

T Mobile

ZONING JURISDICTION:
CITY OF MERCER ISLAND

SITE ID: SE02629A SITE NAME: MERCER ISLAND WATER TANK

PROJECT TYPE: ANCHOR SITE LOCATION: 4350 88TH AVE SE
MERCER ISLAND, WA 98040 FSA: TAEC

LEGAL DESCRIPTION:

LUCAS HEIGHTS ADD
PLAT BLOCK: 5
PLAT LOT: 1 THRU 16

UTILITY COMPANIES:

POWER:

COMPANY: PUGET SOUND ENERGY
CONTACT:
PHONE: (866) 831-5161
EMAIL:

BACKHAUL/AAV:

COMPANY: CENTURYLINK
CONTACT:
PHONE: (866) 476-9909
EMAIL:

PROJECT CONTACT LIST:

APPLICANT:

T-MOBILE USA, INC.
19807 NORTH CREEK PKWY N
BOTHELL, WA 98011
PHONE: 425-641-1140

PROPERTY & TOWER OWNER:

CITY OF MERCER ISLAND
9611 SE 36TH STREET
MERCER ISLAND, WA 98040

PERMITTING:

COMPANY: TAEC
CONTACT: CHRISTINE CONTRERAS
PHONE: (425) 351-3392
EMAIL: christine.contreras@taec.net

RF ENGINEER

T-MOBILE USA, INC.
CONTACT: FRANCISCO MONROY
EMAIL: Francisco.Monroy9@T-Mobile.com

PROJECT A&E:

COMPANY: TAEC
CONTACT: PETER LUNDQUIST, PE
PHONE: (206) 713-9915
EMAIL: peter.lundquist@taec.net

SITE ACQUISITION:

COMPANY: TAEC
CONTACT: MAX KVERN
PHONE: (206) 434-7019
EMAIL: max.kvern@taec.net

PROJECT MANAGER:

COMPANY: TAEC
CONTACT: BREE SONCRANT
PHONE: (206) 714-7101
EMAIL: bree.soncrant@taec.net

CONSTRUCTION MANAGER:

COMPANY: TAEC
CONTACT: STEPHEN PALACHUK
PHONE: (509) 961-4150
EMAIL: stephen.palachuk@taec.net

PROJECT INFORMATION:

CODE INFORMATION:

ZONING CLASSIFICATION: R-9.6
BUILDING CODE: IBC 2021
CONSTRUCTION TYPE: IIB
OCCUPANCY: U, S-2
JURISDICTION: CITY OF MERCER ISLAND
PROPOSED BUILDING USE: UNMANNED TELECOM

SITE LOCATION (NAD83):

LATITUDE: 47° 34' 06.2" N
LONGITUDE: 122° 13' 14.7" W
TOP OF STRUCTURE: 476.5' AMSL 100.7' AGL
BASE OF STRUCTURE: 375.8' AMSL 0.0' AGL

PROJECT LEASE AREA:

±88 SF

PARCEL NUMBER:

4457300325

NEW IMPERVIOUS AREA:

0 SF

AREA OF PARCEL:

3.55 ACRES

GENERAL INFORMATION:

PARKING REQUIREMENTS ARE UNCHANGED
TRAFFIC IS UNAFFECTED
SIGNAGE IS PROPOSED

DRAWING INDEX:

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A-2	ANTENNA PLAN
A-3	EQUIPMENT PLAN
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PROJECT DESCRIPTION:

T-MOBILE PROPOSES (PER RFDS V8, 12/23/2024) TO MODIFY AN EXISTING UNMANNED TELECOMMUNICATIONS FACILITY WITH:

THE REMOVAL OF:

- (3) ANTENNA MOUNTS
- (1) PURCELL CABINET
- (1) EXPANSION CABINET
- (2) BATTERIS STRINGS IN PURCELL
- (1) VOLTAGE BOOSTER W/ (3) MODULES IN PURCELL
- (1) ±8' ICE BRIDGE PORTION
- (1) H-FRAME

THE ADDITION OF:

- (3) (AEHC) ANTENNAS
- (3) ANTENNA SECTOR MOUNTS
- (2) CABINETS
- (4) BATTERY STRINGS IN LB3
- (1) ABIA IN HPL3.1
- (1) ABIO IN HPL3.1
- (1) HYBRID TRUNK 6x24 (40m)
- (9) JUMPER CABLES (15')
- (1) ICE CANOPY (10' x 8')
- (1) ICE BRIDGE (±10')

THE RELOCATION OF:

- (3) (FFVV-65C-R3-V1) ANTENNAS
- (3) AHLOA ON TOWER
- (3) AHFIG ON TOWER
- (1) ROUTER TO HPL3.1
- (1) ASIB TO HPL3.1
- (2) ASIL TO HPL3.1
- (1) FSMF TO HPL3.1
- (2) ABIA TO HPL3.1
- (5) ABIL TO HPL3.1
- (2) AMIA TO HPL3.1
- (1) HCS 2.0 JUNCTION BOX

ANTI-THEFT FORTIFICATION:

- PUCK LOCKS ON CUBE & PPC
- BINGAMIN LOCKS ON CABINETS
- SLEEVE HYBRIDS IN 3" CONDUIT 15' UP TOWER RUN AND WEATHERPROOF
- INSTALL & GROUND JUNCTION BOX TO SUPPORT SLACK OF HYBRID UNDER NEW ICE BRIDGE
- SUPPORT POWER AND FIBER SLACK INDIVIDUALLY
- SLEEVE CABLING FROM JUNCTION TO HPL3.1 IN 2" CONDUIT

PLANS PREPARED FOR:

T Mobile

19807 NORTH CREEK PKWY N
BOTHELL, WA 98011

PLANS PREPARED BY:

Technology Associates

SEATTLE MARKET OFFICE
9725 3RD AVENUE NE, STE. 410
SEATTLE, WA 98115

JURISDICTION APPROVAL SEAL:

ENGINEERING SEAL:



DRAWING NOTICE:

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REVISIONS:	DESCRIPTION	DATE	BY	REV
	ISSUED FOR 90% ANCHOR CD REVIEW	11/12/2024	RKS	A
	ISSUED FOR 100% ANCHOR CD REVIEW	01/27/2025	MGM	0

SITE NAME:

MERCER ISLAND
WATER TANK

SITE NUMBER:

SE02629A

SITE ADDRESS:

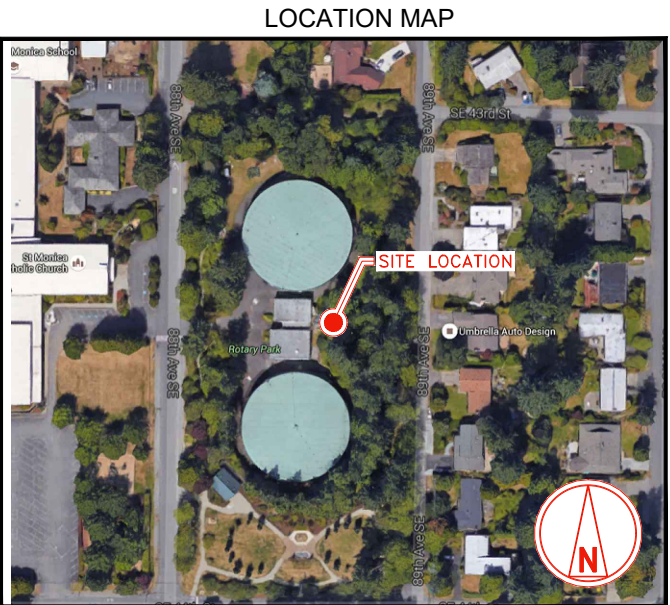
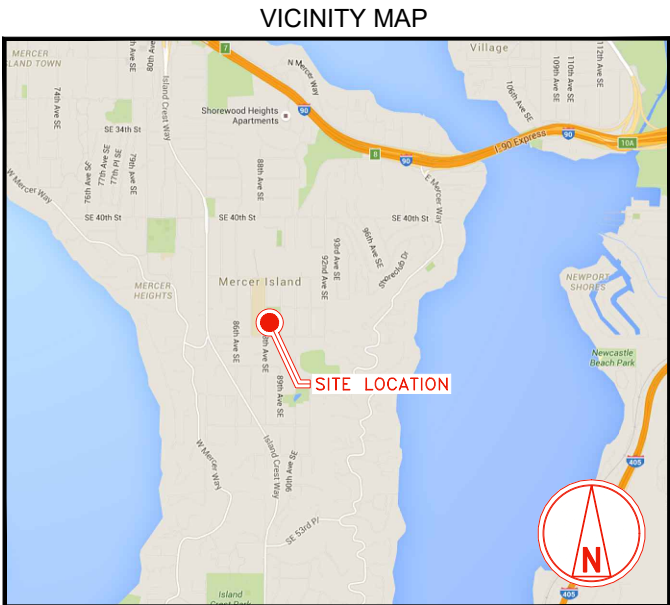
4350 88TH AVE SE
MERCER ISLAND, WA 98040

SHEET DESCRIPTION:

TITLE SHEET

SHEET NUMBER:

T-1



DRIVING DIRECTIONS:

FROM LOCAL T-MOBILE OFFICE (19807 NORTH CREEK PKWY N, BOTHELL, WA 98011)

1. HEAD EAST ON NORTH CREEK PKWY N
2. TURN RIGHT ONTO 120TH AVE NE
3. TURN RIGHT ONTO NE 195TH ST
4. USE THE LEFT 2 LANES TO TURN LEFT ONTO THE INTERSTATE 405 S RAMP TO RENTON
5. MERGE ONTO I-405 S
6. USE THE RIGHT 3 LANES TO TAKE EXIT 11 TO MERGE ONTO I-90 W TOWARD SEATTLE
7. TAKE EXIT 8 FOR EAST MERCER WAY
8. TURN LEFT ONTO 100TH AVE SE/E MERCER WAY
9. CONTINUE TO FOLLOW E MERCER WAY
10. TURN RIGHT ONTO SE 36TH ST
11. CONTINUE ONTO GALLAGHER HILL RD
12. TURN LEFT ONTO SE 40TH ST
13. TURN RIGHT ONTO 92ND AVE SE
14. TURN RIGHT ONTO SE 42ND ST
15. TURN LEFT ONTO 88TH AVE SE
16. DESTINATION WILL BE ON THE LEFT

REVIEWERS SHALL CLEARLY PLACE INITIALS ADJACENT TO EACH REDLINE NOTE AS DRAWINGS ARE BEING REVIEWED

APPROVED BY:	DATE:	SIGNATURE:	APPROVED BY:	DATE:	SIGNATURE:
PROJECT MANAGER:			RF ENGINEER:		
SITE ACQUISITION:			OPERATIONS MANAGER:		
ZONING:			DEVELOPMENT MANAGER:		
CONSTRUCTION MANAGER:			REGULATORY:		
CONSTRUCTION MANAGER:					



Know what's BELOW.
Call before you dig.
www.call811.com

NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" X 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES

NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" X 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES

GENERAL NOTES

1. THIS FACILITY IS EXEMPT FROM HANDICAP REQUIREMENTS PER 2018 INTERNATIONAL BUILDING CODE SECTION 1103.2.9. THIS FACILITY IS NON-OCCUPIABLE SPACE AND ENTERED ONLY BY SERVICE PERSONNEL. THIS SPACE IS NOT FOR HUMAN OCCUPANCY.
2. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO SUBMITTING HIS BID. ANY DISCREPANCIES, CONFLICTS OR OMISSIONS SHALL BE REPORTED TO THE ENGINEER PRIOR TO SUBMITTING BIDS, AND PROCEEDING WITH ANY WORK.
3. THE CONTRACTOR SHALL NOTIFY ENGINEER OF ANY ERRORS, OMISSIONS, OR DISCREPANCIES AS THEY MAY BE DISCOVERED IN THE PLANS, SPECIFICATIONS, & NOTES PRIOR TO STARTING CONSTRUCTION, INCLUDING BUT NOT LIMITED BY DEMOLITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY ERRORS, OMISSION, OR INCONSISTENCY AFTER THE START OF CONSTRUCTION WHICH HAS NOT BEEN BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER AND SHALL INCUR ANY EXPENSES TO RECTIFY THE SITUATION. THE METHOD OF CORRECTION SHALL BE APPROVED BY THE ARCHITECT OR THE ENGINEER RESPONSIBLE OF THE PROJECT.
4. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR HAS THE RESPONSIBILITY TO LOCATE ALL EXISTING UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR OR SUBCONTRACTOR SHALL BEAR THE EXPENSE OF REPAIRING OR REPLACING ANY DAMAGE TO THE UTILITIES CAUSED DURING THE EXECUTION OF THE WORK. CONTACT USA DIG ALERT @ 800-227-2600
5. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT ALL AREAS FROM DAMAGE WHICH MAY OCCUR DURING CONSTRUCTION. ANY DAMAGE TO PROPOSED OR EXISTING SURFACES, STRUCTURES OR EQUIPMENT SHALL BE IMMEDIATELY REPAIRED OR REPLACED TO THE SATISFACTION OF THE PROPERTY OWNER. THE CONTRACTOR SHALL BEAR THE EXPENSE OF REPAIRING OR REPLACING ANY DAMAGED AREAS.
6. A COPY OF THE APPROVED PLANS SHALL BE KEPT IN A PLACE SPECIFIED BY THE GOVERNING AGENCY, AND BY LAW SHALL BE AVAILABLE FOR INSPECTION AT ALL TIMES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL CONSTRUCTION SETS REFLECT THE SAME INFORMATION AS THE APPROVED PLANS. THE CONTRACTOR SHALL ALSO MAINTAIN ONE SET OF PLANS AT THE SITE FOR THE PURPOSE OF DOCUMENTING ALL AS-BUILT CHANGES, REVISIONS, ADDENDA, OR CHANGE ORDERS. THE CONTRACTOR SHALL FORWARD THE AS-BUILT/HIRED DRAWINGS TO THE ARCHITECT OR THE ENGINEER RESPONSIBLE OF THE PROJECT AT THE CONCLUSION OF THE PROJECT.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE SITE WHILE THE WORK IS IN PROGRESS UNTIL THE JOB IS COMPLETE.
8. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE TEMPORARY POWER, WATER, AND TOILET FACILITIES AS REQUIRED BY THE PROPERTY OWNER OR GOVERNING AGENCY.
9. ALL CONSTRUCTION THROUGH THE PROJECT SHALL CONFORM TO LATEST IBC, AND ALL OTHER GOVERNING CODES, INCLUDING THE THE MOST RESTRICTIVE CODE SHALL GOVERN.
10. THE CONTRACTOR AND SUBCONTRACTOR SHALL COMPLY WITH ALL LOCAL AND STATE REGULATIONS INCLUDING ALL OSHA REQUIREMENTS.
11. WHEN REQUIRED STORAGE OF MATERIALS OCCURS, THEY SHALL BE EVENLY DISTRIBUTED OVER THE FLOOR OR ROOF SO AS NOT TO EXCEED THE DESIGNED LIVE LOADS FOR THE STRUCTURE. TEMPORARY SHORING OR BRACING SHALL BE PROVIDED WHERE THE STRUCTURE OR SOIL HAS NOT ATTAINED THE DESIGN STRENGTH FOR THE CONDITIONS PRESENT.
12. THE CONTRACTOR SHALL SUPERVISE AND COORDINATE ALL WORK, USING HIS PROFESSIONAL KNOWLEDGE AND SKILLS. HE IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES AND SEQUENCING AND COORDINATING ALL PORTIONS OF THE WORK UNDER THE PROJECT.
13. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN AND PAY FOR ALL PERMITS, LICENSES AND INSPECTIONS WITH RESPECT TO THE WORK TO COMPLETE THE PROJECT. BUILDING PERMIT APPLICATIONS SHALL BE FILED BY THE OWNER OR AUTHORIZED AGENT. CONTRACTOR SHALL OBTAIN THE PERMIT AND MAKE FINAL PAYMENT OF SAID DOCUMENT.
14. ALL DIMENSIONS TAKE PRECEDENCE OVER SCALE. DRAWINGS ARE NOT TO BE SCALED UNDER ANY CIRCUMSTANCES.
15. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING, BACKING, FRAMING, HANGERS OR SUPPORTS FOR INSTALLATION OF ITEMS INDICATED ON THE DRAWINGS.
16. THE CONTRACTOR SHALL PROVIDE THE FIRE MARSHALL, OR U.L APPROVED MATERIALS TO FILL/SEAL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES.
17. PROPOSED CONSTRUCTION ADDED TO EXISTING CONSTRUCTION SHALL BE MATCHED IN FORM, TEXTURE, MATERIAL AND PAINT COLOR EXCEPT AS NOTED IN THE PLANS.
18. THE CONTRACTOR IS TO PROVIDE PORTABLE FIRE EXTINGUISHERS HAVING A MINIMUM 2A-10-B-C RATING WITHIN 75FT. OF TRAVEL TO ALL PORTIONS OF THE CONSTRUCTION AREA. (2018 INTERNATIONAL BUILDING CODE 906.1.1 AND SECTION 906.3.1)
19. MATERIALS TESTING SHALL BE TO THE LATEST STANDARDS AVAILABLE AS REQUIRED BY THE LOCAL GOVERNING AGENCY RESPONSIBLE FOR APPROVING THE RESULTS.
20. ALL GENERAL NOTES AND STANDARD DETAILS ARE THE MINIMUM REQUIREMENTS TO BE USED IN CONDITIONS WHICH ARE NOT SPECIFICALLY SHOWN OTHERWISE.
21. ALL DEBRIS AND REFUSE IS TO BE REMOVED FROM THE PROJECT. PREMISES SHALL BE LEFT IN A CLEAN BROOM FINISHED CONDITION AT ALL TIMES.
22. BUILDING INSPECTORS AND/OR OTHER BUILDING OFFICIALS ARE TO BE NOTIFIED PRIOR TO ANY GRADING AND CONSTRUCTION EFFORT AS MANDATED BY THE GOVERNING AGENCY.
23. ALL SYMBOLS AND ABBREVIATIONS ARE CONSIDERED CONSTRUCTION INDUSTRY STANDARDS. IF A CONTRACTOR HAS A QUESTION REGARDING THEIR EXACT MEANING THE ARCHITECT OR THE ENGINEER RESPONSIBLE OF THE PROJECT SHALL BE NOTIFIED FOR CLARIFICATIONS.
24. SITE CONTRACTOR TO CALL DIG ALERT (1-800-227-2600) TO LOCATE ANY AND ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION.
25. ALL FACILITIES TO BE INSTALLED ARE UNMANNED. NO (E) PARKING SPACES WILL BE USED OR REMOVED BY THIS PROJECT.
26. PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMITS, THE APPLICANT SHALL INCORPORATE ANY CONSTRUCTION BEST MANAGEMENT PRACTICES NECESSARY TO COMPLY WITH THE CITY'S MUNICIPAL CODES INTO THE CONSTRUCTION PLANS OR SPECIFICATIONS.
27. PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMITS, THE APPLICANT SHALL SUBMIT A WATER POLLUTION CONTROL PLAN (WPCP). THE WPCP SHALL BE PREPARED IN ACCORDANCE WITH THE GUIDELINES IN APPENDIX E OF THE CITY'S STORM WATER STANDARDS.
28. THIS PROJECT PROPOSES NO DEVELOPMENT IMPROVEMENTS OUTSIDE THEAAA EXISTING BUILDING FOOTPRINT FOR THIS DISCRETIONARY REVIEW AND THEREFORE DOES NOT REQUIRE ANY PERMANENT STORM WATER BEST MANAGEMENT PRACTICES.
29. THIS PROJECT IS INSTALLATION ON AN EXISTING FACILITY.
30. THIS PROJECT PROPOSES NO WORK WITHIN THE PUBLIC RIGHT-OF-WAY.

STORM WATER QUALITY NOTES CONSTRUCTION BMPS:

THIS PROJECT SHALL COMPLY WITH ALL REQUIREMENTS OF THE STATE PERMIT.

NOTES 1-6 BELOW REPRESENT KEY MINIMUM REQUIREMENTS FOR CONSTRUCTION BMPS'S.

1. SUFFICIENT BMPS MUST BE INSTALLED TO PREVENT SILT, MUD OR OTHER CONSTRUCTION DEBRIS FROM BEING TRACKED INTO THE ADJACENT STREET(S) OR STORM WATER CONVEYANCE SYSTEMS DUE TO CONSTRUCTION VEHICLES OR ANY OTHER CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING ANY SUCH DEBRIS THAT MAY BE IN THE STREET AT THE END OF EACH WORK DAY OR AFTER A STORM EVENT THAT CAUSES A BREACH IN THE INSTALLED CONSTRUCTION BMPS.
2. ALL STOCK PILES OF UN-COMPACTED SOIL AND/OR BUILDING MATERIALS THAT ARE INTENDED TO BE LEFT UNPROTECTED FOR A PERIOD GREATER THAN SEVEN CALENDAR DAYS ARE TO BE PROVIDED WITH EROSION AND SEDIMENT CONTROLS. SUCH SOIL MUST BE PROTECTED EACH DAY WHEN THE PROBABILITY OF RAIN IS 40% OR GREATER.
3. A CONCRETE WASHOUT SHALL BE PROVIDED ON ALL PROJECTS WHICH PROPOSE THE CONSTRUCTION OF ANY CONCRETE IMPROVEMENTS THAT ARE TO BE POURED IN PLACE ON SITE.
4. ALL EROSION/SEDIMENT CONTROL DEVICES SHALL BE MAINTAINED IN WORKING ORDER AT ALL TIMES.
5. ALL SLOPES THAT ARE CREATED OR DISTURBED BY CONSTRUCTION ACTIVITY MUST BE PROTECTED AGAINST EROSION AND SEDIMENT TRANSPORT AT ALL TIMES.
6. THE STORAGE OF ALL CONSTRUCTION MATERIALS AND EQUIPMENT MUST BE PROTECTED AGAINST ANY POTENTIAL RELEASE OF POLLUTANTS INTO THE ENVIRONMENT.

