



CROWN CASTLE

CROWN CASTLE/ VERIZON

MIV 43

8215 SE 78TH ST

MERCER ISLAND, WA 98040

SITE COORDINATES: 47.532922°, -122.229622°




PROJECT DESCRIPTION

CROWN PROPOSES TO INSTALL A NEW WOOD UTILITY POLE THAT ALLOWS FOR INSTALLATION OF ANENNA/EQUIPMENT, AC POWER & FIBER ON POLE WITH 2 NEW UTILITY VAULTS AT BASE OF POLE IN EXISTING ROW.

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LEGEND & SYMBOLS

— UGP —	UG POWER CONDUIT		LARGE SCALE DETAIL
— UGT —	UG TELCO CONDUIT		PHOTOSIM BUG
			ELEVATION BUG

ABBREVIATIONS

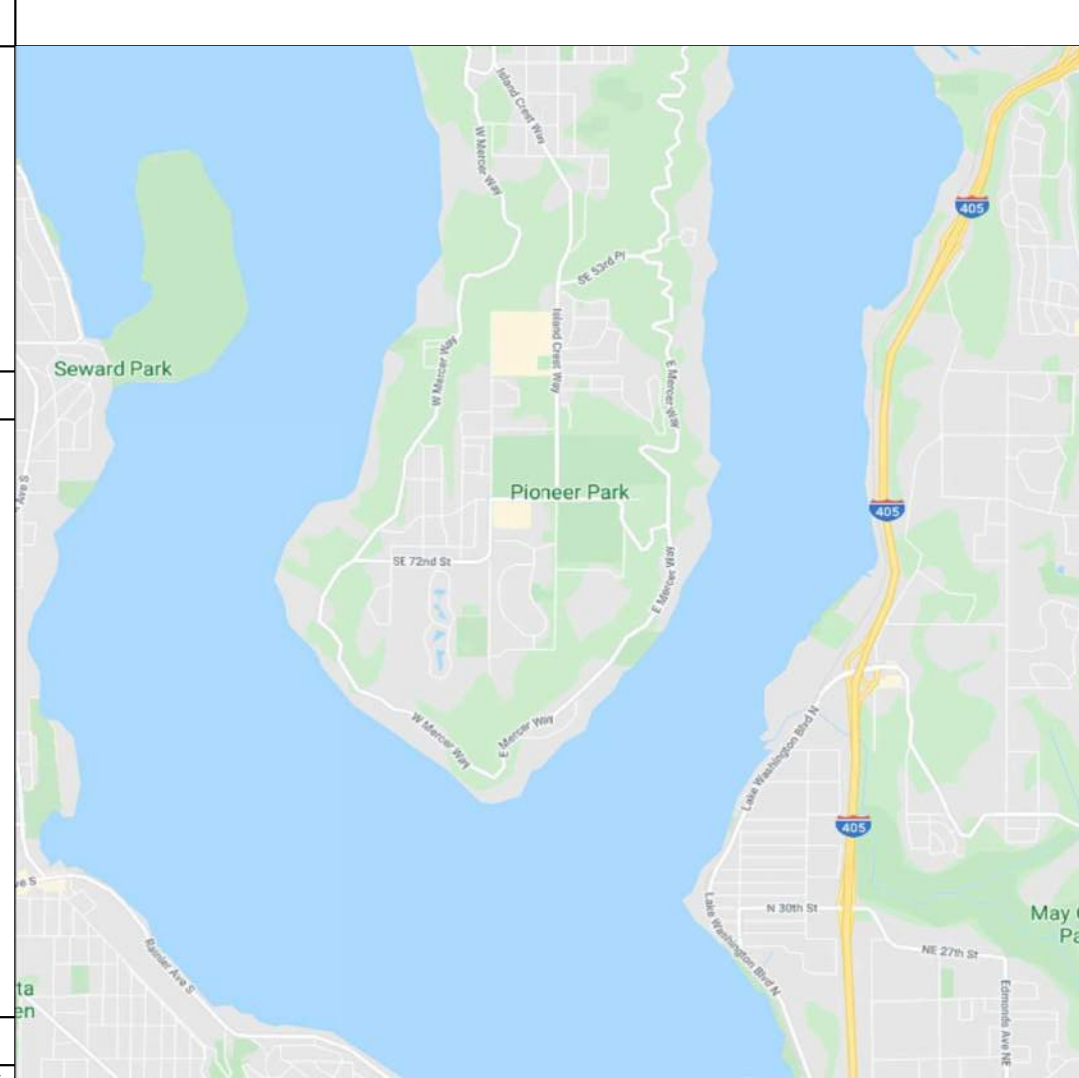
AGL	ABOVE GROUND LEVEL	GA	GAUGE	PLYWD	PLYWOOD
A/C	AIR CONDITIONING	GALV	GALVANIZED	PT	PRESSURE TREATED
APPROX	APPROXIMATELY	GC	GENERAL CONTRACTOR	PROJ	PROJECT
AZ	AZIMUTH	GRND	GROUND	PROP	PROPERTY
		GYP BD	GYPSUM WALL BOARD	(P)	PROPOSED
BLDG	BUILDING	HT	HEIGHT	QTY	QUANTITY
BLK	BLOCKING	HVAC	HEATING VENTILATION		
CLG	CEILING	HORZ	HORIZONTAL	REQ	REQUIRED
C	CENTERLINE	HR	HOUR	RM	ROOM
CLR	CLEAR			RO	ROUGH OPENING
CONC	CONCRETE	IN	INCH	ROW	RIGHT OF WAY
CONST	CONSTRUCTION	INFO	INFORMATION	SHT	SHEET
CONT	CONTINUOUS	ID	INSIDE DIAMETER	SIM	SIMILAR
		INSUL	INSULATION	SPEC	SPECIFICATION
DET	DETAIL	INT	INTERIOR	SF	SQUARE FOOT
DIA	DIAMETER	IBC	INTERNATIONAL BUILDING CODE	SS	STAINLESS STEEL
DIAG	DIAGONAL			STL	STRUCTURAL
DIM	DIMENSION	LBS	POUNDS	STD	STUD
DBL	DOUBLE	LF	LINEAR FEET	SUSP	SUSPENDED
DN	DOWN				
DWG	DRAWING	MGR	MANAGER	THRU	THROUGH
EA	EACH	MFR	MANUFACTURER	TNNG	TINNED
ELEC	ELECTRICAL	MAX	MAXIMUM	TYP	TYPICAL
ELEV	ELEVATION	MECH	MECHANICAL		
EQ	EQUAL	MTL	METAL	UG	UNDERGROUND
EQUIP	EQUIPMENT	MIN	MINIMUM	UNO	UNLESS NOTED OTHERWISE
(E)	EXISTING	MISC	MISCELLANEOUS		
EXT	EXTERIOR			VIF	VERIFY IN FIELD
		N/A	NOT APPLICABLE	VERT	VERTICAL
FIN	FINISH	NTS	NOT TO SCALE	WP	WATER PROOF
FLR	FLOOR			W/	WITH
FLUOR	FLUORESCENT	OC	ON CENTER	W/O	WITHOUT
FT	FOOT	OD	OUTSIDE DIAMETER		

CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT CONDITIONS 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:

WASHINGTON STATE AND LOCAL BUILDING CODES WITH THE FOLLOWING REFERENCE CODE:

- 2015 SEATTLE BUILDING CODE (SBC)
- 2015 INTERNATIONAL BUILDING CODE (IBC)
- 2015 INTERNATIONAL MECHANICAL CODE (IMC)
- 2015 INTERNATIONAL FIRE CODE (IFC)
- 2017 NATIONAL ELECTRIC CODE (NFPA 70)



NODE LEGEND

CROWN #	LAT	LONG	AZIMUTH	ADDRESS	POLE ID #
MIV43	47.532922°	-122.229697°	0°	8215 SE 78TH ST	NEW POLE

*LATITUDE & LONGITUDE ARE FROM CROWN CASTLE (BY OTHERS)

BUILDING & SITE DATA

JURISDICTION:	MERCER ISLAND	ZONING:	ROW
POLE OWNER:	CROWN CASTLE		
ADDRESS:	8215 SE 78TH ST MERCER ISLAND, WA 98040	NODE LOCATION:	EXISTING ROW PRINCIPALL

PROJECT TEAM

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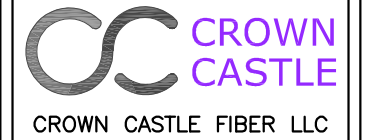
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SIGNATURE BLOCK

	SIGNATURE	DATE
CROWN		
PSE		
RF ENGINEER		
CITY OF SEATTLE		



PROJECT INFORMATION:

CROWN CASTLE
MIV 43

8215 SE 78TH ST
MERCER ISLAND, WA 98040

CURRENT ISSUE DATE:

05/20/20

ISSUE FOR:

CONSTRUCTION

ISSUE HISTORY:

No.	Date	Revision	Int.
B	05/20/20	95% FOR REVIEW	LW
A	04/20/20	90% FOR REVIEW	MLG

PLANS PREPARED BY:



NETWORK ANCHOR:

SEAL OF APPROVAL:

SHEET TITLE:

TITLE SHEET &
PROJECT INFORMATION

SHEET:

T1

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DESTROYED BY CONSTRUCTION. A LAND SURVEYOR MUST FIELD LOCATE, REFERENCE, AND /OR PRESERVE ALL HISTORICAL OR CONTROLLING MONUMENTS PRIOR TO ANY EARTHWORK. IF DESTROYED, SUCH MONUMENTS SHALL BE REPLACED WITH APPROPRIATE MONUMENTS BY A LAND SURVEYOR. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED AS REQUIRED BY THE PROFESSIONAL LAND SURVEYORS ACT.
2. IMPORTANT NOTICE: CALL WASHINGTON 811, TOLL FREE 1-800-424-5555, TWO DAYS BEFORE YOU DIG.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE POT HOLE AND LOCATING OF ALL EXISTING UTILITIES THAT CROSS THE PROPOSED TRENCH LINE AND MUST MAINTAIN A 1' MINIMUM VERTICAL CLEARANCE
4. IF ANY EXISTING HARDSCAPE OF LANDSCAPE INDICATED ON THE APPROVED PLANS IS DAMAGED OR REMOVED DURING DEMOLITION OR CONSTRUCTION, IT SHALL BE REPAIRED AND/OR REPLACED IN KIND PER THE APPROVED PLANS.
5. CONTRACTOR SHALL REPAIR OR REPLACE ALL TRAFFIC SIGNAL LOOPS, CONDUIT, AND LANE STRIPING DAMAGED DURING CONSTRUCTION.
6. THIS PROJECT SHALL BE INSPECTED BY ENGINEERING AND FIELD ENGINEERING DIVISION.
7. MANHOLES OR COVERS SHALL BE LABELED COMMUNICATIONS.
8. CONTRACTOR SHALL IMPLEMENT AN EROSION CONTROL PROGRAM DURING THE PROJECT CONSTRUCTION ACTIVITIES. THE PROGRAM SHALL MEET THE APPLICABLE REQUIREMENTS OF THE STATE WATER RESOURCE CONTROL BOARD.
9. THE CONTRACTOR SHALL HAVE EMERGENCY MATERIALS AND EQUIPMENT ON HAND FOR UNFORESEEN SITUATIONS, SUCH AS DAMAGE TO UNDERGROUND WATER, SEWER, AND STORM DRAIN FACILITIES WHEREBY FLOWS MAY GENERATE EROSION AND SEDIMENT POLLUTION.

