QUESTION 1A: Alternatives you considered that comply with existing standards.

### Ordnance Requirement: Ch. 10 SFR-08 Side Yard Set Back

The initial scope of this project was to construct a second floor while preserving the existing structure and avoiding excavation or disturbance within the floodplain. Although this original proposal might still not have met Dane County's ordinance requirements, the current conditions of the crawl space suggest that removing the first floor would be in the project's best interest. This removal would allow for raising the crawl space elevation to comply with Chapter 17 of the ordinance.

The current side yard setbacks are approximately 4.3 and 5.1 feet at the NW and NE structure corners, respectively, and 6.6 and 4.6 feet at the SW and SE structure corners respectively. An alternative approach would involve removing the southern and northern foundation walls, as well as portions of the western and eastern foundation walls, and pouring new southern and northern foundation walls set back 10 feet from the property line. (See Site Map Exhibit 1). This would result in a loss of approximately 10 feet (5-ft at the north side and 5-ft on the south side) by 24 feet of first-floor space, or approximately 227 SF. However, this option was not feasible due to excavation/removal constraints related to the adjacent property at 360 Lake Shore Drive (Lot 13). Additionally, since the project originally aimed to avoid excavation and disturbance in the floodplain, a revised foundation layout was not considered to try and regain this lost area. Thus, this alternative would not allow for reasonable residential use of the property.

# Ordnance Requirement: Ch. 17 – 17.09 Flood Fringe District -Flood Protection Elevation 1 ft above BFE 15 ft beyond structure.

No viable alternatives for full compliance with this ordinance were identified, as grading activities would impact the norther side of Lot 13. Placing fill to meet the ordinance requirements around the principal structure would create an elevation higher than that of Lot 13, leading to stormwater runoff onto Lot 13 without a feasible way to divert the water away from the property. A second grading constraint is the concrete garage slab elevation at 785.3 ft (amsl), but still above the base flood elevation of 784.9 (amsl).

Dryland access shall always be provided as the requested fill variance elevations will be above the base flood elevation of 784.9 ft (amsl). However, strict application of the ordinance may be impractical due to the constraints noted above and as shown in the attached exhibits. In addition, full compliance appears to be impractical as the existing street elevations are between 782.0 ft (amsl) and 783.0 ft (amsl), which are well below the base flood elevation, preventing any further dry land/roadway access beyond the 15-ft flood fringe zone during a reginal flood event (WDNR Chapter NR 116). The requested lesser variance will still protect human life and health, and minimize property damage and economic loss, which meets the intent of the ordinance.

**QUESTION 1B:** Alternatives you considered that require a lesser variance:

### Ordnance Requirement: Ch. 10 SFR-08 Side Yard Set Back

No reasonable alternatives to comply with a lesser variance presented themselves for reasons stated above and for reasons stated in subsequent questions. The current proposal is attempting to do the most with the geometrical shape and topography of the existing property and the least impact to the flood plain and adjacent property owners.

# Ordnance Requirement: Ch. 17 – 17.09 Flood Fringe District -Flood Protection Elevation 1 ft above BFE 15 ft beyond structure.

A feasible alternative for achieving a lesser variance involves placing fill around the perimeter of the principal structure, (excluding the south side) extending 15 feet laterally from the foundation. The fill should reach a minimum elevation of 785.0 feet above mean sea level (amsl) and a maximum elevation matching the existing northern elevations of Lot 13, which range from 785.30 feet to 785.66 feet (amsl). (See Site Map Exhibit 1). This would result in a flood fringe zone to be above the BFE of 784.9 and reasonably close to the required elevation of the BFE plus 1 foot, or 785.9 amsl.

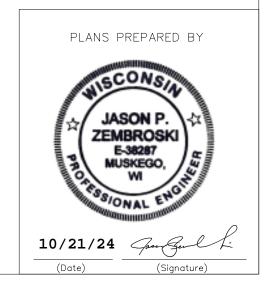
Allowing this lesser variance would still exclude the parcel and structure from the special flood hazard as in accordance with Code of Federal Regulations (CFR) 44, National Flood Insurance Program (NFIP) Regulations, in which the Wisconsin flood plain ordinance set forth by the Wisconsin Department of Natural Resources (WDNR) includes. Documents CFR 44 and the NFIP Regulation states compliance when the lowest adjacent grade to the structure is at or above the elevation of the base flood, in which we are proposing for a lesser variance.