GENERAL FIRE NOTES:

1. BUILDINGS UNDERGOING CONSTRUCTION, ALTERATION, OR DEMOLITION SHALL BE IN ACCORDANCE WITH 2018 INTERNATIONAL BUILDING CODE AND ALL GOVERNING CODES.
2. ADDRESS SHALL BE PROVIDED FOR ALL PROPOSED AND EXISTING BUILDINGS IN A POSITION AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. (2018 INTERNATIONAL BUILDING CODE 501.2)
3. DECORATIVE MATERIALS SHALL BE MAINTAINED IN A FLAME-RETARDANT CONDITION.(2018 INTERNATIONAL BUILDING CODE 806.1)
4. PORTABLE FIRE EXTINGUISHERS: AT LEAST ONE FIRE EXTINGUISHER WITH A MINIMUM RATING OF 2-A-10B-C SHALL BE PROVIDED WITHIN 75 FEET MAXIMUM TRAVEL DISTANCE FOR EACH 6,000 SQUARE FEET OR PORTION THEREOF ON EACH FLOOR.(2018 INTERNATIONAL BUILDING CODE 906.1.1 AND SECTION 906.3.1)

ABBREVIATION

DEFINITION

AB ANCHOR BOLT
ABV ABOVE
ACCA ANTENNA CABLE COVER ASSEMBLY
ADD'L ADDITIONAL
AFF ABOVE FINISHED FLOOR
AFG ABOVE FINISHED GRADE
ALUM ALUMINUM
ALT ALTERNATE
ANT ANTENNA
APPRX APPROXIMATE(LY)
ARCH ARCHITECT(URAL)
AWG AMERICAN WIRE GAUGE
BLDG BUILDING
BLK BLOCK
BLKG BLOCKING
BM BEAM
BN BOUNDARY NAILING
BTCW BARE TINNED COPPER WIRE
BOF BOTTOM OF FOOTING
BU BACK-UP CABINET
CAB CABINET
CANT CANTILEVER(ED)
CIP CAST IN PLACE
CLG CEILING
CLR CLEAR
COL COLUMN
CONC CONCRETE
CONN CONNECTION(OR)
CONST CONSTRUCTION
CONT CONTINUOUS
d PENNY (NAILS)
DBL DOUBLE
DEPT DEPARTMENT
DF DOUGLAS FIR
DIA DIAMETER
DIAG DIAGNOSTIC
DIM DIMENSION
DWG DRAWING(S)
DWL DOWEL(S)
EA EACH
EL ELEVATION
ELEC ELECTRICAL
ELEV ELEVATOR
EMT ELECTRICAL METALLIC TUBING
EN EDGE NAIL
ENG ENGINEER
EQ EQUAL

ABBREVIATION

DEFINITION

EXP EXPANSION
EXST (E) EXISTING
EXT EXTERIOR
FAB FABRICATION(OR)
FF FINISH FLOOR
FG FINISH GRADE
FIN FINISH(ED)
FLR FLOOR
FDN FOUNDATION
FOC FACE OF CONCRETE
FOM FACE OF MASONRY
FOS FACE OF STUD
FOW FACE OF WALL
FS FINISH SURFACE
FT (') FOOT (FEET)
FTG FOOTING
G GROWTH (CABINET)
GA GAUGE
GI GALVANIZE(D)
GFI GROUND FAULT CIRCUIT INTERRUPTER
GLB (GLU-LAM) GLUE LAMINATED BEAM
GPS GLOBAL POSITIONING SYSTEM
GRND GROUND
HDR HEADER
HGR HANGER
HT HEIGHT
ICGB ISOLATED COPPER GROUND BUS
IN (") INCH(ES)
INT INTERIOR
LB (#) POUND(S)
LB LAG BOLTS
LF LINEAR FEET (FOOT)
L LONG(ITUDINAL)
MAS MASONRY
MAX MAXIMUM
MB MACHINE BOLT
MECH MECHANICAL
MFR MANUFACTURER
MIN MINIMUM
MISC MISCELLANEOUS
MTL METAL
(N) NEW
NO (#) NUMBER
NTS NOT TO SCALE
OC ON CENTER
OPNG OPENING

ABBREVIATION

DEFINITION

P/C PRECAST CONCRETE
PCS PERSONAL COMMUNICATION SERVICES
PLY PLAYWOOD
PPC POWER PROTECTION CABINET
PRC PRIMARY RADIO CABINET
PSF POUNDS PER SQUARE FOOT
PSI POUNDS PER SQUARE INCH
PT PRESSURE TREATED
PWR POWER (CABINET)
QTY QUANTITY
RAD (R) RADIUS
REF REFERENCE
REINF REINFORCEMENT(ING)
REQ'D REQUIRED
RGS RIGID GALVANIZED STEEL
RRU RADIO REMOTE UNIT
SCH SCHEDULE
SHT SHEET
SIM SIMILAR
SPEC SPECIFICATION(S)
SQ SQUARE
SS STAINLESS STEEL
STD STANDARD
STL STEEL
STRUC STRUCTURAL
TEMP TEMPORARY
THK THICK(NESS)
TMA TOWER MOUNTED AMPLIFIER
TN TOE NAIL
TOA TOP OF ANTENNA
TOC TOP OF CURB
TOF TOP OF FOUNDATION
TOP TOP OF PLATE (PARAPET)
TOS TOP OF STEEL
TOW TOP OF WALL
TYP TYPICAL
UG UNDER GROUND
UL UNDERWRITERS LABORATORY
UNO UNLESS NOTED OTHERWISE
VIF VERIFY IN FIELD
WIDE (WIDTH)
W WITH
WD WOOD
WP WEATHERPROOF
WT WEIGHT
© CENTERLINE
® PLATE

ABBREVIATIONS



NEW ANTENNA



GRID REFERENCE



EXISTING ANTENNA



DETAIL REFERENCE



GROUND ROD



ELEVATION REFERENCE



GROUND BUS BAR



SECTION REFERENCE



MECHANICAL GRND. CONN.



GROUT OR PLASTER



CADWELD



(E) BRICK



(E) MASONRY



CONCRETE



EARTH



GRAVEL



PLYWOOD



SAND



WOOD CONT.



WOOD BLOCKING



STEEL



T/E



OVERHEAD SERVICE CONDUCTORS



A



COAXIAL CABLE



F



FIBER



P/F



POWER AND FIBER



X



CHAIN LINK FENCING



WOOD FENCE



OHP



OVERHEAD POWER LINE



UGP



BURIED POWER LINE



OHT



OVERHEAD TELEPHONE LINE



UG/T



BURIED TELEPHONE LINE



W



BURIED WATER LINE



SS



BURIED SANITARY SEWER



SD



BURIED STORM DRAIN

GENERAL NOTES

4

LEGEND

3

NOT USED

2

PLANS PREPARED FOR:

T Mobile

19807 NORTH CREEK PKWY N
BOTHELL, WA 98011

PLANS PREPARED BY:

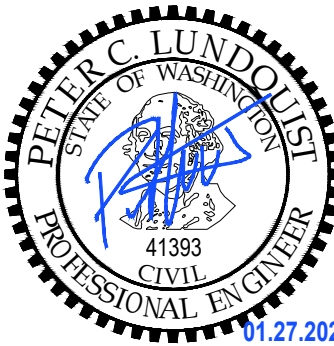
Technology Associates

SEATTLE MARKET OFFICE
9725 3RD AVENUE NE, STE. 410
SEATTLE, WA 98115

JURISDICTION APPROVAL SEAL:



ENGINEERING SEAL:



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REVISIONS:			
DESCRIPTION	DATE	BY	REV
ISSUED FOR 90% ANCHOR CD REVIEW	11/12/2024	RKS	A
ISSUED FOR 100% ANCHOR CD REVIEW	01/27/2025	MGM	0

SITE NAME:

MERCER ISLAND
WATER TANK

SITE NUMBER:

SE02629A

SITE ADDRESS:

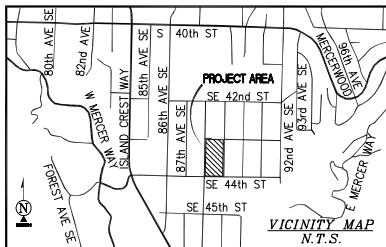
4350 88TH AVE SE
MERCER ISLAND, WA 98040

SHEET DESCRIPTION:

NOTES & LEGEND

SHEET NUMBER:

T-2



SURVEY DATE
05/20/2016

BASIS OF BEARING

BEARINGS SHOWN HEREON ARE BASED UPON U.S. STATE PLANE NAD83
COORDINATE SYSTEM WASHINGTON STATE PLANE COORDINATE ZONE NORTH,
DETERMINED BY GPS OBSERVATIONS.

BENCHMARK

PROJECT ELEVATIONS ESTABLISHED FROM GPS DERIVED ORTHOMETRIC HEIGHTS BY APPLICATION OF NGS 'GEOID 12A' MODELED SEPARATIONS TO ELLIPSOID HEIGHTS DETERMINED BY REAL TIME KINETIC (RTK) GPS DATA PROCESSED ON THE WASHINGTON STATE REFERENCE NETWORK (WSRN). ALL ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NAVD83 DATUM.

FLOOD ZONE

THIS PROJECT APPEARS TO BE LOCATED WITHIN FLOOD ZONE "X". AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP, MAP ID #53033C0675F, NOT PRINTED

UTILITY NOTES

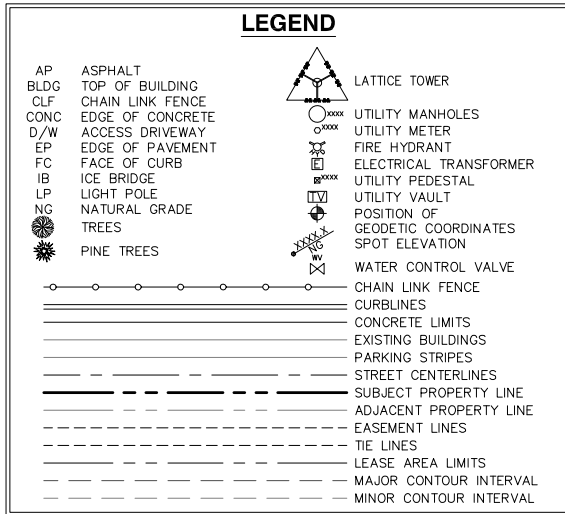
SURVEYOR DOES NOT GUARANTEE THAT ALL UTILITIES ARE SHOWN OR THEIR LOCATIONS ARE DEFINITE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND DEVELOPER TO CONTACT BLUE STAKE AND ANY OTHER INVOLVED AGENCIES TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION. REMOVAL, RELOCATION AND/ OR REPLACEMENT IS THE RESPONSIBILITY OF THE CONTRACTOR.

SURVEYOR'S NOTES

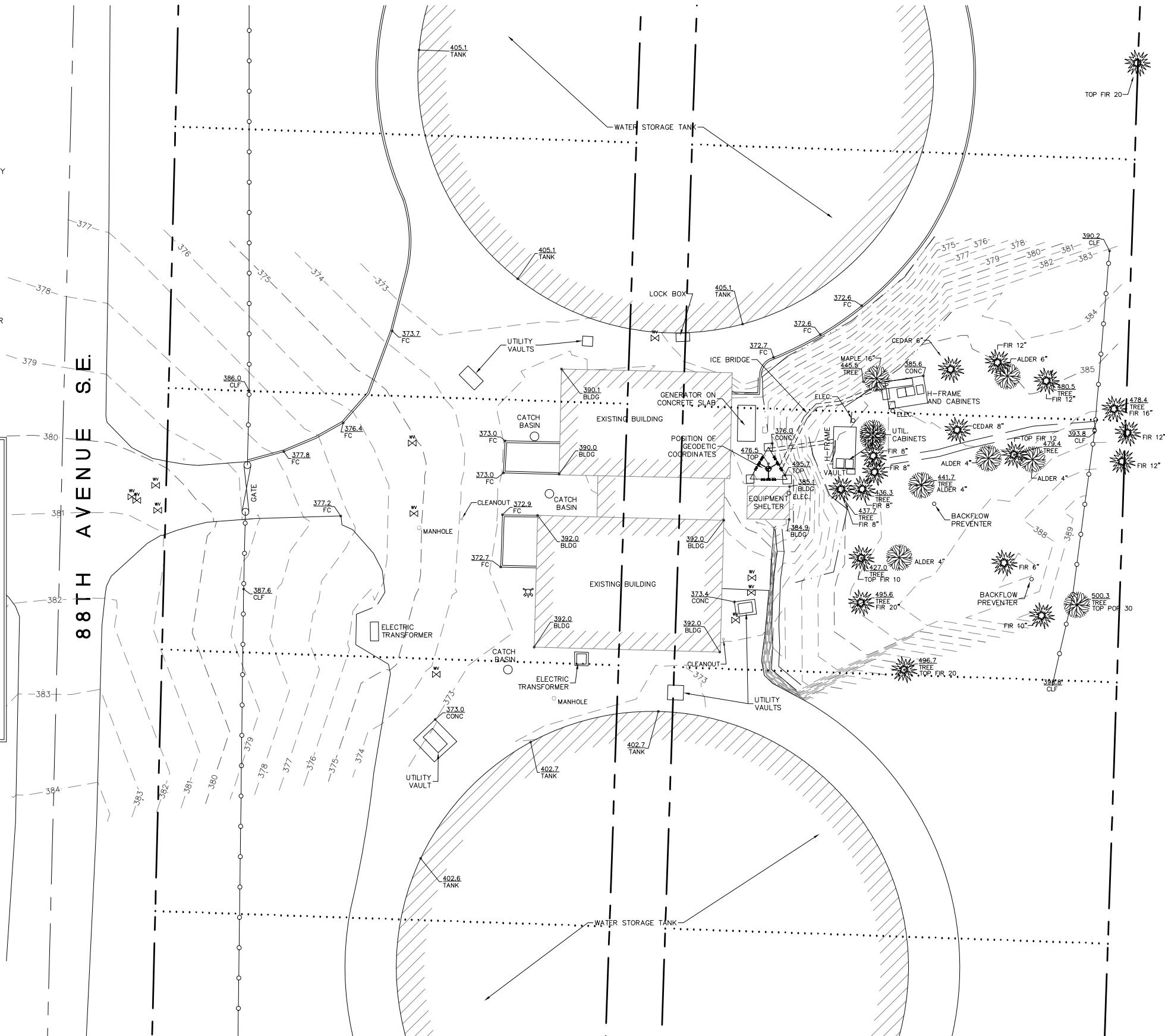
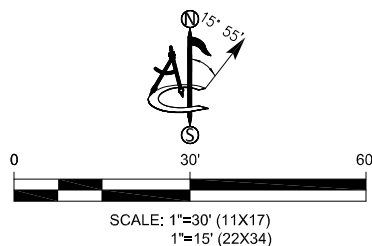
SURVEYOR HAS NOT PERFORMED A SEARCH OF PUBLIC RECORDS TO DETERMINE ANY DEFECT IN TITLE ISSUED.

THE BOUNDARY SHOWN HEREON IS PLOTTED FROM RECORD INFORMATION AND DOES NOT CONSTITUTE A BOUNDARY SURVEY OF THE PROPERTY.

ALL DISTANCES SHOWN HEREON ARE GRID DISTANCES.



POSITION OF GEODETIC COORDINATES
LATITUDE 47° 34' 06.2" NORTH (NAD83)
LONGITUDE 122° 13' 14.7" WEST (NAD83)
GROUND ELEVATION @ 375.8' (NAVD88)



T-Mobile

19807 North Creek Parkway North
Bothell, Washington 98011

PROJECT INFORMATION:

MERCER ISLAND WT
SE02629A

4350 88th AVENUE SE
MERCER ISLAND, WA 98040

KING COUNTY

ORIGINAL ISSUE DATE: 3/1/2000

05 / 20 / 2016

REV.: DATE: DESCRIPTION: BY


[illegible]

PLANS PREPARED BY:

Technology Associates

4122 FACTORIA BLVD SE, SUITE 303
BELLEVUE, WA 98006

CONSULTANT:



245 SAINT HELENS AVENUE; SUITE 3A
TACOMA, WASHINGTON 98402 (253)572-9181

DRAWN BY:====CHK.:====APV.:

RC	SR	SR
----	----	----

LICENSER:

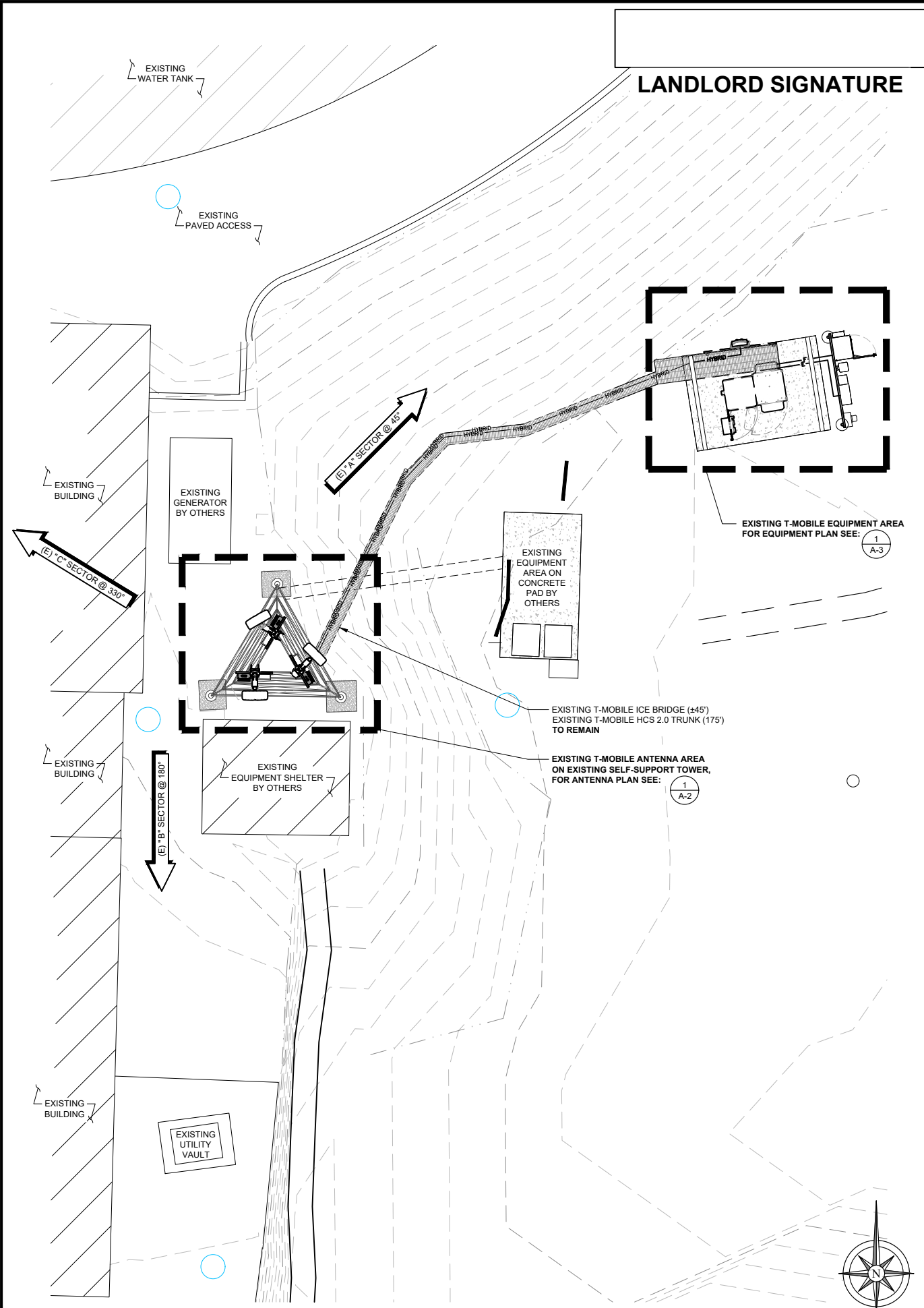
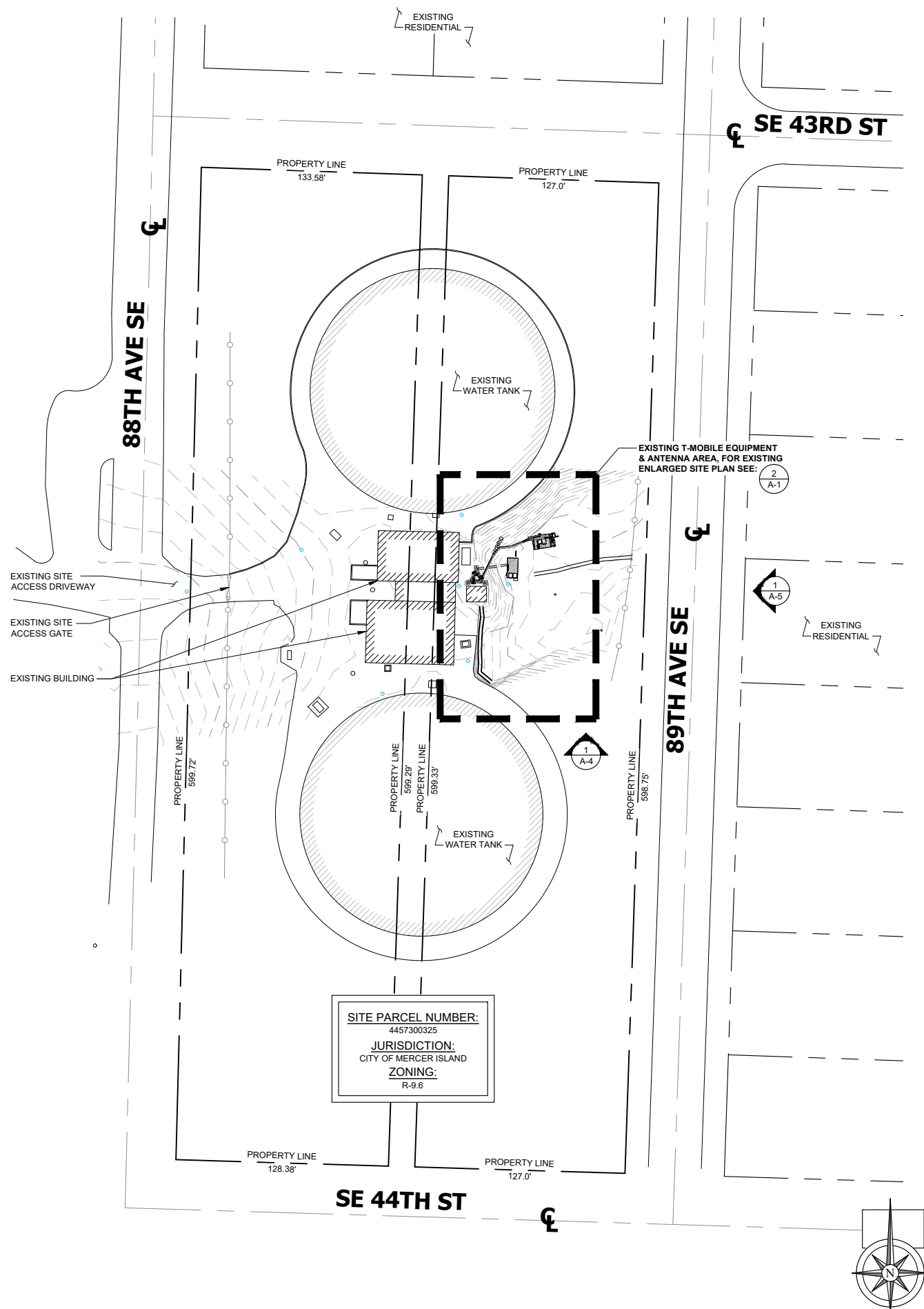
PRELIMINARY

