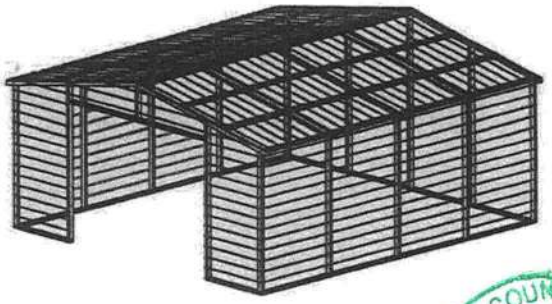
30 X50



# REGULAR / A-FRAME
# 30'-0" WIDE
# CARPORT STYLE BUILDINGS



## DESIGN NOTES

1. ALL CONSTRUCTION SHALL BE PROVIDED IN ACCORDANCE WITH IBC 2018, OSHA, AISC 360, AISI 100, ASCE 7-16, 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

| | | |
|---|---|---|
| PREVAILING CODE: | | FBC 2020 - 7TH EDITION (IBC 2018) |
| USE GROUP: | | U (CARPORTS, BARNS) |
| RISK CATEGORY: | | I |
| 1. | DEAD LOAD (D) | D = 4 PSF |
| 2. | ROOF LIVE/SNOW LOAD (Lr) | Lr = 20 - 61 PSF (AS PER SNOW LOAD SEE TABLE 4) |
| 3. | SNOW LOAD (S) | |
| | GROUND SNOW LOAD | $P_g$ = 20 - 90 PSF |
| | IMPORTANCE FACTOR | Is = 0.8 |
| | THERMAL FACTOR | Ct = 1.2 |
| | EXPOSURE FACTOR | Ce = 1.0 |
| | ROOF SLOPE FACTOR | Cs = 1.0 |
| 4. | WIND LOAD (W) | |
| | BASIC WIND SPEED | $V_{ULT}$ = 105 - 180 MPH |
| | EXPOSURE | C |
| 5. | SEISMIC LOAD (E) | |
| | DESIGN CATEGORY | D |
| | IMPORTANCE FACTOR | Ie = 1.00 |

LOAD COMBINATIONS:

1. D + (Lr OR S)
2. D + (0.6W OR ±0.7E)
3. D + 0.75 (0.6W OR ±0.7E) + 0.75 (Lr OR S)
4. 0.6D + (0.6W OR ±0.7E)

## DRAWING INDEX



MANUFACTURED BY:

Real Steel Metal Buildings

ENGINEERED BY:

A&A ENGINEERING
CIVIL • STRUCTURAL
6026 Renaissance Place, 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.: 356-21-0028
SHEET TITLE: COVER SHEET
SHEET NO.: 1 / 11
DRAWN BY: A.W. DATE: 1/19/21
CHECKED BY: OAA DATE: 1/19/21

**LEGAL INFORMATION**



SEAL:

OMAR A. ABU-YASEIN
LICENSE
No. 52851
STATE OF FLORIDA
PROFESSIONAL ENGINEER

STAMP EXPIRY: FEB 28 2023
DATE SIGNED: JAN 15 2021

**CUSTOMER INFORMATION**

OWNER:
ADDRESS:

**DESIGN LOADS**

GROUND SNOW:
ROOF LIVE LOAD:
BASIC WIND SPEED:

**BUILDING INFORMATION**

WIDTH:
LENGTH:
HEIGHT:
FRAME TYPE: ☐ A-FRAME ☐ REGULAR
ENCLOSURE TYPE: ☐ FULL ☐ PARTIAL ☐ OPEN

**CERTIFICATION VALIDITY NOTICE**

DATE OF PLANS EXPIRATION: JAN 15 2022
CERTIFICATION ON THESE DRAWINGS IS VALID FOR ONE YEAR FROM DATE OF ISSUE

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## 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 | 1 |
| 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" X 2" X 3" LG. 3/16" 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 | 2.25" X 2.25 X 6" X 14GA ANGLE | 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

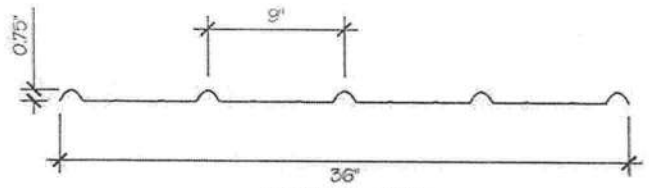
| LOCATION | CORNER PANELS | SIDE LAPS | EDGE LAPS | ELSEWHERE |
|---|---|---|---|---|
| SPACING | 9" C/C | MIN. 1 | 4½" C/C | 9" C/C |

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

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

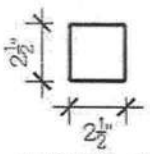
## TABLE 2.3: GAUGE THICKNESS

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



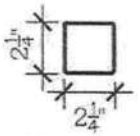

THICKNESS = 29GA

29 GA CORRUGATED SHEATHING (8)
SCALE: NTS



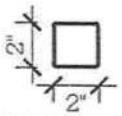

THICKNESS = 14GA

2.5" X 2.5" 14GA TUBE (1)
SCALE: NTS



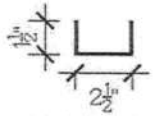

THICKNESS = 12GA

2.25" X 2.25" 12GA TUBE (2)
SCALE: NTS



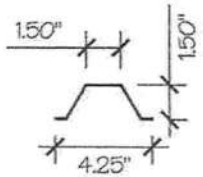

THICKNESS = 14GA

2" X 2" 14GA TUBE (3)
SCALE: NTS



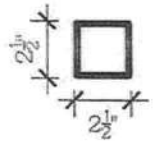

THICKNESS = 14GA

2.5" X 1.5" 14GA CHANNEL (4)
SCALE: NTS



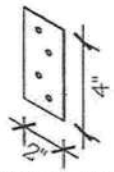

THICKNESS = 14GA / 18GA

4.25" X 1.5" X 18GA / 14GA HAT CHANNEL (5)
SCALE: NTS



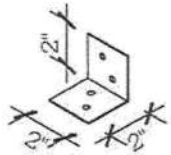

2.5" X 2.5" X 14GA TUBE W/ 2.25" X 2.25" X 12GA TUBE INSERT (11)
SCALE: NTS

NOTE: INSERT FULL LENGTH & FIELD BOLT W/ [23] FASTENERS @ 12" C/C STAGGERED OPPOSITE FACE



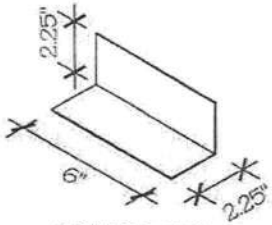

THICKNESS = 14GA

STRAIGHT BRACKET (6)
SCALE: NTS



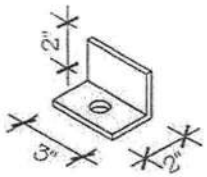

THICKNESS = 14GA

ANGLE BRACKET (7)
SCALE: NTS




THICKNESS = 14GA

DB BRACKET (9)
SCALE: NTS




THICKNESS = 3/16"

BASE ANGLE (10)
SCALE: NTS

MANUFACTURED BY:

# Real Steel Metal Buildings

ENGINEERED BY:

A&A ENGINEERING
CIVIL • STRUCTURAL
6035 Renaissance Place, 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.: 356-21-0028
SHEET TITLE: SCHEDULES & MEMBER SECTIONS
SHEET NO.: 2 / 11
DRAWN BY: A.W. DATE: 1/13/21
CHECKED BY: OAA DATE: 1/13/21

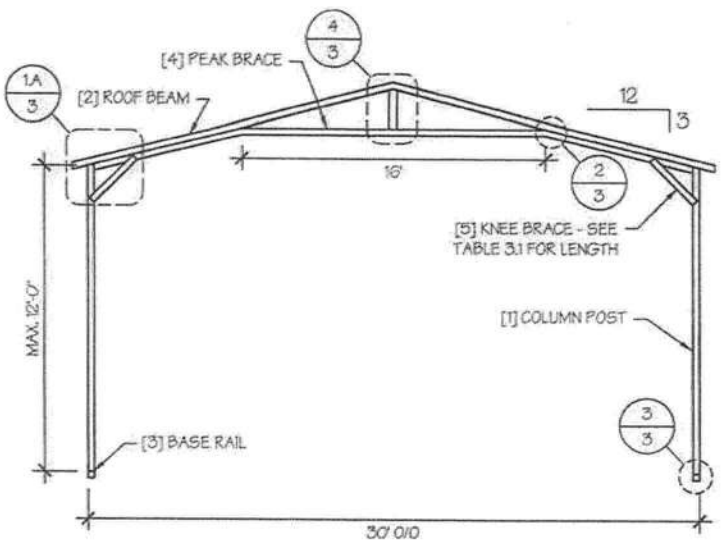
**LEGAL INFORMATION**



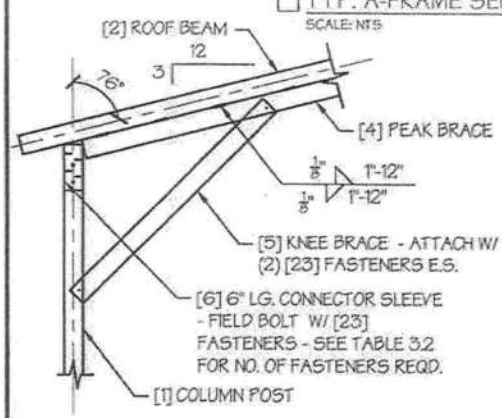
SEAL:

OMAR A. ABU-YASEIN
LICENSE
No. 52851
STATE OF FLORIDA
PROFESSIONAL ENGINEER

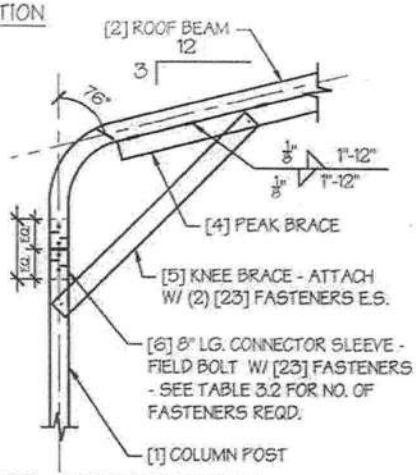
STAMP EXPIRY: FEB 28 2023
DATE SIGNED: JAN 15 2021




TYP. A-FRAME SECTION
SCALE: NTS



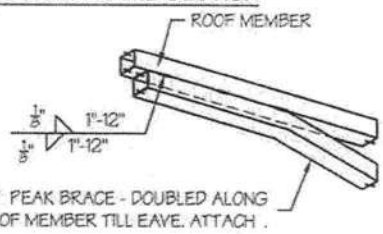

A. 'A'-FRAME



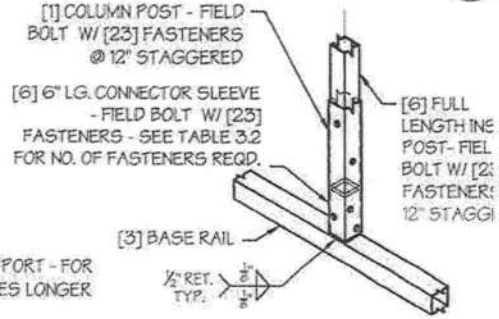

B. REGULAR FRAME

EAVE DETAIL 1
SCALE: NTS

TYP. REGULAR FRAME SECTION
SCALE: NTS




PEAK BRACE CONNECTION DETAILS 2
SCALE: NTS



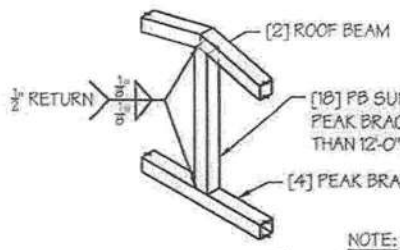

BASE DETAIL 3
SCALE: NTS

TABLE 3.1: KNEE BRACE SCHEDULE

| EAVE HEIGHT | KNEE BRACE LENGTH |
|---|---|
| ☐ UP TO 8' | 24" |
| ☐ 9' TO 12' | 36" |

TABLE 3.2 FASTENER SCHEDULE

| WIND SPEED (MPH) | NO. OF FASTENERS |
|---|---|
| ☐ 105 TO 125 | 4 |
| ☐ 130 TO 155 | 6 |
| ☐ 160 TO 180 | 8 |




PB SUPPORT DETAIL 4
SCALE: NTS

NOTE: COLUMN POST MAY BE ADJUSTED ±1" FOR LEVELING. MANUFACTURER IS NOT RESPONSIBLE FOR LEVELING OF GROUND AND/OR CONCRETE SURFACE PROVIDED BY OTHERS.

