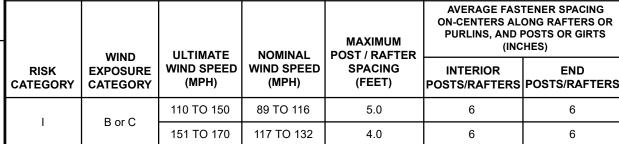
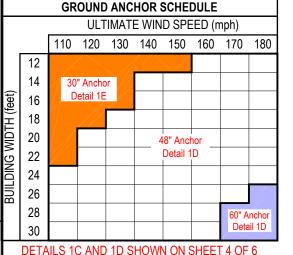
FBC APPROVED PRODUCTS LIST				MAXIMUM ALLOWABLE WIND SPEED			
PRODUCT CATEGORY	SUB CATEGORY	MANUFACTURER	APPROVAL No. & DATE	QA EXPIRATION DATE	OPEN	ENCLOSED	PARTIALLY ENCLOSED
STRUCTURAL COMPONENTS	ROOF DECK	CAROLINA CARPORTS, INC. 26 Gauge AG Panel	FL6596.1-R7 12/12/23	04/05/27	180	180	180
STRUCTURAL 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
STRUCTURAL COMPONENTS	STRUCTURAL WALL	CRAWL SPACE DOOR SYSTEMS, INC. 16x8 Flood Vent	FL29622.1-R2 07/24/24	09/30/25	N/A	N/A	N/A
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	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)	FL16806.1-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)	FL41335.1-R1 12/13/23	04/05/27	N/A	163	142
WINDOWS	SINGLE HUNG	CGI WINDOWS AND DOORS Model SH 4000A	FL23358.2-R8 04/16/24	12/31/32	N/A	174	156

# TABLE 1 RAFTER FRAME, END POST, GROUND ANCHOR AND PANEL FASTENER SPACING SPECIFICATIONS



- NOTES: 1. Specifications applicable to 26 gauge metal roof and wall panels fastened directly to 12 or 14 gauge steel tube framing, or 18 gauge hat channel roof purlins.
  - 2. Specifications applicable only for mean roof height of 20 feet or less, and roof slopes of 7° to 27° (1.5:12 to 6:12 pitch). Spacing requirements for other roof heights and/or slopes may vary.



## METAL CARPORT INSTALLATION PLANS AND DETAILS AND FRAMING AND FASTENER SPECIFICATIONS

FOR CONSTRUCTION IN THE STATE OF FLORIDA

# PREPARED FOR: CAROLINA CARPORTS, INC. P.O. BOX 1263

P.O. BOX 1263 DOBSON, NORTH CAROLINA 27017

#### PREPARED BY:

#### **BECHTOL ENGINEERING AND TESTING, INC.**

605 WEST NEW YORK AVENUE DELAND, FLORIDA 32720 Certificate of Authorization No. 00005492

- 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.
  C. MEETS AND OR EXCEEDS THE MINIMUM DESIGN CRITERIA OF THE ABOVE APPROVED PRODUCT LIST.
- 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 ACCOMPDIATE
- SUBSTITUTED PRODUCT.
- \*\* MAXIMUM POST SPACING FOR DUTCH LAP IS 4.0'

