



SITE NAME: STEAMBOAT SKI AREA
GONDOLA BASE

FA LOCATION: 10148686
PROJECT NUMBER: MRUTH045832
ADDRESS: 2305 MOUNT WERNER CIR
STEAMBOAT, CO 80487

SITE CONTACT:

JEREMY GARD
DIRECTOR - INFORMATION TECHNOLOGY
JGARD@STEAMBOAT.COM
970.871.5201

SITE PHOTO:



PROJECT TEAM:

CONSTRUCTION MANAGER:	RF MANAGER:	A&E MANAGER:	STRUCTURAL ENGINEER:	ELECTRICAL ENGINEER:
JJ HENRIKSON AT&T WIRELESS 720.244.7632 TH284J@ATT.COM	YASH NANJUNDASWAMY AT&T WIRELESS 303.374.4645 YN211V@ATT.COM	STEPHEN LESTER MOUNTAIN WIRELESS 303.589.8899 SLESTER@MTWIRE.COM	KHRISTOPHER SCOTT, PE TELEMtn ENGINEERING, LLC. 303.596.6804 KSCOTT@TELEMTN.COM	JOHN KEATING, PE TELEMtn ENGINEERING, LLC. 303.437.0510 JKEATING@TELEMTN.COM

PROJECT DESCRIPTION:

REMOVAL AND RELOCATION OF EXISTING AT&T REMOTE EQUIPMENT. EQUIPMENT TO BE REMOVED FROM GONDOLA CLOCK TOWER ATTIC AND ANTENNAS FROM PARAPET. EQUIPMENT TO BE RE-INSTALLED IN ADJACENT CLOCK TOWER ATTIC WITH ANTENNAS FACIADE MOUNTED ON EXTERIOR.

SITE ACCESS:

HEAD END IS LOCATED IN PARKING GARAGE CAVE. NEW EQUIPMENT REQUIRES LADDER TO ACCESS ATTIC.

PROJECT DATA:

JURISDICTION:	ROUTT COUNTY
OCCUPANCY TYPE:	U
CONSTRUCTION TYPE:	V-B
NUMBER OF STORIES:	4
FULLY SPRINKLERED:	NO
GOVERNING CODES:	2018 I-CODES, 2020 NEC

SHEET LIST:

T1	TITLE SHEET
RF 1.0	RF PLUMBING
RF 1.1	VOLT SERVER PLUMBING
A1.0	OVERALL SITE PLAN
A2.1	HEAD END OVERVIEW
A3.1	EXISTING RACK ELEVATIONS
A3.2	NEW RACK ELEVATIONS
A4.1	GONDOLA SQUIRE DEMO PLAN
A5.1	CLOCK TOWER OVERVIEW
A5.2	ATTIC LAYOUT
A6.1	CLOCK TOWER ELEVATIONS
A6.2	CLOCK TOWER ATTIC SECTION
A7.1	FIBER PATHWAY
E1.1	ELECTRICAL AND GROUNDING PLAN
E1.2	ELECTRICAL PANEL SCHEDULE & ONE LINE
E2.1	CLOCK TOWER ELECT & GROUND PLAN
S1.1	MOUNT DETAILS
D1.1	EQUIPMENT DETAILS
D1.2	EQUIPMENT DETAILS
GN1	GENERAL NOTES

CONTRACTOR NOTES:

- CONTRACTOR TO REVIEW PLANS AND VERIFY ALL DIMENSIONS PRIOR TO BIDDING PROJECT AND STARTING CONSTRUCTION. IMMEDIATELY NOTIFY ARCHITECT AND CONSTRUCTION MANAGER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH ANY WORK
- REFER TO FINAL RF DESIGN AND RFDS FOR ALL RF DETAILS
- X-RAY OR GPR ALL CONCRETE STRUCTURES PRIOR TO DRILLING, CUTTING OR CORING TO AVOID DAMAGING ANY EMBEDMENTS.
- PRIOR TO ANY EXCAVATION, CONTACT STATE UTILITY NOTIFICATION CENTER TO OBTAIN LOCATES. NOT ALL UNDERGROUND UTILITIES OR FACILITIES ARE SHOWN.
- INSTALLATION TO STRIVE TO REDUCE IMPACT TO EXISTING FACILITY. CONTRACTOR TO RETURN FINISHES TO EXISTING CONDITION AND PAINT ALL INSTALLED EQUIPMENT TO BLEND INTO SURROUNDING COLOR PALLET .

LINE TYPE LEGEND:

	SINGLE MODE FIBER OPTIC
	MULTI MODE FIBER OPTIC
	COAX - DUPLEX / GPS
	COAX - SIMPLEX (UP LINK)
	COAX - SIMPLEX (DOWN LINK)
	ETHERNET
	POWER
	GROUND

*** DASHED = EXISTING ***



MOUNTAIN
WIRELESS

927 SALIDA WAY
AURORA, CO 80011
303.343.6544



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2305 MOUNT WERNER CIR
STEAMBOAT, CO 80487

PROJECT:
GONDOLA RELO

PHASE:
CONSTRUCTION

ISSUE DATE:
9/27/2021

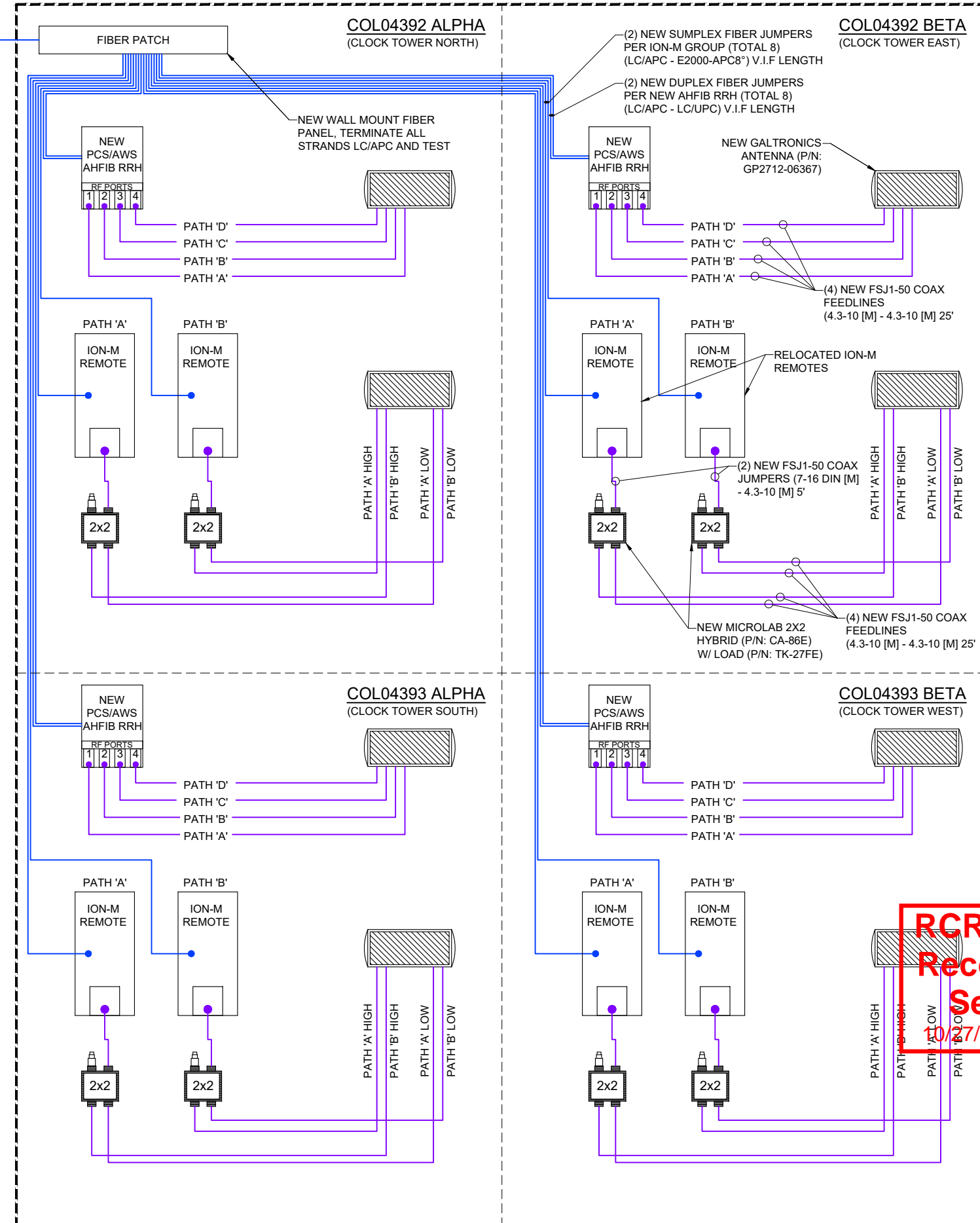
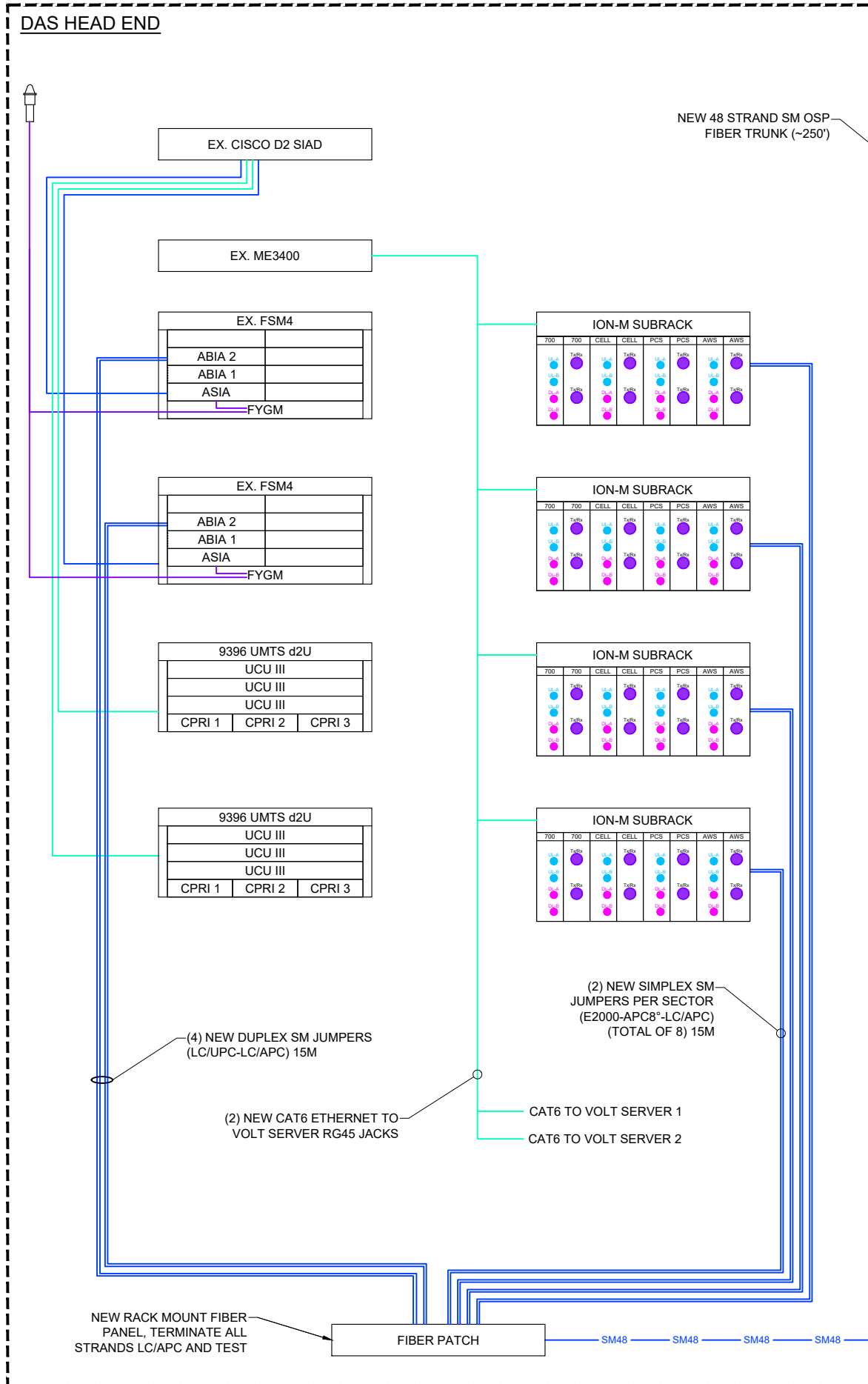
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TITLE

SHEET

T1

SCALE SET FOR 24"x36" SHEET
USE 1/2 SCALE FOR 11"x17" SHEET



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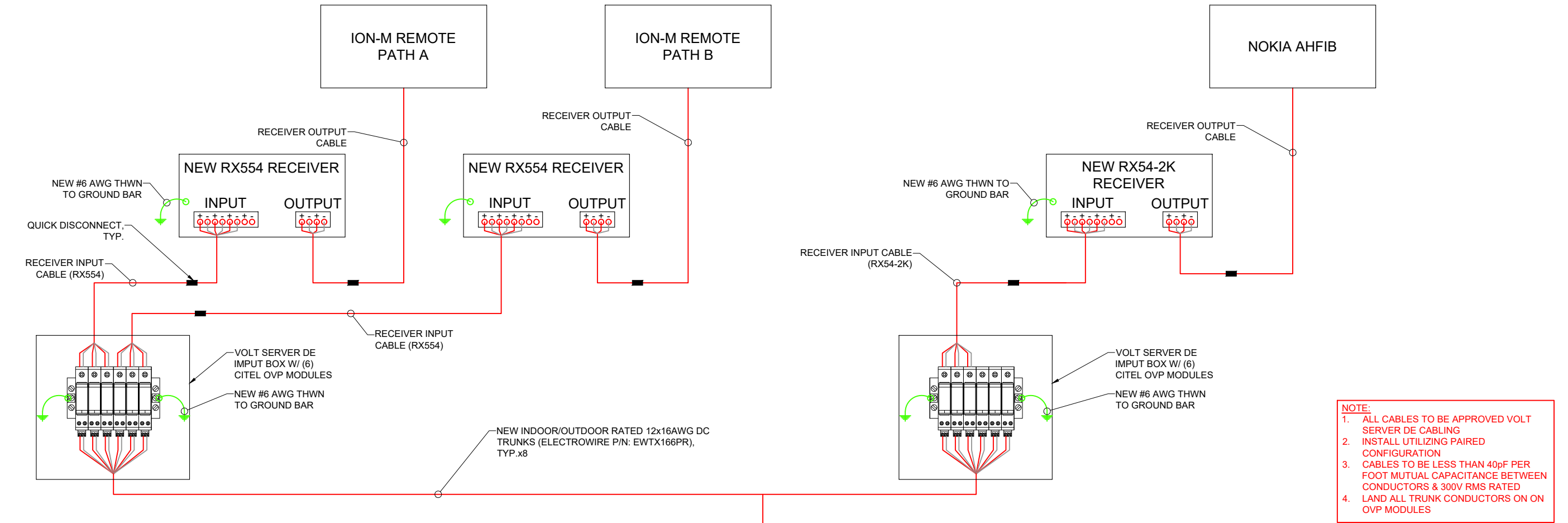
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RF AND DAS
PLUMBING

