

# RED CORP - TODD THURNAU

2504 E MAIN AVE., PUYALLUP, WA 98372

(PIERCE COUNTY, WA)  
(2) 30' X 35' X 15'

## STRUCTURAL DESIGN NOTES

- ALL CONSTRUCTION SHALL BE PROVIDED IN ACCORDANCE WITH IBC 2018, ASCE7-16, OSHA, AISC 360, AISI 100, AWS D1.3 CODES AND ALL OTHER APPLICABLE LOCAL CITY OR COUNTY REQUIREMENTS.
- ALL MATERIALS IDENTIFIED BY A MANUFACTURER NAME MAY BE SUBSTITUTED WITH MATERIAL EQUAL OR EXCEEDING ORIGINAL.
- ALL WELDS ARE TO BE SHOP WELDS. **FIELD WELDING IS NOT PERMITTED NOR REQUIRED.** WELDING ELECTRODES PER AWS CODE, E70XX UNLESS NOTED OTHERWISE ON PLANS.
- ALL STRUCTURAL FIELD CONNECTIONS SHALL BE #12-14 x 3/4" SDS (ESR-2196) U.N.O. NO NEOPRENE WASHERS ARE PERMITTED AT STRUCTURAL CONNECTIONS.
- STEEL SHEATHING SHALL BE 29GA. CORRUGATED GALV. OR PAINTED STEEL - MAIN RIB HT. 3/4" (FY=80 KSI) OR EQ.
- SHEATHING CONNECTIONS SHALL BE #12-14 x 3/4" SDS. NEOPRENE WASHERS ARE REQUIRED.
- ALL STRUCTURAL LIGHT GAUGE TUBING AND CHANNELS SHALL BE ASTM A653 (HSLA) GRADE 50 STEEL (Fy = 50 KSI, Fu = 65 KSI) OR EQUAL.
- STRUCTURAL TUBE TS 2 1/2" x 2 1/2" x 14GA (0.083") IS EQUIVALENT TO TS 2 1/4" x 2 1/4" x 12GA (0.109") AND EITHER ONE MAY BE USED IN LIEU OF THE OTHER.
- GYPSUM BOARD OR DRYWALL FINISH OR ANY BRITTLE BASE MATERIAL IS NOT CONSIDERED OR ACCOUNTED FOR ON THE DESIGN CRITERIA OF THIS STRUCTURE, U.N.O.

## STRUCTURAL DESIGN CRITERIA

PREVAILING CODE:	WSBC (IBC 2018)
OCCUPANCY / USE GROUP:	U (PRIVATE GARAGE / SHED)
CONSTRUCTION TYPE:	V - B
RISK CATEGORY:	II
BUILDING FOOTAGE:	2100 SQ.FT
1. DEAD LOAD (D) COLLATERAL LOAD	2.0 PSF
2. ROOF LIVE LOAD (Lr)	Lr = 20 PSF
3. SNOW LOAD (S) GROUND SNOW LOAD IMPORTANCE FACTOR THERMAL FACTOR EXPOSURE FACTOR ROOF SLOPE FACTOR FLAT ROOF SNOW LOAD SLOPED ROOF SNOW LOAD MINIMUM SNOW LOAD	Pg = 20 PSF Is = 1.00 Ct = 1.2 Ce = 1.0 Cs = 1.0 Pf = 17 PSF Ps = 17 PSF Pm = 20 PSF
4. WIND LOAD (W) DESIGN WIND SPEED EXPOSURE	Vult = 110 MPH C
5. SEISMIC LOAD (E) Ss / S1 SDs / SD1 DESIGN CATEGORY SITE CLASS IMPORTANCE FACTOR	1.258/0.433 1.006/NULL D D (DEFAULT) Ie = 1.00

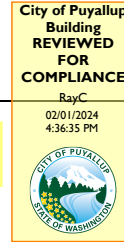
### ASD LOAD COMBINATIONS:

- D + (Lr OR S)
- D + (0.6W OR ±0.7E)
- D + 0.75 (0.6W OR ±0.7E) + 0.75 (Lr OR S)
- 0.6D + (0.6W OR ±0.7E)

## AS-BUILT CERTIFICATION NOTES:

THIS AS-BUILT DOCUMENT HAS BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. THE ENGINEER HAS NOT INSPECTED THE ACCURACY AND/OR THE COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT. THE VALIDITY OF ENGINEERS STAMP IS SUBJECT TO PROVIDING ADDITIONAL REINFORCEMENT AND/OR REPAIR OF EXISTING STRUCTURE AS NOTED THROUGHOUT THE PLAN SET.

Approval of submitted plans is not an approval of omissions or oversight by this office or noncompliance with any applicable regulations of local government. The contractor is responsible for making sure that the building complies with all applicable building codes and regulations of the local government.



THE APPROVED CONSTRUCTION PLANS AND ALL ENGINEERING MUST BE POSTED ON THE JOB AT ALL INSPECTIONS IN A VISIBLE AND READILY ACCESSIBLE LOCATION. PRINT in COLOR and to SCALE.

**PRCP20230996**

Revised by applicant for only one structure.

