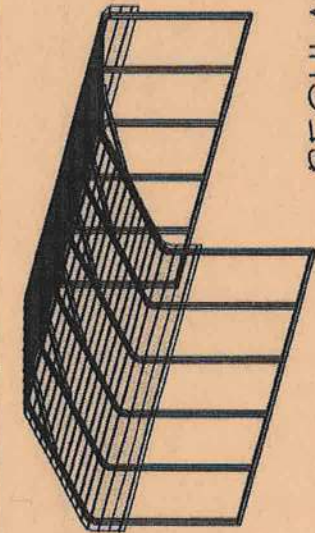


REGULAR / A-FRAME 18'-0" WIDE CARPORT STYLE BUILDINGS

DESIGN NOTES

1. ALL CONSTRUCTION SHALL BE PROVIDED IN ACCORDANCE WITH IBC 2018, OSHA, AISC 360, AISI 100, ASCE 7-16, AWS D1.3 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 T52 1/2X2 1/2" - 14GA. IS EQUIVALENT TO T52 1/4X2 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:

USE GROUP:

RISK CATEGORY:

1. DEAD LOAD (D) $D = 4$ PSF
2. ROOF LIVE/SNOW LOAD (L_r)
 $L_r = 20 - 61$ PSF
(AS PER SNOW LOAD SEE TABLE 4)
3. SNOW LOAD (S)
GROUND SNOW LOAD $P_g = 20 - 90$ PSF
IMPORTANCE FACTOR $I_s = 0.8$
THERMAL FACTOR $C_t = 12$
EXPOSURE FACTOR $C_e = 1.0$
ROOF SLOPE FACTOR $C_s = 1.0$
4. WIND LOAD (W)
BASIC WIND SPEED $V_{\text{BASIC}} = 105 - 180$ MPH
EXPOSURE CATEGORY C
5. SEISMIC LOAD (E)
DESIGN CATEGORY D
IMPORTANCE FACTOR $I_e = 1.00$

LOAD COMBINATIONS:

1. $D + (L_r \text{ OR } S)$
2. $D + (0.6W \text{ OR } \pm 0.7E)$
3. $D + 0.75 (0.6W \text{ OR } \pm 0.7E) + 0.75 (L_r \text{ OR } S)$
4. $0.6D + (0.6W \text{ OR } \pm 0.7E)$

DRAWING INDEX

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OPTIONAL LEAN-TO ADDITION	10
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IBC 2020 - 7TH EDITION COVER SHEET

(IBC 2018) SCHEDULES & MEMBER

U (CARPORTS, BARN)

SECTIONS

FRAME SECTIONS & DETAILS

SPACING SCHEDULES

& ENCLOSURE NOTES

PURLIN & GIRT SCHEDULES

SHEATHING OPTIONS

SIDE WALL FRAMING

& OPENINGS

END WALL FRAMING

& OPENINGS

CORNER BRACING DETAILS

OPTIONAL LEAN-TO ADDITION

FOUNDATION OPTIONS

8-A, 8-B

9

10

11-A TO 11-D

MANUFACTURED BY:

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ENGINEERED BY:



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DRAWING INFORMATION

PROJECT: 18'-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: 1/18/21

CHECKED BY: OAA DATE: 1/18/21

LEGAL INFORMATION

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

SEAL:



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:

ENCLOSURE TYPE:

CERTIFICATION VALIDITY

NOTICE

DATE OF PLANS EXPIRATION:

JAN 15 2022

CERTIFICATION ON THESE DRAWINGS IS

VALID FOR ONE YEAR FROM DATE OF ISSUE

TABLE 2.1: MEMBER PROPERTIES

NO.	LABEL	PROPERTY	DETAIL NO.
1	COLUMN POST	2.5" X 2.5" X 14GA TUBE	1
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 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	PURLIN	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	OPT. 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	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" 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 (ESR-2196 OR EQ) W/ NEOPRENE/STEEL WASHER	

TABLE 2.2: SHEATHING FASTENER SCHEDULE

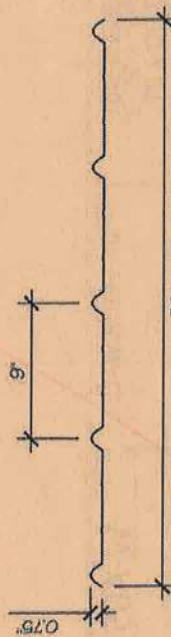
LOCATION	CORNER PANELS	SIDE LAPS	EDGE LAPS	ELSEWHERE
SPACING	9" C/C	MIN. 1	4 1/2" C/C	9" C/C

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)	0.0136	0.049	0.083	0.109

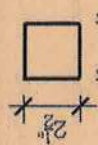


THICKNESS = 29GA

29 GA CORRUGATED SHEATHING

SCALE: NTS

8

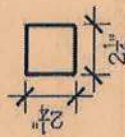


THICKNESS = 14GA

2.5" X 2.5" 14GA TUBE

SCALE: NTS

1

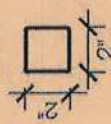


THICKNESS = 12GA

2.25" X 2.25" 12GA TUBE

SCALE: NTS

2



THICKNESS = 14GA

2" X 2" 14GA TUBE

SCALE: NTS

3

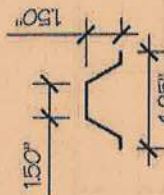


THICKNESS = 14GA

2.5" X 1.5" 14GA CHANNEL

SCALE: NTS

4



THICKNESS = 18GA / 18GA

4.25" X 1.5" X 18GA / 18GA

HAT CHANNEL

SCALE: NTS

5

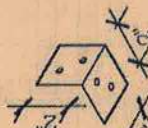


THICKNESS = 14GA

STRAIGHT BRACKET

SCALE: NTS

6

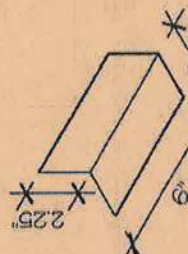


THICKNESS = 14GA

ANGLE BRACKET

SCALE: NTS

7

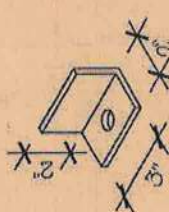


THICKNESS = 14GA

DB BRACKET

SCALE: NTS

9



THICKNESS = 3/16"

BASE ANGLE

SCALE: NTS

10

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DRAWING INFORMATION

PROJECT: 18'-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: 1/12/21

CHECKED BY: OAA DATE: 1/12/21

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SEAL:



STAMP EXPIRY: FEB 28 2023

DATE SIGNED: JAN 15 2021

MANUFACTURED BY:

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DRAWING INFORMATION

PROJECT: 18'-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: 1/12/21

CHECKED BY: OAA DATE: 1/12/21

LEGAL INFORMATION

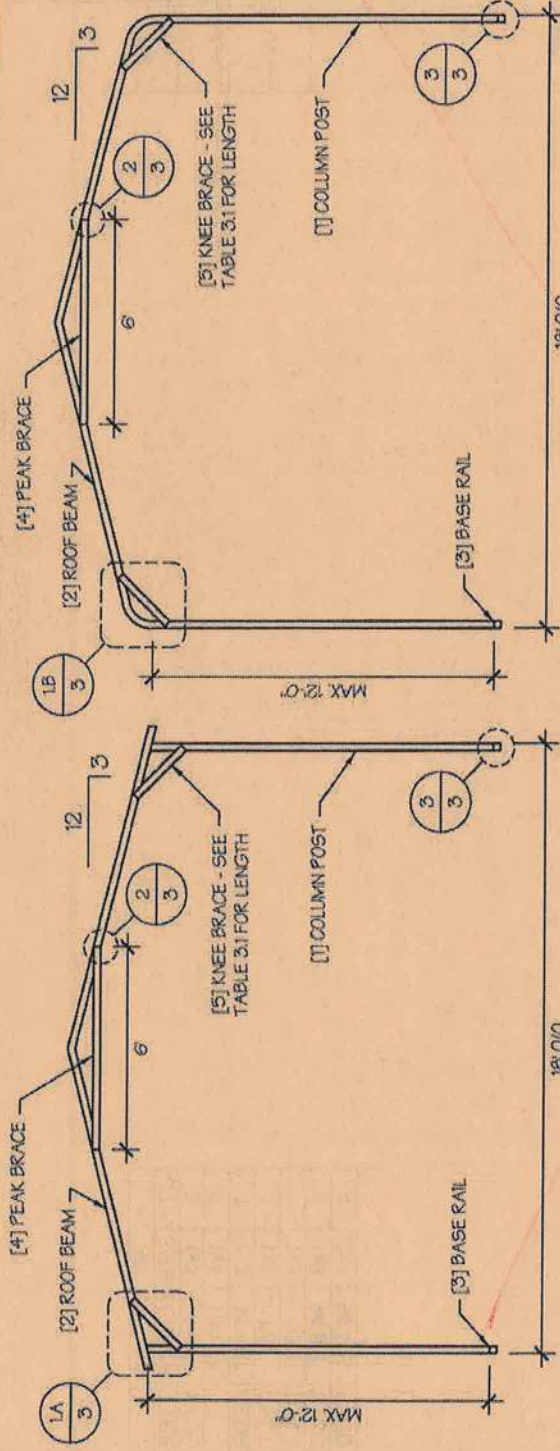
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STAMP EXPIRY: FEB 28 2023

