



Florida Department of Environmental Protection

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Jonathan P. Stevenson
Interim Secretary

July 21, 2015

Via Electronic Transmittal

Timothy P. Mason, P.E.
Applied Technology & Management, Inc.
2200 North Ponce de Leon Boulevard, Suite 9
St. Augustine, Florida 32084

100-Year Storm Elevation Site Specific Determination

File Number: CNS-SJ-480
Property Owner Name: CWI Sawgrass Hotel, LLC
Address: 619 Ponte Vedra Boulevard, Ponte Vedra Beach.
Location of Subject Property: Between approximately 228 feet north and 72 feet south of the Department of Environmental Protection's reference monument R-14 in St. Johns County.

Dear Mr. Mason:

This is in response to your recent request for a site specific determination of the 100-year storm elevation for proposed hotel renovations at the above project address.

Pursuant to Subsection 3109, Florida Building Code, all habitable structures shall be elevated at or above an elevation which places the lowest horizontal member above the 100-year storm elevation as determined by the Florida Department of Environmental Protection in the report titled "One-Hundred Year Storm Elevation Requirements for Habitable Structures Located Seaward of a Coastal Construction Control Line." An applicant may request the Department of Environmental Protection to determine a site-specific 100-year storm elevation for the applicant's proposed habitable structure as part of the environmental permit application process. Based on the survey submitted with your request, and assuming a siting of the proposed screened porch at no further than 86 feet seaward of the control line, a site specific 100-year storm elevation for the proposed structure has been determined by the Department. The 100-year storm elevation (elevation of the lowest horizontal structural member) is **+14.9 feet (NAVD)**, or higher. Please note that all other major structures depicted within your Site Plan are located landward of the erosion profile, which begins at approximately 60 feet seaward of the control line.

I am attaching copies of the calculations used to derive the storm surge, 100-year storm elevation, and erosion profiles for the subject parcel.

This determination does not relieve you from your responsibility to comply with the permitting requirements of any other local, state, or federal regulatory agency which has jurisdiction over the proposed activity. If you have any questions, concerns, or need additional information, please contact me at the letterhead address, or by telephone at (850) 245-7680, or by e-mail at david.kriger@dep.state.fl.us.

Sincerely,

A handwritten signature in blue ink that reads "DAK".

David A. Kriger, Permit Manager
Coastal Construction Control Line Program
Division of Water Resource Management
DAK/dw

Enclosures

cc: St. Johns County Building Department

CNS-SJ-480:100-Year Storm Wave Elevation Determination

Design Storm Surge Elevation (SS) = +11.9 feet (NAVD) (from Mike Manausa)

Design Water Depth (d) = SS – Full Hydro Elevation at SFD’s Seaward Extent = 11.9 – 9.0 = 2.9 feet

Hb = (0.78)(d) = (0.78)(2.9) = 2.26 feet

Hw = Wave Height Above Stillwater = (0.7)(2.26) = 1.58 feet (**Hw must be at least 3 feet in height**)

100-Year Storm Elevation = SS + Hw = +11.9 feet + 3.0 feet = **+14.9 feet (NAVD) or +16.0 feet (NGVD)**

Note: Published 100-Year Storm Elevation in St. Johns County for R-14 is +17.3 feet (NGVD) or +16.2 feet (NAVD).

Note: This calculation applies to the Screened Porch sited at approximately 86 feet seaward of the CCCL; all other major structures are sited landward of the erosion profile, which begins at 60 feet seaward of the CCCL.



**Engineering, Hydrology, and Geology Program
Division of Water Resource Management**

Date: July 21, 2015
To: David Kriger
From: Mike Manausa
Reviewed:
Re: CNS-SJ-480

This is in response to your request for the site specific 100-year storm erosion analysis using the CCCLr model for the above referenced project. The model was run for the 36 hour storm surge hydrograph. The structure's foundation design and the underside of the structure's first floor elevation may be determined from the results.