SPECIAL NOTES

1. INDEMNIFICATION CLAUSE: THE CONTRACTOR AGREES AND SHALL: ASSUME SOLE AND COMPLETE RESPONSIBILITY OF THE JOB SITE CONDITIONS DURING THE COURSE OF THE CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTIES. THAT THESE REQUIREMENTS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONDITIONS. THE CONTRACTOR FURTHER AGREES TO DEFEND INDEMNITY AND HOLD EXTENT, REPRESENTATIVES, AND ENGINEERS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT.
2. PRIOR TO THE BEGINNING OF ANY CONSTRUCTION AND THROUGHOUT THE COURSE OF CONSTRUCTION WORK, THE CONTRACTOR SHALL FULLY COMPLY WITH "WASHINGTON OCCUPATIONAL SAFETY AND HEALTH" ACY OF 1973 INCLUDING ALL REVISIONS AND AMENDMENTS THERETO.
3. ALL WORK SHALL CONFORM TO THE LATEST STANDARD "SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" AS ADOPTED BY THE CITY, COUNTY, OR STATE AS MODIFIED BY STANDARD PLANS AND ADDENDUMS.
4. THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENTS FACILITIES AS SHOWN HERON ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST. THE CONTRACTOR SHALL VERIFY PRIOR TO THE START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITY OR AGENCY FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE SHOWN ON THIS PLAN OR NOT.
5. THE CONTRACTOR SHALL NOTIFY THE CITY, COUNTY, OR STATE ENGINEER INSPECTION DEPARTMENT AT LEAST TWO DAYS BEFORE THE START OF ANY WORK REQUIRING THEIR INVOLVEMENT.
6. THE CITY, COUNTY, OR STATE SHALL SPECIFY THE EXPIRATION PERIOD OF THE PERMIT FOR THIS CONSTRUCTION PROJECT.
7. THE MINIMUM COVER FOR ALL CONDUITS PLACED UNDERGROUND SHALL BE 24" TO THE FINISHED GRADE AT ALL TIMES.
8. THE CONTRACTOR SHALL TUNNEL ALL CURB AND GUTTERS AND BORE ALL CONCRETE DRIVEWAYS AND WALKWAYS ST THE DIRECTION OF THE CITY, COUNTY, OR STATE ENGINEER.
9. ALL A.C. AND/OR CONCRETE PAVEMENT SHALL BE REPLACED AT THE DIRECTION OF THE CITY, COUNTY, OR STATE ENGINEERS.
10. ALL SHRUBS, PLANTS OR TREES THAT HAVE BEEN DAMAGED OR DISTURBED DURING THE COURSE OF THIS WORK SHALL BE REPLANTED AND/OR REPLACED SO AS TO RESTORE THE WORK SITE TO ITS ORIGINAL CONDITION.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROCESSING OF ALL APPLICANT PERMIT FORMS ALONG WITH THE REQUIRED LIABILITY INSURANCE FORMS. CLEARLY DEMONSTRATING THAT EXTENT, THE CITY, COUNTY OR STATE IS ALSO INSURED WITH THE REQUIRED LIABILITY INSURANCE FOR THIS CONSTRUCTION PROJECT.
12. VAULTS, PEDESTALS, CONDUITS AND OTHER TYPES OF SUBSTRUCTURE ARE EITHER SPECIFIED ON THIS PLAN OR WILL BE SPECIFIED BY THE CONSTRUCTION ENGINEER. ANY AND ALL DEVIATIONS FROM THE SPECIFIED TYPES OF MATERIAL MUST BE APPROVED BY THE SYSTEM DESIGNER, IN WRITING, BEFORE INSTALLATION THEREOF.
13. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES, INCLUDING SEWER LATERALS AND WATER SERVICES TO INDIVIDUAL LOTS BOTH VERTICAL AND HORIZONTAL PRIOR TO COMMENCING IMPROVEMENT OPERATIONS.
14. CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISION IS NECESSARY BECAUSE OF LOCATION OF EXISTING UTILITIES.
15. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE FROM EXISTING RECORDS AND CORROBORATED, WHERE POSSIBLE, WITH FIELD TIES. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE LOCATIONS SHOWN, BOTH HORIZONTALLY AND VERTICALLY, PRIOR TO CONSTRUCTION. IF EXISTING LOCATIONS VARY SUBSTANTIALLY FROM THE PLANE, THE ENGINEER SHOULD BE NOTIFIED TO MAKE ANY CONSTRUCTION CHANGES REQUIRED.

EROSION AND SEDIMENT CONTROLS

TEMPORARY EROSION/SEDIMENT CONTROL PRIOR TO COMPLETION OF FINAL IMPROVEMENTS SHALL BE PERFORMED BY THE CONTRACTOR OR QUALIFIED PERSON AS INDICATED BELOW:

1. ALL REQUIREMENTS OF THE CITY COUNTY STATE "STORM WATER STANDARDS" MUST BE INCORPORATED INTO THE DESIGN AND CONSTRUCTION OF THE PROPOSED GRADING/IMPROVEMENTS CONSISTENT WITH THE APPROVED STORM WATER POLLUTION PREVENTION PLAN (SWPPP), WATER QUALITY TECHNICAL REPORTS (WQRT) AND/OR WATER POLLUTION CONTROL PLAN (WPCP).
2. FOR STORM DRAIN INLETS, PROVIDE A GRAVEL BAG SILT BASIN IMMEDIATELY UPSTREAM OF INLET AS INDICATED ON DETAILS.
3. FOR INLETS LOCATED AT SUMPS ADJACENT TO TOP OF SLOPES, THE CONTRACTOR SHALL ENSURE THAT WATER DRAINING INTO THE SUMP IS DIRECTED INTO THE INLET AND THAT A MINIMUM OF 1.00' OF FREEBOARD EXISTS AND IS MAINTAINED ABOVE THE TOP OF THE INLET. IF FREEBOARD IS NOT PROVIDED BY GRADING SHOWN ON THESE PLANS THE CONTRACTOR SHALL PROVIDE IT VIA TEMPORARY MEASURES; I.E., GRAVEL BAGS OR DIKES.
4. THE CONTRACTOR OR QUALIFIED PERSON SHALL BE RESPONSIBLE FOR CLEANUP OF SILT AND MUD ON ADJACENT STREET(S) AND STORM DRAIN SYSTEM DUE TO CONSTRUCTION ACTIVITY.
5. THE CONTRACTOR OR QUALIFIED PERSON SHALL CHECK AND MAINTAIN ALL LINED AND UNLINED DITCHES AFTER EACH RAINFALL.
6. THE CONTRACTOR SHALL REMOVE SILT AND DEBRIS AFTER EACH MAJOR RAINFALL.
7. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. ALL NECESSARY MATERIALS SHALL BE STOCKPILED ON SITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
8. THE CONTRACTOR SHALL RESTORE ALL SEDIMENT/EROSION CONTROL DEVICES TO WORKING ORDER TO THE SATISFACTION OF THE CITY ENGINEER OR RESIDENT ENGINEER AFTER EACH RUN-OFF PRODUCING RAINFALL.
9. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION/SEDIMENT CONTROL MEASURES AS MAY BE REQUIRED BY THE RESIDENT ENGINEER DUE TO UNCOMPLETED GRADING OPERATIONS OR UNFORESEEN CIRCUMSTANCES WHICH MAY ARISE.
10. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A HAZARDOUS CONDITION.
11. ALL EROSION/SEDIMENT CONTROL MEASURES PROVIDED PER THE APPROVED GRADING PLAN SHALL BE INCORPORATED HEREIN. ALL EROSION/SEDIMENT CONTROL FOR INTERIM CONDITIONS SHALL BE DONE TO THE SATISFACTION OF THE RESIDENT ENGINEER.
12. GRADED AREAS AROUND THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE FACE OF THE SLOPE AT THE CONCLUSION OF EACH WORKING DAY.
13. ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN RAIN IS IMMINENT.
14. THE CONTRACTOR SHALL ONLY GRADE, INCLUDING CLEARING AND GRUBBING FOR THE AREAS FOR WHICH THE CONTRACTOR OF QUALIFIED PERSON CAN PROVIDE EROSION/SEDIMENT CONTROL MEASURES.

ROW GROUND CONSTRUCTION NOTES

1. 120V POWER REQUIRED FOR ALL 2-WIRE SERVICE
2. GENERAL CONTRACTOR TO REMOVE/CLEAN ALL DEBRIS, NAILS, STAPLES, OR NON-USED VERTICALS OFF THE POLE.
3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH MUNICIPAL, COUNTY, STATE, AND FEDERAL STANDARDS AND REGULATIONS.
4. CALL (811) 48 HOURS PRIOR TO EXCAVATING AT (800) 424-5555
5. ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
6. ALL EQUIPMENT TO BE BONDED.
7. METERING CABINET (IF PLACED) REQUIRES 3' CLEARANCE AT DOOR OPENING.
8. CAULK CABINET BASE AT PAD.
9. CONTRACTOR TO MAINTAIN NIGHTTIME PEDESTRIAN LIGHTING AS REQUIRED BY CITY.

STANDARD GROUNDING NOTES

1. CONTRACTOR TO PROVIDE GROUND TEST VERIFICATION AT 25 OHMS OR LESS. CONTRACTOR TO TEST PER CROWN DOC# 337910 AND SUBMIT SCS GROUND RESISTANCE FORM TO CROWN CONSTRUCTION MANAGER. WITH CLOSE OUT PACKAGE
2. UTILIZE MIN. OF #6 AWG INSULATED GREEN GROUND WIRE MINIMUM ABOVE GRADE & #2 MINIMUM BARE TINNED GROUND WIRE UNDERGROUND TO MGB UNLESS OTHERWISE NOTED IN THESE DRAWINGS
3. PLACE (1) 5/8"x10' ROD, WITH A CAD WELDED #2 BARE TINNED GROUND WIRE TO EQUIPMENT GROUND BAR ON POLE. CONTRACTOR IS TO ADD A SECOND GROUND ROD 6' AWAY W/#6 BARE COPPER WIRE 4" BELOW GRADE IF GROUND TEST FAILS TO MEET 25 OHMS OR LESS OR AS REQUIRED BY UTILITY FIELD INSPECTOR
4. SECOND GROUND ROD REQUIRED ON WOOD POLES W/DISTRIBUTION POWER OR ON ANY POLE THAT DOESN'T MEET 25 OHMS OR LESS GROUNDING REQUIREMENT. MINIMUM SEPARATION SHALL BE 8'
5. MOLDING GALVANIZED STAPLED EVERY 24" AND AT 12" FROM EACH END OVER GROUND WIRE AT BASE OF WOOD POLE TO 8' AGL
6. PLACE GROUND ROD(S) 3' FROM POLE OR AS DIRECTED BY CROWN CONSTRUCTION MANAGER
7. INSTALL GROUND SYSTEM PER NESC, UTILITY & CROWN DOC# 337910

GROUND TIE CHECKLIST

- GROUND ROD(S) W/CADWELD
- METAL POLE BASE (IF APPLICABLE)
- DISCONNECT
- MINI MASTER GROUND BAR & EQUIPMENT LEVEL
- RRU
- RRU SHROUD (IF APPLICABLE)
- UE RELAY
- ANTENNA(S)
- PROPOSE COMM MESSENGER
- EXISTING COMM MESSENGER
- ANTENNA COAX
- UFER GROUND COILED FOR LIGHT POLES
- REBAR CAGE FOR LIGHT POLES

STANDARD TRENCHING NOTES:


1. MAINTAIN 24" MINIMUM COVER FOR ELECTRICAL CONDUIT, OR PER UTILITY REQUIREMENT..
2. MAINTAIN 24" MINIMUM COVER FOR ALL COMMUNICATIONS CONDUIT.
3. IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.
4. IN DIRT SLURRY 18" FROM GRADE, AND FILL WITH 95% COMPACTION. NATIVE SOIL FOR BALANCE.
5. PLACE WARNING TAPE IN TRENCH 12" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND RING.

