




City of Santa Rosa  
Planning & Economic  
Development Department  
10/02/2020  
RECEIVED

WRIGHT  
(RRU  
COOLING)

283607  
3950 DOUBLES DRIVE  
SANTA ROSA, CA 95407



2785 MITCHELL DRIVE, BLDG 9  
WALNUT CREEK, CA 94598

*Streamline Engineering*

**and Design, Inc.**

8445 Sierra College Blvd., Suite E Granite Bay, CA 95746  
Contact: Kevin Sorensen Phone: 916-660-1930  
E-Mail: [kevin@streamlineeng.com](mailto:kevin@streamlineeng.com) Fax: 916-660-1941

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	02/28/20	CLIENT REV	J.S
	04/30/20	CD 100%	B.S
	08/11/20	CLIENT REV	B.S
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	-	-	-

DRAWN BY:	DIN
CHECKED BY:	J. GRAY
APPROVED BY:	J. ANDERSON
DATE:	08/11/20

**SHEET TITLE:**

# TITLE SHEET

**SHEET NUMBER:**

T-1

VERIZON WIRELESS EQUIPMENT ENGINEER:  _____ SIGNATURE DATE	VERIZON WIRELESS REAL ESTATE:  _____ SIGNATURE DATE
VERIZON WIRELESS CONSTRUCTION:  _____ SIGNATURE DATE	VERIZON WIRELESS RF ENGINEER:  _____ SIGNATURE DATE
PROPERTY OWNER:  _____ SIGNATURE DATE	EPIC WIRELESS GROUP INC – LEASING  _____ SIGNATURE DATE
EPIC WIRELESS GROUP INC – CONSTRUCTION  _____ SIGNATURE DATE	EPIC WIRELESS GROUP INC – ZONING  _____ SIGNATURE DATE

## PROJECT DESCRIPTION

A MODIFICATION TO AN (E) VERIZON WIRELESS UNMANNED TELECOMMUNICATION FACILITY CONSISTING OF:

- REMOVING ALL (E) RRUS-32 UNITS & RRUS-11 UNITS W/A2 MODULES FROM INSIDE THE (E) FRP SCREEN ENCLOSURE
- INSTALLING (N) SCREEN TEXTURED & COLORED TO MATCH (E) BUILDING FACADE
- INSTALLING (N) 4X4 COAX ENTRY PORT
- INSTALLING (3) (N) RADIO 4449 UNITS
- INSTALLING (3) (N) RADIO 8843 UNITS
- INSTALLING (N) FIBER & POWER JUMPERS FROM (E) SURGE SUPPRESSORS TO (N) RADIOS
- INSTALLING (N) 1/2" JUMPERS FROM (N) RADIOS TO (E) ANTENNAS
- INSTALLING (N) CHAIN LINK COVER OVER (E) EQUIPMENT COMPOUND

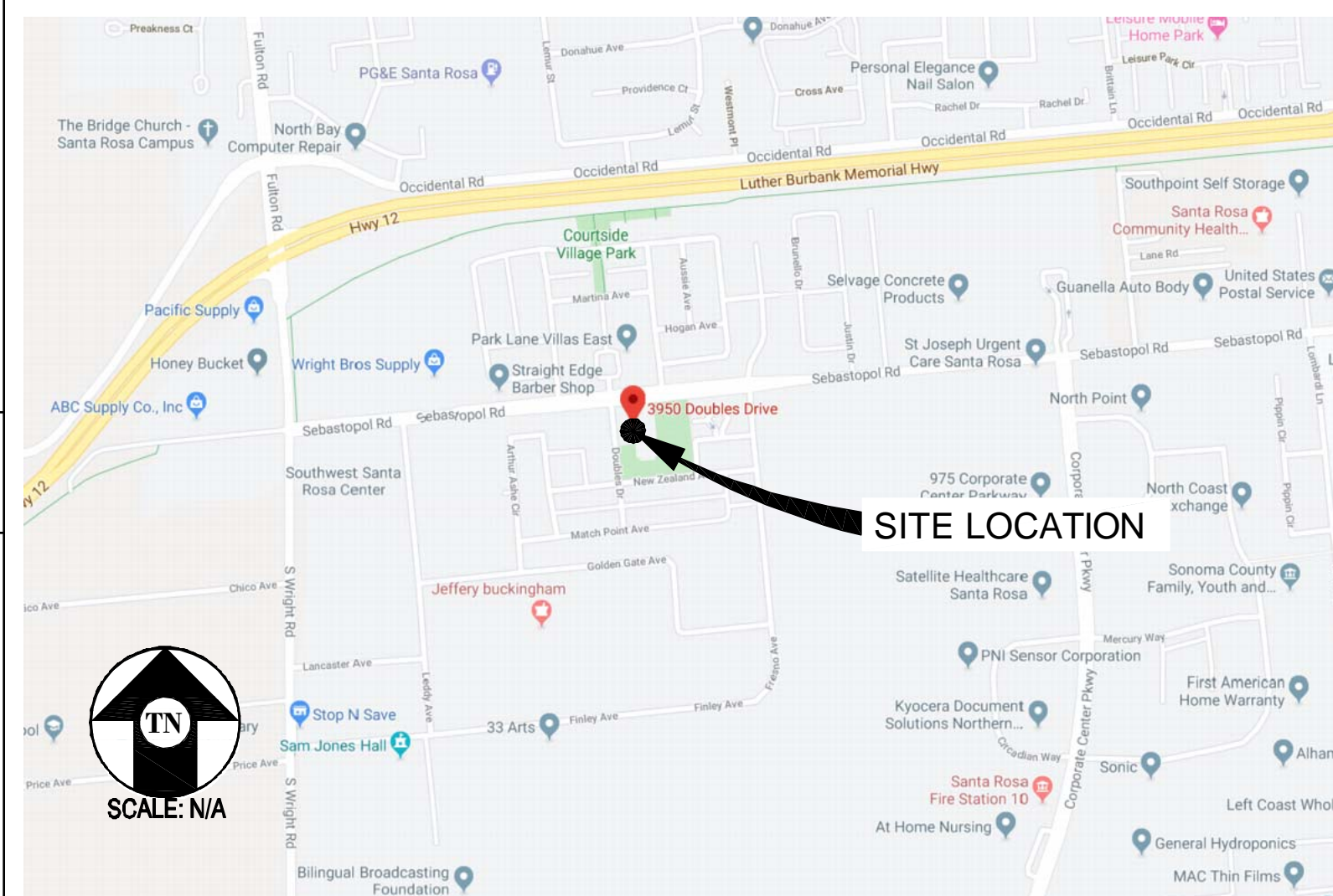
## PROJECT INFORMATION

SITE NAME:	WRIGHT (RRU COOLING)	SITE #:	283607
COUNTY:	SONOMA	JURISDICTION:	CITY OF SANTA ROSA
APN:	035-700-078	POWER:	PG&E
SITE ADDRESS:	3950 DOUBLES DRIVE SANTA ROSA, CA 95407		
CURRENT ZONING:	PUBLIC		
CONSTRUCTION TYPE:	I-B		
OCCUPANCY TYPE:	U, (UNMANNED COMMUNICATIONS FACILITY)		
PROPERTY OWNER:	WESTVIEW CHRISTIAN CHURCH OF SANTA ROSA, A CALIFORNIA CORPORATION 3950 DOUBLES DRIVE SANTA ROSA, CA 95407		
APPLICANT:	VERIZON WIRELESS 2785 MITCHELL DRIVE, BLDG 9 WALNUT CREEK, CA 94598		
SITE ACQUISITION COMPANY:	EPIC WIRELESS GROUP, INC 605 COOLIDGE DRIVE, SUITE 100 FOLSOM, CA 95630		
LEASING CONTACT:	CHARLENE SCHLAGER (773) 732-5497 CHARLENE.SCHLAGER@EPICWIRELESS.NET		
ZONING CONTACT:	JOSH JORDAN (916) 704-0897 JOSH.JORDAN@EPICWIRELESS.NET		
CONSTRUCTION CONTACT:	JOSH JORDAN (916) 704-0897 JOSH.JORDAN@EPICWIRELESS.NET		

## DESIGN CRITERIA

RISK CATEGORY: II	ROOF LIVE LOAD: N/A	FLOOR LIVE LOAD: N/A	ALLOW SOIL BEARING: N/A
WIND EXPOSURE: B	DESIGN WIND SPEED: $V_{ULT}$ , 95 MPH	GROUND ELEVATION:	TOPOGRAPHIC CATEGORY:
SEISMIC SITE CLASS: D	SEISMIC DESIGN CATEGORY: E	SEISMIC COMPONENT $I_p$ : 1.0	$\alpha_p$ : 1.0 $R_p$ : 2.5
$S_{ps}$ : 1.341	$S_{pi}$ : N/A	$S_s$ : 1.676	$S_t$ : 0.634

## VICINITY MAP



## DRIVING DIRECTIONS

FROM: 2785 MITCHELL DRIVE, BLDG 9, WALNUT CREEK, CA 94598  
TO: 3950 DOUBLES DRIVE, SANTA ROSA, CA 95407

HEAD NORTHEAST ON MITCHELL DR TOWARD OAK GROVE RD	0.2 MI
USE THE LEFT 2 LANES TO TURN LEFT ONTO OAK GROVE RD	0.5 MI
USE THE LEFT 2 LANES TO TURN LEFT ONTO TREAT BLVD	2.2 MI
TURN RIGHT ONTO BUSKIRK AVE	0.2 MI
USE THE LEFT LANE TO TAKE THE INTERSTATE 680 N RAMP	390 FT
MERGE WITH I-680 N	1.8 MI
KEEP LEFT AT THE Y JUNCTION TO STAY ON I-680 N	5.9 MI
KEEP LEFT AT THE Y JUNCTION TO CONTINUE ON I-680	0.1 MI
KEEP RIGHT AT THE Y JUNCTION TO STAY ON I-680	1.8 MI
USE THE LEFT 2 LANES TO TAKE EXIT 58A FOR INTERSTATE	
780 TOWARD BENICIA/VALLEJO	0.6 MI
CONTINUE ONTO I-780 W	6.0 MI
TAKE EXIT 1B TOWARD SACRAMENTO	0.3 MI
MERGE WITH I-80 E	2.8 MI
TAKE EXIT 33 FOR CA-37 TOWARD NAPA	0.8 MI
CONTINUE ONTO CA-37 W	15.5 MI
TURN RIGHT ONTO LAKEVILLE HWY	11.1 MI
TURN RIGHT TO MERGE WITH US-101 N	0.3 MI
MERGE WITH US-101 N	15.5 MI
USE THE 2ND FROM THE RIGHT LANE TO TAKE EXIT 488B	
TO MERGE WITH CA-12 W TOWARD SEBASTOPOL	0.4 MI
MERGE WITH CA-12 W	3.0 MI
TURN LEFT ONTO N WRIGHT RD	0.2 MI
TURN LEFT ONTO SEBASTOPOL RD	0.4 MI
TURN RIGHT ONTO DOUBLES DR	180 FT
SITE WILL BE ON THE LEFT	
END AT: 3950 DOUBLES DRIVE, SANTA ROSA, CA 95407	

ESTIMATED TIME: 1 HOUR 12 MINUTES      ESTIMATED DISTANCE: 69.9 MILES

## CODE COMPLIANCE

ALL WORK & MATERIALS SHALL BE PERFORMED & INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

2019 CALIFORNIA ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R.  
2019 CALIFORNIA BUILDING CODE (CBC), PART 2, VOLUME 1&2, TITLE 24 C.C.R.  
(2018 INTERNATIONAL BUILDING CODE AND 2019 CALIFORNIA AMENDMENTS)  
2019 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R.  
(2017 NATIONAL ELECTRICAL CODE AND 2019 CALIFORNIA AMENDMENTS)  
2019 CALIFORNIA MECHANICAL CODE (CMC) PART 4, TITLE 24 C.C.R.  
(2018 UNIFORM MECHANICAL CODE AND 2019 CALIFORNIA AMENDMENTS)  
2019 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R.  
(2018 UNIFORM PLUMBING CODE AND 2019 CALIFORNIA AMENDMENTS)  
2019 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 C.C.R.  
2019 CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R.  
(2018 INTERNATIONAL FIRE CODE AND 2019 CALIFORNIA AMENDMENTS)  
2019 CALIFORNIA GREEN BUILDING STANDARDS CODE, PART 11, TITLE 24 C.C.R.  
2019 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R.  
ANSI/EIA-TIA-222-H

ALONG WITH ANY OTHER APPLICABLE LOCAL & STATE LAWS AND REGULATIONS

## DISABLED ACCESS REQUIREMENTS

THIS FACILITY IS UNMANNED & NOT FOR HUMAN HABITATION. DISABLED ACCESS & REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH CALIFORNIA STATE BUILDING CODE, TITLE 24 PART 2, SECTION 11B-203.5

## SHEET INDEX

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RESOLUTION NO. DR20-023

RESOLUTION OF THE ZONING ADMINISTRATOR OF THE CITY OF SANTA ROSA APPROVING A DESIGN REVIEW APPLICATION FOR CELL TOWER MODIFICATION FOR THE PROPERTY LOCATED AT 3950 DOUBLES DRIVE, SANTA ROSA, APN: 035-700-078

The Santa Rosa Zoning Administrator has completed its review of your application. Please be advised that your Design Review to screen six RRU's (Remote Radio Units) on the outside of an existing church steeple and installation of a new chain link cover over the existing outdoor equipment area has been granted based on your project description and official approved exhibit dated May 5, 2020. The Santa Rosa Zoning Administrator has based this action on the following findings:

- The design and layout of the proposed development is of superior quality and is consistent with the General Plan and the City's Design Guidelines and the matter has been properly noticed as required by Section 20-52.050.E.2.a and no request for a public hearing has been received;
- The design is appropriate for the use and location of the proposed development and achieves the goals, review criteria and findings for approval as set forth in the Framework of Design Review;
- The design and layout of the proposed development will not interfere with the use and enjoyment of neighboring existing or future developments in that the exterior addition to the steeple will not be a visual nuisance and the new chain link cover over equipment area will prevent unauthorized entry;
- The architectural design of the proposed development is compatible with the character of the surrounding neighborhood in that the exterior change is well integrated into the design of the existing building, and is of similar color and style to surrounding buildings;
- The design of the proposed development will provide a desirable environment for its occupants, visiting public, and its neighbors through the appropriate use of materials, texture, and color and would remain aesthetically appealing and be appropriately maintained;
- The proposed development will not be detrimental to the public health, safety, or welfare or materially injurious to the properties or improvements in the vicinity;
- The proposed project has been reviewed in compliance with the California Environmental Quality Act (CEQA) and qualifies for a Class 1 exemption under Section 15301 in that the proposed project consist of minor alterations to an existing structure.

