verizon

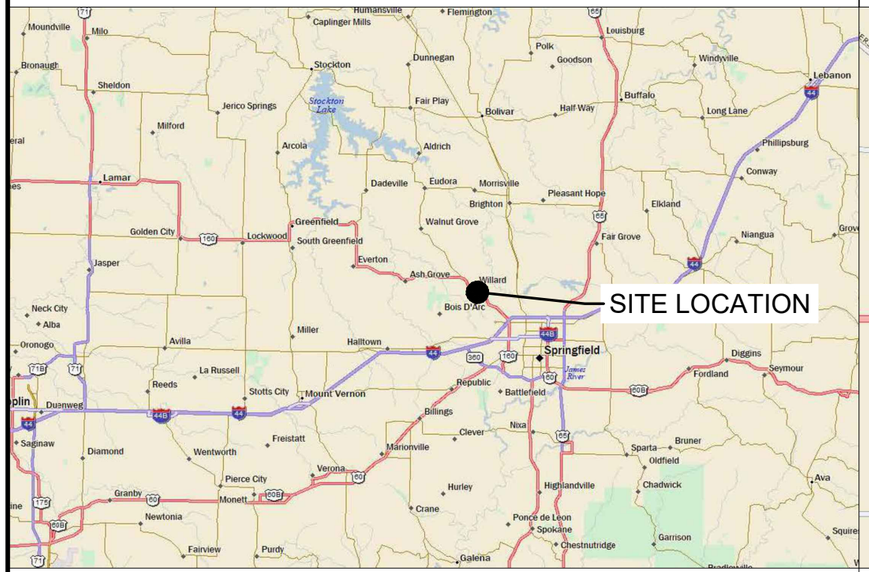
10740 NALL AVE,
SUITE 400
OVERLAND PARK, KS 66211
PHONE: 913-344-2800

SPRC WILLARD WATER TANK - A

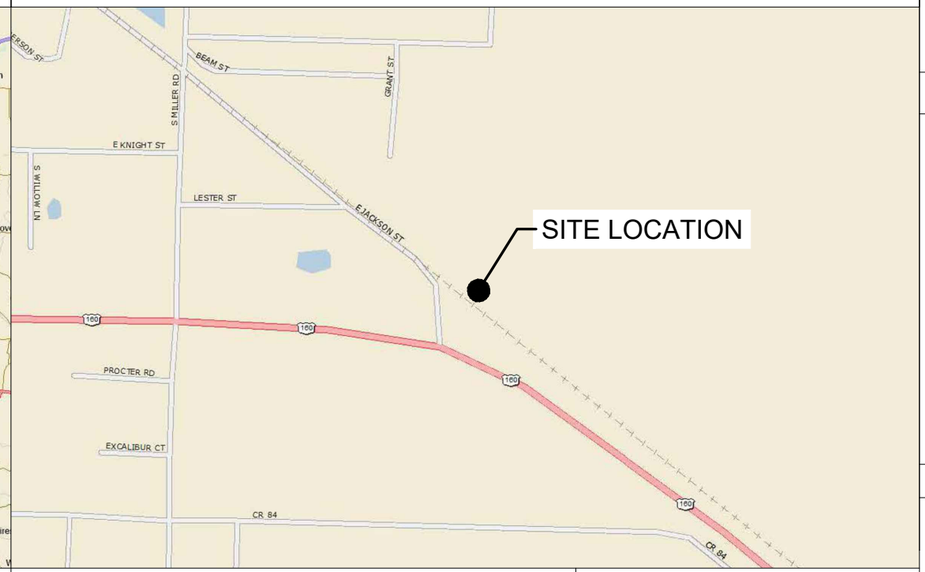
C-BAND CARRIER ADD

512 E. JACKSON ST.
WILLARD, MO 65781

REGIONAL MAP



VICINITY MAP



CONTRACTOR PMI REQUIREMENTS

PMI ACCESSED AT	https://pmi.vzwsmart.com
SMART TOOL VENDOR PROJECT #:	10220066
MDG LOCATION ID #:	5000309199
FUZE ID #:	16947572

*** PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

MOUNT MODIFICATION REQUIRED	N
VZW APPROVED SMART KIT VENDORS	
REFER TO MOUNT MODIFICATION DRAWINGS PAGE FOR VZW SMART KIT APPROVED VENDORS	

SCOPE OF WORK

- 850 AWS3 PCS C-BAND ADD
- EXISTING (3) HYBRID CABLES 6x6 1-5/8" TO REMAIN. OVPs TO BE SWAPPED TO 12OVP VERSIONS.

VERIZON WIRELESS DEPARTMENTAL APPROVALS

	INITIALS:	DATES:
RF ENGINEER	JW	10/16/24
TRANSPORT ENGINEER		
OPERATIONS MANAGER		
CONSTRUCTION ENGINEER	TM	09/13/24
CONSTRUCTION MANAGER		
REAL ESTATE MANAGER		

PROFESSIONAL ENGINEER'S STAMP

STATE OF MISSOURI
JOHN ZIMMERMANN
NUMBER E-30437
PROFESSIONAL ENGINEER
12/10/2024

LESSOR / LICENSOR APPROVAL

PRINTED NAME:_____ SIGNATURE:_____ DATE: _____

☐ NO CHANGES ☐ CHANGES REQUESTED, SEE COMMENTS ON PLANS

PROJECT TEAM

A&E CONSULTANT:	TERRA CONSULTING GROUP 600 BUSSE HIGHWAY PARK RIDGE, IL 60068 PHONE: (847) 698-6400 FAX: (847) 698-6401
SITE ACQUISITION:	TERRA CONSULTING GROUP
STRUCTURAL:	TERRA CONSULTING GROUP

PROJECT INFORMATION

PROJECT DESCRIPTION:	C-BAND CARRIER ADD
SITE NAME:	SPRC WILLARD WATER TANK - A
MDG LOCATION ID #:	5000309199
FUZE PROJECT ID:	16947572
SITE ADDRESS:	512 E. JACKSON ST. WILLARD, MO 65781
TOWER OWNER:	CITY OF WILLARD
APPLICANT:	VERIZON WIRELESS 10740 NALL AVE, SUITE 400 OVERLAND PARK, KS 66211 (913) 344-2896

TOWER INFORMATION

LATITUDE:	37° 17' 57.3396" N
LONGITUDE:	93° 25' 4.89" W
GROUND ELEVATION:	1,239.8 FT A.M.S.L.
OVERALL STRUCTURE HEIGHT:	131 FT ± A.G.L.
TOWER HEIGHT:	123'-8" ± A.G.L.
VZW CL HEIGHT:	127 FT A.G.L.

SHEET INDEX

SHEET	DESCRIPTION	REV.
T-1	TITLE SHEET	0,1
R-1	REVISION LOG	0,1
C-1	SITE LAYOUT	0,1
ANT-1	SITE ELEVATION	0
ANT-2	ANTENNA KEYS & LAYOUT	0,1
ANT-3	SECTOR PLAN & ELEVATION DETAILS	0
ANT-4	COAX ENTRY PANEL & PARTS LIST	0
ANT-5	ANTENNA PLUMBING DIAGRAM	0
N-1	GENERAL NOTES & SITE PHOTOS	0
N-2	SITE PHOTOS	0

ATTACHMENTS

-	PMI REPORT REQUIREMENTS	-

verizon
10740 NALL AVE, SUITE 400
OVERLAND PARK, KS 66211

TERRA CONSULTING GROUP
600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PH: 847-698-6400
FAX: 847-698-6401

DESIGN FIRM # E-2015004018

REVISIONS

NO.	DESCRIPTION	DATE	BY
A	ISSUED FOR REVIEW	07/30/24	MLM
B	EME STUDY ADDED	08/30/24	CEB
0	ISSUED FOR CONSTRUCTION	10/30/24	CEB
1	REVISED PER CLIENT COMMENT	12/10/24	CEB

MDG #: 5000309199

SPRC WILLARD WATER TANK - A

512 E. JACKSON ST.
WILLARD, MO 65781

DRAWN BY:	MLM
CHECKED BY:	JZ
DATE:	07/26/24
PROJECT #:	54-1540

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1

REVISION LOG

NO.	BY	DATE	DESCRIPTION
A	MLM	07/30/2024	DRAWINGS ISSUED FOR REVIEW
B	CEB	08/30/2024	EME STUDY ADDED
0	CEB	10/30/2024	ISSUED FOR CONSTRUCTION
1	CEB	12/10/24	REVISED PER CLIENT COMMENT

REVISION NOTES

REV A DESCRIPTION
DRAWINGS SUBMITTED FOR CLIENT REVIEW

REV B DESCRIPTION
ADDED REVISION LOG R-1 SHEET
ADDED EME STUDY TO SHEET C-1.
ADDED ANTENNA TIP HEIGHT & FAA HEIGHT TO ANT-1

REV 0 DESCRIPTION
DRAWINGS STAMPED FOR FINAL

REV 1 DESCRIPTION
ROTATED TANK CORRAL TO CORRECT ANTENNA MOUNT LOCATIONS C-1 AND ANT-2

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10740 NALL AVE, SUITE 400
OVERLAND PARK, KS 66211

TERRA CONSULTING GROUP
600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PH: 847-698-6400
FAX: 847-698-6401

DESIGN FIRM # E-20150004018

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MDG #: 5000309199

SPRC WILLARD
WATER TANK - A

512 E. JACKSON ST.
WILLARD, MO 65781

DRAWN BY:	MLM
CHECKED BY:	JZ
DATE:	07/26/24
PROJECT #:	54-1540

SHEET TITLE

REVISION LOG

SHEET NUMBER

R-1

THIS SITE PLAN WAS CREATED OFF OF FIELD MEASUREMENTS BY THE DESIGNER. AS BOUNDARY SURVEY WAS NOT SUPPLIED FOR PURPOSES OF SITE LAYOUT.

