

FBC APPROVED PRODUCTS LIST					MAXIMUM ALLOWABLE WIND SPEED			TABLE 1 RAFTER FRAME, END POST, GROUND ANCHOR AND PANEL FASTENER SPACING SPECIFICATIONS						
PRODUCT CATEGORY	SUB CATEGORY	MANUFACTURER	APPROVAL No. & DATE	QA EXPIRATION DATE	OPEN	ENCLOSED	PARTIALLY ENCLOSED	RISK CATEGORY	WIND EXPOSURE CATEGORY	ULTIMATE WIND SPEED (MPH)	NOMINAL WIND SPEED (MPH)	MAXIMUM POST / RAFTER SPACING (FEET)	AVERAGE FASTENER SPACING ON-CENTERS ALONG RAFTERS OR PURLINS, AND POSTS OR GIRTS (INCHES)	
													INTERIOR POSTS/RAFTERS	END POSTS/RAFTERS
STRUCTURAL COMPONENTS	ROOF DECK	CAROLINA CARPORTS, INC. 26 Gauge AG Panel	FL6596.1-R7 12/12/23	04/05/27	180	180	180							
STRUCTURAL COMPONENTS	STRUCTURAL WALL	CAROLINA CARPORTS, INC. 26 Gauge AG Panel	FL6702.1-R7 12/12/23	03/14/27	180	180	180							
STRUCTURAL COMPONENTS	STRUCTURAL WALL	CAROLINA CARPORTS, INC. 26 Gauge Dutch Lap Wall Panel	FL6702.3-R7 12/12/23 **	03/14/27	N/A	164	143							
EXTERIOR DOORS	SWINGING	ELIXIR DOOR AND METAL COMPANY Series 402-14	FL17996.3-R3 12/26/23	08/26/25	N/A	139	139							
EXTERIOR DOORS	SWINGING	ELIXIR DOOR AND METAL COMPANY Series 407	FL17996.5-R3 12/26/23	08/19/25	N/A	174	155							
EXTERIOR DOORS	ROLL-UP	ASTA INDUSTRIES INC. Model 203 (12' Max. Width)	FL8888.1-R7 11/06/23	12/31/24	N/A	180	174							
EXTERIOR DOORS	ROLL-UP	CAROLINA CARPORTS, INC. Steel Roll Up Sheet Door (8' Max. Width)	FL16806.2-R6 12/13/23	04/05/27	N/A	180	180							
EXTERIOR DOORS	ROLL-UP	CAROLINA CARPORTS, INC. Steel Roll-Up Sheet Door - (10' Max. Width)	FL16806.4-R6 12/13/23	04/05/27	N/A	180	172							
EXTERIOR DOORS	ROLL-UP	CAROLINA CARPORTS, INC. Steel Roll-Up Sheet Door - (12' Max. Width)	FL16806.4-R6 12/13/23	04/05/27	N/A	179	154							
EXTERIOR DOORS	ROLL-UP	CAROLINA CARPORTS, INC. Steel Roll-Up Sheet Door - (16' Max. Width)	FL4133.5-R1 12/13/23	04/05/27	N/A	163	142							
WINDOWS	SINGLE HUNG	CGI WINDOWS AND DOORS Model SH 4000A	FL23358.2-R7 12/19/23	02/28/32	N/A	174	156							
NOTES: 1. DOORS AND WINDOWS SHOWN MAY BE SUBSTITUTED FOR DIFFERENT PRODUCT LINES AND/OR MODELS, PROVIDED THE FOLLOWING CONDITIONS ARE MET: A. PRODUCT SHALL HAVE A VALID FBC PRODUCT APPROVAL. B. COMPONENTS ARE INSTALLED ACCORDING TO MANUFACTURER'S INSTALLATION REQUIREMENTS. 2. FRAMING CONNECTIONS FOR DOOR AND WINDOW FRAMES REMAIN THE SAME FOR SUBSTITUTED PRODUCTS. HEADERS AND WINDOW RAILS MAY BE RAISED OR LOWERED AS NECESSARY TO ACCOMMODATE SUBSTITUTED PRODUCT. ** MAXIMUM POST SPACING FOR DUTCH LAP IS 4.0'								GROUND ANCHOR SCHEDULE ULTIMATE WIND SPEED (mph) 110 120 130 140 150 160 170 180 BUILDING WIDTH (feet) 12 14 16 18 20 22 24 26 28 30 30" Anchor Detail 1E 48" Anchor Detail 1D 60" Anchor Detail 1D DETAILS 1C AND 1D SHOWN ON SHEET 4 OF 6						

- GENERAL NOTES:**
- THESE PLANS PERTAIN ONLY TO THE STRUCTURE, INCLUDING MAIN WIND FORCE RESISTING SYSTEM, COMPONENTS AND CLADDING, AND BASE RAIL ANCHORAGE. OTHER DESIGN ISSUES, INCLUDING BUT NOT LIMITED TO PLUMBING, ELECTRICAL, INGRESS/EGRESS, PROPERTY SET-BACKS, FINISH FLOOR ELEVATION AND SLOPE, OR OTHER LOCAL ZONING REQUIREMENTS ARE THE RESPONSIBILITY OF OTHERS.
 - THESE STRUCTURES ARE DESIGNED AS NON-HABITABLE UTILITY/STORAGE BUILDINGS (RISK CATEGORY I) CAPABLE OF SUPPORTING DEAD LOAD OF THE STRUCTURE AND APPLICABLE LIVE AND WIND LOADS. IMPROVEMENTS NOT SPECIFICALLY ADDRESSED HEREIN, INCLUDING DOORS, WINDOWS, OR OTHER COMPONENTS NOT LISTED IN THE FBC APPROVED PRODUCTS LIST (THIS SHEET), AND NOT PROVIDED AND INSTALLED BY CAROLINA CARPORTS, INC., WHICH EXERT ADDITIONAL LOADS ON THE STRUCTURE SHALL BE AT THE OWNER'S RISK. BECHTOL ENGINEERING AND TESTING, INC., SHALL NOT BE RESPONSIBLE FOR STRUCTURAL DAMAGE OR FAILURE DUE TO THE APPLICATION OF ADDITIONAL LOADS.
 - ALL STEEL TUBING SHALL BE 50 KSI GALVANIZED STEEL. ALL FASTENERS SHALL BE GALVANIZED OR STAINLESS STEEL OR ZINC PLATED.
 - ALL COMPONENTS AND CLADDING SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S INSTALLATION INSTRUCTIONS, **AND SHALL MEET THE DESIGN PRESSURES REQUIRED BY THE FLORIDA BUILDING CODE (FBC) AT THE LOCATION OF THE BUILDING WITHIN THE STATE OF FLORIDA.**
 - ALL FIELD FRAMING CONNECTIONS SHALL BE #12-14 x 3/4" SELF DRILLING SCREWS **WITHOUT CONTROL SEAL WASHER**. ALL SHOP FRAMING CONNECTIONS SHALL BE WELDED.
 - CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS. THE REINFORCING STEEL SHALL BE MINIMUM GRADE 40. CONCRETE SLAB FOUNDATIONS SHALL BE REINFORCED WITH 6X6-W1.4XW1.4 WELDED WIRE FABRIC COMPLYING WITH ASTM A 185, OR WITH SYNTHETIC FIBER REINFORCEMENT COMPLYING WITH ASTM C1116.
 - BASE RAIL GROUND ANCHOR REQUIREMENTS: ONE WITHIN 6" OF EVERY POST LOCATION, AND BOTH SIDES OF OPENINGS WHERE BASE RAIL IS ABSENT. GROUND ANCHORS ARE NOT REQUIRED FOR CONCRETE FOOTING AND/OR CONCRETE SLAB CONSTRUCTION. SEE GROUND ANCHOR SCHEDULE (THIS SHEET) FOR SPECIFIC GROUND ANCHOR SIZE REQUIREMENTS.
 - CONCRETE ANCHORS SHALL BE TAPCON REDHEAD LDT 1/2" x 5" OR EQUIVALENT OR WEJ-IT ANKR-TITE MODEL AT1252, OR SLEEVE ANCHOR MODEL HSA 1260, OR EQUIVALENT.
 - POST/RAFTER BRACING: BRACE ON EVERY POST/RAFTER CONNECTION, EXCEPT FOR END WALLS.
 - SLAB FOUNDATION SUBGRADE SOILS SHALL BE TERMITE TREATED AND COVERED WITH 6 MIL VAPOR RETARDER PER SECTION R318.1 OF THE FBC EIGHTH EDITION (2023) - RESIDENTIAL, AND SECTION 1816.1 OF THE FBC EIGHTH EDITION (2023) - BUILDING. MINIMUM ALLOWABLE FOUNDATION SOIL CONTACT BEARING PRESSURE OF 2,000 PSF IS ASSUMED.
 - 14 GA FRAMING: 2-1/2" x 2-1/2" TUBE STEEL (TS) WITH 2-1/4" x 2-1/4" TS NIPPLES.
12 GA FRAMING: 2-1/4" x 2-1/4" TS WITH 2" x 2" TS NIPPLES.