## **GENERAL NOTES:**

- 1. 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.
- 2. THESE STRUCTURES ARE DESIGNED AS NON-HABITABLE UTILITY/STORAGE BUILDINGS (RISK CATEGORY I ONLY) 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.
- 3. ALL STEEL TUBING SHALL BE 50 KSI GALVANIZED STEEL. ALL FASTENERS SHALL BE GALVANIZED OR STAINLESS STEEL OR ZINC PLATED
- 4. 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.
- 5. 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.
- 6. 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.
- 7. 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.
- 8. CONCRETE ANCHORS SHALL BE TAPCON REDHEAD LDT 1/2" x 5" OR EQUIVALENT.
- 9. POST/RAFTER BRACING: BRACE ON EVERY POST/RAFTER CONNECTION, EXCEPT FOR END WALLS
- 10. SLAB FOUNDATION SUBGRADE SOILS SHALL BE TERMITE TREATED AND COVERED WITH 6 MIL VAPOR RETARDER PER SECTION R318.1 OF THE FLORIDA BUILDING CODE EIGHTH EDITION (2023) RESIDENTIAL, AND SECTION 1816.1 OF THE FLORIDA BUILDING CODE EIGHTH EDITION (2023) BUILDING. SOIL LOAD BEARING PRESSURE OF 2000PSF 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.
- 12. FOR CONTINUOUS REINFORCING, MINIMUM BAR OVERLAP SHALL BE 40 BARS DIAMETERS ( 25" FOR #5 REBAR)
- 13. TORNADO VELOCITY COMPLIANCE IS NOT REQUIRED FOR RISK I OR RISK II STRUCTURES PER SECTION R301.2.1.1 OF THE FLORIDA BUILDING CODE EIGHTH EDITION (2023)- RESIDENTIAL AND SECTION 1603.1.4 OF THE FLORIDA BUILDING CODE EIGHTH EDITION (2023) BUILDING, AND ASCE 7-22.
- 14. ENCLOSED AREAS REQUIRING FLOOD OPENINGS MUST HAVE A MINIMUM OF TWO (2) OPENINGS ON EXTERIOR WALLS. OPENINGS SHOULD BE INSTALLED ON AT LEAST TWO (2) SIDES OF ENCLOSED AREA, WITH BASE OF OPENINGS SET WITHIN 1-FOOT OF THE HIGHER OF INTERIOR OR EXTERIOR GRADE. REQUIRED TOTAL NUMBER OF FLOOD VENTS NOTED IN THE FBC APPROVED PRODUCTS LIST SHALL BE BASED ON ONE (1) FLOOD VENT PER EVERY 305 SQUARE FEET OF ENCLOSED AREA. SEE TYPICAL FLOOD VENT FRAMING PLAN, SHEET 6 OF 6.

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).

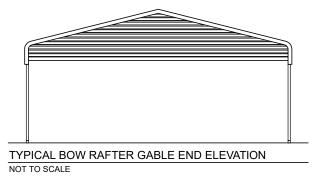
PLEASE NOTE: PLANS EXPIRE MIDNIGHT 12/31/29

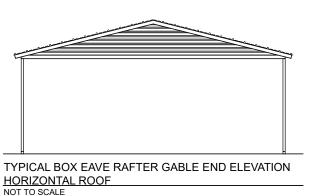
# CAROLINA CARPORTS, INC. GENERIC PLANS FOR USE IN THE STATE OF FLORIDA UP TO 30' WIDE AND RISK CATEGORY I ONLY