## SCOPE OF PLANS:


- TO PROVIDE STRUCTURAL DESIGN FOR THE PRE-FAB METAL BUILDING PER THE SPECIFIED DESIGN LOADS, AND APPLICABLE BUILDING CODES. ANY DISCREPANCIES IN DESIGN LOADS SHALL BE BROUGHT TO THE ATTN. OF THE ENGINEER OF RECORD.
- DOES NOT PROVIDE ANY ARCHITECTURAL, SITE, ZONING, HVAC, ELEC, MECH DESIGN OR REQUIREMENTS. THESE ITEMS MUST BE ADDRESSED BY THEIR RESPECTIVE PROFESSIONALS IN CHARGE.

## STRUCTURAL DRAWING INDEX

- COVER SHEET
- ELEVATIONS
- FOUNDATION PLAN
- FOUNDATION DETAILS
- FRAME SECTION & DETAILS
- SIDE WALL FRAMING & DETAILS
- END WALL FRAMING & DETAILS



2.26.226  
THIS PROJECT IS COVERED BY AN INSURANCE POLICY. THE POLICY NUMBER IS: 331-23-0987. METAL CARPORTS LLC ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF METAL CARPORTS LLC IS PROHIBITED.

SHEET NO: <b>1 OF 7</b>	
PROJECT NO: <b>331-23-0987</b>	DATE: <b>9/6/2023</b>
DRAWN BY: <b>KO</b>	DATE: <b>9/6/2023</b>
<b>COVER SHEET</b>	
LOCATION: <b>2504 E MAIN AVE. PUYALLUP, WA 98372</b>	
PROJECT TITLE: <b>RED CORP - TODD THURNAU</b>	
METAL BUILDING MANUFACTURER: <b>METAL CARPORTS LLC</b>	
 110 Avery Rd E Chehalis, WA 98532 360-262-9354	

FOR QUESTIONS, MODIFICATIONS, REVISIONS OR CORRECTIONS NEEDED TO PLANS, PLEASE CONTACT THE METAL BUILDINGS MANUFACTURER LISTED ON PLANS. ENGINEER OF RECORD REQUIRES AUTHORIZATION FROM THE METAL BUILDINGS MANUFACTURER TO MAKE ANY CHANGES TO PLANS.

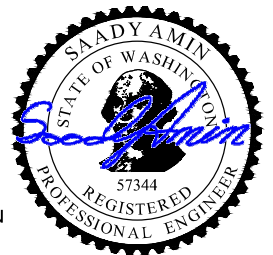
REVISIONS LIST		
MARK	COMMENTS	DATE
-	ISSUED FOR PERMIT & CONST.	SEP 06 2023

## SPECIAL INSPECTIONS

NO SPECIAL INSPECTIONS ARE REQUIRED FOR THIS STRUCTURE, AS IT MEETS THE EXCEPTIONS OF SECTION 1704 PER WSBC (IBC 2018), UNLESS EXPLICITLY REQUIRED BY THE BUILDING OFFICIAL.

**SAADY AMIN**

Digitally signed by SAADY AMIN  
Reason: I have reviewed this document  
Date: 2023.09.08  
13:05:31-04'00'



**EXPIRES: 1/3/2024**  
SIGNED: SEP 06 2023

SHEET NO: **2 OF 7**

PROJECT NO: **331-23-0987**

DRAWN BY: **KO** DATE: **9/6/2023**

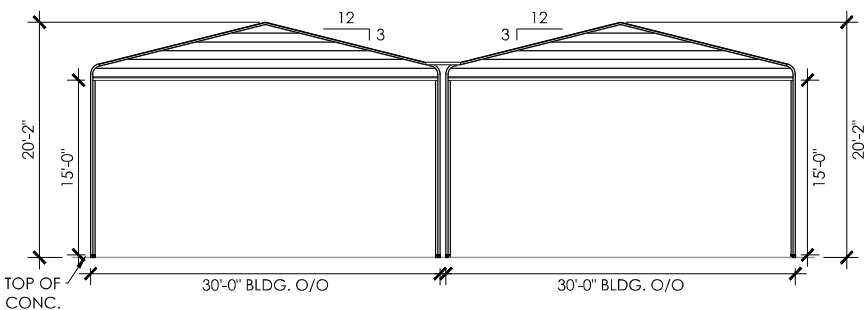
LOCATION: **2504 E MAIN AVE.  
PUYALLUP, WA 98372**

SHEET TITLE: **ELEVATIONS**

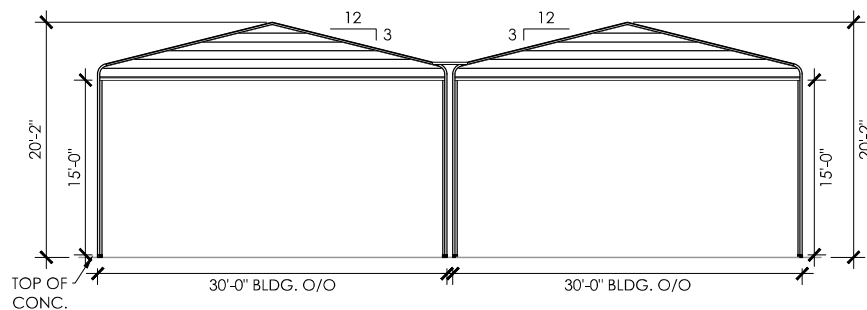
PROJECT TITLE: **RED CORP - TODD THURNAU**

