1. BERTHA COLONIAL SHUTTER SHOWN ON THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2010 EDITION OF THE FLORIDA BUILDING CODE.

   THIS COLONIAL SHUTTER MAY BE INSTALLED AT HIGH VELOCITY HURRICANE ZONES.

   DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1620 OF THE ABOVE MENTIONED CODE, FOR A BASIC WIND SPEED AS REQUIRED BY THE JURISDICTION WHERE THESE SHUTTERS WILL BE INSTALLED.

   A DIRECTIONAL FACTOR KD=0.85 USING ASCE 7-10 FOR INSTALLATIONS UNDER 2010 FBC AND SHALL NOT EXCEED THE MAXIMUM (A.S.D.) DESIGN PRESSURE RATINGS INDICATED ON NOTE 2.

   IN ORDER TO VERIFY THE ABOVE CONDITION, ULTIMATE DESIGN WIND LOADS DETERMINED PER ASCE 7-10 SHALL BE FIRST REDUCED TO A.S.D. DESIGN WIND LOADS BY MULTIPLYING THEM BY 0.6 IN ORDER TO COMPARE THESE WITH MAX. (A.S.D.) DESIGN PRESSURE RATINGS INDICATED ON NOTE 2.

   DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1620 OF THE ABOVE MENTIONED CODE, IN ORDER TO VERIFY THAT ANCHORS ON THIS P.E.D. AS TESTED, WERE NOT OVERSTRESSSED, A 33% INCREASE IN ALLOWABLE STRESS FOR WIND LOADS WAS NOT USED IN THEIR ANALYSIS. HOWEVER, FOR CONNECTIONS INTO WOOD, A 1.60 WIND LOAD DURATION FACTOR WAS USED TO CALCULATE SCREWS SPACING.

   BERTHA COLONIAL SHUTTER'S ADEQUACY FOR IMPACT AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1628 OF THE ABOVE MENTIONED CODE AS PER AMERICAN TESTING LABORATORY (ATL) REPORT # 0826.01-07 AND PER PROTOCOLS TSA 201, 202 & 203.

2. SEE ELEVATIONS ON SHEETS 3 & 9 FOR MAX. A.S.D. DESIGN PRESSURE RATING & MAX. SHUTTER DIMENSIONS.

3. ALL ALUMINUM EXTRUSIONS SHALL BE ALUMINUM ASSOCIATION 6063-T6 ALLOY AND TEMPER, WITH Fy= 25.0 ksi MINIMUM (UNLESS OTHERWISE NOTED).

4. ALL SCREWS TO BE STAINLESS STEEL 304 OR 316 AISI SERIES WITH 50 ksi YIELD POINT AND 90 ksi TENSILE STRENGTH AND SHALL COMPLY W/ FLORIDA BUILDING CODE SECTION 2411.3.3.4.

5. BOLTS TO BE AISI 304 SERIES STAINLESS STEEL WITH 55 ksi MINIMUM YIELD STRENGTH.

6. ALL ALUMINUM POP RIVETS TO BE 5052 ALUMINUM ALLOY WITH ALUMINUM MANDREL.

7. ANCHORS TO WALL SHALL BE AS FOLLOWS: (UNLESS OTHERWISE NOTED)

   (A) TO EXISTING WOOD FRAME WALL: SOUTHERN PINE No.2, G=0.55.
   - 1/4" TAPCON ANCHORS AS MANUFACTURED BY I.T.W. BUILDINC, INC.

   NOTES:
   A.1) MINIMUM THREADED PENETRATION OF TAPCON ANCHORS INTO WOOD SHALL BE 1 1/2".
   A.2) IN CASE THAT PRECAST STONE, PLYWOOD OR PRECAST CONCRETE PANELS BE FOUND ON THE EXISTING WALL, ANCHORS SHALL BE LONG ENOUGH TO REACH THE MAIN STRUCTURE BEHIND SUCH PANELS. ANCHORAGE SHALL BE AS INDICATED ON NOTES A.1).

   (B) TO EXISTING POURED CONCRETE MIN. (Fc = 3192 psi) OR ASTM C-90 CONCRETE BLOCK
   - 1/4" TAPCON ANCHORS AS MANUFACTURED BY I.T.W./BUILDINC.

   NOTES:
   B.1) MINIMUM EMBEDMENT OF TAPCON ANCHORS INTO POURED CONCRETE SHALL BE 1 3/4" AND INTO THE CONCRETE BLOCK UNIT SHALL BE 1 1/4".
   B.2) IN CASE THAT PRECAST STONE, STUCCO OR PRECAST CONCRETE PANELS BE FOUND ON THE EXISTING WALL, ANCHORS SHALL BE LONG ENOUGH TO REACH THE MAIN STRUCTURE BEHIND SUCH PANELS. ANCHORAGE SHALL BE AS INDICATED ON NOTES B.1).

