DOCK HOUSE (BLDG. 3)

OSE CERTIFICATIONS

ZONING CERTIFICATION

"I hereby certify that, to the best of my knowledge, these plans comply with applicable zoning ordinances, and that plans have been submitted to appropriate authority for their review and/or approval."

Signed: SEE SHEET 0.G002 (Architect/Engineer) — 06.01.2018 (Date)

EROSION AND SEDIMENT REDUCTION/STORMWATER MANAGEMENT

Designer's Certification:

"I hereby certify that the measures in this plan are designed to control erosion, retain sediment on the site, and manage stormwater in a manner that neither any on-site nor off-site damage or problem is caused or increased, that all structural measures are designed to the minimum standards for health and safety, and that all the provisions of the plan are in compliance with the Regulations contained in Chapter 72, Article 2, SC Code of Regulations (Erosion and Sediment Reduction and Stormwater Management Regulations)."

Signed: SEE SHEET 0.G002 (Engineer or Registered Landscape Architect (Circle one)) — 06.01.2018 (Date)

TABLE 1 FLOOD HAZARD INFORMATION & FLOOD LOADS

FLOOD HAZARD AREA

Flood Map Information: Flood Zone: AE-14 *(A Floodplain Permit is required for A and V Zones)* — Community Number: 455412 — Panel Number: 45019C0512J

Is the Project Site in a 100-Year Flood Plain? Yes ☒ No ☐ — NGVD or FIRM — IBC 1612.3 and ASCE 24

Base Flood Elevation 14.0 MSL

Design Flood Elevation 15.0 MSL

NON HIGH-VELOCITY WAVE ACTION

Elevation of Lowest Proposed Floor 9.0 MSL — Meet ASCE 24 Section 2.6.2.1/ 2.6.2.2

Dry floodproofing Yes ☒ No ☐ per ASCE 24

HIGH-VELOCITY WAVE ACTION

Elevation of bottom of Lowest Horizontal Structural Member of lowest floor 18.0 MSL

Flotation resistant Yes ☒ No ☐ per ASCE 24

Breakaway wall Yes ☐ No ☒ per ASCE 24

TABLE 2 SOILS & SITE

SOILS INVESTIGATION (If required) Yes ☒ No ☐ per IBC 1803.2

SOILS CLASSIFICATION

Site Class E per IBC 1613.3.2

Classes Soil of Materials (UCS System) SP, SM, SC per IBC 1803.5.1

Allowable Footing Bearing Pressure SEE GEOTECH REPORT psf

MINIMUM DESIGN SOIL BEARING LOAD SEE GEOTECH REPORT psf per IBC table 1806.2

COMPACTION

Subgrade: 95% Percent ☐ASTM D698 ☐ASTM D1557 ☐AASHTO (only for paving & roads)

Base: 95% Percent ☐ASTM D698 ☐ASTM D1557 ☐AASHTO (only for paving & roads)

Other: ______ Percent ☐ASTM D698 ☐ASTM D1557 ☐AASHTO (only for paving & roads)

