

FBC APPROVED PRODUCTS LIST

PRODUCT CATEGORY	SUB CATEGORY	MANUFACTURER	APPROVAL NO. & DATE	MAXIMUM ALLOWABLE WIND SPEED		
				QA EXPIRATION DATE	OPEN	ENCLOSED
STRUCTURAL COMPONENTS	ROOF DECK	CAROLINA CARPORTS, INC.	FL6596-1-R6 12/15/20	04/05/27	160	160
STRUCTURAL COMPONENTS	STRUCTURAL WALL	CAROLINA CARPORTS, INC.	FL6702-1-R6 12/15/20	03/14/27	160	160
STRUCTURAL COMPONENTS	STRUCTURAL WALL	CAROLINA CARPORTS, INC.	FL6702-3-R6 12/15/20	03/14/27	160	160
STRUCTURAL COMPONENTS	FLOOD VENT	GRAM SPACE DOOR SYSTEMS, INC.	FL28022-1-R1 02/28/21	09/30/22	N/A	143
EXTERIOR DOORS	SWINGING	ELKOR DOOR AND METAL COMPANY	FL17968-3-R2 02/28/21	08/28/25	N/A	139
EXTERIOR DOORS	SWINGING	ELKOR DOOR AND METAL COMPANY	FL17968-5-R2 02/28/21	08/19/25	N/A	174
EXTERIOR DOORS	ROLL-UP	ASTA INDUSTRIES INC.	FL6808-1-R6 02/09/21	12/31/21	N/A	174
EXTERIOR DOORS	ROLL-UP	CAROLINA CARPORTS, INC.	FL16806-1-R5 12/18/20	04/05/27	N/A	179
EXTERIOR DOORS	ROLL-UP	CAROLINA CARPORTS, INC.	FL16806-2-R5 12/18/20	04/05/27	N/A	160
EXTERIOR DOORS	ROLL-UP	CAROLINA CARPORTS, INC.	FL16806-3-R5 12/18/20	04/05/27	N/A	133
EXTERIOR DOORS	ROLL-UP	CAROLINA CARPORTS, INC.	FL16806-4-R5 12/18/20	04/05/27	N/A	172
EXTERIOR DOORS	ROLL-UP	CAROLINA CARPORTS, INC.	FL17400-1-R6 11/27/20	10/17/23	N/A	175
EXTERIOR DOORS	ROLL-UP	CAROLINA CARPORTS, INC.	FL17400-2-R6 11/27/20	10/17/23	N/A	157

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 SETBACKS, FINISH FLOOR ELEVATION AND SLOPE, OR OTHER LOCAL ZONING REQUIREMENTS ARE THE RESPONSIBILITY OF OTHERS.
- THESE STRUCTURES ARE TO BE CONSIDERED AS NON-HABITABLE, 100% WIND-RESISTANT, AND ARE NOT TO BE USED FOR ANY OTHER PURPOSES. THE DESIGNER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL BUILDING DEPARTMENT AND THE FLORIDA BUILDING CODE. THE DESIGNER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL BUILDING DEPARTMENT AND THE FLORIDA BUILDING CODE.
- ALL STEEL TUBING SHALL BE 60 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 REQUIREMENTS SET FORTH BY THE FLORIDA BUILDING CODE (FBC) AT THE LOCATION OF THE BUILDING(S). THE STATE OF FLORIDA.
- ALL FIELD FRAMING CONNECTIONS SHALL BE #12-14 x 3/4" SELF-DRILLING SCREWS WITHOUT CORROSION RESISTANCE. ALL SHOP FRAMING CONNECTIONS SHALL BE WELDED.
- CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS. THE REINFORCING STEEL SHALL BE MINIMUM GRADE 40. CONCRETE SLAB FOUNDATIONS SHALL BE REINFORCED WITH #6 W/ 14X11.4 WELDED WIRE FABRIC COMPLYING WITH ASTM A185, 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 TYPE GROUND ANCHOR REQUIREMENTS.
- CONCRETE ANCHORS SHALL BE TAPCON REDHEAD LD1 1/2" x 5" OR EQUIVALENT OR WEA-11 ANK-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 TREATED AND COVERED WITH 6 MIL VULCOR RETARDER PER SECTION R218.1 OF THE FBC SEVENTH EDITION (2020). RESIDENTIAL AND SECTION 1616.1 OF THE FBC SEVENTH EDITION (2020) - 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" x 2" TS NIPPLES.
- 12 GA FRAMING: 2-1/2" x 2-1/2" TUBE STEEL (TS) WITH 2" x 2" TS NIPPLES.
- 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 8 OF 6.