SHEET TITLE: 3

SITE SURVEY

SHEET NUMBER:

SV-1



PLANS PREPARED FOR: _____

T-Mobile

19807 NORTH CREEK PKWY N
BOTHELL, WA 98011

PLANS PREPARED BY: _____

Technology  Associates

SEATTLE MARKET OFFICE
9725 3RD AVENUE NE, STE. 410
SEATTLE, WA 98115

JURISDICTION APPROVAL SEAL: _____



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REVISIONS:			
DESCRIPTION	DATE	BY	REV
ISSUED FOR 90% ANCHOR CD REVIEW	11/12/2024	RKS	A
ISSUED FOR 100% ANCHOR CD REVIEW	01/27/2025	MGM	0

SITE NAME: _____

MERCER ISLAND
WATER TANK

SITE NUMBER: _____

SE02629A

SITE ADDRESS: _____

4350 88TH AVE SE
MERCER ISLAND, WA 98040

SHEET DESCRIPTION: _____

SITE PLAN

SHEET NUMBER: _____

A-1

NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" X 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES

SITE PLAN

40'	0	20'	40'	SCALE: 1" = 40'-0" (24x36)
				(OR) 1/2" = 40'-0" (11x17)

1

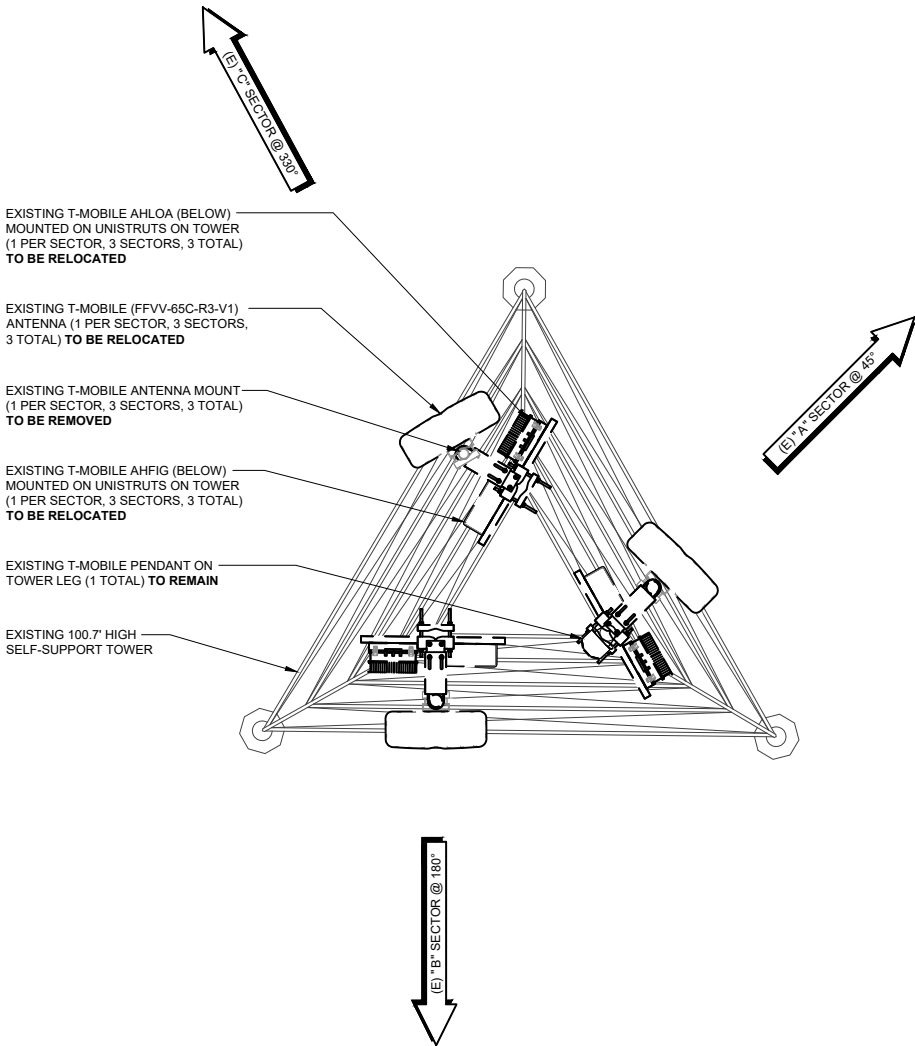
ENLARGED SITE PLAN

0 1.5' 3' 5'	SCALE: 3/16" = 1'-0" (24x36)
	(OR) 3/32" = 1'-0" (11x17)

2

NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" X 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES

LANDLORD SIGNATURE



ANTENNA PLAN (EXISTING)

0 3" 6" 1'

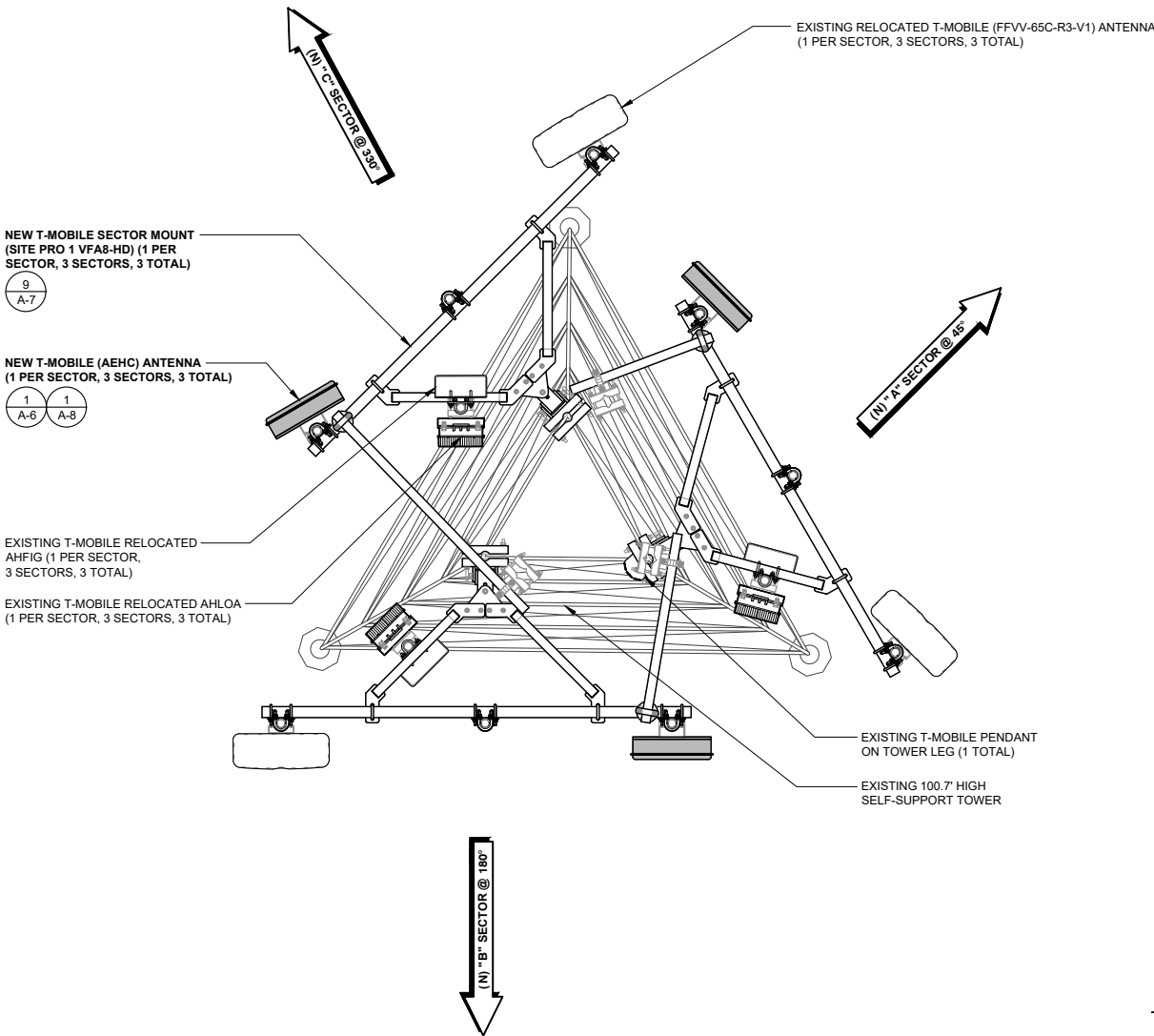
SCALE: 3/4" = 1'-0" (24x36)
(OR) 3/8" = 1'-0" (11x17)

1

ANTENNA PLAN (FINAL)

TOWER: FINAL EQUIPMENT INVENTORY						
SCOPE OF WORK	QUANTITY	TECHNOLOGY	MANUFACTURER	MODEL	DIMENSIONS (LxWxD)	WEIGHT (LBS)
REMOVE EXISTING	(3)	ANTENNA MOUNT	-	-	-	-
EXISTING TO REMAIN	(1)	PENDANT	COMMSCOPE	PENDANT BREAKOUT	6.7" x 16.9" x 4.7"	0.970 LB/FT
EXISTING TO REMAIN	(1)	HYBRID TRUNK	COMMSCOPE	HCS 2.0	1.5"Ø AT 175'	0.970 LB/FT
EXISTING TO BE RELOCATED	(3)	ANTENNA	COMMSCOPE	FFVV-65C-R3-V1	95.9" x 25.2" x 9.2"	118.6
EXISTING TO BE RELOCATED	(3)	RRU	NOKIA	AHLOA	22.05" x 12.13" x 7.44"	83.78
EXISTING TO BE RELOCATED	(3)	RRU	NOKIA	AHFIG	27.6" x 5.6" x 13.4"	79.4
ADD NEW	(3)	ANTENNA	NOKIA	AEHC	38.2" x 21.5" x 5.9"	108.0
ADD NEW	(3)	SECTOR MOUNT	SITE PRO 1	VFA8-HD	8' WIDE	670.51
ADD NEW	(1)	HYBRID TRUNK	RFS	6x24 HYBRID	1-5/8"Ø AT 40m	2.5 LB/FT

- NOTE:
- ANTENNA CLEARANCE AND MOUNTING TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION WITH FINAL ANTENNA SPECIFICATIONS, MOUNTING HARDWARE, AND RF DESIGN.
 - REFER TO FINAL CONFIGURATION ANTENNA SCHEDULE ON SHEET RF-1.



0 3" 6" 1'

SCALE: 3/4" = 1'-0" (24x36)
(OR) 3/8" = 1'-0" (11x17)

1

PLANS PREPARED FOR:

T Mobile

19807 NORTH CREEK PKWY N
BOTHELL, WA 98011

PLANS PREPARED BY:

Technology Associates

SEATTLE MARKET OFFICE
9725 3RD AVENUE NE, STE. 410
SEATTLE, WA 98115

JURISDICTION APPROVAL SEAL:

ENGINEERING SEAL:



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ISSUED FOR 90% ANCHOR CD REVIEW		11/12/2024	RKS	A
ISSUED FOR 100% ANCHOR CD REVIEW		01/27/2025	MGM	0

SITE NAME:

MERCER ISLAND
WATER TANK

SITE NUMBER:

SE02629A

SITE ADDRESS:

4350 88TH AVE SE
MERCER ISLAND, WA 98040

SHEET DESCRIPTION:

ANTENNA PLAN

SHEET NUMBER:

A-2

LANDLORD SIGNATURE

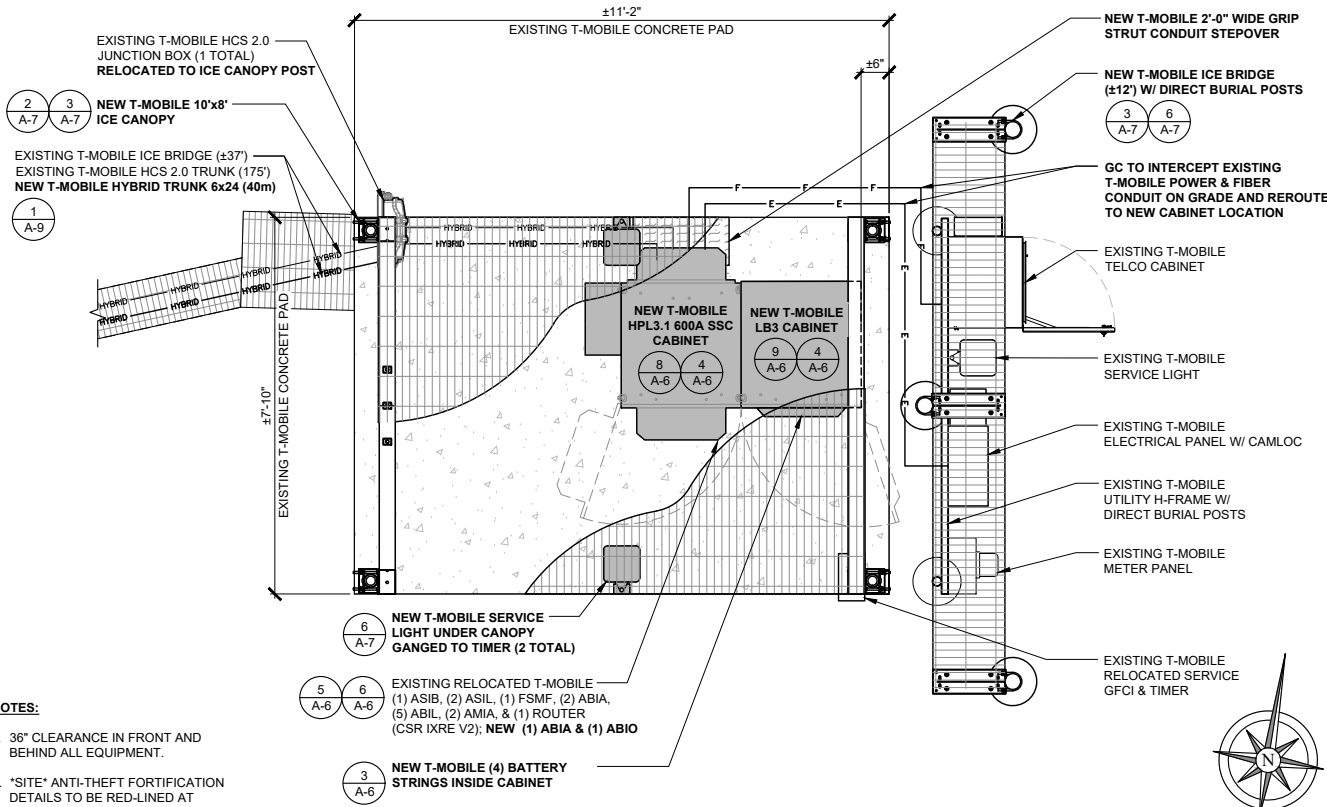
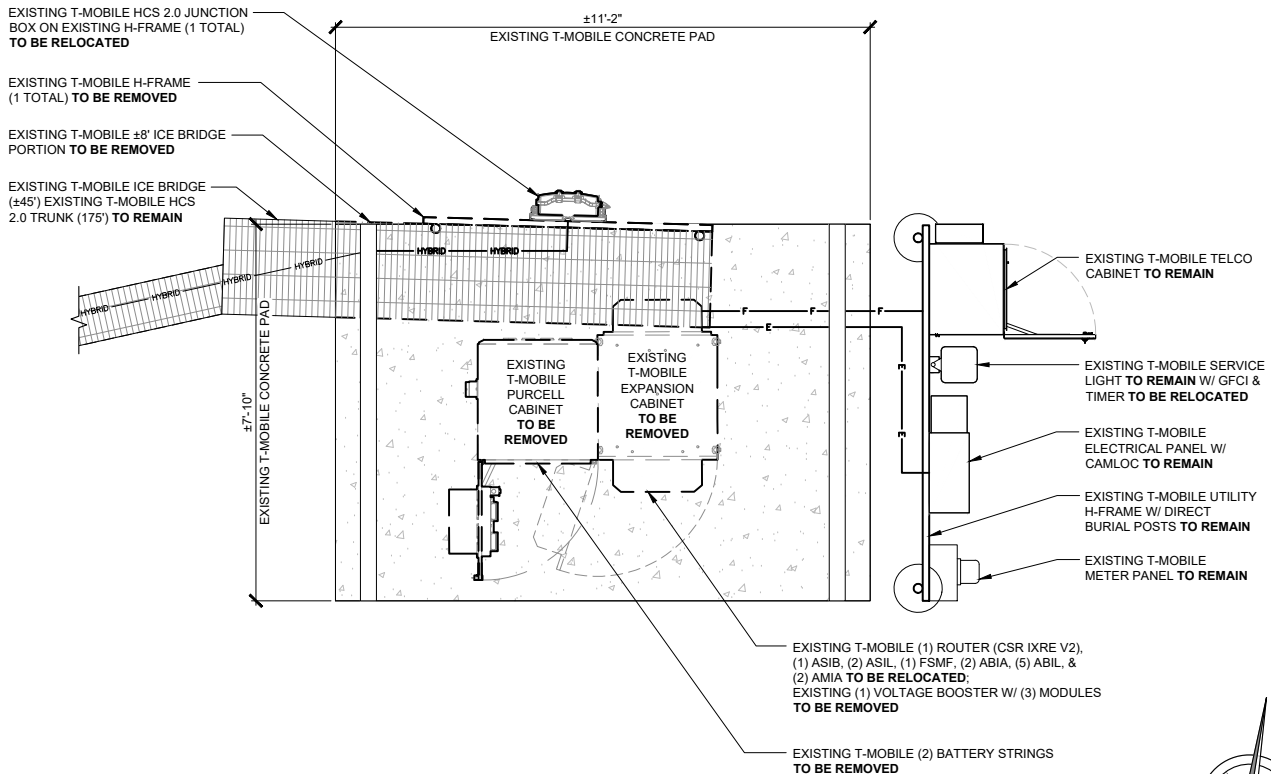
GROUND: FINAL EQUIPMENT INVENTORY								
SCOPE OF WORK	QUANTITY	TECHNOLOGY	MANUFACTURER	EQUIPMENT MODEL	DIMENSIONS (LxWxD)	WEIGHT (LBS)	CABINET TYPE (LOCATION OF EQUIPMENT)	CABINET QUANTITY
REMOVE EXISTING	(1)	CABINET	PURCELL	SFX31 W/ ALPHA PDU	57.75" x 32.89" x 38.23"	3124	CONCRETE PAD	1
REMOVE EXISTING	(1)	CABINET	PURCELL	HPL3 EXPANSION	30.0" x 48.0" x 72.0"	400	CONCRETE PAD	1
REMOVE EXISTING	(2) STRINGS	BATTERIES	-	-	-	-	PURCELL	1
REMOVE EXISTING	(1)	VOLTAGE BOOSTER	RAYCAP	POWERPLUS 103-1-1U	17.6" x 13.5" x 1.7"	2.1	PURCELL	1

