

# REGULAR / A-FRAME 18'-0" WIDE CARPORT STYLE BUILDINGS



MANUFACTURED BY:

### DESIGN NOTES

- ALL CONSTRUCTION SHALL BE PROVIDED IN ACCORDANCE WITH IBC 2015, OSHA, AISC 360, AISI 100, ASCE 7-10, AWS D13 CODES AND ALL APPLICABLE LOCAL REQUIREMENTS.
- ALL MATERIALS IDENTIFIED BY MANUFACTURER NAME MAY BE SUBSTITUTED WITH MATERIAL EQUAL OR EXCEEDING ORIGINAL.
- ALL SHOP CONNECTIONS SHALL BE WELDED CONNECTIONS.
- ALL STRUCTURAL FIELD CONNECTIONS SHALL BE #12-14 x 3/8" SD5 (ESR-2196 OR EQ) WITHOUT WASHERS.
- STEEL SHEATHING SHALL BE 26GA, CORRUGATED GALV. OR PAINTED STEEL - MAIN RIB HT. 3/4" (FY=80KSI) OR EQ. CONNECTIONS SHALL BE #12-14 x 3/8" SD5 (ESR-2196 OR EQ) WITH NEOPRENE WASHERS.
- ALL STRUCTURAL LIGHT GAUGE TUBING AND CHANNELS SHALL BE GRADE 50 STEEL (FY = 50 KSI, FU = 65 KSI).
- STRUCTURAL TUBE 2 1/2" x 2 1/2" - HGA. IS EQUIVALENT TO S 2 1/2" x 2 1/2" - 12GA AND EITHER ONE MAY BE USED IN LIEU OF THE OTHER.
- GYPSUM BOARD OR DRYWALL FINISH OR ANY BRITTLE BASE MATERIAL IS NOT CONSIDERED OR ACCOUNTED FOR ON THE DESIGN CRITERIA.
- 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: NCBC 2018 (IBC 2015)  
 USE GROUP: U (CARPORTS, BARNS)  
 RISK CATEGORY: 1

- ROOF DEAD LOAD (D) D = 4 PSF
- ROOF LIVE/SNOW LOAD (Lr) Lr = 20 - 61 PSF (AS PER SNOW LOAD SEE TABLE 4)
- SNOW LOAD (S) GROUND SNOW LOAD IMPORTANCE FACTOR Is = 0.8 THERMAL FACTOR Ct = 12 EXPOSURE FACTOR Ce = 10 ROOF SLOPE FACTOR Cs = 1.0 WIND LOAD (W) BASIC WIND SPEED EXPOSURE C Vult = 105 - 180 MPH SEISMIC LOAD (E) DESIGN CATEGORY D IMPORTANCE FACTOR Ie = 1.00
- LOAD COMBINATIONS:
  - D + (Lr OR S)
  - D + (0.6W OR +0.7E)
  - D + 0.75 (0.6W OR +0.7E) + 0.75 (Lr OR S)
  - 0.6D + (0.6W OR +0.7E)

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Omar Abu-Yasein  
Digitally signed by Omar Abu-Yasein  
 Date: 2023.08.01 08:33:23 -0400

### CUSTOMER INFORMATION

OWNER: Curtis Bryant  
 ADDRESS: 40 Bill Place Ln  
 Dunn, NC 28334

### DESIGN LOADS

GROUND SNOW: 30 psf  
 ROOF LIVE LOAD: 20 psf  
 BASIC WIND SPEED: 115 mph

### BUILDING INFORMATION

WIDTH: 18'  
 LENGTH: 40'  
 HEIGHT: 14'

### CERTIFICATION VALIDITY NOTICE

DATE OF PLANS EXPIRATION: **08-30-2024**  
 CERTIFICATION ON THESE DRAWINGS IS VALID FOR ONE YEAR FROM DATE OF ISSUE

### DRAWING INFORMATION

PROJECT: 18'-0" WIDE BUILDINGS  
 LOCATION: STATE OF NORTH CAROLINA  
 PROJECT NO.: 325-23-2447  
 SHEET TITLE:

### COVER SHEET

SHEET NO.: 1 / 11  
 DRAWN BY: A.W. DATE: 7/18/22  
 CHECKED BY: OAA DATE: 7/18/22

### LEGAL INFORMATION

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

SEAL:



DATE EXPIRES: **12-31-2023**  
 DATE SIGNED: **08-30-2023**

MANUFACTURED BY:



**DRAWING INFORMATION**

PROJECT: 18'-0" WIDE BUILDINGS  
 LOCATION: STATE OF NORTH CAROLINA  
 PROJECT NO.: 325-23-2447  
 SHEET TITLE: SCHEDULES & MEMBER SECTIONS

SHEET NO.: 2 / 11

DRAWN BY: A.W. DATE: 7/18/22

CHECKED BY: OAA DATE: 7/18/22

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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	1
2	ROOF DEAM	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 CHANNEL	4
5	KNEE BRACES	2.5" X 1.5" X 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	FURLIN	4.25" X 1.5" X 14GA / 18GA HAT CHANNEL	5
9	GIRT	4.25" X 1.5" X 14GA / 18GA HAT CHANNEL	5
9A	OFT. END WALL GIRT	2.5" X 1.5" X 14GA CHANNEL	1
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	FB 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" LG. 14GA ANGLE	9
22	TRUSS SPACER	2.5" X 2.5" X 14GA TUBE	1
23	ALL FASTENERS	#12 X 1" SELF-DRILL SCREWS (ESK-2196 OR EQ) W/ NEOPRENE/STEEL WASHER	

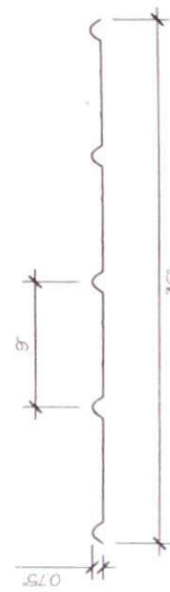
TABLE 2.2: SHEATHING FASTENER SCHEDULE

LOCATION	CORNER PANELS	SIDE LAPS	EDGE LAPS	ELSEWHERE
SPACING	9" C/C	MIN 1	4" C/C	9" C/C

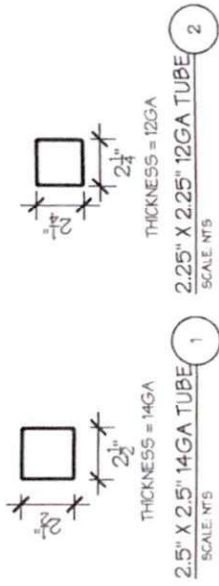
FASTENER TYPE: #12X1" SELF-DRILL SCREWS (ESK-2196 OR EQ) W/ NEOPRENE/STEEL WASHER  
 \*SEE TYP. SHEATHING FASTENER SCHEDULE DIAGRAM ON PAGE 6.

