#### PROJECT INDEX

UNION TELEPHONE COMPANY 850 N HIGHWAY 414 PO BOX 160

MOUNTAIN VIEW, WY 82939

CONTACT: RYAN SCHMIDT PHONE: (307) 780-4031

EMAIL: rschmidt@unionwireless.com

CONTACT: ANGELA JONES PHONE: (307) 782-4045 EMAIL: anjones@unionwireless.com

CONTACT: JUSTIN HAWS PHONE: (307) 747-7054 EMAIL: jhaws@unionwireless.com

PLANS NOT VERIFIED BY A LICENSED SURVEYOR

PROPERTY OWNER

OWER COMPANY

P.O. BOX 217

CONTACT:

CRAIG, CO 81626

TELEPHONE COMPAN

MICROWAVE RADIO

SBA TOWERS II LLC 5900 BROKEN SOUND PKWY 2ND FL STEAMBOAT SPRINGS, CO 80487

YAMPA VALLEY ELECTRIC ASSOCIATION

PHONE: (888) 950-7483

3715 EAST US HWY 40

PHONE: (970) 824-6593

**Union Wireless** 

### **HAYDEN**

**COMMUNICATION SITE** 

6985 HOMESTEADER LANE 2 HAYDEN, ROUTT COUNTY, COLORADO

140' LATTICE SELF SUPPORTING TOWER MW UPGRADES TO CEDAR MOUNTAIN AND OAK CREEK COAL. BUILDING RELOCATION AND POWER UPGRADE

VICINITY MAP

# RCRBD

GIS/Addressing Ok 03/16/2016 EK

# RECORD SET

**APPROVED** FOR CONSTRUCTION

850 N. HIGHWAY 414 PO BOX 160

MOUNTAIN VIEW, WY 82939

THE INFORMATION CONTAINED IN THIS

**CURRENT REV** 

DOCUMENT IS PROPRIETARY. ANY USE OR

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ALYSSA BLAIR/ANGELA JONES

MATTHEW E. FISHER

DATE

09/25/2015

2 DECEMBER 2015

#### PROJECT NOTES

- 1. WORK ALREADY COMPLETE:
  - a. PARTITION WALL, HVAC, AND MAIN AC ELECTRICAL EQUIPMENT INSTALLED (EXCLUDING DC PLANT), FLOOR PAINTED.
- 2. NEW A-PORT & ICE BRIDGE;
- 3. ELECTRONICS SHELTER INSTALLS;
- 4. TOWER MODIFICATIONS:
- 5. NEW MW PATH TO CEDAR MOUNTAIN -
- 6. NEW MW PATH TO OAK CREEK COAL -CUT;
- 7. RETIREMENTS:
  - a. RETIRE THE OLD CEDAR MOUNTAIN MW DISH AND ASSOCIATED LINES AS WELL AS THE LPD 7905 PANEL ANTENNA AND 7/8" LINES FROM THE TOWER.
- b. RETIRE THE OLD ELECTRONICS FROM THE OLD EQUIPMENT SHELTER.
- c. PLEASE PERFORM AN AUDIT OF THE **EXISTING CPRS SIMPLY STATING** WHAT IS PRESENT ON SITE TODAY ON THE EXISTING EXCEL SHEET.

ROJECT NAME

**HAYDEN** 

PROJECT ADDRESS

6985 HOMESTEADER LANE 2 AYDEN, ROUTT COUNTY, COLORADO

HEET TITLE:

TITLE SHEET

SHEET NUMBER

T1

#### DRAWING INDEX

SITE CONNECTED TO UNION NETWORK VIA

SHEET	TITLE	REV
T1	TITLE SHEET	F
C1	SITE PLAN	F
C2	PANEL ANTENNA ELEVATION	F
C3	MICROWAVE ELEVATION	F
R1	RAN CABLING	F
A1	OLD EQUIPMENT BUILDING	В
A2	NEW EQUIPMENT BUILDING	В
АЗ	JUMPER LINE DIAGRAMS	В
E1	PANEL SCHEDULE	Α
		1

TAKE HWY 40 WEST TO HAYDEN. ABOUT THE MIDDLE OF TOWN, TAKE A RIGHT (NORTH) ON WALNUT STREET. AT THE "T" GO

SITE DESCRIPTION

SE<sup>1</sup>/<sub>4</sub> OF NE<sup>1</sup>/<sub>4</sub> SECTION 31

T7N R88W 6THPM

40°31'15.9"N 107°17'48 2"W

7285' AMSL

LEGAL DESCRIPTION

LEFT (WEST) AND CONTINUE UP THE MOUNTAIN APPROXIMATELY 3.3 MILES TO THE TOP.