THIS IS TO CERTIFY THAT THE CALCULATIONS AND SPECIFICATIONS HEREIN HAVE BEEN PREPARED BY THE UNDERSIGNED PROFESSIONAL ENGINEER, AND ARE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 1609 OF THE FLORIDA BUILDING CODE, EIGHTH EDITION (2023).

Engineer Phone 396-734-8444

BECHTOL ENGINEERING AND TESTING, INC.
605 WEST NEW YORK AVENUE
DELAND, FLORIDA 32720

LOVE B PATEL

LICENSE

No. 90753

STATE OF FLORIDA

PROFESSIONAL ENGINEER

CAROLINA CARPORTS, INC.

GENERIC PLANS FOR USE IN THE STATE OF FLORIDA

BECHTOL ENGINEERING AND TESTING, Inc.

CONSULTING GEOTECHNICAL, ENVIRONMENTAL, AND MATERIALS TESTING ENGINEERS

Certificate of Authorization No. 00005499

REVISED

2/5/2024

DATE

1/1/2024

DRAWN

MKB / CS

SCALE

NTS

CHECKED

TB / CS

PROJ NO.

G24001

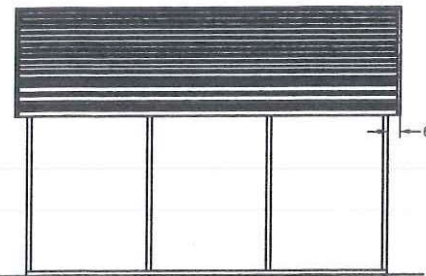
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TB / LP

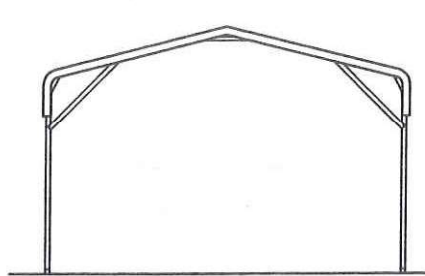
SHEET

1 OF 6

BOW FRAME RAFTER OPEN CARPORT - HORIZONTAL ROOF

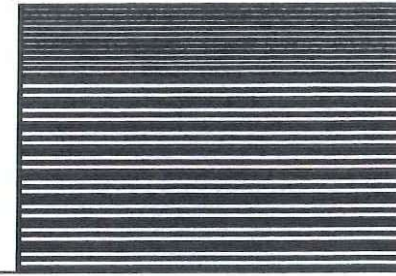


TYPICAL SIDE ELEVATION
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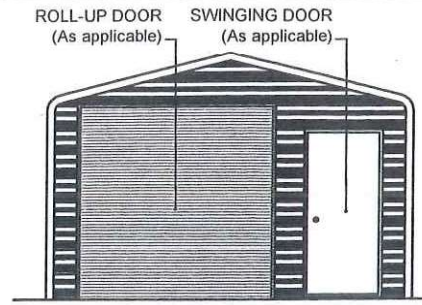


TYPICAL END ELEVATION
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BOW FRAME RAFTER ENCLOSED BUILDING - HORIZONTAL ROOF

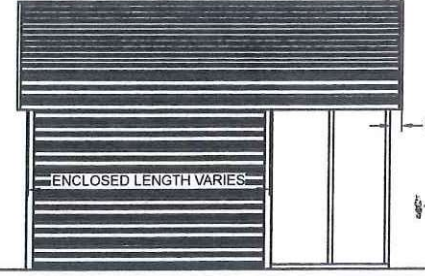


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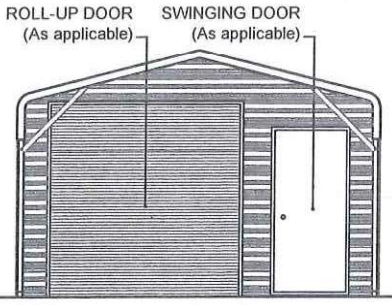


TYPICAL END ELEVATION
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BOW FRAME RAFTER UTILITY BUILDING - HORIZONTAL ROOF

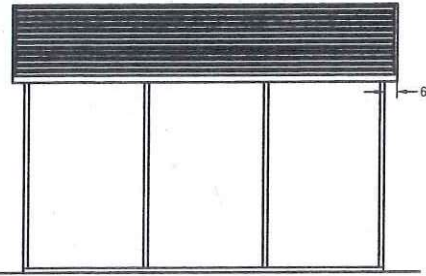


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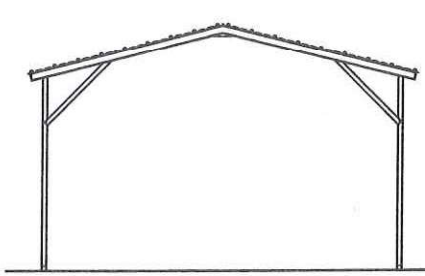


TYPICAL END ELEVATION
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BOX EAVE FRAME RAFTER OPEN CARPORT - HORIZONTAL ROOF

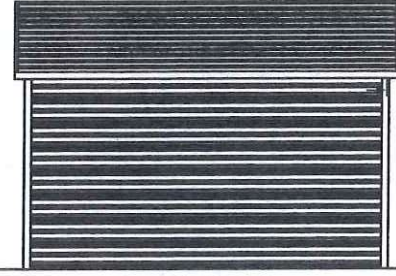


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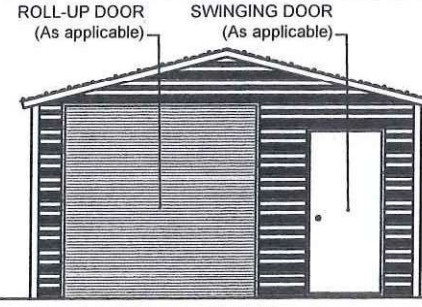


TYPICAL END ELEVATION
NOT TO SCALE

BOX EAVE FRAME RAFTER ENCLOSED BLDG - HORIZONTAL ROOF

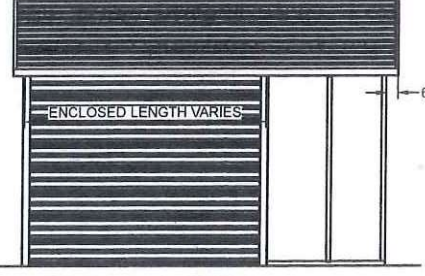


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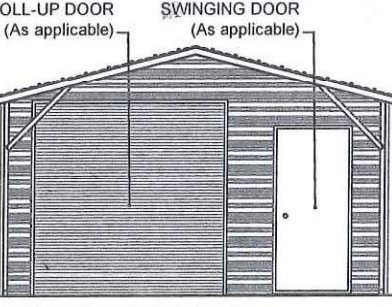


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BOX EAVE FRAME RAFTER UTILITY BLDG - HORIZONTAL ROOF

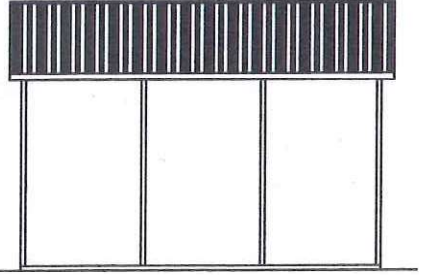


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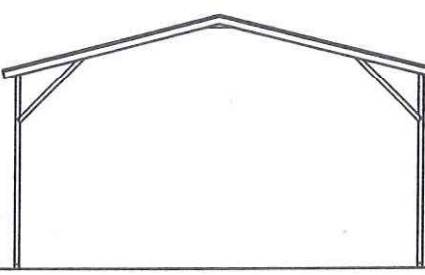


