AT&T

SITE NAME: BARC WATER TANK
FA#: 10096175
USID: 4043
COUNTY: PRINCE GEORGES
STRUCTURE TYPE: 157'-7" WATER TANK

PACE#: MRWSH073639, MRWSH073001, MRWSH073434, MRWSH073362

IWM WSWSH0043206, WSWSH0041780,
PROJECT#: WSWSH0042625, WSWSH0042924

PROJECT INFORMATION

SITE ADDRESS:	BEAVER DAM ROAD BELTSVILLE, MD 20705
LATITUDE (NAD83):	39.017201° N
LONGITUDE (NAD83):	−76.861099° W
GROUND ELEVATION:	±161.4' (AMSL)
COUNTY:	PRINCE GEORGES
JURISDICTION:	PRINCE GEORGES COUNTY
ELECTRIC PROVIDER: PHONE:	BGE
TELCO PROVIDER: PHONE:	TBD
OCCUPANCY TYPE:	UNMANNED
ADA COMPLIANCE	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.

APPLICANT:	AT&T MOBILITY 7150 STANDARD DRIVE HANOVER, MD 21076
TOWER OWNER: ADDRESS:	US DEPT OF AGRICULTURE
CONTACT: PHONE:	TBD TBD
A&E FIRM: ADDRESS: CONTACT: PHONE: EMAIL:	TRYLON TSF 1825 W. WALNUT HILL LANE, STE#120 IRVING, TX 75038 CLIFF ABERNATHY 1−855−669−5421 CLIFF.ABERNATHY@TRYLON.COM

AREA MAP



PROJECT DESCRIPTION

THE SCOPE OF WORK WILL BE COMPRISED OF:

- REMOVE (6) ANTENNAS
- REMOVE (9) RRHS
- REMOVE BBU CHASSIS
- REMOVE (6) EXISTING EMERSON CONVERTER
- REMOVE (3) DIPLEXERS
- REMOVE (3) MAST PIPES
- INSTALL (9) ANTENNAS
- INSTALL (9) RRHS
- INSTALL (12) ANTENNA RF PORT CAPS
- INSTALL (48) NEW HM−HM RF JUMPERS
- INSTALL (12) NEW DUAL MODE FIBER JUMPERS
- INSTALL (12) NEW 8AWG MINIMUM LI C JUMPERS
- INSTALL (8) CONVERTERS
- INSTALL (2) RECTIFIERS
- INSTALL (1) CONVERTER UPGRADE KIT
- INSTALL (1) 6610 SITE CONTROLLER WITH (1) 6672 BBU
- INSTALL (5) SITEPRO1 P30120 SCH. 40x120" MAST PIPE
- INSTALL (4) SITEPRO1 P30150 SCH. 40X150" MAST PIPE
- INSTALL (6) SITEPRO1 STCX45−K CROSSOVER PLATE KIT
- INSTALL (4) SITEPRO1 SCP10W PIPE−TO−PIPE CLAMP SET
- INSTALL (6) SITEPRO1 SQCX4−K CROSSOVER PLATE KIT
- INSTALL (6) ERICSSON SXK1255394/2 BACK TO BACK RRH MOUNT
- INSTALL (1) TELECT FIBER PATCH PANEL
- INSTALL (1) YELLOW RF CAUTION 2 SIGN, SEE SHEET C−1.1

GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, PORTABLE WATER, OR TRASH DISPOSAL IS REQUIRED, NO COMMERCIAL SIGNAGE AND NO LANDSCAPING IS PROPOSED.

DO NOT SCALE DRAWINGS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR A 11"X17" SET. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

LOCATION MAP



RFDS

RFDS ID: RFDS−40024 ISSUE DATE: 06/12/2024 REVISION: V1.0 UPDATED BY: vk9392
DATE/TIME UPDATED: 12/13/2024

CODE COMPLIANCE

ALL WORK & MATERIALS SHALL BE PERFORMED & 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 THESE CODES:

- 2021 INTERNATIONAL BUILDING CODE & SUBTITLE 4 FOR PG COUNTY MD
- 2021 INTERNATIONAL EXISTING BUILDING CODE
- 2021 INTERNATIONAL MECHANICAL CODE
- 2021 INTERNATIONAL ENERGY CONSERVATION CODE
- 2021 NFPA 1 FIRE CODE
- MARYLAND STATE FIRE PREVENTION CODE
- 2020 NFPA 70/NEC & SUBTITLE 9 PG COUNTY MD ELECTRICAL CODE
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)
- TIA−222−H
- TIA 607
- TELCORDIA GR−1275

DRIVING DIRECTIONS

FROM 7150 STANDARD DRIVE HANOVER, MD 21076:
GET ON MD−100 E FROM STANDARD DR, PARK CIR DR AND COCA COLA DR, HEAD SOUTHWEST TOWARD STANDARD DR, TURN LEFT TOWARD STANDARD DR, TURN RIGHT ONTO STANDARD DR, TURN LEFT ONTO PARKWAY DR, TURN RIGHT ONTO PARK CIR DR, TURN LEFT ONTO COCA COLA DR, TURN LEFT TO MERGE WITH MD−100 E TOWARD GLEN BURNIE, DRIVE TO BALTIMORE−WASHINGTON PKWY IN BERWYN, MERGE WITH MD−100 E, TAKE EXIT 9A FOR MD−295 S/BALT/WASH PARKWAY TOWARD WASHINGTON, MERGE WITH MD−295 S, CONTINUE ONTO BALTIMORE−WASHINGTON PKWY.

SHEET INDEX

SHEET #	DESCRIPTION	REVISION #
T−1	TITLE SHEET	1
C−1	COMPOUND PLAN	1
C−1.1	RF SAFETY SURVEY REPORT	1
C−2	EQUIPMENT PLANS	1
C−3	TOWER ELEVATIONS	1
C−4 − C−4.1	EXISTING & PROPOSED ANTENNA LAYOUTS	1
C−5	PROPOSED ANTENNA SCHEDULE	1
C−6 − C−10	EQUIPMENT DETAILS	1
E−1	DC SURGE SUPPRESSION WIRING DIAGRAM	1
E−2	POWER LOAD CALCULATIONS	1
RF−1	RF PLUMBING DIAGRAM	1
G−1	GROUNDING DETAILS	1
GN−1	GENERAL NOTES	1

811 Know what's below. Call before you dig.

TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN MARYLAND (WEST OF CHESAPEAKE BAY), CALL MISS UTILITY OF MARYLAND
TOLL FREE: 1-800-257-7777 OR
www.missutility.net
MARYLAND STATUTE REQUIRES MIN OF 2 WORKING DAYS NOTICE BEFORE YOU EXCAVATE

APPROVALS

AT&T (CM):		DATE:
SMARTLINK (PM):		DATE:
RF ENGINEER:		DATE:
SITE ACQUISITION:		DATE:
LANDLORD:		DATE:

AT&T
smartlink
Trylon

DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	03/27/25	90% CD	RC
B	04/10/25	90% CD	RC
C	02/24/26	90% CD	RC
0	07/21/26	100% CD	TFL
1	08/05/26	100% CD	TFL
2	08/25/26	100% CD	TFL

STATE OF MARYLAND
MICHAEL S MOORE
62222
PROFESSIONAL ENGINEER
8/25/2026

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No: 62222 Exp. Date: 1/7/2028

PROJECT TITLE

USID: 4043
FA#: 10096175

BARC WATER TANK

BEAVER DAM ROAD
BELTSVILLE, MD 20705

EXISTING 157'−7"
WATER TANK

SHEET DESCRIPTION

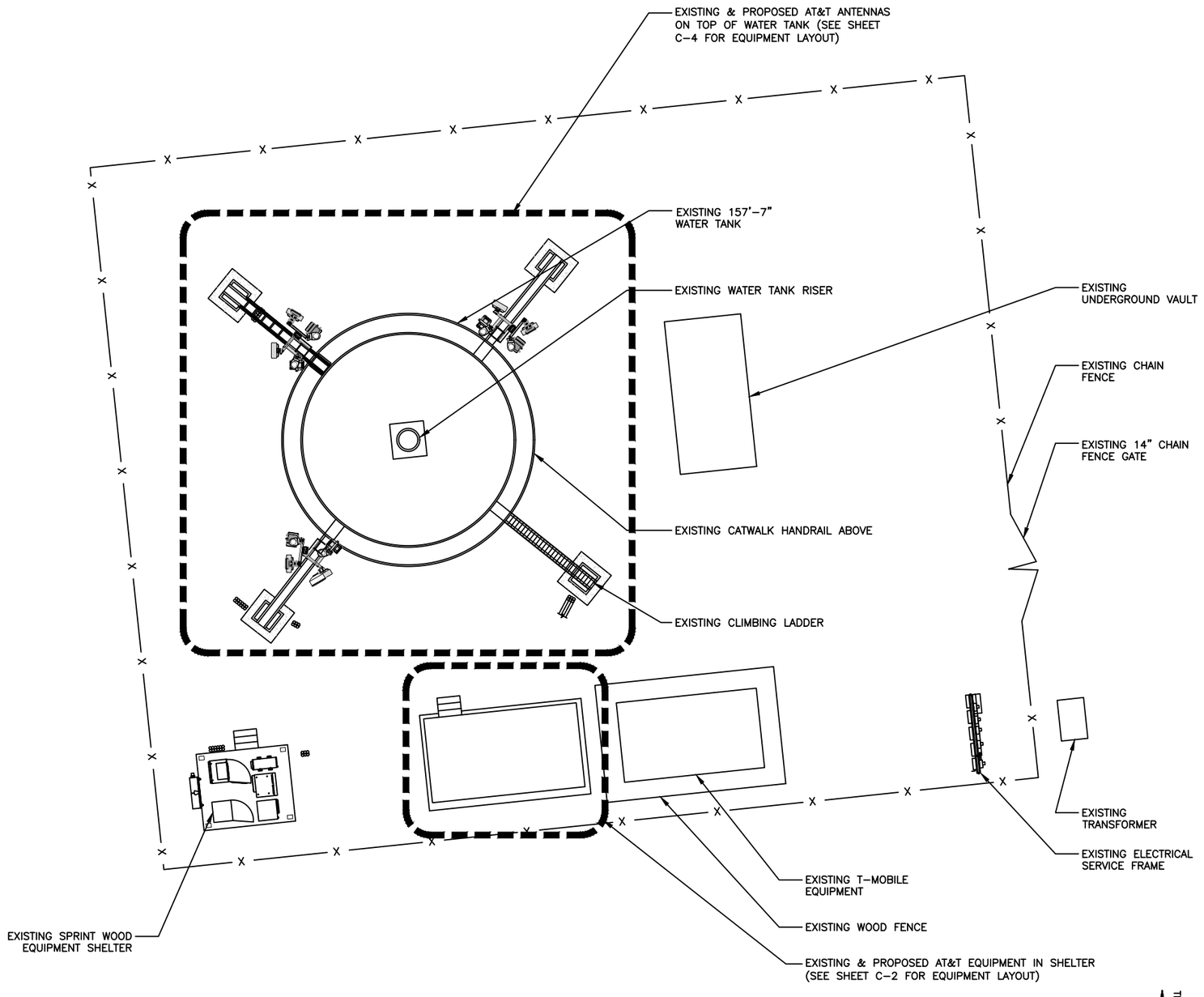
TITLE SHEET

SHEET NO.

T−1

GENERAL NOTES:

1. THE SUBCONTRACTOR SHALL GIVE ALL NOTICES AND REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES.
2. THE ARCHITECT/ENGINEER HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE SUBCONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID SUBCONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
3. THE SUBCONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE AT&T REPRESENTATIVE OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF SUBCONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES, THE SUBCONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
4. THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIAL AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.
5. THE SUBCONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE THEMSELVES WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
6. THE SUBCONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/VENDOR'S SPECIFICATIONS UNLESS INFORMED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
8. THE SUBCONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE, UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS OR CLARIFICATIONS, AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
9. THE SUBCONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
10. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEERING, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
11. THE SUBCONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVEMENTS, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE SUBCONTRACTOR SHALL REPAIR ANY DAMAGE THE MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.
12. THE SUBCONTRACTOR SHALL MAINTAIN THE GENERAL WORK AREA AS CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST OR SMUDGES OF ANY NATURE.
13. THE SUBCONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
14. THE SUBCONTRACTOR SHALL NOTIFY THE AT&T REPRESENTATIVE WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE SUBCONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE AT&T REPRESENTATIVE.
15. THE SUBCONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOBS.
16. CABLE ATTACHMENT TO FOLLOW AT&T CONSTRUCTION STANDARDS DOCUMENT # ATT-CEM-18006 TITLED "HOSE CLAMP & METAL SNAP-IN SUPPORTS PIM PROBLEM RESOLUTION".



AT&T

smartlink

Trylon

DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	03/27/25	90% CD	RC
B	04/10/25	90% CD	RC
C	02/24/26	90% CD	RC
0	07/21/26	100% CD	TFL
1	08/05/26	100% CD	TFL
2	08/25/26	100% CD	TFL

STATE OF MARYLAND
MICHAEL S MOORE
62222
PROFESSIONAL ENGINEER
8/25/2026

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No: 62222 Exp. Date: 1/7/2028

PROJECT TITLE

USID: 4043
FA#: 10096175

BARC WATER TANK

BEAVER DAM ROAD
BELTSVILLE, MD 20705

EXISTING 157'-7" WATER TANK

SHEET DESCRIPTION

COMPOUND PLAN

SHEET NO.

C-1

COMPOUND PLAN

0 4' 8' 16'

SCALE: 1/16"=1'-0" (11x17)
(OR) 1/8"=1'-0" (22x34)

NOTE:

CONTRACTOR TO REFER TO RF FREQUENCY SAFETY SURVEY REPORT PREDICTIVE (RFSSRP) REPORT BY MOBILECOMM PROFESSIONALS, INC DATED 03/09/2026

1.2 Signage Summary (Proposed)

AT&T Signage Locations	Sign Type									
	Safety Instructions	Notice Sign 2	Caution Sign 2	Caution Sign 2B	Caution Sign 2C	Caution 7"x7"	Warning Sign 1B	RF Exposure Map	Lock	Barriers
Water Tank			1							
Alpha										
Beta										
Gamma										

TABLE 2: Signage Summary (Proposed)

5. Statement of Compliance

5.1 Statement of AT&T Mobility Compliance

At the time of our Analysis, AT&T Mobility is required to take action to fulfill their Obligations to comply with the FCC's mandate as defined in OET-65.

Recommendations

AT&T Mobility Alpha Sector:

- No actions required.

AT&T Mobility Beta Sector:

- No actions required.

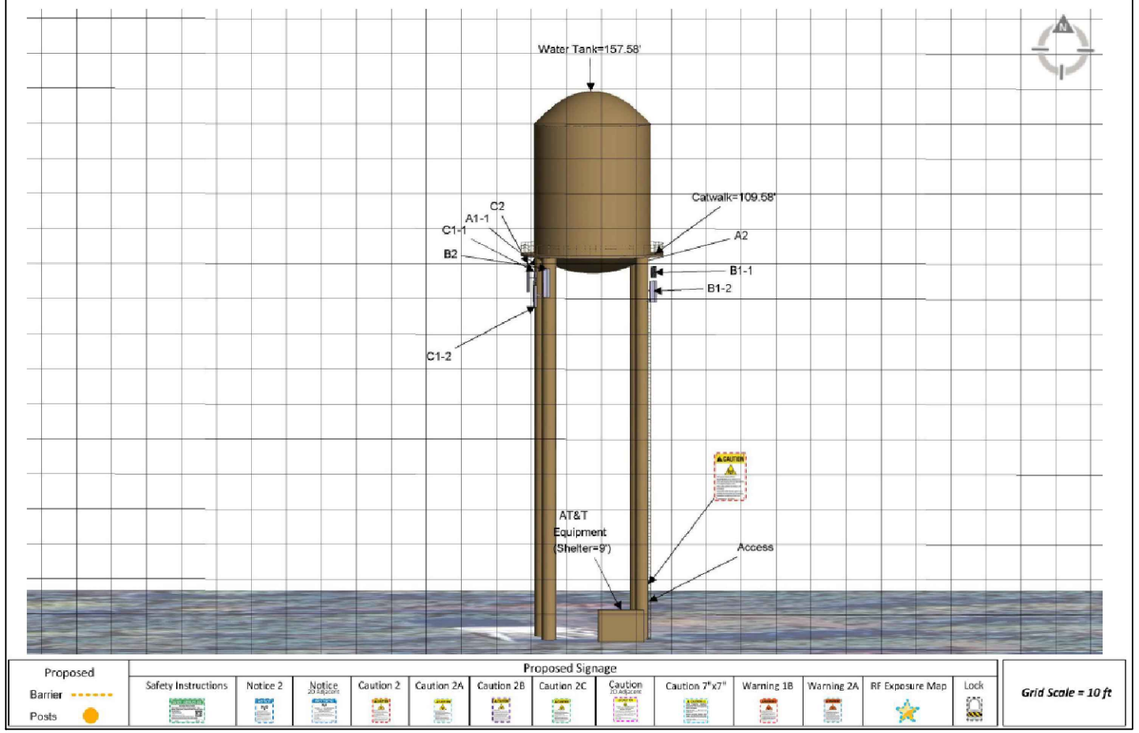
AT&T Mobility Gamma Sector:

- No actions required.

