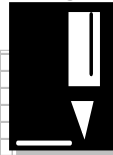


VISTA TRANQUILA FLUM AMENDMENT

Trescott Planning Solutions, LLC

Urban and Regional Planning



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Cell 239-850-7163 • Office 239-433-4067 • Fax (239) 433-0105

Email: trescott@embarqmail.com

Qualifications

Daniel L. Trescott, MSP

- Land Use Planning and Hurricane Impact Analysis
- 40 years of experience
- Master of Science in Planning since 1980
- Copies of resume available

VISTA TRANQUILA FLUM AMENDMENT

It is my expert opinion the proposed Comprehensive Plan Amendment to change the Future Land Use Map from Conservation (CV) to Residential - A Coastal and CV, with a Text amendment limiting the development to a maximum of 66 single family residential units is inconsistent with the St. Johns County 2025 Comprehensive Plan goals, objectives and policies. The application has not provided competent, substantial evidence supported by persuasive data and analysis to address the impacts of the proposed amendment relative to:

- ❑ **Surrounding Land Use: Objective A.1.3.11 and A.15.2** relative to maintenance of public infrastructure impacts on public facilities and services.
- ❑ **Comprehensive Plan Amendment and Review: Objective A.1.5** “ensure safe evacuation of coastal areas”
- ❑ **Hurricane Preparedness: Goal E.1** “protecting human life from natural disasters”
- ❑ **Hurricane Evacuation Time: Objective E.1.9, Policy E.1.9.1** maintaining an out-of-county hurricane evacuation time below 16 hours

VISTA TRANQUILA FLUM AMENDMENT

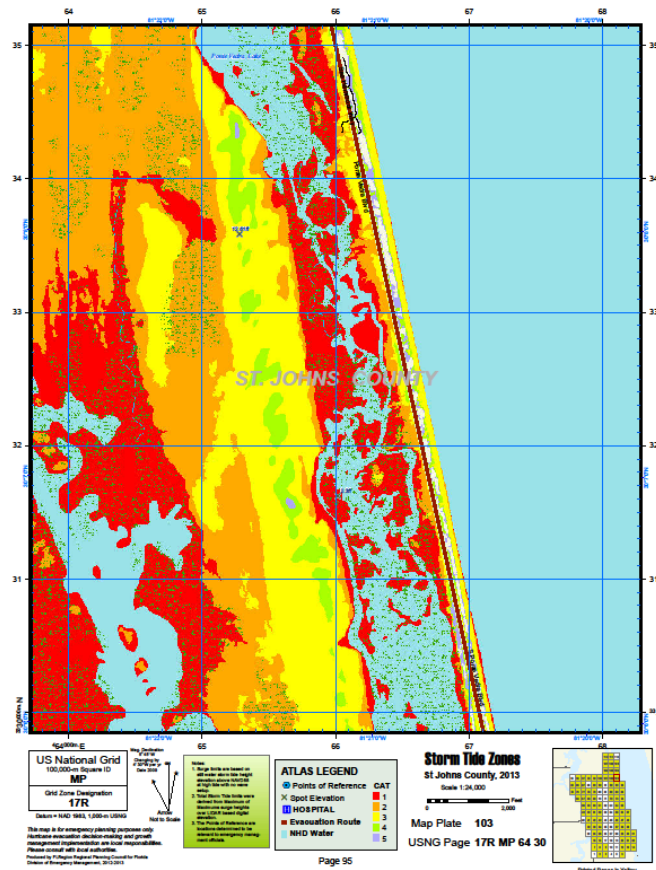
- Hurricane Preparedness Objective E.1.3.11:** St. Johns County will evaluate development orders for their impacts on traffic circulation, evacuation routes, on-site hurricane shelter provisions and proximity to off-site shelter facilities within the Storm Category Zone 1, 2 and 3.
- LDR definition: Development Permit: Means any Building Permit, subdivision approval, rezoning, Special Use, Variance, or any other official action of the County having the effect of permitting the Development of land.
- Concerned citizens have requested this Hurricane Impact Analysis of the Vista Tranquilla FLUM and text amendment.