DATE SIGNED: JAN 15 2021

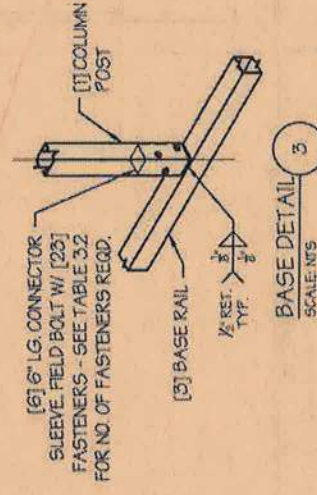


☐ TYP. REGULAR FRAME SECTION
SCALE: NTS

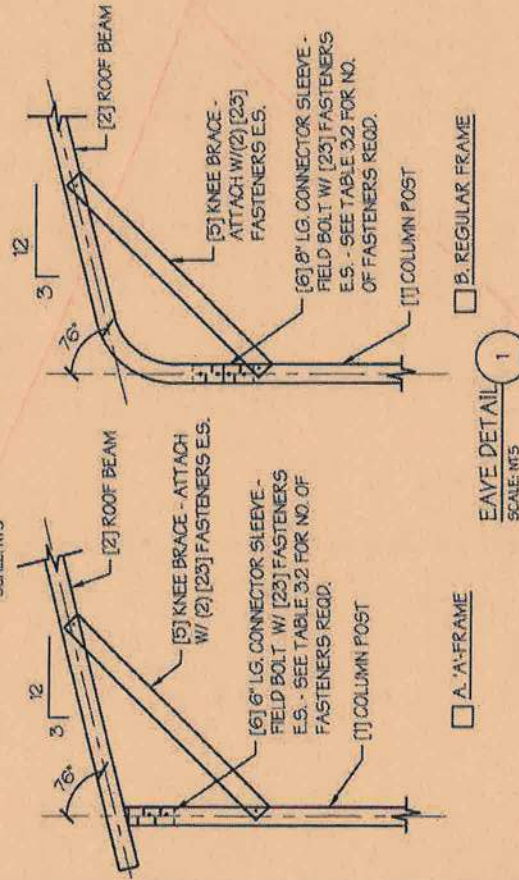
☐ TYP. A-FRAME SECTION
SCALE: NTS



PEAK BRACE CONNECTION DETAILS
SCALE: NTS



BASE DETAIL
SCALE: NTS



EAVE DETAIL
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

NOTE: COLUMN POST MAY BE ADJUSTED 4" FOR LEVELING.
MANUFACTURER IS NOT RESPONSIBLE FOR LEVELING OF GROUND
AND/OR CONCRETE SURFACE PROVIDED BY OTHERS.

TABLE 4: FRAME SPACING CHART / SCHEDULE

GROUND SNOW / ROOF LIVE LOAD (PSF)	■ ENCLOSED BUILDINGS										■ OPEN BUILDINGS									
	WIND SPEED (MPH)										WIND SPEED (MPH)									
	105	115	130	140	155	165	180	205	215	240	105	115	130	140	155	165	180	205	215	240
10'-0" TO 12'-0" EAVE HEIGHT =	30/120	48/160	48/160	42/160	42/160	42/160	42/160	42/160	42/160	42/160	30/120	48/160	48/160	42/160	42/160	42/160	42/160	42/160	42/160	42/160
7'-0" TO 9'-0" EAVE HEIGHT =	40/120	48/160	48/160	42/160	42/160	42/160	42/160	42/160	42/160	42/160	40/120	48/160	48/160	42/160	42/160	42/160	42/160	42/160	42/160	42/160
UP TO 6'-0" EAVE HEIGHT =	50/120	48/160	48/160	42/160	42/160	42/160	42/160	42/160	42/160	42/160	50/120	48/160	48/160	42/160	42/160	42/160	42/160	42/160	42/160	42/160
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NOTES:

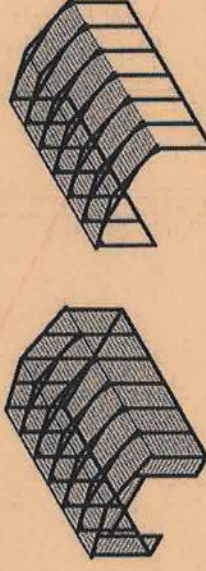
- FRAME SPACINGS ARE IN UNITS OF INCHES (IN).
- WHERE TWO VALUES ARE SHOWN, THE HIGHER VALUE CAN ONLY BE USED FOR VERTICAL SHEATHING.
- SNOW LOADS AND ROOF LIVE LOADS ARE IN POUNDS PER SQUARE FOOT (PSF). WIND SPEED IS 3 SEC. GUST IN MILES PER HOUR (MPH).
- FOR VALUES THAT LIE BETWEEN TWO CELLS, THE HIGHER (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 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



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

MANUFACTURED BY:

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ENGINEERED BY:



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DRAWING INFORMATION

PROJECT: 18'-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: 1/12/21

CHECKED BY: OAA DATE: 1/12/21

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SEAL:



STAMP EXPIRY: FEB 28 2023

DATE SIGNED: JAN 15 2021

MANUFACTURED BY:

Real Steel Metal Buildings

ENGINEERED BY:



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CIVIL - STRUCTURAL
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www.aandengineering.com

DRAWING INFORMATION

PROJECT: 18'-0" WIDE BUILDINGS

LOCATION: STATE OF FLORIDA

PROJECT NO.: 356-21-002B

SHEET TITLE:

PURLIN & GIRT SPACING SCHEDULES

SHEET NO.: 5 / 11

DRAWN BY: A.W. DATE: 1/12/21

CHECKED BY: OAA DATE: 1/12/21

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* DRAWINGS VALID UP TO 1 YEAR FROM DATE OF ISSUE

SEAL:



STAMP EXPIRY: FEB 28 2023

DATE SIGNED: JAN 15 2021

TABLE 5.2: GIRT SPACING SCHEDULE

FRAME SPACING	WIND SPEED (MPH)										
	105	115	130	140	155	165	180	190	200	210	220
□ 5'-0"	60	48	36	30	24	24	24	18	18	18	18
□ 4'-6"	60	60	48	42	36	30	24	24	18	18	18
□ 4'-0"	60	60	60	54	42	36	30	24	18	18	18
□ 3'-6"	60	60	60	60	54	42	36	30	24	18	18
□ 2'-0" TO 3'-0"	60	60	60	60	54	42	36	30	24	18	18

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

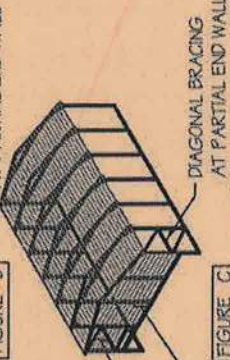


FIGURE C

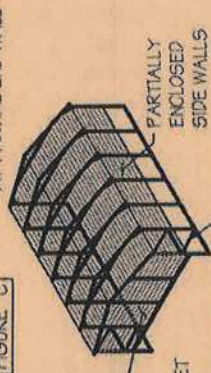


FIGURE D

TABLE 5.1: PURLIN SPACING SCHEDULE

GROUND SNOW / ROOF LIVE LOAD (PSF)	WIND SPEED (MPH)										
	105	115	130	140	155	165	180	190	200	210	220
□ 30 / 20	54	48	42	36	30	24	24	24	18	18	18
□ 40 / 27	42	42	42	36	30	24	24	24	18	18	18
□ 50 / 34	40	40	40	36	30	24	24	24	18	18	18
□ 60 / 41	36	36	36	36	30	24	24	24	18	18	18
□ 70 / 47	32	32	32	32	30	24	24	24	18	18	18
□ 80 / 54	30	30	30	30	30	24	24	24	18	18	18
□ 90 / 61	24	24	24	24	24	24	24	24	18	18	18
□ 30 / 20	54	48	42	36	30	24	24	24	18	18	18
□ 40 / 27	42	42	42	36	30	24	24	24	18	18	18
□ 50 / 34	40	40	40	36	30	24	24	24	18	18	18
□ 60 / 41	36	36	36	36	30	24	24	24	18	18	18
□ 70 / 47	32	32	32	32	30	24	24	24	18	18	18
□ 80 / 54	30	30	30	30	30	24	24	24	18	18	18
□ 90 / 61	24	24	24	24	24	24	24	24	18	18	18
□ 30 / 20	54	48	42	36	30	24	24	24	18	18	18
□ 40 / 27	42	42	42	36	30	24	24	24	18	18	18
□ 50 / 34	40	40	40	36	30	24	24	24	18	18	18
□ 60 / 41	36	36	36	36	30	24	24	24	18	18	18
□ 70 / 47	32	32	32	32	30	24	24	24	18	18	18
□ 80 / 54	30	30	30	30	30	24	24	24	18	18	18
□ 90 / 61	24	24	24	24	24	24	24	24	18	18	18
□ 30 / 20	54	48	42	36	30	24	24	24	18	18	18
□ 40 / 27	42	42	42	36	30	24	24	24	18	18	18
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□ 70 / 47	32	32	32	32	30	24	24	24	18	18	18
□ 80 / 54	30	30	30	30	30	24	24	24	18	18	18
□ 90 / 61	24	24	24	24	24	24	24	24	18	18	18

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.

