Lee County
Southwest Florida

LEE COUNTY BOARD OF ADJUSTMENTS AND APPEALS
Community Development/Public Works Center
1500 Monroe Street, 1st Floor Conference Room 1B

Wednesday, May 18, 2016
10:00 A.M.

AGENDA

CASE TO BE HEARD

Case #ADM2016-00004 (RES2015-00402 & RES2015-00674)

Cowen Residence represented by Tim Krebs, Architect

The applicant is requesting a variance from Section 6-403 LDC and Section R.322.2.1 FBC 5th Edition

1. Call to Order/Review of Affidavit of Publication
2. Roll Call
3. Swearing In of All Testifying
4. Hearing
5. Call the Vote
6. Adjournment

Persons with disabilities who need an accommodation to participate in the Land Development Code Advisory Committee meeting should contact Pam Hendry, 1500 Monroe Street, Fort Myers FL 33901 (239 533-8348 or Phendry@leegov.com). To ensure availability of services, please request accommodation as soon as possible but preferably five or more business days prior to the event. Persons using a TDD may contact Pam Hendry through the Florida Relay Service, 711.

MEMORANDUM
FROM THE
DEPARTMENT OF
COMMUNITY DEVELOPMENT
DEVELOPMENT SERVICES DIVISION

DATE: May 3, 2016

TO: BOAA Members

FROM: Bob Stewart
Building Official

RE: Case #ADM2016-00004 (RES2015-00402 & RES2015-00674) Cowen Residence

This request is for a variance from Section: 6-403 LDC and Section R.322.2.1 FBC 5th Edition requiring lowest floor to meet a base flood elevation of 10.0' NAVD to allow construction of the finished floor at elevation 9.0' NAVD.

This is a non-contributing structure in the Boca Grande Historic District. The project began as an addition and rehabilitation of a 1939 contributing historic structure. During the construction process, the historic part of the existing structure was totally removed. Subsequently, the historic preservation board denied approval of the revisions which replaced the historical cottage with new construction. It was also directed that the historic designation of the building be removed.

At this point the project is approximately two-thirds completed and must be brought into compliance. The completed floor must be elevated to meet the current BFE requirements of 10' NAVD. As constructed, the floor is at 5.0' NVGD.

The applicant has that stated that because of the size of the parcel and the location of the nearly completed structure, it is not possible to meet the required 10' BFE.

Zoning variances have been granted for setbacks from the street which will allow for the building to be elevated to 9' NAVD.

Flood proofing of the residential structure is not allowed and the applicant represents that without the variance, the noncontributing structure would have to be demolished.

In reviewing requests for variances, the Board of Adjustment and Appeals will consider all technical evaluations, all relevant factors, all other applicable provisions of the Florida Building Code, this article, and the following:

(1) The danger that materials and debris may be swept onto other lands resulting in further injury or damage;

(2) The danger to life and property due to flooding or erosion damage;

(3) The susceptibility of the proposed development, including contents, to flood damage and the effect of such damage on current and future owners;

(4) The importance of the services provided by the proposed development to the community;

(5) The availability of alternate locations for the proposed development that are subject to lower risk of flooding or erosion;

(6) The compatibility of the proposed development with existing and anticipated development;

(7) The relationship of the proposed development to the comprehensive plan and floodplain management program for the area;

(8) The safety of access to the property in times of flooding for ordinary and emergency vehicles;

(9) The expected heights, velocity, duration, rate of rise and debris and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and

(10) The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, streets and bridges.

(Ord. No. 15-09, § 1, 5-19-15)

Variances may be issued only upon:

(1) Submission by the applicant, of a showing of good and sufficient cause that the unique characteristics of the size, configuration, or topography of the site limit compliance with any provision of this article or the required elevation standards;

(2) Determination by the Board of Adjustment and Appeals that:

a. Failure to grant the variance would result in exceptional hardship due to the physical characteristics of the land that render the lot undevelopable; increased costs to satisfy the requirements or inconvenience do not constitute hardship;

b. The granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, nor create nuisances, cause fraud on or victimization of the public or conflict with existing local laws and articles; and

c. The variance is the minimum necessary, considering the flood hazard, to afford relief;

(3) If the request is for a variance to allow construction of the lowest floor of a new building, or substantial improvement of a building, below the required elevation, a copy in the record of a written notice from the Floodplain Administrator to the applicant for the variance, specifying the difference between the base flood elevation and the proposed elevation of the lowest floor, stating that the cost of federal flood insurance will be commensurate with the increased risk resulting from the reduced floor elevation (up to amounts as high as $25.00 for $100.00 of insurance coverage), and stating that construction below the base flood elevation increases risks to life and property.

(Ord. No. 15-09, § 1, 5-19-15)

Staff recommends approval of the variance with the condition that the structure complies with all other elements of the floodplain management regulations.

cc: Terry Lenick, Esquire
Neysa Borkert, Assistant County Attorney

Case #ADM 2016-00004

LEE COUNTY BOARD OF ADJUSTMENTS AND APPEALS APPLICATION

Name: Tim Krebs, Architect

Address: 1460 S. McCall Road, Suite 4A

Phone #: 941-475-7327 Email: tim@takrebs.com

STRAP #: 14432001000600010

Representing: Roy & Holly Cowan RE: 920 Palm Ave, Boca Grande, Florida

IS THIS A ☒ VARIANCE OR ☐ APPEAL? (PLEASE SELECT ONE)
Please provide specific sections of the code or ordinance to which the variance or appeal applies:

BUILDING CODE
COASTAL PLAIN MANAGEMENT
FIRE CODE
FLOOD PLAIN MANAGEMENT X 6-403 LDC + SECTION R.322.2.1 FBC 5TH EDITION
LIFE SAFETY CODE
L.D.C.
MECHANICAL
PLUMBING

If this is an appeal of an administrative decision, please indicate the official who made the decision:

I Request that this matter be scheduled for a hearing before the Lee County Board of Adjustments and Appeals. My reason for this request is as follows: (Provide additional sheets if needed.)