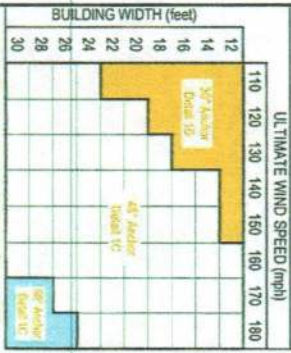
TABLE 1

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

RISK CATEGORY	WIND EXPOSURE CATEGORY	ULTIMATE WIND SPEED (MPH)	NOMINAL WIND SPEED (MPH)	MAXIMUM POST / RAFTER SPACING (FEET)	AVERAGE FASTENER SPACING ON CENTERS (INCHES)	
					INTERIOR POSTS/RAFTERS	END POSTS/RAFTERS
I	C	110 TO 150	89 TO 116	5.0	6	6
		151 TO 180	117 TO 139	4.0	6	6

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 27" to 27" (1.5:12 to 6:12 pitch). Spacing requirements for other roof heights and/or slopes may vary.

GROUND ANCHOR SCHEDULE



METAL CARPORT INSTALLATION PLANS AND DETAILS AND FRAMING AND FASTENER SPECIFICATIONS

PREPARED FOR:
CAROLINA CARPORTS, INC.
P.O. BOX 1283
DOBSON, NORTH CAROLINA 27017

PREPARED BY:
BECHTOL ENGINEERING AND TESTING, INC.
605 WEST NEW YORK AVENUE
DELMAR, FLORIDA 33720
Certificate of Authorization No. 00009492



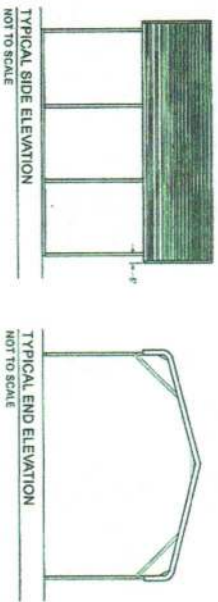
THIS IS TO CERTIFY THAT THE CALCULATIONS AND SPECIFICATIONS WERE PREPARED BY THE UNDERSIGNED PROFESSIONAL ENGINEER IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, THE FLORIDA BUILDING CODE, AND THE FLORIDA BUILDING CODE.

BECHTOL ENGINEERING AND TESTING, INC.
605 WEST NEW YORK AVENUE
DELMAR, FLORIDA 33720
No. 90753
STATE OF FLORIDA
PROFESSIONAL ENGINEER

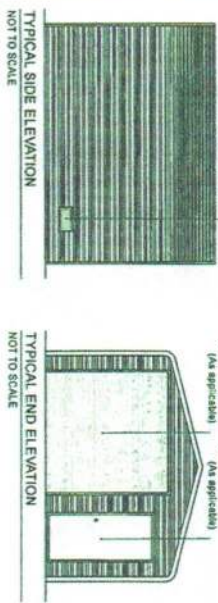
GENERIC PLANS FOR USE IN THE STATE OF FLORIDA

BECHTOL ENGINEERING AND TESTING, INC.
605 WEST NEW YORK AVENUE
DELMAR, FLORIDA 33720
No. 90753
STATE OF FLORIDA
PROFESSIONAL ENGINEER