VISTA TRANQUILA FLUM AMENDMENT

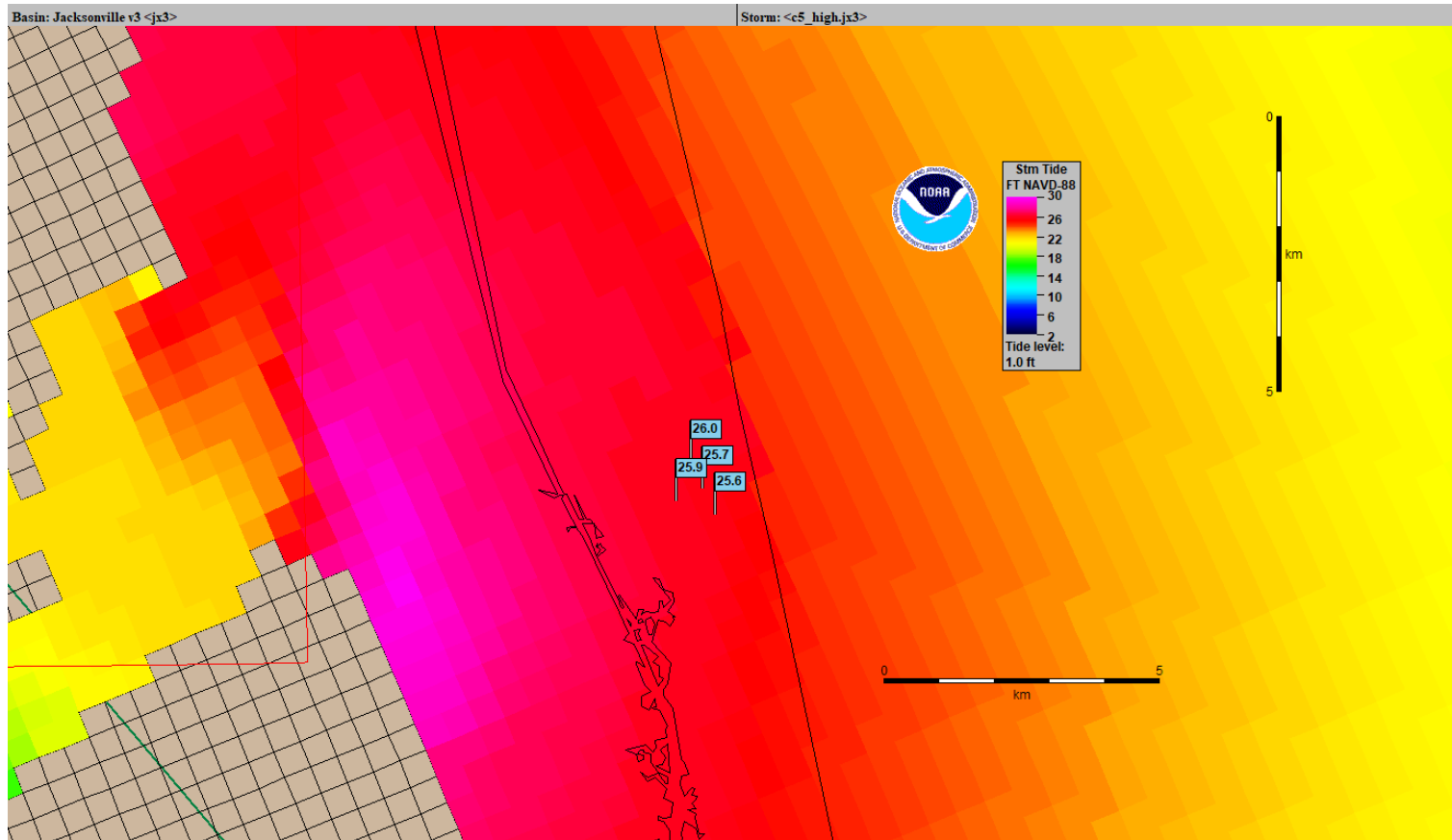
HAZARD ANALYSIS OF PROPOSED DEVELOPMENT

- ❑ The proposed development area is located in portions of the Category 2-5 Hurricane Storm Tide Zone according to the 2013 Sea, Lake and Overland Surges from Hurricane (SLOSH) Model produced by the National Hurricane Center and shown in the Storm Tide Atlas Plate 103 for St. John's County part of the Florida Statewide Regional Evacuation Study Program completed for the Northeast Florida Region by the Northeast Florida Regional Planning Council (see Map 1).
- ❑ According to the National Hurricane Center's operational Sea, Lake and Overland Surges from Hurricanes (SLOSH) Display Model Version 3 for the Jacksonville Basin the site be inundated by a 26 ft above sea level storm tide (see Map 2). Based on the average elevations of the site (see Map 3) it means the entire site will be underwater from 17 to 22 feet during a worst case track Category 5 hurricane landfalling at high tide (see Map 4).