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NOT TO SCALE

BOX EAVE FRAME RAFTER OPEN CARPORT - VERTICAL ROOF

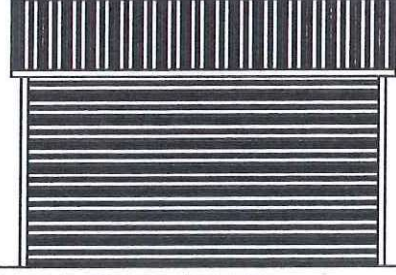


TYPICAL SIDE ELEVATION
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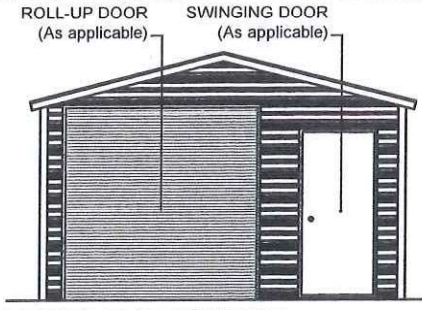


TYPICAL END ELEVATION
NOT TO SCALE

BOX EAVE FRAME RAFTER ENCLOSED BLDG - VERTICAL ROOF

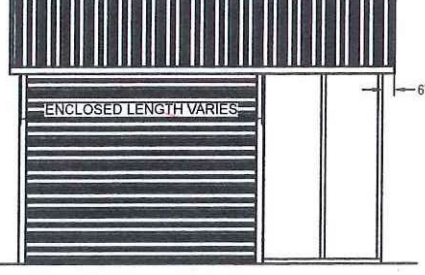


TYPICAL SIDE ELEVATION
NOT TO SCALE

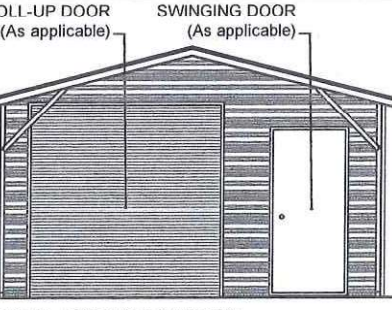


TYPICAL END ELEVATION
NOT TO SCALE

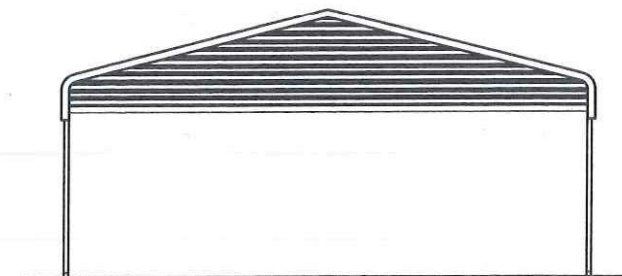
BOX EAVE FRAME RAFTER UTILITY BLDG - VERTICAL ROOF



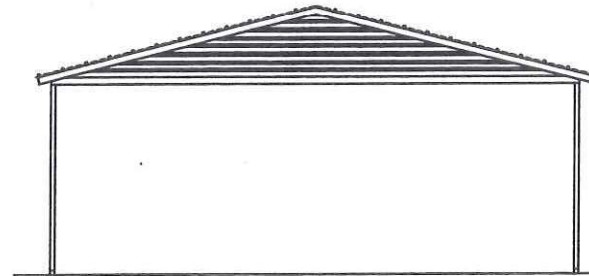
TYPICAL SIDE ELEVATION
NOT TO SCALE



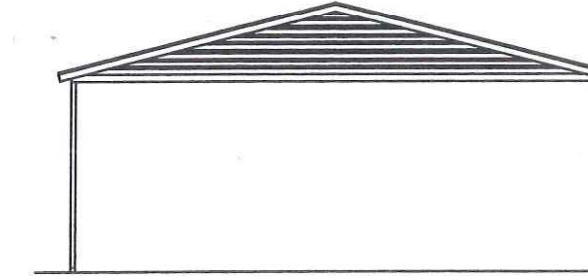
TYPICAL END ELEVATION
NOT TO SCALE



TYPICAL BOW RAFTER GABLE END ELEVATION
NOT TO SCALE



TYPICAL BOX EAVE RAFTER GABLE END ELEVATION
HORIZONTAL ROOF
NOT TO SCALE

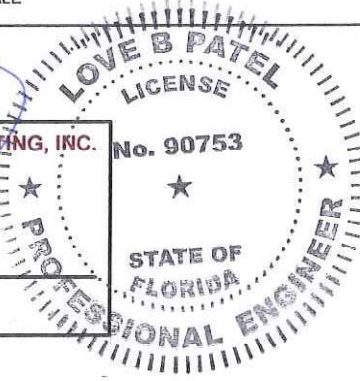


TYPICAL BOX EAVE RAFTER GABLE END ELEVATION
VERTICAL ROOF
NOT TO SCALE

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No. 90753

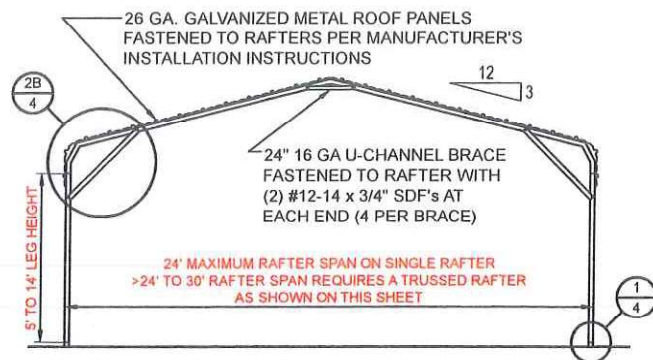
STATE OF
FLORIDA



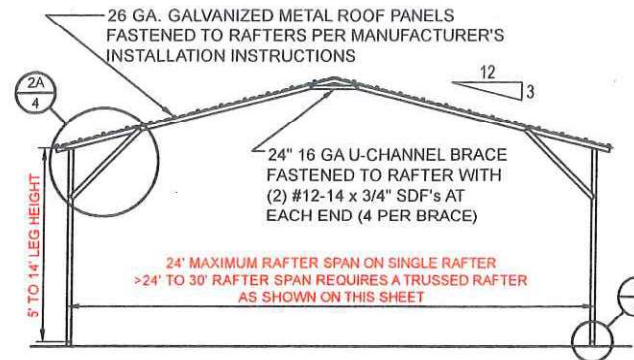
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AND TESTING, Inc.**
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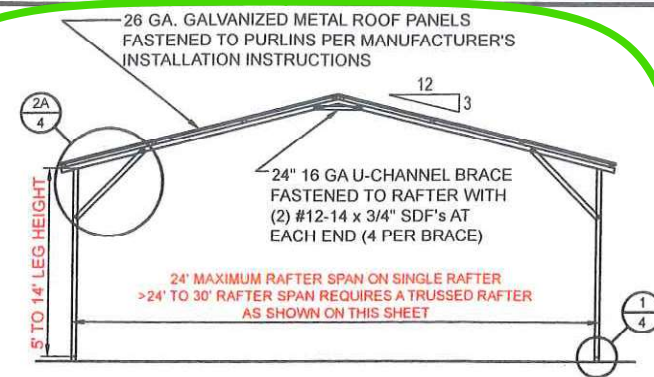
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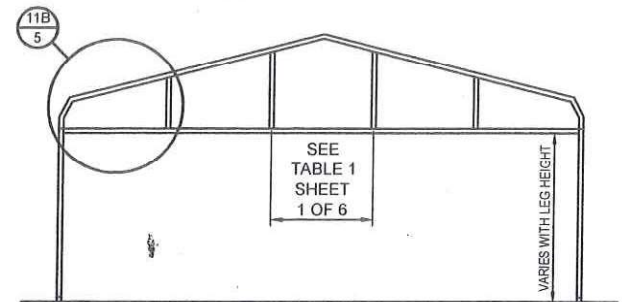
TYPICAL INTERIOR RAFTER/POST FRAME SECTION - BOW FRAME
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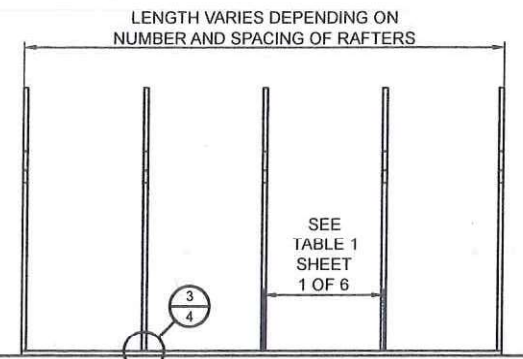
TYPICAL INTERIOR RAFTER/POST FRAME SECTION - HORIZONTAL ROOF - BOX EAVE
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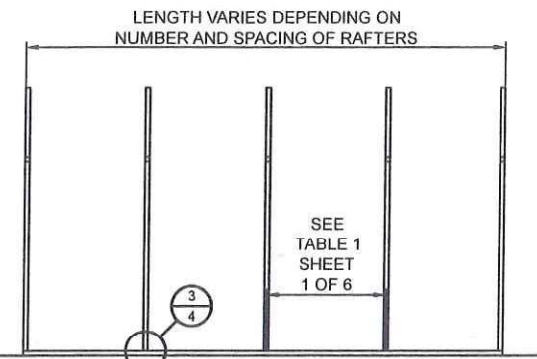
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NOT TO SCALE



