APPLICABLE CODES AND STANDARDS

- 2023 FLORIDA BUILDING CODE (8TH EDITION)
- 2021 INTERNATIONAL BUILDING CODE
- ASCE 7-22: MINIMUM DESIGN LOADS ON BUILDINGS AND OTHER STRUCTURES
- AISC STEEL CONSTRUCTION MANUAL (15TH EDITION)
- ACI 318-14: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
- TMS 402-16: BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES
- AWS D1.1: STRUCTURAL WELDING

INSTALLATION NOTES AND SPECIFICATIONS

- ROOF PITCH SHALL NOT BE GREATER THAN 12H:4V
- 2. END WALL COLUMNS (POST) AND SIDE WALL COLUMNS ARE THE SAME U.N.O.
- 29 GA METAL PANELS SHALL BE FASTENED DIRECTLY TO 2.5" x 2.5" x 14 GA TUBE STEEL (TS) FRAMING MEMBERS FOR VERTICAL PANELS.
- 29 GA METAL PANELS SHALL BE FASTENED DIRECTLY TO 18 GA HAT CHANNELS U.N.O.
- 4. FASTENER SPACING ON-CENTERS ALONG RAFTERS OR PURLINS, AND POSTS SHALL BE:
- INTERIOR = 9" 4.2. END = 6".
- 5. FASTENERS SHALL BE #12-14 x 3/4" SELF-DRILLING SCREWS (SDS), USE CONTROL SEAL WASHER WITH EXTERIOR FASTENERS. APPLICABLE ONLY FOR:
- MEAN ROOF HEIGHT OF 20'-0" OR LESS
- ROOF SLOPES OF 18° (4:12 PITCH) OR LESS
- SPACING REQUIREMENTS FOR OTHER ROOF HEIGHTS AND/OR SLOPES MAY VARY.
- 6. ANCHORS SHALL BE INSTALLED THROUGH THE BASE RAIL WITHIN 6" OF EACH RAFTER COLUMN ALONG SIDES AND ENDS.
- STANDARD GROUND ANCHORS (SOIL NAILS) CONSIST OF #4 REBAR WITH WELDED NUT x 30" LONG AND MAY BE USED IN SUITABLE SOILS.
- 7.1. OPTIONAL ANCHORAGE MAY BE USED IN SUITABLE SOILS AND MUST BE USED IN UNSUITABLE SOILS AS NOTED. SOIL NAILS MAY BE USED FOR WIND SPEEDS LESS THAN OR EQUAL TO 145 MPH

BOW/RAFTER FRAME, END POST, GROUND ANCHOR AND PANEL FASTENER SPACING SPECIFICATIONS FASTENER SPACING O.C FOR ULT NOMINAL MAXIMUM RAFTERS/PURLINS, & POSTS (INCHES) WIND WIND RAFTER/BOW WIND SPEED SPEED EXPOSURE AND END POST INTERIOR CATEGORY CATEGORY SPACING (FEET) BOWS/RAFTERS BOWS/RAFTERS I, II, III, or IV 115 - 150 89 - 116 151 - 180 | 117 - 139 4.0

S-1

S-2

S-3

S-4

S-5

S-6 S-7

S-8

S-9

S-10

S-11

S-12

S-13

NOTES:
1. SPECIFICATIONS APPLICABLE TO 26 OR 29 GAUGE METAL PANELS FASTENED DIRECTLY TO 12 OR 14 GAUGE STEEL TUBE BOW FRAMES.
2. FASTENTERS CONSIST OF 1/4*-14X1* SELF-DRILLING SCREWS WITH CONTROL SEAL WASHER.

DRAWING INDEX

DESCRIPTION NOTES AND SPECIFICATIONS

BOX-BOW EAVE FRAME RAFTER ENCLOSED BUILDING

BASE RAIL AND ANCHORAGE DETAILS

CONNECTION DETAILS (1 OF 4)

CONNECTION DETAILS (2 OF 4)

CONNECTION DETAILS (3 OF 4)

BOX EAVE RAFTER LEAN-TO OPTIONS

CONNECTION DETAILS (4 OF 4)

OPTIONAL CONCRETE STRIP FOOTING

OPTIONAL HELICAL ANCHORING DETAIL

FREESTANDING BOX EAVE RAFTER LEAN-TO OPTIONS

BOX EAVE RAFTER VERTICAL ROOF-SIDING OPTION

BOX EAVE RAFTER END WALL, SIDE WALL AND OPENING FRAMING

- SPECIFICATIONS APPLICABLE ONLY FOR MEAN ROOF HEIGHT OF 20 FEET OR LESS, AND ROOF SLOPES OF 14°(3:12 PITCH
- SPACING REQUIREMENTS FOR OTHER ROOF HEIGHTS AND/OR SLOPES MAY VARY.
- 4. GROUND ANCHOR REQUIREMENTS ARE 1 @ EACH CORNER AND ONE EVERY OTHER INTERIOR BOW/RAFTER POST LOCATION, AT MAXIMUM OF 10' O.C., AND BOTH SIDES OF OPENINGS WHERE BASE RAIL IS ABSENT.

 5. GROUND ANCHORS ARE NOT REQUIRED WITH CONCRETE SLAB CONSTRUCTION.

DESIGN LOADS

- DEAD LOAD = 15 PSF
- LIVE LOAD = 20 PSF
- 3. WIND LOAD (SEE TABLE 1)

ENCLOSED METAL BUILDING DESIGN 24FT WIDE X 25FT LONG X 8FT EAVE HT.



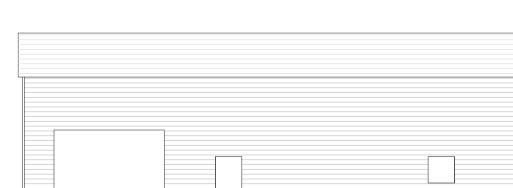


TYPICAL ELEVATION - BOX EAVE

SCALE: NTS

TYPICAL ELEVATION - BOW EAVE

SCALE: NTS



-LENGTH = (NUMBER OF RAFTERS + 1) x SPACING OF RAFTERS TYPICAL SIDE ELEVATION

SCALE: NTS

MEMBER	PRODUCT	MAX WIND DESIGN				
	APPROVAL NUMBER	PRESSURES				
ROOF PANELS	FL39466	+41.6 PSF / -31.2 PSF				
WALL PANELS	FL39594	+55.4 PSF / -41.6 PSF				
GARAGE DOOR	CTP	CTP				
WALK-IN DOOR	CTP	CTP				

TABLE 1

CTP = CONTRACTOR TO PROVIDE 2023 FBC APPROVED PRODUCTS THAT MEET OR EXCEED DESIGN PRESSURES AS TABLULATED.

