

# REGULAR / A-FRAME 30'-0" WIDE

## CARPORT STYLE BUILDINGS

## DESIGN NOTES

- 1. ALL CONSTRUCTION SHALL BE PROVIDED IN ACCORDANCE WITH IBC 2015, OSHA, AISC 360, AISI 100, ASCE 7-10, AWSD 1.3 CODES AND ALL APPLICABLE LOCAL REQUIREMENTS.
- 2. BASE CONNECTIONS SHALL BE PROVIDED AS SHOWN ON FOUNDATION DETAILS SHEET.
- 3. ALL MATERIALS IDENTIFIED BY MANUFACTURER NAME MAY BE SUBSTITUTED WITH MATERIAL EQUAL OR EXCEEDING ORIGINAL.
- 4. ALL SHOP CONNECTIONS SHALL BE WELDED CONNECTIONS.
- 5. ALL FIELD CONNECTIONS SHALL BE #12X1" SDS (ESR-2196 OR EQ)
- 6. STEEL SHEATHING SHALL BE 29GA. CORRUGATED GALV. OR PAINTED STEEL - MAIN RIB HT. 3/4" (FY=80KSI) OR EQ.
- 7. ALL STRUCTURAL LIGHT GAUGE TUBING AND CHANNELS SHALL BE GRADE 50 STEEL.
- 8. STRUCTURAL TUBE TS2 1/2"X2 1/2" 14GA. IS EQUIVALENT TO TS2 1/4"X2 1/4" - 12GA AND EITHER ONE MAY BE USED IN LIEU OF THE OTHER.
- 9. ALL DESIGN CRITERIA MUST BE INCREASED TO THE NEXT HIGHER INCREMENT BASED ON THE TABLES ON PAGE 4. NO INTERPOLATION IS ALLOWED.

## DESIGN CRITERIA

FBC 2017 - 6TH EDITION COVER SHEET PREVAILING CODE: (IBC 2015) U (CARPORTS, BARNS USE GROUP: RISK CATEGORY:

DEAD LOAD (D) D = 4 PSFROOF LIVE/SNOW LOAD (Lr)

Lr = 20 - 61 PSF(AS PER SNOW LOAD SEE TABLE 4)

**BUILDING INFORMATION** 

TYPE:

FRAME TYPE:

SNOW LOAD (S) GROUND SNOW LOAD Pg = 20 - 90 PSF IMPORTANCE FACTOR Is = 0.8 THERMAL FACTOR Ct = 1.2EXPOSURE FACTOR Ce = 1.0

ROOF SLOPE FACTOR C5 = 1.0 WIND LOAD (W) V<sub>ULT</sub> = 105 - 180 MPH BASIC WIND SPEED

EXPOSURE SEISMIC LOAD (E) DESIGN CATEGORY D IMPORTANCE FACTOR le = 1.00

## LOAD COMBINATIONS:

- D + (Lr OR S)
- D + (0.6W OR ±0.7E)
- 3. D + 0.75 (0.6W OR ±0.7E) + 0.75 (Lr OR 5)
- $0.6D + (0.6W OR \pm 0.7E)$

## DRAWING INDEX

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OPTIONAL LEAN-TO ADDITION -----

FOUNDATION OPTIONS

#### MANUFACTURED BY:

## Real Steel Metal **Buildings**

ENGINEERED BY:



### A&A ENGINEERING CIVIL • STRUCTURAL

5911 Renaissance Place, Suite B • Tolcdo, OH 43623 Tel, 419-292-1983 • Fax, 419-292-0955 www.aa-engineers.com

## DRAWING INFORMATION

PROJECT: 30'-0" WIDE BUILDINGS

LOCATION: STATE OF FLORIDA

PROJECT NO.: 356-19-0049

SHEET TITLE:

## COVER SHEET

1 / 11 SHEET NO .:

DRAWN BY: LAK DATE: 1/21/19

CHECKED BY: OAA

DATE: 1/21/19

## LEGAL INFORMATION

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DATE EXPIRES: 02/28/2021 DATE SIGNED: JAN 22 2019

DATE OF **JAN 31 2020** EXPIRATION:

---- 11-A TO 11-D

CERTIFICATION ON THESE DRAWINGS IS VALID FOR ONE YEAR FROM DATE OF ISSUE

**CERTIFICATION VALIDITY** 

NOTICE

CUSTOMER INFORMATION OWNER:

ADDRESS:

GROUND SNOW: ROOF LIVE LOAD:

BASIC WIND SPEED:

**DESIGN LOADS** 

WIDTH: LENGTH:

HEIGHT:

☐ FULL ENCLOSURE □ PARTIAL □ OPEN

□ A-FRAME

☐ REGULAR

### TABLE 21: MEMBER PROPERTIES

	TABLE 2.1: MEMBER PROPERTIES					
NO.	LABEL	PROPERTY	DETAIL NO.			
1	COLUMN POST	2.5" X 2.5" X 14GA TUBE W/ 2.25" X 2.25" X 12GA TUBE INSERT	11			
2	ROOF BEAM	2.5" X 2.5" X 14GA TUBE	1			
3	BASE RAIL	2.5" X 2.5" X 14GA TUBE	1			
4	PEAK BRACE	2.5" X 2.5" X 14GA TUBE	4			
5	KNEE BRACES	2.5" X 1.5" 14GA CHANNEL	4			
6	CONNECTOR SLEEVE	2.25" X 2.25" X 12GA TUBE	2			
7	BASE ANGLE	2.5" X 2.5" X 3" LG. 1/4" ANGLE	10			
8	PURLIN	4.25" X 1.5" X 18GA / 14GA HAT CHANNEL	5			
9	GIRT	4.25" X 1.5" X 18GA / 14GA HAT CHANNEL	5			
10	SHEATHING	29 GA CORRUGATED SHEET	8			
11	END WALL POST	2.5" X 2.5" X 14GA TUBE	1			
12	DOOR POST	2.5" X 2.5" X 14GA TUBE	1			
13	SINGLE HEADER	2.5" X 2.5" X 14GA TUBE	1			
14	DOUBLE HEADER	DBL. 2.5" X 2.5" X 14GA TUBE	1			
15	SERVICE DOOR / WINDOW FRAMING	2.5" X 2.5" X 14GA TUBE	1			
16	ANGLE BRACKET	2" X 2" X 2" LG. 14GA ANGLE	7			
17	STRAIGHT BRACKET	2" X 2" X 4" LG. 14GA PLATE	6			
18	PB SUPPORT	2.5" X 2.5" X 14GA TUBE	1			
19	DIAGONAL BRACE	2" X 2" X 14 GA TUBE	3			
20	GABLE BRACE	2" X 2" X 14 GA TUBE	3			
21	DB BRACKET	6" X 6" X 14GA PLATE	9			
22	TRUSS SPACER	2.5" X 2.5" X 14GA TUBE	1			
23	ALL FASTENERS	#12 X 1" SELF-DRILL SCREWS (ESR-2196 OR EQ) W/ NEOPRENE/STEEL WASHER				

### TABLE 2.2: SHEATHING FASTENER SCHEDULE

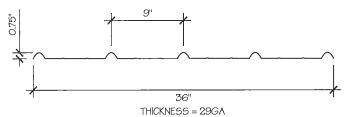
LOCATION	CORNER PANELS	SIDE LAPS	EDGE LAPS	ELSEWHERE
SPACING	6" C/C	MIN. 1	4½" C/C	9" C/C

FASTENER TYPE: #12X1" SELF-DRILL SCREWS (ESR-2196 OR EQ) W/ NEOPRENE/STEEL WASHER

\*SEE TYP. SHEATHING FASTENER SCHEDULE DIAGRAM ON PAGE 6.

