



**City of North St. Paul
City Council
Workshop Meeting Agenda**

**September 21, 2021
5:00 PM**

The City Council Meeting will be conducted on **September 21, 2021** at 5:00 p.m. The meeting location is the City Council Chambers of City Hall, located at 2400 Margaret St., North St. Paul.

The City Council will also be meeting by interactive TV under Minn. Stat. 13D.02. Members of the public are permitted to attend the meeting in person. However, it is encouraged to participate in the meeting remotely. Instructions can be found below.

The **September 21, 2021** Zoom meeting can be accessed via:

<https://tinyurl.com/NSPCityCouncil>

or by phone at 1-929-205-6099, meeting ID 821 4097 2224, password 362656.

You can also watch the meeting on our YouTube channel here tinyurl.com/NSPYouTube

The City Council Zoom meeting will be 'open to the public' to listen in but will be muted from contributing at all times with the exception of a Public Hearing and open to the public forum.

I. Call to Order

II. Roll Call

Council Member Thorsen
Council Member Petersen
Council Member Wong
Council Member Cole
Mayor Furlong

III. Adopt Agenda

IV. Topic(s)

- A. 2483 2nd Ave - Flood Hazard Mitigation Grant Funding Assistance Discussion
- B. ISD #622 North High School Conditional Use Permit, Building Height Variance Requests and Parking Lot Improvements Discussion

V. Other Business

VI. Adjournment

The next regularly scheduled City Council Workshop meeting is October 5, 2021.

**To**

Honorable Mayor Furlong and City Council

Date

September 21, 2021

Agenda Placement # IV.A

Topic(s)

Subject

2483 2nd Ave - Flood Hazard Mitigation Grant Funding Assistance Discussion

Background/Facts**2483 2nd Avenue Property Review – Grading and Drainage****Summary**

North St. Paul storm sewer capacity, by design, is expected to be exceeded during extreme rain events and flash flood storms, causing localized flooding in low-lying areas. 2483 2nd Avenue has experienced flooding, along with other homes in North St. Paul, during these high rainfall and high-intensity storms.

Opportunities for city infrastructure improvements have been identified but will only mitigate flooding conditions and it is known that they will not eliminate the probability that localized flooding in this area will occur.

Recent improvements by the city adjacent to the property do provide an opportunity for better grading on the property to drain surface runoff away from the home and removing the basement/crawlspace window well on the home will provide approximately 4.5 inches greater flood water separation and flood protection for the garage than currently exists (and approximately 10 inches greater separation from the first-floor elevation) than currently exists.

Grant dollars, with a dollar-for-dollar match by North St. Paul, have been approved and are available for the city to purchase the home and property and use of these grant funds will require that the property must remain vacant and cannot be rebuilt.

Location and Description

A low point exists at the property of 2483 2nd Ave E, North St Paul, MN 55109. A topographical survey conducted by the City of North St. Paul in December of 2020 (attached) shows that the home is the lowest in elevation along this block of 2nd Avenue when compared to adjacent homes and is situated approximately 100 feet east of the low point in the street. The property in question is shown in the image below, highlighted in blue.



This block of 2nd Avenue is located at the end of a large drainage area and is the low point for over land runoff. The survey indicates front, side, and rear yard grades that range from less than 1% (1 foot of elevation change over 100 feet) to 2%, and a berm in the rear yard adjacent to the unimproved alley traps drainage runoff from the rear yard at the northeast corner and rear lot line. As a current standard, a 2% minimum grade is recommended in lawn yards to adequately convey surface rain runoff away from homes, and 6 inches of elevation change in the first 10 feet surrounding a foundation is recommended or

otherwise required by code to drain surface rainwater away. The home does have gutters and downspouts, and a sump pump hose is visible on the east side of the home.

Previous Flooding Experience

2483 2nd Ave has experienced flooding over the last ten years with at least one occurrence documented by the property owner in the photos below, flooding has occurred into the driveway and garage. On 7/16/2011 flooding was documented in the garage and into the main level of the home with approximately 5 inches of rainfall in 24 hours. See the images below for the depth and scale of the flooding.



