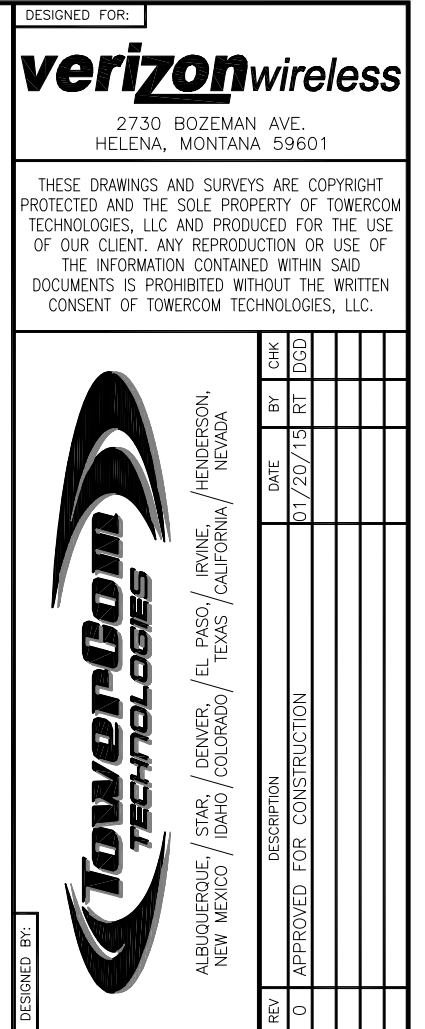




LATITUDE: 44°22'51.4"N

GRANT VILLAGE, WYOMING 82190
TETON COUNTY

EXISTING 119'-7" MONOPOLE MICROWAVE INSTALLATION PROJECT



REV	DESCRIPTION	DATE	BY	CHK
0	APPROVED FOR CONSTRUCTION	01/20/15	RT	DGD

PROJECT INDEX:

APPLICANT:
VERIZON WIRELESS
CONSTRUCTION DEPARTMENT
3131 VAUGHN WAY, SUITE 550
AURORA, COLORADO 80014

CONTACT: LANCE FUNN
PHONE: 303-489-7836
FAX: 303-873-2684

ENGINEERS/DESIGNERS:
TOWERCOM TECHNOLOGIES LLC
767 NORTH STAR RD.
STAR, ID 83669

CONTACT: MARK ANDERSON
PHONE: 208-286-0266 EXT. 106

ZONING/SITE AQ:
SR. REAL ESTATE SPECIALIST
4122 FACTORIA BLVD., SUITE 303 -
BELLEVUE, WA, 98006

CONTACT: PATRICIA ZITTELMAN
PHONE: 206-883-7031

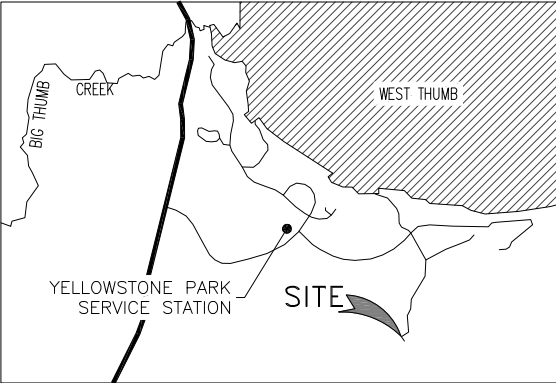
GENERAL PROJECT NOTES:	
1.	PRIOR TO SUBMITTING A BID, THE CONTRACTOR SHALL FAMILIARIZE HIMSELF/HERSELF WITH THE SCOPE OF WORK AND ALL CONDITIONS AFFECTING THE NEW PROJECT.
2.	CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS AND DIMENSIONS OF THE JOB SITE AND CONFIRM THAT WORK AS INDICATED ON THESE CONSTRUCTION DOCUMENTS CAN BE ACCOMPLISHED AS SHOWN PRIOR TO COMMENCEMENT OF ANY WORK.
3.	ALL FIELD MODIFICATIONS BEFORE, DURING, OR AFTER CONSTRUCTION SHALL BE APPROVED IN WRITING BY A VERIZON WIRELESS REPRESENTATIVE.
4.	INSTALL ALL EQUIPMENT AND MATERIALS PER THE MANUFACTURER'S RECOMMENDATIONS, U.N.O.
5.	NOTIFY VERIZON WIRELESS, IN WRITING, OF ANY MAJOR DISCREPANCIES REGARDING THE CONTRACT DOCUMENTS, EXISTING CONDITIONS, AND DESIGN INTENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATIONS FROM A VERIZON WIRELESS REPRESENTATIVE AND ADJUSTING THE BID ACCORDINGLY.
6.	CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF THE WORK UNDER THE CONTRACT.
7.	CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS AND FINISHES THAT ARE TO REMAIN. CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY OCCUR DURING THE CONSTRUCTION TO THE SATISFACTION OF A VERIZON WIRELESS REPRESENTATIVE.
8.	THE CONTRACTOR IS RESPONSIBLE FOR RED-LINING THE CONSTRUCTION PLANS TO ILLUSTRATE THE AS BUILT CONDITION OF THE SITE. FOLLOWING THE FINAL INSPECTION BY VERIZON WIRELESS, THE CONTRACTOR SHALL PROVIDE VERIZON WIRELESS WITH ONE COPY OF ALL RED-LINED DRAWINGS.
9.	VERIFY ALL FINAL EQUIPMENT WITH A VERIZON WIRELESS REPRESENTATIVE. ALL EQUIPMENT LAYOUT, SPECS, PERFORMANCE INSTALLATION AND THEIR FINAL LOCATION ARE TO BE APPROVED BY VERIZON WIRELESS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS/HER WORK WITH THE WORK AND CLEARANCES REQUIRED BY OTHERS RELATED TO SAID INSTALLATIONS.

PROJECT INFORMATION:	
PROPERTY OWNER:	UNITED STATES OF AMERICA
JURISDICTION:	TETON COUNTY


PROJECT DESCRIPTION:
THIS PROJECT CONSISTS OF THE FOLLOWING: <u>INSTALLATION</u> <ul style="list-style-type: none">• ONE (1) PROPOSED HP MICROWAVE ANTENNA• ONE (1) PROPOSED ICE SHIELD

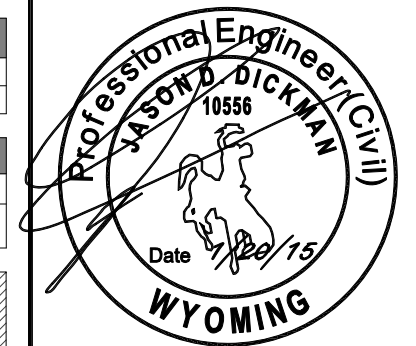
DRIVING DIRECTIONS:
LATITUDE: 44°21'51.8"N
LONGITUDE: 110°32'46.8"W
FROM THE VERIZON WIRELESS OFFICE LOCATED AT 2730 BOZEMAN AVE HELENA, MT 59601: HEAD EAST ON BOZEMAN AVE TOWARD CARTER DR FOR 0.3 MI, TAKE THE 1ST RIGHT ONTO CARTER DR FOR 0.6 MI, TAKE THE 3RD RIGHT ONTO PROSPECT AVE FOR 0.7 MI, TURN LEFT TO MERGE ONTO I-15 S TOWARD BUTTE FOR 27.0 MI, TAKE EXIT 164 FOR MT-69 TOWARD BOULDER FOR 0.2 MI, TURN LEFT ONTO MT-69 S FOR 32.3 MI, TURN LEFT ONTO MT-2 E FOR 1.3 MI, CONTINUE ONTO MT-359 FOR 14.6 MI, TURN RIGHT ONTO U.S. 287 S FOR 90.9 MI, TURN RIGHT ONTO US-191 S/U.S. 287 S FOR 8.6 MI, TURN LEFT ONTO US-191 S/US-20 E/U.S. 287 S/YELLOWSTONE AVE FOR 14.0 MI, TURN LEFT ONTO US-89 N FOR 13.3 MI, TURN RIGHT ONTO NORRIS CANYON RD FOR ROAD IS (CLOSED IN WINTER) FOR 11.6 MI, TURN RIGHT ONTO GRAND LOOP RD FOR 15.4 MI, CONTINUE ONTO US-20 FOR 20.6 MI, TURN LEFT ONTO US-191 S/U.S. 287 S/US-89 S FOR 1.8 MI, TURN LEFT FOR 0.9 MI, TURN RIGHT FOR 0.7 MI, TURN RIGHT FOR 0.2 MI, SLIGHT RIGHT FOR 0.5 MI, SITE IS A MONOPOLE NEXT TO WATER TANK. (LOCATED ONE MILE BEHIND GRANT VILLAGE LODGE ON SOUTH END OF YELLOWSTONE LAKE - WEST THUMB.)