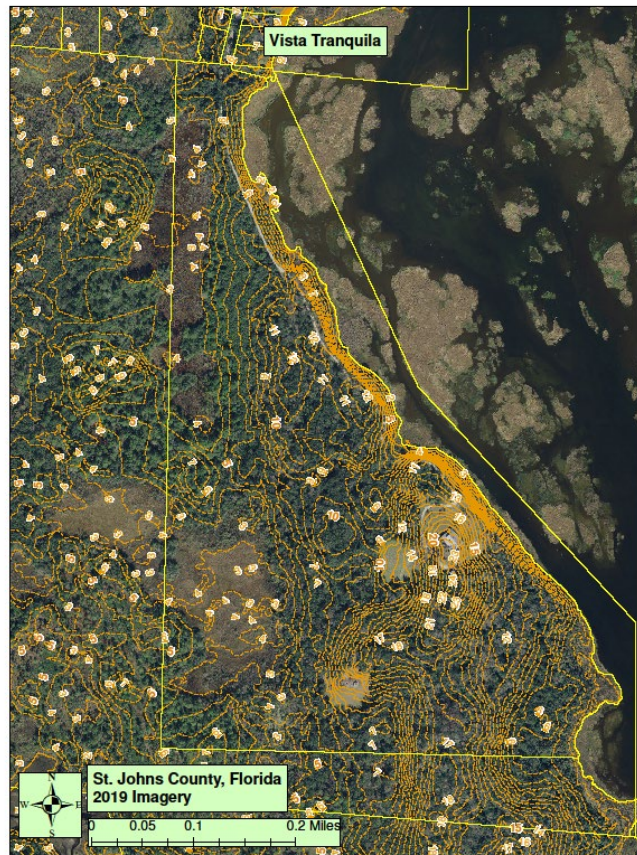
VISTA TRANQUILA FLUM AMENDMENT



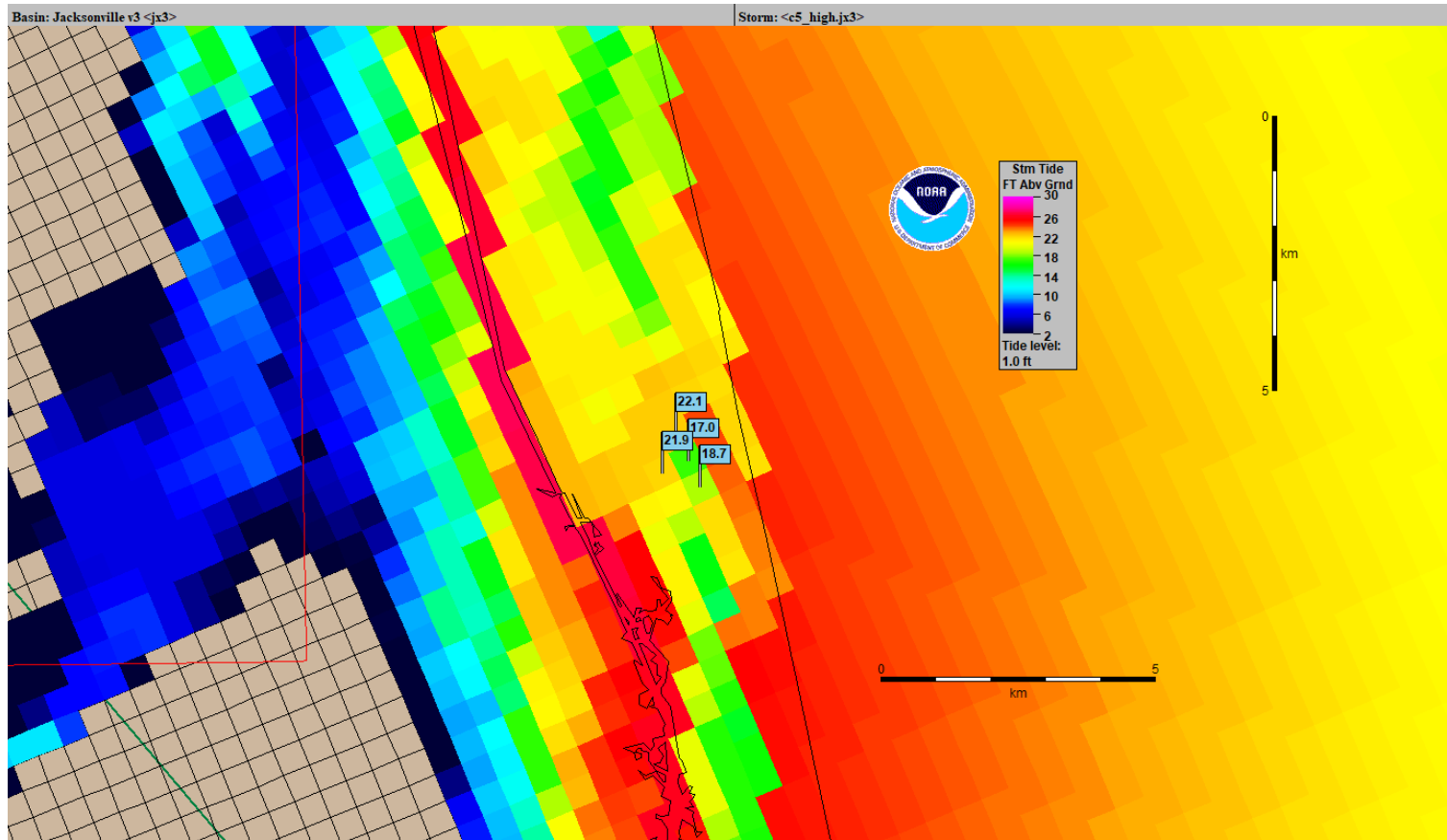
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