



THE PROJECT DEPICTED IN THESE PLANS QUALIFIES AS AN ELIGIBLE FACILITIES REQUEST ENTITLED TO EXPEDITED REVIEW UNDER 47 U.S.C. 1455(A) AS A MODIFICATION OF AN EXISTING WIRELESS TOWER THAT INVOLVES THE COLLOCATION REMOVAL AND/OR REPLACEMENT OF TRANSMISSION EQUIPMENT THAT IS NOT A SUBSTANTIAL CHANGE UNDER CFR 1.61000 (B)(7).

T-MOBILE SITE NUMBER: MT06021A
 T-MOBILE SITE NAME: GRAND AVE-ATC
 SITE TYPE: MONOPOLE
 TOWER HEIGHT: 76'-0"

ASSET #: 412939
 SITE ADDRESS: 1010 GRAND AVE
 COUNTY: YELLOWSTONE
 JURISDICTION: CITY OF BILLINGS
 LAT: 45° 47' 01.2" N
 LONG: 108° 32' 30.3" W

412939
 1010 GRAND AVE
 BILLINGS, MT 59102
 YELLOWSTONE
 CITY OF BILLINGS
 LONG: 108° 32' 30.3" W

MT06021A_Grand Ave - ATC (412939)_Anchor_FCD_Infinigy_11.02.22



274 DISCOVERY DR, SUITE 200
 BOZEMAN, MT 58718



FROM ZERO TO INFINIGY
 the solutions are endless
 50 116TH AVE SE, SUITE 210
 BELLEVUE, WA 98004

T-MOBILE SITE:
 MT06021A
 GRAND AVE-ATC
 ATC SITE:
 412939
 BILGRANDAVE MT

1010 GRAND AVE
 BILLINGS, MT 59102
 YELLOWSTONE COUNTY
 76'-0" MONOPOLE

DRAWINGS ISSUED FOR:

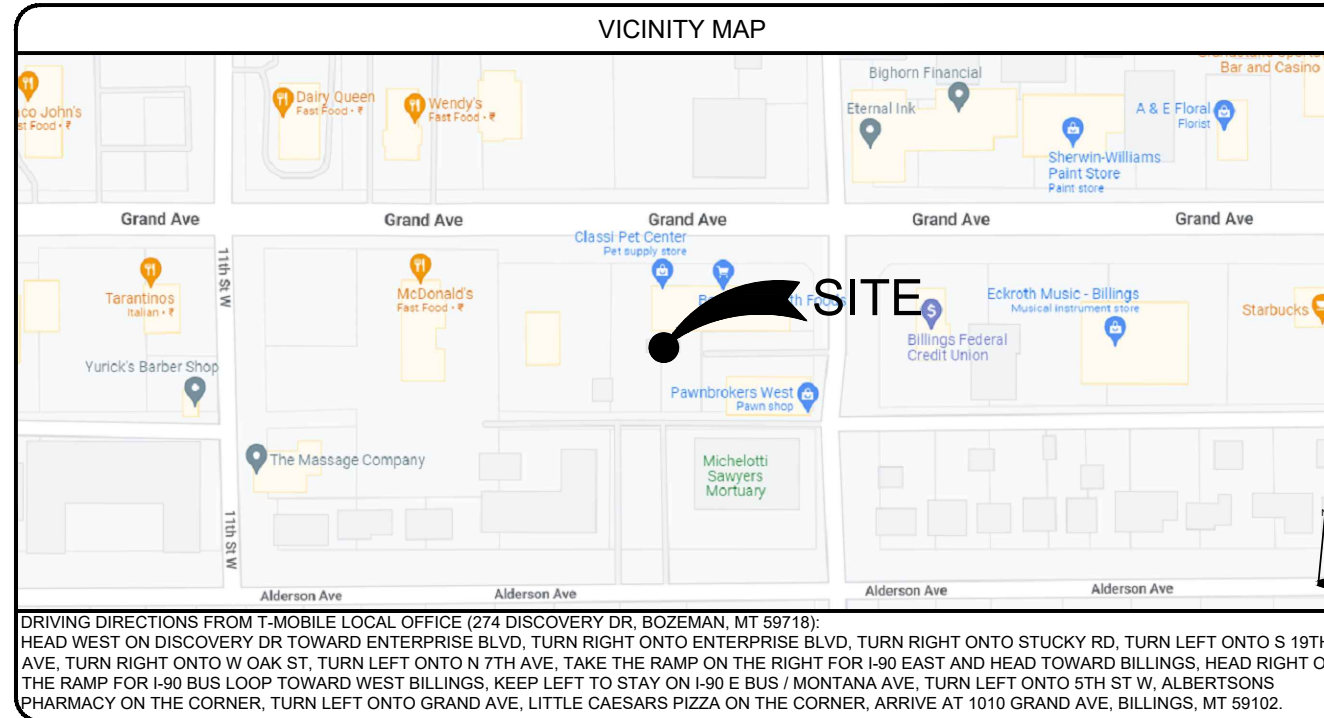
REV.	DATE	DRAWN	DESCRIPTION	QA/QC
A	05/03/22	RCD	PRELIMINARY REVIEW	TT
B	06/02/22	WJR	REVISED PRELIM. REVIEW	TT
0	09/02/22	AF	100% CONSTRUCTION	TT
1	11/02/22	TLT	100% CD REV	PD



