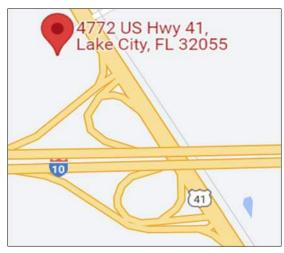
	-	-	-	47.3 ft ² Flush (Letters)	60.1 ft ² Flush (Box)	INCTRUCTIONS			rify (ft²) (flush, raceway, or pin) (solid area or letters) lect fastener for wall structure. enly space fasteners over whole sign area.	signengineering@gmail.com				
					obc	each corner top and bottom. Follow fastener manufacturer's instructions and code requirements for installation. CALCULATION: Minimum Number of Fasteners Evenly Spaced Over Whole Sign					Florida, FBC 7th Ed (2020), Sect 1609 wind			
				99	ee L						Risk Category	I, Low; II, Normal haza life; IV, Essential, emer		Substantial hazard to hum
				ısy B	s						Wind Speed	Basic Wind Speed, Ultimate, mph, from ASCE 7-16, Fig 26.5-1A, Ris or Fig.26.5-1B, Risk III & IV		
inir	num Fa	astene	(Fasteners = Wind Force on Whole Sign Area / Fastener Allowable Tension) ers for Whole Sign Fastener Wall Structure Pull Fastener Installation							С	Exposure	Wind Exposure; C, House size obstructions for > 600 ft; D, no obstructions > 5000'		
	(Use More if Sign N		Sign Need	s It)						30	Sign Height	Sign Height Above Ground, ft, H; Sign cannot be higher than top of or 60'. For multiple signs use worst case.		
				8	13	3/8" or 1/2" ThruBolt 3/8" or 1/2" ThruBolt		200 100	3/8" or 1/2" bolt, nut, washer thru wall; CMU, brick, concrete, 2x4 or unistrut backer 3/8" or 1/2" bolt, nut, and washer thru 1/2" OSB or plywood sheathing	See	Sign Area	Gross Sign Area, ft², m		a surrounding and includin
_				4	7	3/8" Lag Shield	Concrete		3/8" - 16 screw in hole, tap anchor flush.	Table		sign letters and logos.	0.0-11-1.44411	01
				15	25	3/8" Lag Shield	Grout Filled CMU		3/8" - 16 screw in hole, tap anchor flush. 1/4" Tapcon, min 1.5" embedment, protect from moisture.			E 7-16, Section 29.4.2	•	
				5 36	8 60	1/4" Tapcon 1/4" Tapcon	Concrete Grout Filled CMU	171 21	1/4 Tapcon, min 1.5 embedment, protect from moisture. 1/4" Tapcon, min 1.25" embedment, protect from moisture.		•		•	all or parallel to wall, < 3' fr
t				10	16		20ga CFS Frame		#12-14 Self-drilling screws 3 threads thru 20ga steel frame.			quals wall wind pressure f gn; F = P _{ASD} * Net Sign Area	rom ASCE 7-16, Sec	otion 30.4.
t				19	32		5/8" Plywood		#12-14 wood screw or SMS into 5/8" OSB or plywood.			SD = Pult * 0.6 per ASCE 7	-16 section 2.4.1	
†				5	8	Timber Screw	Wood Framing		FastenMaster TimberLOK, 1/4" thread wood screw 1.25" in wood		psf Wind Pressure; Pu		7-16, Eq 30.3-1	
İ				10	17	3/8" Toggle Bolt	Hollow CMU		3/8" Toggler - Snaptoggle BC, toggle anchor - into hollow CMU		 	e; q _{h,ult} = 0.00256*K _z *K _{zt} *K _d *V	•	6.10-1
				15	25	3/8" Toggle Bolt	5/8" plywood	50	3/8" Toggler - Snaptoggle BC, toggle anchor - into 5/8" plywood	0.98	Veloc Pres Expos	; ASCE 7-16, Table 26.10-1		
				4	7	1/2"Sleeve Anchor	Concrete	190	1/2" HILTI HLC-H or HLC-HX304SS3/8 Sleeve Anchor, 1.5" embed	-1.4	Ext. Pressure Coe	ff; GC _p =-1.4(<60ft) -1.8(>60ft)	Zone 5, 1 ft ² area,	ASCE 7-16, Figure 30.3-1, 30
				4	7	1/2"Sleeve Anchor	Grout Filled CMU	190	1/2" HILTI HLC-H or HLC-HX304SS3/8 Sleeve Anchor, 1.5" embed	0.85	Wind Direction Fac	e 26.6-1		
				15	25	3/8" Stud Epoxy	Hollow CMU	50	3/8" thd rod stud in HIT-SC 16x50 screen tube, in Hollow CMU, Hilti epoxy HIT-HY-270, or equal.	1.0	i i	f; GC _{pi} = 0, sign flat against wa pr; Kzt = 1 for flat ground, no h		29.3.2 >15'; = 2 for corners or edges
				15	25	3/8" Stud Epoxy	Concrete	50	3/8" thd rod stud in Concrete, Hilti epoxy HIT-HY-270, or equal. 2" embed.	5	psf Sign Weight; must	be less than 5 pounds per sq.	ft. net area.	
						Stud Thru	1/2" Plywood Sheathing	60	3/16"pin-stud, nut, and washer thru 1/2" plywood sheathing or 20ga. metal building					FLUSH MOUNT
Ť						Stud Glued	Wall (test)	25	3/16"pin-stud glued in wall, LIQUID NAILS FUZE-IT, LN-2000					
								-	one have code approval for structural applications. Sign installer must test these					
						connection strengths.	Pull on fastener 2.5 * A	llowable	Tension. Use tripod, game scale, and hooks.					Γ₩-
Ç.		74.6									178.4	4"	-	1
AF	ATHON	Di Contractorio	SEA STAN	1	Boms (NAME OF TAXABLE PARTY.		Mary Service			1/8.4	•		
-	Mark States of States		- I CONTRACT			A STATE OF THE PARTY OF THE PAR								
99	Sec.				a law	1 3				100				
	ALC: UNKNOWN WITH THE PARTY OF		AND DESCRIPTION OF THE PERSON NAMED IN	A T. (4)	Married Townson	THE RESIDENCE OF THE PARTY OF T	The state of the s	No. of Lot, House, etc., in such such such such such such such such	32					