PAGE NO.

REVISIONS	DATE	DATE	2024.02.06	SUBMITTALS	DATE	PREPARED BY
		DRAWN	SM			ADAM COLLING
		DESIGNED				(A) ADAM COLLINS
		CHECKED	AIC			ENGINEERING INC
		JOB No.	22047			CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM

ELITE METAL **NOTES AND** MANUFACTURING **SPECIFICATIONS** 10121 88TH TRACE

Valerie & Rocky Davis 497 NE frank James Rd. White springs, FL 32096

S-1 CALE AS-SHOWN

PLANS PREPARED BY: 12558 BASS ROAD, LIVE OAK, FLORIDA 32060 P:386.320.7400 F: 850.807.7309

WWW.COLLINSENG.COM

CERTIFICATE OF AUTHORIZATION: 31728

SEALED BY ADAM T. COLLINS, P.E. ON 2024.02.06 PRINT COPIES OF THIS DOCUMENT ARE NOT CONSIDERED VERIFIED ON ANY ELECTRONIC COPIES.

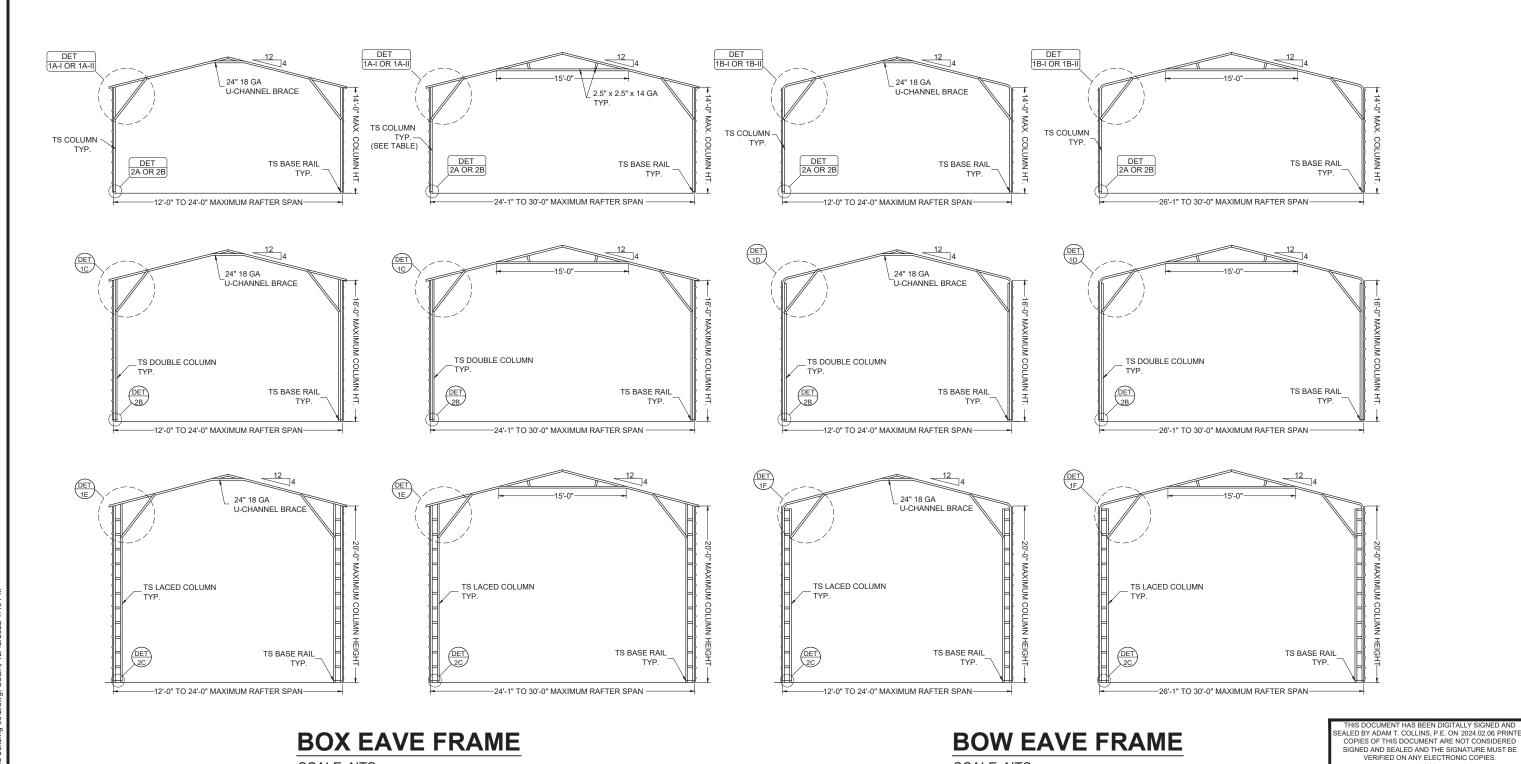
VERIFIED ON ANY ELECTRONIC COPIES.

