS PROJECT TO MEET NPDES PERMIT REQUIREMENTS. THE PROJECT OWNER IS RESPONSIBLE FOR THE LONG TERM OPERATION AND MAINTENANCE OF THE PROPOSED STORMWATER SYSTEM.

## SWPPP ATTACHMENTS (ONLY APPLICABLE IF SITE IS 1 ACRE OR GREATER):

CONTRACTOR SHALL OBTAIN A COPY OF THE FOLLOWING SWPPP ATTACHMENTS WHICH ARE A PART OF THE OVERALL SWPPP PACKAGE:  
ATTACHMENT A: CONSTRUCTION SWPPP TEMPLATE - SITE SPECIFIC SWPPP DOCUMENT  
ATTACHMENT B: CONSTRUCTION STORMWATER INSPECTION CHECKLIST  
ATTACHMENT C: MAINTENANCE PLAN FOR PERMANENT STORM WATER TREATMENT SYSTEMS  
ATTACHMENT D: STORMWATER MANAGEMENT REPORT - ON FILE AT THE OFFICE OF PROJECT ENGINEER, AVAILABLE UPON REQUEST.  
ATTACHMENT E: GEOTECHNICAL EVALUATION REPORT - ON FILE AT THE OFFICE OF PROJECT ENGINEER, AVAILABLE UPON REQUEST.

## SUPPLEMENTARY SITE SPECIFIC EROSION CONTROL NOTES:

THESE NOTES SUPERCEDE ANY GENERAL SWPPP NOTES.

THIS PROJECT IS LESS THAN 1.0 ACRES SO AN NPDES PERMIT IS NOT REQUIRED AND DOES NOT NEED TO BE SUBMITTED TO THE MPCA. THE CONTRACTOR IS REQUIRED TO FOLLOW THE GUIDELINES IN THE NPDES PERMIT THROUGHOUT CONSTRUCTION.

### PROJECT NARRATIVE:

PROJECT IS A REDEVELOPMENT OF AN EXISTING BUILDING INTO A NEW MEDICAL BUILDING. SITE AND LANDSCAPE IMPROVEMENTS WILL OCCUR.

### NATIVE BUFFER NARRATIVE:

PRESERVING A 50' NATURAL BUFFER AROUND WATER BODIES IS NOT REQUIRED AS PART OF THIS PROJECT BECAUSE WATER BODIES ARE NOT LOCATED ON SITE.

### INFILTRATION NARRATIVE:

INFILTRATION IS NOT REQUIRED AS PART OF THE PROJECT BECAUSE PERMANENT STORM WATER MANAGEMENT IS NOT REQUIRED.

### SOIL CONTAMINATION NARRATIVE:

SOILS ON-SITE HAVE NOT BEEN IDENTIFIED AS CONTAMINATED. AN MPCA SOILS ASSESSMENT WAS COMPLETED AND IT WAS DETERMINED THAT THIS SITE IS APPROPRIATE FOR INFILTRATION.

### SPECIAL TMDL BMP REQUIREMENTS SITE SPECIFIC (IF REQUIRED):

THIS PROJECT IS WITHIN ONE MILE AND DISCHARGES TO BOTH MEDICINE LAKE AND NORTHWOOD LAKE - MEDICINE LAKE AND NORTHWOOD LAKE ARE IDENTIFIED AS IMPAIRED WATER BODIES PER THE MPCA'S 303(D) IMPAIRED WATERS LIST. MEDICINE LAKE AND NORTHWOOD LAKE ARE IMPAIRED FOR NUTRIENT EUTROPHICATION BIOLOGICAL INDICATORS. BECAUSE THESE WATERS ARE LOCATED WITHIN ONE MILE OF THE SITE, BMP'S AS DEFINED IN THE NPDES PERMIT ITEMS 23.9 AND 23.10 APPLY. THESE ARE AS FOLLOWS:

1. DURING CONSTRUCTION:
  - a. STABILIZATION OF ALL EXPOSED SOIL AREAS MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION BUT IN NO CASE COMPLETED LATER THAN SEVEN (7) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
  - b. TEMPORARY SEDIMENT BASIN REQUIREMENTS DESCRIBED IN SECTION 14. MUST BE USED FOR COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH FIVE (5) OR MORE ACRES DISTURBED AT ONE TIME.

### PERMANENT STABILIZATION NOTES SITE SPECIFIC:

#### PERMANENT SEED MIX

- FOR THIS PROJECT ALL AREAS THAT ARE NOT TO BE SODDED OR LANDSCAPED SHALL RECEIVE A NATIVE PERMANENT SEED MIX.
- AREAS IN BUFFERS AND ADJACENT TO OR IN WET AREAS MNDOT SEED MIX 35-261 (STORMWATER SOUTH AND WEST) AT 35 LBS PER ACRE.
- DRY AREAS MNDOT SEED MIX 35-221 (DRY PRAIRIE GENERAL) AT 40 LBS PER ACRE.
- MAINTENANCE SHALL BE IN ACCORDANCE TO THE MNDOT SEEDING MANUAL.



# Architecture Field Office

2200 Zane Ave N | Minneapolis, MN 55422  
www.archfieldoffice.com

To **City of Edina**  
Cary Teague, Community Development Director  
4801 W. 50<sup>th</sup> Street  
Edina, MN 55424

From Mic Johnson, FAIA

Date September 16, 2021

Cary:

At your request, we reviewed the Sketch Plan submission for the proposed Bhatti GI development at 65<sup>th</sup> and Barrie Road based on our experience working with the Greater Southdale Work Group to craft a physical vision for how their guiding principles may translate to the built environment. The resulting vision for development in the district is to create an enhanced human experience along existing major and new connector streets, with overall experience shaped via landscape setbacks, building step backs, a hierarchy of street typologies, transparency at street level, minimizing the impact of the car, and managing storm water as an amenity. The outcome of our collaborations with the Work Group is described in the urban design chapter of the Greater Southdale District Plan and resulted in the Greater Southdale District Design Experience Guidelines.

The project proposed is located on a smaller parcel, and while it does not completely align with the Design Experience Guidelines, we believe that the proposed project does demonstrate several positive attributes, including:

- Landscaping along Barrie Road is consistent for pedestrian-oriented streets.
- Outdoor public realm space is accessible to both occupants of the building and residential neighborhood to the north.
- Parking below grade and on grade parking has been screened from view from both W 65th Street and Barrie Road.

Our specific comments on the proposed plan are as follows:

- **Building Orientation and Parking Access:** The Guideline diagrams illustrate primary intersections along 65th: at France, Drew, Barrie, York, and Xerxes, all of which reinforce 65th as a major east-west street through the Medical District. It also provides for a transition between residential and healthcare-related services. The Guidelines imagine 65th as a well-traveled pedestrian street offering connections through the Medical District and on streets like Barrie Road and Drew, connections to the Southdale Center District. This proposal does not recognize 65th and Barrie Road as a primary intersection as it locates one of the two parking entries, trash pick up, exit stair etc. along nearly the entire building face at 65th. None of these offer any benefit to the public realm experience. It is our recommendation that the main

## Architecture Field Office

entry currently shown on the southeast corner of the building be located at 65th and Barrie Road, thereby moving access to parking and building services such as trash to the south end of the building and the center of the block, particularly in light of the greater setback along Barrie Road allows for the greater screening of those elements than can be accomplished along 65th where the sidewalk is narrower and there are fewer opportunities for screening. In this scenario, the outdoor public space would also move closer to Barrie Road, stretching it along the east side of Barrie Road and facilitating greater public impact and identity.

The image below simply 'flips' the rendering provided in the sketch plan packet as an illustration of this concept. [Not to be intended as a final solution]



- **Material Usage.** The use of certain materials (brick and stone) are appropriate to the Medical District and are consistent with the Experience Guidelines. However, the Guidelines discourage the use of metal panel on building faces below 60' in height and facing the public realm. The current design uses metal panel as its primary building cladding above the ground floor. We would suggest metal panel could be allowed on the entire west face of the building and a portion of the south facade, with brick used on the east and north facades—which have greater impact on the public realm experience. In addition, the design uses stone as a feature element at the center of the east façade. We would encourage the use of stone in areas where it has a greater impact on the experience of pedestrians and visitors arriving at the building.

Thank you for the opportunity to review. Please let me know if you have any questions.  
Mic





**Date:** September 16, 2021

**To:** Cary Teague, Community Development Director

**From:** David Fisher, Chief Building Official

**Subject:** 6500 Barrie Rd – 2 stories of parking and 2 stories of office

## Information / Background:

### New 2 stories of parking and 2 stories of office

- This would be an S-1 parking and R-2 residential apartment building using the 2020 Minnesota State Building Code & Fire Code.
- Provide a complete Build Code analysis with plans when submitting for the building permit.
- An NFPA 13 Fire Sprinkler System is required.
- Verify fire hydrant location by the main entry.
- Verify Fire Department access.
- Verify there is adequate assessable parking.
- Verify noise ordinance is complying and is understood.  
Working Hours:  
Monday – Friday 7 A.M. to 7 P.M. Saturdays – 9A.M. to 5 P.M.  
Sundays and Holidays – No Work Allowed
- Recommend a meeting with staff for 30, 60 and 90 percent before submitting for building permit.

# Survey Responses

30 January 2019 - 16 September 2021

## Public Hearing Comments-6500 Barrie Rd.

### Better Together Edina

Project: Public Hearing: Bhatti G.I. Consultant, P.A. is proposing to tear down the existing 16,032 square foot medical office building at 6500 Barrie Road, and build a new 3-story, 24,000 square foot medical office and surgery center.



VISITORS

1

CONTRIBUTORS

0

RESPONSES

0

0

Registered

0

Unverified

0

Anonymous

0

Registered

0

Unverified

0

Anonymous

No Responses





## CITY OF EDINA

4801 West 50th Street

Edina, MN 55424

[www.edinamn.gov](http://www.edinamn.gov)

**Date:** September 22, 2021

**Agenda Item #:** VII.A.

**To:** Planning Commission

**Item Type:**  
Report and Recommendation

**From:** Cary Teague, Community Development Director

**Item Activity:**  
Discussion

**Subject:** Zoning Ordinance Amendments - Impervious  
Surface, Basements, 1-foot rule and setback  
definitions

---

### ACTION REQUESTED:

Consider the attached Zoning Ordinance Amendments. Direct staff to set a public hearing date for the Planning Commission, and post the ordinance on Better Together Edina.

### INTRODUCTION:

Staff has made revisions to the Ordinance based on the feedback from the Planning Commission at the August 25th meeting.

### ATTACHMENTS:

Staff Memo

Draft Ordinance

Imperviousness Sensitivity Analysis

Private Infrastructure Analysis

Morningside Impervious Surface Study

Survey of Cities

**City Hall** • Phone 952-927-8861

Fax 952-826-0389 • [www.CityofEdina.com](http://www.CityofEdina.com)



**Date:** September 22, 2021

**To:** Planning Commission

**From:** Cary Teague, Community Development Director

**Re:** Zoning Ordinance Amendment – Impervious Surface, Basement, 1-foot rule, and Setback definitions.

Staff has revised the Draft Ordinance regarding impervious surface, basements, 1-foot rule, and setback definitions. Revisions were based on the feedback from the Planning Commission at the August 25<sup>th</sup> meeting regarding allowing the one-foot rule to be increased for properties that only have ground water or flood elevation issues and limiting the extend of raising the first-floor elevation.

Once the Planning Commission is comfortable with the draft Ordinance, staff would then set a public hearing and post the draft on Better Together.

The following provides a summary of each Section within the proposed Amendment.

## Section 1. Definitions.

- Impervious Surface is defined.
- The definition of “setback” is revised to include the new measurement method for setbacks from buildings to curbs in the Greater Southdale Area. This form of measurement was adopted into the Zoning Ordinance last summer.

Section 2 & 5 – Building Coverage is clarified, and an Impervious Surface Lot coverage regulation is created. Building coverage is clarified to eliminate patios and recreations facilities like tennis courts. *Patios, tennis courts or similar uses would now be regulated under the impervious surface regulations, and not building coverage.* The proposed impervious surface requirement is 50% as recommended by the work group of the planning commission (Commissioners Strauss, Miranda and Bennett) and staff.

Section 3 & 4 – Basements and First Floor Elevation. The requirement to install a basement with any new single-family home is eliminated. Additionally, the “One-Foot Rule” is revised to allow an increase to the one-foot rule (the first floor elevation of a new home may not exceed the first floor elevation of the previous home by more than one-foot) only if there is a flood plan or high water elevation issue.





As the Planning Commission has experienced over the past several years, the current ordinance conflicts with the City's requirement for the low floor elevation of new homes to be 2 feet above a flood elevation. This amendment would not impact the overall height of new homes as they would still be required to meet the overall height requirement, which is measured from existing grade.

Section 6 – Setbacks. The section simply clarifies the Zoning Ordinance regarding how setbacks in the Greater Southdale District are measured. This issue came up at a recent City Council meeting regarding the 4040 70<sup>th</sup> Street project.





**ORDINANCE NO. 2021-\_\_**  
**AN ORDINANCE AMENDMENT REGARDING IMPERVIOUS SURFACE LOT COVERAGE,**  
**SETBACKS, BASEMENTS AND THE 1-FOOT RULE**

THE CITY COUNCIL OF EDINA ORDAINS:

**Section 1.** Sec. 36-10 Definitions is amended as follows:

*Building coverage* means the percentage of the lot area occupied by principal and accessory buildings and structures. ~~including, without limitation, patios.~~

***Impervious surface:* A constructed hard surface that either prevents or retards the entry of water into the soil and causes water to run off the surface in greater quantities and at an increased rate of flow than prior to placement. Examples include, but are not limited to, buildings, decks, rooftops, cantilevers or overhangs greater than 5', sidewalks, patios, permeable pavers, and concrete, asphalt, or gravel driveways.**

*Setback, front street,* means the shortest horizontal distance from the forward most point of a building or structure to the nearest point on the front lot line. ***Within the Greater Southdale District, front street setbacks shall be measured from the forward most point of a building or structure to curb per Section 36-1276.***

*Setback, interior side yard,* means the shortest horizontal distance from any part of a building or structure to the nearest point on an interior side lot line.

*Setback, rear yard,* means the shortest horizontal distance from any part of a building or structure to the nearest point on a rear lot line.

*Setback, side street,* means the shortest horizontal distance from any part of a building or structure to the nearest point on a side lot line that adjoins a street. ***Within the Greater Southdale District, side street setbacks shall be measured from the forward most point of a building or structure to curb per Section 36-1276.***

**Section 2.** Subsection 36-438 of the Edina City Code. Requirements for building coverage, setbacks and height Special Requirements are amended to add the following:

**Sec. 36-438. - Requirements for building coverage, ***impervious surface lot coverage,*** setbacks and height.**

The minimum requirements for building coverage, ***impervious surface lot coverage,*** setbacks, and height in the Single Dwelling Unit District (R-1) are as follows:

*(1) Building Coverage.*

- a. Lots 9,000 square feet or greater in area. Building coverage shall be not more than 25 percent for all buildings and structures. On lots with an existing conditional use, if the combined total area occupied by all accessory buildings

Existing text – XXXX

Stricken text – ~~XXXX~~

Added text – ***XXXX***

and structures, excluding attached garages, is 1,000 square feet or greater, a conditional use permit is required.

- b. Lots less than 9,000 square feet in area. Building coverage shall be not more than 30 percent for all buildings and structures; provided, however, that the area occupied by all buildings and structures shall not exceed 2,250 square feet.
- c. Combined total area. The combined total area occupied by all accessory buildings and structures, excluding attached garages, shall not exceed 1,000 square feet for lots used for single dwelling unit buildings.
- d. Building coverage shall include all principal or accessory buildings, including, but not limited to:

- 1. Decks ~~and patios~~. The first 150 square feet of an unenclosed deck ~~or patio~~ shall not be included when computing building coverage.
- 2. Gazebos.
- 3. Balconies.
- 4. Breezeways.
- 5. Porches.
- 6. ~~Accessory recreational facilities constructed above grade, such as paddle tennis courts.~~

- e. ~~The following improvements shall be excluded when computing building coverage:~~

- 1. ~~Driveways and sidewalks, but not patios, subject to subsection (1)d.1 of this section.~~
- 2. ~~Parking lots and parking ramps.~~
- 3. ~~Accessory recreational facilities not enclosed by solid walls and not covered by a roof, including outdoor swimming pools, tennis courts and shuffleboard courts.~~
- 4. ~~Unenclosed steps and stoops less than 50 square feet.~~
- 5. ~~Overhanging eaves and roof projections not supported by posts or pillars.~~

- (2) **Impervious Surface Lot coverage.** Impervious surface lot coverage shall be limited to a maximum of Fifty percent (50%).