MINIMUM DESIGN SOIL LATERAL LOAD ______ psf per IBC 1610.1

FOOTINGS

Undisturbed footings Yes ☐ No ☒

Compacted Fill Material Yes ☒ No ☐ per IBC 1804.6

ELEVATIONS

Elevation of Water Table: APPROX. 2.0 MSL

Elevation of lowest footing: 7.0 MSL

Elevation of lowest floor or basement: 9.0 MSL

TABLE 3 BASIC BUILDING CODE INFORMATION

CONSTRUCTION CLASSIFICATION	Type: VB (IBC 602)		
OCCUPANCY CLASSIFICATION (indicate all) (Note IBC 504.2)	B (IBC 302)		
MOST RESTRICTIVE OCCUPANCY CLASSIFICATION	B (IBC Tables 504.3, 504.4 & 506.2) **SEE BOAT STORAGE OCCUPANCY DESIGNATION NOTE UNDER OVERALL PROJECT DESCRIPTION ON THIS SHEET*		
Does building require Incidental Use Area Separation?	Yes ☐ No ☒	(IBC 509.1)	
Does building have Accessory Occupancy (ies)? If so, what percent of story is Accessory Occupancy?	Yes ☐ No ☒	(IBC 508.2)	____ SF ____ %
Mixed Occupancy	Yes ☐ No ☒	(IBC 508)	
Non separated	Yes ☐ No ☐	(IBC 508.3)	
Separated	Yes ☐ No ☐	(IBC 506.2.2) (IBC 506.2.4) (IBC 508.4)	
2-way Communication Required	Yes ☐ No ☒	(IBC 1009.8) (IBC 1009.6.5)	
Fire Apparatus Access and Water Line	Yes ☒ No ☐	(IFC 503 & 507)	

OTHER FIRE PROTECTION SYSTEMS, DEVICES or FEATURES

If the building has any special or notable fire protection or safety feature or hazard the designers should list them here, describe the performance characteristics and refer to locations in construction documents. (e.g. fire extinguishers, smoke-evacuation/control/compartments. Note IBC 414.1.3.)

TABLE 4 BUILDING AREA

AREA LIMIT BY TABLE 506.2 OF IBC	9,000 SF (area limitation per story)	
AREA INCREASES BY SECTION 506.2 AND 506.3 OF IBC EXPLANATION OF INCREASES: FRONTAGE INCREASE IBC 506.2.1 & 506.3	6,750 SF (maximum modified area per story)	
AREA AS ALLOWED IN IBC PER STORY		
Story/Level: GROUND	6,750	SF (area per story)
Story/Level:		SF (area per story)
Story/Level:		SF (area per story)
Story/Level:		SF (area per story)
TOTAL ALLOWED AREA OF BUILDING (summary of all stories)	45,000	SF
AREA AS DESIGNED PER STORY		
Story/Level: GROUND	263	SF (area per story)
Story/Level:		SF (area per story)
Story/Level:		SF (area per story)
Story/Level:		SF (area per story)
TOTAL DESIGNED AREA OF BUILDING (summary of all stories)	263	SF

TABLE 5 BUILDING HEIGHT

	AS DESIGNED		AS ALLOWED BY IBC	
	In Feet	In Stories	In Feet	In Stories
PER TABLE 504.3	16'-10"	N/A	40'	N/A
PER TABLE 504.4	N/A	1	N/A	2
TOTAL HEIGHT (including any Allowable Increase)	16'-10"	1	40'	2

TABLE 6 BUILDING DESIGN OCCUPANT LOAD

STORY/ LEVEL	FUNCTION OF SPACE [1]	A FLOOR AREA [2] (NSF or GSF)	B MAX AREA ALLOWED PER OCCUPANT [3] (NSF or GSF)	C OCCUPANTS ON FLOOR FOR THIS FUNCTION [4]	D DESIGN OCCUPANT LOAD [5]
GROUND	BUSINESS AREAS	147 GSF	100 GSF	2	
	......	......	......	......	
	......	......	......	......	
	......	......	......	......	
	Subtotal Design Occupant Load for This Story				2
......	......	......	......	......	
	Subtotal Design Occupant Load for This Story				......
......	......	......	......	......	
	Subtotal Design Occupant Load for This Story				......
......	......	......	......	......	
	Subtotal Design Occupant Load for This Story				......
TOTAL BUILDING DESIGN OCCUPANT LOAD					2 [6]

FOOTNOTES:
1. Provide the complete name of the Function of Space using the left column of Table 1004.1.2 of the IBC [1]
2. Design Area per each occupant of this Function on this Story in either Gross (GSF) or Net (NSF) Square Footage [2]
3. Allowed Floor Areas in SF per Occupant per right column in Table 1004.1.2 of the IBC [3]
4. Divide Column A (2) by Column B (3) for each function and enter result, rounded up to the nearest whole person [4]
5. Subtotal all Column C values for this floor to yield the Design Occupant Load [5]
6. Total Building Design Occupant Load - sum of all Column D value [6]

