



VARIANCE STAFF REPORT

OFFICE OF PLANNING & ZONING

Tab Number: 1

Public Hearing Date: March 11, 2021

Case No. and Project Name: VAR-20-68-3, Moore Property

Owners: Michael J. Moore and Dawn M. Moore

Applicant: Michael J. Moore

Requested Action: Variance to Lake County Code, Land Development Regulations (LDR) Section 6.01.04(A)(1), to allow the replacement of an accessory structure (Florida room) to be constructed 20-feet from the jurisdictional wetland line, in lieu of 50-feet.

Case Manager: Janie Barrón, Senior Planner

Subject Property Information

Size: 0.42 +/- acres

Location: 16925 Deer Island Road, Tavares

Alternate Key No.: 1791391

Future Land Use: Rural Transition

Current Zoning District: Medium Residential (R-3)

Flood Zones: "AE" and "X"

Joint Planning Area/ ISBA: City of Tavares (Attachment "B")

Overlay Districts: N/A

Adjacent Property Land Use Table

Direction	Future Land Use	Zoning	Existing Use	Comments
North	Rural Transition	Medium Residential (R-3)	Lake	Lake Dora
South	Rural Transition	Medium Residential (R-3)	Right-of-Way, Residential	Deer Island Road, Single-Family Dwelling Units South of R-O-W
East	Rural Transition	Medium Residential (R-3)	Residential	Single-Family Dwelling Units
West	Rural Transition	Medium Residential (R-3)	Residential	Single-Family Dwelling Units

Summary of Request.

The Applicant has submitted a variance request to Lake County Code, Land Development Regulations (LDR) Section 11.02.03(B)(7)(b), 6.01.04(A)(1), to allow the replacement of an accessory structure (Florida room) to be constructed 20-feet from the jurisdictional wetland line, in lieu of 50-feet.

The subject 0.42 +/- acre parcel is identified by Alternate Key Number 1791391; the parcel is zoned Medium Residential District (R-3); and is part of the Rural Transition Future Land Use Category (FLUC). Currently, the subject parcel is developed with a single-family residence, screened porch, Florida room, shed, dock and driveway. The subject parcel is generally located north of Deer Island Road and backs up to Lake Dora.

The subject parcel is located within the City of Tavares ISBA; therefore, variance application was sent to the City of Tavares for a determination of consistency with their regulations. The City of Tavares had no objection to the request and provided the following comment: "The City of Tavares regulations require a 25' setback from jurisdictional wetlands for structures with a solid roof. The homeowner has hired an environmental professional to ensure a mitigated impact on the wetland. The City recommends that Lake County has the mitigation plan reviewed by an engineer. The City of Tavares supports the decision of Lake County regarding this variance request".

The variance application was sent to the Public Works Department for a determination of consistency with their regulations. The Public Works Department had no objections to the request and provided the following comments: "An interceptor swale to capture the first inch (1") of stormwater runoff shall be provided on site; an engineered design that includes a plan and calculations must be submitted with the permit application for the improvement/addition for the site; and additional flood determination and permitting will be required during the site development permitting."

Staff Analysis.

LDR Section 14.15.02 states that variances will be granted when the person subject to a Land Development Regulation demonstrates that the purpose of the Land Development Regulation will be or has been achieved by other means, and when application of a Land Development Regulation would create a substantial hardship or would violate principles of fairness.

1. The purpose of the Land Development Regulation will be or has been achieved by other means.

The intent of the Code, LDR Section 6.01.04, is to protect valuable natural resources requiring protection from erosion, sedimentation, water pollution and other negative impacts, which may be associated with land use activities. It is the intent of this section to minimize such negative impacts through protection standards for development of adjacent lands.

