



ITEM NO 2 of 3
MEETING
DATE January 24, 2018
STAFF Kai Kleer

ADMINISTRATIVE HEARING OFFICER

STAFF REPORT

PROJECT: FTC Mugs Coffee SC, PDP170031

APPLICANT: LRK Consulting
Ryan Sagar
1196 Grant Street
Suite 313
Denver, CO 80203

OWNER: Venturepro LLLP
706 S College Avenue
Fort Collins, CO 80524

PROJECT DESCRIPTION:

This is a request for a Project Development Plan (PDP) to install wireless telecommunication equipment concealed within an eight-foot, 11-inch faux chimney on an existing three-story building. The site is located at 706 South College Avenue in the Community Commercial (C-C) zone district. The use is permitted in the zone district, subject to approval by a Hearing Officer.

RECOMMENDATION: Staff recommends approval of the FTC Mugs Coffee SC Wireless Telecommunication Equipment, PDP170031.

EXECUTIVE SUMMARY:

Staff finds the proposed FTC Mugs Coffee SC Project Development Plan complies with the applicable requirements of the City of Fort Collins Land Use Code (LUC), more specifically:

- The Project Development Plan complies with process located in Division 2.2 – Common Development Review Procedures for Development Applications of Article 2 – Administration.
- The Project Development Plan complies with relevant standards of Article 3 – General Development Standards.

- The Project Development Plan complies with relevant standards located in Division 4.18 – Community Commercial (C-C) of Article 4 – Districts.

VICINITY MAP

FTC Mugs Coffee SC - PDP170031 706 S College Ave



0 105 210 420 Feet



Date Saved: 1/9/2018 5:01:17 PM

COMMENTS:

1. Background

The surrounding zoning and land uses to each side of the project site are as follows:

Direction	Zone District	Existing Land Uses
North	Community Commercial District (C-C)	Retail Establishment (One Love Fort Collins), Bar (The R Bar and Lounge), Restaurant (Thai Pepper),
South	Community Commercial District (C-C)	Offices (Alpine Dental Health)
East	Neighborhood Conservation Buffer (NCB)	Multi-Family residential (Remington Row)
West	CSU	Colorado State University Main Campus (Spruce Hall, Rout Hall)

The site is located within Block 127 of the Original Town Site Plat on Lot 4. The Plat was established and incorporated on February 3, 1873. Currently, the site contains a three-story mixed-use building built in 2003. The building comprises retail stores, offices, seven residential units and a parking garage.

A zoning map is presented on the following page.

Map 1: FTC Mugs Coffee SC, Zoning Map
FTC Mugs Coffee SC - PDP170031
706 S College Ave



2. Compliance with Article 4 of the Land Use Code – Community Commercial zone district:

The project complies with all applicable Article 4 standards as follows:

A. *Section 4.18(B)(2)(E) – Permitted Uses*

Wireless telecommunication equipment is a permitted use in the Community Commercial zone district subject to Administrative (Type 1) review. The project proposes the installation of an eight-foot 11-inch faux chimney that contains a single wireless telecommunication antenna.

3. Compliance with Article 3 of the Land Use Code – General Development Standards:

Article 3 includes additional standards specific to wireless telecommunication facilities and equipment. Compliance with these standards is described in detail below:

A. *Section 3.8.13 – Wireless Telecommunication*

3.8.13(B) – Co-location

To reduce the impact of multiple carriers siting wireless telecommunication equipment in more than one location, no facility or equipment owner or lessee or employee thereof shall act to exclude or attempt to exclude any other wireless telecommunication provider from using the same building, structure or location.

The proposed plan contains notes indicating that owners and employees shall cooperate to achieve future co-location efforts.

3.8.13(C)(3) – Wireless Telecommunication Equipment

Wireless telecommunication equipment must be of the same color as the building or structure to which or on which such equipment is mounted.

The proposed project mounts all equipment accessory to the antenna within the parking garage. Notes have been added so that the visible conduit is painted to match the building's exterior color.

Whenever a wireless telecommunication antenna is attached to a building roof, the height of the antenna must not be more than fifteen (15) feet over the height of the building.

The proposed height of the faux chimney is eight-feet 11-inches over the height of the building. The proposal therefore does not exceed the maximum height limit of 15 feet.

All wireless telecommunication equipment must be located as far from the edge of the roof as possible. Even if the building is constructed at or above the building height limitations contained in Section 3.8.17, the additional fifteen (15) feet is permissible.

The applicant proposes an eight-foot 11-inch faux chimney with a 39-foot setback from the front of the building. The applicant asserts that the proposed location is the best way to limit the impact of the concealment while also keeping in context with other typical rooftop elements found throughout the area.

Whenever wireless telecommunication equipment is mounted to the wall of a building or structure, the equipment must be mounted in a configuration as flush to the wall as technically possible and must not project above the wall on which it is mounted. Such equipment must, to the maximum extent feasible, also feature the smallest and most discreet components that the technology will allow so as to have the least possible impact on the architectural character and overall aesthetics of the building or structure. Roof and ground-mounted wireless telecommunication equipment must be screened by parapet walls or screen walls in a manner compatible with the building's design, color and material.

The proposed project conceals all associated wireless equipment accessory to the antenna within a first-floor parking garage. The wireless antenna is concealed within the faux chimney and features a painted and textured brick design consistent with the buildings brick façade.

3.8.13(C)(8) – Color

Telecommunication equipment must be painted to match as closely as possible the color and texture of the wall, building or surrounding built environment. Muted colors, earth tones and subdued colors must be used.

Notes for all items associated with this proposal and within public view have been added to the plan to ensure that colors match the existing building.

4. Findings of Fact/Conclusion:

In evaluating the request for the FTC Mugs Coffee SC, Wireless Telecommunication Equipment Project Development Plan, staff makes the following findings of fact:

- A. The FTC Mugs Coffee SC – Wireless Telecommunication Equipment Project Development Plan complies with the process located in Division 2.2 – Common Development Review Procedures for Development Applications of Article 2 – Administration.
- B. The FTC Mugs Coffee SC – Wireless Telecommunication Equipment Project Development Plan complies with the applicable standards located in Article 3 – General Development Standards.
- C. The FTC Mugs Coffee SC – Wireless Telecommunication Equipment Project Development Plan complies with the applicable standards in Division 4.18, Community Commercial (C-C) of Article 4 – Districts.

RECOMMENDATION:

Staff recommends approval of the FTC Mugs Coffee SC – Wireless Telecommunication Equipment Project Development Plan, PDP170031.

ATTACHMENTS:

- 1. Applicant's Statement of Planning Objectives
- 2. FTC Mugs Coffee SC Plan Set
 - a. Title Sheet
 - b. Photosimulation Views
 - c. Site Plan
 - d. Equipment Plan
 - e. Elevations
 - f. Line of Site Elevations

LRK CONSULTING ON BEHALF OF VERIZON WIRELESS

August 16, 2017

Wireless-Telecommunications Equipment (Co-location) Review: Planning Objective FTC Mugs Coffee SC located at 706 S College Ave, Parcel ID# 9713219002

My client, Verizon Wireless, wishes to submit an application for Wireless-Telecommunications Equipment that will be located on top of a three-story building along College Avenue and the east side of Colorado State University. The installation of this new equipment will provide critical 4G-LTE voice and data services to a location with increasingly higher pedestrian and vehicular traffic providing an immediate benefit to the traveling public, emergency services, residents, employees, and customers who shop at the nearby commercial developments.

Specifically, my client proposes the installation of the following equipment:

- An antenna located inside a new square chimney structure. The total height of the new chimney is 8'-11" above the existing roof height and shall be painted to match the primary color of the building.
- Telecommunications equipment including Remote Radio Heads (RRHs), Over-Voltage Protection Units (OVPs), and a radio cabinet wall-mounted inside the first floor of the existing parking garage. The RRHs are meant to limit line loss to the radio equipment, while the OVP is installed to protect the equipment from electrical surges.
- An underground fiber optic cable vault located near the east property line.
- Underground cabling from utility sources to the proposed wall-mounted ground equipment.
- Cabling from the new ground level equipment to the proposed antenna located within a new shroud designed to match the existing downspouts.

In accordance with the Communications and Technology section of the City Comprehensive Plan, this new wireless equipment will provide citizens access to high-quality, reliable wireless service in a part of the city that faces significant coverage and capacity demands. Access to this improved service will continue to be a critical component for community interactions as well as economic growth now that 4G-LTE has become widely utilized and as the nation begins to transition into 5G capabilities.

Furthermore, this design carefully took into consideration and meets the standards as outlined in Paragraph C Standards of Chapter 3.8.13 of the Municipal Code specifically relating to not exceeding the height allowance, using the smallest and most discreet components that technology will allow, and proposing screening of the antenna through the installation of a chimney structure that promotes a stealth design.

Please let me know if there is anything else I can provide you with to aid in the review of this project. I look forward to working with your department as Verizon Wireless continues to invest in reliable, fast, and strong wireless services in the City of Fort Collins.