- ~~(2)~~ (3) **Setbacks.**

- ~~(3)~~ (4) **Height.**

**Section 3. Sec. 36-439. (3) (7) AND (8). Special Requirements is amended as follows:**

- ~~(3)~~ ~~**Basements.** All single dwelling unit buildings shall be constructed with a basement having a gross floor area equal to at least 50 percent of the gross floor area of the story next above. The floor area of accessory uses shall not be included for purposes of this subsection.~~



- (7) *Additions to, or replacement of, single dwelling unit buildings and buildings containing two dwelling units.* For additions, alterations and changes to, or rebuilds of, existing single dwelling unit buildings and buildings containing two dwellings, the first-floor elevation may not be more than one foot above the existing first floor elevation, **unless one the conditions in (8) below exist on the site.** If a split-level dwelling is torn down and a new home is built, the first-floor elevation of the dwelling unit being torn down is deemed to be the lowest elevation of an entrance to the dwelling, excluding entrance to the garage and entrances that do not face a street.
- (8) ~~Additions to, or replacement of, single dwelling unit buildings with a first-floor elevation of more than one foot above the existing first floor elevation of the existing dwelling unit building require a variance per [article II], division 3. Such additions to, or replacements of, single dwelling unit buildings must meet one or more of conditions a-c and always meet condition d.:~~ **If one of the conditions below exist on site, the one-foot requirement in (7) above could be increased to the minimum extent possible, as long as the low floor elevation is no higher than 2.5 feet above the low water elevation and the basement ceiling height is not taller than 9 feet.**
- a. ~~The first floor elevation may be increased to the extent necessary to elevate the lowest level of the dwelling to an elevation of two feet above the~~ **There is a** 100-year flood elevation, as established by the Federal Emergency Management Agency (FEMA), or the city's comprehensive water resource management plan; or
- b. The first-floor elevation may be increased to the extent necessary to reasonably protect the dwelling from groundwater intrusion. Existing and potential groundwater elevations shall be determined in accordance with accepted hydrologic and hydraulic engineering practices. Determinations shall be undertaken by a professional civil engineer licensed under Minn. Stats. ch. 326, or a hydrologist certified by the American Institute of Hydrology. Studies, analyses and computations shall be submitted in sufficient detail to allow thorough review and approval; or
- c. The first-floor elevation may be increased to the extent necessary to allow the new building to meet the state building code, this Code or other statutory requirements.
- d. An increase in first floor elevation will only be permitted if the new structure or addition fits the character of the neighborhood in height, mass and scale.

**Section 4. Sec. 36-467. (b) (3) - Special requirements is amended as follows:**

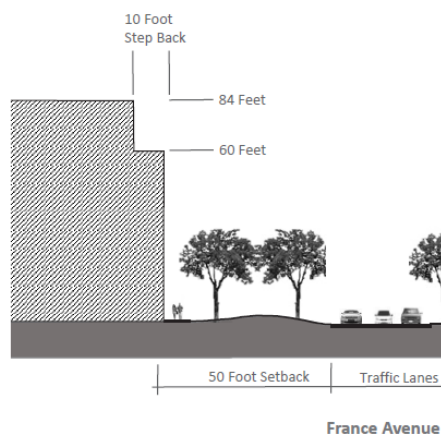
- ~~(3) *Basements.* All double dwelling unit buildings shall be constructed with a basement having a gross floor area equal to at least 50 percent of the gross floor area of the story next above. The floor area of accessory uses shall not be included for the purposes of this subsection.~~

**Section 5. Sec. 36-1259. – Building Coverage Computation; exclusion and inclusions are amended as follows:**

- (a) ~~The following structures and improvements shall be excluded when computing building coverage:~~
- ~~(1) Driveways and sidewalks, but not patios.~~
  - ~~(2) Parking lots and parking ramps.~~
  - ~~(3) Accessory recreational facilities not enclosed by solid walls and not covered by a roof, including outdoor swimming pools, tennis courts and shuffleboard courts; but facilities which are constructed above grade, such as paddle tennis courts, shall be included when computing building coverage.~~
  - ~~(4) Unenclosed and uncovered steps and stoops less than 50 square feet.~~
  - ~~(5) Overhanging eaves and roof projections not supported by posts or pillars.~~
- (b) ~~Building coverage computations, however, shall include all other principal or accessory buildings, including, but not limited to:~~
- ~~(1) Decks and patios, subject to allowances provided by this chapter.~~
  - ~~(2) Gazebos.~~
  - ~~(3) Balconies.~~
  - ~~(4) Breezeways.~~
  - ~~(5) Porches.~~
  - ~~(6) Accessory recreational facilities constructed above grade, such as paddle tennis courts.~~

**Section 6. Sec. 36-1276. – Setbacks in the Greater Southdale District is amended as follows:**

- (a) Front Street Setbacks on France Avenue between Highway 62 and Minnesota Drive and the on York Avenue between 66<sup>th</sup> Street and 78<sup>th</sup> Street: A 50-foot setback is required from the face of the curb to the face of building. Above a building height of 60-feet the additional height must step back 10 feet from the face of the building.



- (b) Front Street Setbacks on streets other than France Avenue and York Avenue: A 30-foot setback is required from the face of curb to the face of building. ~~with a building podium height of 60 feet.~~ Above the 60-foot height limit, additional height should step back 30



feet from the face of the building, to a maximum height of 105 feet. Any height about 105 feet should step back and additional 10 feet from the face of the building.



**Section 7.** This ordinance is effective immediately upon its passage.

First Reading:  
Second Reading:  
Published:

Attest

Sharon Allison, City Clerk

James B. Hovland, Mayor

## Technical Memorandum

**To:** Jessica Wilson and Ross Bintner, City of Edina  
**From:** Sarah Stratton and Cory Anderson, Barr Engineering Co.  
**Subject:** Appendix E - Imperviousness Sensitivity Analysis  
**Date:** March 30, 2020  
**Project:** Edina Flood Risk Reduction Strategy Support (23271728.00)

### Executive Summary

Barr was asked to review model-predicted flood impacts in the focal geography of the Morningside neighborhood, and to review the sensitivity of those impacts to the magnitude of imperviousness (the hard surfaces that prohibit water infiltration). For reference, the impervious area that is directly connected to the storm sewer system in the Morningside neighborhood is estimated to be about 25% of the total land area, in aggregate (Figure 1). The directly connected imperviousness is the portion of the watershed that is impervious and routes flow directly to an outlet (catch basin, pond, depression, outlet, etc.). Some prominent examples of this type of imperviousness in a low-density residential neighborhood tend to be streets, parking lots, driveways, water bodies (i.e., Weber Pond), portions of roofs with gutters and downspouts directed to impervious surfaces such as a driveway, etc.

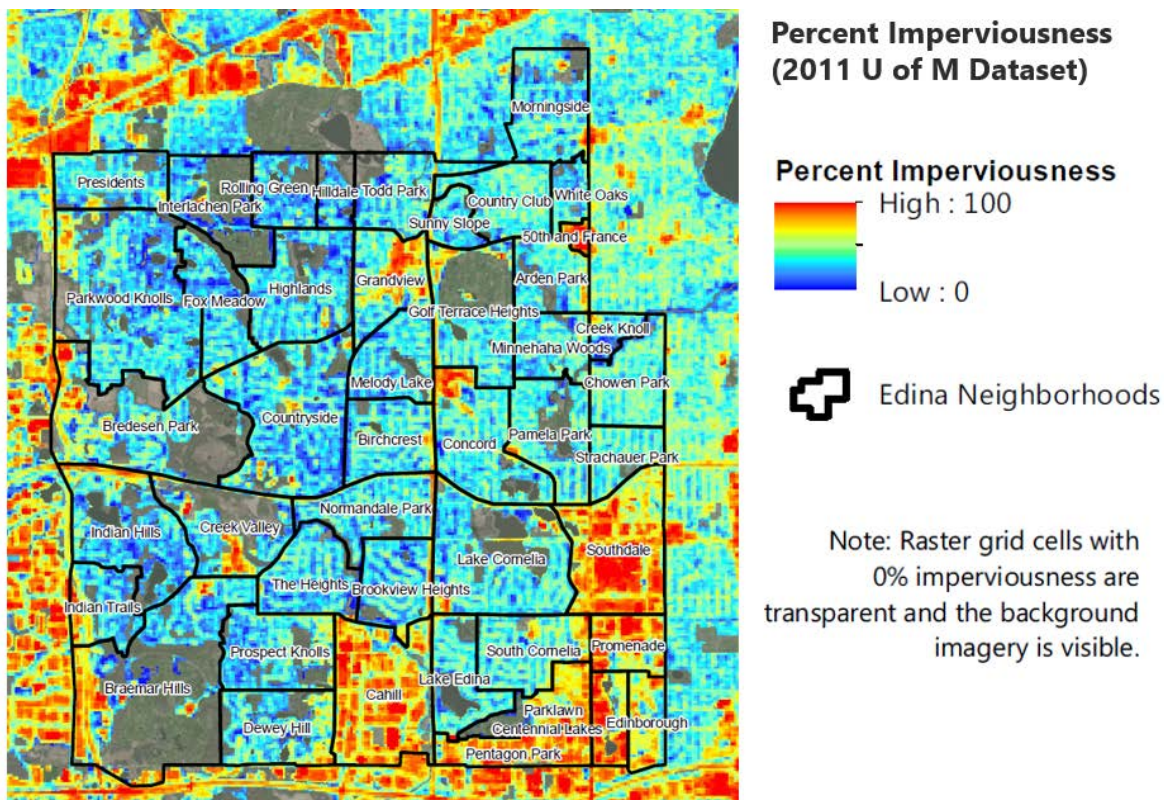


Figure 1 Imperviousness raster data set from the University of Minnesota. The Morningside neighborhood is in the northeast corner.



Barr tested the sensitivity by modifying the stormwater model so that the imperviousness of the entire contributing drainage area was increased, decreased, and even lowered all the way to 0%, which reflects a pre-development condition. This sensitivity test was also completed for a range of storm events, from the 20%-annual-chance storm event (5-year storm) to the 1%-annual-chance storm event (100-year storm). As expected, the imperviousness sensitivity test showed that less impervious area generates less stormwater runoff and more impervious area generates more stormwater runoff. However, the magnitude of the runoff changes generated by adjusting imperviousness were not as impactful as may have been expected.

For reference, in the Weber Pond subwatershed, the 1%-annual-chance storm event (100-year storm) flood level would need to be reduced by just over 4 feet in order to remove the 5 lowest homes from potential structural impacts from flood inundation. Based on Barr's imperviousness analysis, reducing or increasing impervious area by half (50%) tends to cause the peak water level to decrease or increase by up to approximately half a foot. This effect is more significant for small storm events, and less so for larger storm events. While affecting the flood level by half a foot may seem like a big gain, this change removed one impacted home at most from the flood inundation area around Weber Pond. Again, to achieve even this low level of impact, the entire contributing area (all of the Morningside neighborhood) would be required to reduce imperviousness by half (i.e., road widths are cut in half, driveway widths are cut in half, roof area cut in half and/or downspouts

### **Imperviousness Sensitivity Analysis Details**

The sensitivity analysis focused on design storm events (NOAA Atlas 14, MSE3 temporal distribution) rather than an observed historical event(s). Modeled design storm events included the 5-year (3.59 inches), 10-year (4.29 inches), 50-year (6.39 inches), and 100-year events (7.49 inches), all 24-hour durations (i.e., for a 100-year storm event, 7.49 inches fall over a 24-hour period of time).

Imperviousness parameter values were adjusted relative to "base case" values from the stormwater model. In general, the "base case" imperviousness parameter values were adjusted to +50%, +25%, -25%, -50%, and finally a "low" case to attempt to significantly reduce runoff. The range of values for each of the sensitivity cases is listed in Table 1. Most of the Morningside neighborhood is "low density residential"; for simplicity, only the values for this land use type is presented in Table 1. All other land use types, with varying imperviousness were similarly adjusted upward and downward for this sensitivity analysis.

**Table 1 Imperviousness parameter values for the sensitivity analysis**

<b>Parameter</b>	<b>Low Case</b>	<b>-50%</b>	<b>-25%</b>	<b>0% (Base)</b>	<b>+25%</b>	<b>+50%</b>
Directly Connected Percent Impervious <sup>1</sup>	0% <sup>2</sup>	~13%	~19%	~25%	~31%	~38%

- 1) Only the value for "low density residential" is shown here, as this covers most of the model area. All land use types were similarly modified for each of the sensitivity cases (-50%, -25%, etc.)

Subwatersheds in the Morningside neighborhood are shown in Figure 2.