Back yard flooding



Front yard and driveway flooding



Garage flooding



Water entering home from garage

Localized Ponding and Flooding During Storm Events

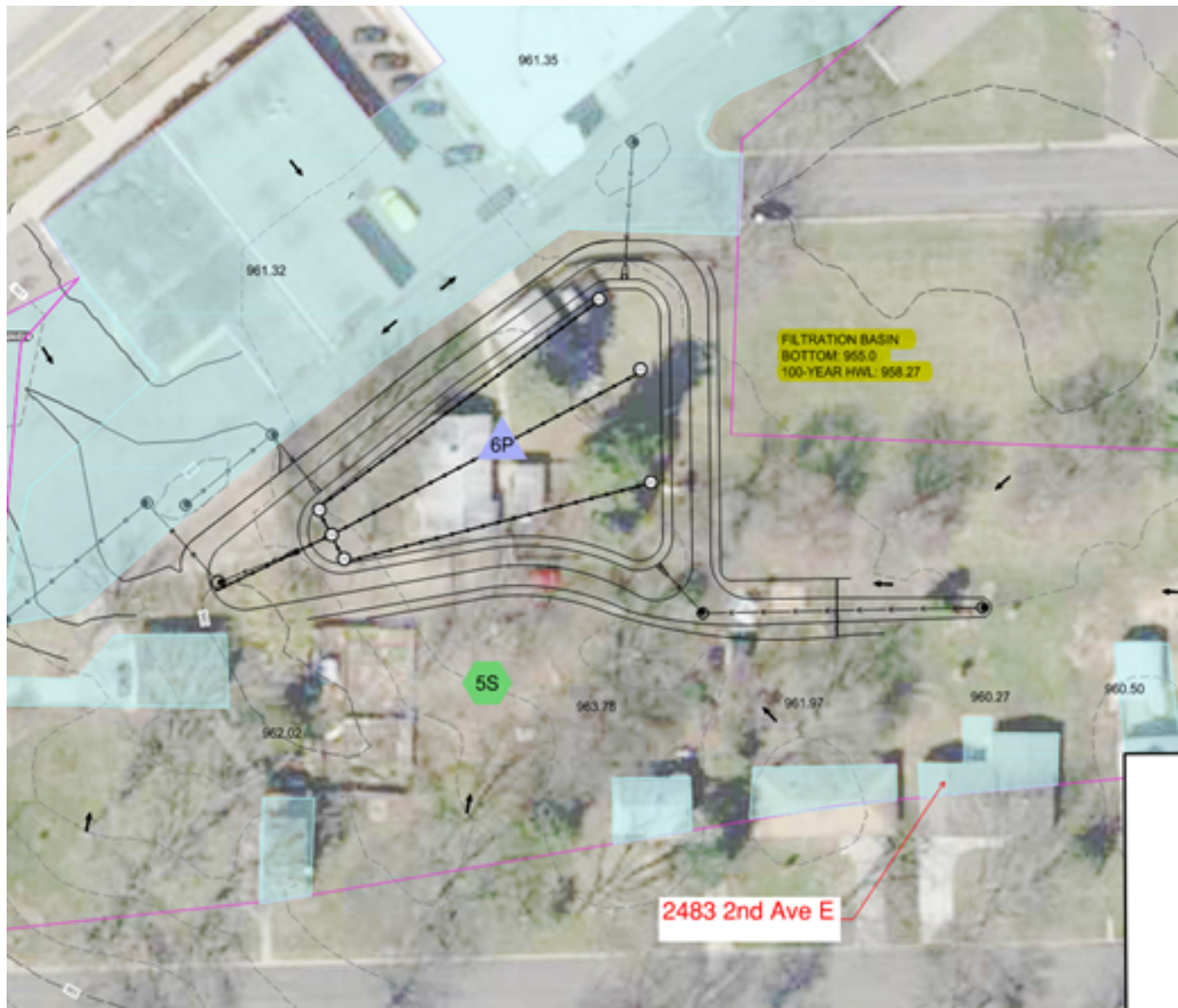
Precipitation amounts in Minnesota have been documented to have increased in amount, duration, and intensity over the past several decades, including North St. Paul. Municipal urban storm sewer system capacities are typically designed to carry the 5-year storm event, or in other words, a storm that has a 20 percent annual probability of being exceeded. Localized standing water in low areas on roads and yards is expected during these storms as a temporary condition until the storm sewer system can drain the standing water. In these conditions, adequate overflow routes and proper separation from low-lying areas when constructing homes become very important. North St. Paul does have code requirements for new home construction that provide flood protection, as well as standards for new and reconstructed storm sewers as ongoing improvements to the city system are implemented over time. However, it should be noted that North St. Paul's storm sewer system was not ever intended to prevent ponding or flooding in roadways in every rain event. From the capacity of the storm sewer system alone, periods of standing water and even flooding are not probable in 75 to 85 percent of the rainfall events that may occur in any given year. But, higher rainfall amounts or rainfall intensities such as those experienced in 2011 will result in flash flooding and standing water in low areas for periods of time.