SHEET TITLE: TITLE SHEET	
SHEET NUMBER: T-1	REVISION: 1

SITE INFORMATION	
PROPERTY INFORMATION:	
SITE ADDRESS:	1010 GRAND AVE BILLINGS, MT 59102
COUNTY:	YELLOWSTONE
LATITUDE (NAD83):	45° 47' 01.2" N (45.783669°)
LONGITUDE (NAD83):	108° 32' 30.3" W (-108.541751°)
GROUND ELEVATION (NAVD88):	±3205.0' AMSL
JURISDICTION:	CITY OF BILLINGS
APN:	A16683
ZONING:	CMU1 (CORRIDOR MIXED USE 1)
OCCUPANCY CLASSIFICATION:	U
LEGAL DESCRIPTION:	SEE SHEET A-1
CONSTRUCTION INFORMATION:	
AREA OF CONSTRUCTION:	EXISTING
TYPE OF CONSTRUCTION:	V-B
PROPOSED USE:	UNMANNED TELECOMMUNICATIONS FACILITY
HANDICAP REQUIREMENTS:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS NOT REQUIRED.
PROPERTY OWNER:	
COMPANY:	HIGHLAND RIM PROPERTIES, INC., A MONTANA CORPORATION
ADDRESS:	214 McRAE SPRAGUE LN
CITY, STATE, ZIP:	FORSYTH, MT 59327
TOWER OPERATOR:	
COMPANY:	AMERICAN TOWER CORPORATION
ADDRESS:	10 PRESIDENTIAL WAY
CITY, STATE, ZIP:	WOBURN, MA 01801
CONTACT:	TIFFANY PRETTY (PROJECT MANAGER)
PHONE:	(425) 391-3447
E-MAIL:	tiffany.pretty@americantower.com
T-MOBILE MICROWAVE PM:	
COMPANY:	T-MOBILE
CONTACT:	SEAN CONNORS
E-MAIL:	Sean.Connors5@t-mobile.com

SHEET INDEX	
SHEET	DESCRIPTION
T-1	TITLE SHEET
T-2	SPECIFICATIONS & NOTES
T-3	SPECIFICATIONS & NOTES
A-1	OVERALL SITE PLAN
A-2	ENLARGED SITE PLANS
A-3	SOUTH ELEVATIONS
A-4	ANTENNA PLAN & RF SCHEDULE
A-4.1	RF PLUMBING DIAGRAM
A-5	EQUIPMENT DETAILS
A-6	EQUIPMENT DETAILS
A-6.1	EQUIPMENT DETAILS
A-6.2	EQUIPMENT DETAILS
A-7	EQUIPMENT DETAILS
A-8	EQUIPMENT DETAILS
A-9	CONSTRUCTION DETAILS
A-10	CONSTRUCTION DETAILS
E-1	UTILITY ROUTING PLAN & DETAILS
E-1.1	ELECTRICAL DIAGRAMS
E-1.2	ELECTRICAL DIAGRAMS
G-1	SCHEMATIC GROUNDING PLAN & NOTES
G-2	GROUNDING DETAILS
DRAWINGS BY OTHERS (17 SHEETS):	
ATTACHED	MONOPOLE EXTENSION DRAWINGS G-001 THRU Z-504
CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.	