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www.a-a-engineers.com

DRAWING INFORMATION

PROJECT: 18'-0" WIDE BUILDINGS

LOCATION: STATE OF FLORIDA

PROJECT NO.: 356-21-002B

SHEET TITLE:

**SHEATHING OPTIONS
& DETAILS**

SHEET NO.: 6 / 11

DRAWN BY: A.W. DATE: 1/12/21

CHECKED BY: OAA DATE: 1/12/21

LEGAL INFORMATION

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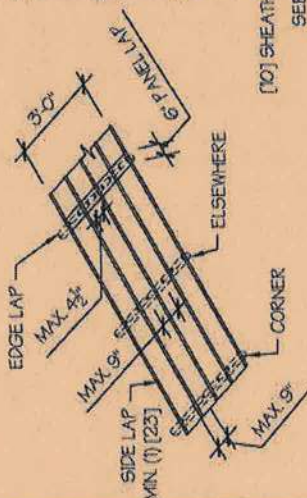
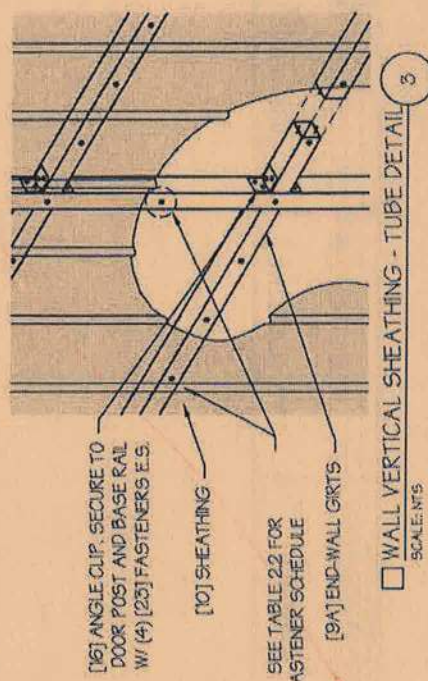
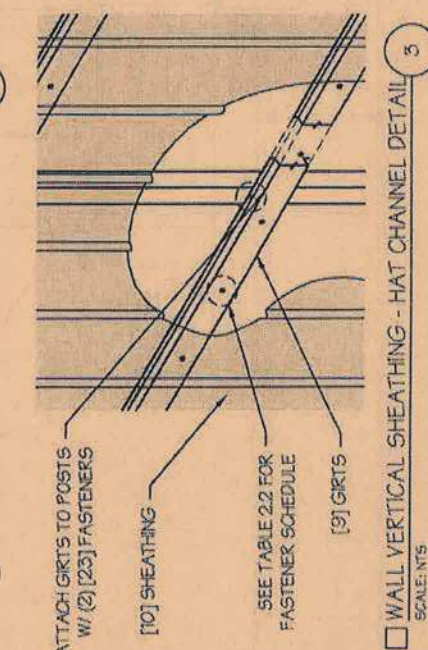
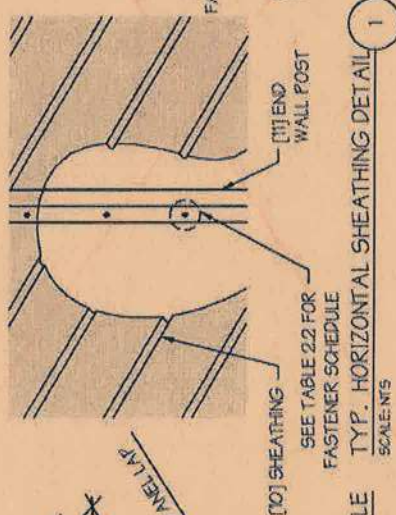
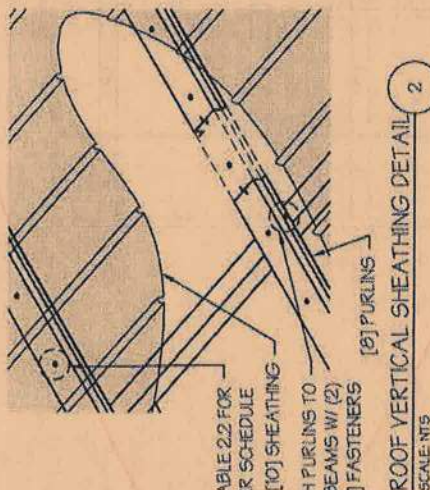
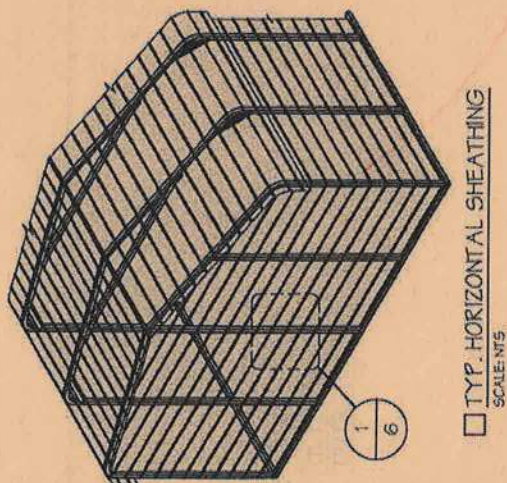
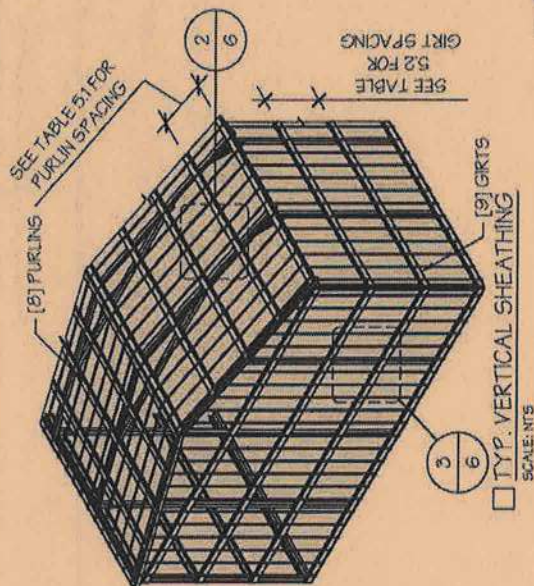


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GENERAL SHEATHING NOTES:

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 ROOF 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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DRAWING INFORMATION

PROJECT: 18'-0" WIDE BUILDINGS

LOCATION: STATE OF FLORIDA

PROJECT NO.: 356-21-0028

SHEET TITLE:

SIDE WALL FRAMING & OPENINGS

SHEET NO.: 7 / 11

DRAWN BY: A.W. DATE: 1/12/21

CHECKED BY: OAA DATE: 1/12/21

LEGAL INFORMATION

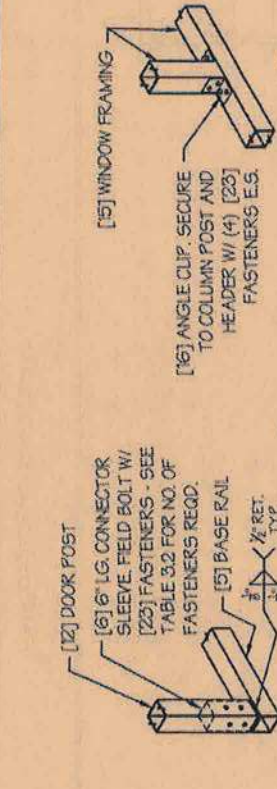
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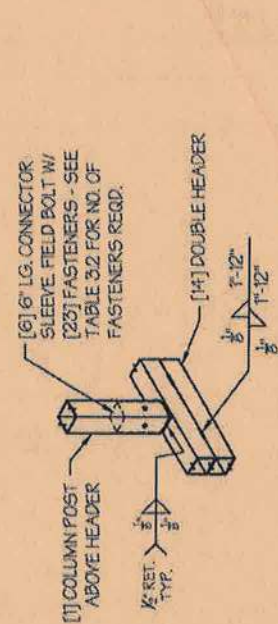


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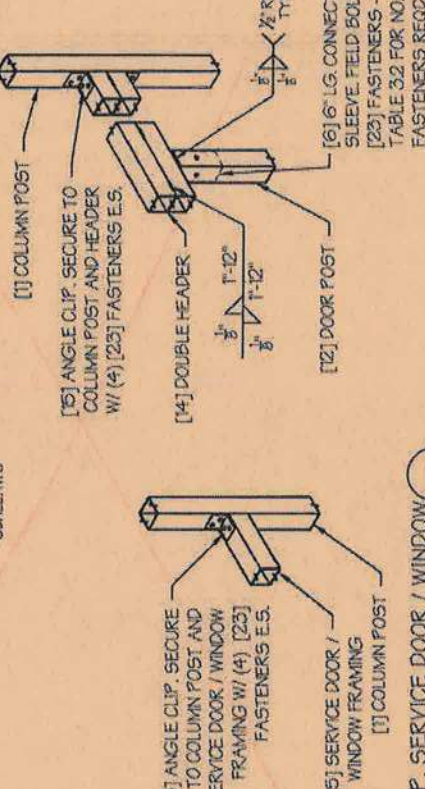
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DOOR POST BOT. CONN. DETAIL
SCALE: NTS