METAL BUILDING MANUFACTURER

**NORTHSIDE METAL CARPENTRY, INC.**  
110 Avery Rd E  
Chehalis, WA 98532  
360-262-9354



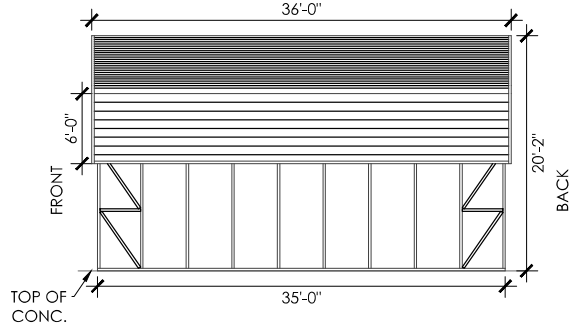
**FRONT END WALL ELEVATION**  
SCALE: 3/32" : 1"



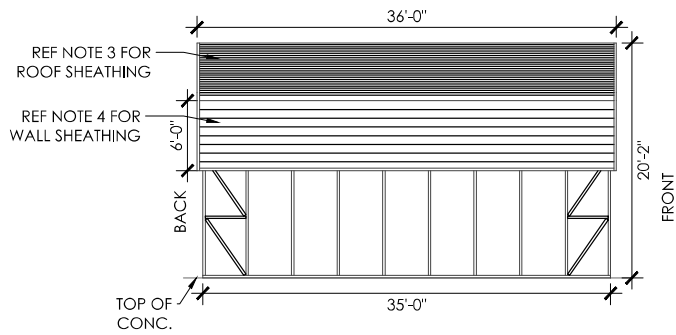
**BACK END WALL ELEVATION**  
SCALE: 3/32" : 1"

**DESIGN NOTES**

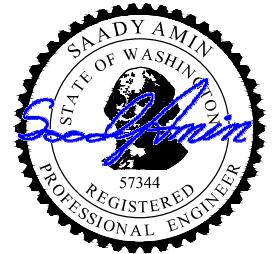
1. THE INTENTION OF ELEVATIONS PROVIDED ON THIS SHEET IS TO INDICATE STRUCTURAL COMPONENTS, DIMENSIONS, AND BUILDING ORIENTATION ONLY.
2. ARCHITECTURAL DESIGN REQUIREMENTS ARE NOT COVERED IN THIS PLAN SET. THESE DESIGN REQUIREMENTS SHALL BE ADDRESSED IN A SEPARATE ARCHITECTURAL SET BY RESPONSIBLE LICENSED PROFESSIONALS IN CHARGE, AS NEEDED.
3. ALL EXT ROOF SHEATHING SHALL BE: CLASS A RATED 29GA. 3/4" RIB HT - GALV OR PAINTED STEEL (FY=80 KSI) OR EQ.
4. ALL EXT WALL SHEATHING SHALL BE: CLASS A RATED 29GA. 3/4" RIB HT - GALV OR PAINTED STEEL (FY=80 KSI) OR EQ.
5. LOC OF WALK-IN DOORS OR WINDOWS CAN BE DETERMINED ON SITE AS LONG AS THEY FALL BETWEEN BAYS (BETWEEN FULL FRAMES).



**RIGHT SIDE WALL ELEVATION**  
SCALE: 3/32" : 1"



**LEFT SIDE WALL ELEVATION**  
SCALE: 3/32" : 1"

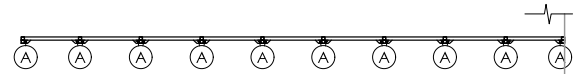


EXPIRES: **1/3/2024**  
SIGNED: **SEP 06 2023**

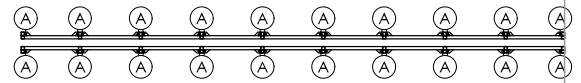
MEMBER PROPERTIES	
BASE RAIL	2 1/4" SQ. X 12GA TUBE
COLUMN POST	(2) 2 1/4" SQ. X 12GA TUBE - STITCH WELDED
CONCRETE ANCHORAGE	
ANCHOR 'A'	1/2"Ø X 7" LG. POWER-STUD+ SD1 EXPANSION ANCHOR (PER ESR 2818)

**AS-BUILT / EXISTING FOUNDATION NOTES:**

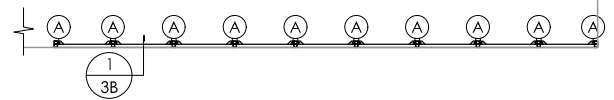
1. THE AS-BUILT / EXISTING FOUNDATION PLAN HAS BEEN PREPARED BASED INFORMATION PROVIDED BY CUSTOMER.
2. THE VALIDITY OF ENGINEERS STAMP DOES NOT COVER THE DESIGN OR REINFORCEMENT OF THE AS-BUILT FOUNDATION AS FOUNDATION WAS POURED PRIOR TO ENGINEER OF RECORD'S INVOLVEMENT OR RECOMMENDATION. AS-BUILT FOUNDATION SIZING AND REINFORCEMENT DESIGN SHALL BE RESPONSIBILITY OF ORIGINAL DESIGNERS.
3. A MIN. SLAB SIZE OF 30' X 35' IS NECESSARY TO ALLOW THE MIN. OF 4" ANCHOR-TO-CONCRETE EDGE DISTANCE.
4. CONCRETE ANCHORS SHALL BE LOCATED AS SHOWN ON THE FOUNDATION PLAN WITH A MINIMUM OF (1) ANCHOR PER POST.
5. ASSUMED SOIL BEARING CAPACITY IS TO BE A MIN. OF 1500 PSF.
6. ASSUMED CONCRETE STRENGTH FOR ANCHORAGE DESIGN TO BE A MIN OF 2500 PSI.