In accordance with 6-81, we seek relief of 1' from the required base flood elevation (required BFE = 10' NAVD, seeking 9') in order to complete the in progress construction at 920 Palm Ave. in accordance with the plans approved by the Boca Grande Historic Preservation Board on April 13, 2016 (See Attached)

I hereby certify that to the best of my knowledge, the information submitted for this hearing is true and correct.
Signature Authorization: T. Krebs Date: 04-14-16

NOTE: Provide ten (10) copies of all backup information for BOAA members. If there are sealed plans/drawings for the project for which the appeal/variance is requested, the architect/engineer who sealed the plans or drawings **MUST** be present at the hearing.

The applicant's presence is required for a case to be heard by this board.
Hearing dates are usually arranged for Thursday morning at 10:00 a.m.
Applications must be received at least 10 WORKING DAYS before the hearing date.

FEE: $100.00 - Make check payable to Lee County Board of County Commissioners
This application must be submitted to the Lee County Community Development Permit Center.

RECEIVED
APR 15 2016
COMMUNITY DEVELOPMENT

Revised 12/8/14
s:\committees\boaa\boaa.doc

ADM 2016-00004

Architect T.A. Krebs, LLC

East office : 1460 s. McCall rd | ste. 4A | Englewood, Fl 34223
ph: 941 475 7327 | fax : 941 474 0384
West office : 533 N.E. 3rd ave. | ste. 3 | Fort Lauderdale, Fl 33301
ph : 954 999 0488

aa 26002462 www. takrebs.com

April 19, 2016

Variance Request:

Considerations for issuance of Variance:

In reviewing request for variances, the Board of Adjustment and Appeals will consider all technical evaluations, all relevant factors, all other applicable provisions of the Florida Building Code, this article and the following:

(1)The danger that materials and debris may be swept onto other lands resulting in further injury or damage;

The result of a FEMA Hazard Analysis Model program indicates at elevation 9' NAVD no threat exists for the hundred year storm event. The construction includes hydro-static vents for the rise and fall of flood water and includes flood resistant materials below BFE, therefore eliminating the danger of material and debris may be swept onto other lands resulting in further injury or damage.

(2)The danger to life and property due to flooding or erosion damage;

The result of a FEMA Hazard Analysis Model program indicates not threat exists for the hundred year storm event at elevation 9' NAVD. The construction includes hydro-static vents for the rise and fall of flood water and includes flood resistant materials below BFE, therefor eliminating danger to life and property due to flooding or erosion damage.

(3)The susceptibility of the proposed development, including contents, to flood damage and the effect of such damage on current and future owners;

The result of a FEMA Hazard Analysis Model program indicates not threat exists for the hundred year storm event at elevation 9' NAVD. The construction includes hydro-static vents for the rise and fall of flood water and includes flood resistant materials below BFE, therefore eliminating susceptibility of the proposed structure including contents, to flood damage and the effect of such damage on current and future owners.

(4)The importance of the services provided by the proposed development to the community;

The granting of this variance will not impact the services provided to the community.

(5)The availability of alternate locations for the proposed development that are subject to lower risk of flooding or erosion;

This structure is located in accordance with the original 1929 construction and additions thereto. The location as approved by the Boca Grande Preservation Board maintains the Historical Architectural character of the neighborhood.

(6)The compatibility of the proposed development with existing and anticipated development;

The construction maintains the compatibility with the existing Historical neighborhood and development.

(7)The relationship of the proposed development to the comprehensive plan and floodplain management program for the area;

The project is not incompatible with the comprehensive plan or the floodplain management program.

(8)The safety of access to the property in times of flooding for ordinary and emergency vehicles;

The safety and access to the property in times of flooding for ordinary and emergency vehicles will not be impacted by this variance.

(9)The expected heights,velocity,duration,rate of rise and debris and sediment transport of the floodwater and the effects of wave action, if applicable, expected at the site; and

The property is located in an A Zone and as such wave action is not applicable.

(10)The cost of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer ,gas,electrical and water systems, streets and bridges.

The granting of this variance does not have any impact on any governmental services.

<u>Conditions for issuance of variance:</u>

Variances may be issued only upon:

(1)Submission by the applicant, of a showing of good and sufficient cause that the unique characteristics of the size,configuration, or topography of the site limit compliance with any provision of this article or the required elevation standards;

The requested variance is required to keep the unique historic characteristics of this structure as approved by the Boca Grande Historical Preservation Board.

(2)Determination by the Board of Adjustment and Appeals that:

(a)Failure to grant the variance would result in exceptional hardship due to the physical characteristics of the land that render the lot underdevelopment;increased cost to satisfy the requirement or inconvenience do not constitute hardship;

Cost or inconvenience is not the basis for granting this variance. The basis is, however the maintenance of the fabric of the Boca Grande Historical district.

(b)The granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, nor create nuisances, cause fraud on or victimization of the public or conflict with existing local law and articles; and

The Building contains hydro-static vents and flood resistant materials below BFE of 9' NAVD as calculated and therefore will not result in increase flood heights, additional threats to public safety, extraordinary public expense, nor create nuisances, cause fraud on or victimization of the public or conflict with existing local laws and articles.

(c) The variance is the minimum necessary, considering the flood hazard, to afford relief;

The variance is the minimum necessary to complete the construction according to the approved plans by the Boca Grande Historical Preservation Board.