TYP. WINDOW FRAMING CONN. DETAIL
SCALE: NTS



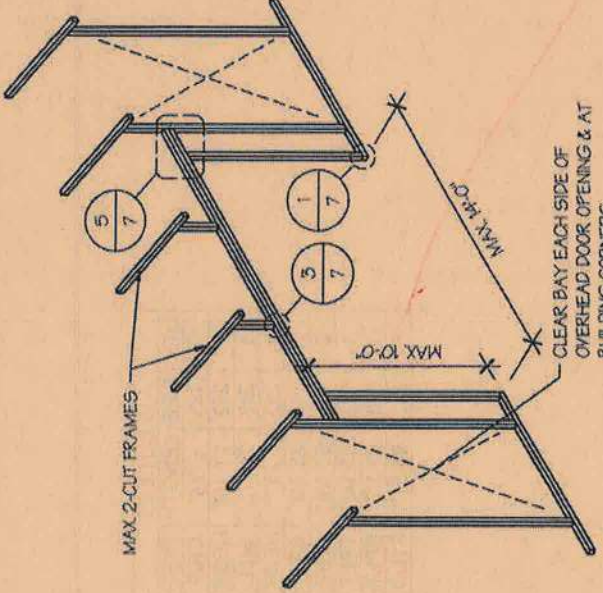
COLUMN POST ABOVE DOOR HEADER CONN. DETAIL
SCALE: NTS



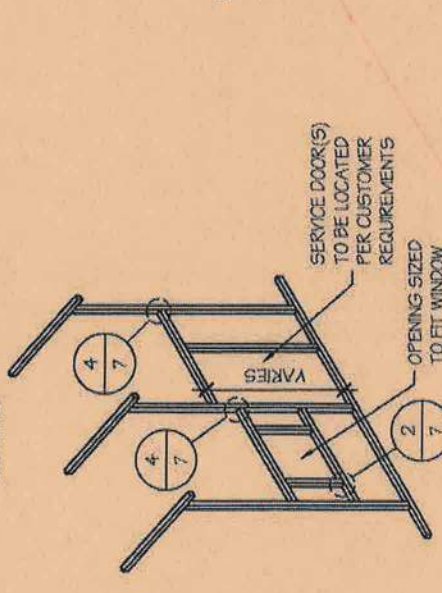
TYP. SERVICE DOOR / WINDOW FRAMING CONN. DETAIL
SCALE: NTS



COLUMN POST ABOVE DOOR HEADER CONN. DETAIL
SCALE: NTS



SIDE WALL OVERHEAD DOOR OPENINGS
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.

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DRAWING INFORMATION

PROJECT: 18'-0" WIDE BUILDINGS
LOCATION: STATE OF FLORIDA
PROJECT NO.: 356-21-0028
SHEET TITLE:

END WALL FRAMING

SHEET NO.: B-A / 11
DRAWN BY: A.W. DATE: 1/12/21
CHECKED BY: OAA DATE: 1/12/21

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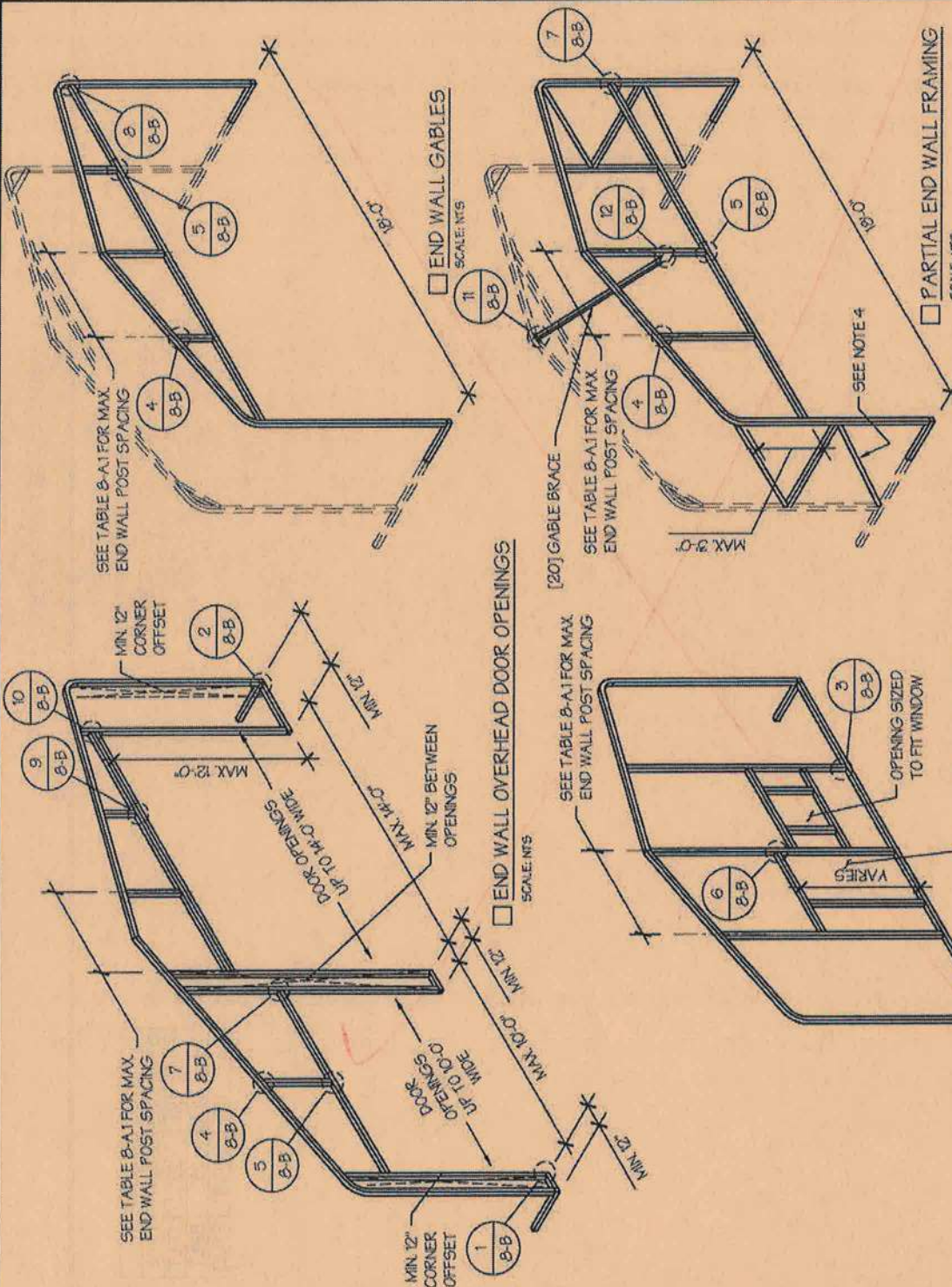


TABLE 8-A.1: END WALL POST
SPACING SCHEDULE

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

☐ END WALL SERVICE DOOR AND WINDOW OPENINGS

ESCAI E. NTG

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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DRAWING INFORMATION