GROUND: FINAL EQUIPMENT INVENTORY

SCOPE OF WORK	QUANTITY	TECHNOLOGY	MANUFACTURER	EQUIPMENT MODEL	DIMENSIONS (LxWxD)	WEIGHT (LBS)	CABINET TYPE (LOCATION OF EQUIPMENT)	CABINET QUANTITY
EXISTING TO REMAIN	(1)	TELCO CABINET	CHARLES	RL1000	26" x 22" x 20"	90	H-FRAME	-
EXISTING TO REMAIN	(1)	PPC/DISCONNECT	INTERSECT	AA-G-1220042-3R-CL-L/R	-	-	H-FRAME	-
EXISTING TO REMAIN	(1)	CAMLOCK	PANTROL	PANLOC LITE	10.5" x 9.0" x 9.25"	-	H-FRAME	-
EXISTING TO REMAIN	(1)	METER PANEL	-	-	-	-	H-FRAME	-
EXISTING TO BE RELOCATED	(1)	ROUTER	NOKIA	CSR IXR-e V2	1.75" x 17.25" x 10.0"	8.5	HPL3.1	1
EXISTING TO BE RELOCATED	(1)	BASEBAND	NOKIA	ASIB	1.8" x 8.6" x 14.8"	6.61	HPL3.1	1
EXISTING TO BE RELOCATED	(2)	BASEBAND	NOKIA	ASIL	1.89" x 8.6" x 14.8"	6.83	HPL3.1	1
EXISTING TO BE RELOCATED	(1)	BASEBAND	NOKIA	FSMF	5.2" x 11.76" x 16.6"	41.9	HPL3.1	1
EXISTING TO BE RELOCATED	(2)	BASEBAND	NOKIA	ABIA	14.2" x 8.6" x 1.1"	4.41	HPL3.1	1
EXISTING TO BE RELOCATED	(5)	BASEBAND	NOKIA	ABIL	-	-	HPL3.1	1
EXISTING TO BE RELOCATED	(2)	BASEBAND	NOKIA	AMIA	5.1" x 15.7" x 17.6"	11.2	HPL3.1	1
EXISTING TO BE RELOCATED ADD NEW	(1)	SERVICE LIGHT	RAB	X34-35L/120	6-1/8" x 5-3/4" x 1-5/8"	-	H-FRAME/ICE BRIDGE	-
EXISTING TO BE RELOCATED	(1)	JUNCTION BOX	COMMSCOPE	FE-16148-OVP-B12	8.0" x 16.0" x 14.0"	15.21	H-FRAME	-
ADD NEW	(1)	CABINET	PURCELL	LB3 BATTERY	60.4" x 30" x 33.8"	350	CONCRETE PAD	-
ADD NEW	(1)	CABINET	PURCELL	HPL3.1 600A LARGE SSC	49.0" x 48.0" x 72.0"	480	CONCRETE PAD	-
ADD NEW	(4) STRINGS	BATTERIES	POWERSAFE	SBS 190F	22.1" x 4.9" x 12.4"	132 (EACH BATTERY)	LB3 CABINET	1
ADD NEW	(1)	BASEBAND	NOKIA	ABIA	14.2" x 8.6" x 1.1"	4.41	HPL3.1	1
ADD NEW	(1)	BASEBAND	NOKIA	ABIO	0.98" x 8.62" x 14.33"	5.84	HPL3.1	1

BATTERY NOTES:

MAXIMUM OF (4) STRINGS OF (4) (16 BATTERIES TOTAL) VALVE REGULATED LEAD ACID BATTERIES (VRLA) MODEL POWERSAFE SBS 190F WITH IMMOBILIZED ELECTROLYTE TECHNOLOGY. TOTAL CAPACITY 36.48 KWH. COMPLIANCE WITH 2021 INTERNATIONAL FIRE CODE SECTION 1207.1.1 ENERGY STORAGE THRESHOLD QUANTITIES IS NOT REQUIRED.



NOTES:

- 36" CLEARANCE IN FRONT AND BEHIND ALL EQUIPMENT.
- *SITE* ANTI-THEFT FORTIFICATION DETAILS TO BE RED-LINED AT PRE-CX / PRE-NTP REVIEW.

PLANS PREPARED FOR:

T Mobile

19807 NORTH CREEK PKWY N
BOTHELL, WA 98011

PLANS PREPARED BY:

Technology Associates

SEATTLE MARKET OFFICE
9725 3RD AVENUE NE, STE. 410
SEATTLE, WA 98115

JURISDICTION APPROVAL SEAL:

ENGINEERING SEAL:



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ISSUED FOR 100% ANCHOR CD REVIEW		01/27/2025	MGM	0

SITE NAME:
MERCER ISLAND
WATER TANK

SITE NUMBER:
SE02629A

SITE ADDRESS:
4350 88TH AVE SE
MERCER ISLAND, WA 98040

SHEET DESCRIPTION:
EQUIPMENT PLAN

SHEET NUMBER:
A-3

EQUIPMENT PLAN (EXISTING)

SCALE: 1/2" = 1'-0" (24x36)
(OR) 1/4" = 1'-0" (11x17)

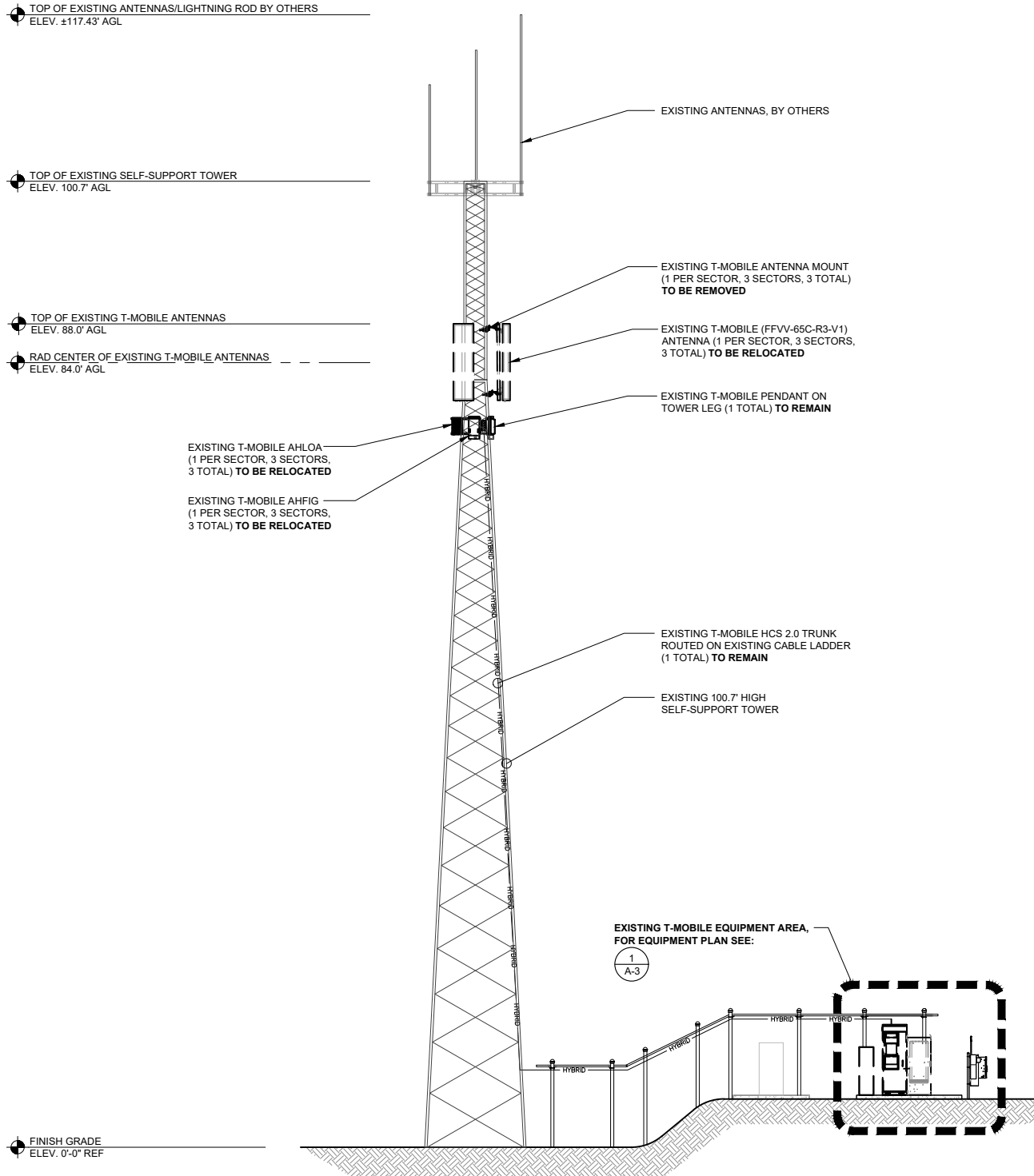
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EQUIPMENT PLAN (FINAL)

SCALE: 1/2" = 1'-0" (24x36)
(OR) 1/4" = 1'-0" (11x17)

1

NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" X 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES

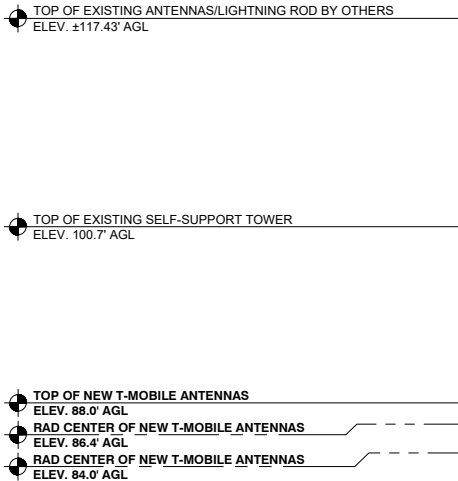


SOUTH ELEVATION (EXISTING)

0 2' 4' 8" SCALE: 1/8" = 1'-0" (24x36)
(OR) 1/16" = 1'-0" (11x17)

1

DISCLAIMER:
1. EXISTING TOWER HEIGHT PER 1A SURVEY
DATED: 06/01/16 PROVIDED BY AMBIT
CONSULTING.
2. THE CAPACITY OF THE TOWER TO SUPPORT
PROPOSED LOADS IS TO BE DETERMINED BY
NWTE REPORT DATED 1/13/2025.



SOUTH ELEVATION (FINAL)

LANDLORD SIGNATURE

PLANS PREPARED FOR:

T Mobile

19807 NORTH CREEK PKWY N
BOTHELL, WA 98011

PLANS PREPARED BY:

Technology Associates

SEATTLE MARKET OFFICE
9725 3RD AVENUE NE, STE. 410
SEATTLE, WA 98115

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REVISIONS:			
DESCRIPTION	DATE	BY	REV
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ISSUED FOR 100% ANCHOR CD REVIEW	01/27/2025	MGM	0

SITE NAME:

MERCER ISLAND
WATER TANK

SITE NUMBER:

SE02629A

SITE ADDRESS:

4350 88TH AVE SE
MERCER ISLAND, WA 98040

SHEET DESCRIPTION:

ELEVATIONS

SHEET NUMBER:

A-4

NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" X 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES

TOP OF EXISTING ANTENNAS/LIGHTNING ROD BY OTHERS
ELEV. ±117.43' AGL

TOP OF EXISTING SELF-SUPPORT TOWER
ELEV. 100.7' AGL

TOP OF EXISTING T-MOBILE ANTENNAS
ELEV. 88.0' AGL

RAD. CENTER OF EXISTING T-MOBILE ANTENNAS
ELEV. 84.0' AGL

EXISTING T-MOBILE AHLOA
(1 PER SECTOR, 3 SECTORS,
3 TOTAL) **TO BE RELOCATED**

EXISTING T-MOBILE PENDANT ON
TOWER LEG (1 TOTAL) **TO REMAIN**

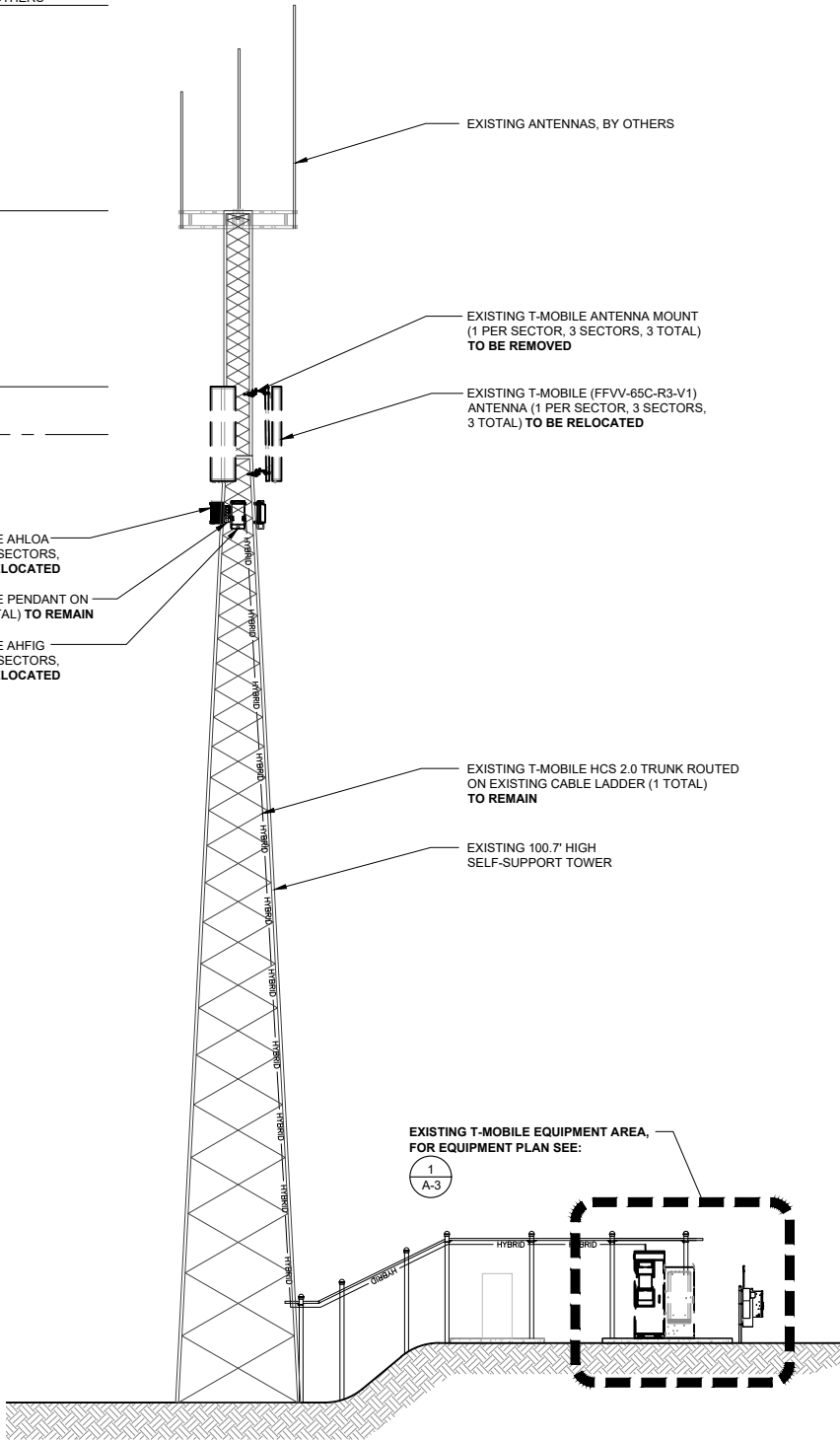
EXISTING T-MOBILE AHFIG
(1 PER SECTOR, 3 SECTORS,
3 TOTAL) **TO BE RELOCATED**

EXISTING T-MOBILE HCS 2.0 TRUNK ROUTED
ON EXISTING CABLE LADDER (1 TOTAL)
TO REMAIN

EXISTING 100.7' HIGH
SELF-SUPPORT TOWER

EXISTING T-MOBILE EQUIPMENT AREA,
FOR EQUIPMENT PLAN SEE:
1
A-3

FINISH GRADE
ELEV. 0'-0" REF



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CONSULTING.
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PROPOSED LOADS IS TO BE DETERMINED BY
NWTE REPORT DATED 1/13/2025.

TOP OF EXISTING ANTENNAS/LIGHTNING ROD BY OTHERS
ELEV. ±117.43' AGL

TOP OF EXISTING SELF-SUPPORT TOWER
ELEV. 100.7' AGL

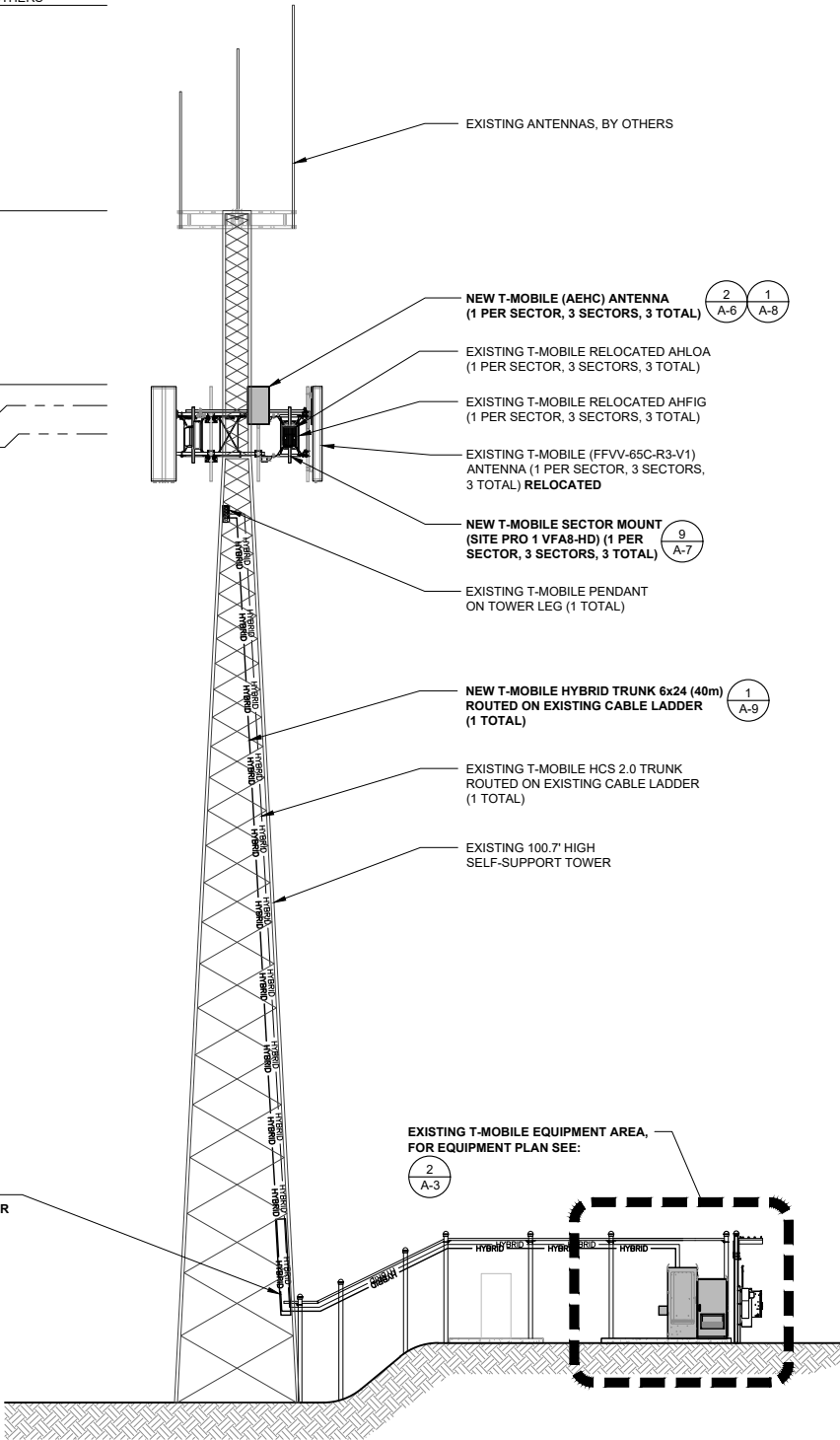
TOP OF NEW T-MOBILE ANTENNAS
ELEV. 88.0' AGL

