

# Building Permit Application

## City of Tualatin

18880 SW Martinazzi Ave.

Tualatin, OR 97062

Phone: 503-691-3044 Fax: 503-692-0147 www.tualatinoregon.gov



## OFFICE USE ONLY

Date received: \_\_\_\_\_ Permit # \_\_\_\_\_

Date Issued: \_\_\_\_\_ By: \_\_\_\_\_ Receipt: \_\_\_\_\_

### TYPE OF WORK

- |   |                                     |
|---|-------------------------------------|
| <input type="checkbox"/> New construction                           | <input type="checkbox"/> Demolition |
| <input checked="" type="checkbox"/> Addition/alteration/replacement | <input type="checkbox"/> Other:     |

### CATEGORY OF CONSTRUCTION

- |  |                                       |
|--|---------------------------------------|
| <input type="checkbox"/> 1- and 2-family dwelling      | <input type="checkbox"/> Multi-family |
| <input checked="" type="checkbox"/> Accessory building | <input type="checkbox"/> Industrial   |
| <input type="checkbox"/> Commercial                    | <input type="checkbox"/> Other:       |

### JOB SITE INFORMATION AND LOCATION

Job site address: 18040 Lower Boones Ferry Road

City/State/ZIP: Tigard, OR, 97224

Suite/bldg./apt. no.:

Project name: Prov. Bridgeport COVID

Cross street/directions to job site:

SW Childs

Subdivision:

Lot no.:

Tax map/parcel no.:

### DESCRIPTION OF WORK

Installation of a wheeled, prefabricated structure and adjacent canopy to act as shelter for caregivers during testing of COVID patients at drive-through facility.

### OWNER

Name: Providence Medical Group

Address: 4400 NE Halsey Street, Building #2

City/State/ZIP: Portland, OR 97213

Phone: (503) 515-6791

Email: evan.schaye@providence.org

### APPLICANT

Business name: Providence Medical Group

Contact name: Evan Schaye

Address: 4400 NE Halsey Street, Building #2

City/State/ZIP: Portland, OR 97213

Phone: (503) 515-6791

E-mail: evan.schaye@providence.org

### CONTRACTOR

Business name:

Address:

City/State/ZIP:

Phone:

CCB lic.:

METRO lic.:

City Bus. lic.:

E-mail:

Authorized signature:

Print name: Evan Schaye

Date: 11/02/2020

### REQUIRED DATA: 1- AND 2-FAMILY DWELLING

Permit fees are based on the value of the work performed. Indicate the value (rounded to the nearest dollar) of all materials and labor for the work described on this application.

Valuation

Number of bedrooms:

Number of bathrooms:

Total number of floors:

New dwelling area: \_\_\_\_\_ square feet

Garage/carport area: \_\_\_\_\_ square feet

Covered porch area: \_\_\_\_\_ square feet

Deck area: \_\_\_\_\_ square feet

Other structure area: \_\_\_\_\_ square feet

### REQUIRED DATA: COMMERCIAL-USE CHECKLIST

Permit fees are based on the value of the work performed. Indicate the value (rounded to the nearest dollar) of all materials and labor for the work described on this application.

Valuation \$15,000

Existing building area: \_\_\_\_\_ square feet

New building area: 720 square feet

Number of stories: 1

Type of construction:

Occupancy groups:

Existing:

New:

### BUILDING PERMIT FEES

*Please refer to fee schedule*

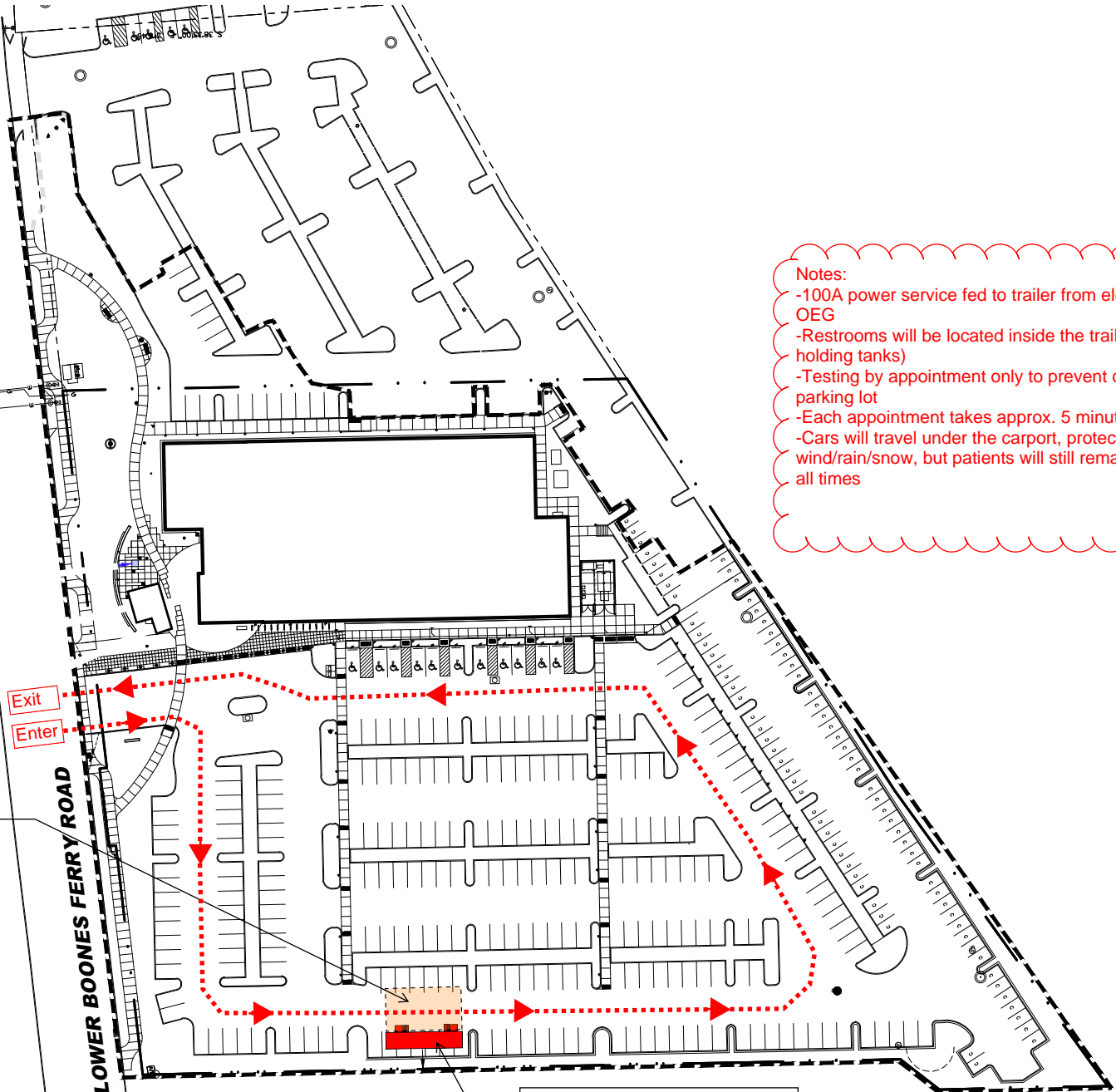
FEE TYPE	AMOUNT
PERMIT FEE	147
PLAN CHECK FEE (Due upon application)	95.55
FIRE LIFE SAFETY FEE (Due upon application)	66.15
STATE SURCHARGE (12% of permit fee)	17.64
METRO CET (0.12% of valuation)	
DEFERRED SUBMITTAL	
OTHER	
TOTAL FEES	326.34

NOTES:

**This permit application will expire if a permit is not obtained within 180 days after it has been accepted as complete.**

Drive-through canopy by Alaska Structures. Engineering and drawings are currently in production - to be submitted as soon as available. Delivery and installation approximately 6 weeks from 11/10/2020

- Notes:
- 100A power service fed to trailer from electrical room by OEG
  - Restrooms will be located inside the trailer (with septic holding tanks)
  - Testing by appointment only to prevent queuing in parking lot
  - Each appointment takes approx. 5 minutes
  - Cars will travel under the carport, protected from wind/rain/snow, but patients will still remain in their cars at all times