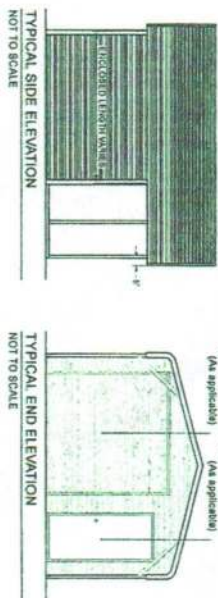
BOW FRAME RAFTER OPEN CARPORT - HORIZONTAL ROOF



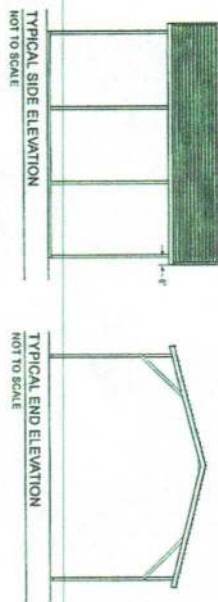
BOW FRAME RAFTER ENCLOSED BUILDING - HORIZONTAL ROOF



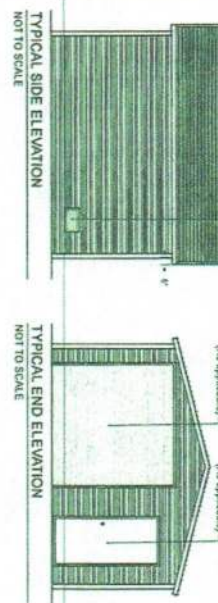
BOW FRAME RAFTER UTILITY BUILDING - HORIZONTAL ROOF



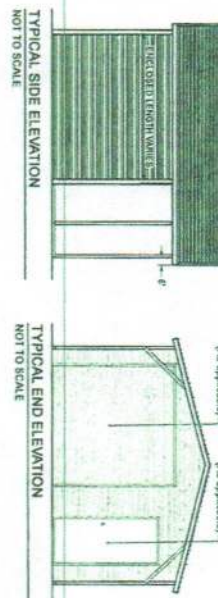
BOX EAVE FRAME RAFTER OPEN CARPORT - HORIZONTAL ROOF



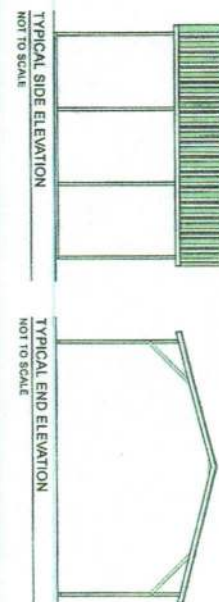
BOX EAVE FRAME RAFTER ENCLOSED BLDG - HORIZONTAL ROOF



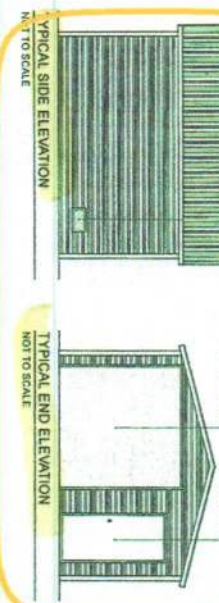
BOX EAVE FRAME RAFTER UTILITY BUILDING - HORIZONTAL ROOF



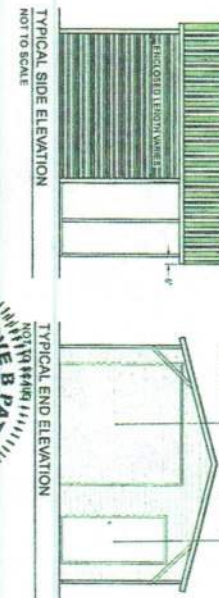
BOX EAVE FRAME RAFTER OPEN CARPORT - VERTICAL ROOF



BOX EAVE FRAME RAFTER ENCLOSED BLDG - VERTICAL ROOF



BOX EAVE FRAME RAFTER UTILITY BUILDING - VERTICAL ROOF