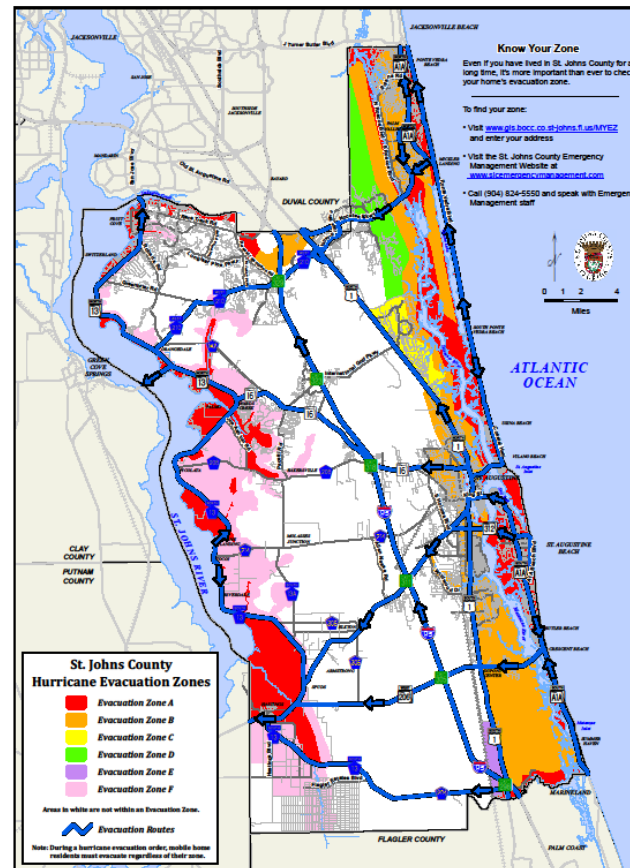
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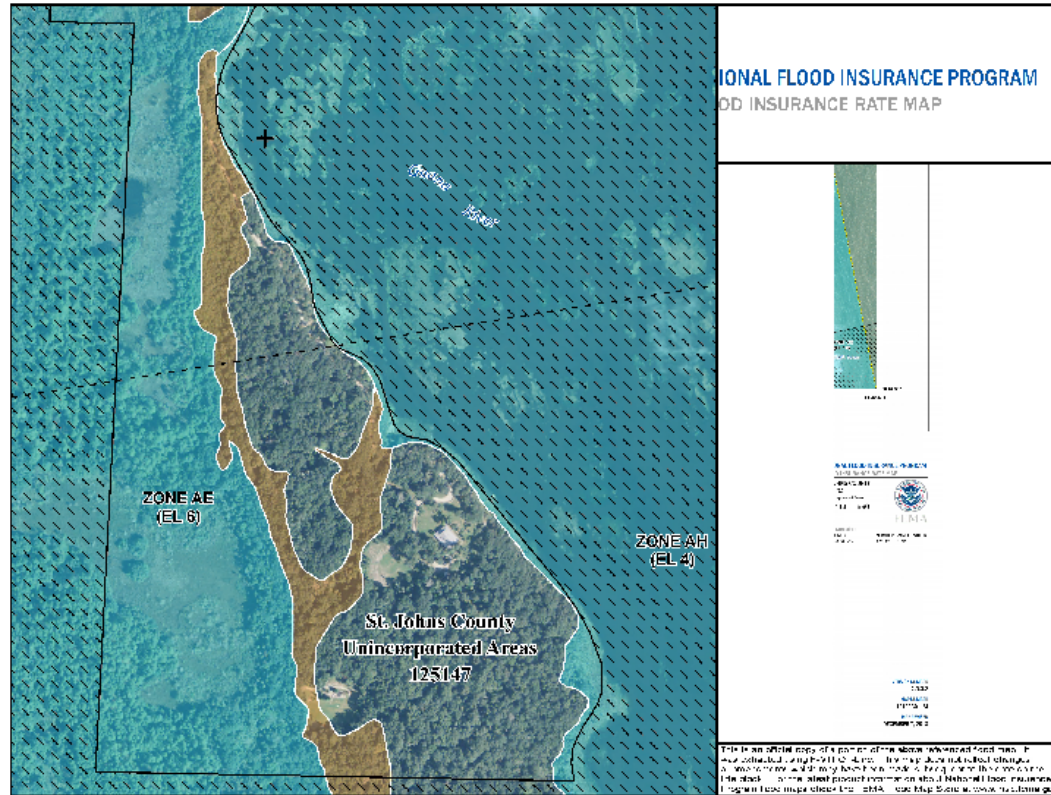
VISTA TRANQUILA FLUM AMENDMENT

