



3800 Laverne Avenue North
Lake Elmo, MN 55042

(651) 747-3900
www.lakeelmo.org

NOTICE OF MEETING

The City of Lake Elmo
Planning Commission will conduct a meeting on
Monday August 26, 2019
at 7:00 p.m.

AGENDA

1. Pledge of Allegiance
2. Approve Agenda
3. Approve Minutes
 - a. August 12, 2019 ?
4. Public Hearings
 - a. Variance Requests - 9447 Stillwater Blvd.
5. New Business
 - a. Review April 2019 Revisions to Engineering Design and Construction Standards Manual
6. Communications/Updates
 - a. City Council Update 8-20-2019 Meeting

Carmelites Chapel – Variance and CUP
Four Corners Second Addition Final PUD and Final Plat
 - b. Staff Updates
 - c. Upcoming PC Meetings:
 1. September 9, 2019
 2. September 23, 20
7. Adjourn

***Note: Every effort will be made to accommodate person or persons that need special considerations to attend this meeting due to a health condition or disability. Please contact the Lake Elmo City Clerk if you are in need of special accommodations.



**City of Lake Elmo
Planning Commission Meeting
Minutes of August 12, 2019**

Commissioner Weeks called to order the meeting of the Lake Elmo Planning Commission at 7:00 p.m.

COMMISSIONERS PRESENT: Cadenhead, Hartley, Holtz, Steil and Weeks

COMMISSIONERS ABSENT: Risner

STAFF PRESENT: Planning Director Roberts, Chief Malmquist

Approve Agenda:

M/S/P: Hartley/Holtz move to modify the agenda to allow Union Park to be reviewed before the Subdivision public hearing, **Vote: 5-0, motion carried unanimously.**

Approve Minutes:

M/S/P: Hartley/Steil, move to approve the July 22, 2019 minutes as presented, **Vote: 5-0, motion carried unanimously.**

Public Hearings

Carmelite Hermitage (8249 Demontreville Trail)

Roberts reported that Rev. John Burns of the Carmelite Hermitage has applied for a variance from the City Code requirement about direct access for a place of worship to add a chapel to the Carmelite's site located at 8249 Demontreville Trail.

An applicant must establish and demonstrate compliance with the variance criteria set forth in Lake Elmo City Code Section 154.109 before the City may grant an exception or modification to city code requirements.

- 1) Practical Difficulties.** A variance to the provision of this chapter may be granted by the Board of Adjustment upon the application by the owner of the affected property where the strict enforcement of this chapter would cause practical difficulties because of circumstances unique to the individual property under consideration and then only when it is demonstrated that such actions will be in keeping with the spirit and intent of this chapter. Definition of practical difficulties - "Practical difficulties" as used in connection with the granting of a

variance, means that the property owner proposes to use the property in a reasonable manner not permitted by an official control.

FINDINGS: The addition of a chapel to Carmelites site has been planned since at least 1991 when the City first approved a Master Plan for their site. The Carmelites have been using the easement to Demontreville Trail for access to the site since that time. Adding another driveway or access to the Carmelites property would be a practical difficulty as the only public street their property has frontage on is Hidden Bay Trail to south. A new driveway would be about 1,500 feet in length, would require extensive tree removal and grading and would be an access onto a local street – not a collector or arterial street as the City Code requires for places of worship. The use of the existing driveway for access to Demontreville Trail for the addition of a chapel to site is a reasonable use of the property and the existing access.

- 2) Unique Circumstances.** The plight of the landowner is due to circumstances unique to the property not created by the landowner.

FINDINGS: According to the applicant, the existing lot layout with the access easement to Demontreville Trail has been in place since 1904. This is a unique situation with circumstances not created by the landowner or the current land users – the Carmelite Monks.

- 3) Character of Locality.** The proposed variance will not alter the essential character of the locality in which the property in question is located.

FINDINGS: The proposed variance will allow the Carmelites to use the existing driveway (that currently provides access to their site) for access for the proposed chapel. By using the existing driveway that has been in place for many years, the Carmelites will not be altering the essential character of the locality (or area) in which their property is located.

Conversely, adding another driveway to their site that would have access onto a local, neighborhood street would change the character of that locality and area of the City.

- 4) Adjacent Properties and Traffic.** The proposed variance will not impair an adequate supply of light and air to properties adjacent to the property in question or substantially increase the congestion of the public streets or substantially diminish or impair property values within the neighborhood.

FINDINGS. The proposed variance to allow the use of the existing driveway and easement for access for the proposed chapel will not impair an adequate supply of light and air to properties adjacent to the subject property, increase congestion of public streets or substantially diminish or impair property values within the neighborhood. Conversely, as I noted above, if the applicant added another driveway to access the streets to the south of their site that would increase the congestion on the local public streets near their property.

John Burns discussed a few of the issues that exist between the two properties that share the driveway access onto Demontreville Trail. He mentioned that they have the support of approximately 50 percent of the neighboring properties and feels they have a good history with the neighbors and with Lake Elmo. He reiterated there will not be the establishment of a Catholic Parrish on the site, nor will it be developed with residences and that the chapel is not being created to increase traffic.

Father Patrick McCorkle from the Jesuit Retreat stated that this is not merely a squabble between two property owners. He feels the increase traffic will ruin the atmosphere and purpose of the Retreat Hall as a quiet place away from the noise of everyday life. He also believes that the variance is at odds with the surrounding residential area.

Bryan Huntington attorney for the Jesuits stated that the applicant could not prove that the circumstances were not created by the land owner. He also disputed which easement agreement between the property owners was the most accurate and valid.

Garry VanCleave attorney for Jesuit Retreat House stated that the Carmelite nuns fundraised for the chapel that will hold 44 people due to interest in having morning and evening mass services for the public. VanCleave stated that multiple services in a day would be an expansion on the use of the property. He also stated that this is a use variance which is illegal in the State of Minnesota.

Eric Lipman, 8249 Deer Pond Ct N stated that the driveway easement existed prior to the Jesuit Retreat House being present and it does have direct access through that easement. He also stated that the Jesuits suggested that 50 people a week attend the Retreat House, which is a more intense use of the road than the Carmelite's are proposing.

Paul Gelbmann, 5034 Isle Avenue N asked if there is currently a mass that is open to the public at the convent, how often it meets, and how many people could the space hold? It was answered that there is a currently a daily mass open to the public that could hold up to 60 people in the space used.

Terry Quinn, 9220 Jane Rd N, stated that his family donated the gate system as you enter the site. He stated that he is disappointed in the squabble between the properties and is opposite to the spirit the donation was made. He said that he lives in the area, has been to the site, and believes that the variance should be granted.

Hartley said he was not convinced a variance is needed but understands that it is needed to provide clarity to allow the new chapel of the property. He also believes that the suggestion to move the driveway from the existing access point would be a less desirable outcome for everyone.

Weeks agreed with Hartley and added that the request from the Jesuits for silence is not currently met by any of the adjacent parcels nor is it feasible to ask. Weeks added that it appears this property meets the requirements of a variance and added that the Jesuits with their 3000 visitors annually have a significant impact on their neighboring properties.

Holtz said that the proposed chapel holding 44 people is more similar to a classroom than a church with a capacity of 900 people. He believes the need is not self-inflicted by the property owners; the access easement existed prior to the code changes. He explained how he believes the proposal meets the requirements.

M/S/P: Steil /Hartley, move to approve the request from Rev. John Burns of the Carmelite Hermitage for a variance from the City's requirement for direct access to a major collector or arterial street for a place of worship for the property located at 8249 Demontreville Trail, **Vote: 5-0, motion carried unanimously.**

M/S/P: Hartley /Cadenhead, move to approve the conditional use permit for the Carmelite Hermitage including the proposed chapel for the property located at 8249 Demontreville Road with recommended findings and conditions of approval as drafted by Staff. **Vote: 5-0, motion carried unanimously.**

Recess from 8:14 – 8:20 pm

Kwik Trip Fuel Station/Convenience Store (Inwood Avenue N. and 5th Street North)

Roberts explained that RPS Legacy Desoto is proposing a minor subdivision of Outlot O of the Inwood Addition into three separate parcels. The proposed minor subdivision would allow for Kwik Trip to purchase the 2.27 acre property and construct a new fuel station/convenience store on the southeast corner of Inwood Avenue North and 5th Street North. The applicant also is requesting that the City vacate the existing easements on and around Outlot O as part of this plat approval. City staff is recommending as a condition of approval that the plat or subdivision show a 10-foot-wide drainage and utility easement along the entire perimeter of the plat and property.

RPS Legacy Desoto Properties and Kwik Trip, Inc. are requesting a conditional use permit (CUP) for the construction of a Kwik Trip convenience store/fuel station with a car wash. The City Code requires approval of a Conditional Use Permit for this request in the Commercial zoning district.

Roberts mentioned that the applicant will need to pay the City a parkland dedication fee in the amount of \$10,215, the design of the western driveway access onto 5th Street must be revised to accommodate only right turns and the width of the eastern driveway may need to be modified to 40 feet in width to allow for one inbound lane and two outbound lanes.

The Planning Commission had discussion regarding traffic movement, easement, setbacks, lot lines, and driveways.

Dean George on behalf of Kwik Trip answered that the lot lines will be left to the developer.

Alan Stocker, 8680 Upper 7th St N, talked about the proposal for being open 24 hours, sound and light concerns, signage concerns, and a request for increased landscape buffering, such as evergreens. He mentioned the current traffic situation and concerns about additional vehicles.

Larry Boyle 8699 Lower 8th Pl N, reiterated the desire for an evergreen buffer and concerns about getting out on to 5th St.

Additional questions regarding traffic safety from the Planning Commission, including right turn lanes, traffic signals, Washington County's review, etc. Weeks mentioned that businesses pay higher taxes than residential properties and need to be seen to be able to thrive, so limiting signage and visibility can have negative effects.

M/S/P: Holtz/Hartley, move to approve the Minor Subdivision request to split Outlot O of Inwood Addition into three lots, subject to the conditions of approval as listed in the staff report. **Vote: 5-0, motion carried unanimously.**

M/S/P: Holtz/Hartley, move to approve the Conditional Use Permit for the proposed Kwik Trip fuel station/convenience store and car wash to be located on the southeast corner of Inwood Avenue and 5th Street North, subject to the conditions of approval as drafted by Staff and based on the findings of fact listed in the Staff Report. **Vote: 5-0, motion carried unanimously.**

New Business

Union Park First Addition Easement Vacations and Final Plat (5th Street N. and Julia Ave.)
Pulte Homes of Minnesota is requesting approval of easement vacations and the Final Plat to create lots for 62 townhomes located on 7.92 acres. This proposed final plat is the first phase of a 240 townhouse residential development. Roberts reported that the project was previously called Bentley Village, it received prior approval in March for up to 240 townhomes on the site. They are now seeking Final Plat which is consistent with the approved preliminary plat. They were originally proposing a pool and now are proposing a dog park.

The proposed final plat shows the division of the property into separate lots, one that will be sold for the Spring apartment development, and the others will be used for

different phases of this development and a ponding area, it also includes the street right-of-way for 5th Street North and for future Julia Avenue.

The applicant is requesting the City vacate two existing drainage and utility easements that were placed on the property when Savona was developed. The developer cannot record a new final plat with the existing easements in place. These easements are both just south of 5th Street and will not be needed as the developer will be constructing new utilities and will be dedicating new easements with the final plat.

Savona Park is located just over 500 feet from the northern edge of the proposed development and meets the Neighborhood Park search area requirement. The developer is proposing and staff recommends that fees in lieu of land be paid in order to satisfy the park dedication requirements. The developer will be required to 10% of the purchase price of the land as park dedication.

Hartley asked about the dead end roads shown on the plan. Roberts explained that there will need to be temporary cul-de-sacs constructed.

Paul Hoyer, Pulte Homes, 7500 Flying Cloud, Suite 670 Eden Prairie, MN 55344. He explained there will be a pond included in this phase and one included in the next phase. He explained the plan is one phase per year for development. He also explained Pulte issues a property disclosure statement to homeowners that include things like the watering ban so that they are informed at the time of purchasing.

M/S/P: Hartley/Cadenhead, move to approve the vacation of the two drainage and utility easements on site of the Union Park final plat as shown on the drainage and utility easement vacation exhibits dated 1-03-2019 and 1-17-2019. **Vote: 5-0, motion carried unanimously.**

M/S/P: Cadenhead/Steil, move to approve the Union Park First Addition Final Plat with recommended findings and conditions of approval. **Vote: 5-0, motion carried unanimously.**

Public Hearing

Subdivision Ordinance Update

Roberts explained the changes to the ordinance language.

Hartley asked if the language should be changed about the Parks Commission reviewing the Final Plat. Discussion followed

M/S/P: Hartley/Steil, move to approve the Subdivision Ordinance with the changes discussed, **Vote: 5-0, motion carried unanimously.**

City Council Updates – July 16, 2019

Roberts reported that the Accessory Building size and Parking and Screening ordinances had been approved by City Council. The Council approved the size ordinance and removed the language requiring a durable surface for trailers.