No. 75584

*
STATE OF

ORIDA GIANTING

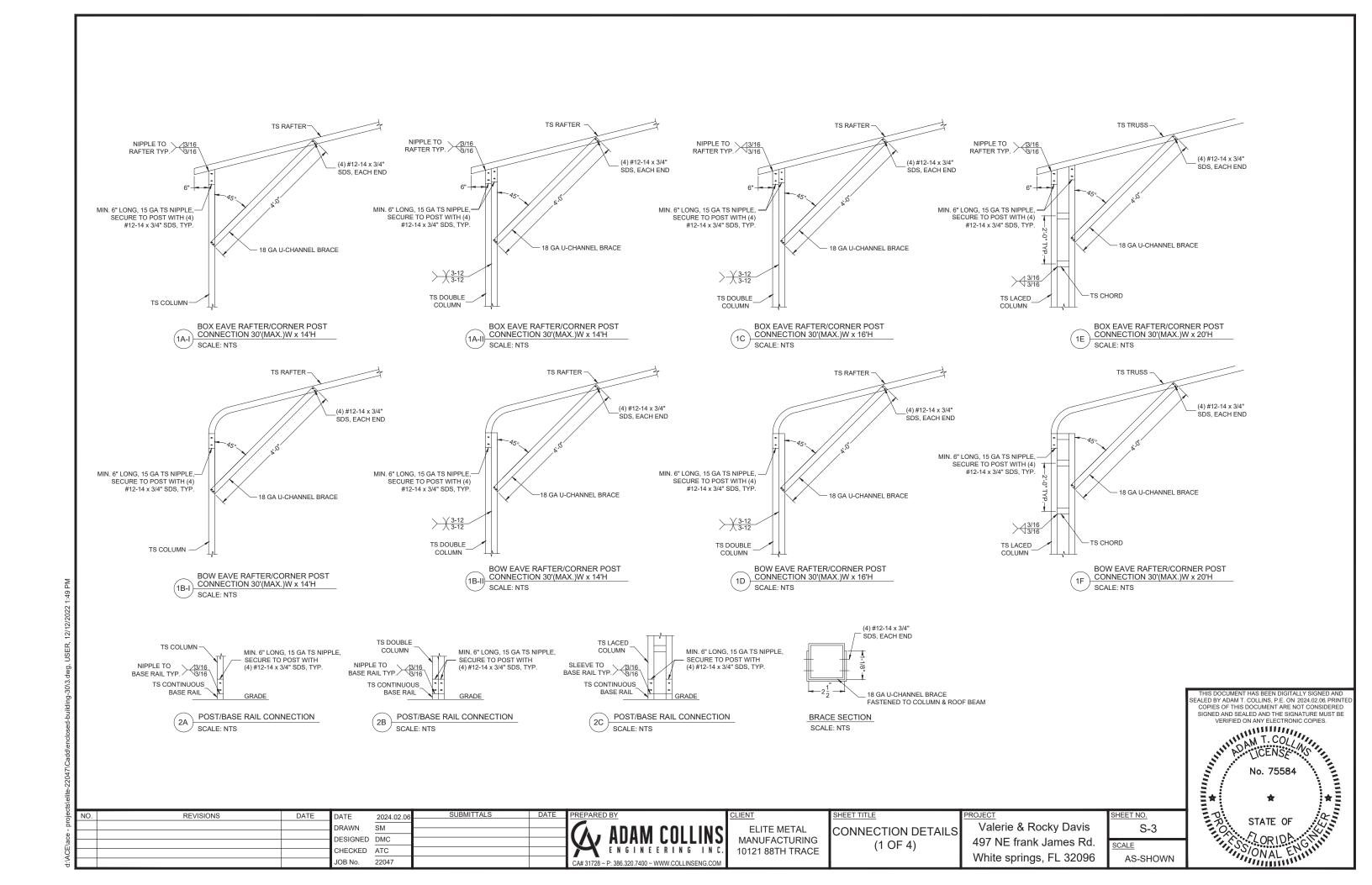
ORI



BOX EAVE FRAME

BOW EAVE FRAME

S	CALE: NTS		SCALE: NTS			VERIFIED ON ANY ELECTRONIC COPIES. AM T. COLLING No. 75584
REVISIONS DATE	DATE 2024.02.06 SUBMITTALS DRAWN SM DESIGNED DMC CHECKED ATC JOB No. 22047	MANU CULLINO MANU	SHEET TITLE BOX-BOW EAVE UFACTURING 1 88TH TRACE ENCLOSED BUILDING	Valerie & Rocky Davis	SHEET NO. S-2 SCALE AS-SHOWN	STATE OF CONTROL OF CO



GENERAL NOTES

MINIMUM SOIL BEARING CAPACITY: 1500 PSF. CONCRETE STRENGTH: 3000 PSI @ 28 DAYS

MONOLITHIC FOOTER SIZE 8" x 12" - (2) #4 110 C - 140 C 12" x 16" - (2) #4 ABOVE 140 C

REINFORCING STEEL

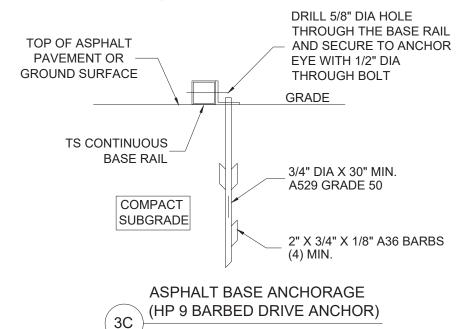
- REBAR SHALL BE ASTM A615 GRADE 60
- SLAB REINFORCEMENT = WELDED WIRE FABRIC PER ASTM A185 OR FIBERGLASS FIBER REINFORCEMENT
- CONCRETE COVER SHALL BE
- 3.1. 3" WHERE EXPOSED TO SOIL OR WATER.
- 2" EVERYWHERE ELSE.
- 4. REBAR SHALL BE BENT WITHOUT HEATING.
- MINIMUM BEND = 6 X BAR DIAMETER
- REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD

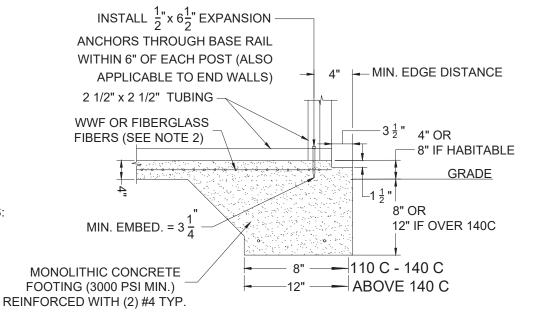
HELIX ANCHOR NOTES

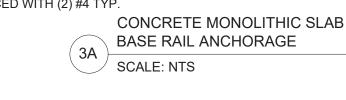
- 1. USE MINIMUM (2) 4" HELICES WITH 30" EMBEDMENT FOR THE FOLLOWING SOILS:
- VERY DENSE AND/OR CEMENTED SANDS
- COARSE GRAVEL AND COBBLES 1.2.
- 1.3. CALICHE
- PRELOADED SILTS AND CLAYS 1.4.
- CORALS 1.5.
- MEDIUM DENSE COARSE SANDS 1.6.
- 1.7. SANDY GRAVEL
- VERY STIFF SILTS AND CLAYS 1.8.
- 2. USE MINIMUM (2) 6" HELICES WITH MINIMUM 48" EMBEDMENT FOR
- LOOSE TO MEDIUM DENSE SANDS
- FIRM TO STIFF CLAYS AND SILTS
- ALLUVIAL FILL
- 3. USE MINIMUM (2) 8" HELICES WITH MINIMUM 60" EMBEDMENT.
- 3.1. FOR VERY LOOSE TO MEDIUM DENSE SANDS

SCALE: NTS

- FIRM TO STIFFER CLAYS AND SILTS
- ALLUVIAL FILL.