TYPICAL BOW RAFTER GABLE END ELEVATION

TYPICAL BOX EAVE RAFTER GABLE END ELEVATION

TYPICAL BOX EAVE RAFTER GABLE END ELEVATION

CAROLINA CARPORTS, INC.
GENERIC PLANS FOR USE IN THE STATE OF FLORIDA

BECHTOL ENGINEERING
605 WEST NEW YORK AVENUE
DELAND, FLORIDA 32726
No. 90753

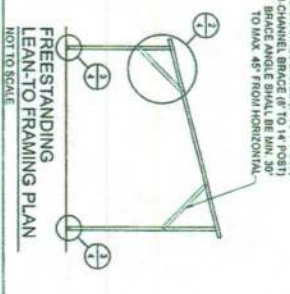
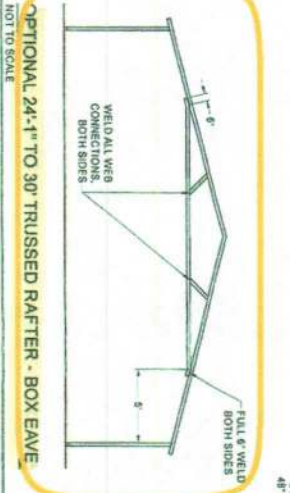
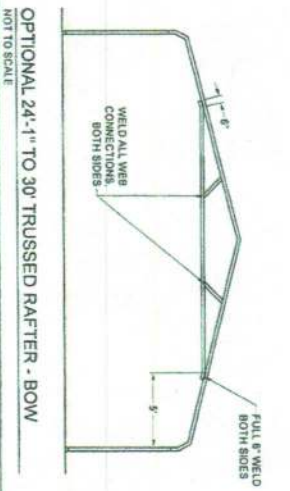
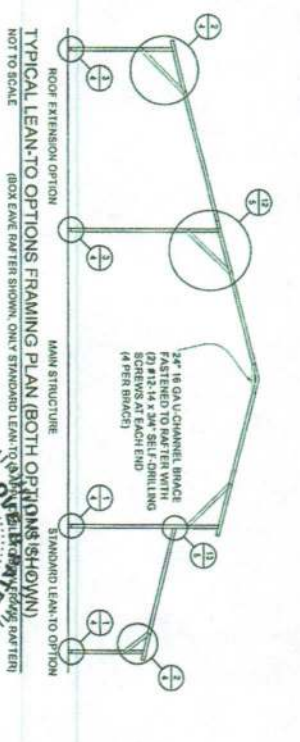
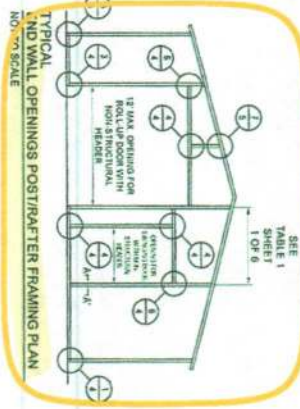
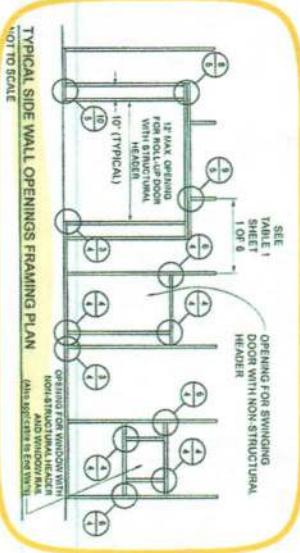
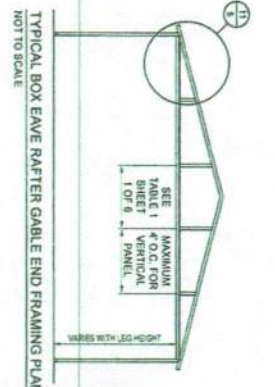
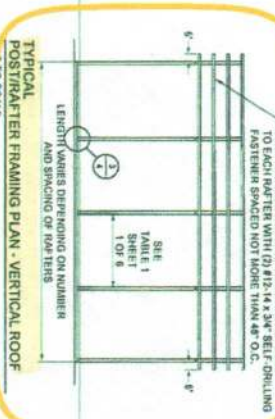
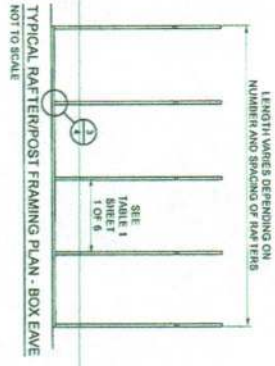
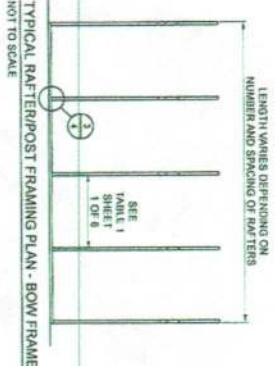
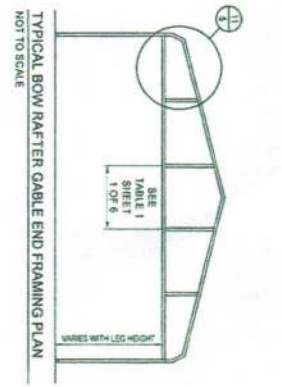
PROFESSIONAL ENGINEER
STATE OF FLORIDA
LOVE, B. PATRICK
No. 90753