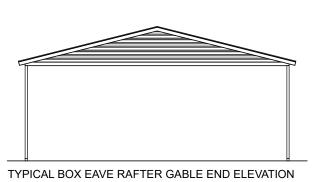


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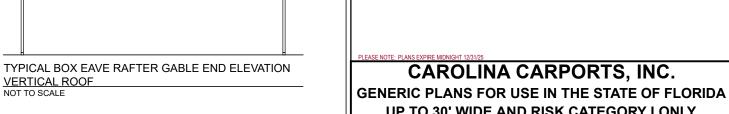
#### **BOW FRAME RAFTER ENCLOSED BUILDING - HORIZONTAL ROOF BOW FRAME RAFTER OPEN CARPORT - HORIZONTAL ROOF** BOW FRAME RAFTER PARTIALLY OPEN / ENCLOSED BUILDING - HORIZONTAL ROOF ROLL-UP DOOR SWINGING DOOR ROLL-UP DOOR SWINGING DOOR (As applicable) (As applicable) (As applicable) TYPICAL SIDE ELEVATION TYPICAL END ELEVATION TYPICAL SIDE ELEVATION TYPICAL END ELEVATION TYPICAL SIDE ELEVATION TYPICAL END ELEVATION NOT TO SCALE **BOX EAVE FRAME RAFTER OPEN CARPORT - HORIZONTAL ROOF BOX EAVE FRAME RAFTER ENCLOSED BLDG - HORIZONTAL ROOF** BOX EAVE FRAME RAFTER PARTIALLY OPEN / ENCLOSED BLDG - HORIZONTAL ROOF ROLL-UP DOOR SWINGING DOOR ROLL-UP DOOR SWINGING DOOR (As applicable) (As applicable) (As applicable) TYPICAL SIDE ELEVATION TYPICAL END ELEVATION TYPICAL SIDE ELEVATION TYPICAL END ELEVATION TYPICAL END ELEVATION TYPICAL SIDE ELEVATION NOT TO SCALE **BOX EAVE FRAME RAFTER OPEN CARPORT - VERTICAL ROOF BOX EAVE FRAME RAFTER ENCLOSED BLDG - VERTICAL ROOF** BOX EAVE FRAME RAFTER PARTIALLY OPEN / ENCLOSED BLDG - VERTICAL ROOF ROLL-UP DOOR SWINGING DOOR ROLL-UP DOOR **SWINGING DOOR** (As applicable) -(As applicable) (As applicable) -TYPICAL SIDE ELEVATION TYPICAL END ELEVATION TYPICAL SIDE ELEVATION TYPICAL END ELEVATION TYPICAL END ELEVATION TYPICAL SIDE ELEVATION NOT TO SCALE NOT TO SCALE







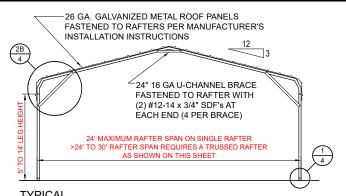
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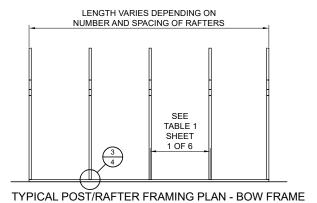
OF TO 30 WIDE AND KISK	CAILGOIL	IONLI
	REVISED:	DATE: 1/2/2025
BECHTOL ENGINEERING AND TESTING, inc.	DRAWN: CS	SCALE: NTS
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(As applicable)

(As applicable)

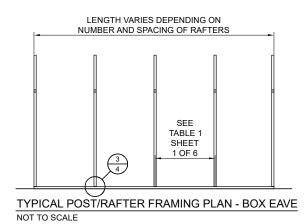


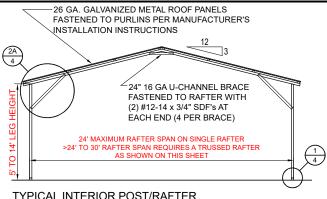
INTERIOR POST/RAFTER FRAME SECTION - BOW FRAME NOT TO SCALE



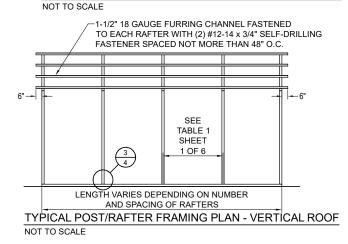
-26 GA. GALVANIZED METAL ROOF PANELS FASTENED TO RAFTERS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS 24" 16 GA U-CHANNEL BRACE FASTENED TO RAFTER WITH (2) #12-14 x 3/4" SDF's AT EACH END (4 PER BRACE) 24' MAXIMUM RAFTER SPAN ON SINGLE RAFTER >24' TO 30' RAFTER SPAN REQUIRES A TRUSSED RAFTER
AS SHOWN ON THIS SHEET