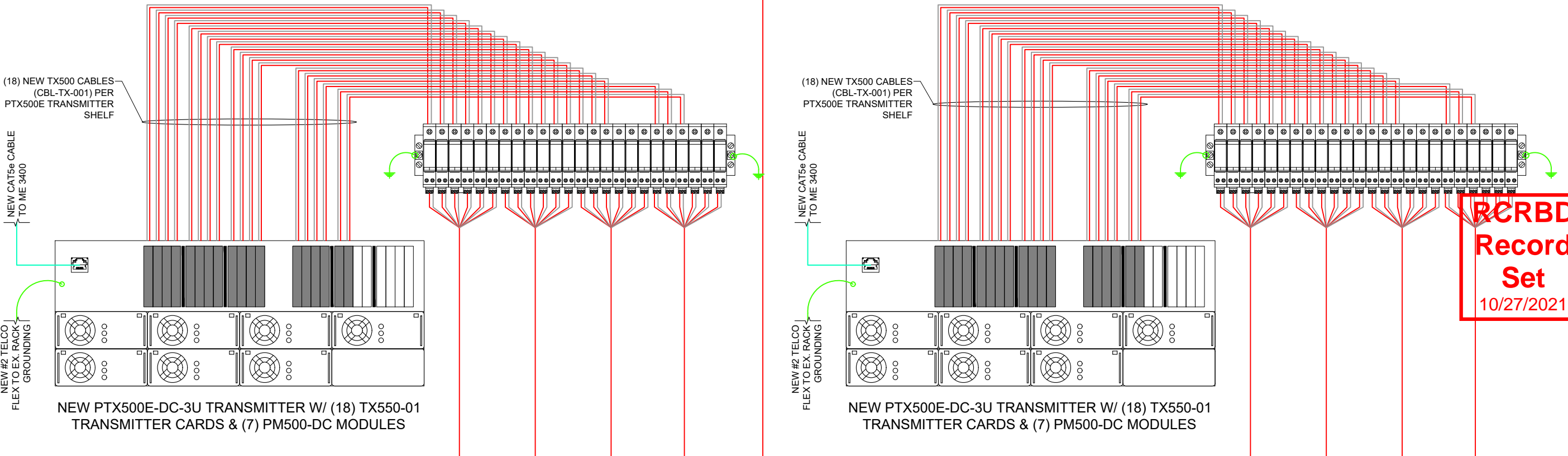
RF 1.0

SCALE SET FOR 24"x36" SHEET
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TYPICAL SECTOR
(CLOCK TOWER)



DAS HEAD END



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VOLT SERVER
PLUMBING

RF 1.1



1

BASE AREA OVERVIEW
SCALE:

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**TeleMtn
ENGINEERING**



COLORADO LICENSED
CHRISTOPHER JAMES SCOTT
34610
09/28/2021
PROFESSIONAL ENGINEER



AT&T
161 INVERNESS DRIVE WEST
ENGLEWOOD, CO 80112

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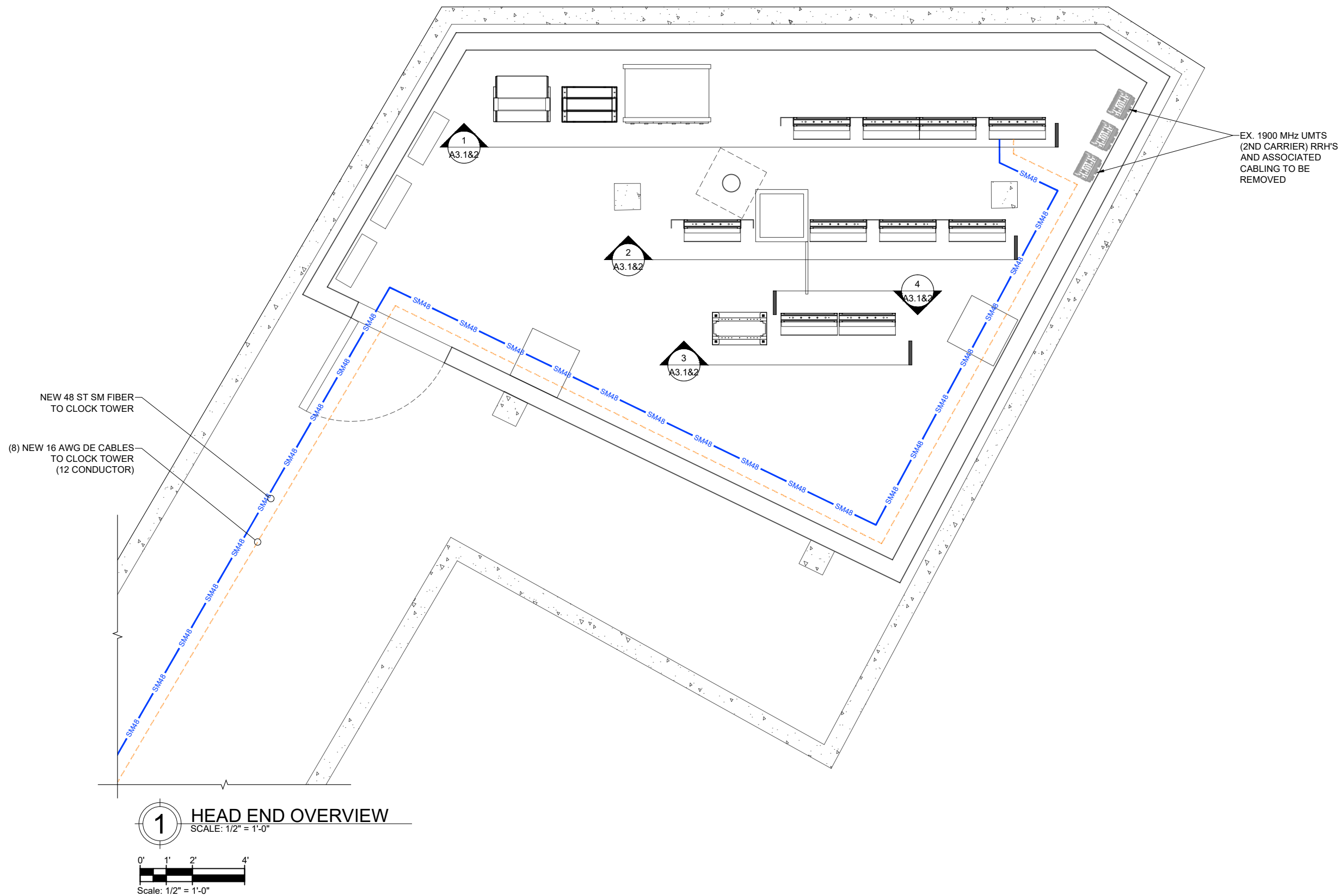
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OVERALL SITE
PLAN

A1.0

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HEAD END
OVERVIEW

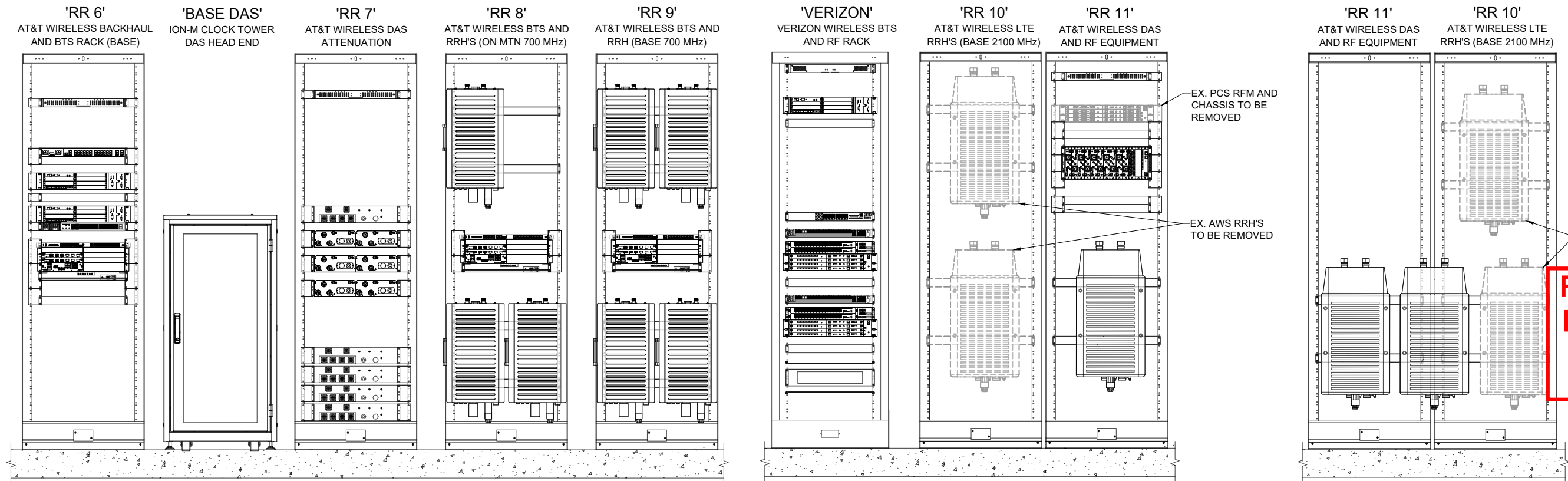
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Record
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A2.1

SCALE SET FOR 24"x36" SHEET
USE 1/2 SCALE FOR 11"x17" SHEET



1 EX. ROW 1 ELEVATION
SCALE:



2 EX. ROW 2 ELEVATION
SCALE:

3 EX. ROW 3 ELEVATION (FT)
SCALE:

4 EX. ROW 3 ELEVATION (BACK)
SCALE:



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EXISTING RACK
ELEVATIONS

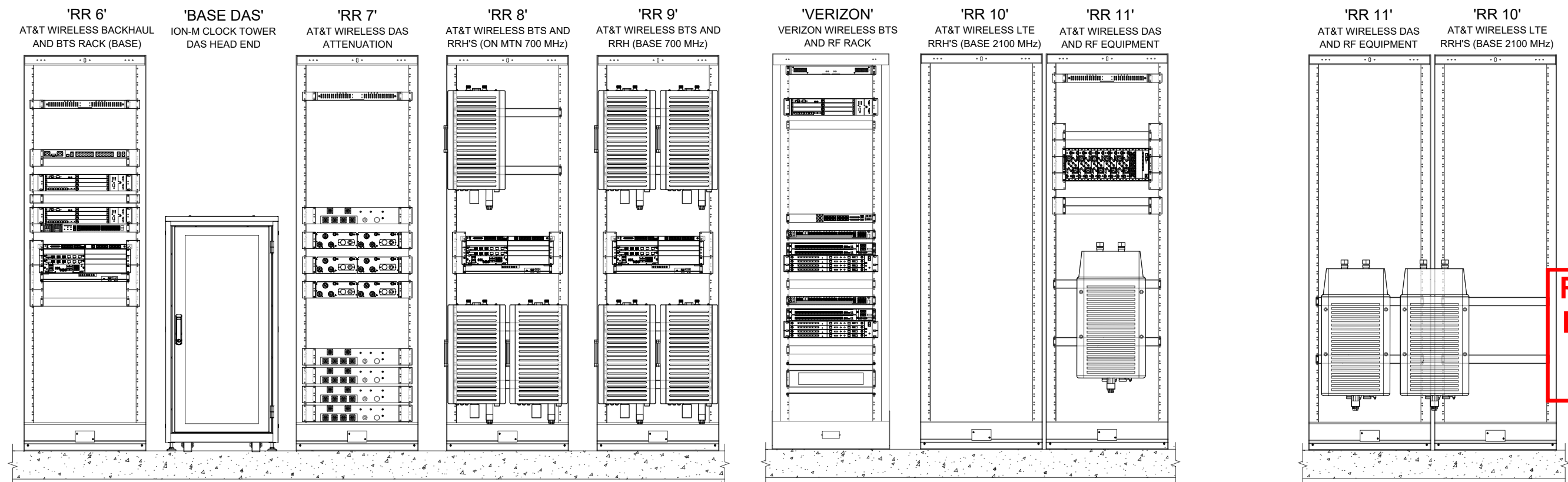
**RCRBD
Record
Set
10/27/2021**

A3.1

SCALE SET FOR 24"x36" SHEET
USE 1/2 SCALE FOR 11"x17" SHEET



1 NEW ROW 1 ELEVATION
SCALE:



2 NEW ROW 2 ELEVATION
SCALE:

3 NEW ROW 3 ELEVATION (FT)
SCALE:

4 NEW ROW 3 ELEVATION (BACK)
SCALE:

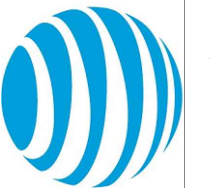


MOUNTAIN WIRELESS

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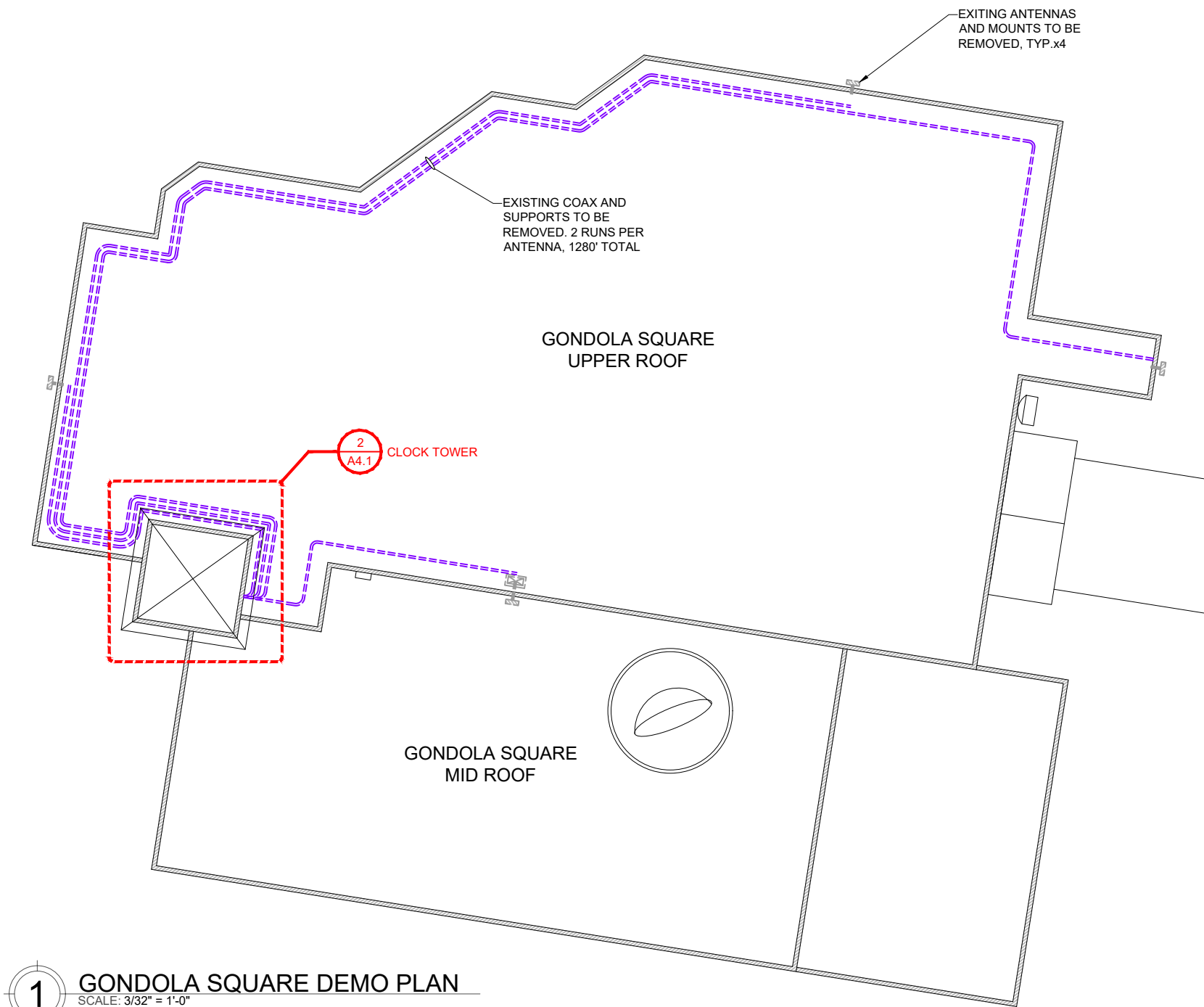
ISSUE DATE:
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NEW RACK
ELEVATIONS