Staff Updates

1. Upcoming Planning Commission Meetings
 - a. September 9, 2019 – Another senior housing facility is being proposed in the Eagle Point Office Park. The applicant believes there is not a market for offices in the current market and that proximity to services is a good fit for the 100 unit development.
 - b. August 26, 2019 – there are two potential variances.
 - c. Met Council is still missing one item for the Comprehensive Plan review that the City has submitted twice, then the application is complete and review will begin.

Meeting adjourned at 9:35 pm

Respectfully submitted,

Tanya Nuss
Permit Technician



STAFF REPORT

DATE: 8/26/19

REGULAR

ITEM#: 4 – PUBLIC HEARING

MOTION

TO: Planning Commission
FROM: Ben Prchal, City Planner
AGENDA ITEM: Variance Requests - 9447 Stillwater Blvd.
REVIEWED BY: Ken Roberts, Planning Director

BACKGROUND:

The City has received variance requests from applicant Todd Alguire for the property located at 9447 Stillwater Blvd. The request of the applicant is for a variance from the City Code requirement of not allowing an accessory building closer to the front lot line than the principle building. Staff met with the resident and discussed with them the constraints of the site. The initially proposed location would have required two variances, one for the front lot line and the second for the setback to the OHWL of Freidrich pond. These conversations lead the applicant to shift the shed so that only a variance would be required from the front lot line. Beyond this the applicant is also seeking a variance for the height of the structure.

ISSUE BEFORE COMMISSION:

The Commission is being asked to hold a public hearing, review, and make a recommendation(s) on the requested variances.

REVIEW/ANALYSIS:

<i>PID</i>	15.029.21.34.0007
<i>Existing Land Use/Zoning:</i>	Single-family zone as Rural Single Family.
<i>Surrounding Land Use/ Zoning:</i>	Single family homes zoned as Rural Single Family.
<i>History:</i>	There are not substantial records for the property in the City Files.
<i>Deadline for Action:</i>	Application Complete – 7/27/2019 60 Day Deadline – 9/25/2019 Extension Letter Mailed – N/A 120 Day Deadline – N/A
<i>Applicable Regulations:</i>	<ul style="list-style-type: none"> • Article V - Zoning Administration and Enforcement • Article XVIII – Shoreland Management Overlay District • Article XI – Rural Districts

PROPOSED VARIANCES

Variance Requests. The applicant is requesting to build an accessory building closer to the front lot line than the principle structure. The City Code addresses accessory building and currently proposed design would also exceed the maximum allowed height of 22 ft. Accessory structures are limited to 22 ft. or the principle structure, whichever is more restrictive. The needed variances are outlined in the tables and an in-depth explanation is provided below the tables.

Standard	Required	Proposed
Setback from the Front Property Line.	30 ft. Or The Principle Structure	342.1 ft. Closer to the Front lot line than the home.
Structure Height	22 ft.	25 ft.

Standards Met. The following table outlines the standards that are met on the property.

Standard	Required	Proposed
Allowed Structure Size (6.6 Acres)	2,000 sqft. Or Footprint of the Principle Structure	1,600 sqft.
Structure setback from OHWL of Recreational Development (RD) Lake	150 feet (66.5 average)	150.5 feet
Drainfield setback from occupied structure	20 feet	25 feet
Side yard setback	10 feet	42 feet
Front yard setback	30 feet	342.1 feet
Rear Yard setback	40 feet	61 feet

Reason for Variance Requests

The applicant is requesting the variance for the structure to be located closer to the front lot line because of the geographic features of the lot and location of the home leaves very limited space behind the home. Furthermore, the applicant is also requesting a variance from the structure height requirement. The applicant would like to build a two story shed and has met the requirement that the structure cannot be taller than the principle structure but the code places a second limiting factor, stating that accessory buildings also cannot be taller than 22 ft. The applicable sections of code will be outlined below.

APPLICABLE CODE

154.40 Accessory Structures, Rural Districts:

When reviewing the criteria for an accessory structure Staff will go to a few different sections of the City Code. However, the applicant is only needing a variance for two items, both listed in 154.406.

Height:

The important point here is that the applicant has designed the shed so that it would not exceed the height of the principle structure. With the home being 29½ ft. in height the accessory structure was designed at 29 ft. in height. However, the code also reads that accessory buildings cannot exceed 22 ft. in height. The current design exceeds the maximum height allowance by 7 ft. Because of this, a variance is being sought for the proposed height of the accessory structure.

154.406 Accessory Structures, Rural Districts.) C.

Structure Height, Rural Districts. No accessory building shall exceed twenty-two (22) feet in height or the height of the principal structure, with the exception of agricultural buildings, as defined in §154.213.

Building projections or features on accessory structures that are not agricultural buildings, as defined in §154.213, such as chimneys, cupolas, and similar decorations that do not exceed twenty-five (25) feet in height are permitted in rural districts.

154.213 Accessory Buildings and Structures, Generally.) B. Definitions.

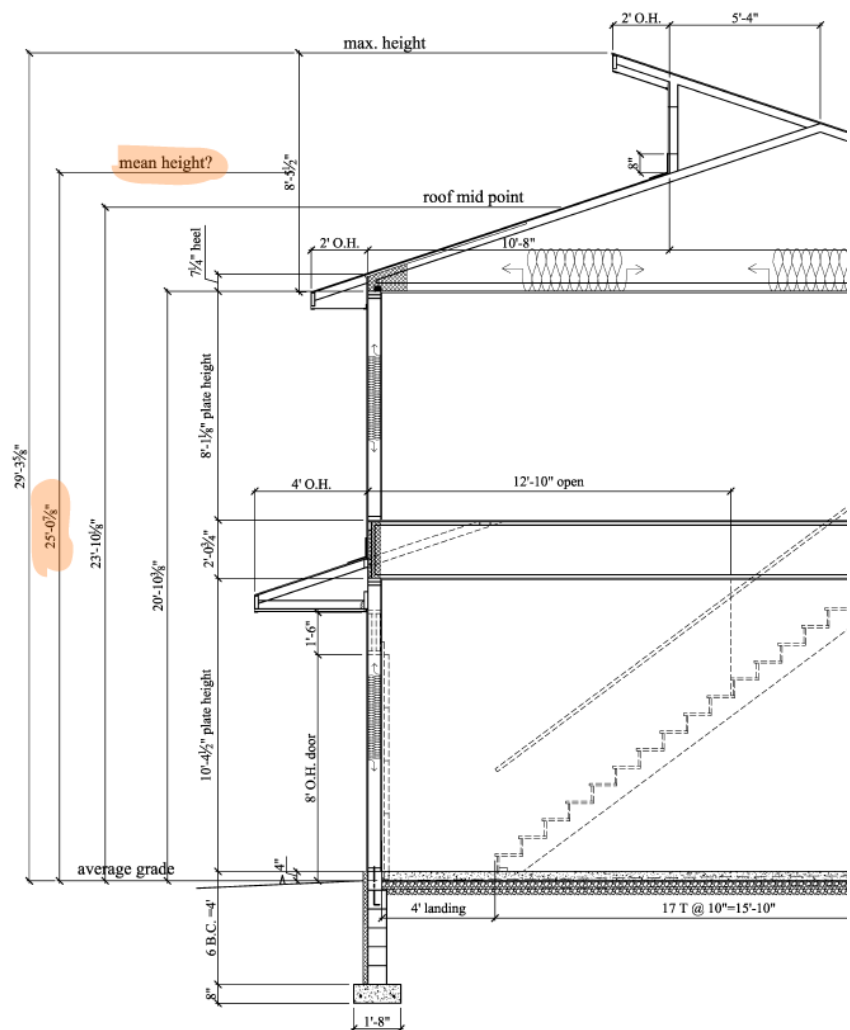
Agricultural Building. An accessory building means a structure that is on agricultural land as determined by the governing assessor of the City under section 273.13, subdivision 23 and meets all other requirements of State Statute 362B.103. A Minnesota Pollution Control Agency permit may be required.

BUILDING HEIGHT. The vertical distance from the average of the highest and lowest point of grade for that portion of the lot covered by building to the highest point of the roof for flat roofs; to the roof deck line of mansard roofs; and to the mean height between eaves and highest ridge for gable, hip, and gambrel roofs.

When reviewing accessory building requests Staff has uses the “Building Height” definition as the standard for determining the height of structures. The diagram to the right lists out the different measure points that are listed out in the definition. If the height variance is denied for the applicant, there would be the option to seek out Washington County and consult with them on having the property reclassified as outlined in section 154.213. If that were to happen Staff does not necessarily see why the applicant would be restricted to the 22 ft. height requirement.

At this point Staff does not believe the request to have a structure taller than what is allowed meets the criteria for variance approval. However, the last sentence in section 154.406 does allow structures to exceed the 22 ft. height requirement with specifically listed items. If the Commission believes that the upper roof/window qualifies as a decorative attachment this could put the applicant in a more favorable position. If this is determined to be

the case then the highest point would be measured at a lower position which would bring all the other measurements down. Then the projection would have to be reduced down to 25 ft. Staff does believe there would be grounds to make this determination as the applicant has added this window to match the design of the home, constituting a “similar decoration.”



Setback:

As previously noted accessory buildings cannot be located closer to the front property line than the principle structure. Geographic constraints coupled with the location of the home would make construction in the side or rear yard difficult. There is also a shared driveway for the property addressed as 9495 Stillwater Blvd. This driveway is on the east side of the home, placing a structure on the east side of the lot would drastically impede the function of the driveway.

154.406 Accessory Structures, Rural Districts.) D. Structure Location, Rural Districts. No detached garages or other accessory buildings shall be located nearer the front lot line than the principal building on that lot.

**AGENCY REVIEW**

There have not been any comments submitted from other agencies or departments.

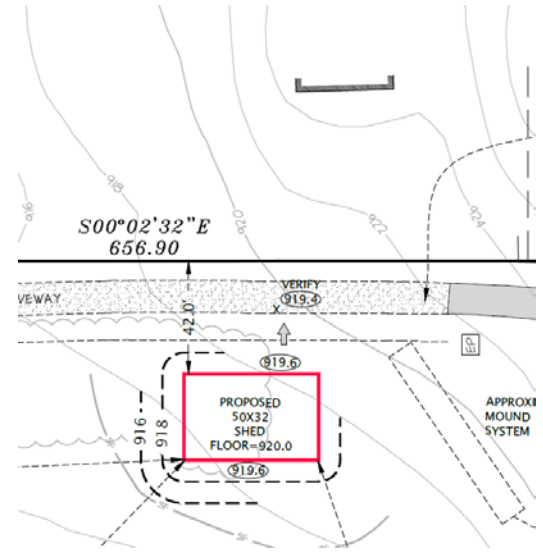
RECOMMENDED FINDINGS

An applicant must establish and demonstrate compliance with the variance criteria set forth in Lake Elmo City Code Section 154.017 before an exception or modification to city code requirements can be granted. These criteria are listed below, along with comments from Staff regarding applicability of these criteria to the applicant's request.

- 1) **Practical Difficulties.** A variance to the provision of this chapter may be granted by the Board of Adjustment upon the application by the owner of the affected property where the strict enforcement of this chapter would cause practical difficulties because of circumstances unique to the individual property under consideration and then only when it is demonstrated that such actions will be in keeping with the spirit and intent of this chapter. Definition of practical difficulties - "Practical difficulties" as used in connection with the granting of a variance, means that the property owner proposes to use the property in a reasonable manner not permitted by an official control.

FINDINGS:

- **Variance for Height of Structure:** *The applicant has attempted to design the structure in a way that would mimic the design of the home. Although the building exceeds the 22 foot height requirement the structure was designed to be visually pleasing by matching the principle structure. Because the resemblance is similar to the principle building the request does appear to be reasonable.*
- **Variance for Accessory Building Setback:** *The request does appear to be reasonable because any other location meeting the code requirements would not be possible. The 150 setback requirement from the lake would make placement behind the home on the west side impossible and placing the structure on the east side of the home would interfere with the shared driveway to the home south of the property (9495 Stillwater Blvd.). The applicant would be hard pressed to locate a building site that would not require a single variance. Because of this Staff believes this criteria is met.*



- 2) **Unique Circumstances.** The plight of the landowner is due to circumstances unique to the property not created by the landowner.