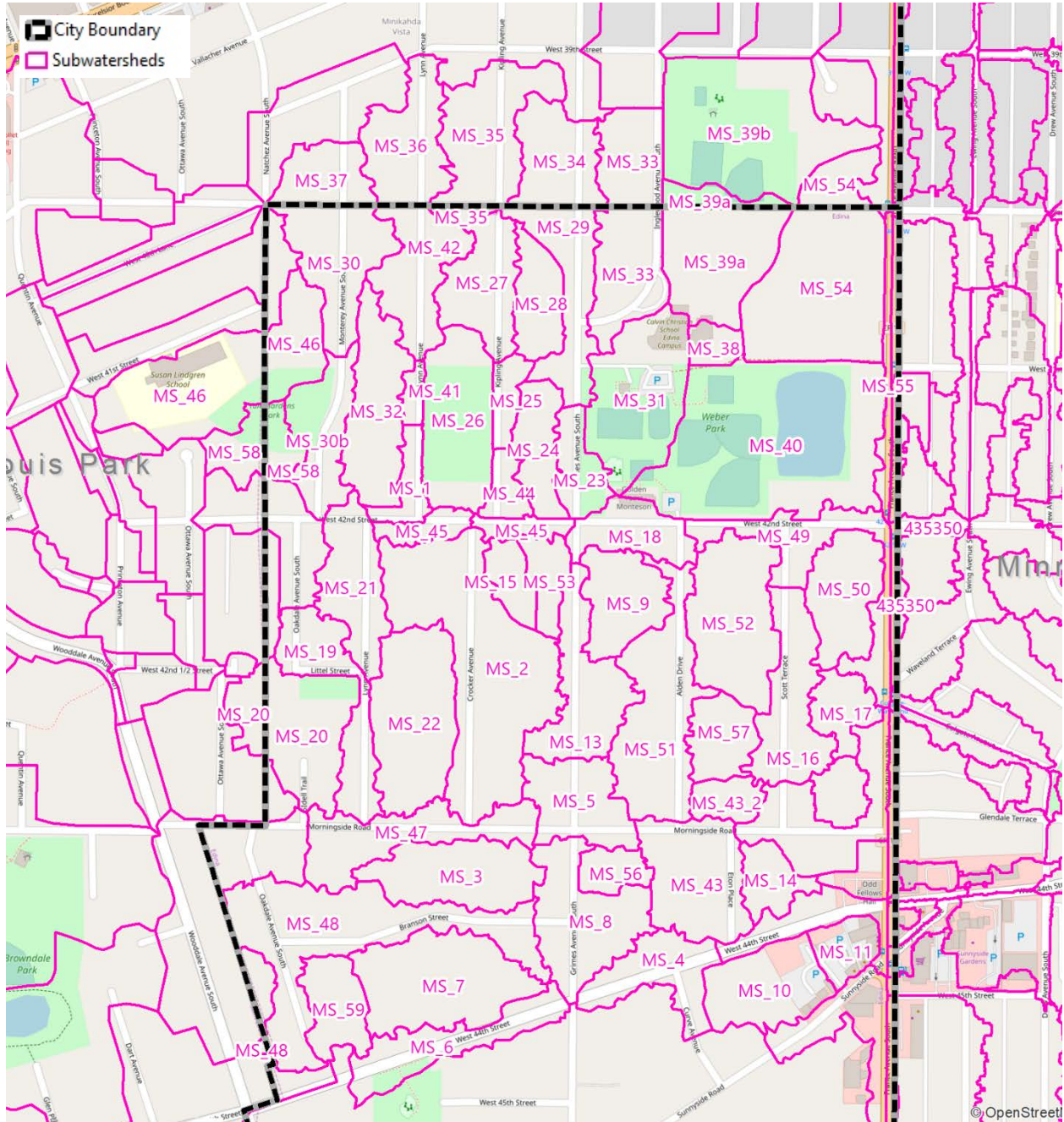
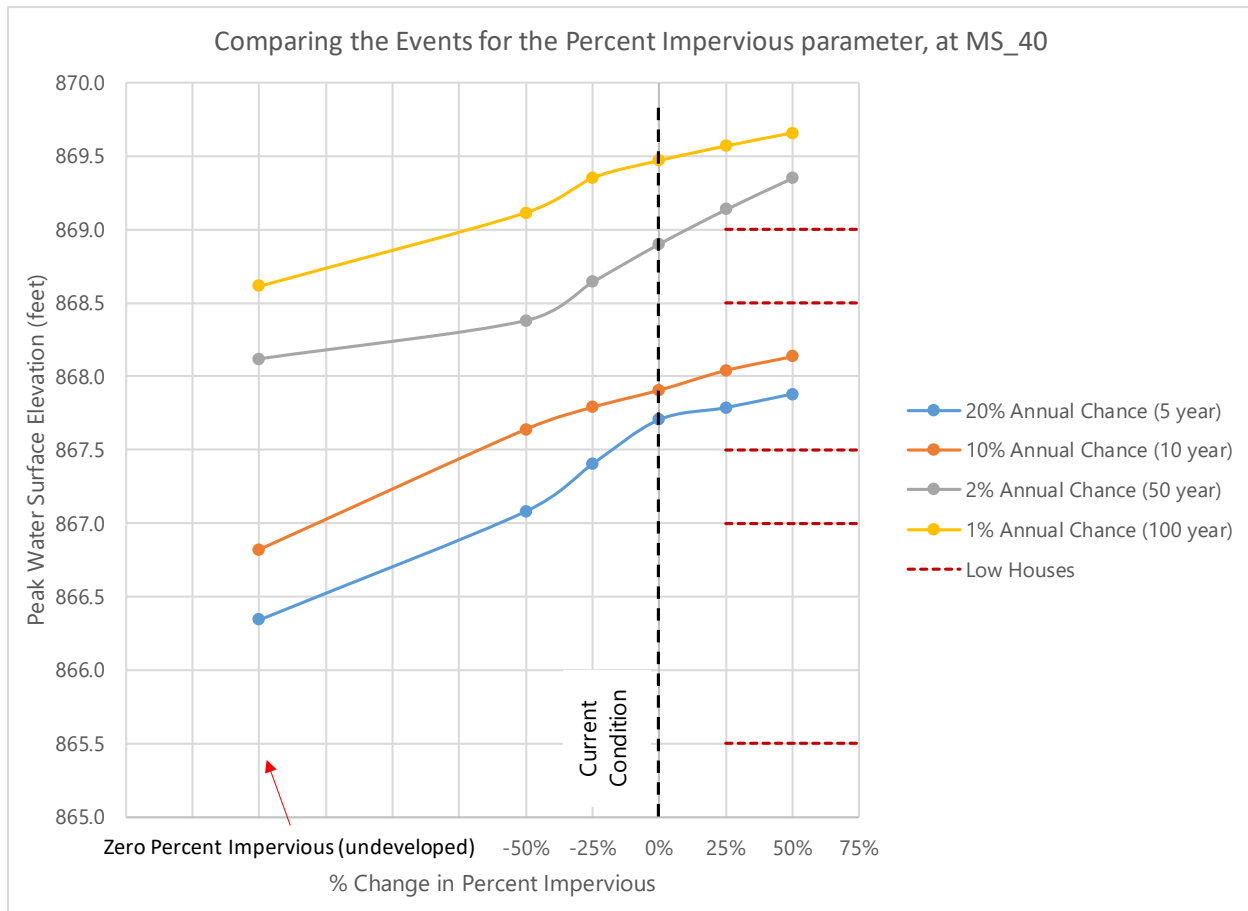


Figure 2 Map showing subwatershed divides in and around the Morningside neighborhood

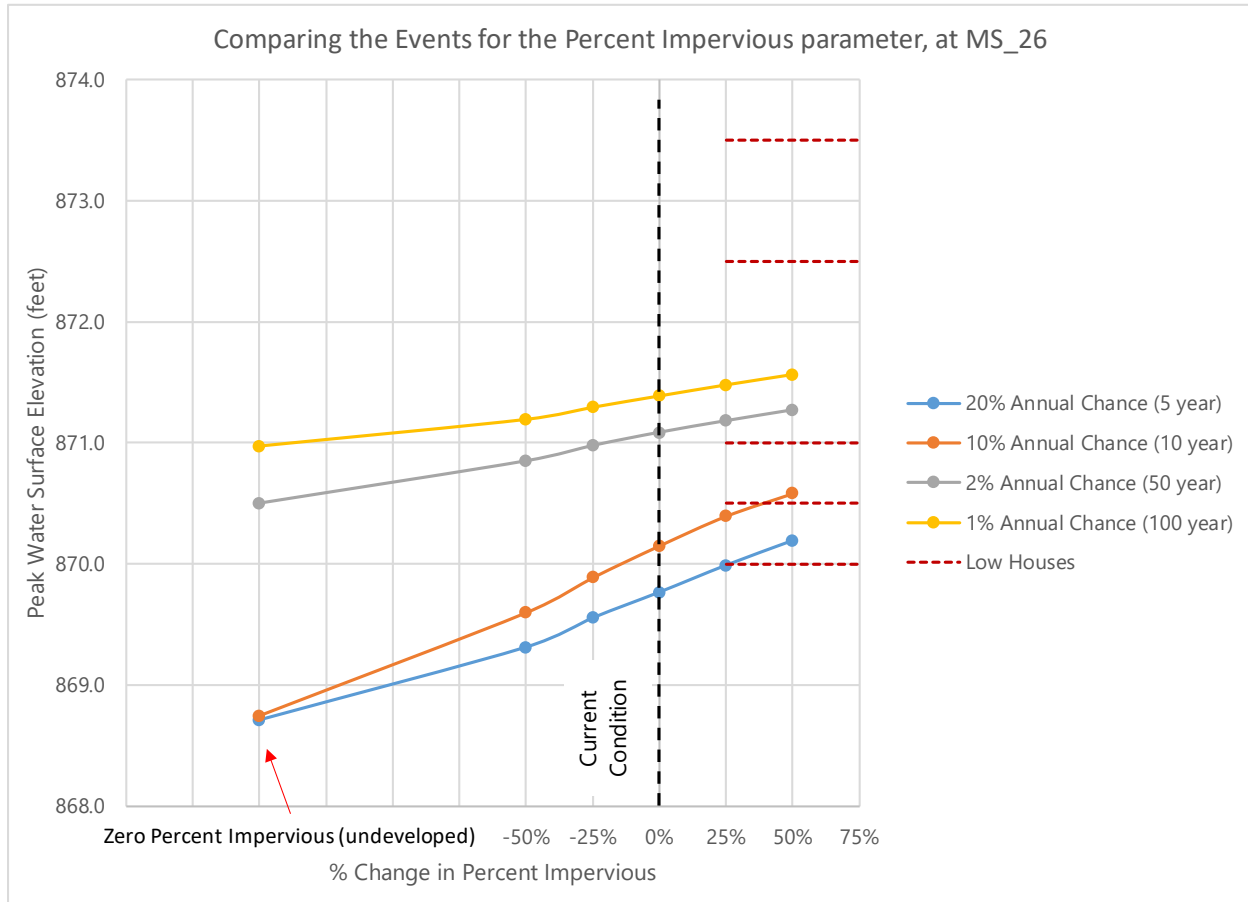
The directly connected impervious percentage tends to have an impact up to  $\pm 0.5$  feet for the  $\pm 50\%$  change in the base value. Example graphs are included that show the results for Weber Pond (MS\_40, Figure 3), for the low area between Lynn Avenue and Kipling Avenue, north of West 42<sup>nd</sup> Street (MS\_26, Figure 4), and for a landlocked subwatershed (MS\_22) between Lynn Avenue and Crocker Avenue, south of West 42<sup>nd</sup> Street (Figure 5).



In these figures, the horizontal, maroon-dashed lines represent approximate low elevations based on structure footprints for the five lowest homes around Weber Pond. They may or may not represent actual low entry elevations of these homes. However, they give a good representation of the home elevations and how close they are to the flood levels.

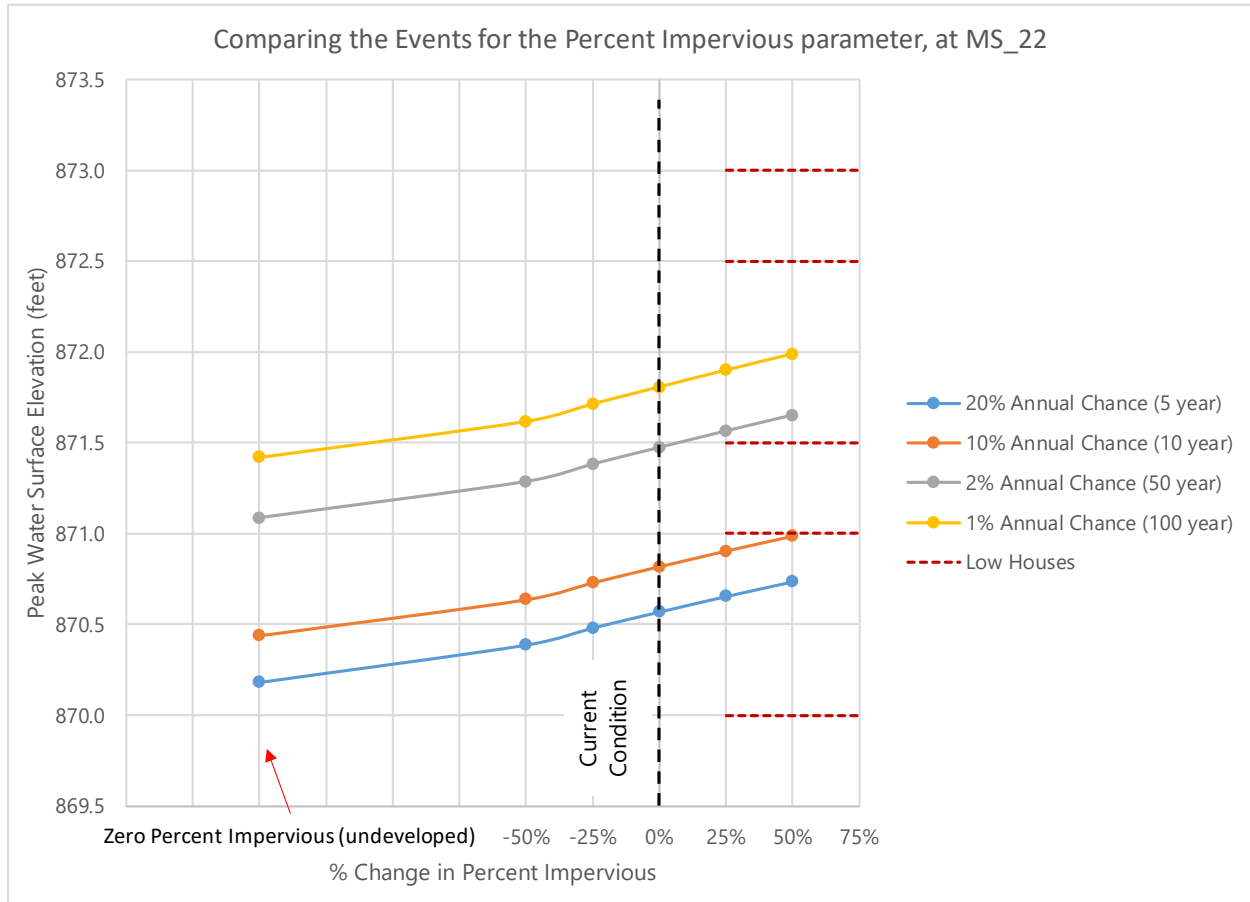


**Figure 3** Sensitivity analysis results showing peak flood levels in Weber Pond (subwatershed MS\_40) for a range of imperviousness and a range of storm events.



**Figure 4** Sensitivity analysis results showing peak flood levels in MS\_26 for a range of imperviousness and a range of storm events.





**Figure 5** Sensitivity analysis results showing peak flood levels in MS\_22 (a landlocked subwatershed) for a range of imperviousness and a range of storm events.

As mentioned previously, some prominent examples of directly connected imperviousness in a low-density residential neighborhood tend to be streets, parking lots, driveways, water bodies (i.e., Weber Pond), portions of roofs with gutters and downspouts directed to impervious surfaces such as a driveway, etc. To achieve a 50% decrease in this parameter, these portions of the watershed would need to decrease in area by 50%. In essence, this means driveway and street widths would be cut in half, half of the directly connected roof area would be rerouted to pervious surfaces, half of the parking spaces converted to pervious surfaces and/or routed to BMPs to offset the runoff, etc. Such changes over the entire watershed would be significant and require a coordinated effort from all parcels. This would produce a beneficial change in the peak flood level, but would generally be limited to a benefit of about half a foot or less in this neighborhood. For some homes adjacent to Weber Pond, for example, where the 100-year peak flood level is multiple feet above the suspected low entry elevations, the impacts to peak flood levels shown in Figure 3 due to changes in directly connected imperviousness do not change whether these homes are wet or dry during a large, intense storm event.

The results of the sensitivity analysis change depending on the storm event that is being modeled (e.g., 5-year versus 10-year). Trends and overall magnitudes do not change substantially from what is shown in the few example figures above. Other cases of interest (different storms, different subwatersheds, etc.) can be viewed in a companion Excel spreadsheet generated for the *Morningside XP-SWMM Modeling* technical memorandum (Barr, March 2020).

Finally, it is also important to remember that the results of the sensitivity analysis depend on the input storm itself. As described, this analysis used the NOAA Atlas 14, 24-hour design storm with a MSE3 temporal distribution. This storm is both significant in total precipitation depth and very intense in the middle part of the storm. Storms with high intensity near the beginning or near the end of the event may produce different results, as will storms with more moderate, consistent intensity. However, given that flood management within the City is currently informed by Atlas 14 storms with the MSE3 temporal distribution, this storm was used for the sensitivity analysis.



## Technical Memorandum

**To:** Jessica Wilson and Ross Bintner, City of Edina  
**From:** Sarah Stratton and Cory Anderson, Barr Engineering Co.  
**Subject:** Appendix D - Private Infrastructure Analysis  
**Date:** March 30, 2020  
**Project:** Edina Flood Risk Reduction Strategy Support (23271728.00)

### Executive Summary

Barr was asked to review model-predicted flood impacts in the focal geography of the Morningside neighborhood to evaluate the sensitivity of those impacts to the magnitude of stormwater storage within the watershed. In particular, the focus was on underground storage methods within private property, the right-of-way, or under streets. This evaluation was conducted as a result of Task Force discussions about the potential benefits of requiring private homeowners to store stormwater on-site similar to requirements for commercial development.

Barr reviewed the benefits achieved by storing the first 1-inch, 2-inches, and 3-inches of precipitation from storm events of varying size, from the 20%-annual-chance storm event (5-year storm; 3.59 inches) to the 1%-annual-chance storm event (100-year storm; 7.49 inches). For the private storage evaluation (underground storage vaults under a portion of each of the 570 residential parcels), storage was assumed for every parcel within the Morningside neighborhood. Barr found that storing the first 1-inch of storms of this magnitude had a negligible impact on flood levels. Storing the first 2-inches and 3-inches showed a more significant benefit with regards to reduction in peak flood levels. Depending on the storm event, and depending on the location within in the neighborhood, the results varied anywhere from flood level decreases of a few inches to decreasing nearly a foot and a half.

However, this apparent benefit comes at an initial cost of approximately \$15,000 per inch of stormwater stored, per residential parcel. To store 2-inches of runoff in the entire neighborhood (~570 residential parcels) would cost approximately \$17 million. In addition, while the flood levels may be lowered, the number of homes that are removed from potential impacts from flood inundation is small. For example, one home may potentially be removed from flood inundation at Weber Pond depending on the storm event. Finally, the management and maintenance of these underground stormwater storage vaults distributed throughout an entire neighborhood is expected to be complicated and unprecedented. This is all to say, this solution would provide a moderate benefit for a very high cost. Additionally, a preliminary look at the compounding effect of climate change suggests that improvements realized by implementing additional private storage may eventually be negated by climate change (i.e., increased precipitation amounts, see Appendix B on Climate Change Impacts Analysis).