**RCRBD
Record
Set
10/27/2021**

A3.2

SCALE SET FOR 24"x36" SHEET
USE 1/2 SCALE FOR 11"x17" SHEET

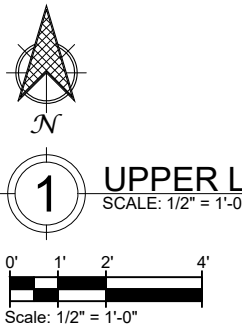
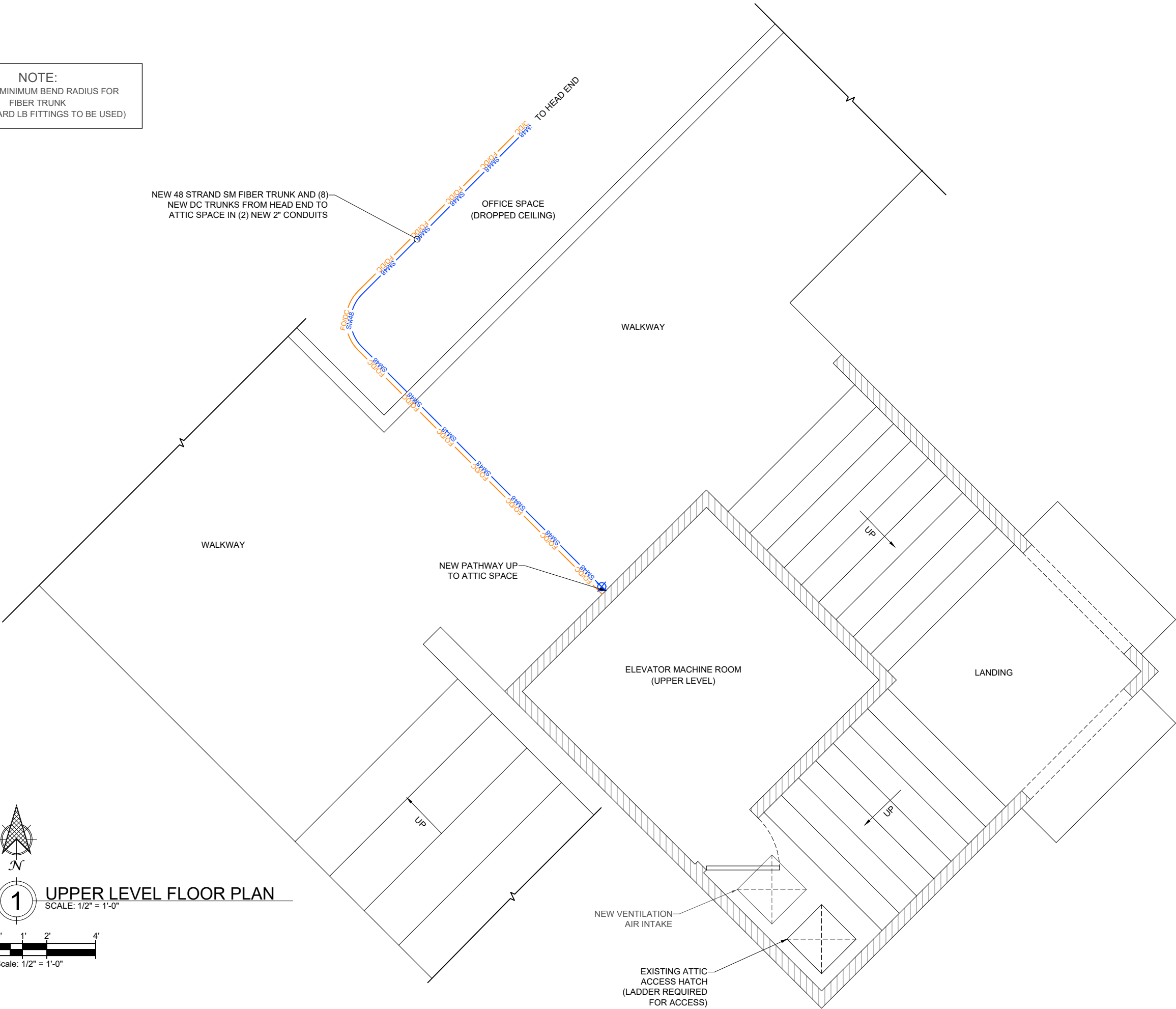


1 GONDOLA SQUARE DEMO PLAN
SCALE: 3/32" = 1'-0"

2 GOLDOLA SQUARE CLOCK TOWER
SCALE: 1/2" = 1'-0"

RCRBD
Record Set
10/27/2021

NOTE:
MAINTAIN MINIMUM BEND RADIUS FOR
FIBER TRUNK
(NO STANDARD LB FITTINGS TO BE USED)



1 UPPER LEVEL FLOOR PLAN
SCALE: 1/2" = 1'-0"



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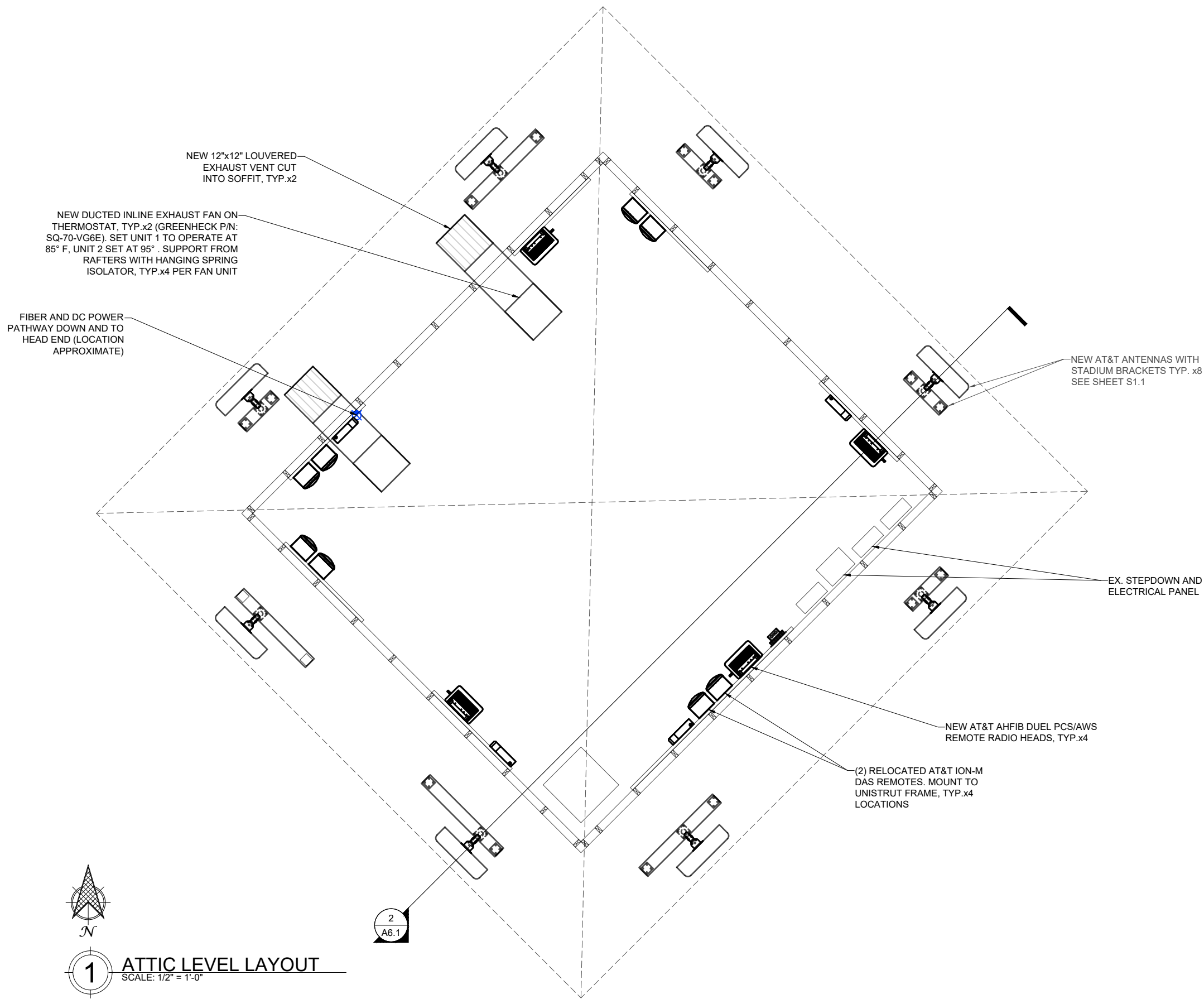
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CLOCK TOWER
OVERVIEW

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A5.1

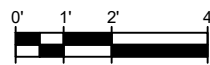
SCALE SET FOR 24"x36" SHEET
USE 1/2 SCALE FOR 11"x17" SHEET



1

ATTIC LEVEL LAYOUT

SCALE: 1/2" = 1'-0"



Scale: 1/2" = 1'-0"



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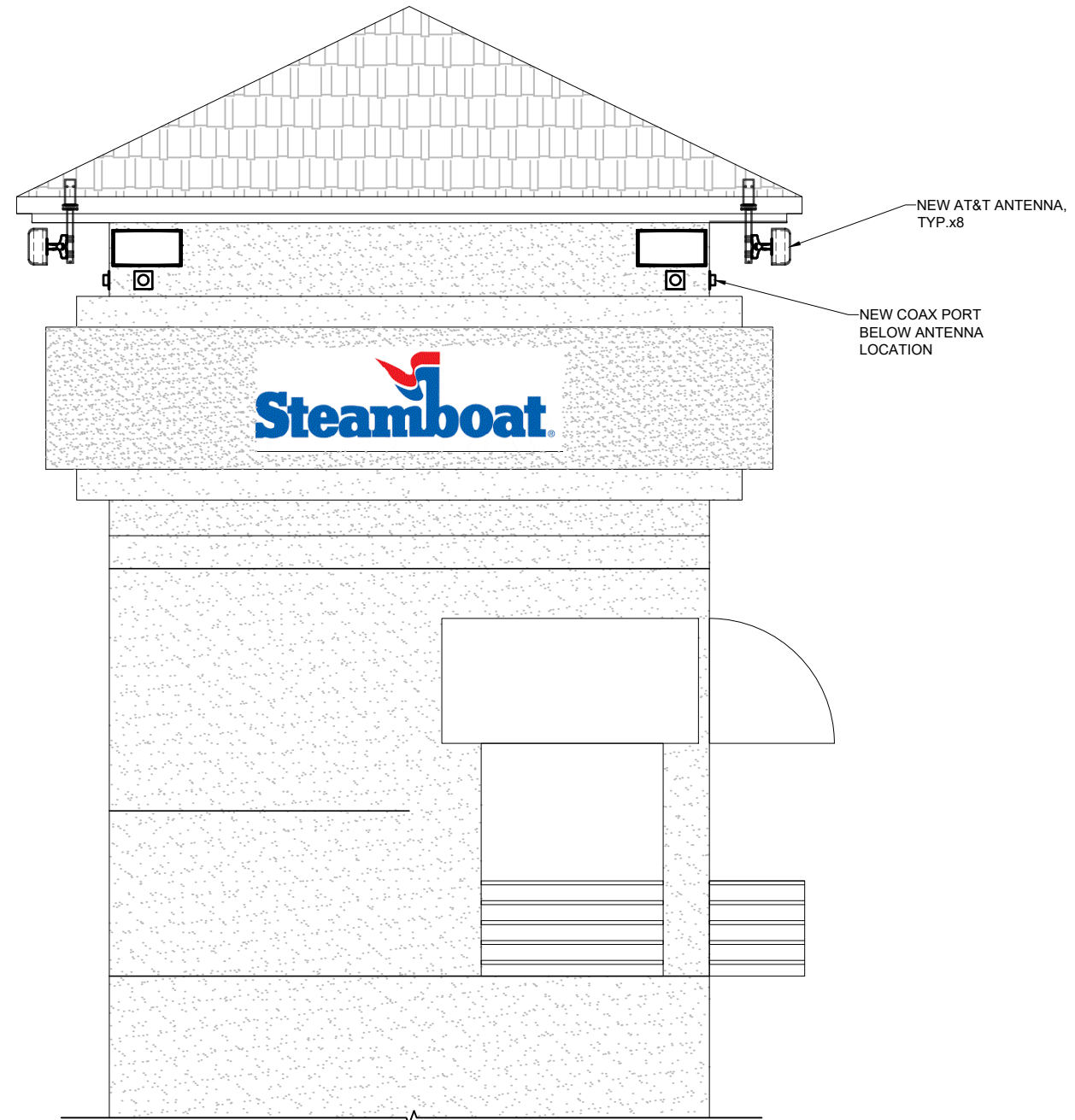
ATTIC

LAYOUT

A5.2

SCALE SET FOR 24"x36" SHEET
USE 1/2 SCALE FOR 11"x17" SHEET

**RCRBD
Record
Set
10/27/2021**



1 SOUTHEAST ELEVATION
SCALE: 3/8" = 1'-0"

0' 1' 2' 4' 6'
Scale: 3/8" = 1'-0"