TYPICAL INTERIOR POST/RAFTER FRAME SECTION - HORIZONTAL ROOF - BOX EAVE



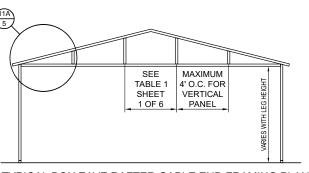


TYPICAL INTERIOR POST/RAFTER FRAME SECTION - VERTICAL ROOF -BOX EAVE

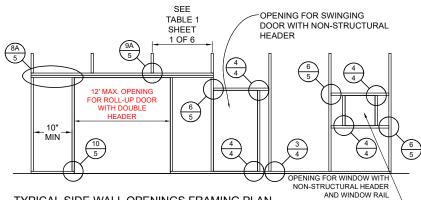


SFF TABLE 1 SHEET 1 OF 6

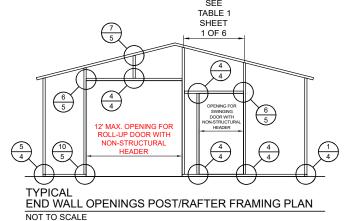
TYPICAL BOW RAFTER GABLE END FRAMING PLAN NOT TO SCALE



TYPICAL BOX EAVE RAFTER GABLE END FRAMING PLAN

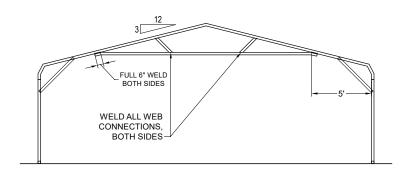






24" 16 GA U-CHANNEL BRACE FASTENED TO RAFTER WITH (2) #12-14 x 3/4" SELF-DRILLING SCREWS AT EACH END 5' MAXIMUM SPAN (4 PER BRACE) 12' MAXIMUM SPA  $\begin{pmatrix} 1 \\ 4 \end{pmatrix}$ APPLIES TO TAA
ETE INSTALL 4 APPLIES TO-CONCRETE INSTALL CONCRETE INSTALL ROOF EXTENSION OPTION MAIN STRUCTURE STANDARD LEAN-TO OPTION

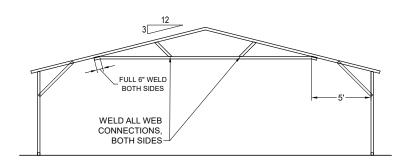
TYPICAL LEAN-TO OPTIONS FRAMING PLAN (BOTH OPTIONS SHOWN) (BOX EAVE RAFTER SHOWN, ONLY STANDARD LEAN-TO IS APPLICABLE TO BOW FRAME RAFTER)