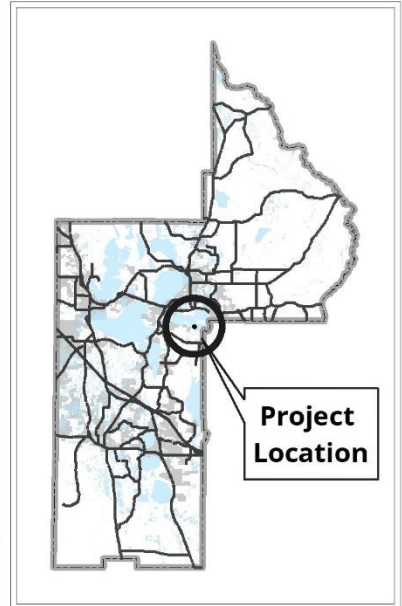
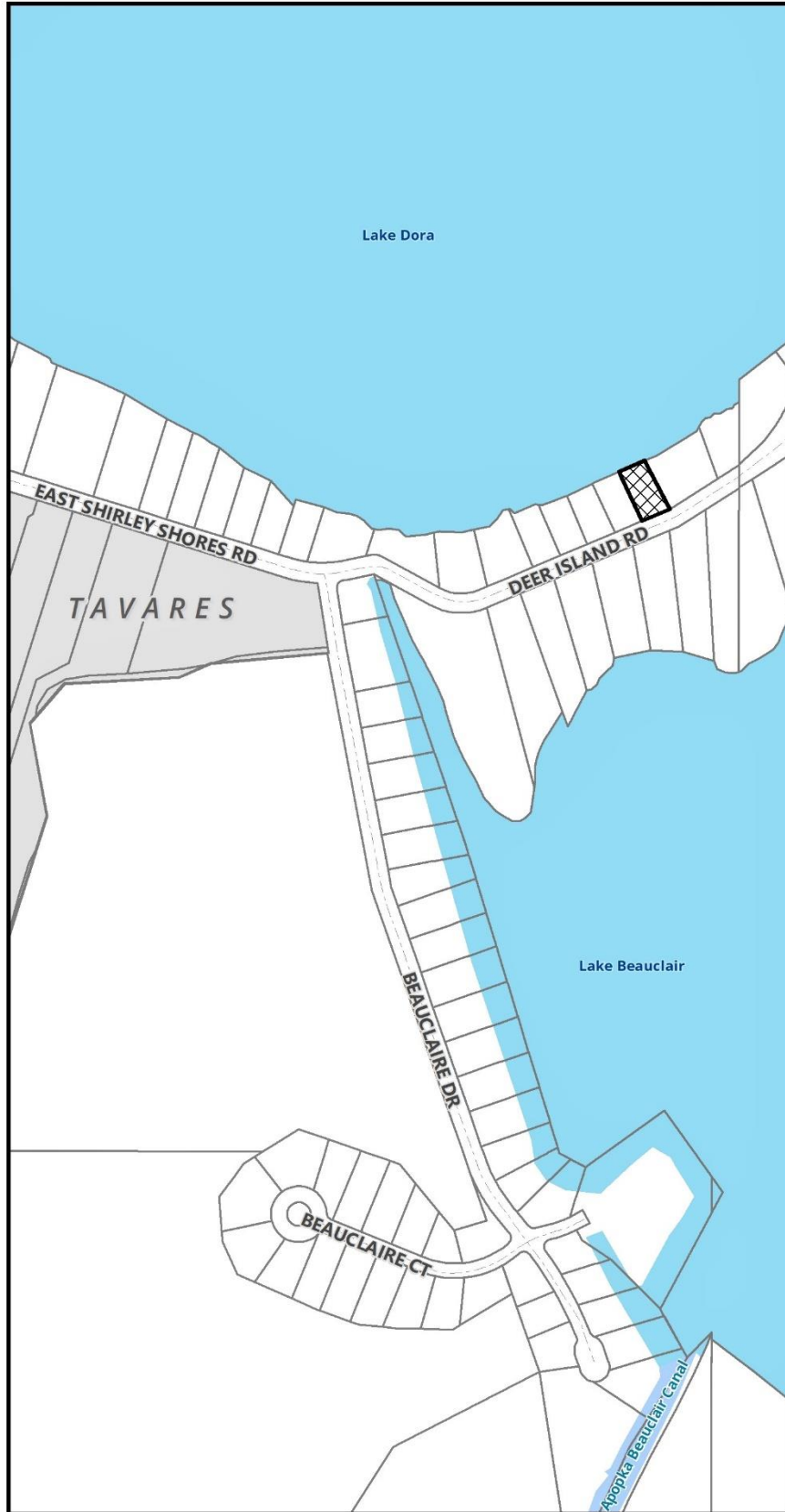
The Applicant has submitted the following intent of the Code statement: "*The general contractor and myself (owner) will take every measure necessary to construct the new screened enclosure as to not impact the wetlands. We will meet on site with the environmentalist to ensure that the new roof and gutter system are routed into a French drain to not impact the wetlands area (Attachment "B").*"

2. The application of a Land Development Regulation would create a substantial hardship or would violate principles of fairness. For purposes of this Section, "substantial hardship" means a demonstrated economic, technological, legal, or other type of hardship to the person requesting the variance. For purposes of this Section, "principles of fairness" are violated when the literal application of a Land Development Regulation affects a particular person in a manner significantly different from the way it affects other similarly situated persons who are subject to the Land Development Regulation.