BECHTOL ENGINEERING AND TESTING, INC.
605 WEST NEW YORK AVENUE
DELAND, FLORIDA 32726
No. 90753

REVISIONS

NO.	DATE	BY	CHKD	DESCRIPTION
1	06/04/2021	MB	NIS	ISSUED
2	07/27/21	MB	NIS	REVISION

SHEET 2 OF 6

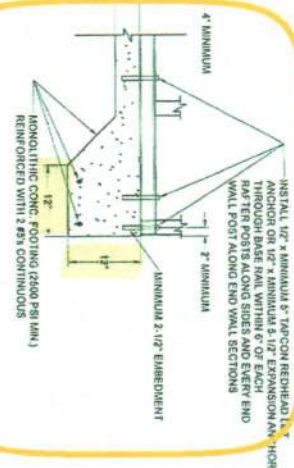


CAROLINA CARPENTS, INC.
GENERIC PLANS FOR USE IN THE STATE OF FLORIDA

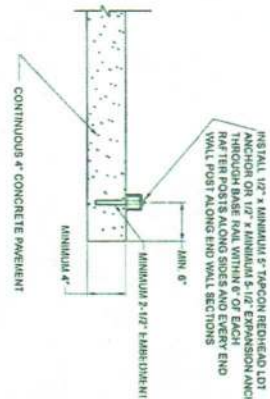
BECHTOL ENGINEERING AND TESTING, INC.
605 WEST NEW YORK AVENUE
DELAND, FLORIDA 32520
No. B0753

Professional Engineer
STATE OF FLORIDA

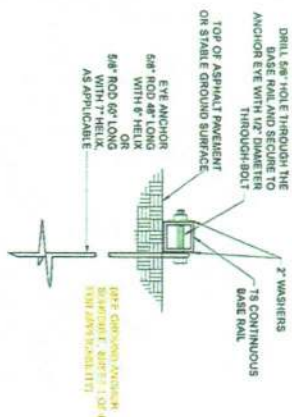
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DESIGNER	mlb
CHECKER	NTS
PROJECT NO.	221001
SHEET NO.	10
SHEET TOTAL	6



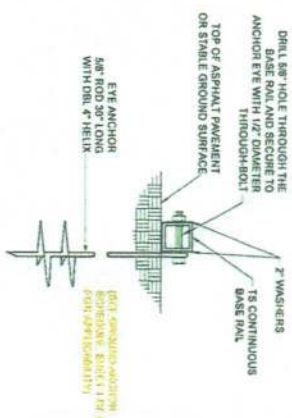
1A CONCRETE BASE RAIL ANCHORAGE
NOT TO SCALE



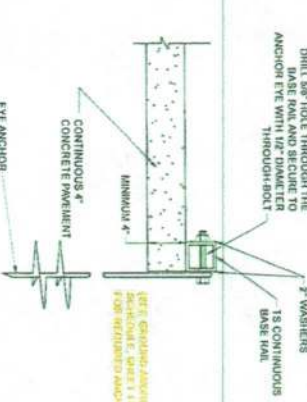
1B CONCRETE BASE RAIL ANCHORAGE
NOT TO SCALE (OPTIONAL, OPEN CARPORTS ONLY)



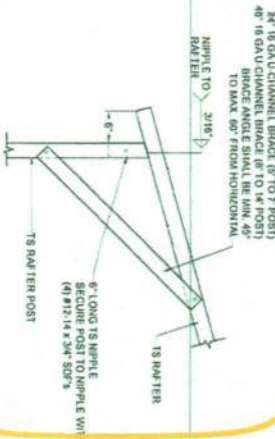
1C BASE RAIL DEEP ANCHORAGE
NOT TO SCALE



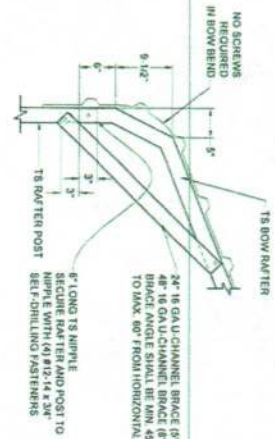
1D BASE RAIL ANCHORAGE
NOT TO SCALE



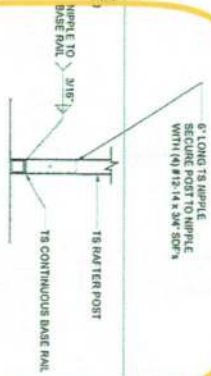
1E CONCRETE BASE RAIL ANCHORAGE
NOT TO SCALE (OPEN CARPORTS WHERE SLAB EDGE DISTANCE DOES NOT MEET MINIMUM EDGE DISTANCE SHOWN IN DETAIL 1B)