EDGE OF

SECTION

(OPTION-1)

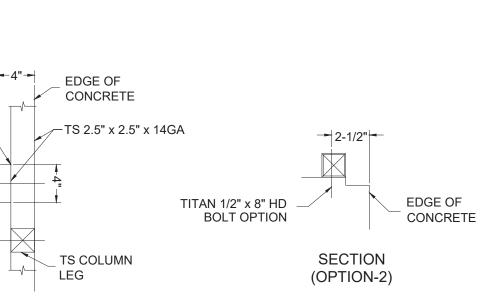
CONCRETE

3/16"

ELITE METAL

MANUFACTURING

10121 88TH TRACE



TOP OF ASPHALT

GROUND SURFACE

PAVEMENT OR

TS CONTINUOUS/

BASE RAIL

SCALE: NTS

HELIX EYE ANCHOR

TYPICAL ANCHOR DETAIL WHEN BASE RAIL IS NEAR EDGE OF CONCRETE SCALE: NTS

TOP VIEW

(OPTION-1)

COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

No. 75584

STATE OF

ORIDA CM.

ORIDA CM. VERIFIED ON ANY ELECTRONIC COPIES.

FALED BY ADAM T. COLLINS, P.E. ON 2024-02-06 PRINT

DRILL 5/8" DIA HOLE

EYE WITH 1/2" DIA

THROUGH BOLT

GRADE

COMPACT

SUBGRADE

GROUND BASE HELIX ANCHORAGE

THROUGH THE BASE RAIL

AND SECURE TO ANCHOR

Valerie & Rocky Davis 497 NE frank James Rd. White springs, FL 32096

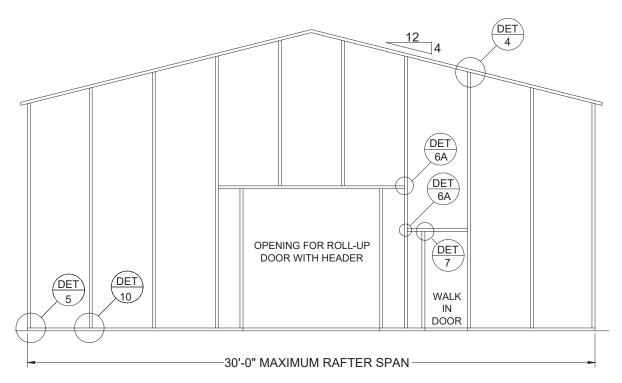
S-4 AS-SHOWN

REVISIONS DATE 2024.02.0 DRAWN SM DESIGNED DMC CHECKED ATC CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM

1/2" DIA EXPANSION

ANCHOR

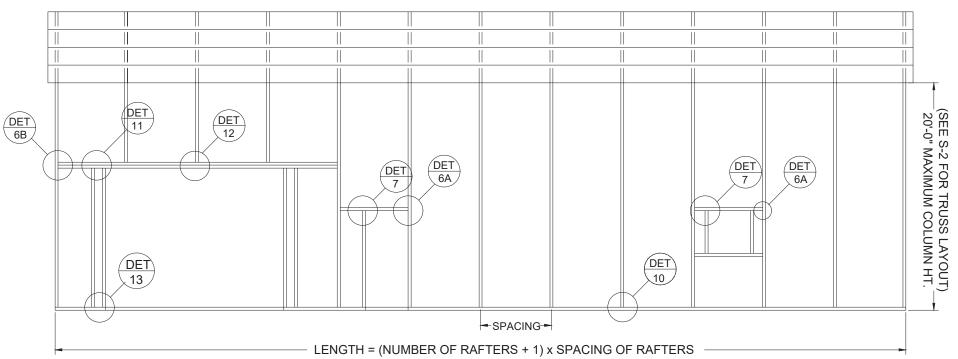
BASE RAIL AND ANCHORAGE DETAILS CALE



SPACING = 5'-0" FOR WIND SPEEDS BETWEEN 110 MPH AND 140 MPH SPACING = 4'-0" FOR WIND SPEEDS BETWEEN 140 MPH AND 180 MPH

TYPICAL BOX EAVE RAFTER END WALL FRAMING SECTION

SCALE: NTS



SPACING = 5'-0" FOR WIND SPEEDS BETWEEN 110 MPH AND 140 MPH SPACING = 4'-0" FOR WIND SPEEDS BETWEEN 140 MPH AND 180 MPH

TYPICAL BOX EAVE RAFTER SIDE FRAMING SECTION

SCALE: NTS

NO.	REVISIONS	DATE	DATE	2024.02.06	SUBMITTALS	DATE	PREPARED BY
			DRAWN	SM			C ADAMA COLLINIO
							(A) ADAM COLLINS
			DESIGNED				
			CHECKED	ATC			ENGINEERING INC.
			JOB No.	22047			CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM

ELITE METAL
MANUFACTURING
10121 88TH TRACE

BOX EAVE RAFTER END WALL, SIDE WALL AND OPENING FRAMING

Valerie & Rocky Davis 497 NE frank James Rd. White springs, FL 32096

SHEET NO.
S-5
SCALE
AS-SHOWN

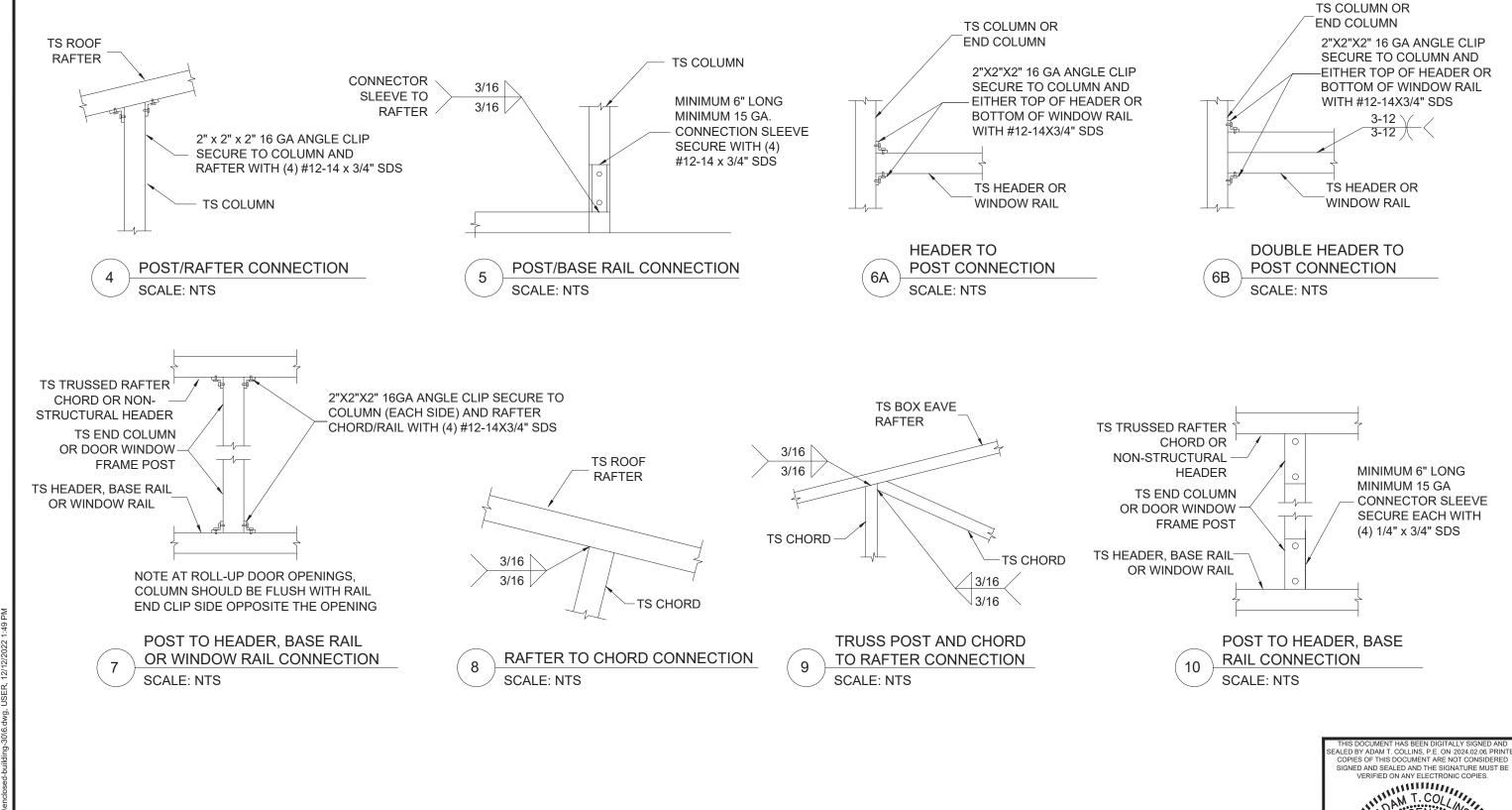
THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY ADAM T. COLLINS, P.E. ON 2024.02.06 PRINE COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

NO. 75584

STATE OF

ON AL

יווס-בבסדו וכמממוסונסססמ-טמומוו פרסטיטימישט, סטבוי, ובן ובובטבב וידס



d:\ACE\ace - projects\elit

REVISIONS

2024.02.0

SM

22047

ORAWN

DESIGNED DMC

CHECKED ATC

ADAM COLLINS
ENGINEERING INC.
CA# 31728 - P: 386.320.7400 ~ WWW.COLLINSENG.COM

ELITE METAL MANUFACTURING 10121 88TH TRACE CONNECTION DETAILS (2 OF 4)

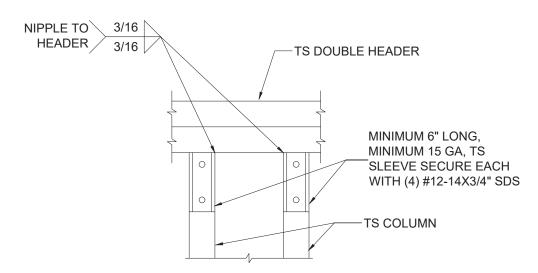
SHEET TITLE

Valerie & Rocky Davis 497 NE frank James Rd. White springs, FL 32096 S-6
SCALE
AS-SHOWN

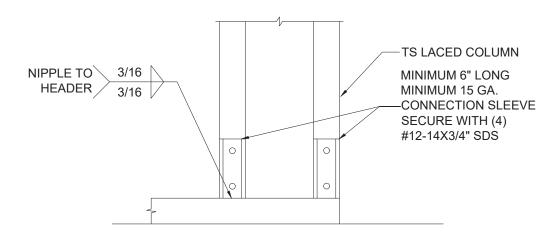
No. 75584

STATE OF

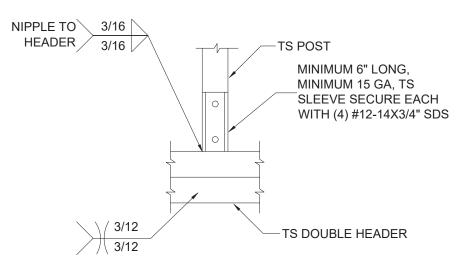
ORIDA CONTINUED TO STATE OF CONTINUED TO STAT



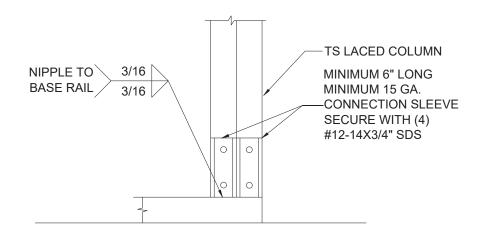
DOUBLE HEADER TO POST CONNECTION SCALE: NTS



POST/BASE RAIL CONNECTION (13A SCALE: NTS



POST/DOUBLE HEADER CONNECTION 12 SCALE: NTS



POST/BASE RAIL CONNECTION (13B SCALE: NTS

			_				
NO.	REVISIONS	DATE	DATE	2024.02.06	SUBMITTALS	DATE	PREPARED BY
			DRAWN	SM			A ADAM COLLING
			DESIGNED	DMC			(A) ADAM COLLINS
				ATC			ENGINEERING INC.
							/ \
			JOB No.	22047			CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM

ELITE METAL MANUFACTURING 10121 88TH TRACE

SHEET TITLE CONNECTION DETAILS (3 OF 4)

Valerie & Rocky Davis 497 NE frank James Rd. White springs, FL 32096

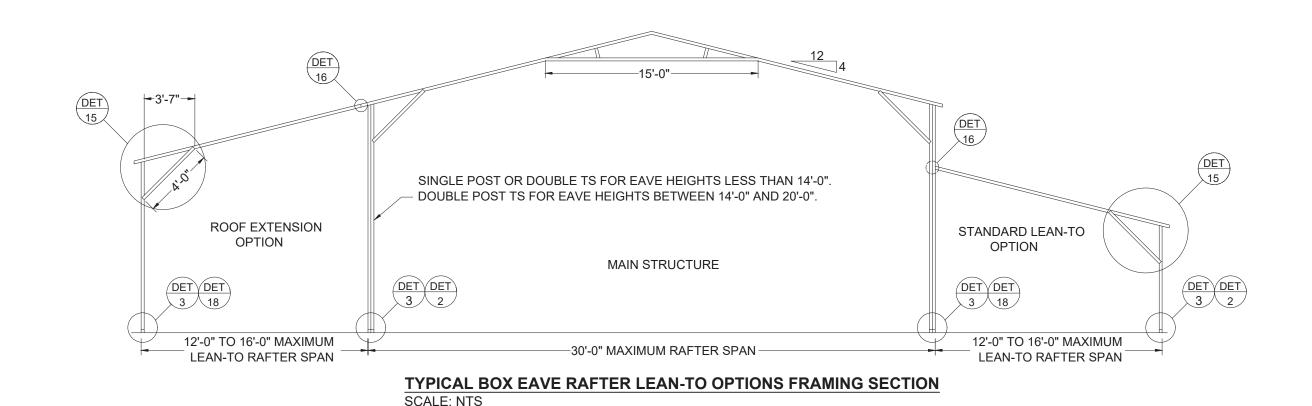
HEET NO. S-7 SCALE AS-SHOWN

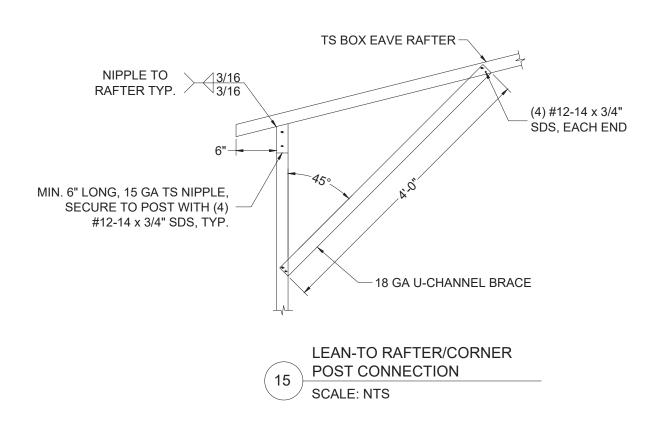
THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY ADAM T. COLLINS, P.E. ON 2024 02.08 PRINTE COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES. No. 75584

STATE OF

STATE OF

STATE OF





THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY ADAM T. COLLINS, P.E. ON 2024.02.06 PRINTE COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES. SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