UTILITY CONSTRUCTION NOTES

1. ALL DISCONNECTIONS, TEMPORARY CONNECTIONS & FINAL SERVICE CONNECTIONS WILL BE MADE BY UTILITY. COORDINATE ALL ENERGIZING & DE-ENERGIZING OF STREET LIGHTING SERVICE WITH UTILITY REPRESENTATIVE AS REQUIRED.
2. CONTRACTOR SHALL COORDINATE WITH UTILITY FOR REMOVING FLOOD LIGHTS & STREETLIGHTS FROM EXISTING POLES PRIOR TO POLE REMOVAL & THE DELIVERY OF ALL THE SALVAGED STREETLIGHT RELATED MATERIALS TO OWNER SALVAGE YARD. NO STREETLIGHT MAY BE DISABLED WITHOUT APPROVAL FROM DEPARTMENT OF TRANSPORTATION OR UTILITY.
3. CONTRACTOR SHALL MAINTAIN EXISTING STREET LIGHTING SYSTEM DURING CONSTRUCTION & WILL BE RESPONSIBLE FOR THE COST OF TEMPORARY SYSTEM, IF NECESSARY.
4. WORK SHALL BE SCHEDULED SUCH THAT NO TWO (2) ADJACENT OF OPPOSITE STREET LIGHTS ARE DISABLED AT ANY ONE TIME.
5. ANY EXCAVATION IN PROXIMITY TO AN EXISTING STREETLIGHT POLE MUST BE DONE WITHOUT UNDERMINING ITS STABILITY. CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SUPPORT WHICH MAY BE REQUIRED TO STABILIZE THE POLE.
6. CONTRACTOR SHALL CALL FOR AN INSPECTION OF THE STREET LIGHTING SYSTEM AT VARIOUS STAGES OF INSTALLATION/CONSTRUCTION OR AS INSTRUCTED BY UTILITY INSPECTOR.
7. CONTACT UTILITY FOR STREET LIGHTING INSPECTION.
8. CONTRACTOR WILL ASSIST THE INSPECTOR DURING THE INSPECTION, COMMISSIONING, & FINAL CONNECTION PHASES OF THE PROJECT AS INSTRUCTED BY THE INSPECTOR. SUCH ASSISTANCE WILL INCLUDE, BUT NOT BE LIMITED TO, OPENING HANDHOLES, MANHOLES & VARIOUS ACCESS COVERS, DISCONNECTING & RECONNECTING FUSE HOLDERS & MECHANICAL SPLICE CONNECTIONS, VERIFYING CONDUIT RUNS, ETC.
9. CONTRACTOR SHALL CORRECT ALL PUNCH LIST ITEMS & CALL FOR RE-INSPECTION WHERE REQUIRED BY THE INSPECTOR.
10. UPON COMPLETION OF WIRING THE STREETLIGHT SYSTEM, THE CONTRACTOR SHALL PREPARE A RED-LINE WIRING AS-BUILT DIAGRAM. THE DIAGRAM SHALL INCLUDE WHICH DUCT IS USED IN EACH DUCT BANK. CONTRACTOR SHALL PROVIDE THE RED-LINE TO UTILITY ELECTRICAL INSPECTOR PRIOR TO REQUESTING FINAL STREETLIGHT SERVICE CONNECTION.
11. VACANT CONDUIT SHALL BE STUBBED IN HANDHOLE. REPLACE WITH: PULL TAPE INSTALLED THROUGH THE CONDUIT & IT SHALL BE CAPPED.
12. ALL WIRING, INCLUDING STREET LIGHTING & PEDESTRIAN LIGHTING CIRCUITS SHALL BE CLEARLY LABELED PER UTILITY CONSTRUCTION STANDARD.
13. COORDINATE WITH THE CIVIL CREW & REMOVE ALL EXISTING WIRING.
14. STREETLIGHT SYSTEM GROUNDING & BONDING SHALL BE PER UTILITY CONSTRUCTION STANDARD.
15. EXISTING TREES SHALL BE PROTECTED DURING CONSTRUCTION PROCESS. NO TREE TRIMMING WITHOUT WRITTEN PERMISSION IS PERMITTED.

STANDARD CONDUIT NOTES

1. FOR UNDERGROUND USE SCHEDULE:
 - A. SCHEDULE 80 [POWER]
2. FOR RISERS OR INTERNAL USE SCHEDULE:
 - A. SCHEDULE 40 [COAX]
 - B. SCHEDULE 80 [POWER]
3. PLACE 2" SDR-11 RED CONDUIT FOR UG POWER APPLICATIONS OR 3" SCH 80 AS DIRECTED.
4. RISERS TO BE ATTACHED TO STAND OFFS.
5. RISERS U-CRAMPS TO BE INSTALLED EVERY 5'.
6. CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES IN CROTCH OF POLE.
7. ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.



CROWN CASTLE FIBER LLC

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MIV 43**

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PLANS PREPARED BY:



MORRISON HERSHFIELD
600 STEWART STREET, SUITE 200
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MH PROJECT #: 190011900

NETWORK ANCHOR:

SEAL OF APPROVAL:

SHEET TITLE:

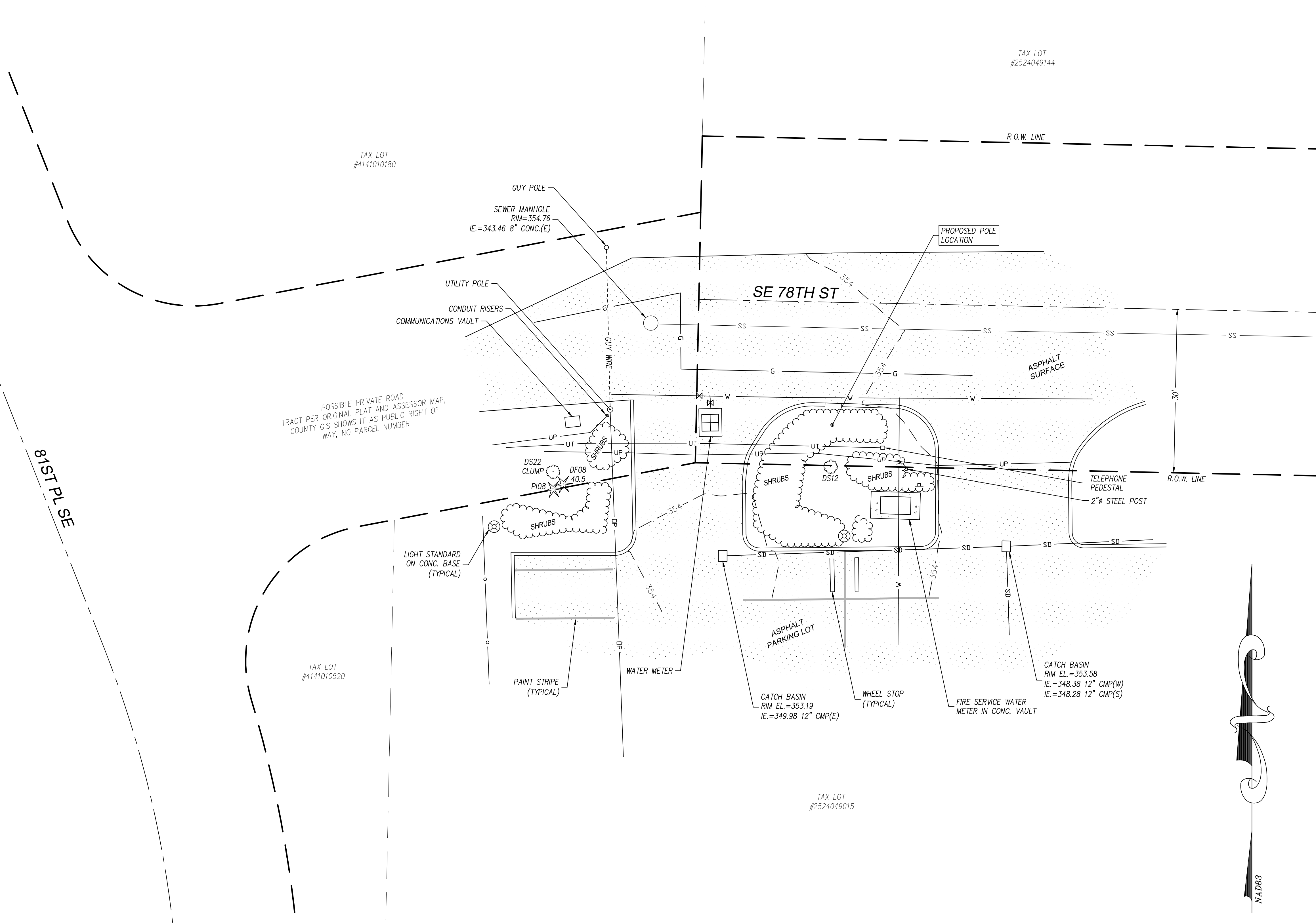
GENERAL NOTES

SHEET:

T2



UNDERGROUND UTILITIES SHOWN HEREON, IF ANY, WERE DELINEATED FROM SURFACE EVIDENCE AND/OR UTILITY COMPANY RECORDS. CRITICAL LOCATIONS SHOULD BE VERIFIED PRIOR TO DESIGN AND CONSTRUCTION.



LEGEND

---	SUBJECT BOUNDARY LINE
- - - -	RIGHT-OF-WAY CENTERLINE
- - - -	RIGHT-OF-WAY LINE
- - - -	ADJACENT BOUNDARY LINE
- . - . -	SECTIONAL BREAKDOWN LINE
—DP—	OVERHEAD POWER LINE
—UP—	BURIED POWER LINE
—G—	BURIED GAS LINE
—OT—	OVERHEAD TELEPHONE LINE
—UT—	BURIED TELEPHONE LINE
—V—	BURIED WATER LINE
—SS—	BURIED SANITARY SEWER
—SD—	BURIED STORM DRAIN
- - - -	DITCH LINE/FLOW LINE
⊖	ROCK RETAINING WALL
—UT—	UNDERGROUND TELEPHONE
○	CHAIN LINK FENCE
□	WOOD FENCE
x	BARBED WIRE/WIRE FENCE
⊕	POWER OUTLET
⊗	LIGHT STANDARD
⊖	FIRE HYDRANT
⊗	GATE VALVE
⊖	WATER METER
⊖	FIRE DEPT. CONNECTION
⊖	IRRIGATION CONTROL
⊖	CATCH BASIN, TYPE I
⊖	CATCH BASIN, TYPE II
⊖	SIGN
⊖	BOLLARD
⊖	MAIL BOX
⊖	LANDSCAPING
⊖	POLE GUY WIRE
⊖	CATCH BASIN, TYPE I
⊖	CATCH BASIN, TYPE II
⊖	SIGN
⊖	BOLLARD
⊖	MAIL BOX
⊖	LANDSCAPING

NOTE:
 1) ALL ELEVATIONS SHOWN ARE ABOVE MEAN SEA LEVEL (AMSL) AND ARE REFERENCED TO THE NAVD88 DATUM.
 2) ALL TOWER, TREE AND APPURTENANCE HEIGHTS ARE ABOVE GROUND LEVEL (AGL) AND ARE ACCURATE TO ± 0.5 FEET OR ± 1% OF TOTAL HEIGHT, WHICHEVER IS GREATER.

TREE LEGEND

AL=ALDER	MP=MAPLE
DS=DECIDUOUS	MA=MADRONA
OK=OAK	CH=CHERRY
CE=CEDAR	DF=DOUGLAS FIR
HE=HEMLOCK	PI=PINE
EVG=EVERGREEN	

DECIDUOUS TREE
 AL12 ← TRUNK DIAMETER (IN)
 TYPE
 EVERGREEN TREE
 DF18 ← HEIGHT AGL IF MEASURED

NOTE:
 TREE SYMBOLS REFERENCE TRUNK LOCATION ONLY. TRUNK DIAMETERS WERE APPROXIMATED AT 3.5' TO 4' ABOVE GROUND LEVEL. TREES SHOWN ARE FOR REFERENCE ONLY AND OTHER TREES AND VEGETATION MAY EXIST.