Water Tank:

- One Caution 2 Sign to be posted on the Water Tank at the climbing access, facing outwards so approaching people can see as shown in "Recommendations Map – Detailed View" on page 14. (1 Total Sign)

2. Site Scale Map



AT&T

smartlink

Trylon

DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	03/27/25	90% CD	RC
B	04/10/25	90% CD	RC
C	02/24/26	90% CD	RC
0	07/21/26	100% CD	TFL
1	08/05/26	100% CD	TFL
2	08/25/26	100% CD	TFL

STATE OF MARYLAND
MICHAEL S. MOORE
62222
PROFESSIONAL ENGINEER

8/25/2026

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No: 62222 Exp. Date: 1/7/2028

PROJECT TITLE

USID: 4043
FA#: 10096175

BARC WATER TANK

BEAVER DAM ROAD
BELTSVILLE, MD 20705

EXISTING 157'–7"
WATER TANK

SHEET DESCRIPTION

RF SAFETY SURVEY REPORT

SHEET NO.

C–1.1

STANDARDS:

PLEASE REFER TO ATT STD DOC ID ATT-TP-76416

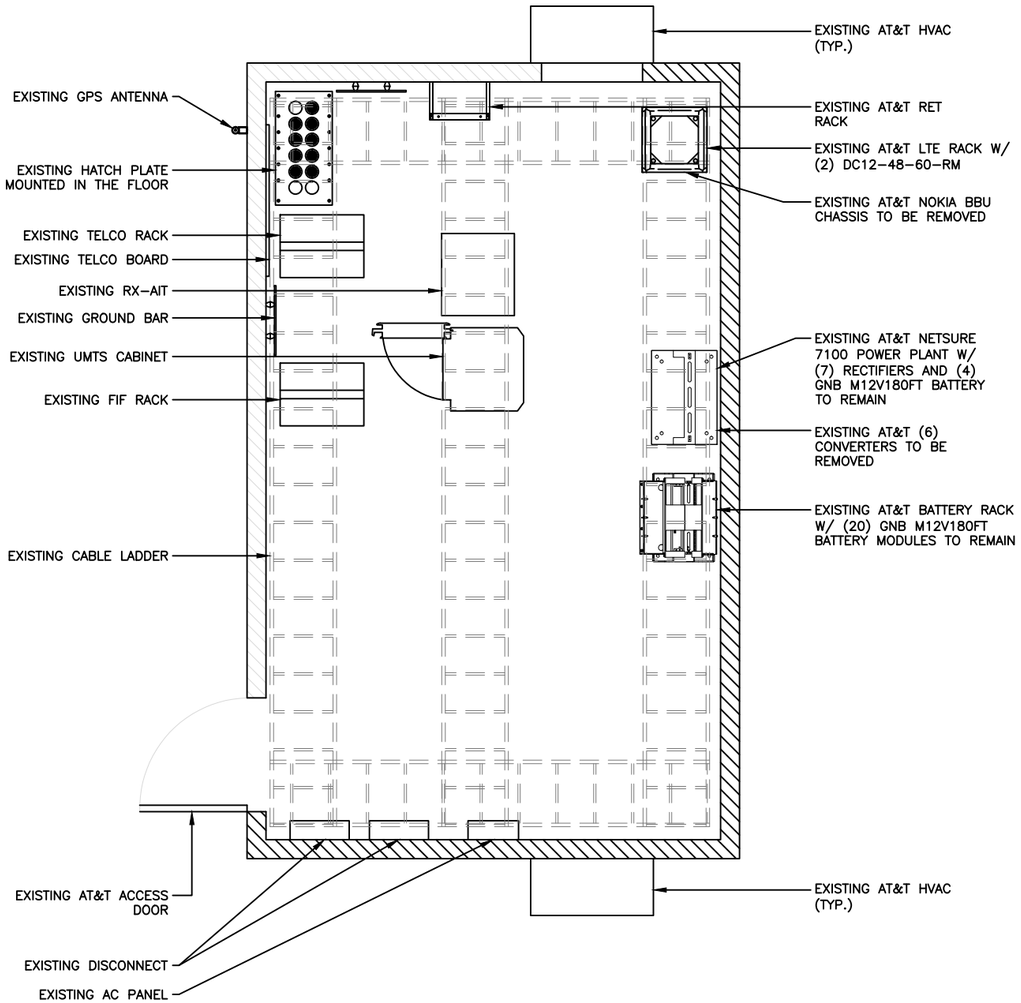
PLEASE REFER TO ATT STD DOC ID ATT-002-290-531

PLEASE REFER TO ATT STD DOC ID ATT-002-290-701

PLEASE REFER TO ATT STD DOC ID ATT-TP-76300

PLEASE REFER TO ATT STD DOC ID ATT-CEM-18002

PLEASE REFER TO ATT STD DOC ID ATT-CEM-23001

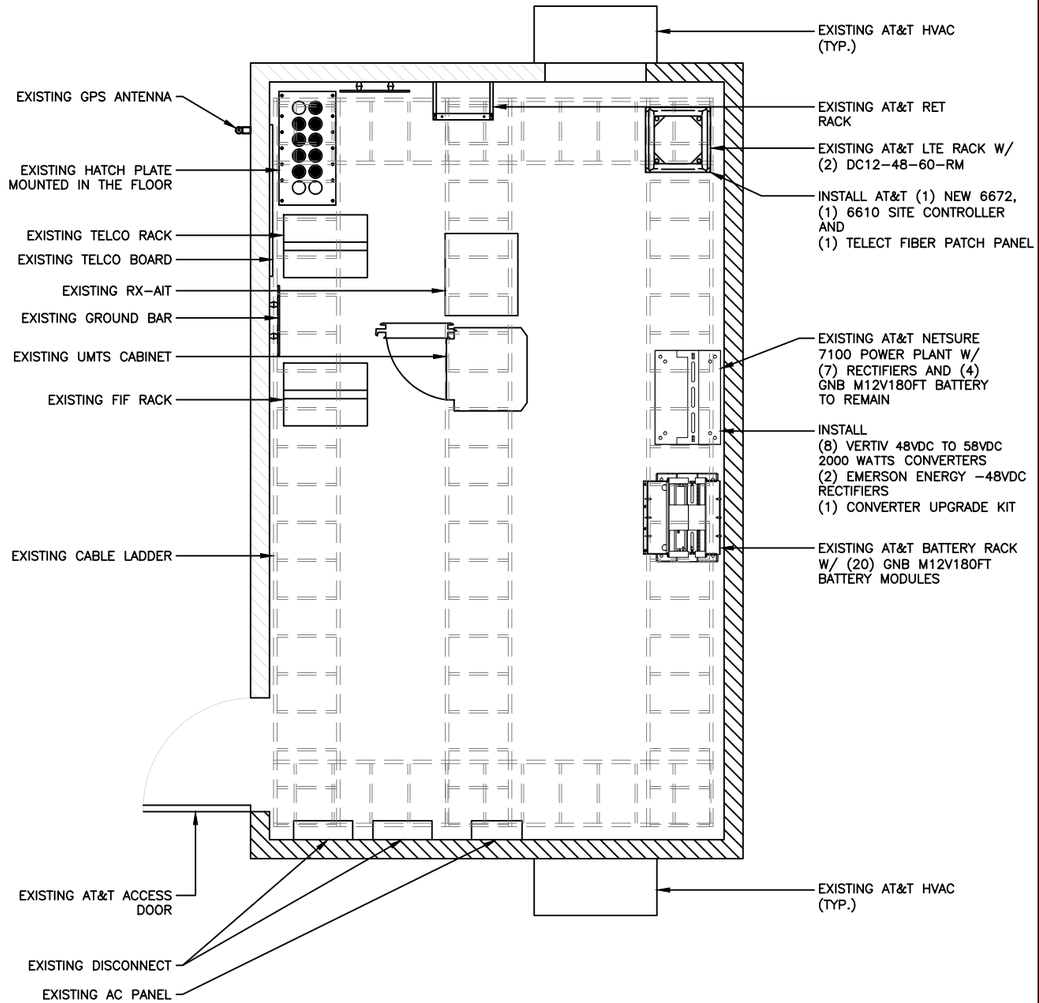


EXISTING EQUIPMENT LAYOUT

0 2' 4'

SCALE: 1/4"=1'-0" (11x17)
(OR) 1/2"=1'-0" (22x34)

1



PROPOSED EQUIPMENT LAYOUT

0 2' 4'

SCALE: 1/4"=1'-0" (11x17)
(OR) 1/2"=1'-0" (22x34)

2

AT&T

smartlink

Trylon

DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	03/27/25	90% CD	RC
B	04/10/25	90% CD	RC
C	02/24/26	90% CD	RC
0	07/21/26	100% CD	TFL
1	08/05/26	100% CD	TFL
2	08/25/26	100% CD	TFL

STATE OF MARYLAND
MICHAEL S MOORE
62222
PROFESSIONAL ENGINEER
8/25/2026

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No: 62222 Exp. Date: 1/7/2028

PROJECT TITLE

USID: 4043
FA#: 10096175

BARC WATER TANK

BEAVER DAM ROAD
BELTSVILLE, MD 20705

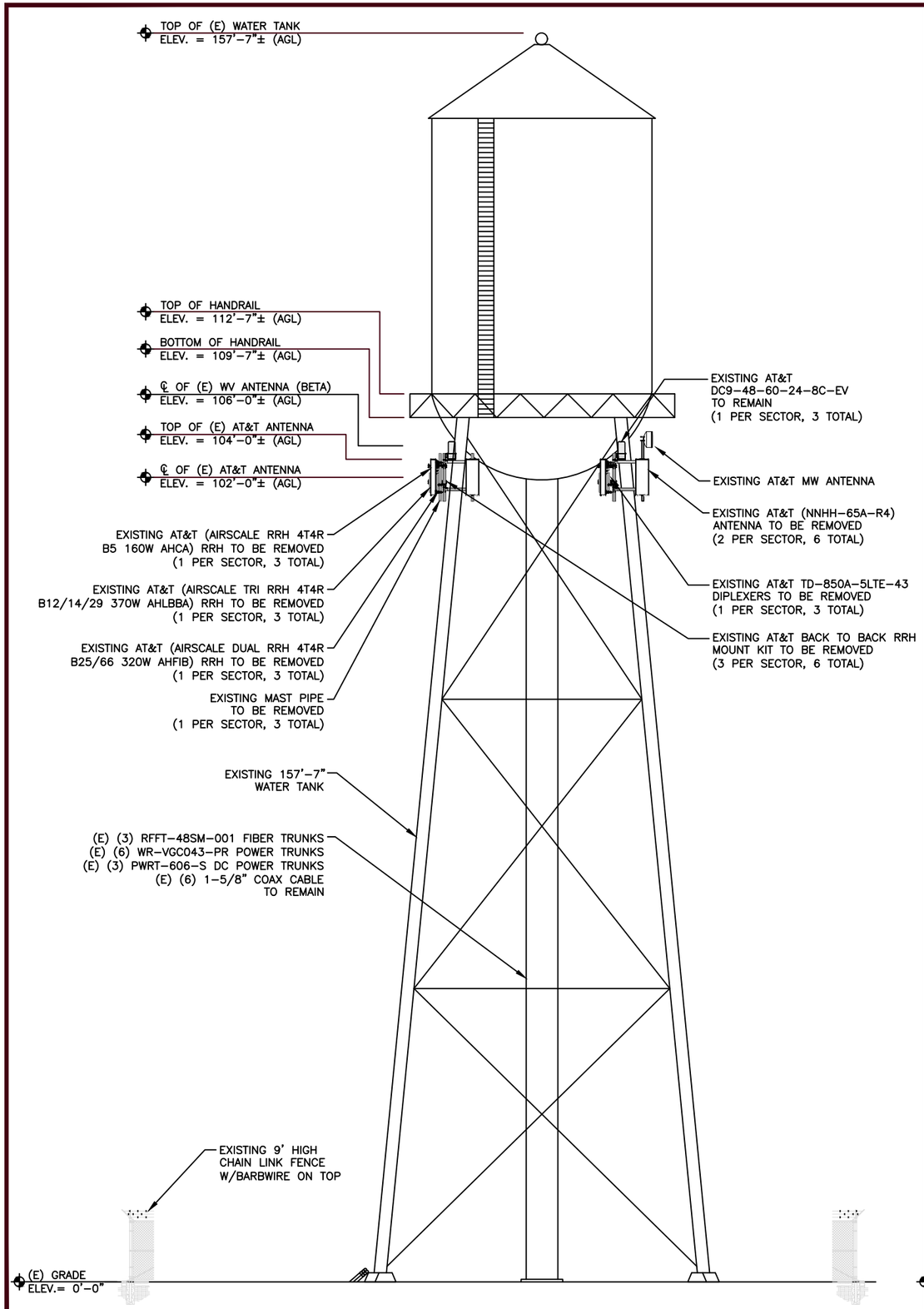
EXISTING 157'-7" WATER TANK

SHEET DESCRIPTION

EQUIPMENT PLANS

SHEET NO.

C-2

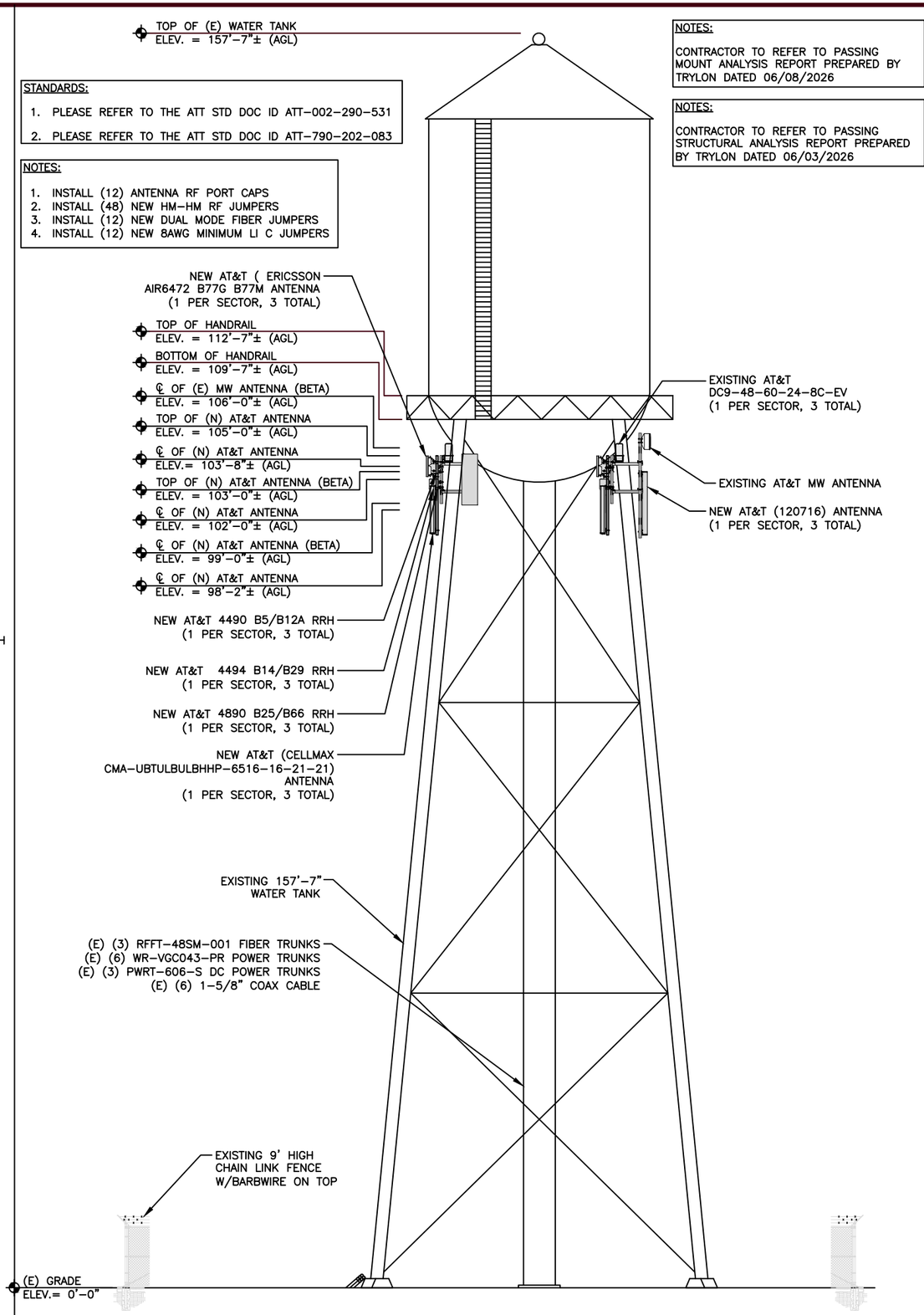


EXISTING TOWER ELEVATION-NORTH

0 4' 8' 16'

