ENCLOSED METAL BUILDING DESIGN
MAXIMUM 30'-0" WIDE X 100'-0" LONG X 20'-0" HIGH (EAVE)
BOX EAVE FRAME / BOW EAVE FRAME

APPLICABLE CODES AND STANDARDS

1. 2023 FLORIDA BUILDING CODE, BUILDING
2. 2023 FLORIDA BUILDING CODE, RESIDENTIAL
3. ASCE 7-22: MINIMUM DESIGN LOADS ON BUILDINGS AND OTHER STRUCTURES
4. AISC STEEL CONSTRUCTION MANUAL (15TH EDITION)
5. ACI 318-19: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
6. TMS 402-16: BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES
7. AWS D1.1: STRUCTURAL WELDING

DESIGN LOADS

1. DEAD LOAD = 1.5 PSF
2. ROOF LIVE LOAD = 12 PSF
3. WIND LOAD

A. RISK CATEGORY = I
B. WIND EXPOSURE CATEGORY = C
C. ULTIMATE WIND SPEED = 110 MPH

NOMINAL WIND SPEED = 86 MPH

INSTALLATION NOTES AND SPECIFICATIONS

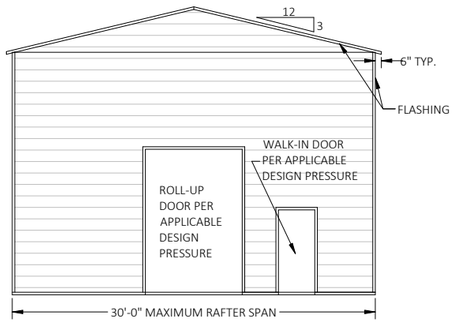
1. THESE PLANS BELONG EXCLUSIVELY TO THE STRUCTURE, INCLUDING MAIN WIND FORCE RESISTING SYSTEM (MWFRS), COMPONENTS AND CLADDING (C&C), AND BASE RAIL ANCHORAGE. OTHER DESIGN ISSUES, INCLUDING BUT NOT LIMITED TO PROPERTY SET-BACKS, ELECTRICAL, PLUMBING, INGRESS/EGRESS, FINISH FLOOR SLOPES AND ELEVATIONS, OR OTHER LOCAL ZONING REQUIREMENTS ARE THE LIABILITY OF OTHERS.
2. THESE STRUCTURES ARE ENGINEERED AS CAPABLE OF SUPPORTING DEAD LOAD OF THE STRUCTURE AND LIVE AND WIND LOADS. UPGRADES NOT SPECIFICALLY ADDRESSED HEREIN, SUCH AS WINDOWS, DOORS, OR ANOTHER COMPONENT NOT LISTED IN THE BUILDING CODE APROVED PRODUCT LIST, AND NOT PROVIDED AND INSTALLED BY THE CONTRACTOR, WHICH CAUSE ADDITIONAL LOADS ON THE STRUCTURE SHALL BE AT THE OWNER'S RISK. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR FAILURE OR STRUCTURAL DAMAGE DUE TO THE EXTRA LOAD.
3. ALL STEEL TUBING SHALL BE 50 KSI GALVANIZED STEEL. ALL FASTENERS SHALL BE ZINC COATED HARDWARE.
4. END WALL COLUMNS (POST) AND SIDE WALL COLUMNS ARE EQUIVALENT IN SIZE AND SPACING U.N.O.
5. SPECIFICATIONS APPLICABLE TO 29 GA METAL PANELS FASTENED DIRECTLY TO 2.5"X2.5"X14 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.
6. AVERAGE FASTENER SPACING ON-CENTERS ALONG RAFTERS OR PURLINS, AND POSTS, INTERIOR = 9" AND END = 6" MAX.
7. FASTENERS CONSIST OF #12-14X3/4" SELF-DRILLING SCREWS (SDS), USE CONTROL SEAL WASHER WITH EXTERIOR FASTENERS. SPECIFICATIONS APPLICABLE ONLY FOR MEAN ROOF HEIGHT OF 20'-0" OR LESS, AND ROOF SLOPES OF 14° (3:12 PITCH) OR LESS. SPACING REQUIREMENTS FOR OTHER ROOF HEIGHTS AND/OR SLOPES MAY VARY.
8. ANCHORS SHALL BE INSTALLED THROUGH THE BASE RAIL WITHIN 6" OF EACH RAFTER COLUMN ALONG SIDES AND ENDS.
9. STANDARD GROUND ANCHORS (SOIL NAILS) CONSIST OF #4 REBARS WITH WELDED NUT X 36" LONG AND MAY BE USED IN SUITABLE SOILS. 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.
10. RAFTER SPACING IS 5'-0" MAX.
11. PURLIN SPACING IS 4'-0" MAX.
12. WIND FORCES GOVERN OVER SEISMIC FORCES. SEISMIC PARAMETERS ANALYZED ARE:
    SOIL SITE CLASS = D
    RISK CATEGORY I
    R = 3.25 Ie = 1.0 Sds = 0.087 g V = CsW Sdi = 0.084 g
13. CONSTRUCTION IN SPECIAL FLOOD HAZARD AREAS:

CONTRACTOR TO VERIFY THAT THE FINISHED FLOOR ELEVATION FOR THE PROPOSED STRUCTURE IS AT OR ABOVE THE GREATER OF THE FOLLOWING ELEVATIONS:

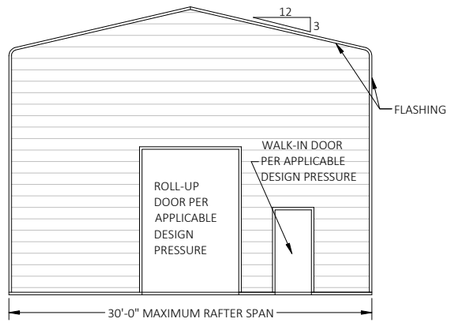
I) BFE (BASE FLOOD ELEVATION) + 2'-0"
II) DFE (DESIGN FLOOD ELEVATION)
III) THE MINIMUM ELEVATION MANDATED BY THE BUILDING CODES ADOPTED BY THE AUTHORITY HAVING JURISDICTION.

DRAWING INDEX

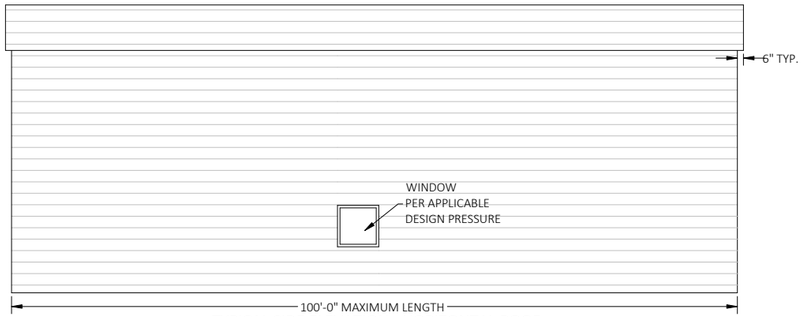
PAGE NO.	DESCRIPTION
1	TITLE PAGE WITH INDEX
2	TRUSS DESIGN FOR RAFTER SPAN
3	CONNECTION DETAILS (1-2)
4	BASE RAIL AND FOUNDATION ANCHORAGE
5	RAFTER END WALL, SIDE WALL AND OPENING FRAMING
6	CONNECTION DETAILS (4-14)
7	BOX EAVE RAFTER LEAN-TO OPTIONS
8	CONNECTION DETAILS (16-18)
9	BOX EAVE RAFTER VERTICAL ROOF/SIDING OPTION
10	OPTIONAL HELICAL ANCHORING ON GRADE DETAIL
11	OPTIONAL CONCRETE STRIP FOOTING
12	OPTIONAL HELICAL ANCHORING ON TIMBER BEAM DETAIL



TYPICAL END ELEVATION - BOX EAVE



TYPICAL END ELEVATION - BOW EAVE



TYPICAL SIDE ELEVATION - HORIZONTAL ROOF

ADJUSTED C & C WIND PRESSURES (ROOF, ASD, PSF)

EFFECTIVE WIND AREA (SQ. FT) :	10.00	EFFECTIVE WIND AREA (SQ. FT) :	200.00
ALL ZONES (POSITIVE) =	NA	ALL ZONES (POSITIVE) =	NA
ZONE 1' (NEGATIVE) =	NA	ZONE 1' (NEGATIVE) =	NA
ZONE 1' (OVERHANG) =	NA	ZONE 1' (OVERHANG) =	NA
ZONE 1 (NEGATIVE) =	-37.1	ZONE 1 (NEGATIVE) =	-17.9
ZONE 1 (OVERHANG) =	-51.6	ZONE 1 (OVERHANG) =	-29.1
ZONE 2 (NEGATIVE) =	-47.3	ZONE 2 (NEGATIVE) =	-22.6
ZONE 2 (OVERHANG) =	-61.8	ZONE 2 (OVERHANG) =	-33.8
ZONE 3 (NEGATIVE) =	-60.3	ZONE 3 (NEGATIVE) =	-34.2
ZONE 3 (OVERHANG) =	-74.9	ZONE 3 (OVERHANG) =	-45.4
EFFECTIVE WIND AREA (SQ. FT) :	20.00	EFFECTIVE WIND AREA (SQ. FT) :	300.00
ALL ZONES (POSITIVE) =	NA	ALL ZONES (POSITIVE) =	NA
ZONE 1' (NEGATIVE) =	NA	ZONE 1' (NEGATIVE) =	NA
ZONE 1' (OVERHANG) =	NA	ZONE 1' (OVERHANG) =	NA
ZONE 1 (NEGATIVE) =	-32.7	ZONE 1 (NEGATIVE) =	-15.3
ZONE 1 (OVERHANG) =	-46.4	ZONE 1 (OVERHANG) =	-26.1
ZONE 2 (NEGATIVE) =	-41.6	ZONE 2 (NEGATIVE) =	-22.6
ZONE 2 (OVERHANG) =	-55.3	ZONE 2 (OVERHANG) =	-33.3
ZONE 3 (NEGATIVE) =	-52.5	ZONE 3 (NEGATIVE) =	-34.2
ZONE 3 (OVERHANG) =	-66.2	ZONE 3 (OVERHANG) =	-44.9
EFFECTIVE WIND AREA (SQ. FT) :	50.00	EFFECTIVE WIND AREA (SQ. FT) :	500.00
ALL ZONES (POSITIVE) =	NA	ALL ZONES (POSITIVE) =	NA
ZONE 1' (NEGATIVE) =	NA	ZONE 1' (NEGATIVE) =	NA
ZONE 1' (OVERHANG) =	NA	ZONE 1' (OVERHANG) =	NA
ZONE 1 (NEGATIVE) =	-26.8	ZONE 1 (NEGATIVE) =	-15.3
ZONE 1 (OVERHANG) =	-39.5	ZONE 1 (OVERHANG) =	-25.5
ZONE 2 (NEGATIVE) =	-34	ZONE 2 (NEGATIVE) =	-22.6
ZONE 2 (OVERHANG) =	-46.7	ZONE 2 (OVERHANG) =	-32.7
ZONE 3 (NEGATIVE) =	-42.1	ZONE 3 (NEGATIVE) =	-34.2
ZONE 3 (OVERHANG) =	-54.8	ZONE 3 (OVERHANG) =	-44.4
EFFECTIVE WIND AREA (SQ. FT) :	100.00	EFFECTIVE WIND AREA (SQ. FT) :	1000.00
ALL ZONES (POSITIVE) =	NA	ALL ZONES (POSITIVE) =	NA
ZONE 1' (NEGATIVE) =	NA	ZONE 1' (NEGATIVE) =	NA
ZONE 1' (OVERHANG) =	NA	ZONE 1' (OVERHANG) =	NA
ZONE 1 (NEGATIVE) =	-22.4	ZONE 1 (NEGATIVE) =	-15.3
ZONE 1 (OVERHANG) =	-34.3	ZONE 1 (OVERHANG) =	-25.5
ZONE 2 (NEGATIVE) =	-28.3	ZONE 2 (NEGATIVE) =	-22.6
ZONE 2 (OVERHANG) =	-40.2	ZONE 2 (OVERHANG) =	-32.7
ZONE 3 (NEGATIVE) =	-34.2	ZONE 3 (NEGATIVE) =	-34.2
ZONE 3 (OVERHANG) =	-46.2	ZONE 3 (OVERHANG) =	-44.4