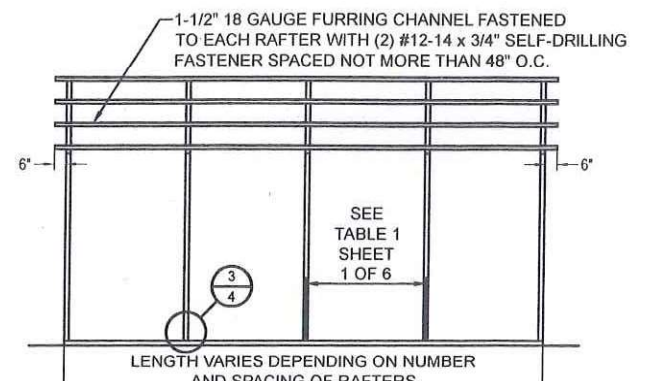
TYPICAL BOW RAFTER GABLE END FRAMING PLAN
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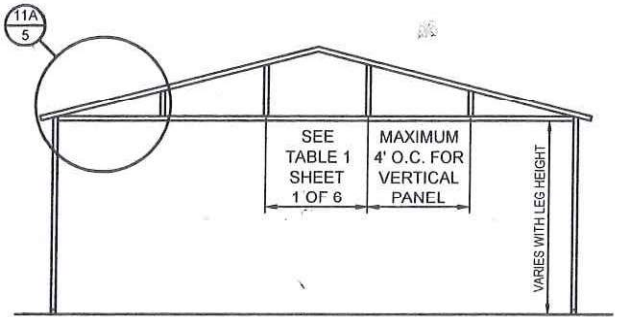
TYPICAL RAFTER/POST FRAMING PLAN - BOW FRAME
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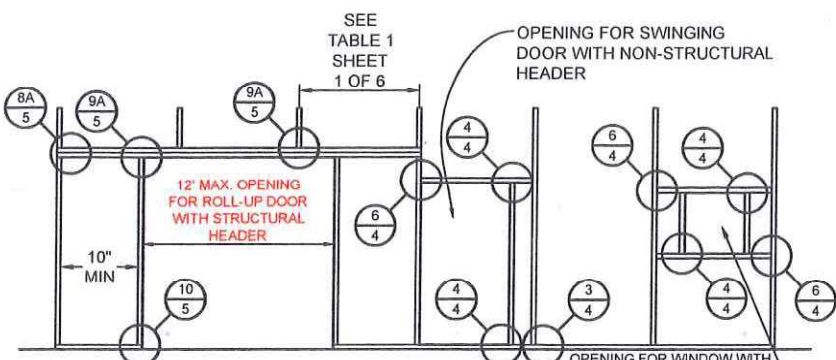
TYPICAL RAFTER/POST FRAMING PLAN - BOX EAVE
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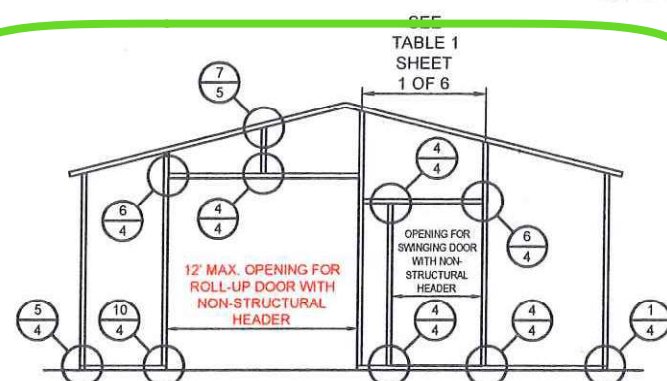
TYPICAL POST/RAFTER FRAMING PLAN - VERTICAL ROOF
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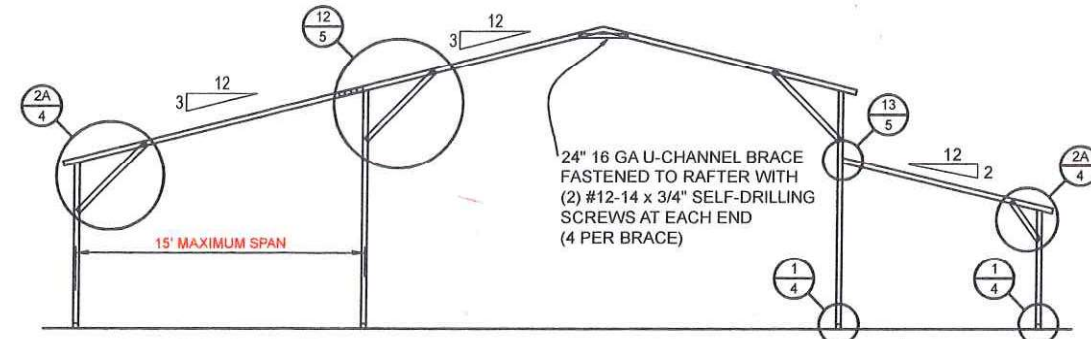
TYPICAL BOX EAVE RAFTER GABLE END FRAMING PLAN
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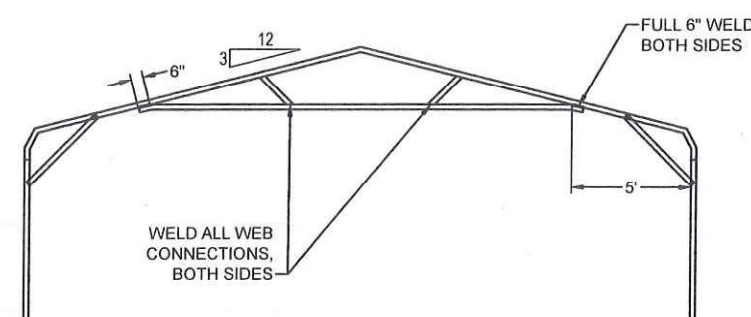
TYPICAL SIDE WALL OPENINGS FRAMING PLAN
NOT TO SCALE



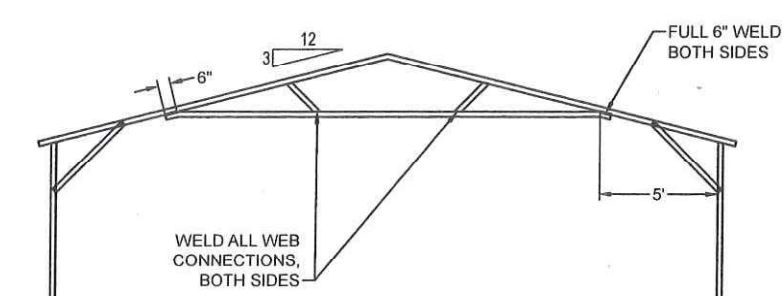
TYPICAL END WALL OPENINGS POST/RAFTER FRAMING PLAN
NOT TO SCALE



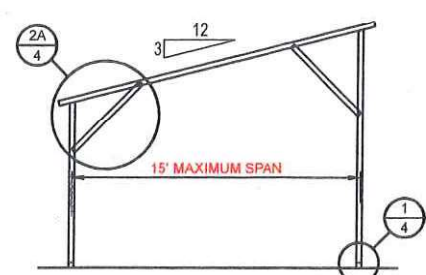
TYPICAL LEAN-TO OPTIONS FRAMING PLAN (BOTH OPTIONS SHOWN)
NOT TO SCALE (BOX EAVE RAFTER SHOWN, ONLY STANDARD LEAN-TO IS APPLICABLE TO BOW FRAME RAFTER)