AS BUILT / EXISTING CONC FOUNDATION BY OTHERS

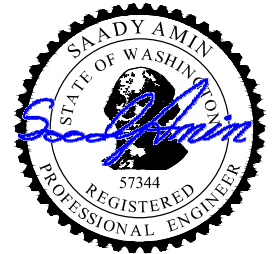


AS BUILT / EXISTING CONC FOUNDATION BY OTHERS



**FOUNDATION PLAN**

SCALE: 1/8" = 1'



EXPIRES: 1/3/2024

SIGNED: SEP 06 2023

MEMBER PROPERTIES	
BASE RAIL	2 1/4" SQ. X 12GA TUBE
COLUMN POST	(2) 2 1/4" SQ. X 12GA TUBE - STITCH WELDED
CONCRETE ANCHORAGE	
ANCHOR 'A'	1/2"Ø X 7" LG. POWER-STUD+ SD1 EXPANSION ANCHOR (PER ESR 2818)

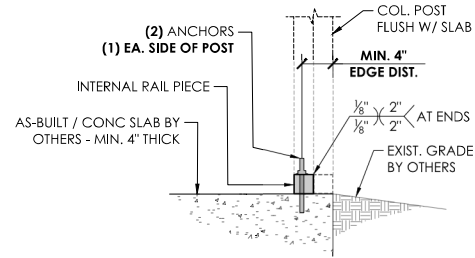
**ANCHOR NOTES:**

- ANCHOR INSTALLATION REQUIREMENTS (REF ANCHORAGE DETAIL):
  - A.L.** - ANCHOR LENGTH: 7.00"
  - E.D.** - ANCHOR EDGE DISTANCE: MIN. 4.00" OR U.N.O.
  - H.** - ANCHOR HOLE DEPTH: MIN. 4.50"
  - D.** - CONCRETE EMBEDMENT DEPTH: MIN. 3.754"
  - SPACING BETWEEN (2) ANCHORS: MIN. 5.00" OR U.N.O.

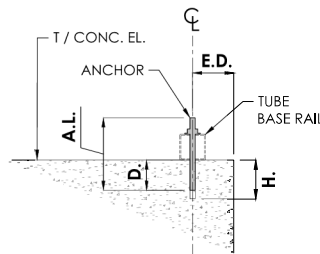
- ANCHORS TO BE SPACED NO MORE THAN 6" FROM POSTS OR U.N.O.
- ANCHORS TO BE INSTALLED PER MANUFACTURER'S REQ. PER SPECIFIED ESR.

**AS-BUILT CERTIFICATION NOTES:**

- AS-BUILT FOUNDATION DETAILS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS.
- THE ENGINEER HAS NOT INSPECTED THE ACCURACY AND/OR THE COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT.
- THE VALIDITY OF ENGINEERS STAMP DOES NOT COVER THE DESIGN OR REINFORCEMENT OF THE AS-BUILT FOUNDATION AS FOUNDATION WAS POURED PRIOR TO ENGINEER OF RECORD'S INVOLVEMENT OR RECOMMENDATION. AS-BUILT FOUNDATION SIZING AND REINFORCEMENT DESIGN SHALL BE RESPONSIBILITY OF ORIGINAL DESIGNERS.