DRIVING DIRECTIONS FROM T-MOBILE LOCAL OFFICE (274 DISCOVERY DR, BOZEMAN, MT 59718):
 HEAD WEST ON DISCOVERY DR TOWARD ENTERPRISE BLVD, TURN RIGHT ONTO ENTERPRISE BLVD, TURN RIGHT ONTO STUCKY RD, TURN LEFT ONTO S 19TH AVE, TURN RIGHT ONTO W OAK ST, TURN LEFT ONTO N 7TH AVE, TAKE THE RAMP ON THE RIGHT FOR I-90 EAST AND HEAD TOWARD BILLINGS, HEAD RIGHT ON THE RAMP FOR I-90 BUS LOOP TOWARD WEST BILLINGS, KEEP LEFT TO STAY ON I-90 E BUS / MONTANA AVE, TURN LEFT ONTO 5TH ST W, ALBERTSONS PHARMACY ON THE CORNER, TURN LEFT ONTO GRAND AVE, LITTLE CAESARS PIZZA ON THE CORNER, ARRIVE AT 1010 GRAND AVE, BILLINGS, MT 59102.

PROJECT TEAM	
ARCHITECTURAL & ENGINEERING:	
COMPANY:	INFINIGY ENGINEERING
CONTACT:	PAUL DANNEBERG
PHONE:	(425) 201-4215 x1603
E-MAIL:	pdanneberg@infinigy.com
SITE ACQUISITION:	
COMPANY:	POWDER RIVER DEVELOPMENT SERVICES, LLC
ADDRESS:	408 S EAGLE RD, STE 200
CITY, STATE, ZIP:	EAGLE, ID 83616
CONTACT:	CAMERON COLGAN
PHONE:	(208) 871-0773
E-MAIL:	cameron.colgan@powderriverdev.com

APPROVALS		
THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS & AUTHORIZE THE SUBCONTRACTOR TO PROCEED WITH CONSTRUCTION AS DESCRIBED HEREIN. ALL CONSTRUCTION DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT & ANY CHANGES OR MODIFICATIONS THEY MAY IMPOSE.		
APPROVAL:	SIGNATURE:	DATE:
PROJECT MANAGER		
SITE ACQUISITION		
CONSTRUCTION MANAGER		
SITE OWNER		
RF ENGINEER		
DEVELOPMENT MANAGER		
CONSTRUCTION MANAGER		
OPS MANAGER		
REGULATORY REVIEW		
PROJECT MANAGER		