MANUFACTURED BY:

# Real Steel Metal Buildings

ENGINEERED BY:

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CIVIL • STRUCTURAL
6036 Renaissance Place, Toledo, OH 43623
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www.aa-engineers.com

**DRAWING INFORMATION**

PROJECT: 30'-0" WIDE BUILDINGS
LOCATION: STATE OF FLORIDA
PROJECT NO.: 356-21-0028
SHEET TITLE: FRAME SECTIONS & DETAILS
SHEET NO.: 3 / 11
DRAWN BY: A.W. DATE: 1/13/21
CHECKED BY: OAA DATE: 1/13/21

**LEGAL INFORMATION**



SEAL:


STAMP EXPIRY: FEB 28 2023
DATE SIGNED: JAN 15 2021

TABLE 4: FRAME SPACING CHART / SCHEDULE

| | GROUND SNOW / ROOF LIVE LOAD (PSF) | ■ ENCLOSED BUILDINGS — WIND SPEED (MPH) | | | | | | | ■ OPEN BUILDINGS — WIND SPEED (MPH) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ☐105 | ☐115 | ☐130 | ☐140 | ☐155 | ☐165 | ☐180 | ☐105 | ☐115 | ☐130 | ☐140 | ☐155 | ☐165 | ☐180 |
| ■ EAVE HEIGHT = 10'-0" TO 12'-0" | ☐30 / 20 | 60 | 60 | 54/60 | 54 | 48 | 42/48 | 36/42 | 54 | 48/54 | 42/48 | 42 | 36/42 | 36 | 30 |
| | ☐40 / 27 | 48/60 | 48/60 | 42/60 | 42/54 | 48 | 42/48 | 36/42 | 48 | 48 | 42/48 | 42 | 36/42 | 36 | 30 |
| | ☐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 |
| | ☐60 / 41 | 36/42 | 36/42 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 30 | 30 | 30 | 30 | 24 |
| | ☐70 / 47 | 32/36 | 32/36 | 32/36 | 32/36 | 30 | 30 | 30 | 30 | 30 | 30 | 24 | 24 | 24 | 24 |
| | ☐80 / 54 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | --- |
| | ☐90 / 61 | 18 | 18 | 18 | 18 | --- | --- | --- | 18 | 18 | --- | --- | --- | --- | --- |
| ■ EAVE HEIGHT = 7'-0" TO 9'-0" | ☐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 |
| | ☐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 |
| | ☐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 |
| | ☐60 / 41 | 36/48 | 36/42 | 36/42 | 36/42 | 36/42 | 36/42 | 36/42 | 36 | 36 | 36 | 36 | 36 | 36 | 30/36 |
| | ☐70 / 47 | 32/36 | 32/36 | 32/36 | 32/36 | 32/36 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 24 |
| | ☐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 |
| ■ EAVE HEIGHT = UP TO 6'-0" | ☐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 |
| | ☐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 |
| | ☐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 |
| | ☐60 / 41 | 36/48 | 36/48 | 36/48 | 36/48 | 36/42 | 36/42 | 36/42 | 36 | 36 | 36 | 36 | 36 | 36 | 30/36 |
| | ☐70 / 47 | 32/42 | 32/42 | 32/36 | 32/36 | 32/36 | 32/36 | 30 | 32/36 | 32/36 | 30 | 30 | 30 | 30 | 24 |
| | ☐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 | --- | --- | --- |

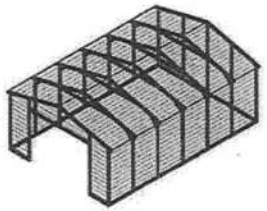
NOTES:
1. FRAME SPACINGS ARE IN UNITS OF INCHES (IN).
2. WHERE TWO VALUES ARE SHOWN, THE HIGHER VALUE CAN ONLY BE USED FOR VERTICAL SHEATHING.
3. SNOW LOADS AND ROOF LIVE LOADS ARE IN POUNDS PER SQUARE FOOT (PSF). WIND SPEED IS 3 SEC. GUST IN MILES PER HOUR (MPH).
4. FOR VALUES THAT LIE BETWEEN TWO CELLS,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

## ENCLOSURE CLASSIFICATION:

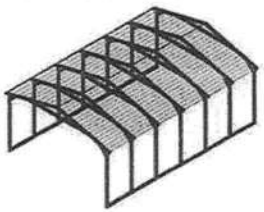
1. ENCLOSED BUILDING = ALL 4 WALLS FULLY ENCLOSED WITH DOORS/WINDOWS = USE ENCLOSED BUILDING SPACING CHART.
2. OPEN BUILDING = ALL 4 WALLS FULLY OPEN = USE OPEN BUILDING SPACING CHART.
3. 3FT PARTIALLY ENCLOSED = BOTH END-WALLS FULLY OPEN, WITH BOTH SIDE-WALLS ONLY 3FT ENCLOSED = USE OPEN BUILDING SPACING CHART.
4. PARTIALLY ENCLOSED = BOTH END-WALLS FULLY OPEN, WITH BOTH SIDE-WALLS ENCLOSED MORE THAN 3FT = START WITH OPEN BUILDING SPACING CHART AND THEN REDUCE SPACING BY 6".
5. 3 SIDED ENCLOSED = ALL WALLS ARE ENCLOSED EXCEPT FOR 1 END-WALL = START WITH ENCLOSED BUILDING SPACING + THE OPEN END FRAME MUST HAVE EITHER A GABLED END OR HAVE DOUBLED WELDED LEGS & ROOF.
6. FOR ALL SHEATHING ENCLOSURES NOT LISTED ABOVE, REFER TO SHEET 5 FOR SPACING AND DESIGN REQUIREMENTS.

## GENERAL NOTES:

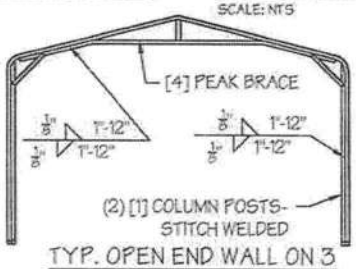
1. THE MAX. BUILDING LENGTH FOR ENCLOSED BUILDINGS IS 50'-0". THIS CAN BE INCREASED BY ADDING A DOUBLE FRAME AT THE CENTER TO BREAK THE LENGTH OF THE BUILDING.
2. BUILDINGS WITH PARTIALLY ENCLOSED END WALLS NEED TO HAVE SIDE WALL BRACING TO SUPPORT THE PARTIALLY ENCLOSED END WALL. (SEE FIGURE A ON SHEET 5).



TYP. ENCLOSED BUILDING
SCALE: NTS



TYP. OPEN BUILDING
SCALE: NTS




TYP. OPEN END WALL ON 3 SIDE ENCLOSED BUILDING
SCALE: NTS

MANUFACTURED BY:

# Real Steel Metal Buildings

ENGINEERED BY:

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CIVIL • STRUCTURAL
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**DRAWING INFORMATION**

PROJECT: 30'-0" WIDE BUILDINGS
LOCATION: STATE OF FLORIDA
PROJECT NO.: 356-21-0028
SHEET TITLE: SPACING SCHEDULES & ENCLOSURE NOTES
SHEET NO.: 4 / 11
DRAWN BY: A.W. DATE: 1/13/21
CHECKED BY: OAA DATE: 1/13/21

**LEGAL INFORMATION**



SEAL:

OMAR A. ABU-YASEIN
LICENSE
No. 52851
STATE OF FLORIDA
PROFESSIONAL ENGINEER

STAMP EXPIRY: FEB 28 2023
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## TABLE 5.1: PURLIN SPACING SCHEDULE

| | GROUND SNOW / ROOF LIVE LOAD (PSF) | ■ 14GA. HAT CHANNEL PURLIN — WIND SPEED (MPH) | | | | | | | ■ 18GA. HAT CHANNEL PURLIN — WIND SPEED (MPH) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | □ 105 | □ 115 | □ 130 | □ 140 | □ 155 | □ 165 | □ 180 | □ 105 | □ 115 | □ 130 | □ 140 | □ 155 | □ 165 | □ 180 |
| FRAME SPACING: ■ 5'-0" | □ 30 / 20 | 54 | 48 | 42 | 36 | 30 | 24 | 24 | 36 | 30 | 24 | 18 | 18 | 12 | 12 |
| | □ 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 |
| | □ 60 / 41 | 36 | 36 | 36 | 36 | 30 | 24 | 24 | 18 | 18 | 18 | 18 | 18 | 12 | 12 |
| | □ 70 / 47 | 32 | 32 | 32 | 32 | 30 | 24 | 24 | 18 | 18 | 18 | 18 | 18 | 12 | 12 |
| | □ 80 / 54 | 30 | 30 | 30 | 30 | 30 | 24 | 24 | 18 | 18 | 18 | 18 | 18 | 12 | 12 |
| | □ 90 / 61 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| FRAME SPACING: ■ 4'-6" | □ 30 / 20 | 54 | 48 | 42 | 42 | 36 | 30 | 30 | 48 | 36 | 30 | 24 | 18 | 18 | 12 |
| | □ 40 / 27 | 42 | 42 | 42 | 42 | 36 | 30 | 30 | 42 | 36 | 30 | 24 | 18 | 18 | 12 |
| | □ 50 / 34 | 40 | 40 | 40 | 40 | 36 | 30 | 30 | 30 | 30 | 30 | 24 | 18 | 18 | 12 |
| | □ 60 / 41 | 36 | 36 | 36 | 36 | 36 | 30 | 30 | 30 | 30 | 30 | 24 | 18 | 18 | 12 |
| | □ 70 / 47 | 32 | 32 | 32 | 32 | 32 | 30 | 30 | 24 | 24 | 24 | 24 | 18 | 18 | 12 |
| | □ 80 / 54 | 32 | 32 | 32 | 32 | 32 | 30 | 30 | 18 | 18 | 18 | 18 | 18 | 18 | 12 |
| | □ 90 / 61 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 18 | 18 | 18 | 18 | 18 | 18 | 12 |
| FRAME SPACING: ■ 4'-0" | □ 30 / 20 | 54 | 48 | 42 | 42 | 36 | 36 | 30 | 54 | 48 | 36 | 30 | 24 | 24 | 18 |
| | □ 40 / 27 | 42 | 42 | 42 | 42 | 36 | 36 | 30 | 42 | 42 | 36 | 30 | 24 | 24 | 18 |
| | □ 50 / 34 | 40 | 40 | 40 | 40 | 36 | 36 | 30 | 40 | 40 | 36 | 30 | 24 | 24 | 18 |
| | □ 60 / 41 | 36 | 36 | 36 | 36 | 36 | 36 | 30 | 36 | 36 | 36 | 30 | 24 | 24 | 18 |
| | □ 70 / 47 | 32 | 32 | 32 | 32 | 32 | 32 | 30 | 30 | 30 | 30 | 30 | 24 | 24 | 18 |
| | □ 80 / 54 | 32 | 32 | 32 | 32 | 32 | 32 | 30 | 24 | 24 | 24 | 24 | 24 | 24 | 18 |
| | □ 90 / 61 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 24 | 24 | 24 | 24 | 24 | 24 | 18 |
| FRAME SPACING: ■ 3'-6" | □ 30 / 20 | 54 | 48 | 42 | 42 | 36 | 36 | 30 | 54 | 48 | 42 | 42 | 36 | 30 | 30 |
| | □ 40 / 27 | 42 | 42 | 42 | 42 | 36 | 36 | 30 | 42 | 42 | 42 | 42 | 36 | 30 | 30 |
| | □ 50 / 34 | 40 | 40 | 40 | 40 | 36 | 36 | 30 | 40 | 40 | 40 | 40 | 36 | 30 | 30 |
| | □ 60 / 41 | 36 | 36 | 36 | 36 | 36 | 36 | 30 | 36 | 36 | 36 | 36 | 36 | 30 | 30 |
| | □ 70 / 47 | 32 | 32 | 32 | 32 | 32 | 32 | 30 | 32 | 32 | 32 | 32 | 32 | 30 | 30 |
| | □ 80 / 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 |
| FRAME SPACING: ■ 3'-0" OR LOWER | □ 30 / 20 | 54 | 48 | 42 | 42 | 36 | 36 | 30 | 54 | 48 | 42 | 42 | 36 | 36 | 30 |
| | □ 40 / 27 | 42 | 42 | 42 | 42 | 36 | 36 | 30 | 42 | 42 | 42 | 42 | 36 | 36 | 30 |
| | □ 50 / 34 | 40 | 40 | 40 | 40 | 36 | 36 | 30 | 40 | 40 | 40 | 40 | 36 | 36 | 30 |
| | □ 60 / 41 | 36 | 36 | 36 | 36 | 36 | 36 | 30 | 36 | 36 | 36 | 36 | 36 | 36 | 30 |
| | □ 70 / 47 | 32 | 32 | 32 | 32 | 32 | 32 | 30 | 32 | 32 | 32 | 32 | 32 | 32 | 30 |
| | □ 80 / 54 | 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 |