## Private Infrastructure Analysis Details

A common example of private stormwater management infrastructure (infrastructure on a privately owned parcel), is a rainwater garden (Figure 1). Rainwater gardens are typically designed to store the first one inch of runoff generated from a storm, aimed at both reducing the volume of runoff and improving water quality downstream.



Figure 1 Photo of a rainwater garden.

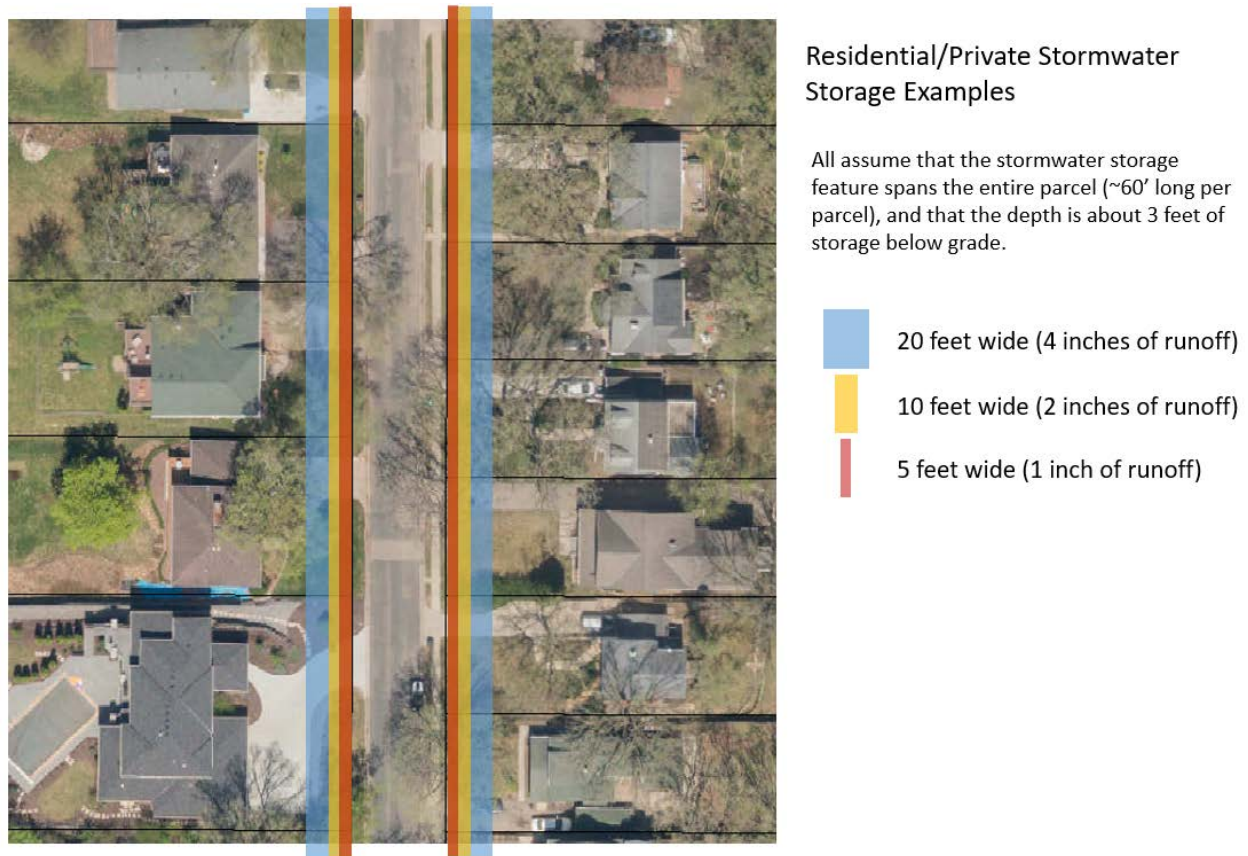
Other examples of private infrastructure for stormwater storage can include tree trenches, cisterns, permeable pavement, and underground storage vaults. Figure 2 shows an example of an underground stormwater storage vault.

To simplify our analysis, we assumed that all parcels in the Morningside neighborhood are approximately 60 feet wide (along the road), and also assumed that every parcel would have underground storage (below grade) that is 3 feet deep. Then we determined how wide the underground storage vault would need to be to contain 1 inch of runoff, 2 inches of runoff, or 4 inches of runoff. We found that underground storage vaults on every parcel in the Morningside neighborhood would need to be 5 feet wide to store 1 inch of runoff, 10 feet wide to store 2 inches of runoff, and 20 feet wide to store 4 inches of runoff. Figure 3 provides a graphic that shows the extent of underground storage needed for sample parcels in Morningside.



Figure 2 Example of an underground storage vault (37<sup>th</sup> Avenue Greenway, Minneapolis).





**Figure 3 Private stormwater storage sizing examples for storing varying amounts of runoff.**

Barr also analyzed using stormwater storage under streets and/or in the public right-of-way. Figure 4 provides a graphic that shows the approximate extent of underground storage available for a typical road within the Morningside neighborhood. Assuming two 15-foot wide (and 3 feet deep) underground storage vaults can be installed under all of the roads or right-of-way in the Morningside neighborhood, 3-inches of runoff could be stored in those vaults.

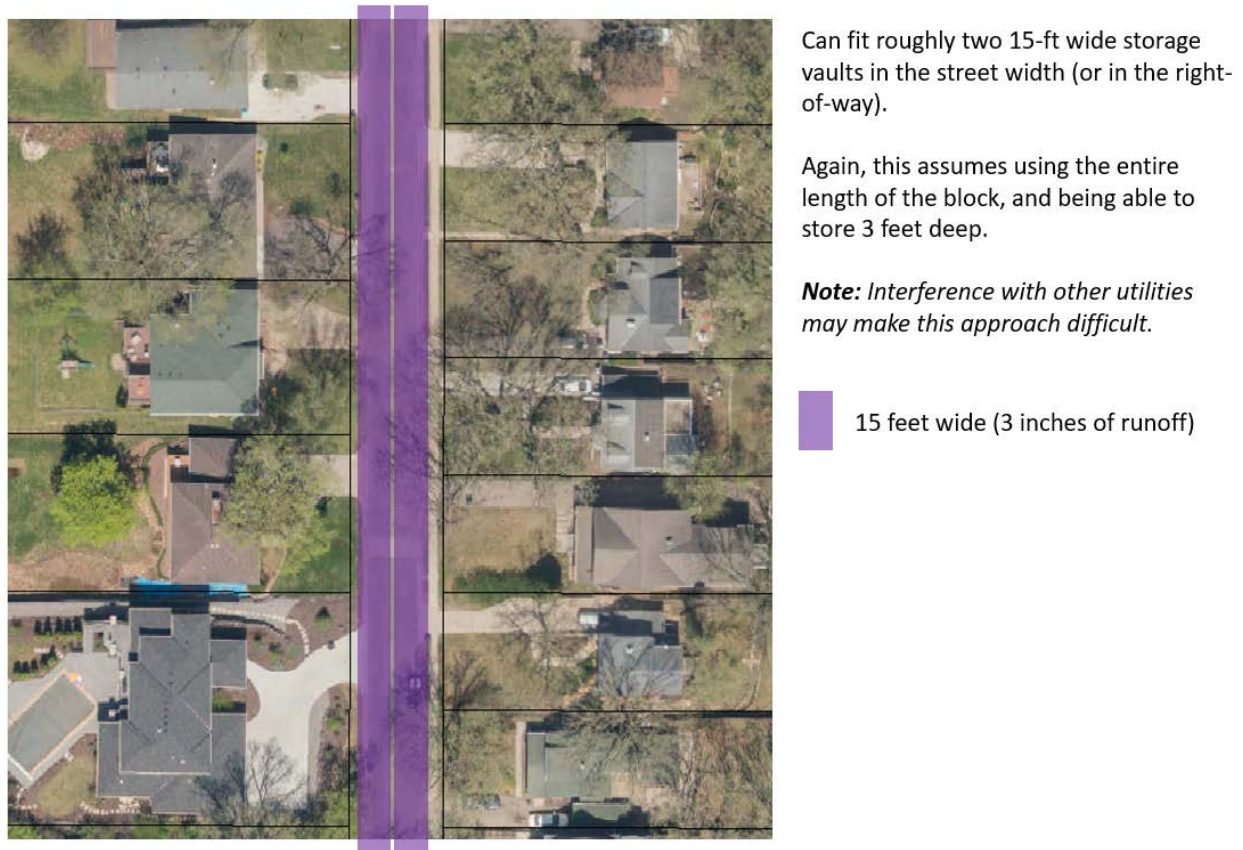


Figure 4 Stormwater storage sizing (width) available for typical roads or right-of-way in the Morningside neighborhood.



Figure 5 shows the subwatersheds in the Morningside neighborhood. Graphs are included below that show the results and range of benefits of residential/private stormwater storage for Weber Pond (subwatershed MS\_40, Figure 6), for the area along Branson between Oakdale Avenue and Grimes Avenue (subwatershed MS\_48, Figure 7), and for the area along Crocker Avenue between West 42<sup>nd</sup> Street and Morningside Road (subwatershed MS\_2, Figure 8).

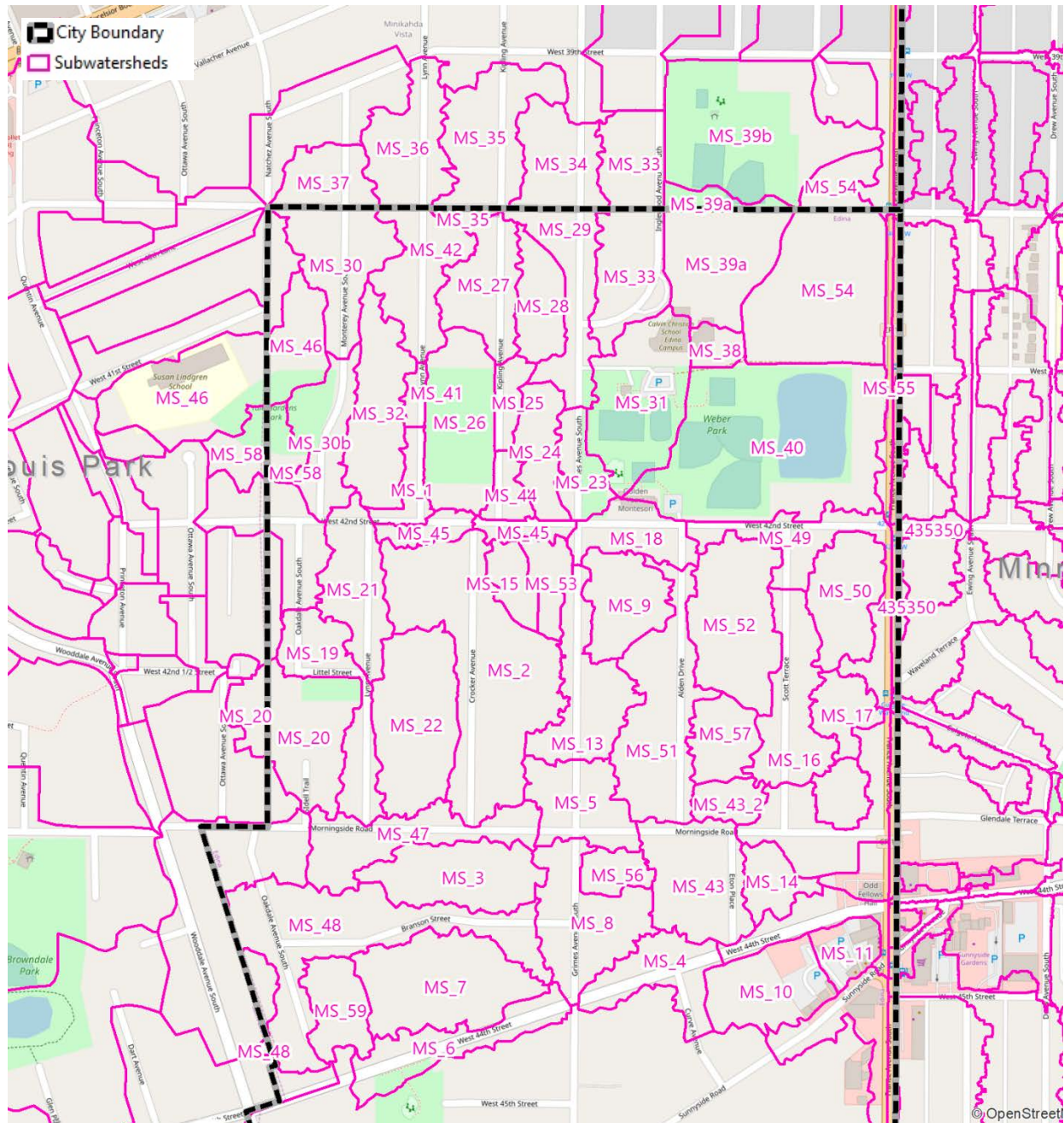
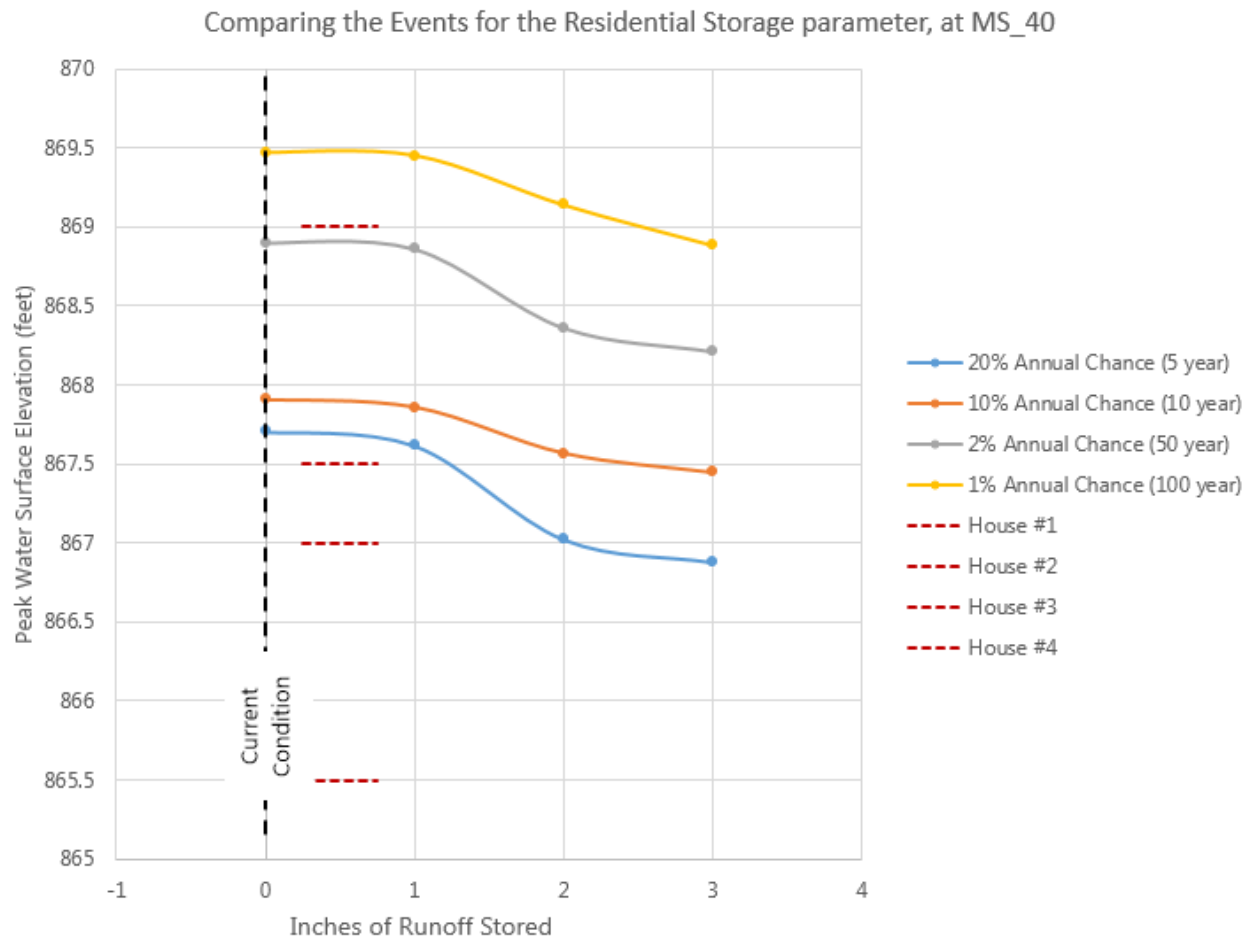