AT THE "Y" TAKE A LEFT ON CR78 AND FOLLOW FOR 0.2 MILES. TURN LEFT (SOUTH) ON HOMESTEADER LN AND FOLLOW ROAD

TIN METAL BUILDING WITH A SMALL TOWER ON EACH SIDE OF BUILDING

PLEASE MAKE SURE THE FM TRANSMITTER TURN DOWN IS SCHEDULED PRIOR TO WORK COMMENCEMENT

SPECIAL CONSIDERATIONS: "EMERGENCY 911 WILL CONTACT JACKSON COUNTY SHERIFF. PIERSON COMMUNICATIONS HAS TWO-WAY RADIO EQUIPMENT IN SAME BUILDING."

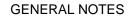
DELORME Data use subject to license © DeLorme. DeLorme Topo USA® 7.0. Data 700m 12-0

DRAWINGS ISSUED BY

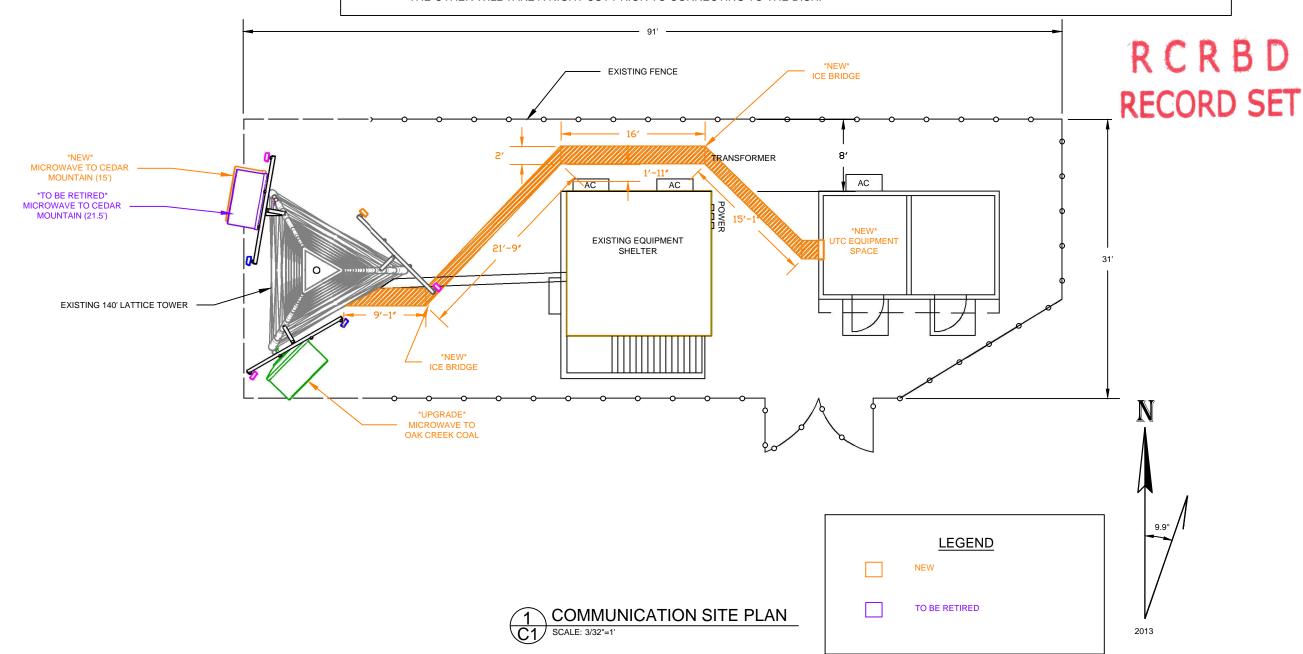
ANGELA JONES

PROJECT ENGINEER

2 DECEMBER 2015



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  - a. PARTITION WALL, HVAC, AND MAIN AC ELECTRICAL EQUIPMENT INSTALLED (EXCLUDING DC PLANT), FLOOR PAINTED.
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  - a. INSTALL A NEW ICE BRIDGE BETWEEN THE ENTRY BOOT AND THE TOWER. THE NEW WAVEGUIDE LADDER WILL BE INSTALLED AROUND THE OLD SHELTER AND BACK TO THE TOWER. PLEASE CONNECT THE DIRECT BURIAL PIPES TO THE GROUND SYSTEM VIA PIPE CLAMP.
  - b. USE THE EXISTING ENTRY BOOT FOR THE NEW LINES AND MW. THIS WILL REQUIRE GROUNDING WITH GROUND BARS AND BFDS FOR THE COAX.
- 4. TOWER MODIFICATIONS;
  - a. REPLACE THE X-SECTOR LPD 7905 ANTENNA WITH A NEW KATHREIN 800 10634 ANTENNA.
  - b. INSTALL (6X) NEW COAXIAL CABLES FROM THE PANEL ANTENNAS TO THE A-PORT. A, B
  - c. INSTALL NEW DISH AND (1X) LINE OF EW-90 AT THE 15' RAD CENTER UNDER THE EXISTING CEDAR MOUNTAIN DISH.
  - d. INSTALL (2X) LINES OF EW-63 TO THE EXISTING OAK CREEK COAL DISH. PLEASE NOTE THAT ONE POLARIZATION WILL BE UTILIZED INITIALLY, THE OTHER WILL TAKE A NIGHT CUT PRIOR TO CONNECTING TO THE DISH.