LDR Section 14.15.04 states that for the purposes of this section "substantial hardship" means a demonstrated economic, technological, legal, or other type of hardship to the person requesting the variance.

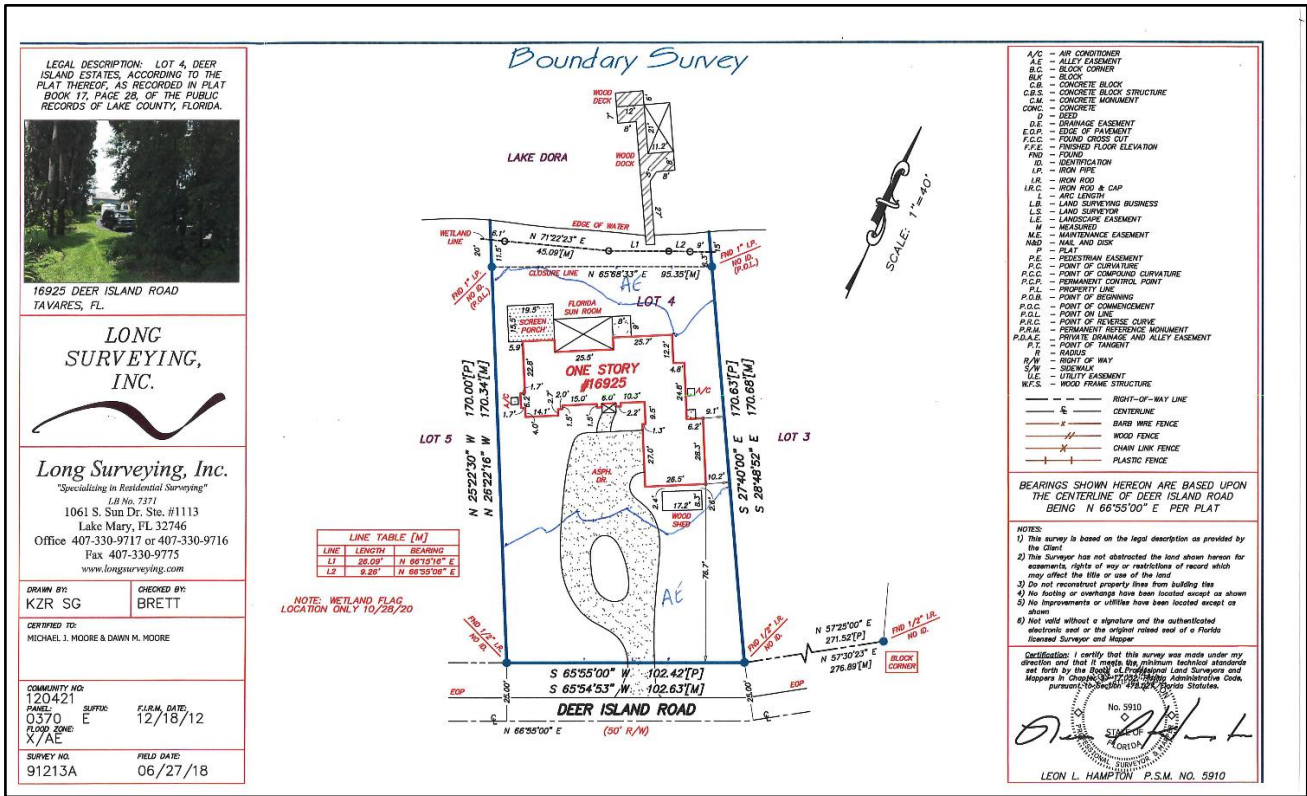
The Applicant submitted the following statement and setback table as proof that the LDR would create a substantial hardship or would violate principles of fairness: "*The current Florida Room structure roof and walls both leak making the space unuseable [sic]. The Concrete pad for the Florida Room is also cracked all the way through the slab the length of the room. The screened enclosure pavers were bleached monthly as a means of cleaning by the previous owner compromising the finish which mold grows on within a week or two.*"