No. 75584

STATE OF

ORIDA GIANA

REVISIONS 2024.02.0 DRAWN SM DESIGNED DMC CHECKED ATC 22047 CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM

ELITE METAL MANUFACTURING 10121 88TH TRACE

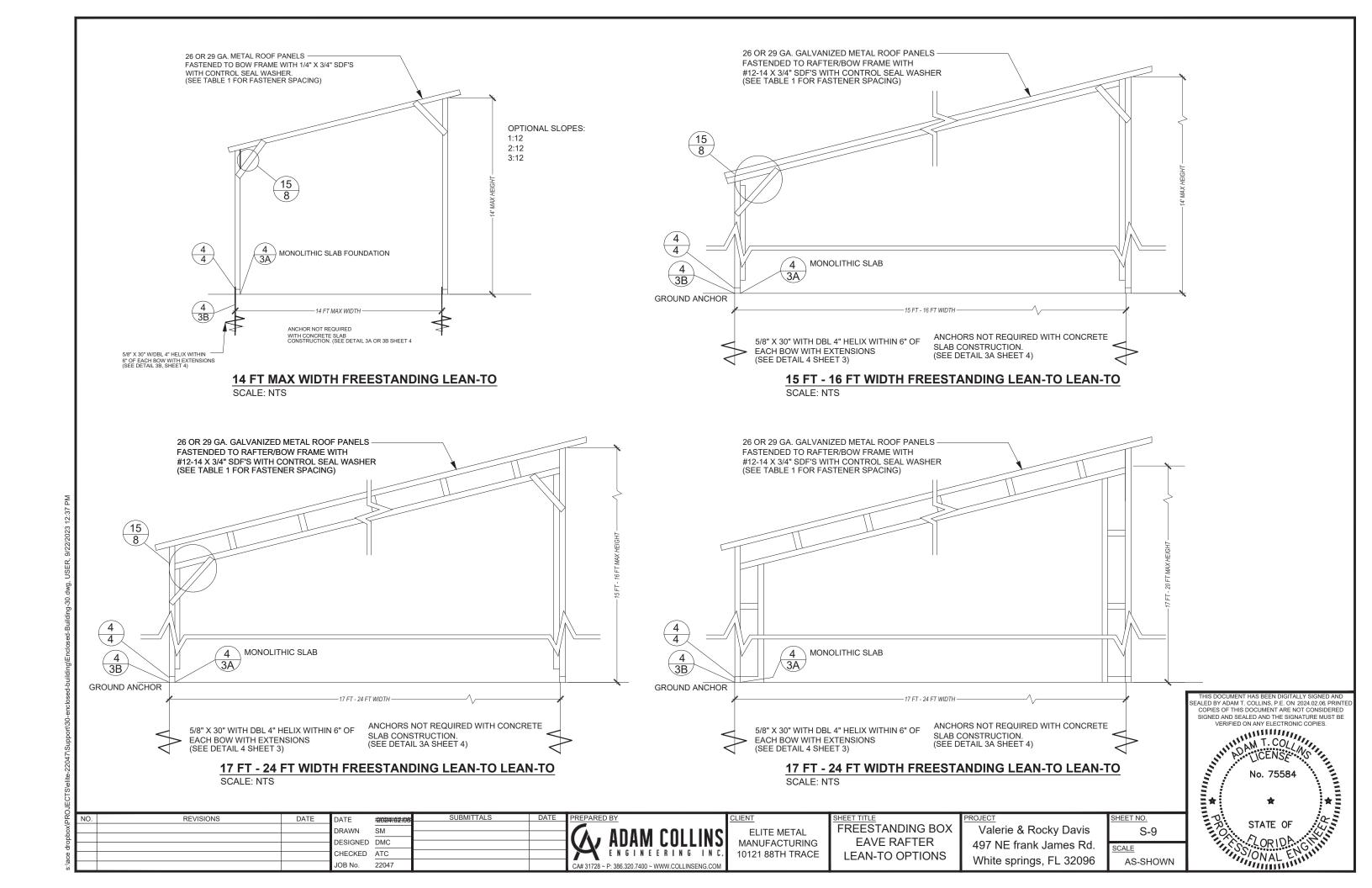
BOX EAVE RAFTER LEAN TO OPTIONS

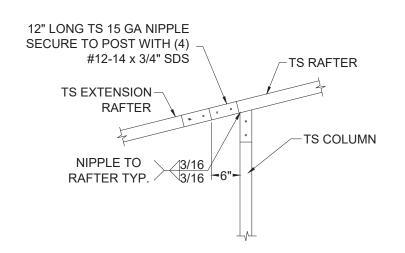
HEET TITLE

Valerie & Rocky Davis 497 NE frank James Rd. White springs, FL 32096

SCALE AS-SHOWN

S-8





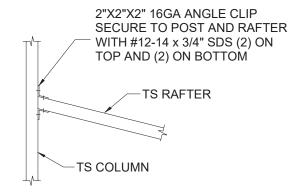
12" LONG TS 15 GA NIPPLE SECURE TO POST WITH (4) / NIPPLE TO #12-14 x 3/4" SDS RAFTER TYP. TS EXTENSION **RAFTER** 3-12 TS RAFTER TS COLUMN 2" x 2" x 2" 16 GA ANGLE CLIP -6"-SECURE TO COLUMN AND EITHER TOP OF HEADER OR-**BOTTOM OF WINDOW RAIL** WITH #12-14 x 3/4" SDS

SIDE EXTENSION RAFTER/POST CONNECTION RAFTER SPAN LESS THAN 12'-0"

SCALE: NTS

SCALE: NTS

SIDE EXTENSION RAFTER/POST CONNECTION
RAFTER SPAN BETWEEN 12'-0" AND 16'-0"
SCALE: NTS



2"X2"X2" 16GA ANGLE CLIP
SECURE TO POST AND RAFTER
WITH #12-14 x 3/4" SDS (2) ON
TOP AND (2) ON BOTTOM

TS DOUBLE RAFTER

TS COLUMN

LEAN TO RAFTER/COLUMN CONNECTION
RAFTER SPANLESS THAN 12'-0"

LEAN TO RAFTER/COLUMN CONNECTION RAFTER SPAN BETWEEN 12'-0" AND 16'-0"

SCALE: NTS

18 LEAN-TO POST CONNECTION SCALE: NTS

GRADE

DATE DATE 2024.02.06 SUBMITTALS DATE PREPARED BY

DRAWN SM

DESIGNED DMC

CHECKED ATC

JOB No. 22047

DATE 2024.02.06 SUBMITTALS DATE PREPARED BY

ADAM COLLINS

ENGINEERINGINC.

CA#31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM

ELITE METAL
MANUFACTURING
10121 88TH TRACE

CONNECTION DETAILS
(4 OF 4)

PROJECT

Valerie & Rocky
497 NE frank Jam

Valerie & Rocky Davis
497 NE frank James Rd.
White springs, FL 32096

TS COLUMN

TS CONTINUOUS - BASE RAIL

NIPPLE TO 3/16 BASE RAIL TYP. 3/16

SHEET NO.
S-10
SCALE
AS-SHOWN

MIN. 6" LONG, 15 GA TS NIPPLE, SECURE TO POST WITH (4)

#12-14 x 3/4" SDS, TYP.

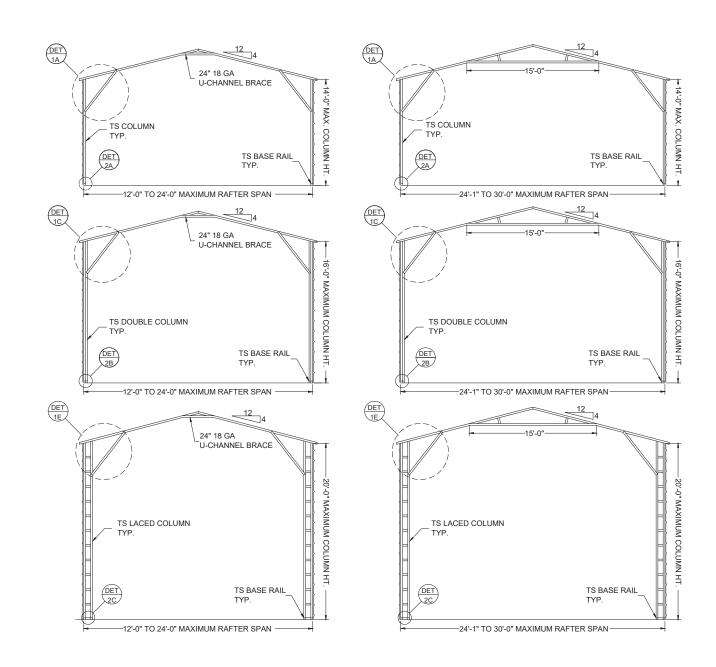
THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND BEALED BY ADAM T. COLLINS, P.E. ON 2024.02.06 PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

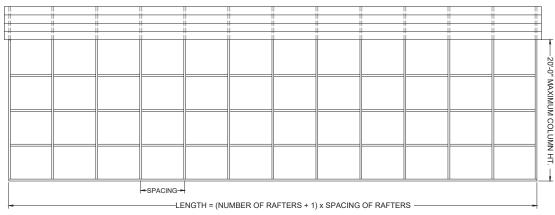
NO. 75584

STATE OF

ORIDA

-building-50/9.dwg, OSER, 12/12/222 1:50 PM

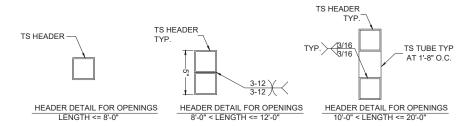




SPACING = 5'-0" FOR WIND SPEEDS BETWEEN 110 MPH AND 140 MPH SPACING = 4'-0" FOR WIND SPEEDS BETWEEN 140 MPH AND 180 MPH 1.125" 18 GA HAT CHANNELS CAN BE USED IN LIEU OF TS FOR GIRTS.