TABLE 2.3: GAUGE THICKNESS

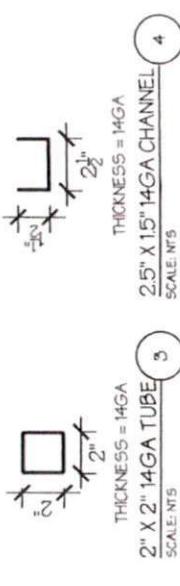
GAUGE	29	18	14	12
THICKNESS (IN)	0.0135	0.049	0.083	0.109



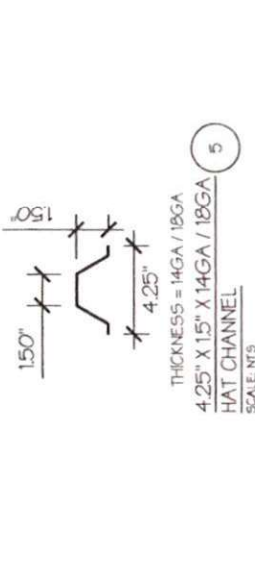
29 GA CORRUGATED SHEATHING  
 THICKNESS = 29GA  
 SCALE: NTS



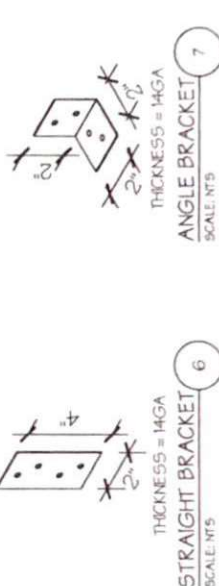
2.5" X 2.5" 14GA TUBE  
 THICKNESS = 14GA  
 SCALE: NTS



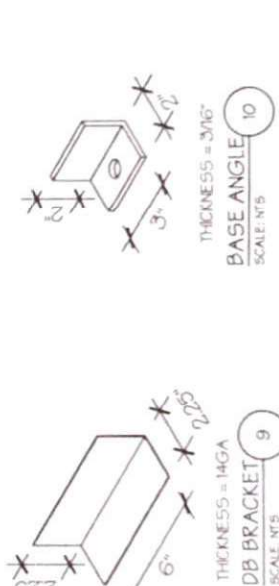
2.25" X 2.25" 12GA TUBE  
 THICKNESS = 12GA  
 SCALE: NTS



2" X 2" 14GA TUBE  
 THICKNESS = 14GA  
 SCALE: NTS



2.5" X 1.5" 14GA CHANNEL  
 THICKNESS = 14GA  
 SCALE: NTS



4.25" X 1.5" 14GA / 18GA HAT CHANNEL  
 THICKNESS = 14GA / 18GA  
 SCALE: NTS



STRAIGHT BRACKET  
 THICKNESS = 14GA  
 SCALE: NTS



ANGLE BRACKET  
 THICKNESS = 14GA  
 SCALE: NTS



BASE ANGLE  
 THICKNESS = 3/16"  
 SCALE: NTS



DB BRACKET  
 THICKNESS = 14GA  
 SCALE: NTS



STRAIGHT BRACKET  
 THICKNESS = 14GA  
 SCALE: NTS



MANUFACTURED BY:



**DRAWING INFORMATION**

PROJECT: 18'-0" WIDE BUILDINGS  
 LOCATION: STATE OF NORTH CAROLINA  
 PROJECT NO.: 325-23-2447  
 SHEET TITLE:

**FRAME SECTIONS & DETAILS**

SHEET NO.: 3 / 11  
 DRAWN BY: A.W. DATE: 7/18/22  
 CHECKED BY: OAA DATE: 7/18/22

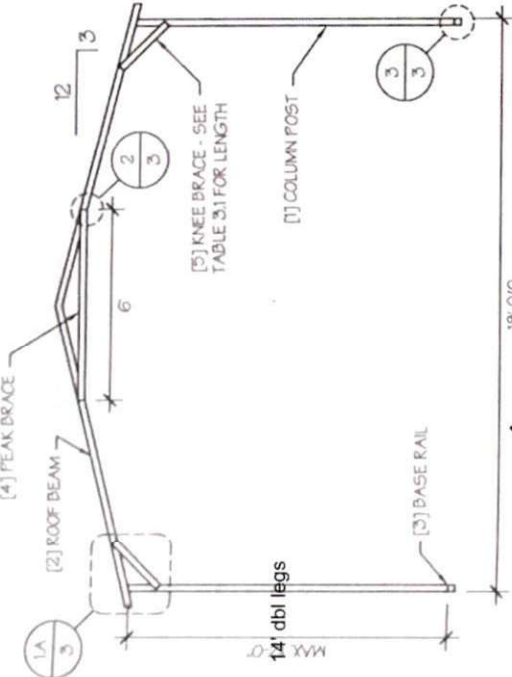
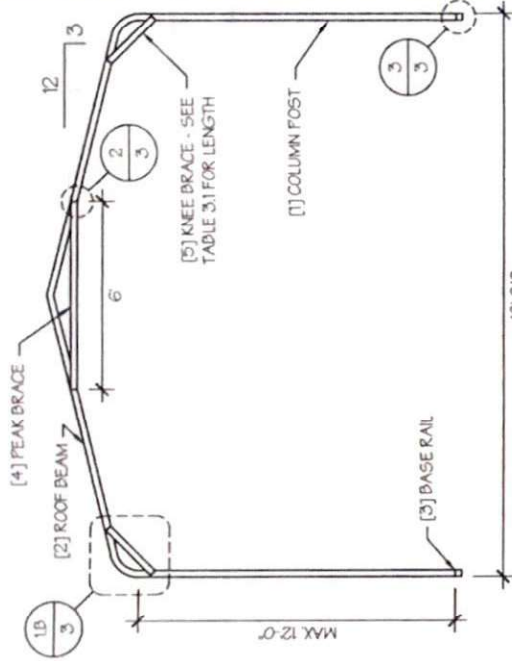
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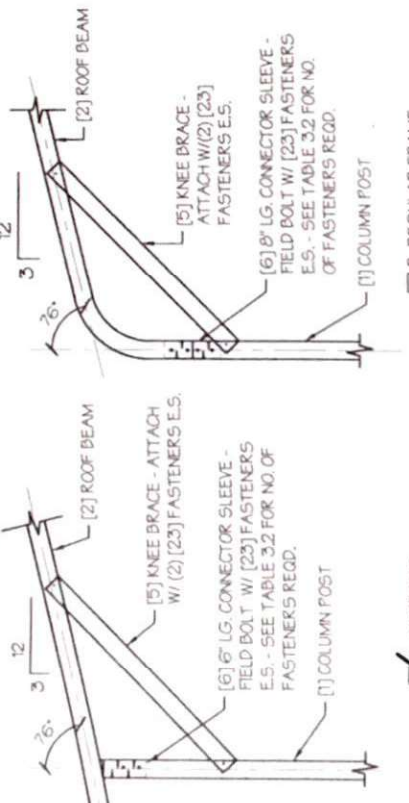
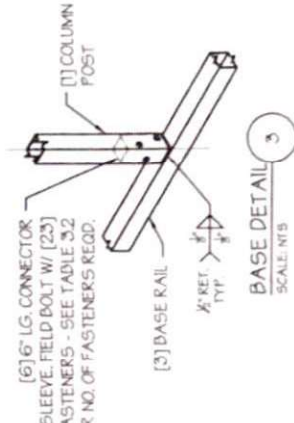
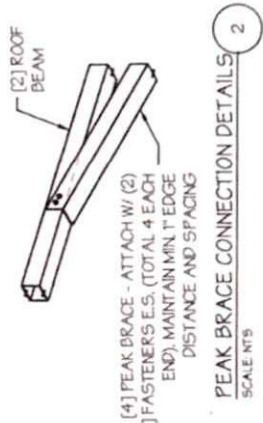