Sincerely,



Senior Site Acquisition Consultant, LRK Consulting LLC
1196 Grant Street, Unit 313, Denver, CO 80203
mrsagar45@gmail.com
219-477-0099

verizon

FTC MUGS COFFEE SC

SMALL CELL

714 S COLLEGE AVE

FT. COLLINS, COLORADO 80524

ZONING DRAWINGS

verizon

3131 SOUTH VAUGHN WAY #500
AURORA, COLORADO 80014
(303) 873-2652

AeroSolutions LLC

Optimizing Your Wireless Infrastructure

5555 CENTRAL AVENUE #100
BOULDER, COLORADO 80301
PH: (720) 304-6882
FAX: (720) 304-6883

AERO PROJECT #:

097-17-0099

REVISION SCHEDULE			
E	01-05-18	GAC	REVISED
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A	06-19-17	EGW	PRELIMINARY
REV	DATE	BY	DESCRIPTION

SITE DIRECTIONS	CLIENT	PROJECT DATA		SHEET INDEX	
DEPART 3131 S VAUGHN WAY, AURORA, CO 80014: MERGE ONTO I-225 N, TAKE EXIT 12A TO MERGE ONTO I-70 W TOWARD DENVER. KEEP RIGHT AT THE FORK TO CONTINUE ON I-270 W, FOLLOW SIGNS FOR FORT COLLINS/BOULDER. TAKE EXIT 0 TO MERGE ONTO I-25 N TOWARD FT COLLINS. TAKE EXIT 269B TO MERGE ONTO CO-14 W, TURN LEFT ONTO S COLLEGE AVE, CONTINUE SOUTH ON COLLEGE AVE PAST LAUREL STREET, THE SITE AND PARKING ENTRANCE WILL BE ON THE LEFT.	JENNIFER SCHNEIDER 10740 NALL AVENUE, SUITE 400 OVERLAND PARK, KS 66211 PHONE: 913-344-2030	JURISDICTION:	CITY OF FT. COLLINS	T-1	TITLE SHEET
LEGAL DESCRIPTION	PROPERTY OWNER	ZONING:	COMMUNITY COMMERCIAL DISTRICT	PH-1	PHOTOSIMULATION VIEW
		APN:	9713219004	Z-1	SITE PLAN
		PARCEL SIZE:	14,000 S.F.	Z-2	EQUIPMENT PLAN
		ELEVATION:	4995' (NAVD 88)	Z-3	ELEVATIONS
		STRUCTURE TYPE:	BUILDING	Z-4	LINE OF SIGHT
VICINITY MAP	CONSTRUCTION MANAGER	STRUCTURE HEIGHT:	39'-5"± AGL	Z-5	FAUX CHIMNEY DETAIL
		ANTENNA RAD CENTER:	44'-9" AGL	ST-1	CUSTOM MOUNT ELEVATION
		APPLICANT:	VERIZON WIRELESS	ST-2	CUSTOM MOUNT BALLAST TRAY
		APPLICANT CONTACT:	JENNIFER SCHNEIDER 10740 NALL AVENUE, SUITE 400 OVERLAND PARK, KS 66211 PH: 913-344-2030	ST-3	CUSTOM MOUNT ELEVATION DETAILS
		ENGINEERING:	AERO SOLUTIONS, LLC	ST-4	STRUCTURAL NOTES
	RF ENGINEER	ENGINEERING CONTACT:	MATT FLECK 5555 CENTRAL AVENUE #100 BOULDER, COLORADO 80301 PH: 720 279-8973	PROJECT DESCRIPTION	
		1. INSTALL: (2) RRHS, (1) POWER PANEL, AND (1) EQUIPMENT CABINET MOUNTED TO THE WALL IN THE LOWER PARKING STRUCTURE.			
		2. INSTALL NEW CUSTOM NON-PENETRATING PEAK ROOF MOUNT WITH A QUASI-OMNI ANTENNA WITHIN A FAUX CHIMNEY PAINTED & TEXTURED TO MATCH EXISTING BUILDING'S BRICK FACADE.			
		3. INSTALL UNDERGROUND FIBER RUN FROM FIBER VAULT TO EQUIPMENT SITE.			
		4. INSTALL NEW COAX CABLE FROM THE EQUIPMENT CABINET THROUGH THE DROP CEILING, UP AN EXTERIOR CONDUIT PAINTED TO MATCH THE BUILDING'S EXTERIOR TO THE PROPOSED ROOF EQUIPMENT.			
	SITE ACQUISITION	5. RUN NEW ELECTRICAL FROM THE EXISTING POWER PANEL IN THE PARKING STRUCTURE TO THE PROPOSED POWER PANEL AND EQUIPMENT BOX.			
		APPROVALS			
		VERIZON (RF): _____ DATE: _____			
		VERIZON (CONST.): _____ DATE: _____			
		VERIZON (RE): _____ DATE: _____			
	ENGINEER	LANDLORD: _____ DATE: _____			
		FT. COLLINS, COLORADO			



1 PH-1 N.T.S. PHOTOSIMULATION VIEW (BEFORE, LOOKING EAST)



2 PH-1 N.T.S. PHOTOSIMULATION VIEW (AFTER, LOOKING EAST)

verizon
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AERO PROJECT #: 097-17-0099

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REV	DATE	BY	DESCRIPTION

DRAWING TITLE:
PHOTOSIMULATION VIEWS

DRAWING SHEET:
PH-1

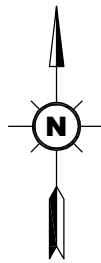
2 OF 11

SITE INFORMATION:

SITE NAME:
FTC MUGS COFFEE SC

SITE ADDRESS:
**714 S COLLEGE AVE
FT COLLINS, CO 80524**

JURISDICTION:
CITY OF FT COLLINS



PROPOSED COAX RUN TO
PROPOSED ROOF EQUIPMENT

PROPOSED FAUX CHIMNEY PAINTED
& TEXTURED TO MATCH EXISTING
BUILDING'S BRICK FACADE

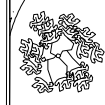
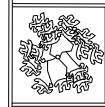
PROPOSED QUASI-OMNI ANTENNA
MOUNTED ON PROPOSED
NON-PENETRATING PEAK MOUNT
(SEE ELEVATION 2/Z-3)



S COLLEGE AVE

EXISTING
CURB (TYP)

EXISTING
SIDEWALK



PROPOSED EQUIPMENT CABINET
MOUNTED ON EXISTING WALL

(2) PROPOSED RRH'S MOUNTED ON
EXISTING WALL

PROPOSED 5'x10' VERIZON LEASE
AREA
(SEE DETAIL 2/Z-2)

EXISTING POWER PANEL

EXISTING 6' WIDE ELECTRICAL EASEMENT

EXISTING FIBER LINE

PROPOSED 5' WIDE ACCESS
AND UTILITY EASEMENT

PROPOSED FIBER VAULT

NOTE:

NO WIRELESS TELECOMMUNICATION FACILITY OR
EQUIPMENT OWNER OR LESSEE OR EMPLOYEE
THEREOF SHALL ACT TO EXCLUDE OR ATTEMPT TO
EXCLUDE ANY OTHER WIRELESS
TELECOMMUNICATION PROVIDER FROM USING THIS
BUILDING, STRUCTURE OR LOCATION.

LEGEND

WATER LINE	W	STORM SEWER	SD
SANITARY SEWER	SS	UG ELECTRIC	UE
GAS LINE	GAS	ELECTRIC	E
FIBER LINE	F	OH TELCO	OT
OH ELECTRIC	OE	PROPERTY LINE	
UG TELCO	UT	FENCE IRON	O
FENCE CLF	X	UG UTILITIES	U/G
RIGHT OF WAY		OH UTILITIES	OHW
WATER METER	WM	SIGNAGE	
WATER VALVE	WV	CATCH BASIN	CB
IRRIGATION VALVE	ICV	STORM MANHOLE	DM
SAN SEWER MH	SMH	POWER POLE	PP
TELCO MAN HOLE	TMH	TRAFFIC SIGNAL	TS
LIGHT POLE	LP	ELECTRIC VAULT	EV
ELEC PULL BOX	EPB	ELECTRIC CABINET	CAB
ELECTRIC EQUIP	EQ	ELECTRICAL XFMR	ET

VERIZON COLOR STANDARDS

GRAY-EXISTING EASEMENT		ORANGE-FIBER	
PURPLE #1- LEASE AREA		TAN-ANTENNAS	
BLUE GRAY#1- ACCESS/UTILITY		RED-PENETRATIONS	
BLUE #1-HYBRID CABLES/COAX		UMBER-NEW WORK UTILITY EASEMENT	
BLUE #2-RRHS		GRAY-WALL HATCH	
GREEN-DC POWER		GREY-EXISTING	

SITE PLAN

SCALE: 1"=30'-0"

GRAPHIC SCALE



(IN FEET)
1 inch = 30 ft.