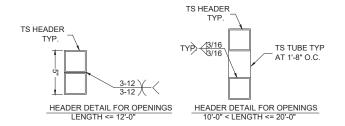
TYPICAL SIDE FRAME SECTION

SCALE: NTS



SIDE WALL OPTION HEADER

SCALE: NTS



END WALL OPTION HEADER

SCALE: NTS

BOX EAVE FRAME

1.125" 18 GA FURRING CHANNEL FASTENED TO EACH RAFTER WITH (2) #12-14 x 3/4" SDS SPACED AT 48" O.C. MAX

PANEL ATTACHMENT
(ALTERNATE FOR VERTICAL ROOF PANELS)
SCALE: NTS

REVISIONS 2024.02.0 HEET NO **BOX EAVE RAFTER** Valerie & Rocky Davis S-11 ORAWN SM ELITE METAL VERTICAL MANUFACTURING DESIGNED DMC 497 NE frank James Rd. SCALE CHECKED ATC 10121 88TH TRACE **ROOF-SIDING OPTION** White springs, FL 32096 AS-SHOWN 22047 CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM

ojects\elite-22047\Cadd\enclosed-building-30\10.dwg, USER, 12/12/2022 1:50 P

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY ADAM T. COLLINS, P.E. ON 2024, 92.0 & PRINTE COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

No. 75584

STATE OF

ON ALL



MINIMUM SOIL BEARING CAPACITY: 1500 PSF. CONCRETE STRENGTH: 3000 PSI @ 28 DAYS

REINFORCING STEEL

- 1. REBAR SHALL BE ASTM A615 GRADE 60
- 2. SLAB REINFORCEMENT = WELDED WIRE FABRIC PER ASTM A185 OR FIBERGLASS FIBER REINFORCEMENT
- CONCRETE COVER SHALL BE
- 3.1. 3" WHERE EXPOSED TO SOIL OR WATER.
- 3.2. 2" EVERYWHERE ELSE.
- 4. REBAR SHALL BE BENT WITHOUT HEATING.
- MINIMUM BEND = 6 X BAR DIAMETER

REVISIONS

2024.02.0

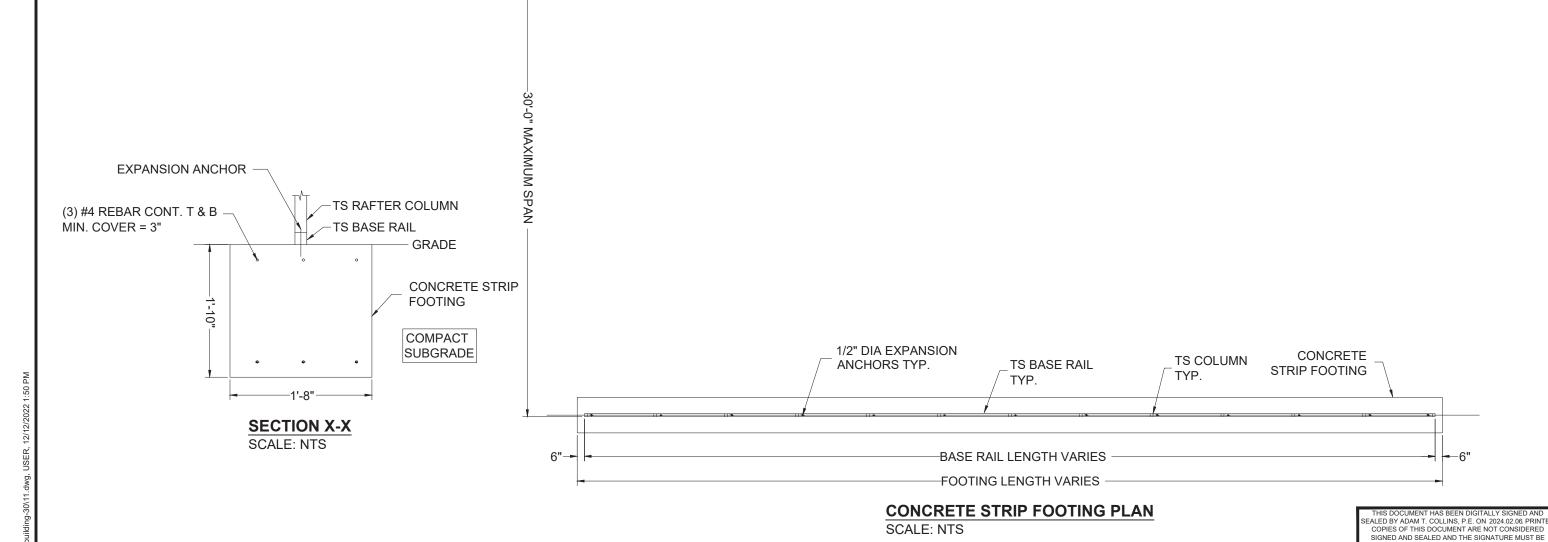
22047

DRAWN

DESIGNED DMC

CHECKED ATC

REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT.



Χ-

X-

ADAM COLLINS CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM

ELITE METAL MANUFACTURING 10121 88TH TRACE OPTIONAL CONCRETE STRIP FOOTING

HEET TITLE

Valerie & Rocky Davis 497 NE frank James Rd. White springs, FL 32096

HEET NO. S-12 SCALE AS-SHOWN VERIFIED ON ANY ELECTRONIC COPIES.

No. 75584

STATE OF

ORIDA GIANA

STATE OF

VERIFIED ON ANY ELECTRONIC COPIES.