LATITUDE/LONGITUDE POSITION

COORDINATE DATA AT PROPOSED POLE LOCATION:
 NAD 83
 LAT - 47.532922° N NAVD 88
 LONG - 122.229697° W ELEV.=354.2 FEET

BENCHMARK IS BASED ON WSRN PUGET SOUND REFERENCE NETWORK.

SURVEY REFERENCE

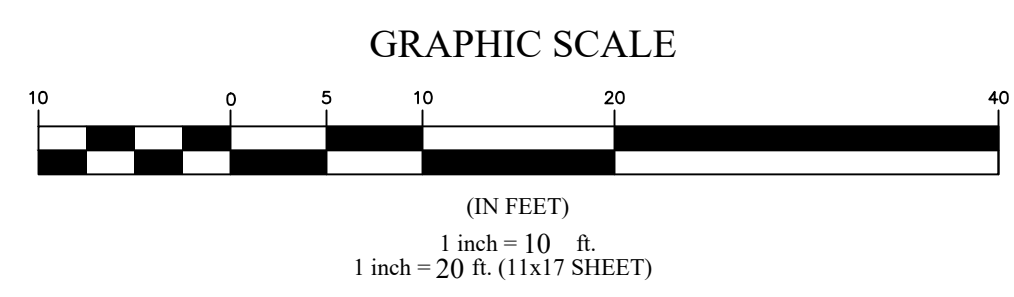
1. THE LAKES AT MERCER ISLAND DIV. 2 PLAT, PER VOLUME 131 OF PLATS, PAGES 17-22, RECORDS OF KING COUNTY.

BOUNDARY DISCLAIMER

THIS PLAN DOES NOT REPRESENT A BOUNDARY SURVEY. SUBJECT AND ADJACENT PROPERTY LINES ARE DEPICTED USING FIELD-FOUND EVIDENCE AND RECORD INFORMATION.

CAUTION!

UNDERGROUND UTILITIES EXIST IN THE AREA AND UTILITY INFORMATION SHOWN MAY BE INCOMPLETE. STATE LAW REQUIRES THAT CONTRACTOR CONTACT THE ONE-CALL UTILITY LOCATE SERVICE AT LEAST 48 HOURS BEFORE STARTING ANY CONSTRUCTION.
1-800-424-5555



SITE DETAIL

1505 WESTLAKE AVE N, SUITE 800
 SEATTLE, WA 98109

600 Stewart Street, Suite 200
 Seattle, WA 98101
 Tel: 206.268.7370
 www.morrisonhershfield.com

145 SW 155th Street, Suite 102
 Seattle, Washington 98166
 Phone 206.244.4141
 Fax 206.244.4455

SITE
MIV43
 8215 SE 78TH ST
 MERCER ISLAND, WA 98040
 KING COUNTY

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FLD. CREW:	JR/DC
FLD. BOOK:	546/96
DRAWN BY:	LAC
JOB #:	04168.229
DATE:	04/08/20

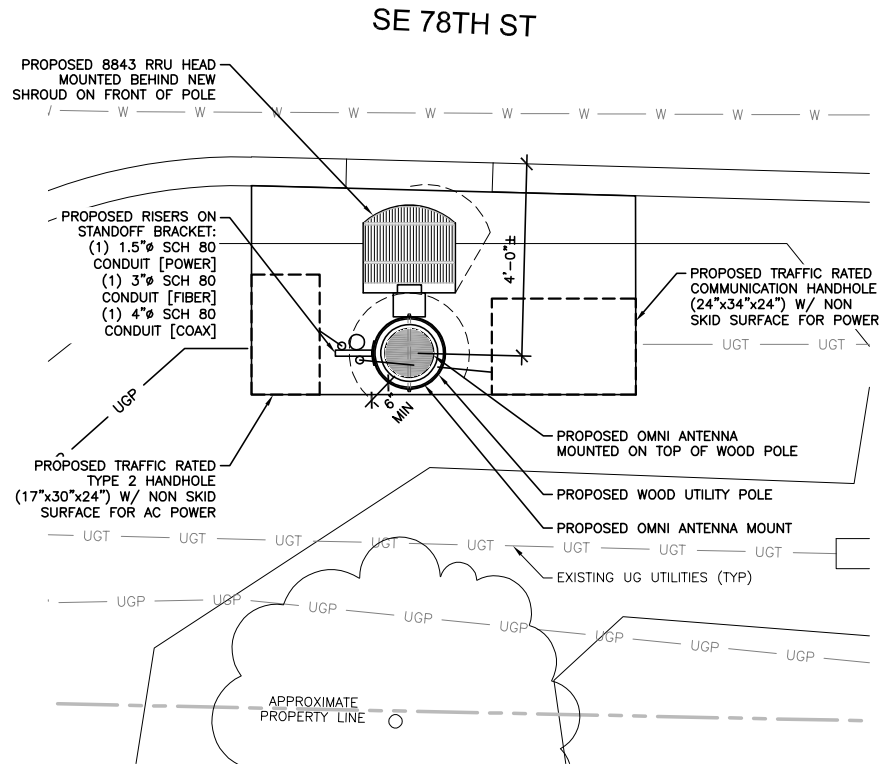
REVISIONS

DATE	DESCRIPTION	BY

4/08/20

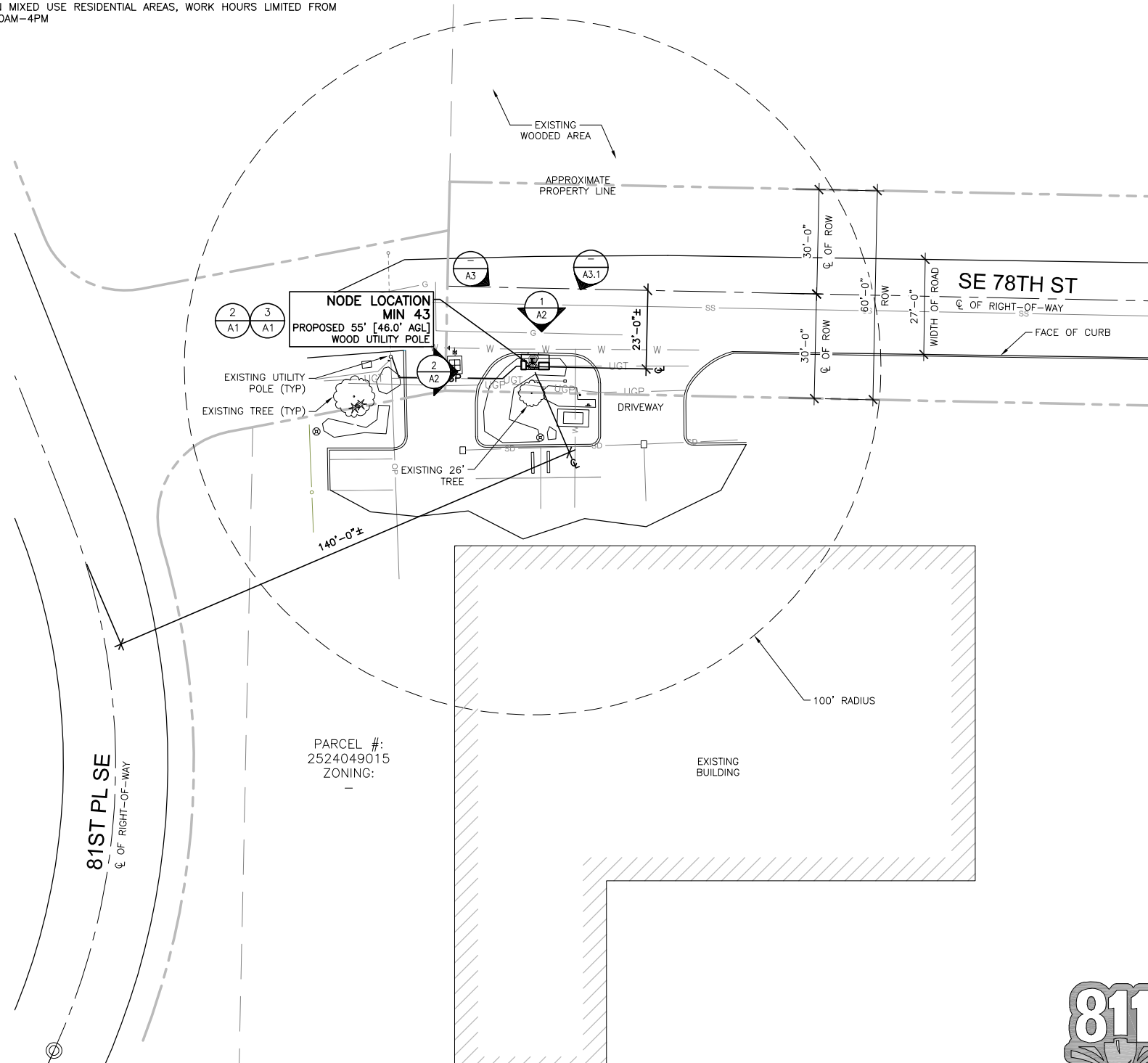
SHEET TITLE
**EXISTING SITE SURVEY
 SEC 25, TWP 24 N, RNG 4 E, WM**

SHEET NUMBER
SV1

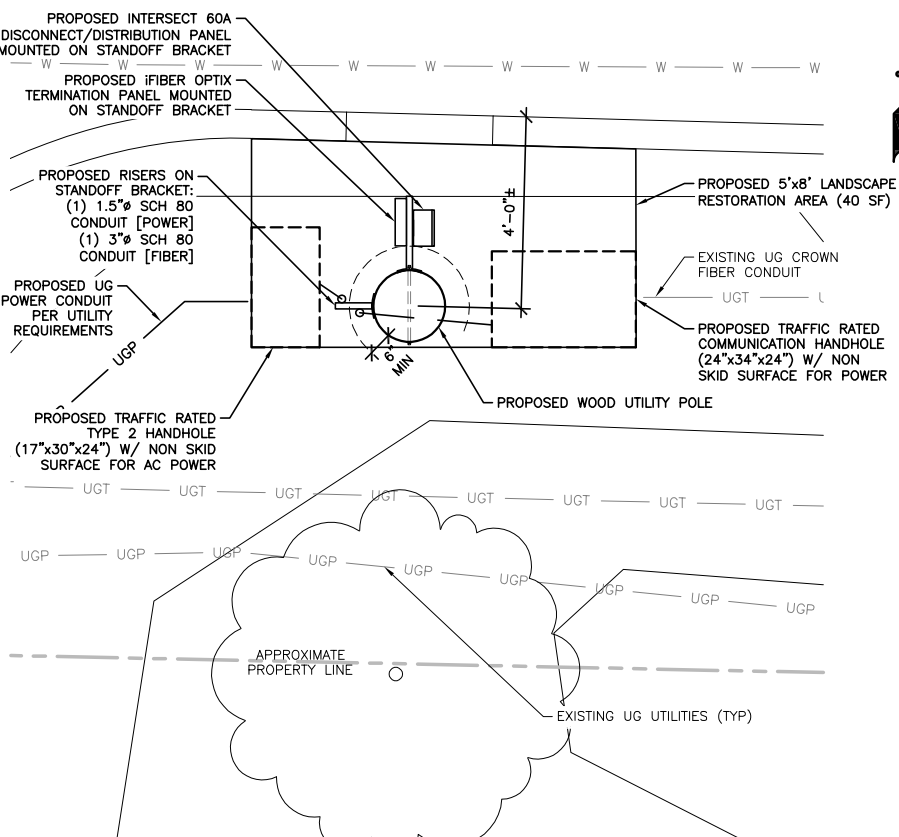


22"x34" SCALE: 1/2" = 1'-0"
11"x17" SCALE: 1/4" = 1'-0"
ANTENNA PLAN 3

- NOTES:**
1. THIS IS NOT A SURVEY. PROPERTY LINES AND STRUCTURE OUTLINES, INCLUDING SIDEWALKS, CURBS AND ROAD WIDTHS ARE APPROXIMATE AND WERE OBTAINED FROM ONLINE RESOURCES.
 2. CONTRACTOR TO POTHOLE & LOCATE ALL UTILITIES WITHIN 15' OF PROJECT AREA PRIOR TO CONSTRUCTION
 3. REPAIR LANDSCAPING & HARDSCAPING, AS REQ'D, TO MATCH EXISTING CONDITIONS
 4. CONTRACTOR TO INSTALL NEW FOUNDATION UTILIZING VAC TRUCK WHEN WITHIN 2' OF EXISTING UTILITIES
 5. SCHEDULE VAC TRUCK POTHOLES PRIOR TO CONSTRUCTION TO LOCATE EXISTING DEPTH OF UTILITIES WITHIN 10' OF NEW POLE LOCATION AND/OR NEW VAULTS
 6. CONTRACTOR TO PROVIDE TRAFFIC CONTROL PLANS, AS REQ'D
 7. PROVIDE TREE PROTECTION FOR ANY TREES WITHIN 20' OF POLE REPLACEMENT PER SDOT REQUIREMENTS; NO TREE PRUNING IS PERMITTED WITHOUT CITY ARBORIST APPROVAL
 8. IN MIXED USE RESIDENTIAL AREAS, WORK HOURS LIMITED FROM 10AM-4PM