(3) If the request is for a variance to allow construction of the lowest floor of a new building, or substantial improvement of a building, below the required elevation, a copy in the record of a written notice from the Floodplain Administrator to the applicant for the variance, specifying the difference between the base flood elevation and the proposed elevation of the lowest floor, stating that the cost of federal flood insurance will be commensurate with the increased risk resulting from the reduced floor elevation (up to amounts as high as $25.00 for $100.00 of insurance coverage), and stating that construction below the base flood elevation increases risks to life and property.

Architect T.A. Krebs, LLC

1460 S. McCall rd. | ste. 4A | Englewood Fl, 34223
www.takrebs.com | t: 941 475 7327 | f: 941 474 0384

aa 26002462

Reason for Variance (continue)

The basis for this relief include: the project is surrounded by unique circumstances and without the relief sought the construction will prove contrary to the public interest of preserving the Historic character of the community.

The unique circumstances surrounding this project are as follows:

#1. The original structure was built in 1930

#2. The residence received all approvals and permits for rehabilitation and addition and proceeded with construction in March 2015

#3. The structure has been granted relief of setback requirements preserving it's historic character

#4. There is virtually no front setback with the front entry wall standing 5.9' from Palm Ave.

#5. During the course of rehabilitation, it was discovered that all walls, footings and roof required reconstruction for code compliance

#6. The BGHPB on January 6th 2016 directed staff to begin the process of changing the status of the structure changing from contributing to non-contributing.

#7. That directive requires the structure to now comply with current flood plain management (BFE 10') and thereby necessitates raising the structure 5' above the original 1930 floor elevation.

#8. The Owner, Staff, and Architect struggled for a lengthy period seeking a solution which would satisfy the above requirements and the team collectively concluded that 4' was the maximum possible elevation without destroying the historic character of the structure. Furthermore, the Architect has used all techniques to mitigate the additional height approval and creative stair solutions to address the challenges created by the setbacks; He exhausted many options to maintain the historic fabric of the neighborhood and to preserve the character of the community.

To determine whether the granting of this variance would have any adverse effects on the adjacent property owners, the current or future owners or the cost for providing governmental services during or after the 100 year storm event, a FEMA Hazard Analysis Modeling program has been used for this specific site. The results are attached indicates a BFE 9 ' (as requested). Additionally a storm surge model if applicable indicates 9.6' BFE. In the mapping process FEMA rounds up or down for fractions making this request approximately one tenth of the foot from the storm surge model. Attached are the result of the FHAM.

It is collectively agreed by all parties involved that the variance requested is in the public interest because it protects the historic character of the structure and thus contributes to the fabric of preservation in the Boca Grande Historic district.