SCALE: 1/16"=1'-0" (11x17)
(OR) 1/8"=1'-0" (22x34)

1



PROPOSED TOWER ELEVATION-NORTH

0 4' 8' 16'

SCALE: 1/16"=1'-0" (11x17)
(OR) 1/8"=1'-0" (22x34)

2

STANDARDS:

1. PLEASE REFER TO THE ATT STD DOC ID ATT-002-290-531
2. PLEASE REFER TO THE ATT STD DOC ID ATT-790-202-083

NOTES:

1. INSTALL (12) ANTENNA RF PORT CAPS
2. INSTALL (48) NEW HM-HM RF JUMPERS
3. INSTALL (12) NEW DUAL MODE FIBER JUMPERS
4. INSTALL (12) NEW 8AWG MINIMUM LI C JUMPERS

NOTES:

CONTRACTOR TO REFER TO PASSING MOUNT ANALYSIS REPORT PREPARED BY TRYLON DATED 06/08/2026

NOTES:

CONTRACTOR TO REFER TO PASSING STRUCTURAL ANALYSIS REPORT PREPARED BY TRYLON DATED 06/03/2026

AT&T

smartlink

Trylon

DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	03/27/25	90% CD	RC
B	04/10/25	90% CD	RC
C	02/24/26	90% CD	RC
0	07/21/26	100% CD	TFL
1	08/05/26	100% CD	TFL
2	08/25/26	100% CD	TFL



I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No: 62222 Exp. Date: 1/7/2028

PROJECT TITLE

USID: 4043
FA#: 10096175

BARC WATER TANK

BEAVER DAM ROAD
BELTSVILLE, MD 20705

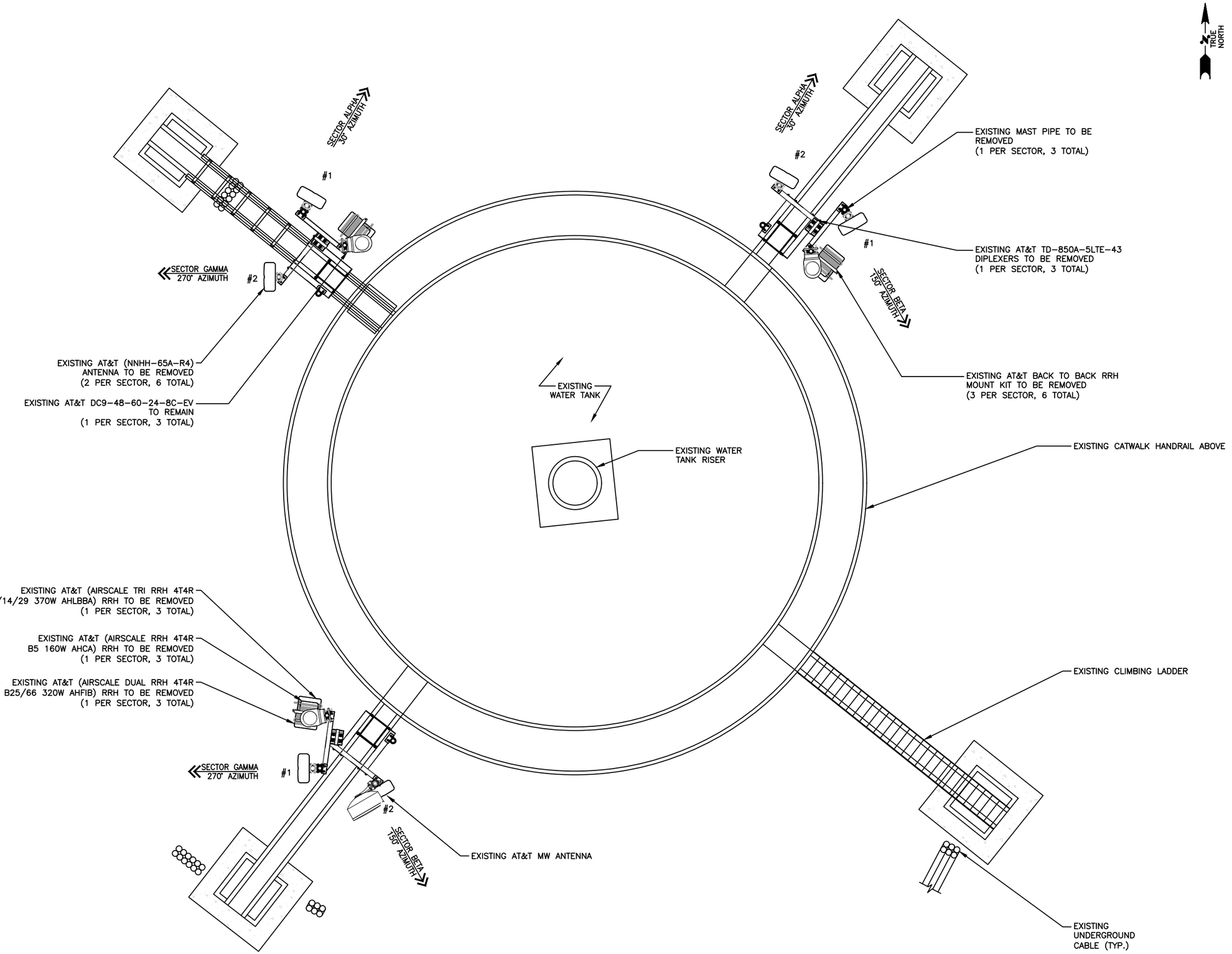
EXISTING 157'-7" WATER TANK

SHEET DESCRIPTION

TOWER ELEVATIONS

SHEET NO.

C-3



EXISTING ANTENNA LAYOUT

0 3' 6'

SCALE: 3/16"=1'-0" (11x17)
(OR) 3/8"=1'-0" (22x34)

1

AT&T

smartlink

Trylon

DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	03/27/25	90% CD	RC
B	04/10/25	90% CD	RC
C	02/24/26	90% CD	RC
0	07/21/26	100% CD	TFL
1	08/05/26	100% CD	TFL
2	08/25/26	100% CD	TFL

STATE OF MARYLAND
MICHAEL S. MOORE
62222
PROFESSIONAL ENGINEER

8/25/2026

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No: 62222 Exp. Date: 1/7/2028

PROJECT TITLE

USID: 4043
FA#: 10096175

BARC WATER TANK

BEAVER DAM ROAD
BELTSVILLE, MD 20705

EXISTING 157'-7" WATER TANK

SHEET DESCRIPTION

EXISTING ANTENNA LAYOUT

SHEET NO.

C-4

STANDARDS:

1. PLEASE REFER TO THE ATT STD DOC ID ATT-002-290-531
2. PLEASE REFER TO THE ATT STD DOC ID ATT-790-202-083

NOTES:

1. INSTALL (12) ANTENNA RF PORT CAPS
2. INSTALL (48) NEW HM-HM RF JUMPERS
3. INSTALL (12) NEW DUAL MODE FIBER JUMPERS
4. INSTALL (12) NEW 8AWG MINIMUM LI C JUMPERS

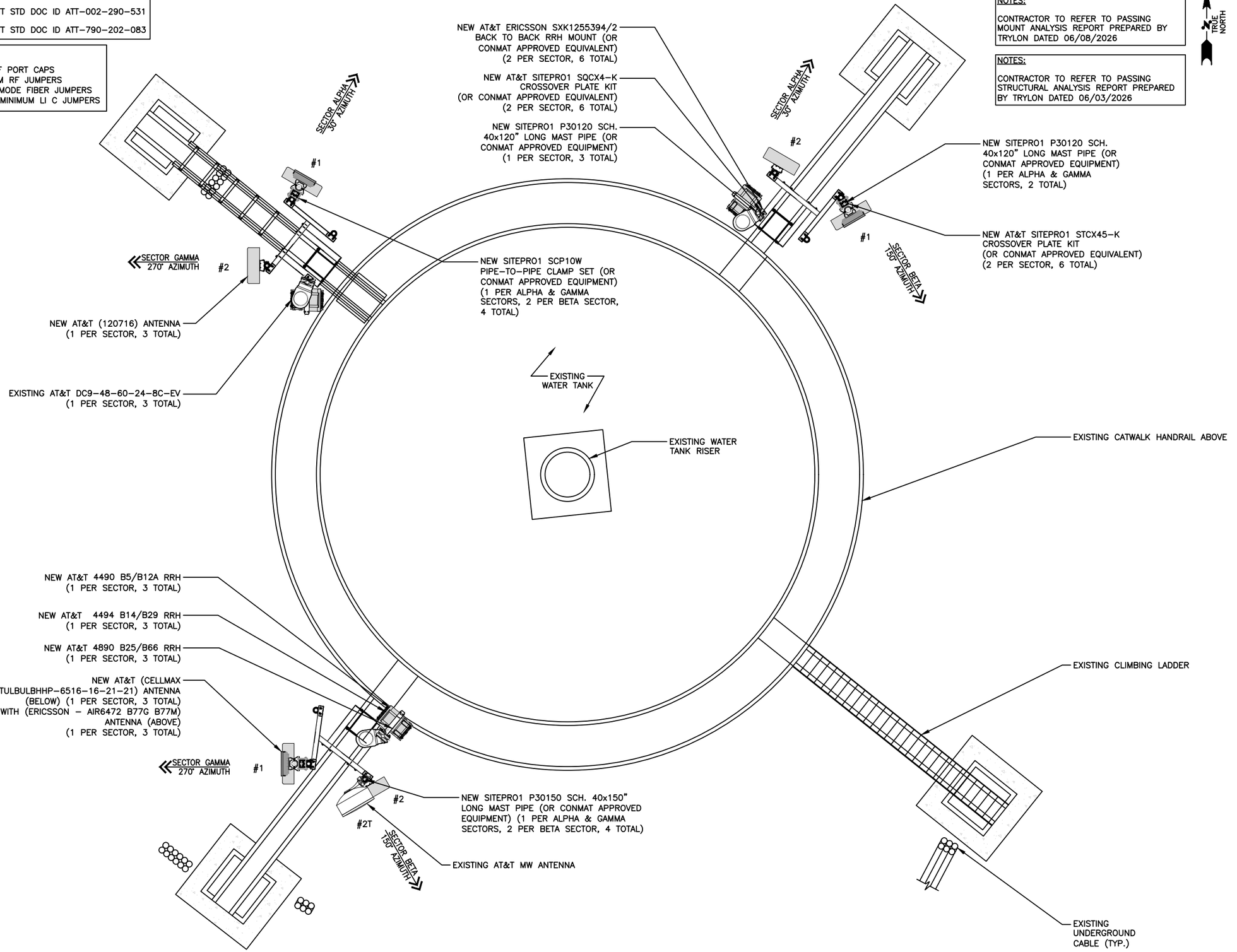
NOTES:

CONTRACTOR TO REFER TO PASSING MOUNT ANALYSIS REPORT PREPARED BY TRYLON DATED 06/08/2026

NOTES:

CONTRACTOR TO REFER TO PASSING STRUCTURAL ANALYSIS REPORT PREPARED BY TRYLON DATED 06/03/2026

TRUE NORTH



PROPOSED ANTENNA LAYOUT

0 3' 6'

SCALE: 3/16"=1'-0" (11x17)
(OR) 3/8"=1'-0" (22x34)

1

AT&T

smartlink

Trylon

DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	03/27/25	90% CD	RC
B	04/10/25	90% CD	RC
C	02/24/26	90% CD	RC
0	07/21/26	100% CD	TFL
1	08/05/26	100% CD	TFL
2	08/25/26	100% CD	TFL

STATE OF MARYLAND
MICHAEL S. MOORE
62222
PROFESSIONAL ENGINEER

8/25/2026

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No: 62222 Exp. Date: 1/7/2028

PROJECT TITLE

USID: 4043
FA#: 10096175

BARC WATER TANK

BEAVER DAM ROAD
BELTSVILLE, MD 20705

EXISTING 157'-7"
WATER TANK

SHEET DESCRIPTION

PROPOSED
ANTENNA LAYOUTS

SHEET NO.

C-4.1

RFDS ID: RFDS-40024

PROPOSED ANTENNA SCHEDULE

SECTOR	ANTENNA POSITION	ANTENNA MAKE/MODEL	RAD CENTER	AZIMUTH	EQUIPMENT MAKE/MODEL	FEEDLINE LENGTH	DC UNITS	FEEDLINE
ALPHA	#1	(N) ERICSSON-AIR6472 B77G B77M (N) CMA-UBTULBULBHHP-6516-16-21-21	103'-8" 98'-2"	30°	(N) ERICSSON 4490 B5/B12A	±110'	(E) (3) DC9-48-60-24-8C-EV	(E) (6) 1-5/8" COAX CABLES (E) (6) WR-VGC043-PR DC POWER TRUNKS (E) (3) PWRT-606-S DC POWER TRUNKS (E) (3) RFFT-48SM-001 PAIR FIBER TUNKS
	#2	(N) ROSENBERGER 120716	102'-0"	30°	(N) ERICSSON 4494 B14/B29 (N) ERICSSON 4890 B25/B66	±110'		
BETA	#1	(N) ERICSSON-AIR6472 B77G B77M (N) CMA-UBTULBULBHHP-6516-16-21-21	103'-8" 98'-2"	150°	(N) ERICSSON 4490 B5/B12A	±110'		
	#2	(N) ROSENBERGER 120716	99'-0"	150°	(N) ERICSSON 4494 B14/B29 (N) ERICSSON 4890 B25/B66	±110'		
	#2T	(E) MW ANTENNA	106'-0"	150°	-	±110'		
GAMMA	#1	(N) ERICSSON-AIR6472 B77G B77M (N) CMA-UBTULBULBHHP-6516-16-21-21	103'-8" 98'-2"	270°	(N) ERICSSON 4490 B5/B12A	±110'		
	#2	(N) ROSENBERGER 120716	102'-0"	270°	(N) ERICSSON 4494 B14/B29 (N) ERICSSON 4890 B25/B66	±110'		

NOTE:
ADD 2ND CPRI CARD AND 2ND FIBER PAIR TO ALL PROPOSED 5G CAPABLE RRU'S AS OUTLINED IN THE FINAL OF THE RFDS.

PROPOSED ANTENNA SCHEDULE

N.T.S.

1

AT&T

smartlink

Trylon

DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	03/27/25	90% CD	RC
B	04/10/25	90% CD	RC
C	02/24/26	90% CD	RC
0	07/21/26	100% CD	TFL
1	08/05/26	100% CD	TFL
2	08/25/26	100% CD	TFL

STATE OF MARYLAND
MICHAEL S MOORE
62222
PROFESSIONAL ENGINEER
8/25/2026

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland,
License No: 62222 Exp. Date: 1/7/2028

PROJECT TITLE

USID: 4043
FA#: 10096175

BARC WATER TANK

BEAVER DAM ROAD
BELTSVILLE, MD 20705

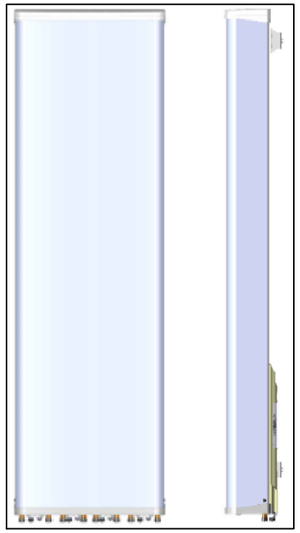
EXISTING 157'-7"
WATER TANK

SHEET DESCRIPTION

PROPOSED ANTENNA SCHEDULE

SHEET NO.