This entitlement would not be granted but for the applicability and validity of each and every one of the below conditions and that if any one or more of the below conditions is invalid, this entitlement would not have been granted without requiring other valid conditions for achieving the purposes and intent of such approval. The approval of the project is contingent upon compliance with all the conditions listed below. Use shall not commence until all conditions of approval have been complied with. Additional permits and fees are/may be required. **It is the responsibility of the applicant to pursue and demonstrate compliance.**

- Obtain a building permit for the proposed project.
- Construction hours shall be limited to 7:00 a.m. to 7:00 p.m. Monday through Friday and 8:00 a.m. to 6:00 p.m. Saturdays. No construction is permitted on Sundays and holidays.
- Comply with all applicable federal, state, and local codes. Failure to comply may result in issuance of a citation and/or revocation of approval.
- Comply with the latest adopted ordinances, resolutions, policies, and fees adopted by the City Council at the time of building permit review and approval.
- Comply with Santa Rosa Engineering and Development Services conditions attached hereto and incorporated here as Exhibit "A", dated July 7, 2020.
- The Building Permit application shall be revised, subject to the project planner's approval, to
  - Relocate the RRU box to the south side of the tower.
  - Increase the equipment enclosure wall height so that it will screen the chain link cover from public view from the street.

This Design Review for minor modification to an existing steeple is hereby approved on this 16<sup>th</sup> day of July 2020. If conditions have not been met or if work has not commenced within two years from approval date, this approval shall automatically expire and shall be invalid unless an application for extension is filed prior to expiration. The approval is subject to appeal within ten calendar days from the date of approval.

APPROVED: Andy Gustavson  
Andy Gustavson (Jul 16, 2020 15:45 PDT)  
ANDY GUSTAVSON, ZONING ADMINISTRATOR

ZA\_RES\_DR20-023

Final Audit Report

2020-07-16

Created:	2020-07-16
By:	Kimberly Hopwood (khopwood@srcity.org)
Status:	Signed
Transaction ID:	CBJCHBCAABAAQebMqPzOAKJ75RJpbXfYfYfWxP5xzDyI

"ZA\_RES\_DR20-023" History

- Document created by Kimberly Hopwood (khopwood@srcity.org)  
2020-07-16 - 7:27:15 PM GMT- IP address: 12.249.238.210
- Document emailed to Andy Gustavson (agustavson@srcity.org) for signature  
2020-07-16 - 7:27:45 PM GMT
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2020-07-16 - 10:43:44 PM GMT- IP address: 75.5.249.5
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Signature Date: 2020-07-16 - 10:45:37 PM GMT - Time Source: server- IP address: 75.5.249.5
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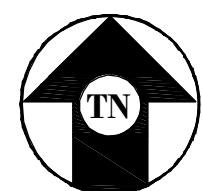
CONDITIONS OF  
APPROVAL

SHEET NUMBER:

T-2



1. THIS FACILITY IS AN UNOCCUPIED WIRELESS TELECOMMUNICATION FACILITY.
2. PLANS ARE NOT TO BE SCALED AND ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY, UNLESS NOTED OTHERWISE.
3. THE SCOPE OF WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
4. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTORS SHALL VISIT THE JOB SITE AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS, AND CONFIRM THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH THE CONSTRUCTION. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PAY FOR PERMIT FEES, AND TO OBTAIN SAID PERMITS AND TO COORDINATE INSPECTIONS.
6. THE CONTRACTOR SHALL RECEIVE, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
7. CALL BEFORE YOU DIG. CONTRACTOR IS REQUIRED TO CALL 811 (NATIONWIDE "CALL BEFORE YOU DIG" HOTLINE) AT LEAST 72 HOURS BEFORE DIGGING.
8. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
9. THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE BEST SKILLS AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. CONTRACTOR SHALL ALSO COORDINATE ALL PORTIONS OF THE WORK UNDER THE CONTRACT, INCLUDING CONTACT AND COORDINATION WITH THE CONSTRUCTION MANAGER AND WITH THE LANDLORD'S AUTHORIZED REPRESENTATIVE.
10. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, GALVANIZED SURFACES, ETC., AND UPON COMPLETION OF WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF THE PROJECT MANAGER.
11. KEEP GENERAL AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS AND RUBBISH. REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
12. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED, OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
13. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND ALL OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK SHALL BE PROTECTED AT ALL TIMES.
14. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
15. THE CONTRACTOR SHALL PROVIDE A TOILET FACILITY DURING ALL PHASES OF CONSTRUCTION.
16. SUFFICIENT MONUMENTATION WAS NOT RECOVERED TO ESTABLISH THE POSITION OF THE BOUNDARY LINES SHOWN HEREON. THE BOUNDARY REPRESENTED ON THIS MAP IS BASED ON COMPILED RECORD DATA AND BEST FIT ONTO EXISTING IMPROVEMENTS. IT IS POSSIBLE FOR THE LOCATION OF THE SUBJECT PROPERTY TO SHIFT FROM THE PLACEMENT SHOWN HEREON WITH ADDITIONAL FIELD WORK AND RESEARCH. THEREFORE ANY SPATIAL REFERENCE MADE OR SHOWN BETWEEN THE RELATIONSHIP OF THE BOUNDARY LINES SHOWN HEREON AND EXISTING GROUND FEATURES, EASEMENTS OR LEASE AREA IS INTENDED TO BE APPROXIMATE AND IS SUBJECT TO VERIFICATION BY RESOLVING THE POSITION OF THE BOUNDARY LINES.
17. THE CONTRACTOR TO VERIFY THE LATEST/CURRENT RF DESIGN.
18. WHERE APPLICABLE, CONTRACTOR SHALL PROVIDE SEPARATE PLANS, SPECIFICATIONS, FEES AND PERMITS FOR ANY REVISION TO ANY FIRE SPRINKLER AND/OR ALARM SYSTEM ON THE PREMISES AS MAY BE NEEDED TO COMPLETE THE WORK DEPICTED HEREIN, USING A C-10 LICENSED SUBCONTRACTOR FOR ALL SUCH WORK.



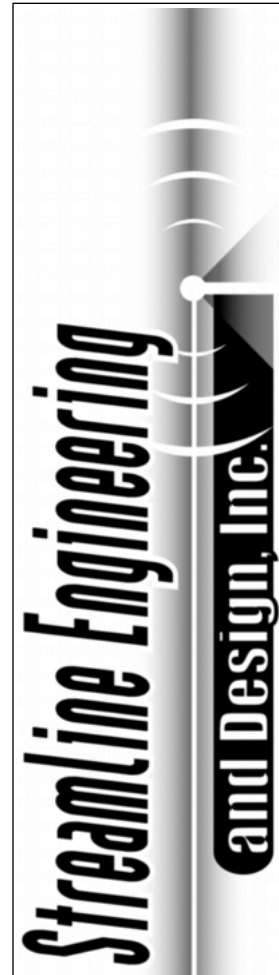
SITE PLAN  
1"=20'-0"



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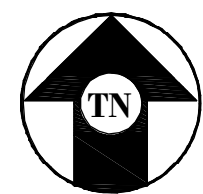
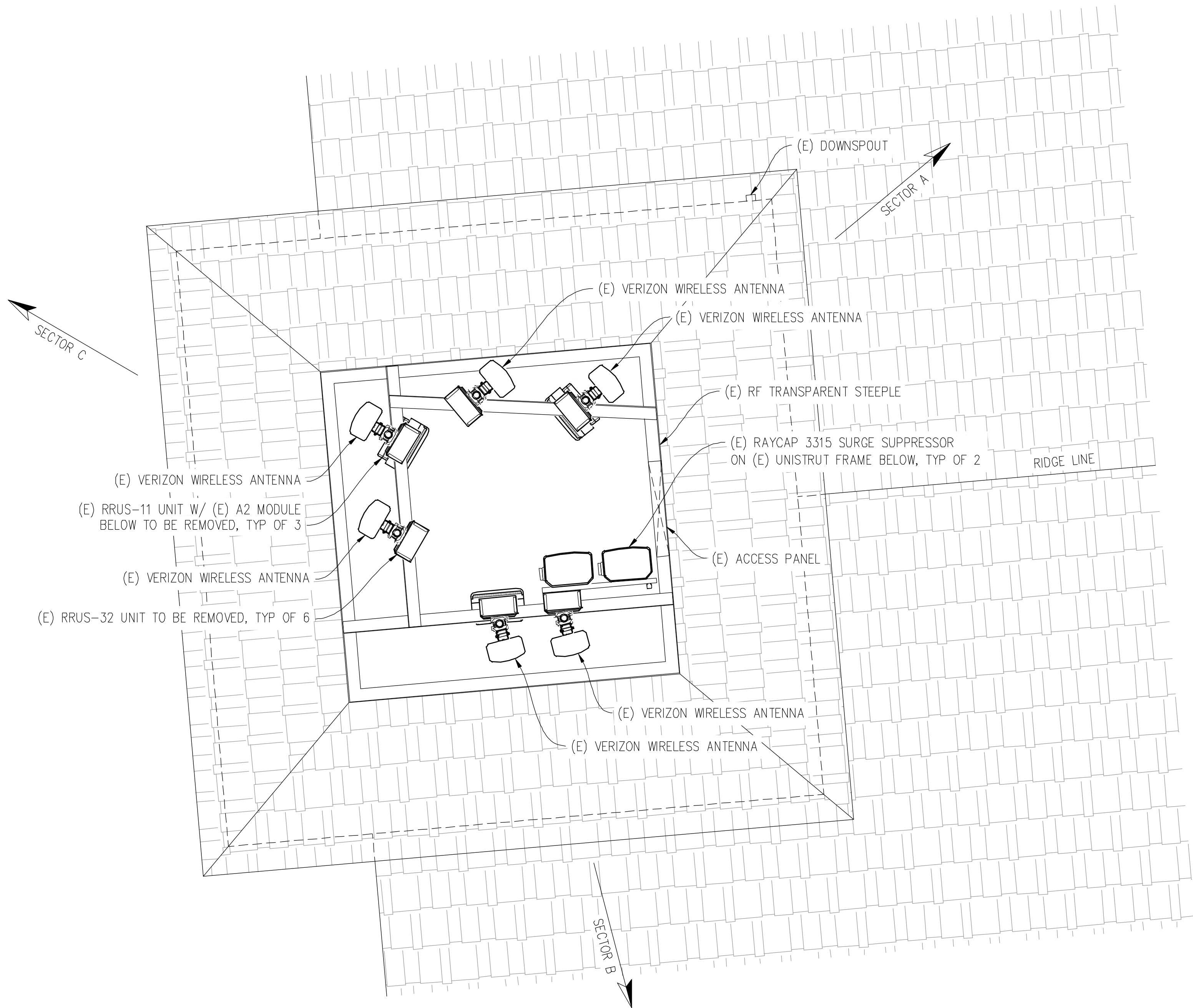
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## SITE PLAN

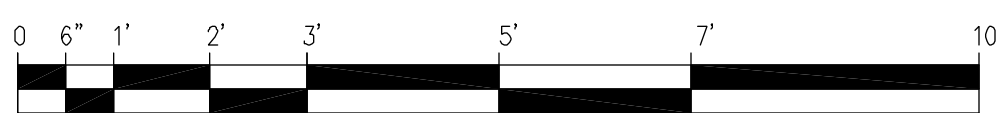
A-1





(E) ANTENNA PLAN

1/2"=1'-0"