PROJECT: 18'-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: 1/12/21

CHECKED BY: OAA DATE: 1/12/21

LEGAL INFORMATION

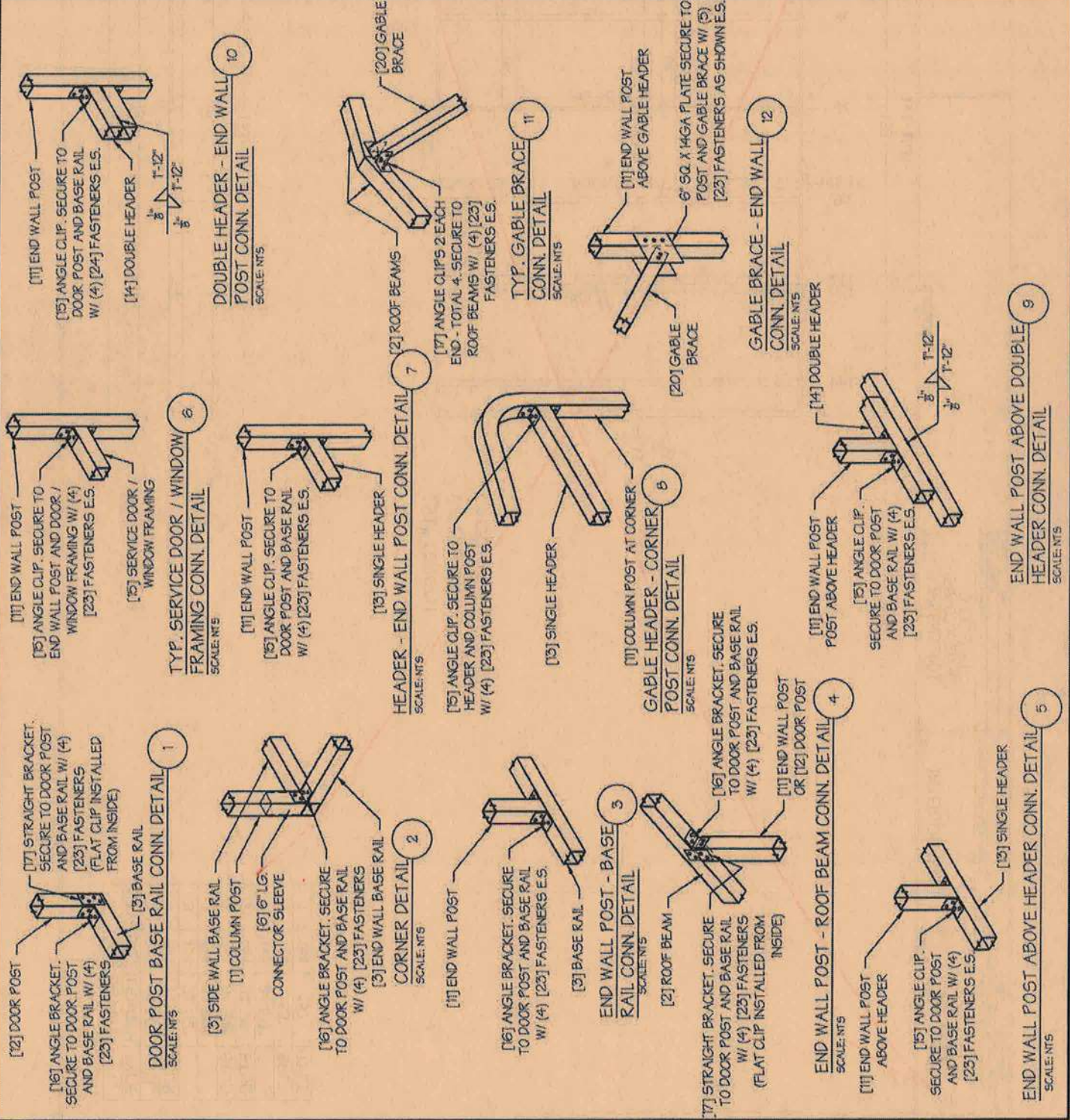
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DRAWING INFORMATION

PROJECT: 13'-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: 1/12/21

CHECKED BY: OAA DATE: 1/12/21

LEGAL INFORMATION

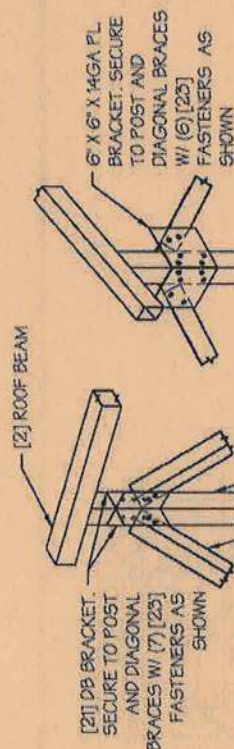
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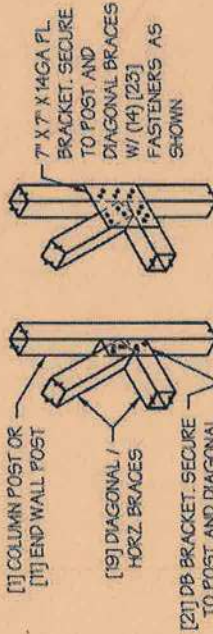


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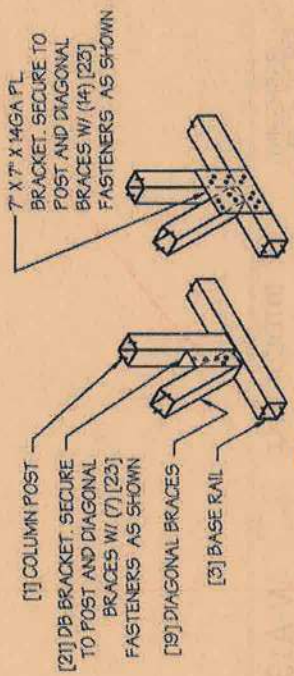
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DIAGONAL BRACE TOP CORNER CONN. DETAIL 1
SCALE: NTS



DIAGONAL BRACE - POST CONN. DETAIL 2
SCALE: NTS



DIAGONAL BRACE BOT. CORNER CONN. DETAIL 3
SCALE: NTS

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.

* INSIDE VIEW SHOWN FOR CLARITY

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DRAWING INFORMATION

PROJECT: 18'-0" WIDE BUILDINGS

LOCATION: STATE OF FLORIDA

PROJECT NO.: 356-21-002B

SHEET TITLE:

OPTIONAL LEAN-TO ADDITION

SHEET NO.: 10 / 11

DRAWN BY: A.W. DATE: 1/12/21

CHECKED BY: OAA DATE: 1/12/21

LEGAL INFORMATION

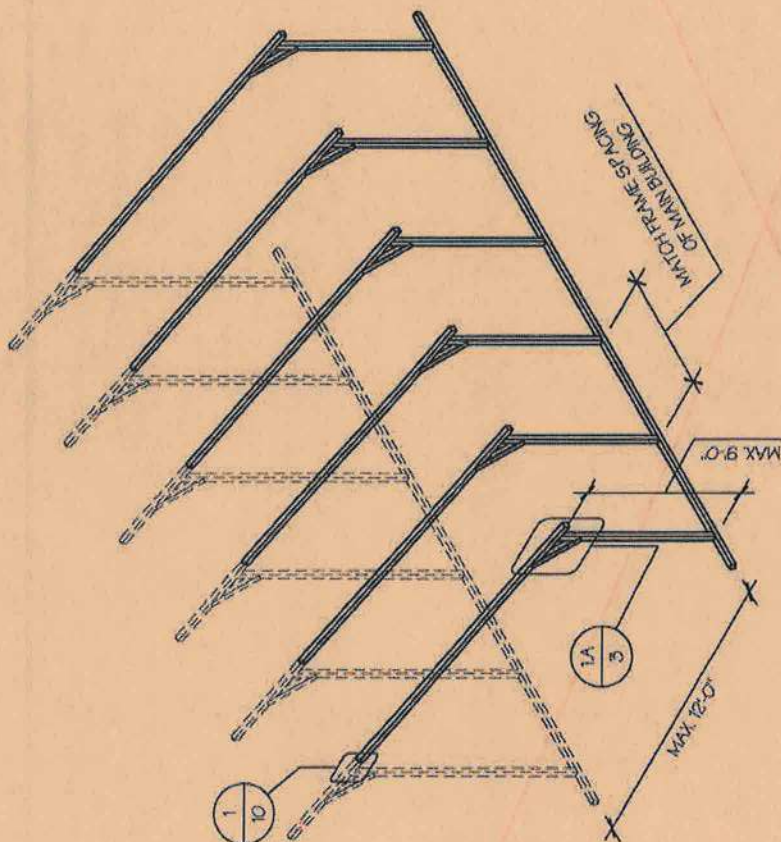
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☐ OPTIONAL LEAN-TO ADDITION

SCALE: NTS

[6] 12" LG. CONNECTOR SLEEVE -
FIELD BOLT TO BOTH TUBES W/
[23] FASTENERS - SEE TABLE 3.2
FOR NO. OF FASTENERS REQD.

[2] ROOF BEAM -
MAIN BUILDING

[2] ROOF BEAM -
LEAN-TO ADDITION

[6] 6" LG. CONNECTOR SLEEVE -
FIELD BOLT W/ [23] FASTENERS
E.S. - SEE TABLE 3.2 FOR NO. OF
FASTENERS REQD.

[1] COLUMN POST - FOR EAVE HEIGHTS
GREATER THAN 8'-0" INSERT TS 2.25 X
2.25 X 14GA TUBE INTO COLUMN POST

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

CONCRETE SLAB FOUNDATION NOTES:

- DESIGNS SHOWN ON THIS SHEET ARE FOR CONCRETE SLAB FOUNDATION. ANY OF THE FOUNDATIONS SHOWN ON SHEETS 11-A THRU C CAN BE USED.
- 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.
- MIN. NUMBER OF CONCRETE ANCHORS PER POST SHALL BE AS SHOWN IN TABLE 11-A.2.
- THE SIZE OF THE SLAB SHALL BE THE SIZE (WIDTH AND LENGTH) OF THE BUILDING PLUS 5" FOR 14GA MATERIAL AND 5" FOR 12GA MATERIAL.
- DEPTH OF SLAB TURN DOWN FOOTING SHALL BE GREATER THAN FROST DEPTH SPECIFIED PER LOCAL CODE.
- CONTROL JOINTS SHALL BE PLACED 50 AS TO LIMIT MAX. SLAB SPANS TO 20' IN EACH DIRECTION.
- ASSUMED SOIL BEARING CAPACITY IS TO BE A MIN. OF 1500 PSF.
- CONCRETE STRENGTH TO BE A MIN. OF 2500 PSI @ 28 DAYS.