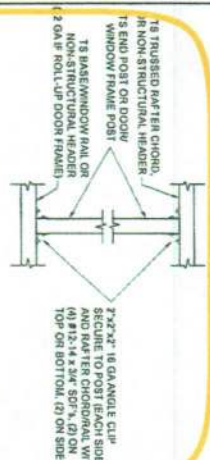
2A BOX EAVE RAFTER/POST DETAIL
NOT TO SCALE



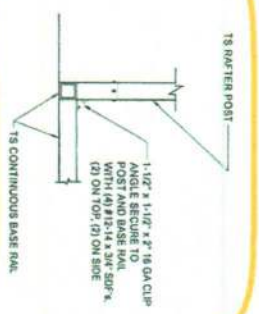
2B BOW RAFTER/POST DETAIL
NOT TO SCALE



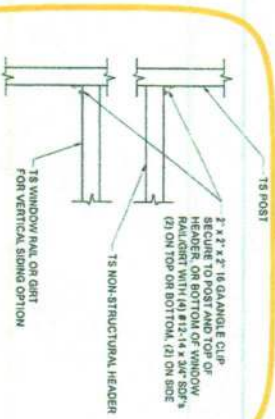
3 POST/BASE RAIL CONN. DETAIL
NOT TO SCALE



4 POST TO RAIL, TRUSS CHORD, OR NON-STRUCTURAL HEADER CONN. DETAIL
NOT TO SCALE



5 END POST/BASE RAIL CONN.
NOT TO SCALE



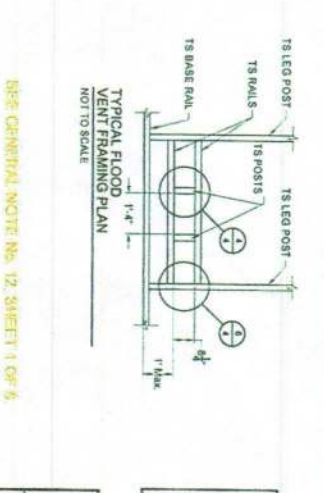
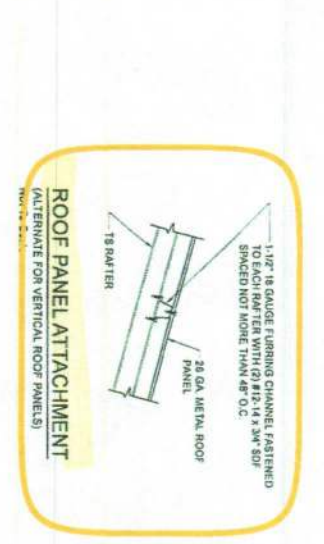