NOTES:
1. PURLIN SPACING UNITS ARE IN INCHES.
2. FRAME SPACING NEEDS TO BE DETERMINED FROM TABLE 4.

IRREGULAR BUILDING NOTES:
1. FIGURES A, B, C & D ON THE RIGHT INDICATE EXAMPLES OF IRREGULAR BUILDINGS.
2. FOR IRREGULAR BUILDINGS, FRAME SPACING MUST BE REDUCED BY 6" FROM OPEN BUILDING SPACING TABLE. SEE SHEET 4 FOR OPEN BUILDING TABLE.
3. SITE SPECIFICS MAY ALLOW FOR ALTERNATIVE SPACING.

## TABLE 5.2: GIRT SPACING SCHEDULE

| FRAME SPACING | WIND SPEED (MPH) ■ 105 | ■ 115 | ■ 130 | ■ 140 | ■ 155 | ■ 165 | ■ 180 |
|---|---|---|---|---|---|---|---|
| □ 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" TO 3'-0" | 60 | 60 | 54 | 54 | 48 | 42 | 42 |

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

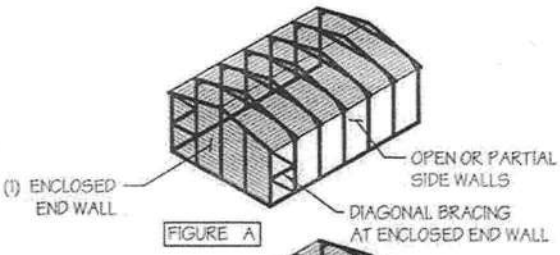

FIGURE A

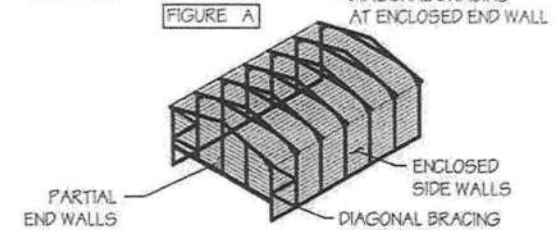

FIGURE B

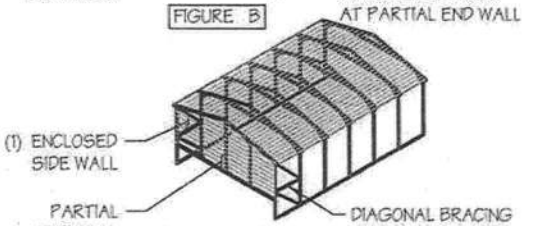

FIGURE C

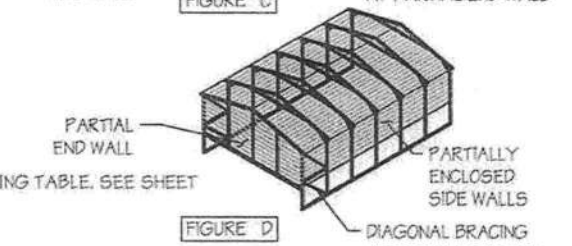

FIGURE D

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**DRAWING INFORMATION**

PROJECT: 30'-0" WIDE BUILDINGS
LOCATION: STATE OF FLORIDA
PROJECT NO.: 356-21-0028
SHEET TITLE: PURLIN & GIRT SPACING SCHEDULES
SHEET NO.: 5 / 11
DRAWN BY: A.W. DATE: 1/13/21
CHECKED BY: OAA DATE: 1/13/21

**LEGAL INFORMATION**



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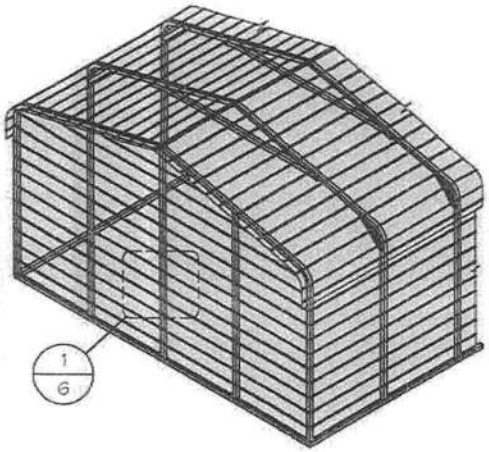
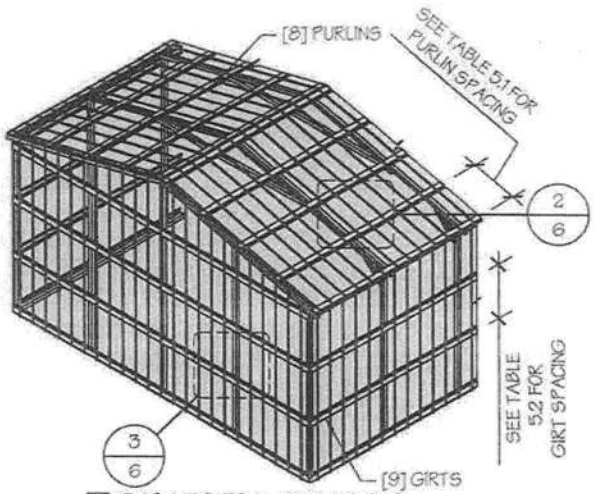
DATE SIGNED: JAN 15 2021



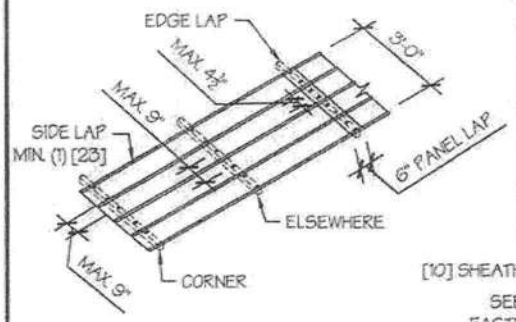

TYP. HORIZONTAL SHEATHING
SCALE: NTS



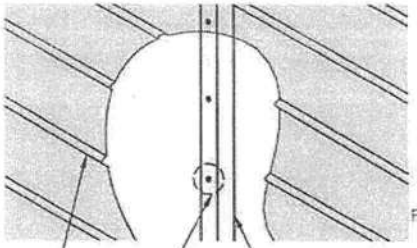

TYP. VERTICAL SHEATHING
SCALE: NTS

## GENERAL SHEATHING NOTES:

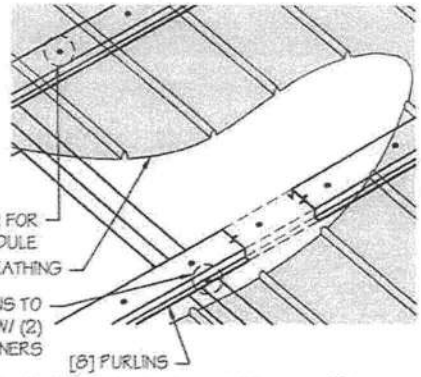
1. REGULAR STYLE BUILDINGS CAN ONLY HAVE HORIZONTAL SHEATHING ON ROOF AND WALLS.
2. A-FRAME STYLE BUILDINGS CAN HAVE ANY COMBINATION OF HORIZONTAL OR VERTICAL SHEATHING ON ROOFS AND WALLS.
3. BOTH HORIZONTAL AND VERTICALS ROOF SHEATHING CAN HAVE MAX. 6" OVERHANG.
4. USING VERTICAL SHEATHING MAY ALLOW FOR GREATER FRAME SPACING. SEE NOTE 2 UNDER TABLE 4.
5. VERTICAL SHEATHING RECOMMENDED FOR BUILDINGS 30' OR LONGER



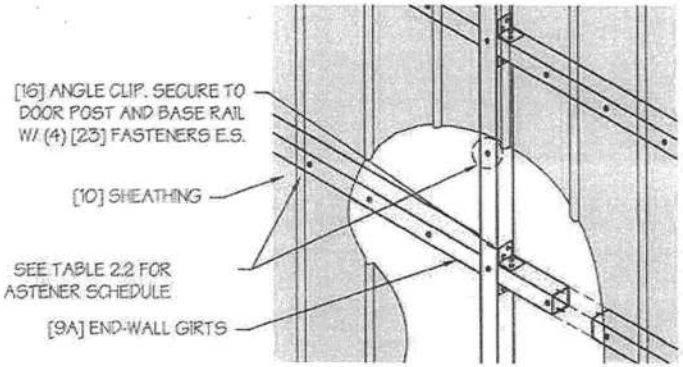

TYP. SHEATHING FASTENER SCHEDULE
SCALE: NTS



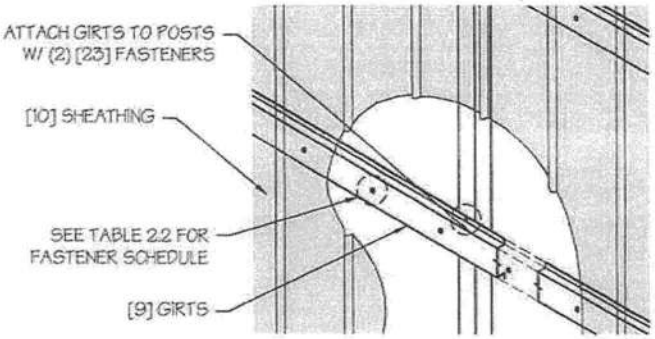

TYP. HORIZONTAL SHEATHING DETAIL 1
SCALE: NTS




ROOF VERTICAL SHEATHING DETAIL 2
SCALE: NTS




WALL VERTICAL SHEATHING - TUBE DETAIL 3
SCALE: NTS




WALL VERTICAL SHEATHING - HAT CHANNEL DETAIL 3
SCALE: NTS

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**DRAWING INFORMATION**

PROJECT: 30'-0" WIDE BUILDINGS
LOCATION: STATE OF FLORIDA
PROJECT NO.: 356-21-0028
SHEET TITLE: SHEATHING OPTIONS & DETAILS
SHEET NO.: 6 / 11
DRAWN BY: A.W. DATE: 1/13/21
CHECKED BY: OAA DATE: 1/13/21