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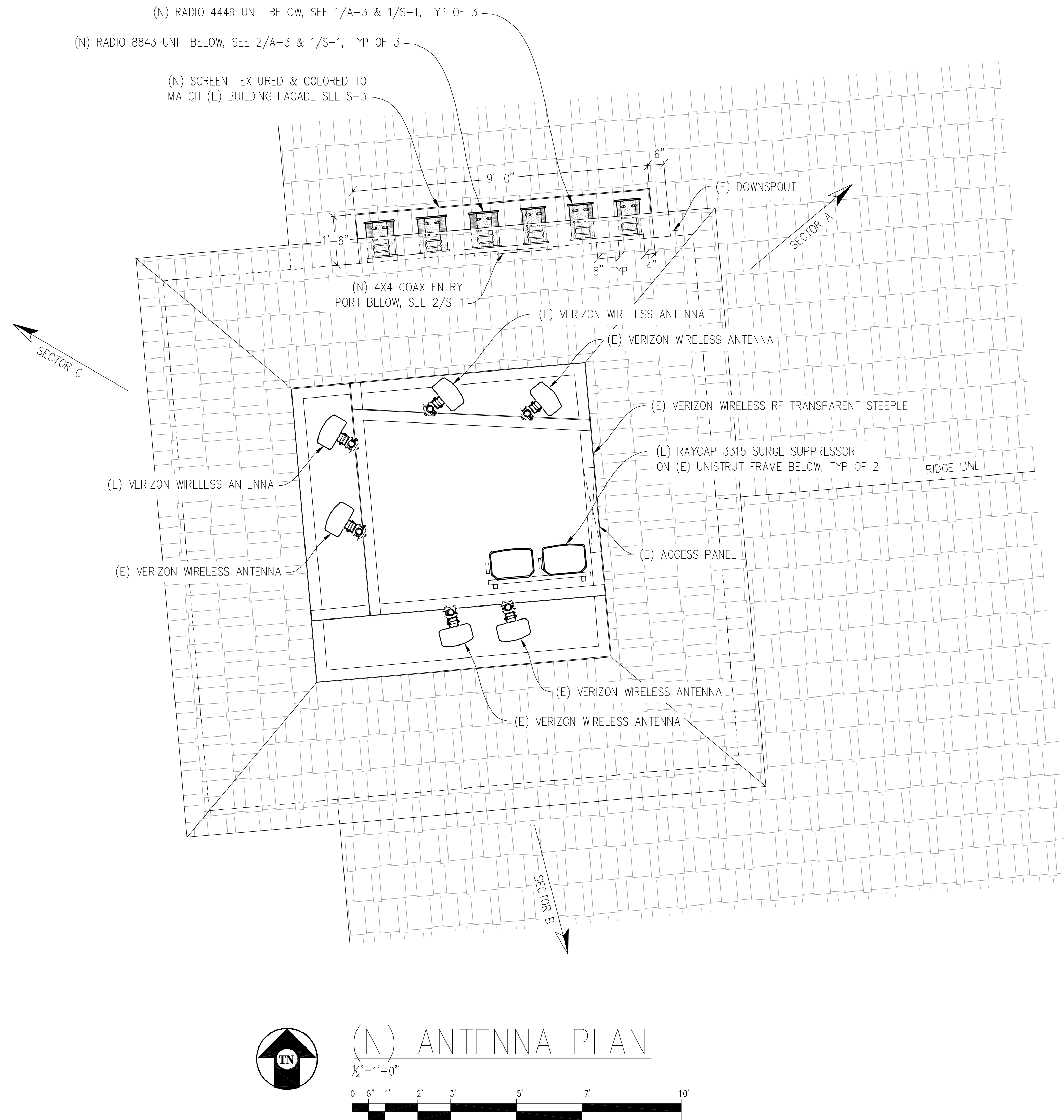
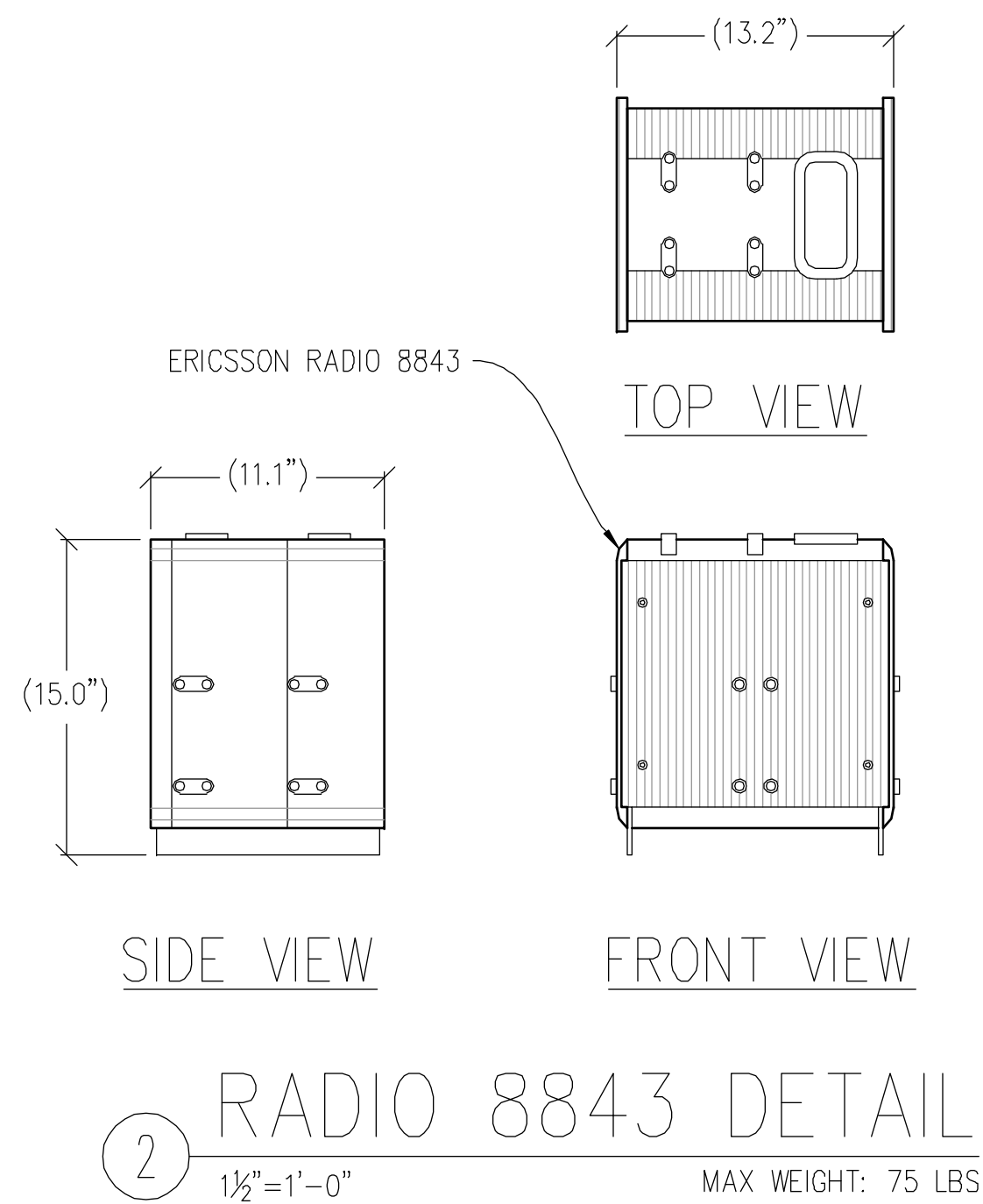
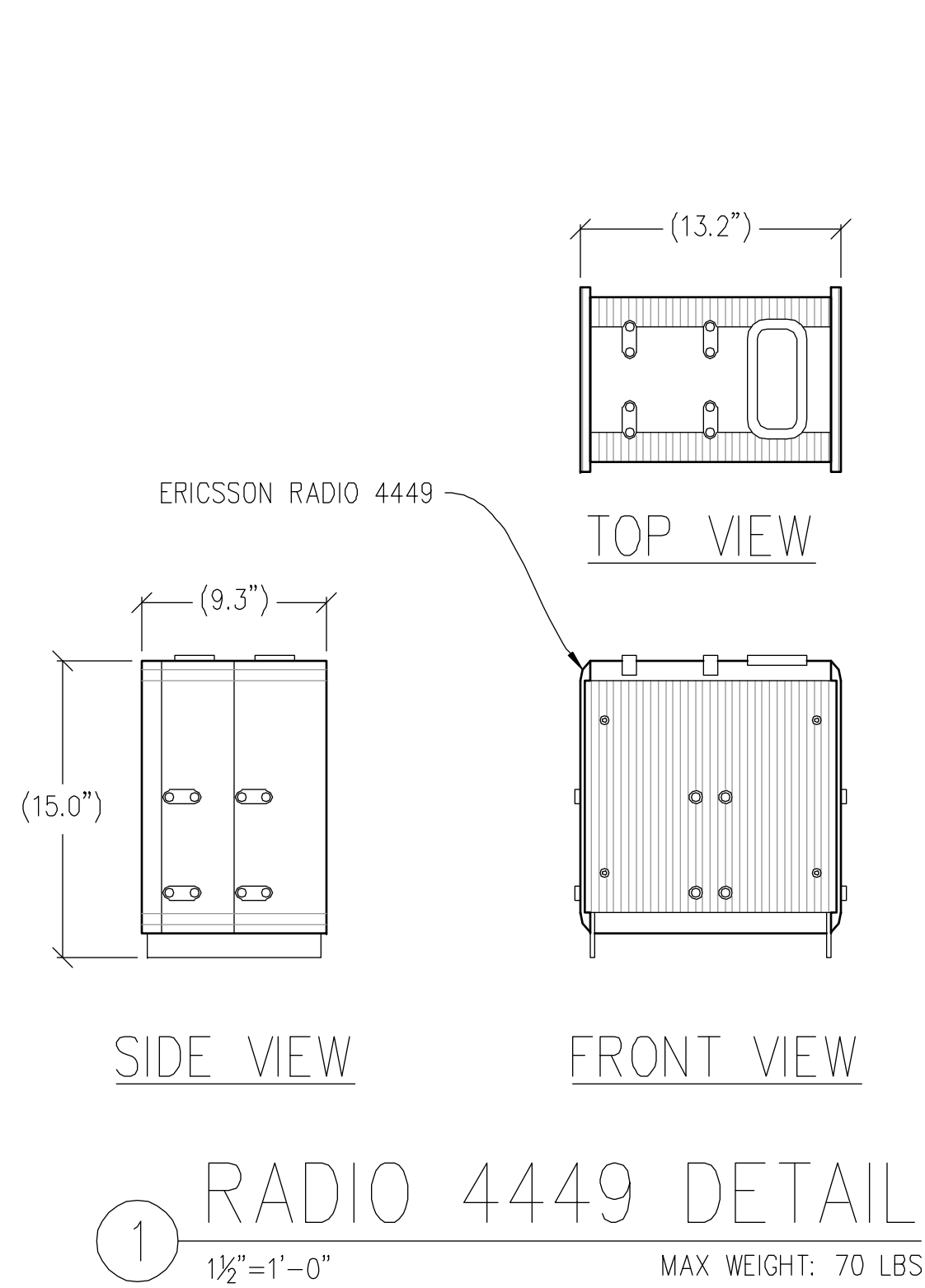
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A-2





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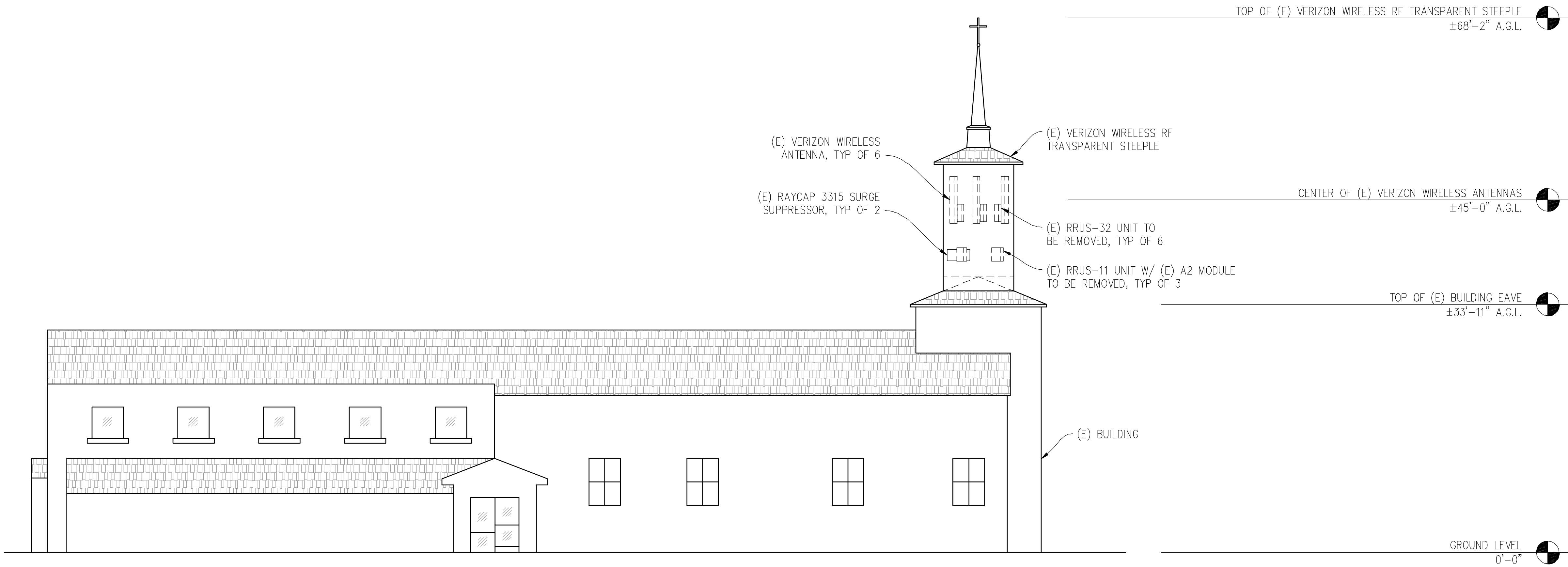
DATE: 08/11/20

SHEET TITLE:

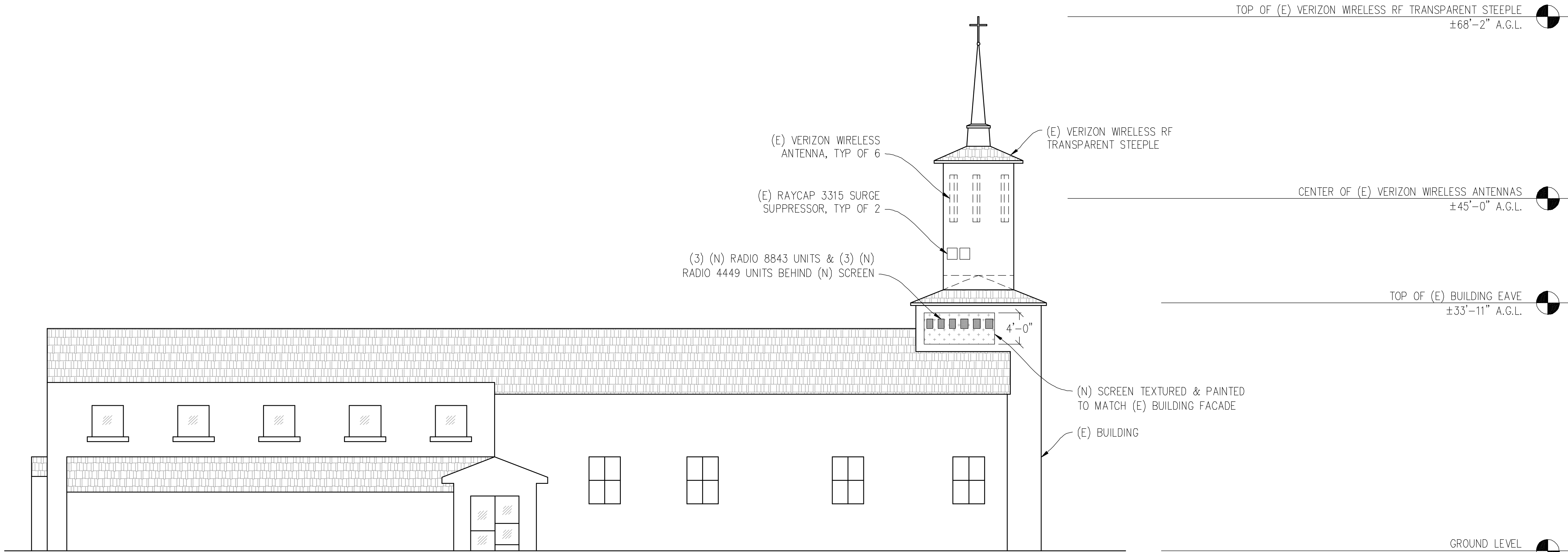
ANTENNA PLAN  
& DETAILS

SHEET NUMBER:

A-3



(E) NORTH ELEVATION  
1/8" = 1'-0"



(N) NORTH ELEVATION  
1/8" = 1'-0"

WRIGHT  
(RRU  
COOLING)

283607  
3950 DOUBLES DRIVE  
SANTA ROSA, CA 95407

verizon

2785 MITCHELL DRIVE, BLDG 9  
WALNUT CREEK, CA 94598

Streamline Engineering

and Design, Inc.