Respectively Submitted,

TAK

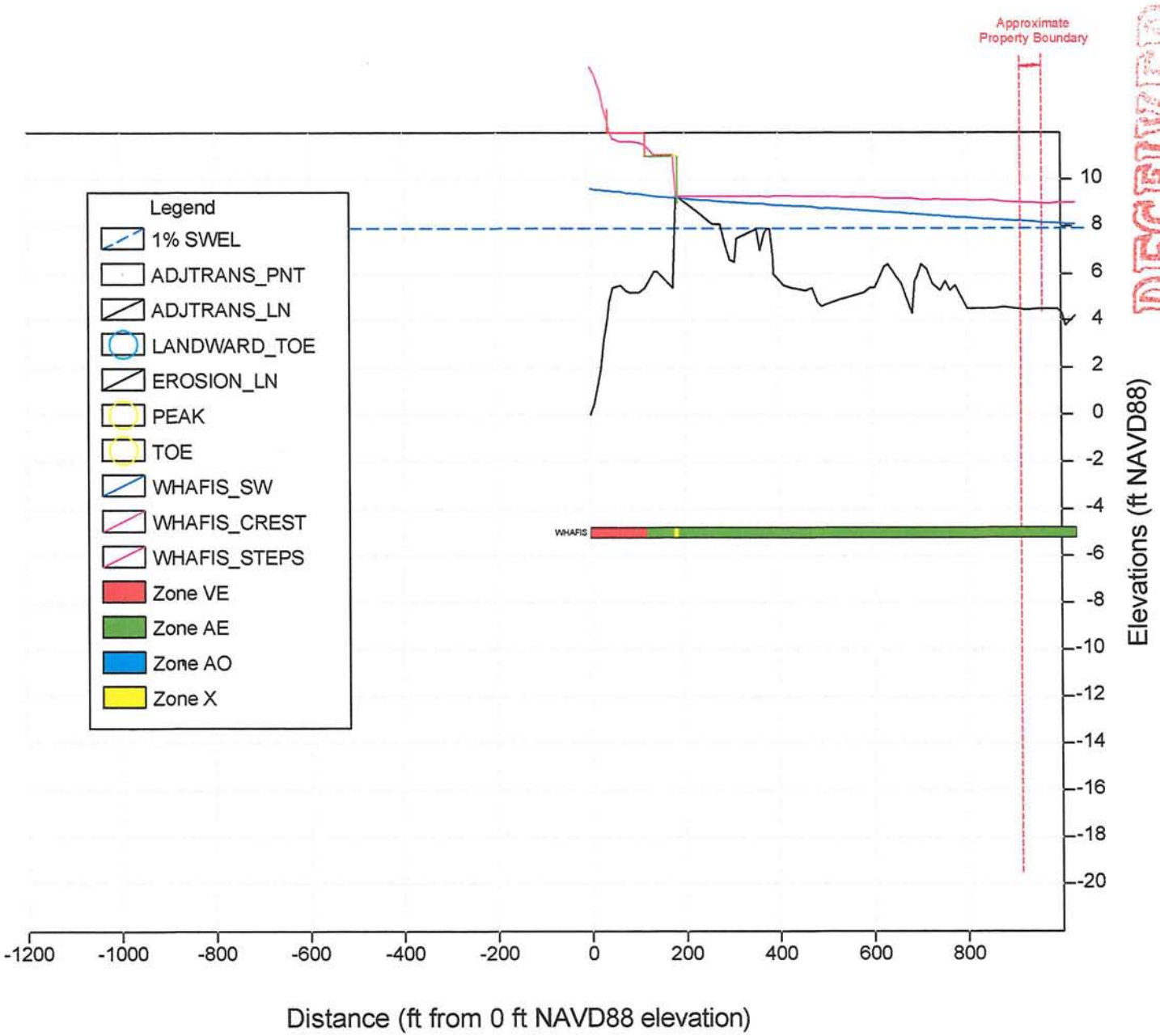

Figure 1 - CHAMP model results - COMPOSITE PROFILE

WAVE HEIGHT COMPUTATIONS FOR FLOOD INSURANCE STUDIES (WHAFIS VERSION 4.0G, 08_2007)
Executed on: Tue Mar 1 10:08:56 2016
Input file: F:\H&M-25-000\25-078-920-Palm-Ave-FEMA\CHAMP-Model\Run1\Run1\w1.dat
Output file: F:\H&M-25-000\25-078-920-Palm-Ave-FEMA\CHAMP-Model\Run1\Run1\w1.out

- Transect: 1 Date: 3/1/2016
THIS IS A 100-YEAR CASE

PART1 INPUT

IE	0.000	0.000	24.000	3.220	9.620	37.300	14.100	0.000	0.062	0.000
IF	8.000	0.500	0.000	9.602	0.000	0.000	0.000	0.000	0.090	0.000
IF	21.000	1.900	0.000	9.573	0.000	0.000	0.000	0.000	0.130	0.000
IF	28.000	3.100	0.000	9.558	0.000	0.000	0.000	0.000	0.138	0.000
IF	37.000	4.100	0.000	9.538	0.000	0.000	0.000	0.000	0.142	0.000
IF	40.000	4.800	0.000	9.531	0.000	0.000	0.000	0.000	0.130	0.000
IF	47.000	5.400	0.000	9.516	0.000	0.000	0.000	0.000	0.029	0.000
IF	64.000	5.500	0.000	9.478	0.000	0.000	0.000	0.000	-0.004	0.000
IF	75.000	5.300	0.000	9.454	0.000	0.000	0.000	0.000	-0.015	0.000
IF	84.000	5.200	0.000	9.434	0.000	0.000	0.000	0.000	-0.007	0.000
IF	89.000	5.200	0.000	9.423	0.000	0.000	0.000	0.000	0.000	0.000
IF	96.000	5.200	0.000	9.407	0.000	0.000	0.000	0.000	0.000	0.000
IF	103.000	5.200	0.000	9.392	0.000	0.000	0.000	0.000	0.010	0.000
IF	116.000	5.400	0.000	9.363	0.000	0.000	0.000	0.000	0.028	0.000
IF	135.000	6.100	0.000	9.321	0.000	0.000	0.000	0.000	0.027	0.000
IF	142.000	6.100	0.000	9.305	0.000	0.000	0.000	0.000	-0.017	0.000
IF	176.000	5.400	0.000	9.230	0.000	0.000	0.000	0.000	-0.021	0.000
AS	182.000	9.300	0.000	9.230	0.000	0.000	0.000	0.000	-0.021	0.000
AS	185.000	9.300	0.000	9.230	0.000	0.000	0.000	0.000	-0.016	0.000
IF	230.000	8.600	0.000	9.156	0.000	0.000	0.000	0.000	-0.016	0.000
IF	254.000	8.200	0.000	9.116	0.000	0.000	0.000	0.000	-0.016	0.000
IF	261.000	8.100	0.000	9.105	0.000	0.000	0.000	0.000	-0.004	0.000
IF	276.000	8.100	0.000	9.080	0.000	0.000	0.000	0.000	-0.019	0.000
IF	282.000	7.700	0.000	9.073	0.000	0.000	0.000	0.000	-0.075	0.000
IF	288.000	7.200	0.000	9.065	0.000	0.000	0.000	0.000	-0.073	0.000
IF	297.000	6.600	0.000	9.054	0.000	0.000	0.000	0.000	-0.037	0.000
IF	307.000	6.500	0.000	9.042	0.000	0.000	0.000	0.000	0.060	0.000
IF	312.000	7.500	0.000	9.036	0.000	0.000	0.000	0.000	0.030	0.000
IF	354.000	7.900	0.000	8.984	0.000	0.000	0.000	0.000	-0.010	0.000
IF	361.000	7.000	0.000	8.976	0.000	0.000	0.000	0.000	-0.070	0.000
IF	364.000	7.200	0.000	8.972	0.000	0.000	0.000	0.000	0.070	0.000
IF	371.000	7.700	0.000	8.964	0.000	0.000	0.000	0.000	0.058	0.000
IF	376.000	7.900	0.000	8.958	0.000	0.000	0.000	0.000	0.018	0.000
IF	382.000	7.900	0.000	8.950	0.000	0.000	0.000	0.000	-0.092	0.000
IF	389.000	6.700	0.000	8.942	0.000	0.000	0.000	0.000	-0.211	0.000
