GENERAL NOTES

- I. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
- THE ARCHITECT/ENGINEER HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
- 3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE VERIZON REPRESENTATIVE OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES, THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
- 4. THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.
- 5. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 6. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
- 7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/VENDOR'S SPECIFICATIONS UNLESS OTHERWISE NOTED OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
- 8. THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
- 9. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- IO. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY, OR LOCAL GOVERNMENT AUTHORITY.
- THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVEMENTS, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.
- 12. THE CONTRACTOR SHALL MAINTAIN THE GENERAL WORK AREA AS CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DEBRIS, TRASH, AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. DETAILS OF EQUIPMENT TO BE INCLUDED IN RFQ PACKAGE. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
- 13. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
- THE CONTRACTOR SHALL NOTIFY THE VERIZON REPRESENTATIVE WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS, THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE VERIZON REPRESENTATIVE.
- 15. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.
- I6. ALL UNISTRUT, HARDWARE, AND OUTDOOR JUNCTION BOXES SHALL BE GALVANIZED STEEL. FOR FIELD CUTS OF GALVANIZED ITEMS, FIRST COAT SHALL BE COLD GALVANIZED AND SECOND COAT SHALL BE MARINE GRADE GALVANIZED.
- 17. GENERAL CONTRACTOR TO PROVIDE PORTABLE BATHROOM FACILITIES DURING CONSTRUCTION.
- 18. RETURN ANY UNUSED MATERIALS WITH REQUIRED DOCUMENTATION TO THE VERIZON WAREHOUSE WITHIN 14 DAYS OF PROJECT COMPLETION. RETURNED MATERIAL NEEDS TO BE ACCOMPANIED WITH AN RMA FORM AND PACKAGING REQUIRED STIPULATED BY THE VZW CONSTRUCTION ENGINEER.
- 19. WITHIN 24 HOURS, CONTRACTOR SHALL OPEN A REMEDY TICKET WITH THE YZW NOCC AND PERFORM DAILY VISUAL MONITORING, OR PROYIDE A WIRELESS MONITORING DEVICE UNTIL THE SITE IS ON AIR.
- 20. FILL OUT THE PROVIDED ENVIRONMENTAL EVALUATION SUMMARY (EES) AND SUBMIT WITHIN 24 HOURS OF COMPLETION OF THE WORK OUTLINED IN ATTACHMENT 'A' OF THE FORM.
- 21. CONTRACTOR IS RESPONSIBLE FOR STORAGE OF ALL MATERIALS PROVIDED BY VERIZON, AND IS LIABLE FOR THOSE MATERIALS ONCE PICKED UP FROM THE
- 22. CONTRACTOR SHALL PERFORM A PUNCH WALK WITH VZW CONSTRUCTION & OPERATION REPRESENTATIVE PRIOR TO DECLARING CONSTRUCTION COMPLETE.
- 23. GENERAL CONTRACTOR SHALL PROVIDE A IOLBS.
 DRY-CHEMICAL FIRE EXTINGUISHER ON SITE DURING
 CONSTRUCTION. UPON COMPLETION OF ALL WORK,
 CONTRACTOR SHALL REMOVE FIRE EXTINGUISHER

CODE ANALYSIS OVERALL SITE

APPLICABLE BUILDING CODES: 2017 DC BUILDING CODE

2015 IBC WITH 2017 DCMRI2A SUPPLEMENT 2015 IEBC WITH 2017 DCMR12J SUPPLEMENT. 2014 NEC WITH 2017 DCMRI2C SUPPLEMENT 2015 IFGC WITH 2017 DCMRI2D SUPPLEMENT. 2015 IFC WITH 2017 DCMRI2H SUPPLEMENT 2012 IGCC WITH 2017 DCMRI2K SUPPLEMENT 2015 IECC WITH 2017 DCMRI2I SUPPLEMENT 2015 IPC WITH 2017 DCMRI2G SUPPLEMENT 2015 IMC WITH 2017 DCMR12E SUPPLEMENT

INDUSTRY STANDARDS:

ASCE/SEI 7-2010 2010 ANSI/AISC 360 2010 ANSI/AISC 341 2010 ANSI S1000-07/S2 2009 AISI SI000-07/SI 2004 ASTM A325 OR A490

2015 AWS DI.I 2014 ACI 318 2011 ACI 530 2011 ACI 530.1 2016 TIA 222-G 2015 TIA 607-C 2012 IEEE81 2005 IEEEII00 2002 IEEE C62.41 TELCORDIA GR-1275 TELCORDIA GR-1503 1991 ANSI TI.311 FOR TELECOM 2011 NFPA 780

IGHTNING PROTECTION

RHODE ISLAND AVE T STREET NE MASHINGTON, D.C. 20002



Mp. 10346 2216 Commerce Road, Suite 1 08/08/2024 I AM RESPONSIBLE FOR DETERMINING
THAT THE ENGINEERING DESIGNS
INCLUDED IN THIS APPLICATION ARE IN
COMPLIANCE WITH ALL LAWS AND
REGULATIONS OF THE DISTRICT OF
COLUMBIA. I HAVE PERSONALLY
PREPARED, OR DIRECTLY SUPERVISED
THE DEVELOPMENT OF THE ENGINEERING
DESIGNS INCLUDED IN THIS APPLICATION. REVISIONS: NO. DESCRIPTION DATE

Telegent Engineering In

Forest Hill, MD 21050

410-692-5816

www.tel-eng.com

SITE INFORMATION

USE GROUP: UTILITY (U) CONSTRUCTION TYPE: IIB

315 SQ. FT. PROPOSED COMPOUND AREA: 33 SQ. FT.

(VERIZON WIRELESS EQUIPMENT PAD)

PAD AREA: (VERIZON WIRELESS GENERATOR PAD)

UTILITY COMPANY:

24.5 SQ. FT.

PEPCO

GENERATOR USE

THE PROPOSED VERIZON WIRELESS GENERATOR IS AN OPTIONAL STAND-BY UNIT AND <u>DOES NOT</u> SUPPLY LIFE SAFETY EQUIPMENT. THE GENERATOR IS USED TO BACKUP THE TELEPHONE EXCHANGE EQUIPMENT IN ORDER TO KEEP THE CELL SITE IN FULL OPERATION IN THE EVENT OF NORMAL UTILITY POWER FAIL. THEREFORE, NFPA 110 DOES NOT APPLY

INDEX OF DRAWINGS

- SITE LOCATION AND VICINITY PLAN, INDEX OF
- C-I SITE PLAN

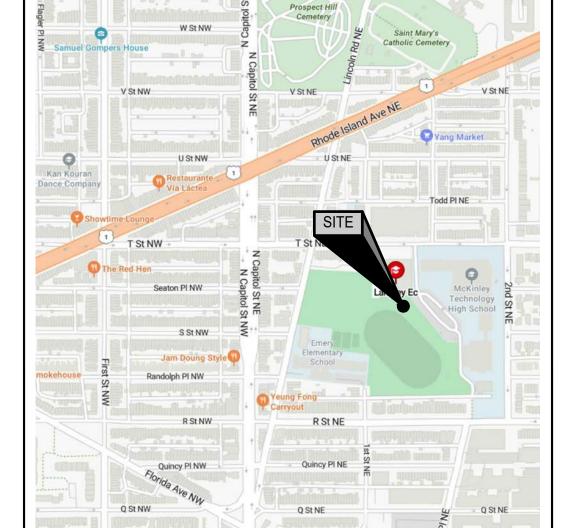
DRAWINGS

- SITE DETAILS & TOWER ELEVATION
- ANTENNA & EQUIPMENT DETAILS
- S-I STRUCTURAL DETAILS
- 5-2 STRUCTURAL DETAILS
- S-3 ANTENNA SCHEDULE AND EQUIPMENT DETAILS
- STRUCTURAL NOTES
- E-I ELECTRICAL SPECIFICATIONS, SYMBOLS LIST, AND SCHEDULES
- POWER SITE PLAN AND NOTES
- E-3 PART PLANS, POWER RISER, AND NOTES
- GROUNDING SITE PLAN AND NOTES
- ROUTING SITE PLAN, DETAIL, AND NOTES
- E-6 DETAILS
- E-7 DETAILS
- E-8 DETAILS
- RAYCAP DETAILS E-10 PLUMBING DIAGRAM AND DETAILS
- DUCTBANK DETAILS

RAND MCNALLY LICENSE # R.L.04-S-97

22

(N) VICINITY PLAN



FedEx S Center

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE CONSTRUCTION OF NEW VERIZON WIRELESS CONCRETE EQUIPMENT AND GENERATOR PADS FOR MOUNTING OF VERIZON WIRELESS EQUIPMENT AND STAND-BY GENERATOR WITHIN A PROPOSED FENCED COMPOUND. THE ASSOCIATED TWELVE (12) ANTENNAS WILL BE MOUNTED ON A PROPOSED 94'-O" REPLACEMENT LIGHT POLE AT A RAD CENTER OF 90'-0".