8445 Sierra College Blvd., Suite F Granite Bay, CA 95746  
Contact: Kevin Sorensen Phone: 916-660-1930  
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ISSUE STATUS

△	DATE	DESCRIPTION	REV.
	01/30/20	CD 90%	I.M.
	02/28/20	CLIENT REV	J.S.
	04/30/20	CD 100%	B.S.
	08/11/20	CLIENT REV	B.S.
	-	-	-
	-	-	-

DRAWN BY: DIN

CHECKED BY: J. GRAY

APPROVED BY: J. ANDERSON

DATE: 08/11/20

SHEET TITLE:

ELEVATIONS

SHEET NUMBER:

A-4

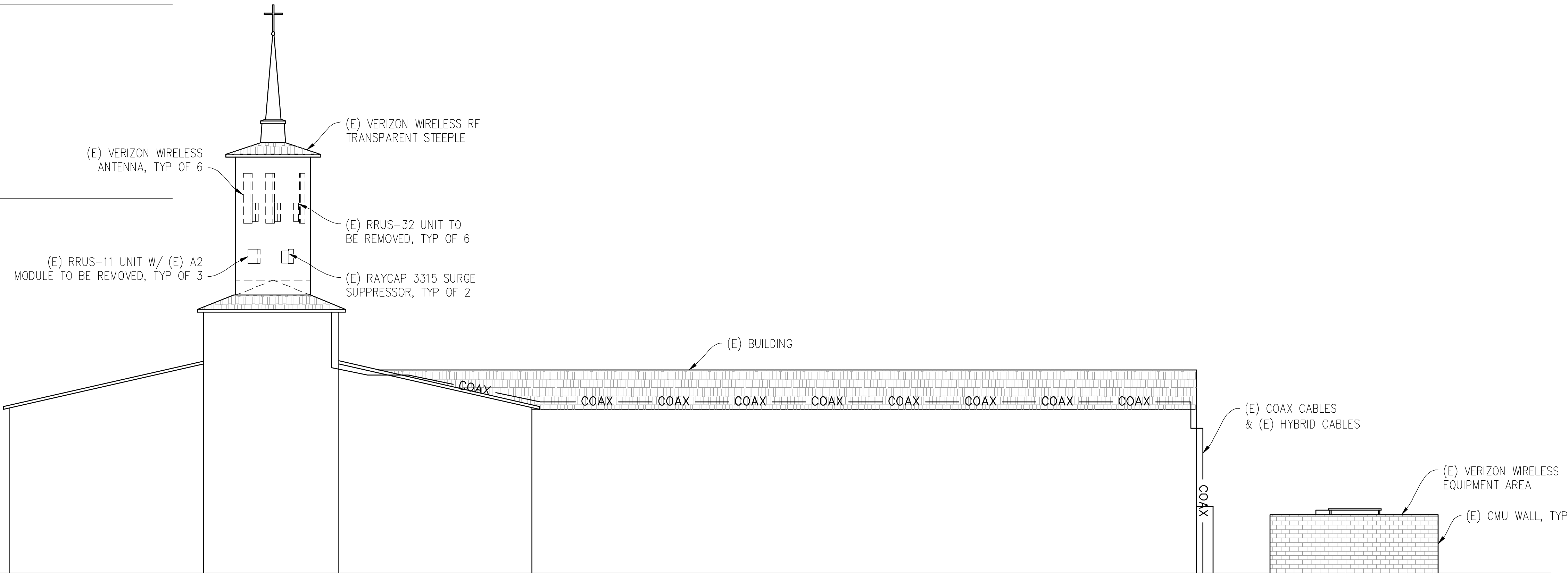


TOP OF (E) VERIZON WIRELESS RF TRANSPARENT STEEPLE  
±68'-2" A.G.L.

CENTER OF (E) VERIZON WIRELESS ANTENNAS  
±45'-0" A.G.L.

TOP OF (E) BUILDING EAVE  
±33'-11" A.G.L.

GROUND LEVEL  
0'-0"



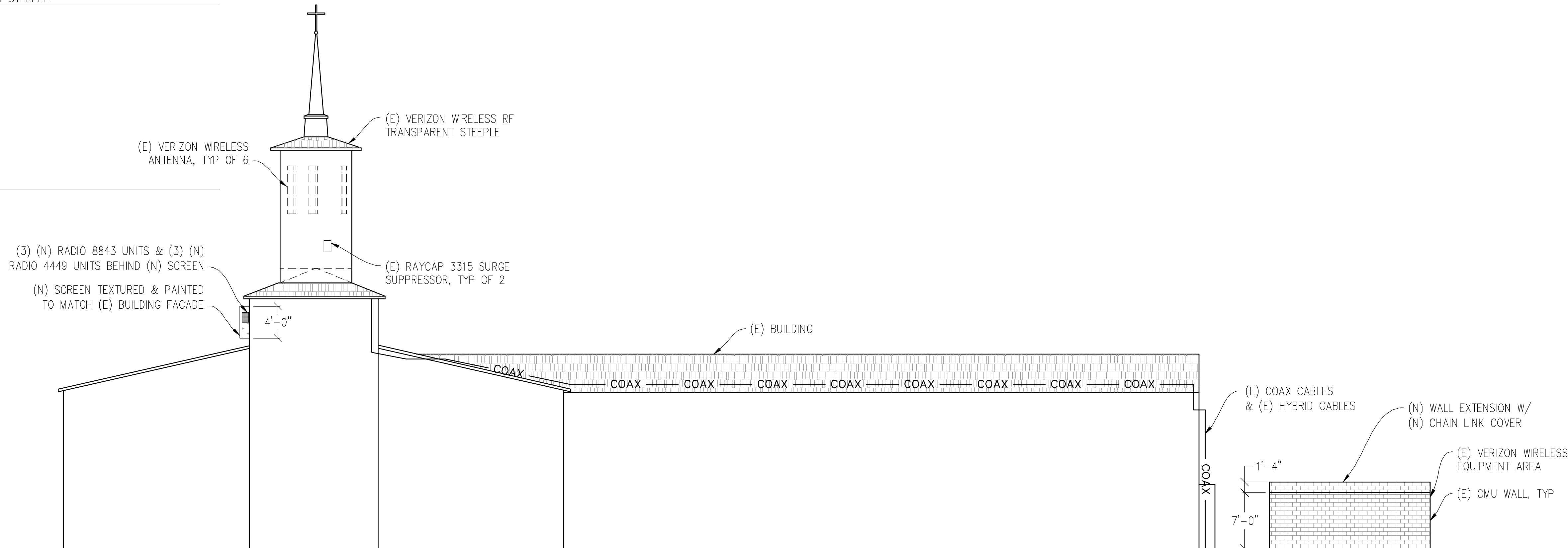
(E) WEST ELEVATION  
1/8"=1'-0"

TOP OF (E) VERIZON WIRELESS RF TRANSPARENT STEEPLE  
±68'-2" A.G.L.

CENTER OF (E) VERIZON WIRELESS ANTENNAS  
±45'-0" A.G.L.

TOP OF (E) BUILDING EAVE  
±33'-11" A.G.L.

GROUND LEVEL  
0'-0"



(N) WEST ELEVATION  
1/8"=1'-0"

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	-	-	-
	-	-	-

DRAWN BY: DIN

CHECKED BY: J. GRAY

APPROVED BY: J. ANDERSON

DATE: 08/11/20

SHEET TITLE:

ELEVATIONS

SHEET NUMBER:

A-5



CONSTRUCTION NOTES

- EXISTING BUILDING CONSTRUCTION CONDITIONS INDICATED ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO PROCEEDING WITH CONSTRUCTION OR ORDERING OF MATERIALS. IF EXISTING CONDITIONS DO NOT ALLOW FOR DETAILS OF CONSTRUCTION AS SHOWN ON THESE DRAWINGS, NOTIFY ENGINEER OF RECORD FOR RESOLUTION PRIOR TO PROCEEDING. CONTRACTOR SHALL EXPOSE AND REVIEW EXISTING CONDITIONS IN A TIMELY MANNER SUCH THAT ALTERNATE DESIGNS OR DETAILS, IF REQUIRED, MAY BE GENERATED WITHOUT DELAY TO THE PROJECT.
- DURING CONSTRUCTION, THE CONTRACTOR SHALL NOT ALTER, DAMAGE OR REMOVE ANY PART OF THE EXISTING STRUCTURE UNLESS SPECIFICALLY DETAILED ON THESE DRAWINGS.
- THE INTENT OF THESE DRAWINGS IS THAT THE WORK OF THE ADDITION, ALTERATION, REHABILITATION, OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH THE 2019 CBC. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NONCOMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH THE 2019 CBC, A CHANGE ORDER, OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE PREPARED AND SUBMITTED TO AND APPROVED BY THE BUILDING DEPARTMENT PRIOR TO PROCEEDING WITH THE WORK.
- ALL WORK AND MATERIALS SHOWN ARE NEW UNLESS INDICATED AS EXISTING (E).
- IT MAY BE NECESSARY TO REMOVE ARCHITECTURAL FINISHES, PLUMBING PIPES AND FIXTURES, ELECTRICAL CONDUIT, FIXTURES, PANELS, BOXES, TELEPHONE OR FIRE ALARM WIRING AND FIXTURES OR OTHER NON-STRUCTURAL ITEMS TO INSTALL STRUCTURAL WORK AND MATERIALS SHOWN ON THESE DRAWINGS. SUCH ITEMS SHALL BE REMOVED, REPAIRED AND/OR REPLACED TO MATCH PRE-CONSTRUCTION CONDITIONS AT THE CONTRACTORS EXPENSE.
- ALL WEATHER PROOFING, INCLUDING BUT NOT LIMITED TO TORCH DOWN, CAULKING, Z-FLASHING OR ANY OTHER MATERIAL THAT MAY BE ALTERED DURING INSTALLATION SHALL BE REPAIRED REPLACED AND/OR MODIFIED TO ENSURE THE BUILDING AT THE INSTALLATION SITE IS WEATHER PROOF.
- ANY PROPOSED SUBSTITUTIONS FOR STRUCTURAL MEMBERS, HARDWARE, ANCHOR TYPES, OR DETAILING INDICATED IN THESE DRAWINGS SHALL BE SUBMITTED TO AND REVIEWED BY THE ENGINEER OF RECORD PRIOR TO ORDERING MATERIALS. SUCH REVIEW SHALL BE BILLED ON A TIME AND MATERIALS BASIS TO THE CONTRACTOR WITH NO GUARANTEE THAT THE SUBSTITUTION WILL BE ALLOWED.
- CONTRACTOR SHALL ENSURE ALL ROOF AREAS HAVE POSITIVE SLOPE TO ALL EXISTING ROOF DRAINS. PROVIDE ADDITIONAL CRICKETS OR BUILD UP ROOFING AS REQUIRED TO PROVIDE POSITIVE DRAINAGE AROUND ALL NEW CONSTRUCTION INCLUDING ANY CURBS, SLEEPERS, SUPPORT BASES, ETC.

STRUCTURAL STEEL NOTES

- ALL STEEL CONSTRUCTION INCLUDING FABRICATION, ERECTION AND MATERIALS SHALL COMPLY WITH ALL REQUIREMENTS OF THE 2016 AISC SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS AND THE 2019 CBC.
- ALL STRUCTURAL STEEL SHALL BE ASTM A36 UNLESS OTHERWISE NOTED. ALL WF (WIDE FLANGE) & WT (TEE) SHAPES TO BE ASTM A992 (F<sub>y</sub>=50,000 PSI) UNLESS NOTED OTHERWISE. ALL STRUCTURAL TUBING (TS OR HSS) SHALL BE ASTM A500 GRADE B (F<sub>y</sub>=46,000 PSI). ALL STEEL PIPE SHALL BE ASTM A53 (TYPE E OR S, GRADE B (F<sub>y</sub>=35,000 PSI)) SCHEDULE 40 WITH OUTSIDE DIAMETERS GIVEN UNLESS OTHERWISE NOTED.
- ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES UNLESS OTHERWISE NOTED AND SHALL CONFORM TO AISC & AWS D1.4. WHERE FILLET WELD SIZES ARE NOT SHOWN PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC SPECIFICATION. PAINTED SURFACES SHALL BE TOUCHED UP.
- ALL WELDING SHALL BE PERFORMED BY QUALIFIED, CERTIFIED WELDERS.
- BOLTS SHALL BE GALVANIZED ASTM F3125/F3125M GRADE A325 MINIMUM. BOLTED CONNECTIONS SHALL BE BEARING TYPE. SEE PLANS FOR LOCATION, NUMBER, & SIZE OF BOLTS. SPECIAL INSPECTION IS REQUIRED FOR HIGH STRENGTH BOLTS.
- THREADED RODS SHALL BE ASTM F1554, GR 36 U.O.N. BOLTED CONNECTIONS SHALL BE BEARING TYPE. SEE PLANS FOR LOCATION, NUMBER, & SIZE OF BOLTS.
- ALL HOLES FOR BOLTED CONNECTIONS SHALL BE 1/16" LARGER THAN THE NOMINAL BOLT DIAMETER. USE STANDARD AISC GAGE AND PITCH FOR BOLTS EXCEPT AS NOTED OTHERWISE. HOLES FOR ANCHOR BOLTS IN BASE PLATES MAY BE AISC "OVERSIZE" HOLES WHERE ACCOMPANIED BY OVERSIZED HARDENED HOT DIPPED GALVANIZED WASHERS.
- ALL SHOP FABRICATED STEEL STRUCTURAL MEMBERS FOR EXTERIOR USE SHALL BE HOT DIP GALVANIZED PER ASTM A123 AFTER FABRICATION & PAINTED PER CUSTOMER SPECIFICATIONS AS REQUIRED. STEEL FOR INTERIOR USE SHALL BE SHOP COAT OR GALVANIZED & PAINTED PER PLAN.
- ALL FIELD FABRICATED GALVANIZED STEEL THAT IS CUT, GROUND, DRILLED, WELDED OR DAMAGED SHALL BE TREATED WITH "ZINC RICH" COLD GALVANIZING SPRAY OR COATING. NO RAW STEEL SHALL BE EXPOSED.
- AT ALL WEB STIFFENER PLATES LEAVE ¾"Ø (OR K, WHICHEVER IS LARGER) HOLE @ WEB/FLANGE INTERSECTION UNLESS NOTED OTHERWISE.
- BOLTS AND NUTS AT ANTENNA & RRU MOUNTS TO BE ASTM F3125/F3125M GRADE A325 WITH A194M NUTS U.O.N.
- ALL NUTS SHALL BE ASTM A563/A563M ALL WASHERS SHALL BE ASTM F436/ F436M.
- ALL STRUT MEMBERS USED IN EXTERIOR APPLICATIONS SHALL BE HOT DIPPED GALVANIZED PER ASTM A123 OR ASTM A153.
- ALL STAINLESS STEEL BOLTED CONNECTIONS SHALL BE ASTM F593-17 ALLOY GROUP 1 OR 2 AND STAINLESS STEEL NUTS SHALL BE ASTM F594-09 (2015).