**1 FOUNDATION DETAIL**  
SCALE: 3/4" : 1"



**ANCHORAGE DETAIL**  
SCALE: 1" : 1"

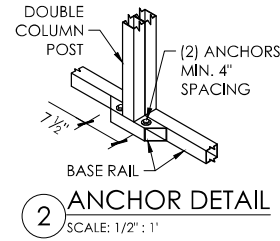
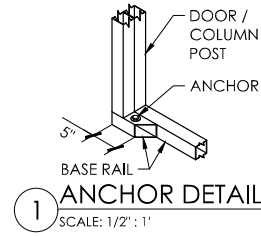
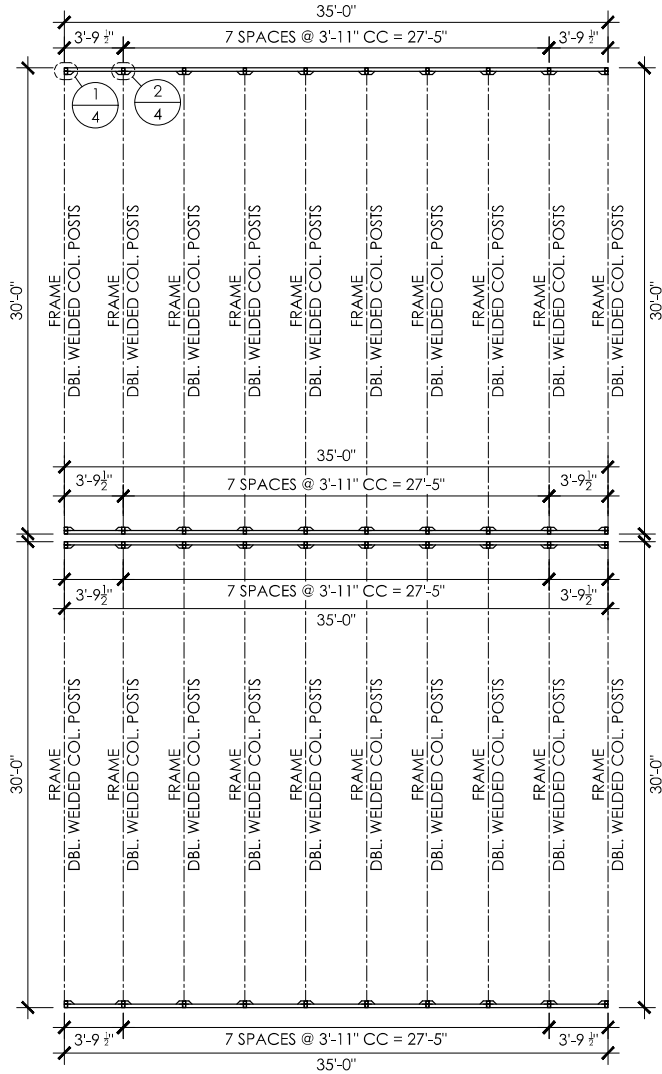
SHEET NO: <b>3B OF 7</b>	
PROJECT NO: 331-23-0987	
DRAWN BY: KO	DATE: 9/6/2023
FOUNDATION DETAILS: <b>EXISTING CONCRETE SLAB</b>	
LOCATION:	2504 E MAIN AVE. PUYALLUP, WA 98372
PROJECT TITLE:	RED CORP - TODD THURNAU
METAL BUILDING MANUFACTURER	
 <b>NORTHSIDE METAL CARPORTS, INC.</b> 110 Avery Rd E Chehalis, WA 98532 360-262-9354	



**EXPIRES: 1/3/2024**  
SIGNED: SEP 06 2023



SHEET NO: **4 OF 7**  
 PROJECT NO: 331-23-0987  
 DRAWN BY: KO DATE: 9/6/2023



NOTE:  
SEE SHEET 3A / 3B FOR ANCHOR TYPE  
SEE SHEET 5 FOR FRAME SECTION AND DETAILS

**COLUMN LAYOUT PLAN**  
SCALE: 1/8" : 1"

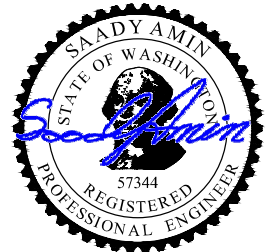
SHEET TITLE: **COLUMN LAYOUT PLAN & DETAILS**

PROJECT TITLE: RED CORP - TODD THURNAU

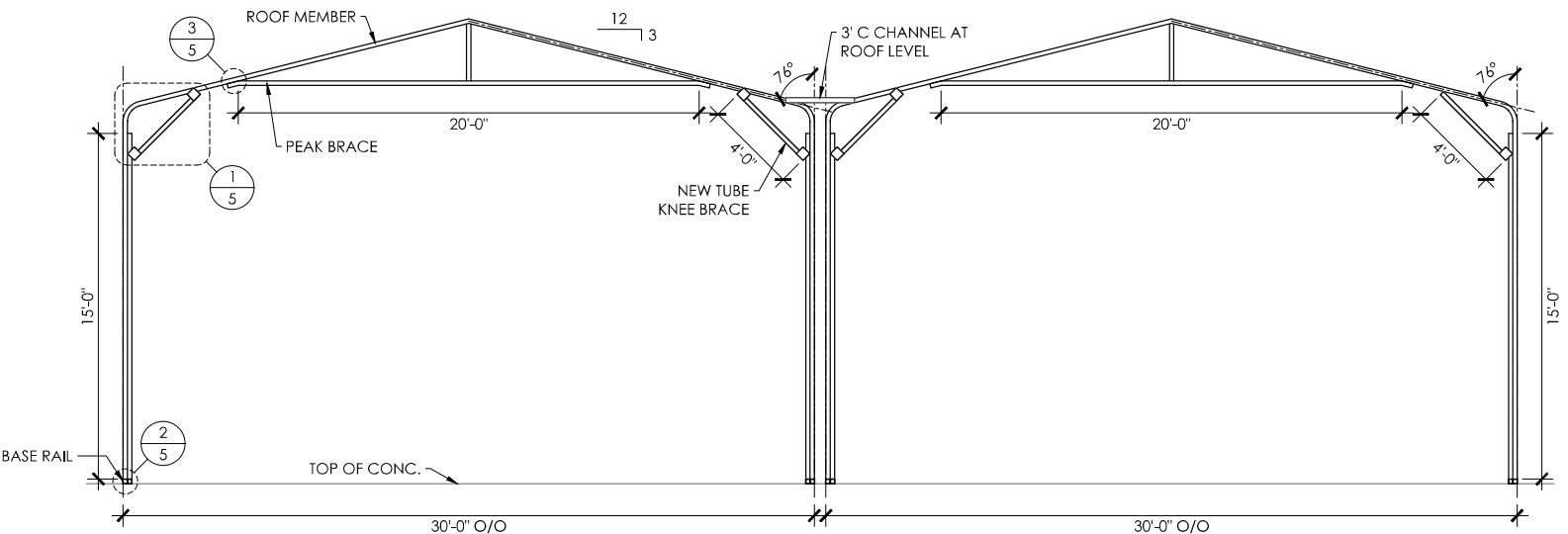
LOCATION: 2504 E MAIN AVE. PUYALLUP, WA 98372