22"x34" SCALE: 1" = 20'-0"
11"x17" SCALE: 1" = 40'-0"
SITE PLAN 1



22"x34" SCALE: 1/4" = 1'-0"
11"x17" SCALE: 1/8" = 1'-0"
EQUIPMENT PLAN 2

ISSUE HISTORY:

No.	Date	Revision	Int.
B	05/20/20	95% FOR REVIEW	LW
A	04/20/20	90% FOR REVIEW	MLG

PLANS PREPARED BY:

MORRISON HERSHFIELD
600 STEWART STREET, SUITE 200
SEATTLE, WA 98101
Tel: 206.268.7370
www.morrisonhershfield.com
MH PROJECT #: 190011900

NETWORK ANCHOR:

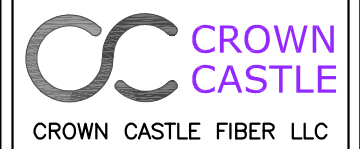
SEAL OF APPROVAL:

SHEET TITLE:
SITE PLANS

SHEET:
A1



PAINT NOTE:
ALL ANTENNAS, EQUIPMENT,
CONDUIT, VISIBLE MOUNTING
HARDWARE AND COAX SHALL BE
PAINTED TO MATCH POLE



PROJECT INFORMATION:

CROWN CASTLE
MIV 43

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MERCER ISLAND, WA 98040

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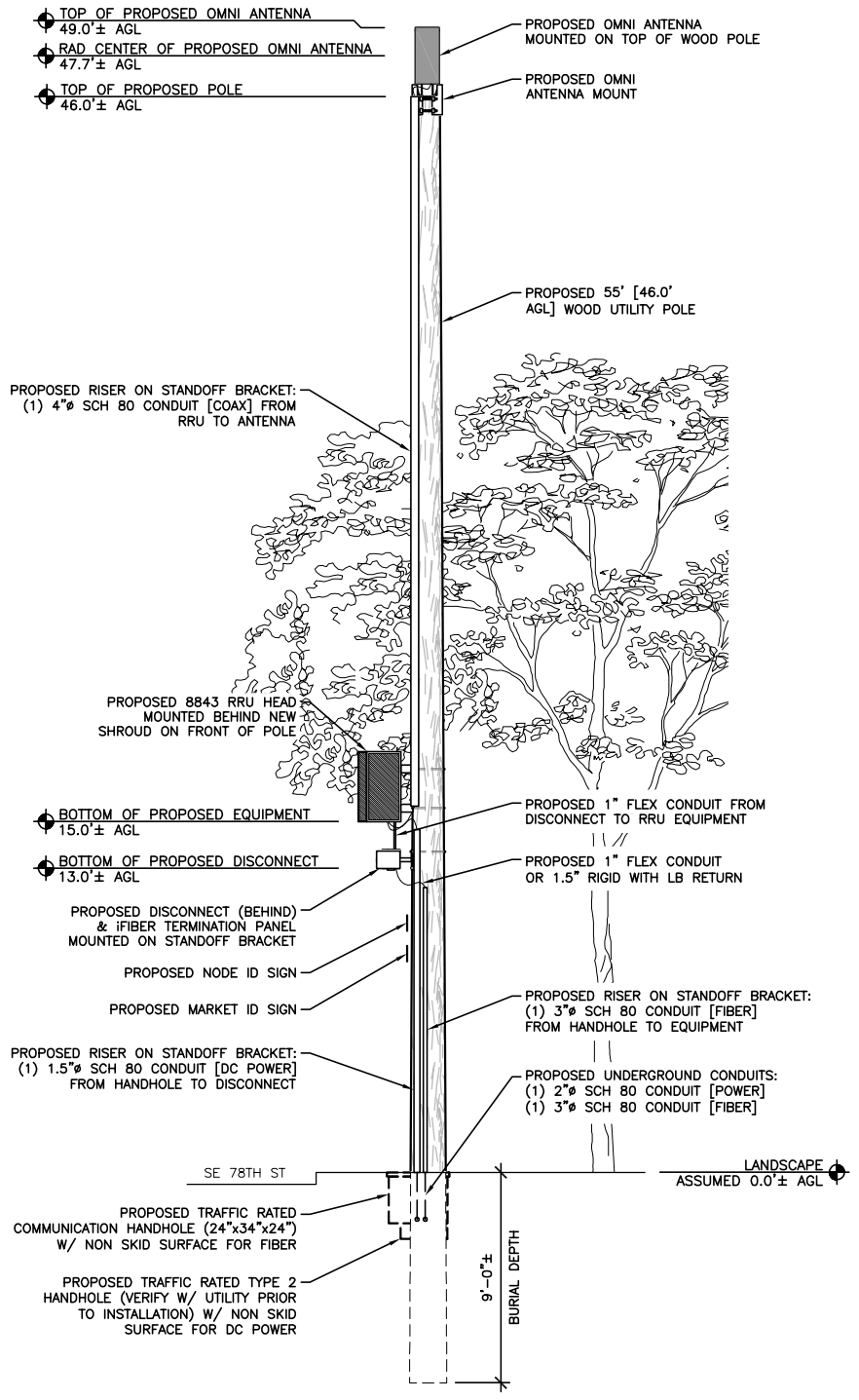
SEAL OF APPROVAL:

SHEET TITLE:

ELEVATIONS

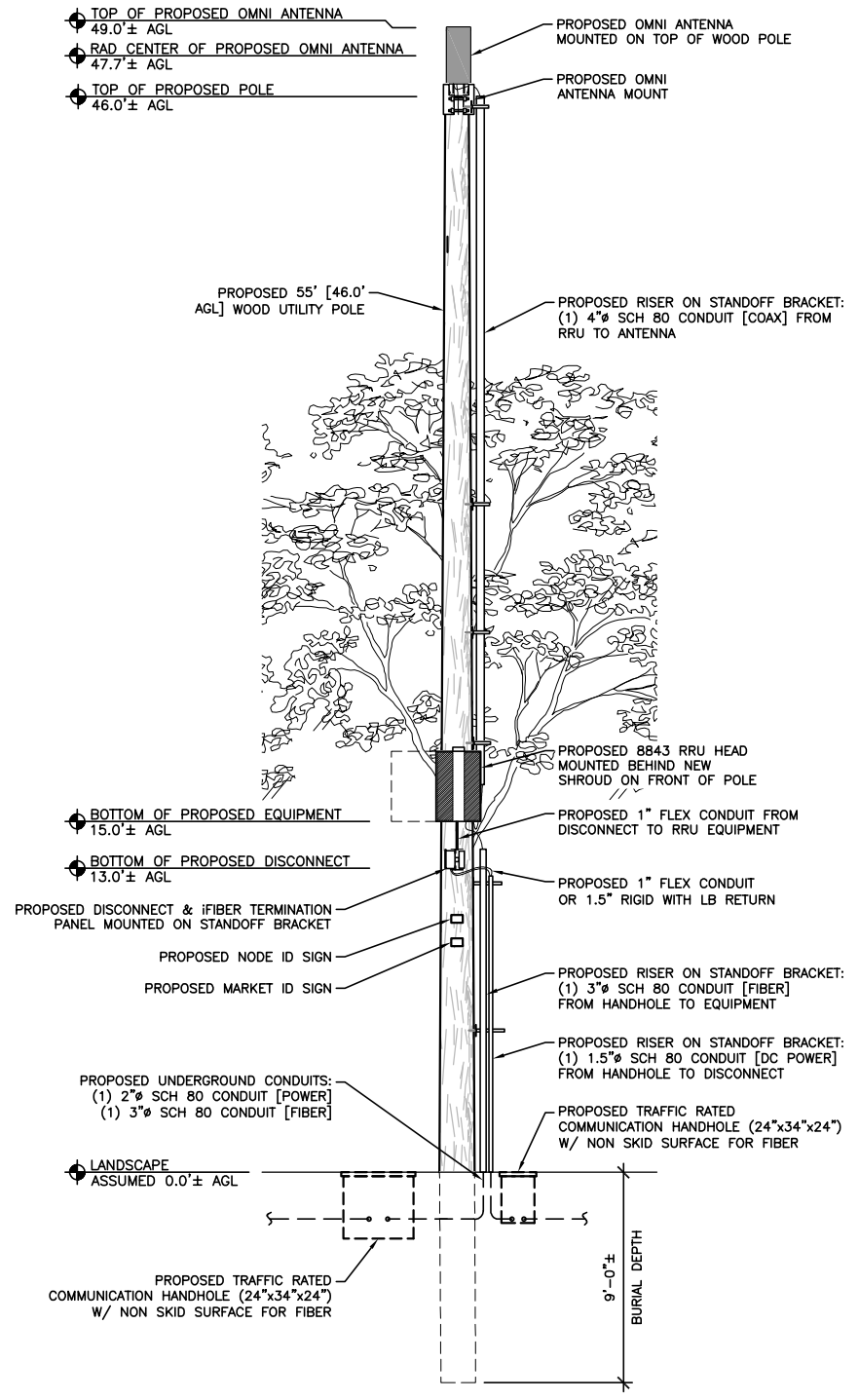
SHEET:

A2



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

ELEVATION 2



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

ELEVATION 1



22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

EXISTING PHOTO 2



NOTE:
POLE POSITION IN SIMULATION IS APPROXIMATE & MAY
SHIFT BY 3' IN EACH DIRECTION FOR FINAL INSTALLATION

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

PROPOSED PHOTOSIM 1



CROWN CASTLE FIBER LLC

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www.morrisonhershfield.com

MH PROJECT #: 190011900

NETWORK ANCHOR:

SEAL OF APPROVAL:

SHEET TITLE:

PHOTOSIM 1

SHEET:

A3



NOTE:
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NETWORK ANCHOR:

SEAL OF APPROVAL:

SHEET TITLE:

PHOTOSIM 2

SHEET:

A3.1

NOTICE
POLE WORKERS
There is an antenna operation high on this pole. Please follow guidance on signs near the antenna or call the number below
Site ID # **888-632-0931**

NEW SIGN 1: "NOTICE"
RF "NOTICE" SIGN AVAILABLE IN 4"x6" METAL OR 4"x6" ADHESIVE BACKED LABEL
LOCATION: 1' BELOW DISCONNECT

CAUTION
Keep Back FT From This Antenna, FCC RF Public Exposure Limits May Be Exceeded Within This Distance. Call 888-632-0931 For Instructions. Qualified Workers: FCC Occupational Limits May Be Exceeded Within This Distance.
Site ID #