ADJUSTED C & C WIND PRESSURES (WALL, ASD, PSF)

EFFECTIVE WIND AREA (SQ. FT) :	10.00
ALL ZONES (POSITIVE) =	22.6
ZONE 4 (NEGATIVE) =	-24.0
ZONE 5 (NEGATIVE) =	-28.4
EFFECTIVE WIND AREA (SQ. FT) :	20.00
ALL ZONES (POSITIVE) =	21.8
ZONE 4 (NEGATIVE) =	-23.3
ZONE 5 (NEGATIVE) =	-26.9
EFFECTIVE WIND AREA (SQ. FT) :	50.00
ALL ZONES (POSITIVE) =	20.8
ZONE 4 (NEGATIVE) =	-22.2
ZONE 5 (NEGATIVE) =	-24.8
EFFECTIVE WIND AREA (SQ. FT) :	100.00
ALL ZONES (POSITIVE) =	20.0
ZONE 4 (NEGATIVE) =	-21.5
ZONE 5 (NEGATIVE) =	-23.3
EFFECTIVE WIND AREA (SQ. FT) :	200.00
ALL ZONES (POSITIVE) =	19.2
ZONE 4 (NEGATIVE) =	-20.7
ZONE 5 (NEGATIVE) =	-21.7
EFFECTIVE WIND AREA (SQ. FT) :	300.00
ALL ZONES (POSITIVE) =	18.8
ZONE 4 (NEGATIVE) =	-20.3
ZONE 5 (NEGATIVE) =	-20.8
EFFECTIVE WIND AREA (SQ. FT) :	500.00
ALL ZONES (POSITIVE) =	18.2
ZONE 4 (NEGATIVE) =	-19.7
ZONE 5 (NEGATIVE) =	-19.7
EFFECTIVE WIND AREA (SQ. FT) :	1000.00
ALL ZONES (POSITIVE) =	18.2
ZONE 4 (NEGATIVE) =	-19.7
ZONE 5 (NEGATIVE) =	-19.7

THE ENGINEERING ON THESE PLANS IS SITE SPECIFIC FOR (1) STRUCTURE ONLY AT THE PROVIDED ADDRESS(ES).

This item has been digitally signed and sealed by Richard E. Walker, P.E. on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

RICHARD EDWARD WALKER LICENSE No. 61240 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Richard E Walker
Date: 2025.02.10 13:47:15-05'00'

Columbia County Building Department
Plans Reviewed for Code Compliance
State of Florida

FLORIDA ENGINEERING LLC
4161 TAMIAMI TRAIL, UNIT 101
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(941) 391-5980
FLEng.com
Orders@FLEng.com
CA CERT. #30782

PROJECT NO. 2503762

CONTRACTOR:
STEEL BUILDINGS AND STRUCTURES INC.
800PIEDMONT TRIAD WEST DR.,
MOUNT AIRY, NC 27030

PROJECT ADDRESS:
POWELL
PID #30-2S-17-04804-104
LAKE CITY, FL. 32055

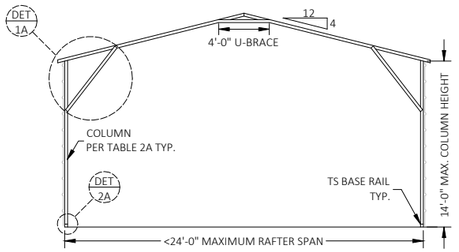
DESIGN DATE:	02/07/2025
REVISION 1:	DATE
REVISION 2:	DATE
DRAWN BY:	JS
SCALE:	NTS

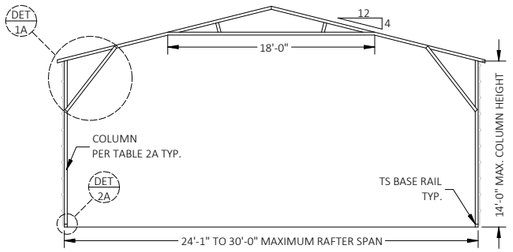
SHEET: 1 OF 12

MEMBER LEGEND:
1. SIDEWALL TS COLUMN = 2.5X2.5X14 GA U.N.O.
2. SIDEWALL TS DOUBLE COLUMN = (2)2.5X2.5X14 GA U.N.O.
3. TRUSS MEMBERS = 2.5X2.5X14 GA U.N.O.
4. KNEE-BRACE = 2.5"X2"X18GA CHANNEL
5. PURLIN = 1.125"X18GA HAT CHANNEL
6. U-BRACE = 2.5"X2"X16GA CHANNEL
7. ENDWALL COLUMN:

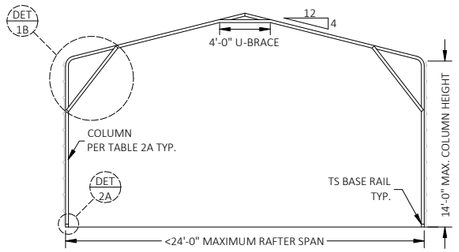
MAX. EAVE HEIGHT	END WALL COLUMN DIMENSIONS
20'	(2) 2.5X2.5X14 GA
14'	2.5X2.5X14 GA

TRUSS LAYOUT- BOX EAVE





TRUSS LAYOUT- BOW EAVE



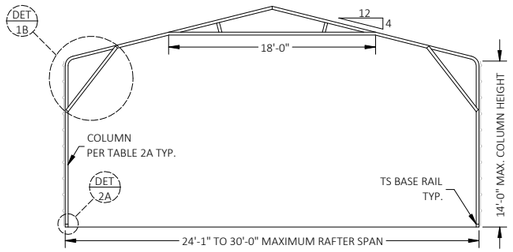
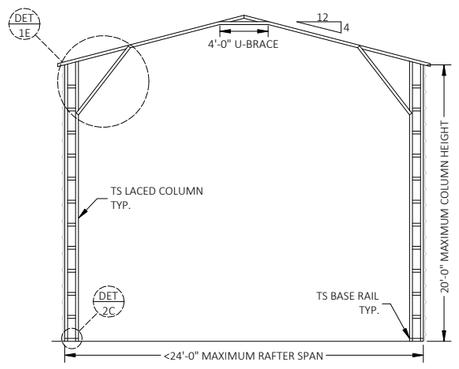
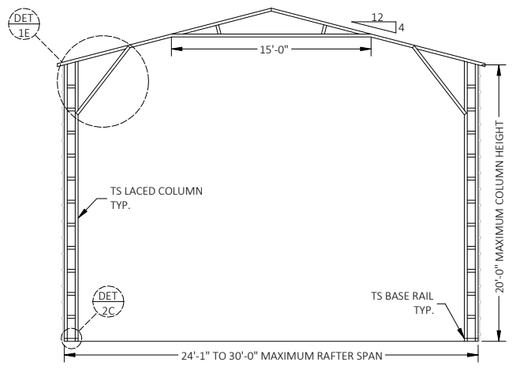


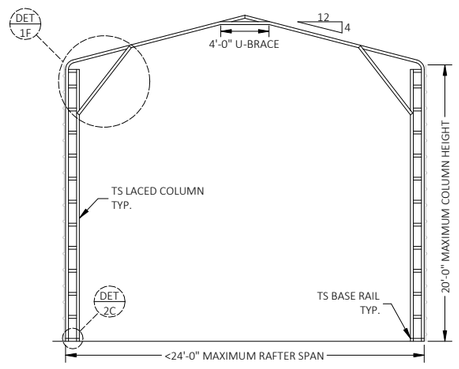
TABLE 2A:

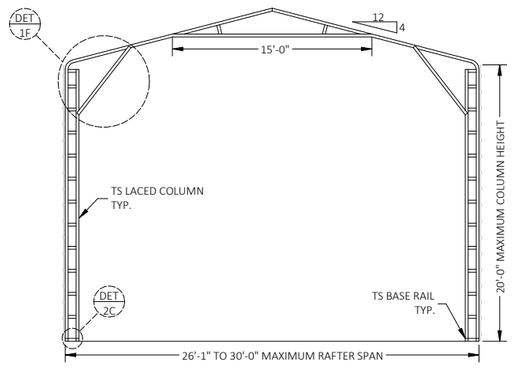
FOR COLUMN HEIGHT OF MAX. 14'-0"	
BUILDING LENGTH	COLUMN DIMENSIONS
< = 60'-0"	ALL COLUMNS TO BE 2.5X2.5X14 GA
60'-1" TO 100'-0"	(N-10) CENTRAL COLUMNS TO BE (2)2.5X2.5X14 GA REST 2.5X2.5X14 GA