- ❑ The entire subject property is also designated in the St. John's County Hurricane Evacuation Zone B as provided on the County Emergency Management (see Map 5).
- ❑ A portion of the residential lot sites will be located within the 500-year floodplain as shown on the Federal Emergency Management Agency Flood Insurance Rate Map and as shown on St. John's County Flood Viewer (see Maps 6 and 7). This area has a 0.2% Annual Chance Flood Hazard, Areas of 1 % annual chance flood with average depth less than one foot or with drainage areas of less than one square mile (see Legend).
- ❑ The 500-year floodplain is an area that has become subject to more frequent and greater flood level during extremely wet hurricanes. Recent examples are Hurricane Harvey which set a US Record of 60.58 inches of rain in four days and Hurricane Florence setting a Carolinas record of 35.93 inches of rain. **The 500-year floodplain is not shown on the Development Plan and as such is an incomplete and a misleading Development Plan.**

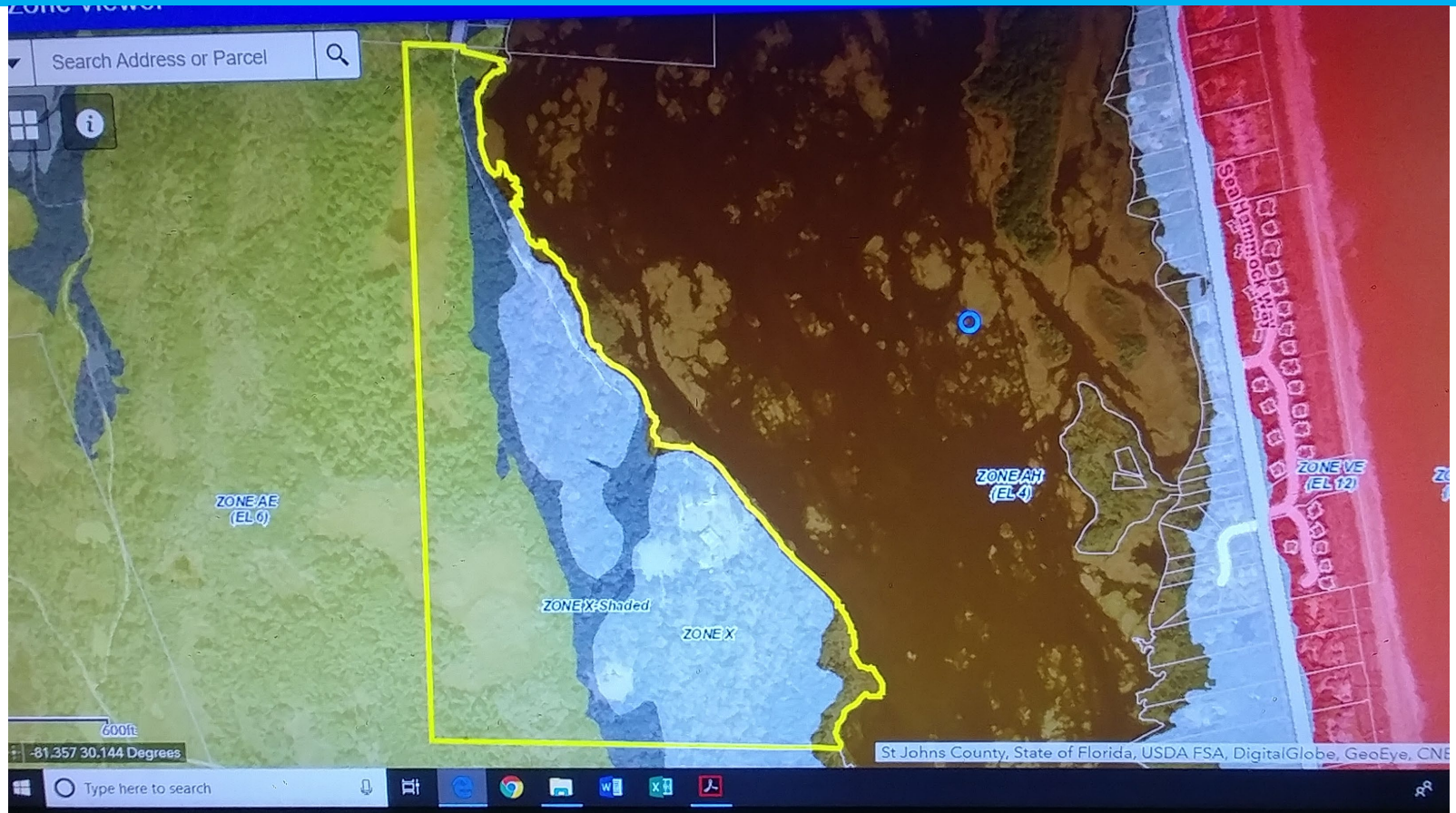
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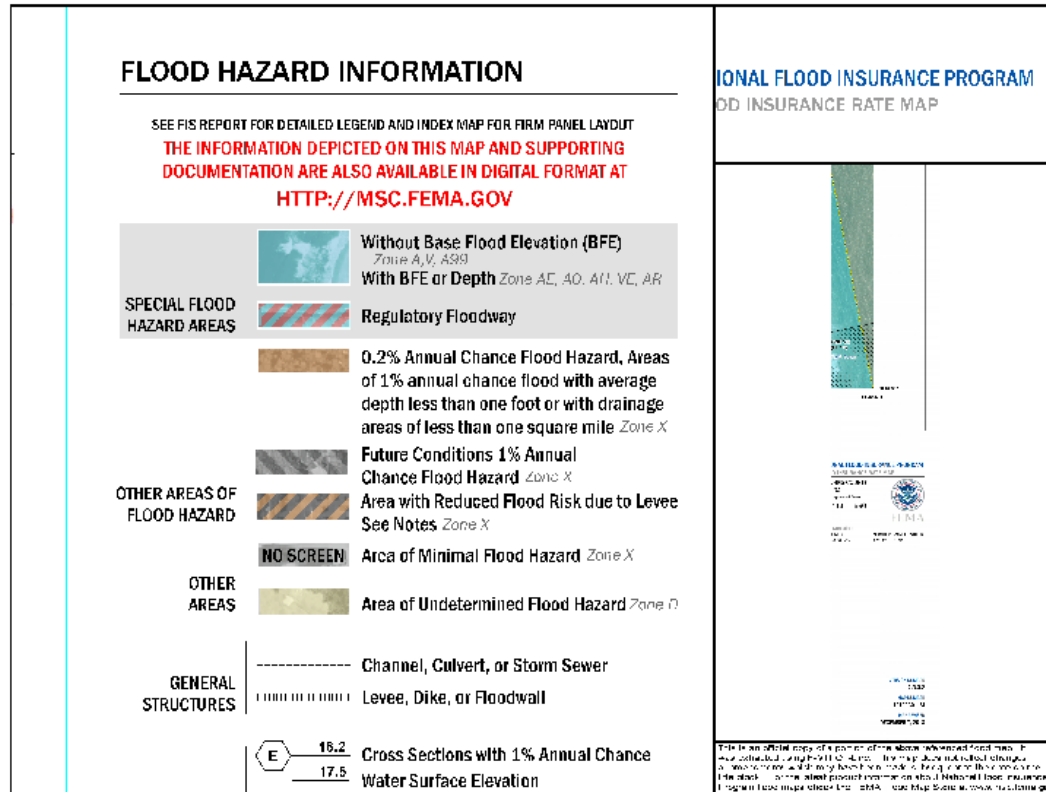
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Flow Management and Development Plan
Exhibit #37