RAD. CENTER OF NEW T-MOBILE ANTENNAS
ELEV. 86.4' AGL

RAD. CENTER OF NEW T-MOBILE ANTENNAS
ELEV. 84.0' AGL

NEW T-MOBILE 3" CONDUIT
HYBRID SLEEVES 15' UP TOWER
RUN AND WEATHERPROOFED

FINISH GRADE
ELEV. 0'-0" REF



LANDLORD SIGNATURE

PLANS PREPARED FOR:

T Mobile

19807 NORTH CREEK PKWY N
BOTHELL, WA 98011

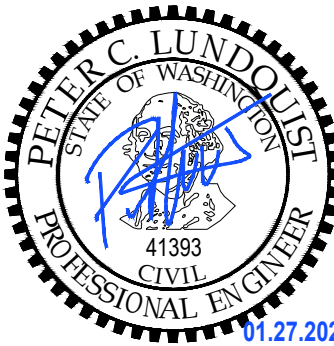
PLANS PREPARED BY:

Technology Associates

SEATTLE MARKET OFFICE
9725 3RD AVENUE NE, STE. 410
SEATTLE, WA 98115

JURISDICTION APPROVAL SEAL:

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ISSUED FOR 100% ANCHOR CD REVIEW	01/27/2025	MGM	0

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WATER TANK

SITE NUMBER:

SE02629A

SITE ADDRESS:

4350 88TH AVE SE
MERCER ISLAND, WA 98040

SHEET DESCRIPTION:

ELEVATIONS

SHEET NUMBER:

A-5

EAST ELEVATION (EXISTING)

0 2' 4' 8" SCALE: 1/8" = 1'-0" (24x36)
(OR) 1/16" = 1'-0" (11x17)

1

EAST ELEVATION (FINAL)

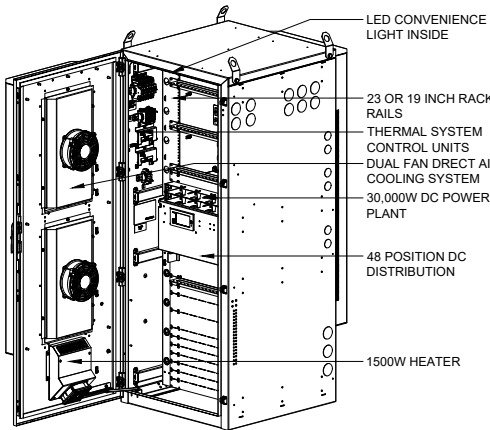
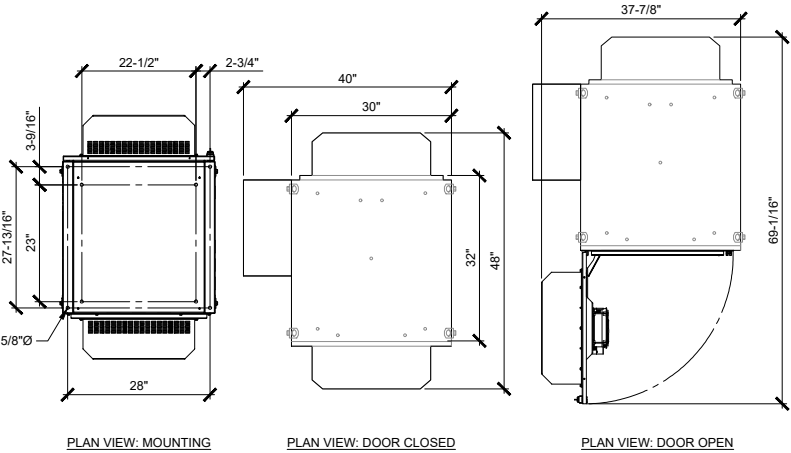
0 2' 4' 8" SCALE: 1/8" = 1'-0" (24x36)
(OR) 1/16" = 1'-0" (11x17)

2

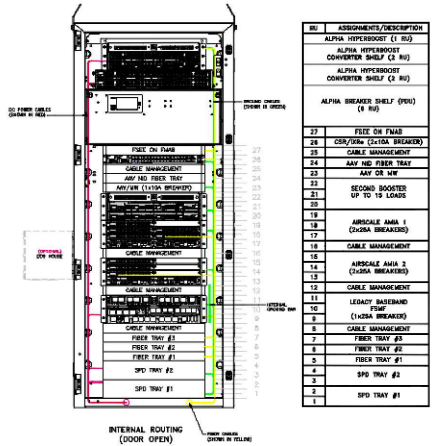
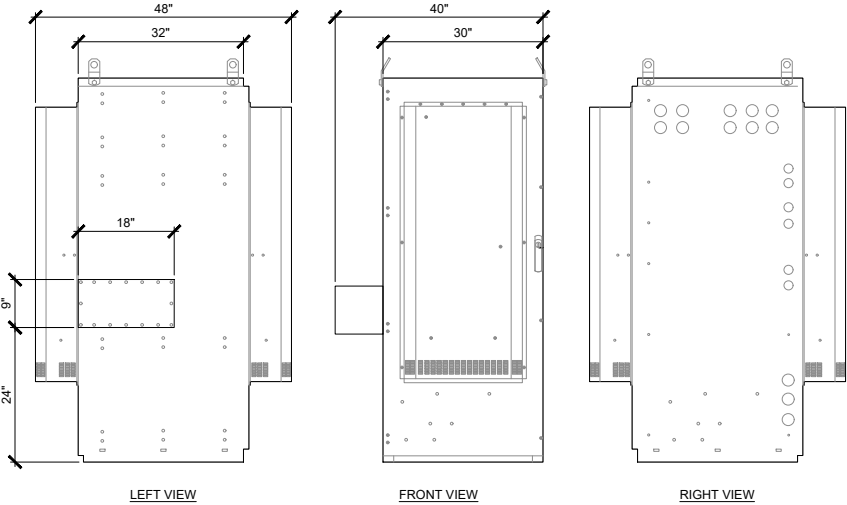
PURCELL: HPL3.1 LARGE SITE SUPPORT CABINET

OUTDOOR CABINET
DIMENSIONS, HxWxD: (72"x49"x48")
WEIGHT: 480lbs (CABINET ONLY)
OPERATING TEMP: -40°C TO +50°C
COOLING: DIRECT AIR COOLING

***REFERENCE MANUFACTURER'S SPECIFICATIONS
FOR DETAILED EQUIPMENT INFORMATION



ENCLOSURE DESIGNED TO COMPLY WITH GR487 ISSUE 5 WIND DRIVEN RAIN
HYDROGEN OUT GASSING ACOUSTIC EMISSIONS MERV 16 SALT FOG
CORROSION RESISTANCE ZONE 4 SEISMIC VARIOUS OTHER SAFETY,
THERMAL, WATER INTRUSION IMPACT, AND PULL TESTS

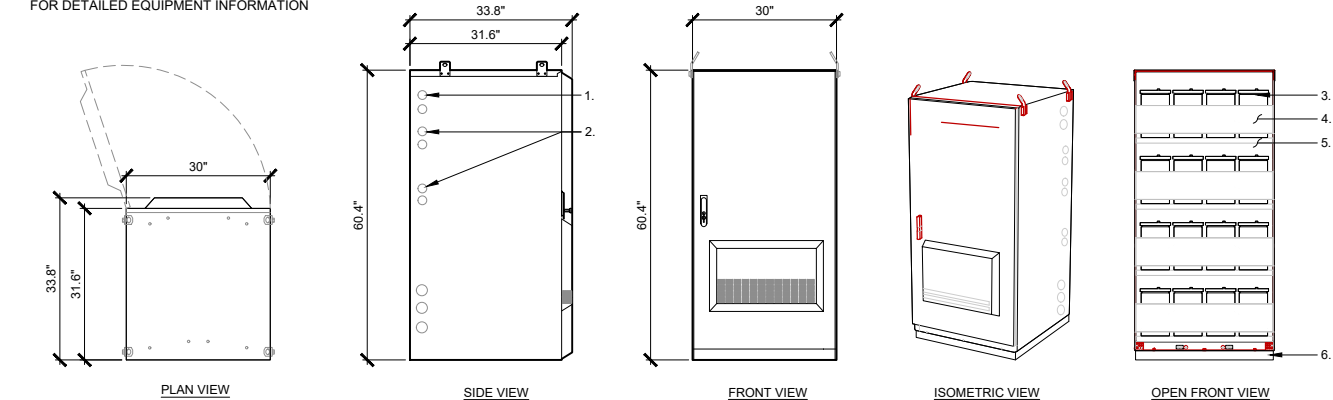


CABINET SPECIFICATIONS

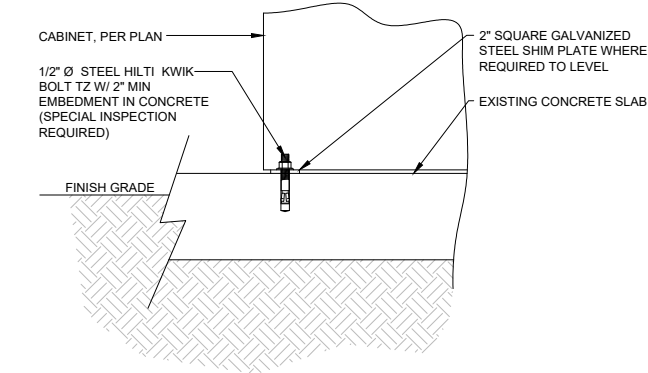
PURCELL HPL3 LARGE BATTERY CABINET

OUTDOOR CABINET
DIMENSIONS, HxWxD: (60.4"x30"x33.8")
WEIGHT: 350lbs (CABINET ONLY)
OPERATING TEMP: -40°C TO +50°C
COOLING: DIRECT AIR COOLING (2) FANS

***REFERENCE MANUFACTURER'S SPECIFICATIONS
FOR DETAILED EQUIPMENT INFORMATION



CABINET SPECIFICATIONS



NOTE: ANCHORAGE OCCURS AT EACH CORNER OF THE CABINET

CABINET ANCHOR DETAIL

SCALE
N.T.S.

4

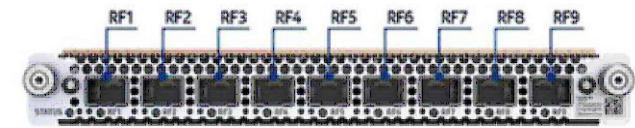
NOT USED

SCALE
N.T.S.

1

NOKIA: AIRSCALE CAPACITY BASEBAND MODULE (ABIO)

DIMENSIONS: 0.98"x8.62"x14.33"
WEIGHT: 5.84 lbs
PRODUCT CODE: 478266A
INGRESS PROTECTION CLASS: IP20
PORTS: 9xSFP28 PORTS (RF1-RF9)



PERSPECTIVE VIEW

ABIO

SCALE
N.T.S.

5

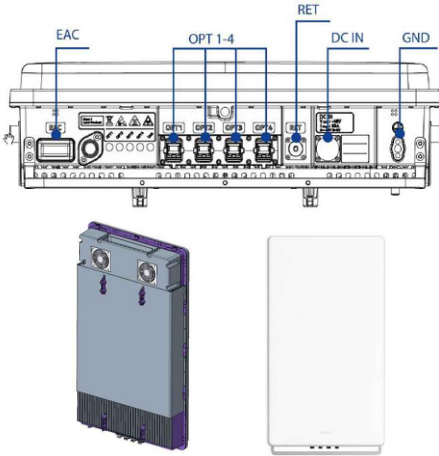
ANTENNA SPECIFICATIONS

SCALE
N.T.S.

2

NOKIA: MASSIVE MIMO ADAPTIVE ANTENNA (AEHC)

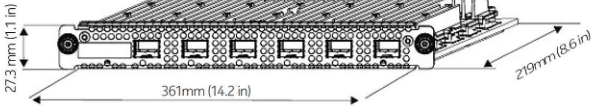
OUTPUT POWER: 5 W / TRX (320 W total, 2 W/MHz up to 160 MHz)
FREQUENCY RANGE: 2496 MHz - 2690 MHz 3GPP B41
DIMENSIONS: 38.2"x 5.9"x21.5" (WITH FRONT COVERS)
WEIGHT: 108.0 LBS



PERSPECTIVE VIEWS

NOKIA: AIRSCALE CAPACITY UNIT (ABIA)

DIMENSIONS: 14.2"x8.6"x1.1"
WEIGHT: 4.41 lbs.
PRODUCT CODE: 473096A
FUNCTIONS: INDOOR CAPACITY EXTENSION PLUG IN UNIT. HAS 6 OPTICAL RF INTERFACES UP TO 6 Gbps OBSAI OR 9.8 Gbps CPRI. IQ-COMPRESSION IS SUPPORTED WITH 3 CPRI LINKS



PERSPECTIVE VIEW

ABIA

SCALE
N.T.S.

6

BATTERY SPECIFICATIONS

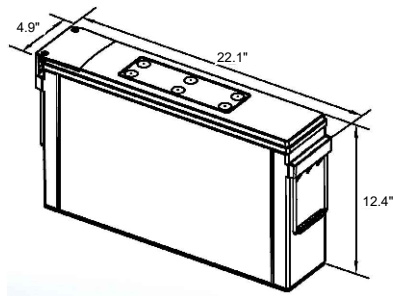
SCALE
N.T.S.

3

POWERSAFE: SBS 190F OR EQUAL

NOMINAL DIMENSIONS
LENGTH: 22.1"
WIDTH: 4.9"
HEIGHT: 12.4"
WEIGHT: 132lbs

# OF CELLS	NOMINAL VOLTAGE (V)	8HR RATE 1.75Vpc @ 77°F	10HR RATE 1.80Vpc @ 20°F	SHORT CIRCUIT CURRENT (AMPS)	INTERNAL RESISTANCE MILLI-Ohms	TERMINALS	ELECTROLYTE (1.300 SG)		PURE ACID (H SO) ACID		LEAD WEIGHT	
							VOLUME (per block)	WEIGHT (per block)	VOLUME (per block)	WEIGHT (per block)	(per block)	(per block)
6	12	190	190	3800	3.30	M6 M	gal L lbs kg	2.34 8.86 25.3 11.5	0.66 2.49 10.1 4.56	95.8 43.4	lbs kg	lbs kg



PLANS PREPARED FOR:

T Mobile

19807 NORTH CREEK PKWY N
BOTHELL, WA 98011

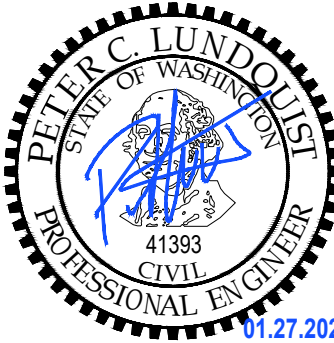
PLANS PREPARED BY:

Technology Associates

SEATTLE MARKET OFFICE
9725 3RD AVENUE NE, STE. 410
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DESCRIPTION	DATE	BY	REV
ISSUED FOR 90% ANCHOR CD REVIEW	11/12/2024	RKS	A
ISSUED FOR 100% ANCHOR CD REVIEW	01/27/2025	MGM	0

SITE NAME:

MERCER ISLAND
WATER TANK

SITE NUMBER:

SE02629A

SITE ADDRESS:

4350 88TH AVE SE
MERCER ISLAND, WA 98040

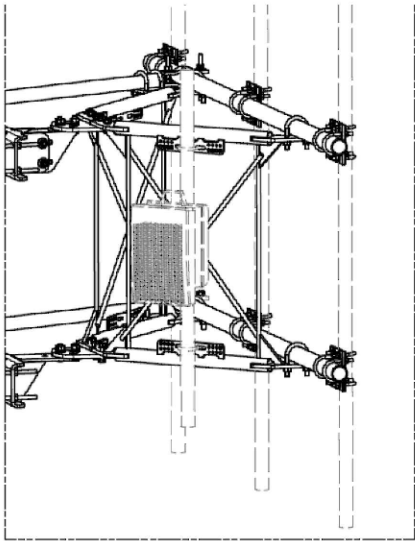
SHEET DESCRIPTION:

DETAILS

SHEET NUMBER:

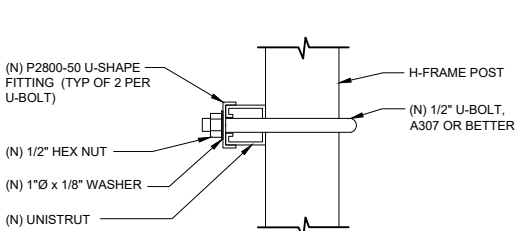
A-6

NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" X 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES

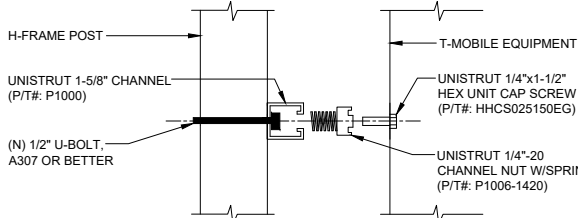


RRU MOUNTING

SCALE
N.T.S. 10



UNISTRUT TO H-FRAME POST MOUNTING



EQUIPMENT TO UNISTRUT MOUNTING

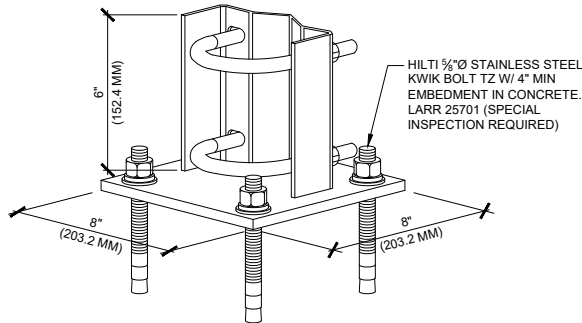
UNISTRUT MOUNTING

SCALE
N.T.S. 7

WB-BS

BASE SHOE FOR 3-1/2" OD PIPE, HARDWARE INCLUDED

DIMENSIONS	
WIDTH	203.2MM 8.0 IN
HEIGHT	152.4MM 6.0 IN
LENGTH	203.2MM 8.0 IN
WEIGHT	8.7KG 19.2 LB
GENERAL SPECIFICATIONS	
PRODUCT TYPE	BASE SHOES
APPLICATION	BASE SHOE
INCLUDES	HARDWARE MOUNT
MATERIAL TYPE	HOT DIP GALVANIZED STEEL
MOUNTING	PIPE, 88.9 MM (3-1/2") OD
PACKAGE QUANTITY	1



BASE PLATE MOUNTING

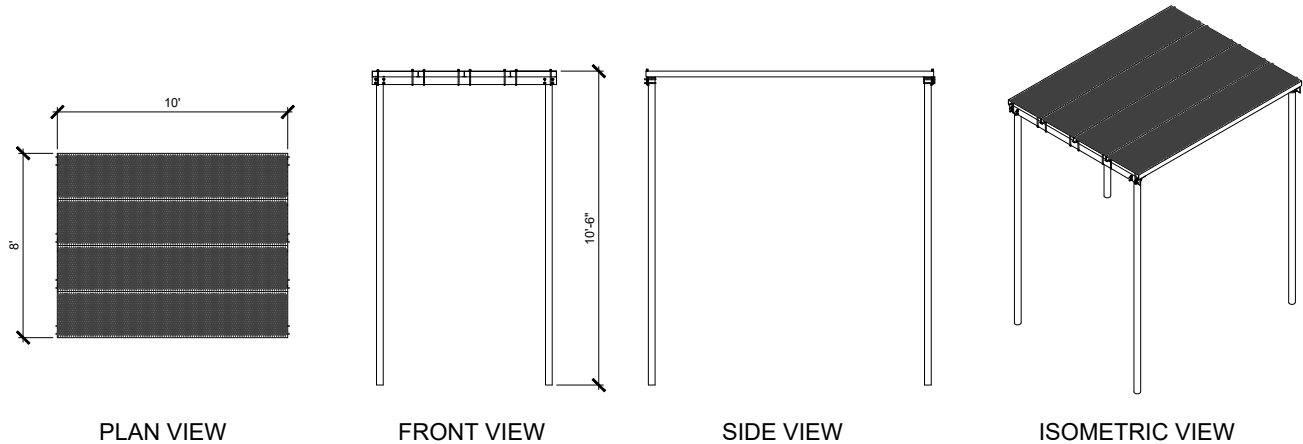
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N.T.S. 6