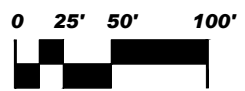
New 12x60 trailer

**PROVIDENCE HEALTH & SERVICES  
BRIDGEPORT HEALTH CENTER  
COVID ASSESSMENT CARE TENTS  
TIGARD, OREGON**

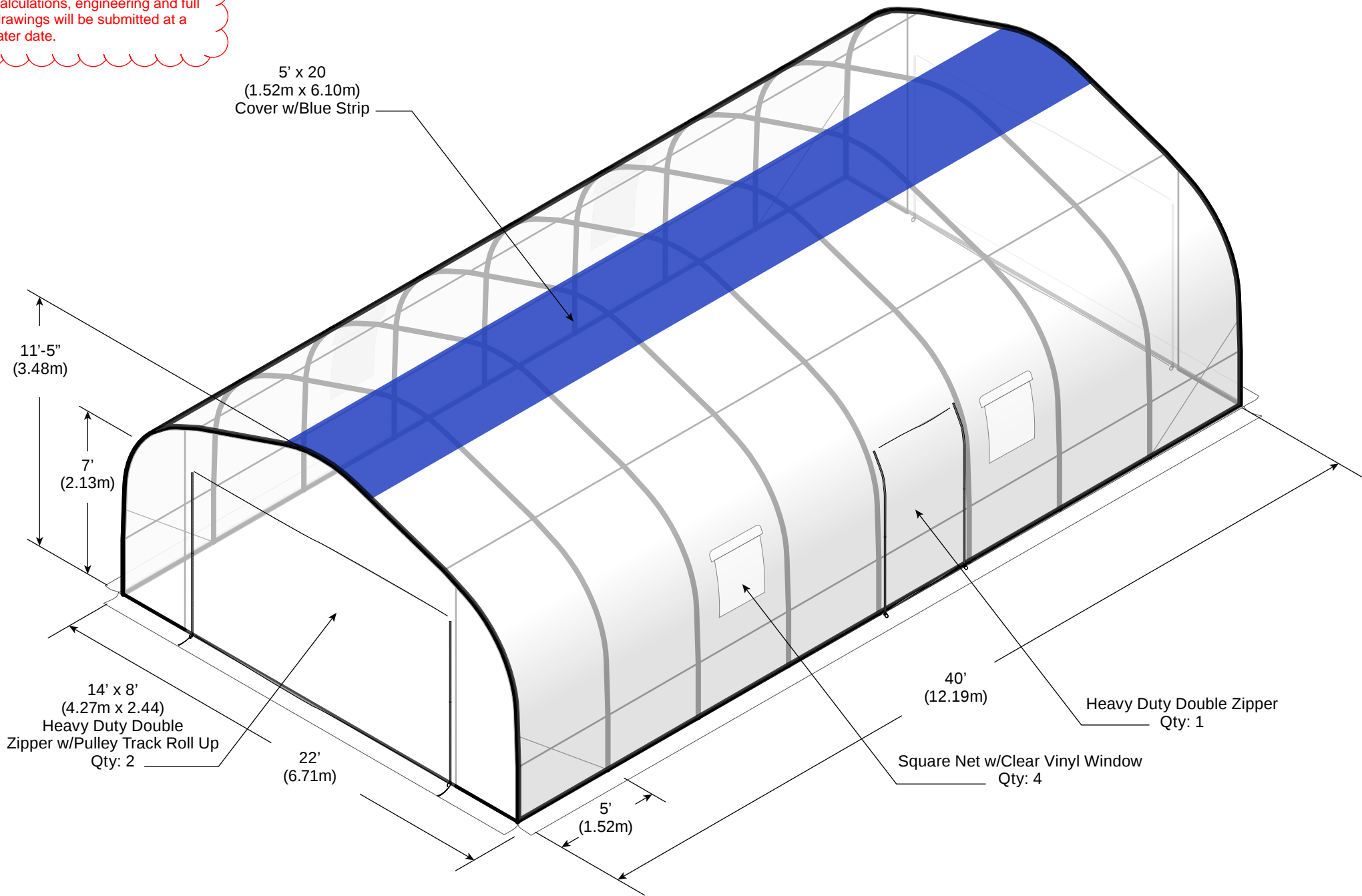
**SITE PLAN**

SCALE: 1" = 100'-0"

MARCH 31, 2020



Initial draft of 22x40 canopy - calculations, engineering and full drawings will be submitted at a later date.



# STRUCTURAL NOTES:

## 1. DESIGN INFORMATION & LOADING:

- 1.1. BUILDING CODE IBC, 2018 EDITION, OSSC-2019
- 1.2. ROOF LIVE LOAD 30 PSF (SNOW),  $I_s=1.0$ ,  $C_f=1.15$
- 1.3. FLOOR LIVE LOAD 50 PSF OR 2,000# CONC. (OFFICE)
- 1.4. WIND CRITERION 120 MPH, EXP C,  $K_{zt}=1.0$
- 1.5. SEISMIC CRITERION  $SDS=1.200$ ,  $I_e=1.0$ , SITE CLASS D, CATEGORY D
- 1.6. ASSUMED SOIL BEARING 1,500 PSF
- 1.7. WALL PLATE HEIGHT 9'-0"
- 1.8. ROOF SLOPE 2:12 OR FLATTER

## 2. CONCRETE:

- 2.1. DESIGN COMP. STRENGTH 2,500 PSI
- 2.2. REINF. YIELD 60 KSI

## 3. MASONRY:

- 3.1. 8x16x8 UNITS ASTM C-90, GRADE N
- 3.2. SET UNITS W/ CORES VERTICAL & NO MORE THAN 3 HIGH, PER PLAN, WITHOUT SOLID GROUTING CORES. SOLID GROUTED CORES OVER OVER 5 HIGH REQUIRES SPECIFIC ENGINEERING.

## 4. WOOD:

- 4.1. ALL WOOD TO BE HEM-FIR STUD GRADE OR BETTER.
- 4.2. WOOD FRAMING AND SHEATHING WITHIN 6-INCHES OF GRADE TO BE PRETREATED FOR EXPOSURE TO MEET IBC 2015 2303.01.9.
- 4.3. CONNECTORS IN TREATED MATERIALS SHALL BE HOT-DIPPED GALVANIZED OR STAINLESS STEEL PER IBC 2015, 2304.10.5.
- 4.4. SET MODULAR BUILDING SUCH THAT THE FLOOR JOISTS ARE A MINIMUM OF 18-INCHES ABOVE FINISHED SUBGRADE BELOW BUILDING.

## 5. SPECIALTY ITEMS: ("MINUTE MAN PRODUCTS, Inc." (800) 438-7277

www.minutemanproducts.com, OR EQUIVALENT.)

- 5.1. METAL PIERS TO BE CAPABLE OF SUPPORTING 6,000#
- 5.2. HOLD-DOWNS SET IN SOIL AND LOOSE GRAVEL SHALL BE SOIL ANCHOR AUGER-TYPE SET VERTICAL W/ STABILIZER PLATE OR HEAD; OR DRIVEN ANCHOR W/ STABILIZER PLATE OR HEAD, W/ A MIN. DESIGN WORKING LOAD OF 3,150# AND AN ULTIMATE LOAD OF 4,725#. NUMBER OF ANCHORS AS INDICATED ON TABLE A. CORNER TIE-DOWNS TO BE WITHIN 3'-0" OF THE BUILDING CORNER. TIE-DOWNS OTHER THAN AT THE CORNERS SHALL BE SPACED EQUALLY. EACH INDIVIDUAL EQUALLY SPACED TIE-DOWN SHALL BE WITHIN 4'-0" OF THE EQUAL SPACING.
- 5.3. TIE-DOWNS TO STABLE CONCRETE SHALL BE EITHER A MMA-18-THDLS FOR PRE-POURED CONCRETE OR A MMA-42-210-PDH POUR INTO THE CONCRETE. NUMBER OF ANCHORS PER
- 5.4. TIE-DOWNS SET IN AN ASPHALT ROADWAY OR PARKING AREA SHALL BE "ROCK-TYPE" ANCHORS
- 5.5. INSTALL GROUND PORTION OF THE ANCHOR PRIOR TO SETTING THE BUILDING. CONNECT ANCHOR TIES TO BUILDING ONLY AFTER BUILDING IS FULLY BLOCKED AND LEVELED.
- 5.6. INSTALL ALL SPECIALTY ITEMS PER THE MANUFACTURER'S RECOMMENDATIONS. SEE INSTALLATION INSTRUCTION MANUAL.

## 4. VENTING:

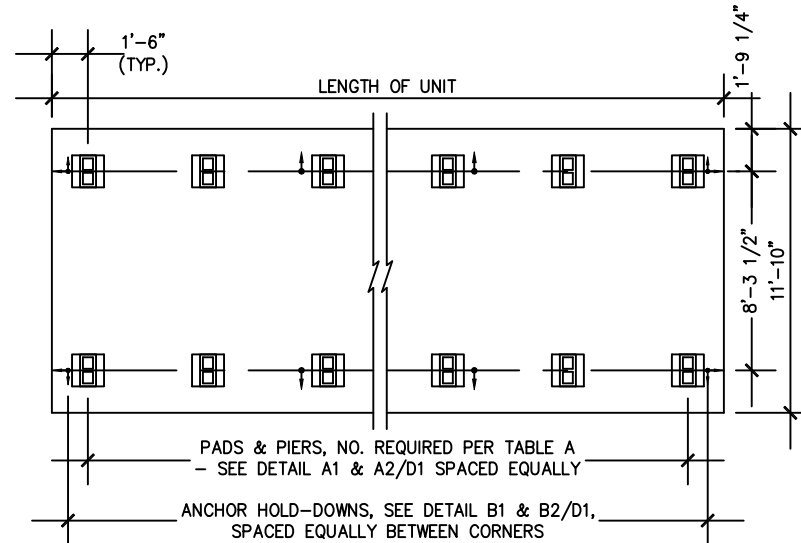
- 4.1. PROVIDE UNDER FLOOR VENTILATION PER IBC CODE AND LOCAL REQUIREMENTS AT 1 NET SF OF VENTILATION PER 150 SF OF FLOOR AREA.
- 4.2. IF A SUITABLE VAPOR RETARDER IS INSTALLED THE RATIO MAY BE INCREASED TO  $\frac{1}{1500}$ , IF ACCEPTABLE TO THE LOCAL BUILDING OFFICIAL.

## 6. ACCESS:

- 6.1. PROVIDE ACCESS TO THE UNDER FLOOR AREA PER THE CODE.
- 6.2. PROVIDE 12" MIN. CLEARANCE FROM SOIL TO UNDERSIDE OF ALL BUILDING SUPPORT MEMBERS.

## 7. SITE CONDITIONS:

- 7.1. FOUNDATION SUBGRADE TO BE UNDISTURBED NATIVE SOILS OR STRUCTURAL FILL, COMPACTED TO 95% OF THE STANDARD PROCTOR DENSITY PER ASTM D-698.
- 7.2. SLOPE FINISHED GRADE AWAY FROM THE BUILDING FOUNDATION AT A MIN. GRADE OF 5% FOR THE FIRST 10-FEET AND 2% THEREAFTER TO A SUITABLE DISCHARGE.