EXISTING GRASS AREA

EXISTING UTILITY H-FRAME

EXISTING LESSEE ICE BRIDGE

PER EME STUDY, INSTALL ONE SAFETY GUIDELINES SIGN(S) & ONE INFORMATION SIGN(S) ON LADDER-1 AS SHOWN IN SIGNAGE/BARRIER DIAGRAM - DETAILED VIEW. (LADDER-1)

PER EME STUDY, INSTALL ONE WARNING SIGN(S) ON LADDER-2 AS SHOWN IN SIGNAGE/BARRIER DIAGRAM - DETAILED VIEW. (LADDER-2)

EXISTING OTHER CARRIER EQUIPMENT SHELTER

SCALE 1" = 5'

0 2.5' 5' 10'

22" x 34" PRINT IS THE FULL SCALE FORMAT. ANY SIZE OTHER THAN THAT IS AT REDUCED SCALE.

EXISTING DOUBLE SWING GATE (TYP.)

EXISTING LESSEE EQUIPMENT SHELTER (11'-5" x 20'-0")

G.C. TO INSTALL IN SHELTER WHERE SPACE IS AVAILABLE
(1) ERICSSON KDU1370015/11
(1) ERICSSON NTB1010067/13
(3) OVP 12

EXISTING OUTDOOR CABINET

EXISTING GRAVEL COMPOUND

EXISTING TRANSFORMER

16'±

2'±

AZ = 40° ALPHA

AZ = 280° GAMMA

AZ = 160° BETA

EXISTING OUTLINE OF WATER TANK

EXISTING CHAIN LINK FENCE (TYP.)

PER EME STUDY, NO ACTION REQUIRED AT ALPHA, BETA, & GAMMA SECTORS

EXISTING WATER TOWER LEG (TYP.)

EXISTING GRAVEL COMPOUND

EXISTING OTHER CARRIER EQUIPMENT

EXISTING OTHER CARRIER ICE BRIDGE

PROPOSED LESSEE ANTENNAS TO REPLACE EXISTING ANTENNAS MOUNTED ON WATER TANK. SEE ANT-1 & ANT-2

EXISTING GRASS AREA

EXISTING EDGE OF PAVEMENT

EXISTING GRAVEL ACCESS DRIVE

MISSOURI
ONE CALL SYSTEM
CALL BEFORE YOU DIG - DRILL - BLAST
1-800-344-7483
TOLL FREE

1 SITE LAYOUT
SCALE: 1" = 5'

G.C. TO COORDINATE W/ LESSEE COMPLIANCE, CONSTRUCTION & RF MANAGER FOR PROPER INSTALLATION OF RF SIGNAGE

verizon
10740 NALL AVE, SUITE 400
OVERLAND PARK, KS 66211

TERRA CONSULTING GROUP
600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PH: 847-698-6400
FAX: 847-698-6401

DESIGN FIRM # E-2015004018

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MDG #: 5000309199

SPRC WILLARD WATER TANK - A

512 E. JACKSON ST.
WILLARD, MO 65781

DRAWN BY:	MLM
CHECKED BY:	JZ
DATE:	07/26/24
PROJECT #:	54-1540

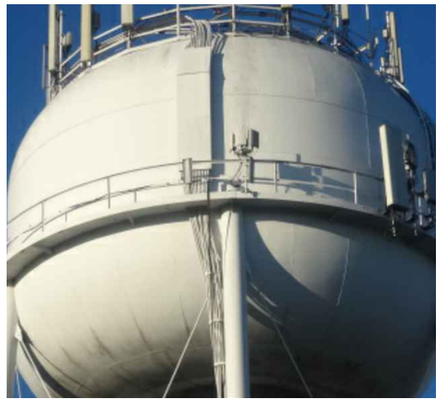
SHEET TITLE

SITE LAYOUT

SHEET NUMBER

C-1

3 TYPICAL LESSEE ANTENNA SECTOR



4 LESSEE COAX ROUTE ON TOWER

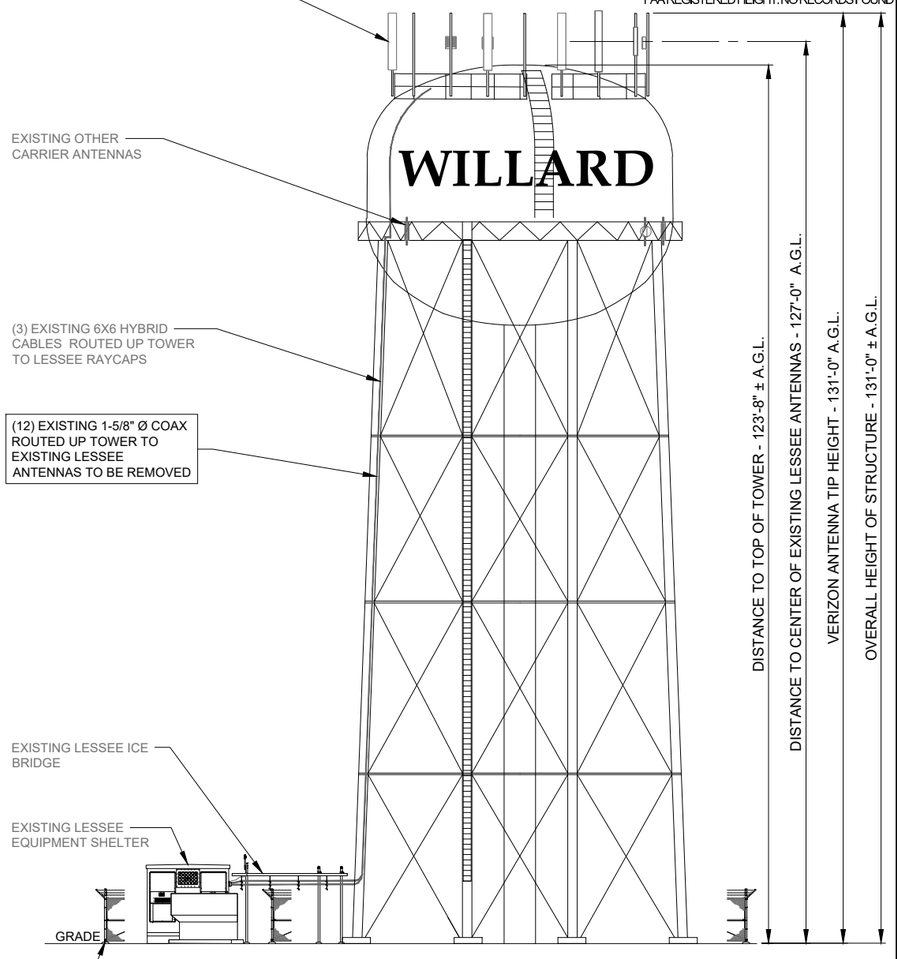
NOTES

1. THIS DRAWING IS FOR EXHIBIT AND LAYOUT PURPOSES ONLY.
2. PASSING STRUCTURAL ANALYSIS BY TERRA CONSULTING GROUP, DATED OCTOBER 29, 2024.