(SCALE BASED ON 11"x17" SHEETS ONLY)
(DO NOT USE SCALE ON OTHER SIZED DRAWINGS)

verizon

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AURORA, COLORADO 80014
(303) 873-2652



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A	06-19-17	EGW	PRELIMINARY

DRAWING TITLE:

SITE PLAN

DRAWING SHEET:

Z-1

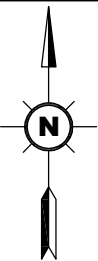
3 OF 11

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JURISDICTION:
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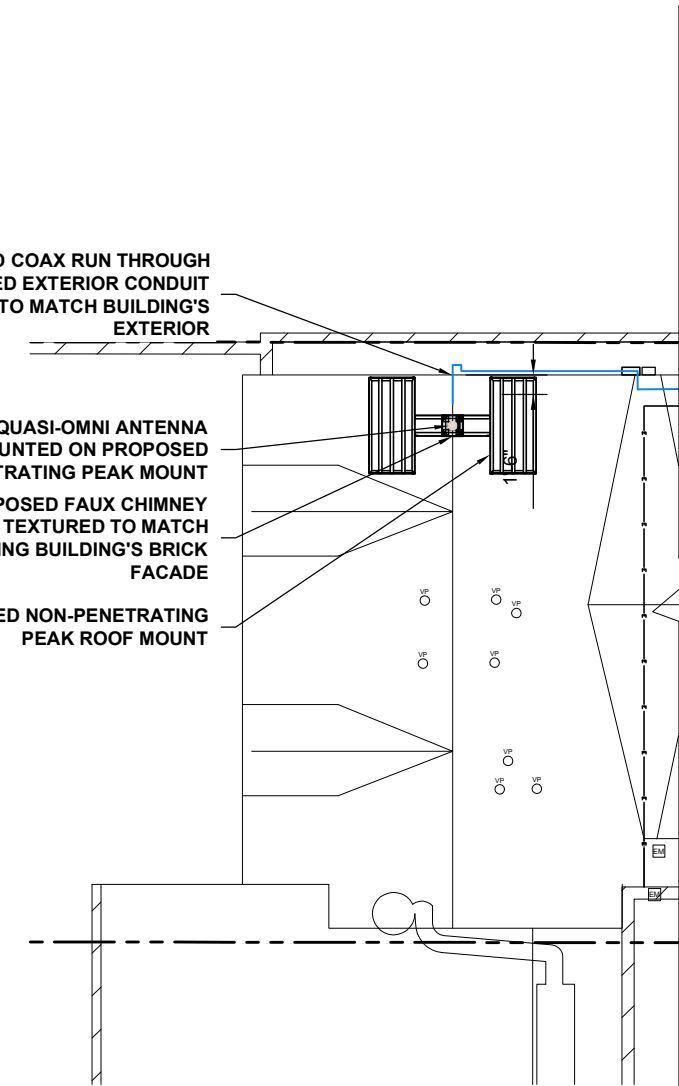
1
Z-4

PROPOSED COAX RUN THROUGH
CONCEALED EXTERIOR CONDUIT
PAINTED TO MATCH BUILDING'S
EXTERIOR

PROPOSED QUASI-OMNI ANTENNA
MOUNTED ON PROPOSED
NON-PENETRATING PEAK MOUNT
PROPOSED FAUX CHIMNEY
PAINTED & TEXTURED TO MATCH
EXISTING BUILDING'S BRICK
FACADE

PROPOSED NON-PENETRATING
PEAK ROOF MOUNT

2
Z-3



1
Z-2 EQUIPMENT PLAN UPPER LEVEL DETAIL
SCALE: 1/16"=1'-0"

GRAPHIC SCALE



(IN FEET)
1/16 inch = 1 ft.

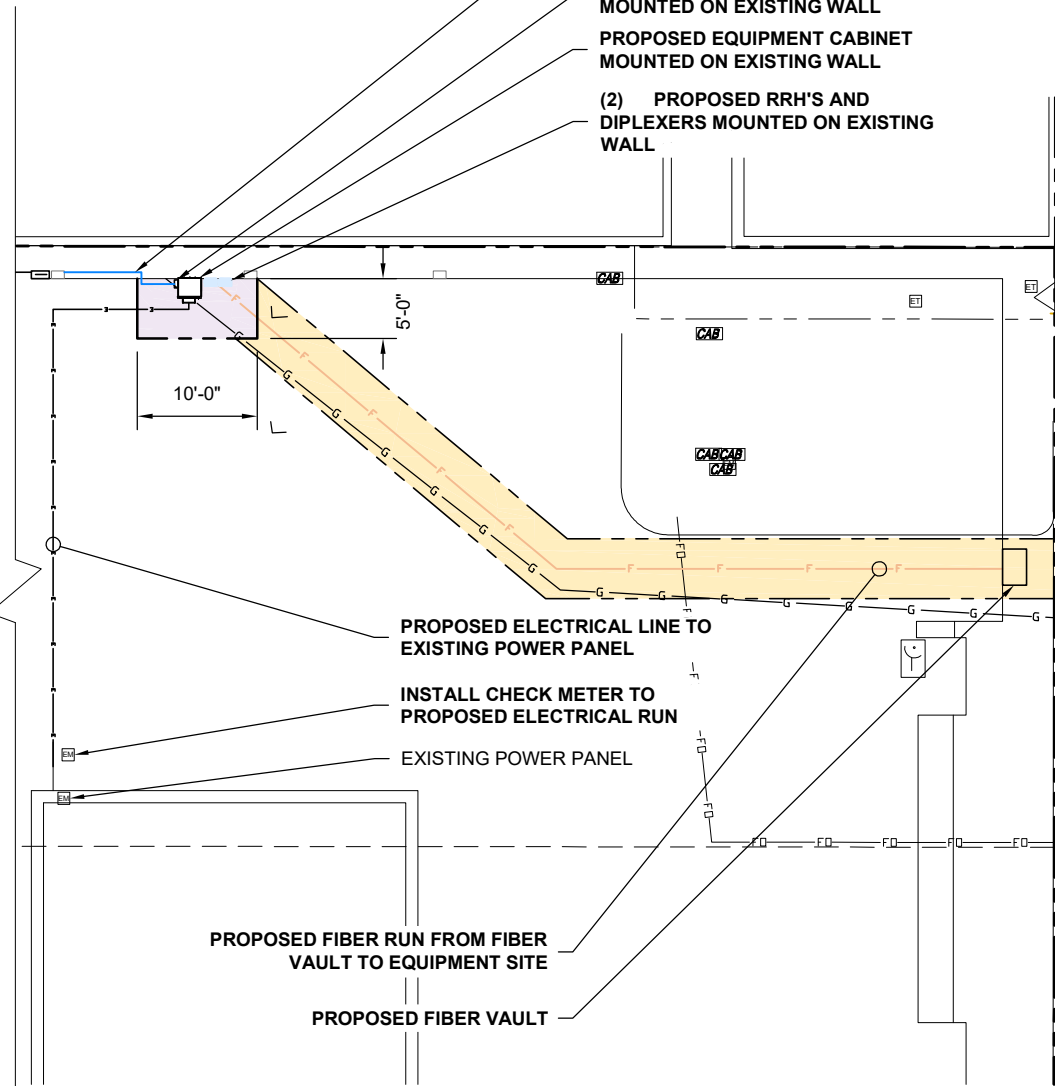
(SCALE BASED ON 11"x17" SHEETS ONLY)
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PROPOSED COAX RUN THROUGH
DROP CEILING TO EXTERIOR

PROPOSED POWER PANEL
MOUNTED ON EXISTING WALL

PROPOSED EQUIPMENT CABINET
MOUNTED ON EXISTING WALL

(2) PROPOSED RRH'S AND
DIPLEXERS MOUNTED ON EXISTING
WALL



2
Z-2 EQUIPMENT PLAN GROUND LEVEL DETAIL
SCALE: 1/16"=1'-0"

GRAPHIC SCALE



(IN FEET)
1/16 inch = 1 ft.

(SCALE BASED ON 11"x17" SHEETS ONLY)
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GENERAL NOTES:

1. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES ORDINANCES, LAWS AND REGULATIONS OF ALL MUNICIPALITIES, UTILITY COMPANIES OR OTHER PUBLIC AUTHORITIES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE, COUNTY OR MUNICIPAL AUTHORITIES.
3. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER, IN WRITING, OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF BIDS OR PERFORMANCE OF WORK. MINOR OMISSIONS OR ERRORS IN THE BID DOCUMENTS SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR THE OVERALL INTENT OF THESE DRAWINGS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SITE IMPROVEMENTS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED AS A RESULT OF CONSTRUCTION OF THIS FACILITY.
5. THE SCOPE OF WORK FOR THIS PROJECT SHALL INCLUDE PROVIDING ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS PROJECT. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
6. THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING A BID TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
7. THE PROPOSED FACILITY WILL CAUSE ONLY A "DE MINIMIS" INCREASE IN STORMWATER RUNOFF. THEREFORE, NO DRAINAGE STRUCTURES ARE PROPOSED.
8. NO NOISE, SMOKE, DUST, OR ODOR WILL RESULT FROM THIS FACILITY.
9. THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION (THERE IS NO HANDICAP ACCESS REQUIRED).
10. THE FACILITY IS UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SANITARY SERVICE.
11. POWER TO THE FACILITY WILL BE MONITORED BY A SEPARATE METER.
12. CONTRACTOR SHALL VERIFY ANTENNA ELEVATION AND AZIMUTH WITH RF ENGINEERING PRIOR TO INSTALLATION.
13. MOUNTS AND ANTENNAS ARE DESIGNED TO MEET TIA-222-G AS PER IBC 2015 REQUIREMENTS.
14. ALL STRUCTURAL ELEMENTS SHALL BE HOT DIPPED GALVANIZED STEEL.
15. CONTRACTOR SHALL MAKE A UTILITY "ONE CALL" TO LOCATE ALL UTILITIES PRIOR TO EXCAVATING.
16. IF ANY PIPING EXISTS BENEATH THE SITE AREA, CONTRACTOR MUST LOCATE IT AND CONTACT OWNERS REPRESENTATIVE.