NOT USED

SCALE
N.T.S. 1

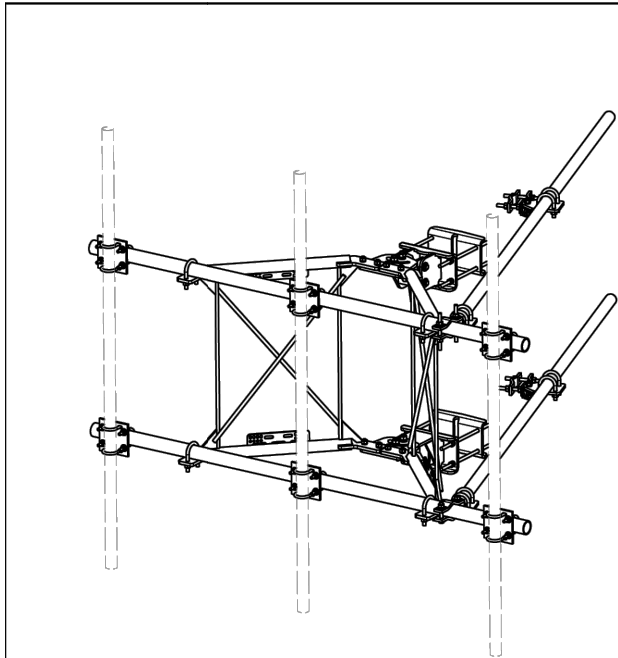
PERFECT VISION: WEATHER CANOPY

MODEL: PV-WC0810-B
SIZE (EACH): 8' W x 10' L x 126" HIGH
WEIGHT: 895 LBS



WEATHER CANOPY

SCALE
N.T.S. 2



ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	2	X-VFAW	SUPPORT ARM		71.41	142.81
2	1	X-HDCAMTBW	CLAMP WELDMENT FOR BCAM-HD		33.86	33.86
3	1	X-MHTPHD	MULTI-HOLE TAPER PLATE WELDMENT		36.24	36.24
4	2	X-VFAPL4	VFA-HD PIVOT PLATE	12 in	15.88	31.77
5	2	X-LCBP4	BENT BACKING PLATE	13 in	19.00	38.01
6	1	X-HDCAMSS	ANGLE ADJUSTMENT WELDMENT FOR BCAM-HD		16.39	16.39
7	4	X-SPTB	SLIDING PIPE TIE BACK PLATE	5 1/2 in	5.87	23.48
8	1	X-HDCAMSP	POSITIONING PLATE WELDMENT FOR BCAM-HD		2.58	2.58
9	4	X-TBCA	TIE BACK CLIP ANGLE		2.01	8.02
10	6	SCX2	CROSSOVER PLATE	7 in	4.80	28.78
11	4	MCP	CLAMP HALF 1/2" THICK, 11-5/8" LONG	12 1/16 in	3.59	14.37
12	8	DCP	1/2" THICK, 5-3/4" CENTER TO CENTER CLAMP HALF	8 1/8 in	2.36	18.90
13	2	P30108	2-7/8" O.D. X 108" SCH. 40 PIPE	108 in	52.32	104.63
14	2	P126	2-3/8" X 126" (2" SCH. 40) GALVANIZED PIPE	126 in	48.75	97.50
15	4	A34212	3/4" X 2-1/2" UNC HEX BOLT (A325)	2 1/2 in	0.48	1.92
16	4	G34FW	3/4" HDG USS FLATWASHER		0.06	0.24
17	4	G34LW	3/4" HDG LOCKWASHER		0.04	0.17
18	4	G34NUT	3/4" HDG HEAVY 2H HEX NUT		0.21	0.85
19	8	G58R-18	5/8" X 18" THREADED ROD (HDG.)		1.57	12.54
20	4	G58R-12	5/8" X 12" THREADED ROD (HDG.)		1.05	4.18
21	6	G58R-6	5/8" X 6" THREADED ROD (HDG.)		0.70	4.18
22	4	X-UBS300	5/8" X 3" X 5-1/4" X 2-1/2" U-BOLT (HDG.)		1.15	4.60
23	8	X-UBS258	5/8" X 2-5/8" X 4-1/2" X 2" U-BOLT (HDG.)		1.00	8.00
24	2	G5807	5/8" X 7" HDG HEX BOLT GR5 FULL THREAD	7 in	0.70	1.41
25	1	G5806	5/8" X 6" HDG HEX BOLT GR5 FULL THREAD	6 in	0.62	0.62
26	8	G5804	5/8" X 4" HDG HEX BOLT GR5		0.44	3.55
27	8	A582114	5/8" X 2-1/4" HDG A325 HEX BOLT	2 1/4 in	0.31	2.50
28	4	G5802	5/8" X 2" HDG HEX BOLT GR5		0.27	1.08
29	25	G58FW	5/8" HDG USS FLATWASHER	1/8 in	0.07	1.76
30	68	G58LW	5/8" HDG LOCKWASHER		0.03	1.77
31	73	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	9.48
32	24	X-UB1300	1/2" X 3" X 5" X 2" GALV U-BOLT		0.74	17.73
33	12	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.60	7.17
34	48	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	1.64
35	48	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	0.67
36	48	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	3.44
					TOTAL WT. #	670.51

TOLERANCE NOTES				REVISION HISTORY			
TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE: SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030"$) DRILLED AND GAS CUT HOLES ($\pm 0.005"$), NO CONING OF HOLES LASER CUT EDGES AND HOLES ($\pm 0.010"$), NO CONING OF HOLES BENDS ARE $\pm 1/2$ DEGREE ALL OTHER MACHINING ($\pm 0.030"$) ALL OTHER ASSEMBLY ($\pm 0.060"$)				CPD	BY	DATE	
C				CEK	6/29/2018		
B				CEK	12/13/2017		
A				CEK	7/27/2017		
REV							

SECTOR MOUNT SPECIFICATIONS

SCALE
N.T.S. 9

POST FOOTING DETAIL

SCALE
N.T.S. 6

ICE BRIDGE DETAIL

SCALE
N.T.S. 3

PLANS PREPARED FOR:

T Mobile

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BOTHELL, WA 98011

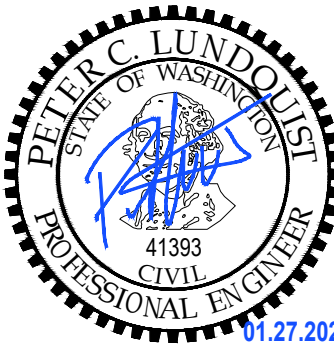
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ISSUED FOR 100% ANCHOR CD REVIEW	01/27/2025	MGM	0

SITE NAME:

MERCER ISLAND
WATER TANK

SITE NUMBER:

SE02629A

SITE ADDRESS:

4350 88TH AVE SE
MERCER ISLAND, WA 98040

SHEET DESCRIPTION:

DETAILS

SHEET NUMBER:

A-7

Installation Instructions



Mounting Kits For Wide Panel Antennas

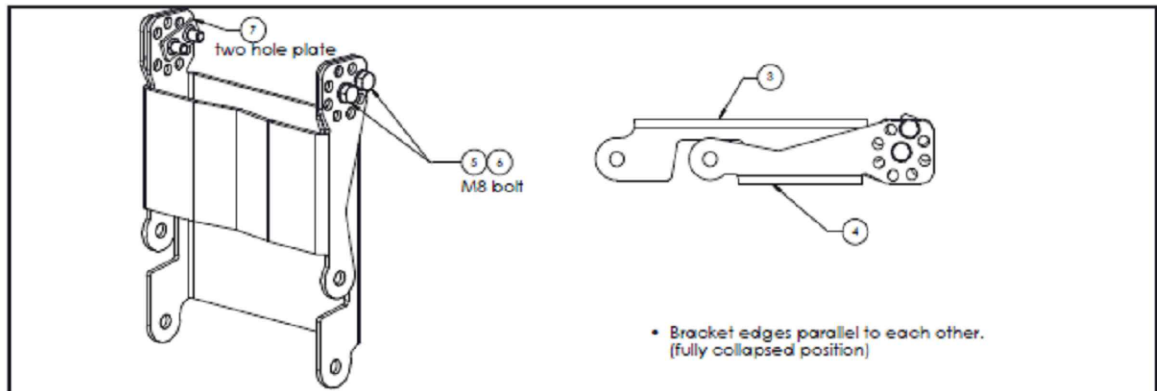
BSAMNT Series: Mounting systems for cylindrical pipe installations (60-115mm pipe diameter) for heavy duty applications

Bulletin 639825-1 • Revision C • July 2014
Page 1 of 2

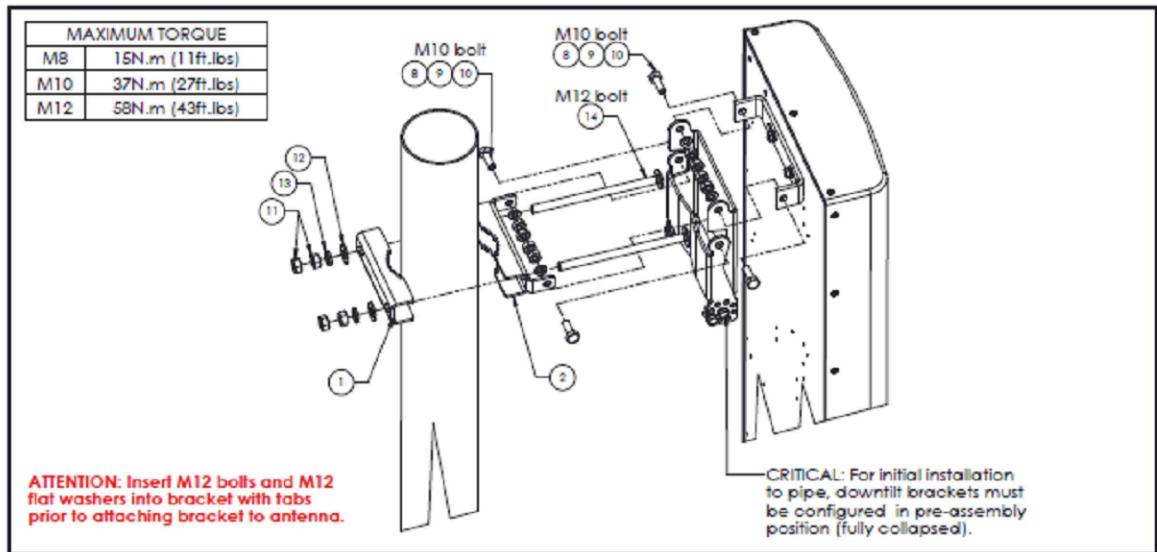
Andrew Institute offers installation training.

ITEM NO.	DESCRIPTION	QTY	U/M
1	PIPECLAMP BRACKET, NO FLANGE	2	EA
2	PIPECLAMP BRACKET, SHORT FLANGES	2	EA
3	NOTCHED BRACKET	1	EA
4	BRACKET	1	EA
5	SCR,HH,HEX,M8X25,SST,PASS	4	EA
6	WSHR,LK,SPLT,M8,STL,GALV	4	EA
7	TWO HOLE PLATE, 8mm X 1.25 PITCH	2	EA
8	NUT,HEX,M10,STL,GALV	12	EA
9	WSHR,LK,SPLT,M10,STL,GALV	6	EA
10	SCR,HCS,HEX,M10X40,STL,GALV	6	EA
11	NUT,HEX,M12,STL,GALV	8	EA
12	WSHR,FLT,M12,13X28X2.5,STL,GALV	4	EA
13	WSHR,LK,SPLT,M12,STL,GALV	4	EA
14	BOLT,CARRIAGE,M12 X 200,STL,GALV	4	EA

Part Lists



Pre-assembly of Downtilt Brackets



Top / Middle Mount Installations

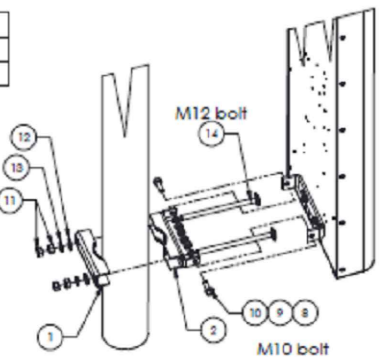
BSAMNT Mounting Kit

CommScope

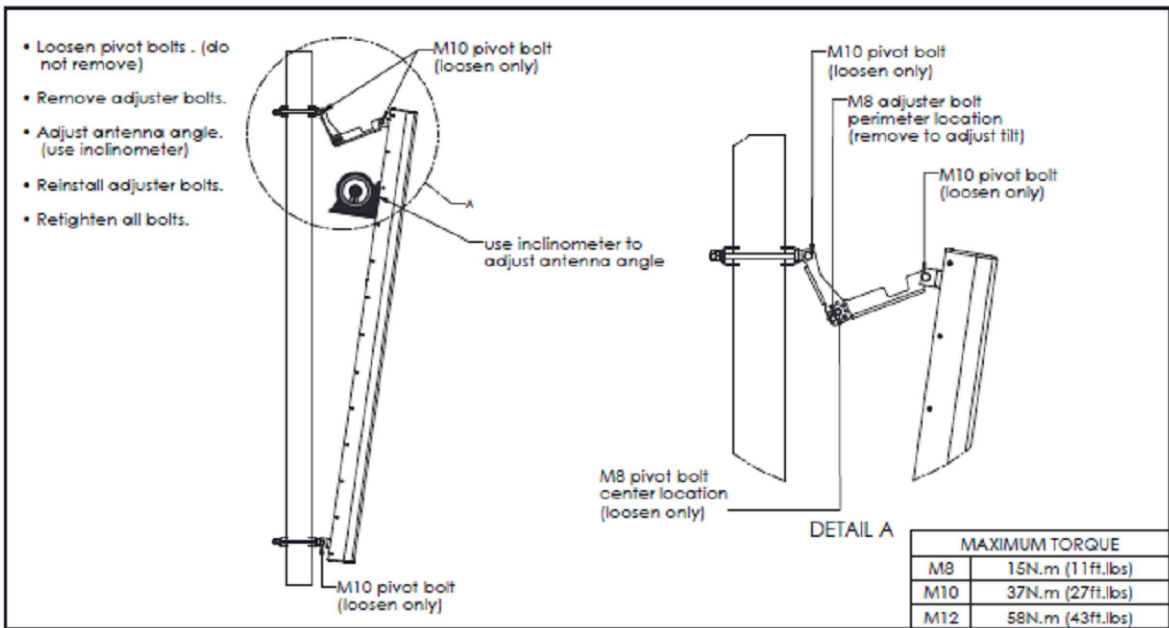
(Continued from page 1)

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MAXIMUM TORQUE	
M10	37N.m (27ft.lbs)
M12	58N.m (43ft.lbs)



Bottom Mount Installation



Adjusting Antenna Tilt

SAFETY NOTICE

The installation, maintenance, or removal of an antenna requires qualified, experienced personnel. CommScope installation instructions are written for such installation personnel. Antenna systems should be inspected once a year by qualified personnel to verify proper installation, maintenance, and condition of equipment.

CommScope disclaims any liability or responsibility for the results of improper or unsafe installation practices.

It is recommended that transmit power be turned off when the field installation is performed. Follow all applicable safety precautions as shown on this page.



Do not install near power lines. Power lines, telephone lines, and guy wires look the same. Assume any wire or line can electrify you.



Do not install on a wet or windy day or when lightning or thunder is in the area. Do not use metal ladder.



Wear shoes with rubber soles and heels. Wear protective clothing including a long-sleeved shirt and rubber gloves.

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Customer Support Center
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International: +1-779-435-6500, Option 1
Email: BSASupport@CommScope.com

www.commscope.com/andrew
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PLANS PREPARED FOR:

T Mobile

19807 NORTH CREEK PKWY N
BOTHELL, WA 98011

PLANS PREPARED BY:

Technology Associates

SEATTLE MARKET OFFICE
9725 3RD AVENUE NE, STE. 410
SEATTLE, WA 98115

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ISSUED FOR 90% ANCHOR CD REVIEW		11/12/2024	RKS	A
ISSUED FOR 100% ANCHOR CD REVIEW		01/27/2025	MGM	0

SITE NAME:

MERCER ISLAND
WATER TANK

SITE NUMBER:

SE02629A

SITE ADDRESS:

4350 88TH AVE SE
MERCER ISLAND, WA 98040

SHEET DESCRIPTION:

**ANTENNA MOUNTING
SPECIFICATIONS**

SHEET NUMBER:

A-8

NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" X 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES

PRODUCT DATASHEET
HB158-21U6S24-XXM SERIES



HYBRIFLEX® Hybrid Feeder Cabling Solution 6x24, 4AWG, 1-5/8", Single-Mode Fiber, DLC to ODC, with 6AWG DC breakout top

Technical Features	
STRUCTURE	
Cable Type	HYBRIFLEX®
Size	1-5/8"
MECHANICAL SPECIFICATIONS	
Outer Diameter Nominal	mm (in) 50.7 (1.998)
Cable Weight	kg/m (lb/ft) 3.65 (2.5)
Minimum Bending Radius, Single Bend	mm (in) 254 (10)
Minimum Bending Radius, Multi Bends	mm (in) 508 (20)
Recommended / Maximum Clamp Spacing	m (ft) 1 / 1.2 (3.28 / 4)
DC POWER CABLE SPECIFICATIONS	
Number of DC Pairs	6
Maximum DC-Resistance Power Cable	Ω/km (Ω/ft) 0.83 (0.26)
Cross Section of Power Cable	mm² (AWG) 21.1 (4)
DC Wire Jacket Material	PVC/Nylon
DC Cable Diameter	mm (in) 7.8 (0.308)
DC Standards (Meets or Exceeds)	For use in UL 1569, PVC Nylon, RoHS/REACH Compliant
Break-out length (Top)	mm (in) 5000 (197)
Break-out length (Bottom)	mm (in) 1000
DC Cable sealing method	Semi-rigid flame-retarded polyolefin, with hot melt adhesive
CABLE JACKET	
UV-Protection Individual and External Jacket	Yes
ARMOR SPECIFICATIONS	
Armor Type	Corrugated Aluminum
Maximum DC-Resistance of Armor	Ω/km (Ω/ft) 0.58 (0.175)
Diameter Corrugated Armor	mm (in) 46.4 (1.83)
FIO CABLE SPECIFICATIONS	
FIO Cable Type	O657-A1 Single Mode, Bend Tolerant
Number of FIO Pairs	24
Core/Clad	μm 9 / 125
Secondary Protection Nominal	μm (in) 900 (0.035)
Single Bending Radius	mm (in) 157 (6.2)
FIO Standards (Meets or Exceeds)	UL Listed Type OM3R (UL1666), RoHS Compliant
Optical Loss	dB/km 0.5 @ 1310 nm 0.5 @ 1550 nm
Fiber Termination End 1	ODC plug
Fiber Termination End 2	DLC Connector
FO Break-out length (Top)	mm (in) 700 (27.5)
FO Break-out length (Bottom)	mm (in) 1010 (63.4)
Cable sealing method	Semi-rigid flame-retarded polyolefin, with hot melt adhesive
TESTING AND ENVIRONMENTAL	
Storage Temperature	°C (°F) -40 to 70 (-40 to 158)
Operation Temperature	°C (°F) -40 to 65 (-40 to 149)
Installation Temperature	°C (°F) -20 to 65 (-4 to 149)
ASSEMBLY LOSS	
Optical Insertion Loss, Assembly or Jumper	Assembly or Jumper 0.4 dB (typ) 0.95dB (max) @1310/1550
SYSTEM LOSS	
Optical Insertion Loss	Total Path 0.8dB (typ) 1.9dB (max) @1310/1550

HB158-21U6S24-XXM SERIES REV: B REV DATE: 30Oct20 www.rfsworld.com

All information contained in the present datasheet is subject to confirmation at time of ordering.

Page 1 of 3

PRODUCT DATASHEET
HB158-21U6S24-XXM SERIES



HYBRIFLEX® Hybrid Feeder Cabling Solution 6x24, 4AWG, 1-5/8", Single-Mode Fiber, DLC to ODC, with 6AWG DC breakout top

External Document Links	Notes
Installation Guidelines	Nominal length equals length of trunk not including top and bottom breakouts; breakout lengths add additionally to the total assembly length tip to tip Top Breakout - DC Power Cable Specifications: No of DC pairs (6), Specifications per 1 pair: Maximum DC-Resistance Power Cable Ω/km (Ω/ft) 1.4 (0.42), Cross Section of Power Cable mm ² (AWG) 13.3 (6), Overall Cable Diameter mm (in) 17.8 (0.70), DC Cable Jacket Material PVC, EMI Shield Tinned Copper Braid
External Link Reference	
View Factory Test Results On-line	http://myrfs.rfsworld.com/hybriflex/Default.aspx

6x24		
Second Color	First Color	Fiber Pair
No Second Band	Red	1
	Green	2
	Blue	3
	Yellow	4
White	White	5
	Black	6
	Red	7
	Green	8
Green	Blue	9
	Yellow	10
	White	11
	Black	12
Blue	Red	13
	Green	14
	Blue	15
	Yellow	16
	White	17
	Black	18
	Red	19
	Green	20
	Blue	21
	Yellow	22
	White	23
	Black	24

HB158-21U6S24-XXM SERIES REV: B REV DATE: 30Oct20 www.rfsworld.com

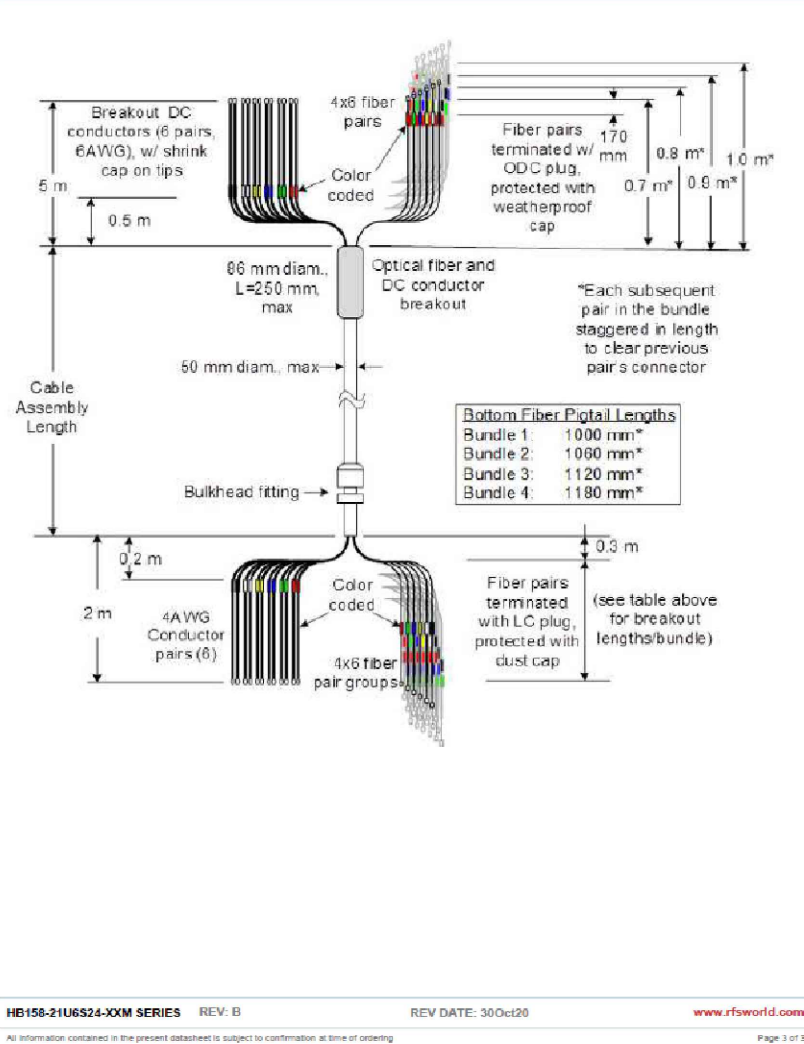
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Page 2 of 3

PRODUCT DATASHEET
HB158-21U6S24-XXM SERIES



HYBRIFLEX® Hybrid Feeder Cabling Solution 6x24, 4AWG, 1-5/8", Single-Mode Fiber, DLC to ODC, with 6AWG DC breakout top



HB158-21U6S24-XXM SERIES REV: B REV DATE: 30Oct20 www.rfsworld.com

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Page 3 of 3

HYBRID TRUNK SPECIFICATION

SCALE
N.T.S.