C-5

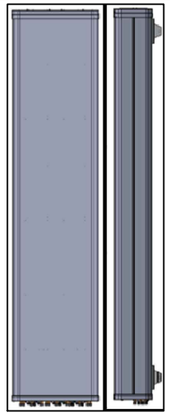


Mechanical parameters:

Mechanical specification:	
Connectors	8 x 4.3 -10 female
Connector position	Bottom
Lightning protection	DC grounded
Height mm (inch)	1840 (72.4)
Width mm (inch)	690 (27.2)
Depth mm (inch)	196 (7.7)
Antenna weight kg (lb)	36 (78)
Wind load at 42 m/s (94 mph)	
Frontal N (lbf)	
Lateral N (lbf)	
Survival wind speed m/s (mph)	67
EPA m² (inch²)	
Colour radome	Light Grey, RAL 7035
Radome material	ASA
Mounting hardware:	
Mounting bracket	2
Bracket weight (complete) kg (lb)	5 (11)
Pole diameter mm (inch)	45 (1.8) - 120 (4.7)
Mechanical tilt range °	0 - 5

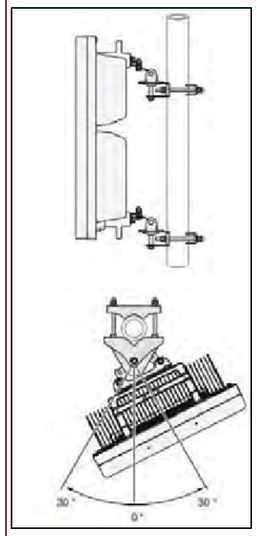
Packing data	
Box size mm (inch)	
Box weight kg (lb)	
Maximum number of boxes per pallet	

1 C–6 CELLMAX CMA–UBTULBULBHHP–6516–16–21–21
SCALE: NTS (ANT.52963)



Mechanical specification:	
Connectors	12 x 4.3 -10 female
Connector position	Bottom
Lightning protection	DC grounded
Height mm (inch)	2445 (96)
Width mm (inch)	609 (24)
Depth mm (inch)	205 (8.1)
Antenna weight kg (lb)	73 (160)

2 C–6 CELLMAX 120716 DETAIL
SCALE: NTS (ANT.57449)



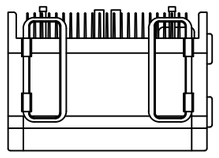
AIR 64TR B77G B77M, Wide band
Product Spec, tentative

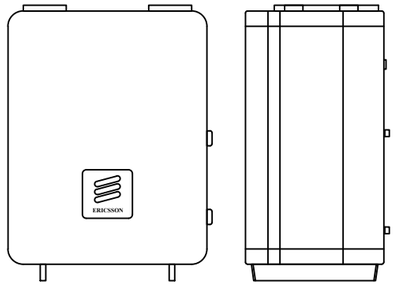
TRX Branches	64T64R
Antenna Elements	256
Antenna configuration	(4x1)x(4x8)
Operation band	B77G (3450-3550 MHz) + B77M (3840-3980 MHz)
IBW	530 MHz
TCBW	Max 200 MHz
Output Power	400 W (configurable for two bands in total, 4W/MHz PSD)
EIRP	80.8 dBm (same EIRP as from 480W with 192AE)
EIS	~0.8 dB better than 192AE
Supported RAT	NR
Weight	~ 42 kg
Size	~ 925Hx418Wx198D mm, 72 L
eCPRI link	2*25G
Operating Temperature	-40 to +55°C, passive cooling
Power Supply	-48VDC 3-wires, single connector
Power Consumption	~ 790W, ETSI Avg.
Multi-layer MU MIMO:	16/8 DL/UL layer

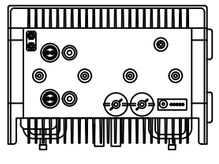
Update
- Delay in FCC waiver approval, but still expected to be granted
- Can AT&T estimate potential volumes in 2024 & 2025

- FCC Waiver result dependent
- Requires some TDD pattern in 3.45G and C-band

3 C–6 AIR6472 B77G/B77M DETAIL
SCALE: NTS (ANT.57837)





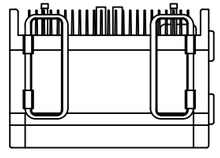


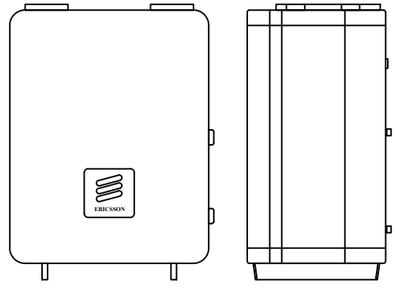
ERICSSON – RADIO 4490
WEIGHT: 20.8 LBS
SIZE (HxWxD): 15.12x17.48x6.77 IN.

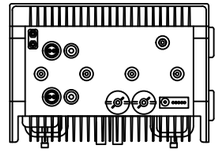
4 C–6 ERICSSON 4490 B5/B12A DETAIL
SCALE: NTS (CEQ.56841) & (CEQ.53714)



5 C–6 ERICSSON 4494 B14/29 DETAIL
SCALE: NTS (CEQ.58512) & (CEQ.53714)







ERICSSON – RADIO 4890
WEIGHT: 20.8 LBS
SIZE (HxWxD): 15.12x17.48x6.93 IN.

6 C–6 ERICSSON 4890 B25/B66 DETAIL
SCALE: NTS (CEQ.57137) & (CEQ.53714)

AT&T

smartlink

Trylon

DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	03/27/25	90% CD	RC
B	04/10/25	90% CD	RC
C	02/24/26	90% CD	RC
0	07/21/26	100% CD	TFL
1	08/05/26	100% CD	TFL
2	08/25/26	100% CD	TFL

STATE OF MARYLAND
MICHAEL S MOORE
62222
PROFESSIONAL ENGINEER
8/25/2026

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No: 62222 Exp. Date: 1/7/2028

PROJECT TITLE

USID: 4043
FA#: 10096175

BARC WATER TANK

BEAVER DAM ROAD
BELTSVILLE, MD 20705

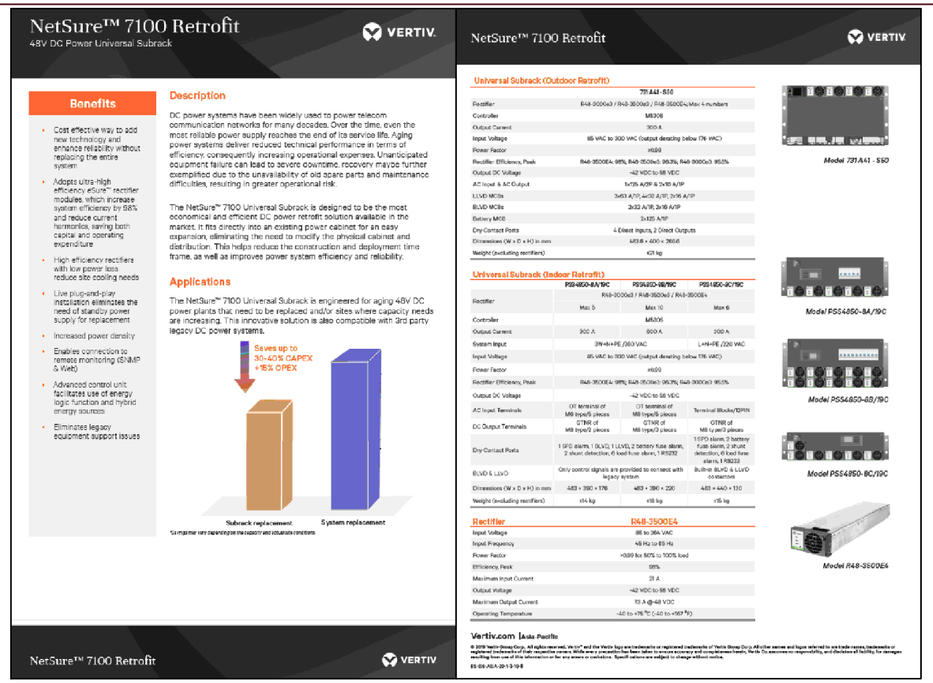
EXISTING 157'–7"
WATER TANK

SHEET DESCRIPTION

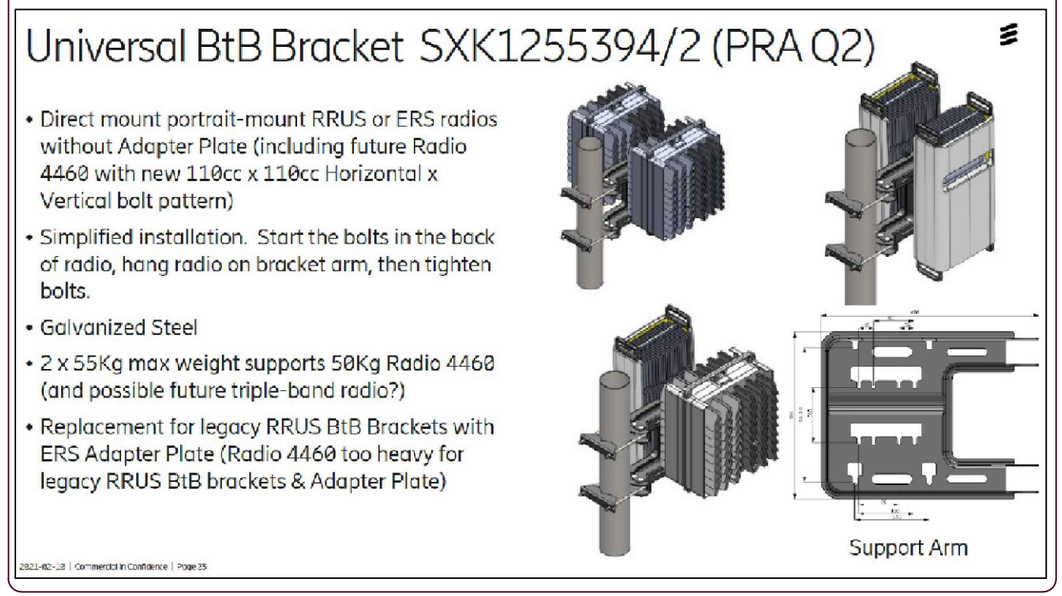
EQUIPMENT DETAILS

SHEET NO.

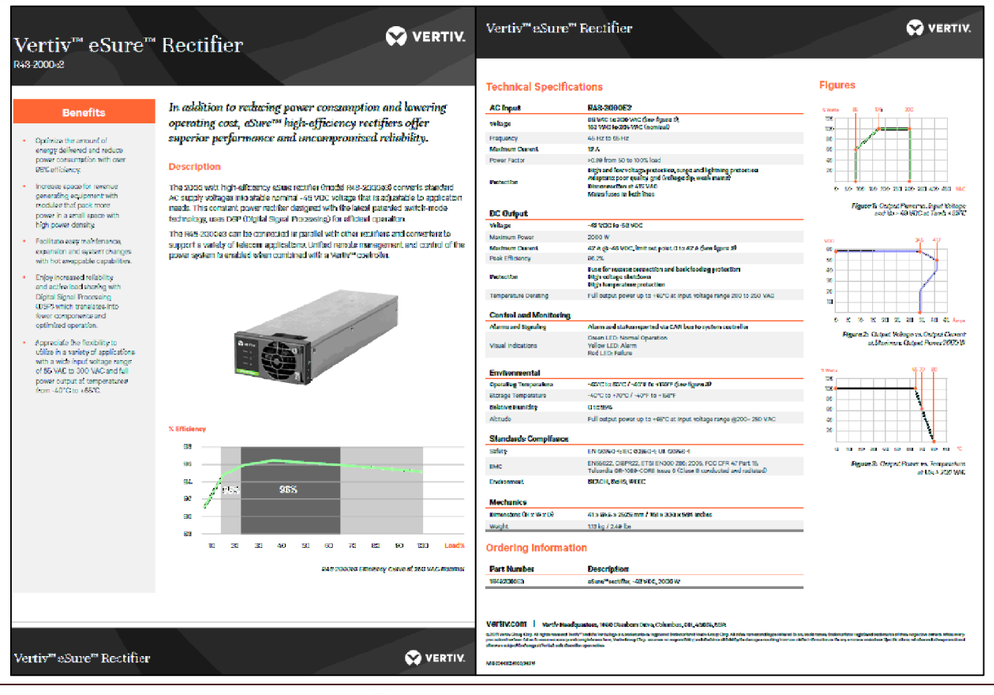
C–6



1 C–7 –58V NETSURE CONVERTER UPGRADE KIT (NEQ.53008)
SCALE: NTS



2 C–7 ERICSSON SXK1255394/2 BACK TO BACK RRH BRACKET (CEQ.53714)
SCALE: NTS



3 C–7 RECTIFIER DETAIL (NEQ.15930)
SCALE: NTS



4 C–7 CONVERTER DETAIL (NEQ.53011)
SCALE: NTS

AT&T
smartlink
Trylon

DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	03/27/25	90% CD	RC
B	04/10/25	90% CD	RC
C	02/24/26	90% CD	RC
0	07/21/26	100% CD	TFL
1	08/05/26	100% CD	TFL
2	08/25/26	100% CD	TFL

STATE OF MARYLAND
MICHAEL S MOORE
62222
PROFESSIONAL ENGINEER
8/25/2026

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No: 62222 Exp. Date: 1/7/2028

PROJECT TITLE

USID: 4043
FA#: 10096175

BARC WATER TANK

BEAVER DAM ROAD
BELTSVILLE, MD 20705

EXISTING 157'–7" WATER TANK

SHEET DESCRIPTION

EQUIPMENT DETAILS

SHEET NO.

C–7

Pxxx: Bulk Pipe

SITE PRO 1
A valmont COMPANY

Part #	Length	OD x Length (in)
Schedule 40		
P260	5'-0"	2-3/8" x 60"
P263	5'-3"	2-3/8" x 63"
P272	6'-0"	2-3/8" x 72"
P284	7'-0"	2-3/8" x 84"
P296	8'-0"	2-3/8" x 96"
P2108	9'-0"	2-3/8" x 108"
P2120	10'-0"	2-3/8" x 120"
P2126	10'-6"	2-3/8" x 126"
P2150	12'-6"	2-3/8" x 150"
P2174	14'-6"	2-3/8" x 174"
P2252	21'-0"	2-3/8" x 252"
P3072	6'-0"	2-7/8" x 72"
P3084	7'-0"	2-7/8" x 84"
P3096	8'-0"	2-7/8" x 96"
P30108	9'-0"	2-7/8" x 108"
P30120	10'-0"	2-7/8" x 120"
P30126	10'-6"	2-7/8" x 126"
P30150	12'-6"	2-7/8" x 150"
P30174	14'-6"	2-7/8" x 174"
P30252	21'-0"	2-7/8" x 252"
P360	5'-0"	3-1/2" x 60"
P372	6'-0"	3-1/2" x 72"
P384	7'-0"	3-1/2" x 84"
P396	8'-0"	3-1/2" x 96"
P3150	12'-6"	3-1/2" x 150"
P3160	13'-4"	3-1/2" x 160"
P3174	14'-6"	3-1/2" x 174"
P3216	18'-0"	3-1/2" x 216"
P3252	21'-0"	3-1/2" x 252"
P472	6'-0"	4-1/2" x 72"
P4126	10'-6"	4-1/2" x 126"
P4252	21'-0"	4-1/2" x 252"



Features:
- Factory cut end, hot-dip galvanized pipe

Construction:
- ASTM A53 Grade B
- Schedule 40 or Schedule 80

Design Criteria:
- ASTM A53 Grade B (Yield Fy = 35 ksi [240 MPa]/ Tensile Fu = 60 ksi [415 MPa])
- Hot dip galvanized in accordance with ASTM A123 requirements

Part #	Length	OD x Length (in)
Schedule 80		
P2252-80	21'	2-1/2" x 252"
P30126-80	10'-6"	2-7/8" x 126"
P30252-80	21'	2-7/8" x 252"
P3252-80	21'	3-1/2" x 252"

created on 05/05/23

SitePro1.com 888-438-7761

1 C–8 MAST PIPE DETAIL
SCALE: NTS



2 C–8 YELLOW CAUTION 2 SIGN DETAIL
SCALE: NTS

TELECT | **LCX-M2RU**

2RU Unloaded LGX Patch Panel, White



Item #TCTLCX-M2RU

The Amphenol Network Solutions LCX 2RU is an LGX-compatible fiber patch panel. The LCX 2RU offers full modularity that allows you to grow into the panel, reducing up-front capital expense while providing the flexibility to meet the dynamic needs of you r network. The LCX-M2RU can accommodate up to 96 LC terminations, all in a standard configuration that fits both existing frame layouts and new builds.

3 C–8 TELECT PATCH PANEL DETAIL
SCALE: NTS

AT&T

smartlink

Trylon

DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	03/27/25	90% CD	RC
B	04/10/25	90% CD	RC
C	02/24/26	90% CD	RC
0	07/21/26	100% CD	TFL
1	08/05/26	100% CD	TFL
2	08/25/26	100% CD	TFL

STATE OF MARYLAND
MICHAEL S MOORE
62222
PROFESSIONAL ENGINEER
8/25/2026

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No: 62222 Exp. Date: 1/7/2028

PROJECT TITLE

USID: 4043
FA#: 10096175

BARC WATER TANK

BEAVER DAM ROAD
BELTSVILLE, MD 20705

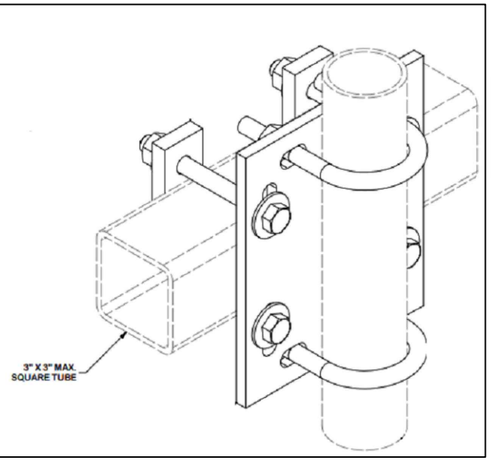
EXISTING 157'–7"
WATER TANK

SHEET DESCRIPTION

EQUIPMENT DETAILS

SHEET NO.