'A'
SOUTHEAST ELEVATION



'B'
EAST ELEVATION

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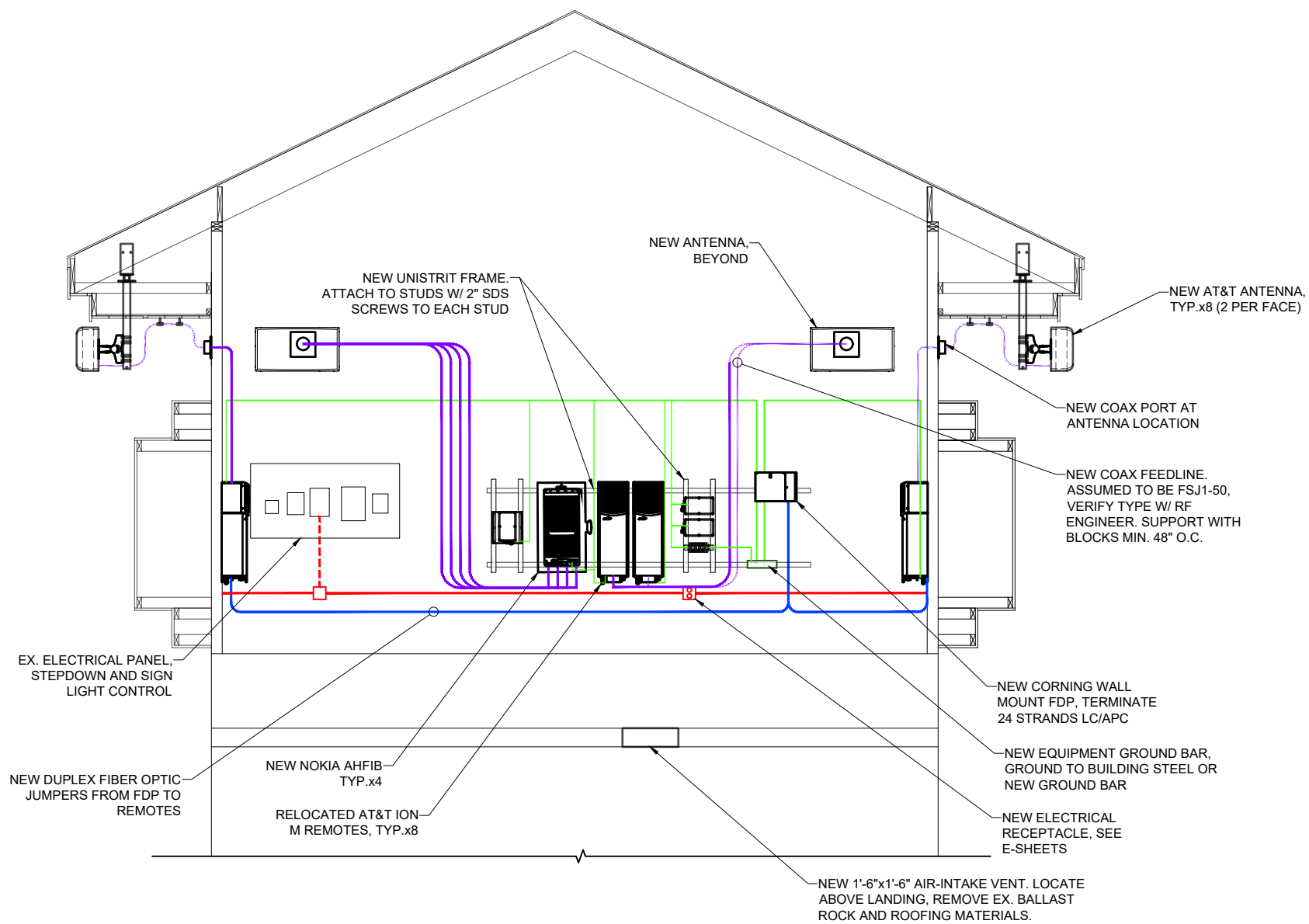
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CLOCK TOWER
ELEVATIONS

**RCRBD
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A6.1

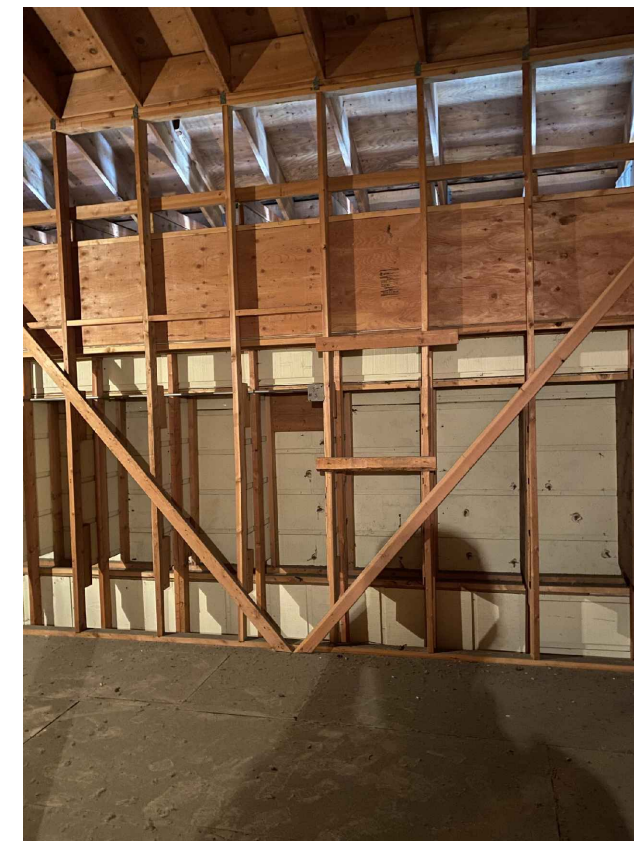
SCALE SET FOR 24"x36" SHEET
USE 1/2 SCALE FOR 11"x17" SHEET



1 ATTIC SECTION & TYP. EQUIPMENT ELEVATION
 SCALE: 1/2" = 1'-0"
 0' 1' 2' 4'
 Scale: 1/2" = 1'-0"



'A'
ATTIC INTERIOR



'B'
ATTIC INTERIOR

RCRBD
Record
Set
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1 FIBER PATHWAY PLAN
SCALE:

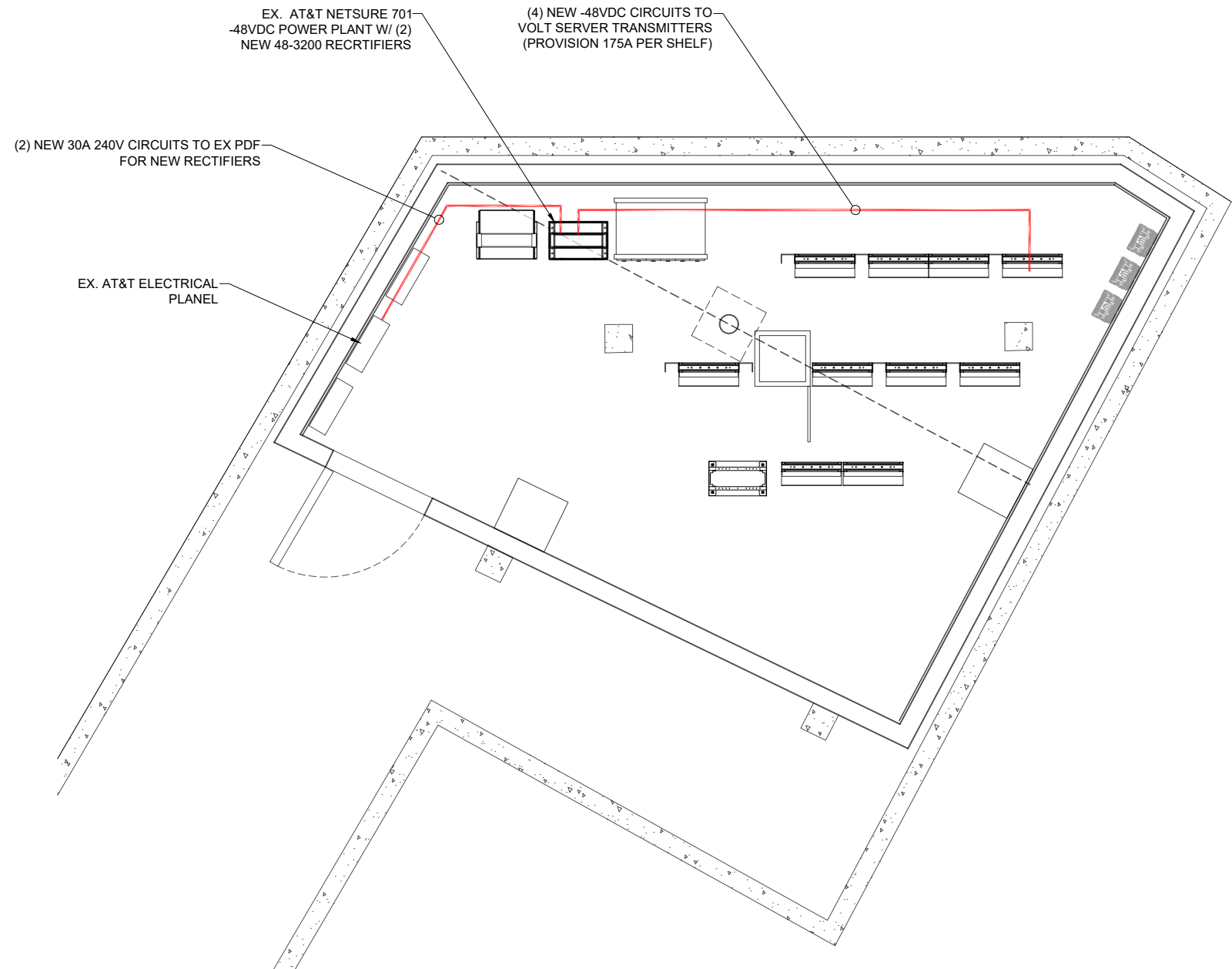


2 FIBER PATHWAY ELEVATION
SCALE:

**RCRBD
Record
Set
10/27/2021**

FIBER
PATHWAY

A7.1



1 HEAD END ELECTRICAL PLAN
SCALE: 3/8" = 1'-0"

0' 1' 2' 4' 6'
Scale: 3/8" = 1'-0"

LINE TYPE LEGEND:
POWER
GROUND

MOUNTAIN WIRELESS
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TeleMtn ENGINEERING

COLORADO REGISTERED PROFESSIONAL ENGINEER
JOHN C. KEAT
37296
09/28/2021

AT&T

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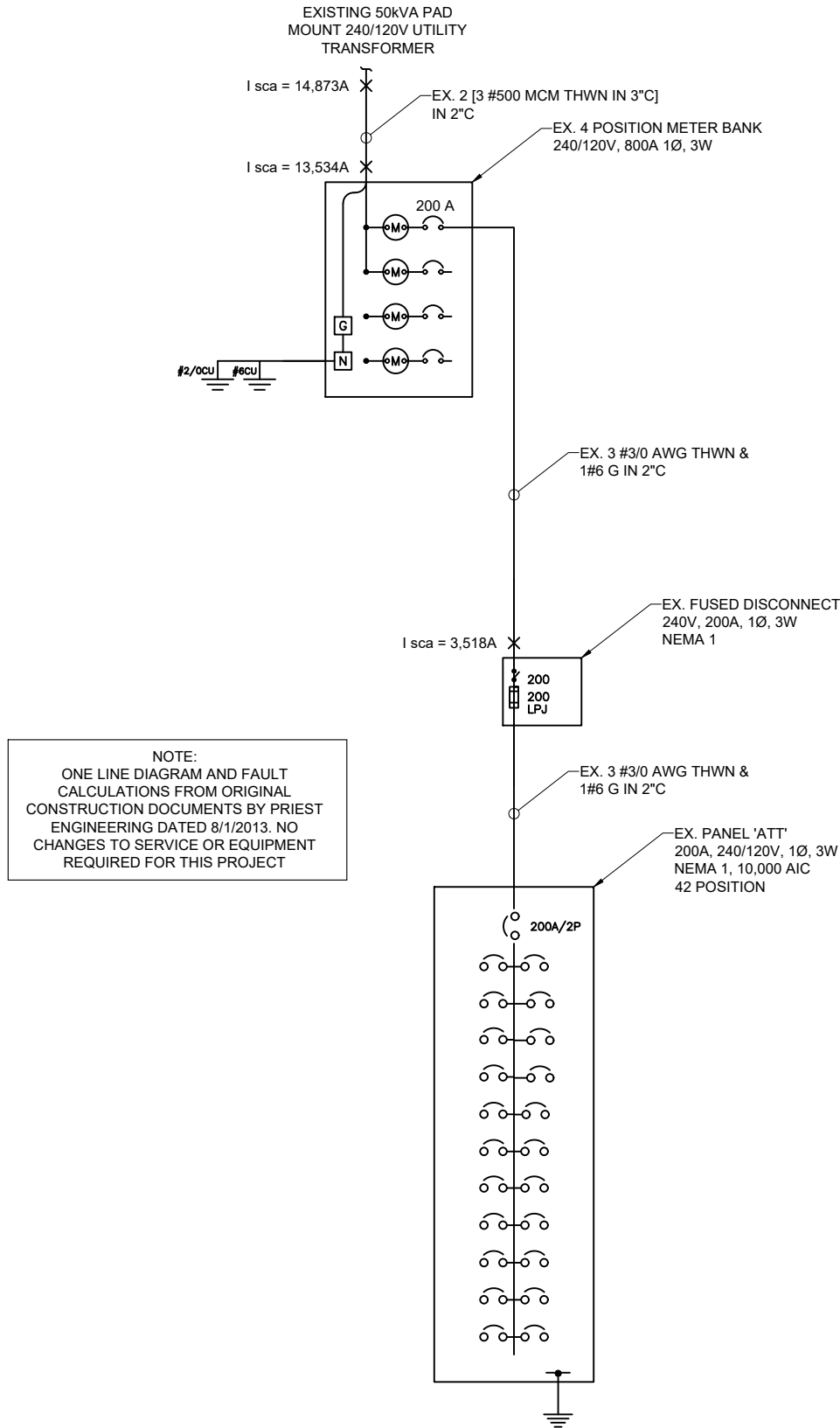
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ELECTRICAL AND
GROUNDING PLAN

E1.1

SCALE SET FOR 24"x36" SHEET
USE 1/2 SCALE FOR 11"x17" SHEET



1 ONE LINE DIAGRAM
SCALE:

PANEL NAME	AT&T	ENCL. TYPE	NEMA 1	NOTES:
VOLTAGE RATING	120/240	MOUNTING TYPE	SURFACE	30 DAY LOAD STUDY
CONN. LINE VOLTAGE	240	LOCKABLE CABINET?	NO	CONDUCTED 8/4/2021 -
PHASE	1 WIRE 3	DOOR-IN-DOOR?	NO	9/3/2021
BUS TYPE	MAIN BREAKER	MFR.		
BUS RATING	200	MODEL		
MAIN BREAKER	200	CAT. NO.		
BREAKER TYPE	PLUG-IN	SERIES OCPD REQUIRED?	NO	
INTERRUPTING RATING	10 KAIC	FUSE TYPE	NA	

LOAD	POS	CB	A	B	CB	POS	LOAD
ATT RECTIFIER 1	42	2P30			2P60	41	TVSS
	40					39	
ATT RECTIFIER 2	38	2P30			2P20	37	RECEPT
	36				2P15	35	INT LIGHTS
ATT RECTIFIER 3	34	2P30			2P15	33	EXT LIGHTS
	32				2P15	31	FAN COIL 1
ATT RECTIFIER 4	30	2P30			2P15	29	FAN COIL 2
	28					27	
ATT RECTIFIER 5	26	2P30			2P40	25	AC 1
	24					23	
ATT RECTIFIER 6	22	2P30			2P40	21	AC 2
	20				2P15	19	EF 1
ATT RECTIFIER 7	18	2P30			2P15	17	CIENA
	16				2P20	15	ICE MELT
ATT RECTIFIER 8	14	2P30			2P20	13	FAN COIL
	12					11	
ATT RECTIFIER 9 (EX BRANCH CIRCUIT)	10	2P30	1600		2P20	9	ICE MELT
	8			1600		7	
ATT RECTIFIER 10 (NEW BRANCH CIRCUIT)	6	2P30	1600		2P20	5	RECEPT
	4			1600		3	
	2					1	
LOAD STUDY (MAX AVERAGE)			3526	3141			
NEW LOAD			3200	3200			