## TABLE 2.3: GAUGE THICKNESS

GAUGE	29	18	14	12
THICKNESS (IN)	0.0135	0.049	0.083	0.109



29 GA CORRUGATED SHEATHING, SCALE: NTS



THICKNESS = 14GA





THICKNESS = 12GA

2.25" X 2.25" 12GA TUBE,



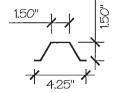
THICKNESS = 14GA

2" X 2" 14GA TUBE SCALE: NTS



THICKNESS = 14GA

2.5" X 1.5" 14GA CHANNEL SCALE: NTS



THICKNESS = 18GA / 14GA

4.25" X 1.5" X 18GA / 14GA HAT CHANNEL

SCALE: NTS



2.5" X 2.5" X 14GA TUBE W/ 2.25 X 2.25" X 12GA TUBE INSERT

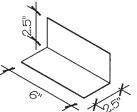
SCALE: NTS NOTE: INSERT FULL LENGTH & FIELD BOLT W/ [23] FASTENERS @ 12" C/C

STAGGERED OPPOSITE FACE



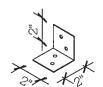
THICKNESS = 14GA





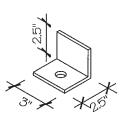
THICKNESS = 14GA

DB BRACKET SCALE: NTS



THICKNESS = 14GA

ANGLE BRACKET SCALE: NTS



THICKNESS = 1/4"

BASE ANGLE SCALE: NTS

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MANUFACTURED BY:



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LOCATION: STATE OF FLORIDA

PROJECT NO.: 356-19-0049

SHEET TITLE:

11

SCHEDULES & MEMBER SECTIONS

2 / 11 SHEET NO .:

DRAWN BY: LAK

DATE: 1/21/19

CHECKED BY: OAA

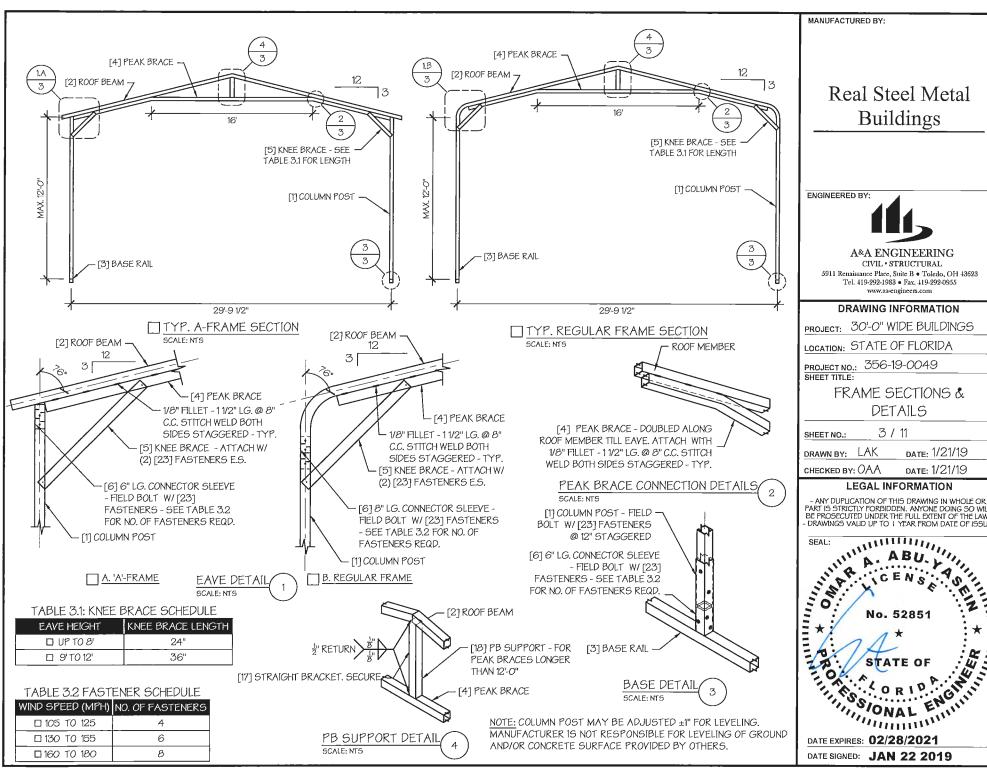
DATE: 1/21/19

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FRAME SECTIONS & **DETAILS** 

DATE: 1/21/19

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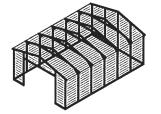
DATE EXPIRES: 02/28/2021

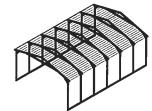
TABLE 4: FRAME SPACING SCHEDULE

			017101110		022				l						
	GROUND SNOW /			■ ENCLO	SED BUIL	DINGS					OPE	EN BUILDII	NGS		
	ROOF LIVE			WIND	SPEED (1	MPH)					WIND	SPEED (I	MPH)		
	LOAD (PSF)	 □105	<b>11</b> 5	□130	□14O	□155	□165	 180	 105	<b>115</b>	□13O	□14O	□155	□165	 □180
	30/20	60	60	54/60	54	48	42/48	36/42	54	48/54	42/48	42	36/42	36	30
<i>إ</i> " أ	□ 40 / 27	48/60	48/60	42/60	42/54	48	42/48	36/42	48	48	42/48	42	36/42	36	30
HEIGHT =	□50 / 34	40/48	40/48	40/48	40/48	40/48	40/48	36/42	40/42	40/42	40/42	40/42	36	36	30
日皇日	□ 60 / 41	36/42	36/42	36	36	36	36	36	36	36	30	30	30	30	24
百分	□ 70 / 47	32/36	32/36	32/36	32/36	30	30	30	30	30	30	24	24	24	24
EAVE 10'-0"	□ <i>8</i> 0 / 54	24	24	24	24	24	24	24	24	24	24	24	24	24	
	□ 90 / 61	18	18	18	18				18	18					
	30/20	60	60	54/60	54	48	42/48	36/42	54	48/54	42/54	42/48	36/42	36/42	30/36
HEIGHT = TO 9'-0"	□ 40 / 27	48/60	48/60	42/60	48/54	48	42/48	36/42	48	48	42/48	42/48	36/42	36/42	30/36
29	□50 / 34	40/54	40/54	40/54	40/48	40/48	40/48	36/42	40/42	40/42	40/42	40/42	36/42	36	30/36
単ら	□ 60 / 41	36/48	36/42	36/42	36/42	36/42	36/42	36/42	36	36	36	36	36	36	30/36
百つ	□ 70 <i>l</i> 47	32/36	32/36	32/36	32/36	32/36	30	30	30	30	30	30	30	30	24
EAVE 7'-0"	<b>□</b> 80/54	30	30	30	30	30	30	30	24	24	24	24	24	24	24
	□ 90 / 61	24	24	24	24	24	24	24	18	18	18	18	18	18	18
	30/20	60	60	54/60	54	48	42/48	36/42	54	48/54	42/54	42/54	36/48	36/48	30/36
. II 1— ≅	□ 40 / 27	48/60	48/60	42/60	42/54	42/48	42/48	36/42	48	48	42/48	42/48	36/48	36/48	30/36
F 2	□50 / 34	40/54	40/54	40/54	40/48	40/48	40/48	36/42	40/42	40/42	40/42	40/42	36/42	36/42	30/36
HEIGHT TO 6'-0"	□ 60 / 41	36/48	36/48	36/48	36/48	36/42	36/42	36/42	36	36	36	36	36	36	30/36
百百十	□70/47	32/42	32/42	32/36	32/36	32/36	32/36	30	32/36	32/36	30	30	30	30	24
EAVE UP 1	<b>□</b> 80/54	30/36	30/36	30/36	30/36	30/36	30	30	30	30	30	30	30	24	24
	□ 90 / 61	30/36	30/36	30	30	30	30	30	24	24	24	24			
NOTE															

## NOTES:

- FRAME SPACINGS ARE IN UNITS OF INCHES (IN).
- WHERE TWO VALUES ARE SHOWN, THE HIGHER VALUE CAN ONLY BE USED FOR VERTICAL SHEATHING.
- SNOW LOADS AND ROOF LIVE LOADS ARE IN POUNDS PER SQUARE FOOT (PSF), WIND SPEED IS 3 SEC. GUST IN MILES PER HOUR (MPH).
- 4. FOR VALUES THAT LIE BETWEEN TWO CELLS, THE HIGHER (MORE STRINGENT) VALUE HAS TO BE USED. INTERPOLATION BETWEEN CELLS IS NOT ALLOWED.