METAL BUILDING MANUFACTURER

**NORTHSIDE METAL CARPORTS, INC.**  
110 Avery Rd E  
Chenalis, WA 98532  
360-262-9354



EXPIRES: 1/3/2024  
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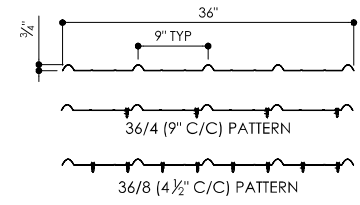


**TYPICAL FRAME**  
SCALE: 3/16" : 1"

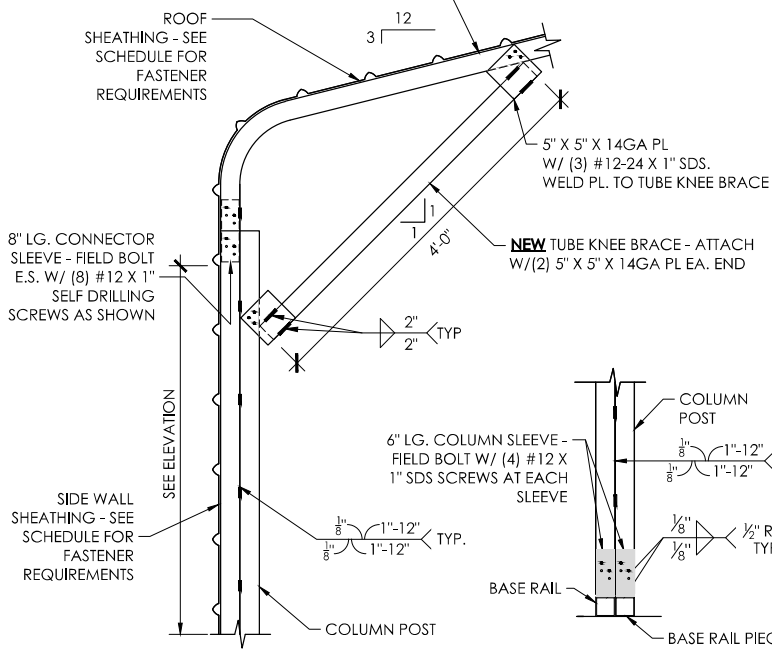
MEMBER PROPERTIES	
COLUMN POST	(2) 2 1/4" SQ. X 12GA TUBE - STITCH WELDED
ROOF MEMBER	2 1/4" SQ. X 12GA TUBE
BASE RAIL	2 1/4" SQ. X 12GA TUBE
PEAK BRACE	2 1/4" SQ. X 12GA TUBE
KNEE BRACE	2 1/4" SQ. X 12GA TUBE
CONNECTOR SLEEVE	2" SQ. X 12GA TUBE

SHEATHING FASTENER SCHEDULE				
LOCATION	CORNER PANEL	SIDE LAPS	EDGE LAPS	ELSEWHERE
SPACING	9" CC	MIN. 1	4 1/2" CC	9" CC

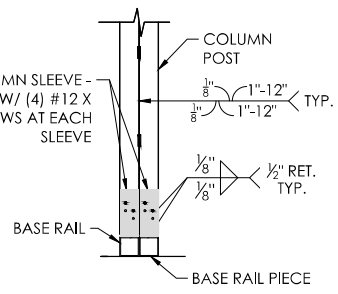
FASTENER TYPE: # 12x1" SELF-DRILL SCREWS (ESR-2196) W/ NEOPRENE/STEEL WASHER



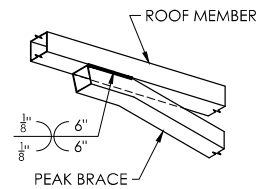
**29GA. - 3/4" RIB - CORRUGATED SHEET**  
SCALE: 3/4" : 1"



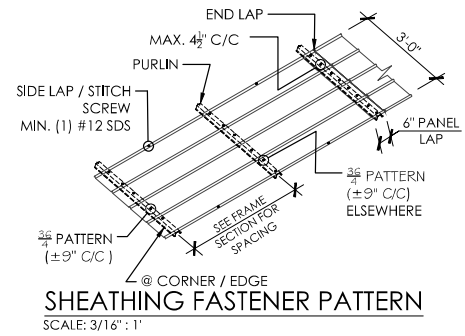
**1 FRAME DETAIL**  
SCALE: 3/4" : 1"



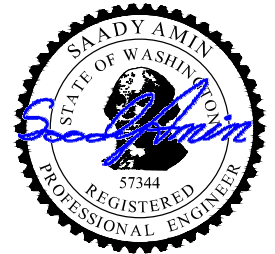
**2 BASE DETAIL**  
SCALE: 3/4" : 1"