| Inform             | ation Definition Analysis Statis                        | stics                      |
|--------------------|---|----------------------------|
| St                 | atistics  | Value                      |
| E                  | General   |                            |
| E                  | TIN   |                            |
|                    | Volume  |                            |
|                    | Base Surface  | Contours                   |
|                    | Comparison Surface                                      | Backyard Grading Fir       |
|                    | Cut Factor  | 1.000                      |
|                    | Fill Factor   | 1.000                      |
|                    | Cut volume (adjusted)                                   | 0.48 Cu. Yd.               |
|                    | Fill volume (adjusted)                                  | 3.35 Cu. Yd.               |
|                    | Net volume (adjusted)                                   | 2.87 Cu. Yd. < Fill>       |
|                    | Cut volume (unadjusted)                                 | 0.48 Cu. Yd.               |
|                    | Fill volume (unadjusted)                                | 3.35 Cu. Yd.               |
|                    | Net volume (unadjusted)                                 | 2.87 Cu. Yd. <fill></fill> |
| - <del>♦</del> SPO | 2.87 CY TO BE REMOV<br>T ELEVATION EXISTING<br>= 784.90 | ED FROM FRONT $K = 778.3$  |

# LAKE KOSHKONONG

## Site Map Exhibit 1



# **QUESTION 2:** Will there be an unnecessary hardship to the property owner to strictly comply with the ordinance?

### Ordnance Requirement: Ch. 10 SFR-08 Side Yard Set Back

It is our understanding that the existing legal nonconforming principal structure was relocated to its new foundation in 2010, and raised in the same location as shown in the plat survey (2006-0037) conducted in 2006. It was positioned from the property lines approximately 4.3 and 5.1 feet at the NW and NE structure corners, respectively, and 6.6 and 4.6 feet at the SW and SE structure corners respectively. (See Site Map Exhibit 2 page 1). If the 10-foot setback requirement from property lines is strictly enforced, the 65-foot-wide parcel along the center of the structure would only permit a developable width of approximately 45 feet for a residential structure with a garage.

Additionally, there are unique constraints such as floodplain excavation requirements and storage district regulations that limit the potential for expansion eastward towards the lake. If expansion in that direction were considered, it would need to comply with a minimum 75-foot setback from the ordinary high-water mark. The goal of this project is to avoid excavation and development within the floodplain and to minimize ground disturbance.