CABLE TABLE					
SECTOR	AZIMUTH	LENGTH	NO.	SIZE	TYPE
A	N/A	80'-0"	2	7/8"	COAX

NOTES:

1. LENGTHS ARE ESTIMATES; CONTRACTOR AND/OR CONSTRUCTION MANAGER SHALL FIELD VERIFY ALL LENGTHS PRIOR TO ORDERING.
2. ALL AZIMUTHS SHOWN ARE RELATIVE TO TRUE NORTH, UNLESS NOTED OTHERWISE.
3. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY AZIMUTHS DEPICTED HEREIN WITH THE RF DEPARTMENT PRIOR TO INSTALLING ANY ANTENNAS.



Know what's below.
Call before you dig.

PROTECT YOURSELF. GIVE THREE
WORKING DAYS NOTICE.
THIS DRAWING DOES NOT INCLUDE NECESSARY
COMPONENTS FOR CONSTRUCTION SAFETY. ALL
CONSTRUCTION MUST BE DONE IN COMPLIANCE
WITH THE OCCUPATIONAL SAFETY AND HEALTH
ACT OF 1970 AND ALL RULES AND REGULATIONS
THERE TO APPURTENANT.

verizon

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DRAWING TITLE:

EQUIPMENT PLAN

DRAWING SHEET:

Z-2

4 OF 11

SITE INFORMATION:

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FTC MUGS COFFEE SC

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REV	DATE	BY	DESCRIPTION

DRAWING TITLE:

ELEVATIONS

DRAWING SHEET:

Z-3

5 OF 11

SITE INFORMATION:

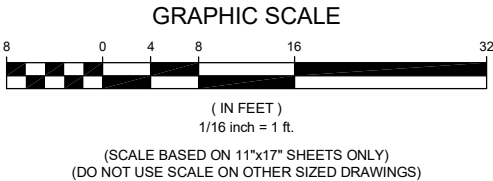
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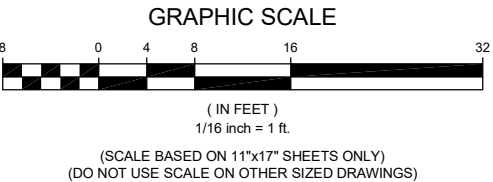
JURISDICTION:
CITY OF FT COLLINS



1
Z-3
ELEVATION
SCALE: 1/16" = 1'-0"



2
Z-3
ELEVATION
SCALE: 1/16" = 1'-0"



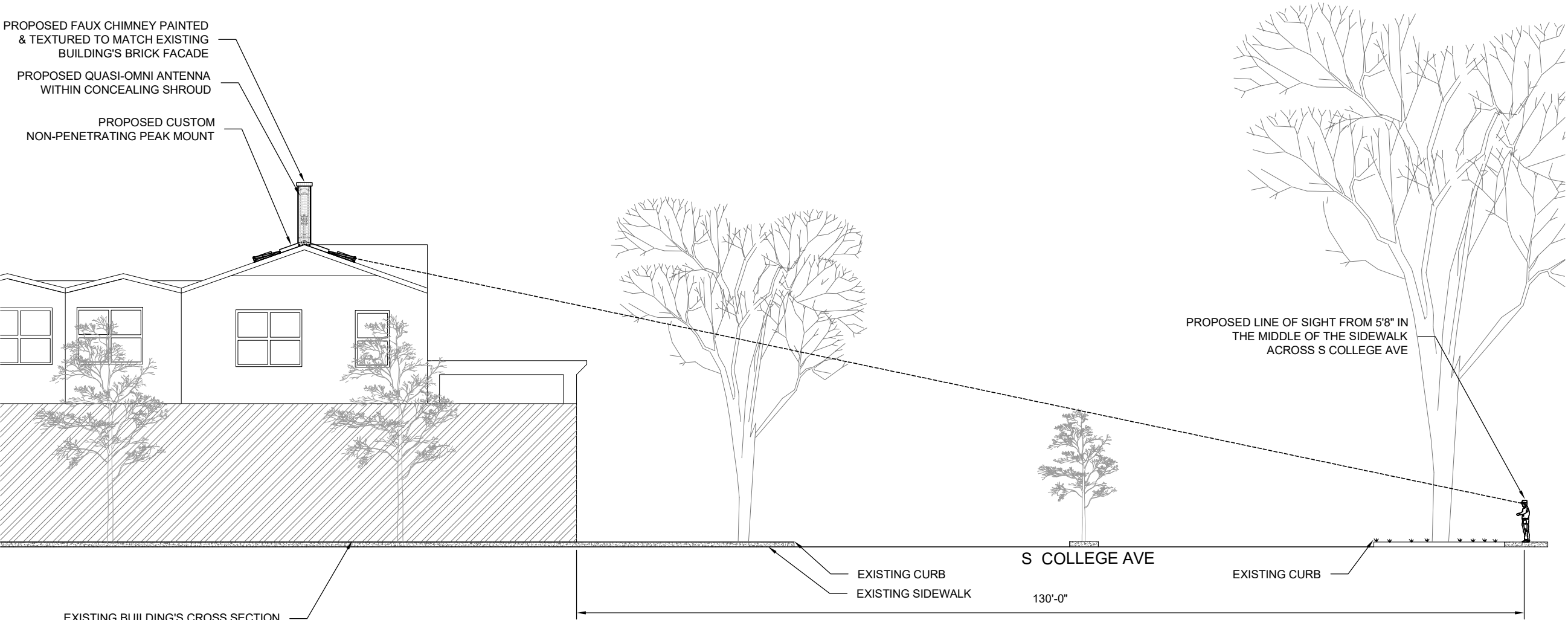
NOTE:

FAUX CHIMNEY PAINTED & TEXTURED TO MATCH EXISTING BUILDING'S BRICK FACADE.

PROPOSED FAUX CHIMNEY PAINTED
& TEXTURED TO MATCH EXISTING
BUILDING'S BRICK FACADE

PROPOSED QUASI-OMNI ANTENNA
WITHIN CONCEALING SHROUD

PROPOSED CUSTOM
NON-PENETRATING PEAK MOUNT



1
Z-4 **PROPOSED LINE OF SIGHT**
SCALE: N.T.S.

verizon

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(303) 873-2652

AeroSolutions LLC

Optimizing Your Wireless Infrastructure

5555 CENTRAL AVENUE #100
BOULDER, COLORADO 80301
PH: (720) 304-6882
FAX: (720) 304-6883

AERO PROJECT #: 097-17-0099

REVISION SCHEDULE			
E	01-05-18	GAC	REVISED
D	11-29-17	LCW	REVISED
C	9-22-17	GAC	REVISED
B	07-10-17	KRC	FINAL ZONING
A	06-19-17	EGW	PRELIMINARY
REV	DATE	BY	DESCRIPTION

DRAWING TITLE:

LINE OF SIGHT

DRAWING SHEET:

Z-4

6 OF 11

SITE INFORMATION:

SITE NAME:
FTC MUGS COFFEE SC

SITE ADDRESS:
714 S COLLEGE AVE
FT COLLINS, CO 80524

JURISDICTION:
CITY OF FT COLLINS



Know what's below.
Call before you dig.

PROTECT YOURSELF. GIVE THREE
WORKING DAYS NOTICE.

THIS DRAWING DOES NOT INCLUDE NECESSARY
COMPONENTS FOR CONSTRUCTION SAFETY. ALL
CONSTRUCTION MUST BE DONE IN COMPLIANCE
WITH THE OCCUPATIONAL SAFETY AND HEALTH
ACT OF 1970 AND ALL RULES AND REGULATIONS
THERE TO APPURTENANT.