DIRECTIONS TO SITE

- FROM JUNCTION DRIVE:
 MERGE ONTO MD-32 EAST
 TAKE LAY HOC TO MERGE ONTO BALTIMORE-WASHINGTON
- TAKE RAMP ON RIGHT FOR US-50 WEST
 KEEP STRAIGHT TO STAY ON US-50 WEST
 CONTINUE ON MONTANA AVENUE NORTHEAST
 TURN LEFT ONTO US-I SOUTH/ RHODE ISLAND AVENUE NORTHEAST

- TURN RIGHT ONTO V STREET NORTHEAST
 TURN LEFT ONTO LINCOLN ROAD NORTHEAST
 TURN LEFT ONTO T STREET NORTHEAST
 TURN RIGHT ONTO LANGLEY COMMUNITY PARK NORTHEAST
 DESTINATION WILL BE ON YOUR RIGHT

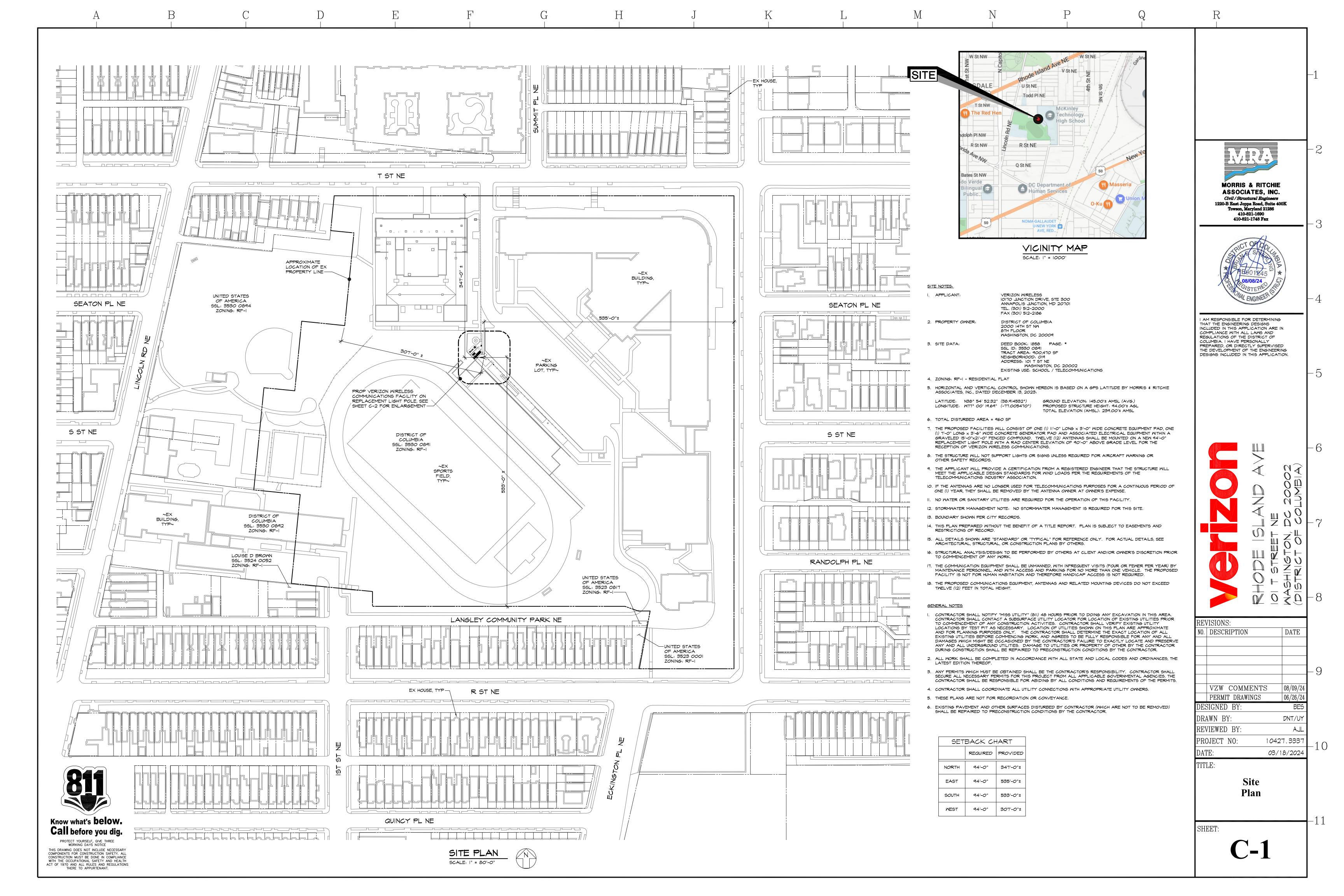
VERIZON WIRELESS REVIEW

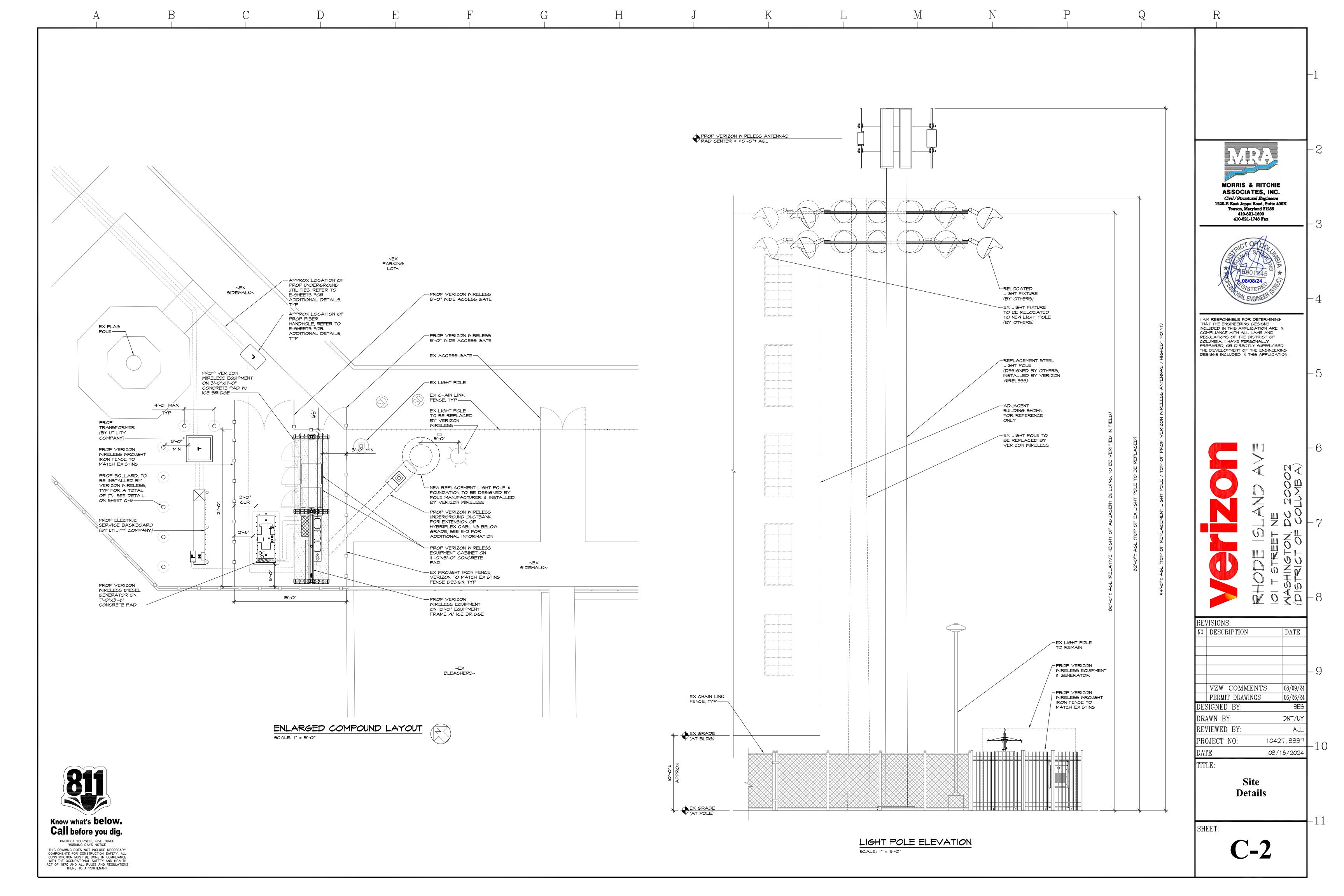