CCCLr Model Input Information:

- 100-yr Combined Total Storm Tide: 11.9 ft.-NAVD
- "A" value: 0.1664
- Hydrograph: St. Johns County North Profile.
- Input profile: Upland profile based on topographic survey by Boatwright Land Surveying, Inc., dated 4/24/2015. Offshore profile data based on DEP survey dated 6/7/2011 at R-14 in St. Johns County with a profile bearing of 75 degrees. Input Profile distances are relative to the 1988 CCCL (see following aerial graphic) with origin at 2139010N, 538843E State Plane Florida East in feet (NAD83-HARN).
- On the input profile the Coastal Setback Line (CSBL) is 111 feet seaward of the CCCL.

Graphical results are in ft.-NAVD datum.

To convert an elevation to NGVD, add 1.10 to NAVD.

If you have any questions or concerns, or need additional information, please contact me by telephone at 850-245-7631, or by e-mail at Michael.Manausa@dep.state.fl.us.

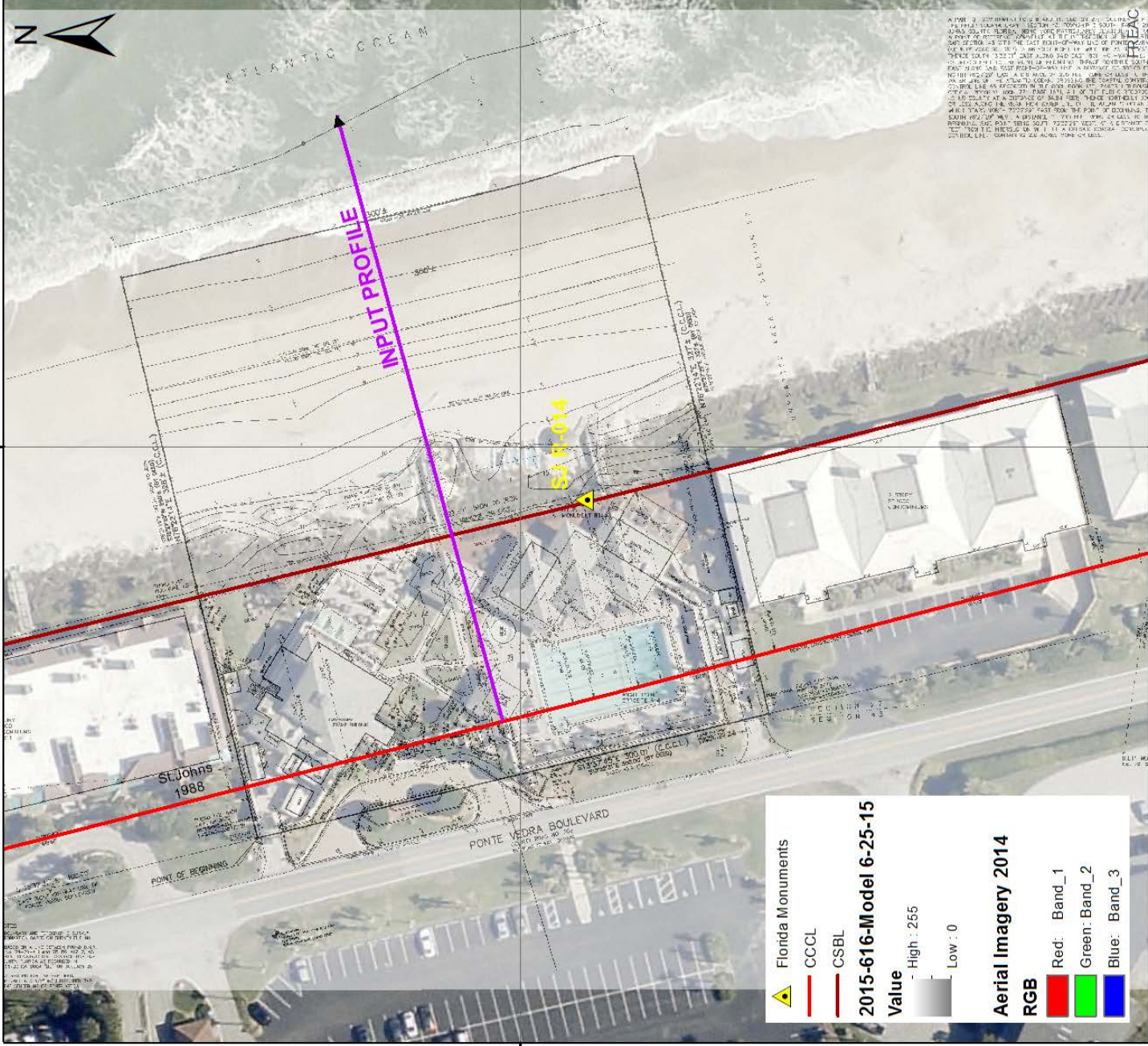
539000

539000

539000

2139000

2139000



Florida Monuments

- CCCL
- CSBL

2015-616-Model 6-25-15

Value

High : 255

Low : 0

Aerial Imagery 2014

RGB

- Red: Band_1