850 N. HIGHWAY 414 PO BOX 160 MOUNTAIN VIEW, WY 82939

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F	09/25/2015				

DESIGNER:

ALYSSA BLAIR/ANGELA JONES

REVIEWE

MATTHEW E. FISHER

#### APPROVED FOR CONSTRUCTION

2 DECEMBER 2015

PROJECT NAME

#### **HAYDEN**

PROJECT ADDRESS:

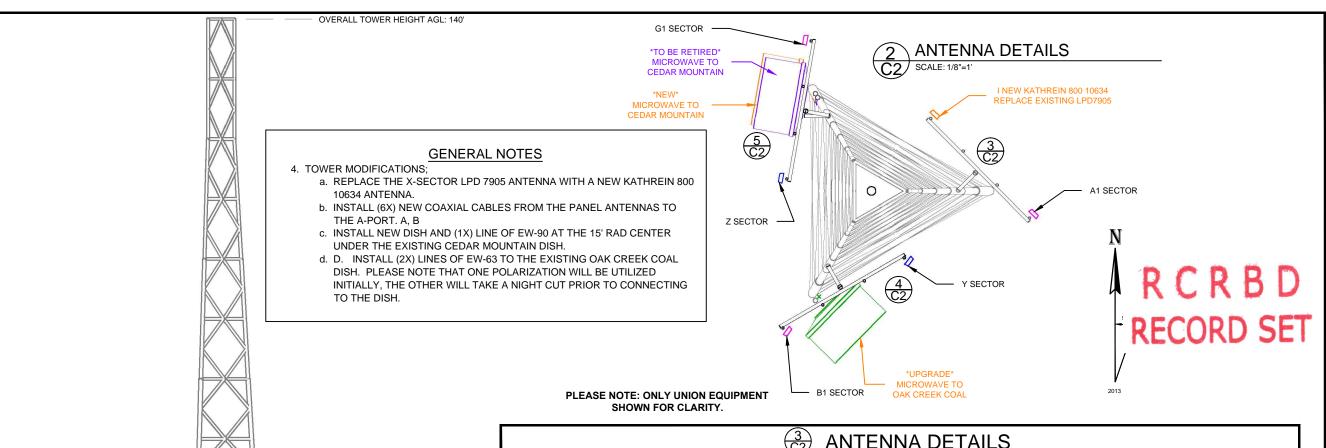
6985 HOMESTEADER LANE 2 HAYDEN, ROUTT COUNTY, COLORADO

SHEET TITLE:

PLAN VIEW

SHEET NUMBER:

C1



SHOWN FOR CLARITY.												
3 ANTENNA DETAILS												
	ANTENNA MANUFACTURER & MODEL:	1X KATHREIN 800 10634		ANTENNA MANUFACTURER & MODEL:	1X KATHREIN 800 10634							
ECTOR	AZIMUTH:	50° MAG (60° TRUE)	A1 SECTOR	AZIMUTH:	50° MAG (60° TRUE) 55'							
	HEIGHT ABOVE CONCRETE LEVEL:	55'		HEIGHT ABOVE CONCRETE LEVEL:								
	TECHNOLOGY 690-960 MHz PORTS:	GSM/850 / SHARED RRU		TECHNOLOGY 690-960 MHZ PORTS:	UMTS/850 / SHARED RRU							
	DOWNTILT 690-960 MHZ PORTS:	0° MECH, 3° ELEC		DOWNTILT 690-960 MHZ PORTS:	0° MECH, 3° ELEC							
S	COAX SPECS 690-960 MHZ PORTS:	(1X) AVA5-50A, 1 CAPPED PORT		COAX SPECS 690-960 MHZ PORTS:	(1X) AVA5-50A, 1 CAPPED PORT							
$\times$	TECHNOLOGY 1710-2170 MHz PORTS:	NA		TECHNOLOGY 1710-2170 MHz PORTS:	NA							
	DOWNTILT 1710-2170 MHz PORTS:	NA		DOWNTILT 1710-2170 MHz PORTS:	NA							
	COAX SPECS 1710-2170 MHz PORTS:	NA		COAX SPECS 1710-2170 MHz PORTS:	NA							
4 ANTENNA DETAILS												
	ANTENNA MANUFACTURER & MODEL:	1X KATHREIN 800 10634		ANTENNA MANUFACTURER & MODEL:	1X KATHREIN 800 10634							
	AZIMUTH:	130° MAG (140° TRUE)	B1 SECTOR	AZIMUTH:	130° MAG (140° TRUE)							
œ	HEIGHT ABOVE CONCRETE LEVEL:	53'		HEIGHT ABOVE CONCRETE LEVEL:	53'							
CTO	TECHNOLOGY 690-960 MHZ PORTS:	GSM/850 / SHARED RRU		TECHNOLOGY 690-960 MHZ PORTS:	UMTS/850 / SHARED RRU							
	DOWNTILT 690-960 MHZ PORTS:	0° MECH, 3° ELEC		DOWNTILT 690-960 MHZ PORTS:	0° MECH, 3° ELEC							
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>	TECHNOLOGY 1710-2170 MHz PORTS:	NA		TECHNOLOGY 1710-2170 MHz PORTS:	NA							
	DOWNTILT 1710-2170 MHz PORTS:	NA		DOWNTILT 1710-2170 MHz PORTS:	NA							
	COAX SPECS 1710-2170 MHz PORTS:	NA		COAX SPECS 1710-2170 MHz PORTS:	NA							
		5 ANTENN	NA [	DETAILS								
	ANTENNA MANUFACTURER & MODEL:	1X KATHREIN 800 10634		ANTENNA MANUFACTURER & MODEL:	1X KATHREIN 800 10634							
	AZIMUTH:	270° MAG (280° TRUE)	٦	AZIMUTH:	270° MAG (280° TRUE)							
22	HEIGHT ABOVE CONCRETE LEVEL:	52'		HEIGHT ABOVE CONCRETE LEVEL:	52'							
0	TECHNOLOGY 690-960 MHZ PORTS:	GSM/850 / SHARED RRU	СТО	TECHNOLOGY 690-960 MHZ PORTS:	UMTS/850 / SHARED RRU							
ЕСТО	DOWNTILT 690-960 MHZ PORTS:	0° MECH, 2° ELEC	EC	DOWNTILT 690-960 MHZ PORTS:	0° MECH, 5° ELEC							
SE	COAX SPECS 690-960 MHZ PORTS:	(1X) AVA5-50A, 1 CAPPED PORT	$\overline{S}$	COAX SPECS 690-960 MHZ PORTS:	(1X) AVA5-50A, 1 CAPPED PORT							
7	TECHNOLOGY 1710-2170 MHz PORTS:	NA	G1	TECHNOLOGY 1710-2170 MHz PORTS:	NA							
	DOWNTILT 1710-2170 MHz PORTS:	NA		DOWNTILT 1710-2170 MHz PORTS:	NA							
	COAX SPECS 1710-2170 MHz PORTS:	NA		COAX SPECS 1710-2170 MHz PORTS:	NA							



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CURRENT REV	DATE				
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DESIGNER:

ALYSSA BLAIR/ANGELA JONES

REVIEWER:

MATTHEW E. FISHER

### APPROVED FOR CONSTRUCTION

2 DECEMBER 2015

PROJECT NAME:

#### **HAYDEN**

PROJECT ADDRESS:

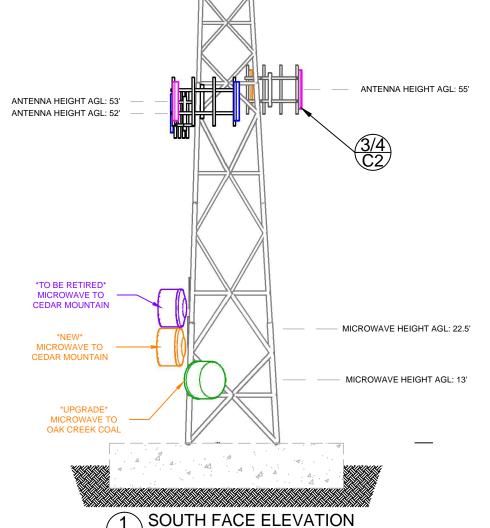
6985 HOMESTEADER LANE 2 HAYDEN, ROUTT COUNTY, COLORADO

SHEET TITLE:

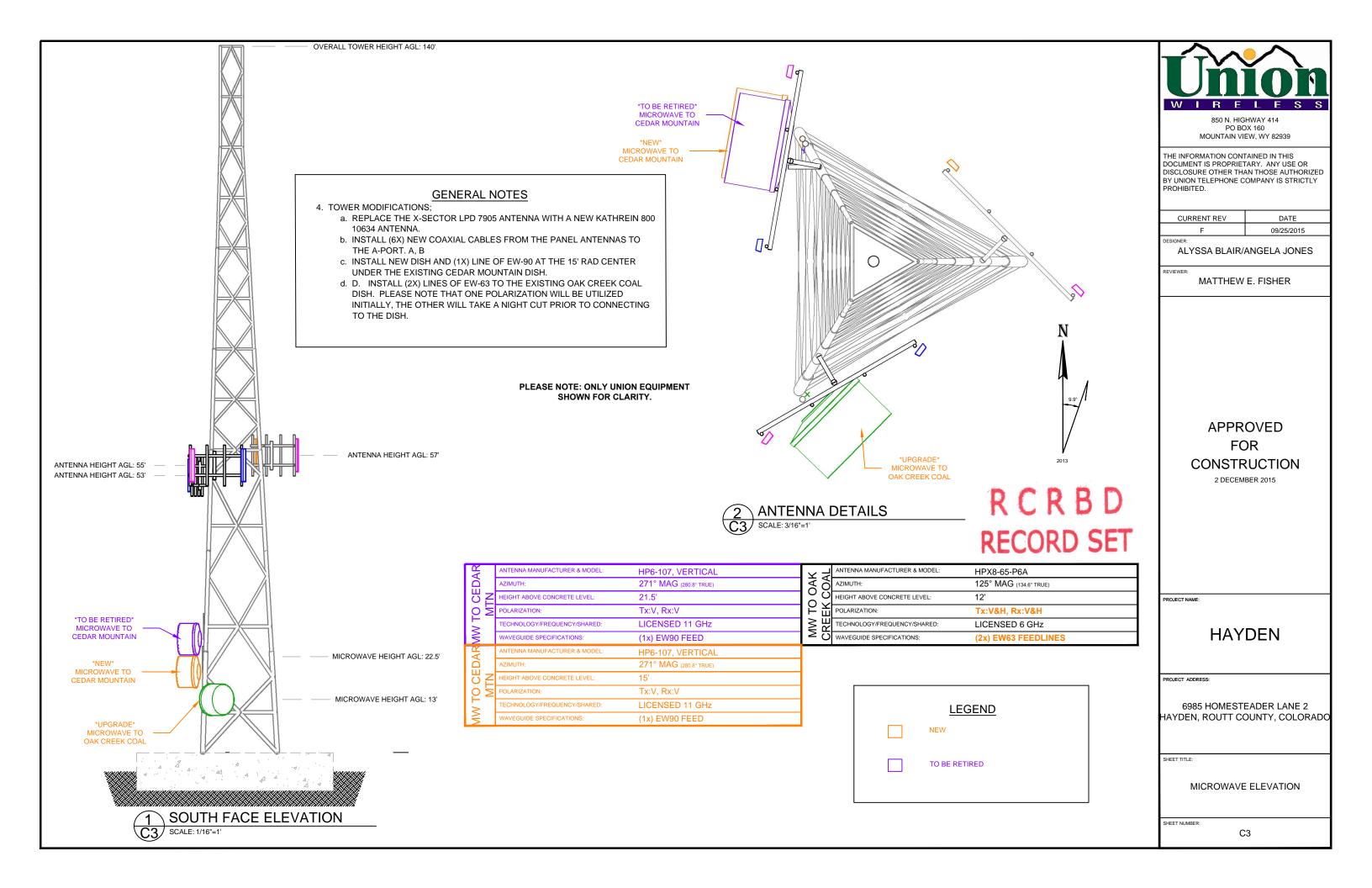
PANEL ANTENNA ELEVATION

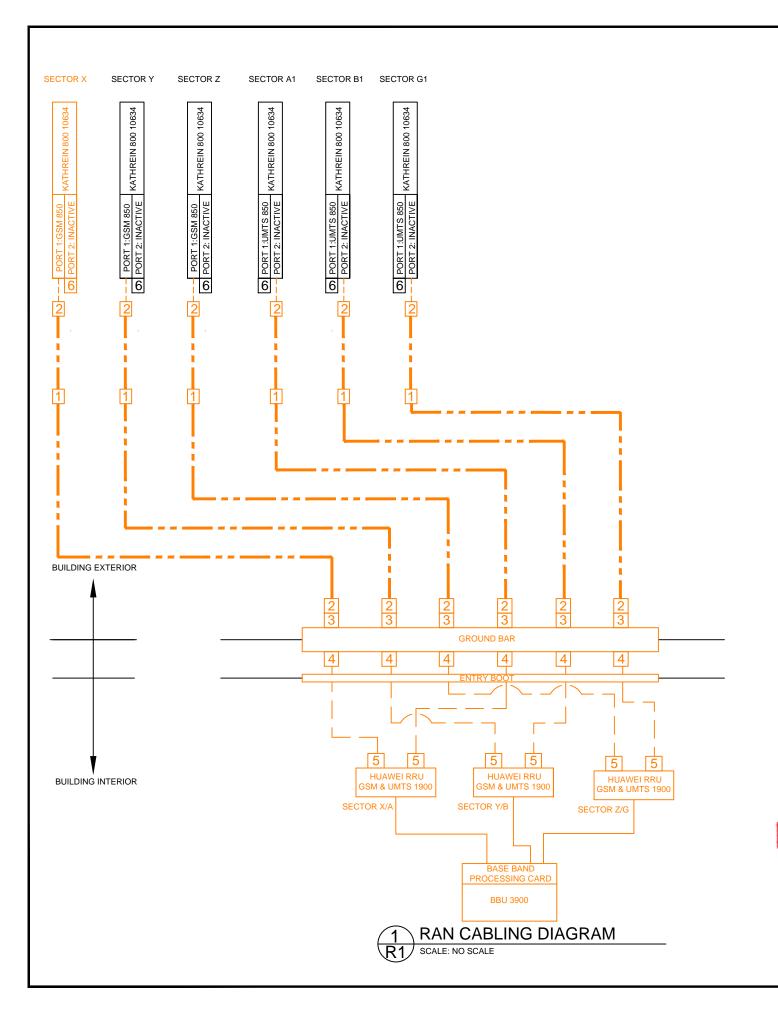
SHEET NUMBER:

C2



SCALE: 1/16"=1'

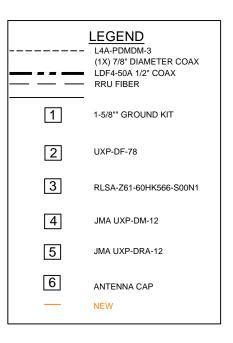




#### **GENERAL NOTES**

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  - b. USE THE EXISTING ENTRY BOOT FOR THE NEW LINES AND MW. THIS WILL REQUIRE GROUNDING WITH GROUND BARS AND BFDS FOR THE COAX.
- 3. ELECTRONICS SHELTER INSTALLS;
  - a. INSTALL CABLE LADDERS.
  - b. INSTALL DC PLANT PER THE CDS. WIRE IN AC POWER TO THE DC PLANT.
  - c. INSTALL RACKS, HUAWEI CABINET, AND TELLABS 8611 ROUTERS.
  - d. INSTALL NEW MW RADIOS FOR THE UPGRADED PATHS THIS SHOULD INCLUDE RACK-MOUNTED ODU'S AND (2X) MODEMS PER HOP.
- 4. TOWER MODIFICATIONS:
  - a. REPLACE THE X-SECTOR LPD 7905 ANTENNA WITH A NEW KATHREIN 800 10634 ANTENNA. b. INSTALL (6X) NEW COAXIAL CABLES FROM THE PANEL ANTENNAS TO THE A-PORT. A, B