DATE BUILDING OWNER DATE ENGINEERING **OPERATIONS** DATE DATE CONSTRUCTION

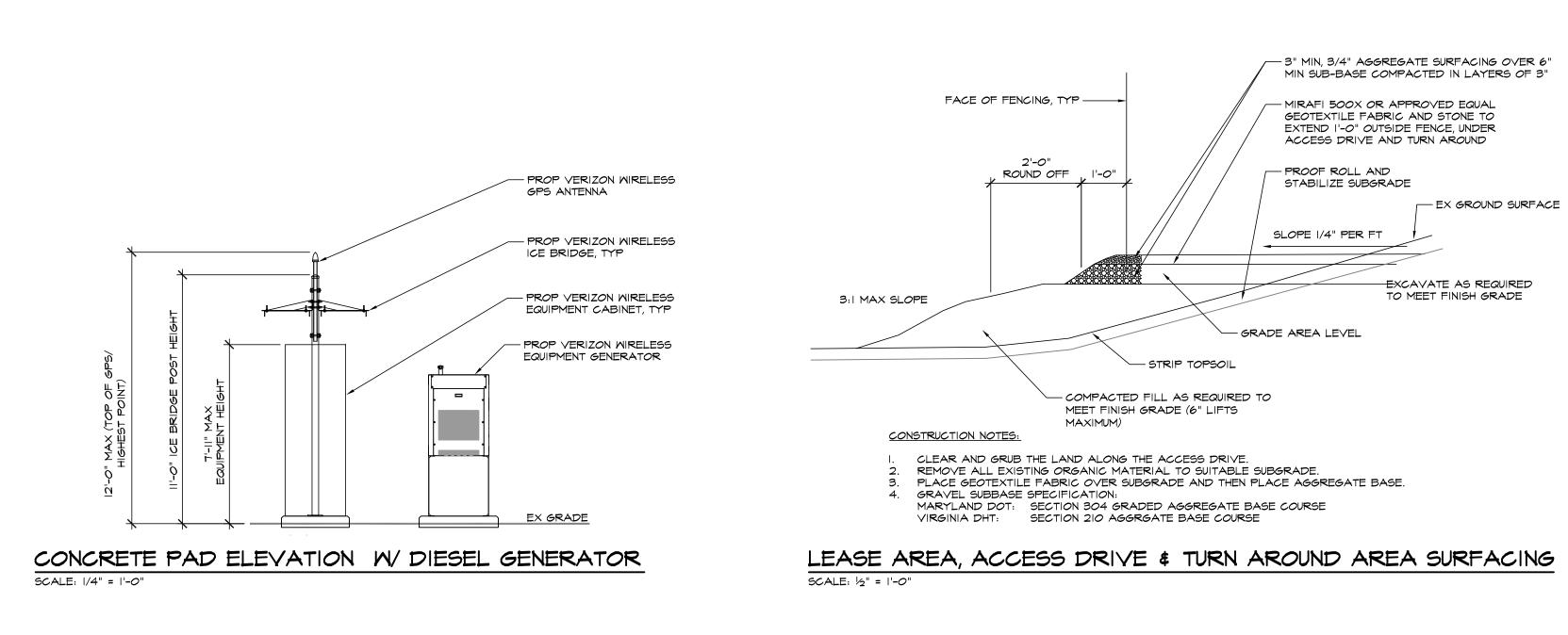
VzW CO	MMENTS	08/08/24			
PERMIT	DRAWINGS	06/26/24			
LAST REV.:					
PROJECT NO	23	8002Y			
DATE:	JUNE 26,	2024			
SCALE:	AS N	IOTED			
TITLE:			Γ.		
SITE LOCATION AND VICINITY PLAN, INDEX OF DRAWINGS, AND CODE ANALYSIS					
SHEET:			_ _:		
	CS-				

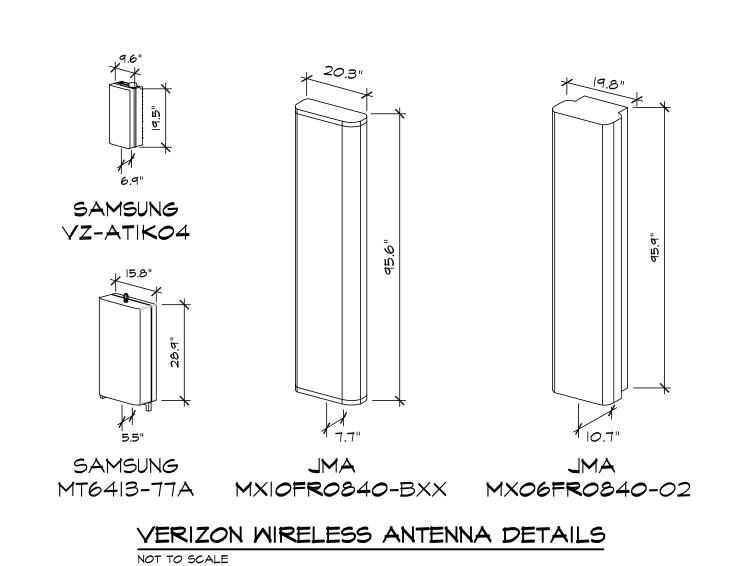
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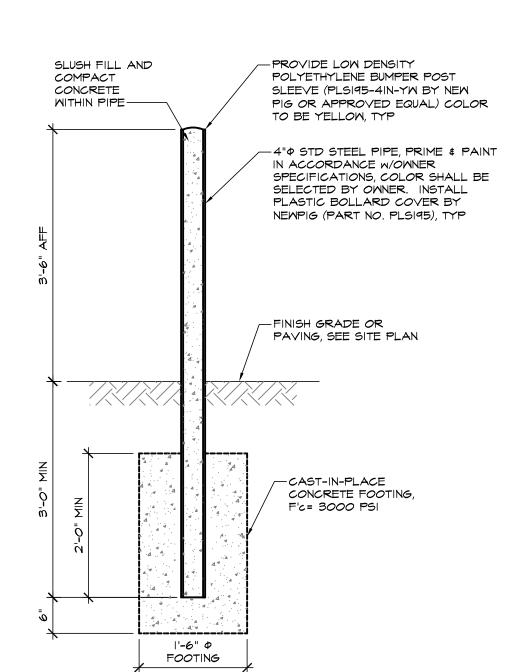
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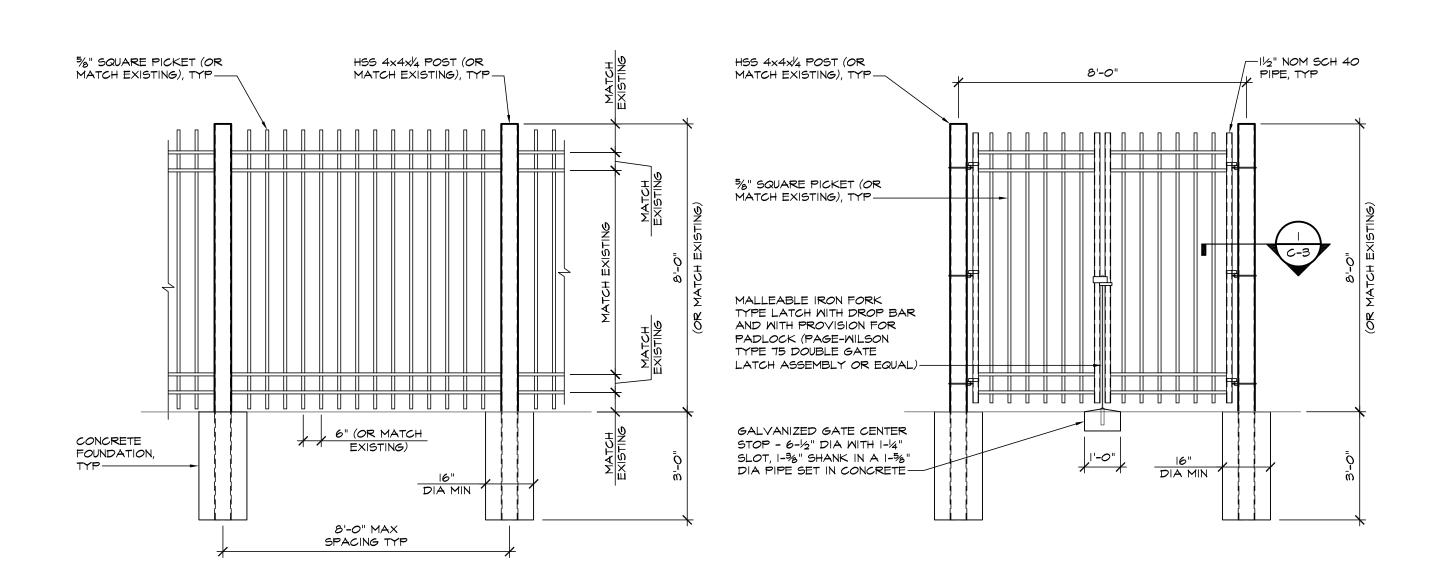