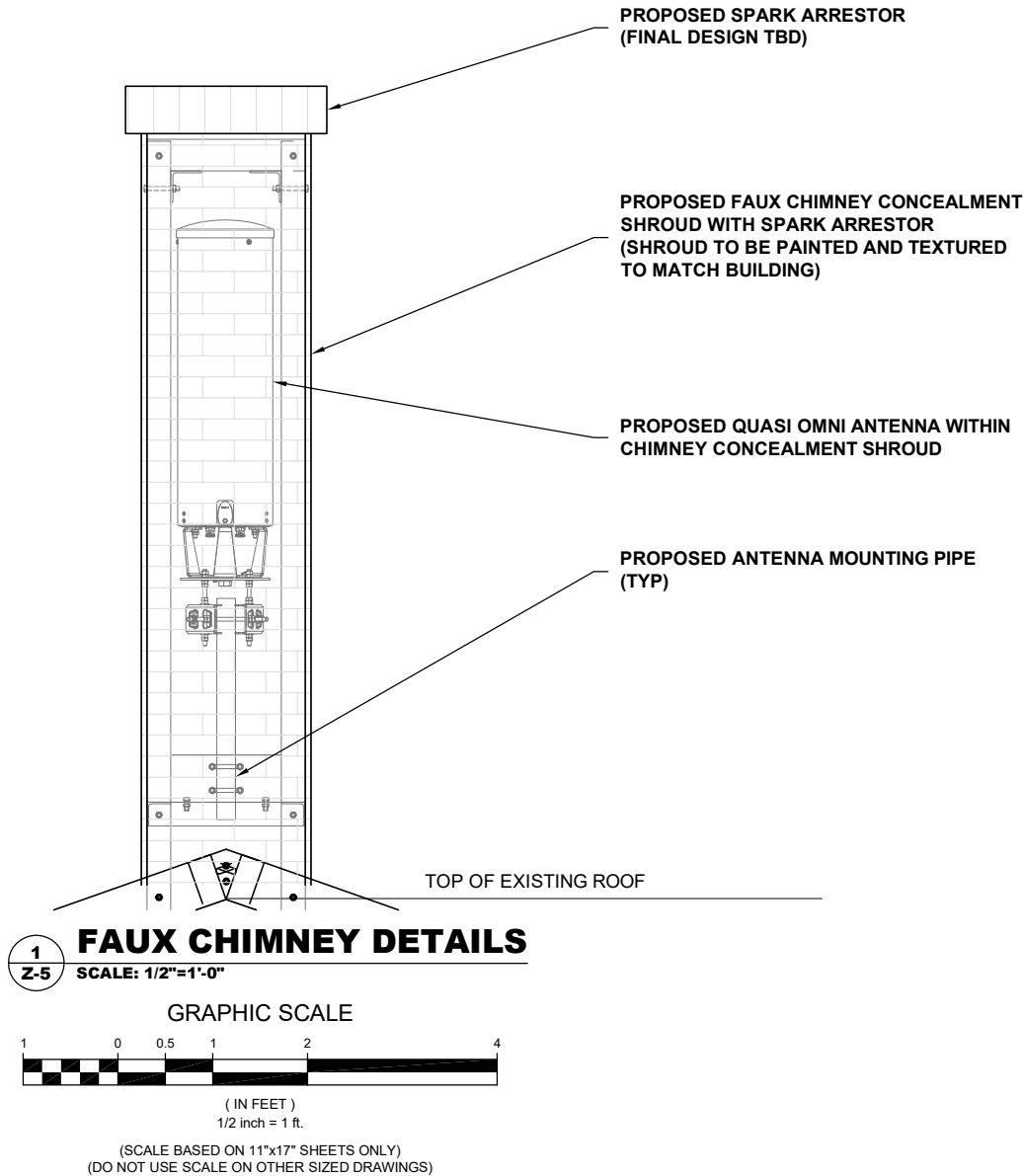
RF TRANSPARENT MATERIAL SPECIFICATIONS

FIBERGLASS REINFORCED PLASTIC (FRP) SHAPES:

- 1. ALL FRP SHAPES AND PLATE SHALL CONFORM TO STRONGWELL EXTREN 500/525 SERIES.
- 2. APPLY RESIN ADHESIVE TO ALL FRP MATING SURFACES PRIOR TO BOLTING.
- 3. STRONGWELL FIBERBOLTS AND NUTS OR EQUAL.
- 4. ALL CUT EDGES AND HOLES SHALL BE SEALED WITH A RESIN COMPATIBLE WITH THE RESIN MATRIX USED IN THE STRUCTURAL SHAPE.
- 5. THE FABRICATOR AND CONTRACTOR SHALL EXERCISE PRECAUTIONS NECESSARY TO PROTECT THE FIBERGLASS PULTRUDED STRUCTURAL SHAPES FROM ABUSE TO PREVENT BREAKAGE, NICKS, GOUGES, ETC. DURING FABRICATION, HANDLING, AND INSTALLATION.
- 6. STURCTURAL SHAPES SHALL BE FABRICATED AND ASSEMBLED AS INDICATED ON THE DESIGN DRAWINGS.
- 7. FIBERBOLTS BOLTS AND NUTS SHALL BE TIGHTENED TO AND LOCKED WITH EPOXY AS FOLLOWS:
 - 1/2" DIAMETER NUTS 8 FT-LBS TORQUE
 - 5/8" DIAMETER NUTS 16 FT-LBS TORQUE
 - 3/4" DIAMETER NUTS 24 FT-LBS TORQUE

- FIBERGLASS PANEL NOTES: BY LARSON CAMOFLAGE, LLC
- FABRICATE PANELS TO FIT PER DIMENSIONS SHOWN IN PLAN.
 - PANELS TO BE MINIMUM 1/4" THICKNESS.

- 1. PANELS ARE TO BE FABRICATED IN A CONTIGUOUS LAYUP PER PLANS USING RF TRANSPARENT MATERIALS.
- 2. ARCHITECT SHALL SPECIFY ANY REQUIRED FINISHES OR TREATMENTS TO ACHIEVE DESIRED APPEARANCE.
- 3. FABRICATOR SHALL USE A GLASS-RESIN RATIO OF 35% + 3%: REINFORCEMENT BY WEIGHT.
- 4. EACH SKIN SHALL BE FABRICATED WITH GENERAL PERPOSE RESIN OR POLYESTER VINYL RESIN WHERE REQUIRED FOR FIRE TREATMENT, CHOPPED STRAND MAT.
- 5. CORNER FLANGES MAY BE FASTENED WITH 5/8" NON-METALLIC THREADED ROD AND NUTS: STRONGWELL FIBERBOLT STUDS AND NUTS OR EQUIVALENT. A TORQUE WRENCH MUST BE USED TO TIGHTEN FASTENERS TO A MAXIMUM 16 FT-LBS.
- 6. FRP PANELS AND SHAPES SHALL BE COATED WITH A FLAT GEL-COAT FINISH TO PROVIDE ULTRAVIOLET PROTECTION.
- 7. ALL CUT AND DRILLED EDGES SHALL BE COATED WITH RESIN.
- 8. FABRICATOR AND INSTALLER SHALL TEST FIT ALL PANELS PRIOR TO FINAL ASSEMBLY/INSTALLATION TO ASSURE SQUARENESS AND CORNER FITS.
- 9. CONTACT KEN PUEHL FOR ADDITIONAL INFORMATION AT 520-741-3115.



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DRAWING TITLE:

FAUX CHIMNEY
DETAIL

DRAWING SHEET:

Z-5

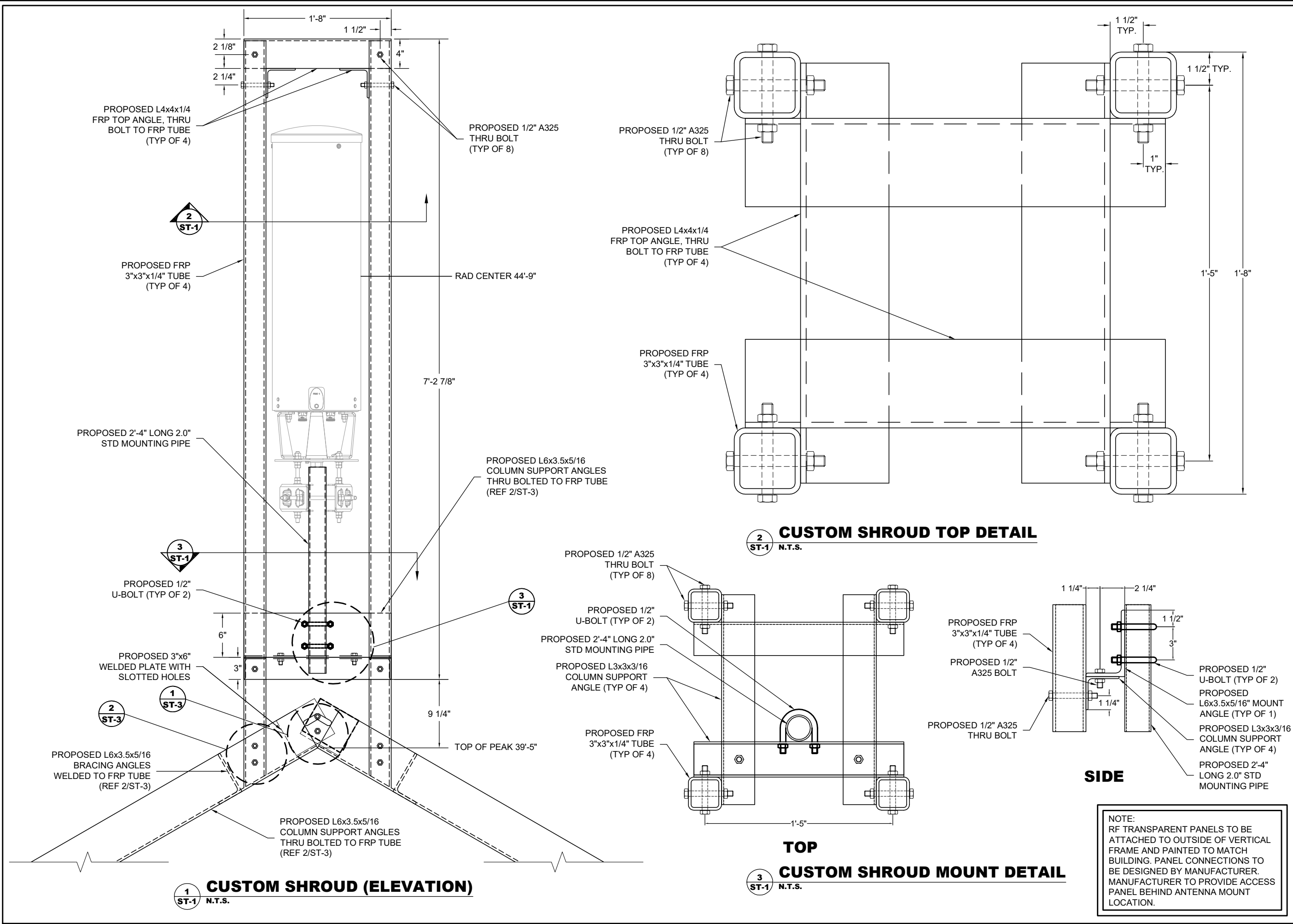
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DRAWING TITLE:
CUSTOM MOUNT ELEVATION