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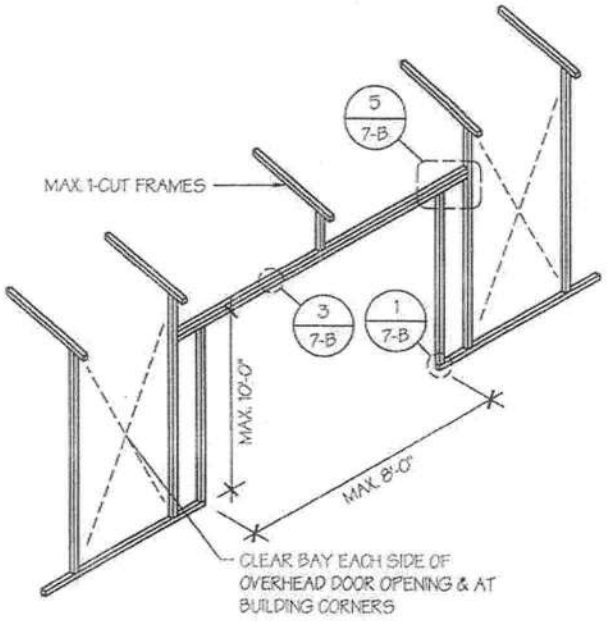
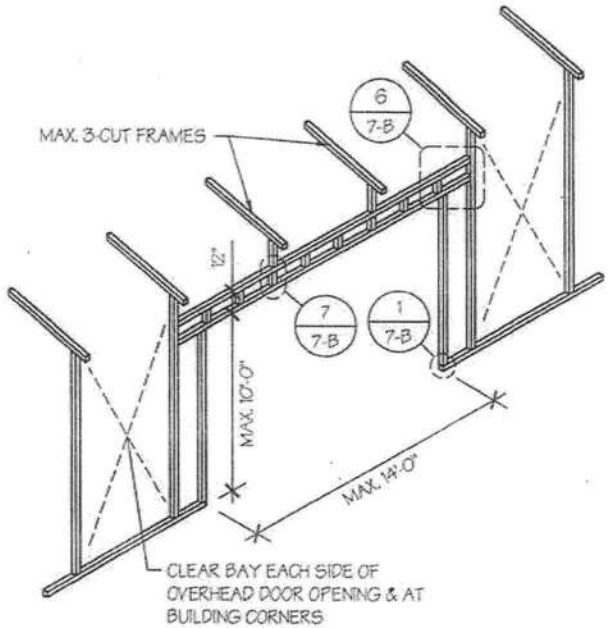


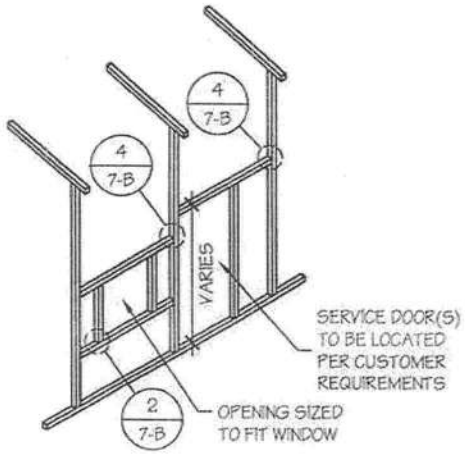

☐ SIDE WALL OVERHEAD DOOR OPENINGS

SCALE: NTS




☐ SIDE WALL OVERHEAD DOOR OPENINGS WITH TRUSS STYLE HEADER

SCALE: NTS




☐ SIDE WALL SERVICE DOOR / WINDOW OPENINGS

SCALE: NTS

## SIDE WALL FRAMING NOTES:

1. 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.
4. 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.

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**DRAWING INFORMATION**

PROJECT: 30'-0" WIDE BUILDINGS

LOCATION: STATE OF FLORIDA

PROJECT NO.: 356-21-0028

SHEET TITLE:

SIDE WALL FRAMING & OPENINGS

SHEET NO.: 7-A / 11

DRAWN BY: A.W. DATE: 1/13/21

CHECKED BY: OAA DATE: 1/13/21

**LEGAL INFORMATION**



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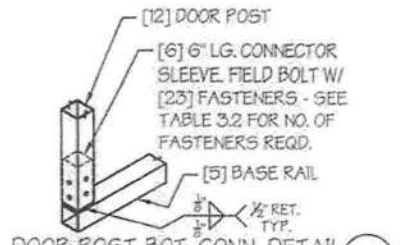
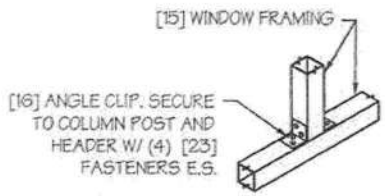



DOOR POST BOT. CONN. DETAIL (1)
SCALE: NTS




TYP. WINDOW FRAMING CONN. DETAIL (2)
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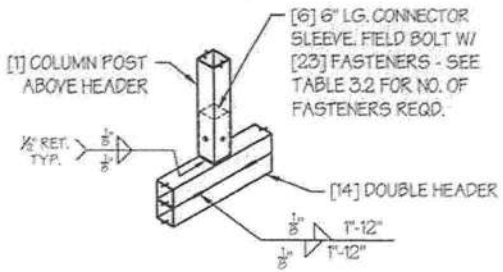
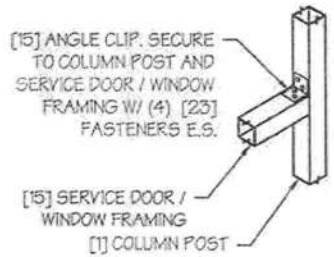
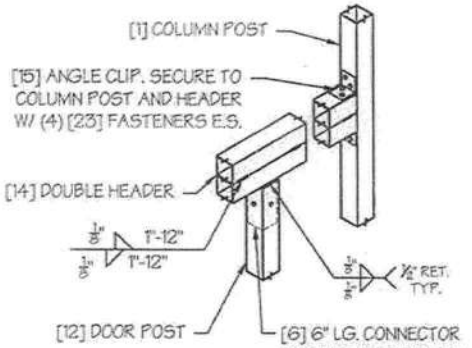



COLUMN POST ABOVE DBL. DOOR HEADER CONN. DETAIL (3)
SCALE: NTS




TYP. SERVICE DOOR / WINDOW FRAMING CONN. DETAIL (4)
SCALE: NTS




COLUMN POST ABOVE DBL. DOOR HEADER CONN. DETAIL (5)
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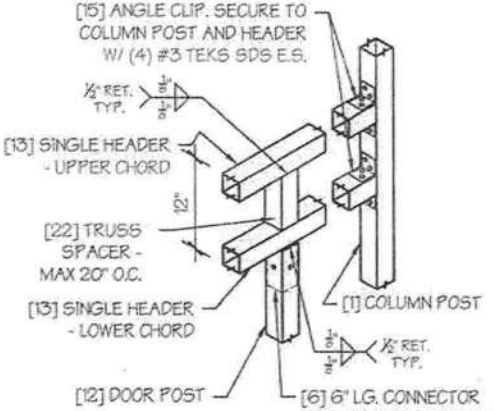
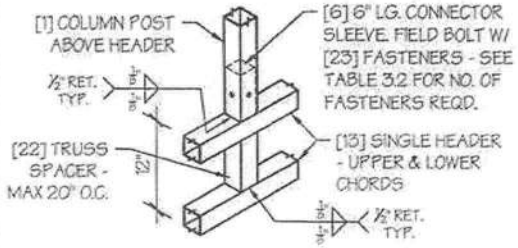



COLUMN POST ABOVE TRUSS DOOR HEADER CONN. DETAIL (6)
SCALE: NTS




COLUMN POST ABOVE TRUSS DOOR HEADER CONN. DETAIL (7)
SCALE: NTS

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PROJECT NO.: 356-21-0028
SHEET TITLE: SIDE WALL FRAMING DETAILS
SHEET NO.: 7-B / 11
DRAWN BY: A.W. DATE: 1/13/21
CHECKED BY: OAA DATE: 1/13/21

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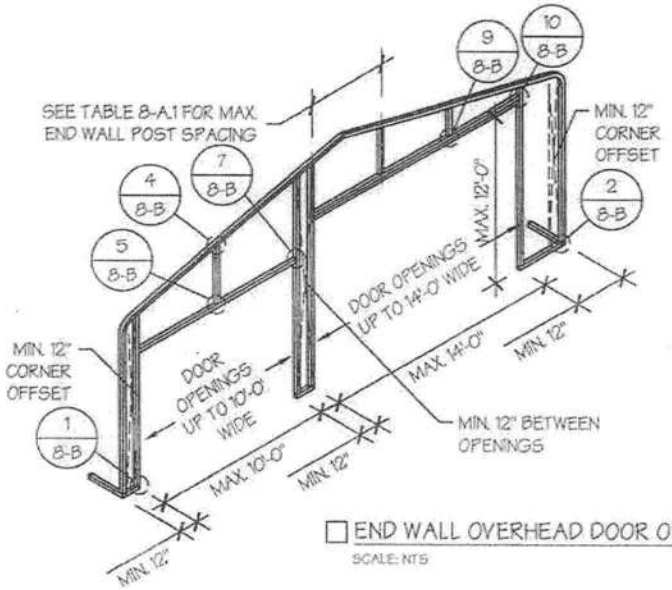
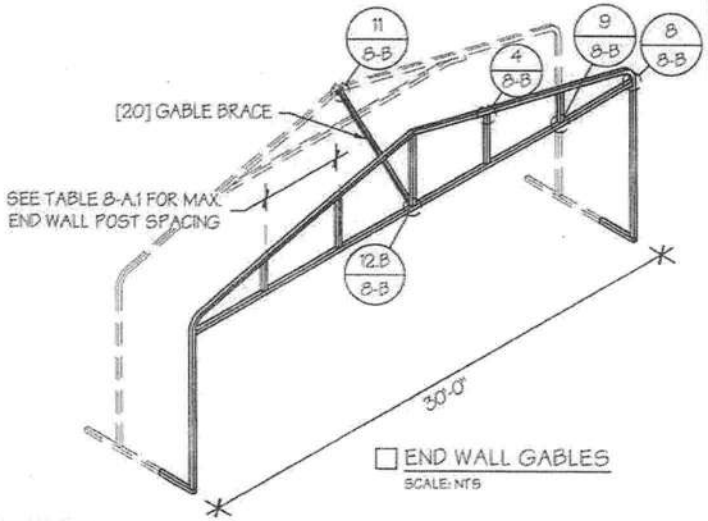


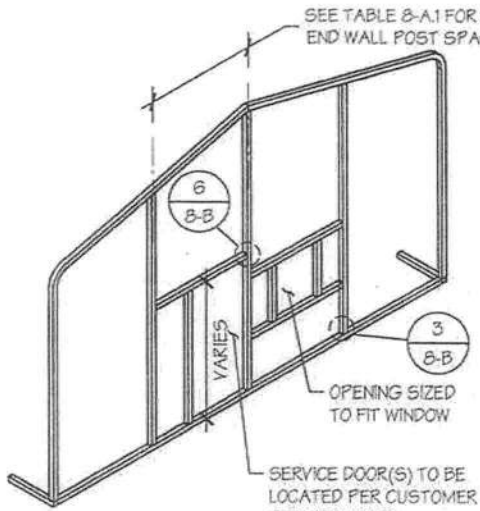

☐ END WALL OVERHEAD DOOR OPENINGS

SCALE: NTS



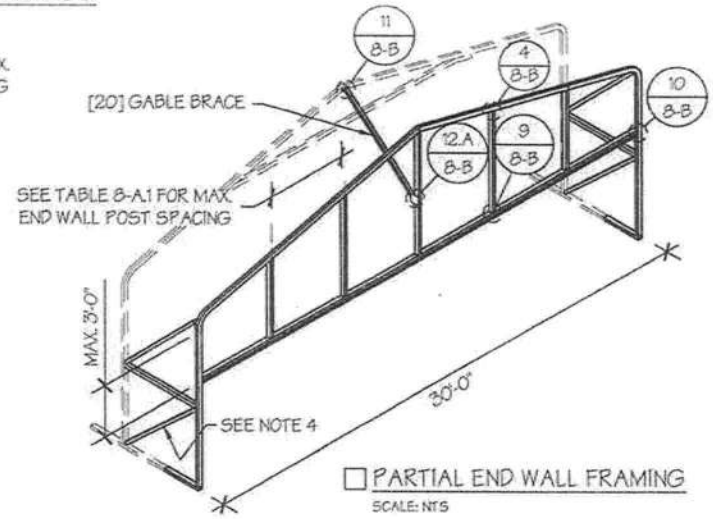

☐ END WALL GABLES

SCALE: NTS




☐ END WALL SERVICE DOOR AND WINDOW OPENINGS

SCALE: NTS




☐ PARTIAL END WALL FRAMING

SCALE: NTS

TABLE 8-A.1: END WALL POST SPACING SCHEDULE

| WIND SPEED (MPH) | EAVE HEIGHT | | |
|---|---|---|---|
| | ■ UP TO 7' | ■ 8' TO 9' | ■ 10' TO 12' |
| ☐ 105 | 5' | 5' | 5' |
| ☐ 115 | 5' | 5' | 4.5' |
| ☐ 130 | 4.5' | 4.5' | 4' |
| ☐ 140 | 4.5' | 4.5' | 3' |
| ☐ 155 | 4' | 4' | 2.5' |
| ☐ 165 - 180 | 3.5' | 3' | 2' |

END WALL FRAMING NOTES:

1. DESIGNS AND DETAILS SHOWN HERE ARE APPLICABLE TO BOTH REGULAR AND A-FRAME STYLE BUILDINGS.
2. 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.
4. DIAGONAL BRACES NEED TO BE ADDED FOR PARTIAL END WALL ENCLOSURES. SEE SHEET 9 FOR DIAGONAL BRACE CONNECTION DETAILS.