*N = NO. OF COLUMNS PER SIDE ELEVATION









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RICHARD EDWARD WALKER LICENSE No. 61240 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Richard E Walker
Date: 2025.02.10 13:47:15-05'00'

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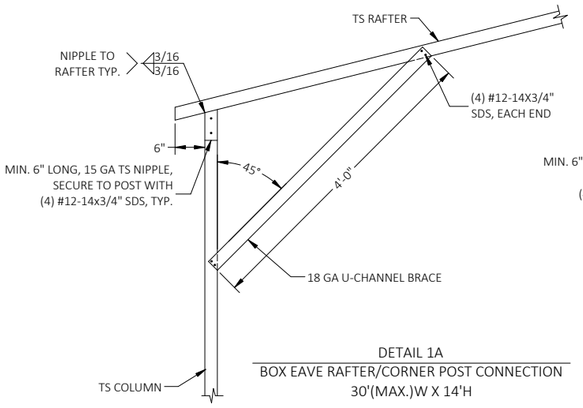
CA CERT. #30782

PROJECT NO. 25037626

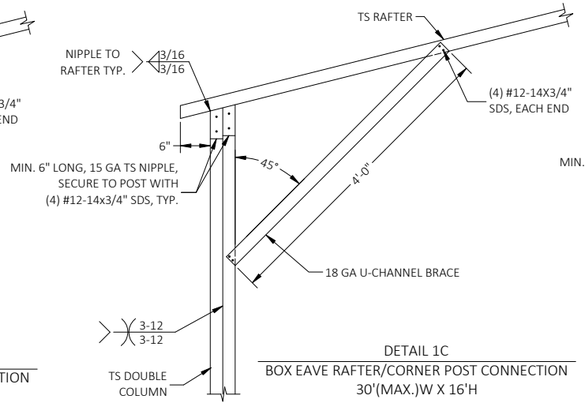
CONTRACTOR:
STEEL BUILDINGS AND STRUCTURES INC.
800PIEDMONT TRIAD WEST DR.,
MOUNT AIRY, NC 27030

PROJECT ADDRESS:
POWELL
PID #30-2S-17-04804-104
LAKE CITY, FL. 32055

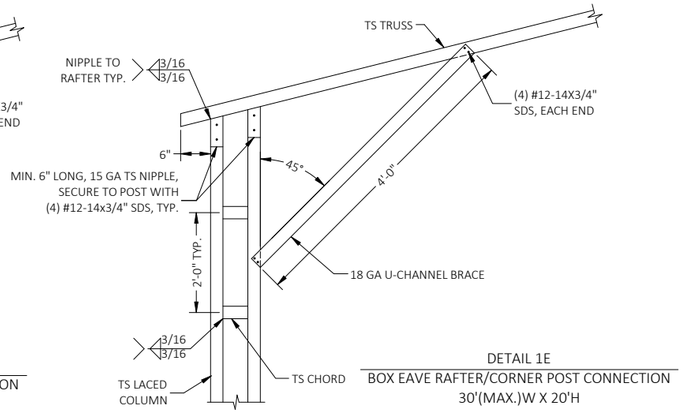
DESIGN DATE:	02/07/2025
REVISION 1:	DATE
REVISION 2:	DATE
DRAWN BY:	JS
SCALE:	NTS



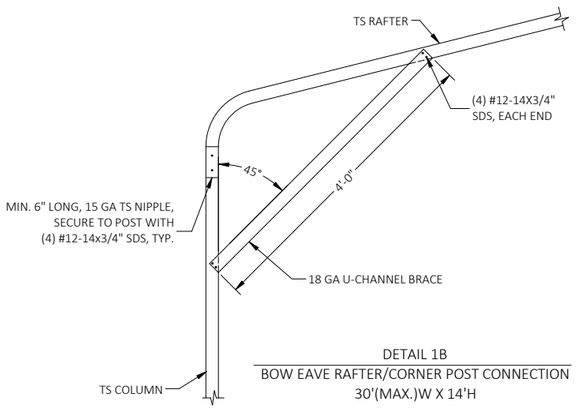
DETAIL 1A
BOX EAVE RAFTER/CORNER POST CONNECTION
30'(MAX.)W X 14'H



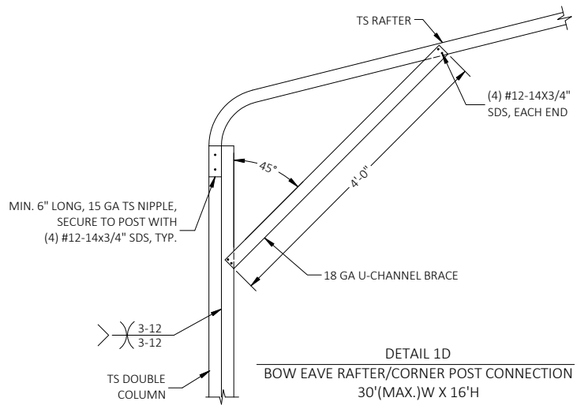
DETAIL 1C
BOX EAVE RAFTER/CORNER POST CONNECTION
30'(MAX.)W X 16'H



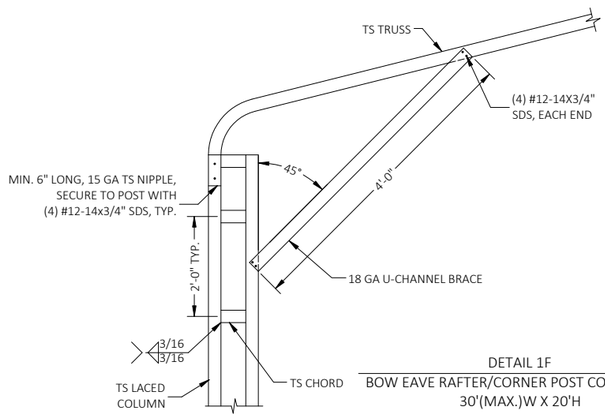
DETAIL 1E
BOX EAVE RAFTER/CORNER POST CONNECTION
30'(MAX.)W X 20'H



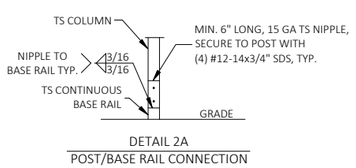
DETAIL 1B
BOW EAVE RAFTER/CORNER POST CONNECTION
30'(MAX.)W X 14'H



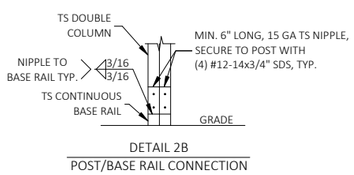
DETAIL 1D
BOW EAVE RAFTER/CORNER POST CONNECTION
30'(MAX.)W X 16'H



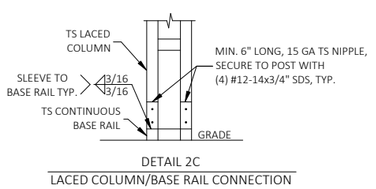
DETAIL 1F
BOW EAVE RAFTER/CORNER POST CONNECTION
30'(MAX.)W X 20'H



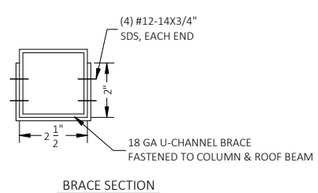
DETAIL 2A
POST/BASE RAIL CONNECTION



DETAIL 2B
POST/BASE RAIL CONNECTION



DETAIL 2C
LACED COLUMN/BASE RAIL CONNECTION



BRACE SECTION

This item has been digitally signed and sealed by Richard E. Walker, P.E. on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

RICHARD EDWARD WALKER ★ LICENSE ★ No. 61240 ★ STATE OF FLORIDA ★ PROFESSIONAL ENGINEER

Digitally signed by Richard E Walker
Date: 2025.02.10 13:47:16-05'00'

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PROJECT NO. 2503762

CONTRACTOR:
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800PIEDMONT TRIAD WEST DR.,
MOUNT AIRY, NC 27030

PROJECT ADDRESS:
POWELL
PID #30-2S-17-04804-104
LAKE CITY, FL. 32055

DESIGN DATE:	02/07/2025
REVISION 1:	DATE
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DRAWN BY:	JS
SCALE:	NTS

SHEET: 3 OF 12

GENERAL NOTES

CONCRETE MONOLITHIC SLAB DESIGN IS BASED ON A MINIMUM SOIL BEARING CAPACITY OF 2500 PSF.

CONCRETE:

1. CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.
2. ALL OPEN AREAS OF CONCRETE OUTSIDE OF THE PROPOSED STRUCTURE SHALL BE DESIGNED TO SLOPE AWAY FROM THE STRUCTURE.
3. WHERE CONCRETE SPECIFICATIONS ARE REQUIRED, BY ONE OR MORE REGULATORY AGENCY, THE FOLLOWING SPECIFICATIONS ARE APPLICABLE:
a. CONCRETE SHALL CONFORM TO ASTM C94 FOR THE FOLLOWING COMPONENTS:
i. PORTLAND CEMENT TYPE 1 - ASTM C 150
ii AGGREGATES - LARGE AGGREGATE 3/4 MAX. - ASTM C 33
iii. AIR ENTRAINING +/- 1 % - ASTM C 260
iv. WATER REDUCING AGENT - ASTM C 494
v. CLEAN POTABLE WATER
vi. OTHER ADMIXTURES NOT PERMITTED
b. CONCRETE SLUMP AT DISCHARGE CHUTE NOT LESS THAN 3" OR MORE THAN 5". WATER ADDED AFTER BATCHING IS NOT PERMITTED.
c. PREPARE & PLACE CONCRETE PER AMERICAN CONCRETE INSTITUTE MANUAL OF STANDARD PRACTICE, PART 1, 2, & 3 INCLUDING HOT WEATHER RECOMMENDATIONS.
d. MOIST CURE OR POLYETHYLENE CURING PERMITTED.
e. PRIOR TO PLACING CONCRETE, TREAT THE ENTIRE SUBSURFACE AREA FOR TERMITES IN COMPLIANCE WITH THE BUILDING CODE (FOR RISK CATEGORY II, III, & IV STRUCTURES ONLY).
f. CONCRETE SLAB SHALL BE PLACED OVER A MIN. 6 MIL POLYETHYLENE VAPOR BARRIER (SLAB ONLY).
4. CONTROL JOINTS SHALL BE PROVIDED AT EVERY 12' O.C. OR 18' O.C. FOR 4" THICK OR 6" THICK CONCRETE SLAB RESPECTIVELY.