DRAWING SHEET:
ST-1

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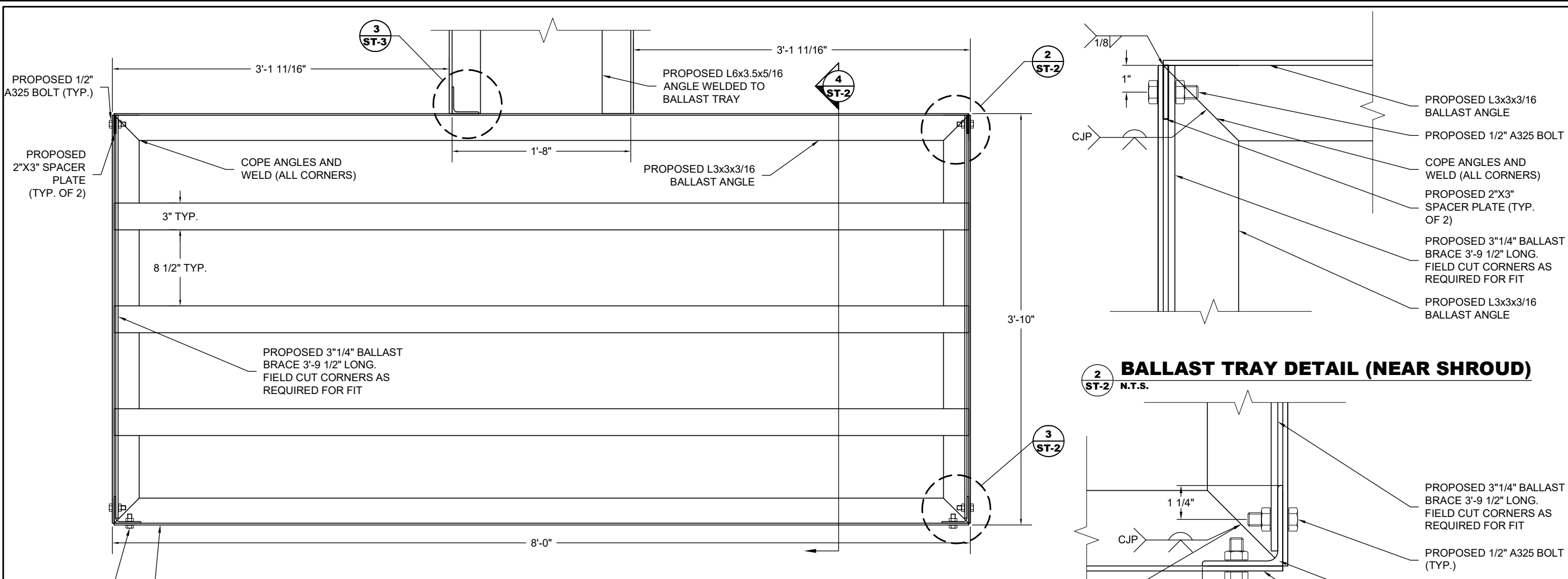
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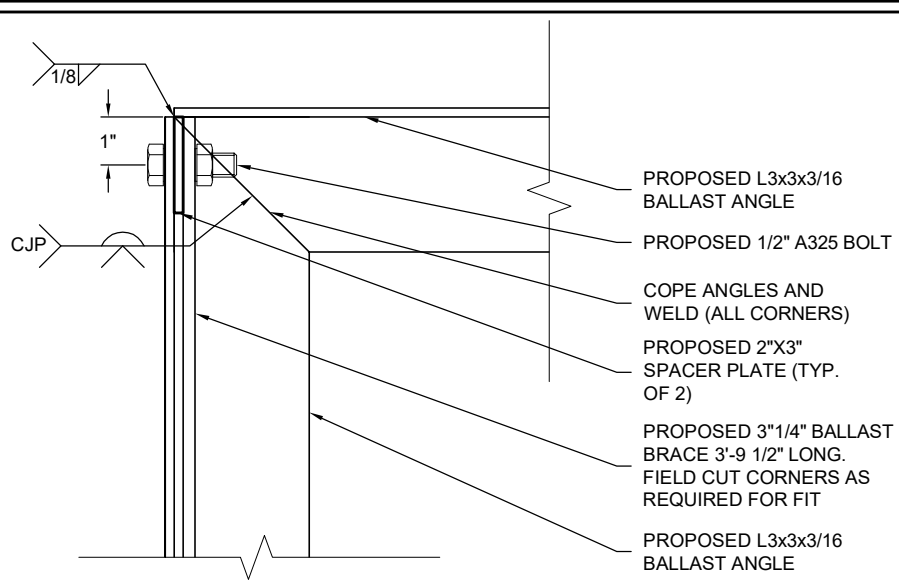
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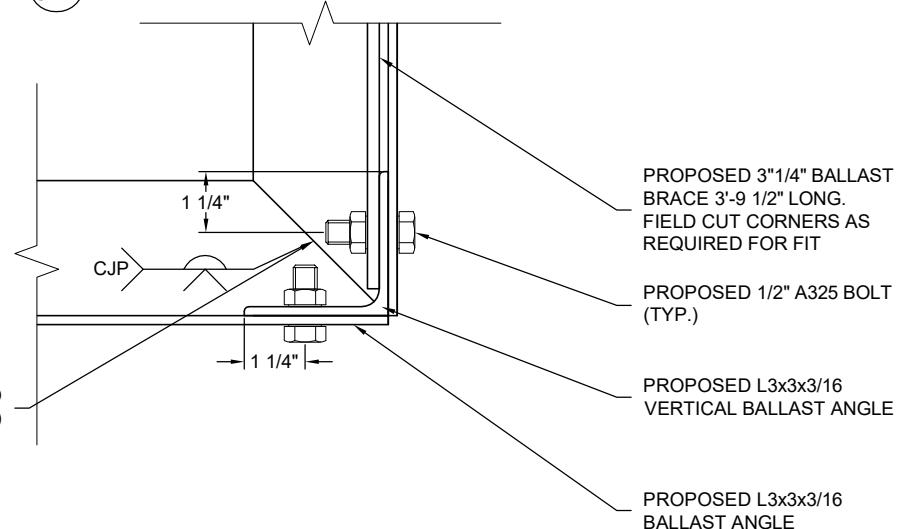
NOTE:
RF TRANSPARENT PANELS TO BE
ATTACHED TO OUTSIDE OF VERTICAL
FRAME AND PAINTED TO MATCH
BUILDING. PANEL CONNECTIONS TO
BE DESIGNED BY MANUFACTURER.
MANUFACTURER TO PROVIDE ACCESS
PANEL BEHIND ANTENNA MOUNT
LOCATION.