FCC COMPLIANCE:
FCC ID# KNRK311
RADIATION FROM THIS FACILITY WILL NOT INTERFERE WITH OPERATION OF OTHER COMMUNICATION DEVICES.



VICINITY MAP
SCALE: N.T.S.


NORTH



PROJECT NAME:	
WY3 GRANT VILLAGE EXISTING 119'-7" MONOPOLE (OVERALL HEIGHT: 136'-5" A.G.L.) MICROWAVE INSTALLATION PROJECT	
PROJECT ADDRESS:	
44°22'51.4"N 110°32'46.8"W GRANT VILLAGE, WYOMING 82190 TETON COUNTY	
SHEET TITLE:	
TITLE SHEET	
SAVE DATE:	
1/20/2015 6:09 PM	
SHEET NUMBER:	
T1	

GENERAL PROJECT NOTES:

1.

CONTRACTOR IS RESPONSIBLE FOR ERECTING TEMPORARY BARRICADES AND/OR FENCING TO PROTECT THE SAFETY OF THE PUBLIC DURING CONSTRUCTION. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY BARRIERS AND REPAIR ALL DAMAGE TO PROPERTY ON THE SITE CAUSED BY THIS CONSTRUCTION. THE COST OF REPAIR IS THE CONTRACTOR'S RESPONSIBILITY.
2.

ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS.
3.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL MEASUREMENTS AT THE SITE PRIOR TO ORDERING ANY MATERIALS OR CONDUCTING ANY WORK.
4.

EXCESS SOIL MATERIAL AND DEBRIS CAUSED BY THIS CONSTRUCTION SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER.
5.

CONTRACTOR SHALL MAKE ADJUSTMENTS TO GRADING ELEVATIONS AS NECESSARY TO ENSURE A SITE FREE OF DRAINAGE PROBLEMS.
6.

CONTRACTOR SHALL COORDINATE A CONSTRUCTION LAYDOWN AREA WITH THE PROPERTY OWNER. CONSTRUCTION LAYDOWN AREA SHALL BE FENCED-IN WITH TEMPORARY (45 DAY) CONSTRUCTION FENCE. THE TEMPORARY FENCE SHALL BE CONSTRUCTED OF 6' HIGH CHAIN LINK FABRIC AND IS TO BE REMOVED AT THE END OF CONSTRUCTION. LAYDOWN AREA IS TO BE RESTORED TO ITS ORIGINAL CONDITION AFTER FENCE REMOVAL.
7.

SURVEY INFORMATION SHOWN WAS CREATED FROM RECORD INFORMATION AND DOES NOT CONSTITUTE A LEGAL BOUNDARY SURVEY.
8.

THESE PLANS DO NOT ADDRESS THE SAFETY AND STABILITY OF THE STRUCTURE DURING ASSEMBLY AND ERECTION, WHICH ARE THE RESPONSIBILITY OF THE ERECTOR, BASED ON THE MEANS AND METHODS CHOSEN BY THE ERECTOR.

GENERAL CONTRACTOR NOTES:

1.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE PROJECT SCOPE OF WORK DEFINED UNDER THE REQUEST FOR PROPOSAL (RFP) FOR THIS PROJECT AND ALL ASSOCIATED ATTACHMENTS AND DOCUMENTS PROVIDED.

THE RFP AND ALL ASSOCIATED DOCUMENTS SHALL DEFINE THE COMPLETE PROJECT SCOPE OF WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL DOCUMENTS AND IS SOLELY RESPONSIBLE FOR ALL WORK.

ALL DOCUMENTS INCLUDED WITHIN THE PROJECT REQUEST FOR PROPOSAL ARE REQUIRED FOR THE COMPLETE PROJECT SCOPE OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK (EQUIPMENT, MATERIAL, INSTALLATION, TESTING, ETC.) INDICATED IN ALL DOCUMENTS. THE RFP, VERIZON WIRELESS NETWORK STANDARDS AND PROJECT ADDENDUMS AND CLARIFICATIONS ARE COMPLEMENTARY TO EACH OTHER. THE FORMAT OF THE SPECIFICATIONS AND DRAWING NUMBERING PER DISCIPLINE IS NOT INTENDED TO IMPLY SEGREGATION OF SUB CONTRACTOR WORK. CONTRACTOR SHALL ASSIGN ALL SUB CONTRACTOR WORK AND VERIZON WIRELESS WILL NOT ACCEPT ANY CHANGE ORDERS FOR INTERNAL CONTRACTOR WORK ASSIGNMENTS.

CONTRACTOR SHALL BE RESPONSIBLE FOR DISTRIBUTING ALL RFP DOCUMENTS TO THEIR SUB CONTRACTORS. ALL RFP DOCUMENTS ARE REQUIRED TO INDICATE THE PROJECT SCOPE OF WORK. PARTIAL SUB CONTRACTOR DOCUMENT PACKAGES ARE HIGHLY DISCOURAGED.

IN THE EVENT OF A CONFLICT BETWEEN THE DRAWINGS, SPECIFICATIONS, REFERENCED STANDARDS, VERIZON WIRELESS STANDARDS, OR AGREEMENT TERMS AND CONDITIONS THE ARCHITECT/ ENGINEER SHALL BE CONTACTED FOR FORMAL INTERPRETATION OF THE REQUIREMENTS. THE CONTRACTOR SHALL BE DEEMED TO HAVE PROVIDED THE DETAILED AND EXTENSIVE INTERPRETATION. ANY WORK INSTALLED IN CONFLICT WITH THE ARCHITECT/ ENGINEER INTERPRETATIONS SHALL BE CORRECTED BY THE CONTRACTOR AT NO EXPENSE TO VERIZON WIRELESS.
2.

ALL ANTENNAS MUST BE PIM TESTED WITHIN 48 HOURS OF THEM BEING RECEIVED BY THE INSTALLATION CONTRACTOR. THOSE RESULTS MUST BE SENT BACK TO THE VERIZON WIRELESS CONSTRUCTION ENGINEER AND EQUIPMENT ENGINEER WITHIN THE SAME 48 HOURS. IF YOU MISS THE 48HR TIMELINE AND THE ANTENNAS DO NOT PASS UPON INSTALLATION, YOUR COMPANY WILL BE CHARGED FOR THE COST OF THE ANTENNAS FOR REPLACEMENT.
3.

ALL LOADS MUST BE SECURED PROPERLY TO THE VEHICLE OR TRAILER. VERIZON WIRELESS WILL PASS ALONG THE COST OF ANY REPLACEMENTS DUE TO DAMAGE OR LOSS WHETHER IT IS NEW OR USED.

ANTENNA, MOUNTS & HARDWARE INSTALLATION NOTES:

1.

CONTRACTOR TO INSTALL ANTENNAS, MOUNTS AND TOWER HARDWARE PER MANUFACTURER'S RECOMMENDATIONS (OR AS REQUIRED BY THE OWNER/PROVIDER).
2.

ALL BOLTS SHALL BE TIGHTENED PER AISC REQUIREMENTS.
3.

ANY GALVANIZED SURFACES THAT ARE DAMAGED BY ABRASIONS, CUTS, DRILLING OR FIELD WELDING DURING SHIPPING OR ERECTION SHALL BE TOUCHED-UP WITH TWO COATS OF COLD GALVANIZING COMPOUND MEETING THE REQUIREMENTS OF ASTM A780.
4.

ANTENNA MOUNTS SHALL NOT BE USED AS A CLIMBING DEVICE. WORKERS SHALL ALWAYS TIE OFF TO AN APPROVED CLIMBING POINT.
5.

SEE ALSO GENERAL ANTENNA NOTES ON SHEET RF1 (IF APPLICABLE).

MAIN OVP, SECTOR BOX, RRR, TMA, & DIPLEXER INSTALLATION NOTES:

1.

CONTRACTOR TO INSTALL MAIN OVP, SECTOR BOXES, REMOTE RADIO HEADS, TOWER MOUNTED AMPLIFIERS, AND/OR DIPLEXERS PER MANUFACTURER'S RECOMMENDATIONS.
2.

ALL BOLTS SHALL BE TIGHTENED PER AISC REQUIREMENTS.
3.

ANY GALVANIZED SURFACES THAT ARE DAMAGED BY ABRASIONS, CUTS, DRILLING OR FIELD WELDING DURING SHIPPING OR ERECTION SHALL BE TOUCHED-UP WITH TWO COATS OF COLD GALVANIZING COMPOUND MEETING THE REQUIREMENTS OF ASTM A780.