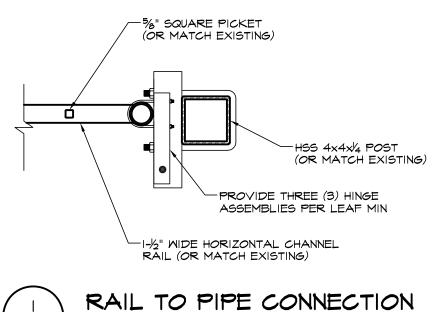








TYP WROUGHT IRON FENCE AND GATE DETAIL SCALE: 3/8" = 1'-0"



RAIL TO PIPE CONNECTION SCALE: |-1/2" = |'-0"



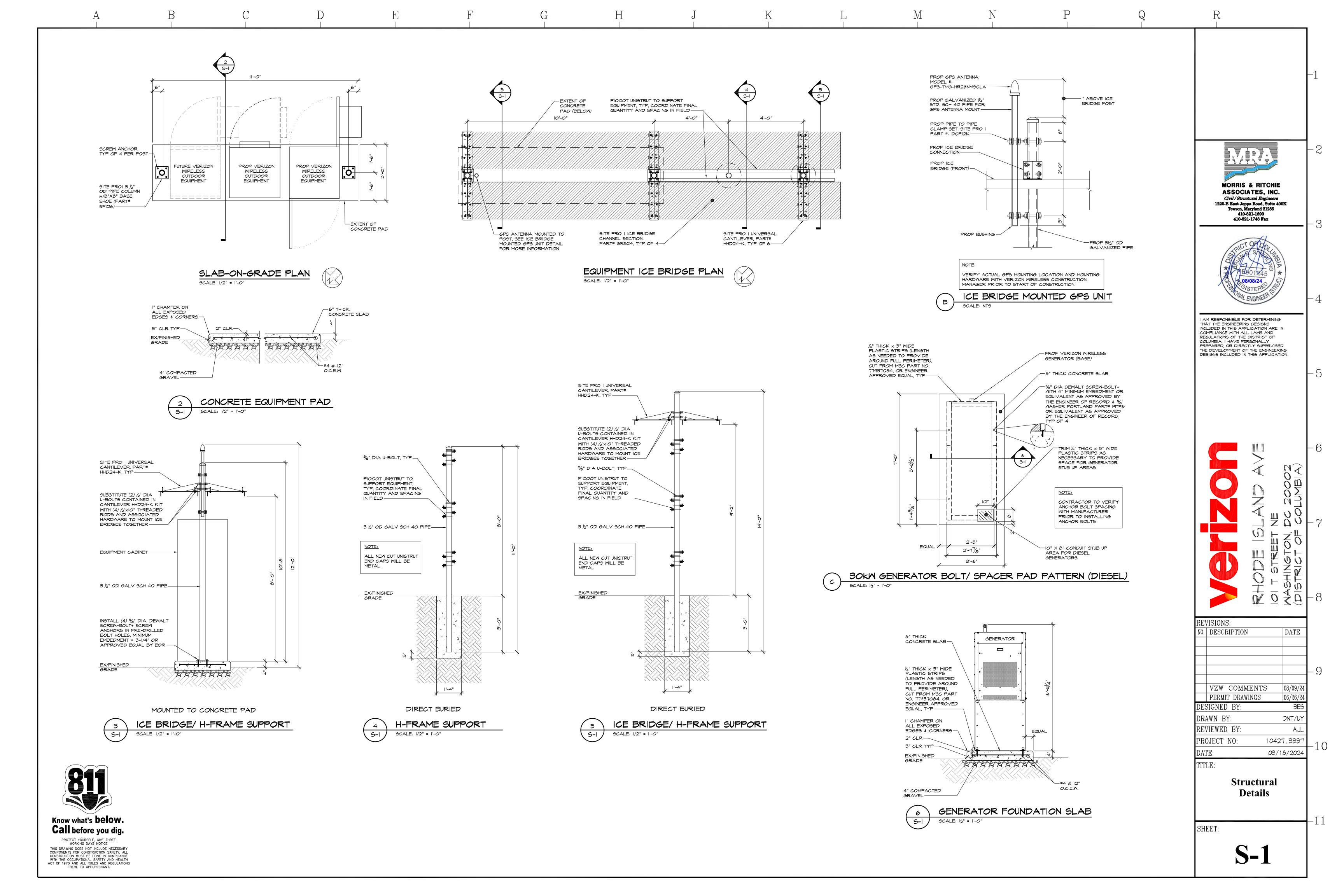
I AM RESPONSIBLE FOR DETERMINING THAT THE ENGINEERING DESIGNS INCLUDED IN THIS APPLICATION ARE IN COMPLIANCE WITH ALL LAWS AND REGULATIONS OF THE DISTRICT OF COLUMBIA. I HAVE PERSONALLY PREPARED, OR DIRECTLY SUPERVISED THE DEVELOPMENT OF THE ENGINEERING DESIGNS INCLUDED IN THIS APPLICATION. REVISIONS: NO. DESCRIPTION DATE VZW COMMENTS 08/09/24 PERMIT DRAWINGS 06/26/24 DESIGNED BY: DRAWN BY: DNT/UY REVIEWED BY: PROJECT NO: 10427.3337 03/18/2024 Antenna & Equipment **Details** SHEET:

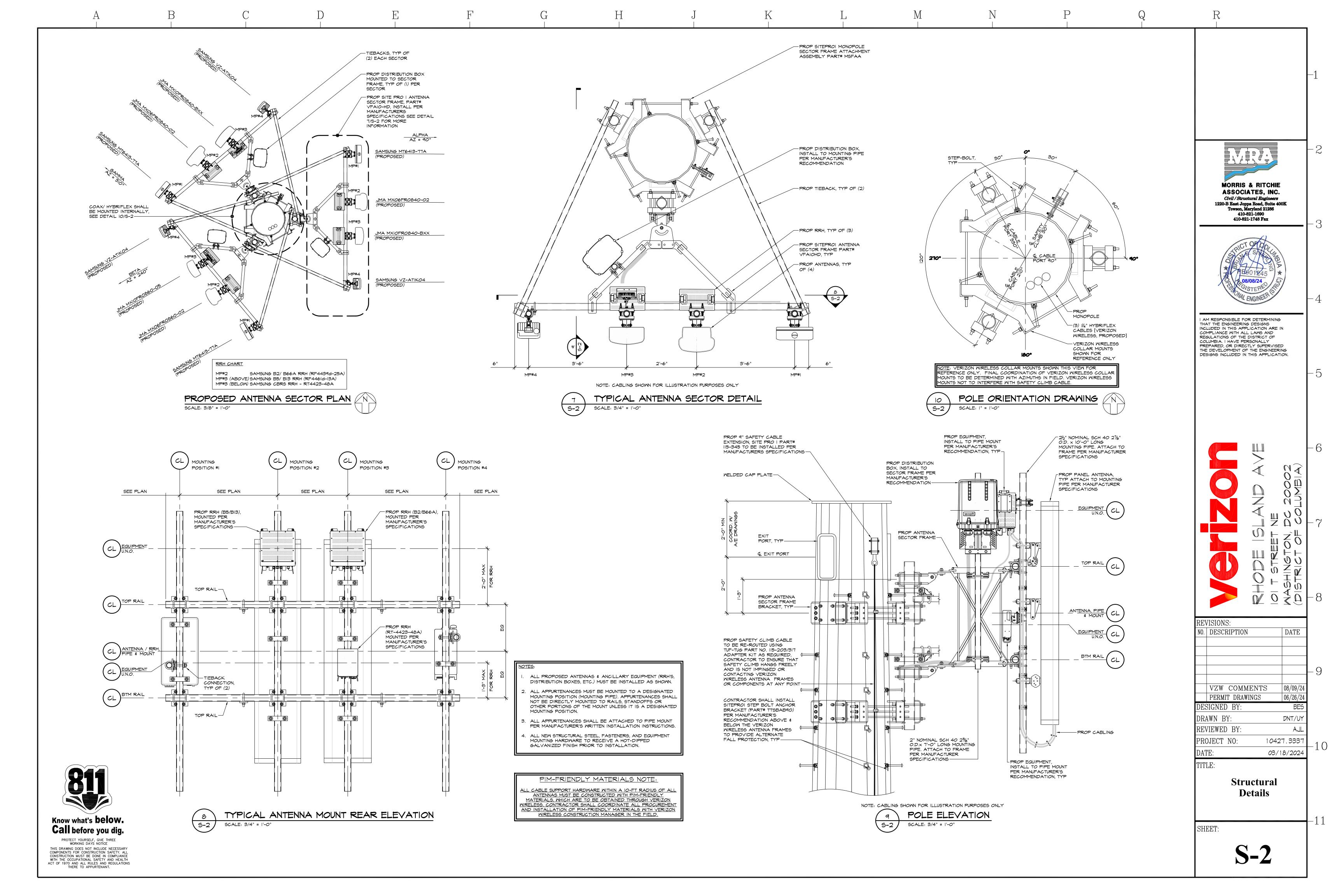
MORRIS & RITCHIE

ASSOCIATES, INC.