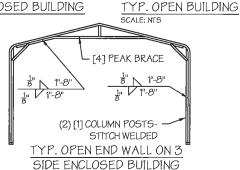


## GENERAL ENCLOSURE NOTES:

- 1. TYPICAL ENCLOSED AND OPEN BUILDINGS ARE AS SHOWN ON THE RIGHT.
- THE MAX. BUILDING LENGTH FOR ENCLOSED BUILDINGS IS 50'-O". THIS CAN BE INCREASED BY ADDING A DOUBLE FRAME AT THE CENTER TO BREAK THE LENGTH OF THE BUILDING.
- 3. FOR ENCLOSED BUILDINGS, ONE END WALL CAN BE OPEN IF THE OTHER END WALL IS ENCLOSED. THE OPEN END WALL MUST HAVE EITHER GABLE FRAMING (SEE SHEET 8A) OR A POUBLE END FRAME - SEE TYP. OPEN END WALL ON 3 SIDE ENCLOSED BUILDING.
- 4. OPEN BUILDINGS CAN HAVE PARTIALLY ENCLOSED SIDE WALLS UP TO 3' ENCLOSED.
- 5. ENCLOSED BUILDING WITH PARTIALLY ENCLOSED END WALLS NEED TO HAVE SIDE WALL BRACING TO SUPPORT THE PARTIALLY ENCLOSED END WALL. SEE SHEET 9 FOR TYPICAL BRACING DETAILS.

## TYP. ENCLOSED BUILDING

SCALE: NTS



SCALE: NTS

MANUFACTURED BY:

## Real Steel Metal Buildings

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LOCATION: STATE OF FLORIDA

PROJECT NO.: 356-19-0049

SHEET TITLE:

SPACING SCHEDULES & ENCLOSURE NOTES

4 / 11 SHEET NO .:

DRAWN BY: LAK

DATE: 1/21/19

CHECKED BY: OAA

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## TABLE 5.1: PURLIN SPACING SCHEDULE

	TAPLE 3.1.	IUNI	LIIY J	71 //	ING (		-VUL	L-							
	GROUND		14GA	. HAT	CHA	NNEL	PURI	.IN		18GA	. HAT	CHA	NNEL	PURI	-IN
	SNOW / ROOF LIVE		٧	VIND S	PEED	(MPH	1)			٧	VIND S	PEED	(MPH	1)	
	LOAD (PSF)	105	115	130	140	<b>1</b> 55	□ 165	180	105	115	130	140	0 155	165	180
ći:	□ 30 / 20	54	48	42	36	30	24	24	36	30	24	18	18	12	12
Ž.	40 / 27	42	42	42	36	30	24	24	30	30	24	18	18	12	12
\\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	□ 50 / 34	40	40	40	36	30	24	24	24	24	24	18	18	12	12
7 SP.	□ 60 / <del>4</del> 1	36	36	36	36	30	24	24	18	18	18	18	18	12	12
吊	□ 70 / 47	32	32	32	32	30	24	24	18	18	18	18	18	12	12
FRAME SPACING: 5'-0"	□ <i>8</i> 0/54	30	30	30	30	30	24	24	18	18	18	18	18	12	12
ш_	<u> </u>	24	24	24	24	24	24	24	12	12	12	12	12	12	12
íi.	□ 30 / 20	54	48	42	42	36	30	30	48	36	30	24	18	18	12
ž	40 / 27	42	42	42	42	36	30	30	42	36	30	24	18	18	, 12
Α <sub>=</sub> ς	□ 50 / 34	40	40	40	40	36	30	30	30	30	30	24	18	18	12
E SP/ 4-6-	□ 60 / 41	36	36	36	36	36	30	30	30	30	30	24	18	18	12
불 .	□ 70 / <del>4</del> 7	32	32	32	32	32	30	30	24	24	24	24	18	18	12
FRAME SPACING: 4'-6"	□ <i>8</i> 0/54	32	32	32	32	32	30	30	18	18	18	18	18	18	12
·—	<u> </u>	30	30	30	30	30	30	30	18	18	18	18	18	18	12
Ä	<b>30/20</b>	54	48	42	42	36	36	30	54	48	36	30	24	24	18
Ž	40 / 27	42	42	42	42	36	36	30	42	42	36	30	24	24	18
A =	□ 50 / 34	40	40	40	40	36	36	30	40	40	36	30	24	24	18
FRAME SPACING:	□ 60 / 41	36	36	36	36	36	36	30	36	36	36	30	24	24	18
불급	□ 70 / 47	32	32	32	32	32	32	30	30	30	30	30	24	24	18
RA	□ <i>8</i> 0/54	32	32	32	32	32	32	30	24	24	24	24	24	24	18
<u></u>	90/61	30	30	30	30	30	30	30	24	24	24	24	24	24	18
Ö	□ 30 / 20	54	48	42	42	36	36	30	54	48	42	42	36	30	30
Ž	□ 40 / 27	42	42	42	42	36	36	30	42	42	42	42	36	30	30
FRAME SPACING: 3-6"	□ 50 / 34	40	40	40	40	36	36	30	40	40	40	40	36	30	30
E 5P/	□ 60 / <del>4</del> 1	36	36	36	36	36	36	30	36	36	36	36	36	30	30
፮∎	□ 70 / 47	32	32	32	32	32	32	30	32	32	32	32	32	30	30
3	080/54	32	32	32	32	32	32	30	32	32	32	32	32	30	30
	90/61	30	30	30	30	30	30	30	30	30	30	30	30	30	30
(i) o	□ 30 / 20	54	48	42	42	36	36	30	54	48	42	42	36	36	30
PACING LOWER	□ 40 / 27	42	42	42	42	36	36	30	42	42	42	42	36	36	30
Z 0	□ 50 / 34	40	40	40	40	36	36	30	40	40	40	40	36	36	30
п o s	0 60 / 41	36	36	36	36	36	36	30	36	36	36	36	36	36	30
¥ 6	□ 70 / <del>4</del> 7	32	32	32	32	32	32	30	32	32	32	32	32	32	30
FRAME SPACING: 13-0" OR LOWER		32	32	32	32	32	32	30	32	32	32	32	32	32	30
:	□ 90 / 61	30	30	30	30	30	30	30	30	30	30	30	30	30	30
NOTE	-6.														

- PURLIN SPACING UNITS ARE IN INCHES.
- FRAME SPACING NEEDS TO BE DETERMINED FROM TABLE 4.

## TABLE 5.2: GIRT SPACING SCHEDULE

FRAME		WIND SPEED (MPH)								
SPACING	105	115	130	140	155	165	180			
<b>□</b> 5′-0"	60	48	36	30	24	24	18			
□4'-6"	60	60	48	42	36	30	24			
□4'-0"	60	60	54	54	42	36	30			
□3'-6"	60	60	54	54	48	42	42			
□2'-0' T0 3'-0"	60	60	54	54	48	42	42			

- GIRT SPACING UNITS ARE IN INCHES.
- THIS SCHEDULE IS TO BE USED FOR BOTH 14GA AND 18 GA PURLINS.
- 3. FRAME SPACING NEEDS TO BE DETERMINED FROM TABLE 4.

MANUFACTURED BY:

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PURLIN & GIRT SPACING SCHEDULES

SHEET NO .:

5 / 11

DRAWN BY: LAK

DATE: 1/21/19

CHECKED BY: OAA

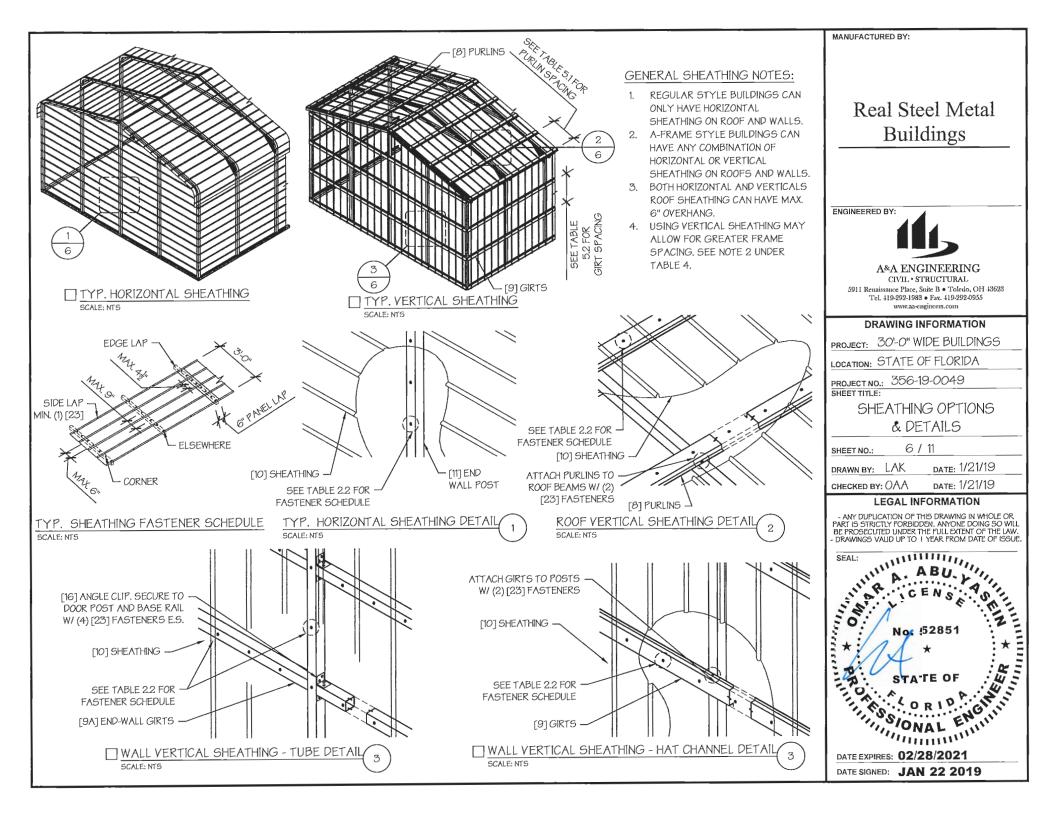
DATE: 1/21/19

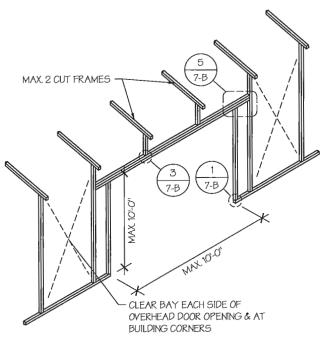
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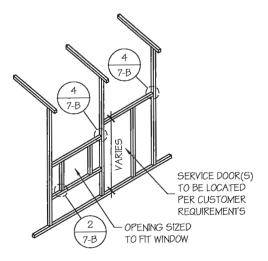
ORIDAGINATION ORIGINATION OF THE PROPERTY OF T

DATE EXPIRES: 02/28/2021

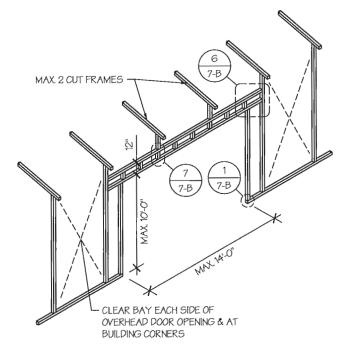




SIDE WALL OVERHEAD DOOR OPENINGS SCALE: NTS



SIDE WALL SERVICE DOOR / WINDOW OPENINGS SCALE: NTS



SIDE WALL OVERHEAD DOOR OPENINGS WITH TRUSS STYLE HEADER SCALE: NTS

## SIDE WALL FRAMING NOTES:

- TRUSS-STYLE HEADERS ARE REQUIRED FOR WHERE THE GROUND SNOW LOAD IS 40 PSF OR GREATER.
- 2. DESIGNS AND DETAILS SHOWN HERE ARE APPLICABLE TO BOTH REGULAR AND A-FRAME STYLE BUILDINGS.
- 3. MAX. HEIGHT OF SIDE WALL OVERHEAD DOOR OPENINGS IS 2 FT LESS THAN THE EAVE HEIGHT.
- OVERHEAD DOOR OPENINGS CANNOT CUT THROUGH MORE THAN 2 FULL FRAMES.
- 5. MIN. 1 CLEAR BAY MUST BE MAINTAINED BETWEEN ANY 2 OVERHEAD DOOR OPENINGS. A CLEAR BAY IS A SPACE BETWEEN TWO FRAMES THAT HAS NO OVERHEAD DOOR OPENINGS.
- 6. MIN. 1 CLEAR BAY MUST ALSO BE MAINTAINED FROM THE BUILDING CORNERS.
- 7. SERVICE DOORS AND WINDOWS CAN BE PLACED IN CLEAR BAYS OR ANY WHERE ELSE AS NEEDED.

MANUFACTURED BY:

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## DRAWING INFORMATION

PROJECT: 30'-0" WIDE BUILDINGS

LOCATION: STATE OF FLORIDA

PROJECT NO.: 356-19-0049

SHEET TITLE:

SIDE WALL FRAMING & OPENINGS

SHEET NO .: 7-A / 11

DRAWN BY: LAK DATE: 1/21/19

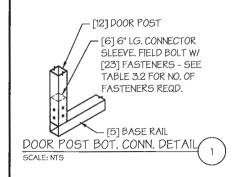
CHECKED BY: OAA DATE: 1/21/19

## LEGAL INFORMATION

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DATE EXPIRES: 02/28/2021



[15] ANGLE CLIP. SECURE

SERVICE DOOR / WINDOW

[15] SERVICE DOOR /

WINDOW FRAMING

FRAMING CONN. DETAIL

SCALE: NTS

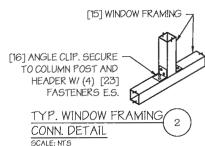
TO COLUMN POST AND

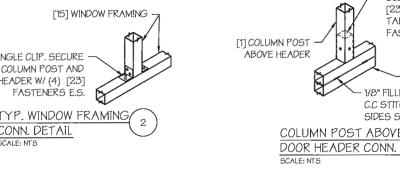
FRAMING W/ (4) [23]

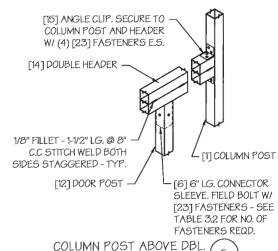
FASTENERS E.S.

111 COLUMN POST

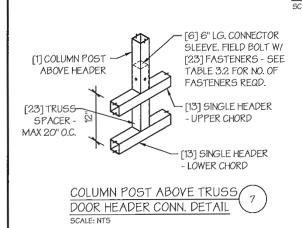
TYP. SERVICE DOOR / WINDOW/

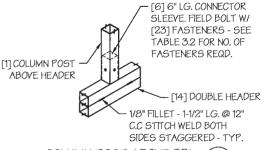




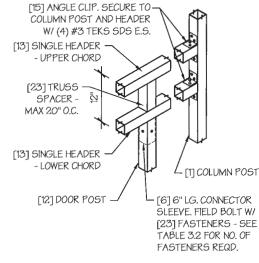








COLUMN POST ABOVE DBL. DOOR HEADER CONN. DETAIL



COLUMN POST ABOVE TRUSS DOOR HEADER CONN. DETAIL SCALE: NTS

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## DRAWING INFORMATION

PROJECT: 30'-0" WIDE BUILDINGS

LOCATION: STATE OF FLORIDA

PROJECT NO.: 356-19-0049

SHEET TITLE:

SIDE WALL FRAMING **DETAILS** 

7-B / 11 SHEET NO .:

DRAWN BY: LAK

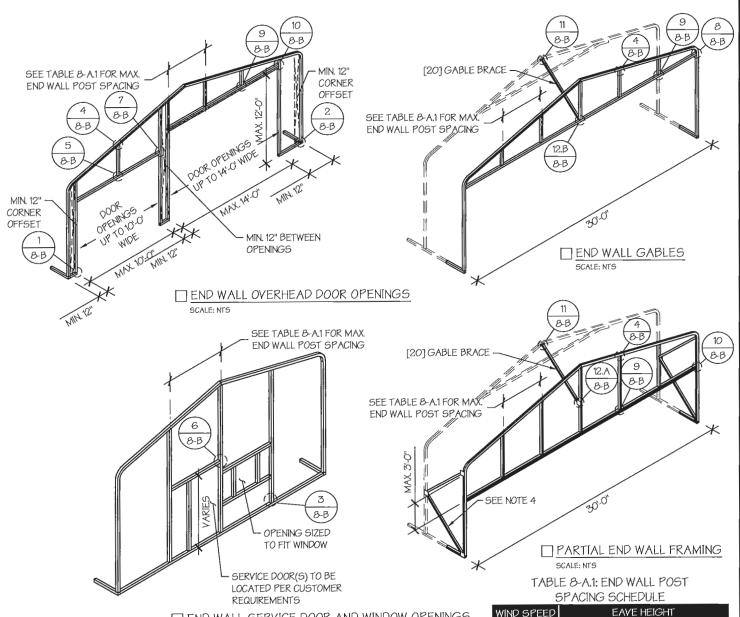
DATE: 1/21/19 DATE: 1/21/19

CHECKED BY: OAA

## **LEGAL INFORMATION**

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(MPH)

□ 105

115

130

140

155

165 - 180

■ UP TO 7' ■ 8' TO 9' ■ 10' TO 12'

5'

4.5

4.5

4'

3'

4.5

4'

3'

2.5

2'

5'

5'

4.5'

4.5'

4'

3.5

END WALL SERVICE DOOR AND WINDOW OPENINGS

SCALE: NTS

## END WALL FRAMING NOTES:

- 1. DESIGNS AND DETAILS SHOWN HERE ARE APPLICABLE TO BOTH REGULAR AND A-FRAME STYLE BUILDINGS.
- MIN. 12" CLEARANCE MUST BE MAINTAINED BETWEEN ANY TWO OPENINGS (OVERHEAD DOOR OR SERVICE DOOR)
  AND FROM CORNERS.
- 3. SERVICE DOORS AND WINDOWS CAN BE PLACED AS NEEDED.
- DIAGONAL BRACES NEED TO BE ADDED FOR PARTIAL END WALL ENCLOSURES. SEE SHEET 9 FOR DIAGONAL BRACE CONNECTION DETAILS.