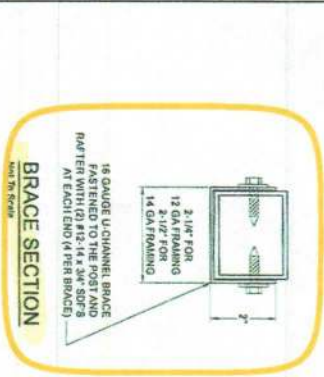
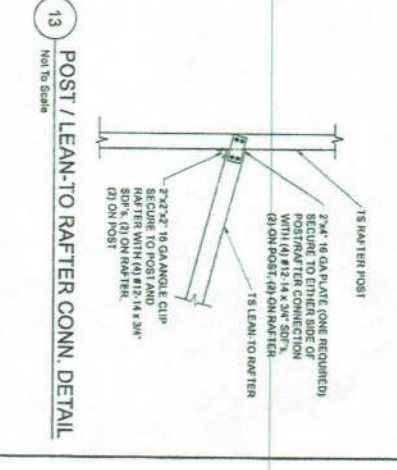
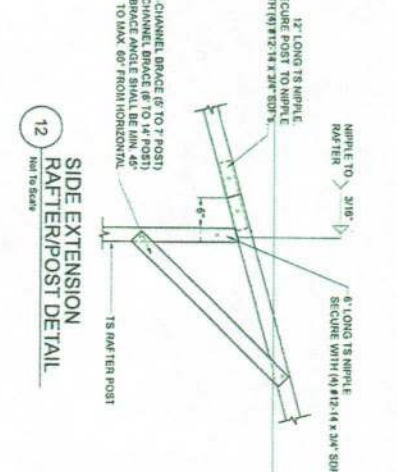
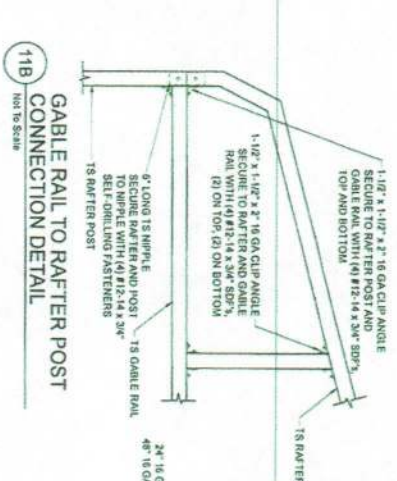
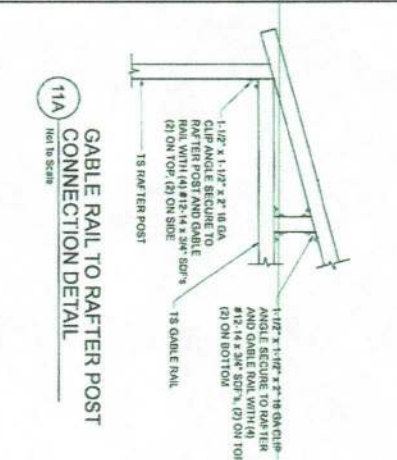
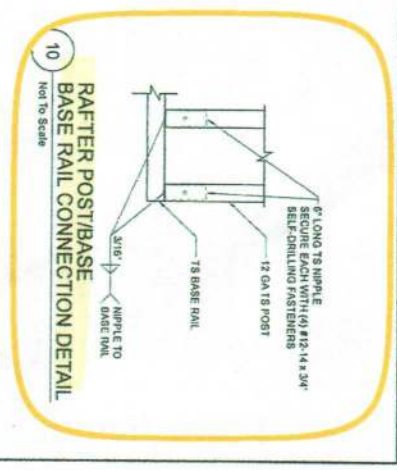
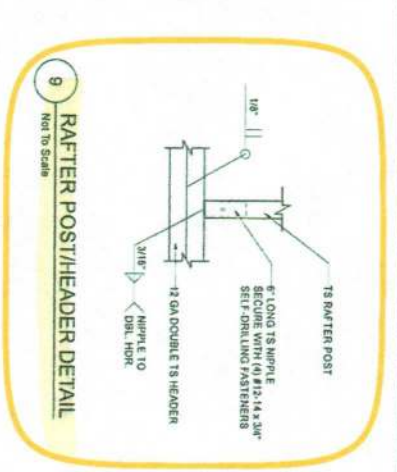
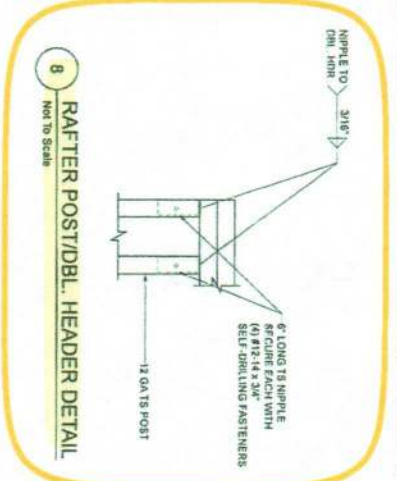
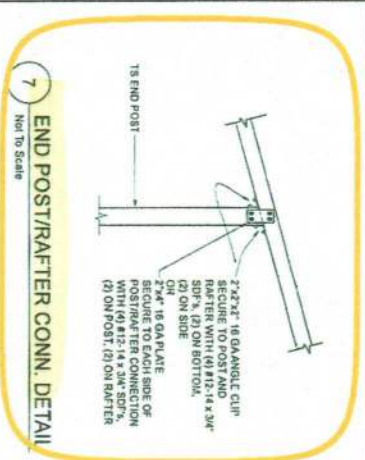
6 NON-STRUCTURAL HEADER, WINDOW RAIL, OR GIRT TO POST CONN. DETAIL
NOT TO SCALE