C–8



Part Number: STCX45-K

These crossover plate kits are used to attach pipe and square tube perpendicular to each other

- These kits are used to attach pipe to square tube in 90° fashion
- U-bolts and hardware included
- Hot-dip galvanized

Pipe Size: 2-7/8"

Square Tube Size: Up to 3"

Thickness: 3/8"

Quantity: 1 Plate, 2 U-Bolts, 2 Bolts & Backing Plates

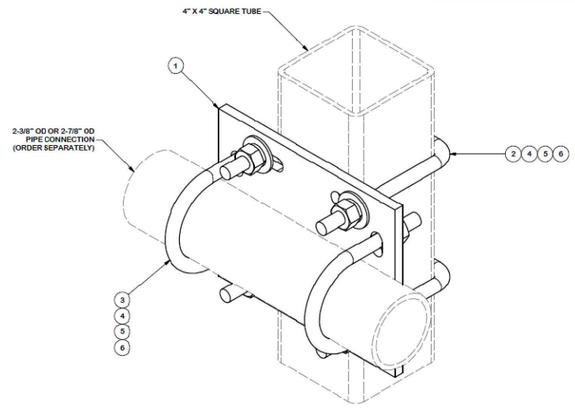
Weight: 12.00

1 C-9 SITEPRO1 STCX45-K SQUARE CROSSOVER KIT
SCALE: NTS

(ANT.59972)

1 C-9 NOT DONE
SCALE: NTS

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	1	SCX4	CROSSOVER PLATE	8 1/2 in	6.02	6.02
2	2	X-SUB1418	SQUARE U-BOLT 0.5" DIA. X 4.125" IW X 6" IL X 3" TR		0.98	1.95
3	2	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.60	1.19
3	2	X-UB1300	1/2" X 3" X 5" X 2" U-BOLT (HDG.)		0.67	1.34
4	8	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	0.27
5	8	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	0.11
6	8	G12NUT	1/2" HDG HEAVY 2H HEXNUT		0.07	0.57
					TOTAL WT.#	11.35



TOLERANCE NOTES
TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES (± 0.030")
DRILLED AND GAS CUT HOLES (± 0.030") - NO CONING OF HOLES
LASER CUT EDGES AND HOLES (± 0.010") - NO CONING OF HOLES
BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING (± 0.030")
ALL OTHER ASSEMBLY (± 0.060")

PROPRIETARY NOTE:
THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

DESCRIPTION: CROSSOVER PLATE KIT W/ SQUARE U-BOLTS AND STD. U-BOLTS

SITE PRO 1 — A Valmont Company
Engineering Support Team: 1-888-753-7446
Locations: New York, NY; Atlanta, GA; Los Angeles, CA; Indianapolis, IN; Tulsa, OK; Dallas, TX

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.
	CSL 9/18/2018	3RD PARTY	SQCX4-K
CLASS / SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
87 / 02	CUSTOMER	BMC 11/12/2018	SQCX4-K

1 OF 1 SHEET

2 C-9 SITEPRO1 SQCX4-K CROSSOVER PLATE KIT
SCALE: NTS

4 C-9 NOT DONE
SCALE: NTS

AT&T

smartlink

Trylon

DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	03/27/25	90% CD	RC
B	04/10/25	90% CD	RC
C	02/24/26	90% CD	RC
0	07/21/26	100% CD	TFL
1	08/05/26	100% CD	TFL
2	08/25/26	100% CD	TFL

STATE OF MARYLAND
MICHAEL S. MOORE
62222
PROFESSIONAL ENGINEER

8/25/2026

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No: 62222 Exp. Date: 1/7/2028

PROJECT TITLE

USID: 4043
FA#: 10096175

BARC WATER TANK

BEAVER DAM ROAD
BELTSVILLE, MD 20705

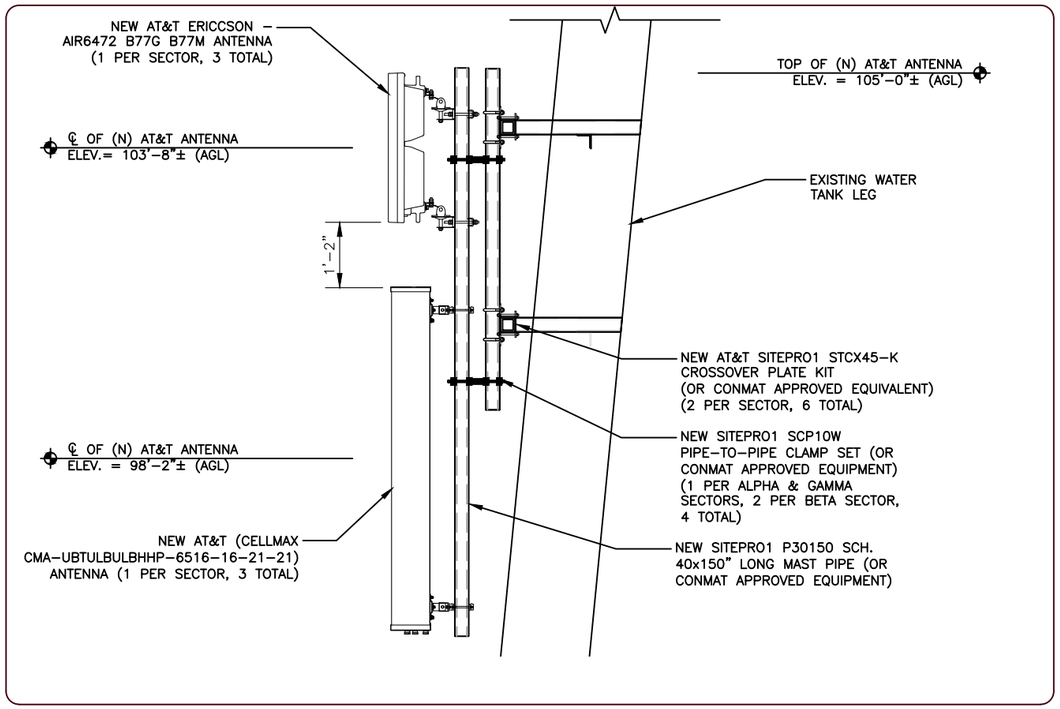
EXISTING 157'-7"
WATER TANK

SHEET DESCRIPTION

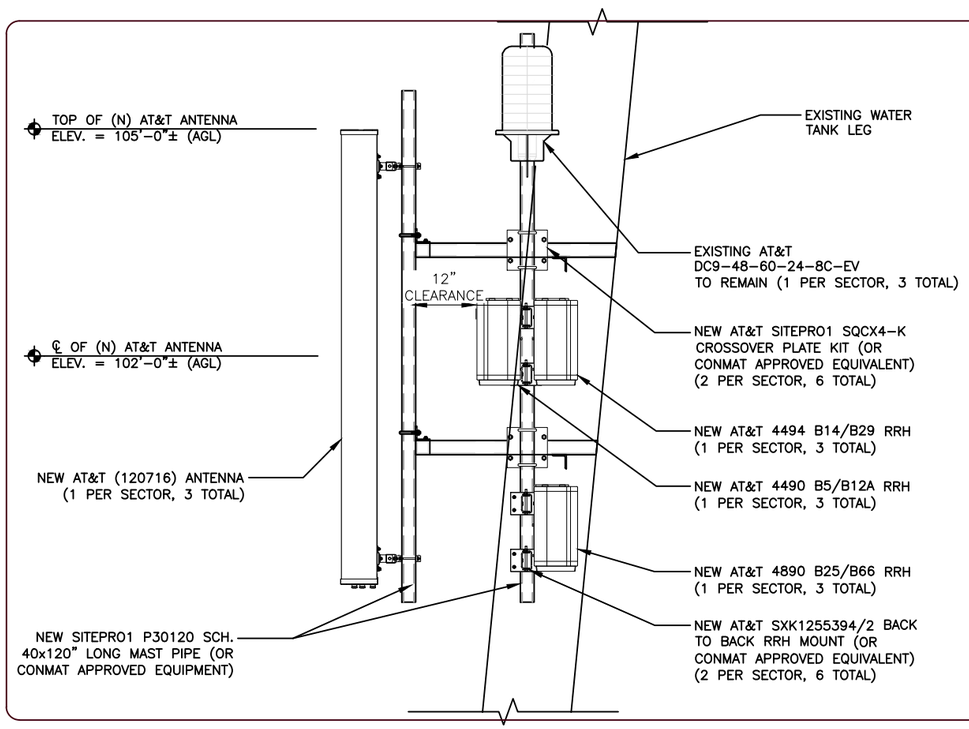
EQUIPMENT DETAILS

SHEET NO.

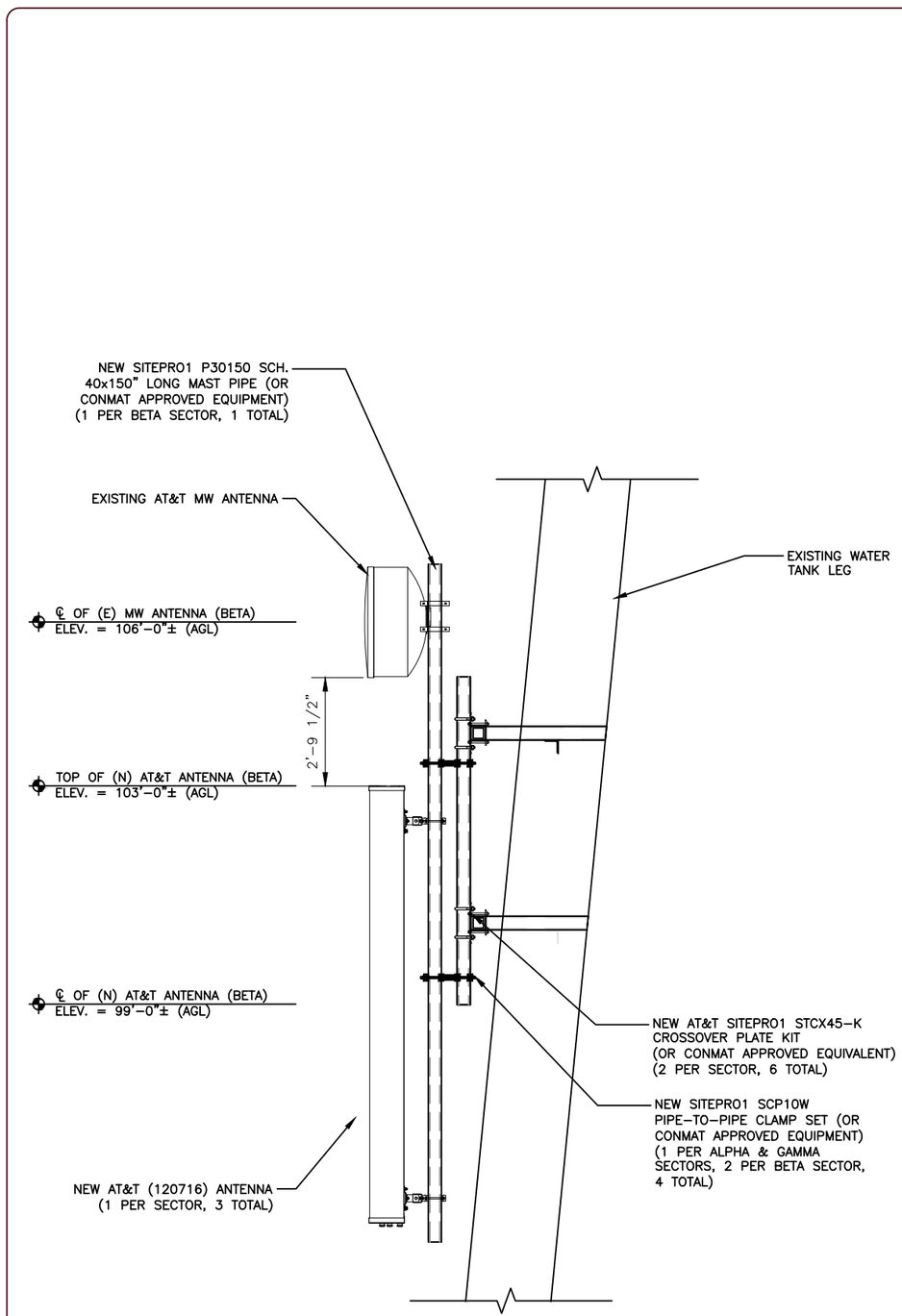
C-9



1 / C–10 ANTENNA MOUNTING SIDE VIEW
SCALE: 3/8"=1'–0" (11x17) OR 3/4"=1'–0" (22x34)



1 / C–10 ANTENNA & RRH MOUNTING SIDE VIEW (TYP.)
SCALE: 3/8"=1'–0" (11x17) OR 3/4"=1'–0" (22x34)



1 / C–10 ANTENNA MOUNTING SIDE VIEW (BETA POS#2
SCALE: NTS

AT&T

smartlink

Trylon

DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	03/27/25	90% CD	RC
B	04/10/25	90% CD	RC
C	02/24/26	90% CD	RC
0	07/21/26	100% CD	TFL
1	08/05/26	100% CD	TFL
2	08/25/26	100% CD	TFL

STATE OF MARYLAND
MICHAEL S. MOORE
62222
PROFESSIONAL ENGINEER
8/25/2026

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No: 62222 Exp. Date: 1/7/2028

PROJECT TITLE

USID: 4043
FA#: 10096175

BARC WATER TANK

BEAVER DAM ROAD
BELTSVILLE, MD 20705

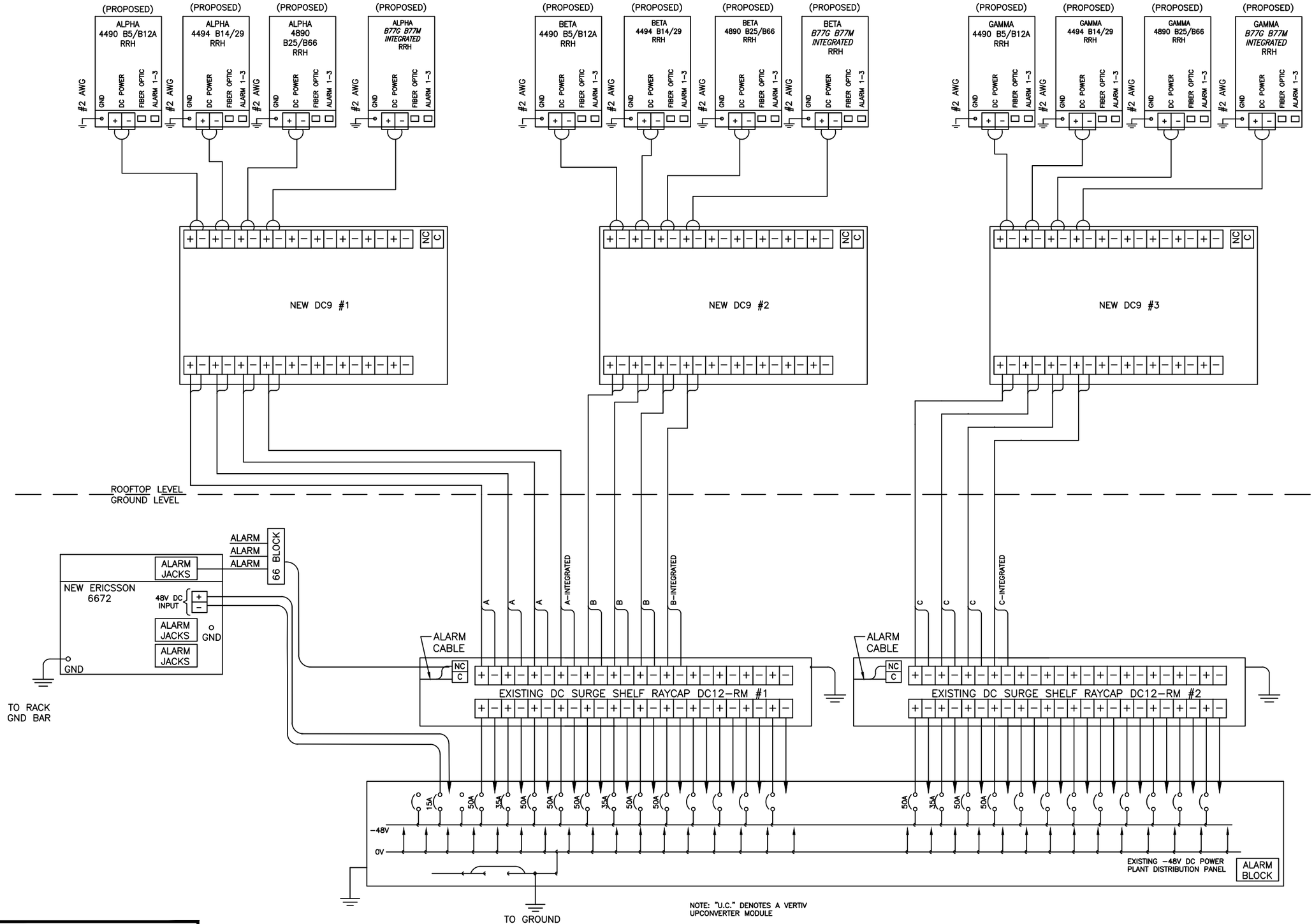
EXISTING 157'–7" WATER TANK

SHEET DESCRIPTION

EQUIPMENT DETAILS

SHEET NO.