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## DRAWING INFORMATION

PROJECT: 30'-0" WIDE BUILDINGS

LOCATION: STATE OF FLORIDA

PROJECT NO.: 356-19-0049

SHEET TITLE:

END WALL FRAMING

SHEET NO.: 8-A / 11

DRAWN BY: LAK DATE: 1/21/19

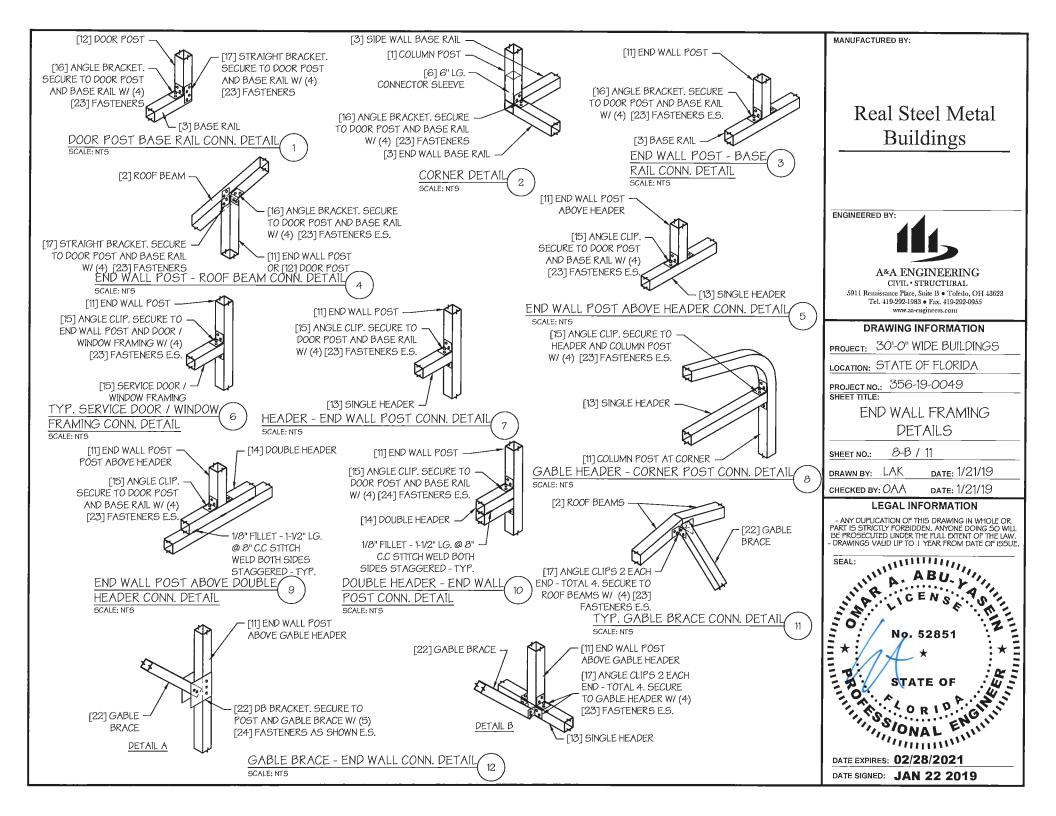
CHECKED BY: OAA DATE: 1/21/19

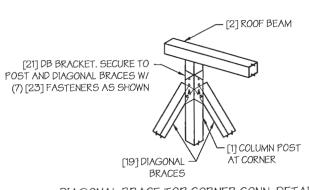
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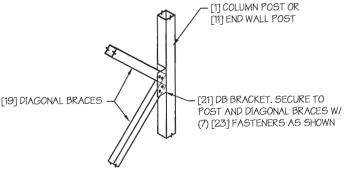


DATE EXPIRES: 02/28/2021

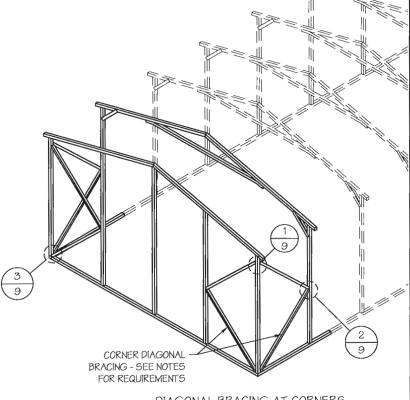




DIAGONAL BRACE TOP CORNER CONN. DETAIL\* SCALE: NTS



DIAGONAL BRACE - POST CONN. DETAIL'



DIAGONAL BRACING AT CORNERS SCALE: NTS

[1] COLUMN POST AT CORNER [21] DB BRACKET. SECURE TO POST AND DIAGONAL BRACES W/ (7) [23] FASTENERS AS SHOWN 191 DIAGONAL BRACES [3] SIDE WALL BASE RAIL [3] END WALL BASE RAIL

DIAGONAL BRACE BOT. CORNER CONN. DETAIL

\* INSIDE VIEW SHOWN FOR CLARITY

## CORNER BRACING NOTES:

- DIAGONAL BRACING AT BUILDING CORNERS IS REQUIRED FOR ALL BUILDINGS IN LOCATIONS WHERE WIND SPEED IS 140 MPH OR GREATER.
- 2. IF CORNER BRACING IS REQUIRED BUT THE BUILDING IS MISSING ONE OR MORE END WALLS THEN THE BUILDING MUST BE DESIGNED AS AN OPEN BUILDING AND SIDE WALL DIAGONAL BRACING IS REQUIRED (USE SPACING FOR OPEN BUILDING IN TABLE 4.1).
- 3. DIAGONAL BRACING IS ALSO REQUIRED ON THE CORNERS ON THE SIDE WALLS WHEN THE ADJACENT END WALL IS PARTIALLY ENCLOSED.

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## DRAWING INFORMATION

PROJECT: 30'-0" WIDE BUILDINGS

LOCATION: STATE OF FLORIDA

PROJECT NO.: 356-19-0049

SHEET TITLE:

CORNER BRACING DETAILS

SHEET NO .:

9 / 11

DRAWN BY: LAK

DATE: 1/21/19

CHECKED BY: OAA

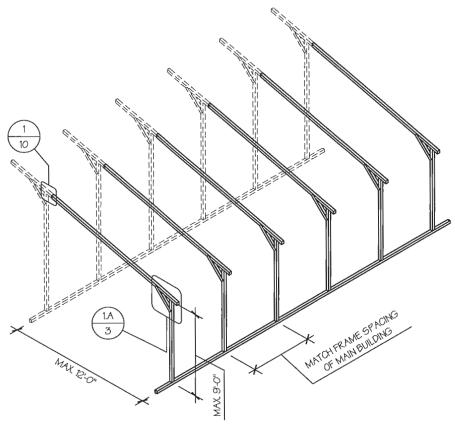
DATE: 1/21/19

## LEGAL INFORMATION

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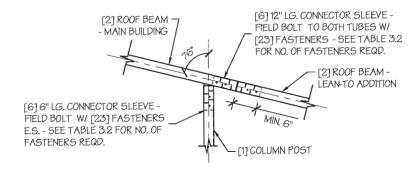


DATE EXPIRES: 02/28/2021



OPTIONAL LEAN-TO ADDITION

SCALE: NTS



LEAN-TO ATTACHMENT DETAIL, SCALE: NTS

## LEAN-TO ADDITION NOTES:

- 1. LEAN-TO ADDITIONS CAN BE ADDED ON EITHER OR BOTH SIDES OF THE BUILDING.
- ROOF SLOPE, PURLIN, GIRT AND FRAME SPACING OF THE ADDITION HAVE TO MATCH THAT OF THE MAIN STRUCTURE.
- 3. IF THE LEAN-TO ADDITION IS "OPEN "(BOTH END WALLS OR SIDE WALL IS NOT ENCLOSED), THE DESIGN OF THE MAIN BUILDING HAS TO USE THE FRAME SPACING OF AN OPEN BUILDING FROM TABLE 4.