TABLE 7 GENERAL FIRE PROTECTION REQUIREMENTS

SEPARATIONS			
Fireblocking Required	Yes ☐	No ☒	per IBC Section 718
Draftstopping Required	Yes ☐	No ☒	per IBC Section 718
Smoke Control System Required	Yes ☐	No ☒	per IBC Section 909
Smoke Barriers Required	Yes ☐	No ☒	per IBC Section 407 and 408
Smoke Partitions Required	Yes ☐	No ☒	per IBC Section 407
Fire Partition Required	Yes ☐	No ☒	per IBC Section 708
Fire Barrier Required	Yes ☐	No ☒	per IBC Section 707
ALARM & DETECTION			
Fire Alarm System Required	Yes ☐	No ☒	per IFC Section 907
Emergency/Voice Alarm Communications System Required	Yes ☐	No ☒	per IFC Section 907.5.2.2
Emergency Alarm System Required	Yes ☐	No ☒	per IFC Section 908
SUPPRESSION			
Standpipes Required	Yes ☐	No ☒	per IBC Section 905
Sprinklers Required	Yes ☐	No ☒	per IBC Section 903
Sprinklers Provided	Yes ☐	No ☒	
Portable extinguishers required	Yes ☒	No ☐	per IFC 906
Other suppression systems required	Yes ☐	No ☒	per IFC 904
Smoke & heat vents required	Yes ☐	No ☒	per IBC 910

OTHER: *(Indicate other provided fire and life safety features not listed above, if any)*

TABLE 8 FIRE RESISTANCE RATING OF BUILDING ELEMENTS

BUILDING ELEMENT	RATING AS REQUIRED (in hours)	RATING AS DESIGNED (in hours)	TESTING AGENCY & DESIGN NO. (UL, FM, etc)	DESIGNERS WALL/PARTITION KEY CODE
Primary Structural Frame (per IBC Table 601)	0	0	......	
Bearing Walls Exterior / Interior (per IBC Table 601)	0 / 0	0 / 0	......	......
Nonbearing Walls & Partitions Exterior / Interior (per IBC Table 601 & 602) Note footnote "d" from Table 601	0 / 0	0 / 0	......	......
Floor Construction including supporting beams & joists (per IBC Table 601)	0	0	......	
Roof Construction including supporting beams & joists (per IBC Table 601)	0	0	......	
Fire Walls (per IBC Section 706)	0	0	......	......
Fire Barriers (per IBC Section 707)	0	0	......	......
Shaft Enclosures (per IBC Section 713)	NA	NA	......	......
Fire Partitions (per IBC Section 708)	0	0	......	......
Opening & Protective Listing by Category (fire shutters, doors, etc. per IBC Section 716)	0	0	......	......
Others (as required by Designer)	......	......	......	......

TABLE 9 STRUCTURAL DESIGN INFORMATION

RISK CATEGORY: II — IBC Table 1604.5

LIVE LOADS

Floor Live Load(s) - List the L_0 for each occupancy/use.

Occupancy/Use: OFFICES — L_0 = 50 PSF

Occupancy/Use: — L_0 = ___ PSF

Occupancy/Use: — L_0 = ___ PSF

Occupancy/Use: — L_0 = ___ PSF

Roof Live Load R_0 = 20 PSF

Ground Snow Load p_g = 5 PSF — IBC Figure 1608.2 (or ASCE 7)

WIND LOADS

Analysis Procedure: DIRECTIONAL — ASCE 7 or IBC 1609

Ultimate Design Wind Speed: V_{ULT} = 146 MPH — IBC Fig's. 1609.3(1)-(3)