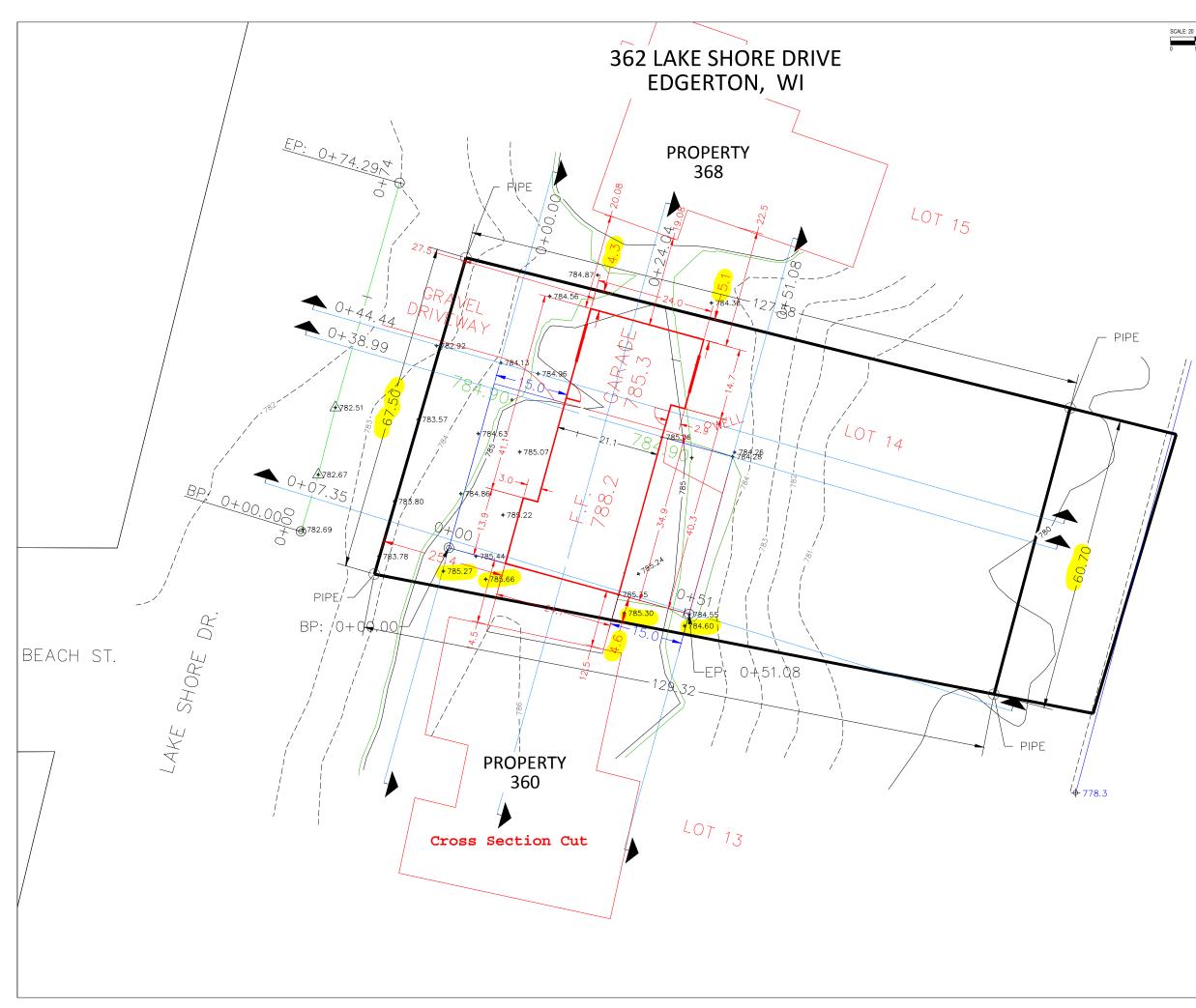
The inability to complete the addition utilizing the existing foundations at the current setbacks would pose an unnecessary hardship and restrict the ability to use the property for reasonable residential use. We believe that granting this area variance will have no significant short-term, long-term, or cumulative impact on the neighborhood or public interest.

# Ordnance Requirement: Ch. 17 – 17.09 Flood Fringe District -Flood Protection Elevation 1 ft above BFE 15 ft beyond structure.

In accordance with the ordinance, the ground elevation around the principal structure shall extend 15 feet out laterally from the structure's base and be elevated to the flood protection fill elevation set forth in the ordinance. The required flood protection fill elevation is the Base Flood Elevation (BFE) of 784.9 feet above mean sea level (amsl), as determined by FEMA, plus an additional 1 foot, resulting in an elevation of 785.9 feet amsl. This requirement presents a hardship because the existing ground elevations at a 15-foot offset from the structure, on both the west and east sides along the southern property line at Lot 13, 360 Lake Shore Drive, are 785.27 feet and 784.60 feet amsl, respectively. The elevations at the southern corners of the principal structure are 785.66 feet and 785.30 feet amsl (See Site Map Exhibit 2 page 2). A cross section was cut between the two properties, Lot 13 and 14, at the center of the structure depicts the existing elevations. (See Site Map Exhibit 2 page 2) Elevations at this cross section are 785.82 amsl and 785.64 amsl along the Lot 13 structure and Lot 14 structure, respectively.

Strict adherence to this ordinance would necessitate possibly placing fill on private property along the south side of the structure to divert water from Lot 13's structure, which is not permissible. Moreover, adding fill to reach the required elevation would result in the ground being higher than the adjacent southern property, Lot 13, potentially causing additional stormwater runoff onto their property without any provision for a drainage ditch, as it would be situated on private land.

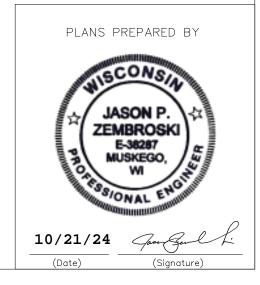
Enforcing this elevation requirement would have both immediate and long-term impacts on the property owner at Lot 13, 360 Lake Shore Drive. The request of granting a lesser variance to allow grading at both the west and east sides of the property, extending 15 feet from the structure and matching the elevation of the southern property, Lot 13, will mitigate these impacts and still meet the intent of the ordinance to protect and preserve life, health, and property, no damage to public facilities, minimize rescue and relief efforts, no increased flood heights during base flood discharge, and not create a nuisance to the public or adjoining properties.