① 12' WIDE MODULAR FOUNDATION PLAN  
SCALE: 1/8" = 1'-0"

### TABLE A

#### MODULE RAIL PIER/PAD SPACING

INSTALL PIER/PADS UNDER CHASSIS, SPACED EQUALLY BETWEEN CORNER PIERS  
INSTALL HOLD-DOWNS, SPACED EQUALLY BETWEEN CORNER HOLD-DOWNS

LENGTH OF UNIT	# PADS & PIERS EACH SUPPORT RAIL	# HOLD-DOWN ANCHORS	
		EA. SIDE	EA. END
32'-0"	8	3	2
40'-0"	10	4	2
42'-0"	10	4	2
44'-0"	11	4	2
48'-0"	11	4	2
56'-0"	13	5	3
60'-0"	14	5	3



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(410) 681-4003  
FAX: (410) 681-4040

SEATTLE AREA BRANCH  
1400 MARLEY POINT BLVD  
UNION WA, WA 98151  
(206) 835-1800  
(206) 835-1803  
FAX: (206) 835-1840

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DEAN W. BRIGGS, PE



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PO BOX 140537, GARDEN CITY, ID 83714 - (208) 871-0200  
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PACIFIC NORTHWEST AREA  
IBC-2018, OSSC-2019

12' MOBILE OFFICE BUILDINGS  
PAD & PIER TYPE FOUNDATION  
PLAN - NOTES - DETAILS

DWG NO. 201904.09.2-F12  
SCALE: AS SHOWN  
DWG DATE: JANUARY 2020

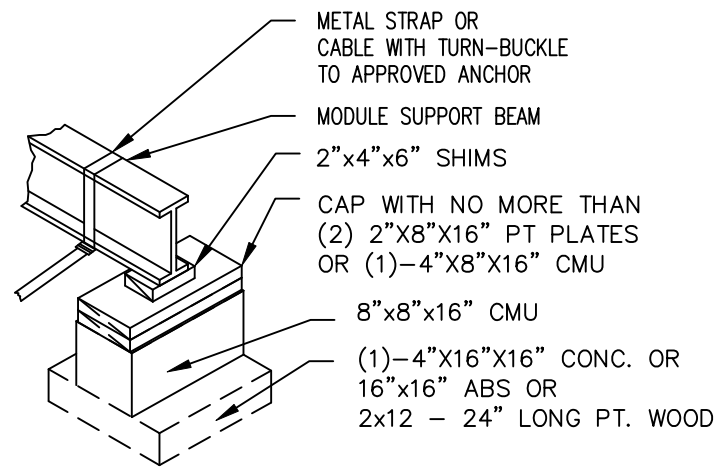
REVISION DATE: 1/25/2020

1 of 2

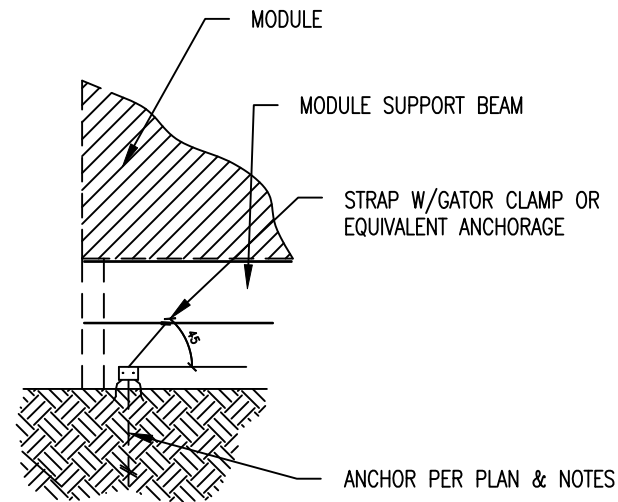
F12

SHEET:

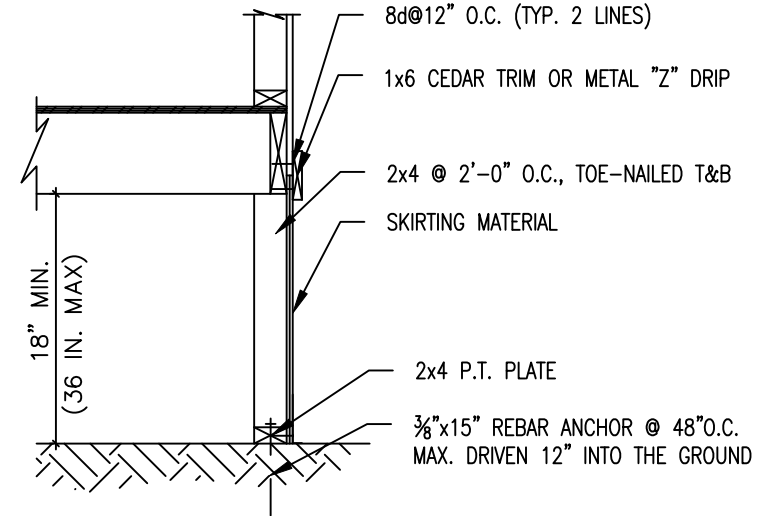
ANDREW WEIDL



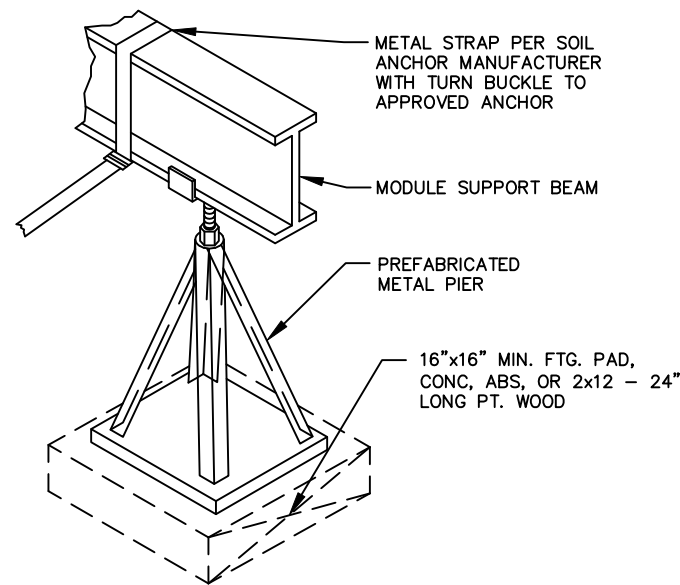
A1 CMU PIER  
N.T.S.



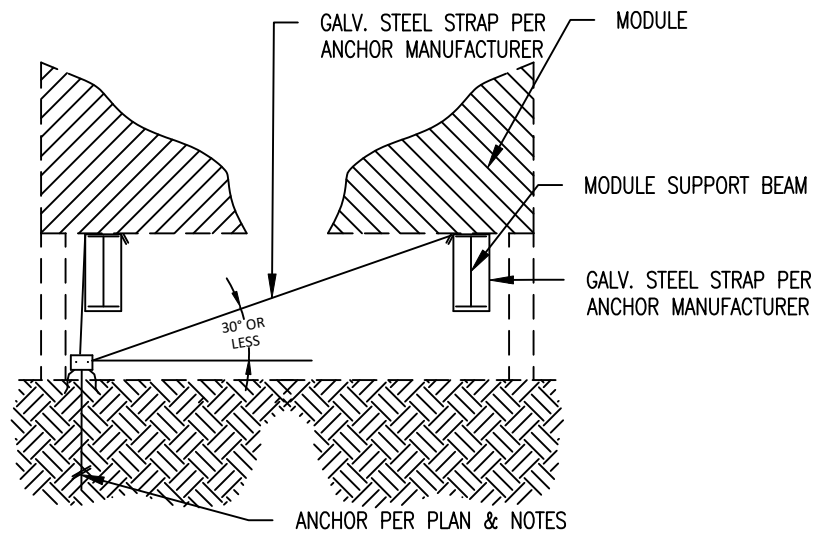
B1 SOIL ANCHOR-ENDWALL  
N.T.S.



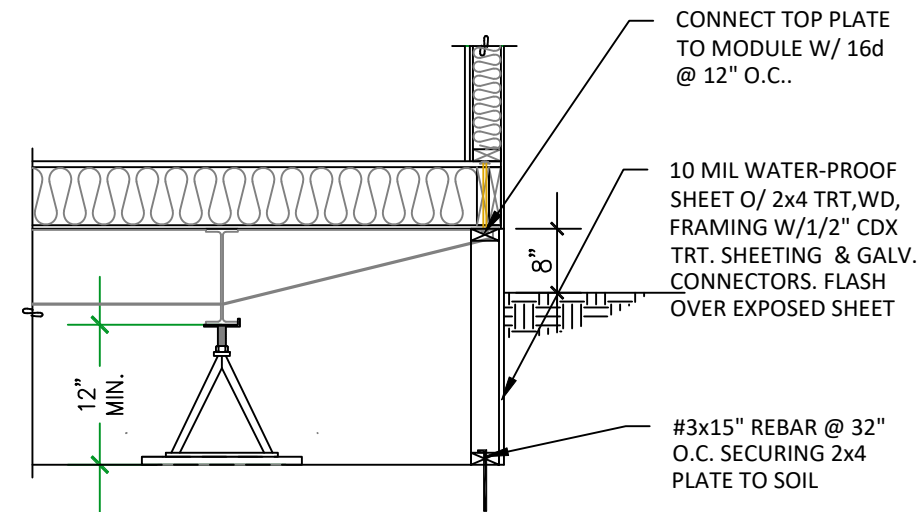
C1 SKIRTING DETAIL-NONBEARING  
N.T.S.



A2 PAD & PIER  
N.T.S.



B2 SOIL ANCHOR-SIDEWALL  
N.T.S.



C2 SKIRTING DETAIL-STRUCTURAL/PITSET



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PACIFIC NORTHWEST AREA  
IBC-2018, OSSC-2019

SINGLE-WIDE MOBILE OFFICE BUILDINGS

PAD & PIER TYPE FOUNDATION  
DETAILS

DWG NO. 201904.09.2-D1  
SCALE:  
DWG DATE: JANUARY 2020

REVISION DATE: 1/25/2020

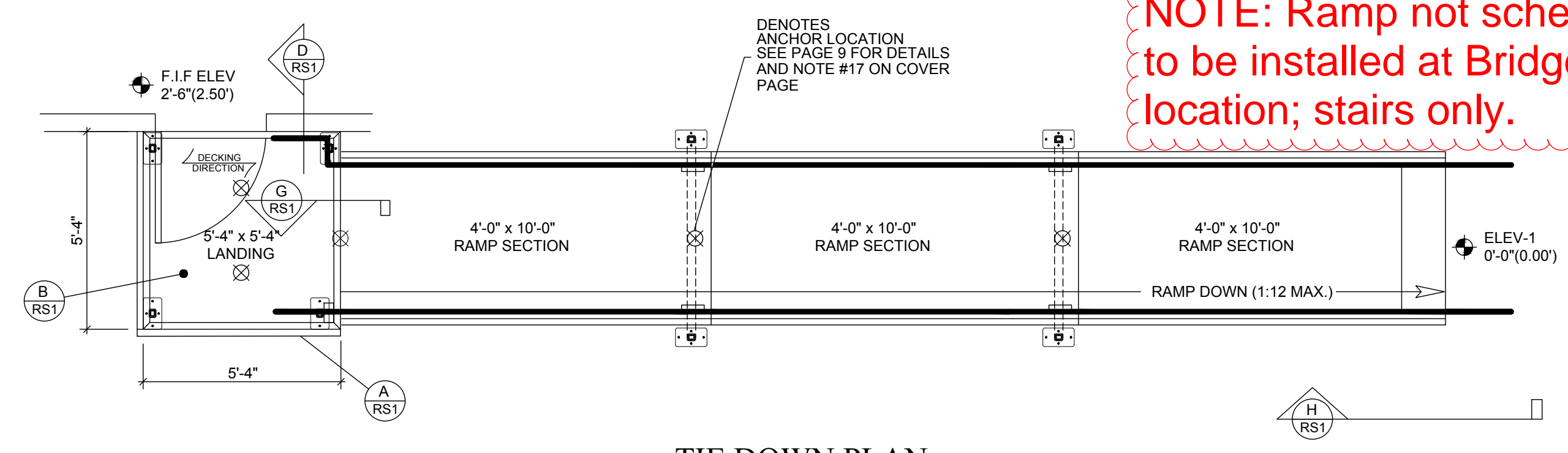
2 of 2

D1

SHEET:

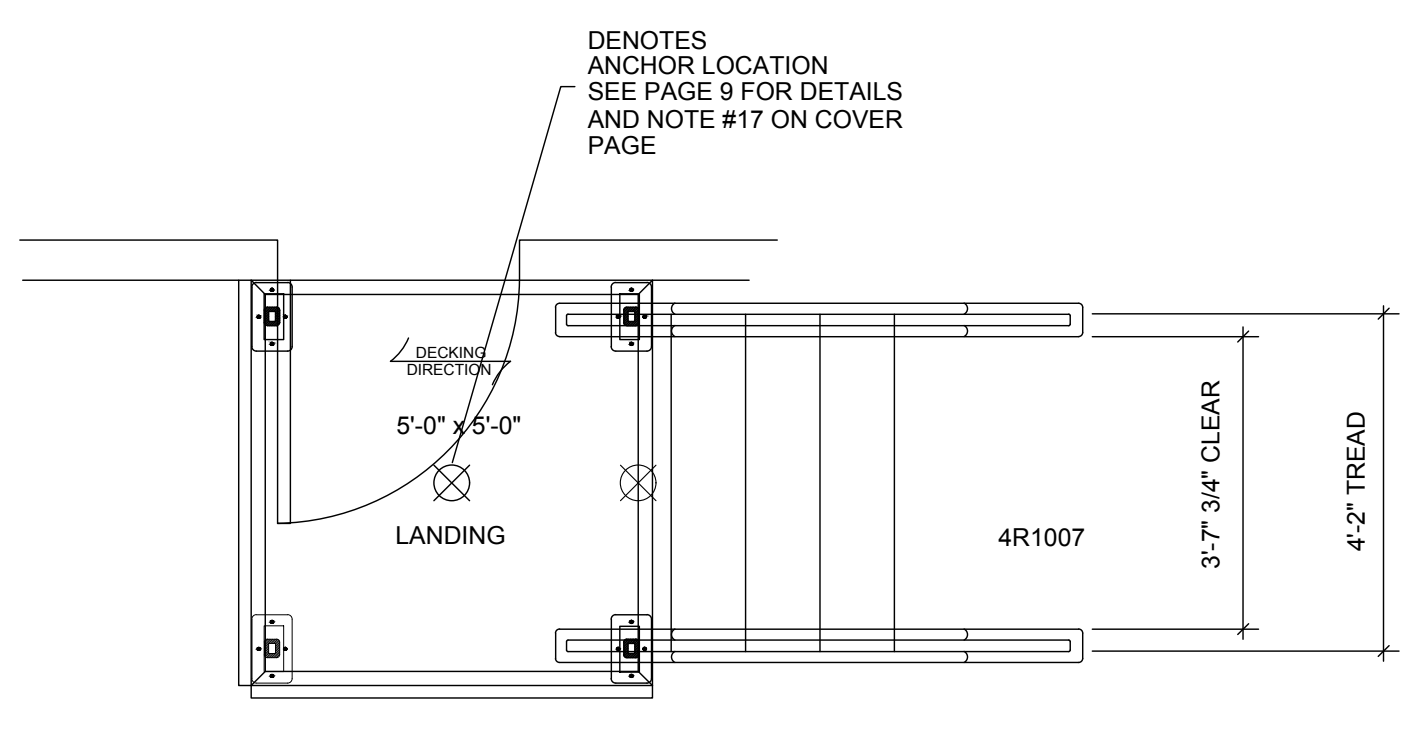
ANDREW WEIDL

**NOTE: Ramp not scheduled to be installed at Bridgeport location; stairs only.**

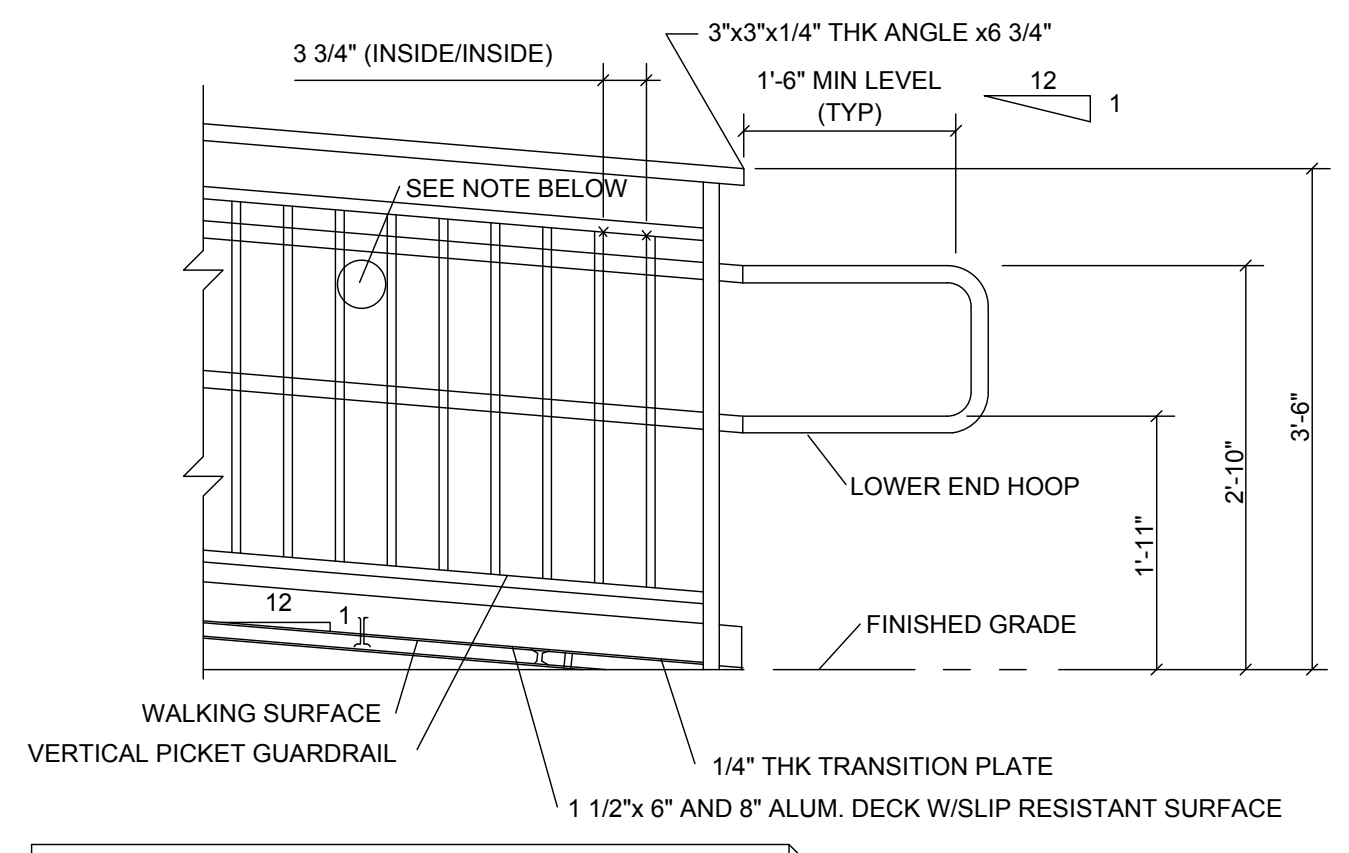


**TIE DOWN PLAN**  
SCALE: 3/16" = 1'-0"

TIE-DOWN DESIGN LOADS:  
WIND LOAD: 180 MPH  
EXPOSURE CATEGORY: C  
RISK CATEGORY: II



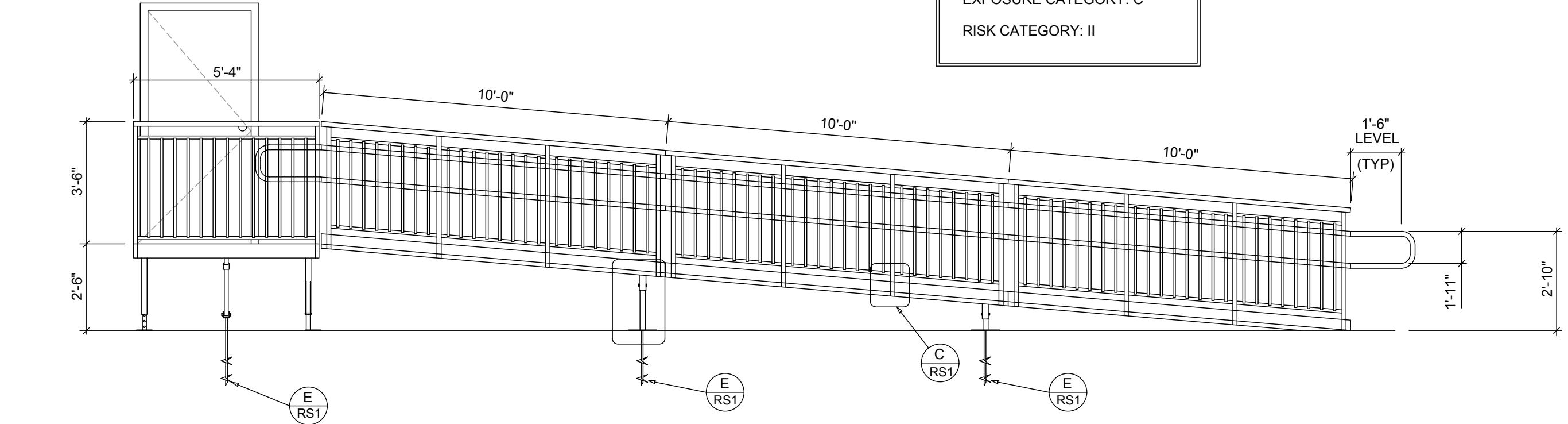
**ELEVATION PLAN**  
SCALE: 3/16" = 1'-0"