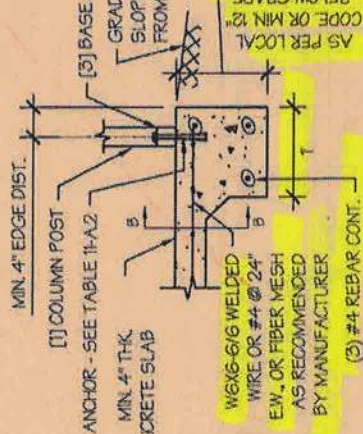


OVERHEAD DOOR NOTCH DETAIL (2)
SCALE: NTS

TABLE 11-A.1: NOTCH WIDTH

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

NOTE: DEPTH IS TO BE 1 1/2"

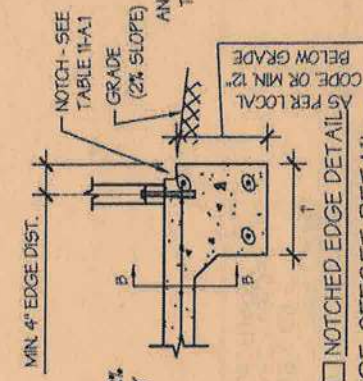


STANDARD EDGE DETAIL

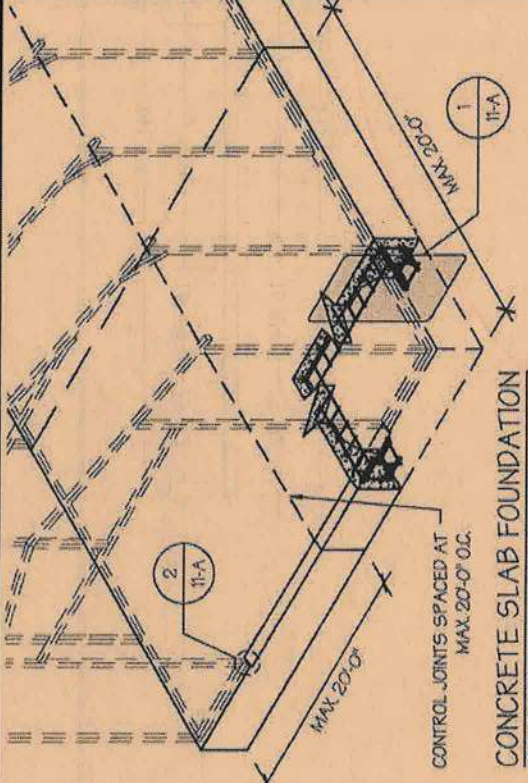
TABLE 11-A.2: CONCRETE SLAB ANCHOR SCHEDULE

ENCLOSURE	WIND SPEED (MPH)	ANCHOR SIZE/NUMBER
ENCLOSED	105 TO 135	(1) 1/2" X 7'
	136 TO 190	(2) 1/2" X 7'
OPEN	105 TO 135	(1) 1/2" X 7'
	136 TO 190	(2) 1/2" X 7'

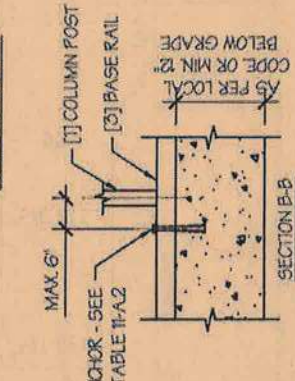
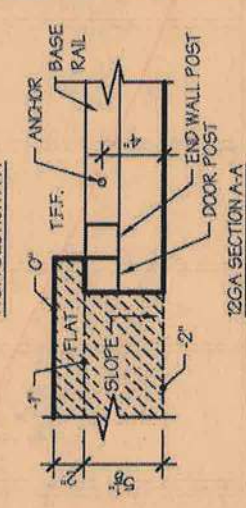
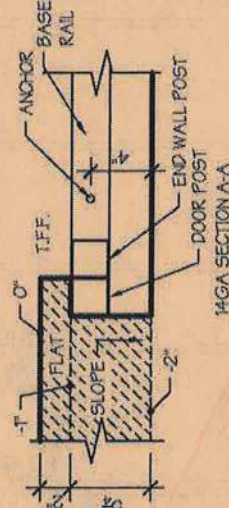
- NOTES:
- ANCHORS ARE TO BE CONCRETE WEDGE OR EXPANSION ANCHORS.
 - MIN. EMBEDMENT DEPTH TO BE 2 1/2".
 - ANCHORS TO BE SPACED NO MORE THAN 6" FROM POSTS.



EDGE OFFSET DETAIL (1)
SCALE: NTS



CONCRETE SLAB FOUNDATION
SCALE: NTS



SECTION B-B

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DRAWING INFORMATION

PROJECT: 18'-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: 1/12/21

CHECKED BY: OAA DATE: 1/12/21

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DATE SIGNED: JAN 15 2021

CONCRETE SLAB FOUNDATION NOTES:

- DESIGNS SHOWN ON THIS SHEET ARE FOR CONCRETE SLAB FOUNDATION. ANY OF THE FOUNDATIONS SHOWN ON SHEETS 11-A THRU C CAN BE USED.
- 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.
- MIN. NUMBER OF CONCRETE ANCHORS PER POST SHALL BE AS SHOWN IN TABLE 11-A.1.
- THE SIZE OF THE SLAB SHALL BE THE SIZE (WIDTH AND LENGTH) OF THE BUILDING PLUS $\frac{1}{2}$ " FOR 14GA MATERIAL AND 1" FOR 12GA MATERIAL.
- 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.
- ASSUMED SOIL BEARING CAPACITY IS TO BE A MIN. OF 1500 PSF.
- CONCRETE STRENGTH TO BE A MIN. OF 2500 PSI @ 28 DAYS.

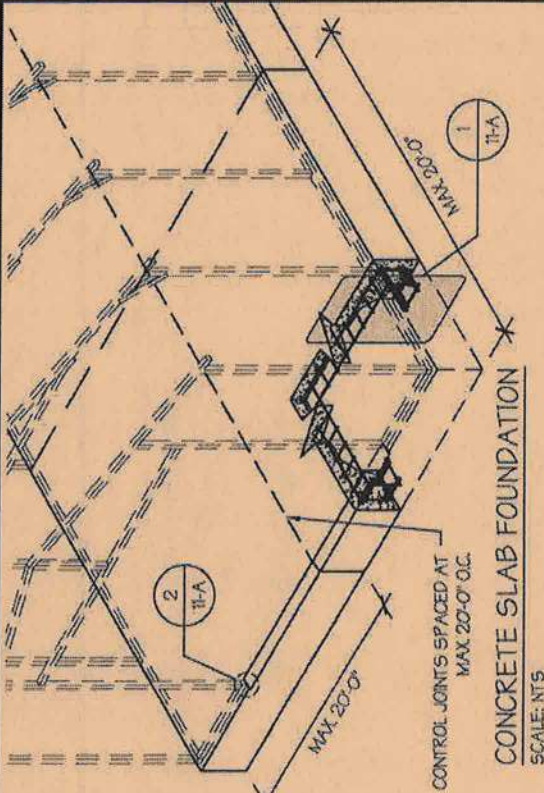
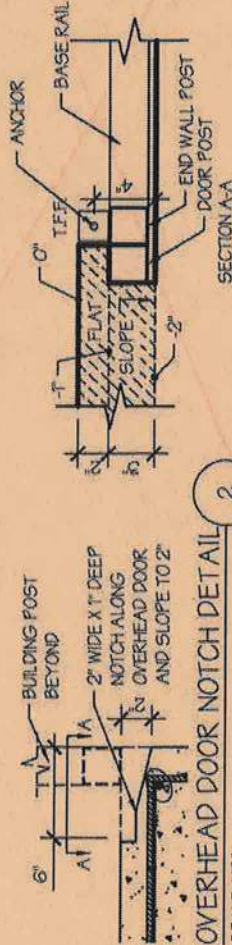


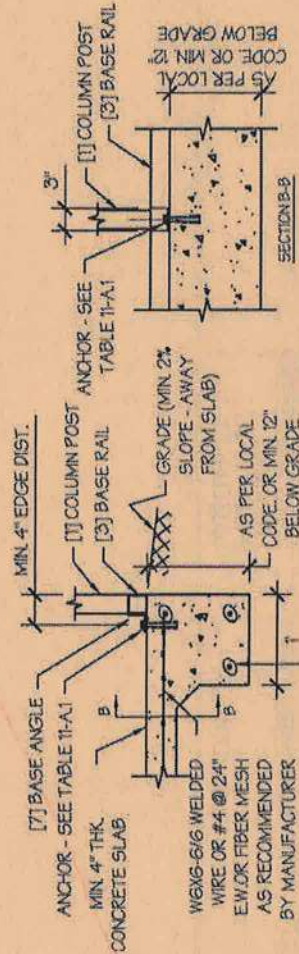
TABLE 11-A.1: CONCRETE SLAB ANCHOR SCHEDULE

ENCLOSURE	WIND SPEED (MPH)	ANCHOR SIZE/NUMBER
ENCLOSED	135 TO 135	(1) 1/2" X 7"
OPEN	136 TO 190	(2) 1/2" X 7"
OPEN	135 TO 135	(1) 1/2" X 7"
OPEN	136 TO 190	(2) 1/2" X 7"

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



OVERHEAD DOOR NOTCH DETAIL



EDGE FLUSH DETAIL

Real Steel Metal Buildings

ENGINEERED BY:



A&A ENGINEERING
CIVIL - STRUCTURAL
6005 Renaissance Place, Toledo, OH 43623
Tel. 419-299-1988 • Fax. 419-299-6955
www.a-a-engineers.com

DRAWING INFORMATION

PROJECT: 18'-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: 1/12/21

CHECKED BY: OAA DATE: 1/12/21

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.