LOAD TYPE	CONN. LOAD	NEC D.F.	NEC LOAD	TOTAL LOAD
RECEPTACLES < 10 KVA	---	100%	---	19 KVA
RECEPTACLES > 10 KVA	---	50%	---	39 %
LIGHTING	---	125%	---	77 AMPS
LARGEST MOTOR	---	125%	---	
UNITARY HVAC EQUIPMENT	---	100%	---	
DC RECTIFIERS	6400	75%	4800	
EXISTING LOAD	10987	125%	13734	
TOTAL	17387 VA		18534 VA	

2 PANEL SCHEDULE
SCALE:



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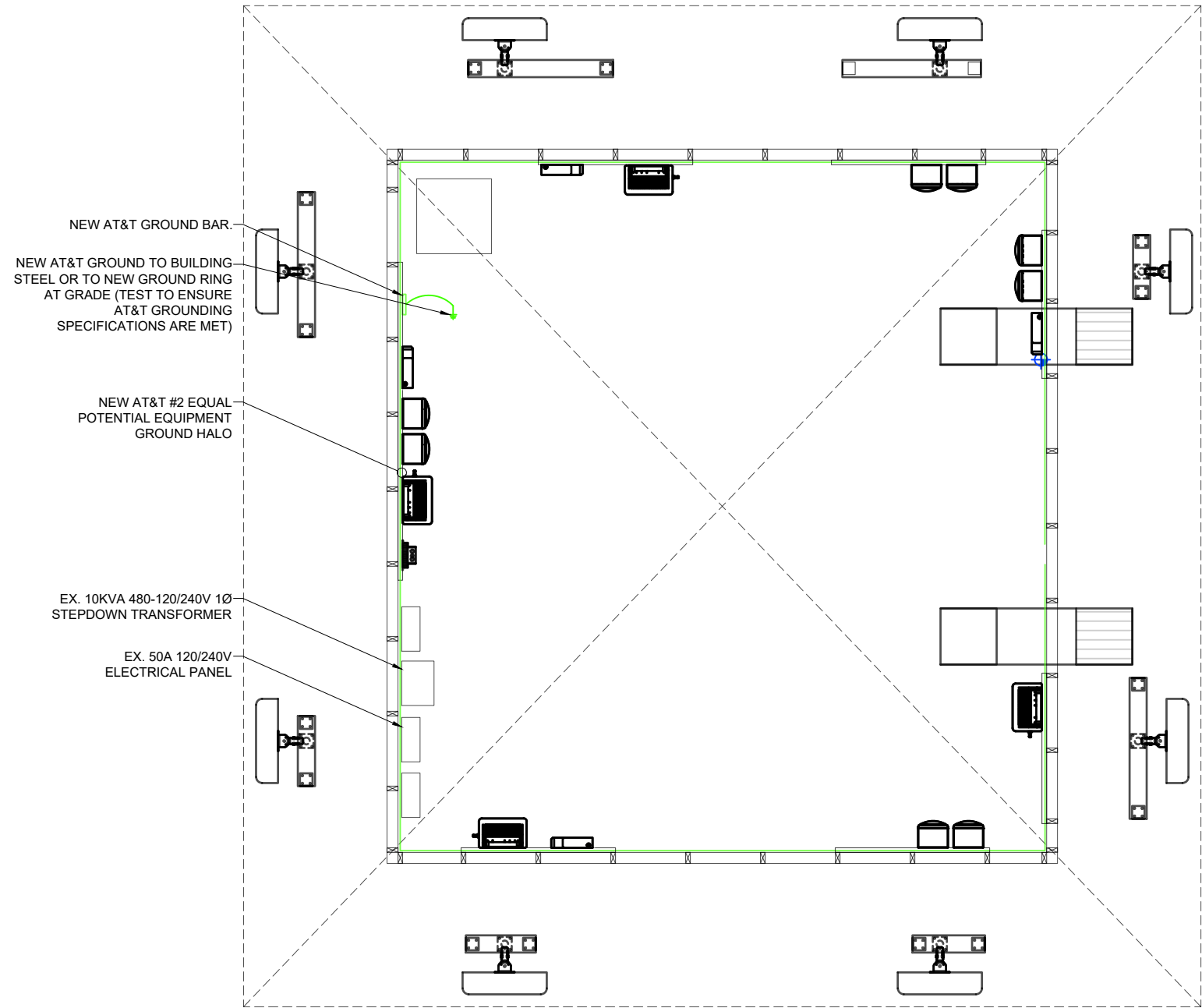
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ONE LINE &
PANEL SCHEDULE

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E1.2



1 ELECTRICAL PLAN
SCALE: 1/2" = 1'-0"

- ELECTRICAL NOTES:**
- POWER FOR RF EQUIPMENT TO BE PROVIDED BY AT&T FROM HEAD END EQUIPMENT ROOM
 - POWER FOR EXHAUST FANS TO BE PROVIDED BY STEAMBOAT
 - NO EXISTING ELECTRICAL PANEL LOADING WAS PROVIDED
 - NO ELECTRICAL DESIGN FOR EXISTING PANEL WAS COMPLETED AS PART OF THIS DESIGN SET.
 - STEAMBOAT FACILITIES TO IDENTIFY LOCATION AND VERIFY AVAILABILITY OF SUFFICIENT POWER
 - PROVIDED DEDICATED 20A CIRCUIT FOR EACH EXHAUST FAN
 - EQUIPMENT GROUND TO BE INSTALLED TO MEET AT&T GROUND SPECIFICATIONS



'A'
EX. STEPDOWN TRANSFORMER



'B'
EX. ATTIC LIGHTING PANEL

LINE TYPE LEGEND:
— POWER
— GROUND



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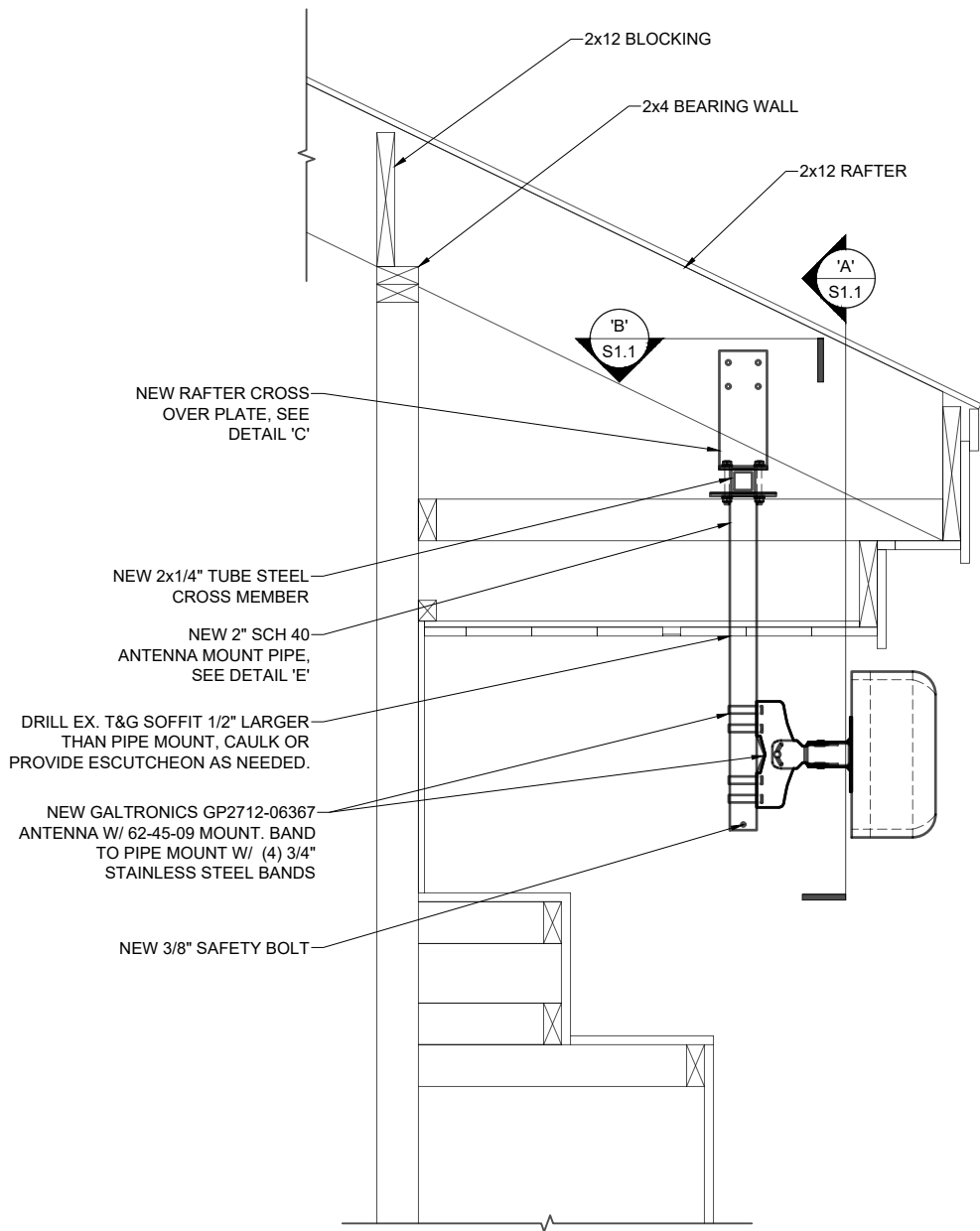
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CLOCK TOWER
ELECT & GROUND PLAN

E2.1

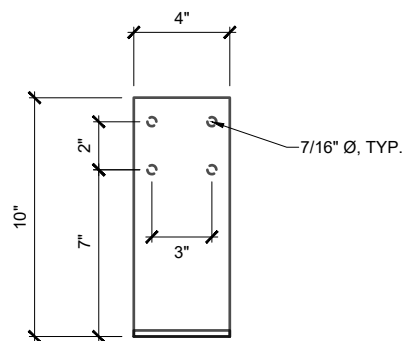
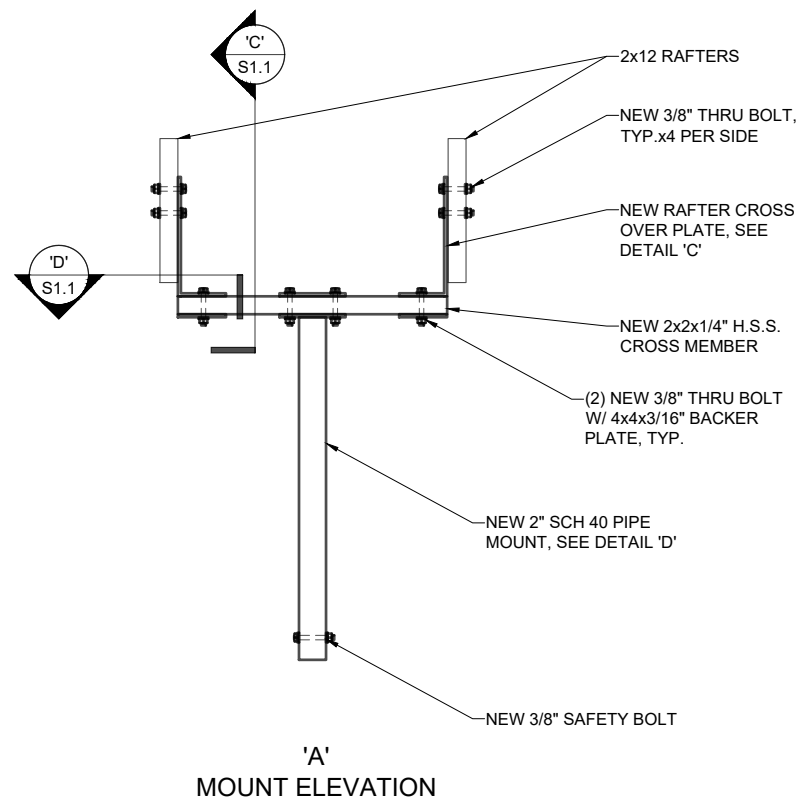
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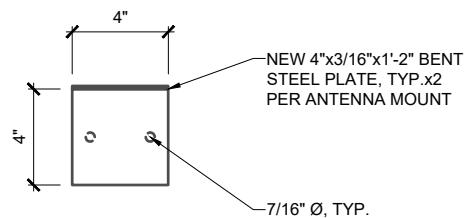


1 ANTENNA MOUNT DETAIL
SCALE: 1-1/2" = 1'-0"

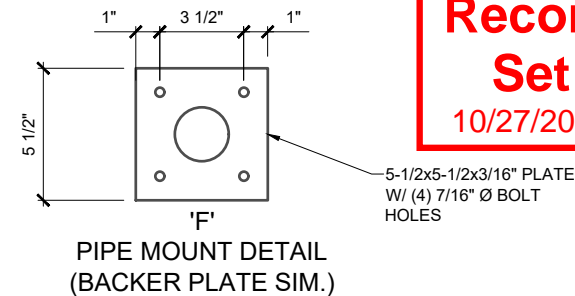
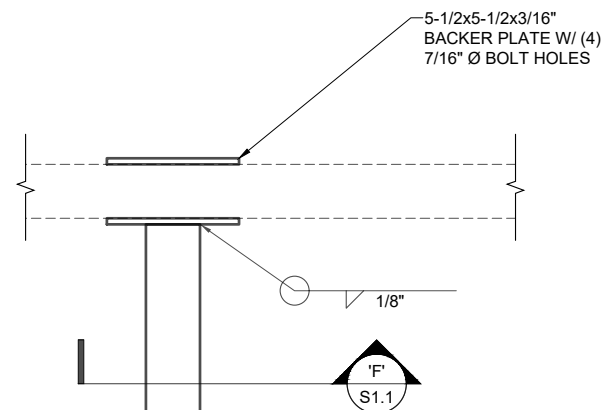
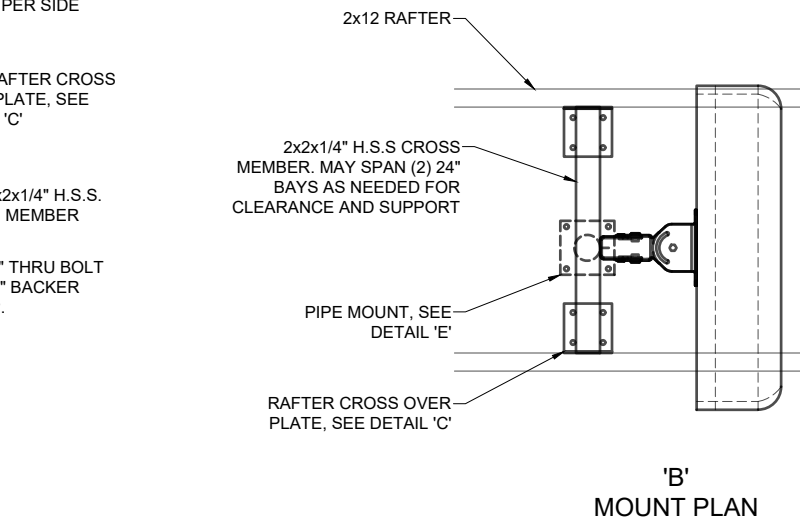
0' 3" 6" 1' 1'-6"
Scale: 1-1/2" = 1'-0"



'C' CROSS OVER PLATE DETAIL



'D' CROSS OVER PLATE DETAIL (BACKER PLATE SIM.)