MANUFACTURED BY:

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## DRAWING INFORMATION

PROJECT: 30'-0" WIDE BUILDINGS

LOCATION: STATE OF FLORIDA

PROJECT NO.: 356-19-0049

SHEET TITLE:

OPTIONAL LEAN-TO **ADDITION** 

SHEET NO .:

10 / 11

DRAWN BY: LAK

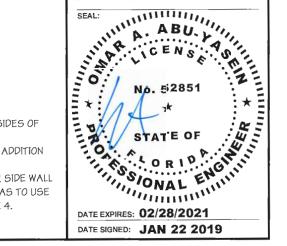
DATE: 1/21/19

CHECKED BY: OAA

DATE: 1/21/19

## LEGAL INFORMATION

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## CONCRETE SLAB FOUNDATION NOTES:

- DESIGNS SHOWN ON THIS SHEET ARE FOR CONCRETE SLAB FOUNDATION. ANY OF THE FOUNDATIONS SHOWN ON SHEETS 11-A THRU D CAN BE USED.
- 2. CONCRETE ANCHORS SHALL BE LOCATED NEXT TO EVERY POST AND ON EITHER SIDE OF OPENINGS. TWO ANCHORS SHALL BE INSTALLED AT CORNERS OF ENCLOSED BUILDINGS WITH END WALLS - ONE ON EACH BASE RAIL. IN LOCATIONS REQUIRING TWO ANCHORS DUE TO WIND, ONE ANCHOR IS TO BE ON EACH SIDE OF THE COLUMN POST.
- 3. ANCHORS IN CLOSE PROXIMITY TO EACH OTHER MUST HAVE A MIN. 4"
- 4. MIN. NUMBER OF CONCRETE ANCHORS PER POST SHALL BE AS SHOWN IN TABLE 11-A.2.
- 5. THE SIZE OF THE SLAB SHALL BE THE SIZE (WIDTH AND LENGTH) OF THE BUILDING PLUS 53" FOR 14GA MATERIAL AND 53" FOR 12GA MATERIAL.
- 6. DEPTH OF SLAB TURN DOWN FOOTING SHALL BE GREATER THAN FROST DEPTH SPECIFIED PER LOCAL CODE.
- CONTROL JOINTS SHALL BE PLACED SO AS TO LIMIT MAX. SLAB SPANS TO 20' IN EACH DIRECTION.

2" WIDE X 1" DEEP

NOTCH ALONG

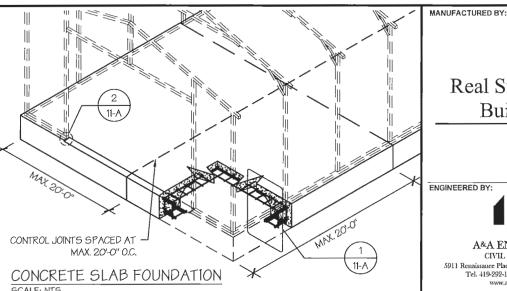
VERTICAL

□12GA

17/8"

OVERHEAD DOOR AND SLOPE TO 2"

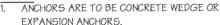
- ASSUMED SOIL BEARING CAPACITY IS TO BE A MIN. OF 1500 PSF.
- CONCRETE STRENGTH TO BE A MIN OF 2500 PSI @ 28 DAYS.



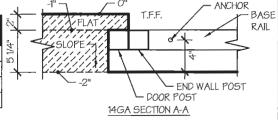
SCALE: NTS

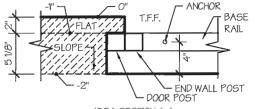
TABLE 11-A.2: CONCRETE SLAB ANCHOR SCHEDULE

ENCLOSURE	WIND SPEED (MPH)	ANCHOR SIZE/NUMBER	č
ENCLOSED	□105 T0 130	(1) 1/2"Ø X 7"	
ENCLOSED	□140 TO 180	(2) 1/2"Ø X 7"	Ι,
OPEN	□ 105	(1) 1/2"Ø X 7"	
OPEN	□ 115 TO 180	(2) 1/2"Ø X 7"	
NOTES:			

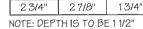


- 2. MIN. EMBEDMENT DEPTH TO BE 23".
- ANCHORS TO BE SPACED NO MORE THAN 6" FROM POSTS.





-2"	DOOR POST
	12GA SECTION A-A
HOR - SEE	[1] COLUMN POST [3] BASE RAIL VAN WE
>	



□12GA

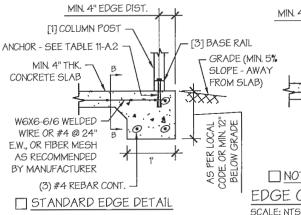
HORIZONTAL/OPEN

□14GA

OVERHEAD DOOR NOTCH DETAIL

TABLE 11-A.1: NOTCH WIDTH

□ 14GA



MIN. 4" EDGE DIST. NOTCH - SEE TABLE 11-A.1 GRADE (5% SLOPE) ANC 0 NOTCHED EDGE DETAIL & EDGE OFFSET DETAIL

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### DRAWING INFORMATION

PROJECT: 30'-0" WIDE BUILDINGS

LOCATION: STATE OF FLORIDA

PROJECT NO.: 356-19-0049

SHEET TITLE:

**FOUNDATION OPTION 1:** CONCRETE SLAB

11-A / 11 SHEET NO .:

DRAWN BY: LAK DATE: 1/21/19

CHECKED BY: OAA DATE: 1/21/19

## LEGAL INFORMATION

- ANY DUPLICATION OF THIS DRAWING IN WHOLE OR PART IS STRICTLY FORBIDDEN. ANYONE DOING SO WILL BE PROSECUTED UNDER THE FULL EXTENT OF THE LAW. - DRAWINGS VALID UP TO 1 YEAR FROM DATE OF ISSUE

No. 52851 DATE EXPIRES: 02/28/2021

## CONCRETE SLAB FOUNDATION NOTES:

- 1. DESIGNS SHOWN ON THIS SHEET ARE FOR CONCRETE SLAB FOUNDATION, ANY OF THE FOUNDATIONS SHOWN ON SHEETS 11-A THRU D CAN BE USED.
- 2. CONCRETE ANCHORS SHALL BE LOCATED NEXT TO EVERY POST AND ON EITHER SIDE OF OPENINGS, TWO ANCHORS SHALL BE INSTALLED AT CORNERS OF ENCLOSED BUILDINGS WITH END WALLS - ONE ON EACH BASE RAIL. IN LOCATIONS REQUIRING TWO ANCHORS DUE TO WIND, ONE ANCHOR IS TO BE ON EACH SIDE OF THE COLUMN POST.
- ANCHORS IN CLOSE PROXIMITY TO EACH OTHER MUST HAVE A MIN. 4" > SPACING
- 4. MIN. NUMBER OF CONCRETE ANCHORS PER POST SHALL BE AS SHOWN IN TABLE 11-A.1.
- 5. THE SIZE OF THE SLAB SHALL BE THE SIZE (WIDTH AND LENGTH) OF THE BUILDING PLUS 1" FOR 14GA MATERIAL AND 1" FOR 12GA MATERIAL.
- DEPTH OF SLAB TURN DOWN FOOTING SHALL BE GREATER THAN FROST DEPTH SPECIFIED PER LOCAL CODE.
- 7. CONTROL JOINTS SHALL BE PLACED SO AS TO LIMIT MAX. SLAB SPANS TO 20' IN EACH DIRECTION.
- 8. ASSUMED SOIL BEARING CAPACITY IS TO BE A MIN. OF 1500 PSF.

