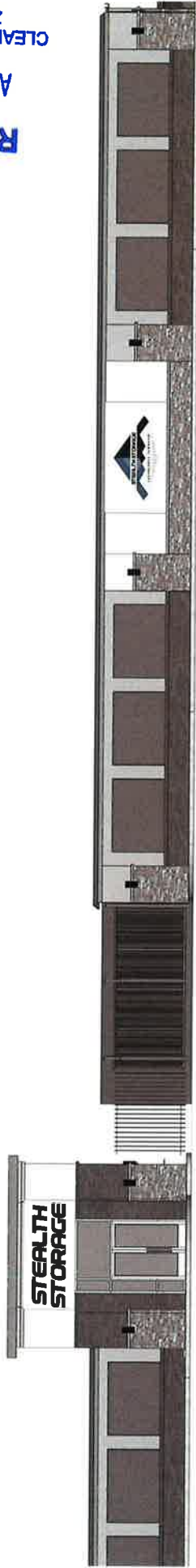


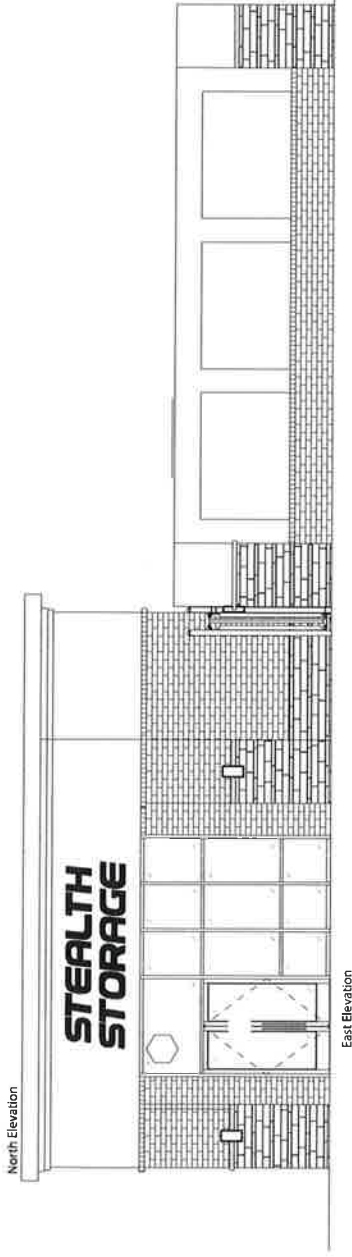
RECEIVED
AUG 20 2020
CLEARCREEK TOWNSHIP
ZONING DEPT.



01 Enlarged East Elevation
3/16" = 1'-0"



02 Enlarged East Elevation
3/16" = 1'-0"



MOUNTING LOCATIONS, TYP.

19'-25" **STEALTH** 3'-9"

19'-25" **STORAGE** 11'-9"

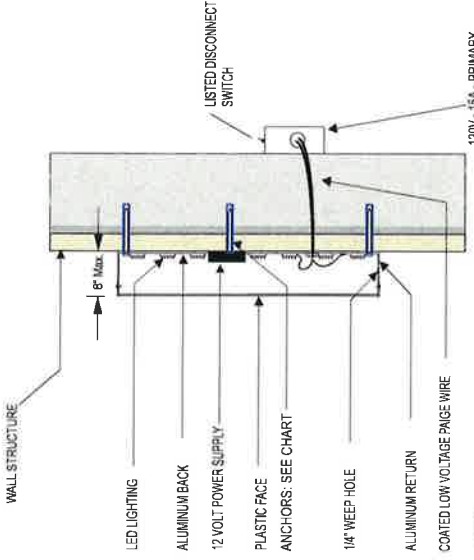
Prepared by:
Select Signs, LLC
 11755 Spaulding Rd
 Dayton, Ohio 45432
 Jon Cowell
 937-262-7095

