Kosinski Engineering, Inc.

Consulting Structural Engineers **PE#52288** *TEL:* **239-872-2179**
15598 Beach Pebble Way **COA#34464** *E-mail ;* **jckosinski135@aol.com**
Fort Myers, FL 33908

RESIDENTIAL *COMMERCIAL* *INSTITUTIONAL* *INDUSTRIAL*

Attn: Building Official May 29, 2021

Custom Door Engineering
Master Large Door

Ref: Repetitive Use Engineering by JC Kosinski Engineering Inc.
Expiration of this repetitive approval will be 1 (One) year from date of above date.

This letter is to provide authorization to Handcrafted Iron Doors LLC for repetitive use of the attached custom door issued by JC Kosinski Engineering Inc. This authorization shall expire on the above referenced date.
This attached custom door has been analyzed and we have determined that with using the impact rated glass this assembly would be considered impact rated in accordance with FAC 61G20-3. Additionally, we have determined that this this Master plan meets the requirements of FBC 2020 7th Edition to include the Residential Building Code using Section 2411.1.10 for Comparative analysis for Doors, Section 104.11 and Florida Statue 553.8425(1)(d) 2011. The analysis used is based on ASCE7-16 using 170 MPH Ult. wind velocity, Exposure D. The analysis meets the requirement of ASCE7-16 for specific mandatory and supplementary tests. This custom door and installation, to include glazing, hardware and assembly, we can certify as being equivalent or exceeds the comparative NOA's for the door in accordance with FAC 61G20-3.005(d).
Additionally, We have reviewed the requirements for installing the above referenced project and have determined it is structurally acceptable that there can be a gap in between the door jamb and the bucking frame at a 2" gap max. This gap has no bearing on the structural integrity of the system. Please note that 2x blocking may be added at tab locations anchored with min 2-1/4" tappers each. Foam-fill the gap and add P.T. trim. This Master Large Door shall qualify for all doors less than 10,944 square inches in area, rectangular and arched.

Please note: "This certification shall cover both in-swing or out-swing assembles"
Please note; it is structurally acceptable for up to 2 tabs to only have 1 anchor due to installation field conditions as long as they are not next to each other.

The following is our proposed comparison:

NOA for this door is FL16749_R4 that shall be used for comparison.

If you should have any questions, please call.

Sincerely,
J.C. Kosinski Engineering Inc.

Digitally signed by
Joseph Kosinski
Date: 2021.05.29
11:14:55 -04'00'