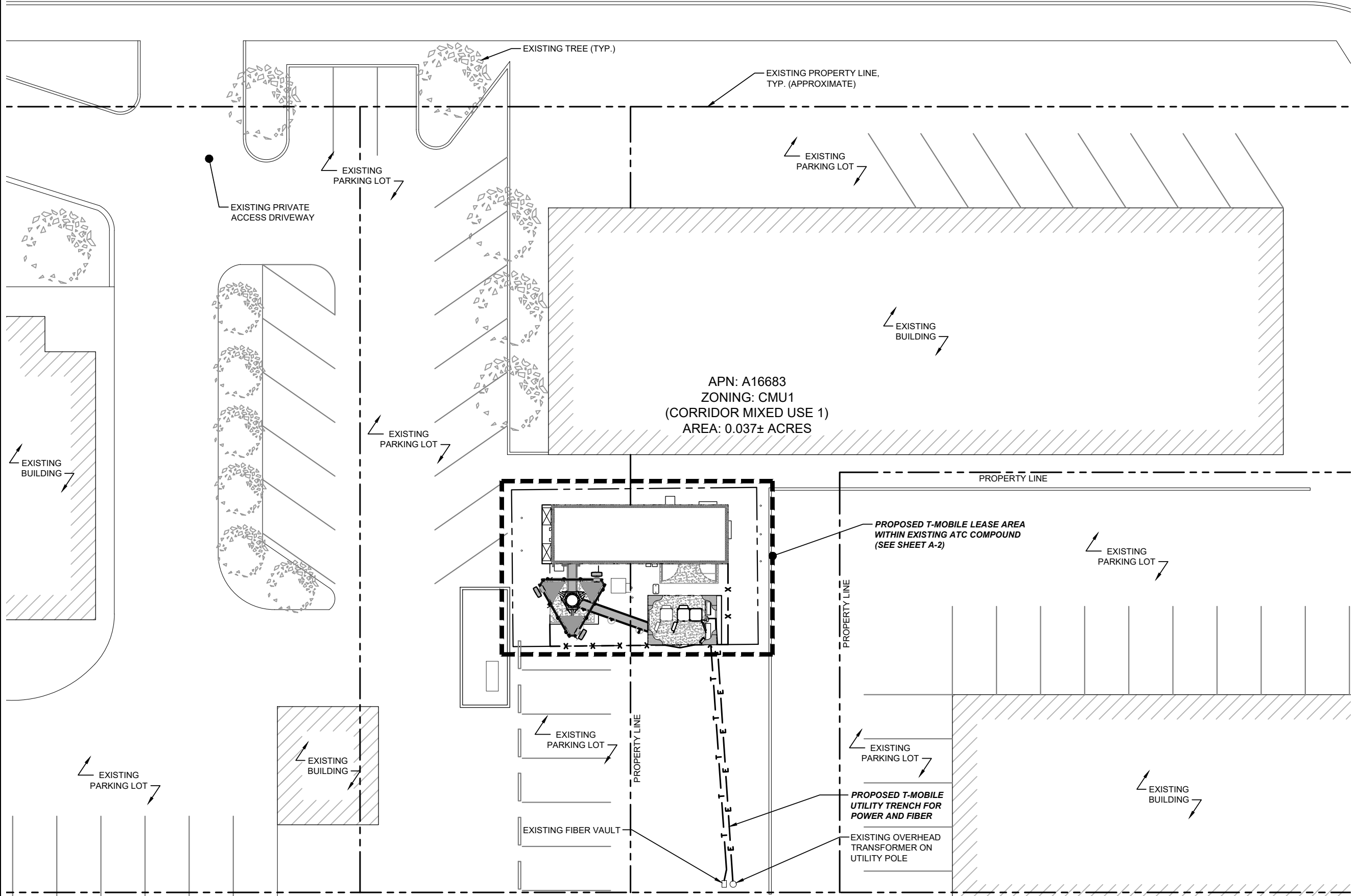
CODE COMPLIANCE
ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THESE CODES.
<ol style="list-style-type: none"> 2018 INTERNATIONAL BUILDING CODE 2018 INTERNATIONAL MECHANICAL CODE 2018 INTERNATIONAL FIRE CODE 2018 UNIFORM PLUMBING CODE 2017 NATIONAL ELECTRICAL CODE 2018 INTERNATIONAL FUEL GAS CODE TIA-222-H OR LATEST EDITION ASCE 7-16 NFPA 780 - LIGHTNING PROTECTION CODE ANY OTHER NATIONAL OR LOCAL APPLICABLE CODES, MOST RECENT EDITION LOCAL AMENDMENTS TO THE ABOVE, WHERE APPLICABLE CITY/COUNTY ORDINANCES LIFE SAFETY CODE NFPA-101
<p>Know what's below. Call before you dig. www.call811.com</p>

PROJECT DESCRIPTION
T-MOBILE PROPOSES TO COLLOCATE ON AN EXISTING UNMANNED TELECOMMUNICATIONS FACILITY AS FOLLOWS: TOWER SCOPE OF WORK: <ul style="list-style-type: none"> INSTALL 30'-0" TOWER EXTENSION INSTALL A NEWAVE LPK12 ANTENNA PLATFORM INSTALL A NEWAVE LPS30-20 STIFFENER WITH KICKERS AND RING MOUNT INSTALL (3) FFVV-65C-R3-V1 PANEL ANTENNAS INSTALL (3) AHLOA & (3) AHFIG RRU'S INSTALL (1) HCS 2.0 PENDANT STYLE HYBRID CABLE
GROUND SCOPE OF WORK: <ul style="list-style-type: none"> INSTALL A 10'-0"x12'-0" CONCRETE PAD & 10'-0"x14'-0" ICE CANOPY INSTALL (1) HPL3 BATTERY CABINET W/ (4) STRINGS OF BATTERIES & (1) HPL3 POWER CABINET W/ (1) AMIA, (2) ABIO AND (1) ABIA W/ BASEBAND MODULES PER RFDS, (1) CSR IXRE ROUTER, (1) VOLTAGE BOOSTER W/ (2) AMPLIFIERS, & (1) EXTRA AMPLIFIER INSTALL (1) UTILITY H-FRAME W/ (1) 4'x4' HOFFMAN BOX, (1) TECH LIGHT W/ TIMER, (1) PPC W/ CAM-LOK, & (1) 200A METER INSTALL AN ICE BRIDGE, (1) GPS ANTENNA, & (1) HCS 2.0 JUNCTION BOX INSTALL UTILITY TRENCH INSTALL FENCE WITH MAN GATE
DESIGN IS BASED ON: ATC APPLICATION ID 14050727, REV. #0 RFDS VERSION 1, DATED 08/19/2022 (CONFIG. 6790S_SR_T, 6790S_SR_T) THESE PLANS HAVE BEEN DEVELOPED FOR THE CONSTRUCTION OF AN UNMANNED TELECOMMUNICATIONS FACILITY OWNED OR LEASED BY T-MOBILE IN ACCORDANCE WITH THE SCOPE OF WORK PROVIDED BY T-MOBILE, INCORPORATED IN THE PLANS BY INFINIGY. THESE PLANS ARE NOT FOR CONSTRUCTION UNLESS ACCOMPANIED BY A PASSING STRUCTURAL STABILITY ANALYSIS FOR THE STRUCTURE AND MOUNT PREPARED BY A LICENSED PROFESSIONAL ENGINEER.