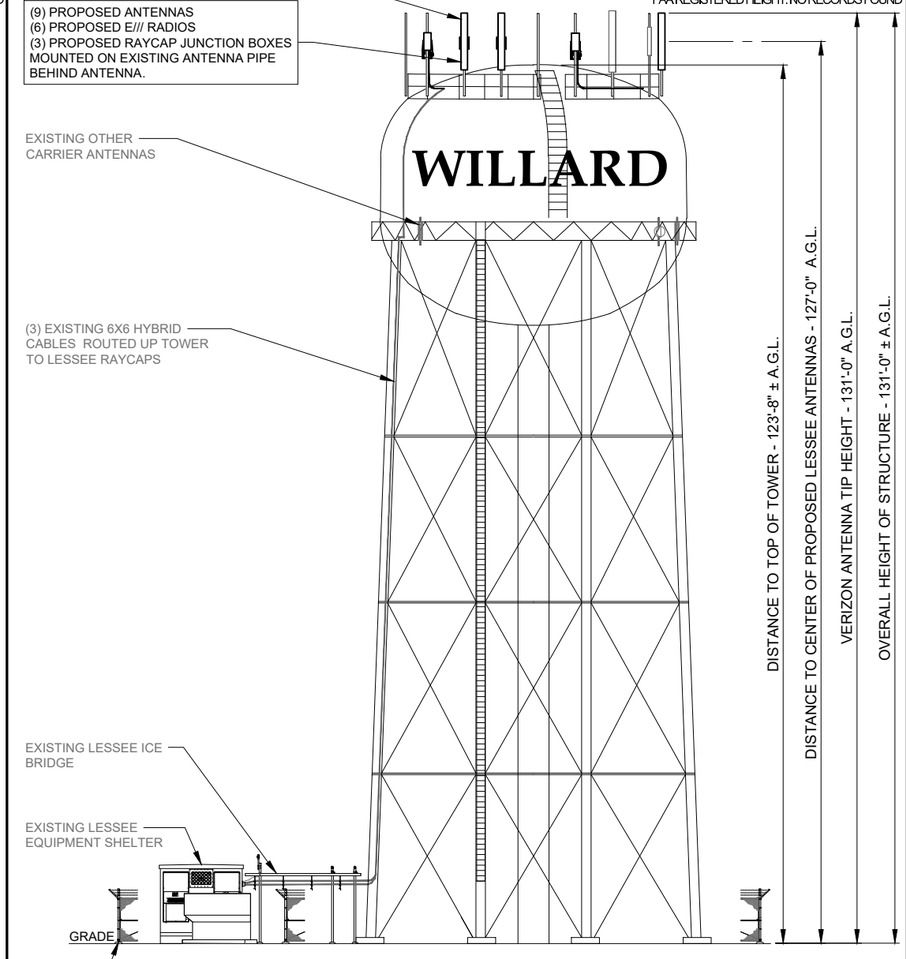
0 1/2" 1" 2"

SCALE: 3/32" = 1'-0"

22" x 34" PRINT IS THE FULL SCALE FORMAT. ANY SIZE OTHER THAN THAT IS AT REDUCED SCALE.



1 EXISTING SITE ELEVATION
SCALE: 3/32" = 1'-0"



2 PROPOSED SITE ELEVATION
SCALE: 3/32" = 1'-0"

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10740 NALL AVE, SUITE 400
OVERLAND PARK, KS 66211

TERRA CONSULTING GROUP
600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PH: 847-698-6400
FAX: 847-698-6401

DESIGN FIRM # E-20150040 18

REVISIONS

NO.	DESCRIPTION	DATE	BY
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MDG #: 5000309199

SPRC WILLARD WATER TANK - A

512 E. JACKSON ST.
WILLARD, MO 65781

DRAWN BY:	MLM
CHECKED BY:	JZ
DATE:	07/26/24
PROJECT #:	54-1540

SHEET TITLE

SITE ELEVATION

SHEET NUMBER

ANT-1

EXISTING ANTENNA KEY

	Position	Status	Antenna Centerline (ft AGL)	Antenna Make / Model	Antenna Count	Height (in)	Width (in)	Depth (in)	Weight (lbs)	Azimuth	Mech Downtilt	Electrical Downtilt	Coax Make/Model	Coax Count	Coax Size	Coax Length	RRU Make/Model	RRU Count	Distribution Box Make/Model	Raycap Count	Hybrid Cable Make/Model	Hybrid Cable Count	Hybrid Cable Size	Hybrid Cable Length	Hybrid Jumper Count	Hybrid Jumper Length	RF Jumper Count	RF Jumper Length
Mainline Cable & Distribution																			OVP 6	3	6X6 HYBRID CABLE	1	1-5/8"	155'				
																					6X6 HYBRID CABLE	2	1-5/8"	215'				
Alpha Sector	A	remove	127	COMMSCOPE JAHH-65C-R3B	1	95.7	13.8	8.2	93.9	30	-	-	AVA7-50	2	5/8"	165'	ERICSSON RRUS 12 B4	1			RFS / HBF058-08U1S2-30F	-	5/8"	-	2	30'	6	15'
	B	remove	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ERICSSON RRUS 11 B13	1			RFS / HBF058-08U1S2-30F	-	5/8"	-	2	30'	6	15'
	C	empty	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-
	D	remove	127	COMMSCOPE JAHH-65C-R3B	1	95.7	13.8	8.2	93.9	30	-	-	AVA7-50	2	5/8"	165'	-	-			-	-	-	-	-	-	-	-
Beta Sector	E	remove	127	COMMSCOPE JAHH-65C-R3B	1	95.7	13.8	8.2	93.9	120	-	-	AVA7-50	2	5/8"	195'	ERICSSON RRUS 12 B4	1			RFS / HBF058-08U1S2-30F	-	5/8"	-	2	30'	6	15'
	F	remove	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ERICSSON RRUS 11 B13	1			RFS / HBF058-08U1S2-30F	-	5/8"	-	2	30'	6	15'
	G	remove	127	COMMSCOPE JAHH-65C-R3B	1	95.7	13.8	8.2	93.9	120	-	-	AVA7-50	2	5/8"	195'	-	-			-	-	-	-	-	-	-	-
	H	empty	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-
	I	remove	127	COMMSCOPE JAHH-65C-R3B	1	95.7	13.8	8.2	93.9	300	-	-	AVA7-50	2	5/8"	160'	ERICSSON RRUS 12 B4	1			RFS / HBF058-08U1S2-30F	-	5/8"	-	2	30'	6	15'
	J	empty	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-
	K	remove	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ERICSSON RRUS 11 B13	1			RFS / HBF058-08U1S2-30F	-	5/8"	-	2	30'	6	15'
	L	remove	127	COMMSCOPE JAHH-65C-R3B	1	95.7	13.8	8.2	93.9	300	-	-	AVA7-50	2	5/8"	160'	-	-			-	-	-	-	-	-	-	-
				Antenna Total	6								Coax Total	12			RRU Total	6	Distro Box Total	3	Hybrid Cable Total	3	Jumper Total		12		36	