REINFORCING STEEL:

1. THE REINFORCING STEEL SHALL BE ASTM A615 GRADE 60. THE SLAB REINFORCEMENT SHALL BE WELDED WIRE FABRIC MEETING ASTM A185 OR FIBERGLASS FIBER REINFORCEMENT.
2. REINFORCEMENT MAY BE BENT IN THE FIELD OR SHOP AS LONG AS:
a. IT IS BENT COLD;
b. REINFRCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT;
c. THE DIAMETER OF THE BEND, MEASURED ON THE INSIDE OF THE BAR, IS NOT LESS THAN SIX-BAR DIAMETERS.
3. FOR FOUNDATIONS, MINIMUM CONCRETE COVER OVER REINFORCING BARS SHALL BE PER ACI-318: 3 INCHES WHERE THE CONCRETE IS POURED AGAINST AND TEMPORARY IN CONTACT WITH THE EARTH OR UNPROTECTED FROM THE EARTH OR WEATHER, OTHERWISE 1-1/2 INCHES.

FROST PROTECTION:

1. FOUNDATION SHALL BE PROTECTED AGAINST FROST USING RIGID FOAM INSULATION (EPS OR EQUIVALENT). FOR NO FROST PROTECTION OPTION, COORDINATE WITH LOCAL BUILDING CODE AND/OR BUILDING OFFICIAL REGARDING REQUIRED FOOTING DEPTH BASED ON FROST LINE DEPTH.

HELIX ANCHOR NOTES:

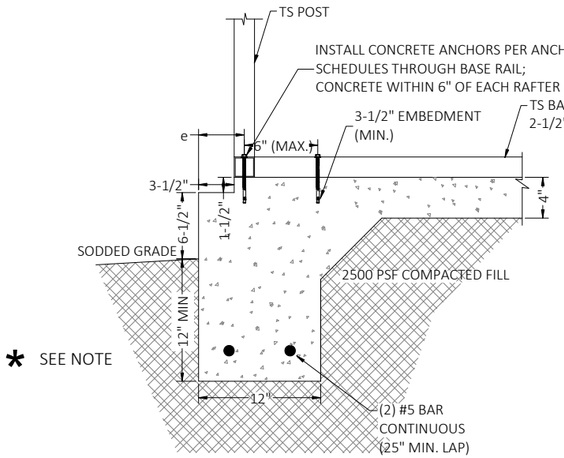
1. FOR VERY DENSE AND/OR CEMENTED SANDS, COARSE GRAVEL AND COBBLES, CALICHE, PRELOADED SILTS AND CLAYS, CORALS, MEDIUM DENSE COARSE SANDS, SANDY GRAVELS, VERY STIFF SILTS AND CLAYS, MEDIUM TO VERY LOOSE DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS, ALLUVIAL FILL, USE MINIMUM (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT INSTALLED AT EVERY POST (LEG) / MAX. RAFTER SPACING.
2. THE UPLIFT/BEARING CAPACITY OF HELICAL ANCHOR MUST BE EQUAL TO OR GREATER THAN 8.5 KIPS FOR ANCHORS INSTALLED AT EVERY POST (LEG) / MAX. RAFTER SPACING.
3. THE UPLIFT/BEARING CAPACITY OF HELICAL ANCHORS MUST BE AS SHOWN IN TABLE A FOR ANCHORS PROVIDED AT THE JAMBS OF DOOR OPENINGS. THE INCREASE IN HELICAL ANCHOR CAPACITY MAY BE ACHIEVED BY INCREASING THE DIAMETER AND/OR THE EMBEDMENT OF THE ANCHORS, OR BY USING DIFFERENT ANCHORS DEPENDING ON THE MANUFACTURER'S SPECIFICATIONS.

HP 9 BARBED DRIVE ANCHOR NOTES:

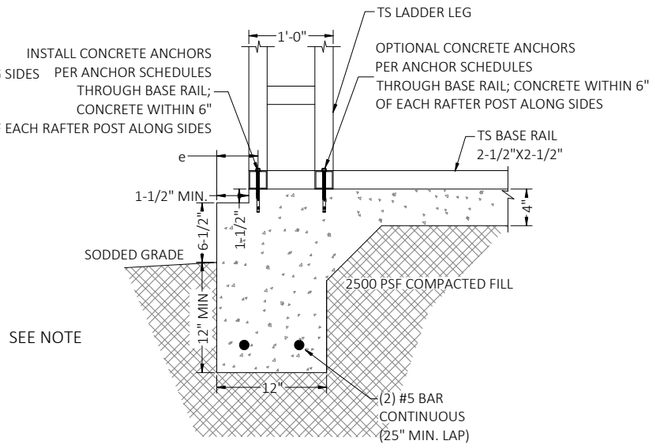
1. ANCHOR TO BE 3/4" DIA (A529 GRADE 50) WITH 30" MIN. EMBEDMENT & (4) MIN. BARBS AS SHOWN IN DETAIL 3C.
2. FOR VERY DENSE AND/OR CEMENTED SANDS, COARSE GRAVEL AND COBBLES, CALICHE, PRELOADED SILTS AND CLAYS, CORALS, MEDIUM DENSE COARSE SANDS, SANDY GRAVELS, VERY STIFF SILTS AND CLAYS, MEDIUM TO VERY LOOSE DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS, ALLUVIAL FILL, ANCHOR SHALL BE INSTALLED AT EVERY POST (LEG) / MAX. RAFTER SPACING.
3. THE UPLIFT/BEARING CAPACITY OF EACH ANCHOR MUST BE EQUAL TO OR GREATER THAN 8.5 KIPS FOR ANCHORS INSTALLED AT EVERY POST (LEG) / MAX. RAFTER SPACING.
4. THE UPLIFT/BEARING CAPACITY OF THE ANCHORS MUST BE AS SHOWN IN TABLE A FOR ANCHORS PROVIDED AT THE JAMBS OF DOOR OPENINGS. THE INCREASE IN ANCHOR CAPACITY MAY BE ACHIEVED BY INCREASING THE DIAMETER AND/OR THE EMBEDMENT OF THE ANCHORS, OR BY USING DIFFERENT ANCHORS DEPENDING ON THE MANUFACTURER'S SPECIFICATIONS.

TABLE A

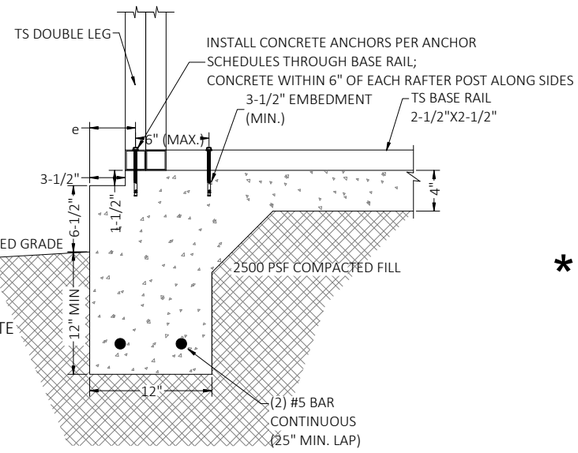
REQUIRED UPLIFT / BEARING CAPACITY OF HELICAL ANCHORS		RAFTER SPACING (FT.)	
		4	5
OPENING WIDTH (FT.)	6	11.0	9.5
	8	13.0	11.5
	10	15.0	13.0
	12	17.0	14.5
	14	19.5	16.5
	16	21.5	18.0
	18	23.5	20.0
	20	25.5	21.5



DETAIL 3A-I
CONCRETE MONOLITHIC SLAB BASE RAIL ANCHORAGE



DETAIL 3A-III
CONCRETE MONOLITHIC SLAB BASE RAIL ANCHORAGE

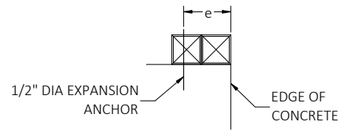


DETAIL 3A-II
CONCRETE MONOLITHIC SLAB BASE RAIL ANCHORAGE

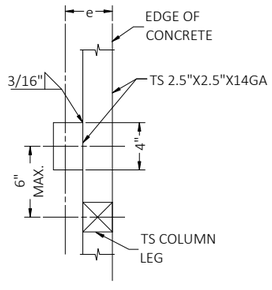
ANCHOR SCHDULES:

ANCHOR TYPE #1	1/2" DIA WEDGE ANCHOR WITH 5" MIN. EMBEDMENT INTO 3KSI MIN. CONCRETE; 4" MIN. EDGE DISTANCE (e)
ANCHOR TYPE #2	1/2" DIA HILTI KWIK HUS ANCHOR WITH 4.5" MIN. EMBEDMENT INTO 3KSI MIN. CONCRETE; 2.75" MIN. EDGE DISTANCE (e)

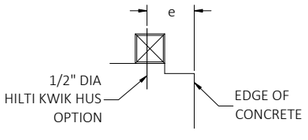
* COORDINATE WITH LOCAL CODES AND/OR BUILDING OFFICIAL REGARDING MINIMUM REQUIRED FOOTING DEPTH BASED ON FROST LINE DEPTH.