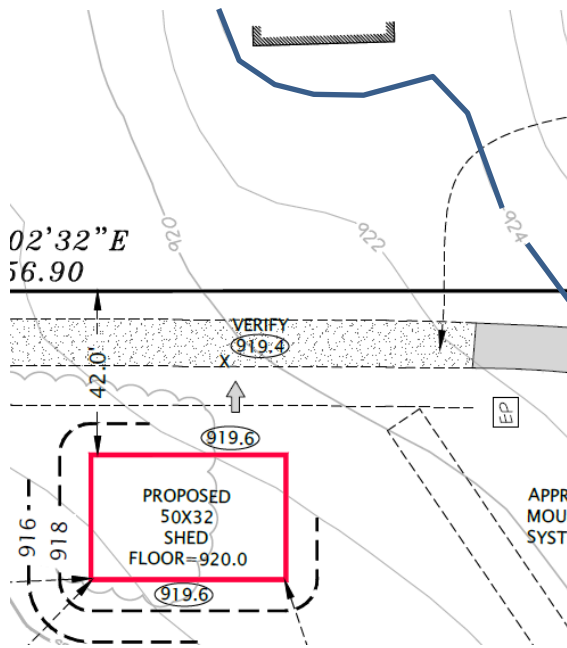
FINDINGS:

- **Variance for Height of Structure:** *Staff has had difficulty determining the unique circumstance that would warrant approval of the structures height. The property is not currently used for agricultural purposes, beyond personal enjoyment. Geographically the build site is relatively flat so there is not a conflict when measuring the height of the building. Staff does not believe this criteria is met.*
- **Variance for Accessory Building Setback:** *The current structure was built prior to the current owner so there is no way the applicant would have been able to suggest a different building location for the principle structure to avoid the need for this variance. Beyond limited space in the rear of the home Friedrich Pond requires a 150 ft. buffer which is impossible to meet if the structure were to be placed in the rear yard. Furthermore, the structure would severely impede the function of the driveway if the shed were located on the east side of the home. Staff believes this criteria is met.*

- 3) **Character of Locality.** The proposed variance will not alter the essential character of the locality in which the property in question is located.

FINDINGS:

- **Variance for Height of Structure:** *Although the structure may be measurably taller than some of the neighboring homes, according to the survey the foundation would be about 4 feet lower than the neighboring homes foundation. Staff believes this criteria is met.*
- **Variance for Accessory Building Setback:** *Although the structure would be located in front of the home, the proposed building location would not change the character of the local area. Staff believes this criteria is met.*



- 4) **Adjacent Properties and Traffic.** The proposed variance will not impair an adequate supply of light and air to properties adjacent to the property in question or substantially increase the congestion of the public streets or substantially diminish or impair property values within the neighborhood.

FINDINGS.

- **Variance for Height of Structure:** *The structure would not be of such a height that it would begin to shade neighboring properties or structures, nor would it impair air flow. Furthermore, the height would not cause an increase of traffic or congestion of traffic.*
- **Variance for Accessory Building Setback:** *The location of the structure would not shade the neighboring properties or structures, nor would it impair air flow. Furthermore, the location would not cause an increase of traffic or congestion of traffic.*

RECOMMENDED CONDITIONS

1. That the Applicant obtain all applicable permits including but not limited to a City building permit including a grading, erosion control, and storm water management plan approved by the City Engineer.
2. That the Applicant must reduce the height of the building to 22 ft. unless the property is reclassified to Agricultural. If reclassified, the applicant can increase the structures height to 25 ft.
3. If approved this variance approval is valid for 1 year and would expire on XXX. (date set after council approval)
4. One of the other smaller accessory buildings noted on the survey must be removed prior to the issuance of a building permit of the new accessory structure.

FISCAL IMPACT:

The proposed variance is not expected to have fiscal impact to the City.

OPTIONS:

The Commission may:

- Recommend approval of the proposed variances, subject to recommended findings and conditions of approval.

- Amend the recommended findings and conditions and recommend approval of the variances, subject to the newly outlined findings and conditions of approval.
- Move to recommend denial of all variances, citing findings for denial.

RECOMMENDATION:

Staff recommends that the Planning Commission recommend approval with the following motion:

“Move to recommend approval of the request from Todd Alguire for a variance from the following standards: structure setback from the front property line and the proposed location in front of the principle structure, subject to recommended conditions of approval.”

ATTACHMENTS:

- 1) Narrative
- 2) Survey and Building Plans
- 3) Additional Pictures

ORDER OF BUSINESS:

- IntroductionPlanning Staff
- Report by StaffPlanning Staff
- Questions from the Commission..... Chair & Commission Members
- Open the Public HearingChair
- Close the Public HearingChair
- Discussion by the Commission Chair & Commission Members
- Action by the Commission..... Chair & Commission Members

July 25, 2019

Dear City of Lake Elmo,

My name is Todd Alguire and I live at 9447 Stillwater Blvd N,
I am applying for a permit to build a garage on my property.

I am submitting a copy of the site plan/new Survey to you and prints.

As you can see where my house is positioned on the 6.38 acres
I have No room to build this garage behind my house, however
I have plenty of land in the front towards the railroad tracks.
Where I have it positioned on the lot it would be shielded by trees
and wouldn't be Intrusive to any of the neighbors. I have provided
a print of my Home and also the new Garage print. As you can see
I designed it to look a lot like my home with the roof lines and style.
The new garage roof will not exceed the Height of our home. Also it is
down hill elevation of about 6ft and about 200ft from the house.
The siding will match the homes LP 6" new siding and the windows
will also match. Color match as well.

The only Variance am asking for,

Is the location of the new building which I explained above with no space behind my home. The layout
of this project will be Beautiful and fit the land perfectly, I am a very meticulous person and I have
done many improvements to the land and house to make this fit and function very well on the lot.

If any other questions arise please call me prior to the Council meeting or
I will be at the meeting and can be asked at that time. Im really looking forward
to get going on this soon, I appreciate you're help on this for me and my family to enjoy this extra
space.

Thank you,



Todd Alguire
612-412-6498

9447 Stillwater Blvd N.
Lake Elmo, MN 55042

ALGUIRE
RESIDENCE

CONTACT:

TODD ALGUIRE
9447 STILLWATER BLVD. N.
LAKE ELMO, MN 55042110
612-412-6498

COUNTY/CITY:

WASHINGTON
COUNTY

CITY OF
LAKE ELMO

REVISIONS:

DATE	REVISION
4-10-18	INITIAL ISSUE
7-24-19	PROPOSED SHED
7-30-19	REVISED
8-1-19	SEPTIC

CERTIFICATION:

I hereby certify that this plan 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.

Daniel L. Thurmes
Daniel L. Thurmes Registration Number: 25718
Date: 4-10-18

PROJECT LOCATION:

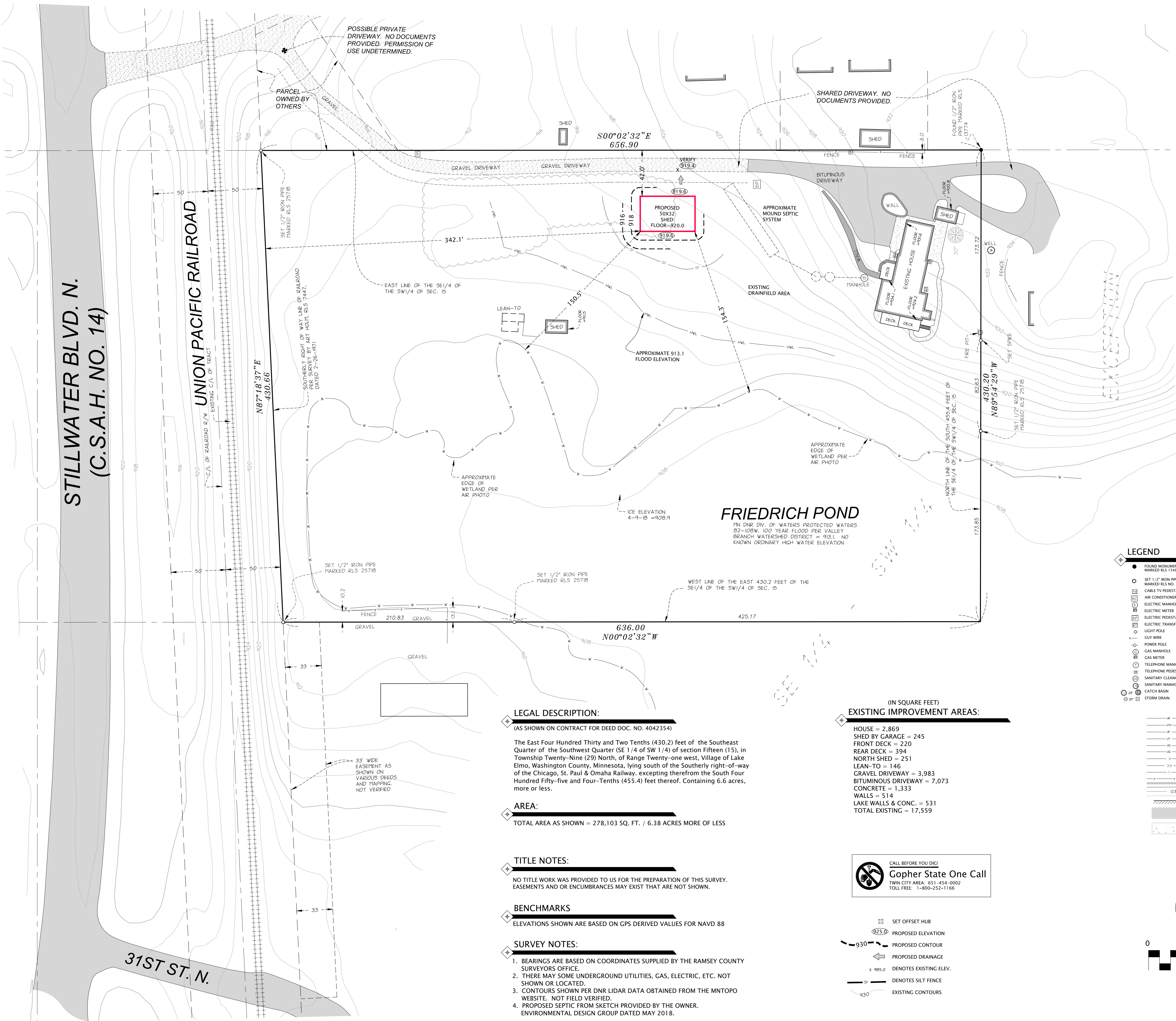
9447
STILLWATER BLVD. N.
PID#1502921340007

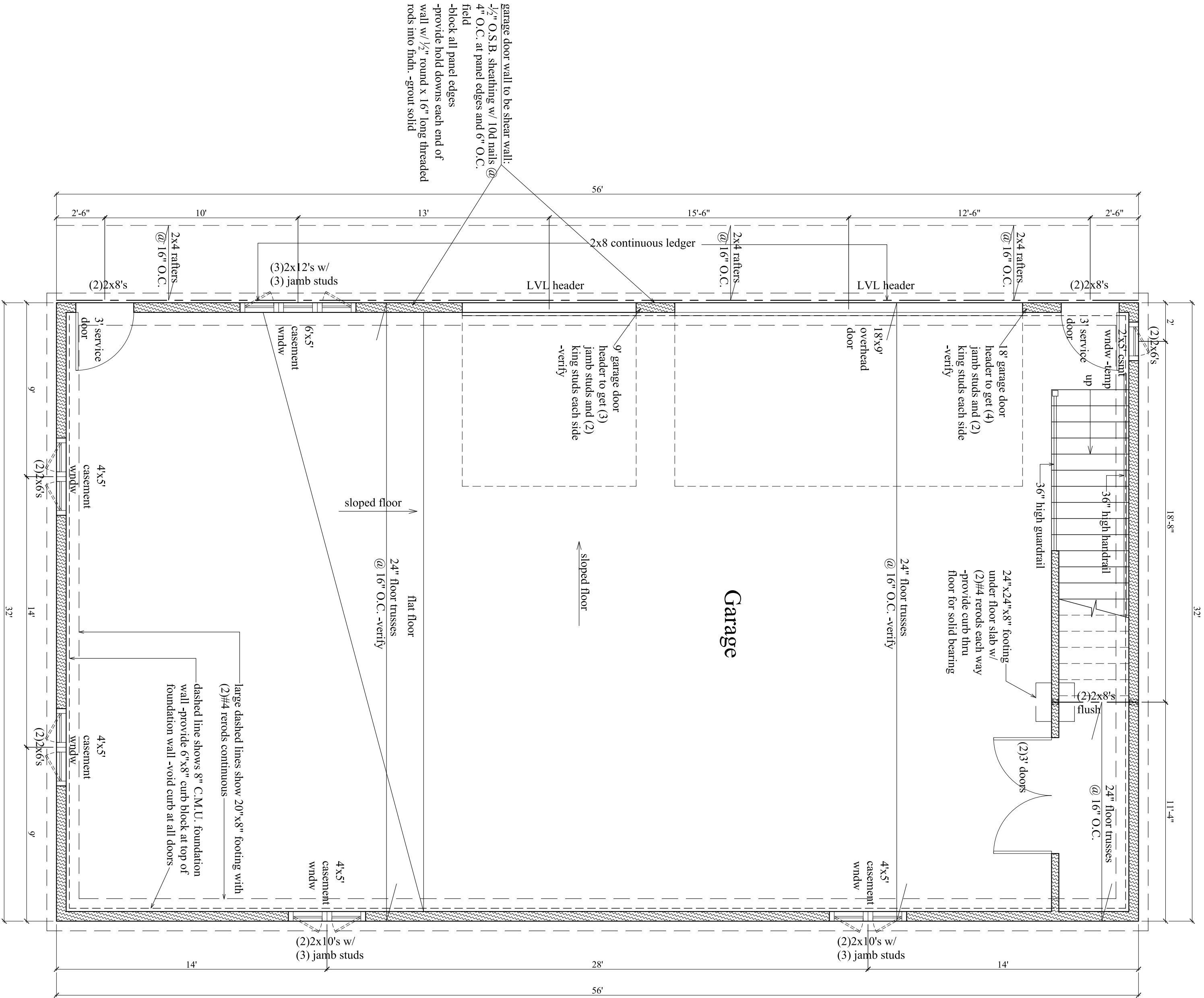
Suite #1
6750 Stillwater Blvd. N.
Stillwater, MN 55082
Phone 651.275.8969
Fax 651.275.8976
dan@
cssurvey
.net

CORNERSTONE
LAND SURVEYING, INC.