Improvements in storm sewer capacity cannot eliminate all possibilities of flooding. However, capacity increases can be made to mitigate how often it occurs and/or to reduce the time it takes for the temporary flooding to recede, as shown through the recent and ongoing storm sewer reconstruction recapitalization efforts by the City of North St. Paul made on a project-by-project basis. A 2017 Flood Study conducted by the city

identified three different potential improvements for this area ranging in estimated cost from \$700,000 to \$1,300,000 for a total of approximately \$3,000,000. This same study used a modeled and predicted high water flood scenario in this area to determine a 100-year flood (1 percent chance of annual exceedance) elevation of 961.7, with which to help protect home reconstruction or infill housing by requiring new homes to be adequately above this flood elevation. For reference and comparison, the garage threshold of 2483 2nd Avenue was surveyed to be 961.91, and a basement/crawlspace window on the east foundation wall is the home “low opening” surveyed at 961.54. Older homes that do not meet current flood protection ordinance requirements for the height of foundations or separation of low home openings from predicted floodwater elevations are not uncommon in North St. Paul or any older community and are considered legal but not conforming to current ordinances for new home construction.

2020 Filtration Basin Installation

In 2020, a filtration basin was constructed behind 2483 2nd Avenue. This basin helps to reduce localized flooding along 1st Street, 3rd Avenue, 7th Avenue, and the alley behind 7th Avenue and provides improved drainage in the rear yards for homes fronting 2nd Avenue and 3rd Avenue, including 2483 2nd Avenue. A storm sewer catch basin was also installed in the alley directly behind 2483 2nd Avenue with this project. However, the previously noted berm in the private property rear yard of 2483 does prevent runoff from the rear yard from reaching the catch basin. This catch basin was set approximately 1.3 feet below the home elevation of 2483, to allow for improved grading from the home to the catch basin should the berm be removed in the future. This storm sewer could also receive any standing water or flooding that may extend from 2nd Avenue, as happened in 2011, through the rear yards at an elevation of 961.3 (0.24 feet below the basement/crawlspace window low opening and 0.91 feet below the garage threshold of 2483 2nd Avenue).



Current Surveyed Conditions for 2483 2nd Ave(Ramsey County Coordinates):

- Low Opening Elevation is: 961.54 at the south eastern egress window.
- First Floor Elevation: is 962.35, measured from back door at patio.
- Garage of 2483 2nd Ave is at an elevation of 961.91
- Low floor elevation: 957.35 This is an estimate of the crawl space underneath the house. The crawl space is estimated to be 5 feet below the first floor elevation.

Summary of Current North St Paul Requirements for Home Construction:

- The low building opening elevation of any new building shall be at least two feet above the projected 100-year high water elevation for the area.
- The lowest building floor elevation of any new building shall be placed at least two feet above the elevation of any known historic high groundwater elevations for the area and at least two feet above the 100-year high surface water elevation in the area.

- An emergency spillway from ponding areas shall be installed a minimum of one foot below the lowest building opening and shall be designed to have a capacity to overflow water at an elevation below the lowest building opening at a rate not less than three times the 100-year peak discharge rate from the basin or the 100-year inflow rate to the basin, whichever is higher.
- The lowest building floor elevation of any new building shall be placed at least two feet above the elevation of any known historic high groundwater elevations for the area and at least two feet above the 100-year high surface water elevation in the area.

Comparison	Existing Elevations from Ponding Locations	2483 2 nd Ave Surveyed Elevations	City Requirement	Meeting Current Requirement?	Comments
FFE to 100-year HWL	100-year HWL From front yard: 961.7	First Floor Elevation: 962.35	2 feet separation between 100-year HWL and FFE	No, house would have to be higher than 963.7	Rear yard pond now (post 2020) provides overflow via side yard at 961.3, which is below garage and FFE Remove rear yard berm on property to drain rear yard to new storm sewer in alley
FFE to 100-year HWL	100-year HWL from rear yard: 958.32	First Floor Elevation: 962.35	2 feet separation between 100-year HWL and FFE	Yes, house is higher than 960.32	N/A
Emergency Spillway to low opening	Emergency overflow route – from 2 nd Ave to 2020 filtration basin: 961.3	Low Opening Elevation: 961.54	1 foot separation between Emergency spillway to low opening	No, the Low opening is lower than 962.3	Close crawlspace window well so that low opening of home is above HWL Remove rear yard berm to drain rear yard to new storm sewer in alley
Emergency Spillway to low opening	Emergency overflow route – from 2020 filtration basin to 7 th Ave: 960.13	Low Opening Elevation: 961.54	1 foot separation between Emergency spillway to low opening	Yes, the Low opening is higher than 961.13	N/A
Groundwater to Low Floor	Groundwater observed	First Floor Elevation: 962.35	2 feet separation between	Yes, house is higher than 957.	Meets requirements

	during constructi on at 955.0		historic high groundwat er lowest building floor elevation	Assumes that lower level is crawlspac	Modernize home subgrade water proofing, drain tile, add or upgrade sump pumps to mitigate seasonal fluctuations in groundwater
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Recommendation:

Council discussion only.