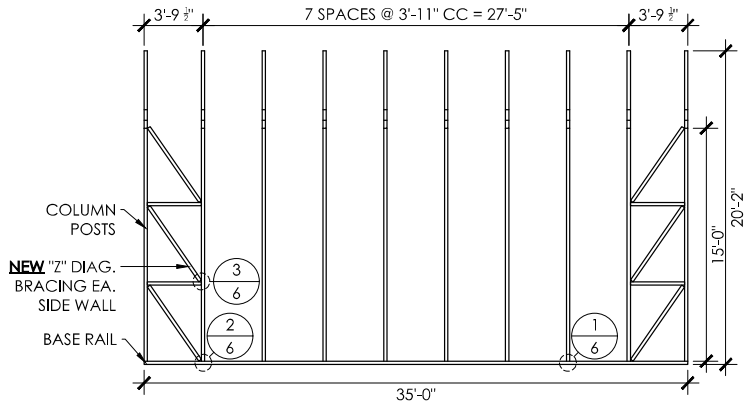
**3 PEAK BRACE DETAIL**  
SCALE: 3/4" : 1"



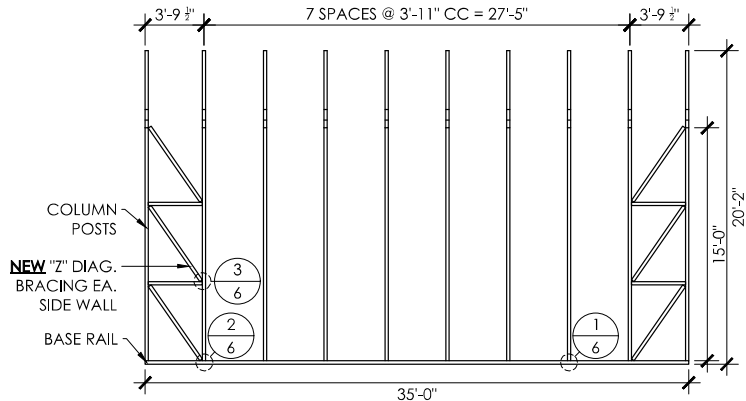
**SHEATHING FASTENER PATTERN**  
SCALE: 3/16" : 1"



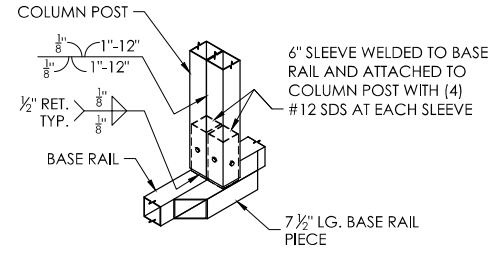
EXPIRES: 1/3/2024  
SIGNED: SEP 06 2023



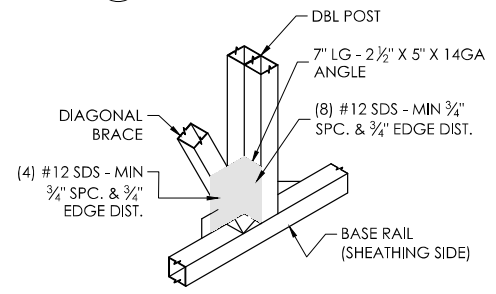
**RIGHT SIDE WALL FRAMING**  
SCALE: 1/8" : 1'



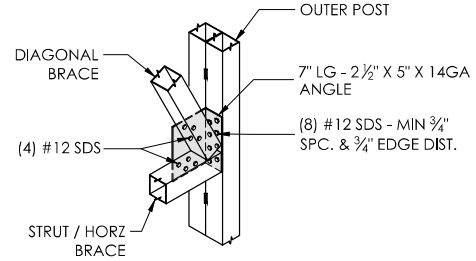
**LEFT SIDE WALL FRAMING**  
SCALE: 1/8" : 1'



**1 COLUMN-BASE DETAIL**  
SCALE: 3/4" : 1'



**2 LATTICE BRACE DETAIL**  
SCALE: 3/4" : 1'



**3 LATTICE BRACE DETAIL**  
SCALE: 3/4" : 1'

MEMBER PROPERTIES	
SIDE WALL POST	(2) 2 1/4" SQ. X 12GA TUBE - STITCH WELDED
BASE RAIL	2 1/4" SQ. X 12GA TUBE
CONNECTOR SLEEVE	2" SQ. X 12GA TUBE
HORZ. BRACE	2 1/4" SQ x 14GA TUBE
DIAGONAL BRACES	2" SQ. X 12GA TUBE

SHEET TITLE: **SIDE WALL FRAMING & DETAILS**  
PROJECT TITLE: **RED CORP - TODD THURNAU**  
LOCATION: **2504 E MAIN AVE. PUYALLUP, WA 98372**