Surface Properties - Volume Information Definition Analysis Statistics Statistics Value I General 🗄 TIN □ Volume Base Surface Contours Comparison Surface **Backyard Grading Final** Cut Factor 1.000 1.000 Fill Factor 0.48 Cu. Vd. Cut volume (adjusted) Fill volume (adjusted) 3.35 Cu. Yd. 2.87 Cu. Yd. <Fill> Net volume (adjusted) Cut volume (unadjusted) 0.48 Cu. Yd. 3.35 Cu, Yd. Fill volume (unadjusted) Net volume (unadjusted) 2.87 Cu. Yd. <Fill> NOTE: 2.87 CY TO BE REMOVED FROM FRONT YARD. + SPOT ELEVATION EXISTING  $\oplus$  BFE = 784.90  $\oplus$  ORDINARY HIGH WATER MARK = 778.3 

# LAKE KOSHKONONG

## Site Map Exhibit 2

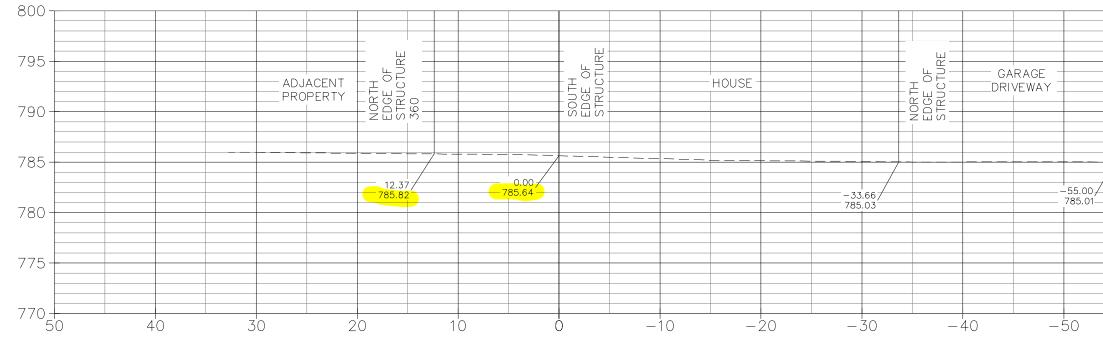


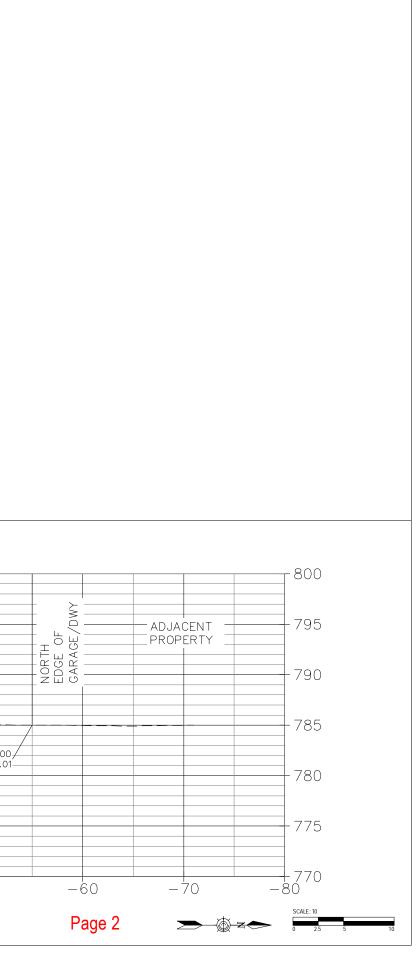
Page 1

## Site Map Exhibit 2



### MIDDLE OF HOUSE CROSS SECTION





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# **QUESTION 3:** Do unique physical characteristics of your property prevent compliance with the ordinance? YES.