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 150	(2) 1/2" Ø X 7"
OPEN	105 TO 135	(1) 1/2" Ø X 7"
	136 TO 150	(2) 1/2" Ø X 7"

NOTES:

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

TABLE 11-B.2: CONC. STRIP SCHEDULE

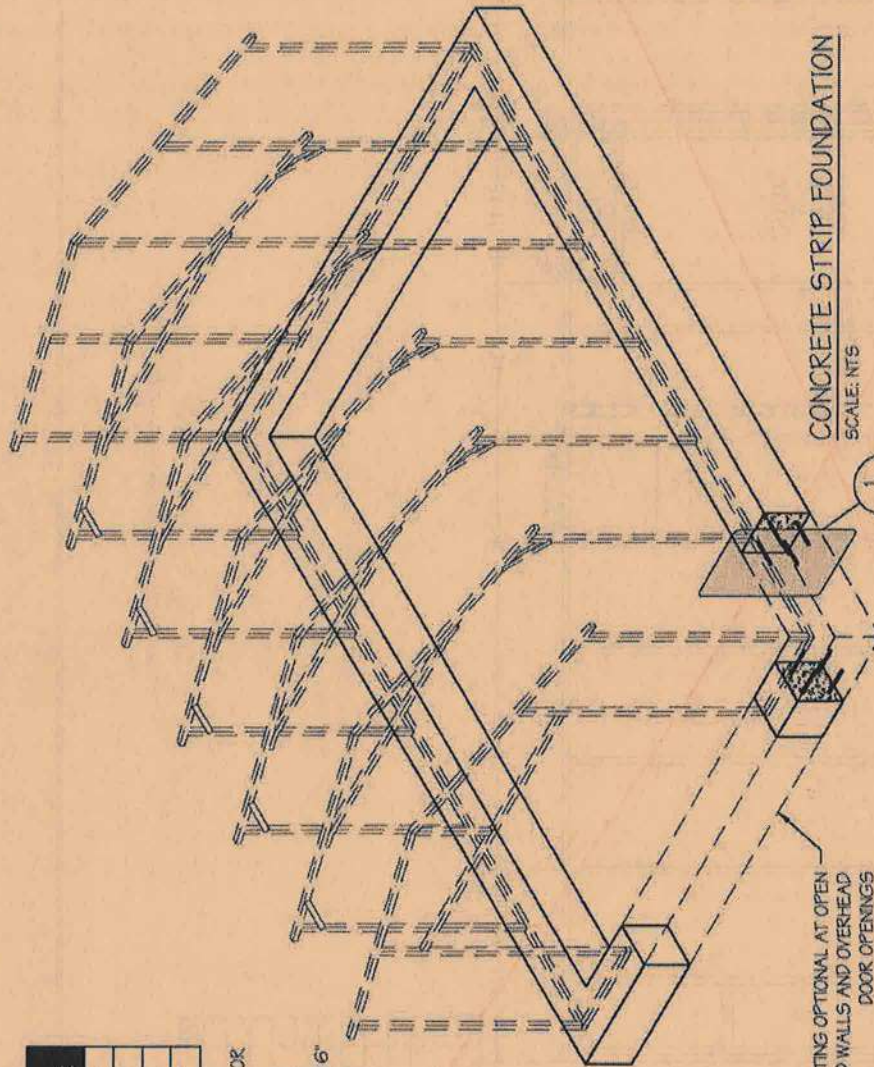
WIND SPEED (MPH)	MIN. SIZE REQ'D.
105 TO 130	12" X 12"
140 TO 155	18" X 12"
165 TO 180	26" X 12"
	21" X 15"
	15" X 19"

NOTES:

1. WIDTH AND DEPTH DIMENSIONS CAN BE INTERCHANGED.

CONCRETE STRIP FOUNDATION NOTES:

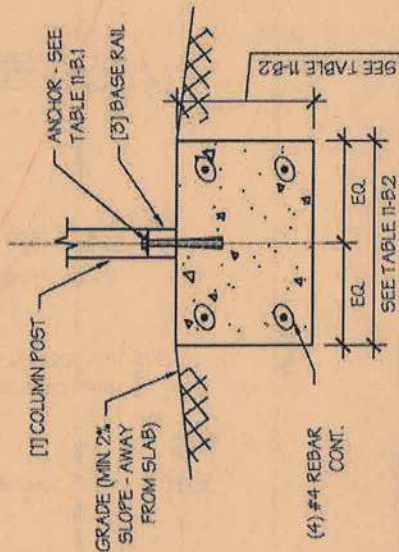
1. DESIGNS SHOWN ON THIS SHEET ARE FOR CONCRETE STRIP FOUNDATION. ANY OF THE FOUNDATIONS SHOWN ON SHEETS 11-A THRU C CAN BE USED.
2. CONCRETE ANCHORS SHALL BE LOCATED NEXT TO EVERY POST AND ON EITHER SIDE OF OPENINGS. TWO ANCHORS SHALL BE INSTALLED AT CORNERS OF ENCLOSED BUILDINGS WITH END WALLS - ONE 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. ANCHORS IN CLOSE PROXIMITY TO EACH OTHER MUST HAVE A MIN. 4" SPACING.
5. DEPTH OF CONCRETE STRIP FOOTING SHALL BE GREATER THAN FROST DEPTH SPECIFIED PER LOCAL CODE.
6. ASSUMED SOIL BEARING CAPACITY IS TO BE A MIN. OF 1500 PSF.
7. CONCRETE STRENGTH TO BE A MIN. OF 2500 PSI @ 28 DAYS.
8. BUILDING IS TO BE MOUNTED ON THE CENTER OF THE STRIP FOUNDATION.



CONCRETE STRIP FOUNDATION

SCALE: NT5

FOOTING OPTIONAL AT OPEN
END WALLS AND OVERHEAD
DOOR OPENINGS



CONCRETE STRIP FOUNDATION DETAIL

SCALE: NT5

MANUFACTURED BY:

Real Steel Metal
Buildings

ENGINEERED BY:



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CIVIL - STRUCTURAL
6035 Rembrandt Place, Toledo, OH 43626
Tel. 419-259-1588 • Fax. 419-259-0855
www.a-a-engineers.com

DRAWING INFORMATION

PROJECT: 18'-0" WIDE BUILDINGS

LOCATION: STATE OF FLORIDA

PROJECT NO.: 356-21-0028

SHEET TITLE:

FOUNDATION OPTION 2:
CONCRETE STRIP

SHEET NO.: 11-B / 11

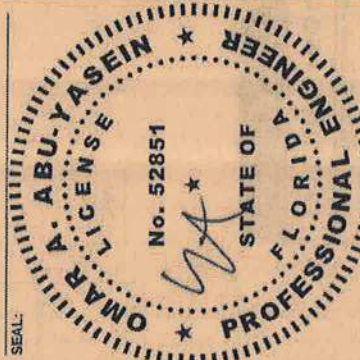
DRAWN BY: A.W. DATE: 1/12/21

CHECKED BY: OAA DATE: 1/12/21

LEGAL INFORMATION

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SEAL:



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DRAWING INFORMATION

PROJECT: 18'-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: 1/12/21

CHECKED BY: OAA DATE: 1/12/21

LEGAL INFORMATION

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

SEAL:



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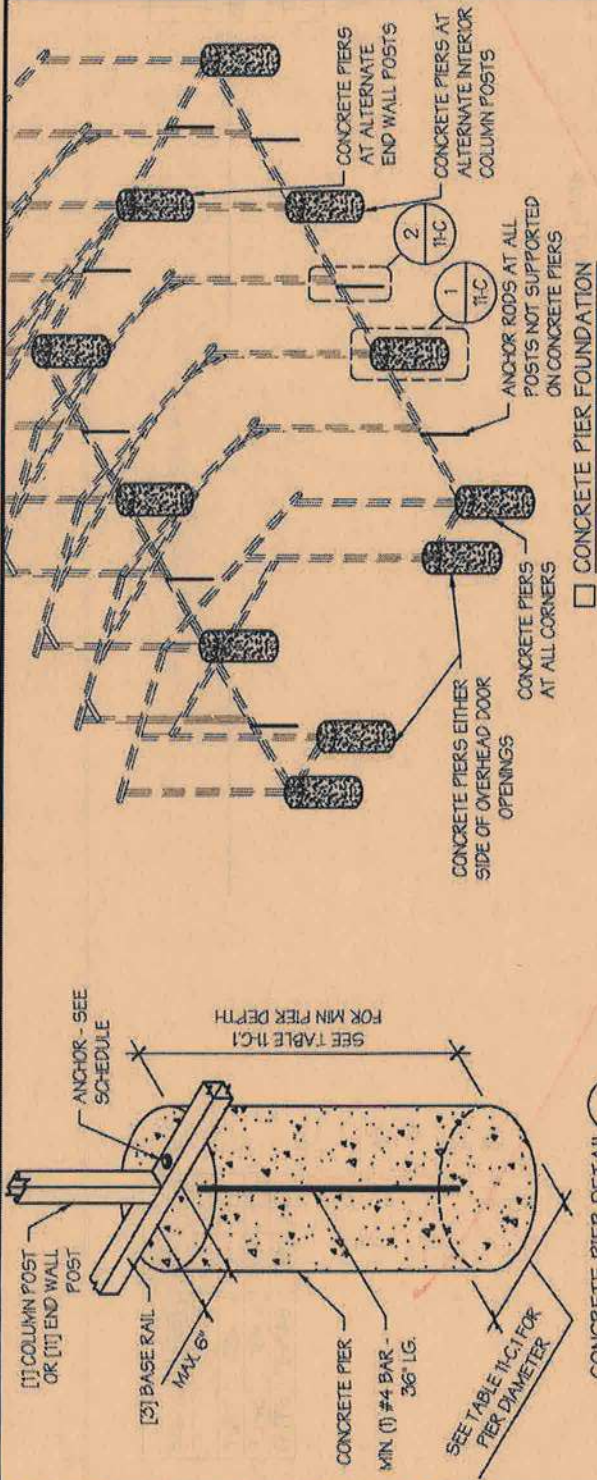