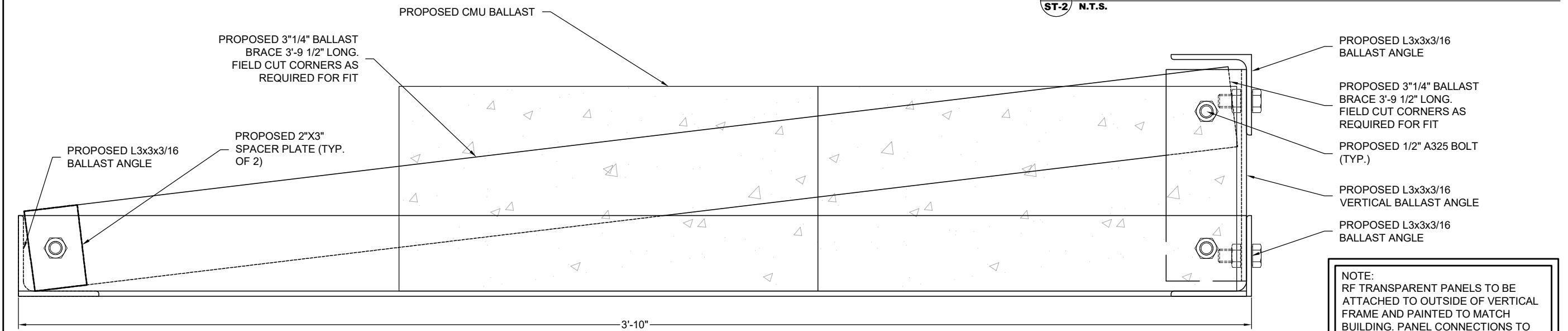
1
ST-2 **N.T.S.** **CUSTOM BALLAST TRAY (PLAN)**



2
ST-2 **N.T.S.** **BALLAST TRAY DETAIL (NEAR SHROUD)**



3
ST-2 **N.T.S.** **BALLAST TRAY DETAIL (AWAY FROM SHROUD)**



4
ST-2 **N.T.S.** **BALLAST TRAY DETAIL (SIDE)**

NOTE:
RF TRANSPARENT PANELS TO BE ATTACHED TO OUTSIDE OF VERTICAL FRAME AND PAINTED TO MATCH BUILDING. PANEL CONNECTIONS TO BE DESIGNED BY MANUFACTURER. MANUFACTURER TO PROVIDE ACCESS PANEL BEHIND ANTENNA MOUNT LOCATION.



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CUSTOM
MOUNT
BALLAST TRAY

DRAWING SHEET:

ST-2

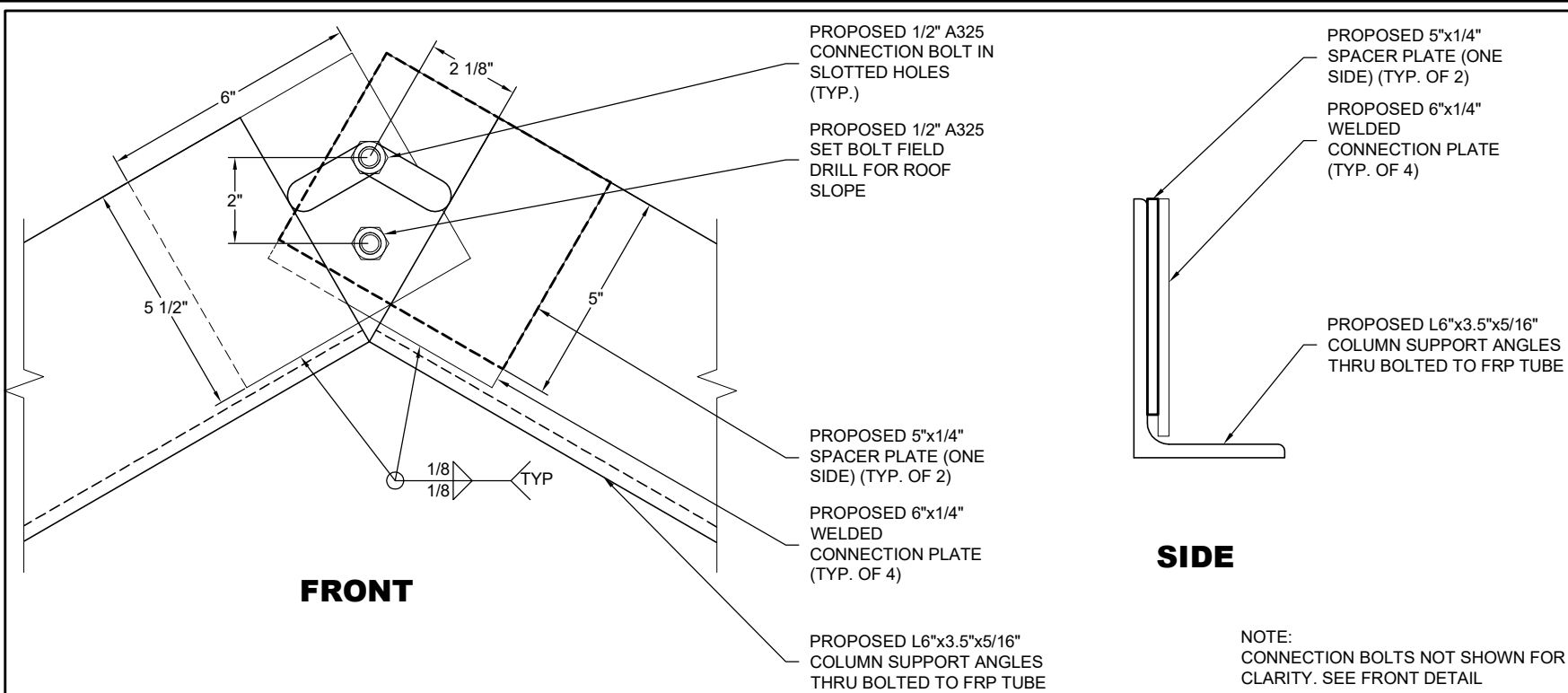
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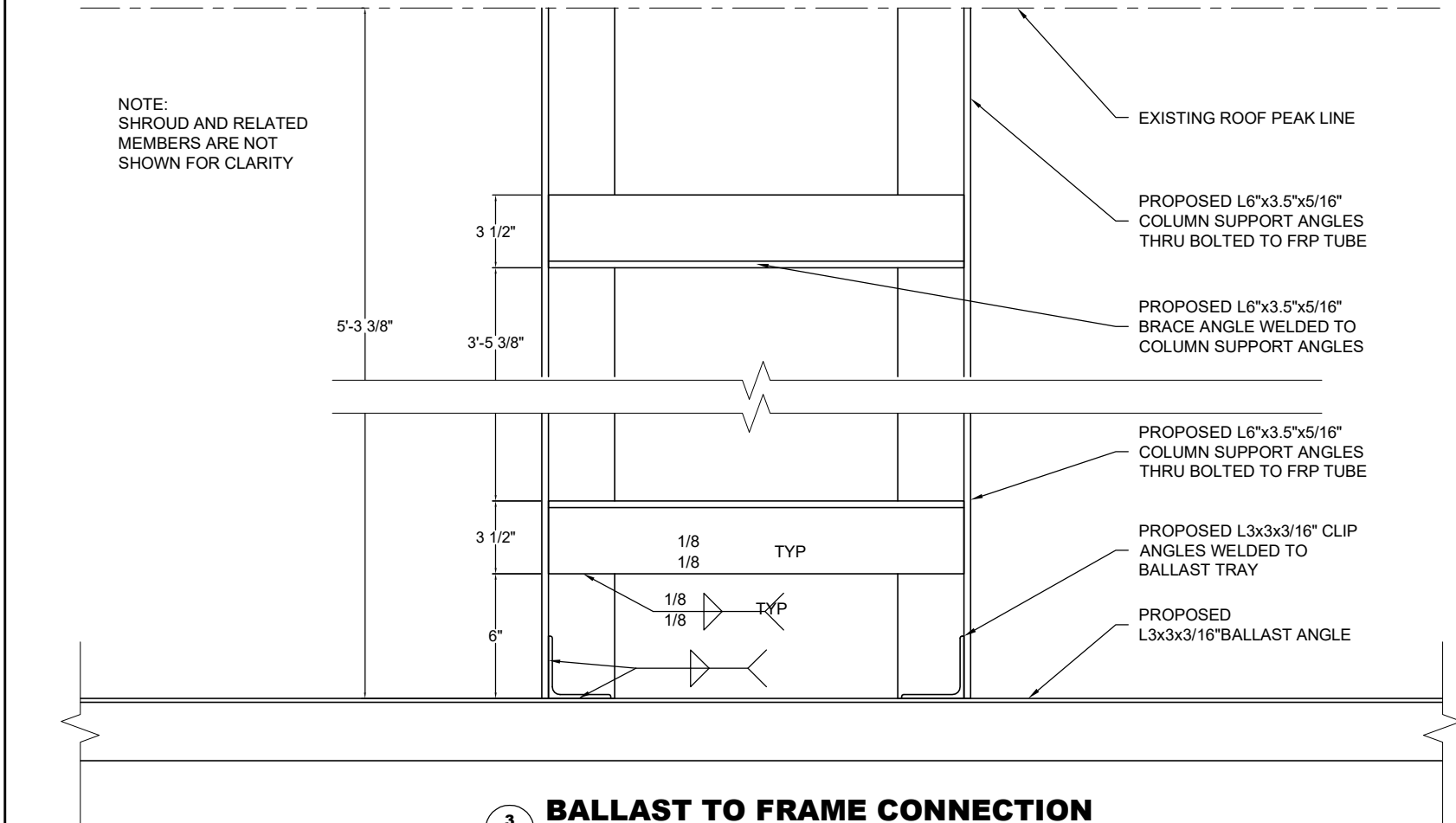
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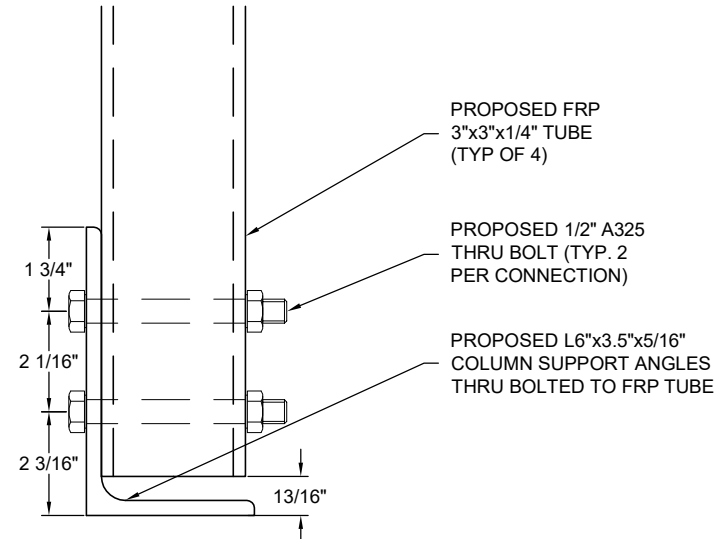