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PROJECT NO.: 356-21-0028
SHEET TITLE: END WALL FRAMING
SHEET NO.: 8-A / 11
DRAWN BY: A.W. DATE: 1/13/21
CHECKED BY: OAA DATE: 1/13/21

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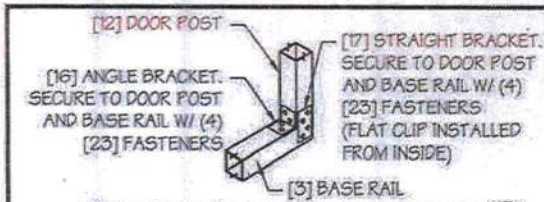
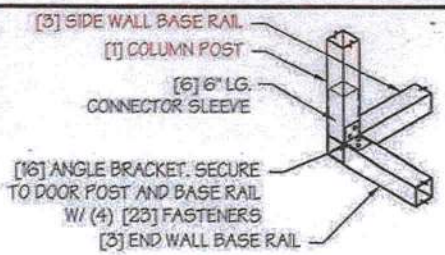
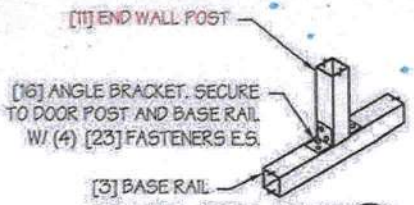


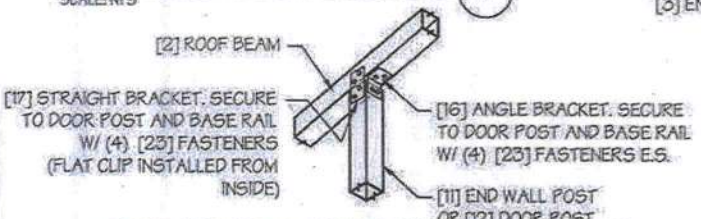

DOOR POST BASE RAIL CONN. DETAIL 1
SCALE: NTS



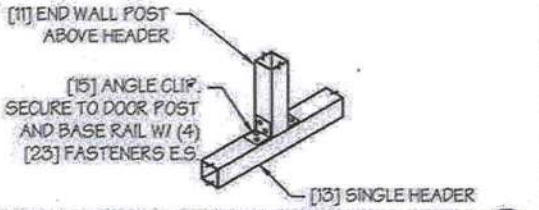

CORNER DETAIL 2
SCALE: NTS



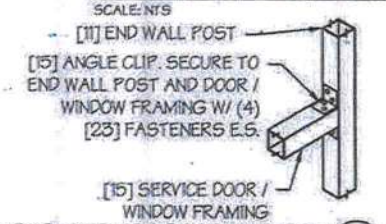

END WALL POST - BASE RAIL CONN. DETAIL 3
SCALE: NTS




END WALL POST - ROOF BEAM CONN. DETAIL 4
SCALE: NTS

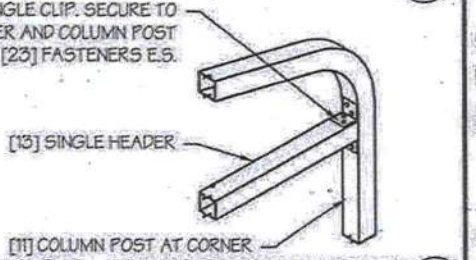



END WALL POST ABOVE HEADER CONN. DETAIL 5
SCALE: NTS

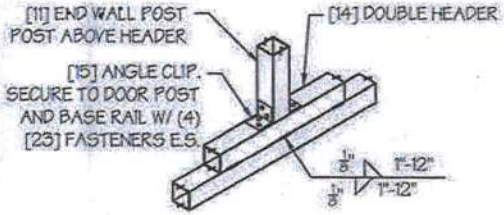



TYP. SERVICE DOOR / WINDOW FRAMING CONN. DETAIL 6
SCALE: NTS

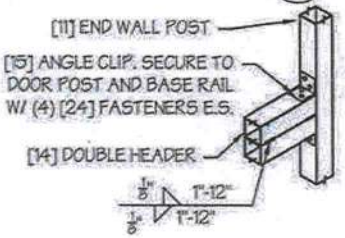

HEADER - END WALL POST CONN. DETAIL 7
SCALE: NTS



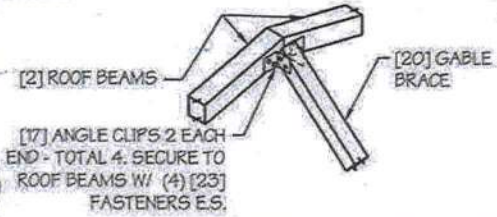

GABLE HEADER - CORNER POST CONN. DETAIL 8
SCALE: NTS



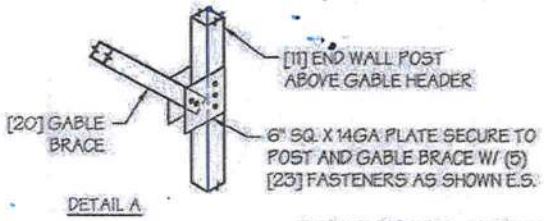

END WALL POST ABOVE DOUBLE HEADER CONN. DETAIL 9
SCALE: NTS

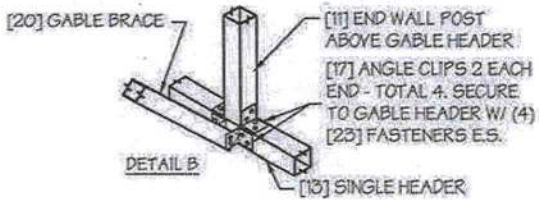



DOUBLE HEADER - END WALL POST CONN. DETAIL 10
SCALE: NTS




TYP. GABLE BRACE CONN. DETAIL 11
SCALE: NTS




GABLE BRACE - END WALL CONN. DETAIL 12
SCALE: NTS

MANUFACTURED BY:

# Real Steel Metal Buildings

ENGINEERED BY:

A&A ENGINEERING
CIVIL • STRUCTURAL
6686 Renaissance Place, 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.: 356-21-0028
SHEET TITLE: END WALL FRAMING DETAILS
SHEET NO.: 8-B / 11
DRAWN BY: A.W. DATE: 1/13/21
CHECKED BY: OAA DATE: 1/13/21

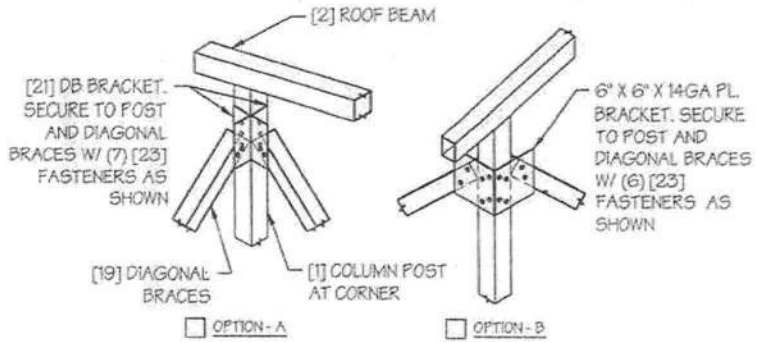
**LEGAL INFORMATION**



SEAL:

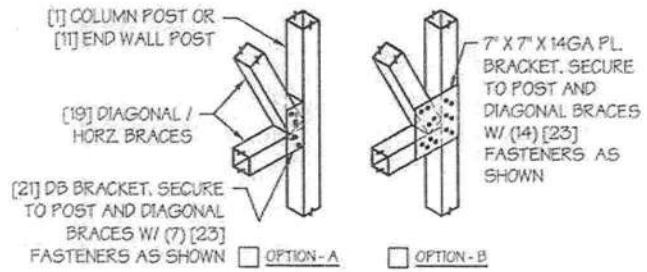
OMAR A. ABU-YASEIN
LICENSE
No. 52851
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

STAMP EXPIRY: FEB 28 2023
DATE SIGNED: JAN 15 2021



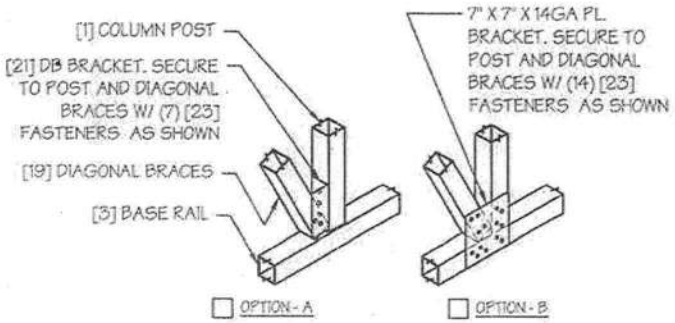

DIAGONAL BRACE TOP CORNER CONN. DETAIL* (1)

SCALE: NTS




DIAGONAL BRACE - POST CONN. DETAIL* (2)

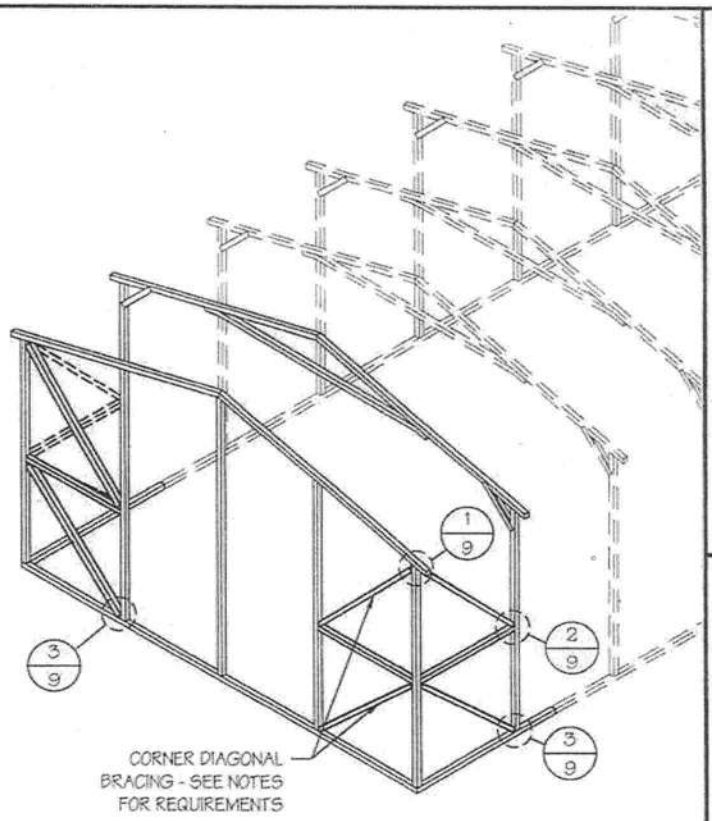
SCALE: NTS




DIAGONAL BRACE BOT. CORNER CONN. DETAIL* (3)

SCALE: NTS

* INSIDE VIEW SHOWN FOR CLARITY




DIAGONAL BRACING AT CORNERS

SCALE: NTS

## CORNER BRACING NOTES:

1. DIAGONAL BRACING AT BUILDING CORNERS IS REQUIRED FOR ALL BUILDINGS IN LOCATIONS WHERE WIND SPEED IS 140 MPH OR GREATER.
   - FOR 3 SIDED ENCLOSED BUILDINGS, 140 MPH OR GREATER WIND SPEED - THE BUILDING MUST BE DESIGNED WITH OPEN BUILDING SPACING AND DIAGONAL BRACING IS REQUIRED ON ALL ENCLOSED WALLS.
2. SIDE-WALL DIAGONAL BRACING IS REQUIRED WHEN THE ADJACENT END-WALL IS PARTIALLY ENCLOSED.
3. ALL BUILDINGS WITH IRREGULAR ENCLOSURE (SEE SHEET 5) WILL REQUIRE SIDE-WALL BRACING CLOSE TO THE PARTIALLY ENCLOSED END-WALL.