Figure 5 Map showing subwatershed divides in and around the Morningside neighborhood

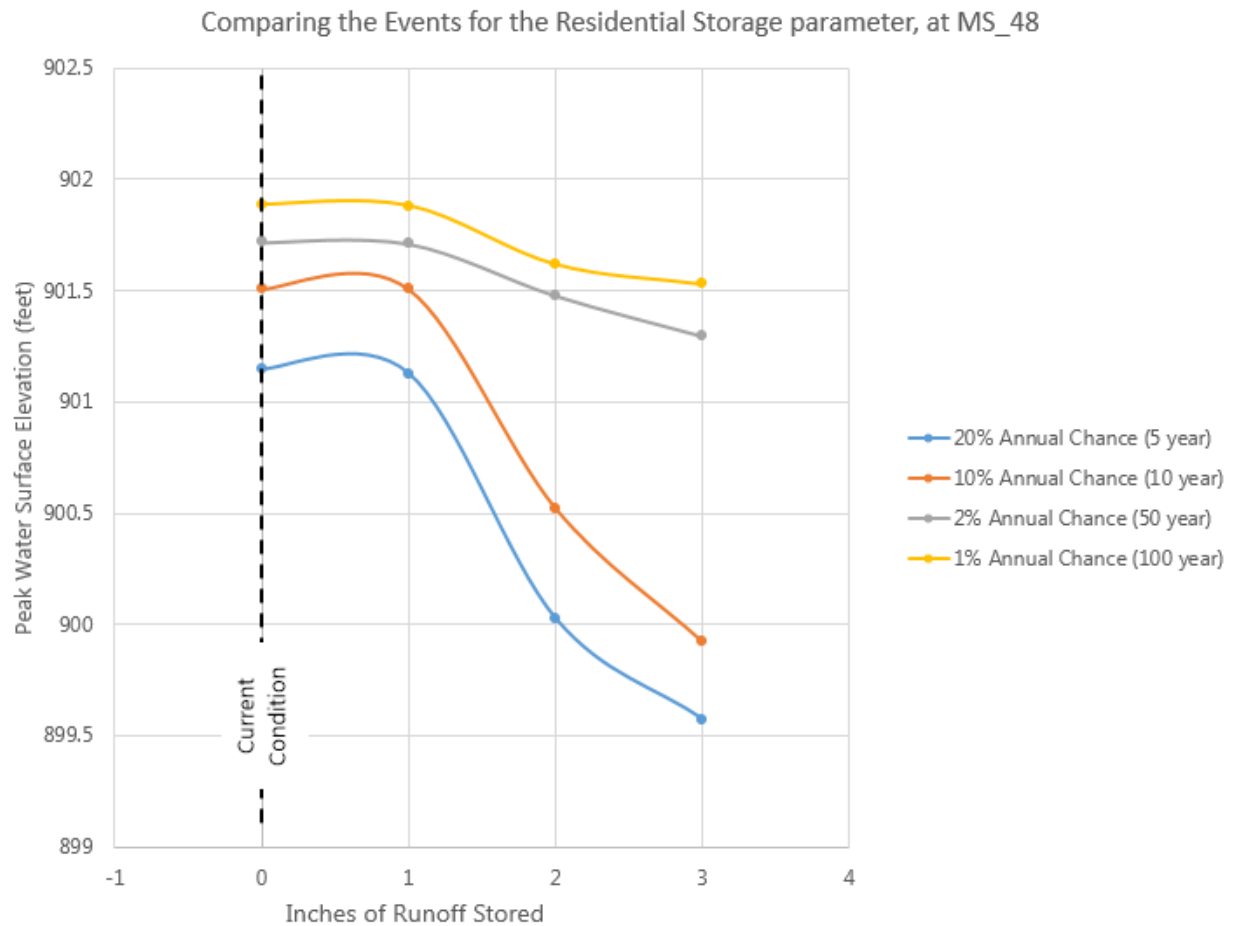
In Figure 6, the horizontal, maroon-dashed lines represent approximate low elevations based on structure footprints for the four lowest homes around Weber Pond. They may or may not represent actual low entry elevations of these homes. However, they give a good representation of the home elevations and how close they are to the flood levels.



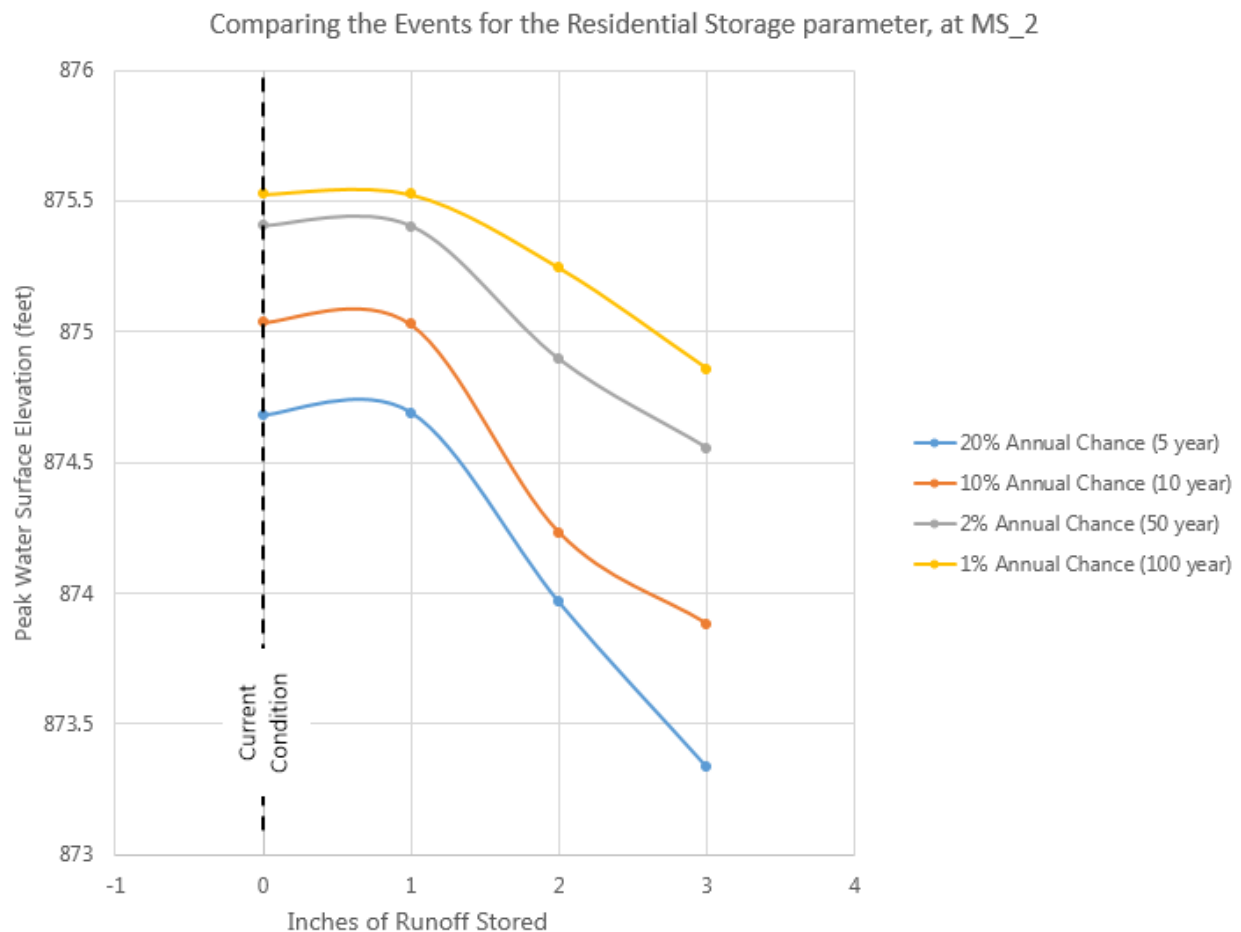
**Figure 6** Peak water surface levels resulting from varying amounts of runoff stored using private infrastructure for varying storm events in the Weber Pond subwatershed (MS\_40).

At first glance, the reductions shown in Figure 6 appear smaller than would be expected. There are multiple other factors affecting the flood volume stored in Weber Pond. First, Weber Pond ultimately receives water from Edina and also from St. Louis Park and Minneapolis. While private infrastructure is overall beneficial, reducing the runoff to Weber Pond from Edina may allow more water from St. Louis Park and Minneapolis to fill the pond back up during an event. Second, at the peak flood elevations shown in Figure 6, stormwater flows out of Weber Pond both *into* Weber Park and *over* France Avenue to the east to Minneapolis. When ponds rise high enough to overflow banks, additional water does not tend to have a significant impact on the water level since water can start following natural overflow paths.





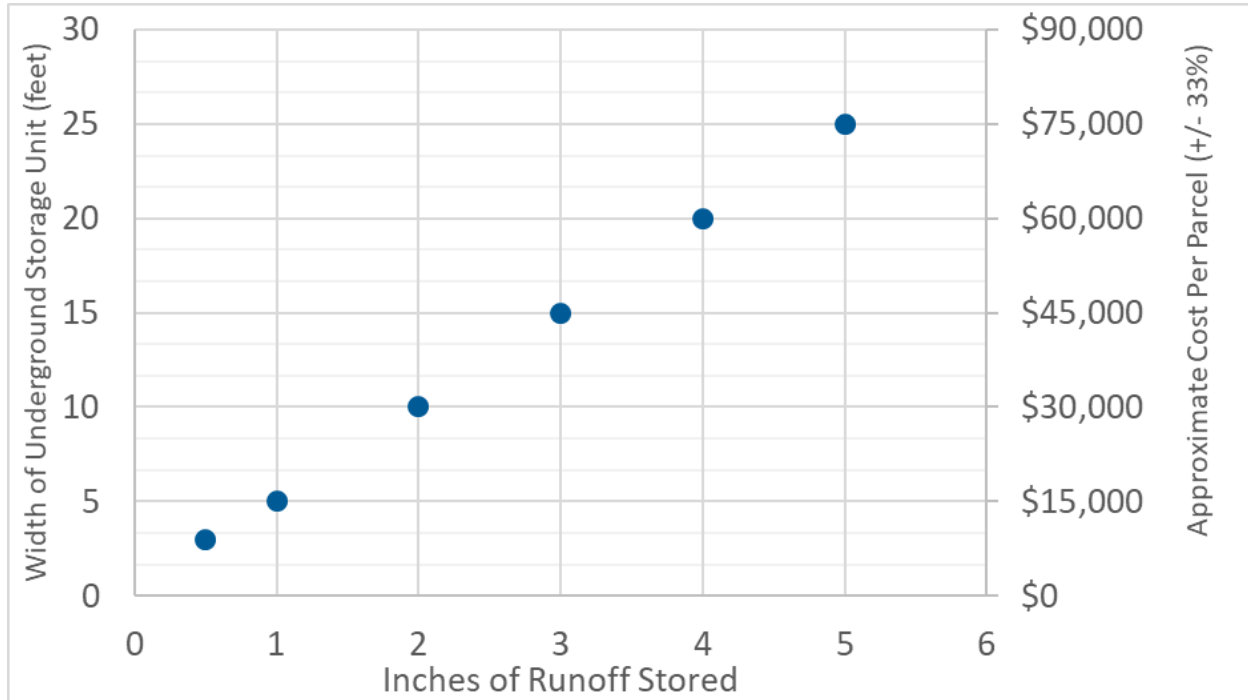
**Figure 7** Peak water surface levels resulting from varying amounts of runoff stored using private infrastructure for varying storm events in subwatershed MS\_48.



**Figure 8** Peak water surface levels resulting from varying amounts of runoff stored using private infrastructure for varying storm events in subwatershed MS\_2.

Barr commonly estimates that the cost per cubic foot of underground stormwater storage is approximately \$10 to \$20. For one inch of runoff, for one 0.25-acre parcel, storage volume equals 900 cubic feet. This equates to a little under \$15,000 (+/- \$5,000) per parcel per inch of runoff stored. Figure 9 shows the approximate cost per parcel of underground storage using varying widths of underground storage units and varying amounts of runoff stored. To put the cost of private underground storage into perspective, Figure 10 shows a portion of the Morningside neighborhood (~180 parcels) and provides a breakdown of an approximate cost to capture two inches of runoff from every parcel.





**Figure 9** Approximate cost per parcel of underground storage using varying widths of underground storage units and varying amounts of runoff stored.



**Figure 10** Cost breakdown for using private stormwater storage for a portion of the Morningside neighborhood.



In total, there are approximately 570 residential parcels in the Morningside neighborhood watershed drainage area, as shown in Figure 11.

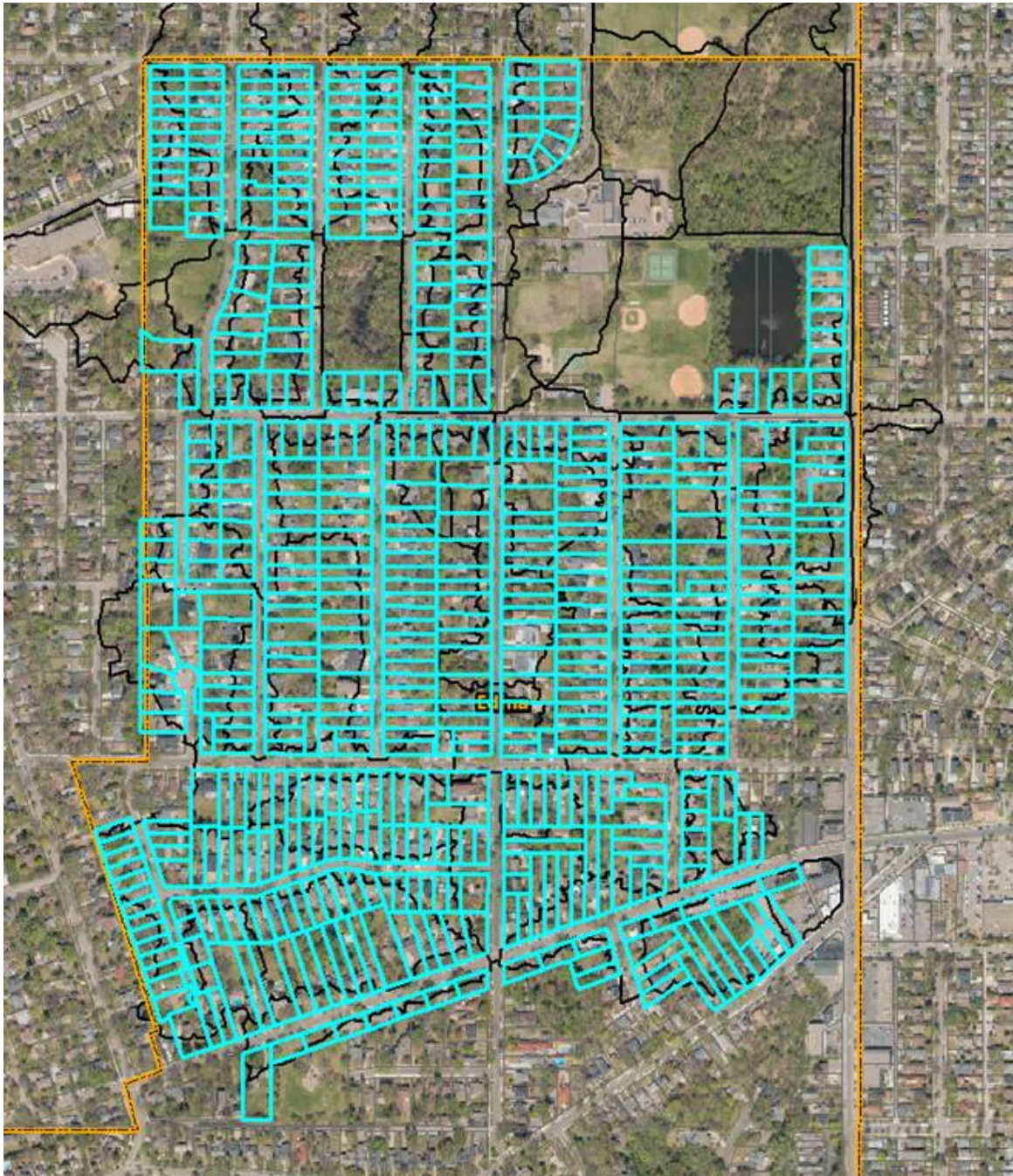


Figure 11 Parcels in the Morningside neighborhood watershed/drainage area.