1
ST-3 **PEAK CONNECTION DETAIL**
N.T.S.

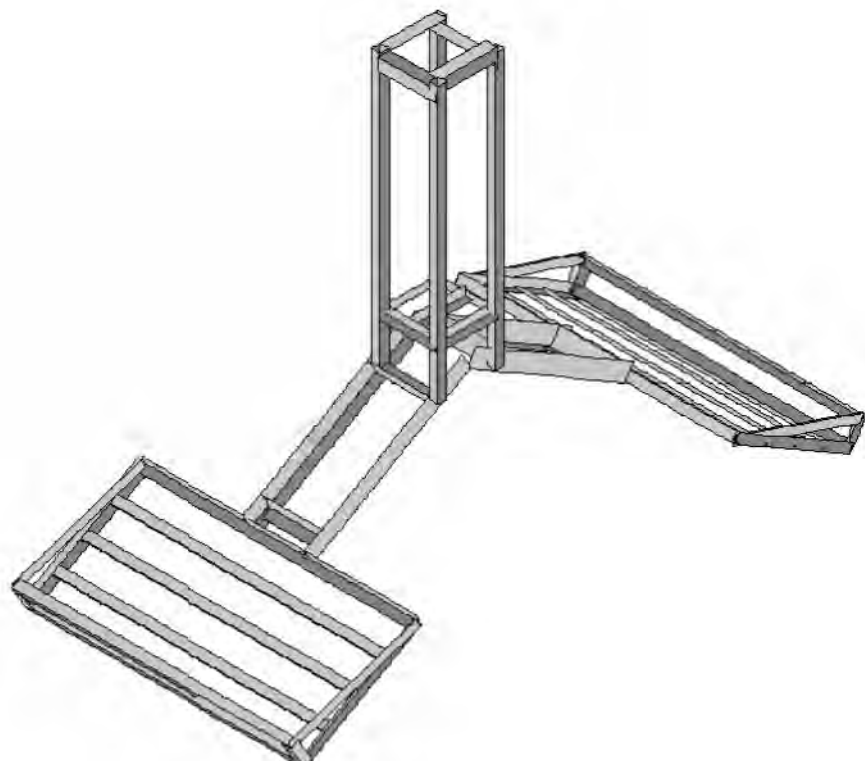


3
ST-3 **BALLAST TO FRAME CONNECTION**
N.T.S.

2
ST-3 **FRP COLUMN CONNECTION**
N.T.S.



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4
ST-3 **3D Rendering**
N.T.S.

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DRAWING TITLE:
**CUSTOM MOUNT
ELEVATION DETAILS**

DRAWING SHEET:
ST-3

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STRUCTURAL NOTES:

1. DESIGN INFORMATION AND GENERAL REQUIREMENTS

- 1.1 CODES
- a. DESIGN CONFORMS TO 2015 INTERNATIONAL BUILDING CODE.
 - b. ASCE 7-10 MIN. DESIGN LOADS FOR BUILDINGS & OTHER STRUCTURES.
 - c. SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS, ANSI/AISC 360-10.

- 1.2 MISCELLANEOUS
- a. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS PRIOR TO PROCEEDING WITH THE WORK.

2. STRUCTURAL STEEL

- 2.1 MATERIALS
- a. STRUCTURAL STEEL.....ASTM A992
 - CHANNEL.....ASTM A36
 - ANGLES, PLATE & MISC.....ASTM A36
 - RECTANGULAR HSS.....ASTM A500, GRADE B, Fy=46 ksi
 - ROUND HSS.....ASTM A500, GRADE B, Fy=42 ksi
 - PIPES.....ASTM A53, GRADE B
 - b. BOLTS.....ASTM A325 U.N.O.
 - c. WELDING ELECTRODES.....AWS A5.1 (E70XX)
 - d. STEEL CONSTRUCTION SHALL CONFORM TO "SPECIFICATION FOR STRUCTURAL STEEL FOR BUILDINGS - 14TH EDITION".
 - e. WELDING SHALL CONFORM TO AWS D1.1 "STRUCTURAL WELDING CODE".
 - f. THE FABRICATOR SHALL FURNISH CHECKED SHOP AND ERECTION DRAWINGS TO THE ENGINEER, AND OBTAIN APPROVAL PRIOR TO FABRICATING ANY STRUCTURAL STEEL. SHOP DRAWINGS SHALL CONFORM TO AISC "DETAILING FOR STEEL CONSTRUCTION".

- 2.2 CONNECTIONS
- a. SHOP CONNECTIONS MAY BE BOLTED OR WELDED.
 - b. FIELD CONNECTIONS SHALL BE BOLTED WITH A325-N BOLTS, (INSTALLED SNUG TIGHT) UNLESS OTHERWISE SPECIFIED OR IF WELDED CONNECTIONS ARE NOTED ON DRAWINGS.
 - c. FIELD CONNECTIONS SHALL BE MADE WITH HIGH TENSILE BOLTS AND HARDENED WASHERS EXCEPT AS INDICATED ON THE DESIGN DRAWINGS.
 - d. CONNECTIONS NOT SHOWN ON DRAWINGS SHALL BE DESIGNED BY THE STEEL FABRICATOR. CONNECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH AISC "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" AND AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
 - e. DO NOT FIELD CUT OR ALTER STRUCTURAL MEMBERS WITHOUT PRIOR WRITTEN APPROVAL OF ENGINEER.

- 2.3 FINISHES
- a. STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED AFTER FABRICATION PER ASTM A123
 - b. ALL STEEL SHALL BE CLEANED OF RUST, LOOSE MILL SCALE AND OTHER FOREIGN MATERIALS AND BE HOT DIPPED GALVANIZED OR STAINLESS STEEL IF OTHERWISE INDICATED ON PLAN.
 - c. FIELD FABRICATIONS SHALL BE TREATED WITH ZRC COLD GALVANIZING COMPOUND OR EQUAL PRIOR TO ASSEMBLY.
 - d. BOLTS AND NUTS SHALL BE HOT DIP GALVANIZED PER ASTM A153.

3. FIBER REINFORCED POLYMER

- 3.1 MATERIALS
- a. USE STRONGWELL EXTREN FIBERGLASS STRUCTURES SERIES 625 TUBES AND ANGLES UNLESS OTHERWISE NOTED.
 - b. FRP PANELS ARE TO BE UV RESISTANT FOR EXTERIOR EXPOSURE AND MUST BE RF TRANSPARENT TO ALLOW UNIMPEDED ANTENNA/MICROWAVE DISH SIGNAL PROPAGATION.
 - c. ATTACH PANEL ACCORDING TO MANUFACTURERS RECOMMENDATIONS.
 - d. FRP MATERIALS ARE TO BE CONSTRUCTED TO MEET ALL OF THE MANUFACTURERS REQUIREMENTS.
 - e. DO NOT ALTER STRUCTURAL MEMBERS WITHOUT PRIOR WRITTEN APPROVAL OF ENGINEER OF RECORD.
 - f. FRP MEMBERS MAY BE SAWED, DRILLED, ROUTED, AND TURNED ON A LATHE OR OTHER MACHINE TOOL. PUNCHING SHALL NOT BE PERMITTED. CARBIDE OR DIAMOND TIPPED TOOLS ARE RECOMMENDED.
 - g. FRP MEMBERS MAY BE FASTENED MECHANICALLY USING SCREWS, BOLTS, OR RIVETS. FIBERBOLT FIBERGLASS STUDS AND HEX HEADS SHOULD BE USED ONLY WHERE SPECIFICALLY SHOWN IN THE DESIGN DRAWINGS.
 - h. FRP MEMBERS MAY BE CONNECTED WITH ADHESIVE ONLY IF USED IN CONJUNCTION WITH THE SPECIFIED MECHANICAL FASTENERS.



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