FILE NAME SURVZZ485
PROJECT NO. Z218485

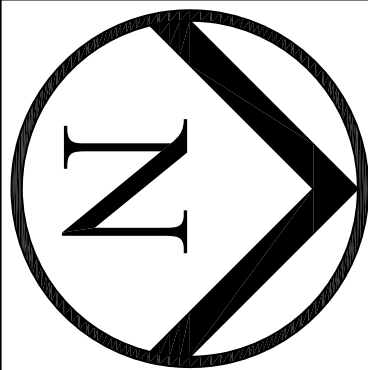
CERTIFICATE OF
SURVEY





- WALL TYPES:**
- Typical exterior wall construction:
- siding (match house)
 - house wrap
 - 1/2" OSB sheathing
 - 2x6 studs @ 16" O.C.
 - R-21 batt. insulation
 - 6 mil poly vapor barrier
 - (1) layer 1/2" gyp. bd.
- Typical exterior garage wall construction:
- siding (match house)
 - house wrap
 - 1/2" OSB sheathing
 - 2x6 studs @ 16" O.C.
 - R-21 batt. insulation
 - 6 mil poly vapor barrier
 - (1) layer 1/2" gyp. bd.
- Typical interior wall construction:
- (1) layer 1/2" gyp. bd.
 - 2x4 studs at 16" O.C. (non-bearing)
 - (1) layer 1/2" gyp. bd.

- Floor Plan General Notes:
- All interior and exterior finishes by owner.
 - Verify all final window and door sizes and types with owner.
 - All dimensions are from the face of foundation walls or exterior
 - See wall types for new wall construction.
 - See also building section for framing and other notes.
 - Carry all jamb and post loads to footing with solid blocking through floors.
 - All non bearing wall headers to get (1) jamb stud.
 - All bearing wall headers and beams to get (2) jamb studs unless noted otherwise.
 - All truss bracing by truss supplier.
 - All headers/beams are dropped unless noted otherwise.
 - All LVL beams/headers sized by other engineer.
 - All structural lumber to be SPF #2 grade or better.

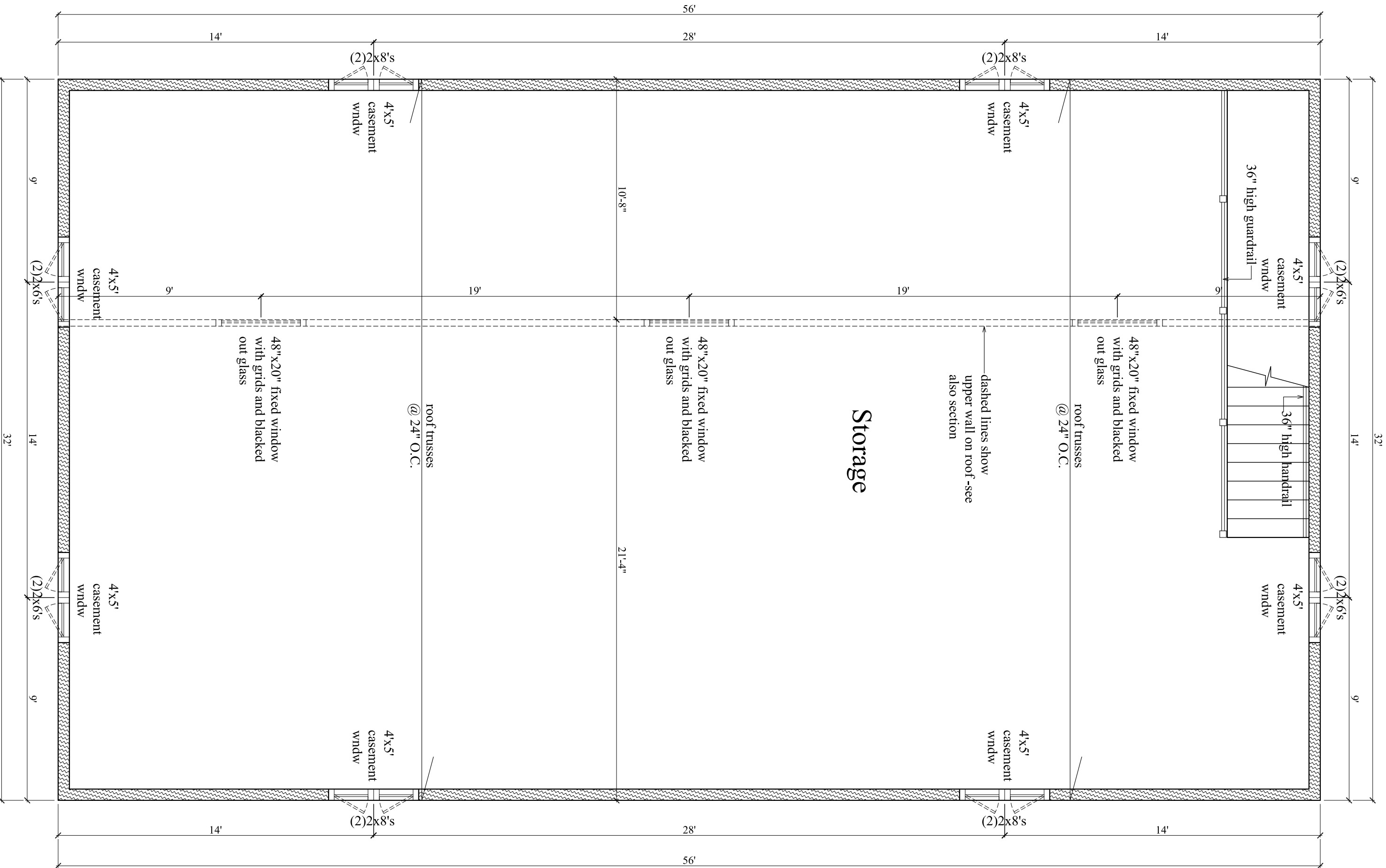


gk DESIGN
new and remodeled home
design and drafting services
Gene Klatt
ph:(612)986-2262 e-mail: klattgr1@gmail.com

New Garage
for Todd Alguire
9447 Stillwater Blvd. N
Lake Elmo, Mn. 55042

sheet
A1

Date: 7-27-19



WALL TYPES:

Typical exterior wall construction:

- siding (match house)
- house wrap
- 1/2" OSB sheathing
- 2x6 studs @ 16" O.C.
- R-21 batt. insulation
- 6 mil poly vapor barrier
- (1) layer 1/2" gyp. bd.

Typical exterior garage wall construction:

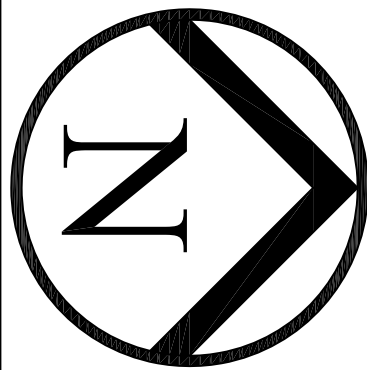
- siding (match house)
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- 1/2" OSB sheathing
- 2x6 studs @ 16" O.C.
- R-21 batt. insulation
- 6 mil poly vapor barrier
- (1) layer 1/2" gyp. bd.

Typical interior wall construction:

- (1) layer 1/2" gyp. bd.
- 2x4 studs at 16" O.C. (non-bearing)
- (1) layer 1/2" gyp. bd.

Floor Plan General Notes:

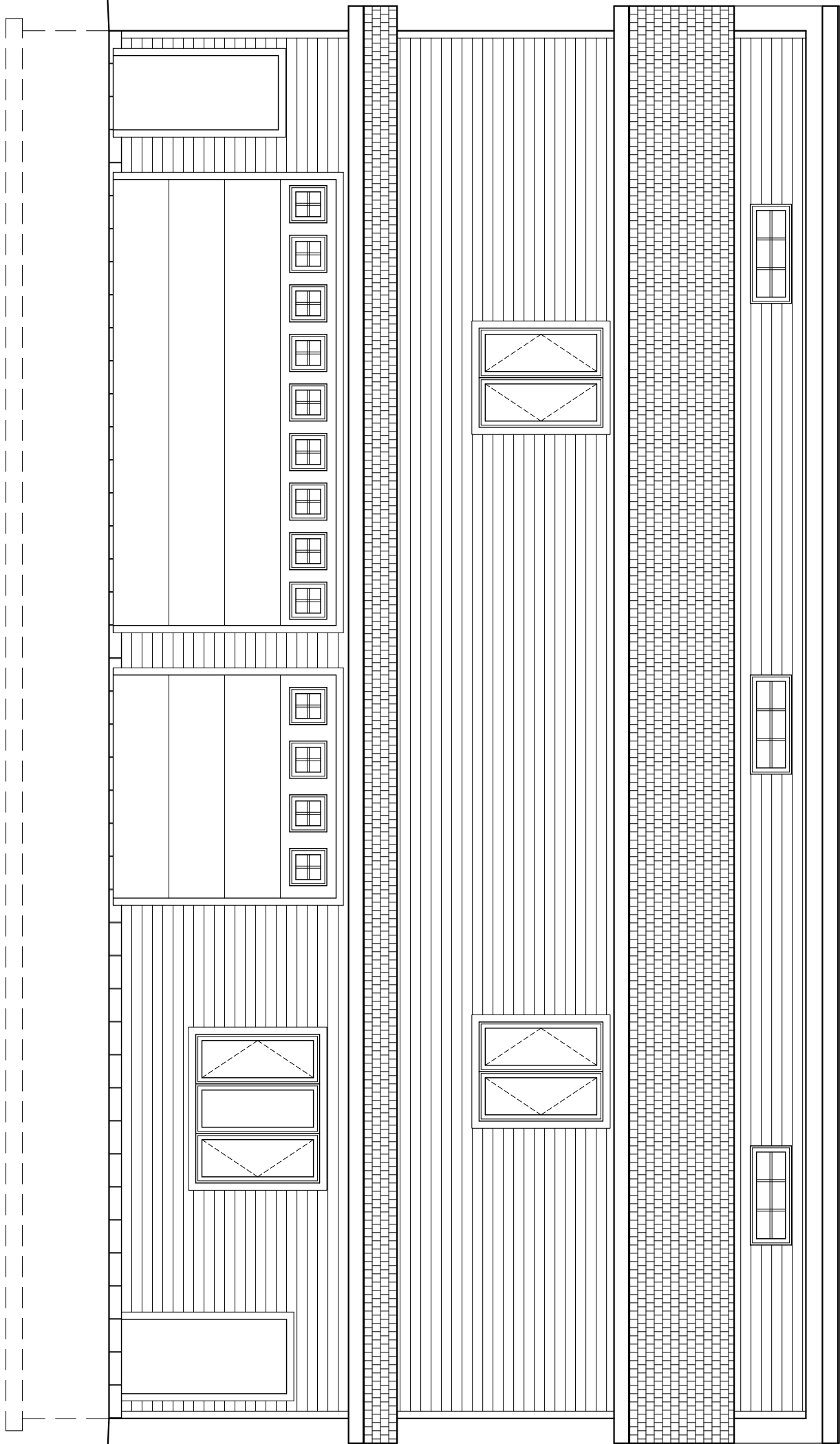
- All interior and exterior finishes by owner.
- Verify all final window and door sizes and types with owner.
- All dimensions are from the face of foundation walls or exterior.
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- All non bearing wall headers to get (1) jamb stud.
- All bearing wall headers and beams to get (2) jamb studs unless noted otherwise.
- All truss bracing by truss supplier.
- All headers/beams are dropped unless noted otherwise.
- All LVL beams/headers sized by other engineer.
- All structural lumber to be SPF #2 grade or better.