The results of Barr's private storage analysis are summarized in Table 1 below. Recall that storing 1-inch of runoff from every parcel in Morningside had a marginal benefit in general on peak flood levels. Table 1 below shows that to store 2-inches of runoff in the entire neighborhood would cost approximately \$17 million. While storing 2-inches of runoff does reduce flood levels, the number of homes that are removed from potential impacts from flood inundation is small. For example, as shown in Figure 6, depending on the storm event, this level of effort may potentially remove only one home from flood inundation at Weber Pond.

**Table 1 Summary of costs and benefits of private stormwater storage for the whole Morningside neighborhood.**

<b>Inches of Runoff Stored</b>	<b>Cost for All Parcels to Store the Runoff</b>	<b>Flood Level Reduction Benefit (in feet) for Weber Pond Subwatershed (MS_40)</b>			
		<b>5-yr Storm (3.59" of precip)</b>	<b>10-yr Storm (4.29" of precip)</b>	<b>50-yr Storm (6.39" of precip)</b>	<b>100-yr Storm (7.49" of precip)</b>
1 inch	\$ 8,550,000	0.1	<0.1	<0.1	0
2 inches	\$ 17,100,000	0.6	0.3	0.5	0.3
3 inches	\$ 25,650,000	0.7	0.9	0.6	0.5

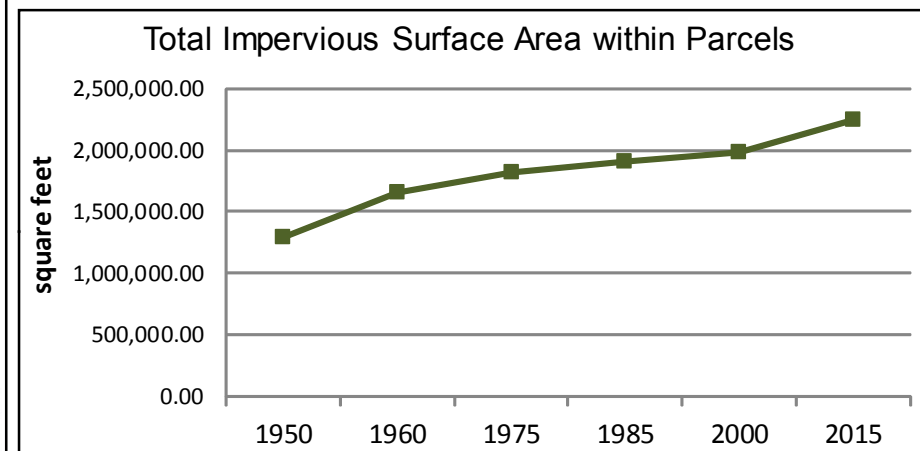
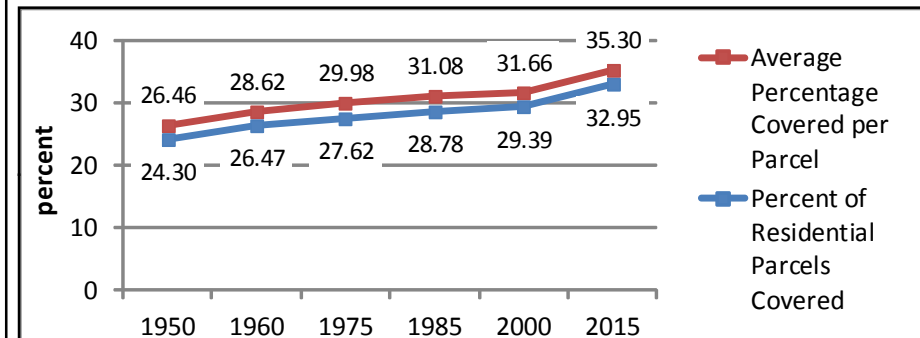
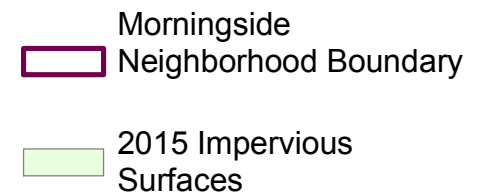
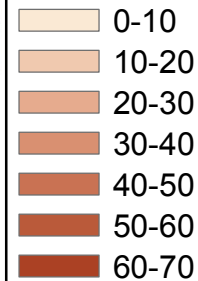


# Morningside Impervious Surfaces

Impervious surface area includes primary and accessory structures, driveways, private paths, decks, patios, and pool decks.

Average percent covered per parcel (2015): 35.30%  
Average impervious area per parcel (2015): 3,419.03 sq ft  
Minimum percent covered: 0.34%  
Maximum percent covered: 65.74%

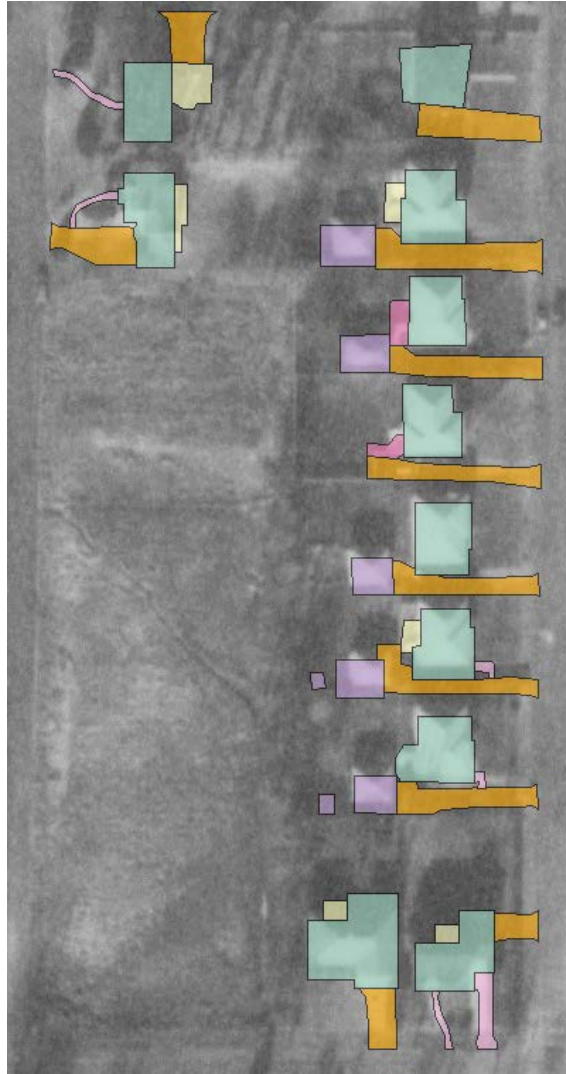
## Percent Impervious Surface



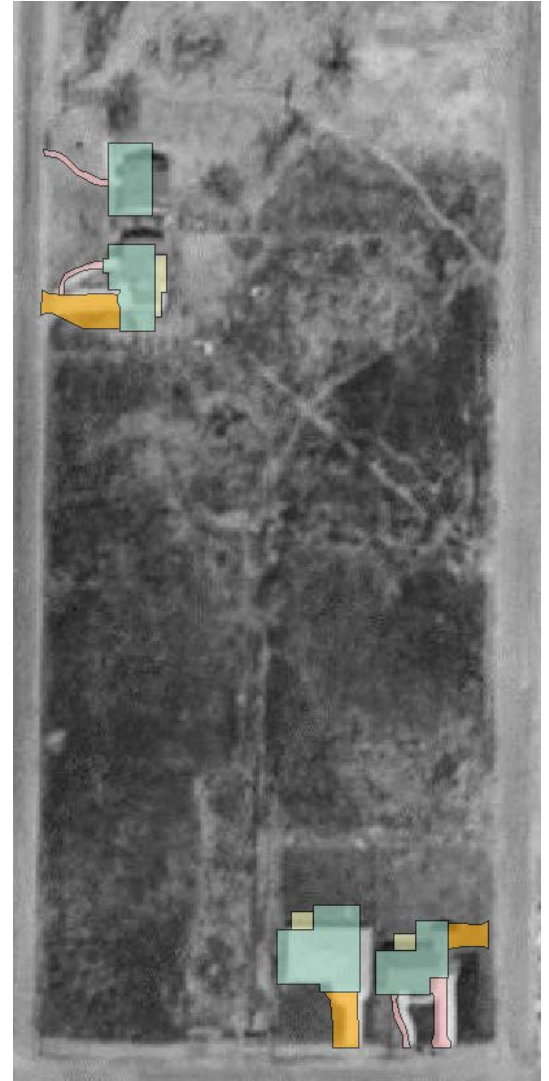




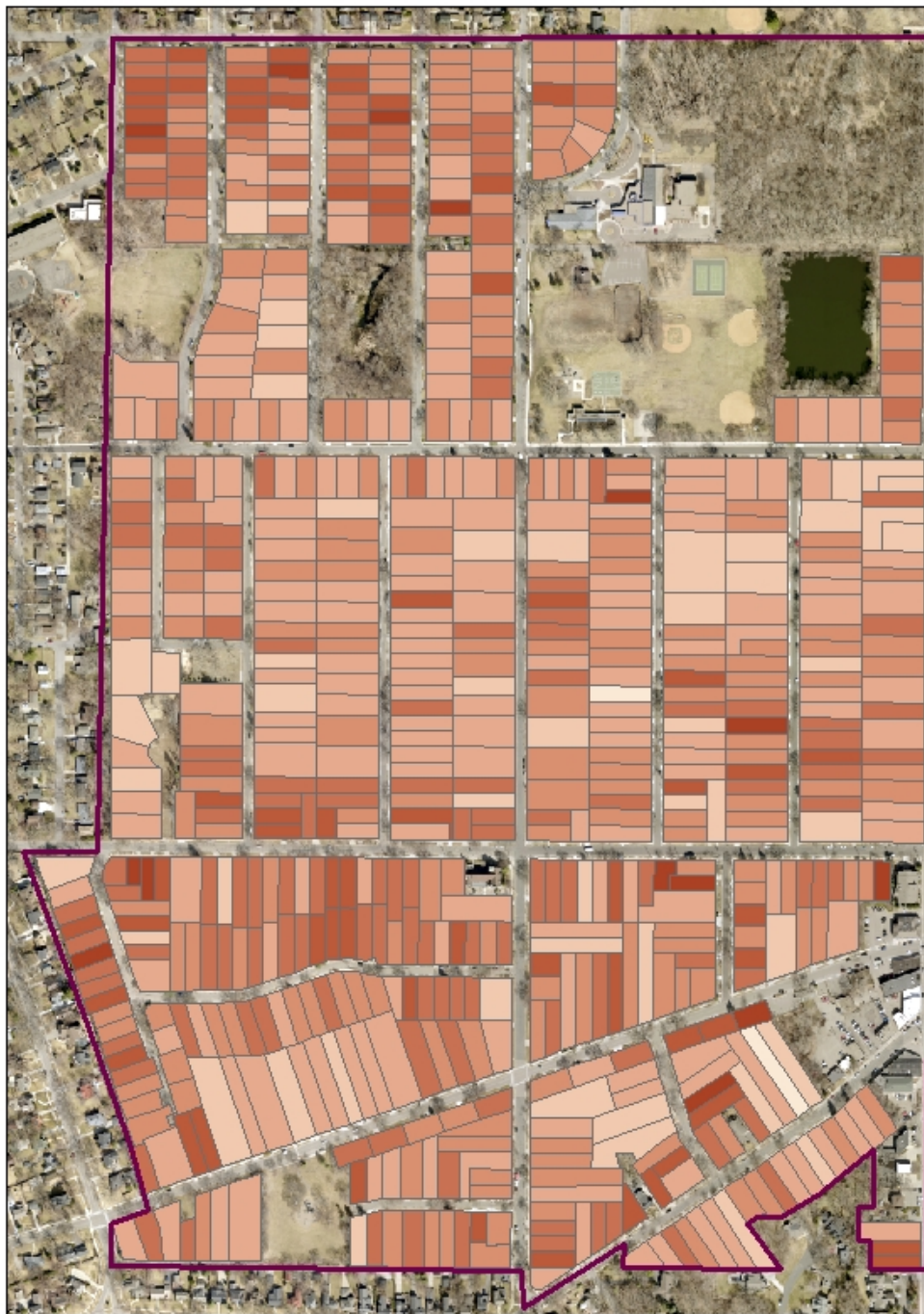
2015



1960



1950



## Morningside Impervious Surfaces



Impervious surface area includes primary and accessory structures, driveways, private paths, decks, patios, and pool decks.

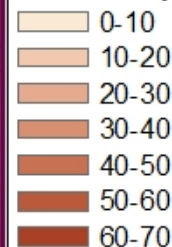
Average percent covered per parcel (2015): 35.30%

Average impervious area per parcel (2015): 3,419.03 sq ft

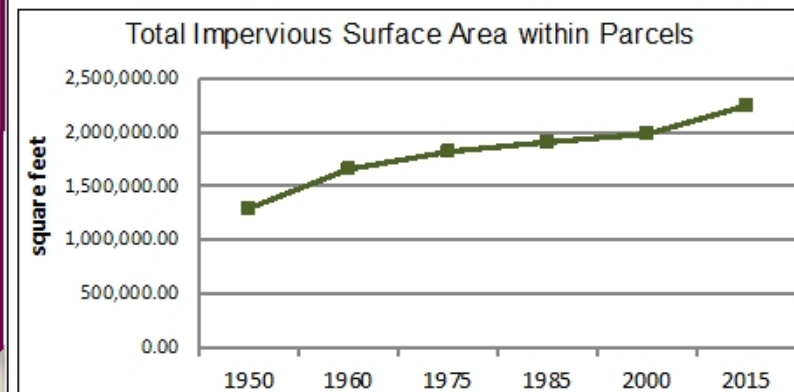
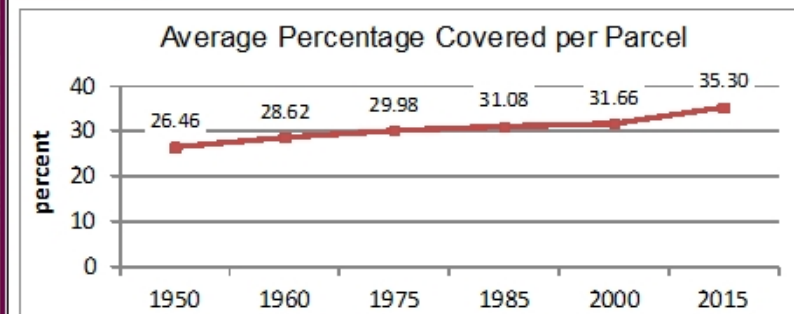
Minimum percent covered: 0.34%