Job Description:
Stealth Storage
 Clearcreek Township

DESIGN PARAMETERS:
 2017 OHIO BUILDING CODE, ASCE 7-10
 WIND SPEED DATA
 1. V_{wz} WIND SPEED = 115 MPH
 V_{wz} WIND SPEED = 89 MPH
 2. WIND RISK CATEGORY II
 3. WIND EXPOSURE C
 4. INTERNAL PRESSURE COEF. N/A

SEISMIC DATA
 SEISMIC DESIGN CATEGORY B
 SEISMIC RISK CATEGORY II
 SITE SOIL CLASSIFICATION II
 $SS = 0.149$ g, $SMS = 0.238$ g, $SDS = 0.159$ g,
 $S1 = 0.071$ g, $SMT = 0.171$ g, $SD1 = 0.114$ g
 EQUIVALENT LATERAL FORCE
 $C_e = 0.053$, $R = 3$
 BASE SHEAR $V = 1$ LBS

REMOTE CHANNEL LETTER SIGN



Section Detail Scale: NTS

- ALL ELECTRICAL COMPONENTS SHALL BE UL LISTED WITH LABEL
- SIGN SHALL BE GROUNDED PER N.E.C. ARTICLE 250
- POLYCARBONATE FACES MEET ASTM D635 BURN RATING AS REQUIRED BY THE OBSS STANDARDS
- AVERAGE WEIGHT PER CHANNEL LETTER 8 - 12 POUNDS

SIGN MOUNTING HEIGHT TO BE 30FT MAXIMUM

ANCHOR TO BE THRU BOLT'S IF POSSIBLE. ALTERNATE ANCHORS PER WALL TYPE SHOWN BELOW FOR USE IF THRU BOLTING IS NOT POSSIBLE

ANCHOR QUANTITY (4) PER LETTER MIN.	ANCHOR TYPE
WOOD BLOCKING	LAG BOLT (1-1/2" EMBEDMENT) THRU BLOCKING
EIFS OVER 5/8" PLYWOOD	THREADED ROD THROUGH WALL
HOLLOW CONCRETE BLOCK, BRICK	SLEEVE ANCHOR (1-1/2" EMBEDMENT)
SOLID CONCRETE	WEDGE ANCHOR (2-1/2" EMBEDMENT)
CMU, SOLID CONCRETE, BRICK	MASONRY SCREW (2" EMBEDMENT)
	MULTI-POINT ROD WITH ADHESIVE (3" EMBEDMENT)

ALL ANCHORS SHALL BE CHOSEN AND PLACED IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS

SIGN TO BE CONSTRUCTED TO NEC 600 STANDARD
 SIGN TO BEAR UL LABEL
 SIGN TO HAVE ELECTRICAL DISCONNECT ON THE EXTERIOR

RECEIVED
 AUG 20 2020
 CLEARCREEK TOWNSHIP
 ZONING DEPT.



NATHAN P. PRESNELL, P.E. #79812
 DATE SIGNED: 11/20/20

ENCON SERVICES, INC.
 P.O. BOX 3813
 APOLLO BEACH, FL 33572
 813.655.3373, OC#01883
 ENCON@ME.COM

EnCon Services, Inc.

Sign Design Calculations

Job Description
Stealth Storage
Clearcreek Twp

19.25" Letters
Design per 2017 Ohio Building Code
ASCE 7-10, Load Case: D + 0.6W
Seismic Design Category B

PREPARED BY: EnCon Services, Inc.
PO Box 3613
Apollo Beach, FL 33572
813-655-3373
OC #01893

Nathan P. Presnell, PE
OH PE #79812

RECEIVED

AUG 20 2020

**CLEARCREEK TOWNSHIP
ZONING DEPT.**

Design Specifications

Risk Category II	
Kzt	1
Exposure Factor	C
Kd	0.85
Kz	0.98
V _{ULT}	115 (mph)
GCp-GCpi	1.1 Zone 4, H < 60 Feet
Ult. Wind Pressure	31.0 (psf)

Sign Information Per Letter	
Height	1.60 (ft)
Width	1.60 (ft)
Thickness	0.67 (ft)
Distance grade to top	30 (ft)