C–10



NOTE: "U.C." DENOTES A VERTIV UPCONVERTER MODULE

NOTE:

CONTRACTOR TO REFER TO ATT-CEM-18002-OEM RADIO BREAKER SIZE STANDARD (V51-20250807-104844) WITH ISSUE DATE 08/06/2025

1 DC SURGE SUPPRESSION WIRING DIAGRAM
SCALE: NOT TO SCALE

AT&T

smartlink

Trylon

DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	03/27/25	90% CD	RC
B	04/10/25	90% CD	RC
C	02/24/26	90% CD	RC
0	07/21/26	100% CD	TFL
1	08/05/26	100% CD	TFL
2	08/25/26	100% CD	TFL

STATE OF MARYLAND
MICHAEL S. MOORE
62222
PROFESSIONAL ENGINEER
8/25/2026

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No: 62222 Exp. Date: 1/7/2028

PROJECT TITLE

USID: 4043
FA#: 10096175

BARC WATER TANK

BEAVER DAM ROAD
BELTSVILLE, MD 20705

EXISTING 157'-7" WATER TANK

SHEET DESCRIPTION

DC SURGE SUPPRESSION WIRING DIAGRAM

SHEET NO.

E-1

SITE DATA INPUT WORKSHEET - INDOOR SITE POWER ESTIMATE TOOL

Region:	NE
Market:	WASHINGTON D.C./MARYLAND
FA:	10096175
USID:	4043
Location Name:	AWE - BARC WATER TANK
Date Calc Completed:	05-03-2025
Completed By:	SML
PACE JOB ID:	WSWSH0043206
Job Description:	ERICSSON MODERNIZATION
Field Notes:	

-48V PRIMARY VOLTAGE DC PLANT SPECIFIED				
+24VDC EQUIPMENT LOAD:	0 WATTS	=	0 AMPS	at +24V
-48VDC EQUIPMENT LOAD:	976 WATTS	=	19 AMPS	at -48V
-58VDC EQUIPMENT LOAD:	12315 WATTS	=	213 AMPS	at -58V
NO SECONDARY 58V LOADS - DC CONVERTER SYSTEM NOT REQUIRED				
TOTAL PRIMARY 48V LOAD:	13054 WATTS	=	242 AMPS	at -48V

(DC PLANT CONFIGURATION CAN BE REVIEWED ON DC PLANT WORKSHEET)		
DC PLANT:	Vertiv STD -48VDC NetSure 7100 Plant 1000A w-58V CONV	
-48V RECTIFIERS REQUIRED (N+1):	9	
-48V RECTIFIER SLOTS:	16	
CONV. TYPE: UNIVERSAL SLOTS - RIGHT 3 RECT SLOTS/SHELF CAN BE USED FOR CONV		
-58V CONVERTERS REQUIRED (N+1):	8	
-58V SLOTS:	9	
ESTIMATED BATTERY RESERVE TIME		
6 180 AH 48V STRINGS =	6.47 HOURS	(4 HOUR MINIMUM BATTERY RESERVE)

ESTIMATED SITE MAX. AC LOAD (AMPS):	118.33 AMPS
ESTIMATE 200A SERVICE SUFFICIENT	
ESTIMATED AC GEN CAPACITY REQUIRED:	20 KW
RECOMMENDED ENVIRO SYSTEM:	3-TONS COOLING
SPECIFIED ENVIROMENTAL SYSTEM:	3-TONS
ESTIMATE SUFFICIENT HVAC CAPACITY	

STEP 1: ENTER QUANTITIES OF EQUIPMENT & DC OPERATING VOLTAGE:

STEP 2: ENTER DC PLANT TYPE FROM DROP-DOWN MENU:

("GENERIC" +24V or -48V DC PLANT CAN BE SELECTED FOR ANY MANUFACTURER'S DC PLANT)

Vertiv STD -48VDC NetSure 7100 Plant 1000A w-58V CONV

-48V PRIMARY DC PLANT SPECIFIED

(DC PLANT CONFIGURATION CAN BE REVIEWED ON DC PLANT WORKSHEET)

STEP 2A: THIS STEP ONLY SHOWN IF "GENERIC" DC PLANT PLANT TYPE HAS BEEN SELECTED:

STEP 2B: THIS STEP ONLY SHOWN IF TYCO GPS2424 DC PLANT PLANT TYPE HAS BEEN SELECTED:

STEP 3: DO YOU WANT TO CONFIGURE A STANDARD STAND-ALONE DC CONVERTER SYSTEM? N

NOTE: IF YOU SELECT "Y" ANY INTEGRATED DC PLANT CONVERTER OPTIONS WILL BE BYPASSED

STEP 4: ENTER INDOOR SITE BUILDING/SHELTER DATA:

(Square footage used for interior AC lighting LOAD calculation)

SELECT SITE ENCLOSURE TYPE & SIZE: 11' 5" x 20' SHELTER

STEP 5: ENTER SITE HVAC SYSTEM DATA:

	Type	Size	QTY
SPECIFY INDIVIDUAL Cooling UNIT/CNTLR:	HVAC	3	1
SPECIFY INDIVIDUAL Cooling UNIT/CNTLR:			
SPECIFY INDIVIDUAL Cooling UNIT/CNTLR:			
SPECIFY INDIVIDUAL Cooling UNIT/CNTLR:			
SPECIFY INDIVIDUAL Cooling UNIT/CNTLR:			
SPECIFY INDIVIDUAL Cooling UNIT/CNTLR:			

ARE THERE SITE HVAC HEATING UNITS? N

TOTAL SPECIFIED SITE HVAC: 3-TONS ESTIMATED TOTAL HVAC REQUIREMENT: 3-TONS COOLING

IF NextGen_with_Gen_Control IS SELECTED USER NEEDS TO VERIFY GENERATOR RUN ALARM IS WIRED THROUGH SMART CONTROLLER.
DC LOADS FOR SHELTER ENVIROMENTAL SYSTEMS ARE AUTOMATICLY ADDED TO THE DC PLANT LOAD

STEP 6: ENTER SITE STATIONARY GENERATOR DATA:

DOES SITE HAVE A STATIONARY GENERATOR? N

ESTIMATED AC GEN CAPACITY REQUIRED: 20 KW

STEP 7: ENTER SITE BATTERY CONFIGURATION DATA:

SELECT SINGLE STRING BATTERY CAPACITY (AH): 180

SPECIFY TOTAL QUANTITY OF BATTERY STRINGS: 6

TOTAL SITE BATTERY CAPACITY (AH): 1080

NOTE: STANDARD BATTERY CAPACITY HAS BEEN SPECIFIED

NOTE: 12 VOLT MONOBLOCK BATTERIES - 4 batteries per -48V String

ESTIMATED BATTERY RESERVE TIME: 6.47 HOURS (NO SITE GENSET)

- SITES WITH STATIONARY GENSETS
  - Equipped with Vertiv DC Plant (NEQ.20068) equipped with 200 amp Battery disconnect breakers shall receive no greater than 2 shelves of 180 AH batteries.
  - All other locations with legacy DC plants (typically equipped with battery disconnect breakers <200 amps) shall receive no greater than 3 shelves of 180 AH batteries
- ALL SITES WITHOUT A STATIONARY GENSET
  - Shall be engineered with 4 hours of battery reserve.

SITE POWER CALCULATION TOOL - VERSION 5.41 - Feburary 7, 2025

ANY QUESTIONS PLEASE CONTACT RICK BADGERO (RB6620@ATT.COM)

NOTE: LOAD VALUES FOR ANY EQUIPMENT CAN BE USER SPECIFIED ON THE POWER CONSUMPTION WORKSHEET - USER CHANGES TO DEFAULT LOAD VALUES ARE HIGHLIGHTED IN BRIGHT YELLOW

QTY	Ericsson LTE 4G & Multi-Std EQUIPMENT	VOLTAGE	WATTS
0	Ericsson LTE IRBS6601 BBU - 1 DUL	48	0
0	Ericsson LTE RBS6601 BBU - 2 DUL	48	0
0	Ericsson W/CDMA RBS6601 - 1 DUW	48	0
0	Ericsson LTE RBS6601 BBU - 1DUS	48	0
0	Ericsson LTE RBS6601 BBU - 2DUS	48	0
1	Ericsson XMU	48	40
0	Ericsson LTE RBS5216	48	0
0	P614 PIM Card	48	0
0	6630 BBU Card	48	0
0	6648 BBU Card	48	0
0	6675 BBU Card	48	0
0	6651 BBU Card	48	0
0	6673 Router	48	0
0	6674 BBU Card	48	0
1	6610 Site Controller	48	6
2	6672 BBU Card	48	630
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		

QTY	IN/OUT	Radio Heads	VOLTAGE	WATTS
3	OUT	AIR 6472 B77D, B77M	58	3936
			48	0
3	OUT	RRU 4490 B5/B12 Dual band	58	2967
3	OUT	RRU 4890 B25/B66	58	3327
3	OUT	RRU 4494 B14, B29	58	2085
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0

QTY	ALU-Nokia LTE 4G & Multi-Std EQUIPMENT	VOLTAGE	WATTS
0	A-LU 9926 LTE BBU (w/max. 3 eCEM-u)	48	0
0	Nokia FSM-4 Chassis (LTE-AMIA, ASIAx3, ABIAx3)	48	0
0	Nokia FSM-4 Chassis (5G- AMIA, ASIKx3, ABILx3)	48	0
0	Nokia FSM-4 Chassis (C-RAN-AMIA, ASILx3, ABIOx3)	48	0
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		
	(FUTURE)		

QTY	IN/OUT	Radio Heads	VOLTAGE	WATTS
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0

QTY	TX RF AMP (MCPA or SCPA) EQPT.	VOLTAGE	WATTS
0	Andrew (12 module mcpa FRAME)	24	0
0	Andrew 135 Watt Module	24	0
	(FUTURE)		
0	Powerwave 12 module mcpa FRAME)	24	0
0	Powerwave 90 Watt Module	24	0
0	Powerwave 120 Watt Module	24	0
0	Powerwave 180 Watt Module	24	0
	(FUTURE)		
0	CCI 125 Watt DAB SCPA Module	24	0
0	CCI 125 Watt DAC SCPA Module	24	0
	(FUTURE)		

QTY	ANCILLARY CELL SITE EQUIPMENT	VOLTAGE	WATTS
1	A-LU 7705 SIAD	48	80
	(FUTURE)		
1	A-LU MPR-9500 MW Service Switch - MSS	48	160
0	A-Lu MPR-9500 MW Outdoor Unit - ODU	48	0
0	A-Lu MPR-9500 MW MPT-HL (Indoor)	48	0
0	D2 HD SIAD S9500	48	0
0	Cisco MWR-2941 SIAD	48	0
0	Cisco SIAD ASR-901	48	0
0	Cisco 15310 EOS (SONET) MUX	48	0
0	Cisco 15454 MSP (MW Ring Config.)	48	0
	(FUTURE)		
0	Tru-Position LMU (E911)	48	0
1	GENERIC Ethernet NID	48	60
0	GENERIC Hydrogen Detector	48	0
0	GENERIC RET Controller	48	0
0	GENERIC RXAIT	48	0
0	GENERIC Smoke Detector	48	0
0	GENERIC TMA System	48	0
0	GENERIC Tower Lighting (DC)	48	0
0	NG480	48	0
0	Cisco 2911	48	0
	(FUTURE)		
0	FLX-12 Cabinet	48	0
0	FLX-16 Cabinet	48	0
0	FLX-21 Cabinet	48	0
0	FLX-42 Cabinet	48	0
0	RAY-38 Cabinet	48	0
0	Commscope 48v/24v DC Conv (PS-CONV-48-24)	48	0
0	Vertiv 48v/24v DC converter (eSure Bullet)	48	0
	(FUTURE)		

(CUSTOM DC LOADS DEFINED ON POWER CONSUMPTION WORKSHEET)

QTY	IN/OUT	USER SPECIFIED DC EQUIPMENT	VOLTAGE	WATTS
0		E/// 6472	58	0
0		CONOGA PERKINS	48	0
0		SMOKE DETECTOR	24	0
0		VERTIV +27VDC BULLET CONVERTER & GMT FUSE	48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
0			48	0
			TOTAL USER SPECIFIED WATTS:	0
		TOTAL +24V (27V) AMPS:	0	
		TOTAL -48V (54V) AMPS:	0	
		TOTAL -58V (58V) AMPS:	0	

(CUSTOM AC LOADS DEFINED ON POWER CONSUMPTION WORKSHEET)

QTY	USER SPECIFIED AC EQUIPMENT	VOLTAGE	KVA
0	MARVAIR SLIM PACK	240	0
0	GEN BLOCK HTR	120	0
0	GEN BATT CHARGE	120	0
0	FAN	120	0
0	FAN LOUVER	120	0
0	EMERSON ANCILLARY	120	0
0	INNOVATION AC DOOR	240	0
0	DUAL BAY PURCELL ANCILLARY	240	0
0	APOLLO RECPT	120	0
0			0
		TOTAL USER SPECIFIED KVA:	0
	TOTAL 120VAC AMPS:	0	
	TOTAL 240VAC AMPS:	0	

DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	03/27/25	90% CD	RC
B	04/10/25	90% CD	RC
C	02/24/26	90% CD	RC
0	07/21/26	100% CD	TFL
1	08/05/26	100% CD	TFL
2	08/25/26	100% CD	TFL



I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland,
License No: 62222 Exp. Date: 1/7/2028

PROJECT TITLE

USID: 4043
FA#: 10096175

BARC WATER TANK

BEAVER DAM ROAD
BELTSVILLE, MD 20705

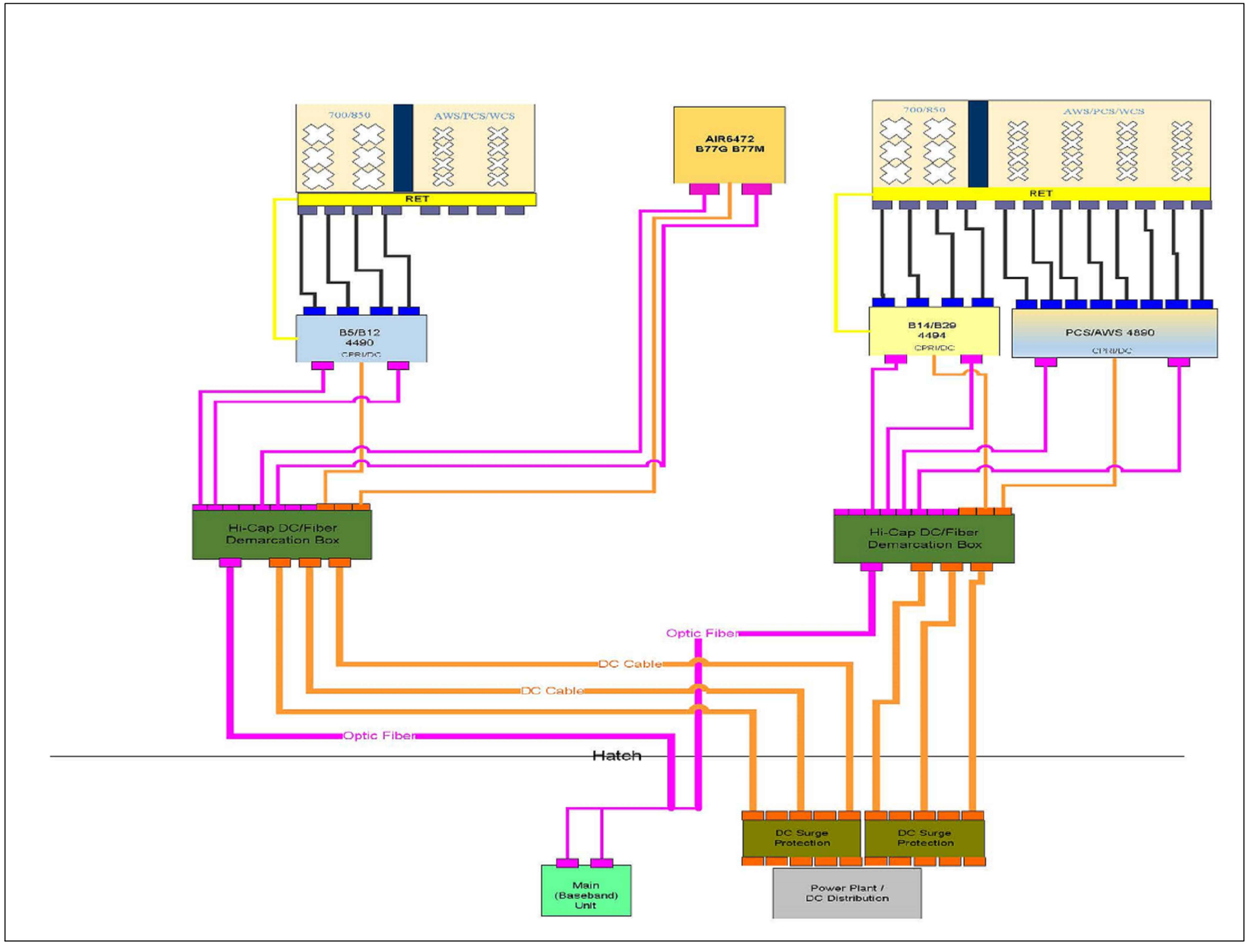
EXISTING 157'–7"
WATER TANK

SHEET DESCRIPTION

POWER LOAD CALCULATIONS

SHEET NO.