FRP NOTES

- FRAMING MEMBERS IN FRONT OF ANTENNA HORIZONTAL BEAM WIDTH SHALL BE ASSEMBLED W/ FRP STRUCTURAL MEMBERS & FASTENERS ONLY.
- FRP STRUCTURAL FRAMING MEMBERS ARE TO HAVE THE FOLLOWING MINIMUM DESIGN SPECIFICATIONS:  
F<sub>b</sub> LONGWISE FLEXURAL STRESS W/ F.S.=3.0 10 KSI  
E MODULUS OF ELASTICITY 2600 KSI
- FRP PANELS ARE TO HAVE THE FOLLOWING MINIMUM SPECIFICATIONS:  
F<sub>b</sub> CROSSWISE FLEXURAL STRESS W/ F.S.=3.0 5 KSI  
CROSSWISE FLEXURAL MODULUS 1100 KSI
- FRP BOLTING MINIMUM SINGLE SHEAR ALLOWABLE VALUES:  
Ø¼" ¾ NYLON BOLT; V=67# FS=3.0  
Ø½" FRP THREADED ROD & NUT; V=650# FS=4.0  
Ø¾" FRP THREADED ROD & NUT; V=950# FS=4.0
- PRIME & PAINT ALL FRP SURFACES PER THE FOLLOWING PROCESS:  
A. CLEAN SCREEN W/ DENATURED ALCOHOL  
B. APPLY BONDZ BONDING PRIMER OR EQUIV. LET CURE 24 HRS.  
C. APPLY DRYVIT DPR FINISH TO MATCH (E) BLDG FINISH TEXTURE.  
D. PAINT TO MATCH EXISTING BLDG FINISH COLOR.

CONCRETE NOTES

- ALL CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318-14. CONCRETE MIX DESIGN SHALL BE REVIEWED BY AN INDEPENDENT TESTING LABORATORY AND SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW.
- CONTRACTOR SHALL VERIFY SITE CONDITIONS & ALL DIMENSIONS PRIOR TO STARTING WORK. NOTIFY ENGINEER OF RECORD OF ANY DISCREPANCIES FOR RESOLUTION PRIOR TO PROCEEDING.
- ALL CONCRETE SHALL BE A MINIMUM 5 SACK MIX WITH A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS.
- CEMENT SHALL CONFORM TO ASTM C150, TYPE II.
- CONCRETE AGGREGATES SHALL CONFORM TO ASTM C33.
- ALL REINFORCING STEEL SHALL BE GRADE 60 AND CONFORM TO ASTM A615 UNLESS OTHERWISE NOTED. SEE PLAN FOR SIZE AND PLACEMENT.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A1064.
- REINFORCING STEEL SHALL BE FABRICATED ACCORDING TO "MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION".
- MINIMUM LAP SPlice SHALL BE 56 BAR DIAMETERS UNLESS OTHERWISE NOTED.
- MINIMUM BEND DIAMETER SHALL BE 6 BAR DIAMETERS UNLESS OTHERWISE NOTED.
- MINIMUM REINFORCING COVERAGE IS 3" UNLESS OTHERWISE NOTED.
- CONCRETE SHALL BE PLACED AGAINST FIRM UNDISTURBED NON EXPANSIVE SOIL AT DEPTH SHOWN. WHERE OTHER CONDITIONS ARE ENCOUNTERED DURING EXCAVATION THE ENGINEER SHALL BE NOTIFIED AND REMEDIAL MEASURES PRESCRIBED PRIOR TO PROCEEDING WITH WORK.
- BOTTOM OF ALL FOOTING TRENCHES SHALL BE CLEAN AND LEVEL. REMOVE ALL DEBRIS BEFORE PLACING ANY CONCRETE.
- ALL ANCHOR BOLTS & THREADED ROD SHALL BE ASTM F1554, GR.36 MINIMUM UNLESS OTHERWISE NOTED, NEW, & WITHOUT SIGNIFICANT RUST.
- A ¾" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE UNLESS OTHERWISE NOTED.
- REINFORCING, DOWELS, BOLTS, ANCHORS, SLEEVES, ETC. TO BE EMBEDDED IN CONCRETE SHALL BE SECURELY POSITIONED BEFORE PLACING CONCRETE.
- ALL CONCRETE SHALL BE THOROUGHLY CONSOLIDATED BY MOTORIZED VIBRATORY MEANS AND THOROUGHLY WORKED AROUND REINFORCEMENT, EMBEDDED ITEMS AND INTO CORNERS OF FORMS.

CONCRETE CORE/DRILLING NOTES

- WHEN INSTALLING DRILLED-IN ANCHORS AND/OR POWDER DRIVEN PINS IN EXISTING NON-PRESTRESSED OR POST-TENSIONED REINFORCED CONCRETE (MILD REINFORCED), USE CARE & CAUTION TO AVOID CUTTING OR DAMAGING THE (E) REINFORCING BARS. WHEN INSTALLING ANCHORS INTO (E) PRE-STRESSED OR POST-TENSIONED CONCRETE LOCATE THE PRE-STRESSED OR POST-TENSIONED TENDONS BY USING A NON-DESTRUCTIVE METHOD, SUCH AS X-RAY, AT POINT OF PENETRATION. PRIOR TO INSTALLATION. EXERCISE EXTREME CARE & CAUTION TO AVOID CUTTING OR DAMAGING THE TENDONS DURING INSTALLATION. MAINTAIN A MINIMUM CLEARANCE OF TWO INCHES BETWEEN REINFORCEMENT AND THE DRILLED-IN ANCHOR AND/OR PIN.
- WHEN CORING EXISTING REINFORCED CONCRETE OF ANY CONSTRUCTION TYPE (PRE-STRESSED, POST-TENSIONED OR MILD REINFORCED), LOCATE THE EXISTING REINFORCING BY USING A NON-DESTRUCTIVE METHOD, SUCH AS X-RAY, PRIOR TO CORING. EXERCISE EXTREME CARE & CAUTION TO AVOID CUTTING OR DAMAGING ANY REINFORCING DURING CORING. MAINTAIN A MINIMUM CLEARANCE OF TWO INCHES BETWEEN REINFORCEMENT AND THE CORE. THE MAXIMUM SIZE OF ANY CORE IS TO BE 6" DIAMETER AND THE MINIMUM SPACING BETWEEN CORES IS TO BE TWICE THE CORE DIAMETER (I.E. 12" SPACING FOR A 6" DIAMETER CORE).
- INSPECTOR IS TO BE PRESENT DURING ALL CORE DRILLING OPERATIONS TO VERIFY THAT NO REINFORCING CABLES, TENDONS, OR REBAR HAVE BEEN CUT. (SEE NOTE 5 BELOW)
- THE INSPECTOR SHALL SUBMIT A WRITTEN REPORT TO THE OWNER.
- THE INSPECTIONS INDICATED IN NOTES 3 AND 4 ABOVE ARE NOT REQUIRED FOR A CONCRETE FILL OVER METAL DECK APPLICATION WHERE INDICATED ON THE CONSTRUCTION DRAWINGS.

EXPANSION & EPOXY ANCHORS

- EXPANSION AND EPOXY ANCHORS SHALL BE IN CONFORMANCE WITH ALL REQUIREMENTS OF THE 2019 CALIFORNIA BUILDING CODE (CBC).
- ALL ANCHORS PROVIDED SHALL BE INCLUDED IN EVALUATION REPORTS OF THE INTERNATIONAL CODE COUNCIL (ICC), AND SHALL BE EVALUATED FOR 2018 IBC MINIMUM REQUIREMENTS IN THE ICC REPORT
- CONCRETE EXPANSION ANCHORS SHALL BE KWIK BOLT TZ BY HILTI, INC., TULSA, OKLAHOMA AS PER ICC REPORT NO. ESR-1917 OR APPROVED EQUIVALENT.
- CMU EXPANSION ANCHORS SHALL BE KWIK BOLT TZ BY HILTI, INC., TULSA, OKLAHOMA AS PER ICC REPORT NO. ESR-3785 OR APPROVED EQUIVALENT. ANCHORS SHALL BE INSTALLED A MINIMUM OF 1¾" FROM ANY VERTICAL MORTAR JOINT TYPICAL. ANCHORS TO BE SPACED 8 INCHES ON CENTER MINIMUM AND LIMITED TO ONE ANCHOR PER CELL.
- CONCRETE ADHESIVE EPOXY ANCHORS SHALL BE HIT RE-500 V3 BY HILTI, INC., TULSA, OKLAHOMA AS PER ICC REPORT NO. ESR-3814 OR APPROVED EQUIVALENT.
- GROUT FILLED CMU ADHESIVE EPOXY ANCHORS SHALL BE HIT-HY 200 BY HILTI, INC., TULSA, OKLAHOMA AS PER ICC REPORT NO. ESR-3963 OR APPROVED EQUIVALENT.
- INSTALL EXPANSION AND EPOXY ANCHORS WITH SPECIAL INSPECTION IN ACCORDANCE WITH THE 2019 CBC, TABLE 1705.3, AND ALL REQUIREMENTS OF THE MANUFACTURER, THE MANUFACTURER'S ICC APPROVAL AND THESE DRAWINGS.
- EXPANSION ANCHORS SHALL BE 304/316 STAINLESS STEEL U.O.N. EPOXY ANCHOR THREADED ROD SHALL BE ASTM F593 CW1 (316) (¼" TO ¾") OR F593 CW2 (316) (¾" TO 1½") STAINLESS STEEL U.O.N.
- LOCATE AND AVOID REINFORCEMENT AND OTHER EMBEDDED ITEMS WHEN INSTALLING ANCHORS, TYPICAL. SEE CONCRETE CORE DRILLING NOTES FOR ADDITIONAL INFORMATION.
- THE SPECIAL INSPECTOR MUST MAKE PERIODIC INSPECTIONS DURING ANCHOR INSTALLATION TO VERIFY ANCHOR TYPE AND DIMENSIONS, CONCRETE MEMBER THICKNESS, ANCHOR SPACING, EDGE DISTANCES, TIGHTENING TORQUE, HOLE DIAMETER, DEPTH AND CLEANLINESS, ANCHOR EMBEDMENT AND ADHERENCE TO MANUFACTURER'S INSTALLATION INSTRUCTIONS. SEE NOTE 11 BELOW FOR FREQUENCY OF INSPECTIONS.
- 50% OF ALL ANCHORS, INCLUDING ALTERNATE BOLTS IN A GROUP OF ANCHORS, SHALL BE INSPECTED PER NOTE 10 ABOVE AND TORQUE TESTED PER THE ICC REPORT TEST VALUES NOTED BELOW:

KB TZ:

CONCRETE TORQUE TEST VALUES:

¾"=25 FT LB ½"=40 FT LB ¾"=60 FT LB ¾"=110 FT LB

CMU TORQUE TEST VALUES:

¾"=15 FT LB ½"=25 FT LB ¾"=35 FT LB ¾"=70 FT LB

EPOXY ANCHOR:

CONCRETE TORQUE TEST VALUES:

½"=30 FT LB (CONCRETE TENSION TEST VALUES TO BE DETERMINED AS NEEDED. A RFI WILL BE ISSUED IF NEEDED DURING CONSTRUCTION TO ESTABLISH THE REQUIRED TENSION TEST VALUES)