IF	391.000	6.000	0.000	8.939	0.000	0.000	0.000	0.000	-0.054	0.000
IF	411.000	5.500	0.000	8.915	0.000	0.000	0.000	0.000	-0.016	0.000
IF	428.000	5.400	0.000	8.894	0.000	0.000	0.000	0.000	-0.004	0.000
IF	458.000	5.300	0.000	8.857	0.000	0.000	0.000	0.000	0.000	0.000
IF	472.000	5.400	0.000	8.840	0.000	0.000	0.000	0.000	-0.019	0.000
IF	484.000	4.800	0.000	8.823	0.000	0.000	0.000	0.000	-0.038	0.000
IF	493.000	4.600	0.000	8.811	0.000	0.000	0.000	0.000	0.002	0.000
IF	531.000	4.900	0.000	8.759	0.000	0.000	0.000	0.000	0.007	0.000
IF	583.000	5.200	0.000	8.687	0.000	0.000	0.000	0.000	0.008	0.000
IF	596.000	5.400	0.000	8.669	0.000	0.000	0.000	0.000	0.009	0.000
IF	605.000	5.400	0.000	8.657	0.000	0.000	0.000	0.000	0.021	0.000
IF	615.000	5.800	0.000	8.643	0.000	0.000	0.000	0.000	0.043	0.000
IF	626.000	6.300	0.000	8.628	0.000	0.000	0.000	0.000	0.032	0.000
IF	634.000	6.400	0.000	8.617	0.000	0.000	0.000	0.000	-0.007	0.000
IF	640.000	6.200	0.000	8.609	0.000	0.000	0.000	0.000	-0.027	0.000
IF	645.000	6.100	0.000	8.602	0.000	0.000	0.000	0.000	-0.030	0.000
IF	650.000	5.900	0.000	8.595	0.000	0.000	0.000	0.000	-0.029	0.000
IF	662.000	5.600	0.000	8.578	0.000	0.000	0.000	0.000	-0.046	0.000
IF	685.000	4.300	0.000	8.547	0.000	0.000	0.000	0.000	-0.023	0.000
IF	688.000	5.000	0.000	8.543	0.000	0.000	0.000	0.000	0.233	0.000
IF	691.000	5.700	0.000	8.538	0.000	0.000	0.000	0.000	0.112	0.000
IF	696.000	5.900	0.000	8.532	0.000	0.000	0.000	0.000	0.050	0.000
IF	705.000	6.400	0.000	8.519	0.000	0.000	0.000	0.000	0.014	0.000
IF	717.000	6.200	0.000	8.503	0.000	0.000	0.000	0.000	-0.035	0.000
IF	728.000	5.600	0.000	8.487	0.000	0.000	0.000	0.000	-0.033	0.000
IF	744.000	5.300	0.000	8.465	0.000	0.000	0.000	0.000	0.004	0.000
IF	756.000	5.700	0.000	8.449	0.000	0.000	0.000	0.000	0.000	0.000
IF	766.000	5.300	0.000	8.435	0.000	0.000	0.000	0.000	-0.009	0.000
IF	777.000	5.500	0.000	8.420	0.000	0.000	0.000	0.000	-0.022	0.000
IF	802.000	4.500	0.000	8.389	0.000	0.000	0.000	0.000	-0.012	0.000
IF	858.000	4.500	0.000	8.318	0.000	0.000	0.000	0.000	0.009	0.000
IF	880.000	5.200	0.000	8.290	0.000	0.000	0.000	0.000	0.031	0.000
IF	894.000	5.600	0.000	8.273	0.000	0.000	0.000	0.000	0.010	0.000
IF	919.000	5.600	0.000	8.241	0.000	0.000	0.000	0.000	0.000	0.000
IF	947.000	5.600	0.000	8.206	0.000	0.000	0.000	0.000	-0.003	0.000
IF	958.000	5.500	0.000	8.192	0.000	0.000	0.000	0.000	0.000	0.000
IF	977.000	5.600	0.000	8.168	0.000	0.000	0.000	0.000	-0.016	0.000
IF	990.000	5.000	0.000	8.152	0.000	0.000	0.000	0.000	-0.048	0.000
IF	1004.000	4.300	0.000	8.134	0.000	0.000	0.000	0.000	-0.057	0.000
IF	1011.000	3.800	0.000	8.125	0.000	0.000	0.000	0.000	-0.004	0.000
IF	1031.000	4.200	0.000	8.100	0.000	0.000	0.000	0.000	0.020	0.000
ET	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