Exposure Category: D — IBC 1609.4.3

Internal Pressure Coefficient: GC_{pi} = +/-0.18 — ASCE 7

External Pressure Coefficient: GC_p = VARIES — ASCE 7

Protection of Openings Required Yes ☒ No ☐ — IBC 1609.1.2

If "Yes", check one: Impact Resistant Glazing ☒ / Impact Resistant Covering ☐

SEISMIC LOADS

Seismic Importance Factor: I_e = 1.0 — ASCE 7 Table 1.5-2

Site Class: E — IBC 1613.3.2

Mapped Spectral Response Accelerations: S_s = 1.165 S_1 = 0.371

Design Spectral Response Acceleration Parameters: S_{DS} = 0.699 S_{D1} = 0.622

Seismic Design Category: D — IBC Tables 1613.3.5(1) & 1613.3.5(2)

Basic Seismic Force Resisting System: SPEC. REINF. MASONRY SHEARWALLS — ASCE 7 Chapter 12

Design Base Shear: 190 KIPS

Seismic Response Coefficient(s): C_s = 0.14 — ASCE 7

Response Modification Factor(s): R = 5 — ASCE 7

Analysis Procedure: ELF

ARCHITECTURAL-MECHANICAL-ETC. LOADS

Provide as applicable: architectural items, mechanical, plumbing, etc. per ASCE 7

SPECIAL LOADS

Provide as applicable: abnormal items, moving loads, impact, hoisting, etc. per ASCE 7

TABLE 10 PLUMBING INFORMATION

WATER SYSTEM: Service Line Size: 2 Inches; Peak Flow: 41 GPM; Total Demand: 94 DFU No. Fixture Units

SANITARY SEWER SYSTEM Loading: 65 DFU GPD; Service Line Size: 4 Inches; Slope: 1/8 min inches/ft

MINIMUM PLUMBING FIXTURES REQUIRED/PROVIDED (Per IPC Section 403 & Table 403.1)

Occupancy Classification(s) (as shown in Table 5-3): B, A-2 (RESTROOM ALSO SERVES PAVILION)

Total Building Design Occupant Load (as shown in Table 5-6): 2 + 37 = 39

1. Occupancy: BUSINESS (B) — Total Load for this Occupancy: 2 — Male: 1 — Female: 1

	Male-REQUIRED	Female-REQUIRED
Water Closets/ Urinals*	(1/25) = 0.04 (# Urinals allowed 0.02)	(1/25) = 0.04
Lavatories	(1/40) = 0.03	(1/40) = 0.03
OTHER FIXTURES (Per IPC Section 403 & Table 403.1)		REQUIRED
Drinking Fountains		(2/100) = 0.02
Unisex Toilet		
Service Sink		1
Other (list)		

2. Occupancy: ASSEMBLY (A-2) — Total Load for this Occupancy: 37 — Male: 19 — Female: 19

	Male-REQUIRED	Female-REQUIRED
Water Closets/ Urinals*	(19/75) = 0.25 (# Urinals allowed 0.12)	(19/75) = 0.25
Lavatories	(19/200) = 0.10	(19/200) = 0.10
OTHER FIXTURES (Per IPC Section 403 & Table 403.1)		REQUIRED
Drinking Fountains		(37/500) = 0.07
Unisex Toilet		
Service Sink		1
Other (list)		

3. Occupancy: — Total Load for this Occupancy: — Male: — Female:

	Male-REQUIRED	Female-REQUIRED
Water Closets/ Urinals*	(# Urinals allowed)	
Lavatories		
OTHER FIXTURES (Per IPC Section 403 & Table 403.1)		REQUIRED
Drinking Fountains		
Unisex Toilet		
Service Sink		
Other (list)		

TOTAL BUILDING COUNT (add all occupancies)

	Male-REQUIRED	Male-PROVIDED (round up > Required)	Female-REQUIRED	Female-PROVIDED (round up > Required)
Total Water Closets/ Urinals*	0.29 (# Urinals allowed 0.14)	1 (# Urinals provided 0)	0.29	1
Total Lavatories	0.13	1	0.13	1
OTHER FIXTURES (Per IPC Section 403 & Table 403.1)			REQUIRED	PROVIDED (round up)
Total Drinking Fountains			0.00	1^
Total Unisex Toilets				
Total Service Sinks			1	1^
Total Other (list)				