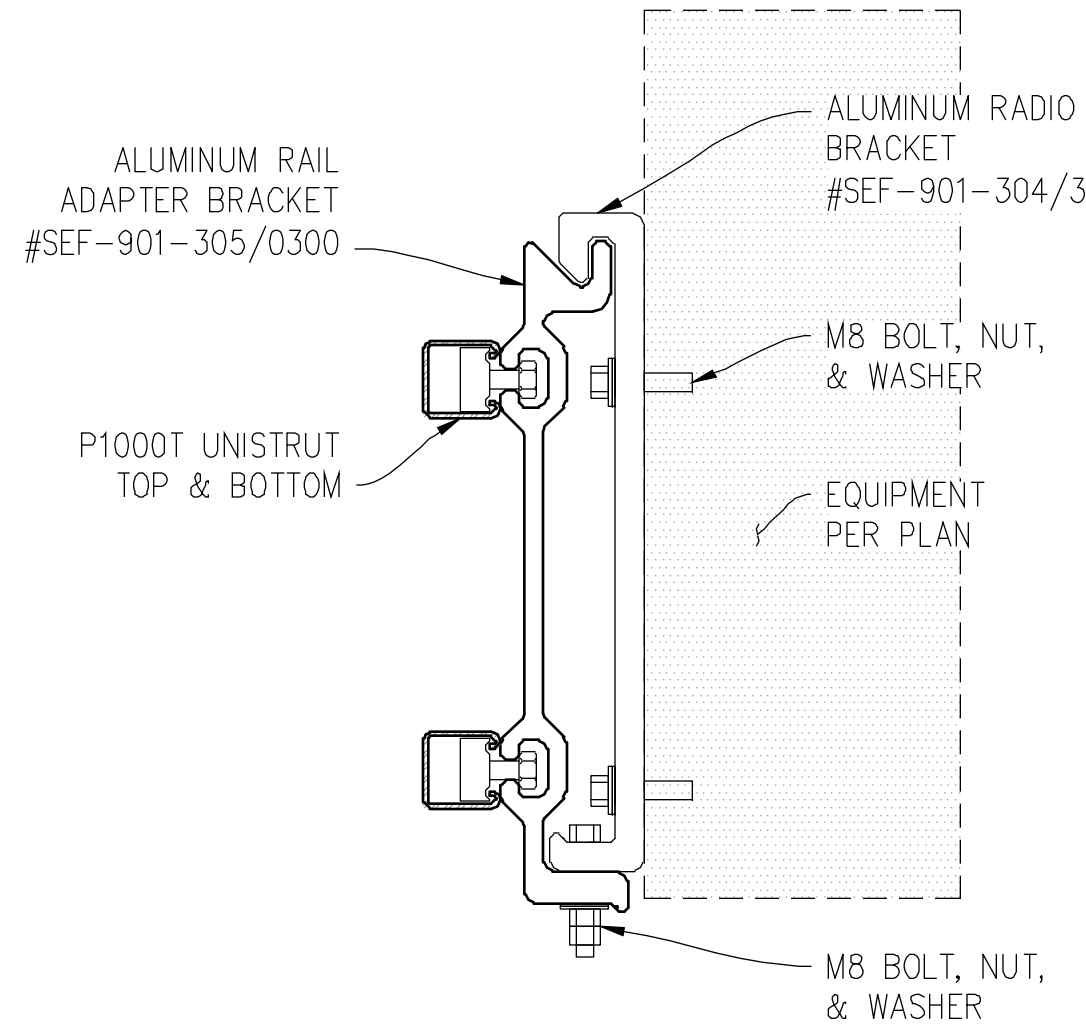
LIGHT GAUGE METAL FRAMING

- ALL LIGHT GAUGE METAL FRAMING SHALL BE PER THE REQUIREMENTS OF THE 2019 CBC AND THE NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS OF THE AMERICAN IRON AND STEEL INSTITUTE (AISI S100-16/S1-18 PER CBC CHAPTER 35)
- ALL METAL FRAMING SHALL BE FORMED FROM GALVANIZED STEEL CONFORMING TO ASTM A653 OR ASTM A1011 WITH MINIMUM YIELD STRENGTH OF 33KSI FOR 43 MILS (18GA) AND LIGHTER 50KSI FOR 54 MILS (16 GA) AND HEAVIER, U.O.N. FULLY ENCLOSED WORK OF 14GA OR THICKER MAY BE ASTM A653 SHOP COAT.
- GALVANIZED COATING MUST MEET THE ASTM C955 SPECIFICATION.
- METAL TRACKS SHALL BE THE SAME GAUGE AS FRAMING WHICH IT SUPPORTS, UNLESS NOTED OTHER WISE WITH MINIMUM FLANGE WIDTH OF 1¼" AND MINIMUM PROPERTIES AS SHOWN IN THE LIGHT GAUGE METAL FRAMING SCHEDULE.
- ALL WELDING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CBC AND THE STRUCTURE WELDING CODE-SHEET STEEL OF THE AMERICAN WELDING SOCIETY (AWS D1.4/D1.4M-2017 PER CBC CHAPTER 35).
- FACTORY PUNCH-OUTS FOR STUDS TO BE LOCATED ONLY ALONG THE CENTERLINE OF THE WEBS OF THE MEMBERS AND HAVE A MINIMUM CENTER-TO-CENTER SPACING OF 24". PUNCH-OUTS TO HAVE A MAXIMUM WIDTH=HALF THE MEMBER DEPTH (D/2) OR 2½", WHICHEVER IS LESS, AND A MAXIMUM LENGTH=4½". LIGHT GAUGE FRAMING MEMBERS SHALL BE CUT SUCH THAT THE MINIMUM DISTANCE BETWEEN THE END OF THE MEMBER AND THE NEAR EDGE OF THE WEB PUNCH-OUT=10".
- ALL HEADER, JOIST & BEAM MEMBERS SHALL BE UN-PUNCHED.
- ALL SCREWS SHALL BE TEKS/TRAXX SELF-DRILLING SCREWS BY ITW BUILDX, OR APPROVED EQUIVALENT. INSTALL PER MANUFACTURES INSTRUCTIONS AND RECOMMENDATIONS FOR MAXIMUM RATED LOADING CAPACITIES.
- ALL SCREWS SHALL BE HOT DIPPED GALVANIZED.

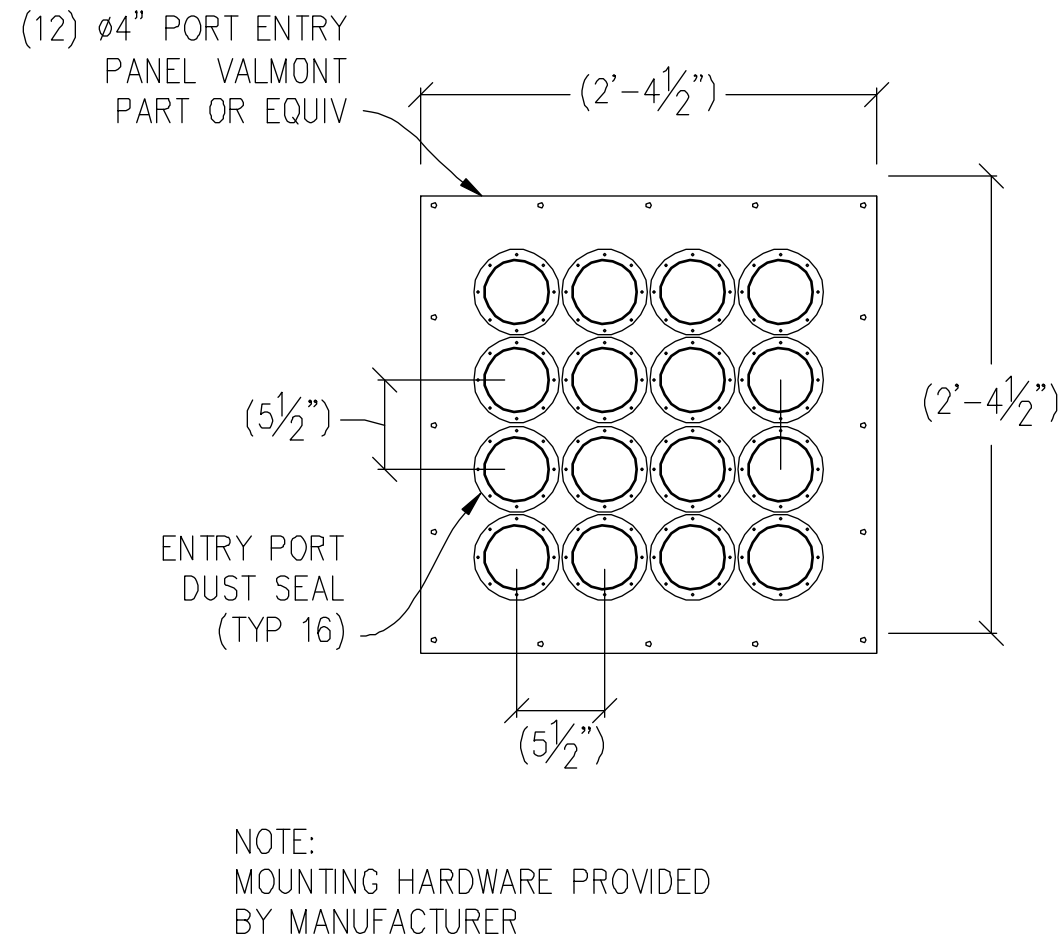
CONCRETE BLOCK MASONRY NOTES

- CONCRETE BLOCK UNITS SHALL CONFORM TO ASTM C-90. COMPRESSIVE STRENGTH OF UNITS TO BE 1000 PSI FOR GROSS AREA AND 1900 PSI FOR NET AREA. F'm = 1500 PSI. F'm SHALL BE VERIFIED IN ACCORDANCE WITH SECTION 2105.1 OF THE 2019 CBC. CONCRETE BLOCK UNITS SHALL BE LIGHTWEIGHT, FULLY GROUTED CONCRETE BLOCK UNITS NOT TO EXCEED 115 PCF.
- MORTAR SHALL BE TYPE S PER CBC SECTION 2103.2 AND ASTM C270 PROPORTIONED TO ATTAIN A 28 DAY COMPRESSIVE STRENGTH OF 1800 PSI. USE A MINIMUM OF 1 PART PORTLAND CEMENT TO ¼-½ PART HYDRATED LIME WITH SAND AT 2½ TO 3 TIMES COMBINED VOLUME OF CEMENT AND LIME. 2" CUBES SHALL TEST 1800 PSI IN 28 DAYS.
- GROUT SHALL BE PER CBC SECTION 2103.3 PROPORTIONED TO ATTAIN A 28 DAY COMPRESSIVE STRENGTH OF 2500 PSI. USE A MINIMUM OF 1 PART PORTLAND CEMENT TO 3 PARTS SAND. ADD 1 LB. OF SIKA GROUT AIDE TYPE II, OR EQUAL, PER 100 LB. OF CEMENTITIOUS MATERIAL. 1 TO 2 PARTS OF PEA GRAVEL SHALL BE USED WHERE THE LEAST CLEAR CELL DIMENSION EXCEEDS 2 INCHES. NOT MORE THAN 5% OF THE PEA GRAVEL SHALL PASS THE NO. 8 SIEVE AND 100% SHALL PASS THE ¾" SIEVE.
- REINFORCING STEEL SHALL CONFORM TO ASTM A-615 GRADE 60 FOR #4 AND LARGER.
- MINIMUM REBAR CLEARANCE TO SHELL FACE IS ONE BAR DIAMETER OR ½", WHICHEVER IS GREATER.
- BEFORE BLOCK IS PLACED ON CONCRETE, THOROUGHLY CLEAN CONCRETE OF ALL LAITANCE AND ALL LOOSE MATERIAL. ROUGHEN AS IN A CONCRETE CONSTRUCTION JOINT.
- CONCRETE BLOCK MASONRY SHALL BE BUILT TO PRESERVE THE UNOBSTRUCTED VERTICAL CONTINUITY OF THE CELLS. ALL HEAD AND END JOINTS SHALL BE SOLIDLY FILLED WITH MORTAR FOR A DISTANCE IN FROM THE FACE OF THE WALL OR UNIT NOT LESS THAN THE THICKNESS OF THE LONGITUDINAL FACE SHELLS. BOND SHALL BE PROVIDED BY LAPPING SUCCESSIVE COURSES OR BY EQUIVALENT MECHANICAL ANCHORAGE.
- VERTICAL CELLS SHALL HAVE VERTICAL ALIGNMENT SUFFICIENT TO MAINTAIN A CLEAR UNOBSTRUCTED CONTINUOUS VERTICAL CELL.
- CLEAN OUT OPENINGS AT THE BOTTOMS OF ALL CELLS TO BE FILLED AT EACH LIFT OR POUR OF GROUT WHERE SUCH LIFT OR POUR OF GROUT IS IN EXCESS OF 4'-0" IN HEIGHT. ANY OVERHANGING MORTAR OR OTHER OBSTRUCTION OR DEBRIS SHALL BE REMOVED FROM INSIDE OF SUCH CELLS. THE CLEAN OUTS SHALL BE SEALED AFTER INSPECTION AND BEFORE GROUTING. MECHANICALLY VIBRATE ALL GROUT POURS.
- VERTICAL REINFORCING SHALL BE HELD IN POSITION AT TOP AND BOTTOM AND AT INTERVALS NOT TO EXCEED 192 BAR DIAMETERS.
- THOROUGHLY CLEAN ALL CELLS AND BOND BEAMS OF MORTAR BEFORE GROUTING.
- ALL CELLS SHALL BE FILLED SOLIDLY WITH GROUT. ALL GROUTING SHALL BE DONE UNDER THE CONTINUOUS OBSERVATION OF A QUALIFIED INSPECTOR WHERE INDICATED ON PLANS.
- WHEN GROUTING IS STOPPED FOR ONE HOUR OR LONGER, HORIZONTAL CONSTRUCTION JOINTS SHALL BE FORMED BY STOPPING THE POUR OF GROUT 1½" BELOW THE TOP OF THE UPPERMOST UNIT.
- EVERY VERTICAL BAR IN WALLS SHALL BE LAPPED PER #20 BELOW WITH A DOWEL OF THE SAME SIZE EXTENDING FROM THE FOUNDATION. LOCATE VERTICAL REINFORCING AT CENTERLINE OF WALL UNLESS SHOWN OR NOTED OTHERWISE. CARRY EACH DOWEL TO WITHIN 3" OF THE BOTTOM OF THE FOUNDATION AND TERMINATE WITH 90 DEGREE HOOK. DOWELS SHALL BE STRAIGHT AND PLUMB.
- PLACE ALL HORIZONTAL BARS IN BOND BEAM UNITS. WHEN 2 BARS ARE USED, STAGGER LAPS MINIMUM OF 5'-0".
- PROVIDED 2 - #5 BARS WITH MATCHING FOOTING DOWELS (FULL HEIGHT OF WALL AT JAMBS AND EXTENDING A MINIMUM OF 2'-0" PAST EDGES OF OPENINGS AT HEAD AND SILL) EACH SIDE OF ALL OPENINGS AND EACH END OF ALL WALLS, UNLESS NOTED OTHERWISE ON DRAWINGS.
- ALL EMBEDDED ITEMS (BOLTS, STRAPS, ETC.) SHALL BE SECURED IN PLACE PRIOR TO GROUTING. CUT A HOLE IN THE FACE SHELL TO ATTAIN A MINIMUM OF 1" GROUT ALL AROUND EMBEDDED ITEMS.
- SINGLE CONDUITS (¾" MAX) MAY BE PLACED IN VERTICAL CELLS NOT CONTAINING VERTICAL REBAR. NO HORIZONTAL CONDUITS ALLOWED IN WALL CONSTRUCTION.
- ANCHOR BOLTS CAST IN MASONRY SHALL BE HEADED BOLTS WITH CUT THREADS CONFORMING TO ASTM A307, ASTM A36, OR ASTM A572 GRADE 50 AS INDICATED ON DRAWINGS.
- ALL REBAR SHALL BE LAP SPICED AS FOLLOWS (U.O.N):

BAR TYPE	LAP LENGTH	NOTES
VERTICAL BARS	48d	SPICES FOR MULTIPLE BARS IN THE SAME CELL MUST BE STAGGERED
HORIZONTAL BARS	48d	24" OR LAPPED 62d
JAMB BARS	72d	SPICES FOR MULTIPLE BARS IN THE SAME CELL MUST BE STAGGERED 24"
CHORD BARS	72d	OR LAPPED 94d
VERTICAL BARS @ ENDS & CORNERS	72d	



1 EQUIPMENT MOUNTING  
3"=1'-0"



2 4X4 ENTRY PORT  
1"=1'-0"

WRIGHT  
(RRU  
COOLING)

283607  
3950 DOUBLES DRIVE  
SANTA ROSA, CA 95407

verizon

2768 MITCHELL DRIVE, BLDG 9  
WALNUT CREEK, CA 94598

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and Design, Inc.