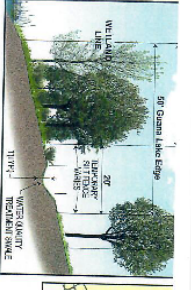
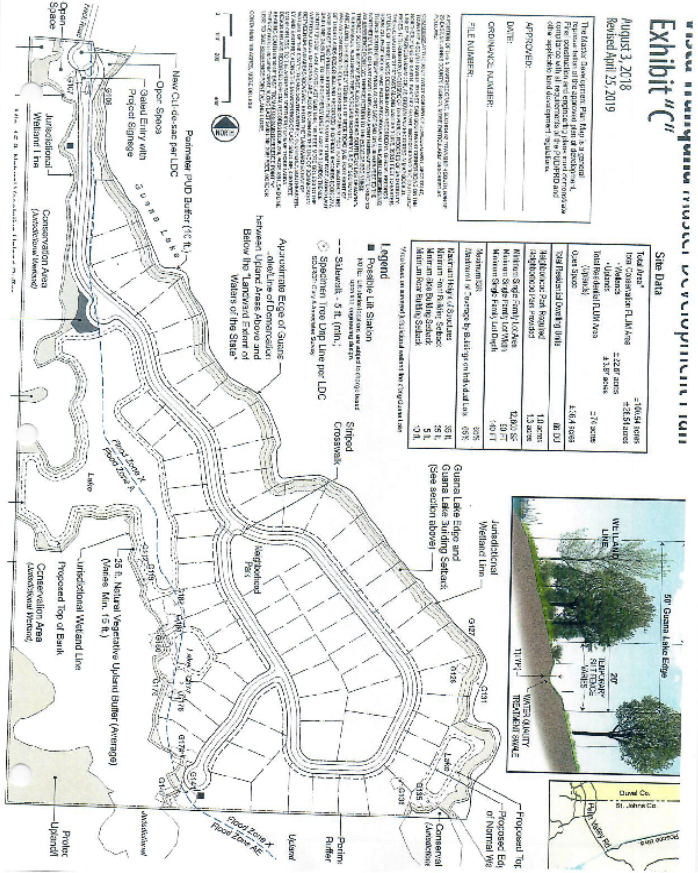
August 3, 2018
 Revised April 25, 2019

This document is prepared for the project shown on this drawing and is intended for use in the field. It is not intended to be used for any other purpose. It is the responsibility of the user to verify the accuracy of the information provided on this drawing and to consult the project engineer for any questions or concerns.

DATE: 8/3/2018
 CREWNO./NUMBER: [redacted]
 FILE NUMBER: [redacted]

Site Data

Total Area	= 36.00 acres
Total Developed Area	= 23.84 acres
Urban	= 4.18 acres
Industrial	= 19.66 acres
Warehouse	= 9.99 acres
Open Space	= 12.16 acres
Water	= 1.81 acres
Highland Park	= 11.00 acres
Highland Park	= 1.30 acres
Highland Park	= 0.51 acres
Highland Park	= 0.80 acres
Highland Park	= 0.50 acres
Highland Park	= 0.40 acres
Highland Park	= 0.10 acres
Highland Park	= 0.10 acres
Highland Park	= 0.10 acres
Highland Park	= 0.10 acres



VISTA TRANQUILA FLUM AMENDMENT

EVACUATION TIME/SHELTER IMPACT ANALYSIS

- ❑ According to the most up to date 2014 Northeast Florida Regional Evacuation Study Transportation Analysis the Base Scenario tables show **out-of-county clearance time of 26.5 hours for 2020** (see Tables I, ES-11), which is a 1.5 hour increase from 2015.
- ❑ Since the SLOSH Model for the Jacksonville Basis has not be updated since the 2014 Regional Evacuation Study the Transportation Analysis has not been update the 2020 projected out-of-county clearance time is likely greater than 26.5 hours due population growth in the hurricane storm tide vulnerable areas of the county.
- ❑ The 2020 Transportation Evacuation Zone (TEZ) for the proposed site within the 2014 Evacuation Transportation Supplemental Data Report of the Regional Evacuation Study for St. Johns County was used to calculate the number of vehicles and shelter demand.