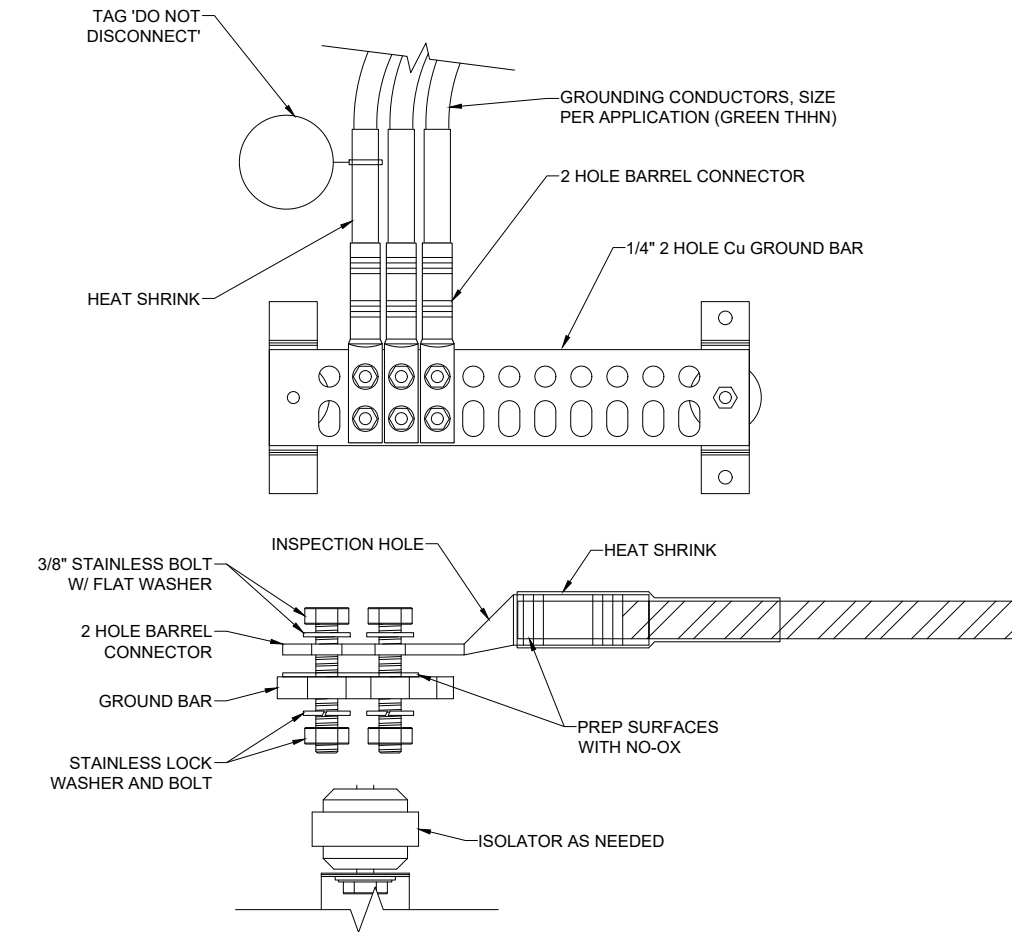


'F' PIPE MOUNT DETAIL (BACKER PLATE SIM.)

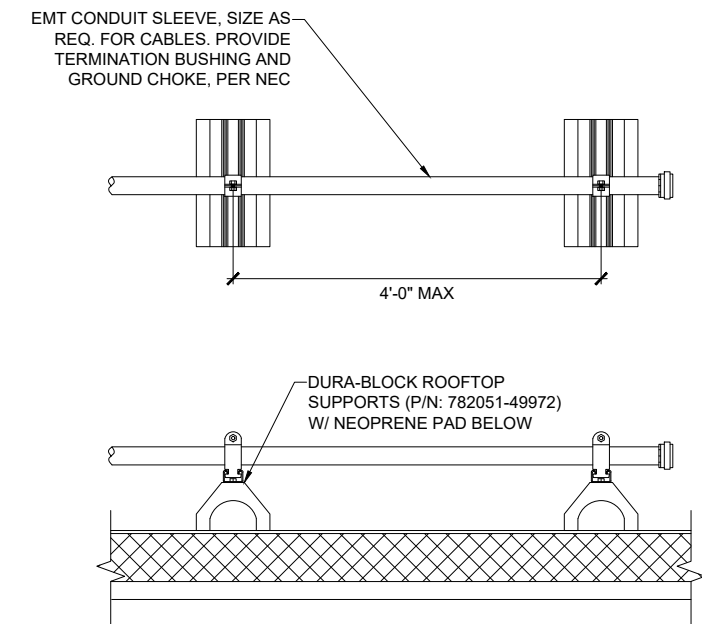
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MOUNT
DETAILS

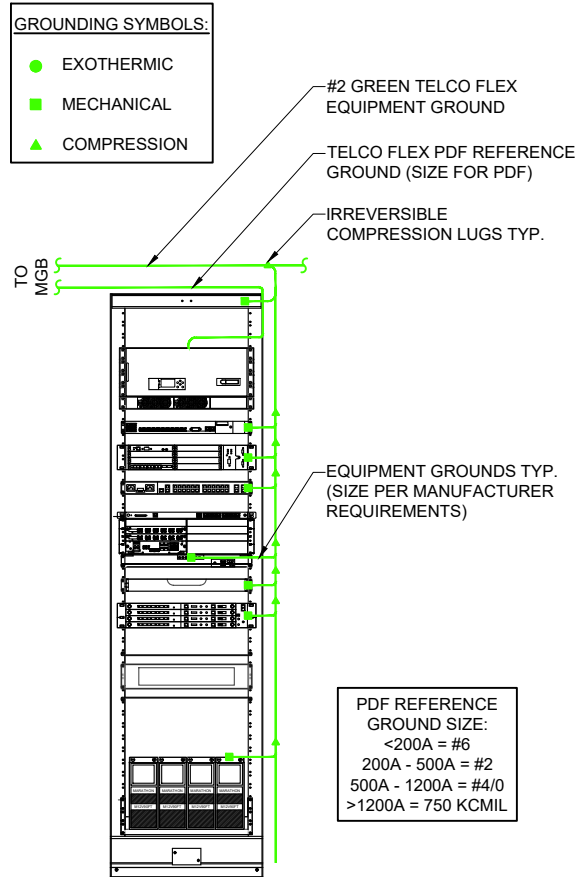
S1.1



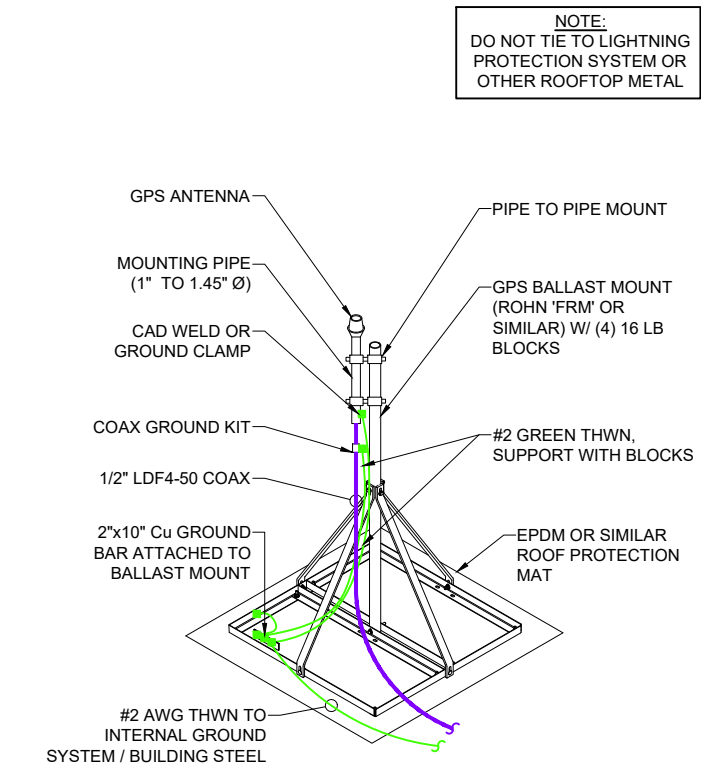
1 2 HOLE GROUND BAR
SCALE:



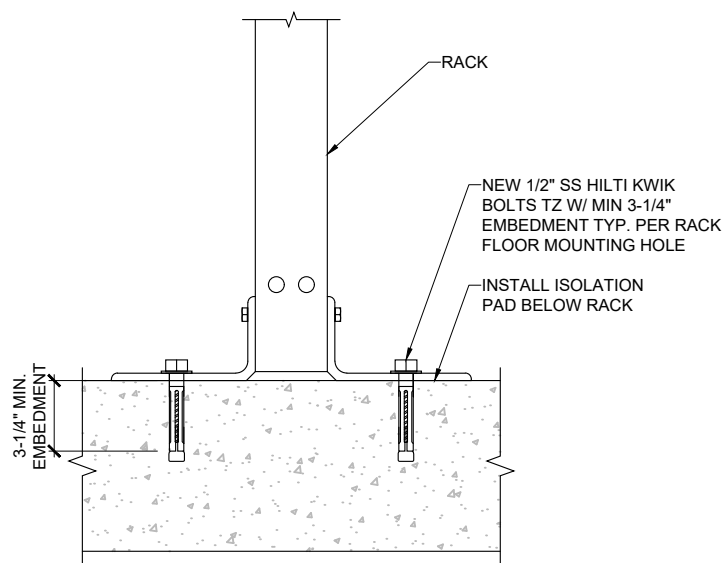
4 DURA-BLOCK CABLE SUPPORT
SCALE:



2 RACK GROUNDING
SCALE:



3 GPS MOUNT & GROUNDING
SCALE:



5 RACK ANCHORAGE DETAIL
SCALE:



SITE NAME:
STEAMBOAT SKI
AREA
GONDOLA BASE

SITE ADDRESS:
2305 MOUNT WERNER CIR
STEAMBOAT, CO 80487

PROJECT:
GONDOLA RELO

PHASE:
CONSTRUCTION

ISSUE DATE:
9/27/2021

EQUIPMENT
DETAILS

**RCRBD
Record
Set
10/27/2021**

D1.1

SCALE SET FOR 24"x36" SHEET
USE 1/2 SCALE FOR 11"x17" SHEET

30°/60° 12-Port Directional Panel Antenna (617-896, 1695-2690, 3400-3800 and 5150-5925 MHz)
GP2712-06367

Descriptions:

- Single-sector 12-Port MIMO antenna for high capacity and stadium venues.
- 30°/60° beam width dual-polarized covering 600 MHz/LTE/ CELL AWS/PCS/WCS/IRS, CBRS and LAA / U-NII Bands.
- 2x ports for 617-896 MHz
- 4x ports for 1695-2690 MHz
- 4x ports for 3400-3800 MHz
- 2x ports for 5150-5925 MHz*

*Compliant to 786033 D03 General U-NII Test Procedures New Rules v01r06. The antenna meets current U-NII 1 requirements for gain and upper side-lobe performance. Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - Part 15, Sub-part E

Frequency Band (MHz)	617-896	698-806	806-896	1695-2180	2300-2400	2496-2690	3400-3800	5150-5925
Input Connector Type	2x 4.3-10P			4x 4.3-10P		4x 4.3-10P		2x 4.3-10P
Port-to-Port Isolation (min.)	20 dB							
VSWR (max.) / S11 (min.)	1.5:1 / -14.0 dB							
Impedance	50 Ω							
Polarization	Dual slant 45° (±45°)							
Horizontal Beamwidth:	41°	37°	31°	30°	25°	22°	26°	35°
Vertical Beamwidth:	66°	64°	56°	63°	65°	60°	59°	22°
Gain (max.)	10.3 dBi	11.4 dBi	11.7 dBi	12.1 dBi	11.5 dBi	12.4 dBi	13.0 dBi	5.5 dBi
Gain (avg.)	10.0 dBi	10.3 dBi	11.1 dBi	11.4 dBi	11.2 dBi	11.3 dBi	11.8 dBi	5.1 dBi
Front-to-Back Ratio, 180°	>30 dB							
Max Power / Port	100 Watts			100 Watts			50 Watts	1 Watt
PIR @ 2x 20W	N/A				N/A			N/A

Mechanical Specifications

Operating Temperature	-40° to 158°F (-40° to +70°C)
Antenna Weight	12 lbs (5.5kg)
Antenna Dimension (DxWxH)	13.9" (353.5 mm) x 2.7" (68.5 mm) x 7" (178.9 mm)
Radiome Material	ASA
RoHS	Compliant
Radiome Color	Gray
Ingress Protection	Outdoor (IP65)
Wind Survival Rating	150 mph (241 km/h)

PC206-0367 / Revision R3 / Release Date: August 17, 2020

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Antenna Outline

Antenna Outline Diagrams showing dimensions: 178.85mm (7.04in), 353.5mm (13.92in), 685.6mm (26.99in).

Back Plate Port Configuration/Labeling

Back Plate Port Configuration/Labeling Diagram showing port locations and labels.

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Model No. 62-45-09 / 1 or 2 Axis Mount for Directional Antennas on Wall or Pole

1 or 2 Axis Mounting
For EXTENT™ Directional Antennas
Antenna Installation

DESCRIPTION:

Galtronics 1 or 2 Axis mounting bracket offers an easy installation solution for mounting Galtronics EXTENT™ directional antennas. D5801 (S431), D5876, D5844, D5877, D587, D581, D587, D587, D581 & 7134 to either a wall or pole. This mounting offers a tilt of up to +90° in vertical plane, and +90° in the horizontal plane.

Specifications

Model Number	62-45-09
Environmental Conditions	Outdoor
Weight	5.07 lbs (2.37kg)
Dimensions:	1.8" x H 4.3" x W 8.9" (240mm x 140mm x 227.5mm)
Material	Aluminum + Stainless Steel
Wind Speed Resistance	See Table According to Antenna Type
Pole Diameter Range	Ø2" (50.8mm) to 4.5" (114.3mm)
Mounting Style	Side Pole Mount/ Wall Mount
Mounting Hardware to Antenna	Supplied with Antenna
Mounting Hardware to Pole Mount	Supplied on kit
Mounting Hardware to Wall	Not included
3/8" Nut Tightening Torque (Bracket to Pole)	177 lb-in (20Nm)

PART IDENTIFICATION

Mounting Hardware to Pole

ITEM	QTY	DESCRIPTION
1	1	Antenna Bracket/Vertical Hinge
2	1	Hinge Bracket
3	1	Pole/Wall Bracket
4	1	Pole Clamping Bracket
5	4	3/8" x 1" Bolt
5a	4	3/8" Plane Washer
6	4	#10-32 x 0.5" Bolt
6a	4	#10-32 Plane Washer
6b	4	#10-32 Spring Lock Washer
7	2	3/8" x 6" Bolt
8a	4	3/8" Plane Washer
8b	2	3/8" Spring Lock Washer
8c	2	3/8" Nut

Mounting Hardware to Antenna (Supplied on antenna)

ITEM	DESCRIPTION	ITEM	DESCRIPTION
4 X 3/8" Nut		4 X 3/8" Spring Washer	
4 X 3/8" Plane Washer			

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Model No. 62-46-09 / 1 or 2 Axis Mount for Directional Antennas on Wall or Pole

Mounting Dimensions:

The mounting bracket offers following options for installation

Mounting Option A:

Pole Mount Installation using supplied Pole Holder

Pole Bracket Mount For Pole Diameters: Ø2" to Ø4.5" (50.8mm to Ø114.3mm)

• Attach the Antenna Pedestal to the pole using the Pole Holder and the supplied 3/8" Bolts. Use tightening torque of 177 lb-in (20Nm).