NEW SIGN 2: "RF WARNING"
RF "CAUTION" SIGN AVAILABLE IN 8"x8" ADHESIVE BACKED LABEL OR, UPON REQUEST, IN A 8"x8" PLASTIC PLACARD. ADHESIVE SHOULD BE USED WHEN PLACING DIRECTLY ON THE ANTENNA.
LOCATION: 4' BELOW ANTENNA

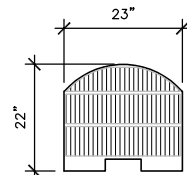
CROWN CASTLE DAS
24-HOUR EMERGENCY #
888-632-0931
Site ID #

SHROUD SIGN
SHROUD SIGN AVAILABLE IN 4"x4" METAL OR 4"x4" ADHESIVE BACKED LABEL
LOCATION: ON SHROUD (IF NO SHROUD THEN SIGN IS NOT REQUIRED)

MARKET ID SIGN
MARKET ID SIGN AVAILABLE IN 4"x6" METAL OR 4"x6" ADHESIVE BACKED LABEL
LOCATION: 2' BELOW DISCONNECT



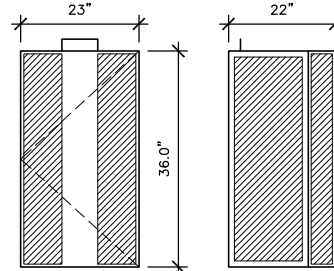
ISOMETRIC VIEW



PLAN VIEW

MANUFACTURER: CHARLES (OR APPROVED ALTERNATE OF EQUAL SIZE)
MODEL: SHRD60-362322
DIMENSIONS: 36.0"x23.0"x22.0"
WEIGHT: 275 (MAX LOAD)
VOLUME: 10.54 CU FT

- NOTE:
1. INSTALL PER MFR SPECIFICATIONS
2. USE POLE MOUNTING PLATE WITH THRU-BOLT @ UTILITY POLES
3. PAINT TO MATCH POLE
4. UTILIZE MANUFACTURER PROVIDED 6" STANDOFF



FRONT VIEW

SIDE VIEW

MC-MNT-TOP-2

General Specifications

Application	Outdoor
Includes	Brackets Hardware
Package Quantity	1

Mechanical Specifications

Color	Silver
Material Type	Galvanized steel

Dimensions

Compatible Diameter, maximum	215.9 mm 8.5 in
Compatible Diameter, minimum	160.0 mm 6.3 in
Net Weight	12.0 kg 26.5 lb



22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

SIGNAGE 5

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

SHROUD SPECIFICATIONS 4

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

ANTENNA MOUNT 3

14 PORT QUASI OMNI SMALL CELL ANTENNA WITH LOW BAND

NNVWSSP-360S-FM

360° QUASI OMNI FOR 4T4R

14 PORTS (4.3-10 CONNECTORS)

- 4 PORTS - 698-960 MHz
- 4 PORTS - 1695-2690 MHz
- 4 PORTS - 3.5 GHz (CBRS)
- 2 PORTS - 5 GHz (LAA)

COMPACT PACKAGE (~2.4 ft x 12 in)

BEAMFORMING 790 MHz VBW: ~35°

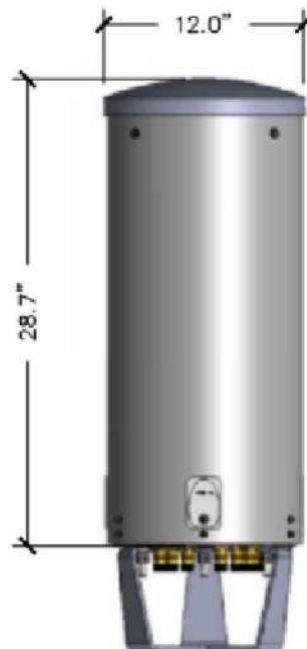
MANUAL ELECTRICAL TILT FOR MID BAND (AWS/PCS) - 5-15°

MECHANICAL SPECIFICATIONS

RF CONNECTOR QUANTITY, TOTAL	14
RF CONNECTOR QUANTITY, LOW BAND	4
RF CONNECTOR QUANTITY, HIGH BAND	10
RF CONNECTOR INTERFACE	4.3-10 FEMALE
GROUNDING TYPE	RF CONNECTOR INNER CONDUCTOR AND BODY GROUNDED TO REFLECTOR AND MOUNTING BRACKET
RADIATOR MATERIAL	ALUMINUM / LOW LOSS CIRCUIT BOARD
RADOME MATERIAL	ASA, UV STABILIZED
REFLECTOR MATERIAL	ALUMINUM
RF CONNECTOR LOCATION	BOTTOM
WIND LOADING, FRONTAL	154.0 N @ 150 km/h 34.6 lbf @ 150 km/h
WIND SPEED, MAXIMUM	241 km/h / 150 mph

DIMENSIONS

LENGTH	730.0 mm / 28.7 in
OUTER DIAMETER	305.0 mm / 12.0 in
NET WEIGHT, WITHOUT MOUNTING KIT	14.0 kg / 30.9 lb
CUBIC VOLUME	5.72 CU FT



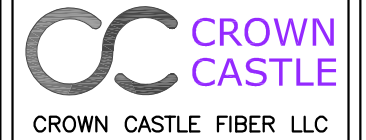
Specification	Eriasson Radio 8843
Band(s)	LTE Band 4 (AWS)
Output power	2 x 40W (up to 2 x80W)
Power consumption	1363W (100% load)
Power supply	-38 to 58.5 VDC (3 wire) power
Physical dimensions	18.4" (height) x 12.5" (width) x 4.5" (depth)
Weight	75 lbs
Connectors	TBC

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

ANTENNA SPECIFICATIONS 2

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

RADIO SPECIFICATIONS 1



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PLANS PREPARED BY:

MORRISON HERSHFIELD
600 STEWART STREET, SUITE 200
SEATTLE, WA 98101
Tel: 206.268.7370
www.morrisonhershfield.com
MH PROJECT #: 190011900

NETWORK ANCHOR:

SEAL OF APPROVAL:

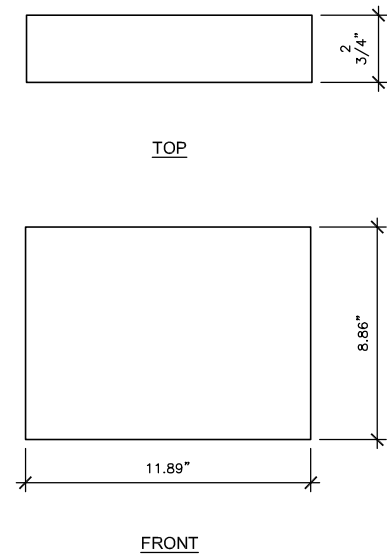
SHEET TITLE:

CONSTRUCTION
DETAILS

SHEET:

D1

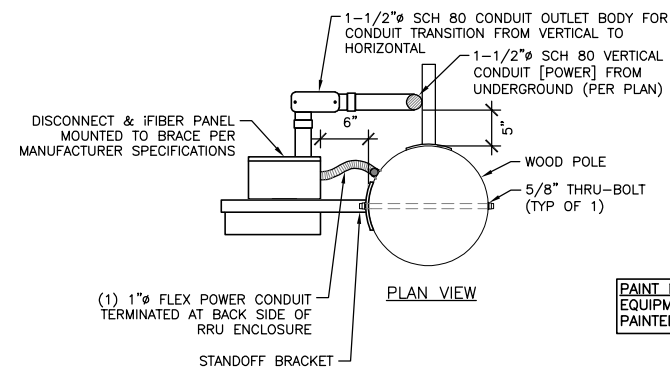
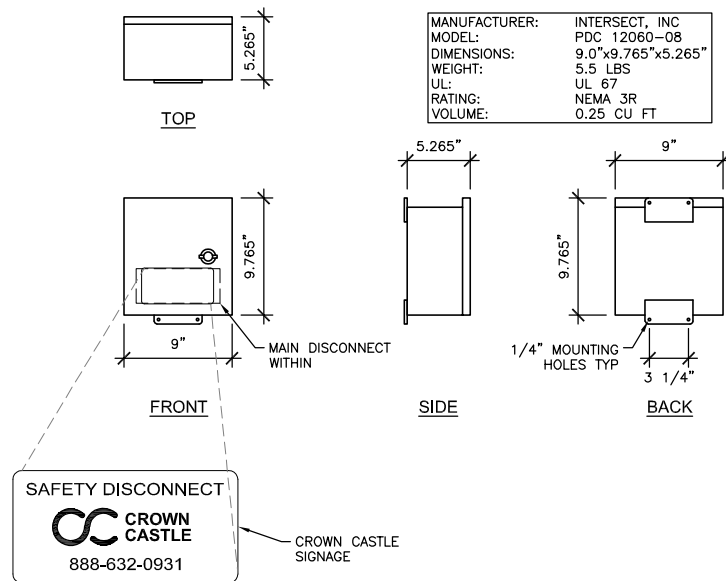
MANUFACTURER: iFIBER OPTIX
 MODEL: TERMINATION PANEL (16 PORT)
 DIMENSIONS: 8.86"x11.89"x2.8"
 WEIGHT: 2.9 LBS
 VOLUME: 0.17 CU FT



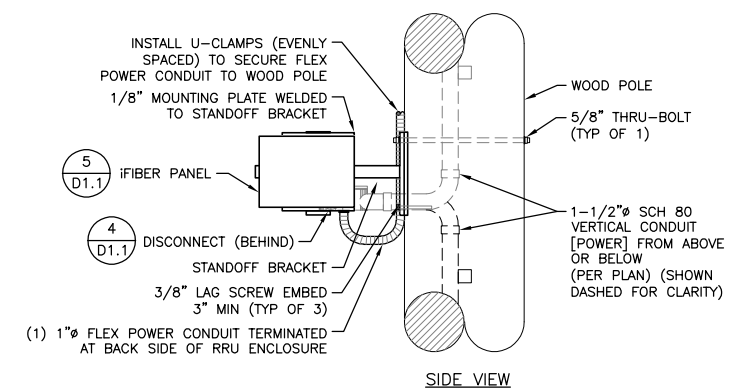
PAINT NOTE:
EQUIPMENT SHALL BE PAINTED TO MATCH POLE

PAINT NOTE:
EQUIPMENT SHALL BE PAINTED TO MATCH POLE

MANUFACTURER: INTERSECT, INC
 MODEL: PDC 12060-08
 DIMENSIONS: 9.0"x9.765"x5.265"
 WEIGHT: 5.5 LBS
 UL: UL 67
 RATING: NEMA-3R
 VOLUME: 0.25 CU FT



PAINT NOTE:
EQUIPMENT SHALL BE PAINTED TO MATCH POLE



22"x34" SCALE: NOT TO SCALE
 11"x17" SCALE: NOT TO SCALE

iFIBER SPECIFICATIONS 5

22"x34" SCALE: NOT TO SCALE
 11"x17" SCALE: NOT TO SCALE

DISCONNECT SPECIFICATIONS 4

22"x34" SCALE: NOT TO SCALE
 11"x17" SCALE: NOT TO SCALE

DISCONNECT & iFIBER ATTACHMENT 3

FCA243624T-00006

FIBERGLASS / POLYMER CONCRETE ASSEMBLY

24"X36"X24"
 (For actual dimensions see drawing)

Fiberglass/ Polymer Concrete Assembly, Tapered Sides, No Floor, WUC 3.6, ANSI/SCTE 77-T15/20K, "3/8" Hex Bolts, Standard Nameplate (Specify at time of order) Installed