COAX PORT NOTES:

1.

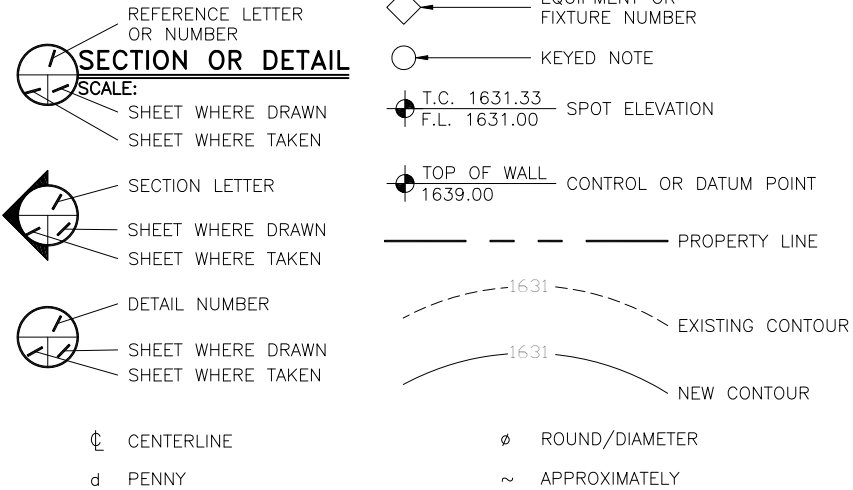
REQUIRED ADDITIONAL COAX PORTS TO BE ADDED AS NEEDED BY CONTRACTOR.
2.

ANY ADDITIONAL COAX PORTS TO BE INSTALLED BELOW THE EXISTING, WHERE POSSIBLE.
3.

CONTRACTOR TO INVESTIGATE INTERIOR OF SHELTER/EQUIPMENT ROOM FOR CLEAREST PENETRATION POINT.
4.

ADDITIONAL COAX PORTS TO BE INSTALLED PER INDUSTRY STANDARDS.

LEGEND OF SYMBOLS:



VIEW OF NEW MICROWAVE ANTENNA LOCATION



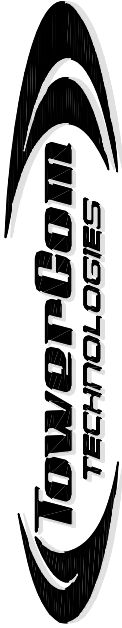
VIEW OF EXISTING MONOPOLE (LOOKING WEST)

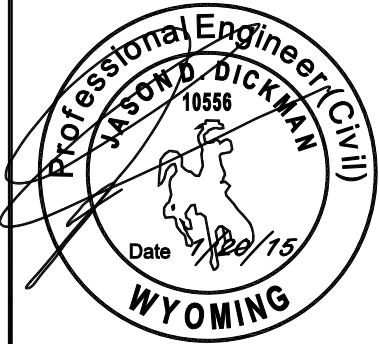
DESIGNED FOR:

verizonwireless

2730 BOZEMAN AVE.
HELENA, MONTANA 59601

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DESIGNED BY:			ALBUQUERQUE, / STAR, / DENVER, / EL PASO, / HENDERSON, / NEW MEXICO / IDAHO / COLORADO / TEXAS / CALIFORNIA / NEVADA		CHK	DGD				
					BY	RT				
					DATE					
					01/20/15					
REV	DESCRIPTION		APPROVED FOR CONSTRUCTION							



PROJECT NAME:

WY3 GRANT VILLAGE
EXISTING 119'-7" MONOPOLE
(OVERALL HEIGHT: 136'-5" A.G.L.)
MICROWAVE INSTALLATION PROJECT

PROJECT ADDRESS:

44°22'51.4"N 110°32'46.8"W
GRANT VILLAGE, WYOMING 82190
TETON COUNTY

SHEET TITLE:

SPECIFICATION & PHOTO
SHEET

SAVE DATE:

1/20/2015 6:09 PM

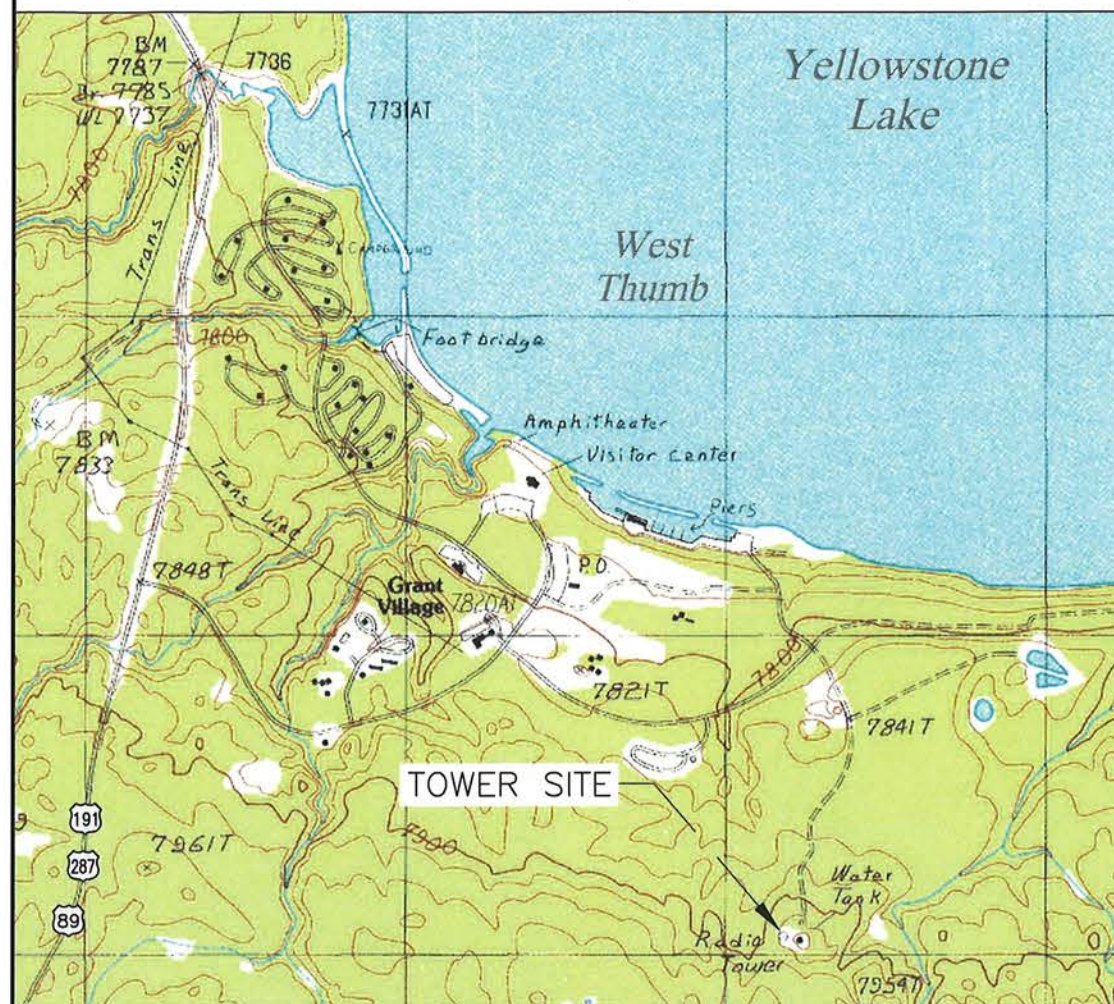
SHEET NUMBER:

SP1

SITE AREA SURVEY

GENERAL OVERLAY OF PROJECT AREA ON USGS QUADRANGLE MAP

GRANT VILLAGE,
YELLOWSTONE NATIONAL PARK,
TETON COUNTY, WYOMING



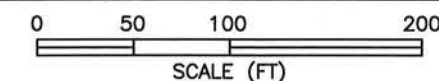
SITE LOCATION AND ACCESS OVERVIEW

SCALE: 1" = 2000'

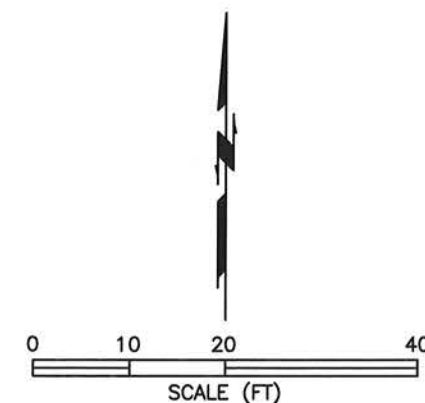


SITE LOCATION OVERVIEW

SCALE: 1" = 100'