OPTIONAL 24'-1" TO 30' TRUSSED RAFTER - BOW

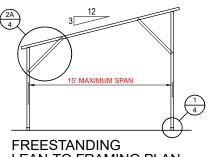
NOT TO SCALE

NOT TO SCALE



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

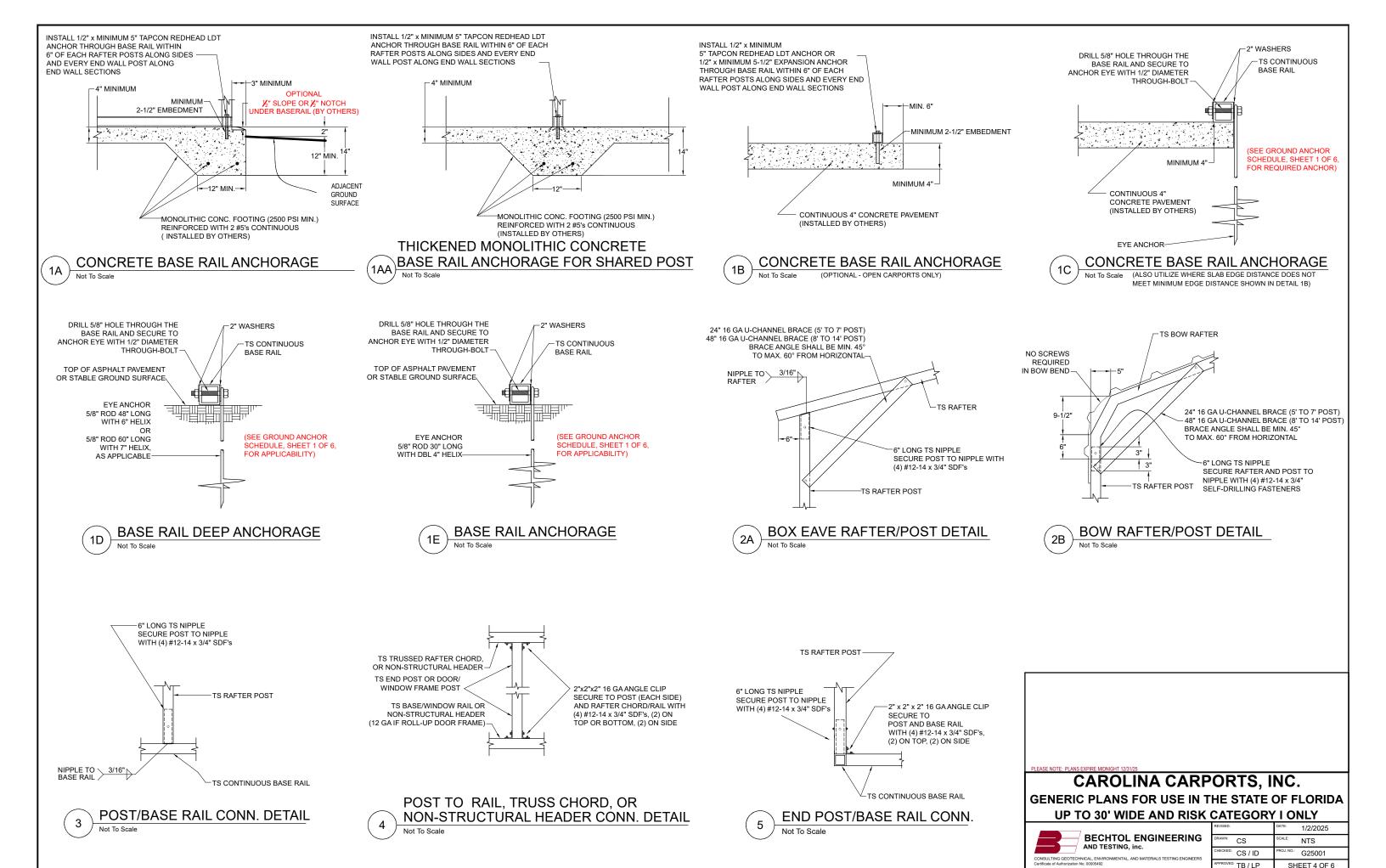
**FREESTANDING** LEAN-TO FRAMING PLAN NOT TO SCALE

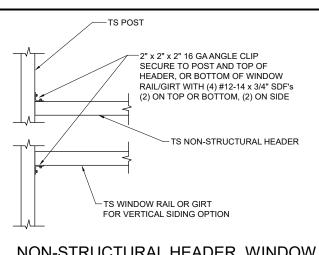


# CAROLINA CARPORTS, INC. GENERIC PLANS FOR USE IN THE STATE OF FLORIDA **UP TO 30' WIDE AND RISK CATEGORY I ONLY**

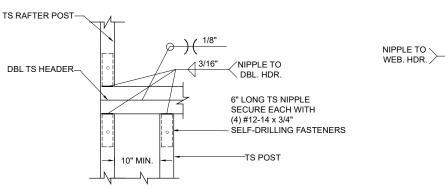
**BECHTOL ENGINEERING** AND TESTING, inc.