   (C) ANCHORS SHALL BE INSTALLED FOLLOWING ALL OF THE RECOMMENDATIONS AND SPECIFICATIONS OF THE ANCHOR'S MANUFACTURER.

8. EACH SHUTTER SHALL HAVE A LEGIBLE AND READILY VISIBLE MARKING INSTRUCTING OWNER OR TENANT TO SECURE SHUTTER WITH STORM BARS & SAFETY BOLTS DURING PERIODS OF HURRICANE WARNINGS.

9. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE STRUCTURE WHERE SHUTTER IS TO BE ATTACHED TO INSURE PROPER ANCHORAGE. CONTRACTOR TO SEAL/CAULK ALL SHUTTER COMPONENT EDGES WHICH REMAIN IN CONTINUOUS CONTACT WITH THE BUILDING TO PREVENT WIND/RAIN INTRUSION.

10. OWNER TO BE RESPONSIBLE FOR PROVIDING A SUITABLE PLATFORM OR BALCONY WHEN SECURING UNIT DURING HURRICANE WARNINGS.

11. BERTHA COLONIAL SHUTTER'S INSTALLATION SHALL COMPLY WITH SPECIFICATIONS INDICATED IN THIS DRAWING PLUS ANY BUILDING AND ZONING REGULATIONS PROVIDED BY THE JURISDICTION WHERE PERMIT IS APPLIED TO.

12. SHUTTER MANUFACTURER'S LABEL SHALL BE PLACED ON A READILY VISIBLE LOCATION AT COLONIAL SHUTTER IN ACCORDANCE WITH SECTION 1715.8.3 OF FLORIDA BUILDING CODE. ONE LABEL SHALL BE PLACED FOR EVERY OPENING. LABELING TO COMPLY WITH SECTION 1715.8.2 OF THE FLORIDA BUILDING CODE.

13. (a) THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT; I. E. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.E.D.

   (b) CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION INCLUDING LIFE SAFETY OF THIS PRODUCT, BASED ON THIS PRODUCT EVALUATION DOCUMENT, PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.

   (c) THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.

   (d) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER, SHALL SUBMIT TO THIS LATER THE SITE SPECIFIC DRAWINGS FOR REVIEW.

   (e) THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.
TYPICAL EXTERIOR ELEV. DOUBLE PANELS
(HURRICANE POSITION)

MAXIMUM A.S.D. DESIGN PRESSURE RATING = +600.0, -81.0 p.s.f. FOR INSTALLATION INTO CONCRETE OR CONCRETE BLOCK WALL SUBSTRATE.
(2) 1/4"-20 x 3/4" SS PHILLIPS FLAT HEAD BOLTS INTO ALUMINUM RIVET NUTS ↑ N TO E OR F (TYP.)
TYPICAL EXTERIOR ELEV. QUADRUPLE PANEL FOR
(HURRICANE POSITION)

SCALE: 3"/16"=1'

MAXIMUM A.S.D. DESIGN PRESSURE RATING = +51.0, -70.0 p.s.f. FOR
INSTALLATION INTO CONCRETE OR CONCRETE BLOCK WALL SUBSTRATE.

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AMERICAN SHUTTER SYSTEMS ASSOC., INC.
4288 WEST ROAKS DRIVE
WEST PALM BEACH, FL 33409
PHONE: (561)492-2204, FAX: (561)209-8380

STATE OF FLORIDA
PROFESSIONAL ENGINEER
No. 44167

AS DISTRIBUTED BY ALL POINTS
SCREW, BOLT & SPECIALTY CO.
(PART # 25CR7NA).
SECTION C' - C'
(WALL MOUNT)
HURRICANE POSITION
SCALE 1/4"=1"
ę 1/4" x 20 x 3/4"
AS DISTRIBUTED BY ALL POINTS SCREW,
BOLT & SPECIALTY CO. (PART #25CF14A).

DETAIL 2
(ISOMETRIC)
N.T.S

WATER A. TILL URS
LICENSE No. 44167
STATE OF FLORIDA
PROFESSIONAL ENGINEER

* SHOWN ON ITS DRIVING
(INSTALLATION) POSITION

(2) 1/4" x 20 x 3/4"
SS PHILLIPS FLAT-
HEAD BOLTS INTO
ALUMINUM
RIVET NUTS +
(2) OR (4)
(TYP.)

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

ASSA / BERTHA COLONIAL SHUTTER
(WITH STORM BARS)

AMERICAN SHUTTER SYSTEMS ASSOC., INC.
4288 WEST MADISON DRIVE
WEST PALM BEACH, FL 33407
PHONE: (561) 320-2301, FAX: (561) 320-6360

DRAWING NO.
11-142

SHEET 14 OF 14