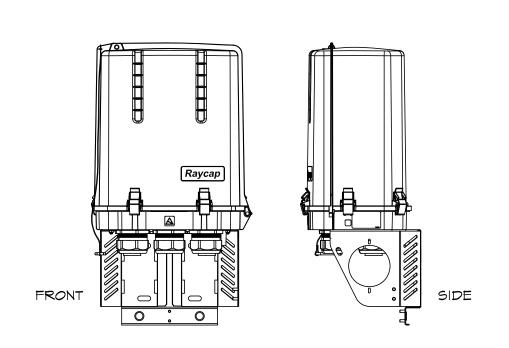
Civil / Structural Engineers 1220-B East Joppa Road, Suite 400K Towson, Maryland 21286 410-821-1690

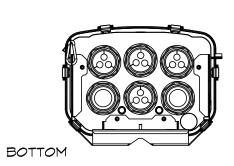
410-821-1748 Fax





					ANTE	ENNA SCHEDULE		
SECTOR	P05	MANUFACTURER	MODEL #	AZIMUTH	RAD CENTER (FT)	CABLE LENGTH	ANTENNA TECHNOLOGY	ANTENNA COLOR CODING
	1	SAMSUNG	MT6413-77A	90°	90'-0"		C-BAND	RED/RED/RED (R/R/R) - HYBRIFLEX JUMPER
	2	JMA	MX06FR0840-02	40°	90'-0"		7 <i>00/850/2100</i> (6 CABLES)	TX: PURPLE/GREEN/RED/GREEN/PURPLE (PU/G/R/G/PU) RX: PURPLE/GREEN/2RED/GREEN/PURPLE (PU/G/2R/G/PU) TX: ORANGE/RED/ORANGE (O/R/O) RX: ORANGE/2RED/ORANGE (O/2R/O) TX: ORANGE/3RED/ORANGE (O/3R/O) RX: ORANGE/4RED/ORANGE (O/4R/O)
ALPHA	Э	JMA	MXI <i>O</i> FR <i>0840-</i> BXX	90°	90'-0"	I50' (CONTRACTOR TO VERIFY IN FIELD PRIOR TO ORDERING MATERIAL)	700/850/1900/CBRS (10 CABLES)	TX: PURPLE/GREEN/3RED/GREEN/PURPLE (PU/G/3R/G/PU) RX: PURPLE/GREEN/4RED/GREEN/PURPLE (PU/G/4R/G/PU) TX: PINK/RED/PINK (P/R/P) RX: PINK/2RED/PINK (P/2R/P) TX: PINK/3RED/PINK (P/3R/P) RX: PINK/4RED/PINK (P/4R/P) TX: WHITE/RED/WHITE (W/R/W) RX: WHITE/2RED/WHITE (W/2R/W) TX: WHITE/3RED/WHITE (W/3R/W) RX: WHITE/4RED/WHITE (W/4R/W)
	4	SAMSUNG	VZ-ATIKO4	90°	90'-0"		56 28 GHz	BROWN/RED/BROWN (BR/R/BR) - HYBRIFLEX JUMPER
	1	SAMSUNG	MT6413-77A	240°	90'-0"		CBAND	RED/BLUE/RED (R/B/R) - HYBRIFLEX JUMPER
	2	AML	MX06FR0840-02	240°	90'-0"		700/850/2100 (6 CABLES)	TX: PURPLE/GREEN/BLUE/GREEN/PURPLE (PU/G/B/G/PU) RX: PURPLE/GREEN/2BLUE/GREEN/PURPLE (PU/G/2B/G/PU) TX: ORANGE/BLUE/ORANGE (O/B/O) RX: ORANGE/2BLUE/ORANGE (O/2B/O) TX: ORANGE/3BLUE/ORANGE (O/3B/O) RX: ORANGE/4BLUE/ORANGE (O/4B/O)
BETA	з	JMA	MXI <i>OFRO840-</i> BXX	240°	90'-0"	I50' (CONTRACTOR TO VERIFY IN FIELD PRIOR TO ORDERING MATERIAL)	700/850/1900 (6 CABLES)	TX: PURPLE/GREEN/3BLUE/GREEN/PURPLE (PU/G/3B/G/PU) RX: PURPLE/GREEN/4BLUE/GREEN/PURPLE (PU/G/4B/G/PU) TX: PINK/BLUE/PINK (P/B/P) RX: PINK/2BLUE/PINK (P/2B/P) TX: PINK/3BLUE/PINK (P/3B/P) RX: PINK/3BLUE/PINK (P/4B/P) TX: WHITE/BLUE/WHITE (W/B/W) RX: WHITE/3BLUE/WHITE (W/2B/W) RX: WHITE/3BLUE/WHITE (W/3B/W) RX: WHITE/4BLUE/WHITE (W/4B/W)
	4	SAMSUNG	VZ-ATIKO4	240°	90'-0"		5G 28 GHz	BROWN/BLUE/BROWN (BR/B/BR) - HYBRIFLEX JUMPER
	1	SAMSUNG	MT6413-77A	310°	90'-0"		CBAND	RED/YELLOW/RED (R/Y/R) - HYBRIFLEX JUMPER
	2	JMA	MX06FR0840-02	31 <i>0</i> °	90'-0"	I50' (CONTRACTOR TO VERIFY IN FIELD PRIOR TO ORDERING MATERIAL)	700/850/2100 (6 CABLES)	TX: PURPLE/GREEN/YELLOW/GREEN/PURPLE (PU/G/Y/G/PU) RX: PURPLE/GREEN/2YELLOW/GREEN/PURPLE (PU/G/2Y/G/PU) TX: ORANGE/YELLOW/ORANGE (O/Y/O) RX: ORANGE/2YELLOW/ORANGE (O/2Y/O) TX: ORANGE/3YELLOW/ORANGE (O/3Y/O) RX: ORANGE/4YELLOW/ORANGE (O/4Y/O)
GAMMA	Э	JMA	MXI <i>OFRO840-</i> BXX	31 <i>0</i> °	90'-0"		700/850/1900 (6 CABLES)	TX: PURPLE/GREEN/3YELLOW/GREEN/PURPLE (PU/G/3Y/G/PU) RX: PURPLE/GREEN/4YELLOW/GREEN/PURPLE (PU/G/4Y/G/PU) TX: PINK/YELLOW/PINK (P/Y/P) RX: PINK/2YELLOW/PINK (P/2Y/P) TX: PINK/3YELLOW/PINK (P/3Y/P) RX: PINK/3YELLOW/PINK (P/4Y/P) TX: WHITE/YELLOW/WHITE (W/Y/W) RX: WHITE/2YELLOW/WHITE (W/2Y/W) TX: WHITE/3YELLOW/WHITE (W/3Y/W) RX: WHITE/4YELLOW/WHITE (W/4Y/W)
	4	SAMSUNG	VZ-ATIKO4	310°	90'-0"		56 28 GHz	BROWN/YELLOW/BROWN (BR/Y/BR) - HYBRIFLEX JUMPER





MANUFACTURER: RAYCAP

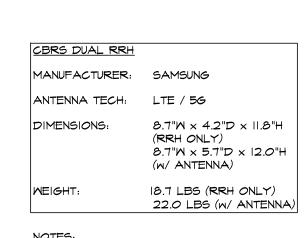
MODEL #: RVZDC-6627-PF-48 (I2 OVP)

DIMENSIONS: I2.6"D X I6.5"W X 29.5"H

WEIGHT: 32 LBS (SYSTEM)