REGIONAL MAP: 		VICINITY MAP: 		EXISTING STRUCTURE REPORT: (APPROXIMATED BY GOOGLE EARTH) NAD 83: 44°21'51.8" N 110°32'46.8" W DECIMAL 44.364389° N DEGREES: 110.546333° W NAD 27: 44°21'52.01" N 110°32'44.06" W NAVD88: 7945.0' (GROUND) NGVD 29: 7940.5'		BASIS OF BEARING AND DATUM NOTE: 		PROJECT NAME: VERIZON WIRELESS WY3 GRANT VILLAGE		DESIGNED FOR: 	
PARENT PARCEL OWNER: YELLOWSTONE NATIONAL PARK CONTACT: _____ PHONE: _____		DRIVING DIRECTIONS: From Cody, Wyoming take US-14/US-16/US-20/WY-120 west, drive West to the East entrance of Yellowstone National Park, turn left on the Grand Loop Road and head to West Thumb/South Entrance for 20.6 miles turn left onto US-191 S for 1.8 miles, turn left for 0.9 miles, turn right for 0.7 mi., turn right for 0.2 mi., slight right for 0.5 mi., site is a monopole next to a water tank. (located one mile behind Grant Village Lodge)		SURVEYOR'S NOTE & CERTIFICATION: This drawing was prepared for preliminary purposes using Google Earth and USGS Quad images, and field sketches provided by TowerCom, and is subject to change as a result of an actual field survey conducted under my direct supervision, which has not been conducted.		PROJECT ADDRESS: GRANT VILLAGE YELLOWSTONE NATIONAL PARK TETON COUNTY WYOMING 82190		DESIGNED BY: 			
PUBLIC RECORD PARCEL I.D.: YELLOWSTONE NATIONAL PARK		COMMUNICATIONS FACILITY OWNER: EXISTING TOWER EXISTING TOWER		DATE OF SURV.: (NONE)		SHEET TITLE: SITE LOCATION AND ACCESS OVERVIEW SITE LOCATION OVERVIEW		TCT SITE I.D.: WY3 GRANT VILLAGE SHEET INFO.: Sheet 1 of 2 SU1			



DESIGNED FOR:
verizonwireless

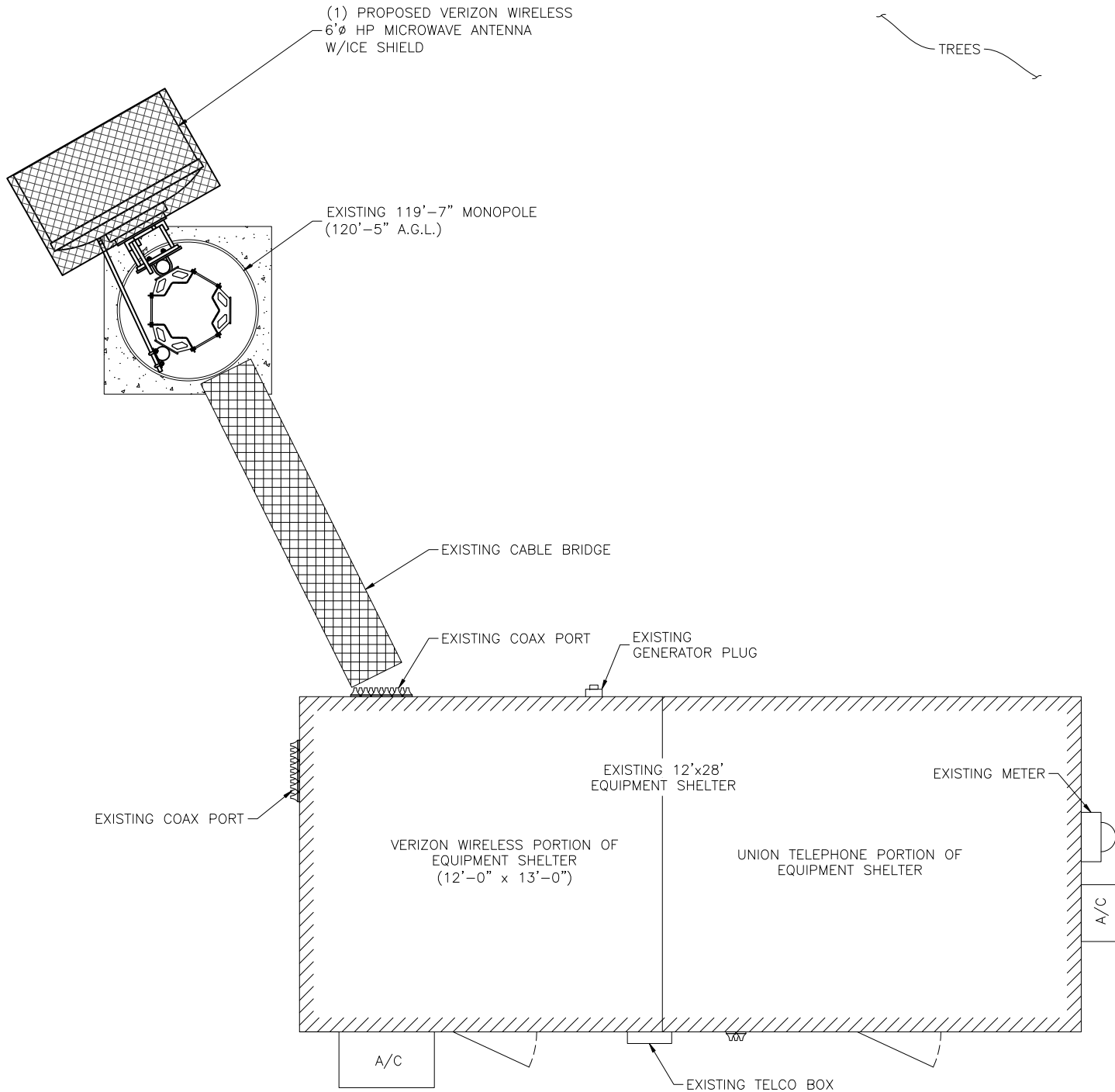
DESIGNED BY:
TowerCom
TECHNOLOGIES
ALBUQUERQUE / STAR / EL PASO / LAS VEGAS / DENVER
NEW MEXICO / IDAHO / TEXAS / NEVADA / COLORADO

SHEET TITLE:
SITE AND STRUCTURE DETAIL

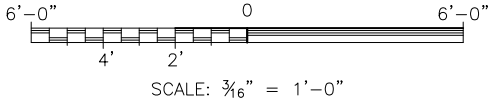
TCT SITE I.D.:	WY3 GRANT VILLAGE
SHEET INFO.:	Sheet 2 of 2 SU2

GENERAL SITE PLAN NOTES:

1. INFORMATION SHOWN BELOW FOR DEPICTION PURPOSES ONLY. ALL DATA GATHERED FROM PUBLIC RECORDS AND GENERATED FROM AERIAL IMAGES AND SITE VISITS. INFORMATION DOES NOT CONSTITUTE A LEGAL BOUNDARY SURVEY AND SHOULD NOT BE USED FOR SURVEYING OR OTHER RELATED PURPOSES.
2. SITE PLAN DATA AS SHOWN IS BASED UPON A LIMITED SITE MAPPING OF THE SURROUNDING AREA AND ARCHIVED SURVEY DOCUMENTS. DATA AS SHOWN IS FOR REFERENCE ONLY. CONFIRMATION AND PROOF OF LEASE AREA AND/OR EASEMENTS IS BEYOND THE SCOPE OF THIS PROJECT.