DATE EXPIRES: 12-31-2023  
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TYP. REGULAR FRAME SECTION  
 SCALE: NTS

TYP. A-FRAME SECTION  
 SCALE: NTS



A-FRAME  
 B-REGULAR FRAME

TABLE 3.2 FASTENER SCHEDULE

WIND SPEED (MPH)	NO. OF FASTENERS
<input checked="" type="checkbox"/> 105 TO 125	4
<input type="checkbox"/> 130 TO 155	6
<input type="checkbox"/> 160 TO 190	8

TABLE 3.1: KNEE BRACE SCHEDULE

EAVE HEIGHT	KNEE BRACE LENGTH
<input type="checkbox"/> UP TO 8'	24"
<input checked="" type="checkbox"/> 9 TO 12'	36"

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:



**DRAWING INFORMATION**

PROJECT: 18'-0" WIDE BUILDINGS  
 LOCATION: STATE OF NORTH CAROLINA  
 PROJECT NO.: 325-23-2447  
 SHEET TITLE:

**SPACING SCHEDULES  
& ENCLOSURE NOTES**

SHEET NO.: 4 / 11  
 DRAWN BY: A.W. DATE: 7/18/22  
 CHECKED BY: OAA DATE: 7/18/22

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TABLE 4: FRAME SPACING CHART / SCHEDULE

GROUND SNOW / ROOF LIVE LOAD (PSF)	ENCLOSED BUILDINGS								OPEN BUILDINGS							
	105	115	130	140	155	165	180	190	105	115	130	140	155	165	180	190
30 / 20	60	54/60	48/60	42	36	30	30	30	60	54/60	48/60	42/54	36/42	36	30	30
40 / 27	48/60	42/60	36	30	24	24	24	24	48/60	42/60	36	30	24	24	24	24
50 / 34	40/54	36/42	30/36	24	24	24	24	24	40/54	36/42	30/36	24	24	24	24	24
60 / 41	32/36	24	24	24	24	24	24	24	32/36	24	24	24	24	24	24	24
80 / 54	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
90 / 61	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
10 / 10	60	54/60	48/60	42/54	36/42	30/36	30	30	60	54/60	48/60	42/54	36/42	30/36	30	30
20 / 17	48/60	42/60	36	30	24	24	24	24	48/60	42/60	36	30	24	24	24	24
30 / 24	40/54	36/42	30/36	24	24	24	24	24	40/54	36/42	30/36	24	24	24	24	24
40 / 31	32/36	24	24	24	24	24	24	24	32/36	24	24	24	24	24	24	24
60 / 41	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
80 / 54	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
90 / 61	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24

**NOTES:**

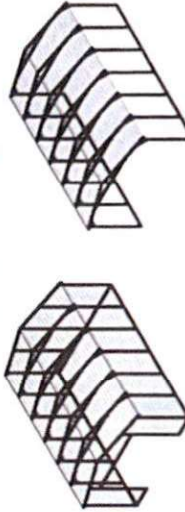
- FRAME SPACINGS ARE IN UNITS OF INCHES (IN).
- WHERE TWO VALUES ARE SHOWN, THE HIGHER VALUE CAN ONLY BE USED FOR VERTICAL SHEATHING.
- SNOW LOADS AND ROOF LIVE LOADS ARE IN POUNDS PER SQUARE FOOT (PSF), WIND SPEED IS 3 SEC. GUST IN MILES PER HOUR (MPH).
- FOR VALUES THAT LIE BETWEEN TWO CELLS, THE HIGHER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

**ENCLOSURE CLASSIFICATION:**

- ENCLOSED BUILDING = ALL 4 WALLS FULLY ENCLOSED WITH DOORS/WINDOWS = USE ENCLOSED BUILDING SPACING CHART.
- OPEN BUILDING = ALL 4 WALLS FULLY OPEN = USE OPEN BUILDING SPACING CHART.
- 3FT PARTIALLY ENCLOSED = BOTH END-WALLS FULLY OPEN, WITH BOTH SIDE-WALLS ONLY 3FT ENCLOSED = USE OPEN BUILDING SPACING CHART.
- 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".
- 3/5 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.
- FOR ALL SHEATHING ENCLOSURES NOT LISTED ABOVE, REFER TO SHEET 5 FOR SPACING AND DESIGN REQUIREMENTS.

**GENERAL NOTES:**

- 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.
- 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



(2) 1" COL POSTS - STITCH WELDED  
 TYP. OPEN END WALL ON 3 SIDE ENCLOSED BUILDING SCALE: NTS



MANUFACTURED BY:



TABLE 52: GIRT SPACING SCHEDULE

FRAME SPACING	WIND SPEED (MPH)							
	105	115	130	140	155	165	180	190
□ 5'-0"	60	48	36	30	24	24	19	19
□ 4'-6"	60	60	48	42	36	30	24	24
□ 4'-0"	60	60	60	54	54	42	36	30
□ 3'-6"	60	60	60	60	54	54	42	42
□ 2'-0" TO 3'-0"	60	60	60	60	54	54	42	42