Map of Subject Property

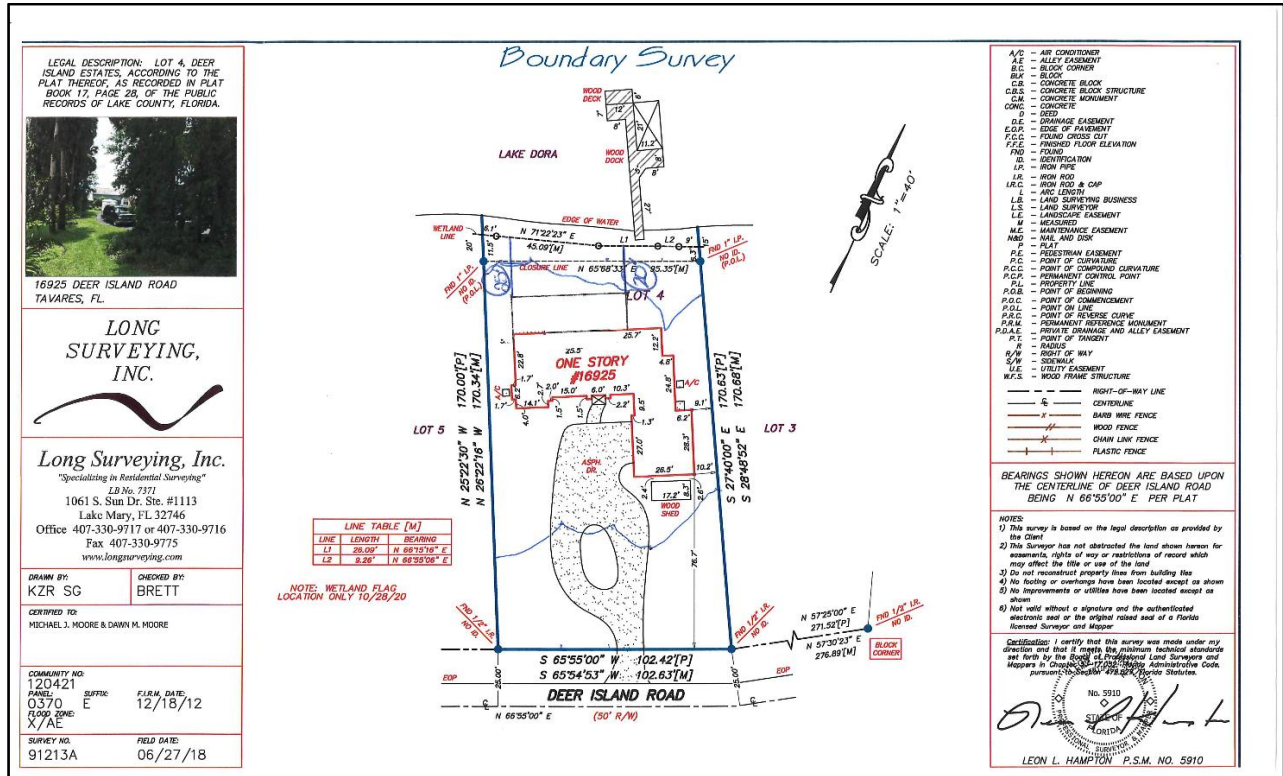


Attachment "A", Concept Plan (Existing and Proposed)

Current Subject Parcel Conditions:



Proposed Replacement Florida Room:



Attachment "B", Wetland Impact Statement & Stormwater Treatment Plan (Page 1 of 3)



Ormond Beach
286 Buckskin Lane Ormond Beach, FL 32174
(352) 792 4757 • scott@verdeenv.com

Gainesville
1723 SW 78th Terrace Gainesville, FL 32607
(352) 317 1579 • justin@verdeenv.com

October 2, 2020

Re: Wetland Impact Statement & Stormwater Treatment Plan
16925 Deer Island Road, Tavares, FL 32778
Lake Co. Parcel Number: 02-20-26-0100-0000-0400
Verde Environmental -- Project No. 20-205

To whom it may concern,

Verde Environmental Co. (Verde) was previously contracted by Mike Moore (the property owner) to completed a wetland delineation on the above referenced parcel as required to obtain a construction permit to replace an existing sun room, screen enclosure, and damaged concrete pad. In total, 0.01 acres of wetland habitat associated with the edge of Lake Dora was identified and mapped within the parcel boundaries. Furthermore, the existing foundations were found to be already within the 50-ft county-wide wetland setback.