Wind Shear Force	19.95 (lb)
Weight of Sign	12 (lb)

Total Shear Force = 23.28 (lb)

Total Tension Force = 47.65 (lb)

	Required	Provided
Fastener size (Nominal)	1/4	1/4
Minimum number of fasteners per letter	4	4
Shear Force per fastener (lb)	5.8	170
Tension Force per fastener (lb)	11.9	260

Combination Tension and Shear ratio **0.08 < 1 O.K.**

THREADED ROD THROUGH WALL IS PREFERRED IN ALL INSTANCES. IF IT IS NOT POSSIBLE TO USE THREADED ROD, SEE CHART BELOW FOR APPROPRIATE ANCHOR SELECTION. SIZE AND NUMBER REQUIRED ARE NOTED IN THE CHART ABOVE.

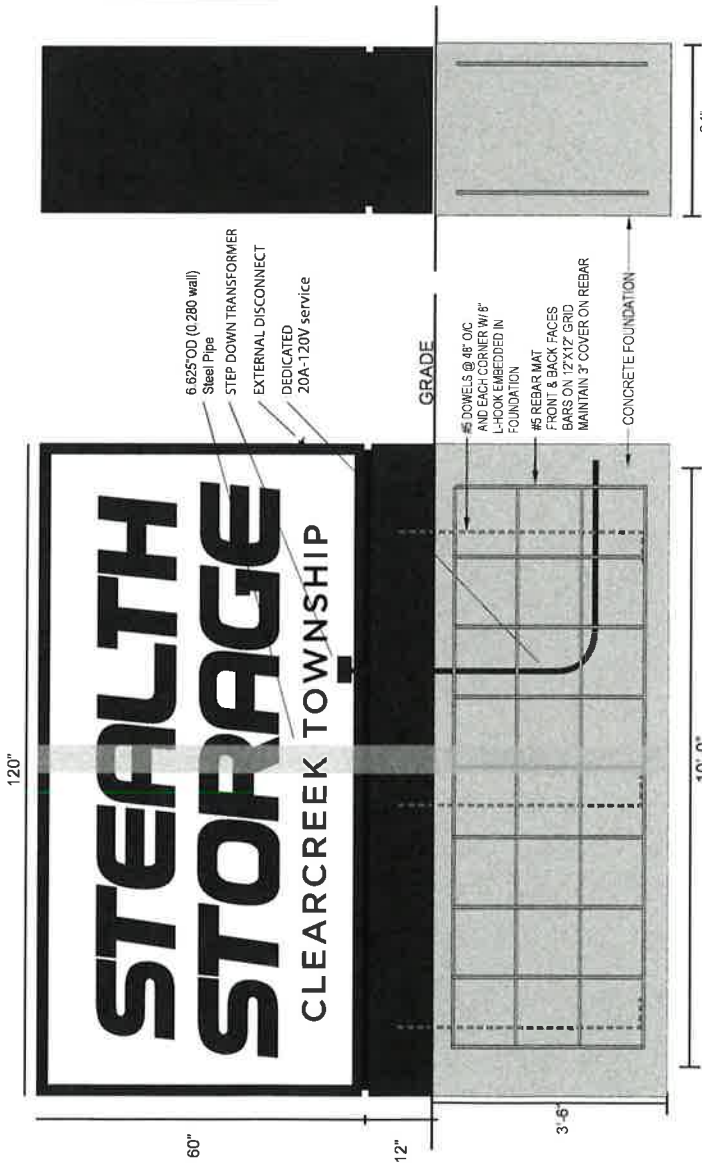
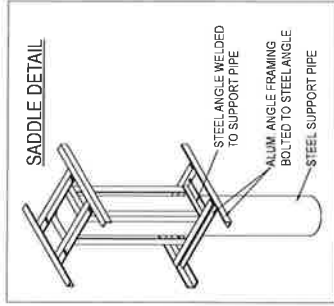
WALL STRUCTURE	ANCHOR TYPE
WOOD BLOCKING	LAG BOLT (1-1/2" EMBEDMENT) THROUGH BLOCKING
EIFS OVER 5/8" PLYWOOD	THREADED ROD THROUGH WALL
HOLLOW CONCRETE BLOCK, BRICK	SLEEVE ANCHOR (1-1/2" EMBEDMENT)
SOLID CONCRETE	WEDGE ANCHOR (2-1/2" EMBEDMENT)
CMU, SOLID CONCRETE, BRICK	MASONRY SCREW (2" EMBEDMENT)
	HILTI HIT ROD W/HY-70 ADHESIVE (3 1/2" EMBEDMENT)