VISTA TRANQUILA FLUM AMENDMENT

Volume 4-4 Northeast Florida

Statewide Regional Evacuation Study Program

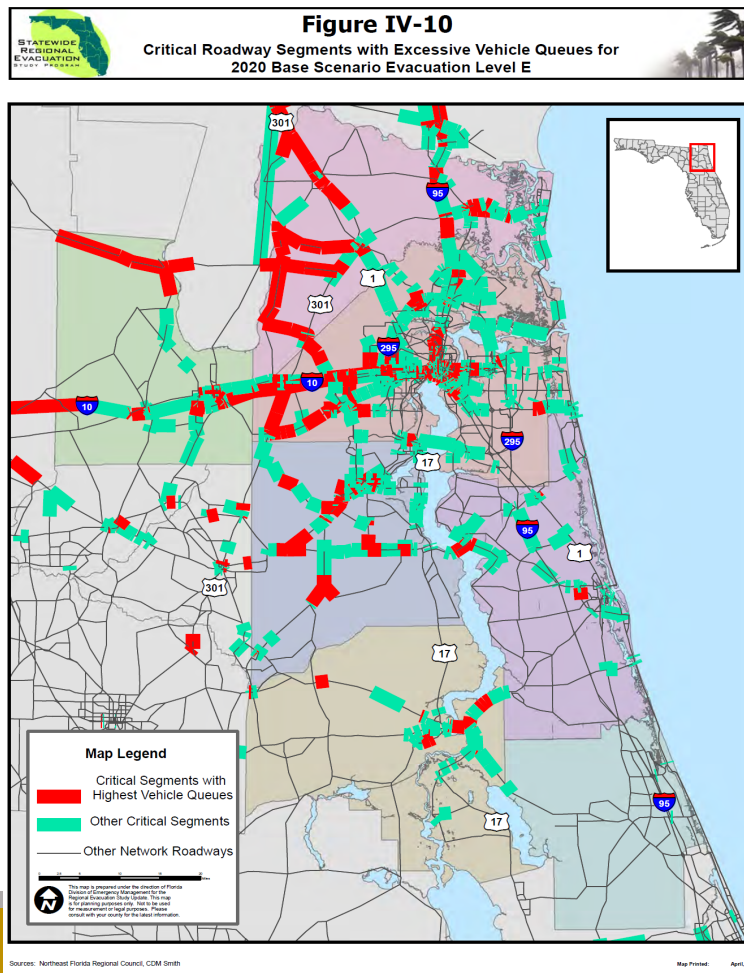
Table ES-11 – 2020 Clearance Times for Base Scenario

	Evacuation Level A Base Scenario	Evacuation Level B Base Scenario	Evacuation Level C Base Scenario	Evacuation Level D Base Scenario	Evacuation Level E Base Scenario
Clearance Time to Shelter					
Baker County	13.0	14.0	14.0	14.0	15.5
Clay County	14.0	16.5	17.0	18.5	21.5
Duval County	14.0	18.0	18.5	25.0	30.0
Flagler County	12.5	12.5	12.5	12.5	12.5
Nassau County	20.0	20.0	24.0	26.5	33.5
Putnam County	14.0	14.5	16.5	18.0	18.5
St. Johns County	14.5	18.5	19.0	19.0	19.0
In-County Clearance Time					
Baker County	13.5	14.5	14.5	14.5	16.0
Clay County	14.5	18.5	23.0	23.5	26.5
Duval County	15.0	18.5	19.0	25.0	30.0
Flagler County	15.0	18.5	20.5	21.0	27.0
Nassau County	20.0	21.0	26.0	32.5	37.0
Putnam County	14.5	19.0	20.5	21.5	25.5
St. Johns County	15.0	18.5	20.0	21.0	26.5
Out of County Clearance Time					
Baker County	19.5	21.5	25.5	31.0	37.5
Clay County	15.5	19.5	23.5	25.5	31.5
Duval County	15.0	20.5	22.5	25.5	33.0
Flagler County	15.5	19.0	20.5	21.5	27.0
Nassau County	21.0	22.0	28.0	34.5	38.5
Putnam County	15.0	19.5	23.5	24.5	27.5
St. Johns County	15.0	18.5	20.0	21.0	26.5
Regional Clearance Time					
Northeast Florida	21.0	22.0	28.0	34.5	38.5

VISTA TRANQUILA FLUM AMENDMENT

- ❑ The proposed project will create an additional 66 vehicles and demand for 3 to 4 additional public shelter spaces during a Level B Evacuation.
- ❑ Based on the 2020 projection a total of 198,527 people are subject to evacuation during a Level E (Category 5) Base Scenario using 99,000 vehicles to evacuate the county. The additional evacuating vehicles from the project will increase the 26.5 hour out-of-county evacuation time by approximately 1 minute.
- ❑ While this increase is small, it is significant since it will incrementally increase the out-of-county evacuation time further above the 16 hour time stated in Objective E.1.9 Policy E.1.9.1 of the Comprehensive Plan.
- ❑ As show in Map 8 the project traffic will also add to a designated critical evacuation segment with high queuing delay time along Palm Valley Road. One intersection is currently LOS F another projected to fail is magnified during a hurricane evacuation.

VISTA TRANQUILA FLUM AMENDMENT



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- ❑ Although the public shelter demand from 66 units is low, a **9,207 space deficit existed in 2015 during a Level B Evacuation** (see Table III). Therefore, the proposed project will further increase the deficit, which is like to be much higher at current county population levels.
- ❑ Because the entire development site is in the hurricane storm tide zone it is subject to ever increasing hurricane storm tide heights in the future due to long term sea level rise and more hurricane days.
- ❑ According to National Hurricane Center records there has been an increase in the number of hurricane since the start of the 20th century and more rapid intensification in a short time, which is problematic for safe evacuation as the times to evacuate get longer. Hurricanes are in fact atmospheric redistribution of heat around the planet.

