

**INDIAN RIVER COUNTY, FLORIDA
MEMORANDUM**

TO: Board of County Commissioners

THROUGH: John A. Titkanich, Jr., County Administrator
Andrew Sobczak, Planning & Development Services Director, Floodplain Administrator

FROM: Sean Lieske, Utilities Director, Acting Public Works Director

SUBJECT: Hammock Shores Subdivision
Partial Waiver Request to the 100yr floodplain Cut and Fill Balance Requirements
SD-23-11-05/2004120094-95512

DATE: November 21, 2023

SUMMARY OF REQUEST

Schulke, Bittle & Stoddard, LLC, on behalf of GRBK GHO Properties, LLC, developer for Hammock Shores Subdivision, a 103 lot single-family subdivision reviewed by the Technical Review Committee on September 13, 2023, is requesting a partial waiver of the cut and fill balance requirements for the 100 Year flood storage, in accordance with LDR Section 930.07(2)(i) 1.a. of the Stormwater Management and Flood Protection Ordinance. Refer to 'Code Citation' below.

Based on their analysis of the site (see Exhibit E), a 10-year waiver is not being requested.

DESCRIPTION

The project is located east of US Highway 1, between 73rd Street and 69th Street. Lots are proposed approximately 1,734 feet from the banks of the Indian River Lagoon (Exhibit AA). The applicant has not yet applied for a County Land Development Permit or any other state and federal permits.

The site is situated within Special Flood Hazard Area Zone AE with the 100 Year Base Flood Elevation being six (6) feet North American Vertical Datum 1988 (NAVD 1988) (AE-6) for the for the entire area encompassed by the proposed Project. The 10-Year Flood Elevation is elevation 3.7 feet NAVD 1988. Approximately one third of the site lies in the 10-year floodplain and is illustrated in the light blue and dark blue areas shown on [Exhibit A].

The applicant has demonstrated that filling of the site will not increase the flood stage of the river by more than one (1) foot in accordance with IRC 930.07(2)(a)3.b. "For development activities proposed to be located in a riverine flood hazard area for which base flood elevations are included in the flood insurance study or on the Flood Insurance Rate Maps (FIRM) and floodways have not been designated, a floodway encroachment analysis which demonstrates that the cumulative effect of the proposed development, when combined with all other existing and anticipated flood hazard area encroachments, will not increase the base flood elevation more than one (1) foot at any point within the community." The Engineer for the applicant has determined that the flood plain elevation will rise about .32 +/-feet if all of the areas available for future development within the floodplain adjacent to this Project are designed and constructed with similar impacts to the floodplain.

CODE CITATION – IRC 930.07(2)(i)1.a.

"Cut and fill. An equal volume of storage capacity must be created for any volume of the base flood that would be displaced by fill or structures except for the following instances:

Those development projects within the special flood hazard area along the Indian River Lagoon when granted a waiver from the cut and fill balance requirements by the Board of County Commissioners. In the special flood hazard area of the Indian River Lagoon, an equal volume of storage capacity must be created for any volume of the base flood that would be displaced by fill or structures below elevation two and one-half (2.5) feet NAVD88, or the ten-year flood elevation which has been determined in the flood insurance study, whichever is greater. The board of county commissioners may, in its discretion, grant a waiver from the provisions of this subsection upon the affirmative showing of the applicant, by means of a competent engineering study, that the development project is situated in an estuarine environment and that the development project, as designed, will meet all other requirements of the stormwater management and flood protection chapter and will not create a material adverse impact on flood protection on other lands in the estuarine environment.”

DECISION

IRC 930.07(2)(i)1.a. requires that waivers be considered for two different flood events. The first is a waiver of the 100-Year flood event while the site maintains the ability to compensate for the 10-Year storm event. The second is a waiver of the 10-Year storm event which would include the 100 Year storm event. Only a partial 100-year flood waiver is being requested.

REQUEST 1

Applicant requests a partial waiver of the 100-Year flood elevation in the amount of 52 acre-feet of storage (84,000 cubic yards) waiving 53.3% of the requirement. In order to meet code requirements, the site would have to provide 98 acre-feet of storage. The site as designed is able to store 46 acre-feet (74,200 cubic yards) meeting 46.7% of the requirement.

HARDSHIP

The natural ground elevation poses a problem for this site because much of the existing ground is at or below the seasonal high water table elevation requiring the site to be raised significantly to meet flood protection criteria. Providing additional flood plain storage on the site would cause lots to be lost. If the waiver for a partial 100-Year cut and fill balance is not approved the site would be limited to approximately 69 lots. (Refer to Exhibit C).

ENVIRONMENTAL CONSIDERATIONS

An Environmental Assessment was prepared by ECF, Ecological Consulting of Florida, on July 12, 2022 as part of the Applicant’s due diligence for the project. Under Section 10 of the Report, titled Environmental Permitting, it is stated that “At the State level, St Johns River Water Management District (SJRWMD) will require an Environmental Resource Permit for impacts to wetlands and their buffers.....As part of the stormwater permitting for this site SJRWMD will require justification and to provide site plan alternatives that consider avoidance and minimization of the impacts.” Indian River County also has similar requirements. Ultimately, satisfying any Environmental concerns would not result in an increase of fill, beyond that which is shown in the Partial 100-year waiver being requested.

AVOIDANCE AND MINIMIZATION

The applicant understands that the request is limited to a partial waiver for the 100-Year Compensatory Storage portion of the project. As such, the applicant is looking to limit the amount of fill needed for the development.