	END STATION	END ELEVATION	FETCH LENGTH	SURGE ELEV 10-YEAR	SURGE ELEV 100-YEAR	INITIAL WAVE HEIGHT	INITIAL W. PERIOD		BOTTOM SLOPE	AVERAGE A-ZONES
IE	0.000	0.000	24.000	3.220	9.620	37.300	14.100	0.000	0.062	0.000

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	8.000	0.500	0.000	9.602	0.000	0.000	0.000	0.000	0.090	0.000

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	21.000	1.900	0.000	9.573	0.000	0.000	0.000	0.000	0.130	0.000

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	28.000	3.100	0.000	9.558	0.000	0.000	0.000	0.000	0.138	0.000

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	37.000	4.100	0.000	9.538	0.000	0.000	0.000	0.000	0.142	0.000

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	40.000	4.800	0.000	9.531	0.000	0.000	0.000	0.000	0.130	0.000

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	47.000	5.400	0.000	9.516	0.000	0.000	0.000	0.000	0.029	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	64.000	5.500	0.000	9.478	0.000	0.000	0.000	0.000	-0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	75.000	5.300	0.000	9.454	0.000	0.000	0.000	0.000	-0.015	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	84.000	5.200	0.000	9.434	0.000	0.000	0.000	0.000	-0.007	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	89.000	5.200	0.000	9.423	0.000	0.000	0.000	0.000	0.000	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	96.000	5.200	0.000	9.407	0.000	0.000	0.000	0.000	0.000	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	103.000	5.200	0.000	9.392	0.000	0.000	0.000	0.000	0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	116.000	5.400	0.000	9.363	0.000	0.000	0.000	0.000	0.028	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	135.000	6.100	0.000	9.321	0.000	0.000	0.000	0.000	0.027	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	142.000	6.100	0.000	9.305	0.000	0.000	0.000	0.000	-0.017	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	176.000	5.400	0.000	9.230	0.000	0.000	0.000	0.000	-0.021	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
AS	182.000	9.300	0.000	9.230	0.000	0.000	0.000	0.000	-0.021	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
AS	185.000	9.300	0.000	9.230	0.000	0.000	0.000	0.000	-0.016	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	230.000	8.600	0.000	9.156	0.000	0.000	0.000	0.000	-0.016	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	254.000	8.200	0.000	9.116	0.000	0.000	0.000	0.000	-0.016	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	261.000	8.100	0.000	9.105	0.000	0.000	0.000	0.000	-0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	276.000	8.100	0.000	9.080	0.000	0.000	0.000	0.000	-0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	282.000	7.700	0.000	9.073	0.000	0.000	0.000	0.000	-0.075	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	288.000	7.200	0.000	9.065	0.000	0.000	0.000	0.000	-0.073	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	297.000	6.600	0.000	9.054	0.000	0.000	0.000	0.000	-0.037	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	307.000	6.500	0.000	9.042	0.000	0.000	0.000	0.000	0.060	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	312.000	7.500	0.000	9.036	0.000	0.000	0.000	0.000	0.030	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	354.000	7.900	0.000	8.984	0.000	0.000	0.000	0.000	-0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	361.000	7.000	0.000	8.976	0.000	0.000	0.000	0.000	-0.070	0.000

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	364.000	7.200	0.000	8.972	0.000	0.000	0.000	0.000	0.070	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	371.000	7.700	0.000	8.964	0.000	0.000	0.000	0.000	0.058	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	376.000	7.900	0.000	8.958	0.000	0.000	0.000	0.000	0.018	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	382.000	7.900	0.000	8.950	0.000	0.000	0.000	0.000	-0.092	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	389.000	6.700	0.000	8.942	0.000	0.000	0.000	0.000	-0.211	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	391.000	6.000	0.000	8.939	0.000	0.000	0.000	0.000	-0.054	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	411.000	5.500	0.000	8.915	0.000	0.000	0.000	0.000	-0.016	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	428.000	5.400	0.000	8.894	0.000	0.000	0.000	0.000	-0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	458.000	5.300	0.000	8.857	0.000	0.000	0.000	0.000	0.000	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	472.000	5.400	0.000	8.840	0.000	0.000	0.000	0.000	-0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	484.000	4.800	0.000	8.823	0.000	0.000	0.000	0.000	-0.038	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	493.000	4.600	0.000	8.811	0.000	0.000	0.000	0.000	0.002	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	531.000	4.900	0.000	8.759	0.000	0.000	0.000	0.000	0.007	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	583.000	5.200	0.000	8.687	0.000	0.000	0.000	0.000	0.008	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	596.000	5.400	0.000	8.669	0.000	0.000	0.000	0.000	0.009	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	605.000	5.400	0.000	8.657	0.000	0.000	0.000	0.000	0.021	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	615.000	5.800	0.000	8.643	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	626.000	6.300	0.000	8.628	0.000	0.000	0.000	0.000	0.032	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	634.000	6.400	0.000	8.617	0.000	0.000	0.000	0.000	-0.007	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	640.000	6.200	0.000	8.609	0.000	0.000	0.000	0.000	-0.027	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	645.000	6.100	0.000	8.602	0.000	0.000	0.000	0.000	-0.030	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	650.000	5.900	0.000	8.595	0.000	0.000	0.000	0.000	-0.029	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	662.000	5.600	0.000	8.578	0.000	0.000	0.000	0.000	-0.046	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	685.000	4.300	0.000	8.547	0.000	0.000	0.000	0.000	-0.023	0.000

IF	696.00	0.93	1.15	9.19
IF	705.00	0.90	1.16	9.15
IF	717.00	0.93	1.16	9.15
IF	728.00	0.97	1.17	9.17
IF	744.00	1.00	1.18	9.17
IF	756.00	1.00	1.19	9.15
IF	766.00	1.03	1.20	9.15
IF	777.00	1.03	1.21	9.14
IF	802.00	1.08	1.22	9.15
IF	858.00	1.14	1.26	9.12
IF	880.00	1.14	1.27	9.09
IF	894.00	1.11	1.28	9.05
IF	919.00	1.13	1.30	9.03
IF	947.00	1.14	1.31	9.01
IF	958.00	1.16	1.32	9.00
IF	977.00	1.16	1.33	8.98
IF	990.00	1.23	1.33	9.01
IF	1004.00	1.27	1.34	9.02
IF	1011.00	1.29	1.35	9.03
IF	1031.00	1.30	1.36	9.01

TRANSMITTED WAVE HEIGHT AT LAST FETCH OR OBSTRUCTION = 1.30 WHICH EXCEEDS 0.5.