METAL BUILDING MANUFACTURER

**METAL CARPORTS NORTH SIDE**  
110 Avery Rd E  
Chenalis, WA 98532  
360-262-9354



**EXPIRES: 1/3/2024**  
SIGNED: SEP 06 2023

**END WALL FRAMING & DETAILS**

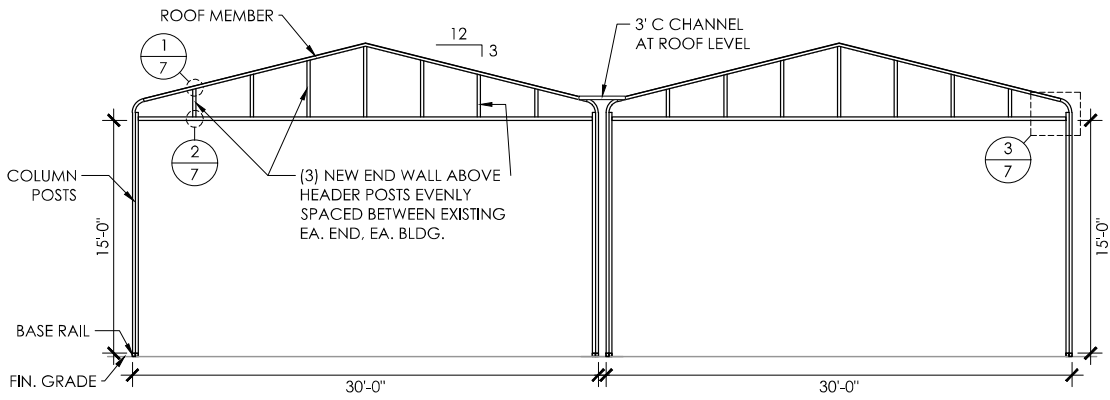
LOCATION: 2504 E MAIN AVE. PUYALLUP, WA 98372

PROJECT TITLE: RED CORP - TODD THURNAU

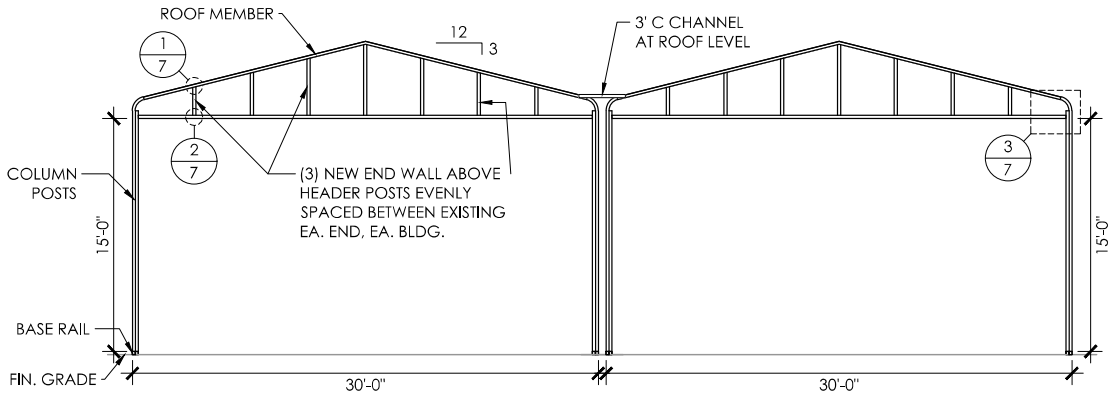
SHEET TITLE: METAL BUILDING MANUFACTURER

**METAL CARPORTS, LLC**  
110 Avery Rd E  
Chenalis, WA 98532  
360-262-9354

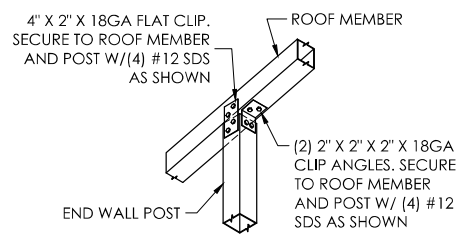
MEMBER PROPERTIES	
CORNER POST	2 1/4" SQ. X 12GA TUBE
ROOF MEMBER	2 1/4" SQ. X 12GA TUBE
BASE RAIL	2 1/4" SQ. X 12GA TUBE
END WALL POSTS	(2) 2 1/4" SQ. X 12GA TUBE - STITCH WELDED
DIAGONAL BRACES	2" SQ. X 12GA TUBE
HORZ. BRACE	2 1/4" SQ x 14GA TUBE



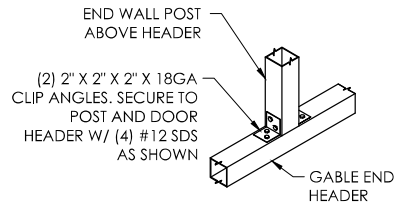
**FRONT END WALL FRAMING**  
SCALE: 1/8" : 1'



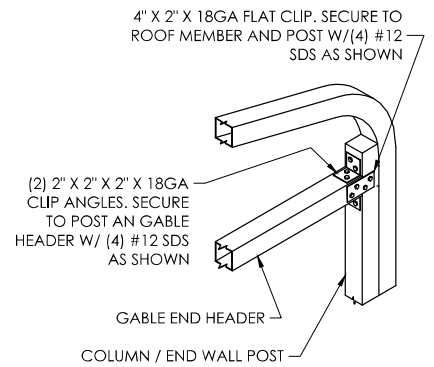
**REAR END WALL FRAMING**  
SCALE: 1/8" : 1'



**1 ROOF MEMBER DETAIL**  
SCALE: 3/4" : 1'



**2 TYP. GABLE FRAMING DETAIL**  
SCALE: 3/4" : 1'



**3 TYP. GABLE FRAMING DETAIL**  
SCALE: 3/4" : 1'



EXPIRES: 1/3/2024  
SIGNED: SEP 06 2023