VISTA TRANQUILA FLUM AMENDMENT

**Table V-10a
Public Shelter Demand For Hurricane Evacuation
Base Scenarios 2015**

Level	Baker County	Clay County	Duval County	Flagler County	Nassau County	Putnam County	St. Johns County	Northeast Region
CAPACITY	2,600	4,290	32,814	8,815	4,325	2,276	7,200	62,320
A	2,368	5,459	24,857	3,275	3,517	5,158	6,531	51,165
B	2,461	6,505	31,250	4,999	3,622	5,343	9,207	63,387
C	2,566	8,266	45,332	5,768	4,013	5,987	9,774	81,706
D	2,670	9,970	50,881	7,611	4,355	6,279	10,791	92,557
E	2,773	10,739	61,818	8,410	4,492	6,862	11,281	106,375

**Capacity based on Primary Risk ARC4496 Compliant shelters.*

Numbers in Red represent a shelter deficit.

VISTA TRANQUILA FLUM AMENDMENT

COMPREHENSIVE PLAN CONSISTENCY ANALYSIS

- ❑ Objective A.1.3.11 (Surrounding Land Use) states when a “Comprehensive Plan amendment, rezoning or development application is considered, the County shall ensure compatibility of adjacent and surrounding land uses” relative to the sensitivity of development proposals in “maintenance of public infrastructure”.
- ❑ Objective A.15.2 (Comprehensive Plan Amendment and Review) states “Applications requesting amendment to the Comprehensive Plan or Future Land Use Map shall be evaluated based upon criteria which shall include, but not be limited to the following: impacts on public facilities and services.”
- ❑ Hurricane evacuation routes and public hurricane shelters are public facilities and services that are currently deficient in protecting human life from natural disasters (hurricanes) and will be further degraded from the impacts of the proposed project.

Vista Tranquilla FLUM Amendment

- ❑ **Objective A.1.5 (Coastal Areas):** “The County shall ensure safe evacuation of coastal areas and shall coordinate coastal area population densities with appropriate regional hurricane plans, through the implementation of the Future Land Use Plan”.
- ❑ **“Goal E.1 COASTAL/CONSERVATION MANAGEMENT ELEMENT COASTAL:** The County shall manage, use, conserve, protect and enhance coastal resources, along with protecting human life from natural disasters.”
- ❑ **“Objective E.1.9 Hurricane Evacuation Time:** The County shall maintain hurricane evacuation times.”
- ❑ **“Policy E.1.9.1:** The County shall maintain the hurricane evacuation time of 16 hours for a category 5 storm event for an out-of-county hurricane evacuation.”

VISTA TRANQUILA FLUM AMENDMENT

- ❑ Out-of-county hurricane evacuation time of **16 hours for a Category 5 hurricane has already been exceeded (26.5 hrs.) as depicted in Tables ES-11 2020** (see Table II).
- ❑ Total evacuation time should include at least an additional 8 hours to account for prelandfall hazard time associated with the arrival of gale forces winds prior to eye landfall making road unsafe or impassable for travel (see tree blocking Neck Rd during Matthew 2016). Therefore, **total evacuation time is likely 34.5 hours, making county evacuation unsafe within the 24 hours warning period.**
- ❑ A **9,207 space deficit existed in 2015 during a Level B Evacuation** (see Table III). This deficit is likely higher at current and future vulnerable population levels. Shelter deficits force more people to leave the county creating higher out-of-county evacuation times.



VISTA TRANQUILA FLUM AMENDMENT

CONCLUSION

- ❑ The proposed amendment is inconsistent with the St. Johns County 2025 Comprehensive Plan goals, objective and policies listed above and the amendment application has not provided competent, substantial evidence supported by persuasive data and analysis to address Comprehensive Plan consistency relative to **maintaining the out-of-county hurricane evacuation time of 16 hours for a category 5 and protecting human life from natural disasters (hurricanes). The county's public safety will be further degraded during a hurricane disaster if this amendment is approved.**
- ❑ The existing FLUM Conservation designation for the site limiting residential development to one (1) unit per 100 acres is the acceptable land use for the site to avoid further degradation to hurricane evacuation times and public shelter deficits.

VISTA TRANQUILA FLUM AMENDMENT

- ❑ It is my expert opinion the proposed Plan Amendment **WOULD INCREASE DENSITY IN A VERY VULNERABLE AREA OF COASTAL ST JOHNS COUNTY** in an **EXTREMELY UNSUITABLE LOCATION IN THE MIDDLE OF GTMNEER** Estuary, and because the out-of-county evacuation time from this location already exceeds 26-34 hours and there is a large deficit at shelters of over 9,000 spaces, I recommend **DENIAL OF THIS PLAN AMENDMENT**.
- ❑ Based upon the competent and substantial testimony presented by experts and lay persons in this matter, Save Guana Now respectfully requests the Local Planning Agency **make a motion, and a second, and vote, to recommend that the Board of County Commissioners NOT TRANSMIT the proposed plan amendment to the State DEO”**