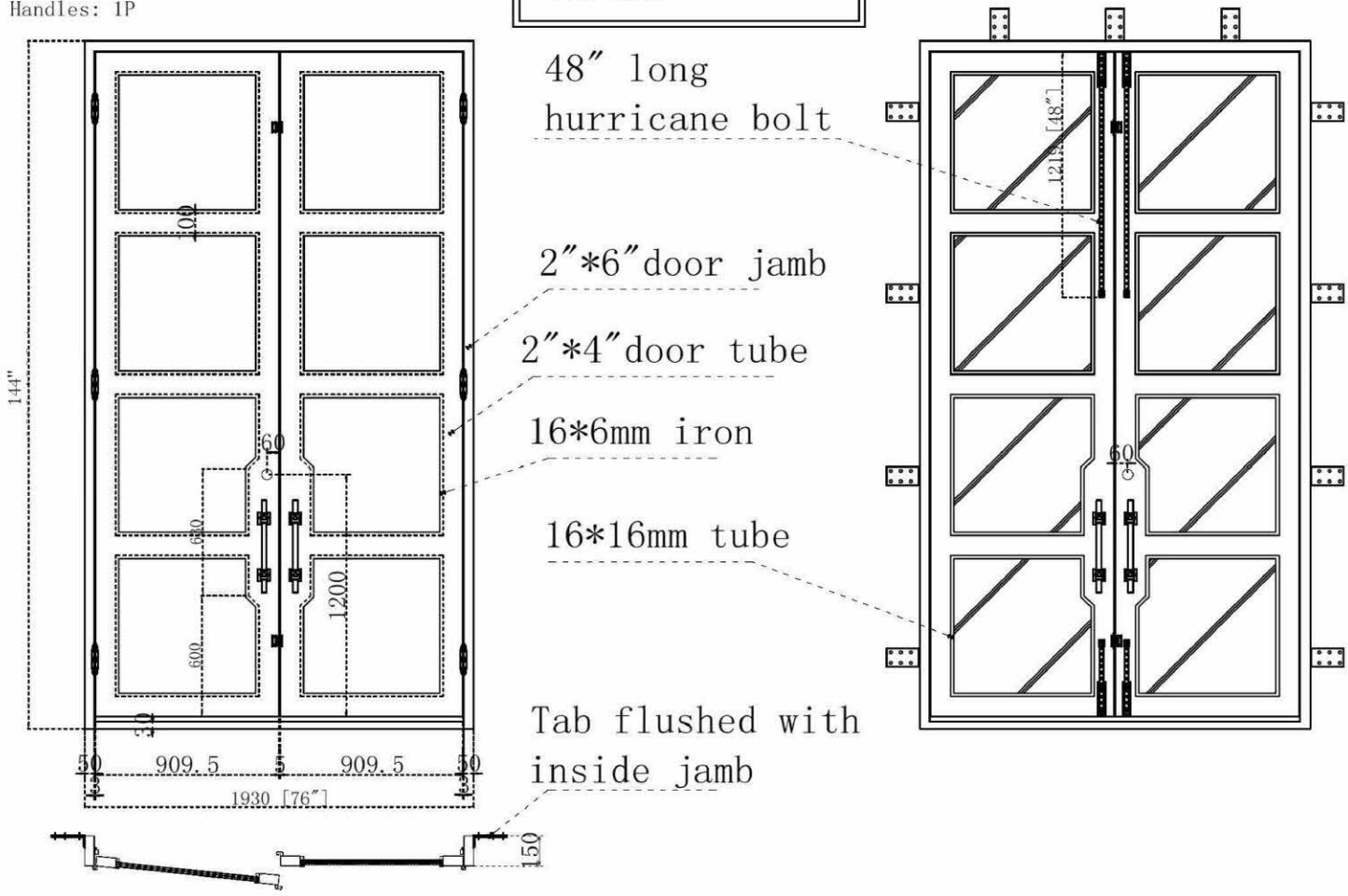
Joseph C. Kosinski, PE

SIGNING FOR ALL CALCULATIONS

Bermuda Spec Home
Glass: 25mm Low-E clear hurricane glass
Left door active-Outswing
Color: CS013(Black)
48″ long hurricane bolts
Handles: 1P

Minimum Rough Opening:
77.5″x135″

Client _____
Super _____
Design/Purchasing _____



BUILDING INFORMATION	
Design Wind Speed	**Nominal**
Ultimate Wind Velocity (mph)	170
Nominal Wind Velocity (mph)	**131.7**
Exposure	**D**
Internal Pressure	**Enclosed**
Height above ground (z) -(ft)	**0.0**
Standard Wall Height - (ft)	**10.0**
Mean Roof Height (h) - (ft)	**15.0**
Building Width (ft)	**60.0**
Building Length (ft)	**60.0**
Roof Slope (x:12)	**5.0**
Roof Angle (degrees)	**22.62**
(a) Edge Strip (ft)	**6.00**
End Zone (ft)	**12.00**
Parapet Along Roof Perimeter (ft)	**0.00**

Windloadcalc.com®
Your Window to Success

ASCE 7-10

Version 7.1
2004 - 2012 ©
Building Permit Edition

Wind Load Program

JOB INFORMATION	
Client	**Master Large Door**
Address	
Company	JC Kosinski Engineering
Job Number	
Preparer	JCK

TOPOGRAPHIC FACTOR	
Hill Shape	**Flat - No Hill**
H, (ft)	**0.0**
Lh, (ft)	**0.0**
x, (ft)	**0.0**
z, (ft)	**0.0**

WIND LOAD DESIGN INFORMATION

INFO.	APPLYING WIND LOAD FOR:	ZONE	OPENING ELEVATION (feet)	WIDTH (feet)	LENGTH (feet)	EFFECTIVE WIND AREA (sqft)	Nominal Wind Load Pressures		NOA Approval Number	Max Pressure Per NOA	Manufacturer	Model Number
							MAXIMUM POSITIVE PRESSURE (psf)	MAXIMUM NEGATIVE PRESSURE (psf)				
WALL OPENING INFORMATION	Custom Door	4	0	6.3	12.0	76	39.8	-43.7				
ING INFORMATION												

Handcrafted Iron Doors
Master Large Door

2/7/2020

J.C. Kosinski Engineering Inc
15598 Beach Pebble Way
Ft. Myers, FL 33908
239-872-2179

FBC 2020 7th Edition Wind Speed 170 MPH Ult
Risk Category II 132 MPH Nominal
Exposure: D