SECTION
(OPTION-1)



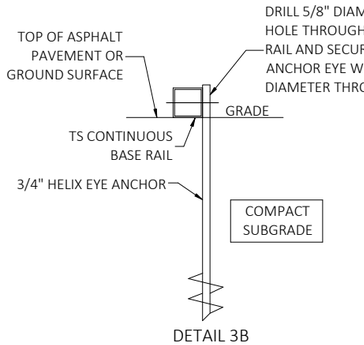
TOP VIEW
(OPTION-1)



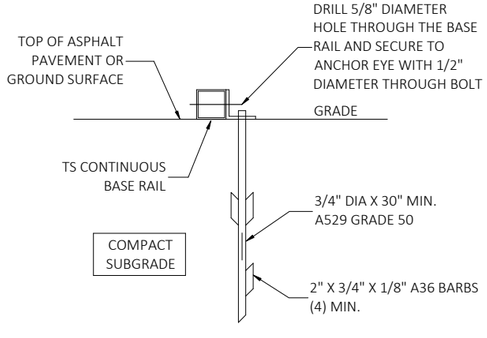
SECTION
(OPTION-2)

TYPICAL ANCHOR DETAIL WHEN BASE RAIL IS NEAR EDGE OF CONCRETE

BASE RAIL ANCHORAGE OPTION



DETAIL 3B
GROUND BASE HELIX ANCHORAGE



DETAIL 3C
ASPHALT BASE ANCHORAGE
(HP 9 BARBED DRIVE ANCHOR)

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LAKE CITY, FL. 32055

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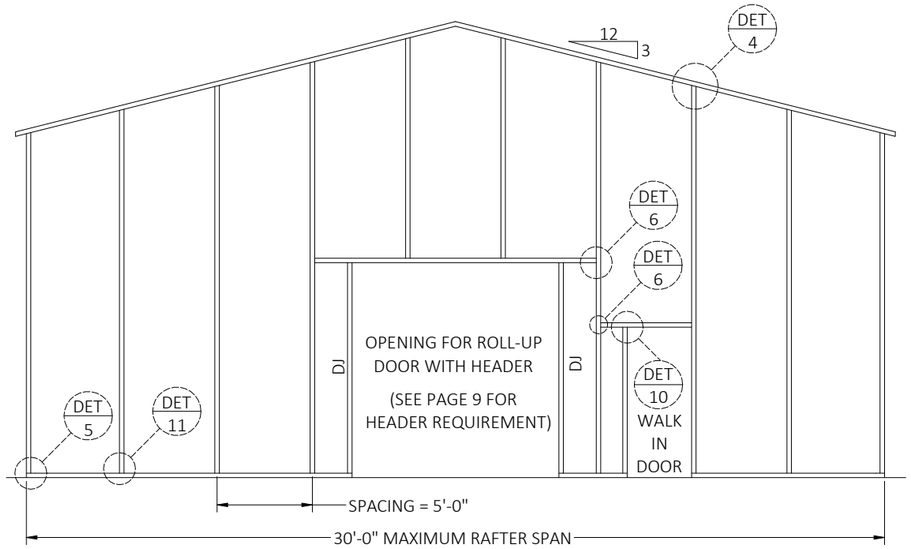
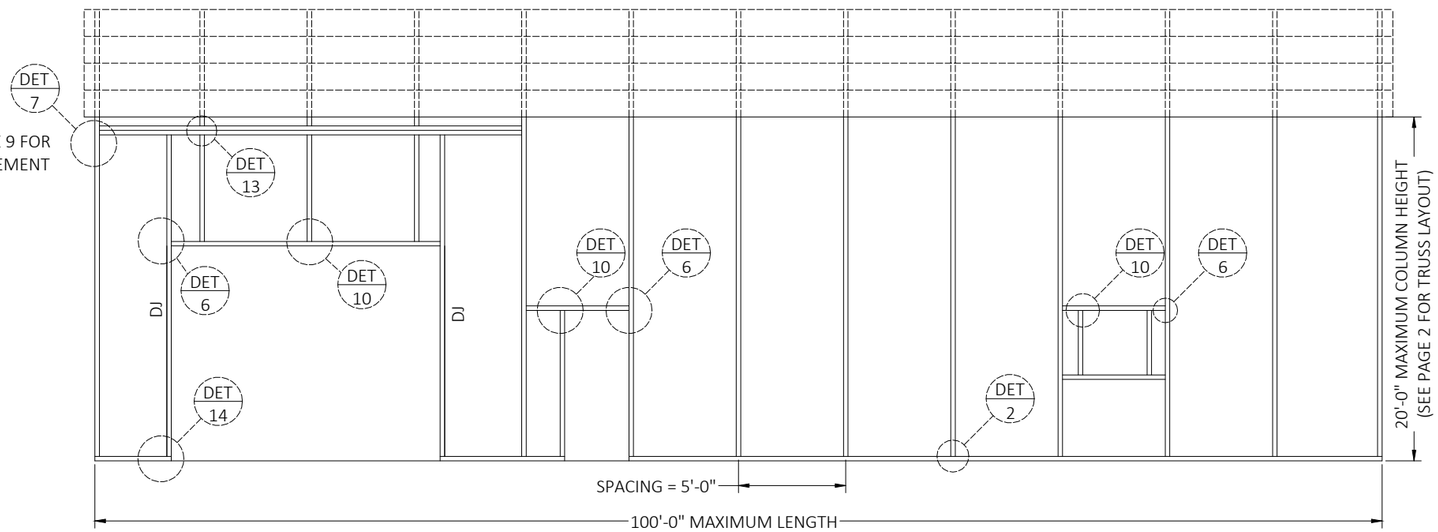
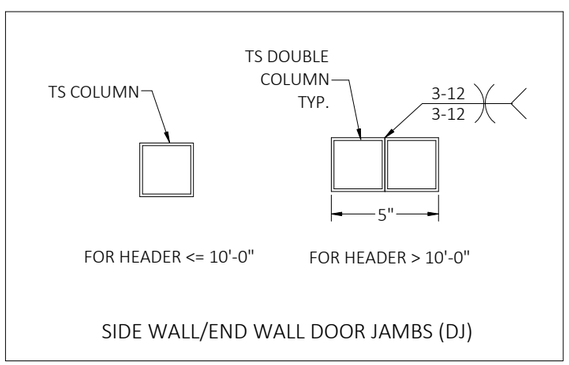


TYPICAL BOX EAVE RAFTER END WALL FRAMING SECTION



TYPICAL BOX EAVE RAFTER SIDE WALL FRAMING SECTION



SIDE WALL/END WALL DOOR JAMBS (DJ)

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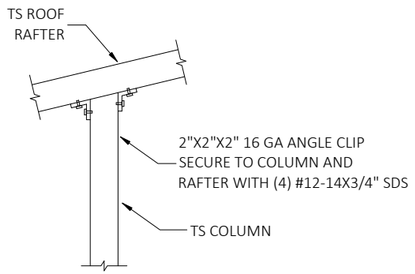
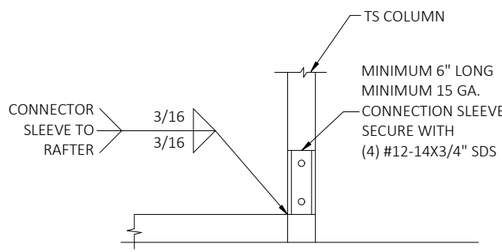
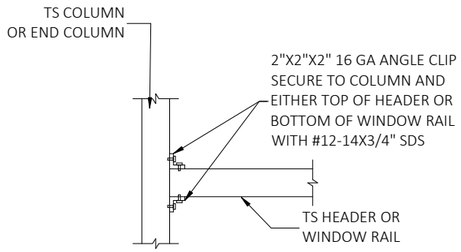
CONNECTION DETAILS



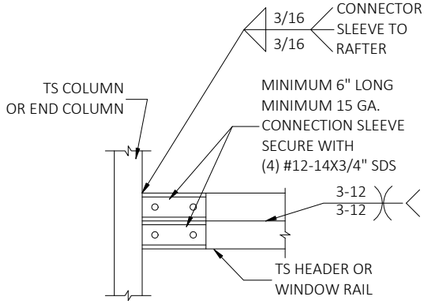
DETAIL 4
END COLUMN/RAFTER CONNECTION



DETAIL 5
END POST/BASE RAIL CONNECTION



DETAIL 6
HEADER TO COLUMN CONNECTION



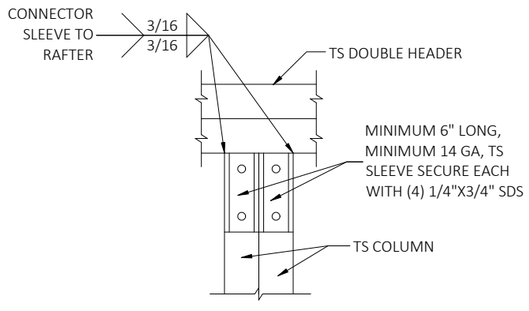
DETAIL 7
DOUBLE HEADER TO COLUMN CONNECTION

DETAIL 8
COLLAR TIE CONNECTION

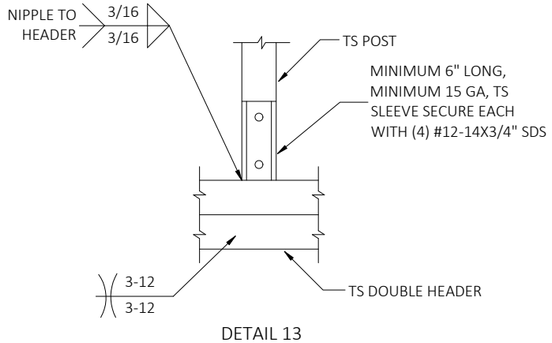
DETAIL 9
RAFTER TO CHORD CONNECTION

DETAIL 10
POST TO HEADER, BASE RAIL OR WINDOW RAIL CONNECTION
(OPTION-1)

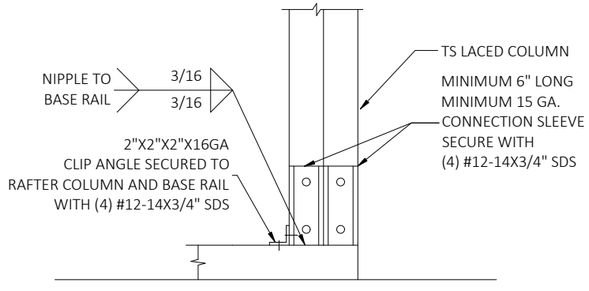
DETAIL 11
POST TO HEADER, BASE RAIL CONNECTION
(OPTION-2)