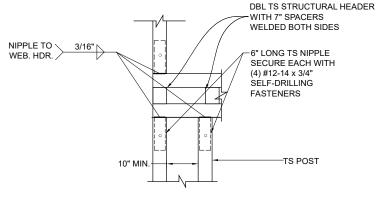
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2"x2"x2" 16 GA ANGLE CLIP
SECURE TO POST AND
RAFTER WITH (4) #12-14 x 3/4"
SDF's, (2) ON BOTTOM,
(2) ON SIDE
OR
2"x4" 16 GA PLATE
SECURE TO EACH SIDE OF
POST/RAFTER CONNECTION
WITH (4) #12-14 x 3/4" SDF's,
(2) ON POST, (2) ON RAFTER





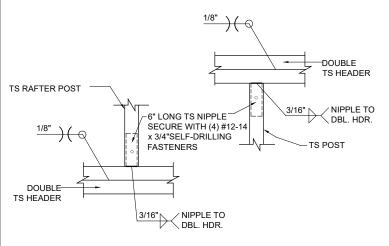
NON-STRUCTURAL HEADER, WINDOW RAIL, OR GIRT TO POST CONN. DETAIL

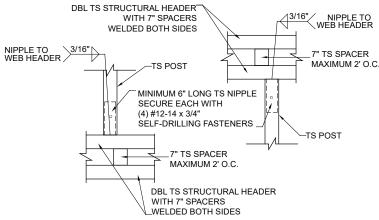
7 END POST/RAFTER CONN. DETAIL

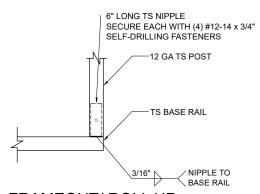
RAFTER POST/DBL. HEADER DETAIL

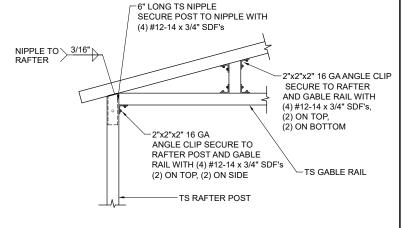
Not To Scale

RAFTER POST/WEB HEADER DETAIL









DBL. HEADER TO RAFTER POST DETAIL

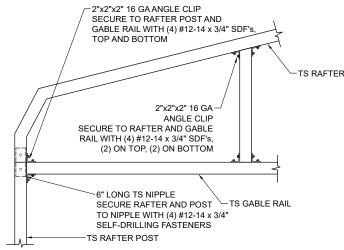
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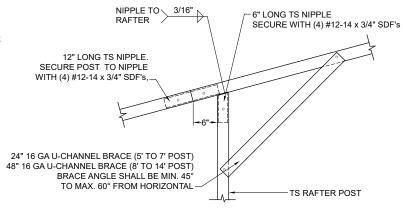
9B Not To Scale

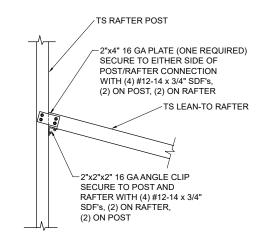
FRAMEOUT/ ROLL UP
POST / BASE RAIL CONN. DETAIL

Not To Scale

GABLE RAIL TO RAFTER POST
CONNECTION DETAIL - BOX EAVE
Not To Scale







GABLE RAIL TO RAFTER POST CONNECTION DETAIL - BOW FRAME SIDE EXTENSION
RAFTER/POST DETAIL

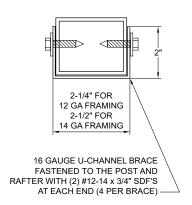
POST / LEAN-TO RAFTER CONN. DETAIL

Not To Scale

CAROLINA CARPORTS, INC.