Horizontal: -45° to +45°
Vertical: 0° to 90° Tilt

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GALTRONICS STADIUM
ANTENNA

GALTRONICS STADIUM
ANTENNA BRACKET

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NOTES:

1. GENERAL

- 1.1. CONTRACTOR SHALL VISIT THE SITE AND REVIEW ALL DESIGN DOCUMENTS FIELD VERIFYING ALL EXISTING CONDITIONS AND ASSESSING ALL MODIFICATIONS REQUIRED TO COMPLETE THE INSTALLATION. CONTRACTOR SHALL NOTIFY CONSTRUCTION MANAGER AND ARCHITECT / ENGINEER WITH ANY DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND DESIGN DOCUMENTS AND OBTAIN WRITTEN CLARIFICATION PRIOR TO PROVIDING A QUOTE.
- 1.2. WHILE REVIEWING THE DESIGN DOCUMENTS, THE CONTRACTOR SHALL IDENTIFY ANY ITEMS WHERE THE DESIGN INTENT IS UNCLEAR AND OBTAIN WRITTEN CLARIFICATIONS PRIOR TO FURNISHING A BID.
- 1.3. CONTRACTOR SHALL OBTAIN WRITTEN AUTHORIZATION FROM THE CARRIER PRIOR TO PURCHASING ANY MATERIALS OR STARTING ANY WORK.
- 1.4. THESE DESIGN DOCUMENTS ARE DIAGRAMMATIC IN NATURE AND ARE INTENDED TO SHOW FINAL CONDITIONS. MULTIPLE PHASING STEPS MAYBE NEEDED TO MAINTAIN SITE OPERATION DURING CONSTRUCTION AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PLAN AND COORDINATE PHASING WITH CARRIER OPERATIONS.
- 1.5. CONTRACTOR SHALL, UNLESS OTHERWISE NOTED, INCLUDE IN THEIR SCOPE OF WORK ALL NECESSARY MATERIALS, LABOR AND EQUIPMENT TO COMPLETE THE INSTALLATION AS DESCRIBED IN DESIGN DOCUMENTS.
- 1.6. CONTRACTOR SHALL SUPERVISE AND DIRECT THE EXECUTION OF THE SHOWN PROJECT AND IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCING AND OBTAINING MATERIALS TO COMPLETE THE PROJECT. ANY REQUEST FOR ALTERATIONS TO THE DESIGN INTENT SHALL BE PROVIDED IN WRITING FOR REVIEW AND APPROVAL.
- 1.7. NO STRUCTURAL ALTERATIONS ARE TO BE MADE TO THE FACILITY UNLESS SPECIFICALLY NOTED.
- 1.8. CONTRACTOR SHALL MAKE PROVISIONS TO PROTECT EXISTING SITE FINISHES AS MUCH AS POSSIBLE. ANY IMPACT TO SITE AND SURROUNDINGS SHALL BE MITIGATED AND CONTRACTOR SHALL RETURN SITE TO PRE-CONSTRUCTION CONDITIONS.
- 1.9. ALL DEMOLISHED AND UNUSED MATERIALS SHALL BE REMOVED FROM SITE AND TRACKED ASSETS LOGGED AND RETURNED TO CARRIER FOR DISPOSAL OR RE-USE. CONTRACTOR TO KEEP THE SITE CLEAN, FREE OF HAZARDS AND TO PROPERLY DISPOSE OF ALL RUBBISH.
- 1.10. PLANS ARE NOT TO BE SCALED. UTILIZE DIMENSION CALL-OUTS FOR ESTIMATES. ALL CABLE LENGTHS ARE SHOWN FOR INFORMATIONAL PURPOSES AND IT IS THE CONTRACTORS RESPONSIBILITY TO FILED VERIFY ALL LENGTHS PRIOR TO ORDERING.
- 1.11. CONTRACTOR TO OBTAIN X-RAY OR GPR (IF APPLICABLE) OF ANY MASONRY STRUCTURES IDENTIFYING ALL EMBEDMENT PRIOR TO CUTTING, DRILLING OR OTHER ACTIVITY WHICH COULD CAUSE DAMAGE. AVOID ALL EMBEDMENT. OBTAIN APPROVAL FROM STRUCTURAL ENGINEER PRIOR TO IMPACTING ANY STRUCTURAL FACILITIES.
- 1.12. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE MOST RECENT DESIGN DOCUMENTS AND ENSURING THEY ARE DISTRIBUTED AND ARE FOLLOWED BY ALL PERSONAL INVOLVED IN THE PROJECT.
- 1.13. EVERY EFFORT HAS BEEN MADE BY THE ARCHITECT / ENGINEERS TO PROVIDE ACCURATE AND COMPLETE DESIGN DOCUMENTS THOUGH MINOR ERRORS AND OMISSIONS MAYBE CONTAINED WITHIN THE DOCUMENTS. THESE SHALL NOT EXCUSE THE CONTRACTOR FROM PROVIDING AN ACCURATE PROPOSAL AND COMPLETING THE PROJECT IN ACCORDANCE WITH THE INTENT OF THE DESIGN DOCUMENTS.
- 1.14. THE CONTRACTOR SHALL BEAR THE RESPONSIBILITY OF IDENTIFYING ANY ISSUES AND NOTIFYING THE CONSTRUCTION MANAGER AND ARCHITECT / ENGINEER IN WRITING PRIOR TO SUBMITTING PRICING. IN THE EVENT OF DISCREPANCIES OR CONFLICTING ITEMS, THE CONTRACTOR SHALL PRICE THE MOST COSTLY OR EXPANSIVE OPTION UNLESS DIRECTED IN WRITING OTHERWISE.
- 1.15. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ACCESS WITH VENUE MANAGEMENT FOR ALL NECESSARY WORK AND TO COMPLY WITH ANY REQUIREMENTS IMPOSED BY THE VENUE
- 1.16. CONTRACTOR TO PROVIDE CLOSE OUT PACKAGE WITH ALL TEST RESULTS, SETTING SCREEN SHOTS, RELEVANT CATALOGS / CUT SHEETS, INSTRUCTION SHEETS AND A SET OF RED-LINED AS-BUILT DRAWINGS PRIOR TO FINAL BILLING.

2. CODE COMPLIANCE

- 2.1. ALL WORK TO BE MEET OR EXCEED ALL APPLICABLE STANDARDS, CODES, ORDNANCES, RULES AND REGULATIONS. WHEN TWO OR MORE ARE IN CONFLICT, THE MOST STRINGENT SHALL BE FOLLOWED. WHERE LICENSING IS REQUIRED, CONTRACTOR SHALL OBTAIN ALL REQUIRED LICENSES PRIOR TO START OF WORK.
- 2.2. CONTRACTOR TO COORDINATE WITH LOCAL JURISDICTION FOR ANY CODE RELATED QUESTIONS. ALL JURISDICTION REQUIRED CHANGES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- 2.3. EQUIPMENT ROOMS ARE NOT MANNED, ARE NOT HABITABLE, AND TO NOT REQUIRE POTABLE WATER, SEWER CONNECTION OR A.D.A. ACCESS ACCOMMODATIONS.
- 2.4. CONTRACTOR TO REMOVE TRASH AND REFUSE ON A DAILY BASIS AND NO SOLID WASTE RECEPTACLE WILL BE SITED.

3. SITE WORK:

- 3.3. ALL EFFORT HAS BEEN MADE TO IDENTIFY EXISTING UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING ALL UTILITIES SHOWN OR NOT AND PROTECT FROM DAMAGE. EXCAVATION CONTRACTOR TO OBTAIN REQUIRED LOCATED PRIOR TO STARTING WORK.
- 3.4. CONTRACTOR TO VERIFY STATE REQUIREMENTS FOR UTILITY LOCATION SERVICES AND EXCAVATION CONTRACTOR SHALL NOTIFY STATE OR LOCAL NOTIFICATION CENTER AS REQUIRED PRIOR TO ANY SITE DISTURBANCES.

- 3.5. CONTRACTOR SHALL PROTECT ALL SITE FINISHES AND IMPROVEMENTS AND RETURN ALL TO PRE WORK CONDITION. IF EXTERIOR SITE IMPROVEMENTS ARE REQUIRED, CONTRACTOR TO INSTALL AND MAINTAIN DRAINAGE / RUNOFF MITIGATION MEASURES THROUGH OUT THE PROJECT AND REVEGETATE AREA TO RETURN IT TO ORIGINAL CONDITIONS.
- 3.6. GRUB AND DISPOSE OF ALL ORGANIC MATERIAL PRIOR
- 3.7. NO FILL OR EARTHWORK TO OCCUR WITH ON OR WITH FROZEN MATERIAL

4. MATERIALS:

- 4.1. CONTRACTOR SHALL PROVIDE ALL NECESSARY MATERIALS AND SUPPLIES TO COMPLETE THE PROJECT NOT SPECIFICALLY PROVIDED BY CARRIER. CONTRACTOR TO CLARIFY PROVIDED MATERIALS PRIOR TO FURNISHING A BID.
- 4.2. ALL FURNISHED MATERIALS SHALL MEET CARRIER SPECIFICATIONS AND MINIMUM REQUIREMENTS FOR THE PROJECT. ANY SUBSTITUTIONS SHALL BE APPROVED IN WRITING BY CARRIER CONSTRUCTION MANAGER PRIOR TO PURCHASE AND INSTALLATION.
- 4.3. ALL OUTDOOR STEEL ITEMS SHALL BE HOT DIPPED GALVANIZED PER ASTM A123.
- 4.4. ALL BOLTS AND HARDWARE TO BE STAINLESS STEEL UNLESS SPECIFICALLY REQUIRED TO BE OTHERWISE BY CODE OR CARRIER REQUIREMENT.
- 4.5. ANY DAMAGED GALVANIZING OR PAINT TO BE FIELD REPAIRED WITH 'COLD-GALV' OR APPROPRIATE PAINT UNDER CONDITIONS APPROVED BY PRODUCT MANUFACTURER.

5. GENERAL CABLING

- 5.1. ALL INSTALLED CABLES SHALL HAVE SHEATHS (RISER / PLENUM / OUTDOOR / UV RESISTANT) APPROPRIATE FOR THE MOST RESTRICTIVE ENVIRONMENT WHICH THEY WILL TRAVERSE.
- 5.2. ALL CABLING TO BE SUPPORTED AND LACED PER NEC, LOCAL REQUIREMENTS AND TO MEET CARRIER SPECIFICATIONS.
- 5.3. MAINTAIN REQUIRED SEPARATION BETWEEN CONDUCTORS AND OTHER CABLES AS PRESCRIBED BY CARRIER SPECIFICATIONS AND BEST PRACTICES.
- 5.4. ALL FIRE, SMOKE OR DRAFT BARRIERS SHALL BE REPAIRED SUCH THAT THEY MAINTAIN THEIR INTENDED / REQUIRED RATINGS.
- 5.5. ALL MEASUREMENTS SHOWN ON PLANS ARE TO ADD CONTRACTOR AND DO NOT INCLUDE ANY SLACK OR CABLE DRESSING LENGTH. ALL CABLE LENGTHS SHALL BE FIELD VERIFIED PRIOR TO ORDERING.

6. ELECTRICAL AND GROUNDING

- 6.1. ALL INSTALLATIONS TO MAINTAIN REQUIRED CLEARANCES
- 6.2. CONTRACTOR TO SIZE CONDUCTORS PER NEC AND CARRIER REQUIREMENTS AND UPSIZE AS REQUIRED TO MINIMIZE VOLTAGE DROP.
- 6.3. CONTRACTOR TO SIZE CONDUIT PER NEC
- 6.4. CONTRACTOR TO BOND METALLIC ITEMS TO GROUNDING SYSTEM WITHIN SITE PER CARRIER REQUIREMENTS.

7. FIBER OPTICS:

- 7.1. VERIFY SINGLE-MODE OR MULTI-MODE AND CONNECTOR TYPE
- 7.2. ALL CABLES AND CONNECTORS TO BE PRE-APPROVED, OR AN EXCEPTION OBTAINED PRIOR TO PURCHASE AND INSTALLATION
- 7.3. ALL FIBER STRANDS SHALL BE FUSION SPLICED THOUGHT OUT THE LENGTH OF THE RUN AND BE TERMINATED AT EACH END OF TRUNK UNLESS SPECIFICALLY NOTED.
- 7.4. ALL TERMINATIONS TO BE LANDED IN A BULKHEAD OR COILED AND PROTECTED IN A SPLICE CASE IF BULKHEAD IS SPACE CONSTRAINED.
- 7.5. ALL SPLICES TO BE FUSION TYPE AND INDIVIDUAL SPLICES SHALL HAVE A LOSS OF LESS THAN 0.1 db. ANY SPLICES WITH HIGHER LOSSES TO BE REMADE.
- 7.6. ALL FIBERS TO BE TESTED WITH OTDR AND POWER METER. OTDR AND OPTICAL LOSS REPORT PROVIDED IN CLOSEOUT PACKAGE.
- 7.7. ALL FIBER CABLING TO BE INSTALLED IN PROTECTIVE CABLE MANAGEMENT SYSTEMS, DUCT OR BE ARMORED CABLE WHERE TRAVERSING SHARED SPACE.

8. COAX AND ANTENNAS

- 8.1. ALL ANTENNA MOUNTS SHALL BE INSTALLED IN ACCORDANCE WITH ANSI/TIA-222 AND APPLICABLE LOCAL CODES
- 8.2. ALL COAX TO BE INSTALLED PER CARRIER SPECIFICATIONS, SUPPORTED AT A MINIMUM OF EVERY 4'-0" IN PROPERLY SIZED BLOCKS OR OTHER COAX SUPPORTS U.N.O.
- 8.3. ALL COAX TRAVERSING EXTERIOR WALLS SHALL BE PROTECTED ON INTERIOR SIDE WITH LIGHTNING SURGE SUPPRESSOR GROUNDED TO BUILDING GROUNDING SYSTEM OR STEEL (NOT LIGHTNING PROTECTION SYSTEM), PROVIDE COAX GROUND KIT AT ANTENNA AND AS REQUIRED BY CARRIER.
- 8.4. ALL COAX TERMINATIONS SHALL BE LOW PIM AND APPROVED BY CARRIER.
- 8.5. MAINTAIN MINIMUM BEND RADIUS AND SUPPORT CABLE AS NEEDED TO PROTECT CABLES FROM SAGGING, KINKING OR BEING CAUGHT.
- 8.6. ALL COAX TO BE SWEEP (DTF & RETURN LOSS) AND PIM TESTED WITH PASSING REPORTS PROVIDED TO CARRIER.
- 8.7. PROVIDE 50 OHM LOAD ON ALL UNUSED PORTS.
- 8.8. WATERPROOF ALL EXTERIOR CONNECTIONS AND ANY OTHER CONNECTIONS EXPOSED TO MOISTURE OR CONDENSING ENVIRONMENTS WITH SELF AMALGAMATING BUYTAL TAPE WITH MINIMUM 1/2" OVERLAP.
- 8.9. TORQUE ALL CONNECTIONS TO MANUFACTURER SPECIFICATIONS WITH APPROPRIATE TORQUE WRENCH.
- 8.10. MOUNT GPS ANTENNA ON 1-1/4" SCH. 40 STEEL OR STAINLESS STEEL PIPE (MIN. 18"). GROUND PIPE WITH BURNDY GROUNDING CLAMP AND INSTALL WITHIN 2° OF VERTICAL.