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

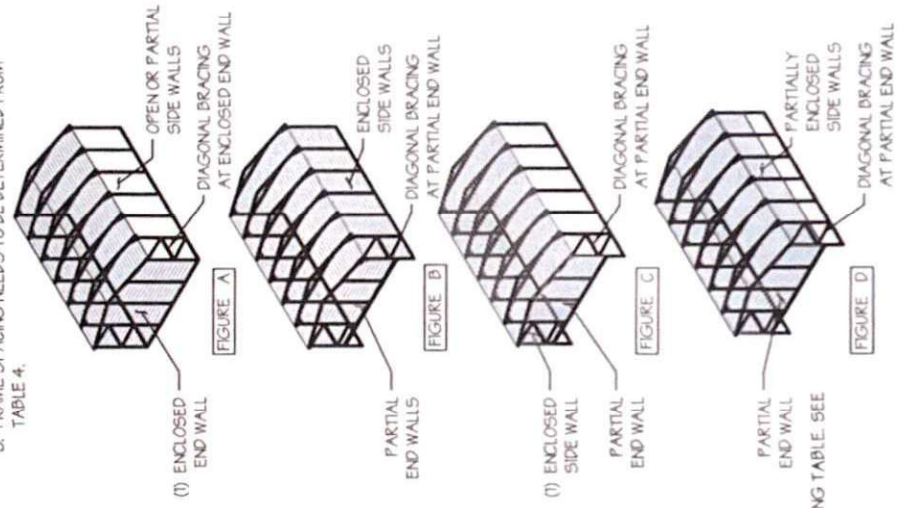


TABLE 51: PURLIN SPACING SCHEDULE

GROUND ROOF LIVE LOAD (PSF)	WIND SPEED (MPH)								18 GA HAT CHANNEL PURLIN								MGA HAT CHANNEL PURLIN							
	105	115	130	140	155	165	180	190	105	115	130	140	155	165	180	190	105	115	130	140	155	165	180	190
□ 30/20	54	48	42	36	30	24	24	19	19	15	15	15	12	12	12	12	36	30	24	18	15	15	12	12
□ 40/27	42	42	42	36	30	24	24	19	19	15	15	15	12	12	12	12	30	30	24	18	15	15	12	12
□ 50/34	40	40	40	36	30	24	24	19	19	15	15	15	12	12	12	12	24	24	24	18	15	15	12	12
□ 60/41	36	36	36	36	30	24	24	19	19	15	15	15	12	12	12	12	18	18	18	15	15	15	12	12
□ 70/47	32	32	32	32	30	24	24	19	19	15	15	15	12	12	12	12	15	15	15	15	15	15	12	12
□ 80/54	30	30	30	30	30	24	24	19	19	15	15	15	12	12	12	12	15	15	15	15	15	15	12	12
□ 90/61	24	24	24	24	24	24	24	19	19	15	15	15	12	12	12	12	15	15	15	15	15	15	12	12
□ 30/20	54	48	42	42	36	30	30	30	30	30	30	30	24	18	12	12	54	48	36	30	24	18	12	12
□ 40/27	42	42	42	42	36	30	30	30	30	30	30	30	24	18	12	12	42	42	36	30	24	18	12	12
□ 50/34	40	40	40	40	36	30	30	30	30	30	30	30	24	18	12	12	40	40	36	30	24	18	12	12
□ 60/41	36	36	36	36	36	30	30	30	30	30	30	30	24	18	12	12	36	36	36	30	24	18	12	12
□ 70/47	32	32	32	32	32	30	30	30	30	30	30	30	24	18	12	12	32	32	32	30	24	18	12	12
□ 80/54	30	30	30	30	30	30	30	30	30	30	30	30	24	18	12	12	30	30	30	30	24	18	12	12
□ 90/61	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
□ 30/20	54	48	42	42	36	30	30	30	30	30	30	30	24	18	12	12	54	48	42	42	36	30	30	30
□ 40/27	42	42	42	42	36	30	30	30	30	30	30	30	24	18	12	12	42	42	42	42	36	30	30	30
□ 50/34	40	40	40	40	36	30	30	30	30	30	30	30	24	18	12	12	40	40	40	40	36	30	30	30
□ 60/41	36	36	36	36	36	30	30	30	30	30	30	30	24	18	12	12	36	36	36	36	36	36	36	30
□ 70/47	32	32	32	32	32	30	30	30	30	30	30	30	24	18	12	12	32	32	32	32	32	32	32	30
□ 80/54	30	30	30	30	30	30	30	30	30	30	30	30	24	18	12	12	30	30	30	30	30	30	30	30
□ 90/61	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24

- 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 12" FROM OPEN BUILDING SPACING TABLE. SEE SHEET 4 FOR OPEN BUILDING TABLE.  
 3. SITE SPECIFICS MAY ALLOW FOR ALTERNATIVE SPACING.

DRAWING INFORMATION

PROJECT: 18'-0" WIDE BUILDINGS  
 LOCATION: STATE OF NORTH CAROLINA  
 PROJECT NO.: 325-23-2447  
 SHEET TITLE:

PURLIN & GIRT SPACING SCHEDULES

SHEET NO.: 5 / 11  
 DRAWN BY: A.W. DATE: 7/18/22  
 CHECKED BY: OAA DATE: 7/18/22

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**DRAWING INFORMATION**

PROJECT: 18'-0" WIDE BUILDINGS  
 LOCATION: STATE OF NORTH CAROLINA  
 PROJECT NO.: 325-23-24-47  
 SHEET TITLE: SHEATHING OPTIONS & DETAILS  
 SHEET NO.: 6 / 11  
 DRAWN BY: A.W. DATE: 7/18/22  
 CHECKED BY: OAA DATE: 7/18/22

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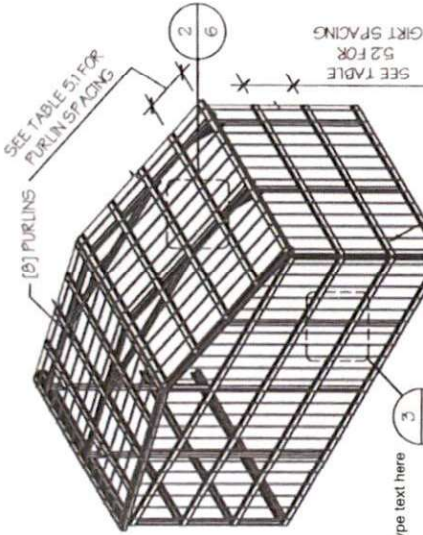
SEAL



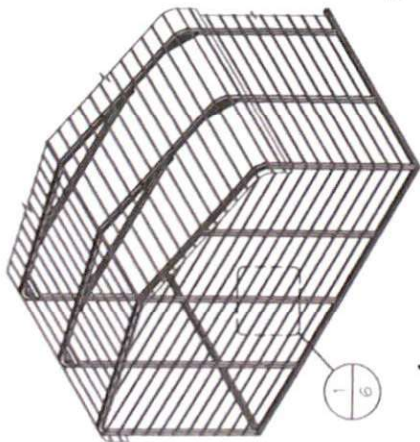
DATE EXPIRES: 12-31-2023  
 DATE SIGNED: 08-30-2023