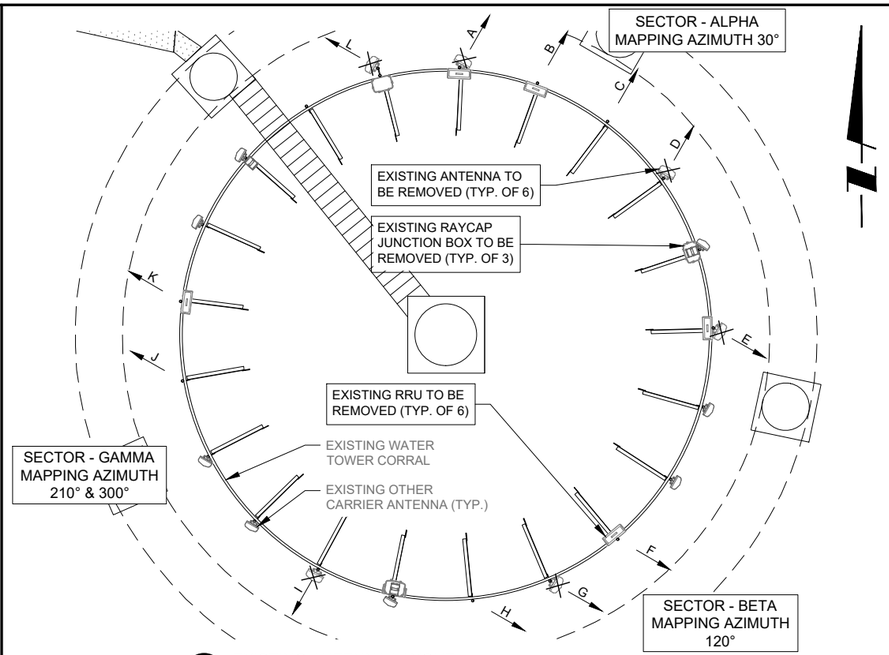
PROPOSED ANTENNA KEY

	Position	Status	Antenna Centerline (ft AGL)	Antenna Make / Model	Antenna Count	Height (in)	Width (in)	Depth (in)	Weight (lbs)	Azimuth	Mech Downtilt	Electrical Downtilt	Coax Make/Model	Coax Count	Coax Size	Coax Length	RRU Make/Model	RRU Count	Distribution Box Make/Model	Raycap Count	Hybrid Cable Make/Model	Hybrid Cable Count	Hybrid Cable Size	Hybrid Cable Length	Hybrid Jumper Count	Hybrid Jumper Length	RF Jumper Count	RF Jumper Length
Mainline Cable & Distribution																			RAYCAP RVZDC-627-PF-48	3	6X6 HYBRID CABLE	1	1-5/8"	155'				
																					6X6 HYBRID CABLE	2	1-5/8"	215'				
Alpha Sector	A	proposed	127	COMMSCOPE NHH-65C-R2B	1	96	11.9	7.1	51.6	40	0	2	-	-	-	-	ERICSSON 4890	1			HYBRID JUMPER FOR ERICSSON 4890	-	5/8"	-	1	15'	8	10'
	B	proposed	127	COMMSCOPE NHH-65C-R2B	1	96	11.9	7.1	51.6	40	0	4	-	-	-	-	ERICSSON 4490	1			HYBRID JUMPER FOR ERICSSON 4490	-	5/8"	-	1	15'	4	10'
	C	proposed	127	ERICSSON AIR6419	1	28.3	16.1	8	71	40	0	0	-	-	-	-	-	-			HYBRID JUMPER FOR ERICSSON AIR6419	-	5/8"	-	1	15'	-	-
	D	empty	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-
Beta Sector	E	empty	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-
	F	proposed	127	COMMSCOPE NHH-65C-R2B	1	96	11.9	7.1	51.6	160	0	2	-	-	-	-	ERICSSON 4890	1			HYBRID JUMPER FOR ERICSSON 4890	-	5/8"	-	1	15'	8	10'
	G	proposed	127	COMMSCOPE NHH-65C-R2B	1	96	11.9	7.1	51.6	160	0	4	-	-	-	-	ERICSSON 4490	1			HYBRID JUMPER FOR ERICSSON 4490	-	5/8"	-	1	15'	4	10'
	H	proposed	127	ERICSSON AIR6419	1	28.3	16.1	8	71	160	0	0	-	-	-	-	-	-			HYBRID JUMPER FOR ERICSSON AIR6419	-	5/8"	-	1	15'	-	-
Gamma Sector	I	empty	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-
	J	proposed	127	COMMSCOPE NHH-65C-R2B	1	96	11.9	7.1	51.6	280	0	2	-	-	-	-	ERICSSON 4890	1			HYBRID JUMPER FOR ERICSSON 4890	-	5/8"	-	1	15'	8	10'
	K	proposed	127	COMMSCOPE NHH-65C-R2B	1	96	11.9	7.1	51.6	280	0	4	-	-	-	-	ERICSSON 4490	1			HYBRID JUMPER FOR ERICSSON 4490	-	5/8"	-	1	15'	4	10'
	L	proposed	127	ERICSSON AIR6419	1	28.3	16.1	8	71	280	0	0	-	-	-	-	-	-			HYBRID JUMPER FOR ERICSSON AIR6419	-	5/8"	-	1	15'	-	-
				Antenna Total	9								Coax Total	0			RRU Total	6	Distro Box Total	3	Hybrid Cable Total	3	Jumper Total		9		36	

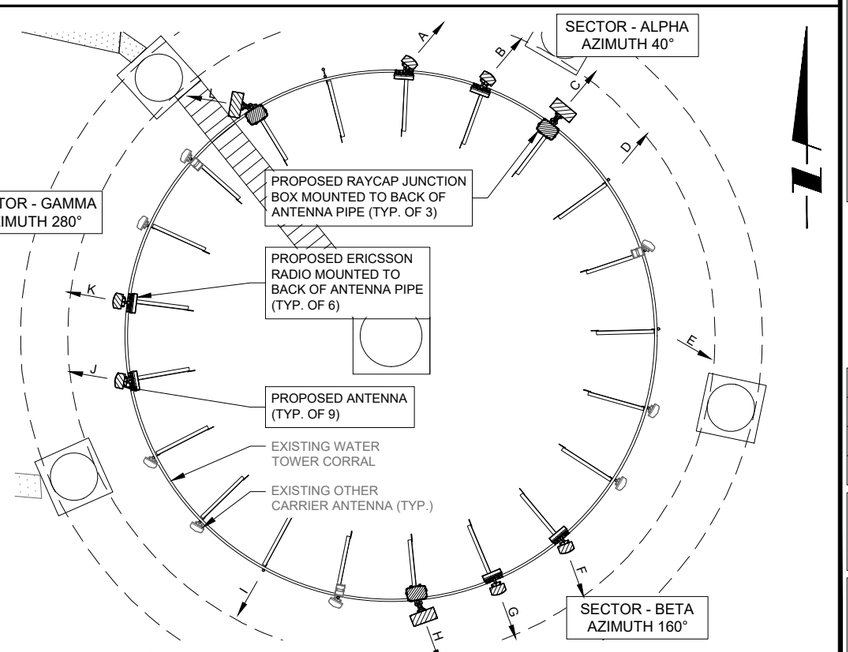
1 ANTENNA KEYS

NOTES

1. THIS DRAWING IS FOR EXHIBIT AND LAYOUT PURPOSES ONLY.
2. G.C. TO VERIFY ANTENNA TECHNOLOGIES PRIOR TO REMOVAL OF ANY ANTENNAS.
3. G.C. SHALL USE LOW PIM DEVICES WITHIN 10' OF ANTENNAS WHERE EXTERNAL PIM CAN INTERFERE WITH WIRELESS SIGNAL RECEPTION.
4. CONTRACTOR SHALL VERIFY CABLE LENGTHS BEFORE ORDERING.
5. PASSING MOUNT ANALYSIS BY COLLIERS ENGINEERING & DESIGN, DATED APRIL 26, 2024.



2 EXISTING ANTENNA LAYOUT
N.T.S.



3 PROPOSED ANTENNA LAYOUT
N.T.S.

verizon
10740 NALL AVE, SUITE 400
OVERLAND PARK, KS 66211

TERRA CONSULTING GROUP
600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PH: 847-698-6400
FAX: 847-698-6401
DESIGN FIRM # E-2015004018

REVISIONS

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MDG #: 5000309199

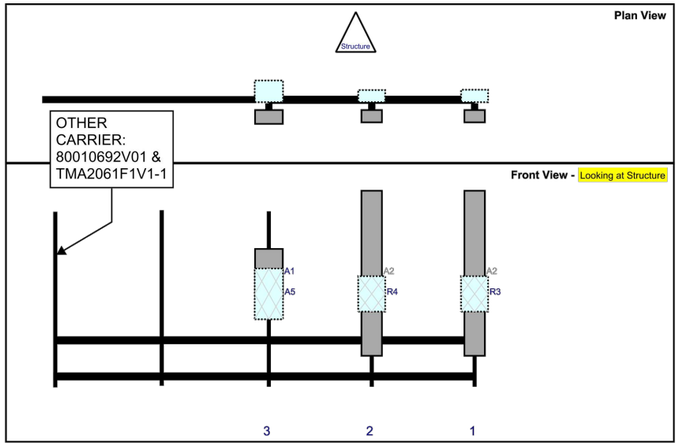
SPRC WILLARD WATER TANK - A

512 E. JACKSON ST.
WILLARD, MO 65781

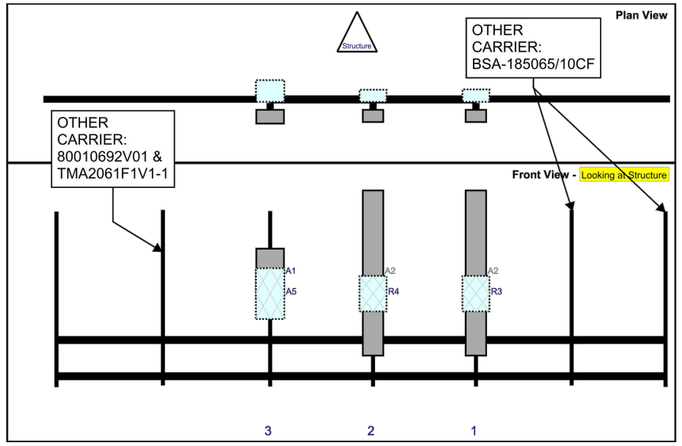
DRAWN BY:	MLM
CHECKED BY:	JZ
DATE:	07/26/24
PROJECT #:	54-1540

SHEET TITLE
ANTENNA KEYS & LAYOUT

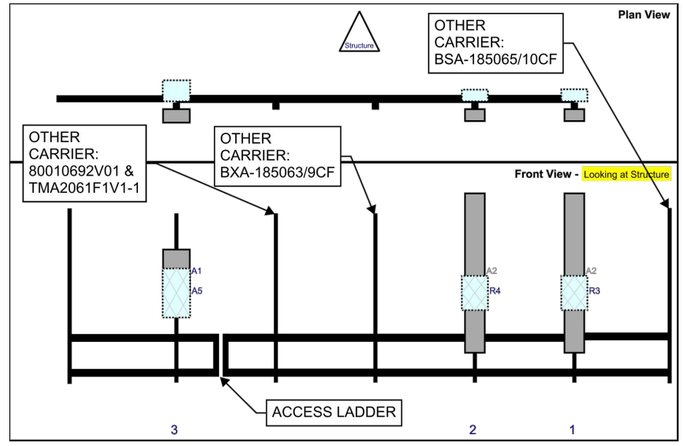
SHEET NUMBER
ANT-2



SECTOR: A



SECTOR: B



SECTOR: C

ANTENNA PLACEMENT

SECTOR: A

Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A2	NHH-65C-R2B	96	11.9	120	1	a	Front	36	0	Added	
R3	4890	20.6	15.7	120	1	a	Behind	48	0	Added	
A2	NHH-65C-R2B	96	11.9	60	2	a	Front	36	0	Added	
R4	4490.00	20.6	15.7	60	2	a	Behind	48	0	Added	
A1	AIR6419	28.3	16.1		3	a	Front	36	0	Added	
A5	RVZDC-6627-PF-48	29.5	16.5		3	a	Behind	48	0	Added	