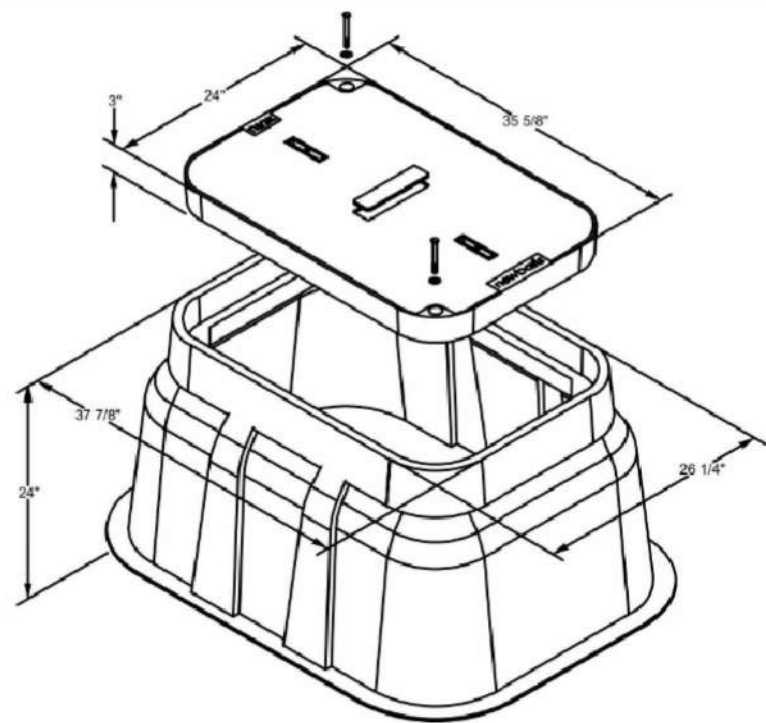
LOAD RATINGS
 Incidental traffic - Parking Lot, Sidewalk
 Conforms to:
 WUC 3.6
 ASTM C 857
 ANSI/SCTE 77

FEATURES:
 UL classified polymer concrete
 Drop-in nameplate
 Shipped assembled
 Skid resistant cover
 Stainless steel bolts
 Cast-in floating nut box
 - Integral drain holes

Additional product information continued on the reverse

newbasis
 Composites for Infrastructure

2626 Kansas Avenue
 Riverside, California 92507
 951.787.0800
 951.787.0832 (fax)
 info@newbasis.com
 newbasis.com



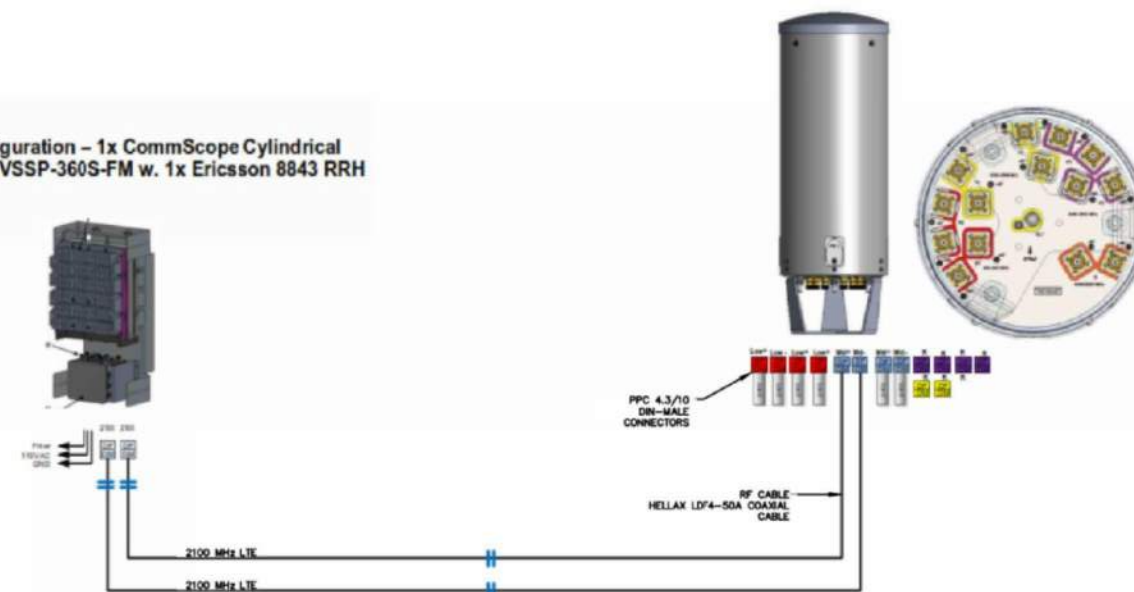
Inside Dimensions		
Length	Width	Depth
33 3/8"	21 1/2"	21"
44 1/4"	32 5/8"	

22"x34" SCALE: NOT TO SCALE
 11"x17" SCALE: NOT TO SCALE

COMMUNICATIONS HANDHOLE SPECIFICATIONS 2

Node Wiring Diagram – 2100 MHz Radios w. Omni - Cylindrical Antenna (2)

Node configuration – 1x CommScope Cylindrical Antenna NNVVSSP-360S-FM w. 1x Ericsson 8843 RRH



CROWN CASTLE Proprietary & Confidential

VZW_Mercer Island Small Cells | 24

22"x34" SCALE: NOT TO SCALE
 11"x17" SCALE: NOT TO SCALE

NODE WIRING DIAGRAM 1



CROWN CASTLE FIBER LLC

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 MH PROJECT #: 190011900

NETWORK ANCHOR:

SEAL OF APPROVAL:

SHEET TITLE:

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SHEET:

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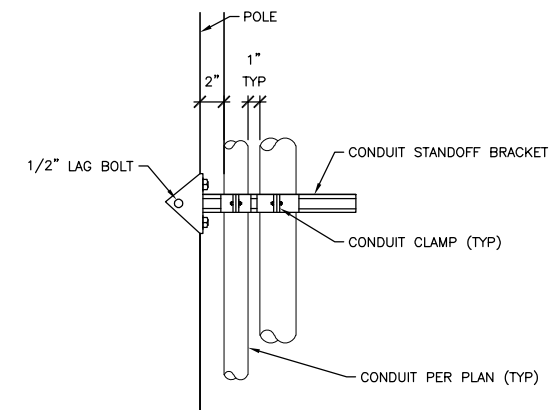
SEAL OF APPROVAL:

SHEET TITLE:

CONSTRUCTION
DETAILS

SHEET:

D1.2



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11"x17" SCALE: NOT TO SCALE

NOT USED 6

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11"x17" SCALE: NOT TO SCALE

NOT USED 5

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11"x17" SCALE: NOT TO SCALE

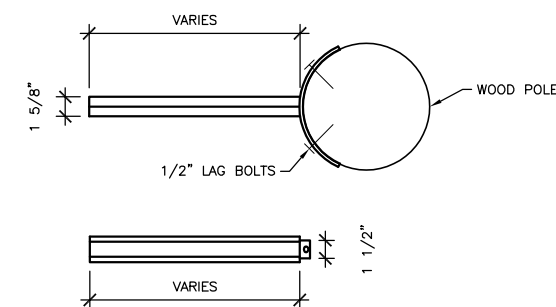
CONDUIT ATTACHMENT 4

NOTES:

- THE COVER MUST HAVE 1/16" TO 1/8" CLEARANCE ON EACH EDGE WITHIN THE FRAME AFTER GALVANIZING.
- THE GROUND ROD MUST EXTEND 4" ABOVE THE BOTTOM OF THE HANDHOLE OR MINERAL AGGREGATE.
- TYPE 1, 2, 3, 5 & 6 HANDHOLE COVERS MUST HAVE "CROWN" ON THEM, AS APPROPRIATE.
- TYPE 4 HANDHOLE MUST BE INSTALLED IN ROADWAYS, PARKING LOTS, ETC.
- FOR PAVEMENT DEPTH GREATER THAN 7" USE FRAME EXTENSIONS TO BRING THE COVER UP THE THE LEVEL OF THE FINISHED PAVEMENT WITHOUT EMBEDDING THE BOTTOM FLANGE OF THE CASTING IN THE PAVEMENT.
- A 4' LENGTH OF #6 THWN OR THHN COPPER WIRE MUST BE SECURED FROM THE HANDHOLE COVER TO THE FRAME. BOND FROM FRAME LID, AND LID TO GROUND ROD.
- ALL HANDHOLE COVERS AND FRAMES MUST HAVE A SLIP RESISTANCE SURFACE. ALL HANDHOLES MUST HAVE A LOAD RATING OF H20.
- GROUND ROD REQUIRED IN ALL STREETLIGHT HANDHOLES PER UTILITY

HANDHOLE TYPE	TOP UNIT INSIDE DIMENSION			EXTENSION UNIT (E)	COVER DIMENSIONS	
	L	W	H		L	W
1	19"	14"	12"	12"	18"	13"
2	28"	17"	12"	12"	26-1/2"	17"
3	36"	24"	12"	12"	35"	24"
4	24"	24"	VAR	NA	NA	NA
5	36"	24"	32"	NA	35"	24"
6	42"	42"	38-1/2"	NA	33-1/2"	33-3/4"
GRHH	8"Ø			NA		