**GENERAL SHEATHING NOTES:**

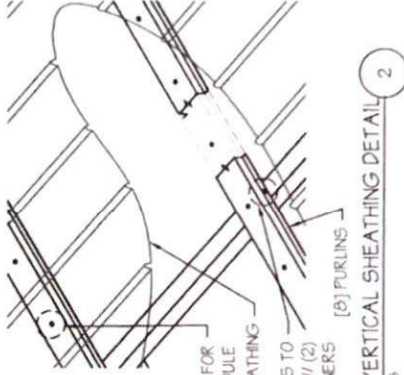
1. REGULAR STYLE BUILDINGS CAN ONLY HAVE HORIZONTAL SHEATHING ON ROOF AND WALLS.
2. A-FRAME STYLE BUILDINGS CAN HAVE ANY COMBINATION OF HORIZONTAL OR VERTICAL SHEATHING ON ROOFS AND WALLS.
3. BOTH HORIZONTAL AND VERTICAL ROOF SHEATHING CAN HAVE MAX. 6" OVERHANG.
4. USING VERTICAL SHEATHING MAY ALLOW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



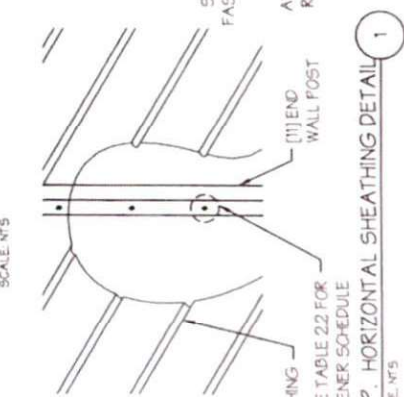
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 TYP. VERTICAL SHEATHING  
 SCALE: NTS



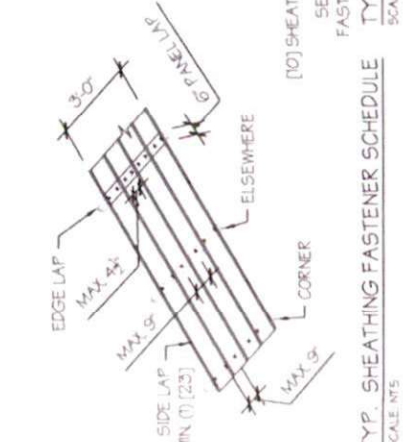
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 SCALE: NTS



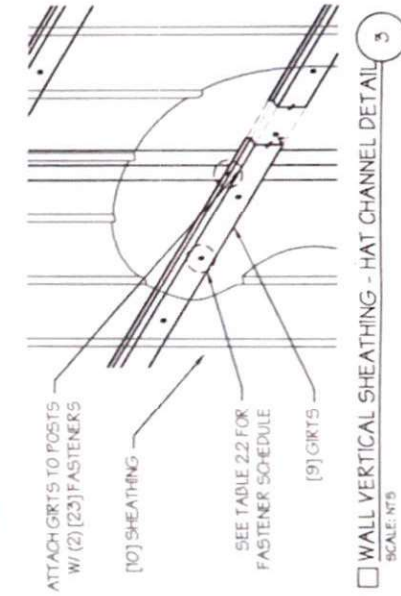
TYP. ROOF VERTICAL SHEATHING DETAIL  
 SCALE: NTS



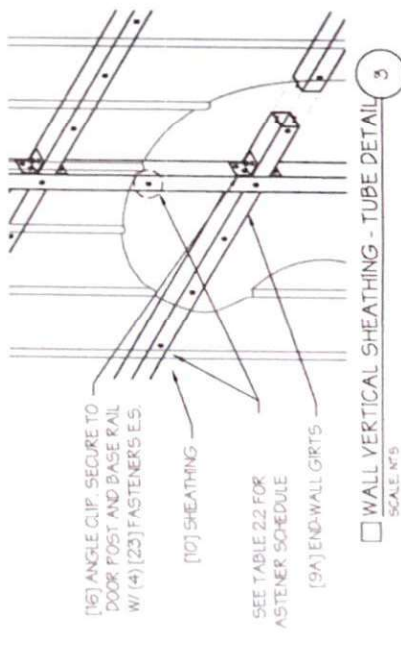
TYP. HORIZONTAL SHEATHING DETAIL  
 SCALE: NTS



TYP. SHEATHING FASTENER SCHEDULE  
 SCALE: NTS



TYP. WALL VERTICAL SHEATHING - HAT CHANNEL DETAIL  
 SCALE: NTS



TYP. WALL VERTICAL SHEATHING - TUBE DETAIL  
 SCALE: NTS

MANUFACTURED BY:



**DRAWING INFORMATION**

PROJECT: 18'-0" WIDE BUILDINGS  
 LOCATION: STATE OF NORTH CAROLINA  
 PROJECT NO.: 325-23-2447  
 SHEET TITLE:

**SIDE WALL FRAMING & OPENINGS**

SHEET NO.: 7 / 11  
 DRAWN BY: A.W. DATE: 7/18/22  
 CHECKED BY: OAA DATE: 7/18/22

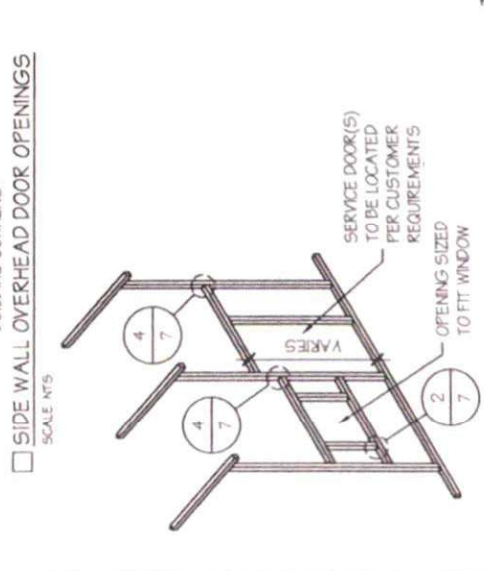
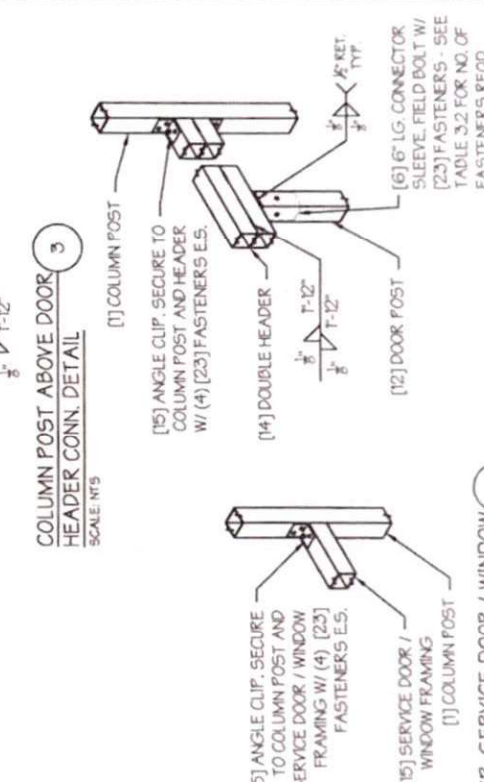
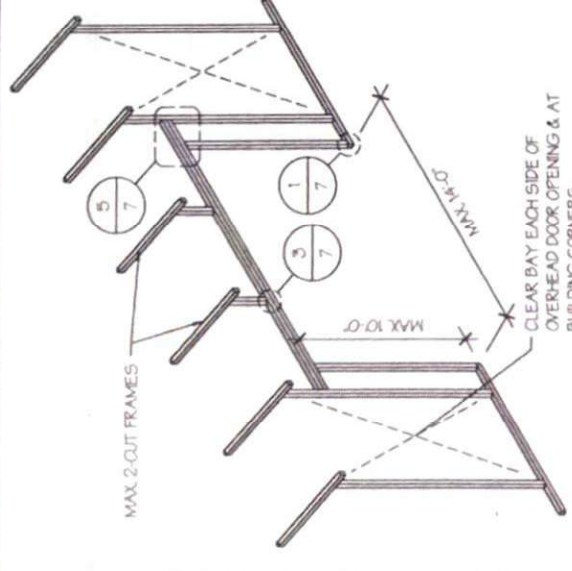
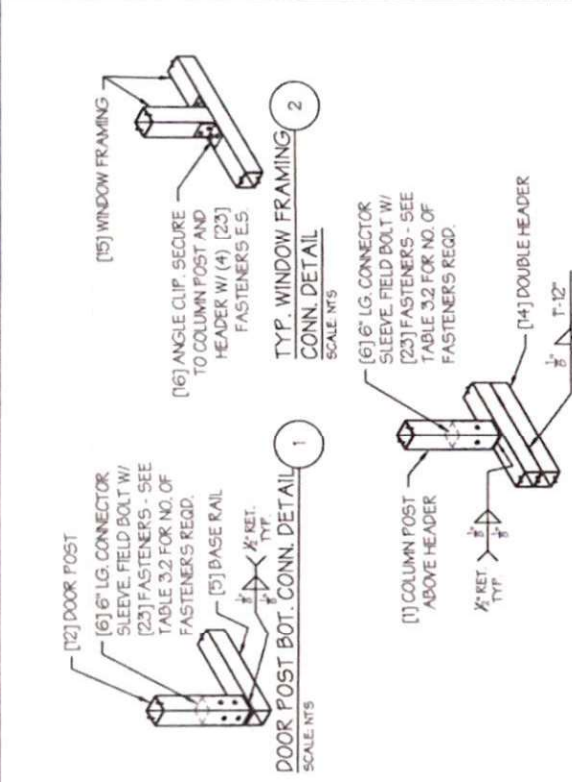
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 - DRAWINGS VALID UP TO 1 YEAR FROM DATE OF ISSUE.

SEAL:



DATE EXPIRES: 12-31-2023  
 DATE SIGNED: 08-30-2023



**DOOR POST BOT. CONN. DETAIL**  
 SCALE: NTS

**TYP. WINDOW FRAMING CONN. DETAIL**  
 SCALE: NTS

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

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

**SERVICE DOOR / WINDOW FRAMING CONN. DETAIL**  
 SCALE: NTS

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

**SIDE WALL SERVICE DOOR / WINDOW OPENINGS**  
 SCALE: NTS

**SIDE WALL FRAMING NOTES:**

- DESIGNS AND DETAILS SHOWN HERE ARE APPLICABLE TO BOTH REGULAR AND A-FRAME STYLE BUILDINGS.
- 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.
- 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.
- MIN. 1 CLEAR BAY MUST ALSO BE MAINTAINED FROM THE BUILDING CORNERS.
- SERVICE DOORS AND WINDOWS CAN BE PLACED IN CLEAR BAYS OR ANY WHERE ELSE AS NEEDED.



MANUFACTURED BY:



**DRAWING INFORMATION**

PROJECT: 18'-0" WIDE BUILDINGS  
 LOCATION: STATE OF NORTH CAROLINA  
 PROJECT NO.: 325-23-2447  
 SHEET TITLE:

**END WALL FRAMING**

SHEET NO.: B-A / 11  
 DRAWN BY: A.W. DATE: 7/18/22  
 CHECKED BY: OAA DATE: 7/18/22

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SEAL:



DATE EXPIRES: 12-31-2023  
 DATE SIGNED: 08-30-2023

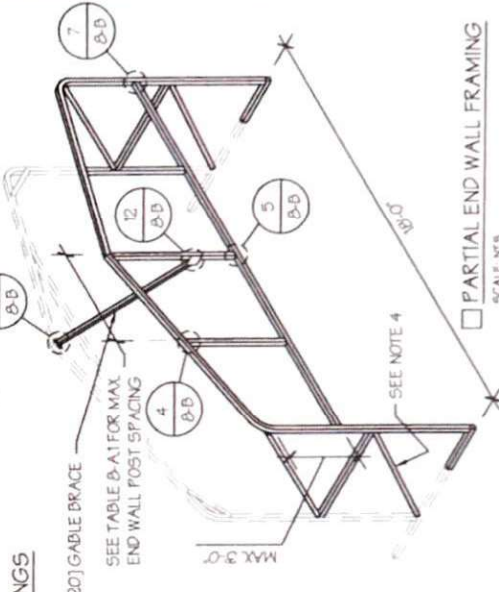
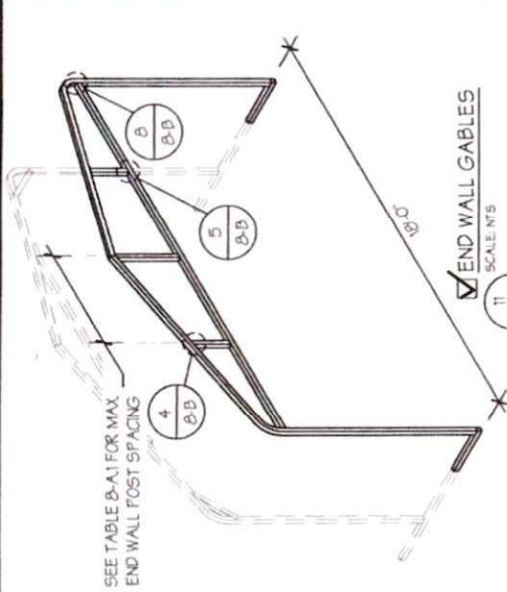
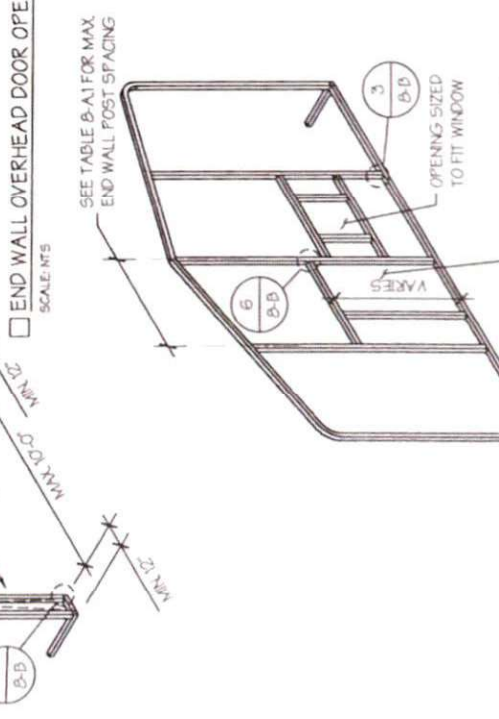
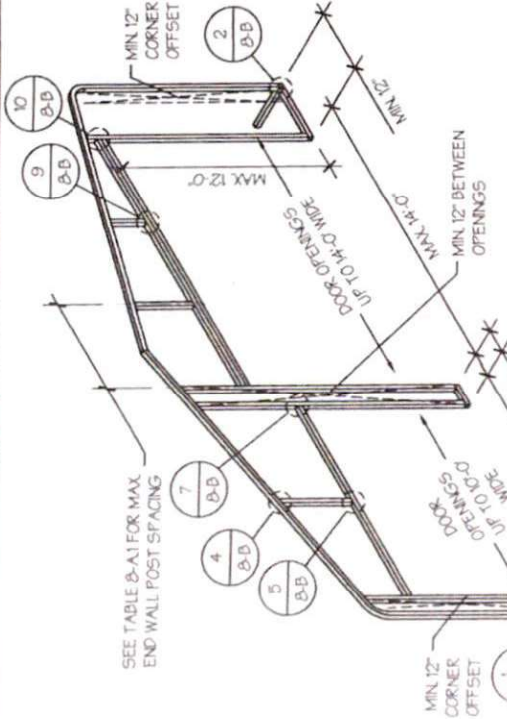