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**DRAWING INFORMATION**

PROJECT: 30'-0" WIDE BUILDINGS

LOCATION: STATE OF FLORIDA

PROJECT NO.: 356-21-0028

SHEET TITLE: CORNER BRACING DETAILS

SHEET NO.: 9 / 11

DRAWN BY: A.W. DATE: 1/13/21

CHECKED BY: OAA DATE: 1/13/21

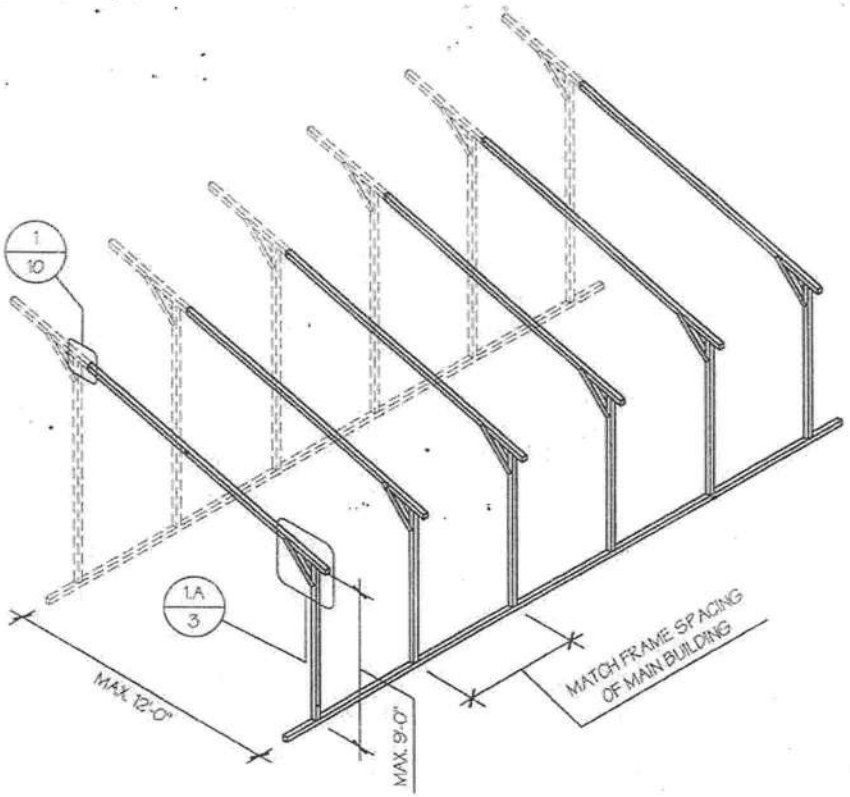
**LEGAL INFORMATION**



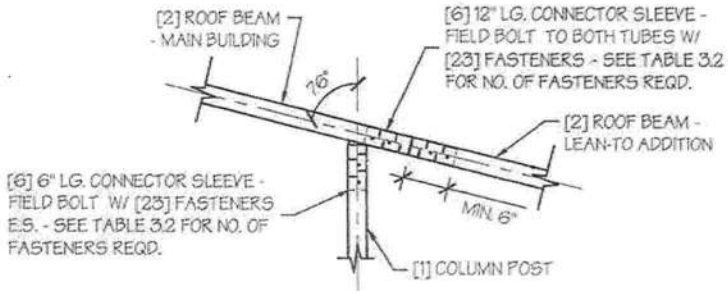
SEAL:


STAMP EXPIRY: FEB 28 2023

DATE SIGNED: JAN 15 2021




☐ OPTIONAL LEAN-TO ADDITION
SCALE: NTS




LEAN-TO ATTACHMENT DETAIL 1
SCALE: NTS

## LEAN-TO ADDITION NOTES:

1. LEAN-TO ADDITIONS CAN BE ADDED ON EITHER OR BOTH SIDES OF THE BUILDING.
2. 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.

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www.aa-engineers.com

**DRAWING INFORMATION**

PROJECT: 30'-0" WIDE BUILDINGS
LOCATION: STATE OF FLORIDA
PROJECT NO.: 356-21-0028
SHEET TITLE: OPTIONAL LEAN-TO ADDITION
SHEET NO.: 10 / 11
DRAWN BY: A.W. DATE: 1/13/21
CHECKED BY: OAA DATE: 1/13/21

**LEGAL INFORMATION**



SEAL:

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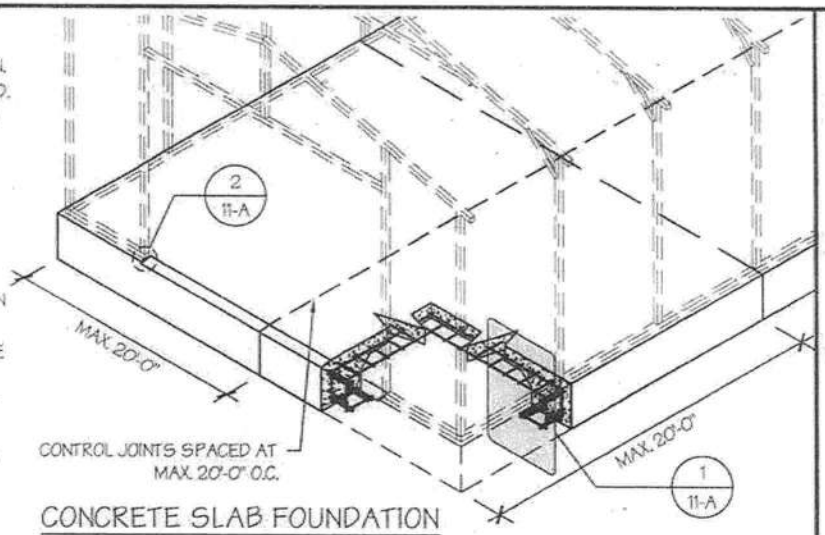
No. 52851
STATE OF FLORIDA
PROFESSIONAL ENGINEER

STAMP EXPIRY: FEB 28 2023
DATE SIGNED: JAN 15 2021

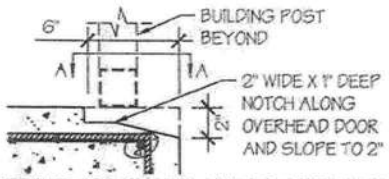
## CONCRETE SLAB FOUNDATION NOTES:

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.
3. 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.2.
5. THE SIZE OF THE SLAB SHALL BE THE SIZE (WIDTH AND LENGTH) OF THE BUILDING PLUS 5½" FOR 14GA MATERIAL AND 5¾" FOR 12GA MATERIAL.
6. 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.
9. CONCRETE STRENGTH TO BE A MIN OF 2500 PSI @ 28 DAYS.




CONCRETE SLAB FOUNDATION

SCALE: NTS




OVERHEAD DOOR NOTCH DETAIL 2

SCALE: NTS

TABLE 11-A.1: NOTCH WIDTH

| HORIZONTAL/OPEN | | VERTICAL | |
|---|---|---|---|
| ☐ 14GA | ☐ 12GA | ☐ 14GA | ☐ 12GA |
| 2 3/4" | 2 7/8" | 1 3/4" | 1 7/8" |

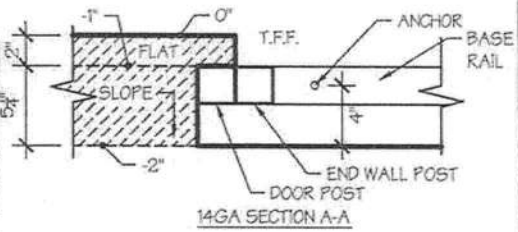
NOTE: DEPTH IS TO BE 1 1/2"

TABLE 11-A.2: CONCRETE SLAB ANCHOR SCHEDULE

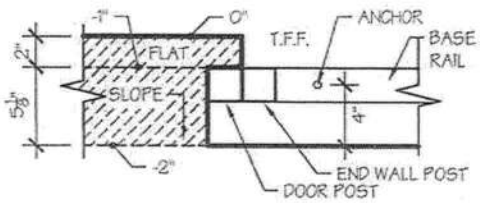
| ENCLOSURE | WIND SPEED (MPH) | ANCHOR SIZE/NUMBER |
|---|---|---|
| ENCLOSED | ☐ 105 TO 135 | (1) 1/2"Ø X 7" |
| | ☐ 136 TO 180 | (2) 1/2"Ø X 7" |
| OPEN | ☐ 105 TO 135 | (1) 1/2"Ø X 7" |
| | ☐ 136 TO 180 | (2) 1/2"Ø X 7" |

NOTES:

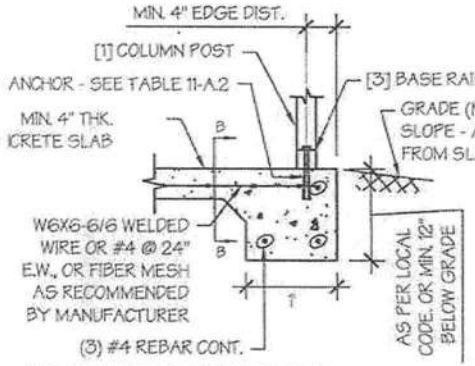
1. ANCHORS ARE TO BE CONCRETE WEDGE OR EXPANSION ANCHORS.
2. MIN. EMBEDMENT DEPTH TO BE 2⅞".
3. ANCHORS TO BE SPACED NO MORE THAN 6" FROM POSTS.