Florida Building Code requires the finished floor elevation to be one foot above the Base Flood Elevations (100 Year). Garages are allowed to be lower than the requirement when certain rules are met.

NEIGHBORING IMPACTS

The site is bordered on the northwest by the Orchid Landing Subdivision, on the north by 73rd Street, on the south by 69th Street, on the southwest by a packing house and on the southeast by Winter Grove Subdivision.

Orchid Landing Subdivision

Homes within the Orchid Landings Subdivision bordering the northwest quadrant of Hammock Shores have finished floor elevations at el. 8.5 feet NAVD 1988. Approximately 15 feet of the rear Orchid Landings properties drain offsite to the east. Hammock Shores is proposing a rear lot swale which will collect the rear drainage from Orchid Landing along with some of the Hammock Shores area and route it to the Hammock Shores stormwater management system. No impacts are anticipated. Refer to the Preliminary Grading and Drainage Plan, Exhibit B.

Packing House

On the southwest there is an existing packing house. This site appears to be at the same elevation as the existing grades along the southwest quadrant of Hammock Shores. There is no drainage easement shown at this time and the conveyance for this drainage will need to be refined during the Project’s construction review. It may be necessary to provide a drainage easement for the Packing House drainage.

Winter Grove Subdivision

The drainage along the southeast, bordering Winter Grove Subdivision, will be controlled via an easement that is shown on Exhibit B and will drain toward the existing wetlands, as it does at the present time.

69th Street and 73rd Street

There do not appear to be any impacts to the drainage along 69th Street or 73rd Street and the existing drainage along these roads will be reshaped as needed to preserve their existing function.

Consistent with the County Land Development Regulations, the site is limited to discharging stormwater runoff not to exceed predevelopment amounts for a 25 Year storm event. A 25 Year event is 9.2 inches of rainfall in a 24-hour period.

DIRECT FUNDING

No funding is required for this option.

POTENTIAL IMPACTS TO THE COUNTY

The County has adopted Federal Emergency Management Agency (FEMA) flood plain guidelines as provided in the Comprehensive Plan and Land Development Regulations. As part of the adoption process the County participates in the Community Rating System (CRS). Participating in the CRS allows County residents to purchase flood insurance at rates dependent upon the determined Class. The lower the Class the less the rates. The County is audited every three to five years to establish the CRS rating. The last Report of Audit is dated of April 27, 2022. A recertification of the County’s adopted guidelines will occur in 2024.

During the 2022 CRS audit the County received 2,750 points (Class 5). The Class ratings and flood reduction rates are broken down as:

Class Rating	Points Required	Flood Reduction Rate In SFHA	Flood Reduction Rate Outside of the SFHA
4	3000 to 3499	30%	10%
5	2500 to 2999	25%	10%
6	2000 to 2499	20%	10%

SFHA = Special Flood Hazard Area, Zones A, AE, A1-A30, V, V1-V30, AO and AH

Cut and Fill requirements (also known as compensatory storage) as codified in IRC 930.07(2)(i)1.a. allows the County to receive points under FEMA Audit Activity 430, "Higher Regulatory Standards". Specifically, the subpart of 431a, "Development Limitations" and is credited under DL1b. According to the last Report of Audit, the County received 419 points for Activity 430. Staff has had discussions with its FEMA advisors regarding issuance of waivers. It has been indicated to us that waivers will cause the County to lose all allocated points for this subpart. In review of the prior audit, this would be approximately a 200 point reduction.

Therefore if 200 points are lost, and no additional points are gained through additional CRS activities, then the County would remain at a Class 5 Rating based on the prior audit. FEMA will be issuing a new CRS Manual prior to the next County audit. It is unknown as to how much of a point reduction this waiver will cause.

AVAILABLE OPTIONS

Staff has reviewed all data provided by the applicant and is able to present the following alternatives to the Board for its consideration.

Alternative No. 1

Deny the waiver request.

Alternative No. 2

Approve the partial 100-Year flood plain waiver in the amount of 52 acre-feet (84,000cubic yards) and require the project to meet the 10-Year flood cut and fill requirements with the expiration of the waiver to coincide with the Preliminary Plat approval expiration date (or any extensions thereof).

STAFF RECOMMENDATION

Staff recommends that the Board of County Commissioners approve the partial 100 Year flood plain waiver in the amount of 52 acre-feet (84,000cubic yards) and require the project to meet the 10 Year flood cut and fill requirements with the expiration of the waiver to coincide with the Preliminary Plat approval expiration date (or any extensions thereof).

ATTACHMENTS

1. Exhibit A, FIRM Map with Site Location [Panel 231 of 390]
2. Exhibit AA, Location Map
3. Exhibit B, Preliminary Drainage Plan with 100 yr. Partial Cut/Fill Waivers [103 Lots]
4. Exhibit C Cut-Fill Calc @ 100Yr Flood El. 6.0' NAVD No Waiver Req'd-69 Lots
5. Exhibit D Cut-Fill Calc @100Yr Flood El. 6.0' NAVD 100Year Waiver -103 Lots
6. Exhibit E, Exist. Storage Volume @ 10-year Flood El. 3.7' NAVD 100year Waiver-103Lots
7. Exhibit F, Cut-Fill Calc @ 10-Year Flood El. 3.7' NAVD 100Year Waiver-103 Lots
8. Exhibit G, 100yr Floodway Rise Calculation & Exhibit

APPROVED AGENDA ITEM FOR December 5, 2023