TABLE 11-C.2: ANCHOR SCHEDULE

ENCLOSURE	WIND SPEED (MPH)	ANCHOR SIZE/NUMBER
ENCLOSED	105 TO 135	(1) 1/2" Ø X 7'
	136 TO 160	(2) 1/2" Ø X 7'
OPEN	105 TO 135	(1) 1/2" Ø X 7'
	136 TO 160	(2) 1/2" Ø X 7'

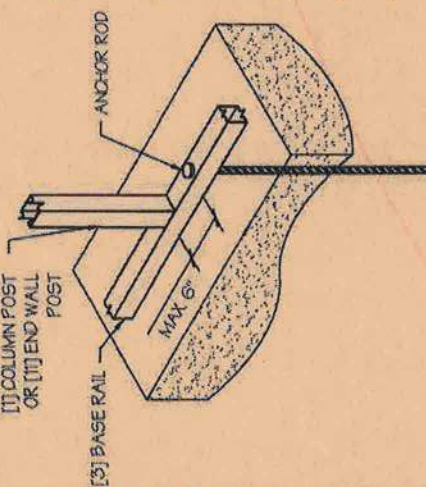
NOTES:

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

CONCRETE PIER FOUNDATION NOTES:

- DESIGNS SHOWN ON THIS SHEET ARE FOR CONCRETE PIER FOUNDATION. ANY OF THE FOUNDATIONS SHOWN ON SHEETS 11-A THRU C 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.
- 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-C.2.
- TWO ANCHORS AND A PIER ARE REQUIRED AT DIAGONAL BRACING LOCATIONS WHEN REQUIRED.
- 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.
- 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.
- ASSUMED SOIL BEARING CAPACITY IS TO BE A MIN. OF 1500 PSF.
- CONCRETE STRENGTH TO BE A MIN OF 2500 PSI @ 28 DAYS.

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	18" Ø X 36"
131 TO 155	18" Ø X 42"
156 TO 180	18" Ø X 48"

MANUFACTURED BY:

Real Steel Metal Buildings

ENGINEERED BY:



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6906 Rembrandt Place, Toledo, OH 43628
TEL: 419-592-1588 • FAX: 419-892-0553
www.a-a-engineers.com

DRAWING INFORMATION

PROJECT: 18'-0" WIDE BUILDINGS

LOCATION: STATE OF FLORIDA

PROJECT NO.: 356-21-0028

SHEET TITLE:

FOUNDATION OPTION 4:

SOIL ANCHORS

SHEET NO.: 1-D / 11

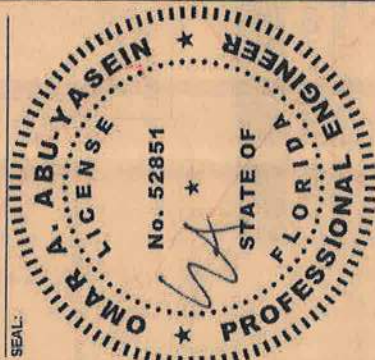
DRAWN BY: A.W. DATE: 1/12/21

CHECKED BY: OAA DATE: 1/12/21

LEGAL INFORMATION

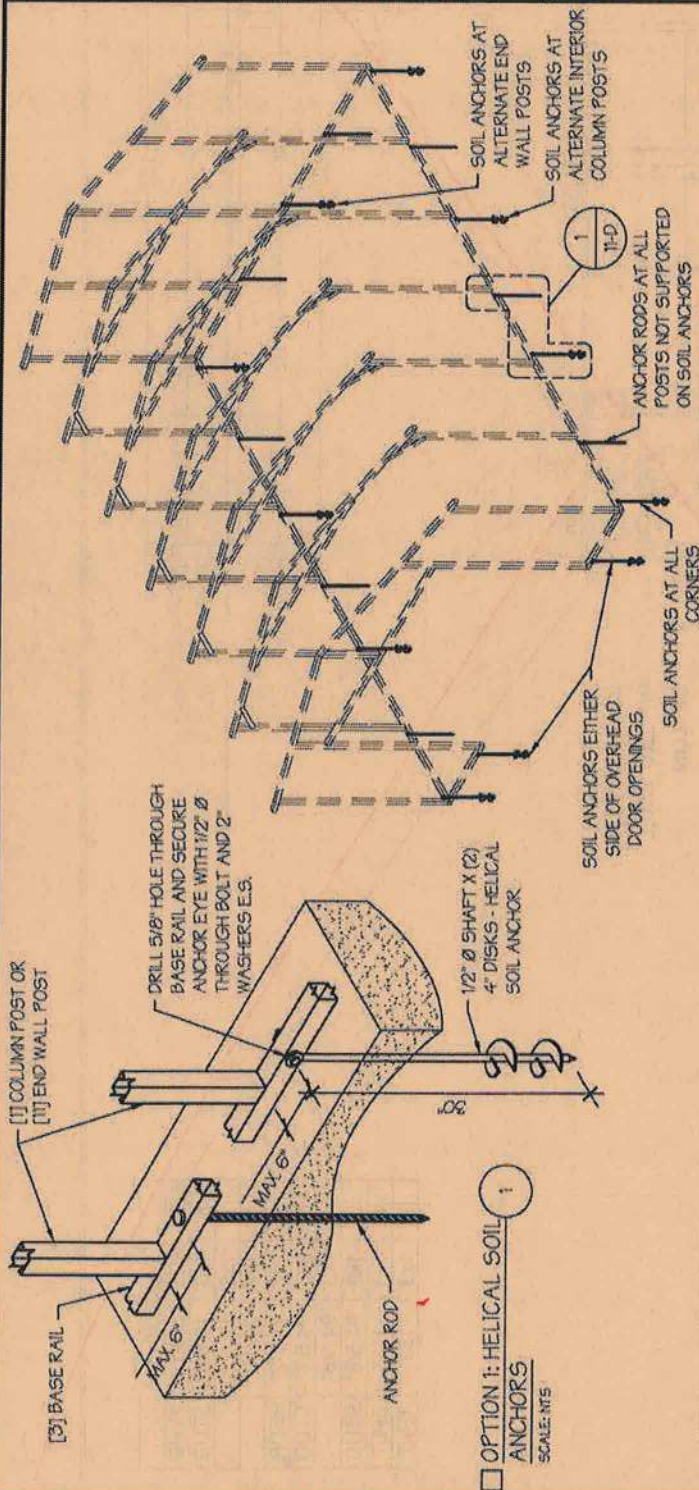
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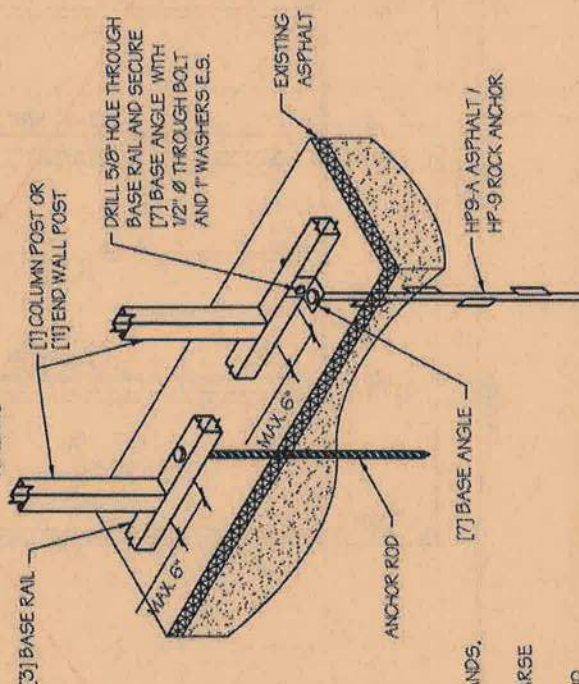
SOIL FOUNDATION NOTES:

- 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"



☐ OPTION 2: ROCK / ASPHALT ANCHORS

SCALE: NTS