INFORMATION CONTAINED WITHIN DRAWINGS IS BASED ON PROVIDED INFORMATION AND IS NOT THE RESULT OF A FIELD SURVEY.

GRAND AVE

LEGAL DESCRIPTION:
SUNSET SUBD 4TH FILING, S05, T01 S, R26 E,
Lot 1A, & 7TH FIL AMD (06) (I-725 TELE TOWER
HERE) (02)



274 DISCOVERY DR, SUITE 200
BOZEMAN, MT 58718



FROM ZERO TO INFINIGY
the solutions are endless
50 116TH AVE SE, SUITE 210
BELLEVUE, WA 98004

T-MOBILE SITE:
MT06021A
GRAND AVE-ATC

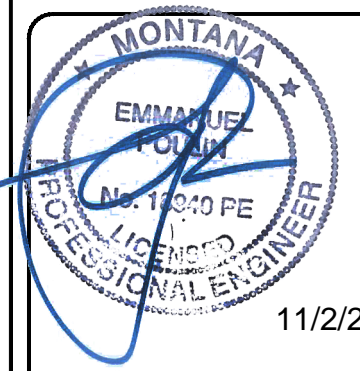
ATC SITE:
412939
BILGRANDAVE MT

1010 GRAND AVE
BILLINGS, MT 59102
YELLOWSTONE COUNTY

76'-0" MONOPOLE

DRAWINGS ISSUED FOR:

REV.	DATE	DRAWN	DESCRIPTION	QA/QC
A	05/03/22	RCD	PRELIMINARY REVIEW	TT
B	06/02/22	WJR	REVISED PRELIM. REVIEW	TT
0	09/02/22	AF	100% CONSTRUCTION	TT
1	11/02/22	TLT	100% CD REV	PD