PART3 LOCATION OF AREAS ABOVE 100-YEAR SURGE

BETWEEN 176.00 AND 182.00

BETWEEN 182.00 AND 185.00

PART4 LOCATION OF SURGE CHANGES

STATION	10-YEAR SURGE	100-YEAR SURGE
8.00	3.22	9.60
21.00	3.22	9.57
28.00	3.22	9.56
37.00	3.22	9.54
40.00	3.22	9.53
47.00	3.22	9.52
64.00	3.22	9.48
75.00	3.22	9.45
84.00	3.22	9.43
89.00	3.22	9.42
96.00	3.22	9.41
103.00	3.22	9.39
116.00	3.22	9.36
135.00	3.22	9.32
142.00	3.22	9.31
176.00	3.22	9.23
230.00	3.22	9.16
254.00	3.22	9.12
261.00	3.22	9.10
276.00	3.22	9.08
282.00	3.22	9.07
288.00	3.22	9.06
297.00	3.22	9.05
307.00	3.22	9.04
312.00	3.22	9.04
354.00	3.22	8.98
361.00	3.22	8.98
364.00	3.22	8.97
371.00	3.22	8.96
376.00	3.22	8.96
382.00	3.22	8.95
389.00	3.22	8.94
391.00	3.22	8.94

411.00	3.22	8.91
428.00	3.22	8.89
458.00	3.22	8.86
472.00	3.22	8.84
484.00	3.22	8.82
493.00	3.22	8.81
531.00	3.22	8.76
583.00	3.22	8.69
596.00	3.22	8.67
605.00	3.22	8.66
615.00	3.22	8.64
626.00	3.22	8.63
634.00	3.22	8.62
640.00	3.22	8.61
645.00	3.22	8.60
650.00	3.22	8.60
662.00	3.22	8.58
685.00	3.22	8.55
688.00	3.22	8.54
691.00	3.22	8.54
696.00	3.22	8.53
705.00	3.22	8.52
717.00	3.22	8.50
728.00	3.22	8.49
744.00	3.22	8.47
756.00	3.22	8.45
766.00	3.22	8.44
777.00	3.22	8.42
802.00	3.22	8.39
858.00	3.22	8.32
880.00	3.22	8.29
894.00	3.22	8.27
919.00	3.22	8.24
947.00	3.22	8.21
958.00	3.22	8.19
977.00	3.22	8.17
990.00	3.22	8.15
1004.00	3.22	8.13
1011.00	3.22	8.12
1031.00	3.22	8.10

PART5 LOCATION OF V ZONES

STATION OF GUTTER	LOCATION OF ZONE
118.40	WINDWARD

PART6 NUMBERED A ZONES AND V ZONES

STATION OF GUTTER	ELEVATION	ZONE DESIGNATION	FHF
0.00	14.80		
		V20 EL=15	100
8.00	14.50		
		V20 EL=15	100
8.04	14.50		
		V20 EL=14	100
21.00	13.71		
		V20 EL=14	100
23.25	13.50		
		V20 EL=13	100
28.00	13.05		
		V20 EL=13	100

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	688.000	5.000	0.000	8.543	0.000	0.000	0.000	0.000	0.233	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	691.000	5.700	0.000	8.538	0.000	0.000	0.000	0.000	0.112	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	696.000	5.900	0.000	8.532	0.000	0.000	0.000	0.000	0.050	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	705.000	6.400	0.000	8.519	0.000	0.000	0.000	0.000	0.014	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	717.000	6.200	0.000	8.503	0.000	0.000	0.000	0.000	-0.035	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	728.000	5.600	0.000	8.487	0.000	0.000	0.000	0.000	-0.033	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	744.000	5.300	0.000	8.465	0.000	0.000	0.000	0.000	0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	756.000	5.700	0.000	8.449	0.000	0.000	0.000	0.000	0.000	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	766.000	5.300	0.000	8.435	0.000	0.000	0.000	0.000	-0.009	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	777.000	5.500	0.000	8.420	0.000	0.000	0.000	0.000	-0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	802.000	4.500	0.000	8.389	0.000	0.000	0.000	0.000	-0.012	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	858.000	4.500	0.000	8.318	0.000	0.000	0.000	0.000	0.009	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	880.000	5.200	0.000	8.290	0.000	0.000	0.000	0.000	0.031	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	894.000	5.600	0.000	8.273	0.000	0.000	0.000	0.000	0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	919.000	5.600	0.000	8.241	0.000	0.000	0.000	0.000	0.000	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	947.000	5.600	0.000	8.206	0.000	0.000	0.000	0.000	-0.003	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	958.000	5.500	0.000	8.192	0.000	0.000	0.000	0.000	0.000	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	977.000	5.600	0.000	8.168	0.000	0.000	0.000	0.000	-0.016	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	990.000	5.000	0.000	8.152	0.000	0.000	0.000	0.000	-0.048	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1004.000	4.300	0.000	8.134	0.000	0.000	0.000	0.000	-0.057	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1011.000	3.800	0.000	8.125	0.000	0.000	0.000	0.000	-0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1031.000	4.200	0.000	8.100	0.000	0.000	0.000	0.000	0.020	0.000

----------END OF TRANSECT----------

NOTE:

SURGE ELEVATION INCLUDES CONTRIBUTIONS FROM ASTRONOMICAL AND STORM TIDES.