E–2



1 RF–1 PLUMBING DIAGRAM
SCALE: NTS

RFDS ID: RFDS–40024

AT&T

smartlink

Trylon

DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	03/27/25	90% CD	RC
B	04/10/25	90% CD	RC
C	02/24/26	90% CD	RC
0	07/21/26	100% CD	TFL
1	08/05/26	100% CD	TFL
2	08/25/26	100% CD	TFL

STATE OF MARYLAND
MICHAEL S MOORE
62222
PROFESSIONAL ENGINEER
8/25/2026

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No: 62222 Exp. Date: 1/7/2028

PROJECT TITLE

USID: 4043
FA#: 10096175

BARC WATER TANK

BEAVER DAM ROAD
BELTSVILLE, MD 20705

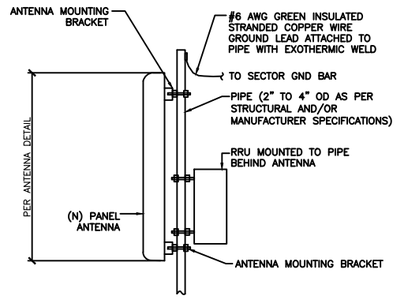
EXISTING 157'–7"
WATER TANK

SHEET DESCRIPTION

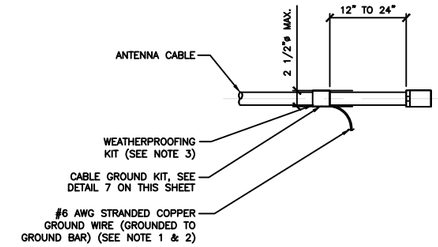
RF PLUMBING DIAGRAM

SHEET NO.

RF–1



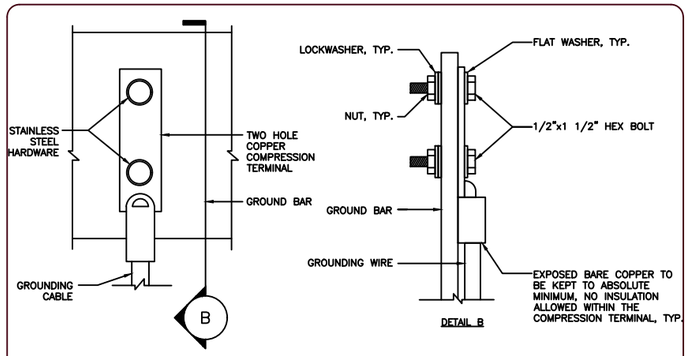
1 G-1 ANTENNA PIPE MOUNT GROUNDING DETAIL



NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR
2. GROUNDING KIT SHALL BE ANDREW SUREGROUND TYPE KIT WITH TWO-HOLE LUG
3. WEATHER PROOFING SHALL BE ANDREW TWO-PART TAPE SUPPLIED WITH KIT. COLD SHRINK SHALL NOT BE USED

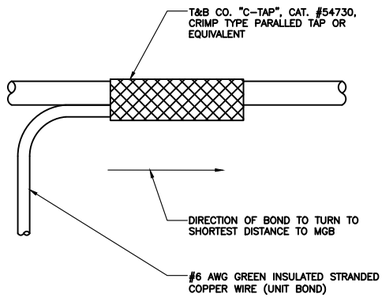
2 G-1 CABLE GROUND KIT DETAIL



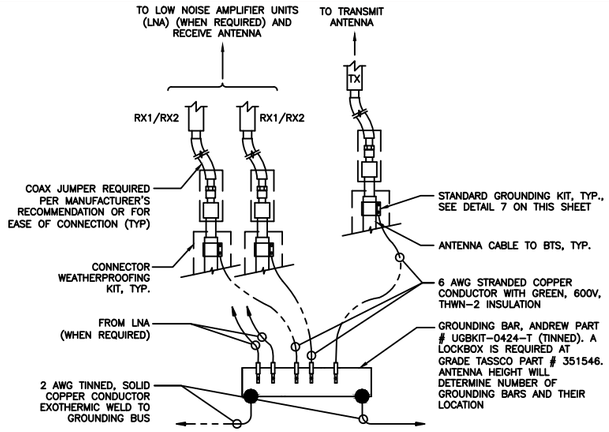
NOTES:

1. "DOUBLING UP" OR "STACKING" OF CONNECTIONS IS NOT PERMITTED.
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS AND TO BE APPLIED PRIOR TO ADDING HARDWARE.

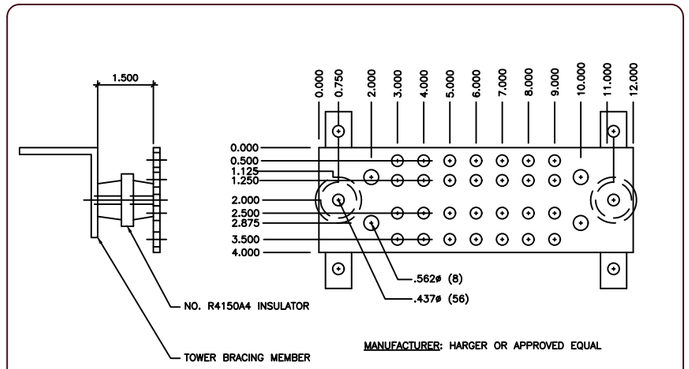
3 G-1 TYPICAL GROUND LUG CONNECTION DETAIL



4 G-1 GROUNDING WIRE CONNECTION

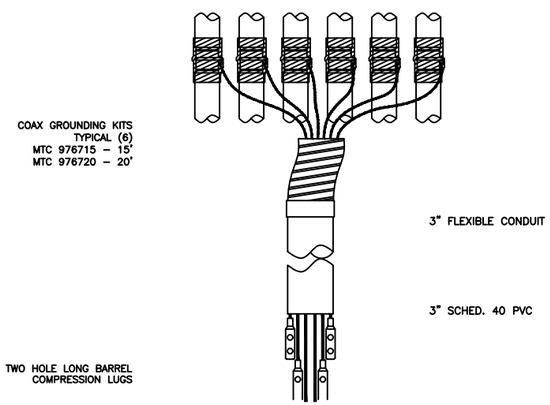


5 G-1 ANTENNA GROUNDING BAR CONNECTION DETAIL

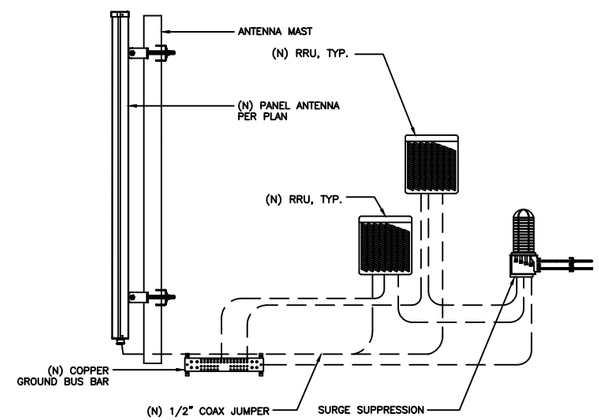


MANUFACTURER: HARGER OR APPROVED EQUAL

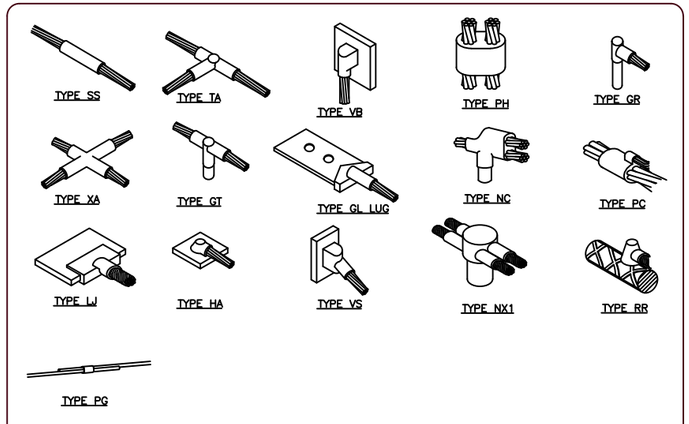
6 G-1 ANTENNA (12") GROUND BAR DETAIL



7 G-1 COAX GROUND KIT



8 G-1 RRU GROUNDING DETAIL



9 G-1 TYPICAL CADWELD TYPES

AT&T

smartlink

Trylon

DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	03/27/25	90% CD	RC
B	04/10/25	90% CD	RC
C	02/24/26	90% CD	RC
0	07/21/26	100% CD	TFL
1	08/05/26	100% CD	TFL
2	08/25/26	100% CD	TFL

STATE OF MARYLAND
MICHAEL S. MOORE
62222
PROFESSIONAL ENGINEER
8/25/2026

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No: 62222 Exp. Date: 1/7/2028

PROJECT TITLE

USID: 4043
FA#: 10096175

BARC WATER TANK

BEAVER DAM ROAD
BELTSVILLE, MD 20705

EXISTING 157'-7" WATER TANK

SHEET DESCRIPTION

GROUNDING DETAILS

SHEET NO.

G-1

GENERAL NOTES

1. GENERAL REQUIREMENTS

A. PURPOSE AND INTENT
1.THE DRAWING AND SPECIFICATION ARE INTENDED TO BE FULLY EXPLANATORY AND SUPPLEMENTARY, HOWEVER, SHOULD ANYTHING BE SHOWN, INDICATED, OR SPECIFIED ON ONE AND NOT THE OTHER, IT SHALL BE DONE THE SAME AS IF DISCREPANCIES BETWEEN REQUIREMENTS SHOWN IN BOTH, THE MORE STRINGENT REQUIREMENTS SHALL APPLY.
2. THE INTENTION OF THE DOCUMENT IS TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT.

A. CONFLICTS
1. VERIFY ALL MEASUREMENTS AT THE SITE BEFORE ORDERING MATERIAL OR DOING ANY WORK, NO EXTRA CHARGE OR COMPENSATION WILL BE ALLOWED DUE TO DIFFERENCES BETWEEN ACTUAL DIMENSIONS OR DIMENSIONS SHOWN ON PLANS SUBMIT NOTICE OF ANY DISCREPANCY IN DIMENSIONS OR OTHERWISE TO AT&T FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.
2. NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST, OR OF DIFFICULTIES OR CONDITIONS THAT MAY BE ENCOUNTERED, OR OF ANY OTHER RELEVANT MATTER CONCERNING THE EXECUTION OF THE WORK WILL BE ACCEPTED AS AN EXCUSE FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL EVERY DETAIL OF ALL THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS GOVERNING THE WORK.

A. CLEANING
1. KEEP THE SITE FREE FROM ACCUMULATION OF WASTE AND RUBBISH CAUSED BY EMPLOYEES AT THE COMPLETION OF THE WORK, REMOVE ALL WASTE AND NON-CONSTRUCTION MATERIAL INCLUDING ALL CONTRACT TOOLS, SCAFFOLDING, AND SURPLUS MATERIAL AND LEAVE SITE CLEAN AND READY FOR USE.

A. CODES
1.CONTRACTOR SHALL BE RESPONSIBLE FOR FOLLOWING ALL LAWS, REGULATIONS, AND RULES PROMULGATED BY FEDERAL STATE AND LOCAL AUTHORITIES WITH JURISDICTION OVER THE SALTIER. THIS RESPONSIBILITY IS IN EFFECT REGARDLESS OF WEATHER THE LAW, ORDINANCE, REGULATION OR RULE IS MENTIONED IN THESE SPECIFICATIONS.

A. LICENSING
1. CONTRACTOR SHALL HAVE AND MAINTAIN A VALID CONTRACTOR'S LICENSE FOR THE LOCATION IN WHICH THE WORK IS TO BE PERFORMED. FOR JURISDICTIONS THAT LICENSE INDIVIDUAL TRADES, THE TRADESMAN OR SUBCONTRACTOR PERFORMING THOSE SHALL BE LICENSED, RESEARCHED AND COMPLY WITH THE LICENSING LAWS, PAY LICENSE FEES, AND SELECT AND INFORM SUBCONTRACTORS REGARDING THESE LAWS.

A. OSHA
1. FOLLOW ALL APPLICABLE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATIONS AND STATE LAWS BASED IN THE FEDERAL OCCUPATION SAFETY AND HEALTH ACT. THESE REGULATIONS INCLUDE, BUT ARE NOT LIMITED TO, REGULATIONS DEALING WITH TOWER CONSTRUCTION AND SAFETY, EXCAVATION AND TRENCHING, AND WORK IN CONFINED SPACES. ENSURE THAT EMPLOYEES AND SUBCONTRACTORS WEAR HARD HATS AT ALL TIMES DURING CONSTRUCTION.

A. PHOTOS
1. PROVIDE PHOTOGRAPHIC EVIDENCE OF ALL FOUNDATION INSTALLATIONS, GROUNDING, AND TRENCHING AFTER PLACEMENT OF UTILITIES PRIOR TO BACKFILL.

A. BUILDING PERMITS
1. CONTRACTOR WILL SUBMIT CONSTRUCTION DOCUMENTS TO THE JURISDICTIONAL AUTHORITY FOR PLAN CHECK AND REVIEW. CONTRACTOR WILL SUBMIT LICENSING AND WORKMAN'S COMPENSATION INFORMATION TO THE JURISDICTION AS REQUIRED TO OBTAIN THE BUILDING PERMIT, CONTRACTOR SHALL COORDINATE AND SCHEDULE REQUIRED INSPECTIONS AND POST REQUIRED PERMITS AT THE JOB SITE COMPLY WITH SPECIFIC PROJECT RELATED REQUESTS AND SUGGESTIONS MADE BY BUILDING INSPECTOR, AND INFORM CONSTRUCTION MANAGER OF ANY SUCH WORK THAT MAY BE BEYOND THE SCOPE OF THE CONTRACT OR DEVIATE FROM THE CONSTRUCTION DOCUMENT. AT&T WILL REIMBURSE THE CONTRACTOR FEES FOR PLAN REVIEW, BUILDING PERMIT, CONNECTIONS, AND INSPECTIONS. (INCLUDED IN THE BASE PROPOSAL).

A. ZONING REGULATIONS AND CONDITIONAL USE PERMITS
1. CONTRACTOR WILL SUBMIT ALL ZONING AND CONDITIONAL USE PERMITS. SOME USE PERMITS MAY HAVE SPECIFIC REQUIREMENTS FOR THE SITE RELATED TO CONSTRUCTION, SUCH AS NOISE REGULATIONS, HOURS OF WORK, ACCESS LIMITATIONS, ETC. THE CONSTRUCTION MANAGER WILL INFORM THE CONTRACTOR OF THESE REQUIREMENTS AT THE PRE-BID MEETING OR AS SHOWN IN THE CONSTRUCTION DOCUMENTS.

A. FAA PERMIT AND TOWER LIGHTING
1. REFER TO CONSTRUCTION DOCUMENTS AND CONSTRUCTION MANAGER FOR FAA AND STATE LIGHTING REQUIREMENTS. CONTRACTOR SHALL PROVIDE TEMPORARY FM APPROVED LIGHTING UNTIL PERMANENT LIGHTING IS OPERATIONAL.

A. TOWER SECURITY
1. IF REQUIRED, TOWER MUST BE FENCED, TEMPORARILY OR PERMANENTLY WITHIN 24 HOURS OF ERECTION. DO NOT ALLOW THE GATE ACCESSING THE TOWER AREA TO REMAIN OPEN OR UNATTENDED ANY TIME FOR ANY REASON. KEEP THE GATE CLOSED AND LOCKED WHEN NOT IN USE.