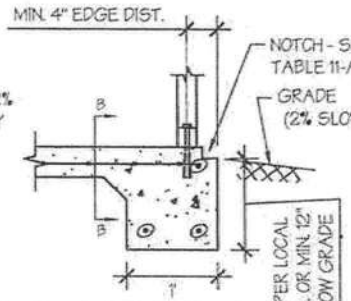

14GA SECTION A-A




12GA SECTION A-A



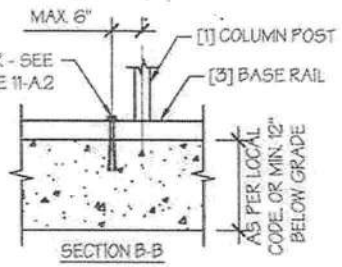

☐ STANDARD EDGE DETAIL




☐ NOTCHED EDGE DETAIL

EDGE OFFSET DETAIL 1

SCALE: NTS




SECTION B-B

MANUFACTURED BY:

# Real Steel Metal Buildings

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CIVIL • STRUCTURAL
6036 Renaissance Place, Toledo, OH 43623
Tel. 419-292-1988 • Fax. 419-292-0955
www.aa-engineers.com

**DRAWING INFORMATION**

PROJECT: 30'-0" WIDE BUILDINGS
LOCATION: STATE OF FLORIDA
PROJECT NO.: 356-21-0028
SHEET TITLE: FOUNDATION OPTION 1: CONCRETE SLAB
SHEET NO.: 11-A / 11
DRAWN BY: A.W. DATE: 1/13/21
CHECKED BY: OAA DATE: 1/13/21

**LEGAL INFORMATION**

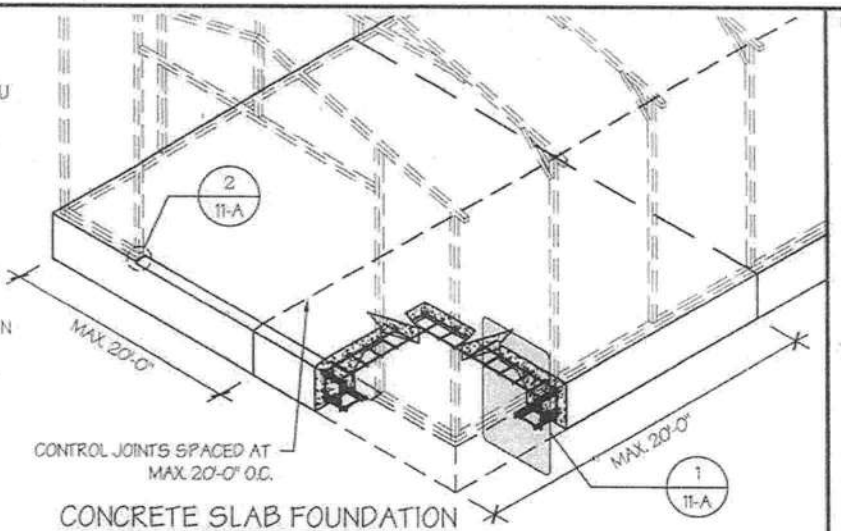


SEAL:


STAMP EXPIRY: FEB 28 2023
DATE SIGNED: JAN 15 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 C 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" 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 ½" FOR 14GA MATERIAL AND 1" FOR 12GA MATERIAL.
6. 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.
9. CONCRETE STRENGTH TO BE A MIN OF 2500 PSI @ 28 DAYS.



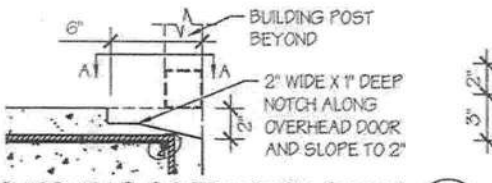

CONCRETE SLAB FOUNDATION

SCALE: NTS

TABLE 11-A.1: CONCRETE SLAB ANCHOR SCHEDULE

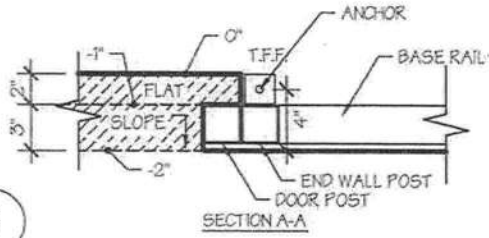
| ENCLOSURE | WIND SPEED (MPH) | ANCHOR SIZE/NUMBER |
|---|---|---|
| ENCLOSED | ☐105 TO 135 | (1) 1/2"Ø X 7" |
| | ☐136 TO 180 | (2) 1/2"Ø X 7" |
| OPEN | ☐105 TO 135 | (1) 1/2"Ø X 7" |
| | ☐136 TO 180 | (2) 1/2"Ø X 7" |

NOTES:
1. ANCHORS ARE TO BE CONCRETE WEDGE OR EXPANSION ANCHORS.
2. MIN. EMBEDMENT DEPTH TO BE 2⅞".
3. ANCHORS TO BE SPACED NO MORE THAN 6" FROM POSTS.

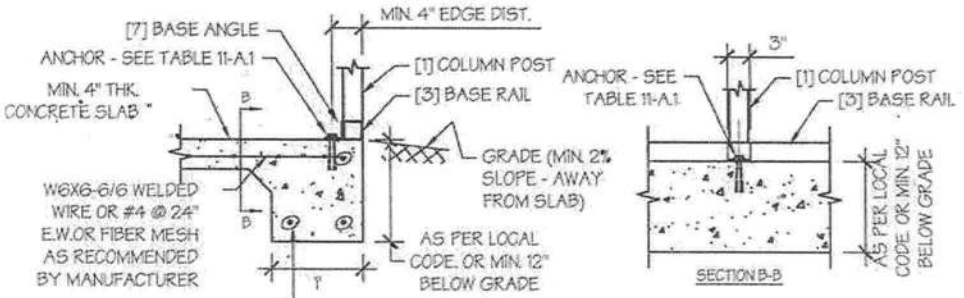



OVERHEAD DOOR NOTCH DETAIL 2

SCALE: NTS




SECTION A-A




SECTION B-B

☐EDGE FLUSH DETAIL 1

SCALE: NTS

MANUFACTURED BY:

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6036 Renaissance Place, Toledo, OH 43623
Tel. 419-292-1983 • Fax. 419-292-0655
www.aa-engineers.com

**DRAWING INFORMATION**

PROJECT: 30'-0" WIDE BUILDINGS
LOCATION: STATE OF FLORIDA
PROJECT NO.: 356-21-0028
SHEET TITLE: FOUNDATION OPTION 1: CONCRETE SLAB
SHEET NO.: 11-A / 11
DRAWN BY: A.W. DATE: 1/13/21
CHECKED BY: OAA DATE: 1/13/21

**LEGAL INFORMATION**



SEAL:


STAMP EXPIRY: FEB 28 2023
DATE SIGNED: JAN 15 2021

TABLE 11-B.1: ANCHOR SCHEDULE

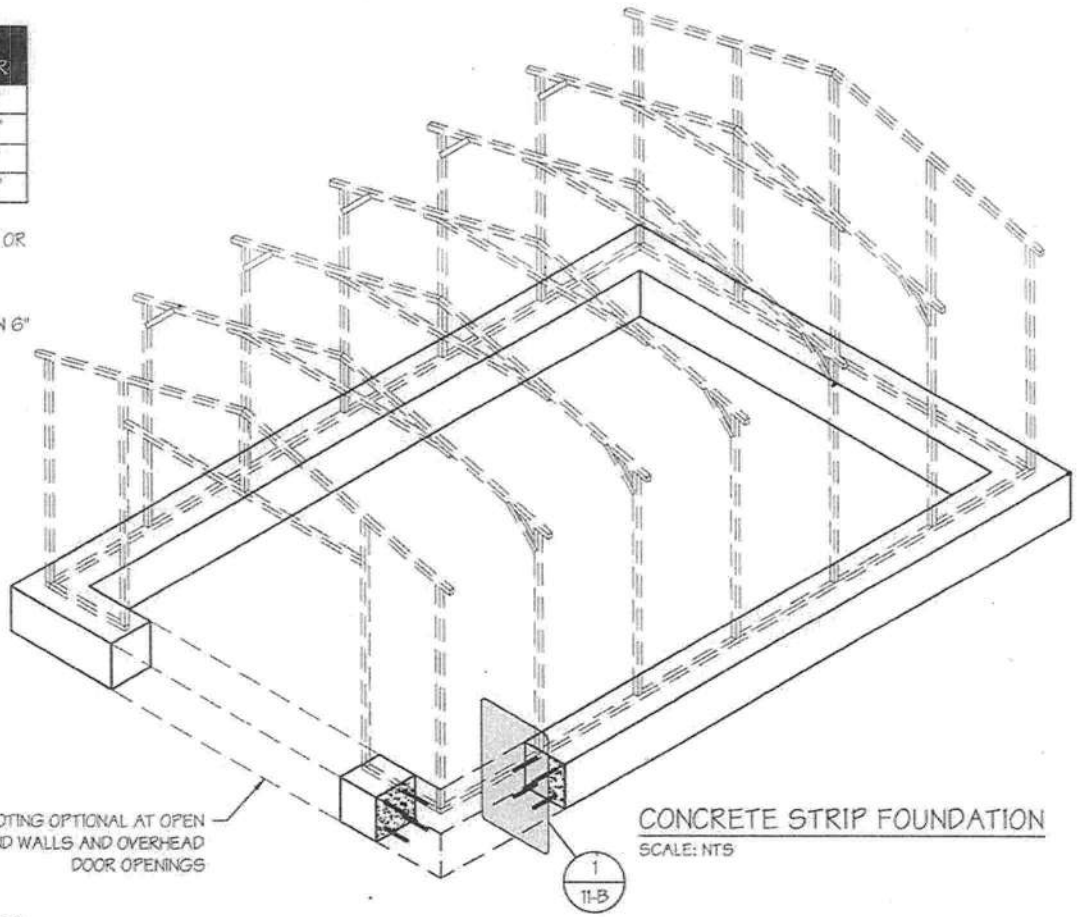
| ENCLOSURE | WIND SPEED (MPH) | ANCHOR SIZE/NUMBER |
|---|---|---|
| ENCLOSED | ☐105 TO 135 | (1) 1/2"Ø X 7" |
| | ☐136 TO 180 | (2) 1/2"Ø X 7" |
| OPEN | ☐105 TO 135 | (1) 1/2"Ø X 7" |
| | ☐136 TO 180 | (2) 1/2"Ø X 7" |

NOTES:
1. ANCHORS ARE TO BE CONCRETE WEDGE OR EXPANSION ANCHORS.
2. MIN. EMBEDMENT DEPTH TO BE 2 7/8".
3. 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"<br>24 X 15"<br>20" X 18" |

NOTES:
1. WIDTH AND DEPTH DIMENSIONS CAN BE INTERCHANGED.

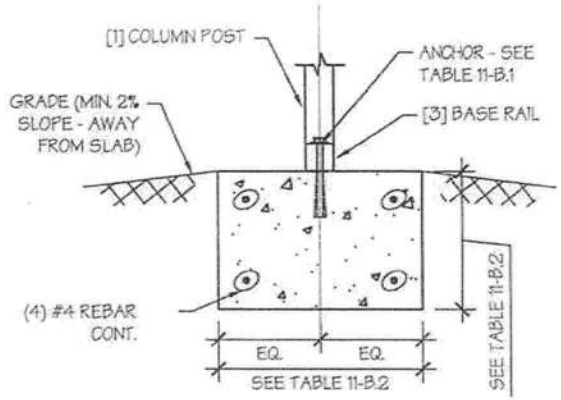



CONCRETE STRIP FOUNDATION
SCALE: NTS

1
11-B

## 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 C 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.
5. ASSUMED SOIL BEARING CAPACITY IS TO BE A MIN. OF 1500 PSF.
6. CONCRETE STRENGTH TO BE A MIN OF 2500 PSI @ 28 DAYS.
7. BUILDING IS TO BE MOUNTED ON THE CENTER OF THE STRIP FOUNDATION.