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Contact: Kevin Sorensen Phone: 916-660-1900  
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ISSUE STATUS

△	DATE	DESCRIPTION	REV.
	01/30/20	CD 90%	I.M.
	02/28/20	CLIENT REV	J.S.
	04/30/20	CD 100%	B.S.
	08/11/20	CLIENT REV	B.S.
	-	-	-
	-	-	-

DRAWN BY: DIN

CHECKED BY: J. GRAY

APPROVED BY: J. ANDERSON

DATE: 08/11/20

SHEET TITLE:

STRUCTURAL NOTES  
& DETAILS

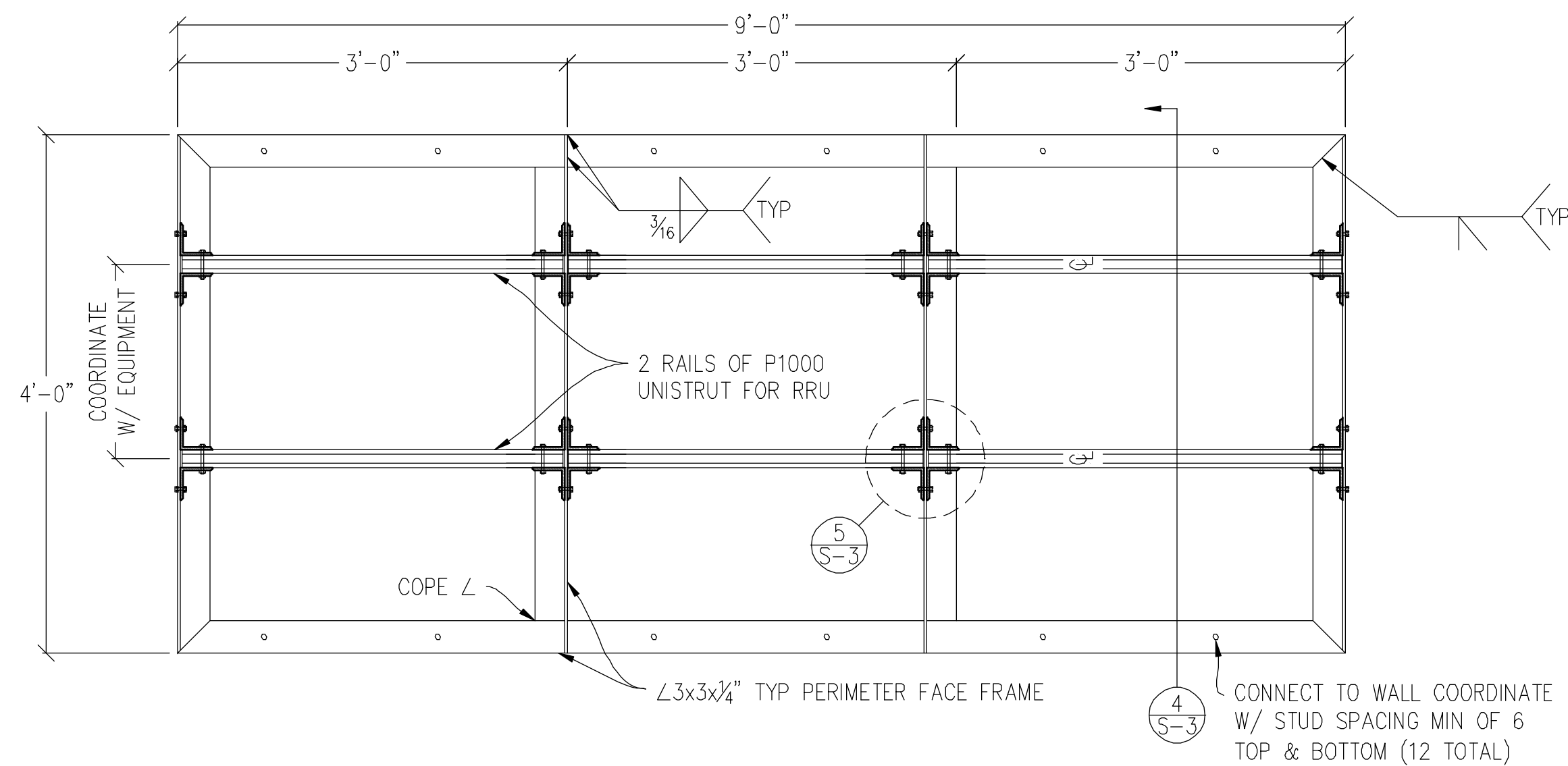
SHEET NUMBER:

S-1

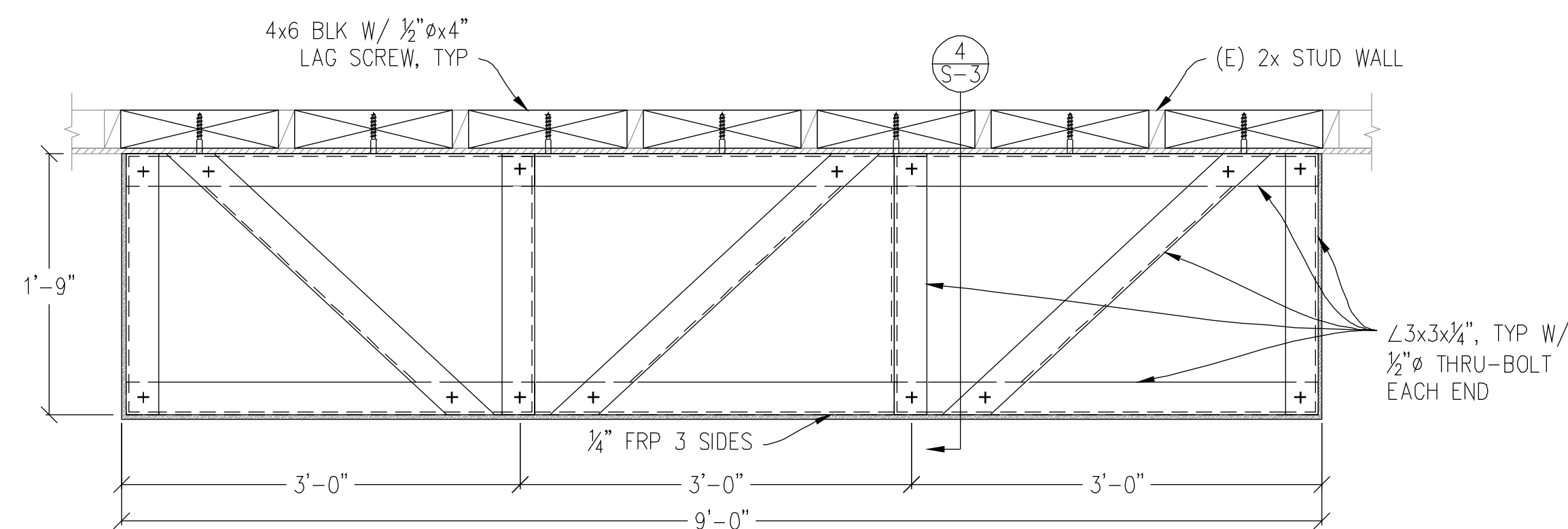




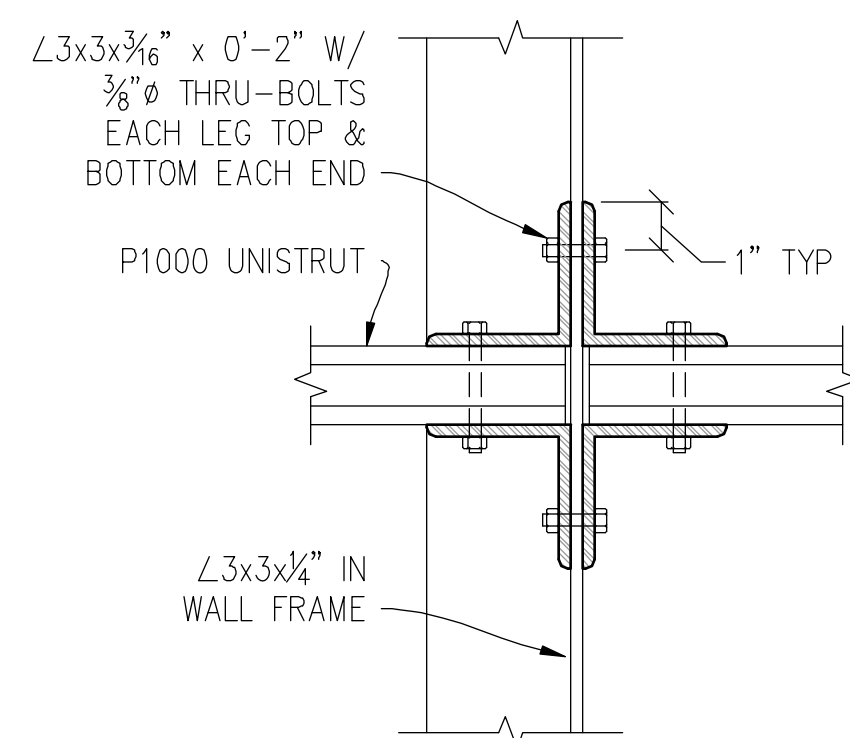




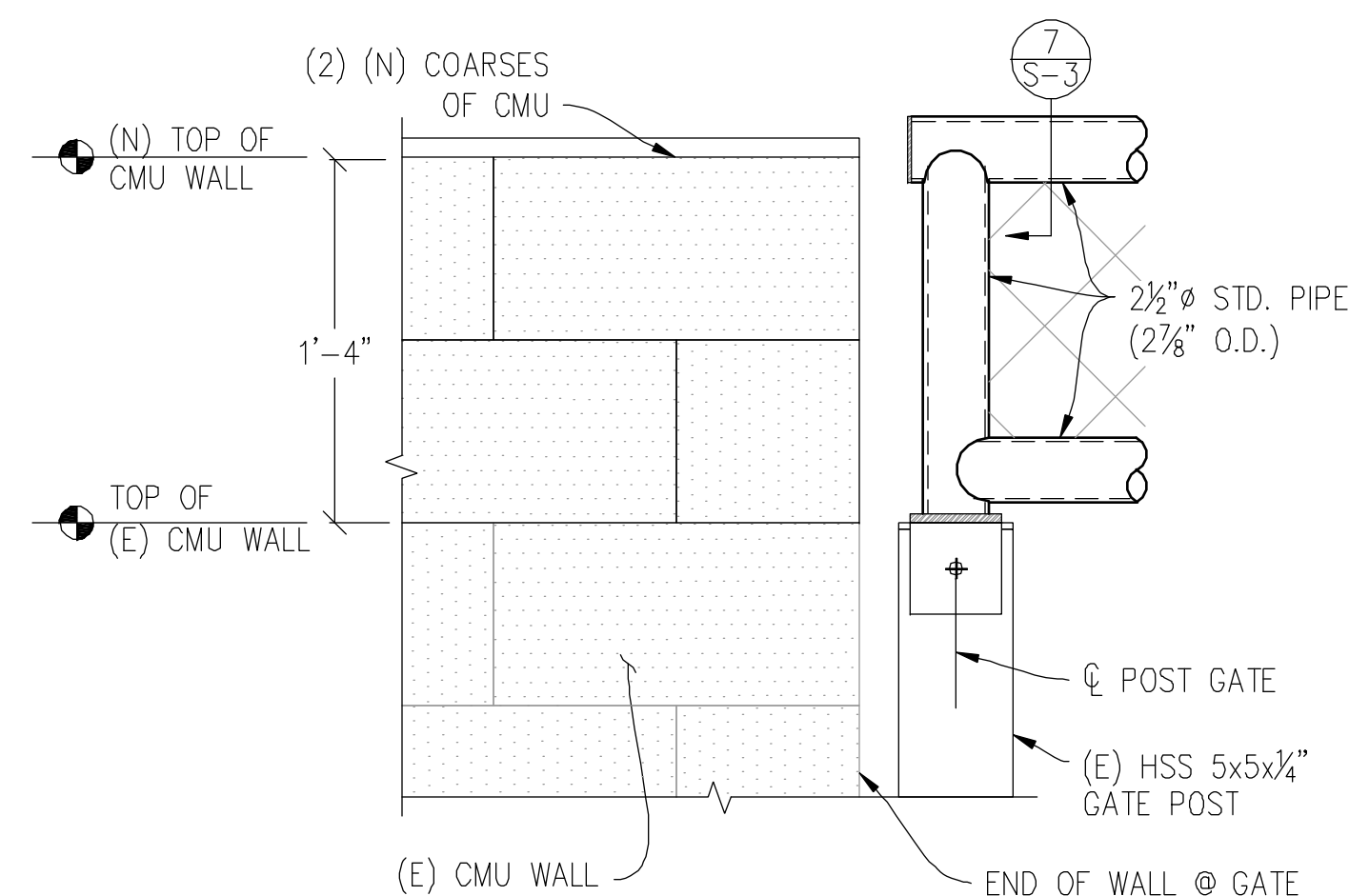
1 SCREEN WALL FRAME  
1"=1'-0"



