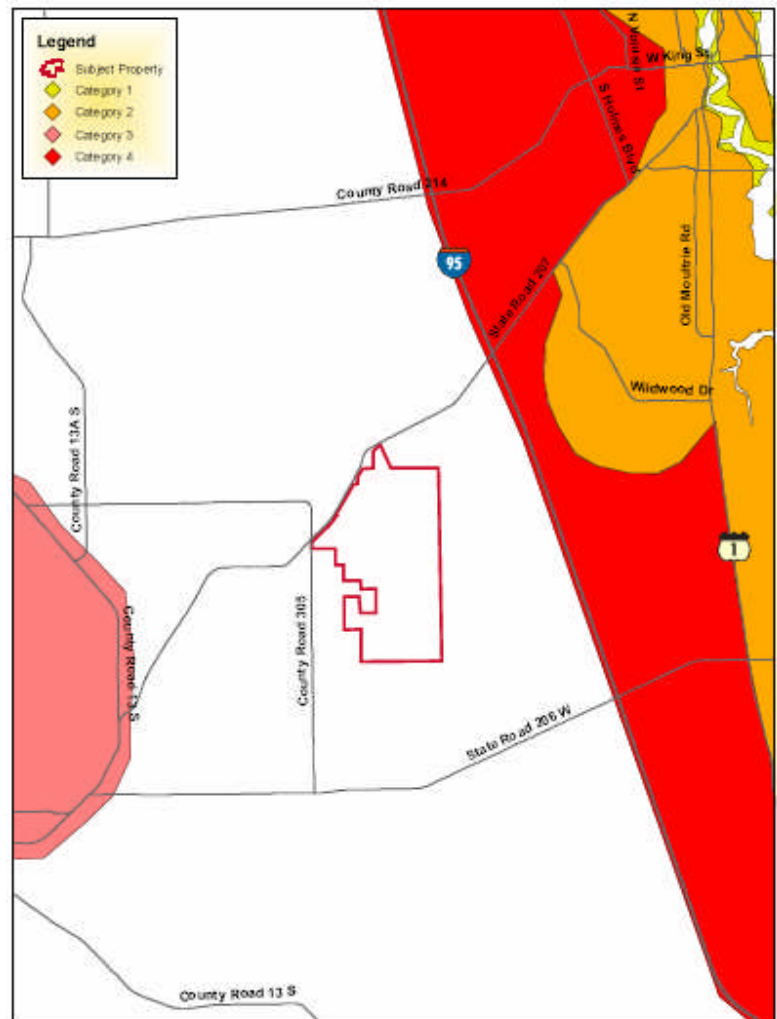


QUESTION 23 – HURRICANE PREPAREDNESS

A.1 Identify any residential development proposed within the hurricane vulnerability zone delineated in the applicable regional hurricane evacuation study, regional public hurricane shelter study or adopted county peacetime emergency plan. If so, delineate the proposed development’s location on the appropriate county and/or regional hurricane evacuation map and respond to questions B.(1) and B.(2) below. Proposed mobile home and park trailer developments should answer question B.(1), regardless of location, or answer questions B.(1) and B.(2) below, if proposed within the hurricane vulnerability zone or the high hazard hurricane evacuation area.

Based upon information contained in the *Northeast Florida Hurricane Evacuation Study, 2005* published by the Northeast Florida Regional Council NEFRC), none of the Elkton DRI site lies within a hurricane vulnerability zone. A “hurricane vulnerability zone” is defined as an area subject to a Category 1, 2 or 3 hurricane event. Therefore, Elkton does not propose any development within a hurricane vulnerability zone (see Figure 23-1).

Figure 23-1



A.2 Identify any hotel/motel or recreational vehicle/travel trailer development proposed within the high hazard hurricane evacuation area delineated in the applicable regional hurricane evacuation study, regional public hurricane shelter study or adopted county peacetime emergency plan. If present, delineate the proposed development's location on the appropriate county or regional hurricane evacuation map and answer questions B.(1) and B.(2) below.

No portion of the subject property is in either the hurricane vulnerability zone or the high hazard hurricane area. Based upon the NEFRC *2005 Hurricane Evacuation Study*, the Elkton DRI site is not within a high hazard hurricane evacuation area, which for the purpose of this analysis is the area delineated by a Category 1 storm surge zone. Therefore, there are no hotel/motel or recreational vehicle/travel trailer developments proposed within the high hazard hurricane evacuation area.

A.3 Identify whether the proposed development is located in a designated special hurricane preparedness district.

Based upon information provided in the NEFRC *2005 Northeast Florida Hurricane Evacuation Study* and according to St. Johns County and the Florida Department of Community Affairs (DCA), the subject property is not located within a designated special hurricane preparedness district. A special hurricane preparedness district is a county or region that has been designated by DCA for special consideration because of its unique hurricane vulnerability and preparedness situation. St. Johns County is not designated by DCA as special hurricane preparedness district.

B.1 For each phase of the development, determine the development's public hurricane shelter space requirements based on the behavioral assumptions identified in the applicable regional study or county plan. Identify the existing public hurricane shelter space capacity during the one hundred year or category three hurricane event within the county where the development is being proposed and indicate whether the county has a deficit or surplus of public hurricane shelter space during the one hundred year or category three hurricane event.