ALL ANCHORS SHALL BE CHOSEN AND PLACED IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS



DATE SIGNED:
1/7/2020

12" CMU COLUMN (4) #6 DWELS (@ 5" O/C TYP.)
W/ 8" L-HOOK EMBEDDED TO
BOTTOM OF FOUNDATION



GENERAL NOTES:

1. CONCRETE PROVIDED SHALL OBTAIN A 3,000 PSI, 28 DAY COMPRESSIVE STRENGTH. CONCRETE SHALL BE PLACED ON UNDISTURBED SOIL. THIS DESIGN ASSUMES A LATERAL SOIL BEARING PRESSURE OF 100 PSF/LF AND A SOIL BEARING PRESSURE OF 1500 PSF. IF THESE CONDITIONS DO NOT EXIST, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER.

2. REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60, DEFORMATIONS PER ASTM A305. DO NOT WELD REINFORCING BARS.

3. ANY DEVIATION FROM ANY PART OF THIS DRAWING WITHOUT PRIOR WRITTEN CONSENT FROM THE ENGINEER OF RECORD Voids THIS DRAWING IN ITS ENTIRETY.

4. THE STRUCTURE DESIGNED ON THIS DRAWING IS INTENDED TO BE INSTALLED AT THE ADDRESS SHOWN AND MAY NOT BE USED AND ANY OTHER LOCATION.

MASONRY NOTES:

LAP SPLICE = 30" MIN
CELLS GROUTED SOLID
 $f'_{m} = 1500 \text{ psi}$

NOTES:

MATERIALS:
ALL JOINTS TO BE WELDED ALL AROUND
GRADE A36 STEEL SHAPES
GRADE A53 B STEEL PIPE
GRADE A325 FASTENER BOLTS
WELDING PER AWS D1.1
E/70XX WELD FILLER

DESIGN PARAMETERS:

2017 OHIO BUILDING CODE, ASCE 7-10
WIND SPEED DATA
1. V_w - WIND SPEED = 115 MPH
 V_{ws} - WIND SPEED = 89 MPH
2. WIND RISK CATEGORY II
3. WIND EXPOSURE C
4. INTERNAL PRESSURE COEF. N/A

SEISMIC DATA

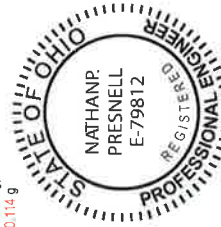
SEISMIC DESIGN CATEGORY B
SEISMIC RISK CATEGORY II
SITE SOIL CLASSIFICATION D
 $S_S = 0.149 \text{ g}$, $S_{M1} = 0.239 \text{ g}$, $S_{D1} = 0.159 \text{ g}$
 $S_1 = 0.071 \text{ g}$, $S_{M2} = 0.174 \text{ g}$, $S_{D2} = 0.114 \text{ g}$
EQUIVALENT LATERAL FORCE
 $C = 0.053$, $R = 3$
BASE SHEAR $V = 327 \text{ LBS}$

ENCON SERVICES, INC.

P.O. BOX 3613
APOLLO BEACH, FL 33572
813-665-3373, OC#01893
ENCON@ME.COM

SIGN TO BE CONSTRUCTED TO NEC 600 STANDARD
SIGN TO BEAR UL LABEL
SIGN TO HAVE ELECTRICAL DISCONNECT ON THE EXTERIOR

RECEIVED
AUG 20 2020
CLEARCREEK TOWNSHIP
ZONING DEPT.