DETAIL 12
DOUBLE HEADER TO COLUMN CONNECTION



DETAIL 13
POST/DOUBLE HEADER CONNECTION



DETAIL 14
POST/BASE RAIL CONNECTION

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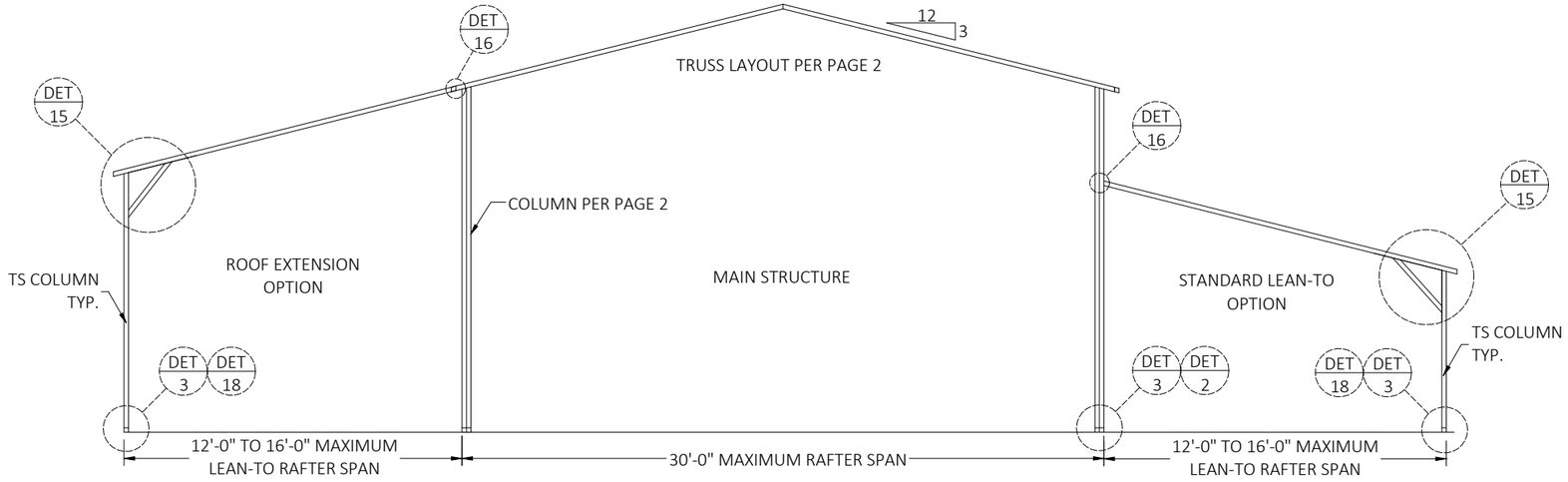
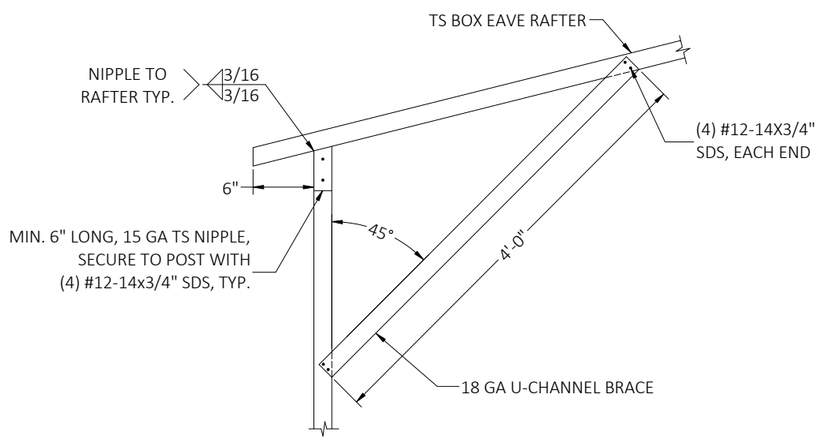


TYPICAL BOX EAVE RAFTER LEAN-TO OPTIONS FRAMING SECTION



DETAIL 15

LEAN-TO RAFTER/CORNER POST CONNECTION

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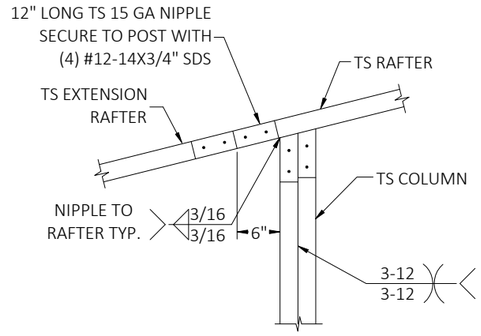
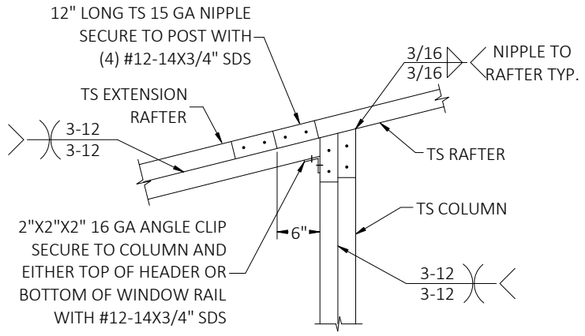
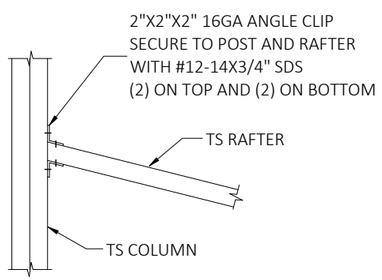
CONNECTION DETAILS



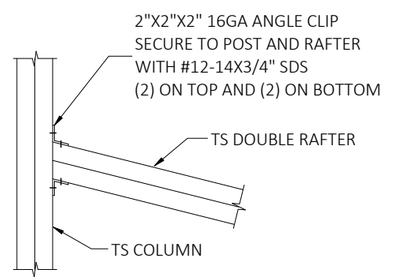
DETAIL 16A
SIDE EXTENSION RAFTER/COLUMN CONNECTION
FOR RAFTER SPANS LESS THAN 12'-0"



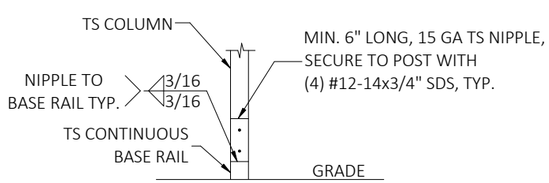
DETAIL 16B
SIDE EXTENSION RAFTER/COLUMN CONNECTION
FOR RAFTER SPANS BETWEEN 12'-0" AND 16'-0"



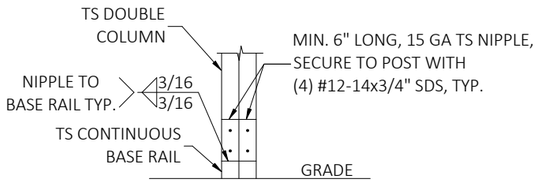
DETAIL 17A
LEAN TO RAFTER/COLUMN CONNECTION
FOR RAFTER SPANS LESS THAN 12'-0"



DETAIL 17B
LEAN TO RAFTER/COLUMN CONNECTION
FOR RAFTER SPANS BETWEEN 12'-0" AND 16'-0"



DETAIL 18A
LEAN-TO POST CONNECTION



DETAIL 18B
LEAN-TO DOUBLE POST CONNECTION

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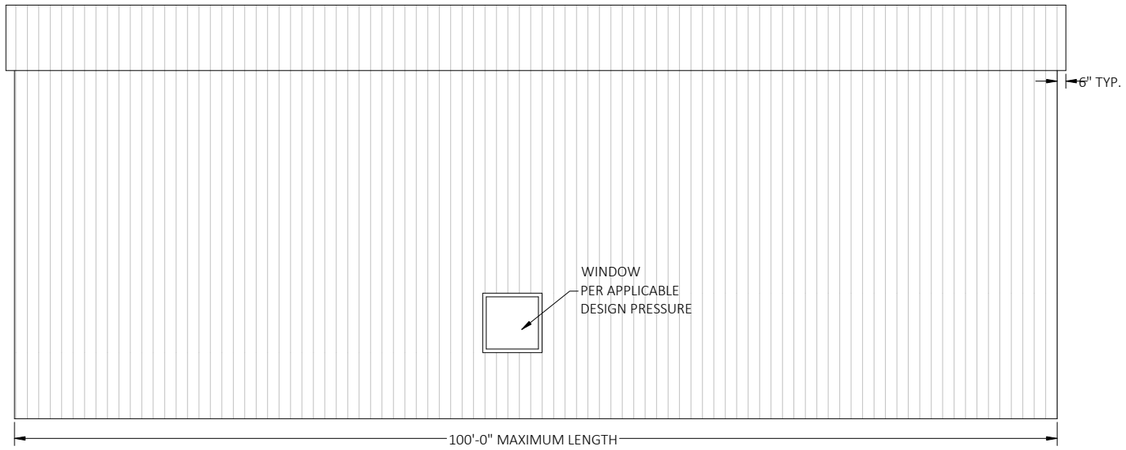
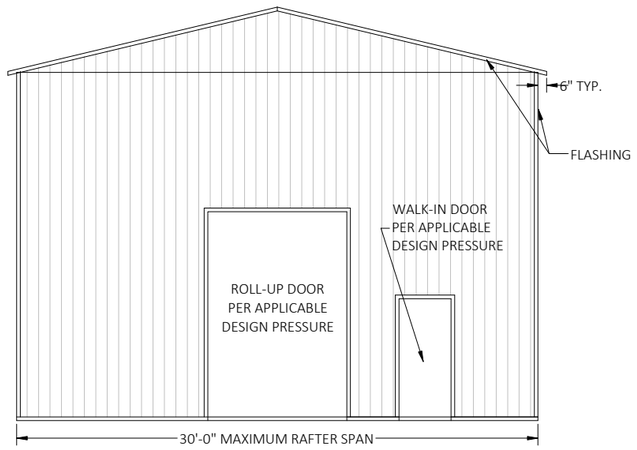
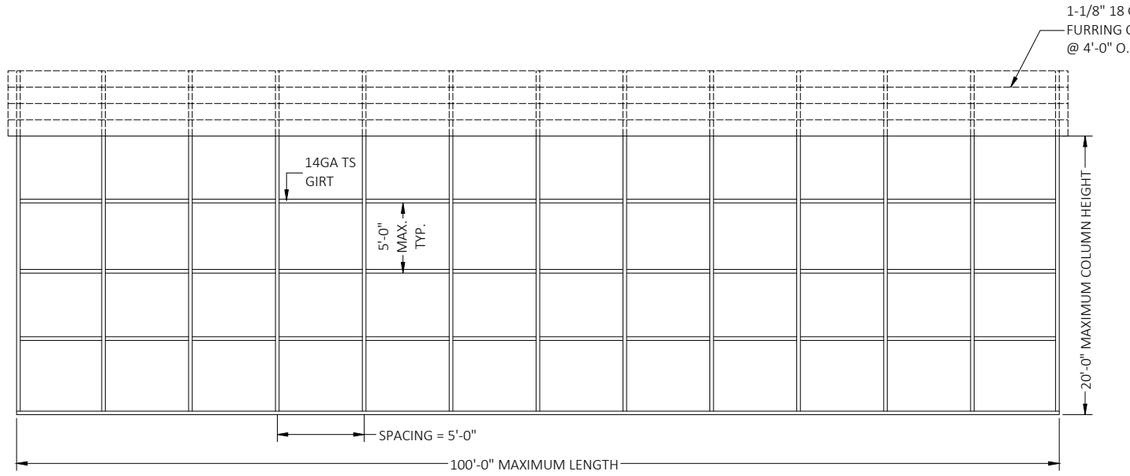