- Green: Band_2
- Blue: Band_3

ST JOHNS COUNTY (CNS-SJ-480)
 Drawn By: Mike Manausa

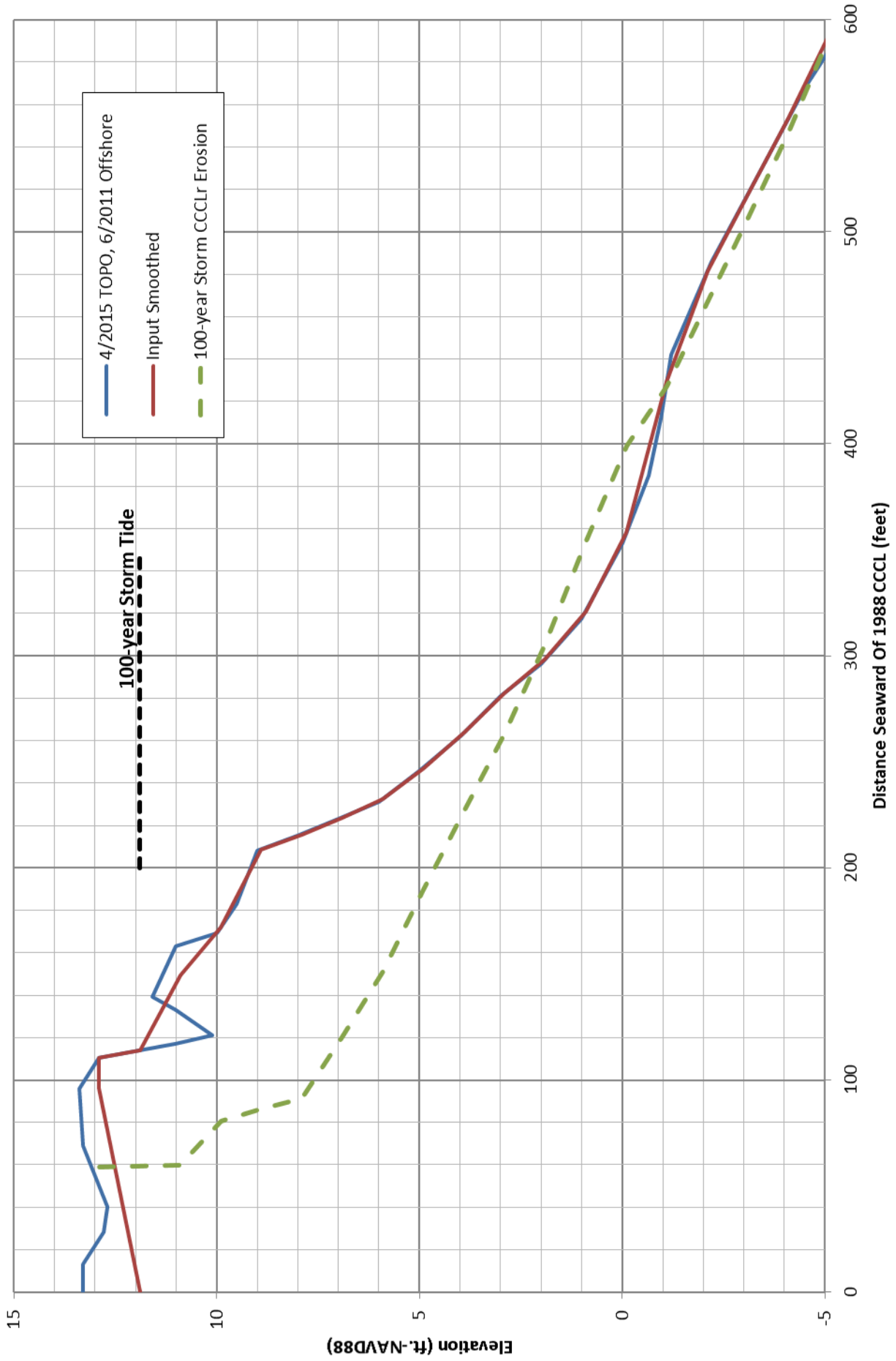
Date: 7/21/2015

Engineering, Hydrology, and Geology Program
 Division of Water Resource Management
 Department of Environmental Protection
 2600 Blair Stone Road, MS 3595
 Tallahassee, FL 32399-2400

Horizontal Coordinate System: State Plane Florida East
 NAD83-HARN feet
 Vertical Coordinate System: NAVD-88 feet



CNS-SJ-480



CNS-SJ-480 Boatwright Topo, ST. JOHNS R-14A Offsh DEP SURVEY NAD8390 NAVD1988
R-1 JUL2015 0 2139010.000 538843.000 75.0 0.00
24APR15 19MAY11 07JUN11 123 24 8 91

0.0	13.30	13.0	13.30	28.0	12.80	40.0	12.70	69.0	13.30
96.0	13.40	110.5	12.90	117.0	11.00	121.0	10.10	133.0	11.00
139.0	11.60	163.0	11.00	169.0	10.00	183.0	9.50	208.0	9.00
215.0	8.00	223.0	7.00	231.0	6.00	245.5	5.00	262.0	4.00
281.0	3.00	296.0	2.00	317.5	1.00	353.0	0.00	384.9	-0.66
411.9	-0.95	441.9	-1.21	485.9	-2.20	531.9	-3.50	567.9	-4.50
595.9	-5.46	617.9	-6.66	649.6	-5.29	658.7	-4.97	689.2	-5.89
718.7	-6.43	749.2	-7.76	779.8	-8.63	825.0	-9.64	855.3	-10.53
885.3	-11.38	914.8	-12.61	945.9	-13.40	974.6	-14.05	1004.2	-14.94