3

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BOTHELL, WA 98011

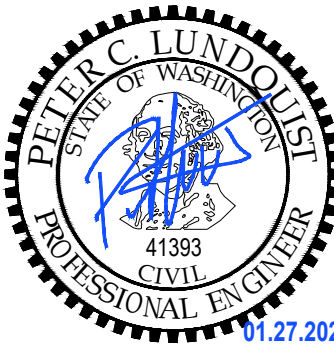
PLANS PREPARED BY:

Technology Associates

SEATTLE MARKET OFFICE
9725 3RD AVENUE NE, STE. 410
SEATTLE, WA 98115

JURISDICTION APPROVAL SEAL:

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ISSUED FOR 90% ANCHOR CD REVIEW	11/12/2024	RKS	A
ISSUED FOR 100% ANCHOR CD REVIEW	01/27/2025	MGM	0

SITE NAME:

MERCER ISLAND
WATER TANK

SITE NUMBER:

SE02629A

SITE ADDRESS:

4350 88TH AVE SE
MERCER ISLAND, WA 98040

SHEET DESCRIPTION:

HYBRID TRUNK
SPECIFICATION

SHEET NUMBER:

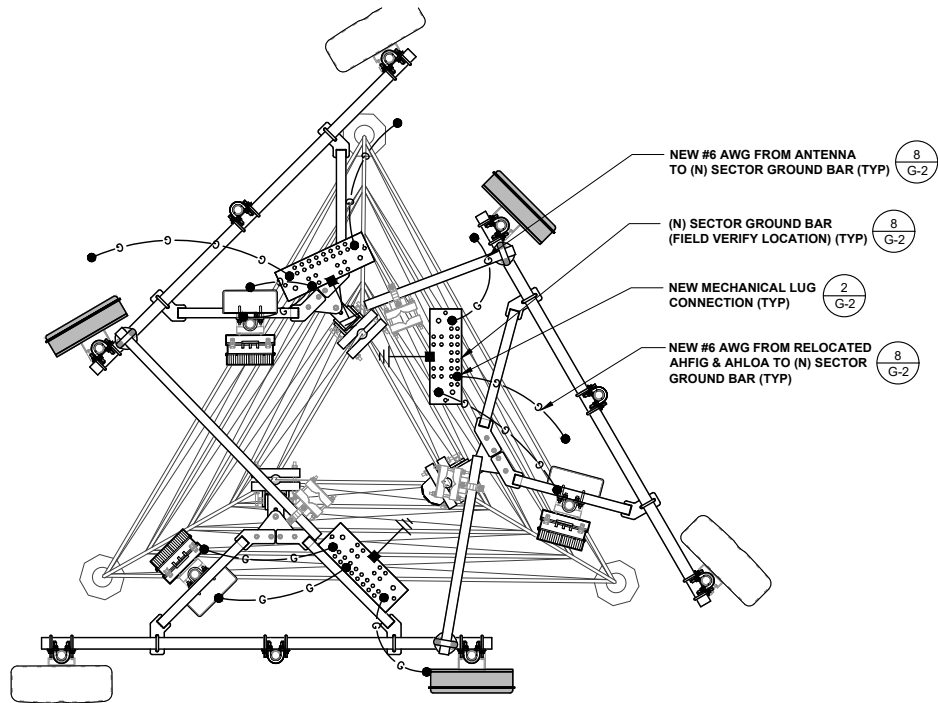
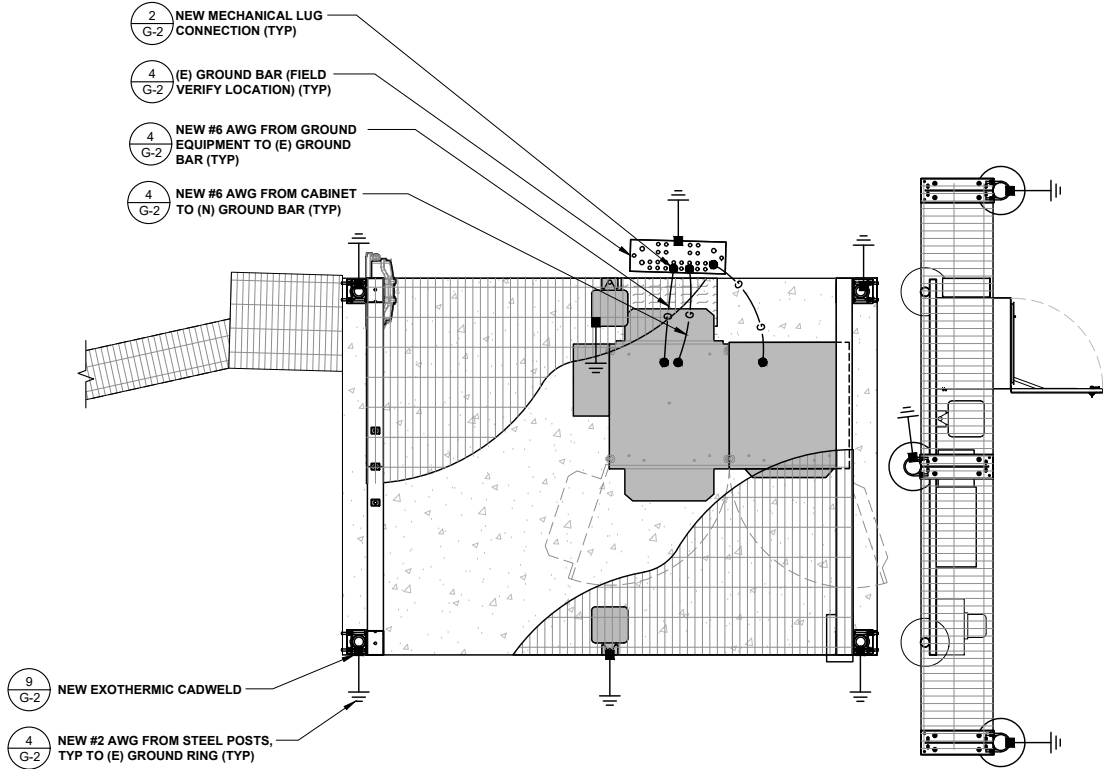
A-9

ELECTRICAL GROUNDING SPECIFICATIONS

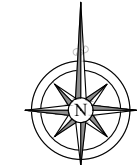
- GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE CURRENTLY IN EFFECT FOR THE AUTHORITY HAVING JURISDICTION.
- ALL GROUNDING DEVICES SHALL BE U.L. LISTED FOR THEIR INTENDED USE.
- GROUND WIRES SHALL BE TINNED #2 AWG BARE SOLID COPPER UNLESS OTHERWISE NOTED.
- CONNECTIONS OF ALL GROUND WIRES TO THE GROUND RING SHALL BE EXOTHERMIC (CAD-WELDED), UNLESS OTHERWISE NOTED. AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND T-MOBILE WIRELESS BROADBAND STANDARDS.
- GROUNDING CONDUCTORS SHALL BE ROUTED ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. WHEN REQUIRED, GROUND LEADS SHALL BE BENT TO A MINIMUM OF 8" RADIUS.
- WHERE GROUND WIRES ARE ROUTED FROM ANY CONNECTION ABOVE GRADE TO THE GROUND RING. INSTALL WIRE IN 3/4" HEAVY WALL LIQUID TIGHT FLEXIBLE CONDUIT FROM CONNECTION POINT TO 5" BELOW GRADE AND SEAL THE TOP WITH SILICONE SEALANT.
- ALL GROUND BARS SHALL BE TINNED, 1/4" COPPER, SECTOR BARS 2", COLLECTOR AND MGB BARS 4", OF SUFFICIENT LENGTH TO ACCOMMODATE ALL REQUIRED CONNECTIONS WITHOUT DOUBLING LUGS, AND EACH INSTALLED WITH ISOLATORS. WHEN CONNECTING GROUND BARS (WITHIN 10 FEET OF GRADE) DIRECTLY TO THE GROUND RING, 2 EA. #2 SOLID DOWNLEADS SHALL BE CAD-WELDED TO THE GROUND BAR, 1 AT EACH OPPOSITE BOTTOM CORNER, AND EACH SHALL RUN IN 3/4" HEAVY WALL LIQUID TIGHT FLEXIBLE CONDUIT FROM GROUND BAR DOWN TO THE GROUND RING. WHEN CONNECTING SECTOR GROUND BARS, DAISY-CHAIN THE GROUND BARS AND RUN 1 EA. #2 AWG STRANDED COPPER WIRE WITH THWN INSULATION FROM THE MIDDLE GROUND BAR TO THE GROUND RING AND CAD-WELD TO THE RING.
- WHEN ATTACHING STRANDED GROUND LEADS TO THE GROUND BARS, 2 HOLE COMPRESSION LUGS SHALL BE USED, PROTECT WITH WEATHERPROOF HEAT SHRINK, AND WITH A THIN COAT OF "KOPR SHIELD" OR EQUIVALENT PROPERLY APPLIED AND ATTACHED ONLY WITH STAINLESS STEEL HARDWARE.
- WHEN GROUNDING EQUIPMENT ENCLOSURES, PANELS, FRAMES, AND OTHER METAL APPARATUS, A #6 AWG STRANDED COPPER WIRE WITH THWN INSULATION SHALL BE ATTACHED UTILIZING A 2 HOLE COMPRESSION TYPE LUG, PROTECTED WITH WEATHERPROOF HEAT A CLEAN AND CORROSION FREE METALLIC SURFACE UTILIZING STAINLESS STEEL SELF-TAPPING SCREWS AS NOTED IN NOTE 10 BELOW.
- PREPARE ALL BONDING SURFACES FOR GROUND CONNECTIONS BY REMOVING ANY AND ALL PAINT AND CORROSION TO SHINY METAL. FOLLOWING CAD-WELDED CONNECTIONS TO NON-COPPER SURFACES, APPLY ONE COAT OF ANY ANTI-OXIDIZING PAINT, "COLD GALV" OR EQUIVALENT.
- GROUND RODS SHALL BE COPPER-CLAD STEEL 5/8"x10", SPACED NO LESS THAN 10' ON CENTER.
- ALL GROUND SYSTEM CONDUCTORS AND CONDUITS SHALL BE SECURED UTILIZING ONLY NONMETALLIC, NON-CONDUCTIVE, UV RATED CLAMPS, BRACKET, AND OR SUPPORTS.
- WHEN REQUIRED, THE CONTRACTOR SHALL ENGAGE THE SERVICES OF AN INDEPENDENT TESTING FIRM TO VERIFY, UTILIZING A MEGGER TEST, THAT THE RESISTANCE TO EARTH OF THE NEW GROUND SYSTEM IS EQUAL TO OR LESS THAN 5 (OHMS). A COPY OF THE COMPLETE TESTING REPORT SHALL BE PROVIDED TO THE T-MOBILE REPRESENTATIVE.
- ALL MATERIALS AND HARDWARE SHALL BR INSTALLED IN A WORKMAN-LIKE MANNER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, AND DEFINED IN NFPA-70 AND APPROVED BY A,H,J,

LEGEND	
■	EXOTHERMIC CONNECTION
●	MECHANICAL CONNECTION
⎓	EQUIPMENT GROUND BAR
⎓	ANTENNA GROUND BAR (AS REQUIRED)
	#2 AWG GROUND LEAD (AS REQUIRED)

- NOTE:
- CONTRACTOR TO REPLACE ALL MISSING GROUND BARS AND GROUNDING CONNECTIONS AS REQUIRED.



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EQUIPMENT GROUNDING

ANTENNA GROUNDING

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T Mobile

19807 NORTH CREEK PKWY N
BOTHELL, WA 98011

PLANS PREPARED BY:

Technology Associates

SEATTLE MARKET OFFICE
9725 3RD AVENUE NE, STE. 410
SEATTLE, WA 98115

JURISDICTION APPROVAL SEAL:

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ISSUED FOR 100% ANCHOR CD REVIEW	01/27/2025	MGM	0

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MERCER ISLAND
WATER TANK

SITE NUMBER:

SE02629A

SITE ADDRESS:

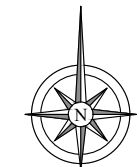
4350 88TH AVE SE
MERCER ISLAND, WA 98040

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GROUNDING PLANS

SHEET NUMBER:

G-1

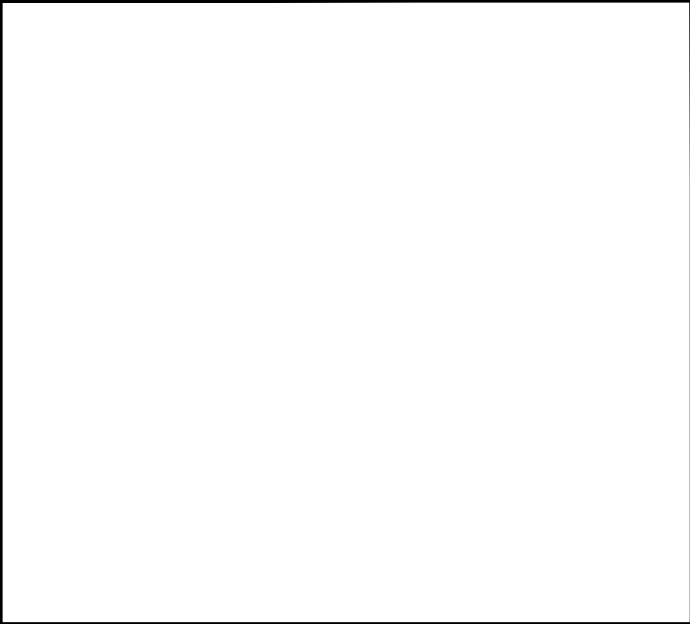


SCALE
N.T.S. 3

NOTES & LEGEND

SCALE
N.T.S. 1

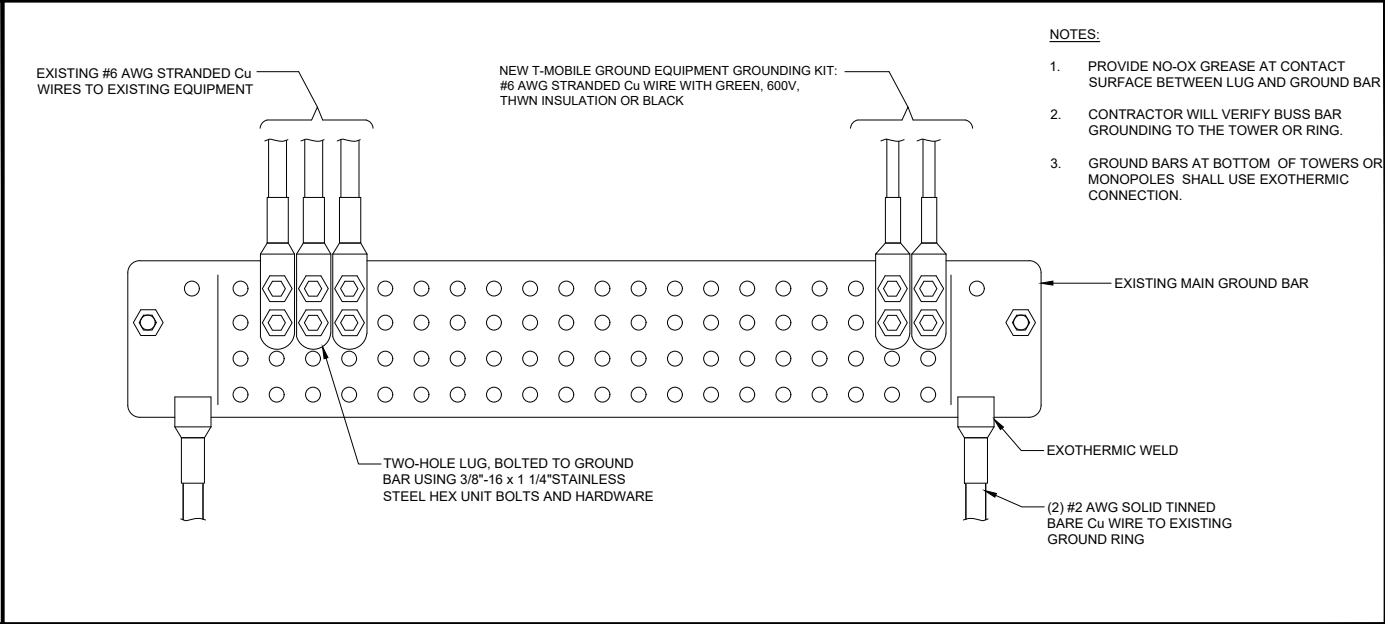
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NOT USED

SCALE
N.T.S.

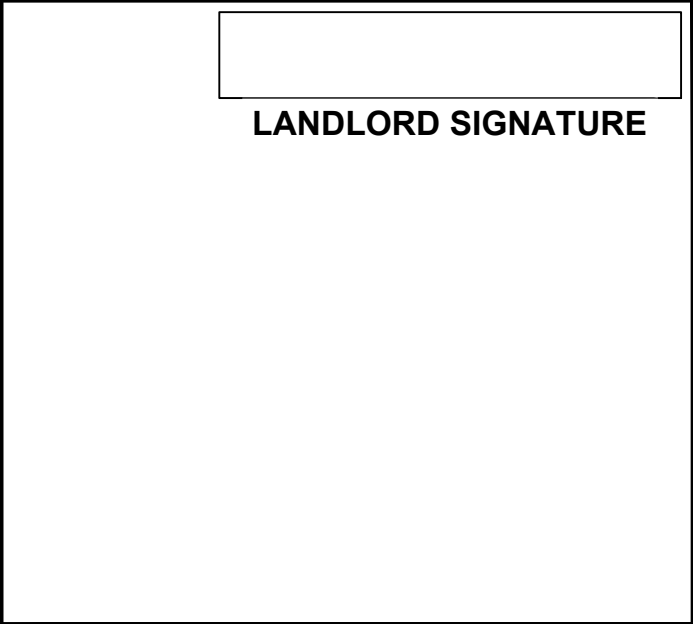
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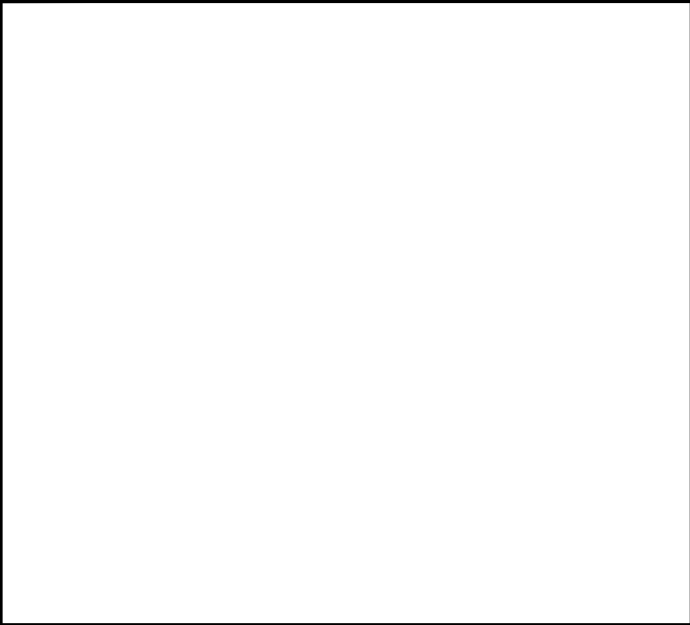
MAIN GROUND BAR



SCALE
N.T.S.