### Ordinance Requirement: Ch. 10 SFR-08 Side Yard Set Back

The lot's current dimensions, topography, and the presence of Lake Koshkonong's floodplain restrictions hinder full compliance with this ordinance. The lot measures 67.5 feet in width along Lake Shore Drive but narrows to 60.7 feet at the lake. Adhering strictly to the setback requirements would severely limit the area available for a reasonable residential structure. Additionally, unique constraints such as floodplain excavation and storage district regulations further restrict the ability to expand eastward toward the lake. As detailed in Question 2, the project's goal is to avoid excavation and development within the floodplain, minimizing ground and potential groundwater disturbance through new foundation excavation and site grading. We believe that granting the requested variance will not adversely affect the public or the floodplain.

See Exhibit page 1 from Question 2 depicting the physical characteristics, property lot dimensions, lot lines, setbacks and existing topography preventing full compliance to this ordinance.

# Ordinance Requirement: Ch. 17 – 17.09 Flood Fringe District -Flood Protection Elevation 1 ft above BFE 15 ft beyond structure.

The existing elevations along the south property line, adjacent to Lot 13, the location of the south property line, and the elevation difference between the attached garage floor slab and the elevation of the main structure are key factors in determining the grading as it relates to this ordinance. Fill placement along the south side is restricted due to the distance between our structure and the property line and the inability to control water flowing onto the adjacent property towards that structure if strict adherence is required. To prevent stormwater from flowing off the property and onto the south property, the proposal is to match the existing grades on the south side, which are above the Base Flood Elevation (BFE). The garage's elevation presents additional constraints. The garage is built on a concrete foundation, with the floor poured between the two foundation walls. Raising the garage slab would inherently require raising the existing foundations as well. The current garage slab elevation is above the BFE and is relatively close to the elevations to remain above the BFE, ensuring flood protection while maintaining the intent of the ordinance. It also allows compliance to the 44 CFR and NFIP Regulations, which require having the area surrounding the structure on all sides filled to or above the elevation of the base flood.

We recognize the Dane County Ordinance, which follows the Wisconsin floodplain ordinance set forth by the Wisconsin Department of Natural Resources (WDNR), whom incorporates CFR 44 and NFIP minimums, applies a higher standard to ensure the safety of people and protects property within a floodplain, but for reasons stated above and in prior answers to questions, the requested lesser variance due to the constraints noted will still provide a minimum relief to the structure and property. We believe the requested variance, if granted, is still consistent with the objectives of sound flood plain management.

See Exhibit, pages 1 and 2 from Question 2 depicting the physical characteristics, property lot dimensions, lot lines, setbacks and existing topography & cross section preventing full compliance to this ordinance.

**QUESTION 4:** What would be the effect on this property, the community or neighborhood, and the general public interest if the variance were granted? Describe how negative impacts would be mitigated.

If the area variances were granted, the potential effects on the property, the community or neighborhood, and the general public interest could be significant. Here is a detailed breakdown:

#### 1. Effect on the Property:

- Floodplain Disruption: Granting these lesser variances would result in no alterations that disrupt the established floodplain management strategies, and remain in reasonable compliance. However, strict adherence to these ordinances may increase the risk of flooding on the property itself or adjacent properties, potentially leading to property damage.
- Drainage Issues: The lesser variances would not affect how water is directed or managed on the property or adjacent properties, eliminating any concerns regarding drainage problems.
- Property Geometry: By granting the lesser variance on the property set back, it allows the best use of the property due to the geometrical and topography constraints to provide for a reasonable residential purpose.

#### 2. Effect on the Community or Neighborhood:

- Reduced Burden on Adjacent Property: If the lesser variances are granted, they will reduce the undue burden on the neighboring southern residence, both from grading and new foundation standpoints. Without the variances, strict adherence to ordinances would require extensive excavation and grading activities to remove and install new foundations. It is believed that Temporary Limited Easements (TLEs) would also be necessary to facilitate these activities.
- Neighborhood Improvements: The lesser variances would allow for the best use of the property's geometry and existing topography, enabling the proposed structure to fit appropriately on the lot with minimal to no disturbance to the flood plain. This structure would be an improvement to the neighborhood, potentially increasing overall property values and contributing to the local tax base.

### Main Reasons for Granting the Variances:

The primary reasons for granting these lesser variances are to eliminate disturbances to the existing floodplain, avoid disruptions to drainage on adjacent properties, maximize the property's geometry for residential use, and enhance property values for the community while still maintaining the objectives of sound flood plain management practices. These factors aim to balance both environmental management and community development.