RAYCAP RYZDC-6627-PF-48 DISTRIBUTION BOX DETAIL
NOT TO SCALE



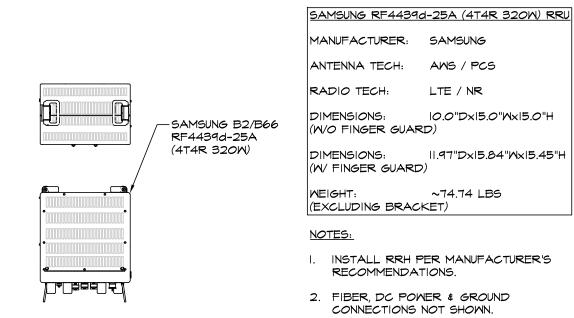


NOTES:

I. INSTALL RRH PER MANUFACTURER'S RECOMMENDATIONS.

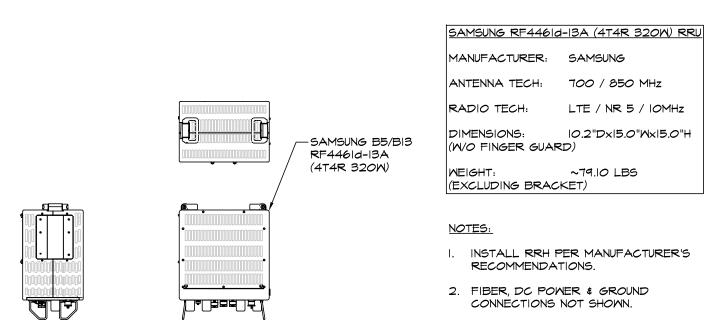
2. FIBER, DC POWER & GROUND CONNECTIONS NOT SHOWN.

SAMSUNG CBRS DUAL RRH RT4423-48A - DETAIL



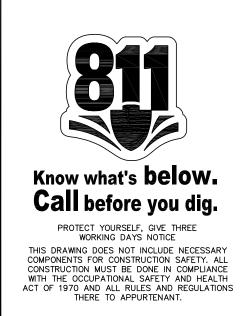
SAMSUNG B2/B66 RF4439d-25A (4T4R 320W) RRU - DETAIL