NATHAN P. PRESNELL, P.E. #79812

EnCon Services, Inc.
Sign Design Calculations

PREPARED BY:
EnCon Services, Inc., OC #01893
PO Box 3613, Apollo Beach, FL 33572
813-655-3373
Nathan P. Presnell, PE 79812

Job Description
Stealth Storage Clearcreek Twp

Design per 2017 Ohio Building Code
ASCE 7-10, Load Case: D + 0.6W
Seismic Design Category B

Risk Category II

Kzt	1
Exposure	C
Kd	0.85
Kz	0.85
V	115 mph
Cf	1.48
G	0.85
	1



RECEIVED

AUG 20 2020

CLEARCREEK TOWNSHIP
CLERK OF COURTS

Wind Pressure (PSF) **31**

Sign	Area (sf)	Distance to Center (ft)	P = Force (lb)	Moment (ft-lb)
Cabinet	50	5	710	3496
Base	10	5	101	94
Totals			1,046	4,689

Required Flexural Strength (kip-ft) 3.5 per pole
 Provided Flexural Strength (kip-ft) 18.3 6.625"OD (0.280 wall) A53 B Steel Pipe
 Flexural Ratio 0.19

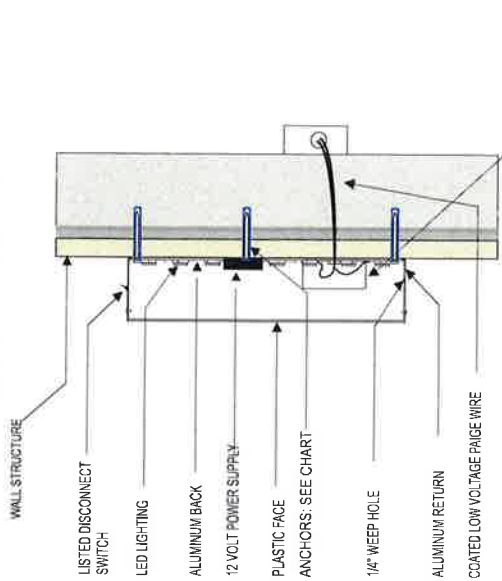
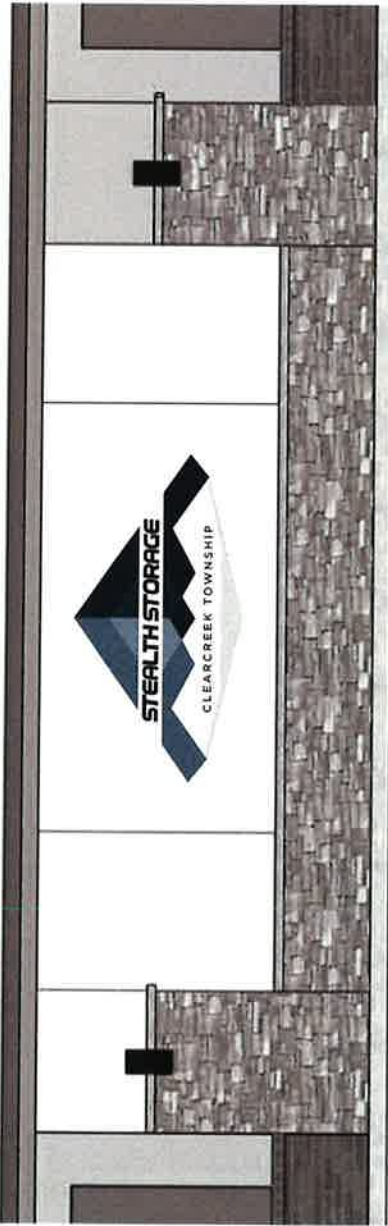
Base Design