-7.9 - B.2





Mark Disosway, Professional Engineer, Florida License 53915

nis item has been digitally signed and sealed by ark Disosway, PE, on the digital signature date. inted copies of this document are not considered gned and sealed and the signature must be rified on any electronic copies. UNO valid for one gn each type at this location.



2023.01.04 15:33:14 -05'00'

This seal for structural engineering per Scope of Work (Fasteners only)

SCOPE OF WORK

NGINEERING: Calculation of minimum steners, ONLY. (See equation). nis seal IS NOT: architecture, electric, or ructure of sign and wall.

using this engineering sign installer, anufacturer, and owner agree to:

Select fastener from table based on wall ructure. 2. Install fasteners per fastener anufacturer instructions in locations required by gn manufacturer; this may mean more fasteners e required than shown in table. 3. Make sure sign nd wall meets building code, sign code, and UL. erify stated wind (speed, risk, exp, topo), sign (size, area, location on wall, max weight), wall materials and construction).

PASTED IMAGES, DETAILS, DRAWINGS, AND NOTES ON THIS SHEET ARE <u>NOT</u> ENGINEERED OR REVIEWED. They were pasted in at customer's request to help relate fastener engineering to the job.

signengineering@gmail.com Mark Disosway, PE, 163 SW Midtown Place, Ste 103, Lake City, Florida 32025 386-754-5419

Job # 221503

WALL SIGN: Flat on wall max 12" thick.

Signcraft & More, Inc.

Busy Bee #7 4772 NW Hwy 41 Lake City, FL 32055

Job221503,Sign1,Sht1of1,Rev0,Day230104