SAMSUNG CBRS MACRO RRH



SAMSUNG B5/B13 RF4461d-13A (4T4R 320W) RRU - DETAIL





STRUCTURAL NOTES 6. CAST IN PLACE CONCRETE I. BUILDING CODES A. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO THE "SPECIFICATIONS A. ALL CONSTRUCTION SHALL CONFORM WITH THE 2017 DISTRICT OF COLUMBIA FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 301)"; AND TO THE CONSTRUCTION CODE (2017 DCBC), AND THE 2017 DC EXISTING BUILDING "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318)". CODE (2017 DCEBC). IN ADDITION TO THE ABOVE, ALL CONCRETE WORK SHALL CONFORM TO THE B. REFER TO "CODE ANALYSIS" ON SHEET CS-I FOR COMPREHENSIVE LIST OF FOLLOWING: BUILDING CODES AND INDUSTRY STANDARDS UTILIZED IN THE DESIGN AND ANALYSIS OF THIS PROJECT. RECOMMENDED PRACTICE FOR HOT WEATHER CONCRETING (ACI 305). RECOMMENDED PRACTICE FOR COLD WEATHER CONCRETING (ACI 306). IN ADDITION, ALL CONSTRUCTION SHALL CONFORM WITH THE GOVERNING RECOMMENDED PRACTICE FOR CONCRETE FORMWORK (ACI 347). LOCAL BUILDING CODE STANDARD SPECIFICATION FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS (ACI 117). CHEMICAL ADMIXTURES FOR 2. DESIGN LOADS CONCRETE (ACI 212.3). STANDARD SPECIFICATION FOR CURING CONCRETE A. THE DESIGN DEAD LOADING FOR ALL FRAMING IS BASED ON THE CONSTRUCTION MATERIALS SHOWN ON THE DRAWINGS. ALL CONCRETE EXPOSED TO PUBLIC VIEW SHALL CONFORM TO THE B. RISK CATEGORY: II REQUIREMENTS FOR ARCHITECTURAL CONCRETE CONTAINED IN ACI 301. C. WIND LOAD DESIGN CRITERIA: ALL CONCRETE, UNLESS NOTED OTHERWISE, SHALL BE STONE AGGREGATE <u>TIA-222-H</u> II3 MPH <u> 180 2015</u> CONCRETE HAVING A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,500 ULTIMATE WIND SPEED (NO ICE), Vult: 115 MPH PSI. ALL CONCRETE EXPOSED TO WEATHER SHALL HAVE AN AIR EXPOSURE CATEGORY: ENTRAINMENT OF 6% +/- 1%. NO ADMIXTURES CONTAINING CALCIUM VELOCITY PRESSURE COEFFICIENT, Kz: 0.87 (MAX) CHLORIDE SHALL BE PERMITTED. MAXIMUM AGGREGATE SIZE SHALL BE I", TOPOGRAPHIC CATEGORY: AND MAXIMUM SLUMP SHALL BE 4". ALL CONCRETE, EXCEPT FOOTINGS, MORRIS & RITCHIE TOPOGRAPHIC FACTOR, Kzt: SHALL CONTAIN A WATER REDUCING ADMIXTURE. PORTLAND CEMENT SHALL CONFORM TO ASTM CI50 AND NORMAL WEIGHT AGGREGATES SHALL WIND DIRECTIONALITY FACTOR, Kd: 0.95 (MOUNT) 0.85 ASSOCIATES, INC. CONFORM TO ASTM C33. Civil / Structural Engineers SHIELDING FACTOR, Ka: 0.9 (MOUNT) 1220-B East Joppa Road, Suite 400K E. ALL CONCRETE MIX DESIGNS, INCLUDING CEMENT CONTENT, WATER CEMENT 0.85 GUST EFFECT FACTOR, G: I.O (MOUNT) Towson, Maryland 21286 RATIO, FINE AND COARSE AGGREGATE CONTENT AND ALL ADMIXTURES, VELOCITY PRESSURE (NO ICE), qz: 27.1 psf (MAX) 410-821-1690 SHALL BE REVIEWED BY ENGINEER PRIOR TO PLACING FIRST CONCRETE. 410-821-1748 Fax 3. MISCELLANEOUS ALL CONCRETE SHALL BE SAMPLED AND TESTED BY THE TESTING AGENCY. THE CONTRACTOR SHALL NOTIFY THE TESTING AGENCY 48 HOURS PRIOR TO A. ALL WORK SHALL BE PERFORMED IN CALM WEATHER, WITH WIND GUSTS THE PLACING OF ANY CONCRETE. TESTING SHALL BE IN ACCORDANCE WITH LESS THAN 20 MPH. ASTM CI72. B. SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOWN ON THE THE CONCRETE STRUCTURE SHALL NOT SUPPORT THE DESIGN LIVE LOAD CONTRACT DOCUMENTS MUST BE SUBMITTED BY THE CONTRACTOR OR FOR A MINIMUM OF 28 DAYS AND ALL SHORING AND RE-SHORING REQUIRED OWNER FOR REVIEW BY THE ENGINEER. IF THE CONTRACTOR OR OWNER TO SUPPORT THE CONCRETE STRUCTURE DURING CONSTRUCTION SHALL BE FAILS TO SUBMIT THE SHOP DRAWINGS, THE ENGINEER WILL NOT BE DESIGNED AND PROVIDED BY THE CONTRACTOR. SHOP DRAWINGS, SIGNED RESPONSIBLE FOR STRUCTURAL CERTIFICATION AND DESIGN OF THE AND SEALED BY A REGISTERED ENGINEER IN THE STATE OF MARYLAND PROJECT. THE SHOP DRAWINGS SHALL INDICATE ANY DEVIATIONS OR SHALL BE SUBMITTED FOR REVIEW. SHOP DRAWINGS SHALL INDICATE THE OMISSIONS FROM THE CONTRACT DOCUMENTS. THE GENERAL CONTRACTOR TYPE, EXTENT, SIZE, AND LOCATION OF ALL SHORING AND RE-SHORING AS SHALL REVIEW ALL SHOP DRAWINGS PRIOR TO SUBMISSION AND MAKE ALL WELL AS THE SEQUENCE OF CONSTRUCTION. CORRECTIONS DEEMED NECESSARY. GROUND BLAST FURNACE SLAG MAY BE USED TO REPLACE UP TO 50 THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS SHOWN ON PERCENT OF THE PORTLAND CEMENT IN A CONCRETE MIX, AND FLY ASH OR THE CONTRACT DRAWINGS BEFORE PROCEEDING WITH CONSTRUCTION. ALL POZZOLAN MAY BE USED TO REPLACE UP TO 25 PERCENT OF PORTLAND DISCREPANCIES AND OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF CEMENT, SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER AND THE DESIGN ENGINEER. SHALL CONFORM TO ASTM C989. THE CONTRACTOR SHALL NOT SUBMIT REPRODUCTIONS OF THE STRUCTURAL I AM RESPONSIBLE FOR DETERMINING ALL REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO CONTRACT DOCUMENTS AS SHOP DRAWINGS. THAT THE ENGINEERING DESIGNS ASTM A615 GRADE 60 (Fy = 60 KSI). INCLUDED IN THIS APPLICATION ARE IN SCALES SHOWN ON THE STRUCTURAL CONTRACT DRAWINGS ARE FOR COMPLIANCE WITH ALL LAWS AND LAP ALL REINFORCING BARS A MINIMUM OF 48 BAR DIAMETERS, UNLESS GENERAL INFORMATION ONLY. DIMENSIONAL INFORMATION SHALL NOT BE REGULATIONS OF THE DISTRICT OF OTHERWISE INDICATED. COLUMBIA. I HAVE PERSONALLY OBTAINED BY SCALING THE DRAWINGS. PREPARED, OR DIRECTLY SUPERVISED ALL REINFORCING SHALL BE DETAILED, FABRICATED AND PLACED IN 4. EXISTING STRUCTURE DESIGNS INCLUDED IN THIS APPLICATION. ACCORDANCE WITH THE CRSI "MANUAL OF STANDARD PRACTICE", ACI 315" DETAILS AND DETAILING OF CONCRETE REINFORCEMENT", ACI SP 66 ALL EXISTING PLANS, DETAILS, DIMENSIONS, AND ELEVATIONS INDICATE EXISTING CONDITIONS AS KNOWN. THE EXISTING INFORMATION SHOWN IS "DETAILING MANUAL" NOT INTENDED TO BE "AS BUILT" AND THE ACTUAL CONSTRUCTION MAY MINIMUM COVER FOR ALL REINFORCING SHALL BE AS FOLLOWS UNLESS DIFFER FROM THAT SHOWN. THE CONTRACTOR SHALL FIELD VERIFY ALL OTHERWISE INDICATED: EXISTING CONDITIONS INCLUDING DIMENSIONS AND ELEVATIONS PRIOR TO STARTING CONSTRUCTION. MINOR VARIATIONS CAN BE EXPECTED AND ANY SLAB-ON-GRADE 3 INCHES (TOP, BOTTOM, & SIDES) REQUIRED DEVIATION FROM THE CONTRACT DOCUMENTS SHALL BE APPROVED BY THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION. M. ALL CAST-IN-PLACE CONCRETE WILL EXPERIENCE DIFFERING VARIATIONS CONTRACTOR TO PROVIDE TEMPORARY SUPPORT FOR ALL EXISTING OF CRACKING. ANY ELEMENT EXPOSED TO DIRECT WEATHER AND/OR ANTENNAS, TRANSMISSION LINES, OR OTHER APPURTENANCES, AS NEEDED, TEMPERATURE VARIATIONS DURING CONSTRUCTION OR IN THE FINAL CONDITION IS TO BE TREATED AND REGULARLY MAINTAINED TO PREVENT DURING CONSTRUCTION. PROPAGATION OF CRACKS AND WATER INFILTRATION. THE CONTRACTOR SHALL DEVELOP A REGULAR MAINTENANCE PROGRAM AND SUBMIT IT TO C. CONTRACTOR SHALL PROTECT ALL EXISTING APPURTENANCES FROM DAMAGE DURING CONSTRUCTION. ALL CONCRETE CONSTRUCTION SHALL BE INSPECTED IN ACCORDANCE WITH THE CONTRACTOR IS RESPONSIBLE FOR REPAIRS TO ANY STRUCTURAL ELEMENTS WHICH ARE TO REMAIN AND THAT HAVE BEEN DAMAGED TO THE CHAPTER IT OF THE INTERNATIONAL BUILDING CODE. COMPLETE SATISFACTION OF THE OWNER. THE REPAIRS SHALL BE AT NO 7. POST-INSTALLATION INSPECTION EXPENSE TO THE OWNER. ALL REPAIR WORK SHALL BE DESIGNED BY A LICENSED STRUCTURAL ENGINEER IN THE STATE THAT THE PROJECT IS A. A POST-INSTALLATION INSPECTION REPORT IS REQUIRED AND SHALL BE LOCATED AND SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD FOR INCLUDED IN THE CONTRACTOR'S BID. A POST-INSTALLATION INSPECTION IS REVIEW AND APPROVAL PRIOR TO COMMENCING REPAIR WORK. A VISUAL INSPECTION OF THE APPURTENANCE CONFIGURATION AND A DO NOT PERMIT PORTIONS OF THE STRUCTURE TO FALL NOR DEBRIS TO REVIEW OF MATERIAL SUBMITTALS OTHER REPORTS TO ENSURE THE DROP EXCEPT BY METHODS WHICH WILL ENSURE INTEGRITY OF THE INSTALLATION WAS CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, NAMELY THE CONSTRUCTION DRAWINGS. THE POST-INSTALLATION INSPECTION REPORT SHALL BE COMPLETED BY A F. THE CONTRACTOR SHALL MONITOR THE EXISTING STRUCTURE DURING CONSTRUCTION. IMMEDIATELY NOTIFY THE ENGINEER OF AREAS EXHIBITING PROFESSIONAL ENGINEER LICENSED IN THE JURISDICTION IN WHICH THE PROJECT IS LOCATED. DISTRESS OR FAILURE. C. THE INTENT OF THE POST-INSTALLATION INSPECTION REPORT IS TO CONFIRM 5. STRUCTURAL AND MISCELLANEOUS STEEL INSTALLATION AND CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE CONSTRUCTION DESIGN ITSELF. A. ALL STEEL CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE AISC STEEL CONSTRUCTION MANUAL "SPECIFICATION FOR STRUCTURAL D. TO ENSURE THAT THE REQUIREMENTS OF THE POST-INSTALLATION INSPECTION REPORT ARE MET, IT IS VITAL THAT THE CONTRACTOR AND STEEL BUILDINGS" (ANSI/AISC 360) AND THE AISC "CODE OF STANDARD POST-INSTALLATION INSPECTOR BEGIN COMMUNICATING AND COORDINATING PRACTICE FOR STEEL BUILDINGS AND BRIDGES". AS SOON AS A P.O. IS RECEIVED. B. ALL MISCELLANEOUS STEEL (ANGLES, PLATES, ETC.) SHALL CONFORM TO ASTM A 36 HAVING A MINIMUM YIELD STRENGTH OF Fy = 36,000 PSI. C. ALL STRUCTURAL STEEL PIPE SHALL CONFORM TO ASTM A 53 GRADE "B", HAVING A MINIMUM YIELD STRENGTH OF Fy = 35,000 PSI. D. ALL STRUCTURAL BOLTS SHALL CONFORM TO ASTM F3125 GRADE A325 (Fu E. ALL U-BOLTS SHALL CONFORM TO SAE J429, GRADE 2 (Fu = 74 KSI), WITH SAE J995 NUTS AND WASHERS. F. ALL NUTS SHALL CONFORM TO ASTM A563. REVISIONS: G. ALL WASHERS SHALL CONFORM TO ASTM F436. NO. | DESCRIPTION DATE H. ALL SHOP AND FIELD WELDS REQUIRED BY THE SCOPE OF THIS PROJECT SHALL BE PERFORMED BY CERTIFIED WELDERS AND CONFORM TO THE AMERICAN WELDING SOCIETY CODE FOR BUILDINGS AWS DI.I. WELDS SHALL DEVELOP THE FULL STRENGTH OF MATERIALS BEING WELDED UNLESS OTHERWISE INDICATED. ALL CONNECTIONS TO EXISTING STEEL FRAMING SHALL BE FIELD BOLTED UNLESS OTHERWISE INDICATED. THE CONTRACTOR MAY SUBSTITUTE WELDED CONNECTIONS PROVIDED THE EXISTING STEEL IS TESTED TO DETERMINE STRENGTH AND CHEMICAL PROPERTIES. TEST METHODS AND RESULTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO ANY FIELD VZW COMMENTS |08/09/2|WELDING TO EXISTING STEEL. PERMIT DRAWINGS |06/26/2ALL EXPOSED STRUCTURAL STEEL SHALL CONFORM TO THE AISC "SPECIFICATION FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL". DESIGNED BY: K. THE CONTRACTOR SHALL NOT SPLICE OR CUT OPENINGS IN STEEL MEMBERS DRAWN BY: DNT/UY NOT SHOWN ON CONTRACT DRAWINGS WITHOUT THE PERMISSION OF THE STRUCTURAL ENGINEER. REVIEWED BY: AN INDEPENDENT INSPECTION AGENCY SHALL INSPECT ALL STRUCTURAL STEEL AND VERIFY THAT IT CONFORMS TO THE REQUIREMENTS OF THE PROJECT NO: 10427.333 CONTRACT DOCUMENTS. FIELD INSPECTION REPORTS SHALL BE SUBMITTED TO THE ENGINEER WITHIN 5 DAYS OF THE INSPECTION. THE CONTRACTOR 03/18/202 SHALL NOTIFY THE INSPECTION AGENCY OF ALL PHASES OF STEEL CONSTRUCTION AND WELDING. M. STEEL MEMBERS, FABRICATIONS AND ASSEMBLIES INDICATED TO BE GALVANIZED SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A 123 AFTER FABRICATION. ALL EXPOSED STEEL MEMBERS SHALL BE HOT DIPPED GALVANIZED. ALL BOLTS, WASHERS & NUTS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM F2329. Structural N. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD Notes GALVANIZING IN ACCORDANCE WITH ASTM A780. O. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS INDICATING THE SIZES, Know what's **below.** EXTENT, AND LOCATION OF ALL STRUCTURAL AND MISCELLANEOUS STEEL FRAMING INCLUDING ALL CONNECTIONS, FASTENERS, AND BEARINGS. Call before you dig. SHEET: WORKING DAYS NOTICE THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERE TO APPURTENANT.