SECTOR: C

Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A2	NHH-65C-R2B	96	11.9	240	1	a	Front	36	0	Added	
R3	4890	20.6	15.7	240	1	a	Behind	48	0	Added	
A2	NHH-65C-R2B	96	11.9	180	2	a	Front	36	0	Added	
R4	4490.00	20.6	15.7	180	2	a	Behind	48	0	Added	
A1	AIR6419	28.3	16.1		3	a	Front	36	0	Added	
A5	RVZDC-6627-PF-48	29.5	16.5		3	a	Behind	48	0	Added	

SECTOR: B

Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A2	NHH-65C-R2B	96	11.9	120	1	a	Front	36	0	Added	
R3	4890	20.6	15.7	120	1	a	Behind	48	0	Added	
A2	NHH-65C-R2B	96	11.9	60	2	a	Front	36	0	Added	
R4	4490.00	20.6	15.7	60	2	a	Behind	48	0	Added	
A1	AIR6419	28.3	16.1		3	a	Front	36	0	Added	
A5	RVZDC-6627-PF-48	29.5	16.5		3	a	Behind	48	0	Added	

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600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PH: 847-698-6400
FAX: 847-698-6401
DESIGN FIRM # E-2015004018

REVISIONS

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0	ISSUED FOR CONSTRUCTION	10/30/24	CEB
1	REVISED PER CLIENT COMMENT	12/10/24	CEB

MDG #: 5000309199

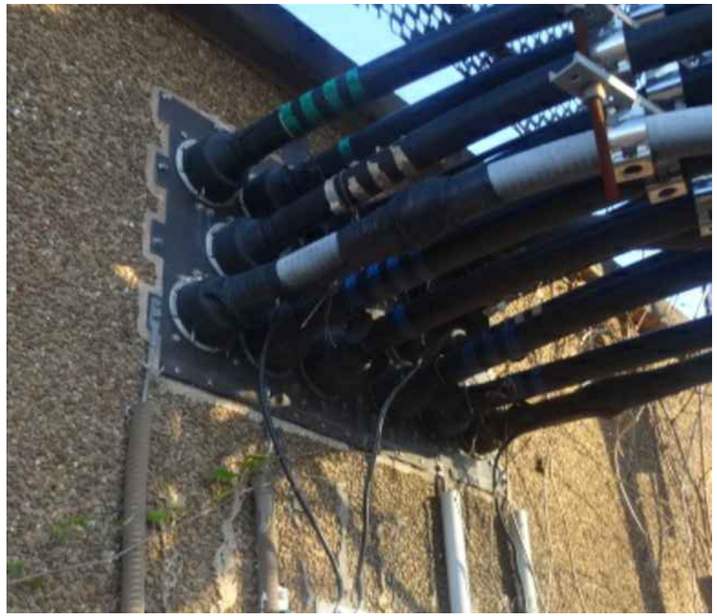
SPRC WILLARD WATER TANK - A

512 E. JACKSON ST.
WILLARD, MO 65781

DRAWN BY:	MLM
CHECKED BY:	JZ
DATE:	07/26/24
PROJECT #:	54-1540

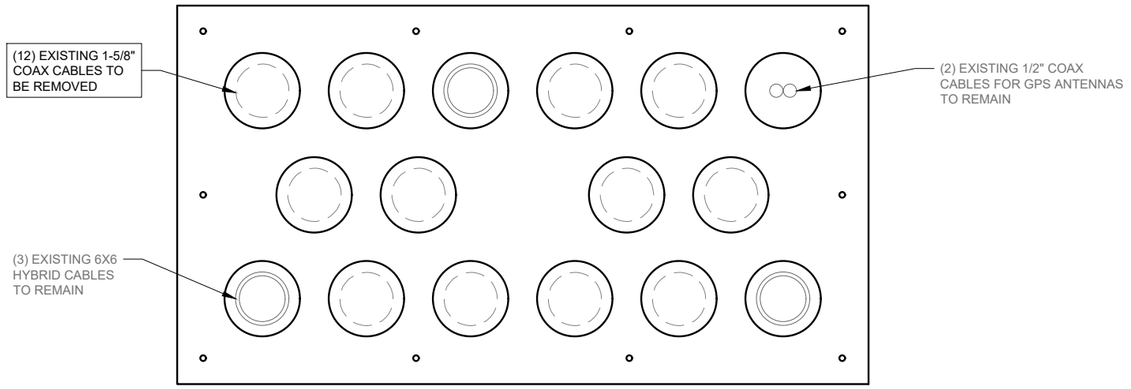
SHEET TITLE
SECTOR PLAN & ELEVATION DETAILS

SHEET NUMBER
ANT-3



1 LESSEE ENTRY PANEL

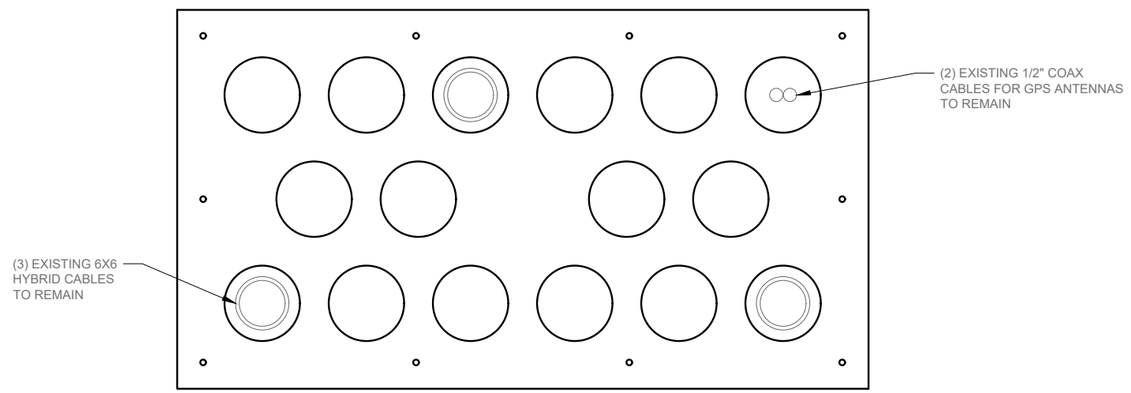
NOTE:
G.C. TO VERIFY CORRECT
LINES PRIOR TO DISCONNECTION



2 EXISTING ENTRY PANEL LAYOUT FROM OUTSIDE SHELTER
N.T.S.

PARTS LIST

(6) COMMSCOPE NHH-65C-R2B
(3) ERICSSON AIR6419
(3) ERICSSON 4490
(3) ERICSSON 4890
(3) RAYCAP RVZDC-6627-PF-48 (TOWER)
(3) RAYCAP RVZDC-4520-RM-48 (SHELTER)
(1) ERICSSON KDU1370015/11 (SHELTER)
(1) ERICSSON NTB1010067/13 (SHELTER)



3 PROPOSED ENTRY PANEL LAYOUT FROM OUTSIDE SHELTER
N.T.S.

NOTES:

1. GC IS TO SUPPLY WEATHERPROOFING BOOTS FOR CONNECTIONS.
2. HOISTING GRIP MUST BE USED FOR EVERY 200 FEET OF CABLE.
3. G.C. TO CAP ALL UNUSED CABLE ENTRY PORTS.
4. G.C. TO ENSURE ALL PORTS ARE PROPERLY SEALED AND WEATHERPROOFED.