TABLE B-A-1: END WALL POST SPACING SCHEDULE

WIND SPEED (MPH)	EAVE HEIGHT	
	UP TO 7'	8' TO 9'
105	5'	5'
115	5'	5'
130	4.5'	4.5'
140	4.5'	3'
155	4'	4'
165 - 190	3.5'	3'



END WALL FRAMING NOTES:

- 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.
- 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.



MANUFACTURED BY:



**DRAWING INFORMATION**

PROJECT: 18'-0" WIDE BUILDINGS  
LOCATION: STATE OF NORTH CAROLINA  
PROJECT NO.: 325-23-2447  
SHEET TITLE: END WALL FRAMING DETAILS

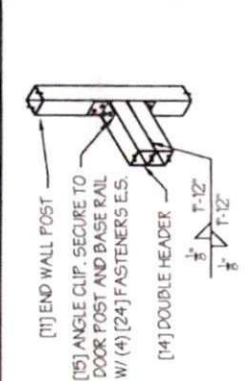
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DRAWN BY: A.W. DATE: 7/18/22  
CHECKED BY: OAA DATE: 7/18/22

**LEGAL INFORMATION**

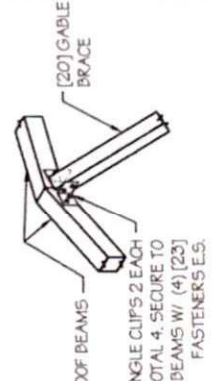
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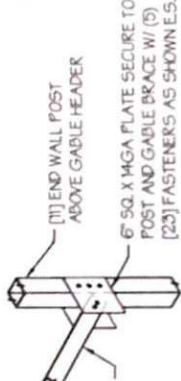
DATE EXPIRES: 12-31-2023  
DATE SIGNED: 08-30-2023



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



TYP. GABLE BRACE CONN. DETAIL  
SCALE: NTS 11



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



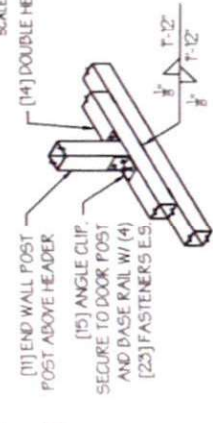
TYP. SERVICE DOOR / WINDOW FRAMING CONN. DETAIL  
SCALE: NTS 6



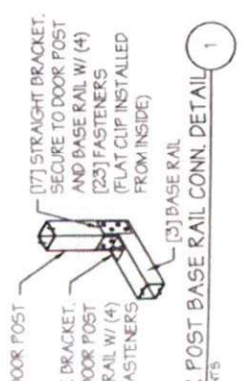
HEADER - END WALL POST CONN. DETAIL  
SCALE: NTS 7



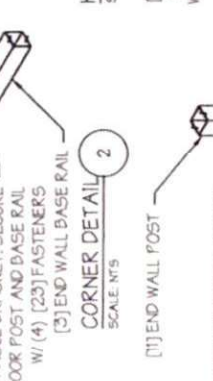
GABLE HEADER - CORNER POST CONN. DETAIL  
SCALE: NTS 8



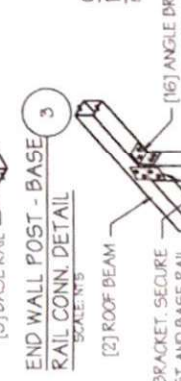
END WALL POST ABOVE DOUBLE HEADER CONN. DETAIL  
SCALE: NTS 9



DOOR POST BASE RAIL CONN. DETAIL  
SCALE: NTS 1



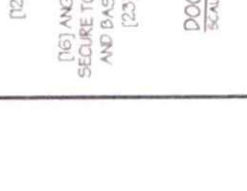
CORNER DETAIL  
SCALE: NTS 2



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



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



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

MANUFACTURED BY:



**DRAWING INFORMATION**

PROJECT: 18'-0" WIDE BUILDINGS  
LOCATION: STATE OF NORTH CAROLINA  
PROJECT NO.: 325-23-2447  
SHEET TITLE:

**OPTIONAL LEAN-TO ADDITION**

SHEET NO.: 10 / 11  
DRAWN BY: A.W. DATE: 7/18/22  
CHECKED BY: OAA DATE: 7/18/22

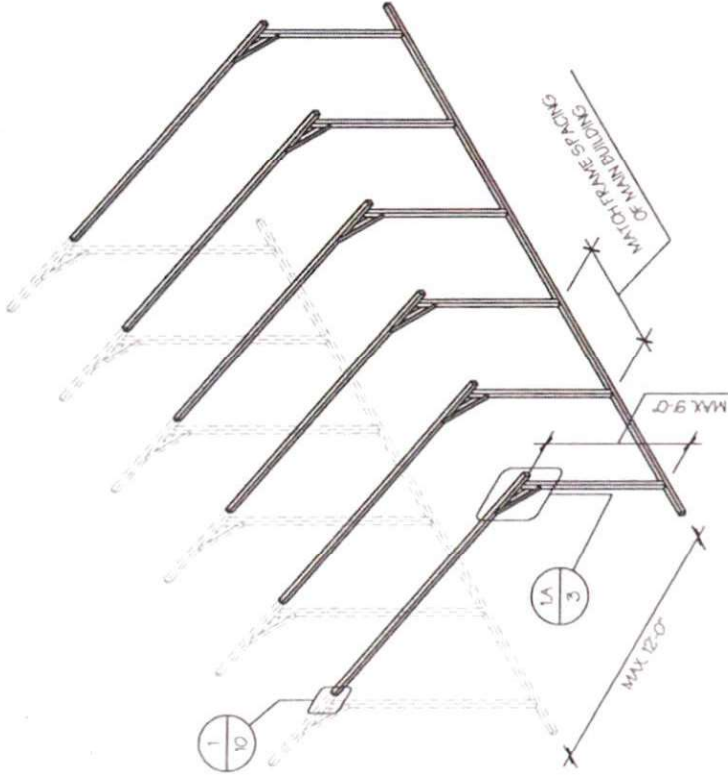
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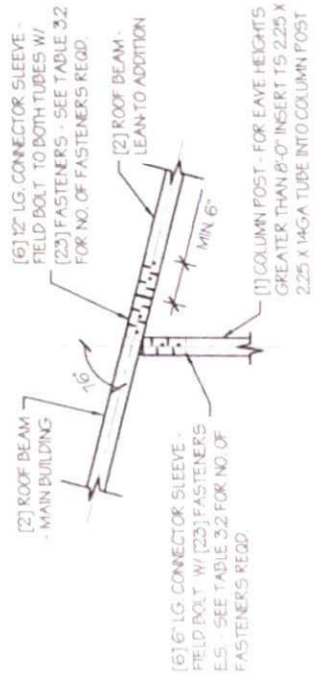
DATE EXPIRES: 12-31-2023  
DATE SIGNED: 08-30-2023



**OPTIONAL LEAN-TO ADDITION**  
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.



**LEAN-TO ATTACHMENT DETAIL** 1  
SCALE: NTS



MANUFACTURED BY:



**DRAWING INFORMATION**

PROJECT: 18'-0" WIDE BUILDINGS  
 LOCATION: STATE OF NORTH CAROLINA  
 PROJECT NO.: 325-23-2447  
 SHEET TITLE:

**FOUNDATION OPTION 4:  
 SOIL ANCHORS**

SHEET NO.: 11-D / 11  
 DRAWN BY: A.W. DATE: 7/18/22  
 CHECKED BY: OAA DATE: 7/18/22

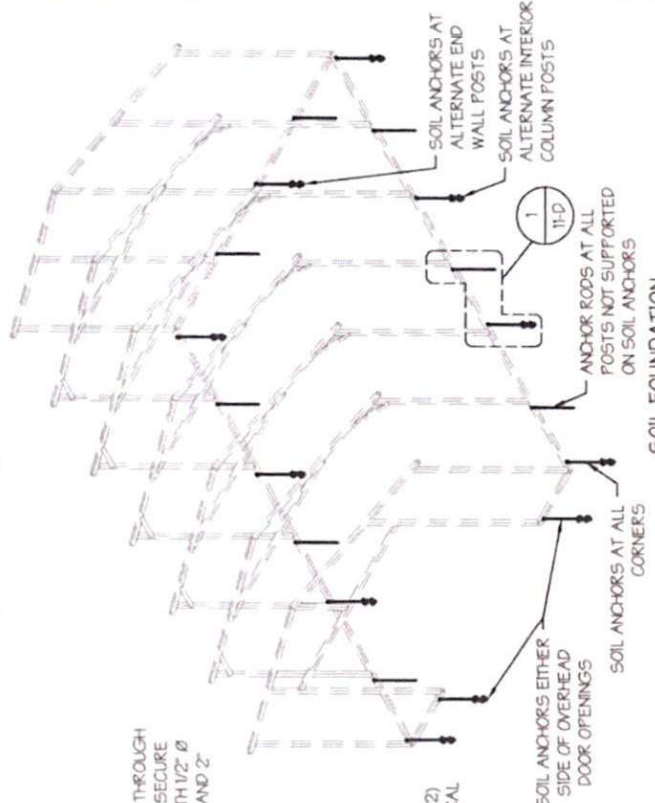
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 DRAWINGS VALID UP TO 1 YEAR FROM DATE OF ISSUE

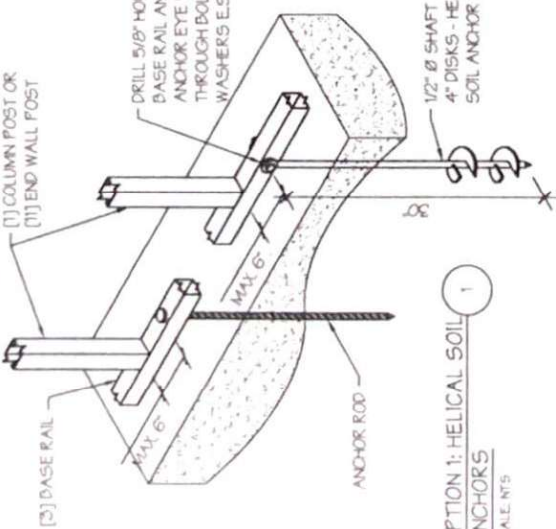
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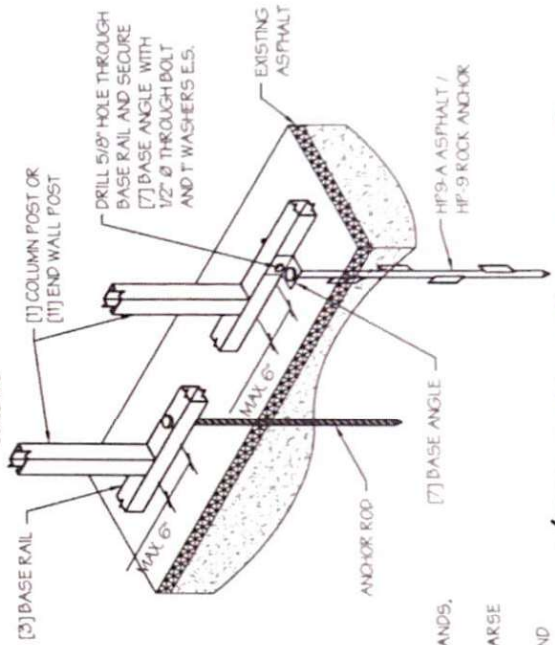
DATE EXPIRES: 12-31-2023  
 DATE SIGNED: 08-30-2023



**SOIL FOUNDATION**  
 SCALE: NTS



**OPTION 1: HELICAL SOIL ANCHORS**  
 SCALE: NTS



**OPTION 2: ROCK / ASPHALT ANCHORS**  
 SCALE: NTS

**SOIL FOUNDATION NOTES:**

- DESIGNS SHOWN ON THIS SHEET ARE FOR SOIL ANCHOR FOUNDATION.
- 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.
- 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.
- 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"