1034.2	-15.42	1064.7	-16.05	1094.0	-17.07	1123.9	-17.23	1153.6	-18.01
1198.9	-17.94	1248.0	-18.51	1273.8	-18.89	1303.8	-19.44	1333.9	-19.77
1379.2	-19.90	1408.6	-20.93	1439.0	-20.41	1483.9	-21.01	1513.8	-21.79
1543.7	-21.88	1573.8	-21.85	1604.2	-23.10	1649.2	-23.15	1678.8	-23.35
1708.9	-24.12	1739.4	-24.49	1769.1	-25.24	1799.3	-25.62	1829.0	-26.18
1859.3	-27.16	1888.9	-27.05	1918.8	-29.03	1964.4	-29.54	1994.0	-30.38
2023.9	-31.51	2054.4	-31.31	2083.6	-31.79	2113.9	-32.62	2158.9	-32.88
2189.8	-33.39	2234.4	-33.50	2263.7	-33.97	2294.2	-34.43	2324.1	-34.08
2369.2	-34.78	2399.1	-34.54	2428.8	-35.33	2459.4	-35.00	2488.9	-35.38
2533.8	-35.48	2564.2	-36.18	2608.8	-36.45	2639.2	-36.21	2684.1	-36.83
2729.0	-36.73	2759.0	-37.39	2788.9	-37.40	2818.8	-37.55	2848.6	-38.10
2879.1	-38.39	2909.7	-38.20	2939.8	-38.35	2969.7	-38.87	2999.7	-39.44
3028.9	-38.69	3073.6	-38.84	3104.3	-38.40	3148.6	-38.90	3178.6	-38.97
3209.1	-39.38	3254.3	-39.21	3283.6	-39.46	3329.0	-39.34	3359.1	-39.38
3404.1	-39.84	3448.7	-39.64	3479.1	-40.06	3523.7	-39.75	3554.7	-39.41
3583.6	-39.80	3614.0	-39.88	3644.1	-39.98				