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SPRC WILLARD WATER TANK - A

512 E. JACKSON ST.
WILLARD, MO 65781

DRAWN BY:	MLM
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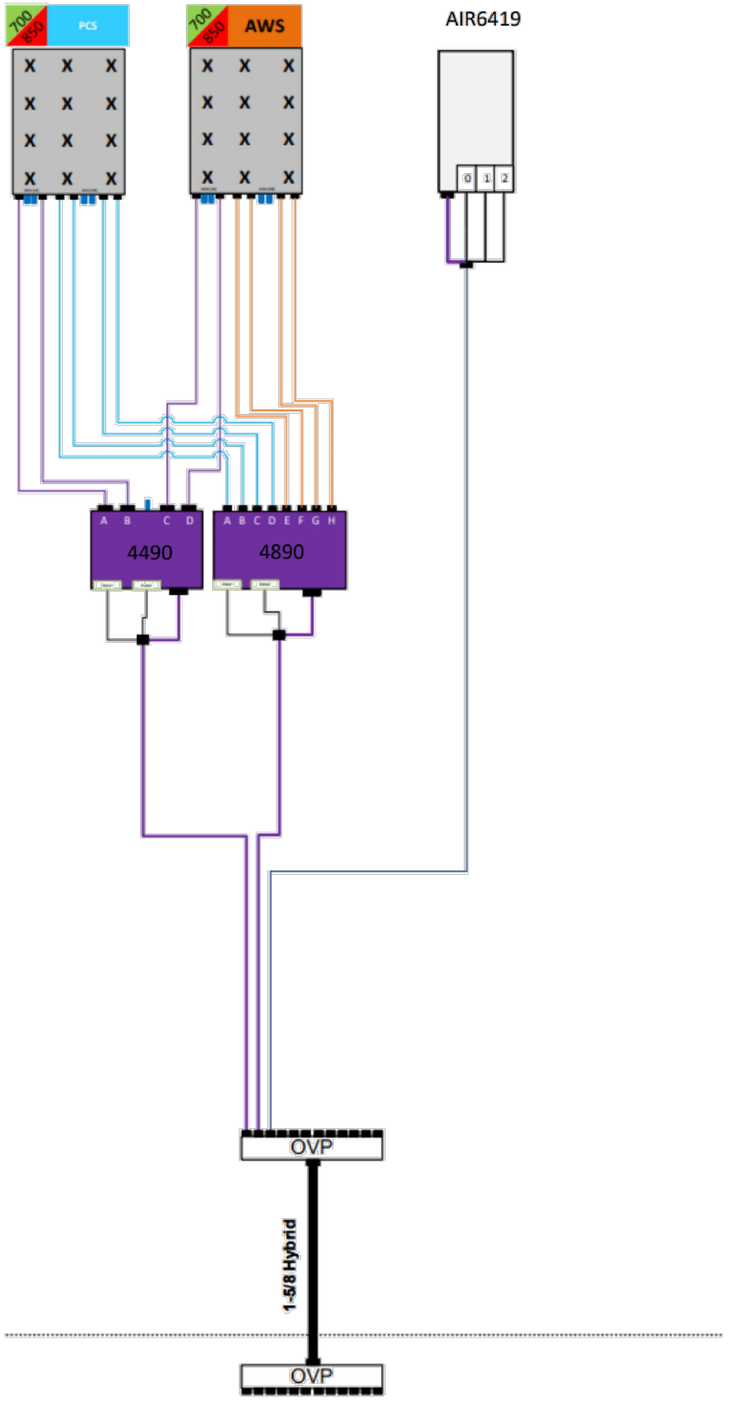
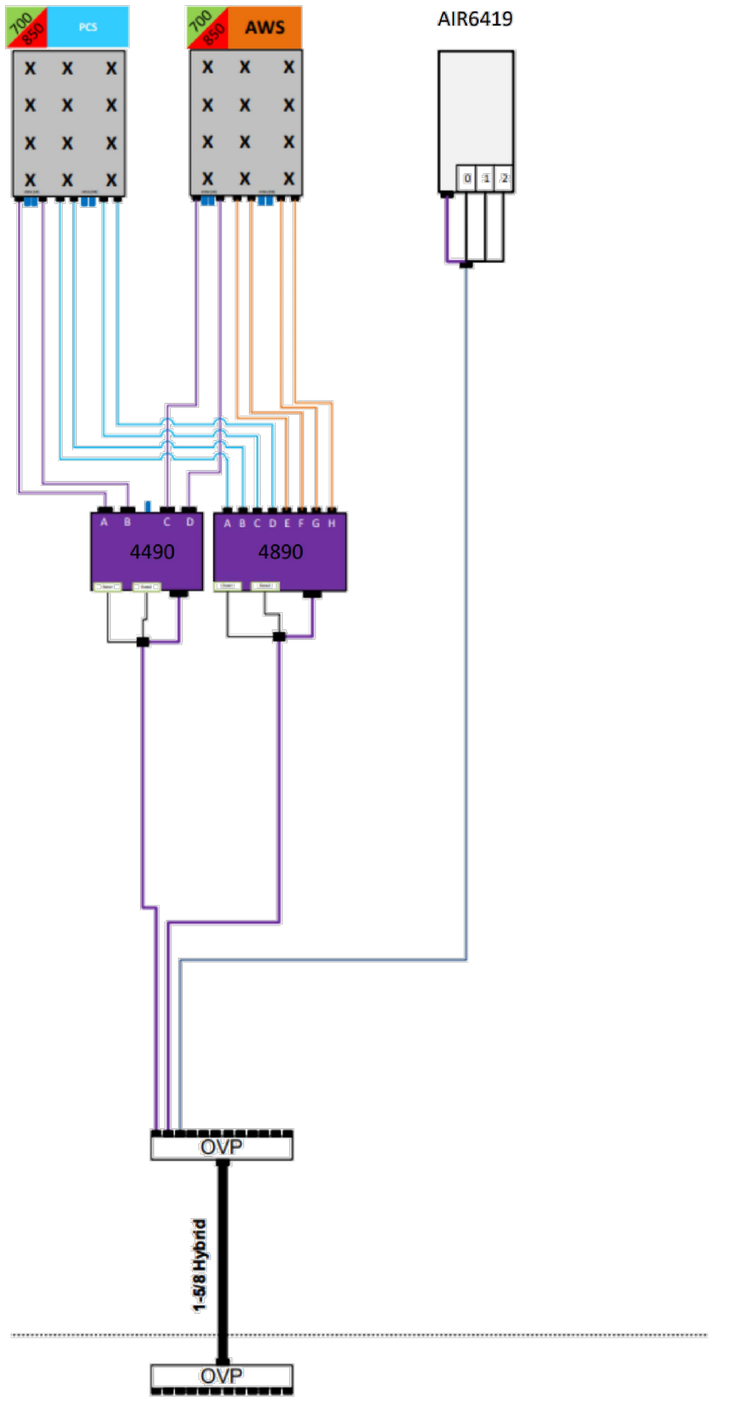
SHEET TITLE
COAX ENTRY PANEL
&
PARTS LIST