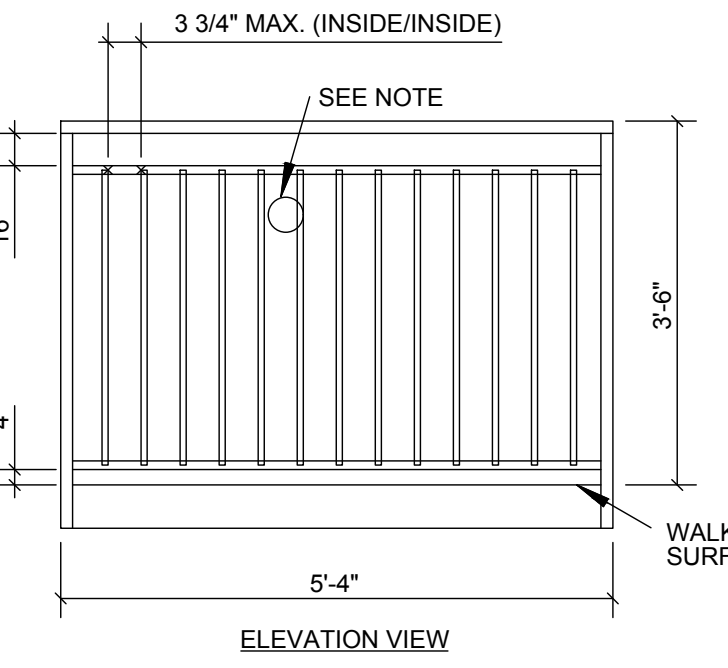
**END OF RAMP VIEW**  
SCALE: 3/4" = 1'-0"

**GENERAL NOTES:**

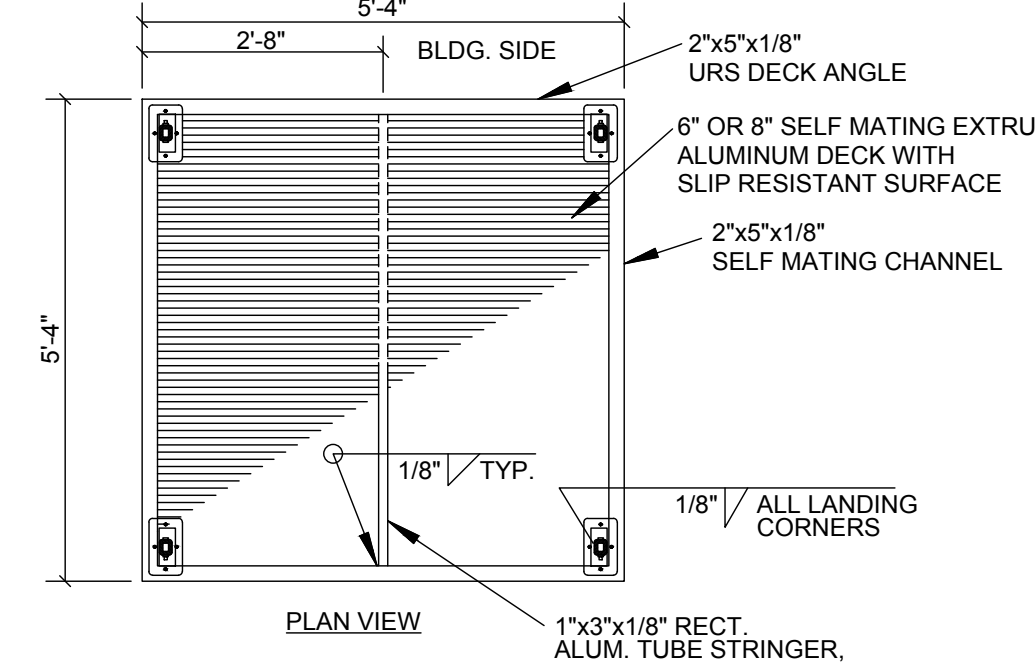
- ALUMINUM RAMP, LANDING AND STAIR SECTIONS SHALL BE A RIGID, FREE-SPAN DESIGN.
- DESIGN OF THE ALUMINUM STRUCTURES SHALL CONFORM TO THE CURRENT EDITION OF THE ALUMINUM ASSOCIATION SPECIFICATIONS AND GUIDELINES FOR ALUMINUM STRUCTURES.
- ALUMINUM CONSTRUCTION USING THE 6000 SERIES ALUMINUM ALLOYS. STRUCTURAL MEMBERS TO BE 6061-T6, 6063-T6 AND 6005-T5ALUMINUM ALLOY.
- ALUMINUM SHALL BE STANDARD MILL FINISH UNLESS OTHERWISE NOTED.
- WELDING SHALL BE IN ACCORDANCE WITH ANSI/AWS D1.2-97 GAS METAL ARC WELDING (GMAW).
- ALL FASTENERS TO BE 18-8 (SERIES 304) STAINLESS STEEL UNLESS OTHERWISE NOTED.
- LANDING, RAMP, AND STAIR SECTIONS ARE TO BE ENGINEERED FOR A 100PSF LIVE LOAD.
- LANDING AND RAMP WALKING SURFACES SHALL BE DESIGNED FOR A MINIMUM CONCENTRATED VERTICAL LOAD OF 300 LBS APPLIED EVENLY OVER A 12"x12" AREA. STAIR TREADS SHALL BE DESIGNED TO WITHSTAND A MINIMUM CONCENTRATED LOAD OF 300 LBS OVER A 4 INCH AREA.
- RAMP AND LANDING GUARDRAILS TO BE 42 INCH MINIMUM HEIGHT UNLESS OTHERWISE SPECIFIED. (34 AND 38 INCH TWO-LINE RAMP RAILS AND 34 AND 38 INCH VERTICAL PICKET RAMP RAILS AS WELL AS CUSTOM DESIGN RAMP RAILS AVAILABLE UPON REQUEST FOR SYSTEMS NO MORE THAN 30 INCHES ABOVE FINISHED GROUND LEVEL.)
- HANDRAIL ASSEMBLIES AND GUARDRAILS SHALL BE ABLE TO RESIST A LOAD OF 50 PLF APPLIED IN ANY DIRECTION AT THE TOP OF THE RAIL.
- HANDRAIL ASSEMBLIES AND GUARDRAILS SHALL BE ABLE TO RESIST A SINGLE CONCENTRATED LOAD OF 250 LBS, APPLIED IN ANY DIRECTION AT ANY POINT ALONG THE TOP OF THE RAIL. THIS LOAD NEED NOT BE ASSUMED TO ACT CONCURRENTLY WITH THE LOADS SPECIFIED IN THE PRECEDING PARAGRAPH.
- INTERMEDIATE RAILS (ALL THOSE EXCEPT HANDRAILS), BALUSTERS AND PANEL FILLERS SHALL BE DESIGNED TO WITHSTAND A HORIZONTALLY APPLIED NORMAL LOAD OF 50 LBS ON AN EQUAL TO 1 SQUARE FOOT, INCLUDING OPENINGS AND SPACE BETWEEN RAILS.
- GUARDRAIL SYSTEMS SHALL BE DESIGNED SO THAT A 4 (FOUR) INCH SPHERE CANNOT PASS THROUGH ANY OPENING.
- DECK SURFACE SHALL BE SLIP RESISTANT, EXTRUDED ALUMINUM DECKING WITH A TRIPLE I-BEAM, SELF-MATING DESIGN.
- ALL SURFACES, MEMBERS AND THEIR WELDED JOINTS SHALL BE SMOOTH AND FREE FROM SHARP OR JAGGED EDGES.
- ALL DESIGNS SHOWN HEREIN ARE SUBJECT TO CHANGE PENDING FIELD VERIFICATION OF EXISTING CONDITIONS.



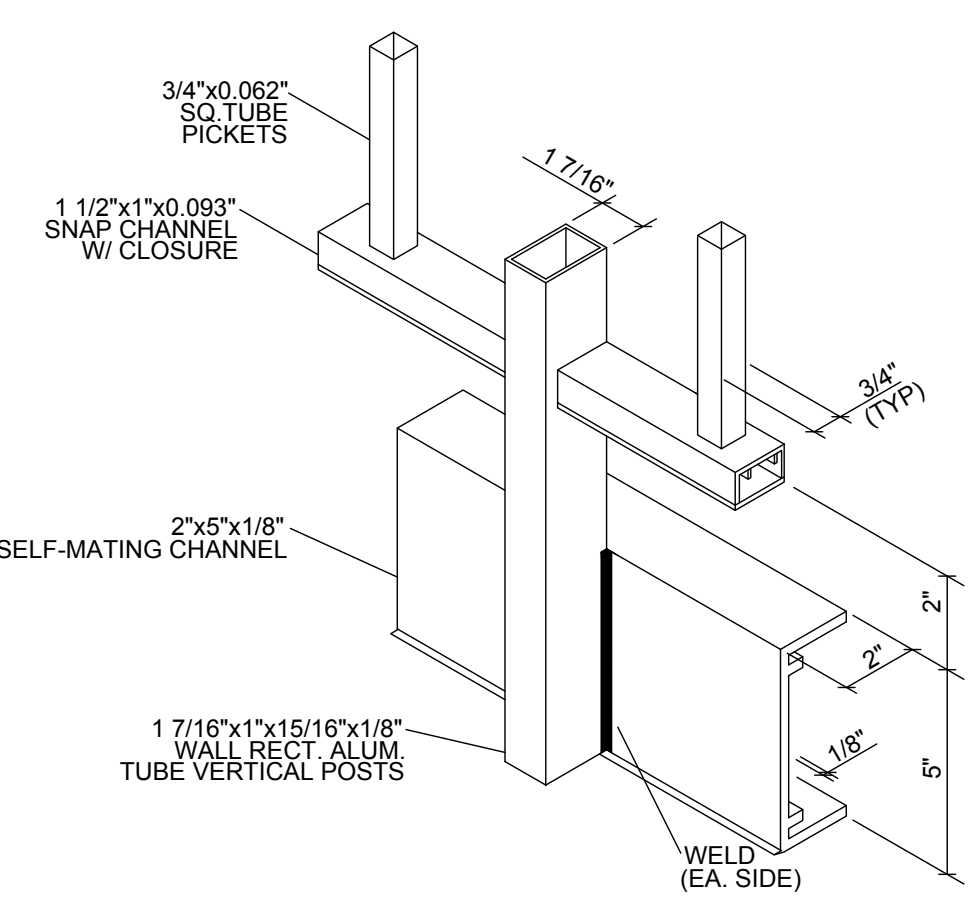
**ELEVATION PLAN**  
SCALE: 3/16" = 1'-0"