TYPICAL SIDE ELEVATION - VERTICAL ROOF/SIDING

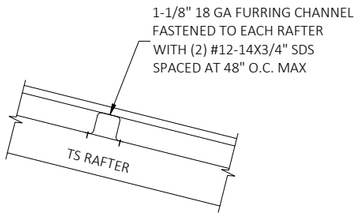


TYPICAL END ELEVATION - VERICAL ROOF/SIDING

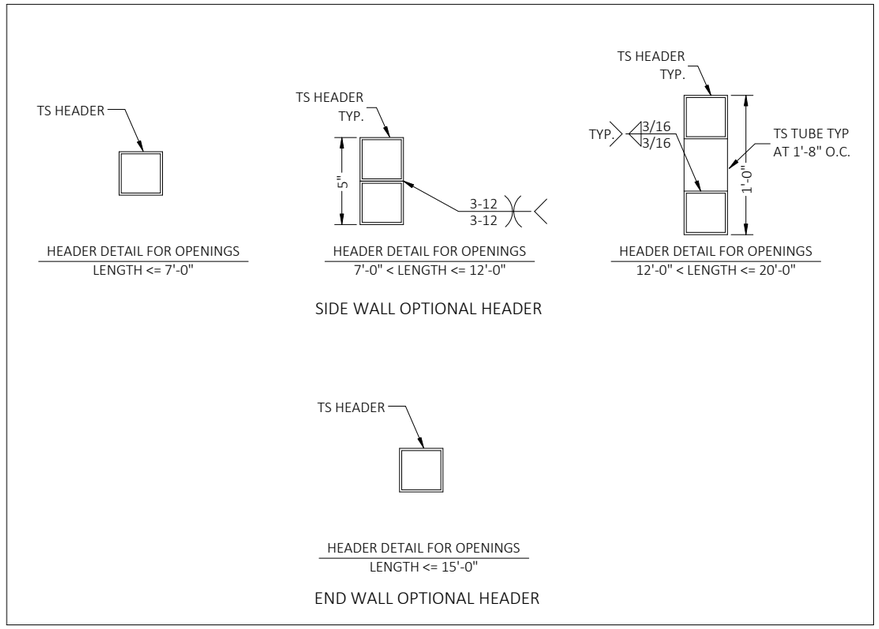
BOX EAVE FRAME RAFTER ENCLOSED BUILDING



TYPICAL RAFTER/POST SIDE FRAME SECTION



PANEL ATTACHMENT
(ALTERNATE FOR VERTICAL ROOF PANELS)



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PORT CHARLOTTE, FLORIDA 33952
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CA CERT. #30782

PROJECT NO. 2503762

CONTRACTOR:
STEEL BUILDINGS AND STRUCTURES INC.
800PIEDMONT TRIAD WEST DR.,
MOUNT AIRY, NC 27030

PROJECT ADDRESS:
POWELL
PID #30-2S-17-04804-104
LAKE CITY, FL. 32055

DESIGN DATE:	02/07/2025
REVISION 1:	DATE
REVISION 2:	DATE
DRAWN BY:	JS
SCALE:	NTS

SHEET: 9 OF 12

GENERAL NOTES

CONCRETE MONOLITHIC SLAB DESIGN IS BASED ON A MINIMUM SOIL BEARING CAPACITY OF 2500 PSF.

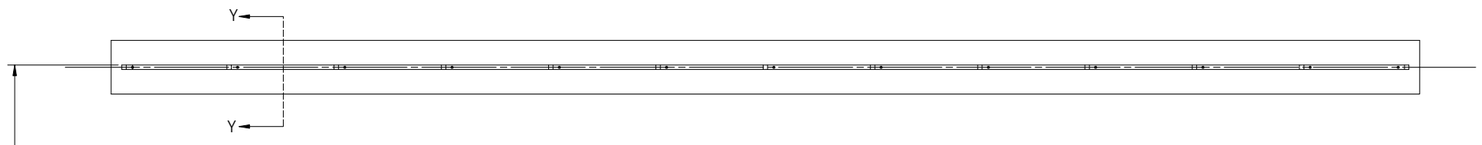
CONCRETE

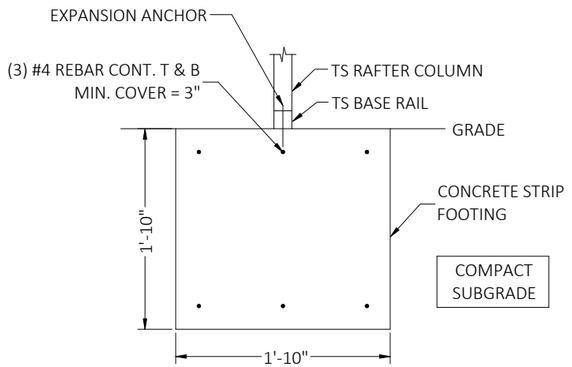
MINIMUM 28-DAY SPECIFIED COMPRESSIVE STRENGTH = 3000 PSI

REINFORCING STEEL

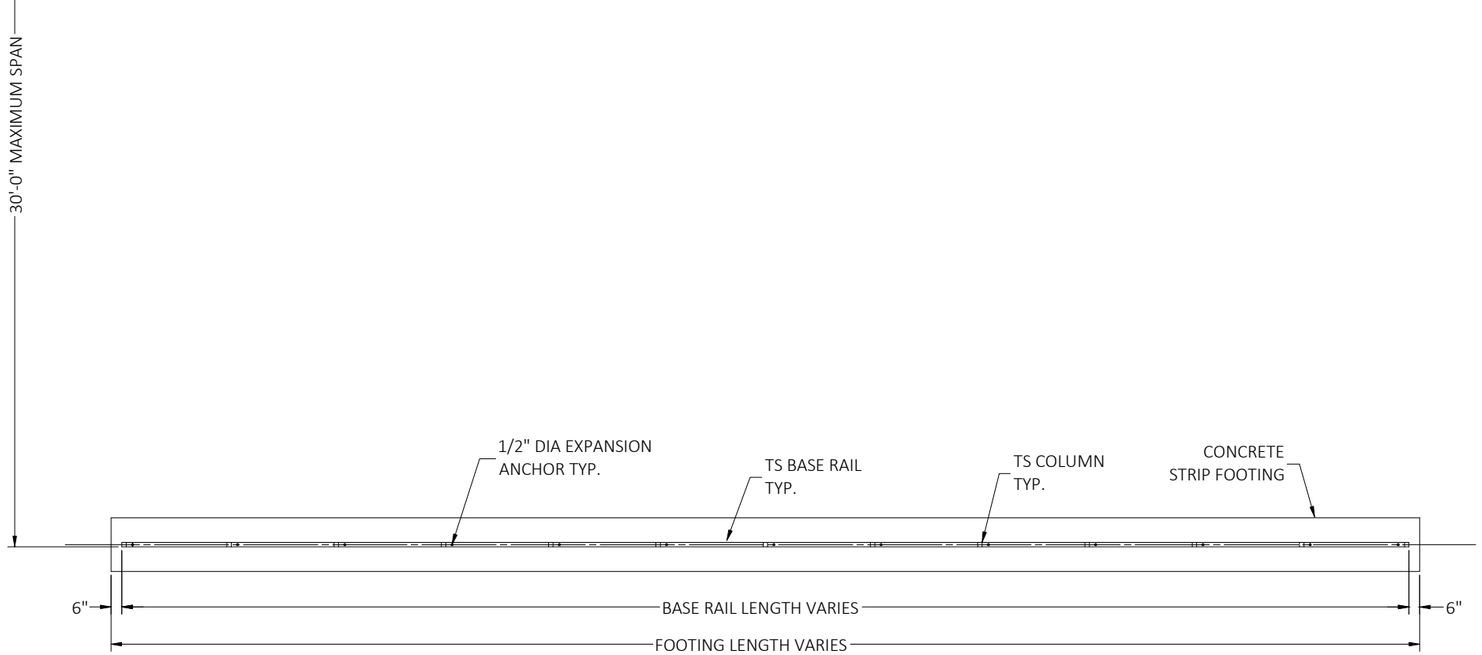
1. TURNDOWN REINFORCING STEEL = ASTM A615 GRADE 60
2. SLAB REINFORCEMENT = WELDED WIRE FABRIC PER ASTM A185 OR FIBERGLASS FIBER REINFORCEMENT
3. REINFORCING STEEL COVER = 3" WHERE CASE AGAINST AND PERMENENTLY EXPOSED TO SOIL OR WATER, 1.5" EVERYWHERE ELSE.
4. REINFORCEMENT IS BENT COLD.
5. MINIMUM INSIDE DIAMETER OF BEND = (6) BAR DIAMETERS
6. REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT.