Number of Bases	1	
Diagonal B (FT)	8.24	Base Size Required
Lateral soil pressure (LB/SF/FT)	100	3.5 FT Deep
Depth (Estimated) (FT)	3.5	10.0 FT Parallel
S1	233	2.0 FT Perpendicular
Design Depth (FT)	3.21	Ft

d	8 in	f _m	1500
A _s #5 Bars (Column)	0.62 in ² /width	n=Es/Em	21.48
p	0.004	F _b	500 psi
k	0.347	F _s	24000 psi
j	0.884	ALL CELLS GROUTED SOLID	
M _m (ft-lb)	7373		
M _s (ft-lb)	8771		

Required Flexural Strength	1465 ft-lb (18" Column)
Provided Flexural Strength	7373 ft-lb (18" Column)
	0.20 < 1.0 OK

LIGHTED SIGN CABINET



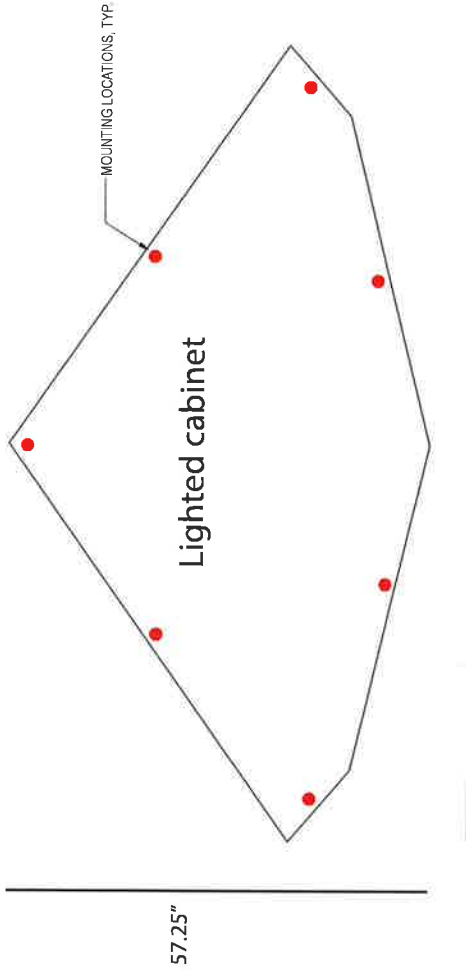
Section Detail Scale: NTS

- ALL ELECTRICAL COMPONENTS SHALL BE UL LISTED WITH LABEL
- SIGN SHALL BE GROUNDED PER N.E.C. ARTICLE 250
- POLYCARBONATE FACES MEET ASTM D635 BURN RATING AS REQUIRED BY THE OBBS STANDARDS

SIGN MOUNTING HEIGHT TO BE 30FT MAXIMUM
ANCHOR TO BE THRU BOLTS IF POSSIBLE, ALTERNATE ANCHORS PER WALL TYPE SHOWN BELOW FOR USE IF THRU BOLTING IS NOT POSSIBLE

ANCHOR SCHEDULE: 3/8" DIA. ANCHORS		ANCHOR TYPE
QUANTITY: 17	EQUAL SPACE AROUND PERIMETER	
WALL STRUCTURE		
WOOD BLOCKING		LAG BOLT (6" EMBEDMENT) THRU BLOCKING
EFS OVER 5/8" PLYWOOD		THREADED ROD THROUGH WALL
HOLLOW CONCRETE BLOCK, BRICK		SLEEVE ANCHOR (1-1/2" EMBEDMENT)
SOLID CONCRETE		WEDGE ANCHOR (1-1/2" EMBEDMENT)
CMU, SOLID CONCRETE, BRICK		PLT HIT ROD WITH GALVANNEAL (3" EMBEDMENT)

ALL ANCHORS SHALL BE CHOSEN AND PLACED IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS
SIGN TO BE CONSTRUCTED TO NEC 600 STANDARD
SIGN TO BEAR UL LABEL
SIGN TO HAVE ELECTRICAL DISCONNECT ON THE EXTERIOR



RECEIVED
AUG 20 2020
CLEARCREEK TOWNSHIP
DEPT.