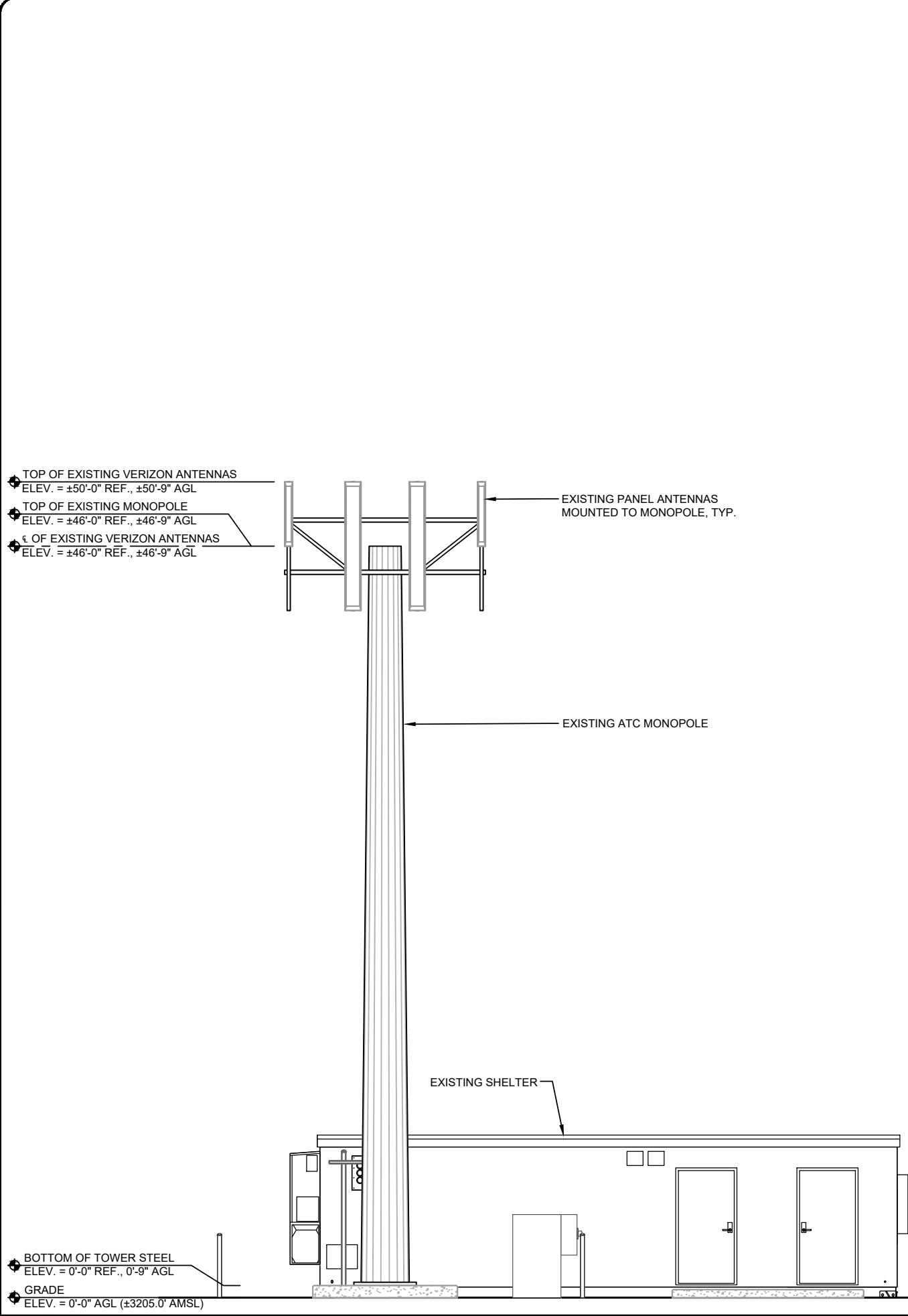
SHEET TITLE:
OVERALL
SITE PLAN

SHEET NUMBER:
A-1

REVISION:
1

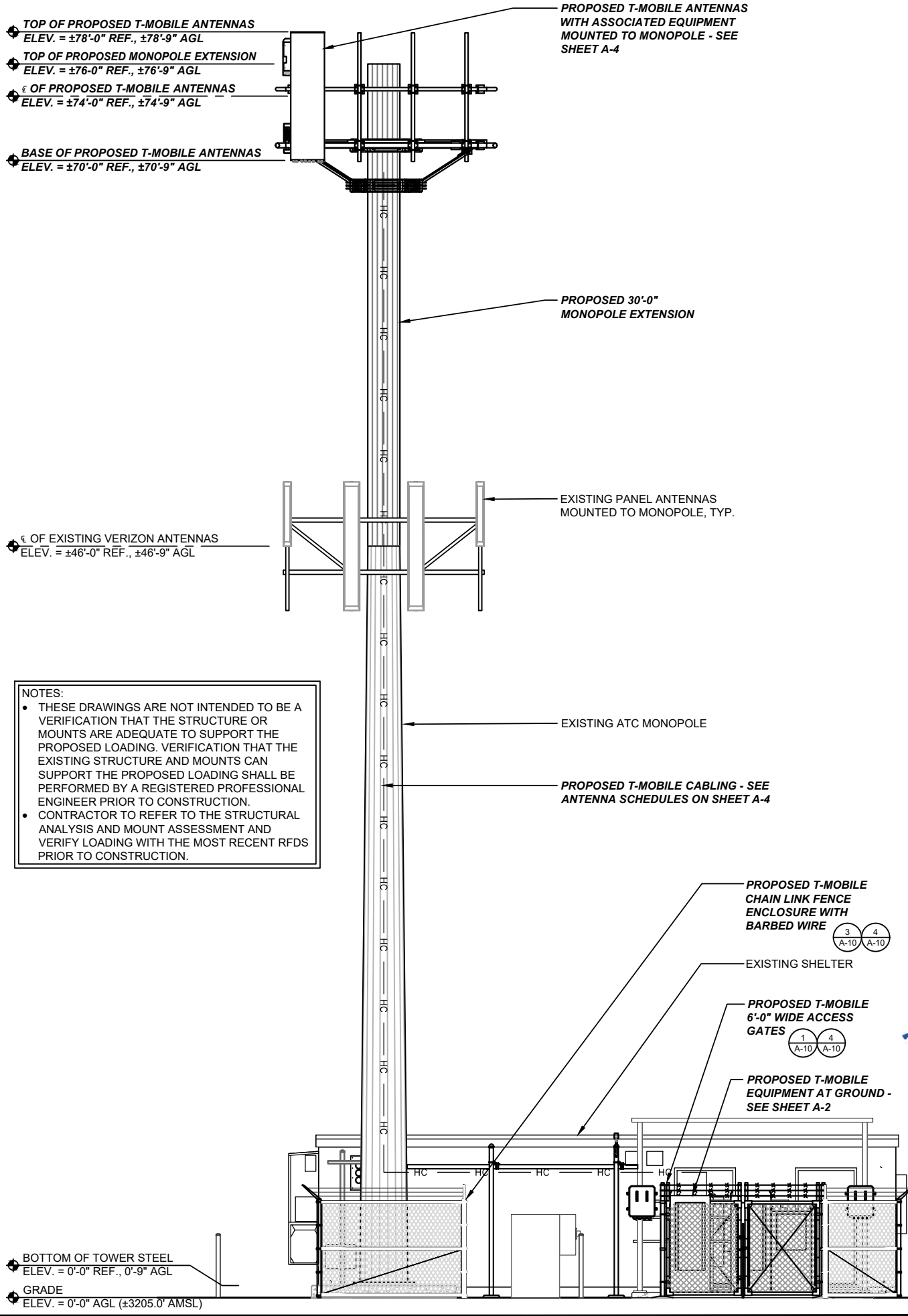
1 OVERALL SITE PLAN

22"x34" SCALE: 1" = 10'-0"
11"x17" SCALE: 1" = 20'-0"



2 EXISTING SOUTH ELEVATION

22"x34" SCALE: 1/4" = 1'-0"
11"x17" SCALE: 1/8" = 1'-0"



1 PROPOSED SOUTH ELEVATION

22"x34" SCALE: 1/4" = 1'-0"
11"x17" SCALE: 1/8" = 1'-0"

NOTES:

- THESE DRAWINGS ARE NOT INTENDED TO BE A VERIFICATION THAT THE STRUCTURE OR MOUNTS ARE ADEQUATE TO SUPPORT THE PROPOSED LOADING. VERIFICATION THAT THE EXISTING STRUCTURE AND MOUNTS CAN SUPPORT THE PROPOSED LOADING SHALL BE PERFORMED BY A REGISTERED PROFESSIONAL ENGINEER PRIOR TO CONSTRUCTION.