SITE PLAN



APPROVED
FOR CONSTRUCTION

DESIGNED FOR:

verizonwireless

2730 BOZEMAN AVE.
HELENA, MONTANA 59601

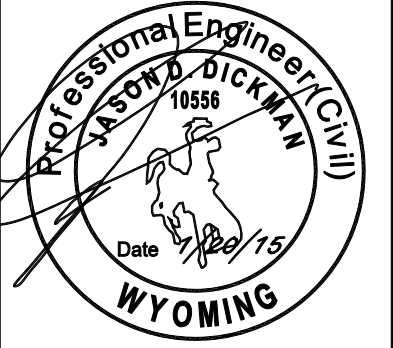
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DESIGNED BY:

TowerCom TECHNOLOGIES

ALBUQUERQUE, / STAR, / DENVER, / EL PASO, / IRVINE, / HENDERSON, / NEVADA
NEW MEXICO / IDAHO / COLORADO / TEXAS / CALIFORNIA

REV	DESCRIPTION	DATE	BY	CHK
0	APPROVED FOR CONSTRUCTION	01/20/15	RT	DGD



PROJECT NAME:

WY3 GRANT VILLAGE
EXISTING 119'-7" MONOPOLE
(OVERALL HEIGHT: 136'-5" A.G.L.)
MICROWAVE INSTALLATION PROJECT

PROJECT ADDRESS:

44°22'51.4"N 110°32'46.8"W
GRANT VILLAGE, WYOMING 82190
TETON COUNTY

SHEET TITLE:

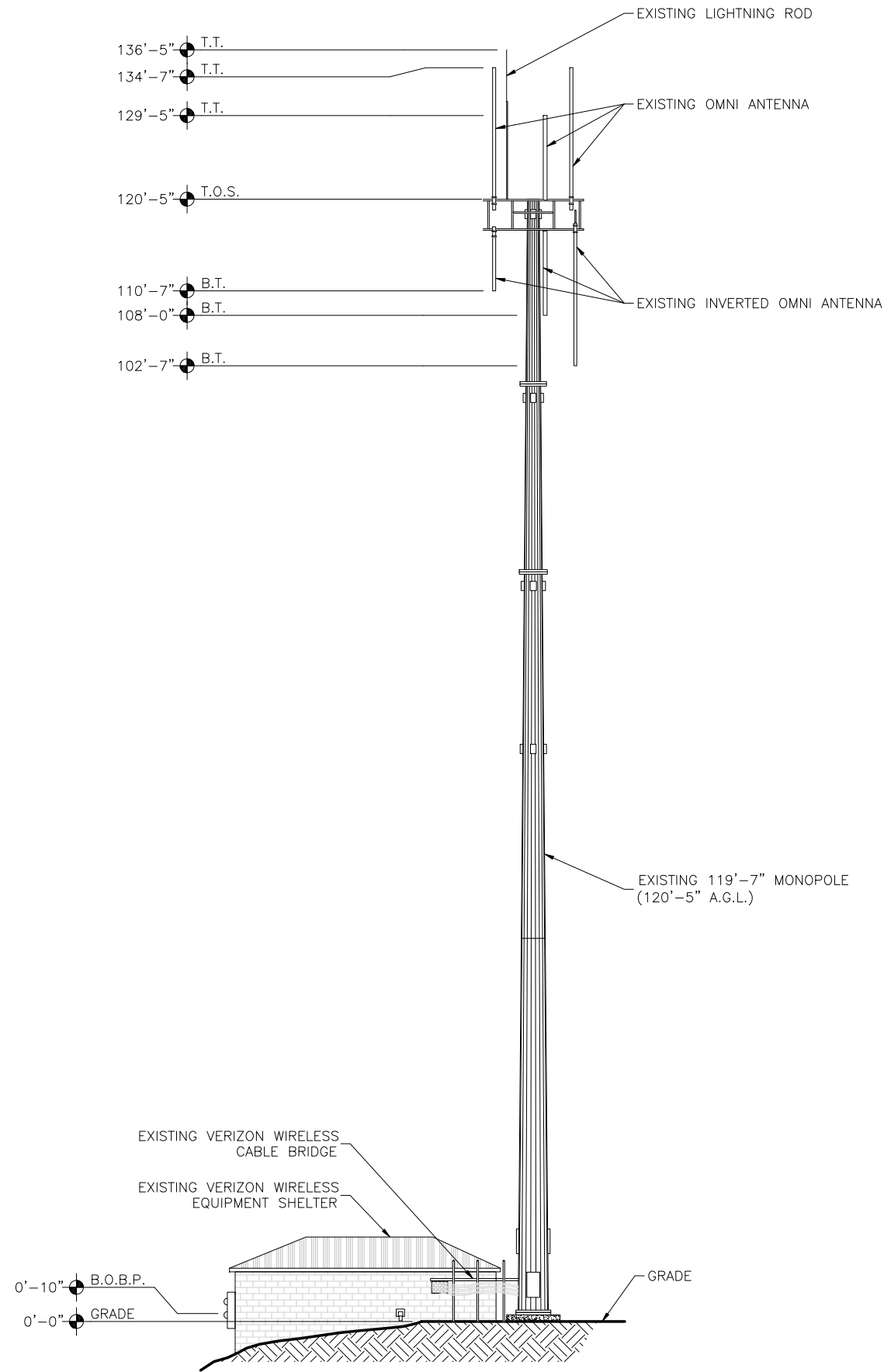
SITE PLAN

SAVE DATE:

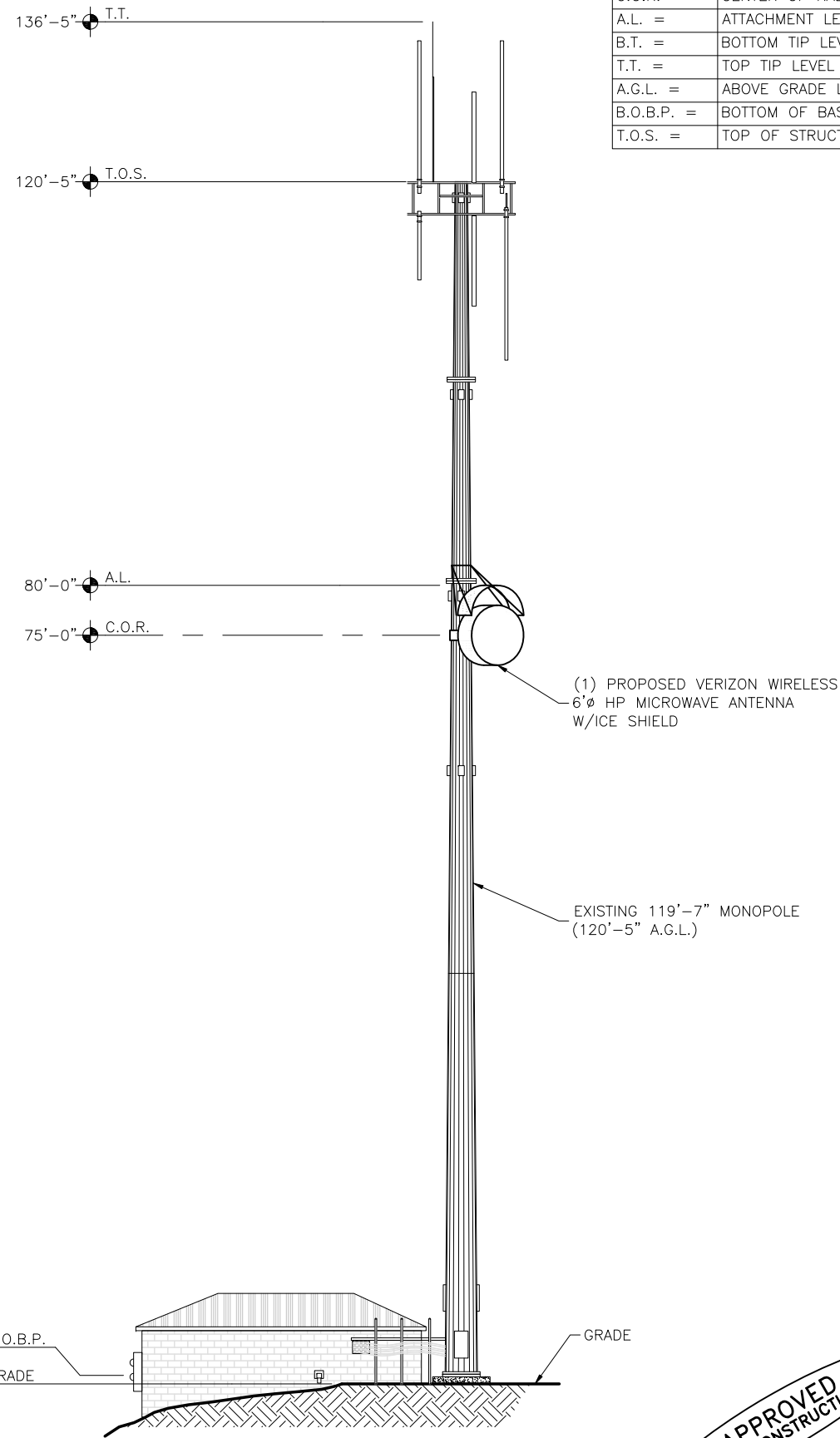
1/20/2015 6:09 PM

SHEET NUMBER:

Z1



EXISTING NORTHEAST ELEVATION
SCALE: N.T.S.



PROPOSED NORTHEAST ELEVATION
SCALE: N.T.S.