New Garage
for Todd Alguire
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Lake Elmo, Mn. 55042

sheet
A2

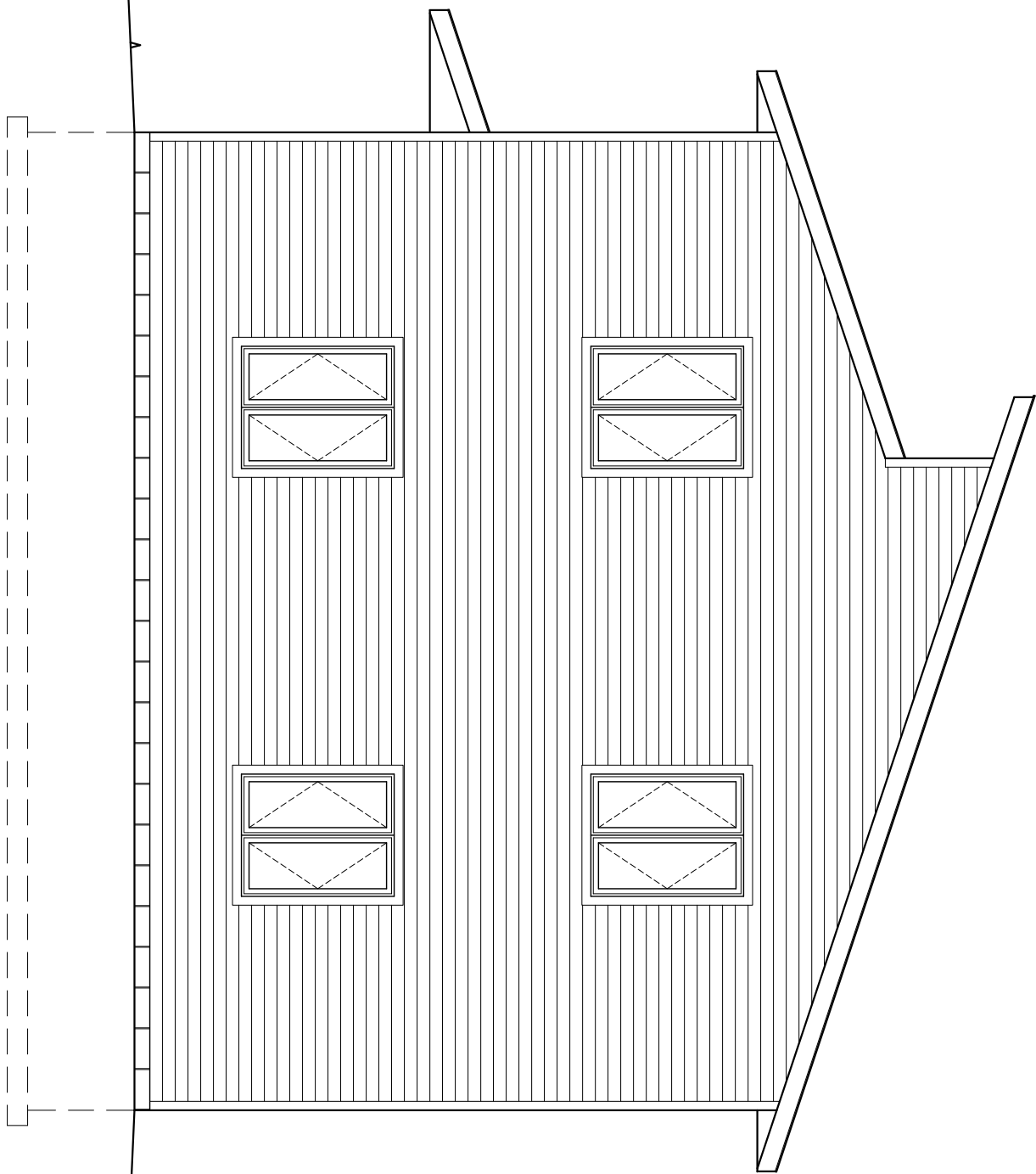
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1
A3

WEST ELEVATION

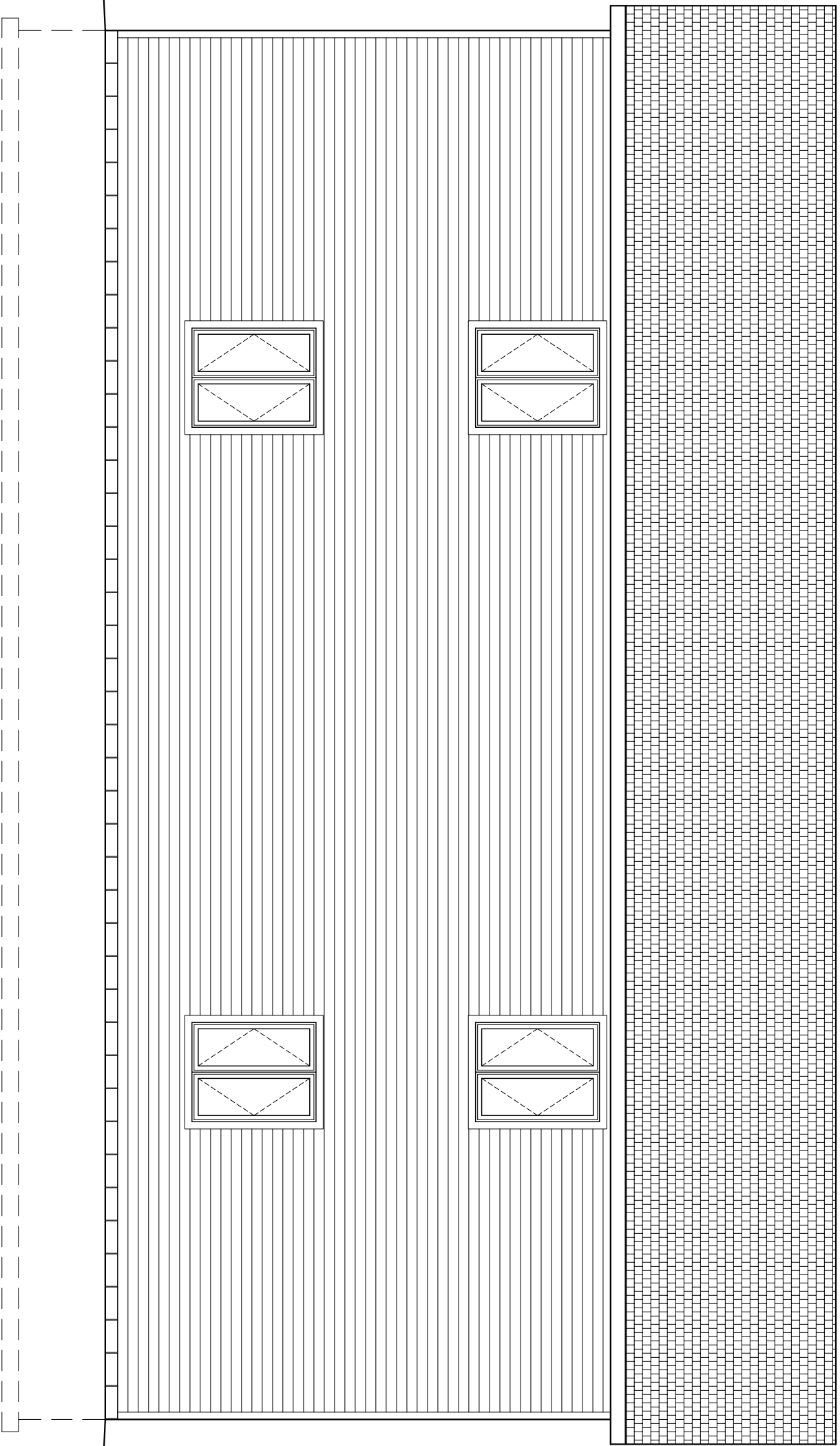
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2
A3

SOUTH ELEVATION

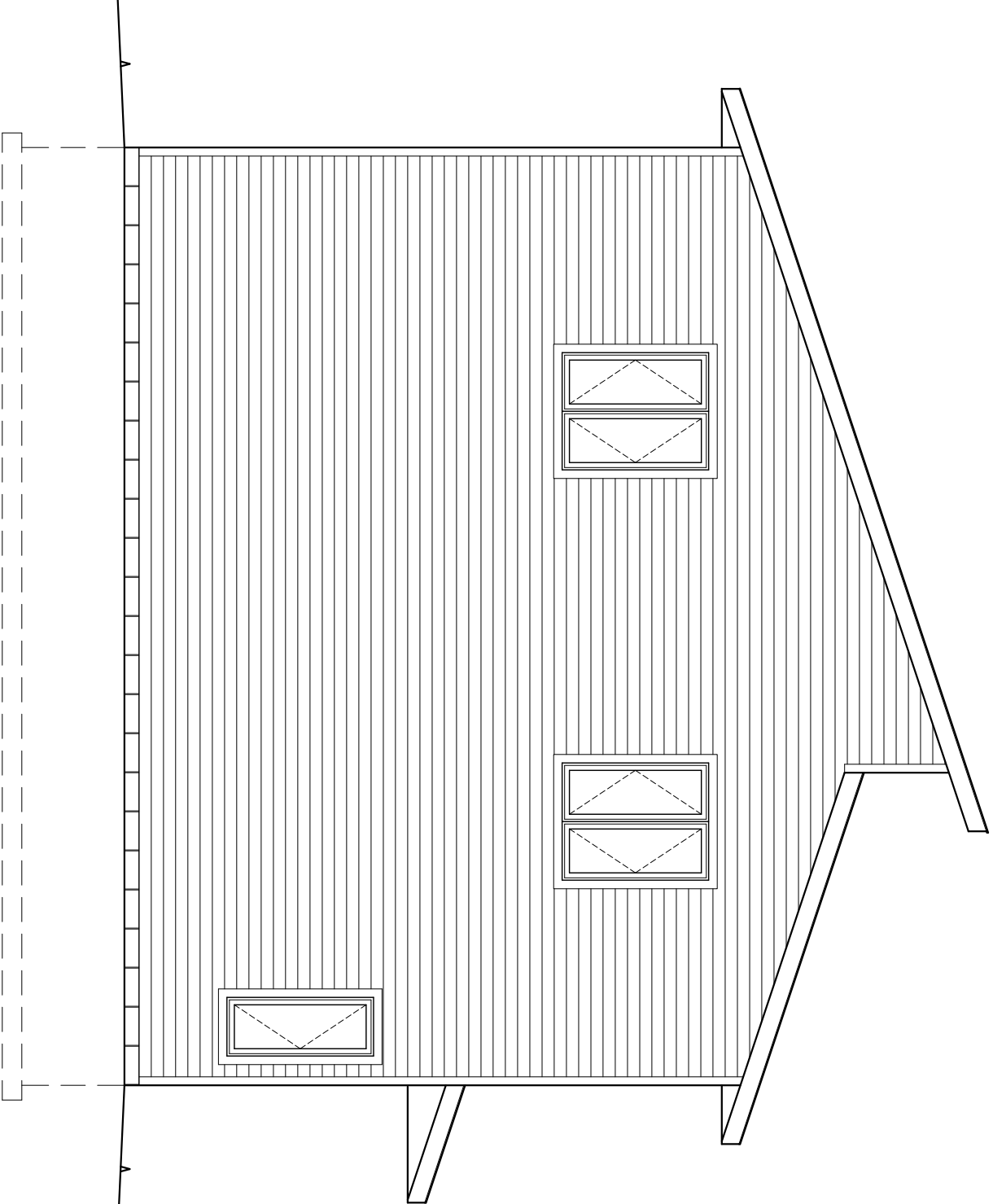
3/16"=1'-0"



3
A3

EAST ELEVATION

3/16"=1'-0"



4
A3

NORTH ELEVATION

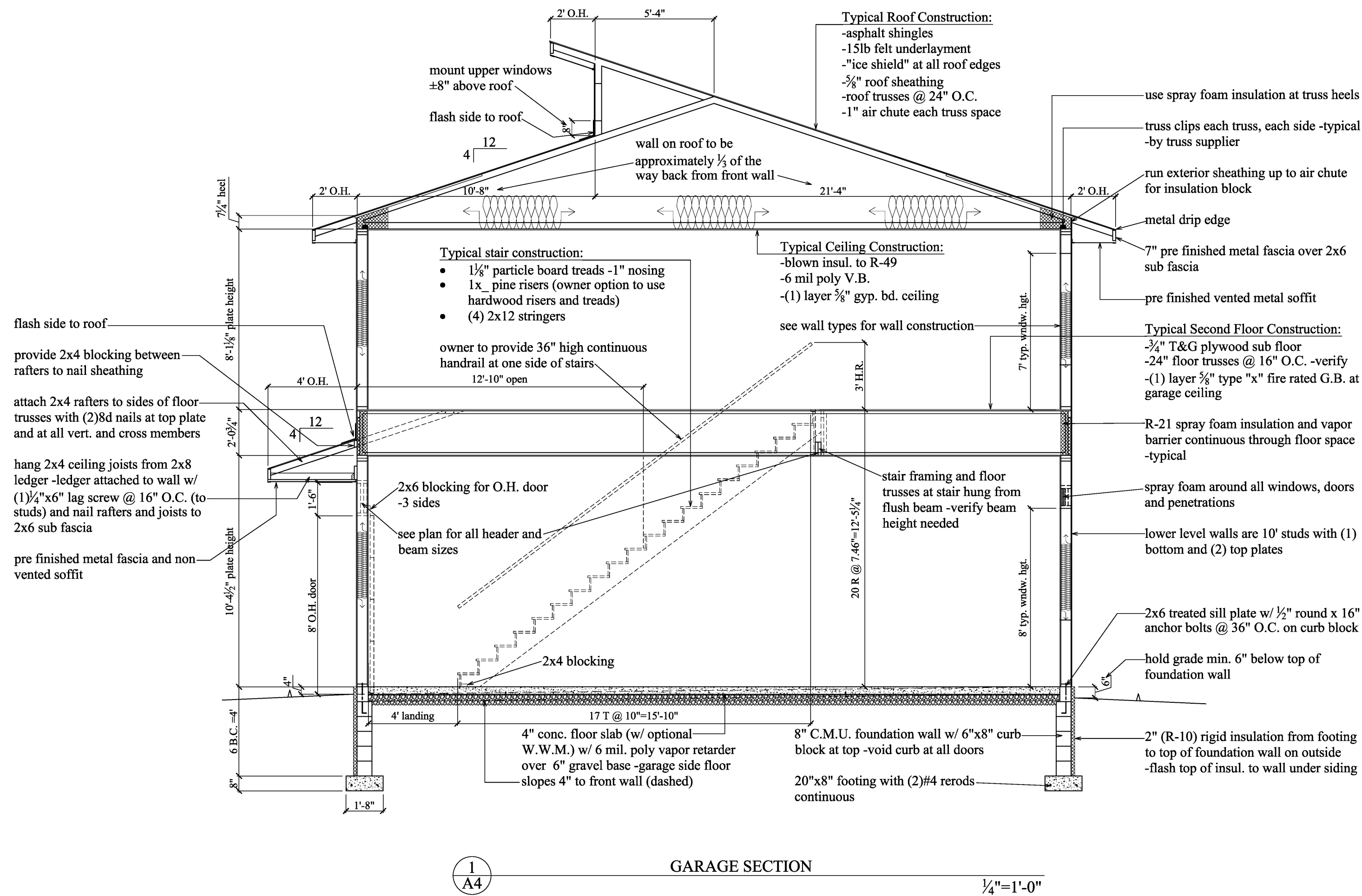
3/16"=1'-0"