GENERIC PLANS FOR USE IN THE STATE OF FLORIDA
UP TO 30' WIDE AND RISK CATEGORY I ONLY

	REVISE
BECHTOL ENGINEERING AND TESTING. inc.	DRAW
CONSULTING GEOTECHNICAL ENVIRONMENTAL AND MATERIALS TESTING ENGINEERS	CHECH
Certificate of Authorization No. 00005492	APPRO

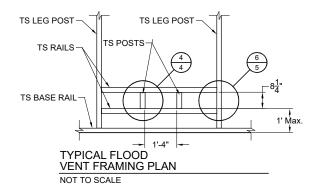


# **BRACE SECTION**

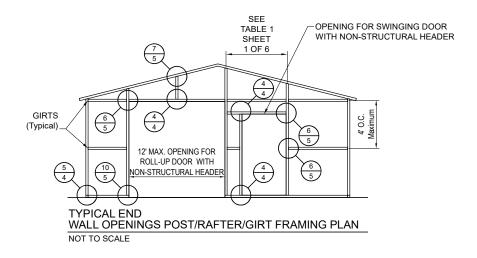
1-1/2" 18 GAUGE FURRING CHANNEL FASTENED TO EACH RAFTER WITH (2) #12-14 x 3/4" SDF SPACED NOT MORE THAN 48" O.C. -26 GA. METAL ROOF TS RAFTER

# **ROOF PANEL ATTACHMENT**

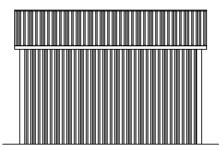
(ALTERNATE FOR VERTICAL ROOF PANELS) Not To Scale



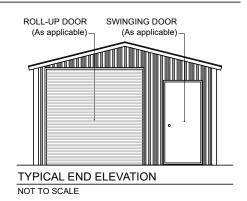
#### SEE GENERAL NOTE No. 14, SHEET 1 OF 6.



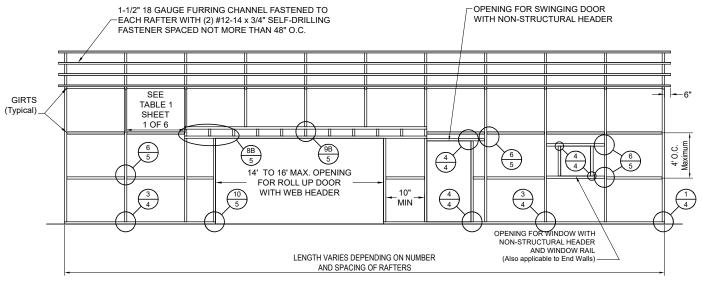
### **BOX EAVE FRAME RAFTER ENCLOSED BLDG - VERTICAL SIDES**



TYPICAL SIDE ELEVATION NOT TO SCALE

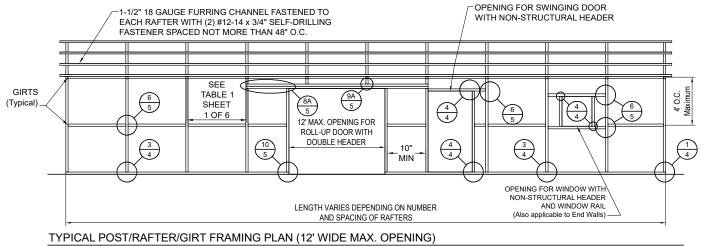


# **VERTICAL SIDE OPTION**



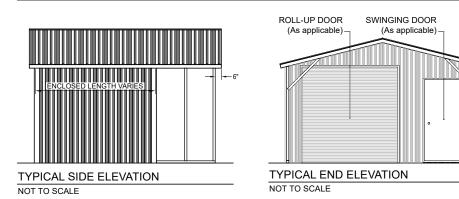
TYPICAL POST/RAFTER/GIRT FRAMING PLAN (14' TO 16' WIDE MAX. OPENING)

NOT TO SCALE



NOT TO SCALE

#### BOX EAVE FRAME RAFTER PARTIALLY OPEN / ENCLOSED BLDG - VERTICAL SIDES



# CAROLINA CARPORTS, INC. GENERIC PLANS FOR USE IN THE STATE OF FLORIDA **UP TO 30' WIDE AND RISK CATEGORY I ONLY**



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