KEY:	
C.O.R. =	CENTER OF RADIATION
A.L. =	ATTACHMENT LEVEL
B.T. =	BOTTOM TIP LEVEL
T.T. =	TOP TIP LEVEL
A.G.L. =	ABOVE GRADE LEVEL
B.O.B.P. =	BOTTOM OF BASE PLATE
T.O.S. =	TOP OF STRUCTURE

APPROVED
FOR CONSTRUCTION

DESIGNED FOR:

2730 BOZEMAN AVE.
HELENA, MONTANA 59601

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DESIGNED BY:

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NEW MEXICO / IDAHO / COLORADO / TEXAS / CALIFORNIA

REV	DESCRIPTION	DATE	BY	CHK	DGD
0	APPROVED FOR CONSTRUCTION	01/20/15	RT		

Professional Engineer (Civil)
JASON P. DICKMAN
10556
Date 1/20/15
WYOMING

PROJECT NAME:

WY3 GRANT VILLAGE
EXISTING 119'-7" MONOPOLE
(OVERALL HEIGHT: 136'-5" A.G.L.)
MICROWAVE INSTALLATION PROJECT

PROJECT ADDRESS:

44°22'51.4"N 110°32'46.8"W
GRANT VILLAGE, WYOMING 82190
TETON COUNTY

SHEET TITLE:

ELEVATIONS

SAVE DATE:

1/20/2015 6:09 PM

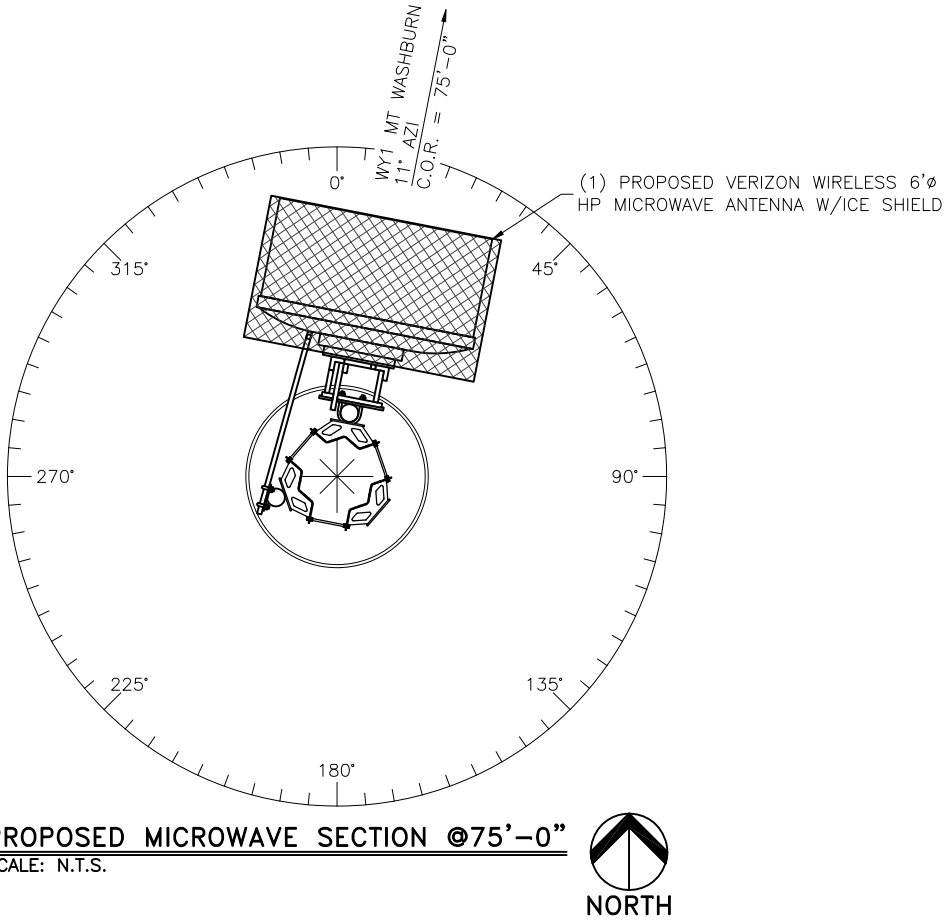
SHEET NUMBER:

22

GENERAL ANTENNA NOTES:	
1	CONTRACTOR TO VERIFY MECHANICAL DOWNTILT WITH FINAL SMR/RF ENGINEER.
2	DUAL POLAR ANTENNAS REQUIRE TWO RUNS OF COAX PER ANTENNA.
3	CONTRACTOR TO VERIFY ALL ACTUAL LENGTHS IN FIELD PRIOR TO INSTALLATION AND NOTIFY THE FIELD ENGINEER FOR VERIFICATION OF SIZES OF CABLES.
4	CONTRACTOR TO PROVIDE AS BUILT FOR THE LENGTH OF CABLES UPON COMPLETION OF INSTALLATION.
5	CONTRACTOR TO PROVIDE FINAL CABLE LENGTHS AND RETURN LOSSES FOR ALL CABLES.
6	ALL AZIMUTHS REFERENCE TRUE NORTH. CONSULT REQUIRED QUADRANGLE MAP FOR NECESSARY MAGNETIC DECLINATION.

PROPOSED VERIZON WIRELESS MICROWAVE SCHEDULE:							
ATTACH LEVEL (COR)	AZIMUTHS (DEG., TN)	ANTENNA TYPE	ANTENNA QUANTITY	MOUNT TYPE	COAX (QUANTITY) SIZE (NOMINAL)	ESTIMATED COAX CABLE LENGTH	FACING
75'-0"	11°	RFS UXA6-59 6'Ø HP MICROWAVE ANTENNA WITH ICE SHIELD	1	SEE ANTENNA MOUNT SCHEDULE	(1) EW52	~120'	WY1 MT WASHBURN
NOTES:							
1.	FOR EXACT MICROWAVE INFORMATION REFER TO THE MICROWAVE DESIGN.						

ANTENNA MOUNT SCHEDULE:		
QUANTITY	DESCRIPTION	PART NUMBER(S)
1	UNIVERSAL MICROWAVE MOUNTING KIT	C10-153 OR C10-172
NOTE: ALL PRODUCTS ARE FROM "SABRE SITE SOLUTIONS" PHONE: (866) 428-6937 / (712) 293-1964 WWW.SABRESITESOLUTIONS.COM		



NOTICE:	
1.	CONTRACTOR SHALL NOT SUBMIT BIDS OR PERFORM CONSTRUCTION WORK ON THIS PROJECT WITHOUT ACCESS TO THE CURRENT COMPLETE SET OF DRAWINGS LISTED IN THE TITLE-SHEET INDEX.

GROUNDING NOTE:	
1.	ALL PROPOSED EQUIPMENT & COAX TO BE GROUNDED PER VERIZON WIRELESS GROUNING SPECS


DESIGNED FOR:

verizonwireless

2730 BOZEMAN AVE.
HELENA, MONTANA 59601

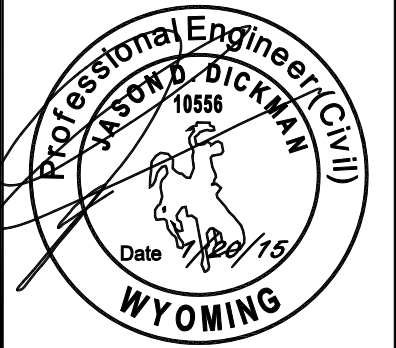
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DESIGNED BY:



ALBUQUERQUE, / STAR, / DENVER, / EL PASO, / IRVINE, / HENDERSON, / NEW MEXICO / IDAHO / COLORADO / TEXAS / CALIFORNIA / NEVADA

REV	DESCRIPTION	DATE	BY	CHK	DGD
0	APPROVED FOR CONSTRUCTION	01/20/15	RT		



PROJECT NAME:

WY3 GRANT VILLAGE
EXISTING 119'-7" MONOPOLE
(OVERALL HEIGHT: 136'-5" A.G.L.)
MICROWAVE INSTALLATION PROJECT

PROJECT ADDRESS:

44°22'51.4"N 110°32'46.8"W
GRANT VILLAGE, WYOMING 82190
TETON COUNTY

SHEET TITLE:

ANTENNA INFORMATION

SAVE DATE:

1/20/2015 6:09 PM

SHEET NUMBER:

RF1

APPROVED
FOR CONSTRUCTION

Technical Data Sheet UXA6-59CC



PrimeLine Antenna, Ultra High Performance, High Cross Polar Discrimination, Dual Polarized, 6 ft

Product Description
(Only available in North and Central America)

RFS PrimeLine Antennas are designed for all microwave applications that require best RF performance, especially where interference could be an issue.
A choice between tested and validated ultra-high (ETSI EN 302 217 Class 3 and FCC Class A) electrical performance.
Sizes ranging from 0.6 m (2 ft) to 4.6 m (15 ft)
Dual-polarized models with the ability to change frequencies in the field in most cases