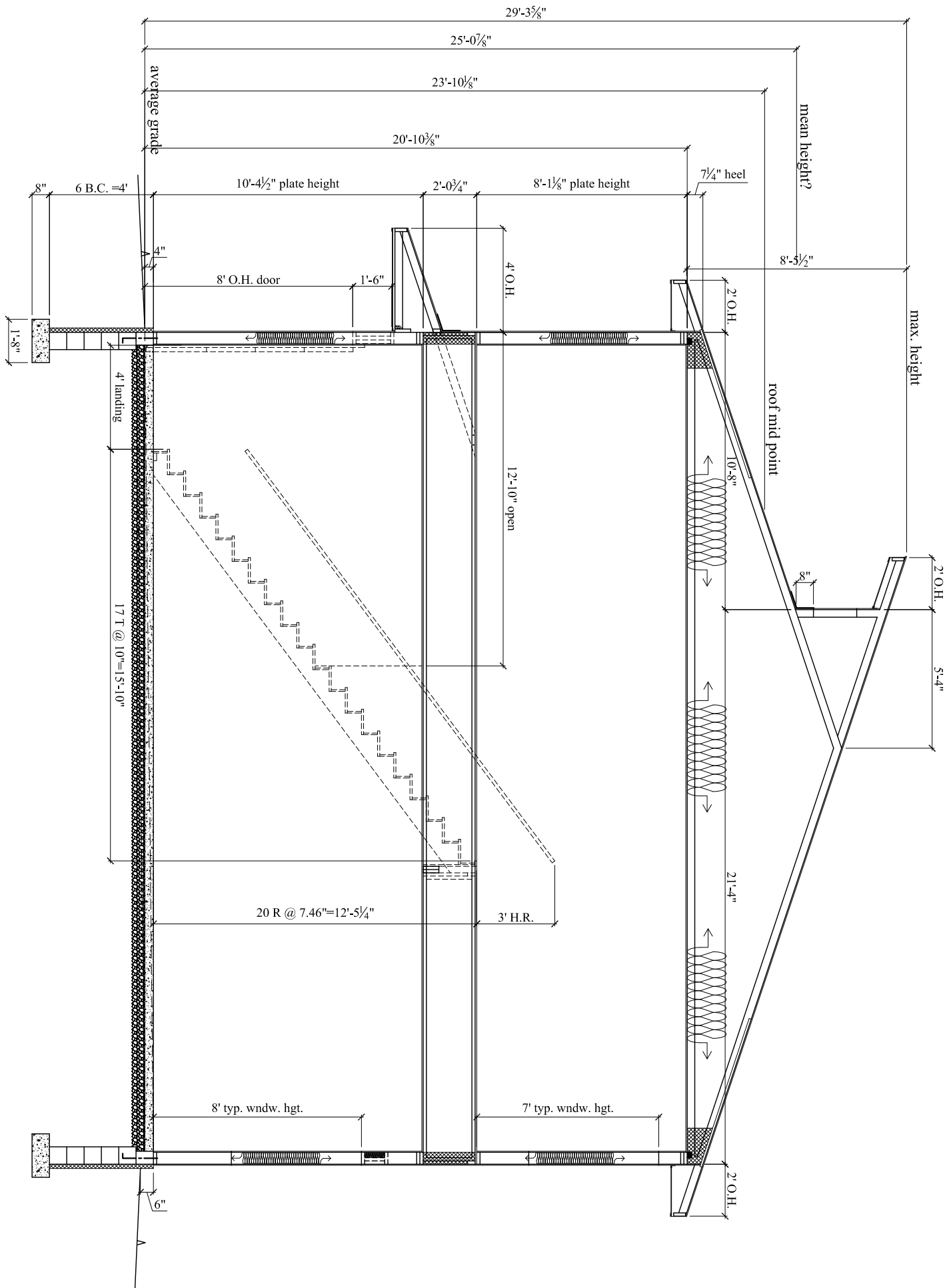
A3 sheet

Date: 7-27-19

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Ben Prchal

From: WAYNE Goiffon <GOIFFONW@msn.com>
Sent: Monday, August 19, 2019 4:07 PM
To: Ben Prchal
Subject: Response to Ben Prchal

Caution: This email originated outside our organization; please use caution.

Hello Ben,

I received a notice of a public hearing for Monday, August 26, 2019 concerning a variance request on behalf of Todd Alguire at 9447 Stillwater Blvd. N. I will not be able to attend the public hearing but I want to let you know that I do not have issue with Todd's request.

Kind regards,

Wayne Goiffon
9495 Stillwater Blvd. N.



STAFF REPORT

PLANNING COMMISSION

DATE: 08/26/2019

ITEM #:

AGENDA ITEM: Approve Engineering Design and Construction Standards Manual –
APRIL 2019 Revisions

SUBMITTED BY: Jack Griffin, City Engineer

REVIEWED BY: Kristina Handt, City Administrator
Ken Roberts, Planning Director
Marty Powers, Public Works Director
Chad Isakson, Assistant City Engineer

ISSUE BEFORE THE COMMISSION: Staff respectfully requests that the Planning Commission review and recommend approval of the APRIL 2019 revisions to the Engineering Design and Construction Standards Manual.

BACKGROUND: The City maintains engineering design standards, standard specifications, and standard details for public infrastructure within the City, including streets, sanitary sewer, watermain, storm water facilities, right-of-way management and boulevard layout. This information is compiled into an Engineering Design and Construction Standards Manual for use by staff and the development community. The latest version of the Manual is dated March 2017.

The standards have been established to set minimum requirements to be met for all public infrastructure projects in the City with the intent of constructing consistent and compatible infrastructure systems throughout the community; to clearly communicate with the development community these minimum expectations and requirements; and to expedite plan design, preparation and City plan review and approvals. The engineering design standards and guidelines have been established to address the most common project elements and are to be used in conjunction with the requirements set forth by applicable codes, laws and ordinances, recognized industry standards, good engineering practice and specific project needs. Omission of reference in these standards and guidelines does not relieve responsibility for compliance with these requirements. In addition, the provisions of these standards and guidelines are not intended to prohibit the use of alternative systems, methods or components. Professional engineering judgement and ingenuity is encouraged to adapt to specific project needs. However, varying from the standards and guidelines will only be permitted with the approval of the City, after performing due diligence to ensure the design is equivalent or superior to the prescribed elements of the guideline.

PROPOSAL DETAILS/ANALYSIS: The Engineering Design and Construction Standards Manual is a living document that is reviewed and modified from time to time by City staff to adapt pro-actively to changing conditions so as to remain current, address best practices and extract additional economic value and performance as needed. Changes are often based on recommendations from Engineering, Planning, Public Works, the construction observation staff or other City staff, the development community, and other stakeholders. Changes made by the City Engineer over time are periodically brought forward as revisions to the Engineering Design and Construction Standards Manual to formalize the City's approval.

ENGINEERING DESIGN STANDARDS

for

CITY OF LAKE ELMO

STREET DESIGN AND GEOMETRICS

- **Minimum Street Widths, Measured from Face of Curb to Face of Curb (F-F)**

-Standard Local Residential Street (with parking allowed on both sides).....	32-foot F-F
-Standard Local Residential Street, one-way lanes with center median.....	19-foot F-F
-Standard High Density Local Residential Street (with parking allowed on both sides).....	36-foot F-F
-Collector and Neighborhood Collector.....	Varies as Street Determined by City
-Local Residential Street with parking on one side (when allowed by City).....	28-foot F-F
-Local Residential Street with no parking on either side (when allowed by City).....	22-foot F-F

- **Geometric Design, Local Residential Street**

Minimum Street Width (B-B), parking both sides.....	28 feet
Minimum Street Width (B-B), parking one side (when allowed by City).....	24 feet
Minimum Street Width (B-B), no parking (when allowed by City).....	22 feet
Minimum Street Width, one way lanes with center median.....	19 feet
-Center Crown.....	2.5%
-Minimum Longitudinal Grade.....	0.5%
-Maximum Longitudinal Grade.....	8%
-Maximum Intersection Approach Grade, First 50-feet from curb line.....	2.5%
-Minimum Vertical Curve Length, Crest (including stop conditions).....	K=19
-Minimum Vertical Curve Length, Sag (including stop conditions).....	K=37
-Minimum Horizontal Curve Radius.....	90-feet
-Intersection Angles.....	90 degrees
-Tangent Length at Intersection from Curb Line, Local Streets.....	50 feet
-Tangent Length at Intersection from Curb Line, Higher Class Streets.....	100 feet
Tangent Minimum between curves.....	50 feet
-Minimum Intersecting Street Offset, from Centerlines.....	125 150-feet
-Curb Radius, Minimum Local to Local.....	20-feet
-Curb Radius, Minimum Local to Collector.....	25-feet
-Minimum Diameter of Cul-de-sac.....	90-feet
-Minimum Grade around Cul-de-sac.....	1.0% 0.5%
-Maximum Cul-de-sac Street Length (lots less than 2.5 acres).....	600-feet
-Maximum Cul-de-sac Street Length (lots equal or greater than 2.5 acres).....	1,320-feet
-Temporary Cul-de-sac at plat line.....	Required

- **Geometric Design, Collector Street**

-Design Standards.....	Meeting State-Aid for minimum design speed
Minimum Street Width, back of curb to back of curb.....	Varies (as determined by City)
-Maximum Longitudinal Grade.....	6%
-Intersection Angles.....	90 degrees
-Tangent Length at Intersection from Curb Line.....	100 feet
-Tangent Minimum between curves.....	50 feet

- Minimum Vertical Curve Length, Sag and Crest.....State-Aid for minimum design speed
- Minimum Horizontal Curve Radius.....State-Aid for minimum design speed
- Minimum Intersecting Street Offset, if allowed, from Centerlines.....250-feet
- Street/Roadway Access.....Per City Access Management Spacing Guidelines
- Driveway Access, Residential.....Prohibited
- Driveway Access, Commercial.....Per City Access Management Spacing Guidelines
- Curb Radius.....25-feet

- **Pavement Section Design** *(Pavement sections below are minimum allowed. Additional pavement section may be required based on Geotechnical Report of the subgrade soils).*
 - Local Residential Street.....Minimum 7-Ton Design
 - Subbase, Select Granular Borrow (SPEC 3149.2B).....Minimum 12-inches
 - Subsurface Drainage System.....Required
 - Base, Aggregate Base, Cl. 6 100% Crushed Stone Aggregate (**SPEC 3138**).....Minimum 6-inches
 - *Note: Class 6 Recycled Material Substitute by City Engineer Approval*
 - Non-Wearing Course, MnDOT 2360 Type SP 12.5, Mixture 2B, **Asphalt Grade C**.....2-inches
 - Wearing Course, MnDOT 2360 Type SP 9.5, Mixture 2B, **Asphalt Grade C**.....1½-inches

 - Collector Street and Above.....Minimum 10-Ton Design
 - Subbase, Select Granular Borrow (SPEC 3149.2B).....Minimum **24 12-inches**
 - Subsurface Drainage System.....Required
 - Base, Aggregate Base, Cl. 6 100% Crushed Stone Aggregate.....Minimum 8-inches
 - *Note: Class 6 Recycled Material Substitute by City Engineer Approval*
 - Non-Wearing Course, MnDOT 2360 Type SP 12.5, Mixture 3C.....2-inches
 - Wearing Course, MnDOT 2360 Type SP 9.5, Mixture 3C.....2-inches