OPTIONAL CONCRETE STRIP FOOTING





SECTION Y-Y



CONCRETE STRIP FOOTING PLAN

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SHEET: 10 OF 12

GENERAL NOTES
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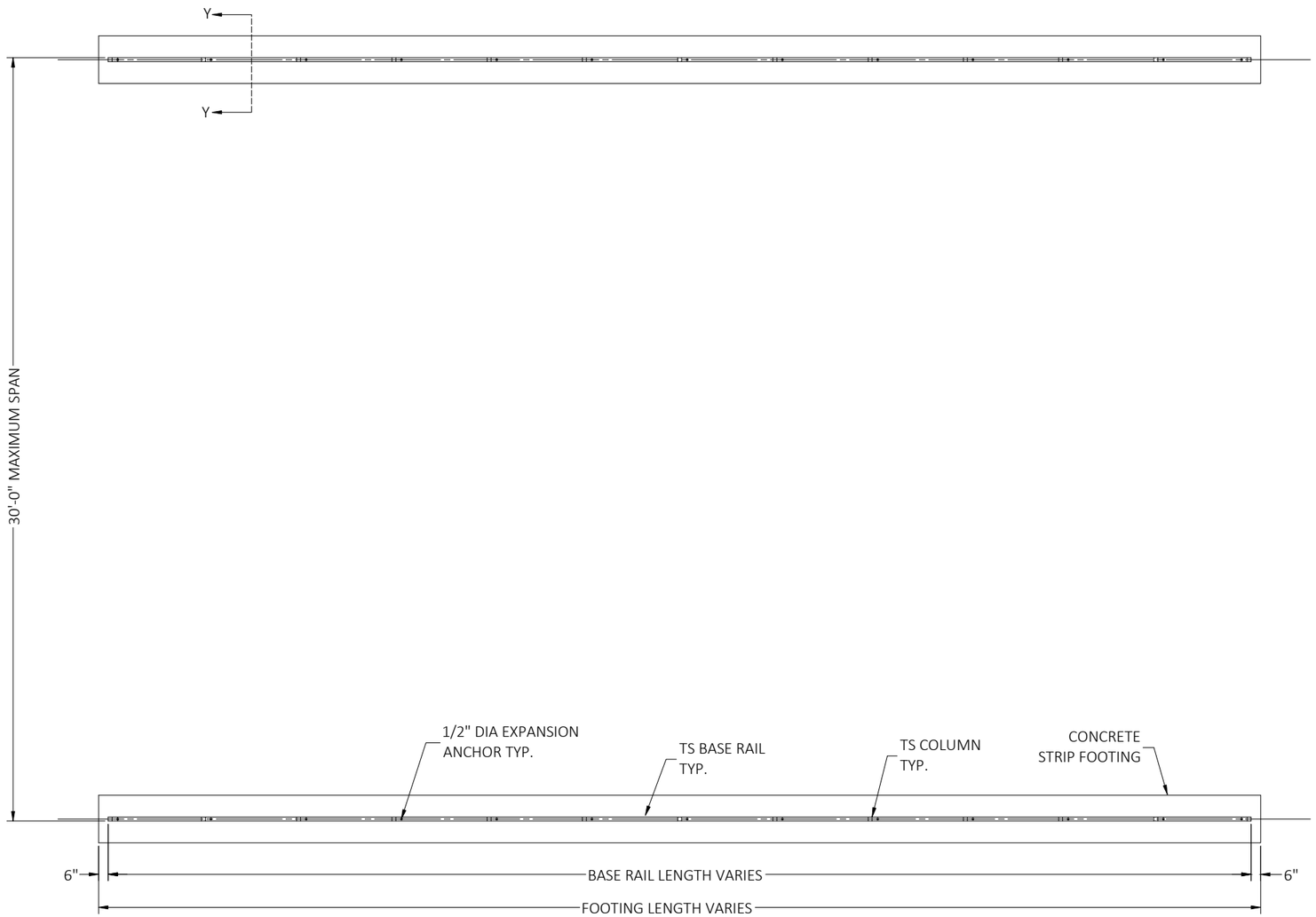
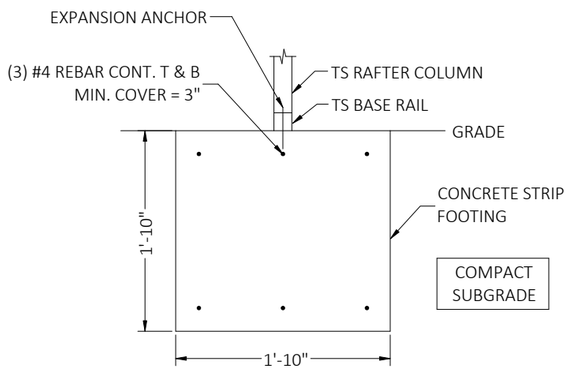


CONCRETE STRIP FOOTING PLAN



SECTION Y-Y

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SHEET: 11 OF 12

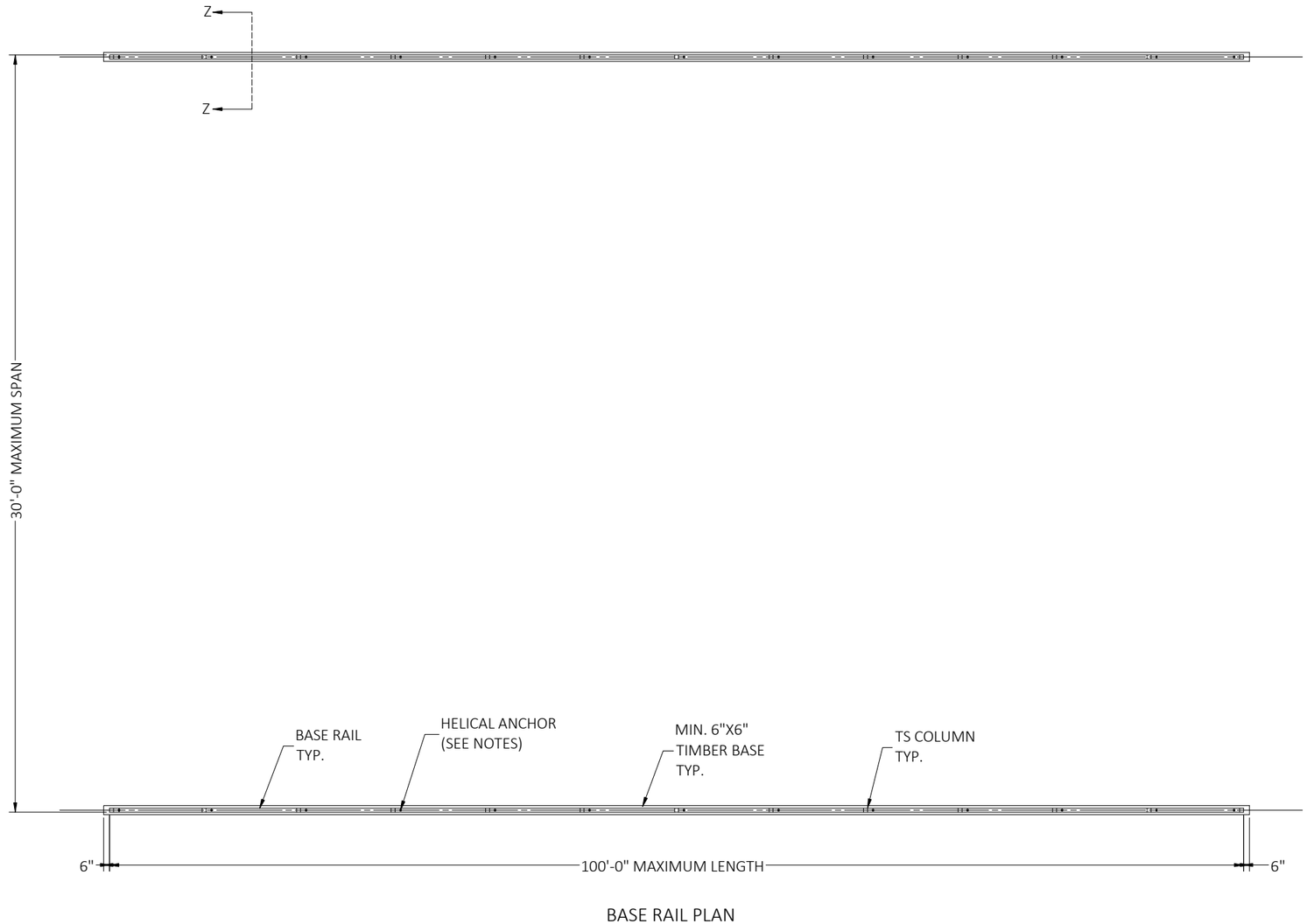
TIMBER NOTES:
1. TIMBER BASE TO BE NO. 2 SYP PT OR EQUIVALENT.

HELIX ANCHOR NOTES:
1. FOR VERY DENSE AND/OR CEMENTED SANDS, COARSE GRAVEL AND COBBLES, CALICHE, PRELOADED SILTS AND CLAYS, CORALS, MEDIUM DENSE COARSE SANDS, SANDY GRAVELS, VERY STIFF SILTS AND CLAYS, MEDIUM TO VERY LOOSE DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS, ALLUVIAL FILL, USE MINIMUM (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT INSTALLED AT EVERY POST (LEG) / MAX. RAFTER SPACING.
2. THE UPLIFT/BEARING CAPACITY OF HELICAL ANCHOR MUST BE EQUAL TO OR GREATER THAN 8.5 KIPS FOR ANCHORS INSTALLED AT EVERY POST (LEG) / MAX. RAFTER SPACING.
3. THE UPLIFT/BEARING CAPACITY OF HELICAL ANCHORS MUST BE AS SHOWN IN TABLE A FOR ANCHORS PROVIDED AT THE JAMBS OF DOOR OPENINGS. THE INCREASE IN HELICAL ANCHOR CAPACITY MAY BE ACHIEVED BY INCREASING THE DIAMETER AND/OR THE EMBEDMENT OF THE ANCHORS, OR BY USING DIFFERENT ANCHORS DEPENDING ON THE MANUFACTURER'S SPECIFICATIONS.

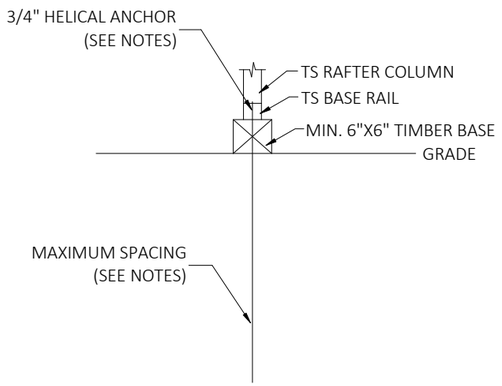
TABLE A

REQUIRED UPLIFT / BEARING CAPACITY OF HELICAL ANCHORS		RAFTER SPACING (FT.)	
		4	5
OPENING WIDTH (FT.)	6	11.0	9.5
	8	13.0	11.5
	10	15.0	13.0
	12	17.0	14.5
	14	19.5	16.5
	16	21.5	18.0
	18	23.5	20.0
	20	25.5	21.5

OPTIONAL HELICAL ANCHORING ON TIMBER BEAM DETAIL



BASE RAIL PLAN



SECTION Z-Z

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