OPTIONAL 24'-1" TO 30' TRUSSED RAFTER - BOW
NOT TO SCALE



OPTIONAL 24'-1" TO 30' TRUSSED RAFTER - BOX EAVE
NOT TO SCALE



FREESTANDING LEAN-TO FRAMING PLAN
NOT TO SCALE

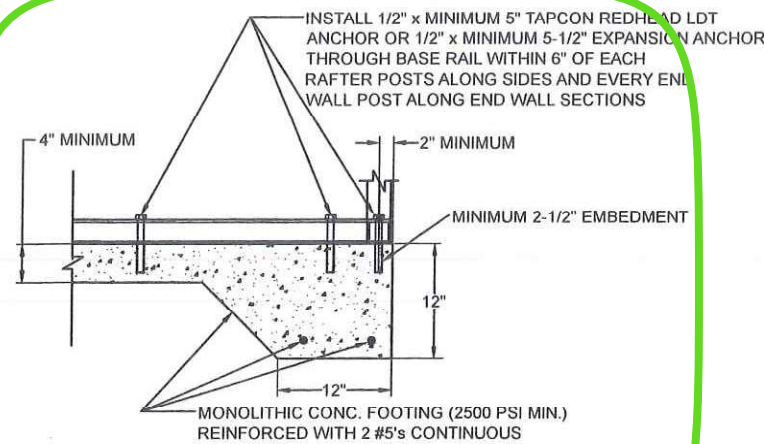


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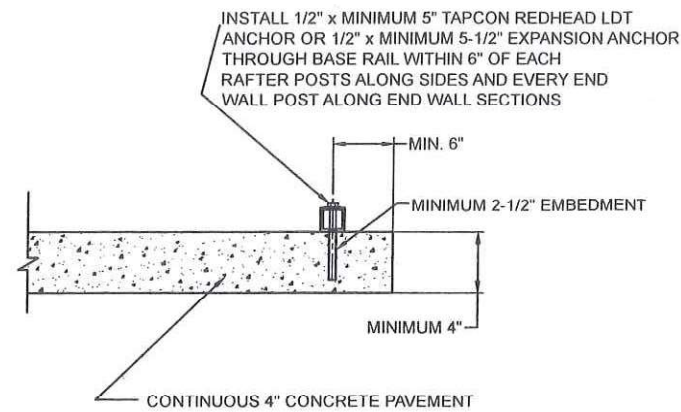
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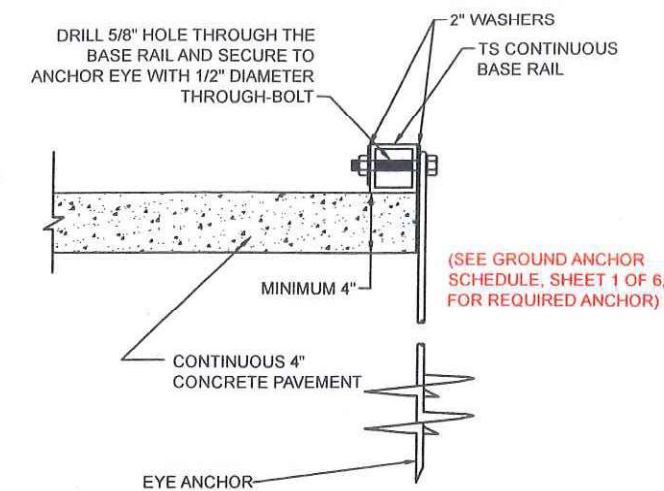
1A CONCRETE BASE RAIL ANCHORAGE

Not To Scale



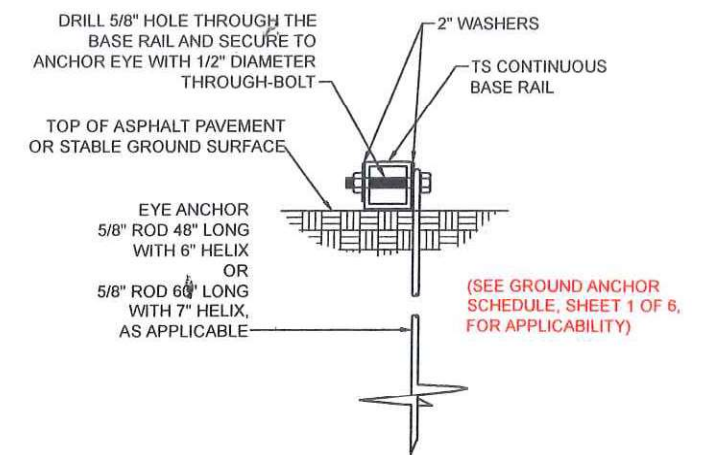
1B CONCRETE BASE RAIL ANCHORAGE

Not To Scale (OPTIONAL - OPEN CARPORTS ONLY)



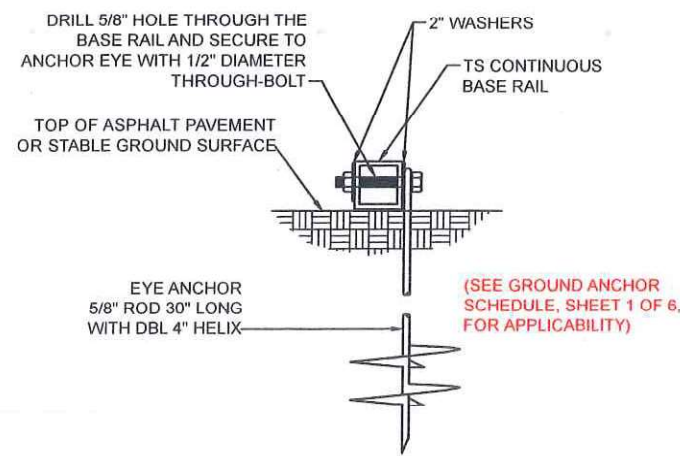
1C CONCRETE BASE RAIL ANCHORAGE

Not To Scale (OPEN CARPORTS WHERE SLAB EDGE DISTANCE DOES NOT MEET MINIMUM EDGE DISTANCE SHOWN IN DETAIL 1B)