Maximum percent covered: 65.74%

### Percent Impervious Surface

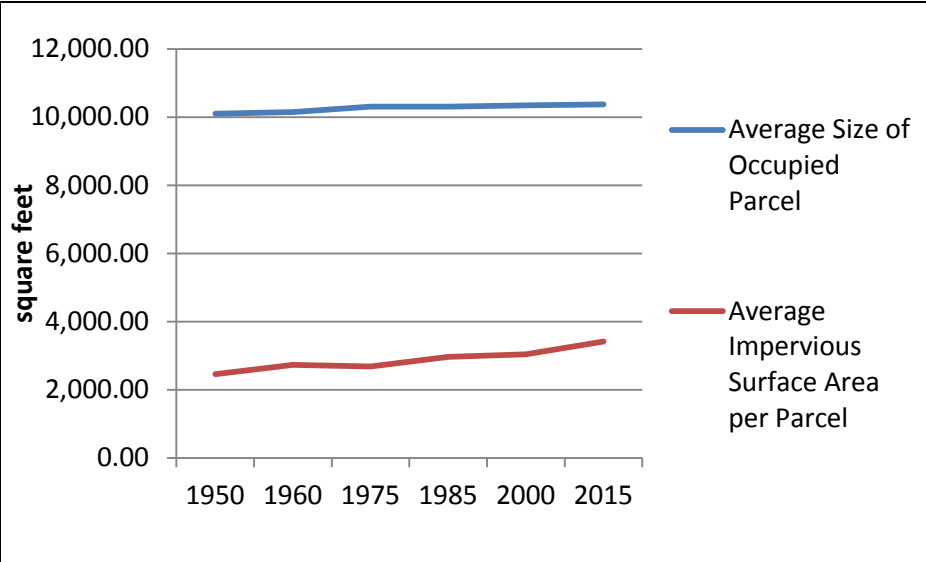
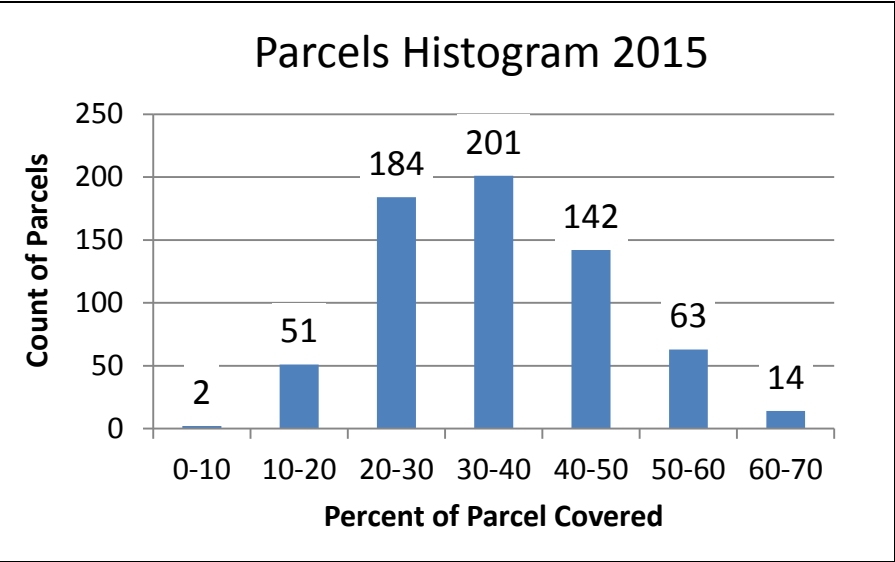
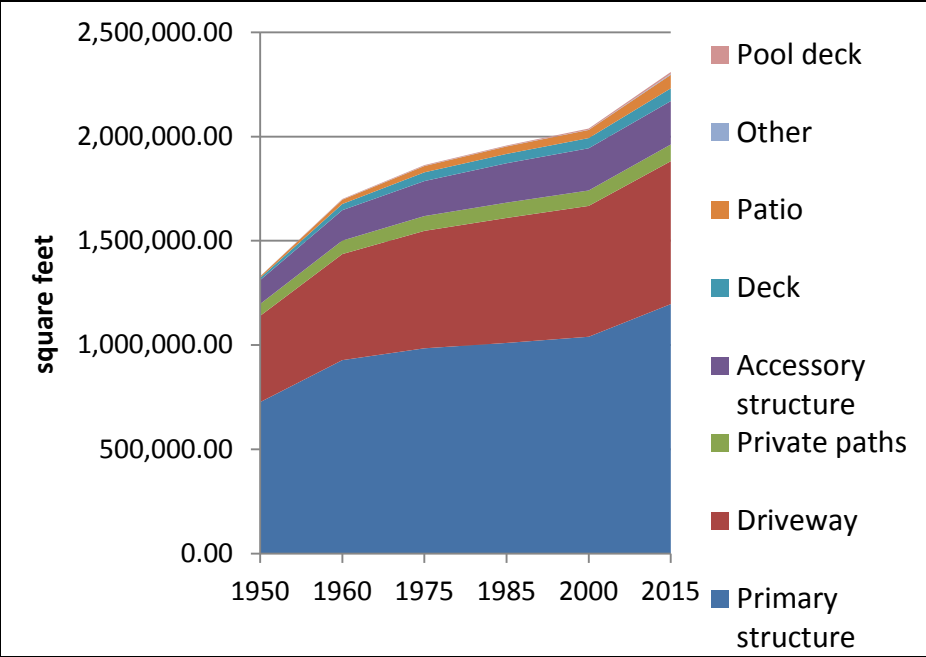
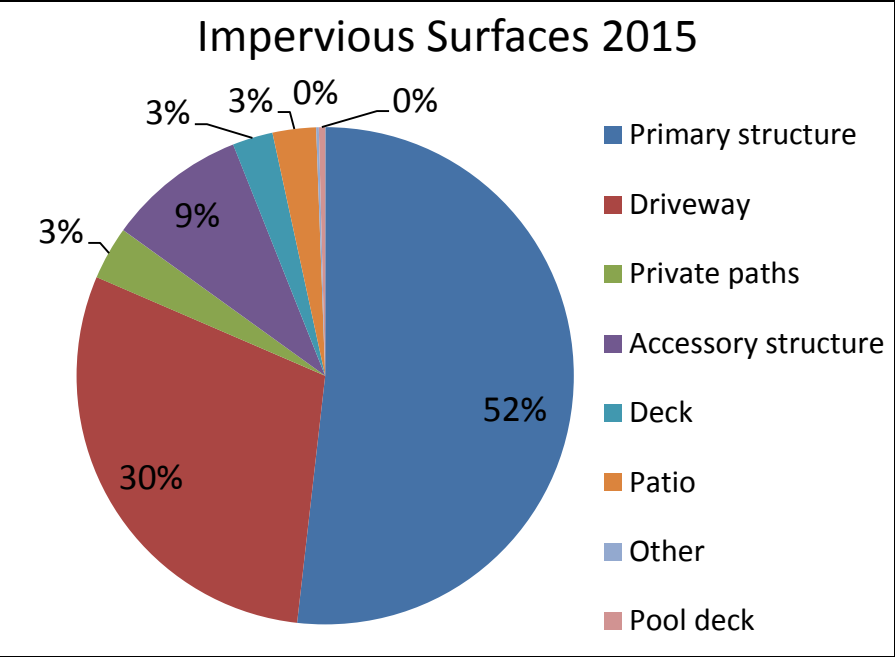


Morningside  
Neighborhood Boundary





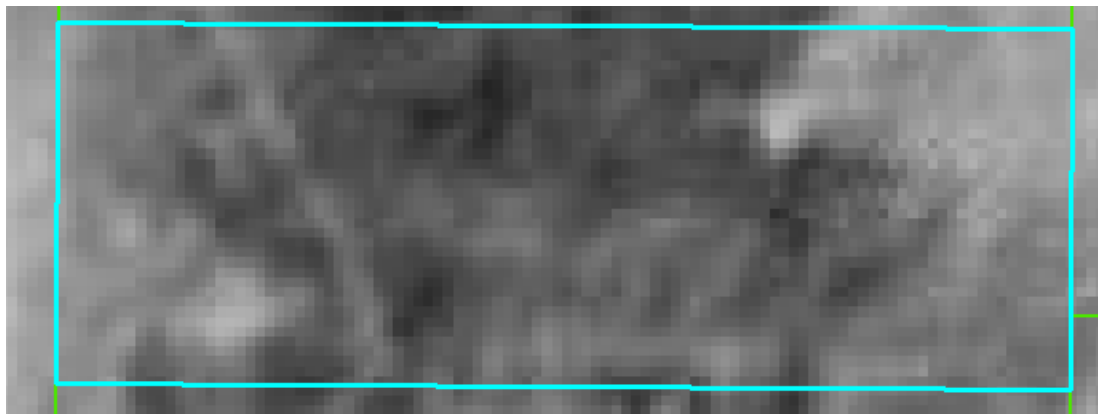
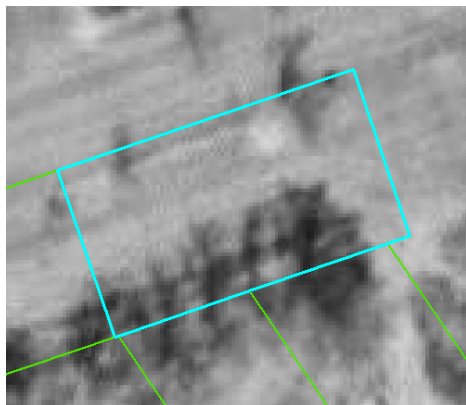
Average impervious surface area per parcel increased 39% from 1950 to 2015. Average size of occupied parcels increased by 3%. Average impervious surface area per parcel increased 12% from 2000 to 2015. Average size of occupied parcels increased by <1%.



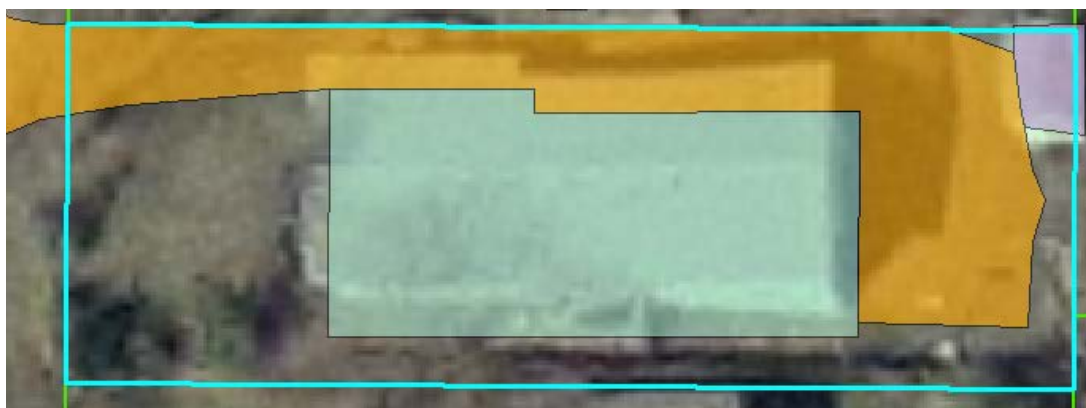
65.74%

64.46%

1950



2000



2015



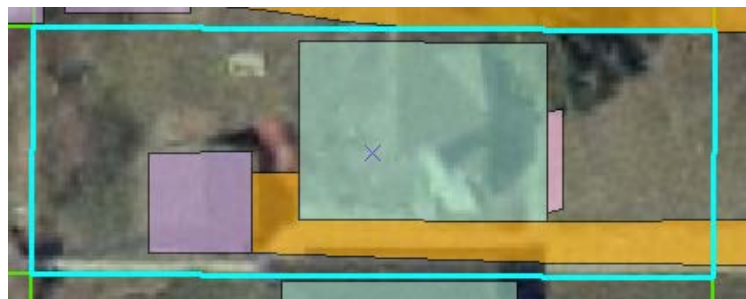


63.44%

1950



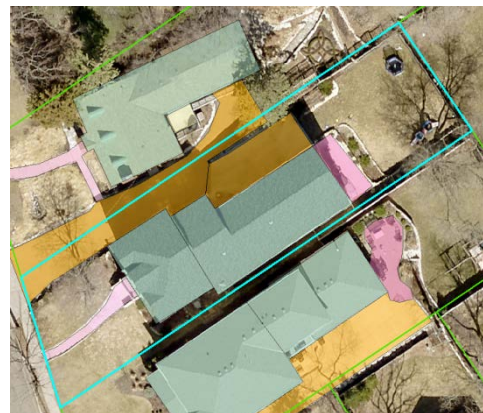
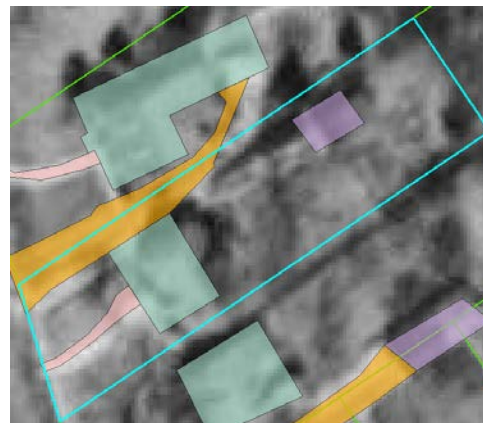
2000



2015



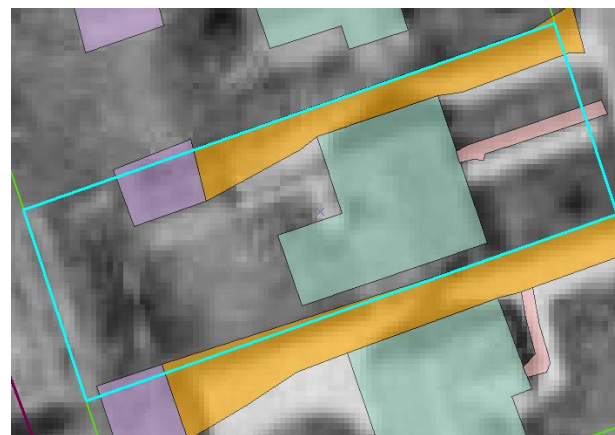
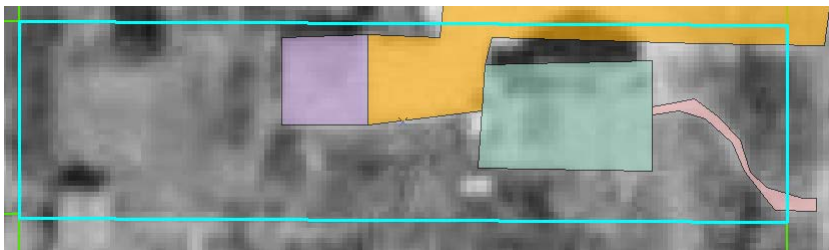
62.17%



61.1%

60.79%

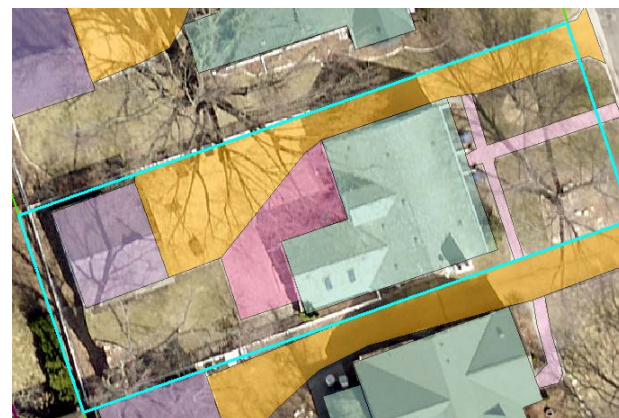
1950



2000



2015





Sec. 36-438. - Requirements for building coverage, setbacks and height.

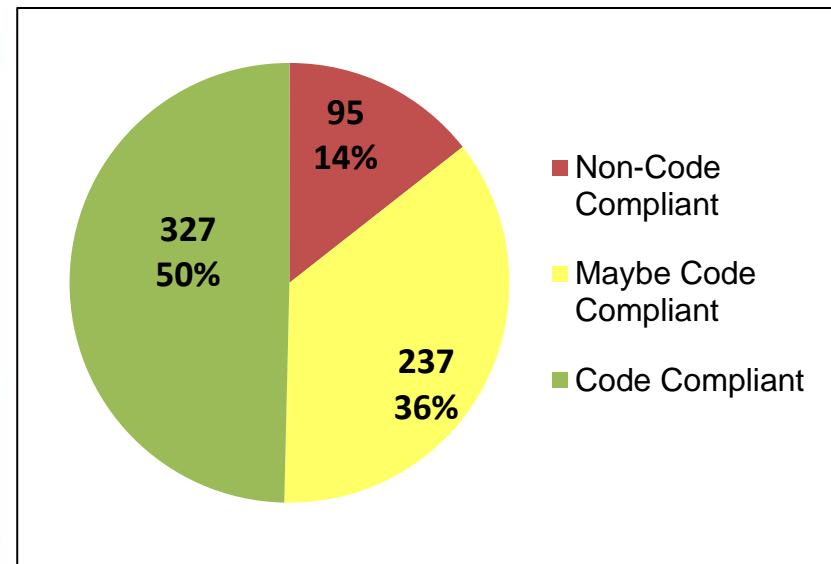
The minimum requirements for building coverage, setbacks and height in the **Single Dwelling Unit District (R-1)** are as follows:

(1) *Building coverage.*

- a. **Lots 9,000 square feet or greater** in area. Building coverage shall be **not more than 25 percent** for all buildings and structures. On lots with an existing conditional use, if the combined total area occupied by all accessory buildings and structures, excluding attached garages, is 1,000 square feet or greater, a conditional use permit is required.
- b. **Lots less than 9,000 square feet** in area. Building coverage shall be **not more than 30 percent** for all buildings and structures; provided, **however, that the area occupied by all buildings and structures shall not exceed 2,250 square feet.**
- c. Combined total area. The combined total area occupied by all accessory buildings and structures, excluding attached garages, shall not exceed 1,000 square feet for lots used for single dwelling unit buildings.
- d. Building coverage shall include **all principal or accessory buildings, including, but not limited to:**
  - 1. **Decks and patios.** The first 150 square feet of an unenclosed deck or patio shall not be included when computing building coverage.
  - 2. **Gazebos**
  - 3. **Balconies.**
  - 4. **Breezeways.**
  - 5. **Porches.**
  - 6. **Accessory recreational facilities** constructed above grade, such as paddle tennis courts.
- e. The following improvements **shall be excluded** when computing building coverage:
  - 1. **Driveways and sidewalks**, but not patios, subject to subsection (1)d.1 of this section.
  - 2. Parking lots and parking ramps.
  - 3. Accessory recreational facilities not enclosed by solid walls and not covered by a roof, including **outdoor swimming pools**, tennis courts and shuffleboard courts.
  - 4. Unenclosed steps and stoops less than 50 square feet.
  - 5. Overhanging eaves and roof projections not supported by posts or pillars.