- CONTRACTOR TO REFER TO THE STRUCTURAL ANALYSIS AND MOUNT ASSESSMENT AND VERIFY LOADING WITH THE MOST RECENT RFDS PRIOR TO CONSTRUCTION.

274 DISCOVERY DR, SUITE 200
BOZEMAN, MT 58718

AMERICAN TOWER CORPORATION

INFINIGY

FROM ZERO TO INFINIGY
the solutions are endless

50 116TH AVE SE, SUITE 210
BELLEVUE, WA 98004

T-MOBILE SITE:
MT06021A
GRAND AVE-ATC

ATC SITE:
412939
BILGRANDAVE MT

1010 GRAND AVE
BILLINGS, MT 59102
YELLOWSTONE COUNTY

76'-0" MONOPOLE

DRAWINGS ISSUED FOR:

REV.	DATE	DRAWN	DESCRIPTION	QA/QC
A	05/03/22	RCD	PRELIMINARY REVIEW	TT
B	06/02/22	WJR	REVISED PRELIM. REVIEW	TT
0	09/02/22	AF	100% CONSTRUCTION	TT
1	11/02/22	TLT	100% CD REV	PD

11/2/22

SHEET TITLE:
SOUTH ELEVATIONS

<p style="font-size: x-small; margin: 0;">SHEET NUMBER: A-3</p>	<p style="font-size: x-small; margin: 0;">REVISION: 1</p>
--	--