LOUIS B. PATE
Professional Engineer
No. 00713
STATE OF FLORIDA

BECHTOL ENGINEERING AND TESTING, INC.
200 WEST HICKORY STREET
DELAND, FLORIDA 33722

CAROLINA CARPORTS, INC.
GENERIC PLANS FOR USE IN THE STATE OF FLORIDA

PROJECT NO.	060402021
CLIENT	NIS
DESIGNER	BECHTOL ENGINEERING AND TESTING, INC.
DATE	02/10/01
SHEET	4 OF 6



SEE CENTRAL NOTE NO. 12, SHEET 1 OF 6.

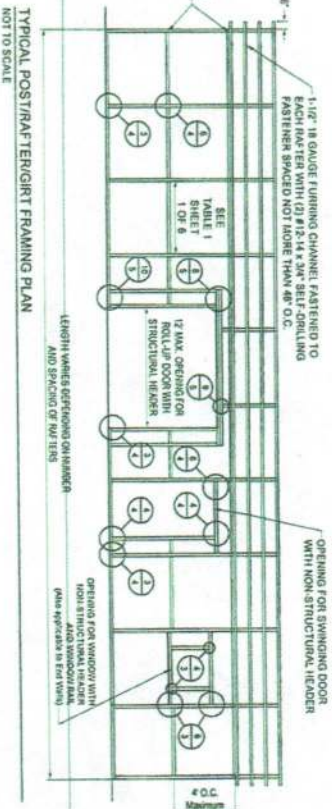
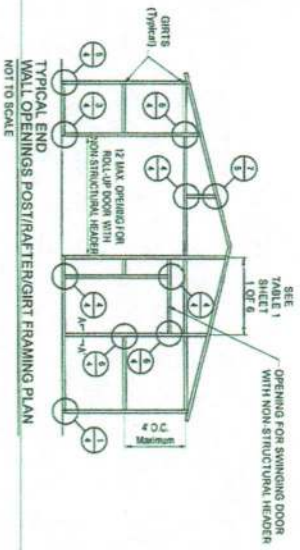
CAROLINA CARPORTS, INC.
GENERIC PLANS FOR USE IN THE STATE OF FLORIDA

BECHTOL ENGINEERING AND TESTING, INC.
605 WEST NEW YORK AVENUE
DELAND, FLORIDA 32702

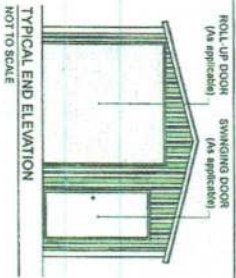
Professional Engineer
No. 90753
STATE OF FLORIDA

DESIGNER	DATE	PROJECT
MBD	06/04/2021	NTS
REVISION	DATE	DESCRIPTION
1	07/15/21	02/1001
SHEET 5 OF 6		

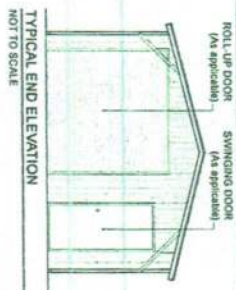
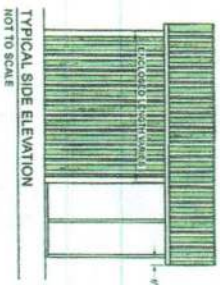
VERTICAL SIDE OPTION



BOX EAVE FRAME RAFTER ENCLOSED BLDG - VERTICAL SIDES



BOX EAVE FRAME RAFTER UTILITY BLDG - VERTICAL SIDES



CAROLINA CARPORTS, INC.			
GENERIC PLANS FOR USE IN THE STATE OF FLORIDA			
BECHTOL ENGINEERING AND TESTING, INC. 605 WEST NEW YORK AVENUE ORLANDO, FLORIDA 32706		LOVE B. PATEL LICENSED PROFESSIONAL ENGINEER No. 90753 STATE OF FLORIDA	
DATE	06/04/2021	SCALE	AS SHOWN
DRAWN BY	MS	CHECKED BY	MS
DESIGNED BY	MS	APPROVED BY	MS
SHEET 1 OF 6		SHEET 1 OF 6	