Features/Benefits

- Extremely high XPD performance for complete isolation between the radions in each polarization
- Excellent radiation patern envelope (RPE), particularly in cross-polar area
- Support for winds up to 200 km/h (125 mph) with high-wind versions that support winds up to 252 km/h (155 mph) and an optional sway bar for added assurance in case mistakes are made during installation
- A single-piece configuration and compact packaging to reduce transportation costs
- Frequencies ranging from 4 GHz to 23 GHz with support for one ultra wideband frequency range (5.725-7.125 GHz) to reduce antenna requirements and simplify logistics

Technical Features

Product Type	Point to point antennas
Frequency, GHz	5.925 - 6.425
Diameter, ft (m)	6 (1.8)
Profile	PrimeLine
Reflector	1-part
Swaybar	1: (2.0 m x Ø60 mm)
optional Swaybar	1: SMA-SK-60-2000A (2.0 m x Ø60mm)
Performance	Ultra High, High Cross Polar Discrimination
Polarization	Dual
Regulatory Compliance	ETSI EN 302217 Range 1, class 3 , FCC Category A
3dB beamwidth, (degrees)	1.9
Antenna Input	CPR137G
Low Band Gain, dBi	38.4
Mid Band Gain, dBi	38.7
High Band Gain, dBi	39
F/B Ratio, dB	69
XPD, dB	40
IPI, dB	45
Max VSWR / R L, dB	1.06 (30.7)
Elevation Adjustment, degrees	± 5
Azimuth Adjustment, degrees	± 5
Polarization Adjustment, degrees	± 5
Radome	flexible
Antenna color	White RAL 9010
Mounting Pipe Diameter minimum, mm (in)	114 (4.5)
Mounting Pipe Diameter maximum, mm (in)	114 (4.5)
Approximate Weight, kg (lb)	95 (209)
Survival Windspeed, km/h (mph)	200 (125)
Operational Windspeed, km/h (mph)	190 (118)
Further Accessories	SMA-WK-6A : Wind Kit< br />SMA-SKO-UNIVERSAL-L : Universal sway bar fixation kit

RFS The Clear Choice ®

UXA6-59CC

Rev: A / 05. Apr 12

Print Date: 22.10.2014

Please visit us on the internet at <http://www.rfsworld.com/>

Radio Frequency Systems

DESIGNED FOR:

verizonwireless

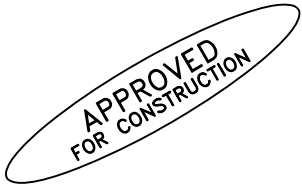
2730 BOZEMAN AVE.
HELENA, MONTANA 59601

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REV	DESCRIPTION	DATE	BY	CHK	DGD
0	APPROVED FOR CONSTRUCTION	01/20/15	RT		



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GRANT VILLAGE, WYOMING 82190
TETON COUNTY

SHEET TITLE:

ANTENNA CUT SHEET

SAVE DATE:

1/20/2015 6:09 PM

SHEET NUMBER:

RF2

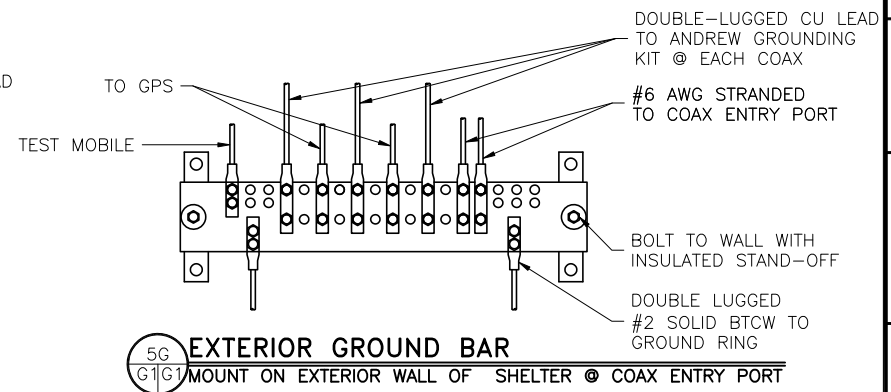
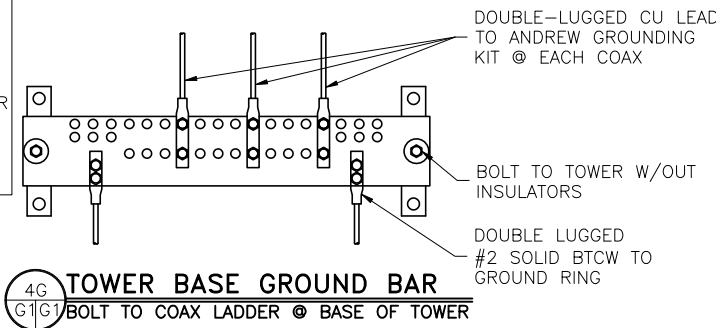
▲	CADWELD CONNECTION
●	COAX GROUND KIT
■	MECHANICAL CONNECTION
⊗	5/8"X8' CU CLAD STEEL GROUND ROD
— — —	#2 SOLID, TINNED, BARE COPPER
— . . —	#2 STRANDED, INSULATED, COPPER INTERIOR GROUND
— — —	COAX & JUMPERS
— . . —	#6 STRANDED, INSULATED COPPER THWN

CABLE GROUNDING KIT
ANTENNA CABLE

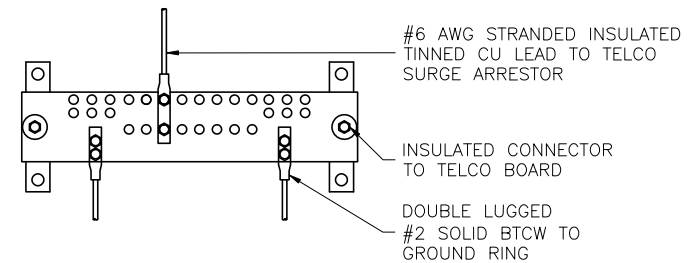
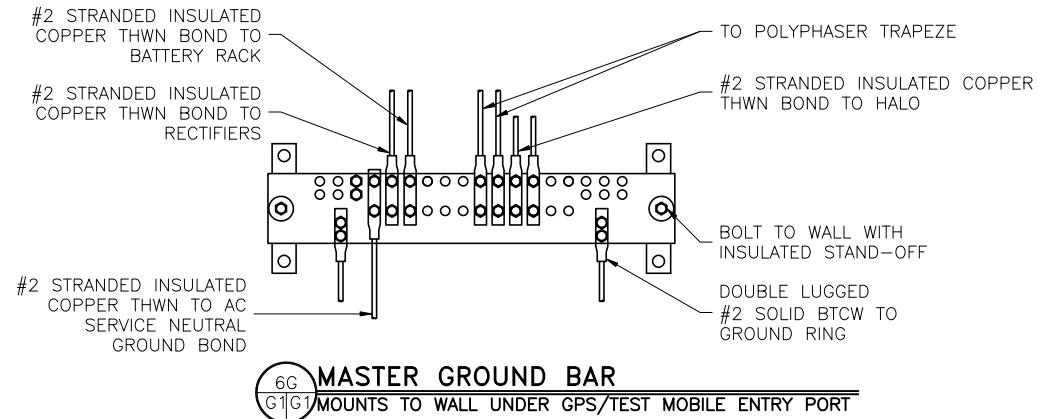
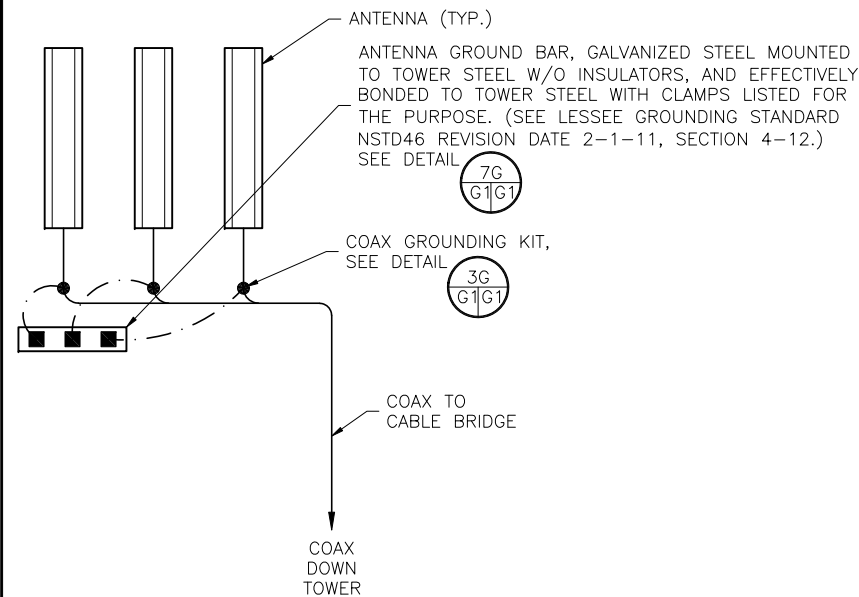
3G
G1G1

TYPICAL GROUND KIT
SCALE: N.T.S.