Attachments

1. 2483 2nd Avenue East Survey (12-14-20)

Respectfully submitted,
Morgan Dawley, City Engineer

CERTIFICATE OF SURVEY

~for~ CITY OF NORTH ST. PAUL
~of~ 2483 2nd Avenue East
North St. Paul, MN

EXISTING LEGAL DESCRIPTION

(PER RAMSEY COUNTY TAX INFORMATION)

Lots 13 and 14, Block 6, FIRST ADDITION TO
NORTH ST. PAUL, Ramsey County, Minnesota.

AND

The East 5 feet of Lot 15, Block 6, FIRST
ADDITION TO NORTH ST. PAUL, Ramsey
County, Minnesota.

NOTES

- Field survey was completed by E.G. Rud and Sons, Inc. on 12/08/20.
- Bearings shown are on Ramsey County datum.
- Parcel ID Number: 12-29-22-34-0024.
- Curb shots are taken at the top and back of curb.
- This survey was prepared without the benefit of title work. Additional easements, restrictions and/or encumbrances may exist other than those shown hereon. Survey subject to revision upon receipt of a current title commitment or an attorney's title opinion.

LEGEND

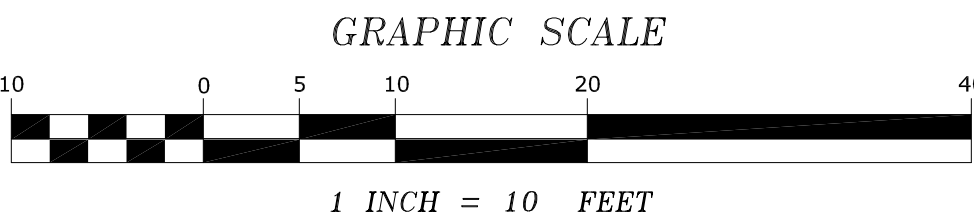
- DENOTES IRON MONUMENT FOUND AS LABELED
- DENOTES CATCH BASIN
- ⊙ DENOTES CATCH BASIN MANHOLE
- ⊠ DENOTES ELECTRICAL BOX
- x 952.36 DENOTES EXISTING SPOT ELEVATION
- ⊠ DENOTES GAS METER
- ⊠ DENOTES HYDRANT
- ⊠ DENOTES MISCELLANEOUS MANHOLE
- ⊠ DENOTES POWER POLE
- ⊠ DENOTES STORM SEWER APRON
- ⊠ DENOTES FENCE
- ⊠ DENOTES EXISTING CONTOURS
- ⊠ DENOTES OVERHEAD UTILITY
- ⊠ DENOTES BITUMINOUS SURFACE
- ⊠ DENOTES CONCRETE SURFACE

TREE DETAIL

- ⊠ DENOTES ELEVATION
- ⊠ DENOTES TREE QUANTITY
- ⊠ DENOTES TREE SIZE IN INCHES
- ⊠ DENOTES TREE TYPE



E. G. RUD & SONS, INC.
Professional Land Surveyors
6776 Lake Drive NE, Suite 110
Lino Lakes, MN 55014
Tel. (651) 361-8200 Fax (651) 361-8701



960.60
961

BENCHMARK

MNDOT GSID STATION: # 106361
MNDOT NAME: ACE
ELEVATION: 937.793 (NAVD88)

NORTH

I hereby certify that this survey, plan 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.

PRELIMINARY

JASON E. RUD

Date: 12/14/2020 License No. 41578

DRAWN BY: CMB	JOB NO: 201471BT	DATE: 12/14/20
CHECK BY: JER	FIELD CREW:	
1		
2		
3		
NO.	DATE	DESCRIPTION
BY		



To

Honorable Mayor Furlong and City Council

Date

September 21, 2021

Agenda Placement # IV.B

Topic(s)

Subject

ISD #622 North High School Conditional Use Permit, Building Height Variance Requests and Parking Lot Improvements Discussion

Background/Facts

- The applicant is requesting a Conditional Use Permit (CUP) amendment and a building height variance to facilitate the development of an eleven classrooms, three-story addition to the west side of the building.
- The property is lower on the west side of the property and therefore the addition will exceed the building height requirement.
- The application also includes improvements to the traffic circulation and a reduction of on-site parking by 102 stalls.
- The Planning Commission held a public hearing on the requests on April 1, 2021. No public comment was received.
- The Planning Commission unanimously recommended conditional approval of the conditional use permit amendment and building height variance.

Recommendation:

COUNCIL DISCUSSION ONLY - ITEM ON CITY COUNCIL AGENDA FOLLOWING WORKSHOP FOR CONSIDERATION OF APPROVAL.

Attachments

None

Respectfully submitted,
Eric Zweber, Sr. Planner