* Urinals – See IPC 419.2 — ^PROVIDED IN BOAT HOUSE

TABLE 11 MECHANICAL INFORMATION

AIR COMFORT SYSTEMS

Overall Thermal Transfer Value (OTTV): - BTU/(HR x °F x SF)

Building Cooling Load: 196 SF / Ton

Building Heating Load: 1.5 BTU/(HR x SF)

OTHER LOADING FEATURES

Glass: U Factor: 0.80 — Window to wall ratio: 22%

Insulation Values: Roof: R-38 — Exterior Walls: R-10

Outside Air minimum while occupied: NA CFM — 2 Occupants

MECHANCIAL SYSTEMS, SERVICE SYSTEMS & EQUIPMENT

Briefly describe mechanical system: DOCK MANAGER USES MINI-SPLIT SYSTEM; RESTROOMS HAVE UNIT HEATERS AND EXHAUST FANS.

TABLE 12 ELECTRICAL INFORMATION

SERVICE TRANSFORMER: ☐ By Utility Company ☒ By Agency (if by Agency) TBD KVA Primary; 208V/3 Voltage/Phase

ELECTRICAL SERVICE INFORMATION

Service Voltage/Phase:	SEE SHEET 0.G002	Amperes
Service Entrance Conductors Size:	SEE SHEET 0.G002	Quantity per Phase
Total Connected Load:	SEE SHEET 0.G002	KVA
Estimated Maximum Demand:	SEE SHEET 0.G002	KVA
Available Fault Current in Symmetrical Amperes:	SEE SHEET 0.G002	
Interrupting Capacity of Service Overcurrent Device:	SEE SHEET 0.G002	
Grounding Electrode System Components:	SEE SHEET 0.G002	(NEC 250)

EMERGENCY SERVICE INFORMATION

Emergency Generator: Yes ☐ No ☒ ____ KVA ____ Voltage/Phase ____ Fuel

Exit/Emergency Lights Backup Power ☒ Integral Battery ☐ Generator

Fire Alarm System: ☐ Manual ☐ Automatic ☐ Addressable ☐ Class A ☐ Class B

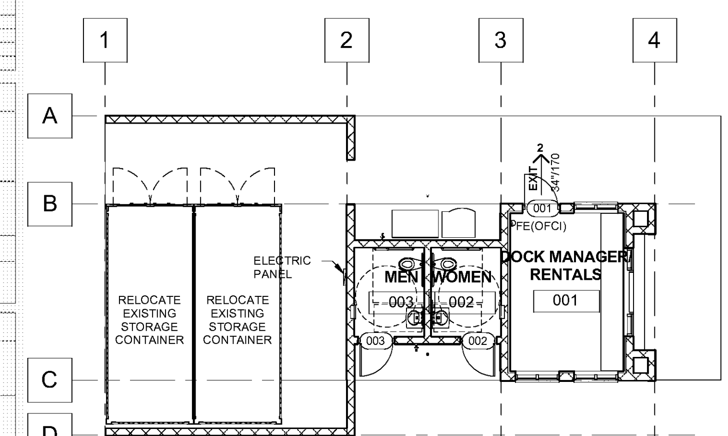
LIGHTNING PROTECTION PROVIDED ☐ Yes ☒ No

COMMUNICATIONS COORDINATED ☐ Yes ☒ Not Required

Contact DSIT Network/Infrastructure Planning for applicability at (803) 896-0001

NOTES

SEE LIFE SAFETY LEGEND ON SHEET 0.G003



PLAN NORTH

A8 0.G005 DOCK HOUSE LIFE SAFETY PLAN

SCALE: 1/8" = 1'-0"

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Revisions	
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DRAWN BY: FAM

CHECKED BY: FAM

DATE: 06.01.2018

COAST PROJECT NO.: 1722.00

BID DOCUMENTS

DOCK HOUSE CODE TABLES AND LIFE SAFETY PLAN

0.G005

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