☐CONCRETE STRIP FOUNDATION DETAIL
SCALE: NTS

1

MANUFACTURED BY:

# Real Steel Metal Buildings

ENGINEERED BY:

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CIVIL • STRUCTURAL
6035 Renaissance Place, 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.: 356-21-0028
SHEET TITLE: FOUNDATION OPTION 2: CONCRETE STRIP
SHEET NO.: 11-B / 11
DRAWN BY: A.W. DATE: 1/13/21
CHECKED BY: OAA DATE: 1/13/21

**LEGAL INFORMATION**



SEAL:

OMAR A. ABU-YASEIN
LICENSE
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STATE OF FLORIDA
PROFESSIONAL ENGINEER

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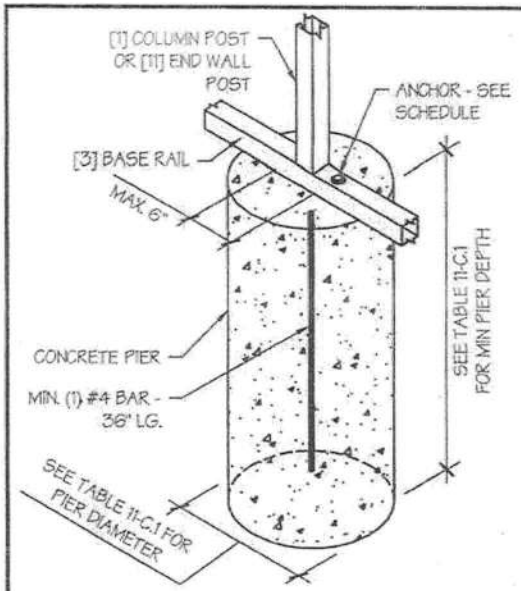
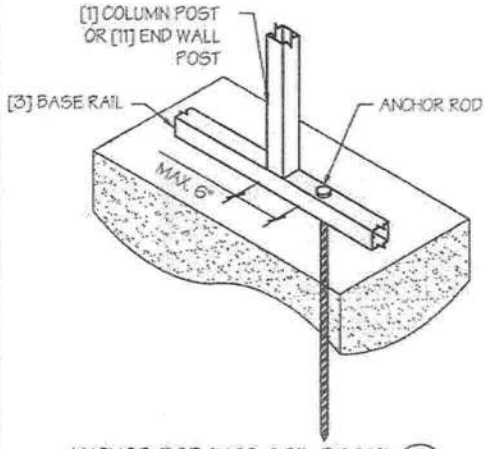


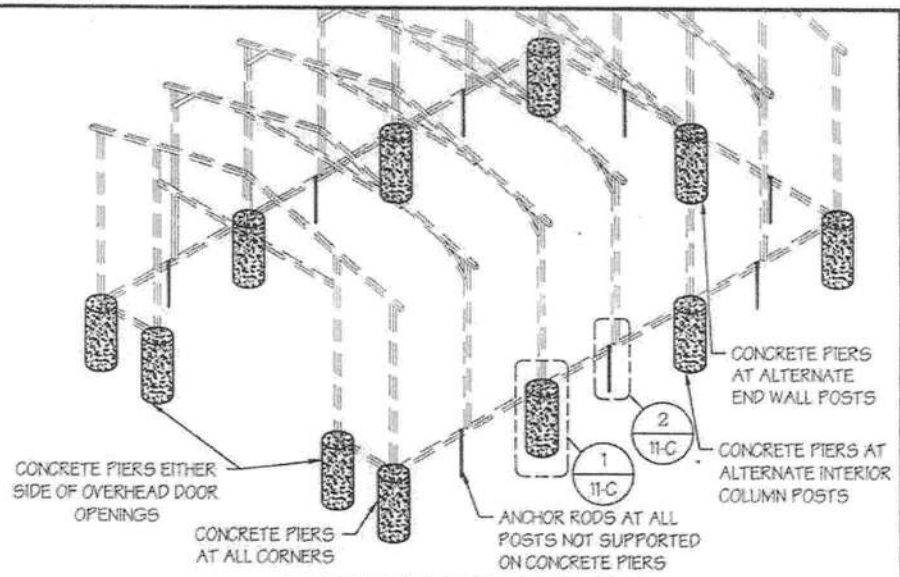

CONCRETE PIER DETAIL 1
SCALE: NTS




ANCHOR ROD INTO SOIL DETAIL 2
SCALE: NTS

TABLE 11-C.1: CONC. PIER SCHEDULE

| WIND SPEED (MPH) | MIN. SIZE REQD. |
|---|---|
| ☐105 TO 130 | 24"Ø X 36" |
| ☐140 TO 155 | 24"Ø X 42" |
| ☐165 TO 180 | 24"Ø X 48" |




☐ CONCRETE PIER FOUNDATION
SCALE: NTS

CONCRETE PIER FOUNDATION NOTES:

1. DESIGNS SHOWN ON THIS SHEET ARE FOR CONCRETE PIER FOUNDATION. ANY OF THE FOUNDATIONS SHOWN ON SHEETS 11-A THRU C CAN BE USED.
2. 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.
4. ANCHORS IN CLOSE PROXIMITY TO EACH OTHER MUST HAVE A MIN. 4" SPACING.
5. MIN. NUMBER OF CONCRETE ANCHORS PER POST WITH A PIER SHALL BE AS SHOWN IN TABLE 11-A.2.
6. 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.
10. 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 135 | (1) 1/2"Ø X 7" |
| | ☐136 TO 180 | (2) 1/2"Ø X 7" |
| OPEN | ☐105 TO 135 | (1) 1/2"Ø X 7" |
| | ☐136 TO 180 | (2) 1/2"Ø X 7" |

NOTES:

1. ANCHORS ARE TO BE CONCRETE WEDGE OR EXPANSION ANCHORS.
2. MIN. EMBEDMENT DEPTH TO BE $2\frac{7}{8}$".
3. ANCHORS TO BE SPACED NO MORE THAN 6" FROM POSTS.

MANUFACTURED BY:

# Real Steel Metal Buildings

ENGINEERED BY:

A&A ENGINEERING
CIVIL • STRUCTURAL
5026 Renaissance Place, Toledo, OH 43623
Tel. 419-292-1383 • Fax. 419-292-0955
www.aa-engineers.com

**DRAWING INFORMATION**

PROJECT: 30'-0" WIDE BUILDINGS
LOCATION: STATE OF FLORIDA
PROJECT NO.: 356-21-0028
SHEET TITLE: FOUNDATION OPTION 3: CONCRETE PIERS
SHEET NO.: 11-C / 11
DRAWN BY: A.W. DATE: 1/13/21
CHECKED BY: OAA DATE: 1/13/21

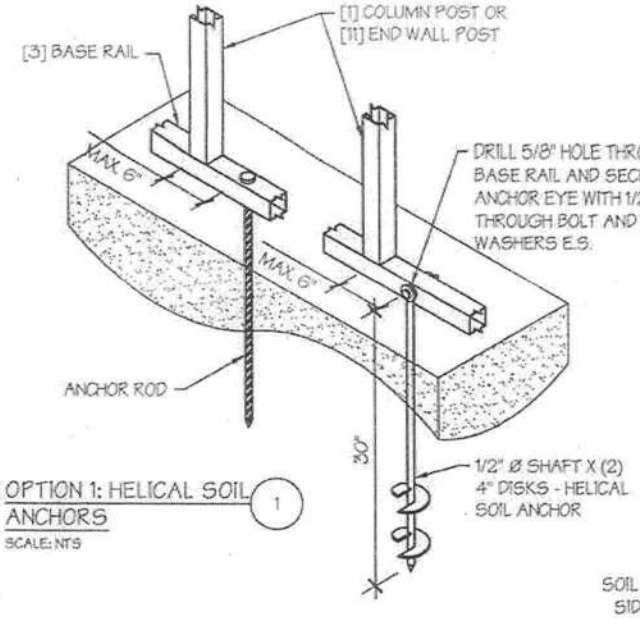
**LEGAL INFORMATION**



SEAL:

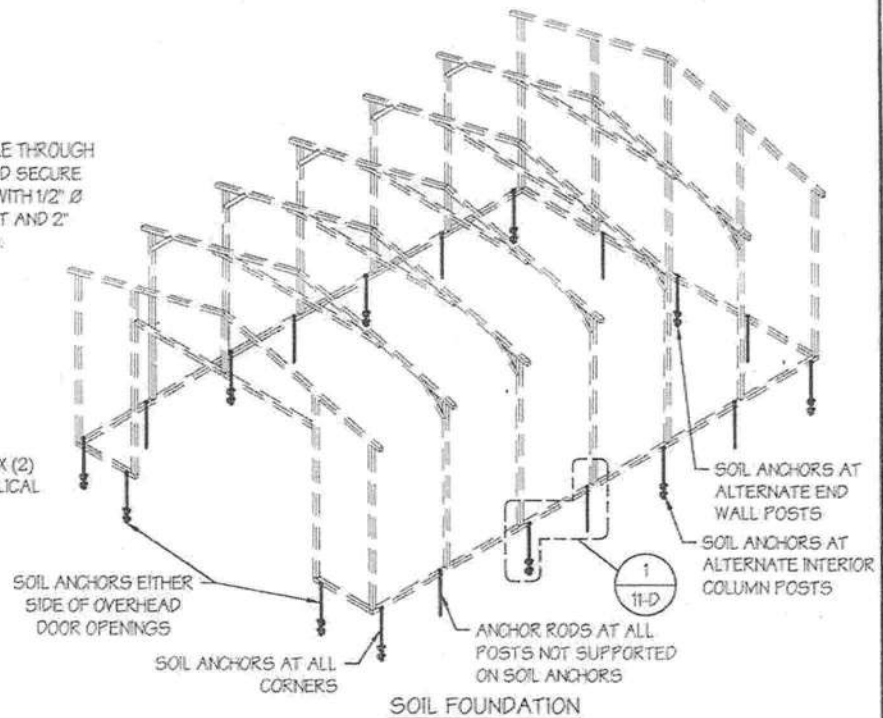
OMAR A. ABU-YASEIN
LICENSE
No. 52851
STATE OF FLORIDA
PROFESSIONAL ENGINEER

STAMP EXPIRY: FEB 28 2023
DATE SIGNED: JAN 15 2021




☐ OPTION 1: HELICAL SOIL ANCHORS (1)

SCALE: NTS




SOIL FOUNDATION

SCALE: NTS

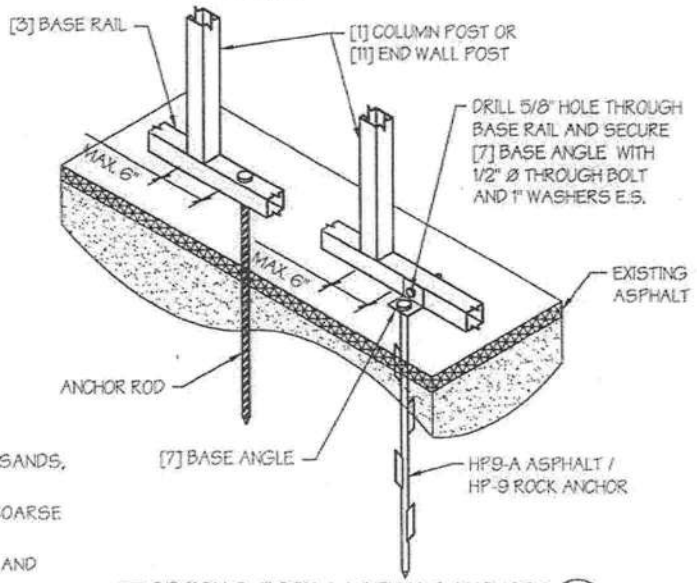
## SOIL FOUNDATION NOTES:

1. DESIGNS SHOWN ON THIS SHEET ARE FOR SOIL ANCHOR FOUNDATION.
2. 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.
4. HELICAL ANCHORS CAN ONLY BE USED FOR CLASS 2, 3 & 4 SOILS (SEE SOIL CLASSIFICATIONS THIS PAGE).
5. 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"*




☐ OPTION 2: ROCK / ASPHALT ANCHORS (1)

SCALE: NTS

MANUFACTURED BY:

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**DRAWING INFORMATION**

PROJECT: 30'-0" WIDE BUILDINGS

LOCATION: STATE OF FLORIDA

PROJECT NO.: 356-21-0028

SHEET TITLE: FOUNDATION OPTION 4: SOIL ANCHORS

SHEET NO.: 11-D / 11

DRAWN BY: A.W. DATE: 1/13/21

CHECKED BY: OAA DATE: 1/13/21

**LEGAL INFORMATION**



SEAL:

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STAMP EXPIRY: FEB 28 2023

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