PART2: CONTROLLING WAVE HEIGHTS, SPECTRAL PEAK WAVE PERIOD, AND WAVE CREST ELEVATIONS

LOCATION		CONTROLLING WAVE HEIGHT	SPECTRAL PEAK WAVE PERIOD	WAVE CREST ELEVATION
IE	0.00	7.39	14.10	14.80
IF	8.00	7.00	14.10	14.50
IF	21.00	5.91	14.10	13.71
IF	28.00	4.99	14.10	13.05
IF	37.00	4.21	14.10	12.48
IF	40.00	3.66	14.10	12.10
IF	47.00	3.19	14.10	11.75
IF	64.00	3.08	14.10	11.64
IF	75.00	3.12	14.10	11.64
IF	84.00	3.14	14.10	11.63
IF	89.00	3.14	14.10	11.62
IF	96.00	3.14	14.10	11.61
IF	103.00	3.14	14.10	11.59
IF	116.00	3.07	14.10	11.51
IF	135.00	2.50	14.10	11.07
IF	142.00	2.49	14.10	11.05
IF	176.00	2.61	14.10	11.06
AS	182.00	0.00	0.00	9.30
AS	185.00	0.00	0.00	9.30
IF	230.00	0.19	0.51	9.29
IF	254.00	0.25	0.59	9.29
IF	261.00	0.27	0.61	9.29
IF	276.00	0.30	0.65	9.29
IF	282.00	0.32	0.66	9.30
IF	288.00	0.33	0.68	9.30
IF	297.00	0.35	0.69	9.30
IF	307.00	0.37	0.71	9.30
IF	312.00	0.38	0.72	9.30
IF	354.00	0.43	0.80	9.29
IF	361.00	0.47	0.81	9.31
IF	364.00	0.48	0.81	9.31
IF	371.00	0.47	0.82	9.29
IF	376.00	0.46	0.83	9.28
IF	382.00	0.46	0.84	9.27
IF	389.00	0.52	0.85	9.31
IF	391.00	0.53	0.85	9.31
IF	411.00	0.56	0.88	9.31
IF	428.00	0.59	0.90	9.31
IF	458.00	0.64	0.93	9.30
IF	472.00	0.66	0.95	9.30
IF	484.00	0.68	0.96	9.30
IF	493.00	0.69	0.97	9.29
IF	531.00	0.75	1.01	9.28
IF	583.00	0.82	1.06	9.26
IF	596.00	0.83	1.07	9.25
IF	605.00	0.84	1.08	9.25
IF	615.00	0.85	1.09	9.24
IF	626.00	0.84	1.09	9.22
IF	634.00	0.84	1.10	9.21
IF	640.00	0.86	1.11	9.21
IF	645.00	0.87	1.11	9.21
IF	650.00	0.89	1.11	9.22
IF	662.00	0.91	1.12	9.21
IF	685.00	0.95	1.14	9.21
IF	688.00	0.95	1.14	9.21
IF	691.00	0.94	1.15	9.19

36.72	12.50			
		V20	EL=12	100
37.00	12.48			
		V20	EL=12	100
40.00	12.10			
		V19	EL=12	95
47.00	11.75			
		V19	EL=12	95
64.00	11.64			
		V19	EL=12	95
75.00	11.64			
		V19	EL=12	95
84.00	11.63			
		V19	EL=12	95
89.00	11.62			
		V19	EL=12	95
96.00	11.61			
		V19	EL=12	95
103.00	11.59			
		V19	EL=12	95
116.00	11.51			
		V19	EL=12	95
116.58	11.50			
		V19	EL=11	95
118.40	11.44			
		A12	EL=11	60
135.00	11.07			
		A12	EL=11	60
142.00	11.05			
		A12	EL=11	60
176.00	11.06			
182.00	9.30			
185.00	9.30			
		A12	EL= 9	60
230.00	9.29			
		A12	EL= 9	60
254.00	9.29			
		A12	EL= 9	60
261.00	9.29			
		A12	EL= 9	60
276.00	9.29			
		A12	EL= 9	60
282.00	9.30			
		A12	EL= 9	60
288.00	9.30			
		A12	EL= 9	60
297.00	9.30			
		A12	EL= 9	60
307.00	9.30			
		A12	EL= 9	60
312.00	9.30			
		A12	EL= 9	60
354.00	9.29			
		A12	EL= 9	60
361.00	9.31			
		A12	EL= 9	60
364.00	9.31			
		A12	EL= 9	60
371.00	9.29			

		A12	EL= 9	60
376.00	9.28			
		A12	EL= 9	60
382.00	9.27			
		A12	EL= 9	60
389.00	9.31			
		A12	EL= 9	60
391.00	9.31			
		A12	EL= 9	60
411.00	9.31			
		A12	EL= 9	60
428.00	9.31			
		A12	EL= 9	60
458.00	9.30			
		A12	EL= 9	60
472.00	9.30			
		A12	EL= 9	60
484.00	9.30			
		A12	EL= 9	60
493.00	9.29			
		A12	EL= 9	60
531.00	9.28			
		A12	EL= 9	60
583.00	9.26			
		A12	EL= 9	60
596.00	9.25			
		A12	EL= 9	60
605.00	9.25			
		A12	EL= 9	60
615.00	9.24			
		A12	EL= 9	60
626.00	9.22			
		A12	EL= 9	60
634.00	9.21			
		A12	EL= 9	60
640.00	9.21			
		A12	EL= 9	60
645.00	9.21			
		A12	EL= 9	60
650.00	9.22			
		A12	EL= 9	60
662.00	9.21			
		A12	EL= 9	60
685.00	9.21			
		A12	EL= 9	60
688.00	9.21			
		A12	EL= 9	60
691.00	9.19			
		A12	EL= 9	60
696.00	9.19			
		A12	EL= 9	60
705.00	9.15			
		A12	EL= 9	60
717.00	9.15			
		A12	EL= 9	60
728.00	9.17			
		A12	EL= 9	60
744.00	9.17			
		A12	EL= 9	60
756.00	9.15			

		A12	EL= 9	60
766.00	9.15			
		A12	EL= 9	60
777.00	9.14			
		A12	EL= 9	60
802.00	9.15			
		A12	EL= 9	60
858.00	9.12			
		A12	EL= 9	60
880.00	9.09			
		A12	EL= 9	60
894.00	9.05			
		A12	EL= 9	60
919.00	9.03			
		A12	EL= 9	60
947.00	9.01			
		A12	EL= 9	60
958.00	9.00			
		A12	EL= 9	60
977.00	8.98			
		A12	EL= 9	60
990.00	9.01			
		A12	EL= 9	60
1004.00	9.02			
		A12	EL= 9	60
1011.00	9.03			
		A12	EL= 9	60
1031.00	9.01			

ZONE TERMINATED AT END OF TRANSECT

PART 7 POSTSCRIPT NOTES