BUILDING POST

2" WIDE X 1" DEEP

AND SLOPE TO 2"

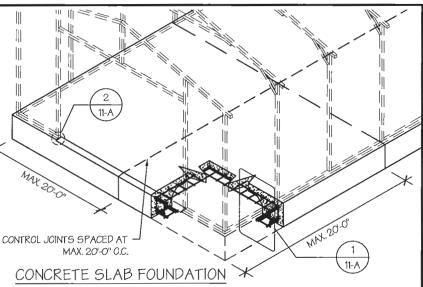
NOTCH ALONG

OVERHEAD DOOR

CONCRETE STRENGTH TO BE A MIN OF 2500 PSI @ 28 DAYS.

OVERHEAD DOOR NOTCH DETAIL

SCALE: NTS



SCALE: NTS

BASE RAIL

END WALL POST

DOOR POST

SECTION A-A

## TABLE 11-A.1: CONCRETE

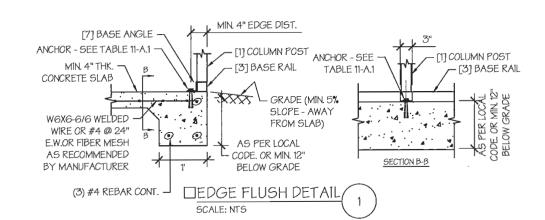
ENCLOSURE	WIND SPEED (MPH)	ANCHOR SIZE/NUMBER
ENCLOSED	□105 TO 130	(1) 1/2"Ø X 7"
ENCLOSED	□140 TO 180	(2) 1/2"Ø X 7"
OPEN	□105	(1) 1/2"Ø X 7"
OPEN	□ 115 TO 180	(2) 1/2"Ø X 7"

## NOTES:

- ANCHORS ARE TO BE CONCRETE WEDGE OR **EXPANSION ANCHORS**
- MIN. EMBEDMENT DEPTH TO BE 22".

# SLAB ANCHOR SCHEDULE

ANCHORS TO BE SPACED NO MORE THAN 6" FROM POSTS.



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### DRAWING INFORMATION

PROJECT: 30'-0" WIDE BUILDINGS

LOCATION: STATE OF FLORIDA

PROJECT NO.: 356-19-0049

SHEET TITLE:

FOUNDATION OPTION 1: CONCRETE SLAB

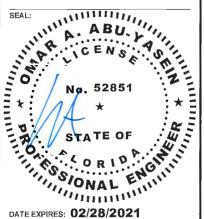
11-A / 11 SHEET NO .:

DRAWN BY: LAK DATE: 1/21/19

CHECKED BY: OAA DATE: 1/21/19

## LEGAL INFORMATION

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## TABLE 11-B.1: ANCHOR SCHEDULE

ENCLOSURE	WIND SPEED (MPH)	ANCHOR SIZE/NUMBER
ENCLOSED	□105 TO 130	(1) 1/2"Ø X 7"
ENCLUSED	□140 TO 180	(2) 1/2"Ø X 7"
OBEN	□105	(1) 1/2"Ø X 7"
OPEN	□ 115 TO 180	(2) 1/2"Ø X 7"

## NOTES:

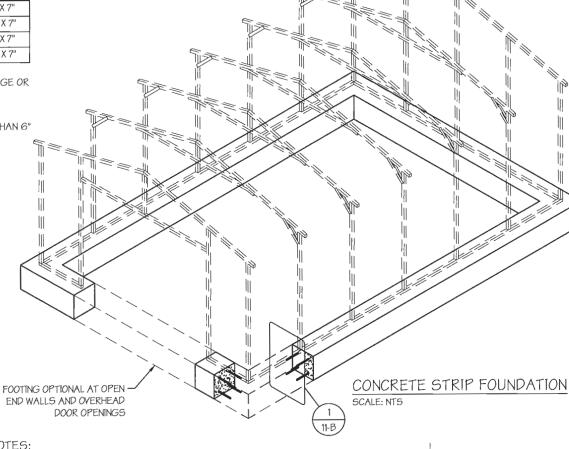
- ANCHORS ARE TO BE CONCRETE WEDGE OR EXPANSION ANCHORS.
- MIN. EMBEDMENT DEPTH TO BE 27.
- ANCHORS TO BE SPACED NO MORE THAN 6" FROM POSTS.

## TABLE 11-B.2: CONC. STRIP SCHEDULE

WIND SPEED (MPH)	MIN. SIZE REQD.
□105 TO 130	15" X 12"
□140 TO 155	24" X 12"
□165 TO 180	30" X 12" 24 X 15" 20" X 18"

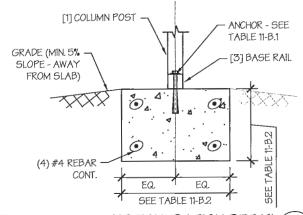
#### NOTES:

WIDTH AND DEPTH DIMENSIONS CAN BE INTERCHANGED.



## CONCRETE STRIP FOUNDATION NOTES:

- 1. DESIGNS SHOWN ON THIS SHEET ARE FOR CONCRETE STRIP FOUNDATION. ANY OF THE FOUNDATIONS SHOWN ON SHEETS 11-A THRU D CAN BE USED.
- 2. CONCRETE ANCHORS SHALL BE LOCATED NEXT TO EVERY POST AND ON EITHER SIDE OF OPENINGS. TWO ANCHORS SHALL BE INSTALLED AT CORNERS OF ENCLOSED BUILDINGS WITH END WALLS - ONE ON EACH BASE RAIL. IN LOCATIONS REQUIRING TWO ANCHORS DUE TO WIND, ONE ANCHOR IS TO BE ON EACH SIDE OF THE COLUMN POST.
- 3. MIN. NUMBER OF CONCRETE ANCHORS PER POST SHALL BE AS SHOWN IN TABLE 11-B.1.
- 4. DEPTH OF CONCRETE STRIP FOOTING SHALL BE GREATER THAN FROST DEPTH SPECIFIED PER LOCAL CODE.
- ASSUMED SOIL BEARING CAPACITY IS TO BE A MIN. OF 1500 PSF.
- CONCRETE STRENGTH TO BE A MIN OF 2500 PSI @ 28 DAYS.
- BUILDING IS TO BE MOUNTED ON THE CENTER OF THE STRIP FOUNDATION.



CONCRETE STRIP FOUNDATION DETAIL SCALE: NTS

MANUFACTURED BY:

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## DRAWING INFORMATION

PROJECT: 30'-0" WIDE BUILDINGS

LOCATION: STATE OF FLORIDA

PROJECT NO.: 356-19-0049

SHEET TITLE:

FOUNDATION OPTION 2: CONCRETE STRIP

SHEET NO .: 11-B / 11

DRAWN BY: LAK

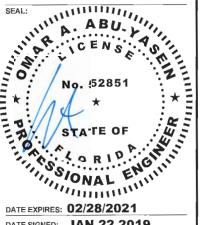
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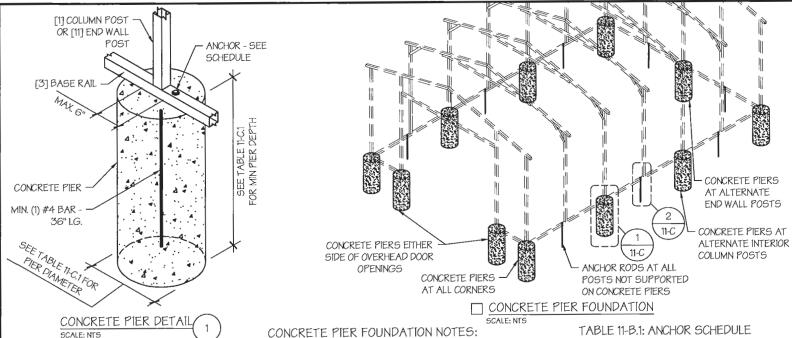
DATE: 1/21/19

DATE: 1/21/19

## LEGAL INFORMATION

- ANY DUPUCATION OF THIS DRAWING IN WHOLE OR PART IS STRICTLY FORBIDDEN. ANYONE DOING SO WILL BE PROSECUTED UNDER THE FULL EXTENT OF THE LAW.