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- 5. NEW MW PATH TO CEDAR MOUNTAIN CUT;
  - a. [MAINTENANCE] CUT UTC-OWNED AC POWER FROM OLD EQUIPMENT BUILDING.
  - b. COMMISSION NEW RADIO ON NEW DISH.
  - c. CUT TRAFFIC TO NEW RADIO ON VERTICAL RF CHANNEL INITIALLY.
- d. DECOMMISSION & REMOVE THE NLITE-L MICROWAVE RADIO. RETURN TO WH.
- e. COMMISSION FULL PATH.
- 6. NEW MW PATH TO OAK CREEK COAL CUT;
- a. CUT TRAFFIC TO NEW RADIO ON VERTICAL RF CHANNEL.
- b. DECOMMISSION & REMOVE THE NLITE-L MICROWAVE RADIO FROM THE HORIZONTAL RF CHANNEL.
- d. CONFIGURE TRAFFIC TO RUN ON BOTH VERTICAL & HORIZONTAL RF CHANNELS.
- e. COMMISSION FULL PATH.
- 7. RETIREMENTS:
- a. RETIRE THE OLD CEDAR MOUNTAIN MW DISH AND ASSOCIATED LINES AS WELL AS THE LPD 7905 PANEL ANTENNA AND 7/8" LINES FROM THE TOWER.
- b. RETIRE THE OLD ELECTRONICS FROM THE OLD EQUIPMENT SHELTER.
- c. PLEASE PERFORM AN AUDIT OF THE EXISTING CPRS SIMPLY STATING WHAT IS PRESENT ON SITE TODAY ON THE EXISTING EXCEL SHEET.