SHEET NUMBER
ANT-4

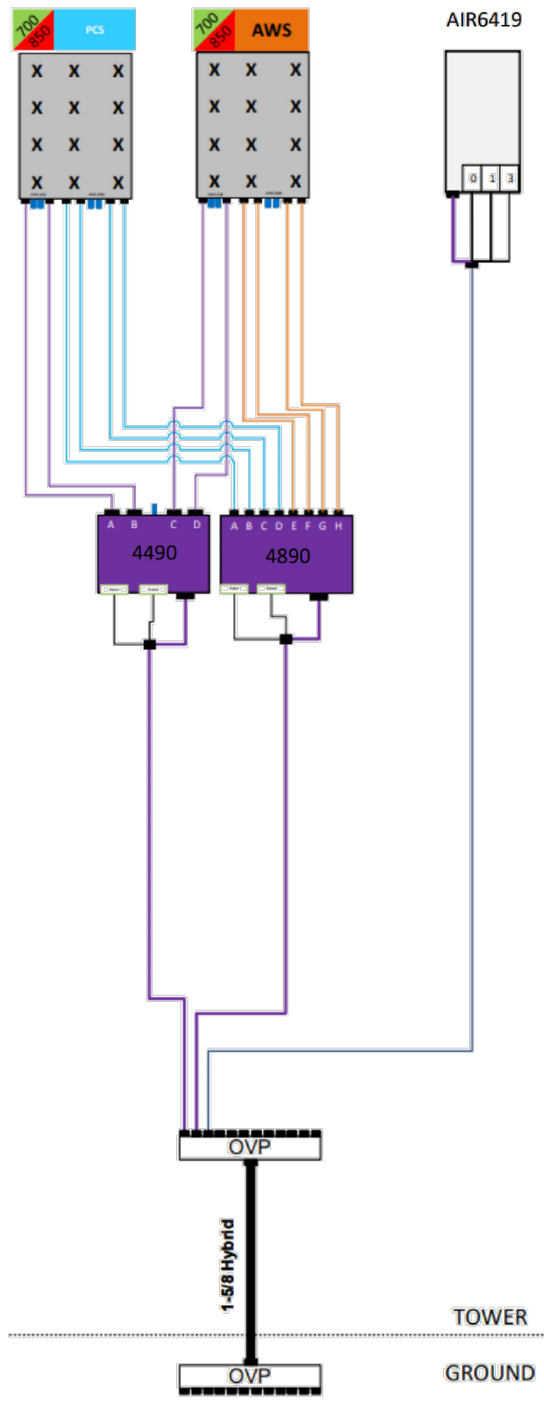
Sector A



Sector B



Sector C



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SHEET TITLE

ANTENNA PLUMBING DIAGRAM

SHEET NUMBER

ANT-5

GENERAL NOTES

1. THE CONTRACTOR SHALL SUPERVISE AND DIRECT ALL WORK USING HIS OR HER BEST SKILL AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES AND SEQUENCES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
2. THE CONTRACTOR SHALL VISIT THE JOB SITE TO REVIEW THE SCOPE OF WORK AND EXISTING CONDITIONS INCLUDING, BUT NOT LIMITED TO ELECTRICAL SERVICE AND OVERALL COORDINATION.
3. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO SUBMITTING HIS BID. ANY DISCREPANCIES, CONFLICTS OR OMISSIONS, ETC. SHALL BE REPORTED TO VERIZON WIRELESS BEFORE PROCEEDING WITH THE WORK.
4. THE CONTRACTOR SHALL PROTECT ALL AREAS FROM DAMAGE WHICH MAY OCCUR DURING CONSTRUCTION. ANY DAMAGE TO NEW AND EXISTING CONSTRUCTION, STRUCTURE, OR EQUIPMENT SHALL BE IMMEDIATELY REPAIRED OR REPLACED TO THE SATISFACTION OF VERIZON WIRELESS, AT THE EXPENSE OF THE CONTRACTOR.
5. THE CONTRACTOR SHALL SAFEGUARD THE OWNER'S PROPERTY DURING CONSTRUCTION AND SHALL REPLACE ANY DAMAGED PROPERTY OF THE OWNER TO ORIGINAL CONDITION WITH THE APPROVAL OF THE OWNER.
6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHETHER SHOWN HEREON OR NOT, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSES FOR REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED IN CONJUNCTION WITH THE EXECUTION OF WORK.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE SITE WHILE THE JOB IS IN PROGRESS AND UNTIL THE JOB IS COMPLETE.
8. ALL CONSTRUCTION WORK SHALL CONFORM TO THE I.B.C. AND ALL APPLICABLE LOCAL REGULATIONS, ORDINANCES, STATUTES AND CODES.
9. VERIZON WIRELESS SHALL OBTAIN THE CONSTRUCTION PERMIT, UNLESS JURISDICTION REQUIRES PERMIT TO BE PICKED UP BY A GENERAL CONTRACTOR. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ADDITIONAL PERMITS, LICENSES AND INSPECTIONS NECESSARY FOR PERFORMANCE OF THE WORK AND INCLUDE THOSE IN THE COST OF THE WORK TO THE OWNER.
10. CITY APPROVED PLANS SHALL BE KEPT IN A PLAN BOX AND SHALL NOT BE USED BY WORKMEN. ALL CONSTRUCTION SETS SHALL REFLECT SAME INFORMATION. THE CONTRACTOR SHALL ALSO MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES. THESE ARE TO BE UNDER THE CARE OF JOB SUPERINTENDENT.
11. THE CONTRACTOR SHALL PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A OR 2-A:10-B:C WITHIN 75 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF THE BUILD OUT AREA DURING CONSTRUCTION.
12. ANY CONNECTION FEES FOR TEMPORARY ELECTRICAL SERVICE SHALL BE PAID BY THE CONTRACTOR.
13. THE GENERAL CONTRACTOR SHALL PROVIDE ALL NECESSARY TEMPORARY POWER. CONTRACTOR SHALL NOT USE THE VERIZON WIRELESS GENERATOR ON SITE.

ABBREVIATIONS

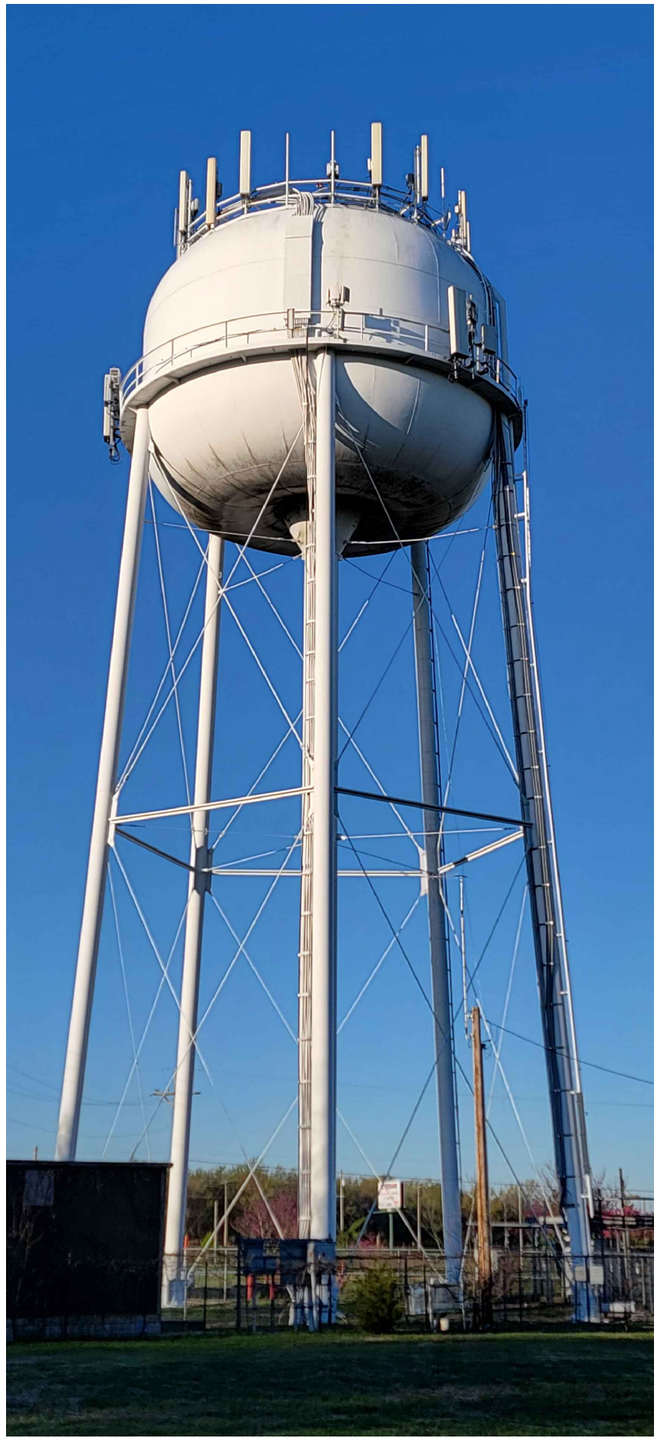
AGL	ABOVE GRADE LINE	GC	GENERAL CONTRACTOR
AMP	AMPERE	GND	GROUND
ARCH	ARCHITECT	HT	HEIGHT
BLDG	BUILDING	LF	LINEAR FEET
CL	CENTER LINE	MIN	MINIMUM
CONC	CONCRETE	MISC	MISCELLANEOUS
CONST	CONSTRUCTION	NTS	NOT TO SCALE
CONTR	CONTRACTOR	OC	ON CENTER
DET	DETAIL	PL	PLATE
DIA	DIAMETER	REQ'D	REQUIRED
DIAG	DIAGONAL	SF	SQUARE FEET
DIM	DIMENSION	SHT	SHEET
DN	DOWN	SIM	SIMILAR
DWG	DRAWING	SPECS	SPECIFICATIONS
EA	EACH	STD	STANDARD
ELEC	ELECTRICAL	STL	STEEL
ELEV	ELEVATOR, ELEVATION	STRUCT	STRUCTURAL
EQ	EQUAL	TC	TOP OF CURB
EQUIP	EQUIPMENT	TERRA	TERRA CONSULTING GROUP
EXIST	EXISTING	TOP	TOP OF PAVING
FND	FOUNDATION	TOS	TOP OF STEEL
FTG	FOOTING	TOC	TOP OF CONCRETE
GA	GAUGE	TYP	TYPICAL
GALV	GALVANIZED	UNO	UNLESS NOTED OTHERWISE

UNAVAILABLE

1 EXISTING ASR SIGN PHOTO
N.T.S.

2 LESSEE COAX ROUTE ON ICE BRIDGE
N.T.S.

3 LESSEE COAX ROUTE @ TOP
N.T.S.



4 EXISTING TOWER PHOTO
N.T.S.

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DESIGN FIRM # E-2015004018

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SPRC WILLARD WATER TANK - A

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WILLARD, MO 65781

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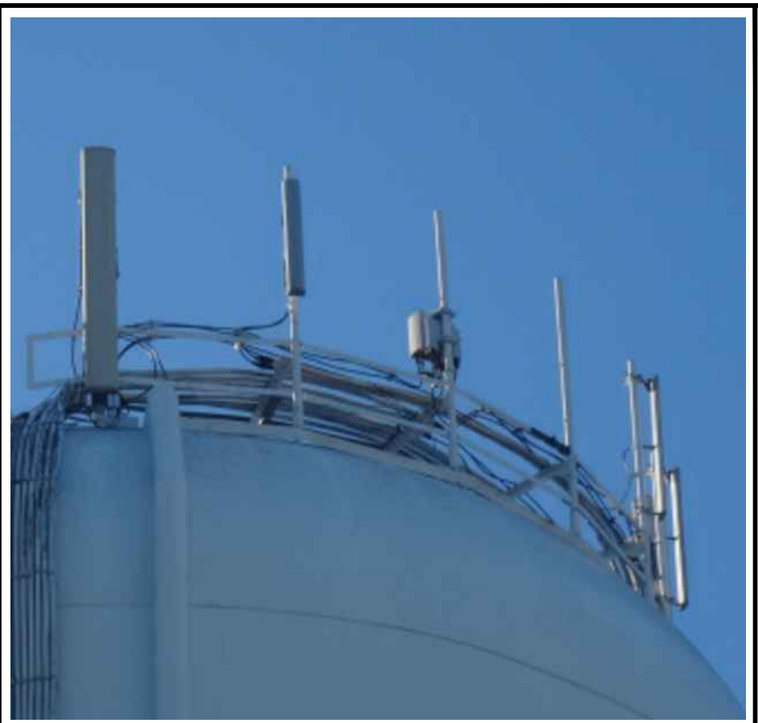
PROJECT #:	54-1540