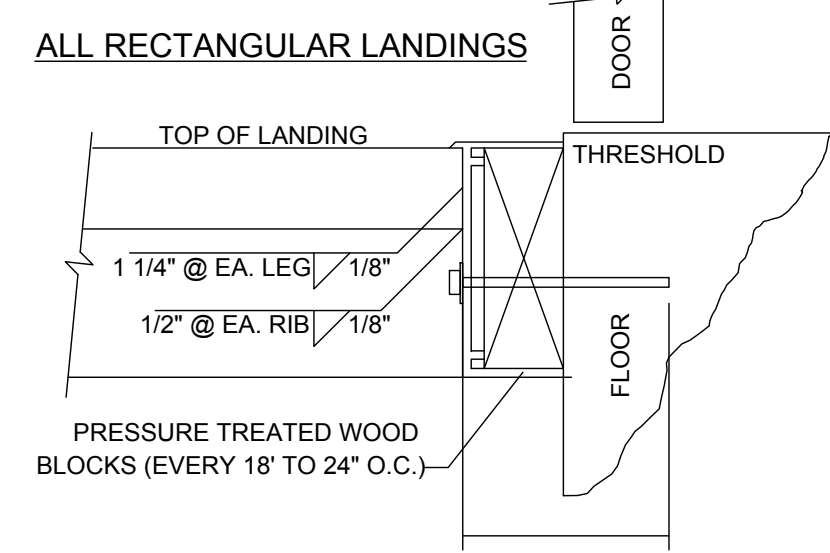
**5'-4" LANDING RAIL**  
SCALE: 1 1/2" = 1'-0"



**5'-4" SQ LANDING**  
SCALE: 1 1/2" = 1'-0"

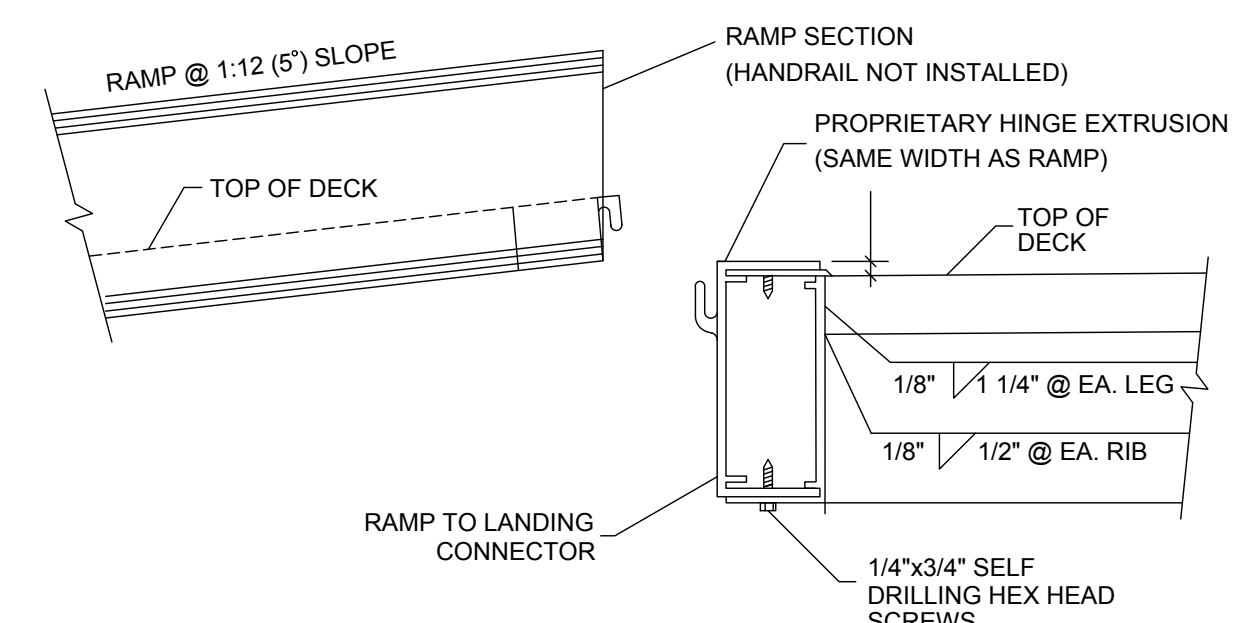


**ISO @ RAMP W/ RAILING**  
SCALE: 3" = 1'-0"

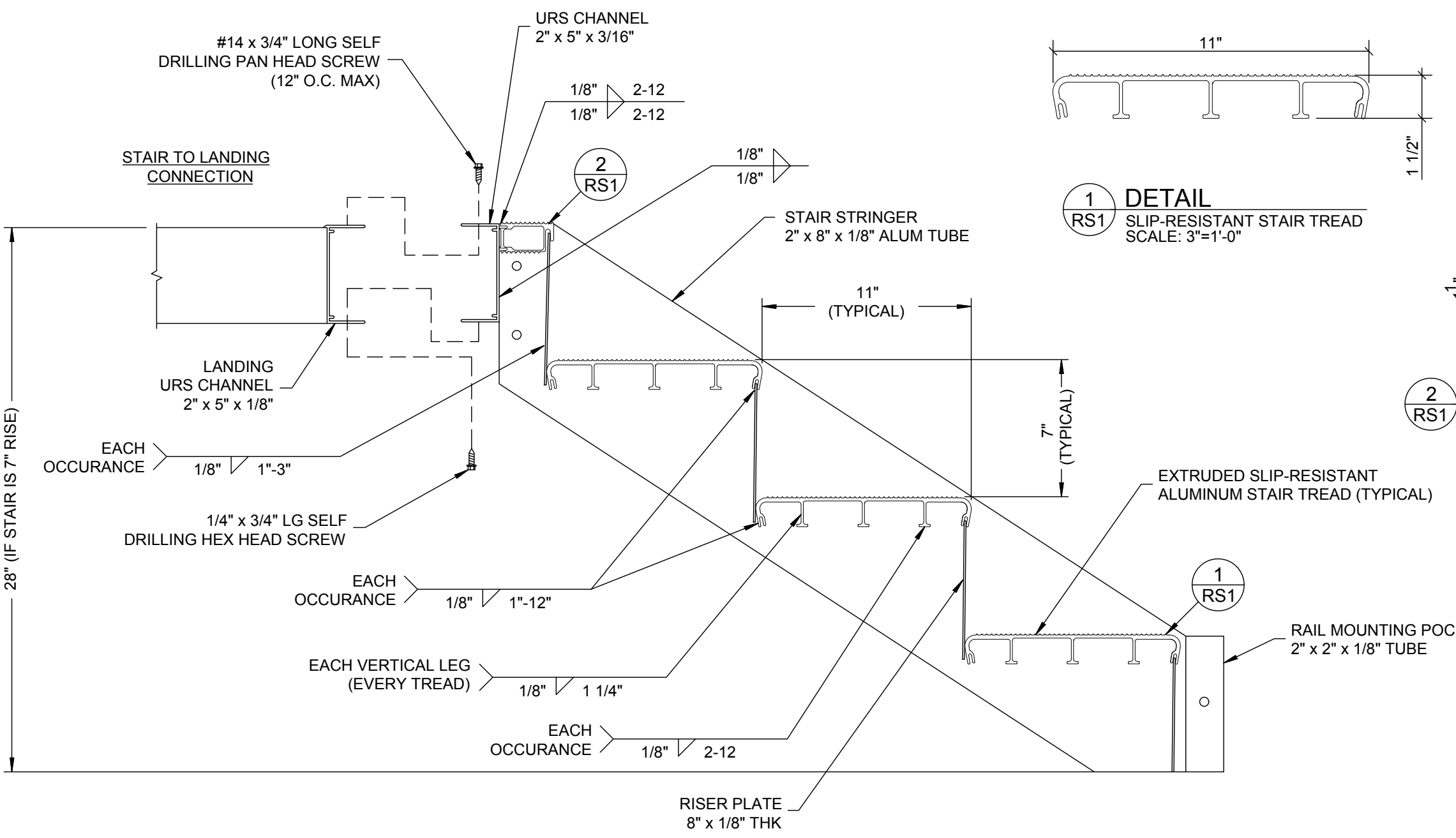


**DIFFERENT TYPES OF ATTACHMENT:**  
1.) FOR ATTACHMENT LIGHT GAUGE METAL JOIST: THROUGH BOLT WITH 5/16" DIA. HEX-HEAD BOLT, FLAT WASHER, & 5/16" NUT. (12" O.C. MAX.)  
2.) FOR ATTACHMENT TO WOOD: 5/16" DIA. HEX - HEAD LAG SCREWS (12" O.C. MAX.)  
3.) FOR ATTACHMENT CEMENT: 3/8" DIA. HEX - HEAD SLEEVE ANCHORS. (12" O.C. MAX.)