RCRBD RECORD SET





850 N. HIGHWAY 414 PO BOX 160 MOUNTAIN VIEW, WY 82939

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ALYSSA BLAIR/ANGELA JONES

MATTHEW E. FISHER

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2 DECEMBER 2015

PROJECT NAME

**HAYDEN** 

PROJECT ADDRESS:

6985 HOMESTEADER LANE 2 HAYDEN, ROUTT COUNTY, COLORADO

SHEET TITLE:

RAN CABLING DIAGRAM

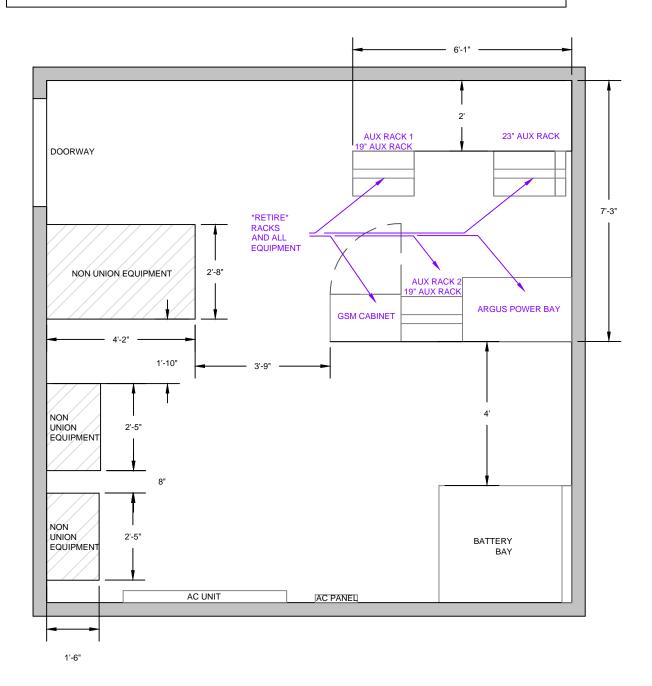
SHEET NUMBER

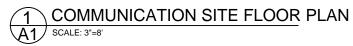
R1

#### **GENERAL NOTES**

#### 7. RETIREMENTS;

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DESIGNER:

ALYSSA BLAIR/ANGELA JONES

DEVIEWED:

MATT E. FISHER

## APPROVED FOR CONSTRUCTION

2 DECEMBER 2015

### R C R B D RECORD SET

PROJECT NAMI

#### **HAYDEN**

PROJECT ADDRESS:

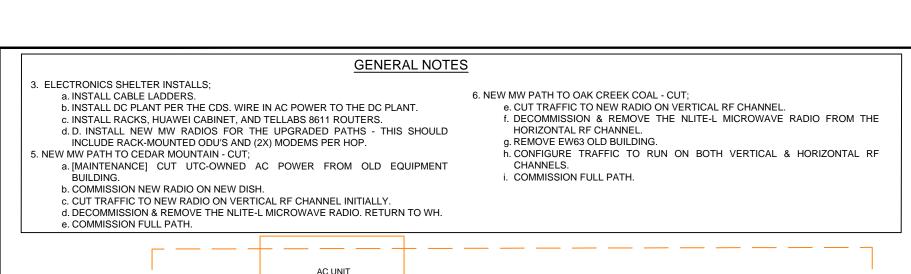
6985 HOMESTEADER LANE 2 HAYDEN, ROUTT COUNTY, COLORADO

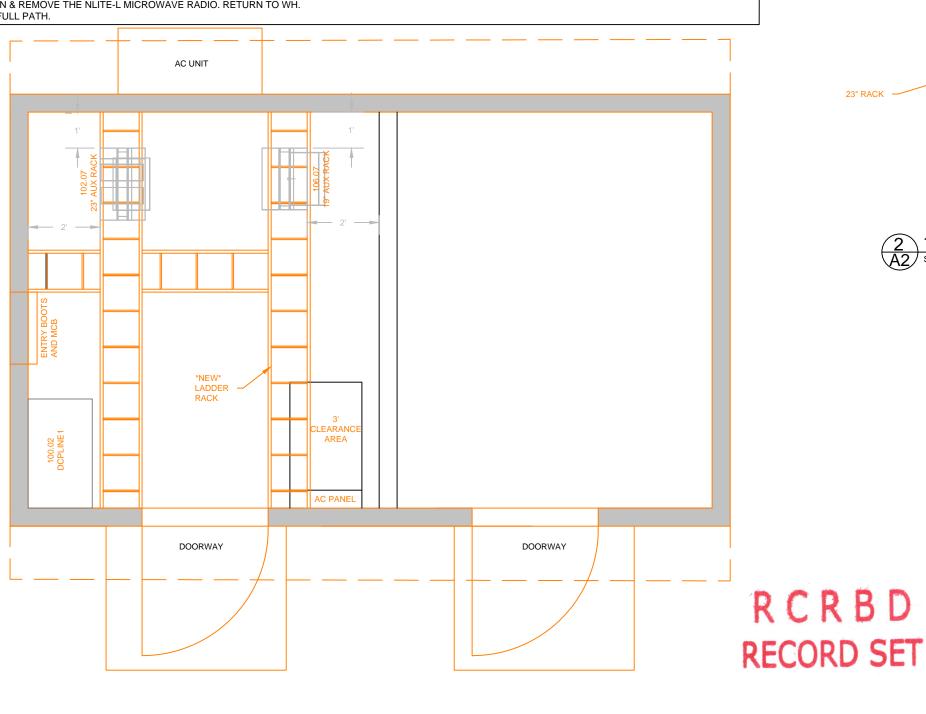
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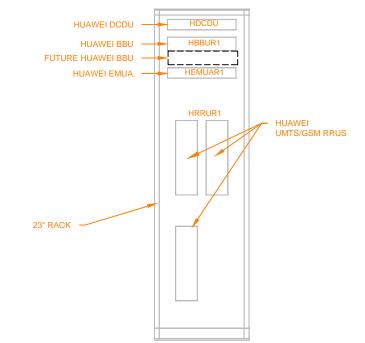
OLD EQUIPMENT BUILDING LAYOUT (TO BE RETIRED)

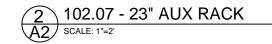
SHEET NUMBER:

Α1

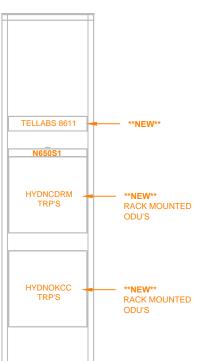


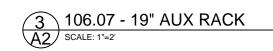






NOTE: PLEASE PROVIDE HEIGHT MEASUEMENTS IN AS BUILTS





NOTE: PLEASE PROVIDE HEIGHT MEASUEMENTS IN AS BUILTS



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REVIEWER:

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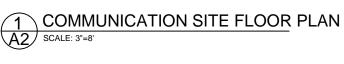
6985 HOMESTEADER LANE 2 HAYDEN, ROUTT COUNTY, COLORADO

SHEET TITLE:

**NEW EQUIPMENT BUILDING LAYOUT** 

SHEET NUMBER

A2



P1 200A, 120/240VAC, 1Φ/3W													
Load	Volt Amper		Wire	e Breaker				Brea	ıker	Wire	Volt Amper		Load
	Α	В		Р	Trip			Trip	Р		Α	В	
HVAC	3420		10	2	40	1	2	20	2	12	1680		Lineage Rectifier
		3420	10	2	40	3	4	20	2	12		1680	
Lights	560		12	1	20	5	6	20	2	12	1680		Lineage Rectifier
Receptacles		540	12	1	20	7	8	20		12		1680	
Lineage Rectifier	1680		12	2	20	9	10	20	2	12	0		Spare
		1680	12		20	11	12	20		12		0	
Lineage Rectifier	1680		12	2	20	13	14	20	2	12	0		Spare
		1680	12		20	15	16	20		12		0	
Spare	0		12	2	20	17	18	20	2	12	0		Spare
		0	12		20	19	20	20		12		0	
Spare	0		12	2	20	21	22	20	2	12	0		Spare
		0	12		20	23	24	20	_	12		0	
Spare	0		12	2	20	25	26	20	2	12	0		Spare
		0	12		20	27	28	20	_	12		0	
Space	-		-	-	-	29	30	-	-	-	-		Space
Space		-	-	-	-	31	32	-	-	-		-	Space
Volt Amperes Per Phase	7340	7320									3360	3360	Volt Amperes Per Phase
						10700	10680						Total Volt Amperes
						89	89						Total Amps Per Phase
						111							Amps x 125%
						122							x 110% for Main







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 A
 11/15/15

DESIGNER:

ANGELA JONES

REVIEWER:

MATTHEW FISHER

## APPROVED FOR CONSTRUCTION

2 DECEMBER 2015

PROJECT NAME:

HAYDEN

PROJECT ADDRESS:

6985 HOMESTEADER LANE 2 HAYDEN, ROUTT COUNTY, COLORADO

SHEET TITLE:

PANEL SCHEDULE

SHEET NUMBER:

E1