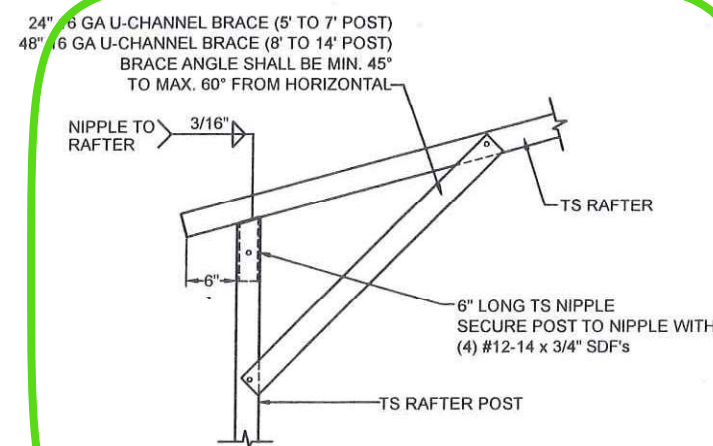
1D BASE RAIL DEEP ANCHORAGE

Not To Scale



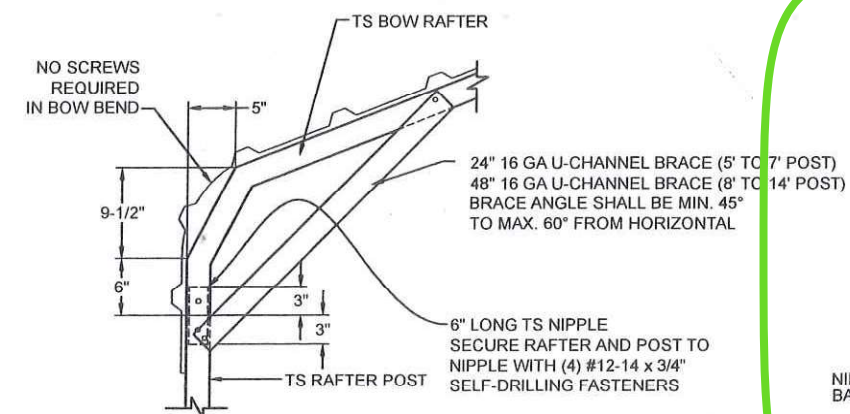
1E BASE RAIL ANCHORAGE

Not To Scale



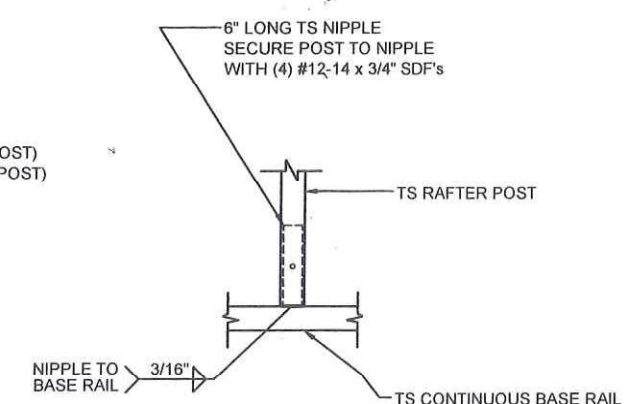
2A BOX EAVE RAFTER/POST DETAIL

Not To Scale



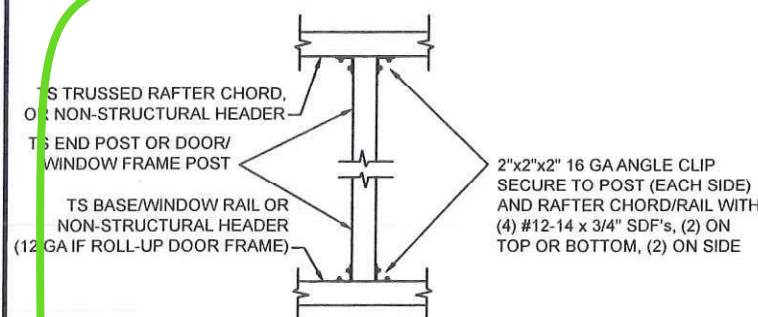
2B BOW RAFTER/POST DETAIL

Not To Scale



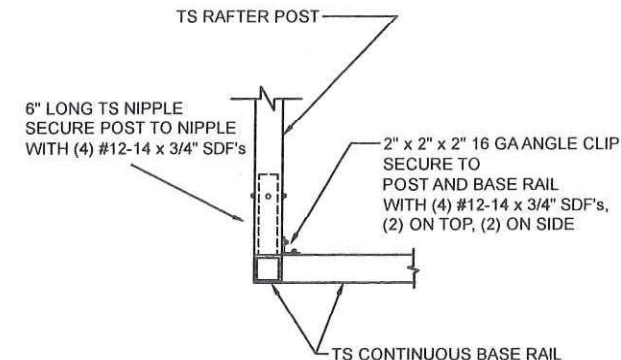
3 POST/BASE RAIL CONN. DETAIL

Not To Scale



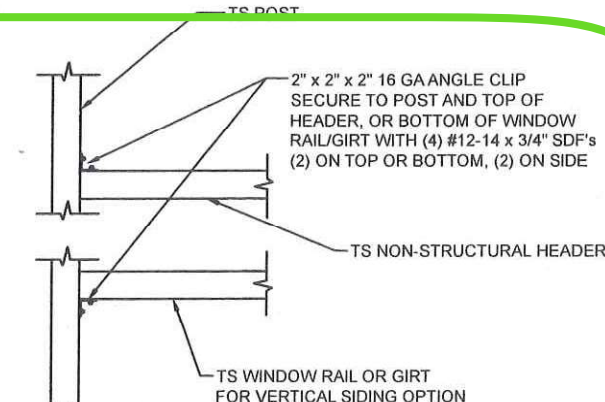
4 POST TO RAIL, TRUSS CHORD, OR NON-STRUCTURAL HEADER CONN. DETAIL

Not To Scale