9. GENERAL FIBERGLASS REINFORCED PLASTIC NOTES:

- 9.1. ALL FRP MATERIAL SHALL BE EXTREN SERIES 500 OR EQUIVALENT.
- 9.2. ALL ADHESIVE SHALL BE PLEXUS METHACRYLATE ADHESIVE OR EQUIVALENT.
- 9.3. ALL FRP CONNECTIONS SHALL BE FULL BONDED EACH SIDE WITH 3/8" PLATE AND MINIMUM (2) 3/8" TAPERED FLAT HEAD FRP SCREWS PER MEMBER.
- 9.4. ALL PANELS SHALL BE FULL BONDED W/ 3/8" PAN HEAD FRP SCREWS AT 12" O.C

10. GENERAL STEEL NOTES:

- 10.1. CONTRACTOR TO PROVIDE FABRICATION AND ERECTION OF STRUCTURAL STEEL AND OTHER ITEMS AS SHOWN ON THE DRAWINGS OR REQUIRED BY OTHER SECTIONS OF THESE SPECIFICATIONS.
- 10.2. REFERENCES:
- 10.2.1. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC). MANUAL OF STEEL CONSTRUCTION, ALLOWABLE STRESS DESIGN (ASD).
- 10.2.2. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM).
- 10.2.3. ASTM A36: STRUCTURAL STEEL
- 10.2.4. ASTM A53: PIPE, STEEL BLACK AND HOT DIPPED, ZINC-COATED WELDED AND SEAMLESS.
- 10.2.5. ASTM A108: STEEL BARS, CARBON, COLD FINISHED, STANDARD QUALITY.
- 10.2.6. ASTM A123: ZINC (HOT-DIPPED GALVANIZED) COATING ON IRON AND STEEL PRODUCTS.
- 10.2.7. ASTM A307: CARBON STEEL BOLTS AND STUDS, 60,000 P.S.I. TENSILE STRENGTH.
- 10.2.8. ASTM A325: HIGH-STRENGTH BOLT FOR STRUCTURAL STEEL JOINTS.
- 10.2.9. ASTM A490: HEAT-TREATED, STRUCTURAL STEEL BOLTS, 150 (KSI) (1035MPA) TENSILE STRENGTH.
- 10.2.10. ASTM A500: COLD-FORMED WELDED AND SEAMLESS CARBON STEEL STRUCTURAL TUBING IN ROUNDS AND SHAPES.
- 10.2.11. ASTM A563: CARBON AND ALLOY STEEL NUTS. ASTM B695: COATINGS OF ZINC MECHANICALLY DEPOSITED ON IRON AND STEEL.
- 10.2.12. ASTM F436: HARDENED STEEL WASHERS.
- 10.2.13. ASTM F959: COMPRESSIBLE-WASHER-TYPE DIRECT TENSION INDICATOR FOR USE WITH STRUCTURAL FASTENERS.
- 10.2.14. AMERICAN WELDING SOCIETY (AWS):
- 10.2.14.1. AWS A5.1: COVERED CARBON STEEL ARC WELDING ELECTRODES.
- 10.2.14.2. AWS A5.5: LOW ALLOY STEEL COVERED ARC WELDING ELECTRODES.
- 10.2.14.3. AWS D1.1: STRUCTURAL WELDING CODE - STEEL.
- 10.2.14.4. RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RCSC): "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS OR ASTM A490 BOLTS." AS ENDORSED BY AISC.
- 10.2.15. STEEL STRUCTURES PAINTING COUNCIL (SSPC):
- 10.2.15.1. SSPC-SP3: POWER TOOL CLEANING.
- 10.2.15.2. SSPC-PAINT 11: RED IRON OXIDE, ZINC CHROME, RAW LINSEED OIL OR ALKYD PAINT.

11. SUBMITTALS:

- 11.1. SUBMIT THE FOLLOWING FOR APPROVAL:
- 11.1.1. FABRICATION AND ERECTION DRAWINGS SHOWING ALL DETAILS, CONNECTIONS, MATERIAL DESIGNATIONS, AND ALL TOP STEEL ELEVATIONS.
- 11.1.2. WELDERS SHALL BE QUALIFIED AS PRESCRIBED IN AWS D1.1.

12. STRUCTURAL STEEL:

- 12.1. SHAPES, PLATES AND BARS SHALL CONFORM TO ASTM A572. ANGLES SHALL CONFORM TO ASTM A36.
- 12.2. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B. STEEL PIPE SHALL CONFORM TO ASTM A53, TYPE E OR S, GRADE B.

13. ANCHOR BOLTS:

- 13.1. ANCHOR BOLTS SHALL CONFORM TO ASTM A307 WITH HEAVY HEXAGONAL NUTS.

14. BOLTS:

- 14.1. COMMON (MACHINE) BOLTS SHALL CONFORM TO ASTM A307 GRADE A AND NUTS TO ASTM A563. ONE COMMON BOLT ASSEMBLY SHALL CONSIST OF A BOLT. A HEAVY HEX NUT AND A HARDENED WASHER.
- 14.2. HIGH-STRENGTH BOLTS SHALL CONFORM TO ASTM A325; ONE HIGH STRENGTH BOLT ASSEMBLY SHALL CONSIST OF A HEAVY HEX STRUCTURAL BOLT, A HEAVY HEX NUT, A HARDENED WASHER CONFORMING TO ASTM F436. THE HARDENED WASHER SHALL BE INSTALLED AGAINST THE ELEMENT TURNED IN TIGHTENING. UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL CONNECTIONS SHALL BE BEARING TYPE CONNECTIONS.

15. WELDING ELECTRODES:

- 15.1. WELDING ELECTRODES SHALL COMPLY WITH AWS D1.1 USING A5.1 OR A5.5 E70XX AND SHALL BE COMPATIBLE WITH THE WELDING PROCESS SELECTED.

16. PRIMER:

- 16.1. PRIMER SHALL BE RED OXIDE-CHROMATE PRIMER COMPLYING WITH SSPC PAINT SPECIFICATION NO. 11.

17. FABRICATION:

- 17.1. SHOP FABRICATE AND ASSEMBLY MATERIALS AS SPECIFIED HEREIN.
- 17.2. FABRICATE ITEMS OF STRUCTURAL STEEL IN ACCORDANCE WITH THE AISC-ASD SPECIFICATION, AND AS INDICATED ON THE APPROVED SHOP DRAWINGS.
- 17.3. ALL EXPOSED STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED PER ASTM.
- 17.4. PROPERLY MARK AND MATCH-MARK MATERIALS FOR FIELD ASSEMBLY

AND FOR IDENTIFICATION AS TO LOCATION FOR WHICH INTENDED.

- 17.5. FABRICATE AND DELIVER IN A SEQUENCE WHICH WILL EXPEDITE ERECTION AND MINIMIZE FIELD HANDLING OF MATERIALS.
- 17.6. WHERE FINISHING IS REQUIRED, COMPLETE THE ASSEMBLY, INCLUDING THE WELDING OF UNITS, BEFORE START OF FINISHING OPERATIONS.
- 17.6.1. PROVIDE FINISH SURFACE OF MEMBERS EXPOSED IN THE FINAL STRUCTURE FREE FROM MARKINGS, BURNS, AND OTHER DEFECTS.
- 17.6.2. PROVIDE CONNECTIONS AS SPECIFIED HEREIN:
- 17.6.3. PROVIDE BOLTS AND WASHERS OF TYPES AND SIZE REQUIRED FOR COMPLETION OF FIELD ERECTION. USE 3/4 INCH DIAMETER A325 BOLTS UNLESS NOTED OTHERWISE.
- 17.6.4. INSTALL HIGH STRENGTH THREADED FASTENERS IN ACCORDANCE WITH RCSC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR ASTM A490 BOLTS."
- 17.6.5. WELDED CONSTRUCTION SHALL COMPLY WITH AWS D1.1 FOR PROCEDURES, APPEARANCE, QUALITY OF WELD, AND METHODS USED IN CORRECTING WELDED WORK.
- 17.6.6. THE FABRICATOR SHALL FURNISH AND INSTALL ERECTION CLIPS FOR FIT-UP OF WELDED CONNECTIONS.
- 17.6.7. DOUBLE ANGLE MEMBERS SHALL HAVE WELDED FILLERS SPACED IN ACCORDANCE WITH CHAPTER E4 OF THE AISC-ASD SPECIFICATION. GUSSET AND STIFFENER PLATES SHALL BE 3/8 INCH THICK MINIMUM.
- 17.6.8. PRIMING:
- 17.6.9.1. STRUCTURAL STEEL SHALL BE PRIMED AS SPECIFIED HEREIN, UNLESS SHOWN OTHERWISE ON THE DRAWINGS.
- 17.6.9.2. STRUCTURAL STEEL SURFACE PREPARATION SHALL CONFORM TO SSPC-SP3, "POWER TOOL CLEANING."
- 17.6.9.3. SURFACE PREPARATION AND PRIMER SHALL BE IN ACCORDANCE WITH AISC CODE OF STANDARD PRACTICE AS INCLUDED IN THE ASD MANUAL OF STEEL CONSTRUCTION.
- 17.6.9.4. MATERIALS SHALL REMAIN CLOSED UNTIL REQUIRED FOR USE, MANUFACTURER'S POT-LIFE REQUIREMENTS SHALL BE STRICTLY ADHERED TO.
- 17.6.9.5. PRIMER SHALL BE APPLIED TO DRY, CLEAN, PREPARED SURFACE AND UNDER FAVORABLE CONDITIONS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. UNLESS OTHERWISE RECOMMENDED BY THE MANUFACTURER PRIMING SHALL NOT BE DONE WHEN AMBIENT TEMPERATURE IS LESS THAN 50 DEGREE F. THE RELATIVE HUMIDITY IS MORE THAN 90 PERCENT, OR THE SURFACE TEMPERATURE IS LESS THAN 5 DEGREE F ABOVE THE DEW POINT.
- 17.6.9.6. GENERALLY ALL PRIMER SHALL BE SPRAY APPLIED. BRUSH OR ROLLER APPLICATION SHALL BE RESTRICTED TO TOUCHUP AND TO AREAS NOT ACCESSIBLE BY SPRAY GUN.
- 17.6.9.7. PRIMER SHALL BE UNIFORMLY APPLIED WITHOUT RUNS, SAGS, SOLVENT BLISTERS, DRY SPRAY OR OTHER BLEMISHES. ALL BLEMISHES AND OTHER IRREGULARITIES SHALL BE REPAIRED OR REMOVED AND THE AREA RE-COATED. SPECIAL ATTENTION SHALL BE PAID TO CREVICES, WELD LINES, BOLT HEADS, CORNERS, EDGES, ETC., TO OBTAIN THE REQUIRED NOMINAL FILM THICKNESS.
- 17.6.9.8. THE DRY FILM THICKNESS OF THE PRIMER SHALL BE 2.0 MILS.
- 17.6.9.9. IF THE PRIMER IS DAMAGED BY WELDING OR PHYSICAL ABUSE, THE AREA SHALL BE TOUCHED UP AND REPAIRED. THE TOUCHUP PAINT SHALL BE COMPATIBLE WITH THE APPLIED PRIMER WITH MINIMUM DRY FILM THICKNESS OF 1.5 MILS.
- 17.6.10. INSTALLATION:
- 17.6.10.1. INSTALLATION OF STRUCTURAL STEEL SHALL COMPLY WITH AISC "CODE OF STANDARD PRACTICE."
- 17.6.10.2. STRUCTURAL FIELD WELDING SHALL BE DONE BY THE ELECTRIC SUBMERGED OR SHIELDED METAL ARC PROCESS. WELDED CONSTRUCTION SHALL COMPLY WITH AWS D1.1.
- 17.6.10.3. PROVIDE ANCHOR BOLTS AND OTHER CONNECTORS REQUIRED FOR SECURING STRUCTURAL STEEL TO ELEVATOR SHAFT WALLS AND OTHER IN-PLACE WORK. PROVIDE TEMPLATES AND OTHER DEVICES NECESSARY FOR PRESETTING BOLTS AND ANCHORS TO ACCURATE LOCATIONS.
- 17.6.10.4. SPLICE MEMBERS ONLY WHERE INDICATED ON THE DRAWINGS.
- 17.6.10.5. ANY GAS CUTTING TORCHES HAVE TO BE APPROVED IN WRITING BY THE PROJECT STRUCTURAL ENGINEER.
- 17.6.10.6. PROVIDE TEMPORARY SHORING BRACING WITH CONNECTIONS OF SUFFICIENT STRENGTH TO BEAR IMPOSED LOADS. REMOVE TEMPORARY CONNECTIONS AND MEMBERS WHEN PERMANENT MEMBERS ARE IN PLACE AND THE FINAL CONNECTIONS HAVE BEEN MADE.
- 17.6.10.7. ALIGN AND ADJUST MEMBERS, AND OTHER SURFACES WHICH WILL BE IN THE PERMANENT CONTACT, BEFORE ASSEMBLY.
- 17.6.10.8. HIGH-STRENGTH BOLTS AS A MINIMUM, SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED IN THE LATEST AISC SPECIFICATION. ALL HIGH-STRENGTH BOLTS SPECIFIED ON THE DESIGN DRAWINGS TO BE USED IN PRETENSIONED OR SLIP-CRITICAL JOINTS SHALL BE TIGHTENED TO A BOLT TENSION NOT LESS THAN THAT GIVEN IN AISC TABLE 3.1. INSTALLATION SHALL BE BY ANY OF THE FOLLOWING METHODS: 1. TURN OF NUT METHOD, A DIRECT-TENSION-INDICATOR, TWIST-OFF-TYPE TENSION-CONTROL BOLT, CALIBRATED WRENCH, OR ALTERNATIVE DESIGN BOLT.



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ENGLEWOOD, CO 80112

SITE NAME:
**STEAMBOAT SKI
AREA**
GONDOLA BASE

SITE ADDRESS:
2305 MOUNT WERNER CIR
STEAMBOAT, CO 80487

PROJECT:
GONDOLA RELO

PHASE:
CONSTRUCTION

ISSUE DATE:
9/27/2021

GENERAL
NOTES

GN1

SCALE SET FOR 24"x36" SHEET
USE 1/2 SCALE FOR 11"x17" SHEET

**RCRBD
Record
Set**
9/27/2021