WIDTH:	6.3	ft
HEIGHT:	12.0	ft
AREA:	75.6	SF
DESIGN PRESSURE:	39.8	-43.7 GOVERNS

TOTAL LOAD: 75.6 x -43.7 = 3304 LBS

ANCHORS: **1/4" ANCHORS FOR FRAME Min**

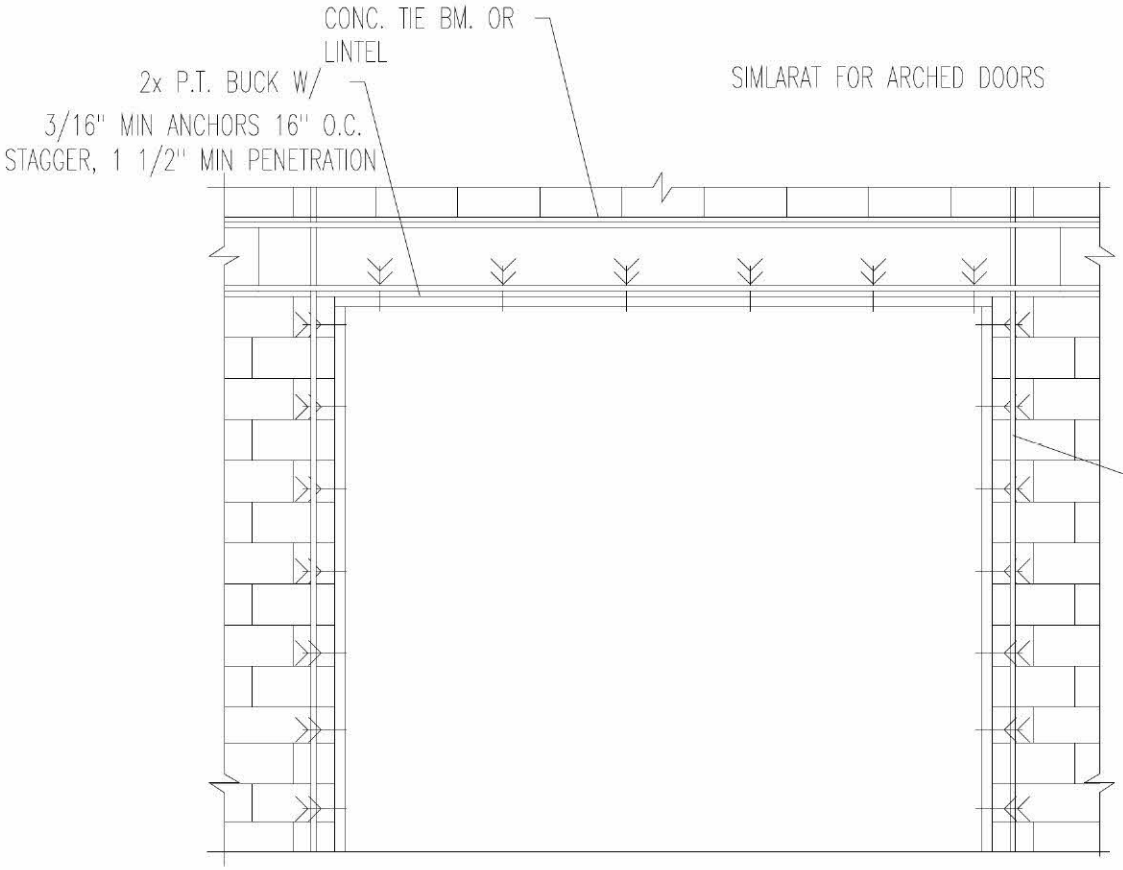
ALLOWABLE LOAD/ANCHOR = 370 LBS/ANCHOR
Reduction Edge = 0.89
Reduction spcn = 0.89
ALLOWABLE LOAD/ANCHOR = 293 LBS/ANCHOR Adjusted
Tabs = 11 Min Req'd
anchors/tab = 2
Total Anchors = 22

ANCHORS = 3304 / 293 = 12 ANCHORS REQUIRED

PROVIDE 12 1/4" ANCHORS FOR FRAME Min

Anchors Installed: 22

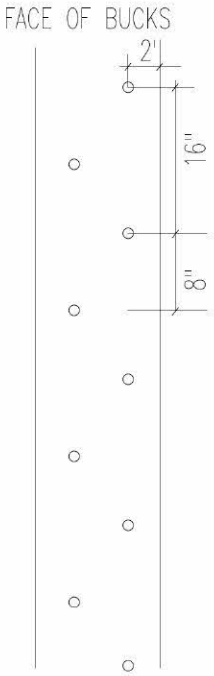
SAFETY FACTOR = 6448 / 3304 = 2.0 **OK**



TYPICAL BUCK DETAIL

N.T.S.

BUCKS SHALL BE P.T.



FLORIDA BUILDING CODE 2020 7TH EDITION
TO INCLUDE THE RESIDENTIAL CODE

ULTIMATE DESIGN WIND SPEED:	170
NOMINAL DESIGN WIND SPEED:	132
RISK CATAGORY:	II
IMPORTANCE FACTOR:	1.0
EXPOSURE CATAGORY:	D
INTERNAL PRESSURE COEF:	+-0.18

ENCLOSED STRUCTURE

THE STRUCTURAL COMPONENTS OF THIS PLAN ARE IN COMPLIANCE WITH THE 2020 FLORIDA BUILDING CODE, WIND LOAD COMPLIANCE AND ITS RESISTANCE TO GRAVITY AND DESIGN PRESSURES

ALL LUMBER SHALL BE MIN HEMFUR OR BETTER W/ MIN BENDING STRESS OF 1,000 PSI AND PRESSURE TRAETED

Handcrafted Iron Doors

MASTER LARGE DOOR

DATE 02-16-20

J.C. Kosinski Engineering Inc.
• STRUCTURAL ENGINEER •
15598 BEACH PEBBLE WAY
Ft. Myers, FL 33908
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