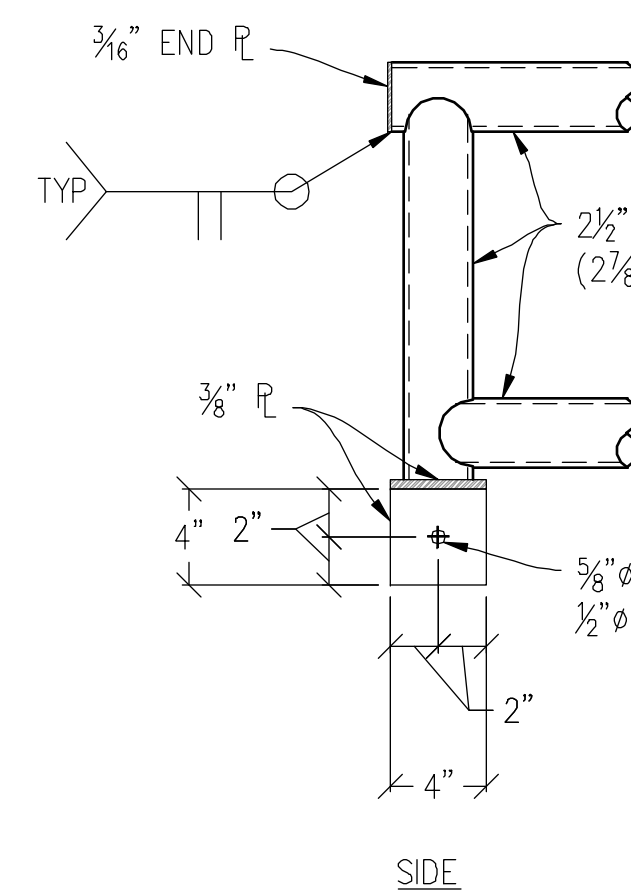
3 SCREEN FRAME TOP & BOTTOM  
1"=1'-0"



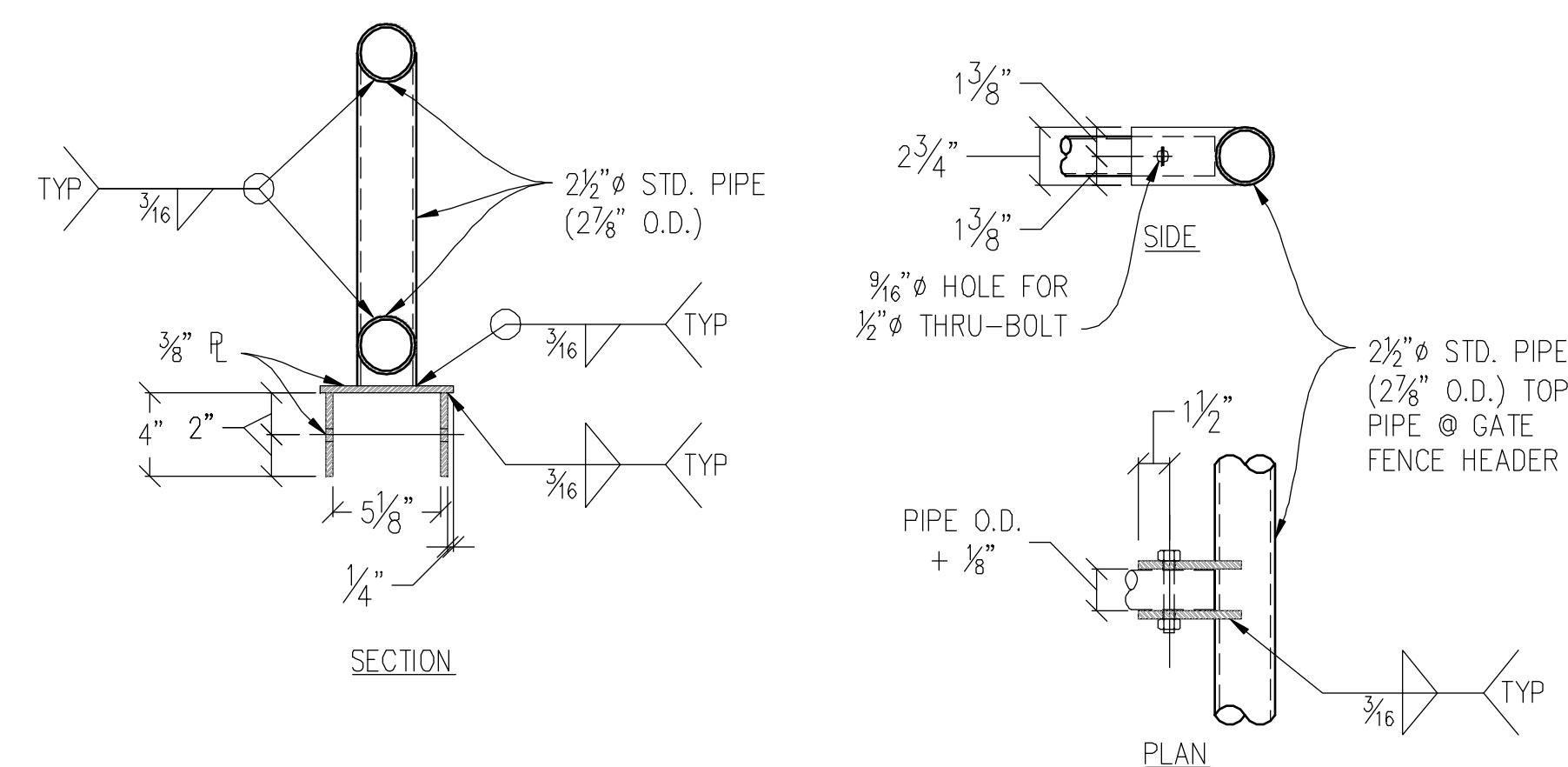
5 UNISTRUT CONN.  
3"=1'-0"



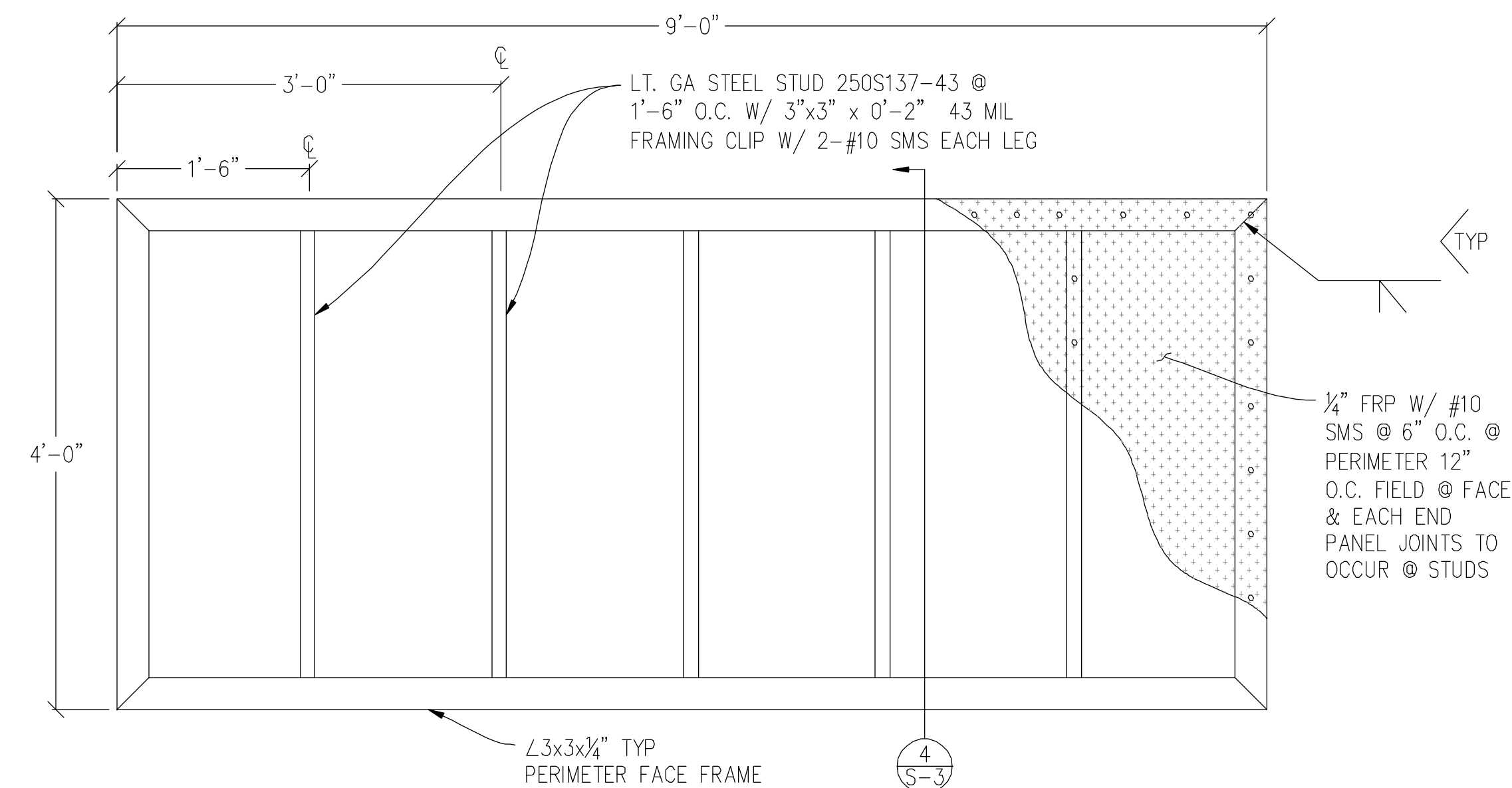
6 FENCE HEADER @ GATE  
1 1/2"=1'-0"



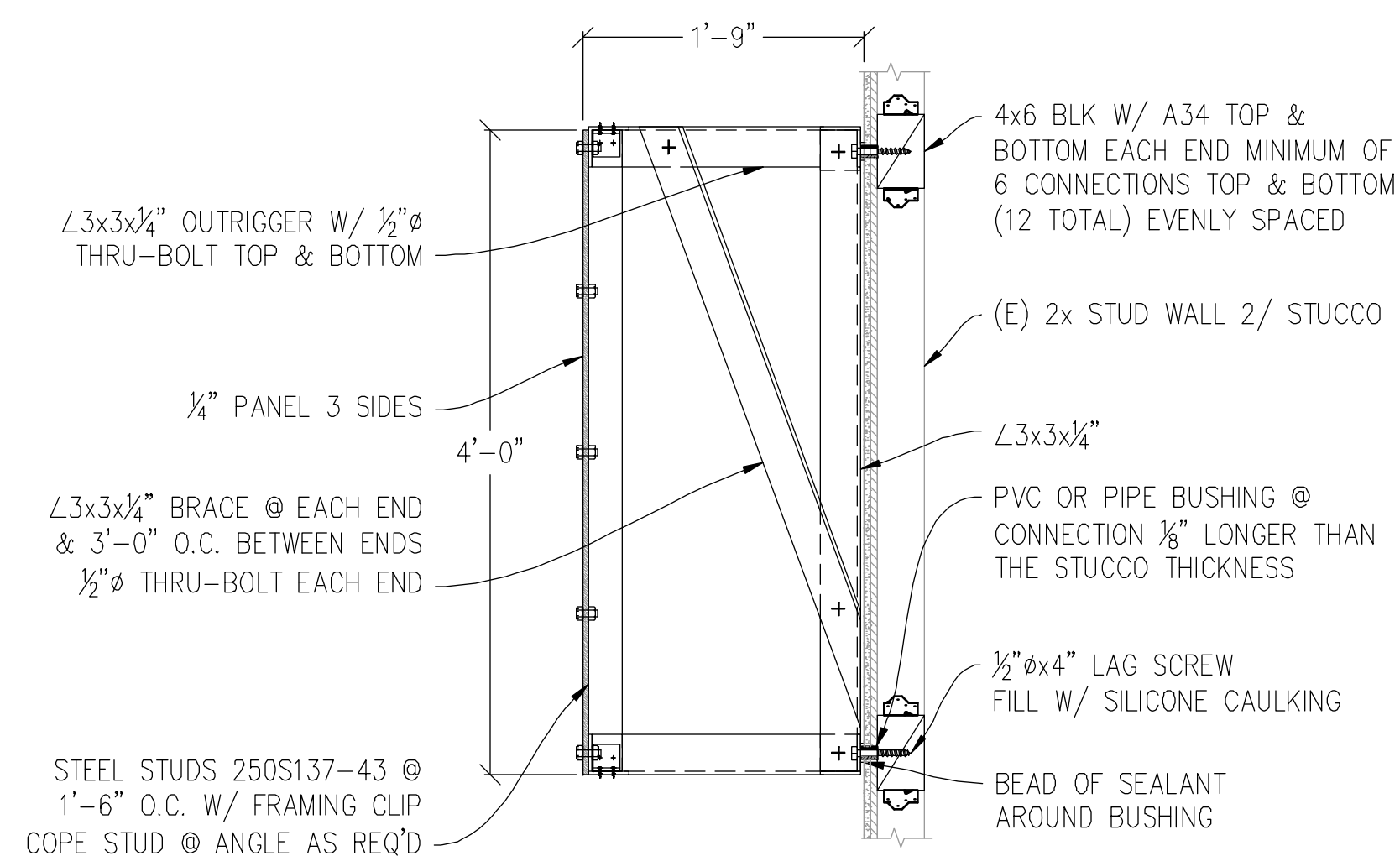
7 FENCE POST CONN. @ GATE POST  
1 1/2"=1'-0"



8 PIPE TO PIPE CONN.  
1 1/2"=1'-0"



2 SCREEN FACE FRAME  
1"=1'-0"



4 SCREEN CONN.  
1"=1'-0"

WRIGHT  
(RRU  
COOLING)

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3950 DOUBLES DRIVE  
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verizon

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DRAWN BY: DIN  
CHECKED BY: J. GRAY  
APPROVED BY: J. ANDERSON  
DATE: 08/11/20

#### SHEET TITLE:

STRUCTURAL PLAN  
& DETAILS

#### SHEET NUMBER:

S-3