**RAMP TO RAIL CONNECTION**  
SCALE: 1 1/2" = 1'-0"

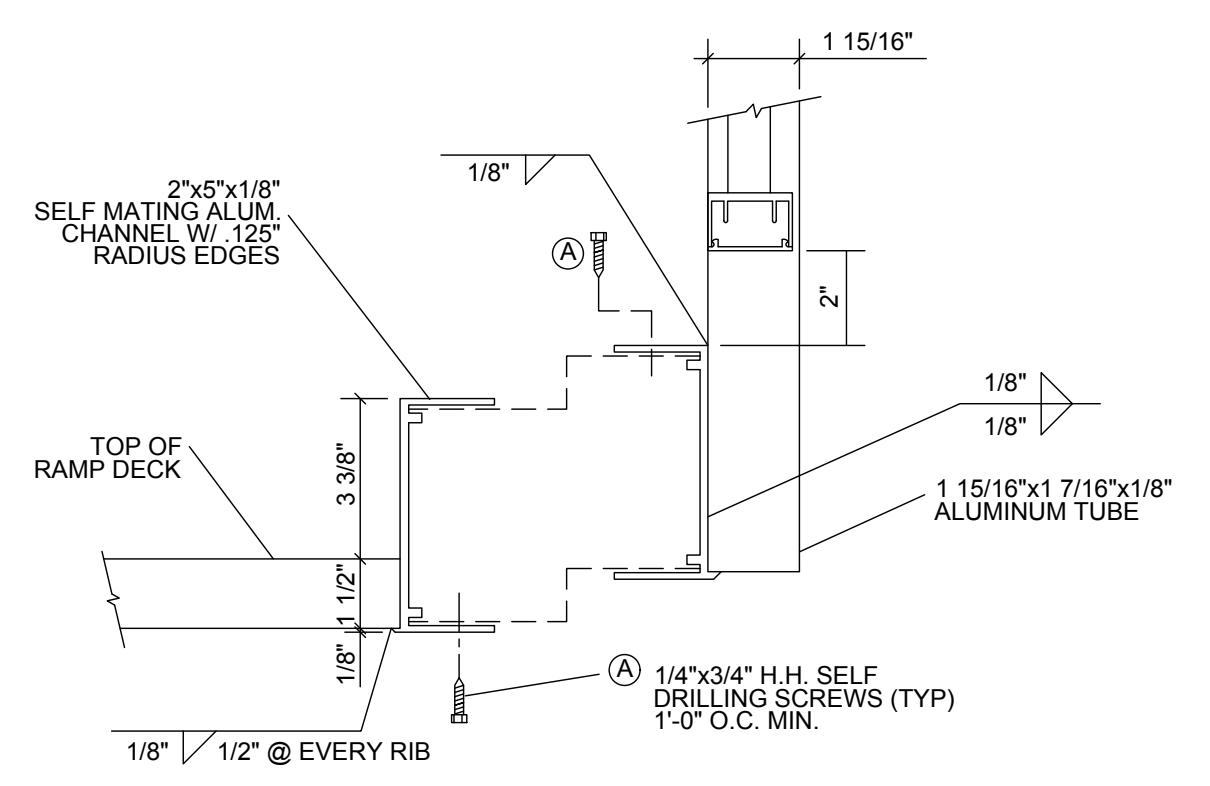


**RAMP TO LANDING CONNECTION**  
SCALE: 3" = 1'-0"

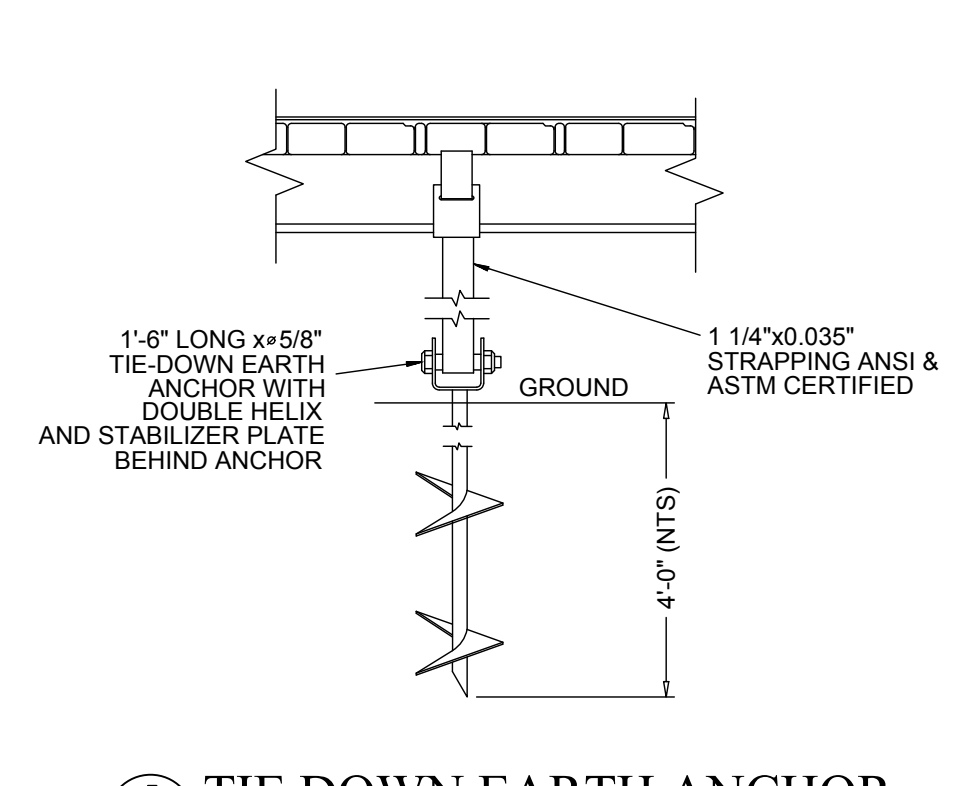


**DETAIL SLIP-RESISTANT STAIR TREAD**  
SCALE: 3" = 1'-0"

**DETAIL SLIP-RESISTANT STAIR URS HINGE**  
SCALE: NTS



**RAMP TO RAIL CONNECTION**  
SCALE: 1 1/2" = 1'-0"



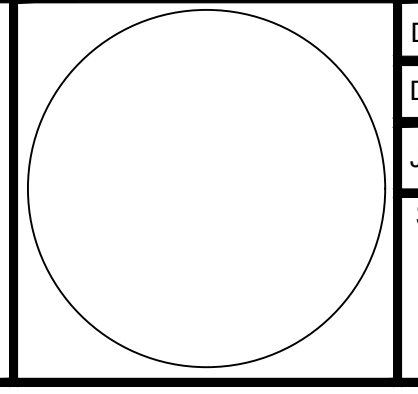
**TIE DOWN EARTH ANCHOR**  
SCALE: 1 1/2" = 1'-0"

**FBC, 5TH EDITION W/ 2016 SUPP.**  
COMPLIANCE STATEMENT:  
1. BASIC WIND SPEED - 180 MPH (HVHZ)  
2. RISK CATEGORY: II  
3. WIND EXPOSURE: C  
4. DECK LIVE LOAD: 100 PSF  
5. HANDRAIL IMPACT: 200 PSF

**DESIGN CRITERIA**  
COMPLIANCE STATEMENT:  
FLORIDA BUILDING CODE, 6TH EDITION (2017)  
FLORIDA FIRE PROTECTION CODE, 6TH EDITION (2017)  
2015 EPOT BUILDING CODE W/ 2016 SUPP  
2015 EPOT ACCESSIBILITY CODE W/ 2016 SUPP

CONSULTING ENGINEER  
JULIO ORBEGOSO  
FLORIDA PE #38769

REVISION DATE:



DATE: 01-05-2018  
DRAWN: R.L.G.  
JOB #: RT-WS-C  
SHEET NO. RS-1

CONSTRUCTION DRAWINGS FOR:  
**WILLIAMS SCOTSMAN**  
RAMP AND DECK PLAN

MODULAR PLANS DESIGN, CO.  
1074 S. FLORIDA AVE., SUITE 201  
LAKELAND, FLORIDA 33803  
PH: 863-688-1054  
FAX: 863-688-7118  
MODULARPLANS@TAMPABAY.RR.COM

**WILLIAMS SCOTSMAN**  
An ALGECO SCOTSMAN Company

PRE-FABRICATED BUILDING DESIGN - FOUNDATION CALCULATIONS						IBC 2018		
DEALER	WILLIAMS SCOTSMAN - PACIFIC NORTHWEST MOBILE BUILDINGS			OFFICE	D	120	30	1500
DATE:	25-Jan-20	1.00	0%	1.5	C	2.0	4725	
PROJECT #	201904.09.2-1	II	0.4	1.2	STATES:	OR		
		1.0	4.0	D				

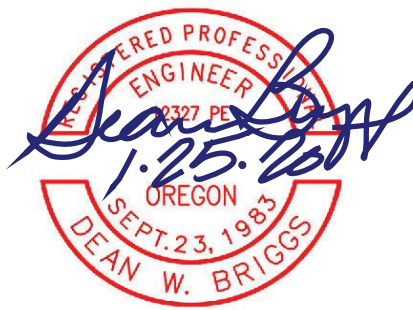
Table of Contents

MOBILE OFFICE BUILDING SINGLE WIDE FOUNDATIONS

<u>WIDTH:</u>	<u>LENGTH:</u>
8	20
8	28
8	32
8	34
8	40
10	20
10	32
10	36
10	42
10	44
10	50
12	32
12	40
12	42
12	44
12	48
12	56
12	60
14	56
14	60
14	66
14	70

MOBILE OFFICE BUILDING MULTI WIDE FOUNDATIONS

<u>WIDTH:</u>	<u>LENGTH:</u>
24	60
36	60
36	74
48	60
60	60
28	60
42	60
56	72



RENEWS: DECEMBER 31, 2021

<b>PRE-FABRICATED BUILDING DESIGN - FOUNDATION CALCULATIONS</b>		IBC 2018
<b>DEALER</b>	WILLIAMS SCOTSMAN - PACIFIC NORTHWEST MOBILE BUILDINGS	<b>CRITERIA:</b> 30,50,120C,D,1.5,1500
<b>DATE:</b>	25-Jan-20	<b>FDN. TYPE:</b> 12-FT Wide Mobile, OFFICE
<b>PROJECT #</b>	201904.09.2-1	<b>STATES:</b> OR

**I. DESIGN CRITERIA:**

Dead Load:

Roof, RDL =	12 psf
Floor, FDL =	10 psf
Wall, WDL =	8 psf

Roof Live Load:

Snow Load, RLL =	30 psf
Load Duration Factor, Cd =	1.15 %

Floor Load:

Uniform Floor Load, FLL =	OFFICE	50 psf	ASCE 7, Table 4.3-1
Concentrated Live Load, p =		2000 lbs.	ASCE 7, Table 4.3-1
Partion, PDL =		15 psf	IBC Section 1607.5

Wind Load:

ASCE - Section 28.6			
Building Risk Category:	Category	II	ASCE 7, Table 1.5-1
Basic Wind Speed, V =		120 mph	ASCE 7, Figure 26.5-1B
Directional Factor	Kd =	0.85	ASCE 7, Table 26.6-1
"a" Edge Pressure Distance =		3.60 ft	ASCE 7, Figure 28.5-1
Roof Slope =	2.00 :12 =	9.46 Degrees	
Edge Wind Pressure, Wep =		25.8 psf	ASCE 7, Figure 28.5-1
Interior Wind Pressure, Wip =		17.1 psf	ASCE 7, Figure 28.5-1
Average Wind Pressure, Wp =		19.71 psf	ASCE 7, Figure 28.5-1
Exposure Category =	C	Exposure Factor, λ =	1.21
Wind Topographic Factor, Kz =		1.00	ASCE 7 Section 26.8.1
Design Wind Pressure, Pw = Wp*λ*Iw*Kz =		23.9 psf	ASCE 7, Figure 28.5-1

Seismic:

ASCE - Section 12.14			
Total Weight, Wtot =		35.50 psf	
Storage Load % Used in Seismic Design =		0%	ASCE 7, 12.7.2.1
Partition Load Used in Seismic Design =		10 psf	ASCE 7, 12.7.2.2
Equipment Load % Used in Seismic Design =		100%	ASCE 7, 12.7.2.3
Snow Load % Used in Seismic Design =		0%	ASCE 7, 12.7.2.4
Seismic Imprtance Factor, Is =		1.00	ASCE 7, Table 1.5-2
Seismic Site Class		D	ASCE-7, Section 11.4.1&2
Seismic Category =		D	ASCE 7, Table 11.6.1 & 11.6-2
Mapped Spectral Accelerations, short periods, Ss =		1.50 0.50	ASCE 7, Figures 22-1 to 22-6
Site Coefficient, Fa =		1.20 2.400	ASCE 7, Tables 11.4-1&2
Max. Spectral Response, SMS = Fa*Ss =		1.80 1.200	ASCE 7, EQ 11.4-1 & 11.4-2
Design Spectral Response, Sds = 2/3*SMS =		1.20 <b>0.800</b>	ASCE 7, EQ 11.4-3 & 11.4-4
Response Modification Coefficient, R =		4.00	ASCE 7, Table 12.2-1
Redundancy Factor, ps =		1.00	ASCE 7, Section 12.3.4
Cs = Ie*Sds/R		0.3002	ASCE 7, EQ 12.8-2
Ct = 0.02	x = 0.75		ASCE 7, Table 12.8-2
Ta (sec) = Ct*hn^x		0.1125	ASCE 7, EQ 12.8-7
TL (sec) =		6	ASCE 7, Figures 22-12 to 22-16
Csmax =		1.7783	ASCE 7, EQ 12.8-3 & 12.8-4
Csmin =		0.3000	ASCE 7, EQ 12.8-5 & 12.8-6
Total Shear, pst = ps*Cs*Wtot =		10.66 psf	ASCE 7 EQ 12.14-11
Load Factor for Ultimate		1.00	IBC Section 1605.2
Total Design Seismic Shear, vsu=		<b>10.66 psf</b>	



**PRE-FABRICATED BUILDING DESIGN - FOUNDATION CALCULATIONS**

IBC 2018

**DEALER** WILLIAMS SCOTSMAN - PACIFIC NORTHWEST MOBILE BUILDINGS  
**DATE:** 25-Jan-20  
**PROJECT #** 201904.09.2-1

**CRITERIA:** 30,50,120C,D,1.5,1500  
**FDN. TYPE:** 12-FT Wide Mobile, OFFICE  
**STATES:** OR

Dimensions:

Module Width, MW =		12	ft.
Module Length, ML =		60	ft.
Width, W =	# Units = 1	12.00	ft.
Length, L =	# Units = 1	60.00	ft.
Wall Height, Wht =		9.00	ft.
	2 :12 Slope	1.00	ft.
Floor Height above NG, Fht =	30	2.50	ft
Building Ht Coeff, Htc = Rht+Wht+Fht-15		1.00	
Clear Distance between supports, L2a =		99.50	inches
Joist Overhang, L2b =		22.25	inches
Carriage Beam Height, CBht, =		12	inches

<b>PRE-FABRICATED BUILDING DESIGN - FOUNDATION CALCULATIONS</b>		IBC 2018
<b>DEALER</b>	WILLIAMS SCOTSMAN - PACIFIC NORTHWEST MOBILE BUILDINGS	<b>CRITERIA:</b> 30,50,120C,D,1.5,1500
<b>DATE:</b>	25-Jan-20	<b>FDN. TYPE:</b> 12-FT Wide Mobile, OFFICE
<b>PROJECT #</b>	201904.09.2-1	<b>STATES:</b> OR

**II. FOUNDATION DESIGN**

**A. Foundation Components**

Individual Bearing Pads - Poured-in-place, Concrete Bearing Pads

Width, wbp =	16 inches
Length, lbp =	16 inches
Minimum Pier Bearing Area, BA1 = (At Base of Pier)	256 Sq. Inches
Minimum Prepared Base Depth, gbd =	2 inches
Minimum Bearing Area, BA2 = (At Base of Base)	324 Sq. Inches

IBC-T.18.4.2	Allowable Bearing Pressure At Bottom of Base Material =	1500 psf.	<i>By Others</i>
	Allowable Load, Pbp = (BA)/144*Q =	3375 pounds	
	<b>Anchors - Single or Double Helix 'Auger' Type</b>		
	Anchor Capacity (Ultimate Design Value), Anchc =	4725 lbs.	

**B. Exterior Pads (Around Perimeter)**

**Floor and Roof Loads:**

Exterior Pads Required, Epr =		1 pad	
Allowable Load, Pfla =		3375 lbs.	
Exterior Uniform Floor Load, ufill = (FLL+FDL+RLL+RDL+PDL)*MW/2		770 lb/ft.	
Max. Pad Spacing, Mps1 = Pfla/ufill =		4.39 ft.	
<b>Use:</b>	<b>( 14 ) 16-inch x 16-inch pad @ 4.39-ft o.c. supporting exterior frames.</b>		

**C. Interior Pads (Floor Loads Only)**

**Floor Loads:**

Interior Pads Required, Ipr =		1 pad	
Allowable Load, Pfla =		3375 lbs.	
Interior Uniform Floor Load, ifill = (FLL+FDL+PDL)*MW/2+Whf*WDI		518 lb/ft.	
Max. Pad Spacing, Mps2 = Pfla/ifill =		6.52 ft.	
<b>Use:</b>	<b>N/A</b>		

**D. Column Pads (Roof Loads Only)**

**Roof Loads:**

Column Pads Required, Cpr =		2 pads	
Allowable Load, Pfla =		6750 lbs.	
Mateline Roof Beams Uniform Roof Load, mbri = (RLL+RDL)*MW =		504 lb/ft.	
Effective Mateline Beam Span Per Set of Pads, Mbs = Pfla/mbri =		13.39 ft.	
<b>Use:</b>	<b>N/A</b>		

**E. Lateral Design**

**1. Longitudinal Walls (Anchors Along Front & Back, Long Walls)**

Unit Wind Load, UWL1 = (Whf+Rht+Fht/2)*Pw=	268 plf		Governs
Unit Seismic Load, USL1 = W*pst =	128 plf		
Angle of Anchor Strap, Asa, Radians	0.79	45 degrees	
Effective Soil Anchor Resistance, ESAR @ Asa° =	3326 lbs.		
Building Weight =	25560 lbs		426 plf
% Building Weight Used for Lateral Sliding	0%		
Transverse Foundation Friction Factor =	0.40		
Gravity Resistance, GR = Building WT * Friction Factor =	0 lbs.		0 plf
OTM = Lateral Load*L*whf/2+(Wind Uplift)	72445 Ft-lbs		
RM = Building Wt*W/2	153360 Ft-lbs		
Factor of Safety = RM/OTM	2		No Uplift Anchors Required
<b>Use:</b>	<b>(1) Anchor per " 12.4 ft = (5) Anchors Per Side</b>		

<b>PRE-FABRICATED BUILDING DESIGN - FOUNDATION CALCULATIONS</b>		IBC 2018
<b>DEALER</b>	WILLIAMS SCOTSMAN - PACIFIC NORTHWEST MOBILE BUILDINGS	<b>CRITERIA:</b> 30,50,120C,D,1.5,1500
<b>DATE:</b>	25-Jan-20	<b>FDN. TYPE:</b> 12-FT Wide Mobile, OFFICE
<b>PROJECT #</b>	201904.09.2-1	<b>STATES:</b> OR

**2. Lateral Walls (Anchors Along End, Short Walls)**

Unit Wind Load, UWL2 = $(W_{ht} + R_{ht}/2 + F_{ht}/2) * P_w =$	256 plf	
Unit Seismic Lateral Load, USL2 = $L * p_{st} =$	639 plf	Governs
Angle of End Anchor Strap, Asea, Radians	0.79	45 degrees
Effect. End Soil Anchor Resist., ELSAR @ $Asa^\circ =$	3326 lbs.	
% Building Weight Used for Longitudinal Sliding	0%	
Longitudinal Foundation Friction Factor =	0.40	
Gravity Resistance, GR = Building WT * Friction Factor =	0 #	
OTM = Lateral Load * W * w <sub>ht</sub> / 2	34524 Ft-lbs	
RM = Building Wt * W / 2	766800 Ft-lbs	
Factor of Safety = RM / OTM	22	No Uplift Anchors Required
<b>Use:</b>	<b>(1) Anchor per</b>	<b>5.21 ft = (3) Anchors Per End</b>

**ADDITIONAL 12-FT. WIDE OFFICE BUILDING LENGTHS**

<u>Length</u>	<u>Ext Pads</u>	<u>Int Pads</u>	<u>Longitudinal Anchors (MOD Side)</u>	<u>Lateral Anchors (MOD End)</u>	<u>Bldg Wt.</u>	<u>Bldg Wt. Load</u>	<u>Seismic Load</u>
32	8	0	3	2	14388	0	4319
40	10	0	4	2	17580	0	5277
42	10	0	4	2	18378	0	5516
44	11	0	4	2	19176	0	5756
48	11	0	4	2	20772	0	6235
56	13	0	5	3	23964	0	7193
60	14	0	5	3	25560	0	7672