L. SITE CONTROL
1. THE CONTRACTOR IS COMPLETELY RESPONSIBLE FOR CONTAINMENT OF SEDIMENT AND CONTROL OF EROSION AT THE SITE. ANY DAMAGE TO ADJACENT OR DOWNSTREAM PROPERTIES WILL BE CORRECTED BY THE CONTRACTOR AT NO EXPENSE TO AT&T.
2. THE CONTRACTOR IS TO MAINTAIN ADEQUATE DRAINAGE AT ALL TIMES. DO NOT ALLOW WATER TO STAND OR POND. ANY DAMAGE TO STRUCTURES OR WORK ON THE SITE CAUSED BY INADEQUATE MAINTENANCE OF DRAINAGE PROVISIONS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND ANY COST ASSOCIATED WITH REPAIRS FOR SUCH DAMAGE WILL BE AT THE CONTRACTOR'S EXPENSE.
3. ALL WASTE MATERIAL SHALL BE PROPERLY DISPOSED OF OFF-SITE OR AS DIRECTED BY CONSTRUCTION MANAGER AND IN ACCORDANCE WITH JURISDICTIONAL AUTHORITIES.

M. LIVESTOCK PROTECTION
1. PROTECT AND SECURE LIVESTOCK. MAINTAIN AND SECURE EXISTING PERIMETER FENCE AND/OR GATE ENCLOSURES.

2. SITE PREPARATION

A. SCOPE OF WORK INCLUDES
1. PROTECTION OF EXISTING TREES, VEGETATION AND LANDSCAPING MATERIALS WHICH MIGHT BE DAMAGED BY CONSTRUCTION ACTIVITIES.
2. TRIMMING OF EXISTING TREES AND VEGETATION AS REQUIRED FOR PROTECTION DURING CONSTRUCTION ACTIVITIES.
3. CLEANING AND GRUBBING OF STUMPS, VEGETATION, DEBRIS, RUBBISH, DESIGNATED TREES AND SITE IMPROVEMENTS.
4. TOPSOIL STRIPPING AND STOCKPILING.
5. TEMPORARY EROSION CONTROL, SILTATION CONTROL, AND DUST CONTROL CONFORMING TO LOCAL REQUIREMENTS AS APPLICABLE.
6. TEMPORARY PROTECTION OF ADJACENT PROPERTY, STRUCTURES, BENCHMARKS, AND MONUMENTS.
7. PROTECTION AND TEMPORARY RELOCATION, STORAGE AND RE-INSTALLATION OF EXISTING FENCE AND OTHER SITE IMPROVEMENTS SCHEDULED FOR RE-USE.
8. REMOVAL AND LEGDK DISPOSAL OF CLEARED MATERIALS.

B. PRODUCTS AND MATERIALS (AS APPROVED BY CONSTRUCTION MANAGER OR AS NOTED IN CONSTRUCTION DOCUMENTS)
1. MATERIALS USED FOR TREE PROTECTION, EROSION CONTROL, SILTATION CONTROL, AND DUST CONTROL.

3. EARTHWORK

A. SCOPE OF WORK INCLUDES
1. EXCAVATION, TRENCHING, FILLING, COMPACTION, AND GRADING FOR STRUCTURES, SITE IMPROVEMENTS AND UTILITIES.
2. MATERIALS FOR SUB-BASE, DRAINAGE, BACKFILL AND GRAVEL FOR SLABS, PAVEMENT AND IMPROVEMENTS.
3. ROCK EXCAVATION WITHOUT BLASTING.
4. SUPPLY OF ADDITIONAL MATERIALS FOR OFFSITE AS REQUIRED.
5. REMOVAL AND LEGDK DISPOSAL OF EXCAVATED MATERIAL AS REQUIRED.

B. QUALITY ASSURANCE
1. COMPACTION
A. UNDER STRUCTURES, BUILDING SLABS, PAVEMENTS AND WALKWAYS WILL OBTAIN A 95% COMPACTION AT A MINIMUM DRY DENSITY AS DETERMINED BY ASTM 0-1557 OR WITH PLUS OR MINUS 3% OF THE MOISTURE CONTENT.
2. GRADING TOLERANCES OUTSIDE BUILDING LINES
A. LAWNS, UNPAVED AREAS AND WALKS PLUS OR MINUS 1 INCH.
B. UNDER PAVEMENTS PLUS OR MINUS ½ INCH.
3. GRADING TOLERANCES FOR FILL UNDER CONCRETE APPLICATIONS
A. PLUS OR MINUS ½ INCH MEASURED WITH 10 FOOT STRAIGHT EDGE.

C. PRODUCTS AND MATERIALS (AS APPROVED BY CONSTRUCTION MANAGER OR AS NOTED IN CONSTRUCTION DOCUMENTS)
1. SUB-BASE MATERIAL: GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, CRUSHED STONE OR SLAG, AND NATURAL SAND.
2. WASHED MATERIAL, EVENLY GRADED MIXTURE OF CRUSHED STONE OR GRAVEL WITH 95% PASSING A 1-1/2 INCH SIEVE.
3. GRADING MATERIAL WILL CONSIST OF SATISFACTORY NATIVE OR IMPORTED SOIL MATERIALS FREE OF CLAY, ROCK OR GRAVEL NOT LARGER THAN 2 INCHES IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS AND OTHER UNSUITABLE MATERIALS WILL NOT BE ALLOWED FOR USE. IMPORTED MATERIALS SHALL HAVE A CLAY CONTENT OF NO MORE THAN 5%.
4. GRAVEL MATERIAL: EVENLY GRADED MIXTURE OF CRUSHED STONE OR GRAVEL WITH 95% PASSING A 1-1/2 INCH SIEVE.
5. GEOTEXTILE FABRIC: AS PER CONSTRUCTION DOCUMENTS.

D. CLEARING AND GRUBBING
1. REMOVE ALL VEGETATION AND MATERIALS AS REQUIRED. REMOVE STUMPS COMPLETELY UNDER FOUNDATIONS AND ROADWAYS. DISPOSE OF CLEARING AND GRUBBING OFF-SITE OR IN AN ON-SITE LOCATION APPROVED BY CONSTRUCTION MANAGER.

E. STRIPPING
1. STRIP NOT LESS 3 INCHES OF SOD AND TOPSOIL FROM AREAS THAT WILL UNDERLAY GRAVEL, PAVEMENT, NEW STRUCTURES OR EMBANKMENTS. STOCKPILE STRIPPING ON-SITE FOR RE-USE AND FINAL LANDSCAPING.

G. EMBANKMENT
1. CONSTRUCT EMBANKMENT TO THE LINES AND GRADES SHOWN ON THE DRAWING.
2. CONSTRUCT EMBANKMENT FROM ON-SITE EXCAVATION MATERIAL WHEN SUITABLE. USE IMPORTED BACKFILL ONLY AFTER AVAILABLE ON-SITE EXCAVATION MATERIAL HAS BEEN USED.
3. CONSTRUCT IN LIFTS OF NOT MORE THAN 12 INCHES IN LOOSE DEPTH. THE FULL WIDTH OF THE CROSS SECTION SHALL BE BROUGHT UP UNIFORMLY.
4. MATERIAL SHALL BE PLACED IN LAYERS AND SHALL BE NEAR OPTIMUM MOISTURE CONTENT BEFORE ROLLING TO OBTAIN THE PRESCRIBED COMPACTION. WETTING OR DRYING OF THE MATERIAL AND MANIPULATION TO SECURE A UNIFORM MOISTURE CONTENT THROUGHOUT THE LAYERS MAY BE REQUIRED. SUCH OPERATIONS SHALL BE INCLUDED IN THE APPROPRIATE BID ITEM. SHOULD THE MATERIAL BE TOO WET TO PERMIT PROPER COMPACTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO UTILIZE MATERIAL WITH AN ACCEPTABLE MOISTURE CONTENT.
5. DO NOT PLACE FROZEN MATERIAL IN THE EMBANKMENT AND DO NOT PLACE EMBANKMENT MATERIAL UPON FROZEN MATERIAL.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF EMBANKMENTS AND THE REPLACEMENT OF ANY PORTION WHICH HAS BECOME DISPLACED DUE TO CONTRACTOR'S OPERATIONS.
7. START LAYERS IN THE DEEPEST PORTION OF THE FILL AND AS PLACEMENT PROGRESSES, CONSTRUCT LAYERS APPROXIMATELY PARALLEL TO THE FINISH GRADE LINE.
8. ROUTE EQUIPMENT BOTH LOADED AND EMPTY, OVER THE FULL WIDTH OF THE EMBANKMENT TO ENSURE UNIFORMITY OF MATERIAL PLACEMENT.
9. COMPACT EMBANKMENT UNDERLYING NEW GRAVEL PAVING, FLOOR SLABS AND STRUCTURES TO BE 95% COMPACTION AT A MINIMUM DRY DENSITY AS DETERMINED BY ASTM 0-1557 OR WITHIN PLUS OR MINUS 3% OF OPTIMUM MOISTURE CONTENT. COMPACT NON-STRUCTURAL AREA EMBANKMENTS TO A MINIMUM OF 90% OF ASTM 0-1557.

H. SITE GRADING
1. USING ON-SITE EXCAVATION MATERIAL, SHAPE, TRIM, FINISH AND COMPACT SURFACE AREAS TO CONFORM TO THE LINES. GRADES AND CROSS SECTIONS SHOWN ON THE DRAWING OR AS DESIGNATED BY THE CONSTRUCTION MANAGER.
2. GRADE SURFACES TO DRAIN AND ELIMINATE ANY PONDING OR EROSION.
3. ELIMINATE WHEEL RUTS BY REGRADING.
4. COMPACT AREAS OF UNDERLYING NEW GRAVEL, PAVING, FLOOR SLABS AND STRUCTURES TO BE AT 95% COMPACTION AT A MAXIMUM DRY DENSITY AS DETERMINED BY THE ASTM 0-1557 OR WITHIN PLUS OR MINUS 3% OF OPTIMUM MOISTURE CONTENT.
5. CONSTRUCT FINISH SURFACE OF SITE GRADING AREAS WITHIN 1 INCH FROM SPECIFIED GRADE.

I. SUBGRADE PREPARATION
1. SHAPE TOP OF SUBGRADE TO THE LINES AND GRADES SHOWN ON THE DRAWINGS.
2. MAINTAIN TOP OF SUBGRADE IN A FREE-DRAINING CONDITION.
3. DO NOT STOCK PILE MATERIAL ON TOP OF SUBGRADE UNLESS AUTHORIZED BY CONSTRUCTION MANAGER.
4. COMPACT THE TOP 12 INCHES OF SUBGRADE TO A 95% COMPACTION AT A MAXIMUM DRY DENSITY AS DETERMINED BY ASTM 0-1557 OR WITHIN PLUS OR MINUS 3% OF THE OPTIMUM MOISTURE CONTENT.
5. CONSTRUCT TOP OF SUBGRADE WITHIN 1 INCH OF ESTABLISHED GRADE AND CROSS SECTION.

J. GEOTEXTILE FABRIC
1. LAY GEOTEXTILE FABRIC OVER COMPACTED SUBGRADE IN THE COMPOUND AREA AND UNDER LENGTH OF ROAD (WHEN REQUIRED). LAP ALL JOINTS TO A MINIMUM OF 36 INCHES.

K. GRAVEL SURFACING
1. CONSTRUCT GRAVEL SURFACING AREAS USING CRUSHED AGGREGATE BASE AND FINISH COURSES AS SPECIFIED BY CONSTRUCTION MANAGER. SPREAD GRAVEL AND RAKE TO OBTAIN A UNIFORM SURFACE AREA.

L. LANDSCAPING
1. FURNISH, INSTALL AND MAINTAIN LANDSCAPE WORK AS SHOWN AND/OR REQUIRED WITHIN THE CONSTRUCTION DOCUMENTS OR AS SPECIFIED IN THE CONSTRUCTION SPECIFICATIONS.

M. CONCRETE FORM WORK
1. FORMS: SMOOTH AND FREE OF SURFACE IRREGULARITIES. UTILIZE FORM RELEASE AGENTS.
2. CHAMFER EXPOSED EDGES OF ALL TOWER FOUNDATION SHALL RECEIVE A ¾ INCH BY ¾ INCH 45 DEGREE CHAMFER. OTHER EXPOSED EDGES SHALL RECEIVE A TOOLED RADIUS FINISH.
3. UPON COMPLETION, REMOVE ALL FORMS INCLUDING THOSE CONCEALED OR BURIED.
4. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.

4. GENERAL NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE ALL PLAN SHEETS AND SPECIFICATIONS AND COORDINATE HIS WORK WITH THE WORK OF ALL OTHER CONTRACTORS TO ENSURE THAT WORK PROGRESSION IS NOT INTERRUPTED.
2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A NEAT AND ORDERLY SITE, YARD AND GROUNDS. CONTRACTOR SHALL REMOVE AND DISPOSE OFF SITE ALL RUBBISH, WASTE MATERIAL, LITTER AND ALL FOREIGN SUBSTANCES. REMOVE PETROCHEMICAL SPILLS, STAINS AND OTHER FOREIGN DEPOSITS. RAKE GROUND TO A SMOOTH EVEN-TEXTURED SURFACE.
3. THE PLANS SHOW SOME KNOWN SUBSURFACE STRUCTURE ABOVE GROUND STRUCTURES AND/OR UTILITIES BELIEVED TO EXIST IN THE WORKING AREA, EXACT LOCATION OF WHICH MAY VARY FROM THE LOCATION INDICATED. IN PARTICULAR THE CONTRACTOR IS WARNED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF SUCH PIPELINES, SUBSURFACE STRUCTURES AND/OR UTILITIES IN THE AREA MAY BE SHOWN OR MAY NOT BE SHOWN AND IT SHALL BE HIS RESPONSIBILITY TO PROCEED WITH GREAT CARE IN 48 HOURS BEFORE YOU DIG, DRILL OR BLAST CALL LOCAL UTILITIES LOCATOR COMPANY.
4. THE OWNER OR OWNER'S REPRESENTATIVE SHALL BE NOTIFIED IN WRITING OF ANY CONDITIONS THAT VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT THE EXPRESSED APPROVAL OF THE OWNER OR THE OWNER'S REPRESENTATIVE.
5. THE CONTRACTOR IS INSTRUCTED TO COOPERATE WITH ANY AND ALL OTHER CONTRACTORS PERFORMING WORK ON THE SITE DURING THE PERFORMANCE OF THIS CONTRACT.
6. THE CONTRACTOR SHALL RESTORE ALL DAMAGED, PUBLIC OR PRIVATE PROPERTY TO AT LEAST AS GOOD OF CONDITION AS BEFORE DISTURBED AS DETERMINED BY THE OWNER OR OWNER'S REPRESENTATIVE.
7. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIRED PERMITS.
8. THE CONTRACTOR SHALL PROTECT EXISTING PROPERTY LINE MONUMENTATION. ANY MONUMENTATION DISTURBED OR DESTROYED, AS JUDGED BY THE OWNER OR OWNER'S REPRESENTATIVE, SHALL BE REPLACED.
9 ALL TRENCH EXCAVATION AND ANY REQUIRED SHEETING AND SHORING SHALL BE DONE IN ACCORDANCE WITH OSHA REGULATIONS FOR CONSTRUCTION.
10.CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING AND THE MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF WORK.
11ALL UTILITY WORK INVOLVING CONNECTIONS TO EXISTING SYSTEMS SHALL BE COORDINATED WITH THE OWNER OR OWNER'S REPRESENTATIVE BEFORE EACH AND EVERY CONNECTION TO EXISTING SYSTEMS IS MADE.
12MAINTAIN FLOW FOR ALL EXISTING UTILITIES
13ALL SITE FILL SHALL MEET SELECTED FILL STANDARDS AS DEFINED BY THE OWNER OF OWNER'S REPRESENTATIVE ON THE DRAWINGS OR GEOTECHNICAL REPORT RECOMMENDATIONS.
14CONTRACTOR TO GRADE ALL AREAS OF THE SITE TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING OR EQUIPMENT PAD AND THE TOWER.
15IF NECESSARY, THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING AND REGRADING ROADWAY AND ANY DISTURBED AREAS FOLLOWING INSTALLATION OF UTILITIES.
16NO COMMERCIAL MESSAGES TO BE DISPLAYED ON TOWER
17WATER AND SEWER SERVICES ARE NOT REQUIRED FOR THE DEVELOPMENT
18THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIAL UNLESS OTHERWISE NOTED.
19ELECTRICAL DRAWINGS HAVE BEEN REVIEWED AND SEALED FOR STRUCTURAL PURPOSES ONLY.

AT&T

smartlink

Trylon

DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	03/27/25	90% CD	RC
B	04/10/25	90% CD	RC
C	02/24/26	90% CD	RC
0	07/21/26	100% CD	TFL
1	08/05/26	100% CD	TFL
2	08/25/26	100% CD	TFL

STATE OF MARYLAND
MICHAEL S MOORE
62222
PROFESSIONAL ENGINEER
8/25/2026

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No: 62222 Exp. Date: 1/7/2028

PROJECT TITLE

USID: 4043
FA#: 10096175

BARC WATER TANK

BEAVER DAM ROAD
BELTSVILLE, MD 20705

EXISTING 157'-7"
WATER TANK

SHEET DESCRIPTION

GENERAL NOTES

SHEET NO.

GN-1