Based on information provided in the NEFRC *2005 Hurricane Evacuation Study*, the subject property is not located within a hurricane vulnerability zone (which is defined as an area subject to a Category 3 hurricane event). However, the public "shadow" shelter space requirements are identified in Table 23-1. For planning purposes, Table 2-3 of the *2005 Hurricane Evacuation Study* indicates the percentage of the population that would evacuate their dwelling units with the threat of a storm in each Category 1 thru 5 scenarios. As the subject property is not within a hurricane

evacuation area, the public “shadow” shelter requirements for Elkton was derived by applying the maximum evacuation participation rate of 10% for the “non-vulnerable” population in a Category 4/5 hurricane event. Further, out of those persons that evacuate, approximately 10% (based on Medium Income, Non-Surge Risk Area per 2005 Hurricane Evacuation Study, Table S-9) will seek public shelter space. Based upon this scenario and assumptions, it is estimated that approximately 29 residents would seek public shelter space in Phase 1, a total of 59 residents in Phase 2, and a total of 84 residents at build-out.

According to the NEFRC *2005 Hurricane Evacuation Study (Table S-1)*, the maximum public shelter demand in St. Johns County for a Category 3 hurricane event in 2005 is estimated at 7,125 people. Local public shelter capacity meeting the requirements of the American Red Cross (ARC) 4496 Guidelines for Storm Shelters is identified at 7,320 people.

**Table 23-1
“Shadow” Public Shelter Demand**

	Phase 1	Phase 2	Phase 3
Estimated Dwelling Units in Evacuation Zone	0	0	0
Participation Rate in Evacuation Zone	NA	NA	NA
Estimated Dwelling Units Outside Evacuation Zone	1,245 ⁽¹⁾	2,520 ⁽¹⁾	3,600 ⁽¹⁾
Participation Rate Outside Evacuation Zone	10% ⁽²⁾	10% ⁽²⁾	10% ⁽²⁾
Total Units Evacuating Outside Evacuation Zone	125	252	360
Total Number of Units Evacuating	125	252	360
Household Population Evacuating	290 ⁽³⁾	585 ⁽³⁾	835 ⁽³⁾
Percentage of Evacuees to Public Shelters	10% ⁽⁴⁾	10% ⁽⁴⁾	10% ⁽⁴⁾
Total Population Evacuating to Public Shelters	29	59	84

Prepared by Prosser Hallock, Inc., August 2006

(1) Refer to ADA Question #10 for description of development plan

(2) *2005 Hurricane Evacuation Study*, Table 2-3

(3) Total Units evacuating x 2.32 persons per unit

(4) *2005 Hurricane Evacuation Study*, Table S-9 (Medium Income, Non-Surge Risk Area)

B.2 For each phase of the development, determine the number of evacuating vehicles the development would generate during a hurricane evacuation event based on the transportation and behavioral assumptions identified in the applicable regional study or county plan. Identify the nearest designated hurricane evacuation route and determine what percentage of level of service E hourly directional and maximum service volume the project will utilize.

Based on information provided in the NEFRC 2005 *Northeast Florida Hurricane Evacuation Study*, the subject property is not located within a designated hurricane vulnerability zone (which is defined as an area subject to a Category 3 hurricane event). For planning purposes, the 2005 *Hurricane Evacuation Study* indicates the percentage of the “non-vulnerable” population that would be likely to evacuate their dwelling units with the threat of a storm in each Category 1 thru 5 scenarios along with their intended destination. The estimate of the “shadow” evacuation transportation demand is identified in Table 23-2 and is based upon conservative assumptions of evacuation travel behavior from the 2005 *Hurricane Evacuation Study*. SR 207 and SR 13 are the nearest designated hurricane evacuation routes to Elkton.

**Table 23-2
“Shadow” Evacuation Transportation Demand**

	Total Evacuating Units	Gross Trips ⁽¹⁾	Public Shelter Trips ⁽²⁾	Out of County Trips ⁽³⁾	In County (No Shelter) Trips ⁽⁴⁾	Net External Trips ⁽⁵⁾
Phase 1 (2006-2011)	125	145	15	102	28	116
Phase 2 (2011-2016)	252	291	29	204	58	233
Phase 3 (2016-2021)	360	418	42	293	83	335

Prepared by Prosser Hallock, Inc., August 2005

- (1) Total Evacuating Units x 2.32 persons per unit divided by 2 persons per vehicle per NEFRC Hurricane Evacuation Study
- (2) 10% of Gross Trips
- (3) 70% of Gross Trips per NEFRC Hurricane Study
- (4) Gross Trips less Public Shelter Trips and Out of County Trips
- (5) Gross Trips less Public Shelter Trips and 50% of In County (No Shelter) Trips

C. Identify and describe any action(s) or provisions that will be undertaken to mitigate impacts on hurricane preparedness.

The school(s) within Elkton will be located outside designated hurricane evacuation zones and may be

designed and constructed to serve as American Red Cross–approved public shelter space.