NATHAN P. PRESNELL, P.E. #79812
DATE SIGNED: 1/17/2020

DESIGN PARAMETERS:
2017 OHIO BUILDING CODE, ASCE 7-10
WIND SPEED DATA
1. V_{50} , WIND SPEED = 115 MPH
 V_{30} , WIND SPEED = 89 MPH
2. WIND RISK CATEGORY II
3. WIND EXPOSURE C
4. INTERNAL PRESSURE COEFF. N/A

SEISMIC DATA
SEISMIC DESIGN CATEGORY B
SEISMIC RISK CATEGORY II
SITE SOIL CLASSIFICATION II
SS = 0.149 g, SMS = 0.238 g, SDS = 0.159 g,
S1 = 0.071 g, SMI = 0.171 g, SD1 = 0.114 g
EQUIVALENT LATERAL FORCE
 $C_e = 0.053$, $R = 3$,
BASE SHEAR $V = 17$ LBS

Prepared by:
Select Signs, LLC
11755 Spaulding Rd
Dayton, Ohio 45432
Jon Cowell
937-262-7095

Job Description:
Stealth Storage
Clearcreek Township

ENCON SERVICES, INC.
P.O. BOX 3813
APOLLO BEACH, FL 33572
813-665-3373, OC#01693
ENCON@ME.COM

EnCon Services, Inc.

Sign Design Calculations

Job Description
Stealth Storage
Clearcreek Twp

PREPARED BY: EnCon Services, Inc.
PO Box 3613
Apollo Beach, FL 33572
813-655-3373
OC #01893

57.25" x 108" Wall Sign
Design per 2017 Ohio Building Code
ASCE 7-10, Load Case: D + 0.6W
Seismic Design Category B

Nathan P. Presnell, PE
OH PE #79812

Design Specifications

Risk Category II	
K _{zt}	1
Exposure Factor	C
K _d	0.85
K _z	0.98
V _{ULT}	115 (mph)
GCp-GCpi	1.1 Zone 4, H < 60 Feet
Ult. Wind Pressure	31.0 (psf)

Sign Information	
Height	4.77 (ft)
Width	9.00 (ft)
Thickness	0.67 (ft)
Distance grade to top	30 (ft)

Wind Shear Force 59.49 (lb)
Weight of Sign 322 (lb)

Total Shear Force = 327.42 (lb)

Total Tension Force = 599.30 (lb)

	Required	Provided
Fastener size (Nominal)	3/8	3/8
Minimum number of fasteners	7	7
Shear Force per fastener (lb)	46.8	280
Tension Force per fastener (lb)	85.6	352

Combination Tension and Shear ratio **0.41 < 1 O.K.**

THREADED ROD THROUGH WALL IS PREFERRED IN ALL INSTANCES. IF IT IS NOT POSSIBLE TO USE THREADED ROD, SEE CHART BELOW FOR APPROPRIATE ANCHOR SELECTION. SIZE AND NUMBER REQUIRED ARE NOTED IN THE CHART ABOVE.

WALL STRUCTURE	ANCHOR TYPE
WOOD BLOCKING	LAG BOLT (3" EMBEDMENT) THROUGH BLOCKING
EIFS OVER 5/8" PLYWOOD	THREADED ROD THROUGH WALL
HOLLOW CONCRETE BLOCK, BRICK	SLEEVE ANCHOR (1-1/2" EMBEDMENT)
SOLID CONCRETE	WEDGE ANCHOR (2-1/2" EMBEDMENT)
CMU, SOLID CONCRETE, BRICK	HILTI HIT ROD W/HY-70 ADHESIVE (3 1/2" EMBEDMENT)

ALL ANCHORS SHALL BE CHOSEN AND PLACED IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS



DATE SIGNED:

1/7/2020

RECEIVED

AUG 20 2020

CLEARCREEK TOWNSHIP
ZONING DEPT.