- **Drainile/Street Subsurface Drainage**
 - Type.....Sch. 40 Rigid PVC Perforated
 - Size.....4-inch
 - Sock.....MnDOT SPEC 3733
 - Location.....All Low Points in both directions; at 350 foot intervals, and Project Specific Design
 - Length.....Minimum 100-foot runs; 100 feet in both directions from low points
 - Clean Outs.....Every 150 feet and at all dead ends

- **Curb and Gutter**
 - Material, All Purposes.....Concrete
 - Strength, Minimum Requirements.....**4,500 3,900 PSI**
 - Type: New Developments, Single Family Residential.....Surmountable
 - Type: Multifamily, Commercial, Collector Roads, Medians, Reconstruction.....B618

- **Utility Conduit**
 - Type.....PVC Schedule 40
 - Location/Depth.....Perpendicular to Street and minimum 1-foot below Street Subgrade

- **Entrances/Driveways**
 - Maximum Driveway Width at Right-of-way.....Varies by Zoning District
 - Bituminous Driveway Minimum Thickness, Section.....Match Street
 - Residential Concrete Driveway Minimum Thickness.....6-inches
 - Commercial Concrete Driveway Minimum Thickness.....8-inches

- **Signing**
 - Design Standards.....MMUTCD
 - Sheathing Type.....Type IX Diamond Grade (DG3)
 - Sign Posts.....Pre-punched 14 ga. Square Tube

RIGHT-OF-WAY AND BOULEVARD LAYOUT

- **Minimum Right-of-way Widths**
 - Principal Arterial.....150 feet to 300 feet
 - Intermediate Arterial.....100 feet to 300 feet
 - Minor Arterial.....120 feet to 150 feet
 - Collector Street.....100 feet to 150 feet
 - Commercial or Industrial Service Street.....80 feet
 - Standard High Density Local Residential Street (36-feet with parking on both sides).....70-feet
 - Standard Local Residential Street (32-feet with parking on both sides).....66-feet
 - Local Residential Street with parking on one side (when allowed by City).....60-feet
 - Local Residential Street with no parking on either side (when allowed by City).....60-feet
 - Marginal Access Street (with no trail or sidewalk).....50 feet
 - Cul-de-Sac.....60 feet; turn-around radius of 60 feet
- ~~**Right of Way Widths**~~
 - ~~-Local Residential Street Minimum Width.....60 feet~~
 - ~~-Cul-de-sacs.....60-foot radius~~
 - ~~-Collector Street Minimum Width.....Varies (as determined by City)~~
- **Boulevard, Local Residential Street**
 - Width.....15.5 ~~16~~-feet (15-feet at cul-de-sacs)
 - Slope, Typical and Maximum.....4% and 4:1
 - Topsoil Minimum.....6-inch
 - Turf Treatment.....Lawn Sod
 - Tree Location without Sidewalk or Trail.....8-feet back of curb
 - Tree Location with Sidewalk or Trail.....5-feet back of curb
 - Street Light Location.....5-feet back of curb
 - ~~-Street Light Fixture.....Traditional Colonial LED, Type B 4000 Lumens (Black)~~
 - ~~-Street Light Pole.....15-foot Washington Fluted Aluminum (Black)~~
 - ~~-Street Light Type/Pole.....15-foot California Acorn w/Aluminum Pole (All Black)~~
 - Hydrant Location.....5-feet back of curb
- **Sidewalks**
 - Collector Street.....Required on both sides
 - Local Residential Street.....Required on one side
 - Cul-de-sac Street.....Required for trail connection
 - Width.....6-feet
 - Sidewalk Maximum Longitudinal Grade.....6%
 - Pavement Section.....5-inch Concrete; 4-inch Select Granular
- **Trails**

-Locations.....Per City trail plan and as directed
-Width, Local Trail.....8-feet
-Pavement Section, Local Trail.....2.25-inch Bituminous; 8-inch minimum Class 5
-Maximum Longitudinal Grade.....8%

- **Berm Construction in Boulevard**

-Maximum Side Slope with Maintenance Requirements.....3:1
-Maximum Side Slope with Natural Vegetation.....2:1

SANITARY SEWER

- **Force Main**

-Material.....	PVC or HDPE
-PVC, 2-inch–24-inch.....	C900/C905
-HDPE Class, 1-inch.....	SDR 9
-HDPE Class, 2-inch–24-inch.....	SDR 11
-Minimum Cover.....	7.5-Feet
-Location of main in Street.....	Project Specific
-Tracer Wire.....	12 AWG solid, PRO-TRACE HDD-CCS PE45
-Air Relief Valve and Manhole Locations.....	All High Points
-Clean Outs.....	All Low Points

- **Gravity main**

-Material.....	PVC
-Minimum Diameter.....	8-inch
-Class, up to 20-feet in depth.....	SDR 35
-Class, 20-25 feet in depth.....	SDR 26
-Class and Material, over 25 feet in depth.....	Project Specific
-Minimum cover over pipe.....	5.5-feet
-Maximum depth of pipe.....	30-feet
-Slope.....	Ten States Standards
-Tracer Wire.....	12 AWG solid, PRO-TRACE HF-CCS PE45
-Location of main in Street.....	Centerline

- **Sanitary Sewer Manholes**

-Type.....	Precast Concrete
-Maximum inlet/outlet elevation difference.....	2-feet
-Minimum depth of Manhole.....	6-feet
-Type of Casting.....	R-1642-B
-Joints and Assembly.....	Per City Details
-Location.....	Street Centerline
-Maximum Spacing.....	400-feet
-Flow Line Match Required.....	8/10ths Rule
-Drop Across All Manholes Required.....	0.1-feet
-Connections to Existing Manholes.....	Core Drill with Boot
-Outside drop minimum.....	2-feet
-Outside drop Material.....	Ductile Iron

- **Service Pipe**

-Material and Class.....	PVC SCHEDULE 40
-Minimum Diameter.....	4-inch
-Tracer Wire.....	12 AWG solid, PRO-TRACE HF-CCS PE45
-Drive-In Magnesium Grounding Anode Rod.....	Copperhead Part # ANO-1005 (1.5lb)

- **Easements**

-Sanitary sewer pipe and structures require minimum 30-foot easements centered over the pipe/structure if not located within the public right-of-way. Additional easement width may be required as determined by the City Engineer and Public Works Director. Easements must be dedicated to the City and be provided in the City's standard form of easement agreement.

WATERMAIN

- **Water Service Pressures**

- Individual Booster Pumps required.....development specific

- **Main Pipe**

- Material.....DIP
 - Class.....CL. 52
 - Minimum Diameter – Mainline.....8-inch
 - Minimum Diameter – As allowed by City Engineer.....6-inch
 - Minimum Diameter – Hydrant Lead.....6-inch
 - Minimum Cover.....7½-feet
 - Maximum Length of Dead Ends.....1,000-feet
 - Air Release measures.....MH, Hydrant
 - Tracer Wire.....12 AWG solid, PRO-TRACE HF-CCS PE45
 - Location of main in Street.....North or West

- **Hydrants**

- Type.....Waterous Pacer WB-67
 - Depth of Bury.....8½-feet
 - Maximum Coverage Radius, Residential.....500-feet
 - Maximum Coverage Radius, Commercial.....300-feet
 - Gate valve on Hydrant leads.....Yes
 - Hydrant Nozzle.....4-inch Storz with Pentagon Nut end cap
 - Temporary dead end lines.....Hydrant required (no air bleed valves)

- **Valves**

- Resilient Seat Gate Valve, for 12-inch pipe & smaller.....American Flow Control 2500 Series
 - Butterfly Valve, for pipe over 12-inch.....Mueller Linesal III
 - Valve Box.....Tyler G-Box6860
 - Maximum area isolated by valving.....20 services
 - Maximum distance between valves on Trunk Mains.....800-feet

- **Service Pipe**

- Service Material.....Type “K” copper
 - Corporation Stop.....A.Y. McDonald 74701B
 - Curb StopA.Y. McDonald 76104
 - Curb BoxA.Y. McDonald 5614 w/rod & Mpls. top

- **Easements**

- Watermain lines and hydrants require minimum 30-foot easements centered over the pipe if not located within the public right-of-way. Additional easement width may be required as determined by the City Engineer and Public Works Director. Easements must be dedicated to the City and be provided in the City’s standard form of easement agreement.

STORM SEWER

- **Design**
 - Design Frequency for Storm Sewer.....10-year
 - Minimum storm sewer design velocity.....3-fps
 - Maximum storm sewer design velocity.....15-fps
 - Maximum storm sewer outlet velocity.....5-fps
 - Minimum Outfall Pipe Slope.....Verify positive grade at completion (no reverse grade)
- **Main Pipe**
 - Storm Sewer Pipe Material.....RCP
 - Minimum Cover Depth.....3-feet
 - Minimum Pipe Diameter, Main.....15-inch
 - Minimum Catch Basin Lead.....12-inch
 - Location of main in Street.....South or East
- **Culvert pipe**
 - Culvert Material, urban road or crossing public road.....RCP
 - Culvert Material, rural road private driveway.....CMP
 - Minimum Culvert Size.....15-inch
 - Apron and Trash Guard Required.....Yes
- **Manholes**
 - Type.....Precast Concrete
 - Sump Depth and Location.....4-feet, located at street prior to discharge point
 - Minimum Structure Depth.....4-feet
 - Casting.....R-1642-B
 - Minimum Adjustment Rings.....2
 - Maximum Adjustment Rings.....1-foot
- **Catch Basins**
 - Type.....Precast Concrete
 - Minimum Structure Depth.....4-feet
 - Maximum run to Catch Basin.....350-feet
 - Casting, Curb & Gutter, B Style Curb.....R-3067V
 - Casting, Area Drain.....R-4342
- **Easements**
 - Storm sewer pipe, structures and flared end sections require minimum 30-foot easements centered over the pipe/structure if not located within the public right-of-way. Additional easement width may be required as determined by the City Engineer and Public Works Director. Easements must be dedicated to the City and be provided in the City’s standard form of easement agreement.

STORMWATER MANAGEMENT AND STORMWATER BMPs

Note: Stormwater facilities shall be in accordance with the requirements listed herein; in accordance with the requirements of the applicable watershed district; and in accordance with the Minnesota Pollution Control Agency NPDES Construction Storm Water Permit. In addition, all “Recommended” and “Highly Recommended” provisions of the Minnesota Stormwater Manual should be considered requirements by the City of Lake Elmo unless specifically approved otherwise by the City Engineer.

- **Site Design**

- Facility locations.....Located in Outlots ~~deeded to City~~
- Location and Size.....above 100-year HWL
- Building Lowest Floor above 100-year HWL.....2-feet
- Building Lowest Opening above EOF.....1-foot
- Minimum access road width (located in Outlot).....20-feet
- Maximum grade for maintenance access roads.....10%
- Setback from building foundations.....35-feet
- Flood Protection.....Overland Emergency Overflows Required (No landlocked basins)

- **Stormwater Ponds (Detention Basins)**

- Design Frequency (DF).....2, 10, and 100-year, and 100-year 10-day snowmelt
- Minimum Basin Depth to HWL.....3-feet
- Maximum Pond Depth to HWL.....10-feet
- Average Permanent Pool Depth.....4-feet to 6-feet
- Permanent Pool Length-to-Width Ratio.....3:1 or greater
- Maintenance Bench Maximum side slope, first ten feet above Permanent Pool.....10:1
- Aquatic Bench Maximum side slope, first ten feet into Permanent Pool.....10:1
- Maximum side slope, beyond first ten feet.....3:1
- Pretreatment Sediment Forebay.....10% Pond Area
- Required freeboard.....2-feet above HWL
- Pond Liner.....Clay lined per VBWD specifications

- **Drainage Swales**

- Maximum side slopes on Swales (maximum slopes allowed only when necessary).....3:1
- Maximum side slopes on Right-of-Way Swales.....4:1
- Minimum longitudinal Swale grade.....2%
- Minimum Swale depth within Right-of-Way.....18-inches
- Minimum Bottom Width.....4-feet

- **Infiltration Facilities (Bioretention Areas and Rain Gardens)**

- Inlet control from Streets.....Use Neenah R-3067-V casting on Catch Basin (no curb cuts)
- Maintenance Agreement for public right-of-way.....Required
- Maintenance Access Easement.....Required
- Minimum distance from septic system or drainfield.....35-feet
- Minimum distance from public or private well.....50-feet
- Maximum Site Slope.....5%
- Minimum depth to Bedrock.....5-feet
- Minimum depth to Seasonally High Water Table.....5-feet
- Located in “hotspot” drainage shed (i.e. gas stations).....Prohibited
- Located in Hydrologic Soil Group D Soils.....Prohibited
- Underdrain, Group C Soils (filtration).....Required

- Soil infiltration rates.....*By Field Testing at Facility Location
- Maximum side slope.....4:1
- Maximum drain dry time.....48 hours
- Soil medium.....MnDOT 3877 E Rooting Topsoil Borrow
- Seeding.....MnDOT 3876 Specifications with Type 33-261
- Plantings.....Planted in conformance with City approved landscape plan

** Soil borings are required to verify infiltration rates. Borings must be taken to a depth of 5 feet below proposed infiltration basin elevation.*

- *Minimum 2 borings per facility up to 5,000 SF. of infiltration area.*
 - *Minimum 3 borings per facility up to 10,000 SF. of infiltration area.*
 - *Additional boring required for every additional 2,500 SF. of infiltration area.*
- **Other Stormwater BMPs:** *The City of Lake Elmo has adopted the following additional BMPs and Low Impact Development practices for the City and promotes their use in accordance with these Engineering Design Standards and the applicable City Code.*
 - **Open Space Developments in applicable Zoning Districts.**
 - **Narrow Streets through minimized street width standards.**
 - **Stormwater Reuse.**
 - **Infiltration/filtration Practices.**
 - **Vegetated Swales (Ribbon Curbs and Curbless Streets in applicable Zoning Districts).**
 - **Temporary Erosion and Sedimentation Control using Engineering Standards Manual.**
 - **Stormwater Site Design.**
 - Conservation of open spaces to protect a site’s natural areas.
 - Impervious lot coverage credits for Stormwater BMPs.
 - Use of Pervious Pavements.
 - Adoption of Minimal Impact Design Standards (MIDS) to mimic predevelopment hydrology.
 - Incorporation of Landscaping and use of Native Vegetation.