ALL EXTERIOR GROUND
BARS TO BE GALVANIZED
STEEL ATTACHED WITH
TAMPER PROOF
HARDWARE AND WITH
ALARM CONNECTIONS PER
LESSEE GROUNDING
STANDARD NSTD46
REVISION DATE 2-1-11.
SEE NOTES BELOW.



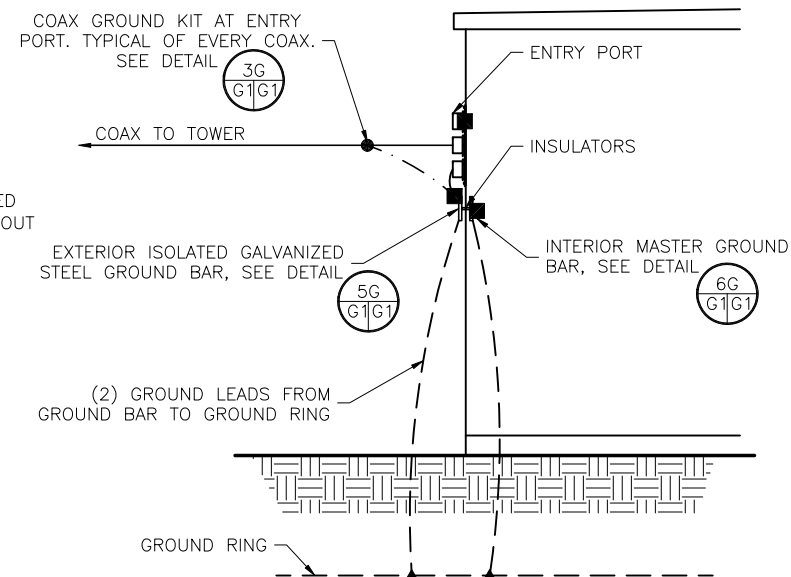
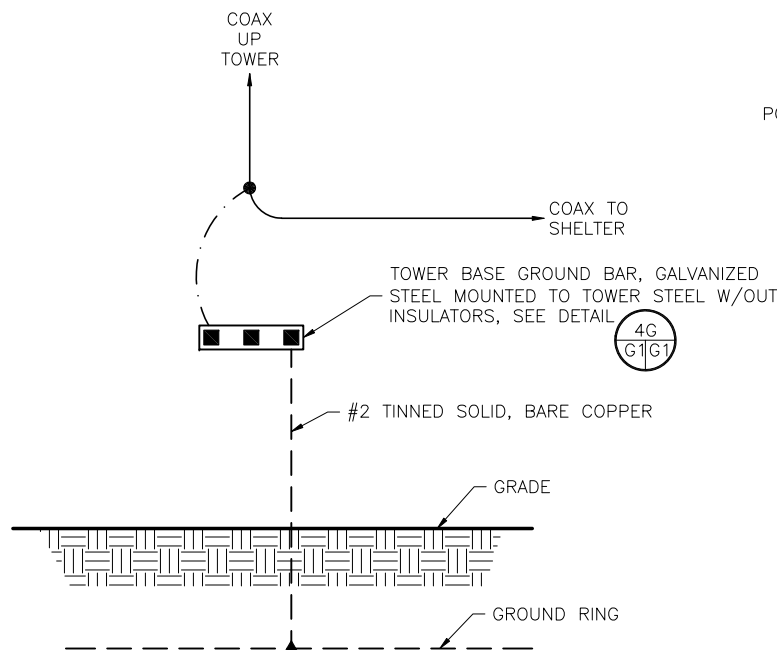
RCV	DESCRIPTION	DATE	BT	CHK
0	APPROVED FOR CONSTRUCTION	01/20/15	RT	DGD



BOLT TO TELCO BOARD

1	ALL HARDWARE TO BE TAMPER PROOF STAINLESS STEEL PER NSTD46 REVISION DATE 2-1-11.
2	COAT ALL SURFACES WITH KOPR-SHEILD BEFORE MATING.
3	ALL LUGS SHALL BE 2-BOLT CONNECTIONS.
4	EXTERIOR BUS BARS: 4"x20"x $\frac{1}{4}$ " GALVANIZED STEEL.
5	INTERIOR BUS BARS: 4"x20"x $\frac{1}{4}$ " COPPER.
6	ALL LEADS TO MGB MUST BE LABELED ACCORDING TO NSTD46 REV 2-1-11 SECTION 3.8, FIG. 3.4. WHEN FUTURE REVISIONS ARE ISSUED THE CORRESPONDING INFORMATION FROM THE MOST RECENT REVISION SHALL BE USED.
7	EXTERIOR GROUND BARS SHALL HAVE ALARM CONNECTIONS FOR THEFT PROTECTION AS SPECIFIED IN NSTD46 REV DATE 2-1-11 SECTION 5.3.

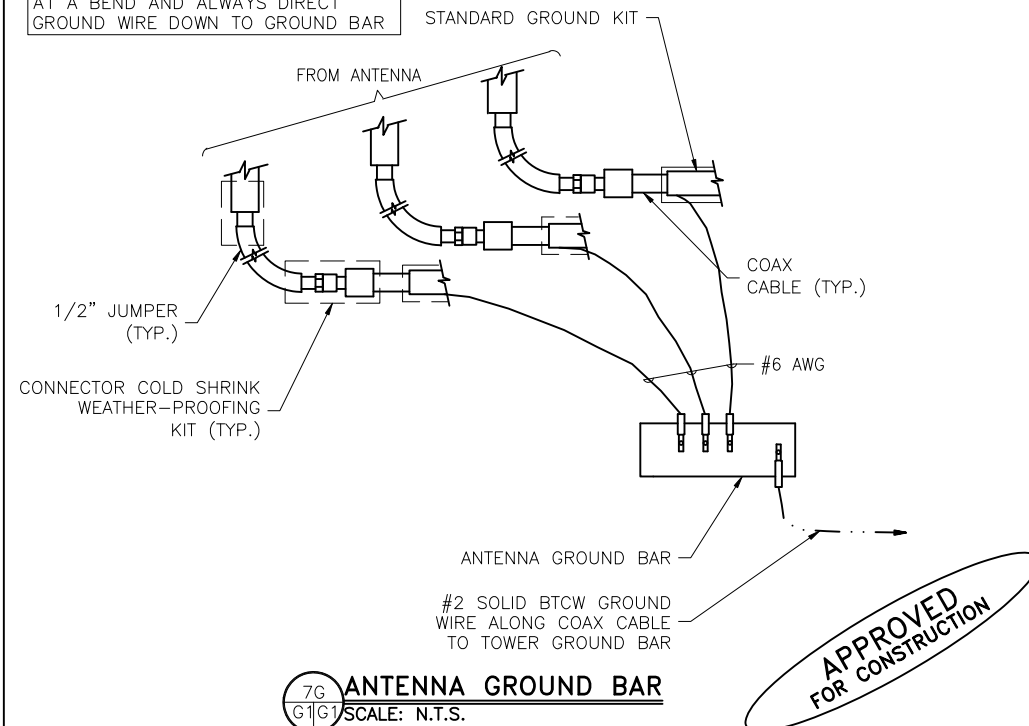
SCALE: N.T.S.



1.	CONTRACTOR SHALL NOT SUBMIT BIDS OR PERFORM CONSTRUCTION WORK ON THIS PROJECT WITHOUT ACCESS TO THE CURRENT COMPLETE SET OF DRAWINGS LISTED IN THE TITLE-SHEET INDEX.
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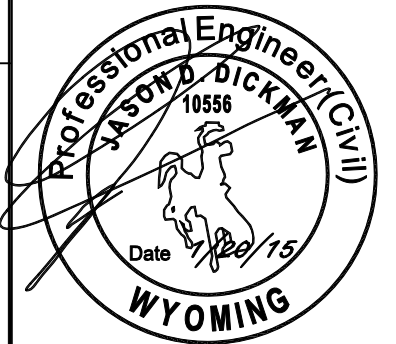
SCALE: N.T.S.

DO NOT INSTALL CABLE GROUND KIT
AT A BEND AND ALWAYS DIRECT
GROUND WIRE DOWN TO GROUND BAR



**APPROVED
FOR CONSTRUCTION**

DESIGNED BY:



G1