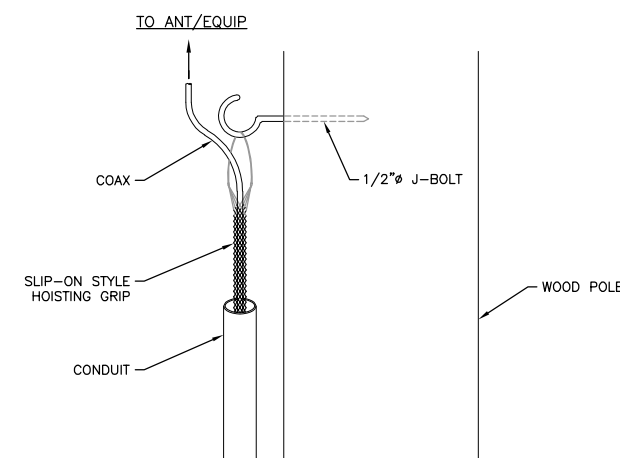
HANDHOLE SCHEDULE



INSTALL PER UTILITY REQUIREMENTS

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

CONDUIT STANDOFF 3

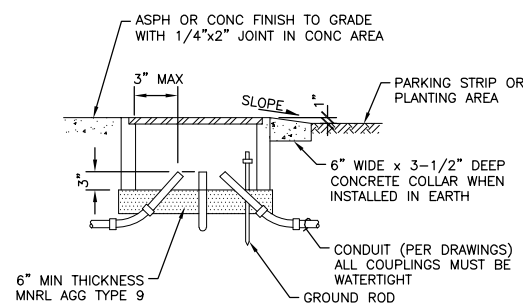


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11"x17" SCALE: NOT TO SCALE

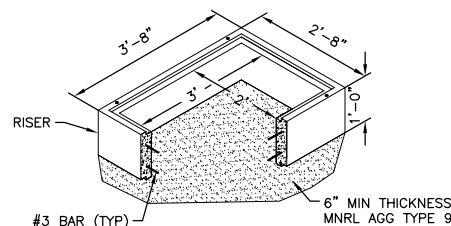
COAX HANGER DETAIL 1

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11"x17" SCALE: NOT TO SCALE

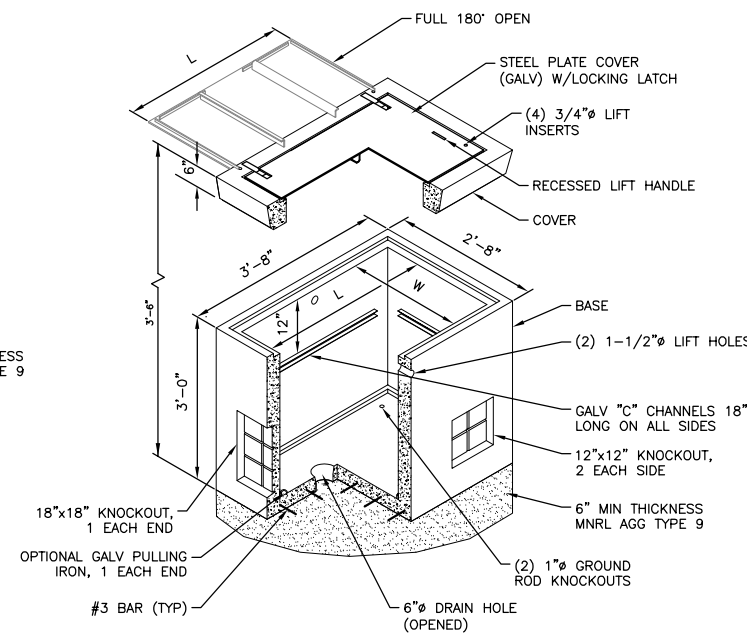
POWER HANDHOLE SPECIFICATIONS 2



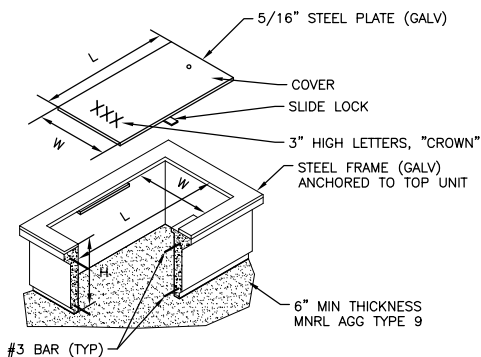
HANDHOLE INSTALLATION DETAIL



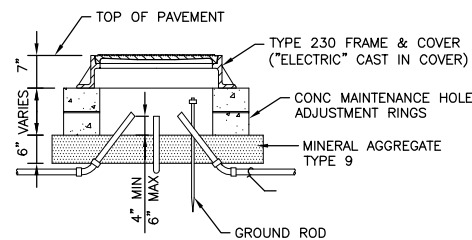
TYPE 3 HANDHOLE
(COVER SAME AS TYPE 5)



TYPE 5 HANDHOLE



TYPE 1 & 2 HANDHOLE



TYPE 4 HANDHOLE
TRAFFIC BEARING

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

PROJECT INFORMATION:

CROWN CASTLE
MIV 43

8215 SE 78TH ST
MERCER ISLAND, WA 98040

CURRENT ISSUE DATE:

05/20/20

ISSUE FOR:

CONSTRUCTION

ISSUE HISTORY:

No.	Date	Revision	Int.
B	05/20/20	95% FOR REVIEW	LW
A	04/20/20	90% FOR REVIEW	MLG

PLANS PREPARED BY:

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NETWORK ANCHOR:

SEAL OF APPROVAL:

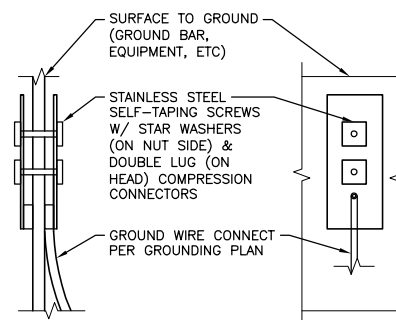
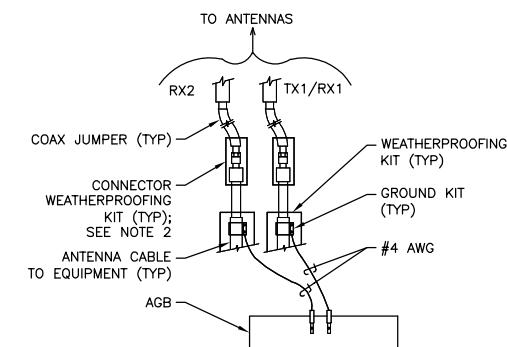
SHEET TITLE:

ELECTRICAL &
GROUNDING DETAILS

SHEET:

D2

- NOTES:
- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
 - WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.



22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

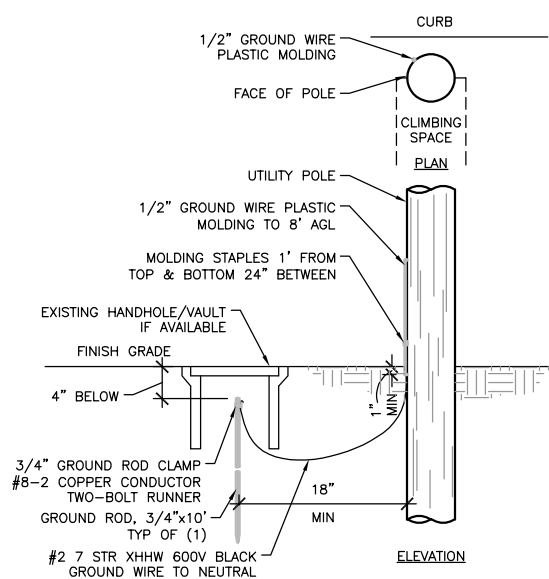
NOT USED 6

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

EQUIPMENT GROUNDING 5

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

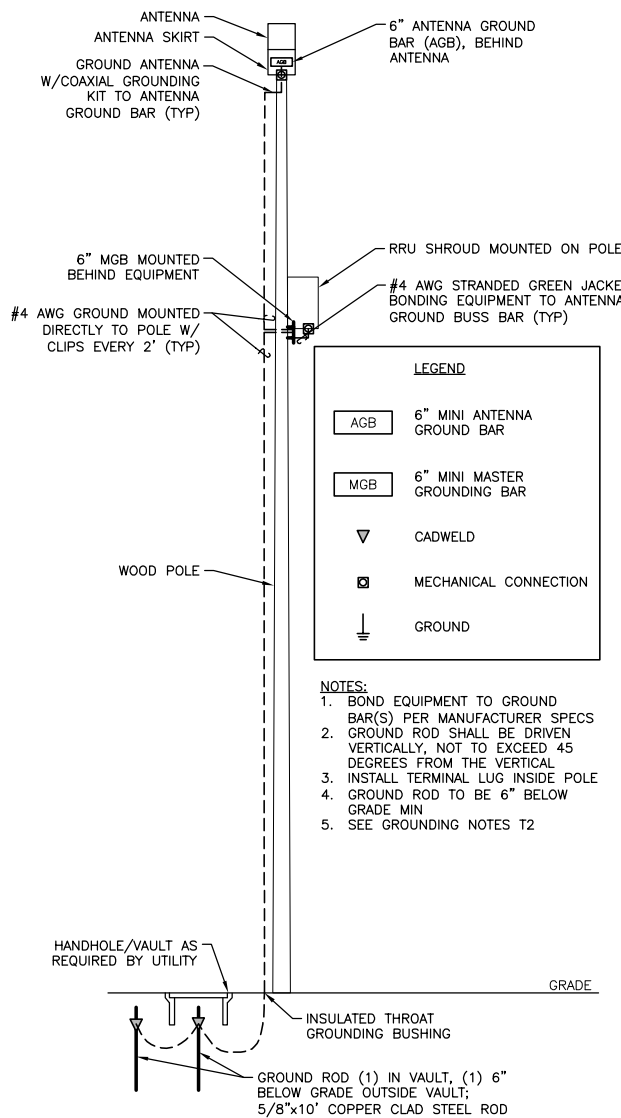
GROUND CABLE 4



NOTES:

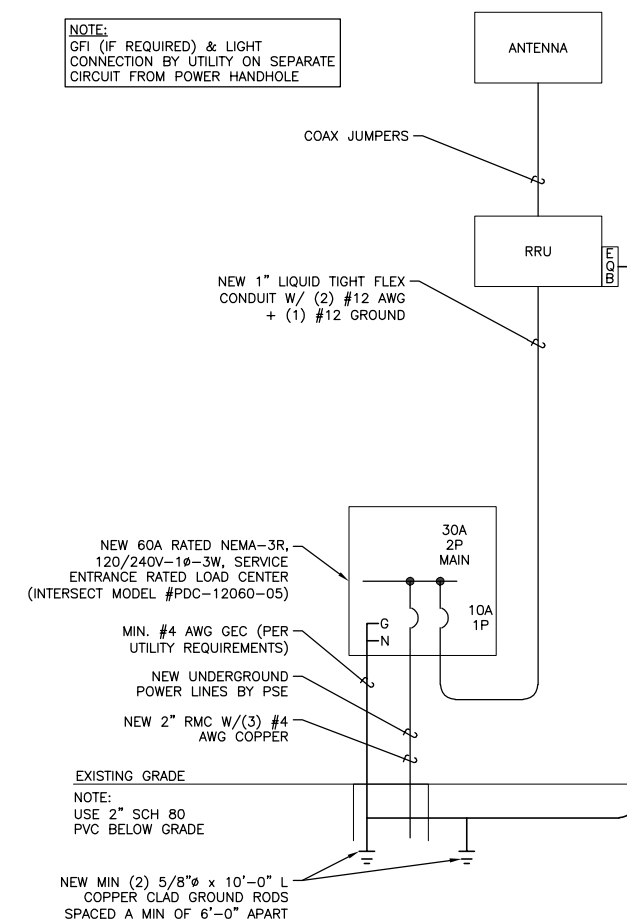
- PERFORM A UTILITY LOCATED PRIOR TO PLACEMENT OF GROUND ROD.
- GROUND WIRE MOLDING: MOLDING SHALL BE INSTALLED OVER GROUND WIRE TO PROTECT THE LINEMAN, THE WIRE & THE PUBLIC. EXTEND THE PLASTIC MOLDING AT LEAST 2" BELOW THE GROUND LINE.
- THE GROUND WIRE SHALL BE ONE CONTINUOUS LENGTH. INSERT GROUND WIRE FROM THE BOTTOM OF THE GROUND CLAMP & BEND OVER THE CLAMP BEFORE TIGHTENING. CONNECT TO SECONDARY OR SERVICE NEUTRAL ON THE POLE W/ H-TAP 250 TO #6-2/0 AL OR H-TAP 250 TO 2/0-4/0 AL. PLACE THE GROUND WIRE IN THE QUADRANT BETWEEN THE POLE FACE & THE SECONDARY OF SERVICE NEUTRAL. SEE SPLICE DETAIL FOR GROUND BAR CONNECTION.
- DRIVE THE GROUND ROD IN FIRM UNDISTURBED EARTH.
- IF EXISTING GROUND ROD & WIRE ARE IN SERVICEABLE CONDITION THEN NO NEW GROUND ROD WILL BE REQUIRED. CONTRACTOR TO TEST FOR 25 OHM OR LESS.
- IF NO GROUND ROD EXISTS, (1) SHALL BE INSTALLED, NEAR THE BASE OF THE POLE. IF GROUND TEST EXCEEDS MIN. GROUND TEST STANDARDS A SECOND ROD 6' AWAY IS REQUIRED. THIS INSTALLATION SHALL MEET OF EXCEED THE REQUIREMENTS OF UTILITY CODE.
- INSTALL BUTT PLATE GROUND AS REQUIRED BY UTILITY.
- PER 2008 6014.1000 & 2019 6275.300 PSE STD & IS LESS THAN 25 OHMS PER STANDARD GROUND TESTING.

MATERIAL LIST	
QUANTITY	DESCRIPTION
AS REQUIRED	PLASTIC MOLDING 1/2"x8"
AS REQUIRED	MOLDING STAPLES 3/4"x2-3/4"
AS REQUIRED	#2 7 STR XHHW 600V BLACK GROUND WIRE TO NEUTRAL
1	GROUND ROD CAD WELD
1	COPPER CLAD GROUND ROD 3/4"x8"



NEW 30A, 120/240V-1Ø-3W
NON-METERED SERVICE

NOTE:
GFI (IF REQUIRED) & LIGHT
CONNECTION BY UTILITY ON SEPARATE
CIRCUIT FROM POWER HANDHOLE



22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

GROUNDING DETAIL 3

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

GROUNDING SCHEMATIC 2

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

ONE-LINE DIAGRAM 1