5 END POST/BASE RAIL CONN.

Not To Scale



6 NON-STRUCTURAL HEADER, WINDOW RAIL, OR GIRT TO POST CONN. DETAIL

Not To Scale

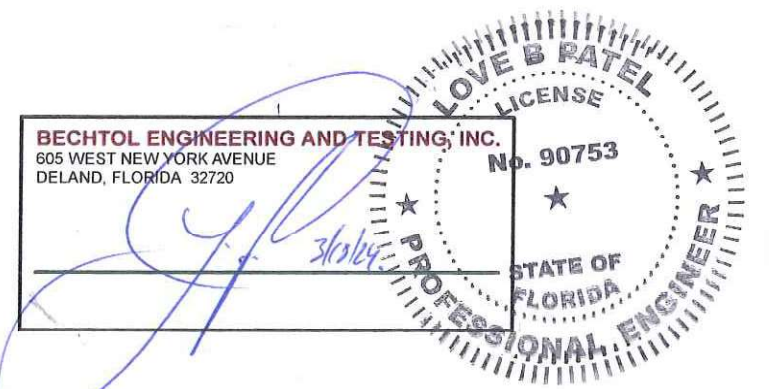
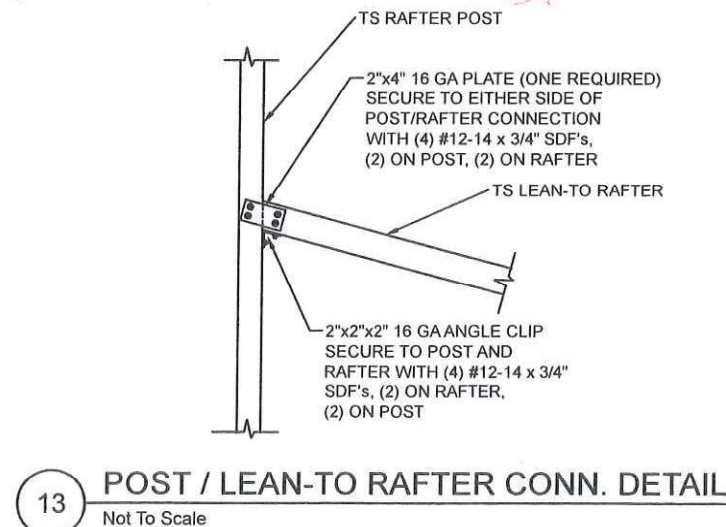
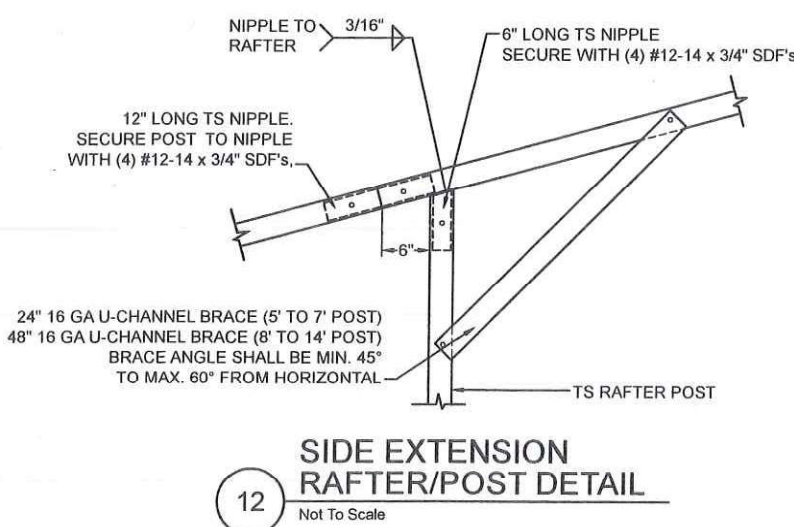
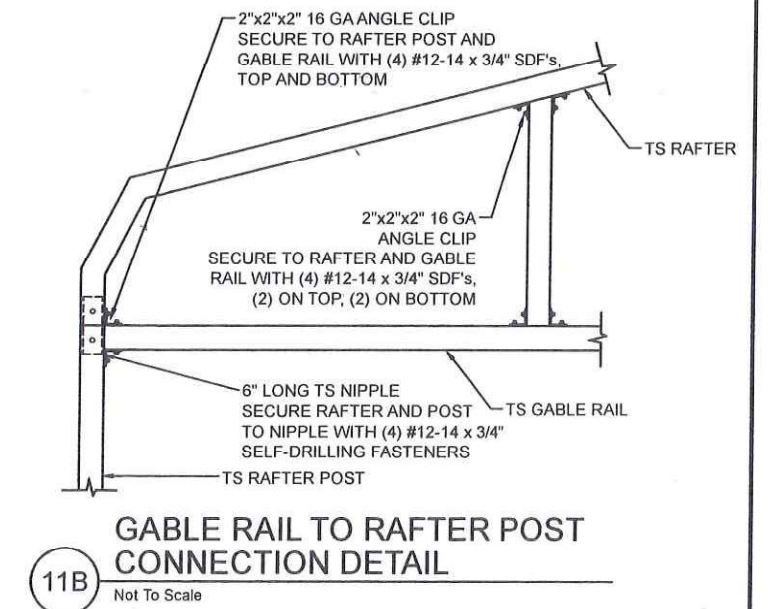
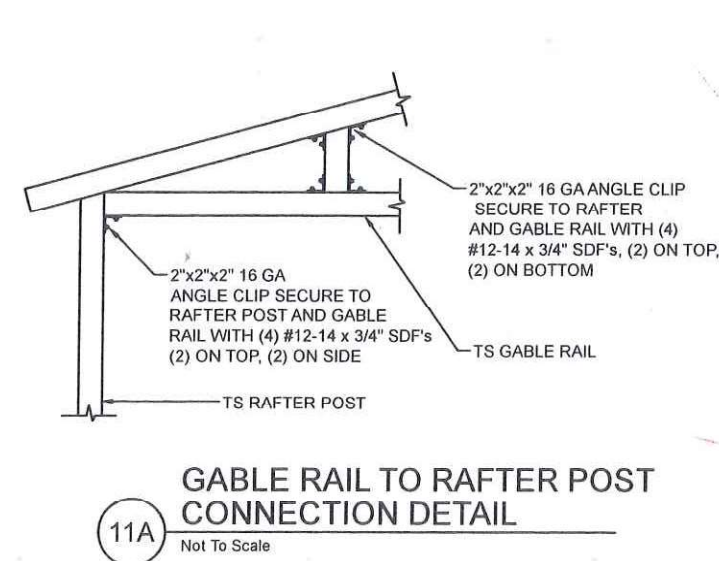
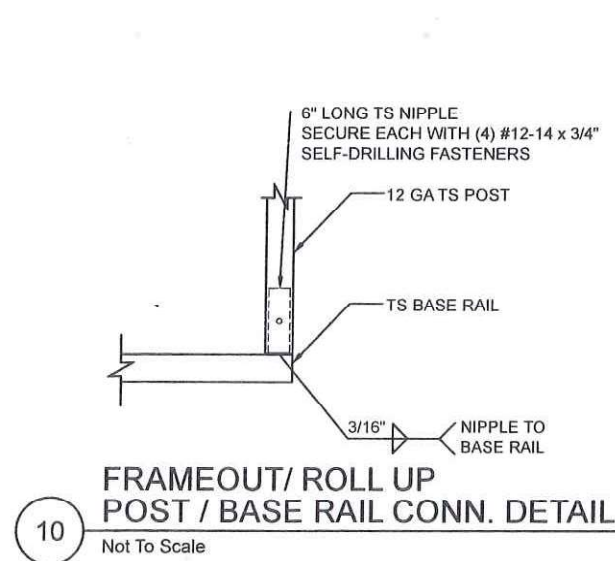
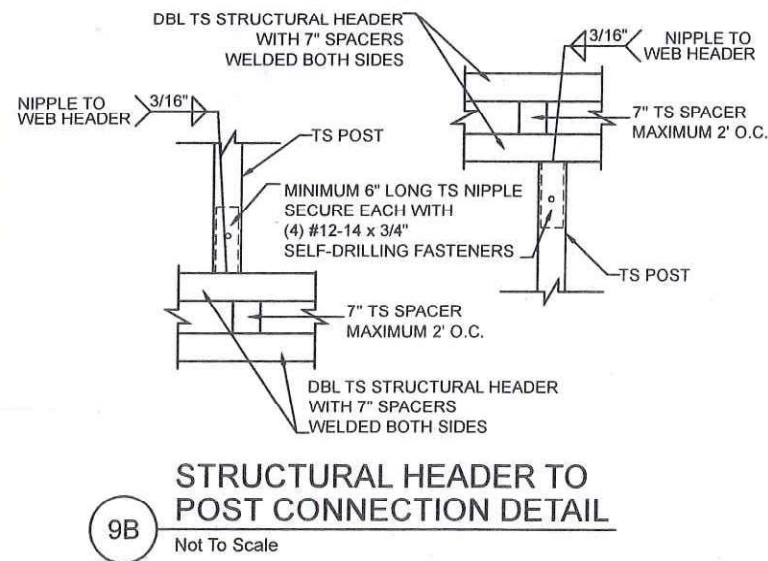
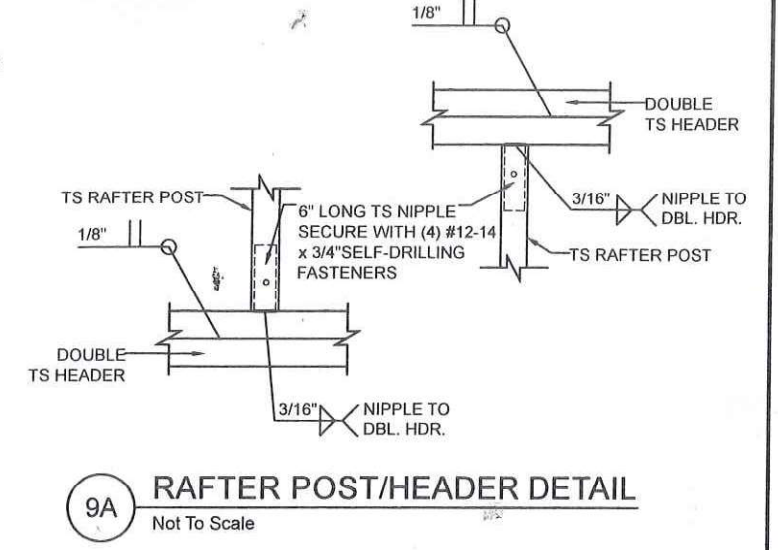
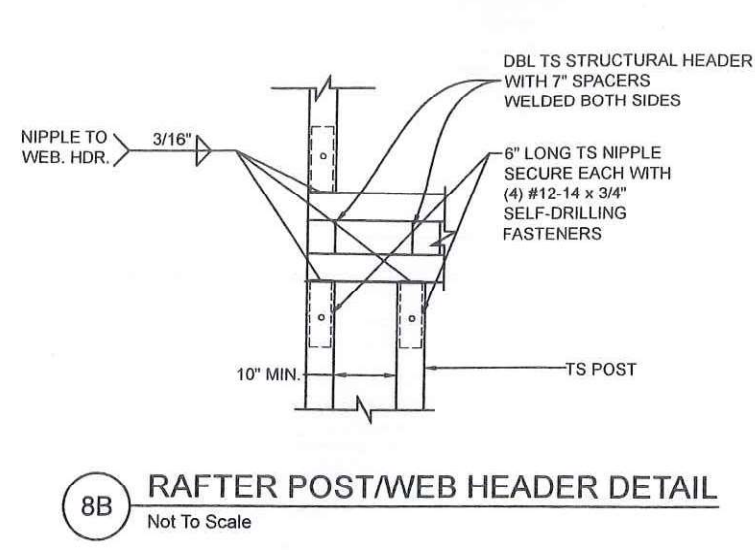
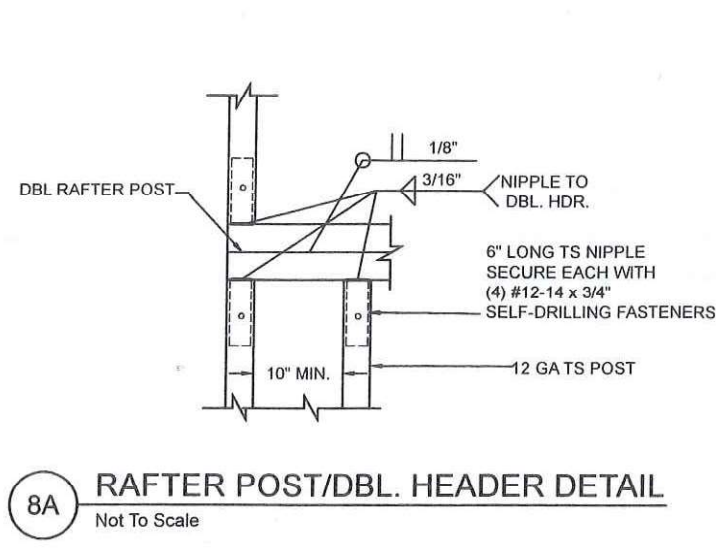
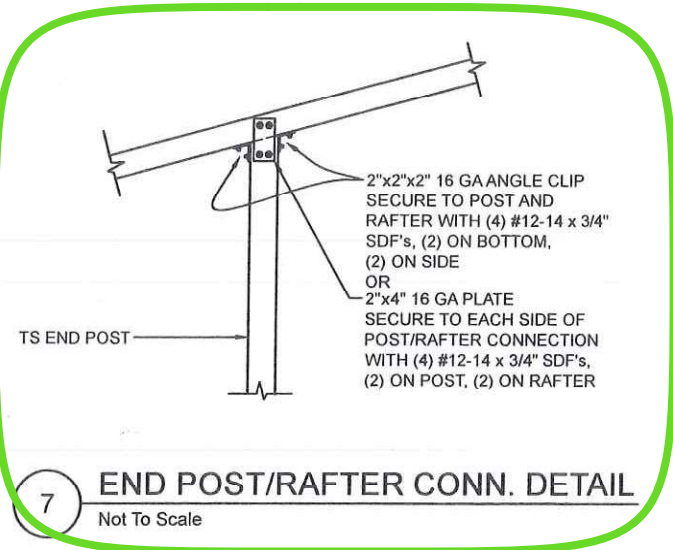