CONCRETE PIER FOUNDATION NOTES:

- DESIGNS SHOWN ON THIS SHEET ARE FOR CONCRETE PIER FOUNDATION. ANY OF THE FOUNDATIONS SHOWN ON SHEETS 11-A THRU D CAN BE USED.
- CONCRETE PIERS SHALL BE LOCATED AT ALL 4 CORNERS, ON EACH SIDE OF OVERHEAD DOOR OPENINGS AND ON ALTERNATE INTERIOR COLUMN POSTS AND END WALLS POSTS.
- 3. TWO ANCHORS SHALL BE INSTALLED AT CORNERS OF ENCLOSED BUILDINGS WITH END WALLS - ONE ON EACH BASE RAIL. IN LOCATIONS REQUIRING TWO ANCHORS DUE TO WIND, ONE ANCHOR IS TO BE ON EACH SIDE OF THE COLUMN POST WITH A PIER.
- ANCHORS IN CLOSE PROXIMITY TO EACH OTHER MUST HAVE A MIN. 4" SPACING.
- MIN. NUMBER OF CONCRETE ANCHORS PER POST WITH A PIER SHALL BE AS SHOWN IN TABLE 11-A.2.
- TWO ANCHORS AND A PIER ARE REQUIRED AT DIAGONAL BRACING.
- 7. ALL POSTS NOT SUPPORTED ON CONCRETE PIERS SHALL BE ANCHORED TO THE GROUND WITH A 1/2" X 30" LG. THREADED ROD. RODS WILL HAVE A PRE-FORMED HEAD AT THE TOP AND ONE COAT OF RUST PROOF MATERIAL.
- 8. PIERS SHALL BE FORMED BY DIGGING A HOLE OF THE SAME SIZE AS THE PIER ON LEVEL GRADE AND FILLING IT WITH CONCRETE. THRD. ROD ANCHORS SHOULD BE DROPPED INTO THE PIERS PRIOR TO POURING THE CONCRETE.
- 9. ASSUMED SOIL BEARING CAPACITY IS TO BE A MIN. OF 1500 PSF.
- CONCRETE STRENGTH TO BE A MIN OF 2500 PSI @ 28 DAYS.

TABLE 11-B.1: ANCHOR SCHEDULE

-	ENCLOSURE	WIND SPEED (MPH)	ANCHOR SIZE/NUMBER
	ENCLOSED	□105 TO 130	(1) 1/2"Ø X 7"
		□140 TO 180	(2) 1/2"Ø X 7"
	OPEN	□105	(1) 1/2"Ø X 7"
		□ 115 TO 180	(2) 1/2"Ø X 7"

- ANCHORS ARE TO BE CONCRETE WEDGE OR EXPANSION ANCHORS.
- 2. MIN. EMBEDMENT DEPTH TO BE 27.
- ANCHORS TO BE SPACED NO MORE THAN 6" FROM POSTS.

MANUFACTURED BY:

## Real Steel Metal **Buildings**

ENGINEERED BY:



#### A&A ENGINEERING CIVIL • STRUCTURAL

5911 Remaissance Place, Suite B . Toledo, OH 43623 Tel. 419-292-1983 • Fax. 419-292-0955 www.aa-engineers.com

#### DRAWING INFORMATION

PROJECT: 30'-0" WIDE BUILDINGS

LOCATION: STATE OF FLORIDA

PROJECT NO.: 356-19-0049

SHEET TITLE:

FOUNDATION OPTION 3: CONCRETE PIERS

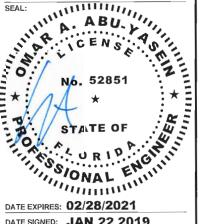
11-C / 11 SHEET NO .:

DRAWN BY: LAK DATE: 1/21/19

CHECKED BY: OAA DATE: 1/21/19

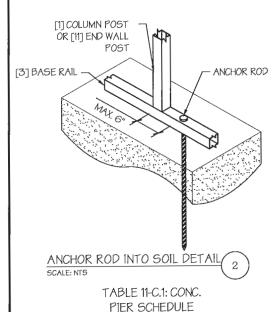
## LEGAL INFORMATION

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DATE EXPIRES: 02/28/2021

DATE SIGNED: JAN 22 2019



WIND SPEED

(MPH)

□105 TO 130

□140 TO 155

□165 TO 180

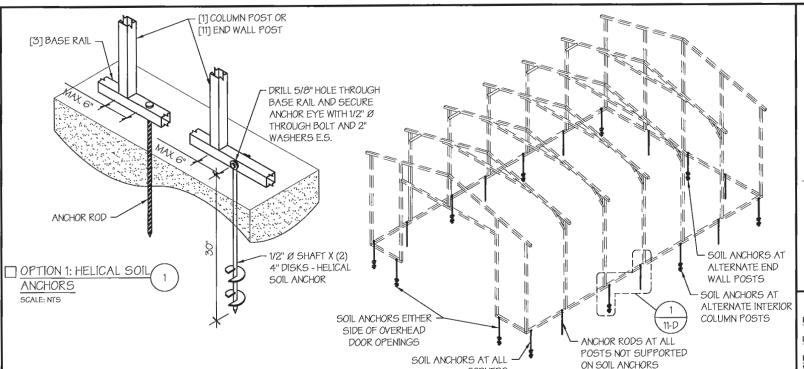
MIN. SIZE

REQD.

24"Ø X 36"

24"Ø X 42"

24"Ø X 48"



CORNERS

## SOIL FOUNDATION NOTES:

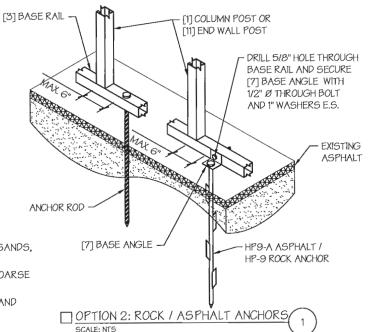
- DESIGNS SHOWN ON THIS SHEET ARE FOR SOIL ANCHOR FOUNDATION. ANY OF THE FOUNDATIONS SHOWN ON SHEETS 11-A THRU D CAN BE USED.
- SOIL ANCHORS (HELICAL OR ROCK/ASPHALT) SHALL BE LOCATED AT ALL 4
  CORNERS, ON EACH SIDE OF OVERHEAD DOOR OPENINGS, ON POSTS WITH
  DIAGONAL BRACING IF REQUIRED, AND ON ALTERNATE INTERIOR COLUMN
  POSTS AND END WALLS POSTS.
- 3. HELICAL ANCHORS ARE TO BE USED ONLY IF THE DRIVING TORQUE INTO THE GROUND IS 150 FT-LBS OR GREATER. MANUFACTURER IS NOT RESPONSIBLE FOR SOIL QUALITY AT SITE.
- HELICAL ANCHORS CAN ONLY BE USED FOR CLASS 2, 3 & 4 SOILS (SEE SOIL CLASSIFICATIONS THIS PAGE).
- ALL POSTS WITH NO ANCHORS ADJACENT SHALL BE ANCHORED TO THE GROUND WITH A 1/2" X 30" LG. ROD. RODS WILL HAVE A PRE-FORMED HEAD AT THE TOP AND ONE COAT OF RUST PROOF MATERIAL.
- 6. ASSUMED SOIL BEARING CAPACITY IS TO BE A MIN. OF 1500 PSF.

## SOIL CLASSIFICATIONS:

## SOIL CLASS DESCRIPTION

- 2 SANDY GRAVEL AND GRAVEL, VERY THIN DENSE AND/OR CEMENTED SANDS, COARSE GRAVEL/COBBLES. PRELOADED SILTS. CLAYS AND CORAL.
- 3 SAND, SILTY SAND, CLAYEY SAND, SILTY GRAVEL, MEDIUM DENSE COARSE SANDS, SANDY GRAVEL, VERY STIFF SILT AND SANDY CLAYS.
- 4 LOOSE TO MEDIUM DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS AND ALLUVIAL FILLS.

\*FROM HUD "MODEL MANUFACTURED HOME INSTALLATION STANDARDS"



SOIL FOUNDATION

SCALE: NTS

MANUFACTURED BY:

## Real Steel Metal Buildings

ENGINEERED BY:



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#### DRAWING INFORMATION

PROJECT: 30'-O" WIDE BUILDINGS

LOCATION: STATE OF FLORIDA

PROJECT NO.: 356-19-0049

SHEET TITLE:

FOUNDATION OPTION 4: SOIL ANCHORS

SHEET NO.: 11-D / 11

DRAWN BY: LAK

CHECKED BY: OAA

DATE: 1/21/19
DATE: 1/21/19

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