DETAIL PLATE NUMBERS AND PLAN NOTES

- | | |
|--------------------------------------|--|
| • Pipe Installation | 101,103,105 |
| • Watermain | 200A,201,203,204,206,207A,207B,208,210,211 |
| • Sanitary Sewer | 300A,301,302,303,305,306,311,313,314,315 |
| • Storm Sewer | 400A,402,404,405,406,407,408,409,410,411,
412,416,417,419,420,421 |
| • Pavements, Curbs, Walks | 500A,501,502,504,505,506, 507A,507B,507C,
507D,507E,507F ,508,509,510,511,512,513, 514 |
| • Erosion Control | 600A,600B,600C,600D,601,603,604,605,606 |
| • Typical Sections and Right-of-Way | 801,804,805,806,807A,807B |
| • Signing/Pavement Markings/Lighting | 900A,901,902,903 |

NOTE: *Minimum and maximum design parameters identify the end range of the acceptable design in the as-built condition and therefore must account for construction tolerances. Minimum and maximum design parameters are intended for use in the unique and extreme circumstance and therefore should have limited use in the base design.*

The Engineering Design and Construction Standards Manual dated APRIL 2019 includes the following revisions and updates:

1. Revised minimum street widths as detailed in the attached Engineering Design Standard red lines. Street width revisions were made per Council direction following the June 11, 2019 workshop.
2. Reconciled minor street geometric parameters.
 - o Removed tangent requirement between curves along local streets.
 - o Reduced the minimum intersection offset distance from 150 feet to 125 feet.
 - o Increased the minimum gutter grade in cul-de-sacs from 0.5% to 1.0%.
3. Revised the bituminous wear course mix to require a higher-grade oil in the mix (Asphalt Grade C) and eliminated the practice of “saw and seal” on local streets.
4. Increased the minimum pavement section for collector streets to require 24-inches of select granular borrow.
5. Revised the concrete strength requirements from 3,900 PSI to 4,500 PSI, consistent with the new MnDOT and industry standards.
6. Revised the minimum right-of-way widths and minimum boulevards to be consistent with the approved 2040 Comprehensive Plan, Transportation Chapter and to accommodate the wider streets.
7. Revised the City standard street light fixture and pole to reflect the City’s recent change to LED lighting.
8. Added minimum utility easement width requirements for watermain, sanitary sewer and storm sewer to be consistent with existing practices.
9. Removed the requirement to have storm water facility Outlots dedicated to City ownership. The new practice will be to require drainage and utility easements over the entire Outlot.
10. Revised the Standard Detail Plates for pedestrian ramps to be consistent with the new MnDOT and ADA standards.
11. Updated the Specifications and Details to reflect MnDOT 2018 Specification updates (updated from MnDOT 2014).
12. Updated the specifications to require storm sewer televising, similar to sanitary sewer televising.
13. Reviewed and red lined the City Subdivision Ordinance, Open Space Ordinance, and Stormwater Management Ordinance design standards to be consistent with the Engineering Design Standards Manual.

FISCAL IMPACT: No fiscal impact at this time. Should the City council adopt wider street widths, the future infrastructure street and storm water construction, reconstruction and ongoing maintenance costs will increase accordingly.

RECOMMENDATION: Staff is recommending that the Planning Commission recommend approval of the APRIL 2019 revisions to the Engineering Design and Construction Standards Manual. The recommended motion for the action is as follows:

“Move to recommend approval of the APRIL 2019 revisions to the Engineering Design and Construction Standards Manual.”

ATTACHMENTS:

1. Engineering Design and Construction Standards Manual dated APRIL 2019.

**The full Engineering Design and Construction Standards Manual, dated APRIL 2019 is available for review at City Hall.*

Sewered Development
Development Status Sheet

Southern Developments

SAVONA - 310 Total

	Final Plat Appro	DA Agreement Approved	DA Agreement Signed	Plat Recorded	Updated 8/19/19		Total # Of Homes	Total # of SF Homes	Total # of Townhomes	Building Permits Issued	CO's Issued	Zoning	Build-Out
Savona 1st	2/18/2014	5/20/2014	6/18/2014	9/25/2014	Lennar	Lennar	44	44	0	44	44	LDR	100%
Savona 2nd	9/16/2014	9/16/2014	10/22/2014	4/14/2015	Lennar	Lennar	67	45	22	62	61	LDR/MDR	91%
Savona 3rd	9/15/2015	9/15/2016	9/16/2015	11/19/2015	Lennar	Lennar	120	21	99	119	116	LDR/MDR	97%
Savona 4th	3/15/2016	4/5/2016	6/27/2016	7/27/2016	Lennar	Lennar	78	78	0	31	23	LDR	29%
							309	188	121	256	244		79%

BOULDER PONDS - 162 Total

Boulder Ponds 1st	4/21/2015	4/21/2015	5/16/2015	6/5/2015	OP 4 Boulder Ponds	Creative Homes	47	47	0	43	39	PUD/LDR	83%
Boulder Ponds 2nd	5/17/2016	5/17/2016	4/12/2017	5/8/2017	OP 4 Boulder Ponds	Creative Homes	18	18	0	17	15	PUD/LDR	83%
Boulder Ponds 3rd	6/19/2018	8/8/2018	8/31/2018	10/18/2018	OP 4 Boulder Ponds	Creative Homes	33	33	0	12	2		6%
							98	98	0	72	56		57%

THE SPRINGS AT LAKE ELMO - 300 Total

The Spring at Lake Elmo

0	0	0	0	0
0	0	0	0	0

UNION STATION - 240 Total

Union Station 1st

0	0	0	0	0
0	0	0	0	0

HUNTER'S CROSSING - 51 Total

Hunter's Crossing 1st	7/1/2014	10/7/2014	10/15/2015	12/18/2014	Ryland/Cal Atlantic	Cal Atlantic	22	22	0	22	22	LDR	100%
Hunter's Crossing 2nd	5/5/2015	5/5/2015	5/29/2015	8/4/2015	Ryland/Cal Atlantic	Cal Atlantic	29	29	0	29	29	LDR	100%
							51	51	0	51	51		100%

INWOOD - 537 Total

Inwood 1st	5/19/2015	5/19/2015	6/9/2015	8/3/2015	Hans Hagen/MI Homes	MI Homes	40	40	0	39	39	PUD/LDR	98%
Inwood 2nd	9/1/2015	N/A	11/19/2015	11/23/2015	Hans Hagen/MI Homes	MI Homes	21	21	0	21	21	PUD/LDR	100%
Inwood 3rd	4/19/2016	5/3/2016	5/16/2016	5/23/2016	Hans Hagen/MI Homes	MI Homes	68	68	0	68	68	PUD/LDR	100%
Inwood 4th	10/18/2016	2/7/2017	4/5/2017	3/27/2017	Hans Hagen/MI Homes	MI Homes	38	38	0	30	26	PUD/LDR	68%
Inwood 5th	4/4/2017	6/6/2017	6/15/2017	6/19/2017	Hans Hagen/MI Homes	MI Homes	101	101	0	78	73	PUD/LDR	72%
							268	268	0	236	227		85%

HAMMES ESTATES (Lake Ridge Crossing - 163 Total

Hammes Estates 1st	10/7/2014	8/16/2016	8/16/2016	9/27/2016	Rachael Development	Multiple	57	57	0	43	39	LDR	68%
Hammes Estates 2nd	1/3/2017	2/7/2017	6/9/2017	6/30/2017	Rachael Development	Multiple	37	37	0	13	11	LDR	30%
Hammes Estates 3rd	2/20/2018	3/20/2018	3/21/2018	5/2/2018	Rachael Development	Multiple	69	69	0	1	0	LDR	0%
							163	163	0	57	50		31%

ROYAL GOLF - 292 Total

Royal Golf - 1st	9/5/2017	9/19/2017	9/19/2017	9/29/2017	HC Royal Golf	Multiple	73	73	0	51	48	GCC	66%
Royal Golf - 2nd	6/19/2018	6/19/2018	6/19/2018	8/2/2018	HC Royal Golf	Multiple	64	64	0	7	1	GCC	2%
Royal Golf - 3rd	12/4/2018	Extension granted to 2020			HC Royal Golf	Multiple	67	67	0	0	0	GCC	0%
							204	204	0	58	49		24%

SOUTHWIND AT LAKE ELMO- 46 Total

Southwind	7/5/2017	7/5/2017	7/17/2017	8/21/2017	Southwind Builder	Southwind Builders	46	46	0	18	11	MDR	24%
							46	46	0	18	11		24%

NORTHPORT - 104 Total

Northport 1st	9/5/2017	9/19/2017	11/15/2017	11/15/2017	Pulte Homes	Pulte Homes	36	36	0	20	16	LDR	44%
Northport 2nd	7/17/2018	7/17/2018	8/21/2018	8/14/2018	Pulte Homes	Pulte Homes	29	29	0	3	0		0%
							65	65	0	23	16		25%

WYNDHAM VILLAGE - 10 Total

12/4/2018							10	10	0	0	0		0%
							10	10	0	0	0		0%

Northern Developments

EASTON VILLAGE - 217 Total

Easton Village 1st	3/3/2015	3/3/2015	7/23/2015	8/10/2015	Chase Development	Multiple	71	71	0	68	66	LDR	93%
Easton Village 2nd	5/2/2017	6/6/2017	6/6/2017	7/5/2017	Chase Development	Multiple	19	19	0	18	13	LDR	68%
Easton Village 3rd	7/18/2017	7/18/2017	7/6/2017	9/5/2017	Chase Development	Multiple	28	28	0	19	16	LDR	57%
Easton Village 4th	5/15/2018	5/15/2018	9/10/2018	9/19/2018	Chase Development	Multiple	25	25	0	11	0	LDR	0%
							143	143	0	116	95		

LEGACY AT NORTH STAR - 266 Total

Legacy at North Star 1st	8/21/2018	8/21/2018	9/14/2018	9/14/2018	Gonyea Homes	Multiple	59	59	0	27	7	VLDR	12%
Pool/Pool House							59	59	0	27	7		

VILLAGE PRESERVE - 91 Total

Village Preserve 1st	5/5/2015	6/2/2015	8/3/2015	8/25/2015	Gonyea Homes	Multiple	46	46	0	44	44	LDR	96%
Village Preserve 2nd	4/19/2016	8/16/2016	8/19/2016	9/9/2016	Gonyea Homes	Multiple	45	45	0	43	38	LDR	84%
							91	91	0	87	82		

WILDFLOWER - 145 Total

Wildflower @ Lake Elmo 1st	7/21/2015	8/4/2015	8/27/2015	10/6/2015	Engstrom Companies	Multiple	60	60	0	42	38	PUD/MDR	63%
Wildflower @ Lake Elmo 2nd	12/6/2016	3/21/2017	6/20/2017	6/20/2017	Engstrom Companies	Multiple	20	20	0	8	6	PUD/MDR	30%
Wildflower @ Lake Elmo 3rd	3/20/2018	4/17/2018	7/26/2018	8/7/2018	Engstrom Companies	Multiple	25	25	0	1	0	PUD/MDR	0%
							105	105	0	51	44		

Cummulative Totals							1612	1491	121	1052	932		
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Non-Sewered Development
Development Status Sheet

LEGENDS - 40 Total

Legends											0							
											0	0	0	0	0			

HIDDEN MEADOWS - 26 Total

Hidden Meadows											Creative Homes
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Creative Homes

Note: Building Permits are updated at the end of each month. CO's are updated as issued.
Items in red are waiting on information from Planning