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DRAWN	MKB / CS	SCALE	NTS
CHECKED	TB / CS	PROJ. NO.	G24001
APPROVED	TB / LP	SHEET	4 OF 6

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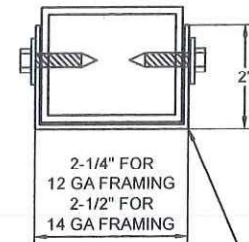
CAROLINA CARPORTS, INC.
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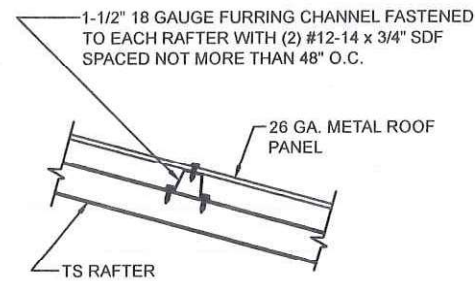
VERTICAL SIDE OPTION



16 GAUGE U-CHANNEL BRACE
FASTENED TO THE POST AND
RAFTER WITH (2) #12-14 x 3/4\" SDF'S
AT EACH END (4 PER BRACE)

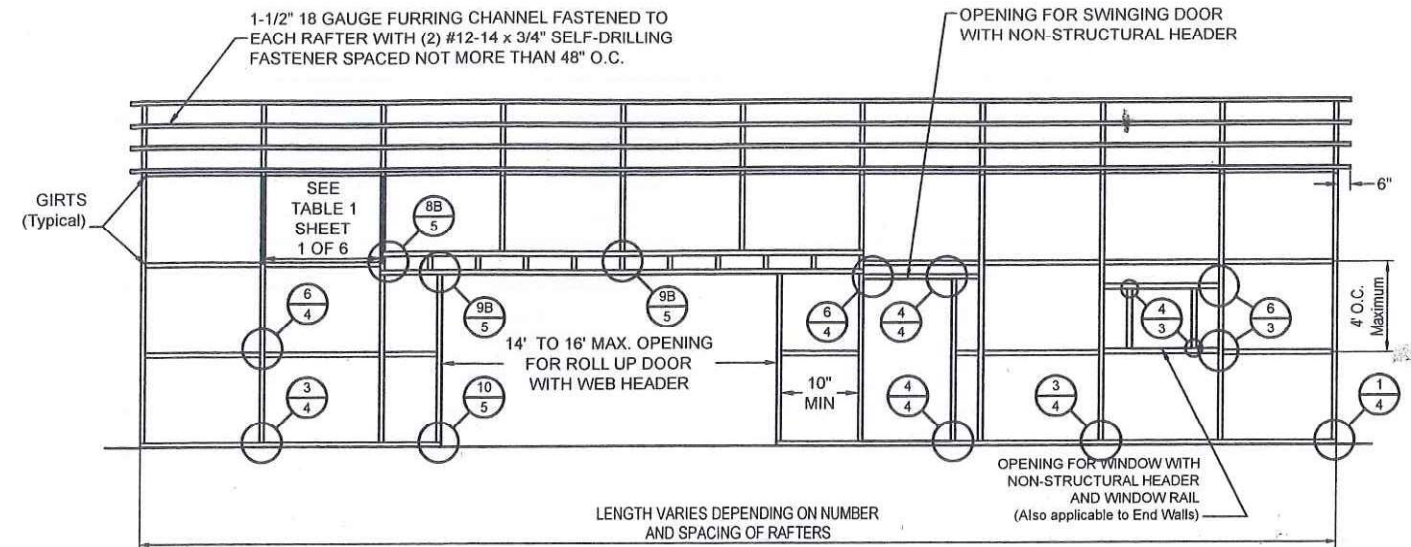
BRACE SECTION

Not To Scale



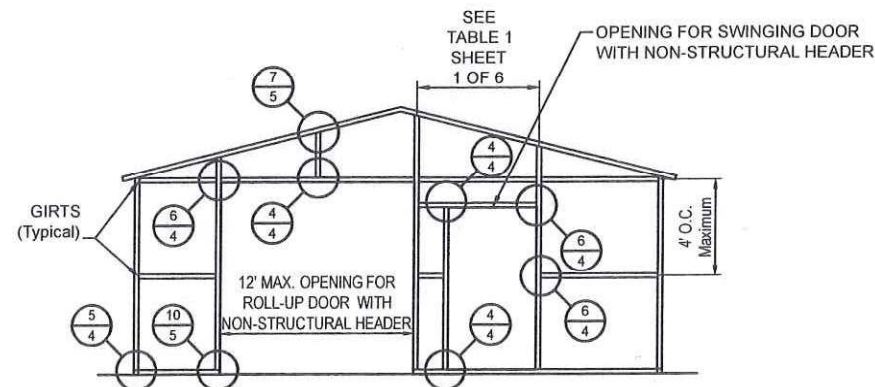
ROOF PANEL ATTACHMENT

(ALTERNATE FOR VERTICAL ROOF PANELS)
Not To Scale



TYPICAL POST/RAFTER/GIRT FRAMING PLAN

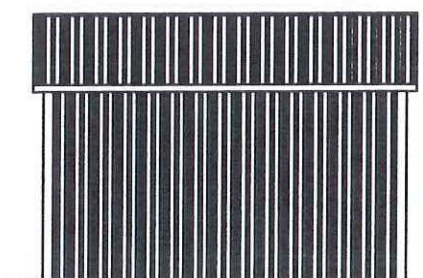
NOT TO SCALE



TYPICAL END
WALL OPENINGS POST/RAFTER/GIRT FRAMING PLAN

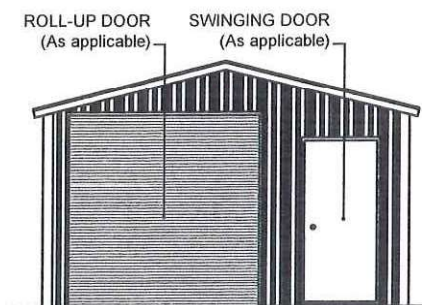
NOT TO SCALE

BOX EAVE FRAME RAFTER ENCLOSED BLDG - VERTICAL SIDES



TYPICAL SIDE ELEVATION

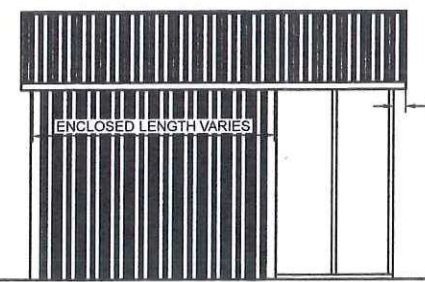
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TYPICAL END ELEVATION

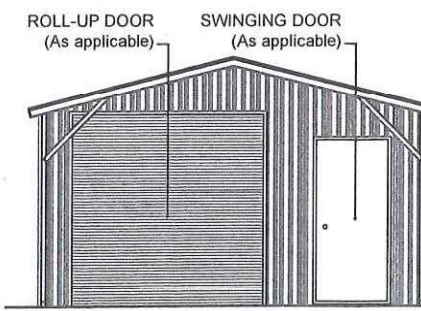
NOT TO SCALE

BOX EAVE FRAME RAFTER UTILITY BLDG - VERTICAL SIDES



TYPICAL SIDE ELEVATION

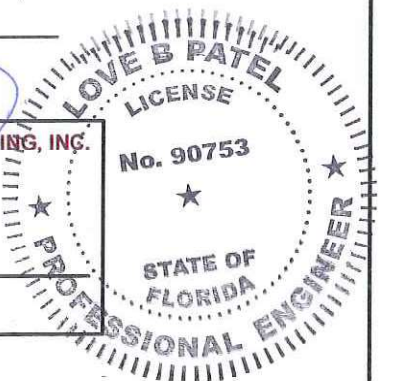
NOT TO SCALE



TYPICAL END ELEVATION

NOT TO SCALE

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