Parcels with red boundaries are non-code compliant based on building structure area (greater than 2,250 sq ft) despite being within 5% of their coverage limit (30%).

\*2,250 sq ft limit only applies to parcels under 9,000 sq ft.







# Survey of Cities

Single-dwelling unit residential standards  
Coverage and impervious maximums  
Metro Cities



**Apple Valley**

<b>Zoning</b>	<b>R-5</b>	<b>R-2</b>	<b>R-3</b>
FAR	None	None	None
Max. building coverage	None	None	None
Max. impervious surface	None	None	None

**Blaine**

<b>Zoning</b>	<b>R-1</b>	<b>R-1A</b>	<b>R-1AA</b>
Max. building coverage	None	None	None
Max. impervious surface	None	None	None

**Bloomington**

<b>Zoning</b>	<b>R-1</b>	<b>RS-1</b>
Max. building coverage	None	None
Max. impervious surface	35%	35%

**Burnsville**

<b>Zoning</b>	<b>R-1</b>
Max. building coverage	None
Max. impervious surface	None

**Eagan**

<b>Zoning</b>	<b>R-1</b>	<b>R-1S</b>
Max. building coverage	20%	25%
Max. impervious surface	None 25% for shoreline	None 25% for shoreline

**Eden Prairie**

<b>Zoning</b>	<b>R1-22</b>	<b>R1-13.5</b>	<b>R1-9.5</b>
Max. building coverage	None	None	None
Max. Impervious surface	None 30% for shoreline	None 30% for shoreline	None 30% for shoreline

**Edina**

<b>Zoning</b>	<b>R-1</b>
Max. building coverage	25% 30% if lot is less than 9,000 square feet
Max. Impervious surface	None

**Hopkins**

<b>Zoning</b>	<b>R-1A</b>	<b>R-1B</b>	<b>R-1c</b>
FAR	None	None	None
Max. building coverage	35%	35%	35%
Max. Impervious surface	None	None	None

**Lakeville**

<b>Zoning</b>	<b>RS-1</b>	<b>RS-2</b>	<b>RS-3</b>	<b>RS-4</b>
Max. building coverage	None	None	None	None
Max. impervious surface	None	None	None	None

**Maple Grove**

<b>Zoning</b>	<b>R-1</b>	<b>R-2</b>	<b>R-2B</b>
Max. building coverage	None	None	None
Max. impervious surface	None	None	None

**Minneapolis**

<b>Zoning</b>	<b>R-1</b>	<b>R-2</b>	<b>R-3</b>
Max. building coverage	45%	45%	45%
Max. impervious surface	60%	60%	60%

**Minnetonka**

<b>Zoning</b>	<b>R-1</b>
Max. building coverage	None
Max. Impervious surface	None 30% Impervious within 150 ft of lake 75% impervious within 1000 ft of lake



**New Brighton**

<b>Zoning</b>	<b>R-1</b>
Max. building coverage	30%
Max. Impervious surface	50%

**Plymouth**

<b>Zoning</b>	<b>RSF-1</b>	<b>RSF-2</b>	<b>RSF-3</b>
Max. building coverage	30%	30%	35%
Max. impervious surface	None 25% within 1000 ft of water body	None 25% within 1000 ft of water body	None 25% within 1000 ft of water body

**St. Louis Park**

<b>Zoning</b>	<b>R-1</b>	<b>R-2</b>
Max. building coverage	35%	35%
Max. impervious surface	None	None

**Wayzata**

<b>Zoning</b>	<b>R-3A</b>	<b>R-2A</b>	<b>R-2</b>
Max. building coverage	30%	20%	20%
Max. impervious surface	None	None	None

**Woodbury**

<b>Zoning</b>	<b>R-4</b>
Max. building coverage	35%
Max. impervious surface	None



## CITY OF EDINA

4801 West 50th Street

Edina, MN 55424

[www.edinamn.gov](http://www.edinamn.gov)

**Date:** September 22, 2021

**Agenda Item #:** VII.B.

**To:** Planning Commission

**Item Type:**

Other

**From:** Cary Teague, Community Development Director

**Item Activity:**

**Subject:** 2022 Planning Commission Work Plan

Action

---

### **ACTION REQUESTED:**

Approve the 2022 Planning Commission Work Plan

### **INTRODUCTION:**

Attached is a draft of the work plan with the additions recommended at the last work session. Also attached is the schedule for the City Council adopting the plan. Note that the chair will present the draft to the City Council on October 5.

### **ATTACHMENTS:**

2022 PC Work Plan

Work Plan Time Line





## Commission: Planning Commission 2022 Annual Work Plan Proposal

<b>Initiative #1</b>	<b>Initiative Type</b> <input type="checkbox"/> Project <input checked="" type="checkbox"/> Ongoing / Annual <input type="checkbox"/> Event <b>Council Charge</b> <input type="checkbox"/> 1 (Study & Report) <input type="checkbox"/> 2 (Review & Comment) <input checked="" type="checkbox"/> 3 (Review & Recommend) <input checked="" type="checkbox"/> 4 (Review & Decide)		
<b>Initiative Title:</b> Review Land Use Applications.		<b>Deliverable:</b> Final Decisions on variances and recommendations to the City Council on CUP, Site Plans and Rezoning	<b>Leads:</b> Staff <b>Target Completion Date:</b> On-going
<b>Budget Required: (Completed by staff)</b> No budget required.			
<b>Staff Support Required (Completed by staff):</b> Yes. 60-80 staff hours per week (between 3 planners and administrative assistant)			
<b>Liaison Comments:</b> This is the bulk of the Planning Commission responsibilities; including reviewing the packets (staff reports, plans, studies, and applicant narratives twice per month)			
<b>City Manager Comments:</b>			
<b>Progress Q1:</b>			
<b>Progress Q2:</b>			
<b>Progress Q3:</b>			
<b>Progress Q4:</b>			

<b>Initiative #2</b>	<b>Initiative Type</b> <input checked="" type="checkbox"/> Project <input type="checkbox"/> Ongoing / Annual <input type="checkbox"/> Event <b>Council Charge</b> <input type="checkbox"/> 1 (Study & Report) <input type="checkbox"/> 2 (Review & Comment) <input checked="" type="checkbox"/> 3 (Review & Recommend) <input type="checkbox"/> 4 (Review & Decide)		
<b>Initiative Title:</b> Continue the Planning Study of the Edina Business Park. (The office/industrial area between Highway 100, Cahill Road, 70th Street and Edina's southern border.) This Study would include recommendations from Chapter 10, Economic Competitiveness.		<b>Deliverable:</b> Recommendation on a District Plan for the City Council to consider	<b>Leads:</b> Staff, Work Group Chairs (David Alkire and Kate Agnew) & Consultant <b>Target Completion Date:</b> End of 2022
<b>Budget Required: (Completed by staff)</b> Yes. This study is already included in the City's budget.			
<b>Staff Support Required (Completed by staff):</b> Yes. 10-20 staff hours per week (between planning staff and administrative assistant)			
<b>Liaison Comments:</b> On-going review from 2021. This will include several evening meetings.			
<b>City Manager Comments:</b>			

Progress Q1:
Progress Q2:
Progress Q3:
Progress Q4:

<b>Initiative #3</b>	<b>Initiative Type</b> <input checked="" type="checkbox"/> Project <input type="checkbox"/> Ongoing / Annual <input type="checkbox"/> Event <b>Council Charge</b> <input type="checkbox"/> 1 (Study & Report) <input type="checkbox"/> 2 (Review & Comment) <input checked="" type="checkbox"/> 3 (Review & Recommend) <input type="checkbox"/> 4 (Review & Decide)			
<b>Initiative Title:</b> Re-consider sketch plan process. Including an examination of the development process, public feedback, and number of public hearings. (This was a recommendation of the Housing Task Force)		<b>Deliverable:</b> Recommendation to the City Council on the Sketch Plan process.		<b>Leads:</b> Staff & small work group of the planning commission
				<b>Target Completion Date:</b> End of 2022
<b>Budget Required: (Completed by staff)</b> No budget required.				
<b>Staff Support Required (Completed by staff):</b> Yes. Staff support required.				
<b>Liaison Comments:</b> Staff support would include study of other city processes, staff memos and recommendations.				
<b>City Manager Comments:</b>				
Progress Q1:				
Progress Q2:				
Progress Q3:				
Progress Q4:				

<b>Initiative #4</b>	<b>Initiative Type</b> <input type="checkbox"/> Project <input checked="" type="checkbox"/> Ongoing / Annual <input type="checkbox"/> Event <b>Council Charge</b> <input type="checkbox"/> 1 (Study & Report) <input type="checkbox"/> 2 (Review & Comment) <input checked="" type="checkbox"/> 3 (Review & Recommend) <input type="checkbox"/> 4 (Review & Decide)			
<b>Initiative Title:</b> Zoning Ordinance Amendments. Front Yard Setbacks, Sign Ordinance, Accessory Dwelling Units (Research and get background to understand ramifications, potential and possibilities – this also was a recommendation of the Housing Task Force.).		<b>Deliverable:</b> Recommendation to the City Council		<b>Leads:</b> Staff and small working group of the planning commission if needed.
				<b>Target Completion Date:</b> End of 2022
<b>Budget Required: (Completed by staff)</b> No budget required.				
<b>Staff Support Required (Completed by staff):</b> Yes. Staff support required.				
<b>Liaison Comments:</b> Staff support would include study of other city processes, staff memos and draft ordinances.				



City Manager Comments:
Progress Q1:
Progress Q2:
Progress Q3:
Progress Q4:

<b>Initiative #5</b>	<b>Initiative Type</b> <input checked="" type="checkbox"/> Project <input type="checkbox"/> Ongoing / Annual <input type="checkbox"/> Event <b>Council Charge</b> <input type="checkbox"/> 1 (Study & Report) <input type="checkbox"/> 2 (Review & Comment) <input checked="" type="checkbox"/> 3 (Review & Recommend) <input type="checkbox"/> 4 (Review & Decide)		
<b>Initiative Title:</b> Public & Private Parking. Continuation from the Off-Street Private Parking Regulation Ordinance. To review the City of Edina parking ordinances and the extent of subsidy given to car infrastructure in Edina. Planned deliverables during 2022 would be a report to City Council with our findings related to car infrastructure, a strategy for engagement with residents, and subsequent ordinance revisions." (This also was a recommendation of the Housing Task Force.)	<b>Deliverable:</b> Recommendation to the City Council	<b>Leads:</b> Staff and small working group of the planning commission.	<b>Target Completion Date:</b>  End of 2022
<b>Budget Required: (Completed by staff)</b> No budget required.			
<b>Staff Support Required (Completed by staff):</b> Yes. Staff support required regarding the ordinance amendments.			
<b>Liaison Comments:</b> Some of this work would be completed by planning commissioners.			
City Manager Comments:			
Progress Q1:			
Progress Q2:			
Progress Q3:			
Progress Q4:			

**Parking Lot:** (These items have been considered by the BC, but not proposed as part of this year's work plan. If the BC decides they would like to work on them in the current year, it would need to be approved by Council.)

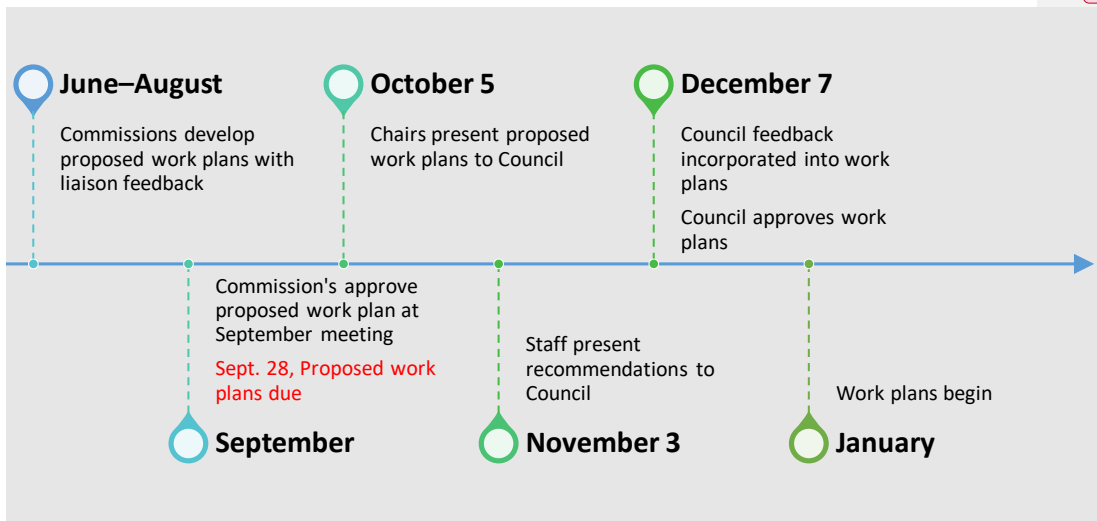



#### Staff Support – Staff Liaison Completes.

List all staff support needed to complete this initiative. Include the hours and responsibilities. Select all groups needed. I.e. IT, Communications, Equity, etc

#### TIMELINE

**Commented [ML1]:** @Cary Teague here are the key dates.



#### MEETING INFORMATION & ROLES

##### October 5, 2021, City Council Work Session

###### Meeting goals

Introduce the commissions proposed 2020 work plan to Council for the first time.

###### Attendance / Stage Direction

Commission chair (or designee) sits the table with Council. Liaisons sit on the perimeter.

###### Liaison Role

Do not present, be available for questions only.

###### Chair Role

Commission Chairs (or designee) present the commission's 2020 proposed work plan.

###### City Manager Role

Remind Council of meeting goal and help move along discussion to allow all commissions to have time.

###### City Council Role

Review and ask clarifying questions about proposed 2020 work plans. Give feedback to City Staff on possible amendments to work plan initiatives.

## **November 3, 2021, City Council Work Session**

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### *Meeting goals*

*Review staff / liaison feedback on proposed 2020 commission work plans.*

### *Attendance / Stage Direction*

*Commission members are not in attendance.*

*Liaisons sit at the table with Council.*

### *Liaison Role*

*Do not present, be available for questions.*

### *Chair Role*

*Not in attendance.*

### *City Manager Role*

*Present proposed 2020 commission work plans with*

### *City Council Role*

*Review and ask clarifying questions about proposed 2020 work plans. Provide feedback on work plan initiatives. This would include:*

- Adding / removing an initiative*
- Changing scope of an initiative*
- Moving an initiative from one work plan to another*

## **December 7, 2021, City Council Meeting**

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### *Meeting goals*

*Approve 2020 commission work plans.*

### *Attendance / Stage Direction*

*None.*

### *Liaison Role*

*Do not need to attend.*

### *Chair Role*

*Do not need to attend.*

### *City Manager Role*

*Available for questions.*

### *City Council Role*

*Approve work plans.*