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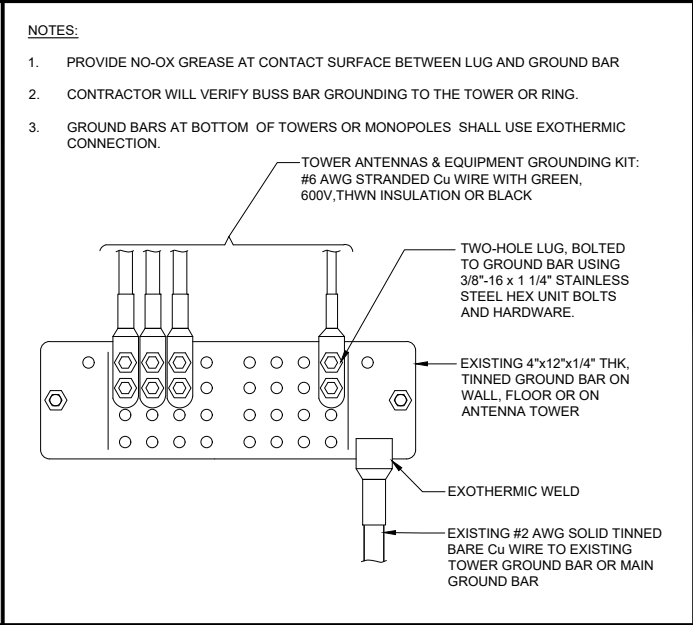
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NOT USED

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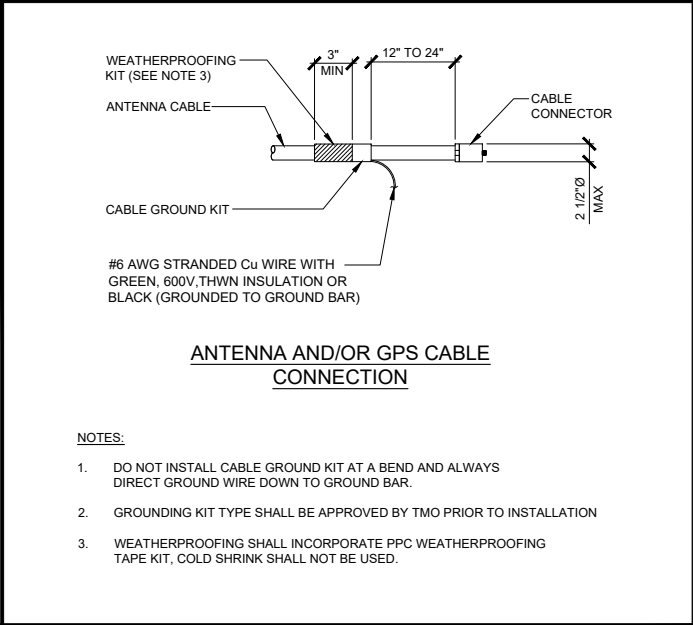
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SCALE
N.T.S.

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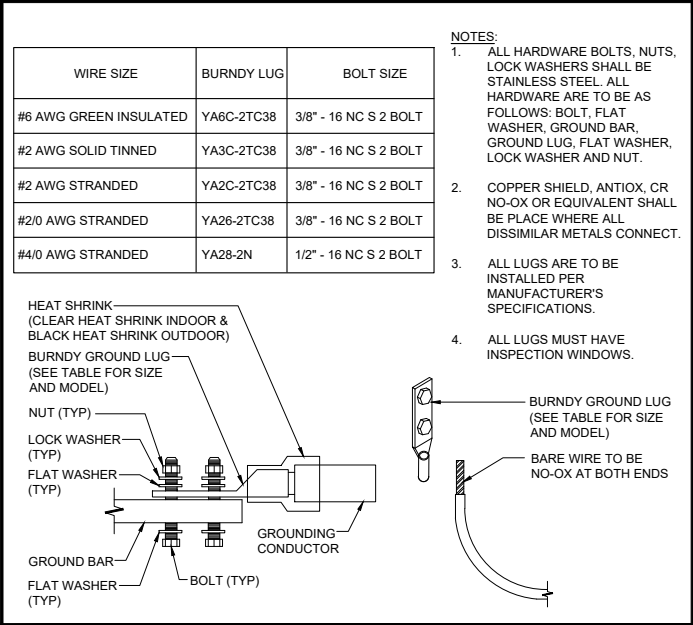
SECTOR GROUND BAR



SCALE
N.T.S.

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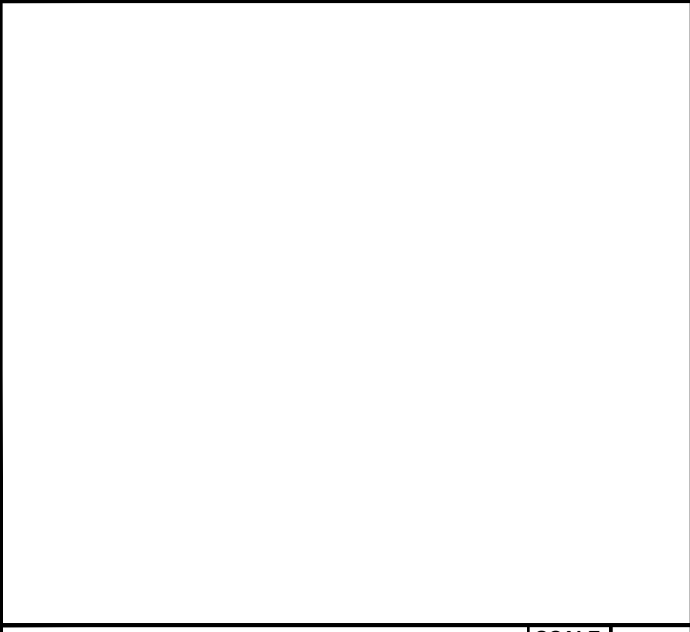
CABLE GROUNDING



SCALE
N.T.S.

2

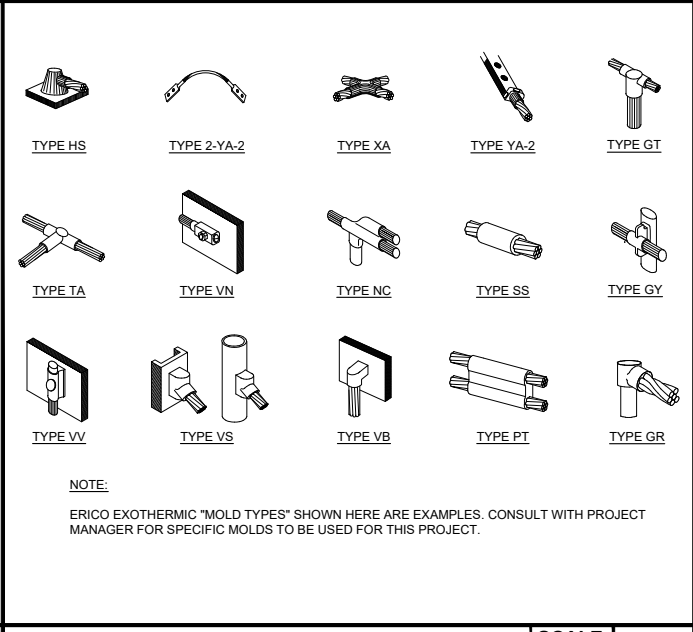
MECHANICAL LUG



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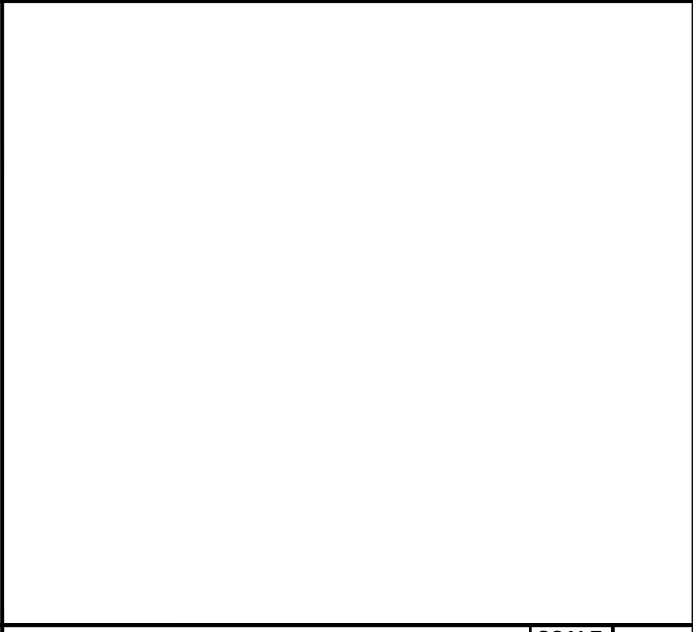
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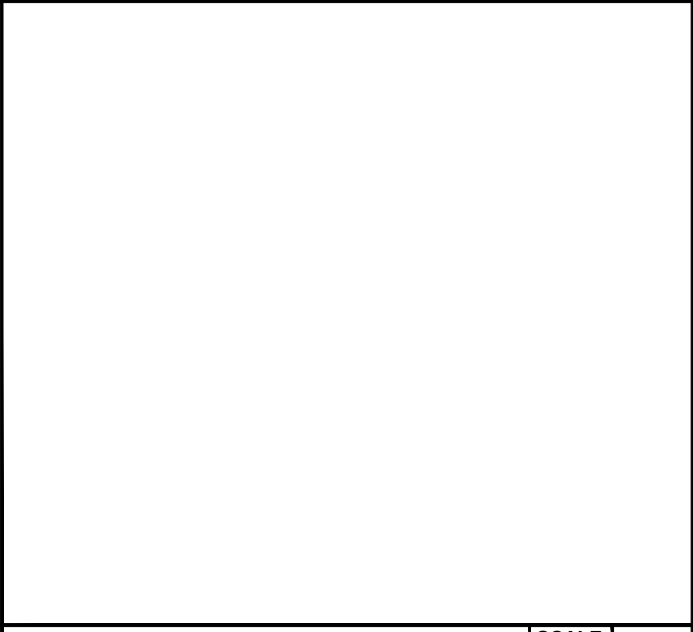
EXOTHERMIC WELDING



NOT USED

SCALE
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6



NOT USED

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3

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MERCER ISLAND
WATER TANK

SITE NUMBER:

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SITE ADDRESS:

4350 88TH AVE SE
MERCER ISLAND, WA 98040

SHEET DESCRIPTION:

GROUNDING DETAILS

SHEET NUMBER:

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Technology Associates

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SEATTLE, WA 98115

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ENGINEERING SEAL:

PETER C. LUNDQUIST

STATE OF WASHINGTON

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WATER TANK

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SITE ADDRESS:

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SHEET DESCRIPTION:

RF DETAILS

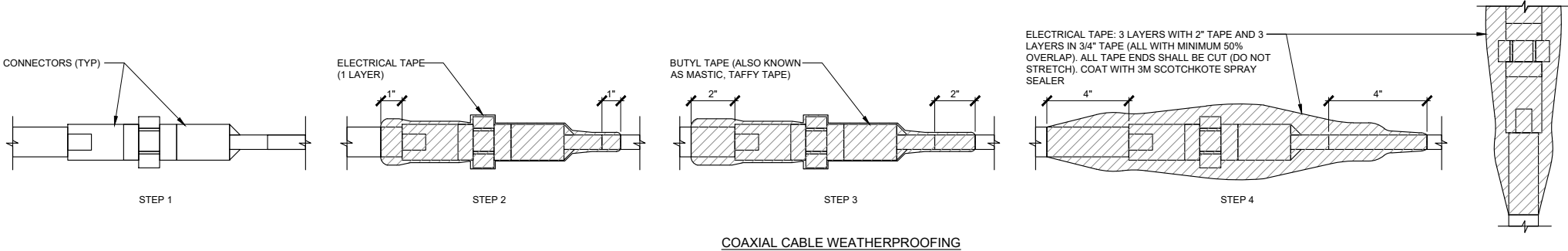
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RF-1

ANTENNA SCHEDULE-FINAL CONFIGURATION													
SECTOR (COLOR)	POSITION	EXISTING/ NEW	MANUFACTURER	ANTENNA MODEL	PORT	ANTENNA AZIMUTH	RAD CENTER	DIMENSIONS (LxWxD)	WEIGHT (LBS)	TRANSMISSION CABLE			
										QTY.	LENGTH	SIZE	TYPE
ALPHA (RED)	A1	EXISTING	COMMSCOPE	FFVV-65C-R3-V1	OCTO	45°	84.0'	95.9" x 25.2" x 9.3"	118.6	(2)	15'	1/2"Ø	JUMPER
	A2	NEW	NOKIA	AEHC	MIMO	45°	86.4'	38.2" x 21.5" x 5.9"	108.0	(1)	15'	1/2"Ø	JUMPER
										(1)	40m	1.5"Ø	HYBRID TRUNK 6x24
										(1)	175'	1.5"Ø	HCS 2.0 TRUNK
BETA (GREEN)	B1	EXISTING	COMMSCOPE	FFVV-65C-R3-V1	OCTO	180°	84.0'	95.9" x 25.2" x 9.3"	118.6	(2)	15'	1/2"Ø	JUMPER
	B2	NEW	NOKIA	AEHC	MIMO	180°	86.4'	38.2" x 21.5" x 5.9"	108.0	(1)	15'	1/2"Ø	JUMPER
GAMMA (BLUE)	C1	EXISTING	COMMSCOPE	FFVV-65C-R3-V1	OCTO	330°	84.0'	95.9" x 25.2" x 9.3"	118.6	(2)	15'	1/2"Ø	JUMPER
	C2	NEW	NOKIA	AEHC	MIMO	330°	86.4'	38.2" x 21.5" x 5.9"	108.0	(1)	15'	1/2"Ø	JUMPER
NOTE: 1. ANTENNA CLEARANCE AND MOUNTING TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION WITH FINAL ANTENNA SPECIFICATIONS, MOUNTING HARDWARE, AND RF DESIGN. 2. CD IS BASED ON RFDS VERSION: 8 DATED: 12/23/2024.													

ANTENNA AND COAX GENERAL NOTES:

1. ALL ANTENNA AND COAXIAL ANTENNA CABLE TO BE FURNISHED BY T-MOBILE AND INSTALLED BY CONTRACTOR.
2. COAX COLOR CODING: ANTENNAS TO BE NUMBERED IN A CLOCKWISE MANNER FROM TRUE NORTH AND COLOR CODED AS FOLLOWS.
3. THE ABOVE COAX COLOR CODING APPLIES TO SECTORIZED SITES. FOR OMNI SITES, USE THE AT0, BT0, & GT0 COLOR CODES ONLY.
4. COAX SHALL BE TAGGED WITH COLOR CODING AT (2) PLACES USING 1" WIDE WEATHER PROOF COLORED VINYL TAPE AT THE FOLLOWING LOCATIONS:
• #1 - AT ANTENNA CONNECTION
• #2 - AT ENTRY TO EQUIPMENT CABINET
5. RUN COAXIAL CABLE WITH MINIMUM 12" SLACK & 12" FROM EDGE OF EQUIPMENT CABINETS, ACROSS WAVE GUIDE BRIDGE (IF APPLICABLE), UP TO TOWER LEG (IF APPLICABLE), & DISTRIBUTE TO EACH ANTENNA DEVICE. FURNISH AND INSTALL A MINIMUM OF (3) GROUND KITS PER COAXIAL CABLE ACCORDING TO ELECTRICAL DRAWINGS. VERIFY NUMBER OF ANTENNAS, CABLE, & CABLE DIAMETER WITH PROJECT MANAGER.
6. ALL COAXIAL CABLE CONNECTIONS TO BE WEATHER PROOFED.
7. CONTRACTOR TO DIP CABLES AND JUMPERS WHERE NECESSARY.
8. TAGGING:
• ALL COAXIAL CABLES TO BE MARKED WITH COLOR CODED TAPE TO INDICATE THE ANTENNA SECTOR.
• COLORED ELECTRICAL TAPE SHALL MARK EACH END OF CABLE AND EACH END OF JUMPERS AS CLOSE TO EACH END AS POSSIBLE. (NOT TO INTERFERE WITH WEATHERPROOFING.)
9. COAXIAL CABLE SPECIFICATIONS REQUIRE CABLE SUPPORT EVERY 3'-0" ON CENTER. CONTRACTOR SHALL SUPPLY SUPPORTS AS REQUIRED TO MEET THIS REQUIREMENT.
10. VERTICAL CONNECTIONS SHALL BE TAPED FROM THE BOTTOM UP SO OVERLAP MOVES WATER AWAY FROM CONNECTION (STEP 9).
11. PROVIDE HEAT SHRINK IN PLACE OF TAPE FOR QUAD POLES AND TMA'S. HEAT SHRINK SHALL BE "CANUSA" WITH ADHESIVE.



SCALE

N.T.S.

1

NOTE:
1. CD IS BASED ON RFDS VERSION: 8 DATED: 12/23/2024.

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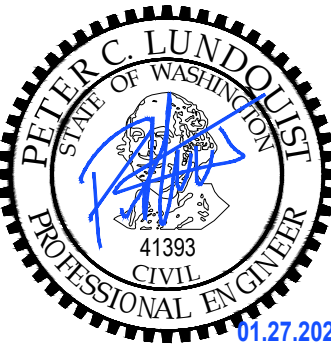
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BOTHELL, WA 98011

PLANS PREPARED BY:
Technology Associates

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SHEET DESCRIPTION:
RF DIAGRAM

SHEET NUMBER:
RF-2

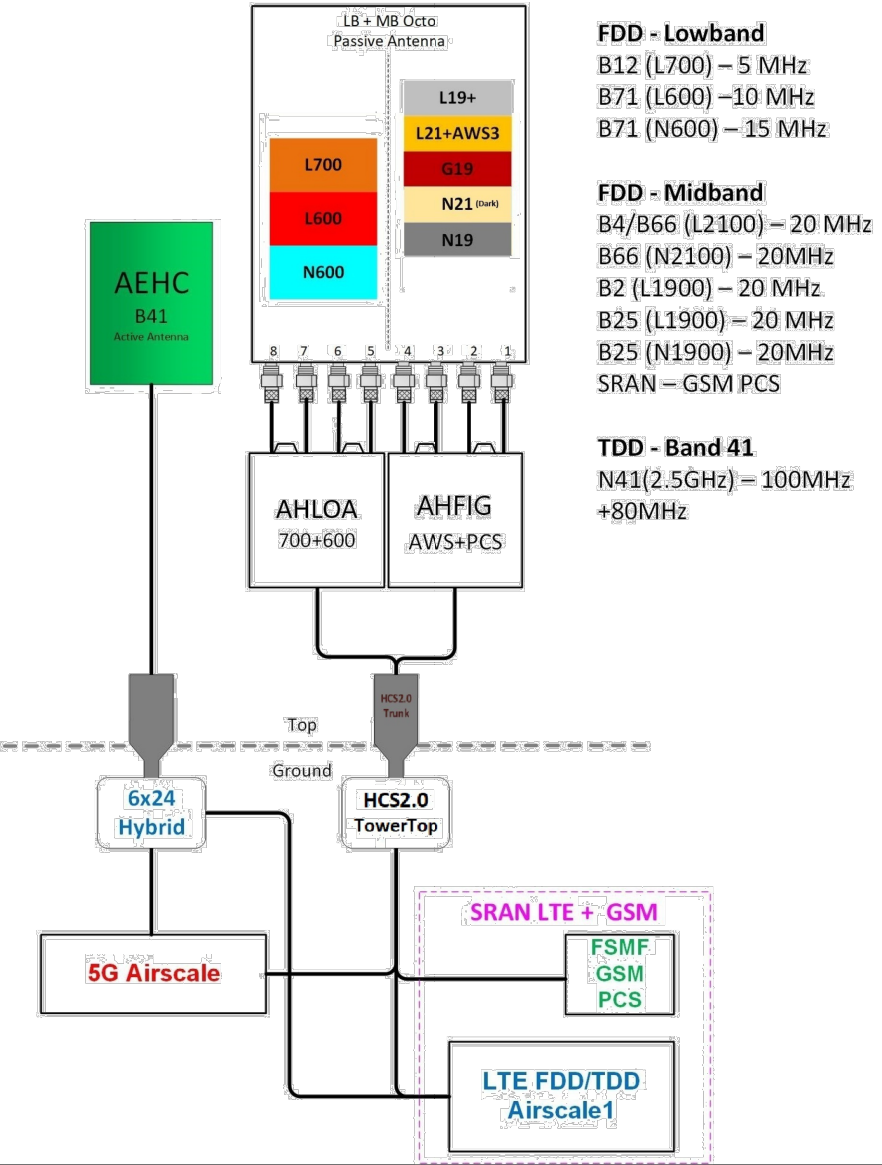
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Section 3 - Proposed Template Images

56791EZ_SR_6X24 - HCS 2.0-6X24.jpg

* For 5G and LTE Airscale BB dimensioning refer to Fiber Port matrices.
(Alpha, Beta & Gamma)



Notes:

<https://rfd.s.internal.t-mobile.com/datasheet/printout/ea50d7a4-258a-40ff-b23b-22382620a147/5a03eed0-06b9-438a-8ec2-e5509fc2016f>

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