SHEET TITLE
GENERAL NOTES & SITE PHOTOS

SHEET NUMBER
N-1

1 EXISTING ALPHA SECTOR
N.T.S.

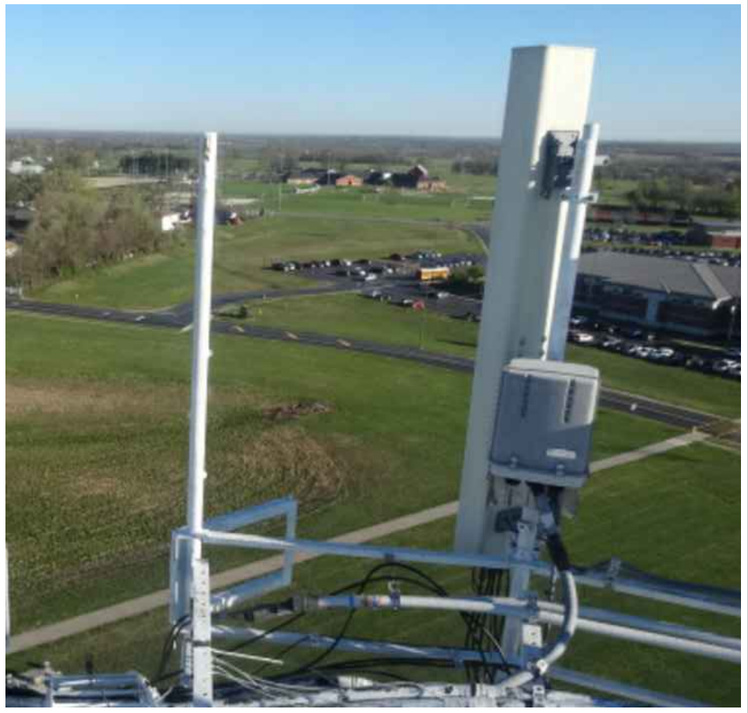
2 EXISTING BETA SECTOR
N.T.S.



3 EXISTING GAMMA SECTOR
N.T.S.

4 EXISTING ALPHA SECTOR RRU AND RAYCAP LOCATION
N.T.S.

5 EXISTING BETA SECTOR RRU AND RAYCAP LOCATION
N.T.S.



6 EXISTING GAMMA SECTOR RRU AND RAYCAP LOCATION
N.T.S.

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SHEET TITLE

SITE PHOTOS

SHEET NUMBER

N-2

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Passing Mount Analysis

Passing Mount Analysis requires a PMI due to a modification in loading.

Electronic pdf version of this can be downloaded at https://pmi.vzwsmart.com.

For additional questions and support, please reach out to pmisupport@colliersengineering.com

---

MDG #: 5000309199 SMART Project #: 10220066 Fuze Project ID: 16947572

Purpose – to provide SMART Tool structural vendor the proper documentation in order to complete the required Mount Desktop review of the Post Modification Inspection Report.

- Contractor is responsible for making certain the photos provided as noted below provide confirmation that the installation was completed in accordance with this Passing Mount Analysis.
- Contractor shall relay any data that can impact the performance of the mount, this includes safety issues.

Base Requirements:

- If installation will cause damage to the structure, the climbing facility, or safety climb if present or any installed system, SMART Tool vendor to be notified prior to install. Any special photos outside of the standard requirements will be indicated on the drawings.
- Provide "as built mount drawings" showing contractor's name, contact information, preparer's signature, and date. Any deviations from the drawings (Proposed modification) shall be shown. NOTE: If loading is different than what is conveyed in the passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo should be time and date stamped
- Photos should be high resolution.
- Contractor shall ensure that the safety climb wire rope is supported and not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope. If there is conflict, contact the SMART Tool engineer for recommendations.
- The PMI can be accessed at the following portal: ***https://pmi.vzwsmart.com***

Photo Requirements:

- *Photos taken at ground level*
  - Photo of Gate Signs showing the tower owner, site name, and number.
  - Overall tower structure after installation.
  - Photos of the mount after installation; if the mounts are at different rad elevations, pictures must be provided for all elevations that equipment was installed.
- *Photos taken at Mount Elevation*
  - Photos showing the safety climb wire rope above and below the mount prior to installation.
  - Photos showing the climbing facility and safety climb if present.
  - Photos showing each individual sector after installation. Each entire sector shall be in one photo to show the interconnection of members.

        - These photos shall also certify that the placement and geometry of the equipment on the mount is as depicted in the antenna placement diagram in this form.
    - Photos that show the model number of each antenna and piece of equipment installed per sector.

Antenna & equipment placement and Geometry Confirmation:

- The contractor shall certify that the antenna & equipment placement and geometry is in accordance with the sketch and table as included in the mount analysis and noted below.

☐ The contractor certifies that the photos support and the equipment on the mount is as depicted on the sketch and table included in this form and with the mount analysis provided.

OR

☐ The contractor notes that the equipment on the mount is not in accordance with the sketch and has noted the differences below and provided photo documentation of any alterations.

Special Instructions / Validation as required from the MA or any other information the contractor deems necessary to share that was identified:

Issue:

Response:

Special Instruction Confirmation:

☐ The contractor has read and acknowledges the above special instructions.

☐ All hardware listed in the Special Instructions above (if applicable) has been properly installed, and the existing hardware was inspected.

☐ The material utilized was as specified in the SMART Tool engineering vendor Special Instructions above (if applicable) and included in the material certification folder is a packing list or invoice for these materials.

OR

☐ The material utilized was approved by a SMART Tool engineering vendor as an “equivalent” and this approval is included as part of the contractor submission.

Comments:

Contractor certifies that the climbing facility / safety climb was not damaged prior to starting work:

☐ Yes ☐ No

Contractor certifies no new damage created during the current installation:

☐ Yes ☐ No

Contractor to certify the condition of the safety climb and verify no damage when leaving the site:

☐ Safety Climb in Good Condition ☐ Safety Climb Damaged

Contractor to provide measurement from top of the highest equipment/steel to the bottom of the lowest equipment/steel by documenting it using the most appropriate illustration below along with supporting photos:

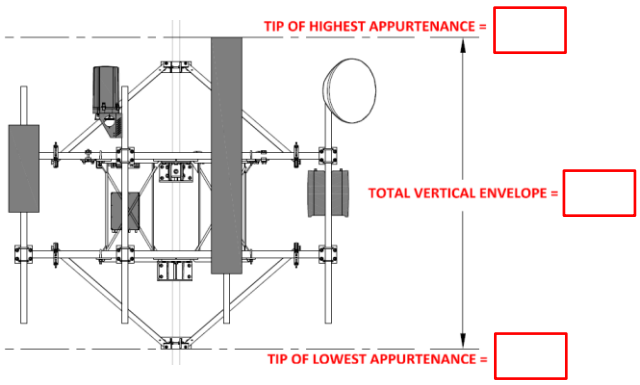

Illustration #1

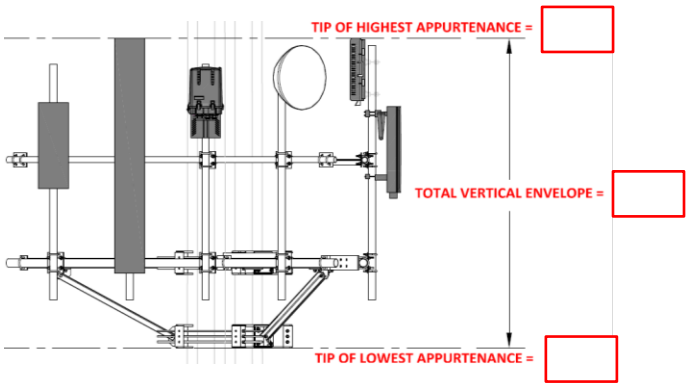

Illustration #2

Certifying Individual:

Company:	
Employee Name:	
Contact Phone:	
Email:	
Date:	