Plans have been drawn to replace the existing two foundations with a single 15.5-ft x 50-ft new foundation. The existing screen enclosure has a width of 15.5-ft. These new plans would, however, extend the width of the sunroom slightly from 9-ft to 15.5-ft. The resulting increase in impervious roof area would be around 220 ft².

Increases in stormwater runoff into a waterbody can have major impacts on water quality. Clarity, nutrient levels, and aquatic fauna can all be negatively affected if measures are not taken to address stormwater management. It's up to everyone to do their part so that the community has the highest quality waterways. Although nutrient concentrations in roof generated stormwater are generally low, the roof runoff can quickly pick up additional sediment and nutrients if it is allowed to flow over the ground as surface water runoff.

Luckily, the sandy soil found onsite allows for some simple stormwater options. The area is mapped as Pomello Sand. This soil series is described as moderately well drained sandy soils with very rapidly permeable (>20 in./hr.) surface layers to depths of 39 inches (Soil Survey of Lake County Area, Florida. 1975. USDA. Soil Conservation Service). These characteristics facilitate the infiltration of surface water into the ground. Once below ground, the water moves laterally through the soil and numerous plant roots, which can remove nutrients and fine particles from the water before it enters the adjacent lake. Although we did not perform any soil engineering tests as part of this effort, soil survey's description of the typical surface layers of the Pomello Sand agreed with our observations of the onsite soils made while performing the wetland delineation described above.

Attachment "B", Wetland Impact Statement & Stormwater Treatment Plan (Page 2 of 3)

Wetland Impact Statement & Stormwater Treatment Plan
16925 Deer Island Road, Tavares, FL 32778
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The slight increase in impervious surface in the proposed plans can be mitigated by routing the roof's gutter downspouts into an exfiltration trench parallel to the back of the structure, and uphill from the Lake Dora shoreline. An exfiltration trench would facilitate the movement and flow of roof runoff into the ground; consequently, treating the runoff as it percolates through the soil. More importantly, this system will prevent untreated surface water runoff from flowing over the ground and potential transporting pollutants (e.g. suspended sediment, nutrients, and organic matter) directly into the lake. Thus, the potential negative impacts to Lake Dora that could result from the minimal increase in surface area of the house would be mitigated if an exfiltration trench is employed to capture and treat the runoff produced by the new roof.

The publication, "Rain Gardens: A Manual for Central Florida Residents" (UF, 2010), calculates the appropriate area of an 8-inch deep rain garden needing to be at least 0.08 times the area of the impervious surface. So, a 220 ft² increase in roof could be mitigated by creating 17.6 ft² of 8-inch deep rain garden. While the proposed exfiltration trench will be partially filled with gravel, we can use the raingarden example as a starting point to size an appropriate exfiltration trench. Assuming that typical gravel backfill (including a 4-inch perforated distribution pipe) has a porosity of 0.3 (30% pore space), then a 58.7 ft² exfiltration trench would provide the same storage volume as the 17.6 ft², 8-inch deep rain garden.

Rounding up, a 60-ft long x 1-ft wide x 1-ft deep trench would likely provide sufficient stormwater treatment and facilitate the infiltration of roof-generated stormwater into the ground. The Lake County Soil Survey lists the permeability of Pomona Sand to be greater than 20 inches per hour. If we assume that this rate would be constant throughout the duration of a specific rain event, then the 60x1x1 exfiltration trench would infiltrate 100 ft³ of water per hour. This is equivalent to the volume of stormwater that the new 220 ft² of roof would generate during a storm producing 5.46 inches of rain per hour. A storm of such intensity would exceed the 100-year, 1-hour storm based on the FDOT IDF Curve for Zone 7.

The exfiltration trench should be constructed by digging a 60-ft long x 1-ft wide x 1-ft deep trench outside of the roof's dripline but at least 25 feet upslope of the Lake Dora ordinary high-water line. The trench should be lined with a permeable soil fabric filter, and a 4-inch perforated pipe should be positioned in the bottom of the trench. Gutter downspouts on each end of the new foundation would connect into the perforated pipe within the trench. For an exfiltration trench to function properly, the perforated holes must point downward if only one side of the pipe is perforated. Popup discharges can be installed on each end of the exfiltration trench to allow for water to escape during exceptionally heavy rain events. The trench should then be backfilled with gravel and enclosed within the fabric filter. A few inches should be left empty at the top of the trench to allow room for re-sodding.

The accumulation of leaves and other solids in the perforated pipe would reduce the infiltration capacity of the trench, reducing the overall function of the system over time.

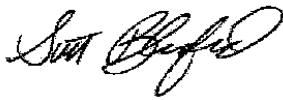
Attachment "B", Wetland Impact Statement & Stormwater Treatment Plan (Page 3 of 3)

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Cleaning a blocked or poorly functioning exfiltration ditch can prove difficult and costly, and it is more effective to prevent foreign material from entering the system. To ensure the system operates at full potential, gutter guards should be employed to eliminate the need for periodic maintenance.

Thank you for this opportunity to provide professional consulting services. Please call me at 352-792-4757 if you have any questions or wish to discuss this project further.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Blanford". The signature is written in a cursive, flowing style.

Scott Blanford
COO, Verde Environmental

**Final Development Order
VAR-20-68-3
Moore Property**

A VARIANCE OF THE LAKE COUNTY BOARD OF ADJUSTMENT AMENDING THE LAKE COUNTY ZONING MAPS; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, Michael J. Moore and Dawn M. Moore (the “Owners” and the “Applicants”) submitted a variance request to Lake County Code, Land Development Regulations (LDR) Section 6.01.04(A), to allow the replacement of an accessory structure (Florida room) to be constructed 20-feet from the jurisdictional wetland line, in lieu of 50-feet; and

WHEREAS, the subject property consists of 0.42 +/- acres, located at 16925 Deer Island Road, in the Tavares area of unincorporated Lake County, Florida, in Section 02, Township 20 South, Range 26 East, having Alternate Key Number 1791391 and more particularly as below:

Lot 4, Deer Island Estates, according to the map or plat thereof as recorded in Plat Book 17, Page 28, Public Records of Lake County, Florida.

WHEREAS, after giving notice of the hearing on the petition for a variance to the Lake County Land Development Regulations, including notice that the variance would be presented to the Board of Adjustment of Lake County, Florida, on March 11, 2021; and

WHEREAS, the Board of Adjustment reviewed the petition, staff report and any comments, favorable or unfavorable, from the public and surrounding property owners at a public hearing duly advertised; and

WHEREAS, on March 11, 2021, the Lake County Board of Adjustment approved the variance for the above property.

NOW THEREFORE, BE IT ORDAINED by the Board of Adjustment of Lake County, Florida, that:

Section 1. Terms: The County Manager or designee shall amend the Official Zoning Map to reflect the approval of VAR-20-68-3, to allow the replacement of an accessory structure (Florida room) to be constructed 20-feet from the jurisdictional wetland line, in lieu of 50-feet with the following conditions:

1. Stormwater calculations must be submitted at the time of issuance of each individual zoning permit in form of an interceptor swale that is sized to capture the first one inch (1”) of stormwater runoff on the site.
2. Stormwater calculations must be reviewed and approved by the Lake County Public Works Department staff.

3. The stormwater abatement system must be depicted on the to-scale plot plan when applying for the zoning permit; installed prior to any final inspection, inspected and approved by the Lake County Public Works Department staff.
4. Flood determination and permitting will be required during the site development permitting.

Section 2. Severability: If any section, sentence, clause, or phrase of this Ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction, the holding will in no way affect the validity of the remaining portions of this Ordinance.

Section 3. Effective Date. This Ordinance will become effective as provided by law.

ENACTED this 11th day of March, 2021.

EFFECTIVE March 11, 2021.

**BOARD OF ADJUSTMENT
LAKE COUNTY, FLORIDA**

Bea L. Meeks, Vice-Chairman

State of Florida

County of Lake

Sworn to (or affirmed) and subscribed before me by means of physical presence or online notarization, this 11th day of March, 2021, by Bea L. Meeks, as Vice-Chairman of the Lake County Board of Adjustment.

Personally Known OR Produced Identification

Type of Identification Produced _____

Notary Signature

(SEAL)