ELECTRICAL SPECIFICATION

I. <u>SECTION 16010 - BASIC ELECTRICAL REQUIREMENTS</u>

- A. THE WORK INCLUDES FURNISHING AND INSTALLING THE MATERIAL, EQUIPMENT AND SYSTEMS COMPLETE AS SPECIFIED AND/OR INDICATED ON THE DRAWINGS. THE ELECTRICAL INSTALLATIONS, WHEN FINISHED, SHALL BE COMPLETE AND COORDINATED AND READY FOR SATISFACTORY SERVICE.
- B. ALL WORK UNDER THIS CONTRACT SHALL BE DONE IN STRICT ACCORDANCE WITH ALL APPLICABLE MUNICIPAL, STATE, BOCA, AND LOCAL ELECTRICAL CODES THAT GOVERN EACH PARTICULAR TRADE AND THE 2014 NATIONAL ELECTRICAL CODE.
- C. THE CONTRACTOR SHALL COORDINATE THE ELECTRICAL EQUIPMENT INSTALLATION WITH ALL TRADES.
- D. THE CONTRACTOR SHALL MAKE APPLICATION AND PAY ALL CHARGES FOR ALL NECESSARY PERMITS, LICENSES, AND INSPECTIONS AS REQUIRED UNDER THE ABOVE CODES. UPON COMPLETION OF THE WORK, THE CUSTOMARY CERTIFICATIONS OF
- E. NO MATERIALS OR EQUIPMENT SHALL BE USED IN THE WORK UNTIL APPROVED. ALL MATERIALS SHALL BE U.L. LISTED.
- F. THE CONTRACTOR SHALL EXAMINE ALL DRAWINGS AND SHALL INSPECT THE EXISTING CONDITIONS OF THE SITE. FAILURE TO COMPLY WITH THIS REQUIREMENT WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR COMPLYING WITH THE CONTRACT DOCUMENTS.
- G. THE DRAWINGS INDICATE THE GENERAL ARRANGEMENT OF THE ELECTRICAL INSTALLATIONS. DETAILS OF PROPOSED DEPARTURES DUE TO ACTUAL FIELD CONDITIONS OR OTHER CAUSES SHALL BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION. REWORK OF COMPLETED ITEMS DUE TO IMPROPER FIELD COORDINATION SHALL BE AT THE CONTRACTOR'S EXPENSE.
- H. PROVIDE SUFFICIENT ACCESS AND CLEARANCE FOR ALL ITEMS OF EQUIPMENT REQUIRING SERVICING AND MAINTENANCE.
- I. THE CONTRACTOR SHALL PERFORM ALL NECESSARY CUTTING AND PATCHING AS REQUIRED TO COMPLETE THE INSTALLATIONS. PATCHING OF WALLS, FLOORS, CEILINGS, ETC. SHALL MATCH THE ADJACENT SURFACES.
- J. THE CONTRACTOR SHALL PREPARE THREE (3) COPIES OF A RECORD AND INFORMATION BOOKLET. THE BOOKLET SHALL BE BOUND IN A THREE RING LOOSE-LEAF BINDER AND INCLUDE ALL ITEMS OF ELECTRICAL EQUIPMENT.
- K. UPON COMPLETION OF THE ELECTRICAL INSTALLATION, THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF PRINTS OF THE ELECTRICAL CONTRACT DRAWINGS WHICH SHALL BE LEGIBLY MARKED IN RED TO SHOW ALL CHANGES AND DEPARTURES OF THE INSTALLATIONS COMPARED WITH THE ORIGINAL DESIGN. THEY SHALL BE SUITABLE FOR USE IN PREPARATION OF RECORD DRAWINGS.
- L. GUARANTEE: ALL NEW ELECTRICAL INSTALLATIONS SHALL BE GUARANTEED FOR A PERIOD OF ONE (I) YEAR BEGINNING THE DAY OF THE FINAL ACCEPTANCE OF THE WORK OR BENEFICIAL OCCUPANCY OF THE OWNER, WHICHEVER OCCURS FIRST. THE ABOVE SHALL NOT IN ANY WAY VOID OR ABBROGATE EQUIPMENT MANUFACTURER'S GUARANTEE OR WARRANTY. CERTIFICATES OF GUARANTEE SHALL BE DELIVERED TO THE OWNER. UPON RECEIPT OF NOTICE FROM THE OWNER OF FAILURE OF ANY PART OF THE ELECTRICAL INSTALLATION DURING THE GUARANTEE PERIOD, NEW REPLACEMENT PARTS SHALL BE FURNISHED AND INSTALLED PROMPTLY AND AT NO COST TO VERIZON.
- M. ANY ELECTRICAL WORK WHICH WILL INTERFERE WITH THE NORMAL USE OF THE BUILDING IN ANY MANNER SHALL BE DONE AT SUCH TIME OR TIMES AS SHALL BE MUTUALLY AGREED UPON BETWEEN THE CONTRACTOR AND THE VERIZON REPRESENTATIVE.
- N. SUPPORTS, HANGERS, AND FOUNDATIONS: PROVIDE ALL SUPPORTS, HANGERS, BRACES, ATTACHMENTS, AND FOUNDATIONS REQUIRED FOR THE WORK. SUPPORT AND SET THE WORK IN A THOROUGHLY SUBSTANTIAL AND WORKMANLIKE MANNER WITHOUT PLACING STRAINS ON THE MATERIALS, EQUIPMENT, OR THE BUILDING STRUCTURE. SUPPORTS, HANGERS, BRACES AND ATTACHMENTS SHALL BE STANDARD MANUFACTURED ITEMS OR FABRICATED STRUCTURAL STEEL SHAPES.
- O. THERE SHALL BE NO INTERRUPTION OF POWER TO EXISTING ELECTRICAL SYSTEMS WITHOUT PRIOR CONSENT FROM VERIZON, SUCH INTERRUPTIONS SHALL BE KEPT TO A MINIMUM AND SHALL BE SCHEDULED WITH THE OWNER AT LEAST THREE BUSINESS DAYS IN ADVANCE OF THE OUTAGE. ANY COST FOR WORK THAT MUST BE DONE ON AN OVERTIME BASIS SHALL BE INCLUDED IN THE BID.
- P. MOUNTING AND SUPPORTING OF ALL EQUIPMENT PROVIDED BY THIS CONTRACTOR SHALL BE COORDINATED WITH VERIZON IN THE FIELD.
- Q. PROVIDE ALL CUTTING AND PATCHING NECESSARY FOR THE INSTALLATION OF THE ELECTRICAL WORK. ANY DAMAGE DONE TO THE WORK ALREADY IN PLACE BY REASON OF THIS WORK SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE BY A QUALIFIED MECHANIC EXPERIENCED IN SUCH WORK. PATCHING SHALL BE UNIFORM IN APPEARANCE AND SHALL MATCH THE SURROUNDING SURFACE. ALL PENETRATIONS THROUGH WALLS OF NEW ROOM SHALL BE SEALED WEATHERTIGHT.

2. <u>SECTION 16050 - BASIC ELECTRICAL MATERIALS & METHODS</u>

A. <u>CONDUIT & BOXE</u>S:

- I. ALL CONDUIT BELOW GRADE SHALL BE SCHEDULE 40 PVC. ALL CONDUIT ABOVE GRADE AND EXPOSED TO WEATHER SHALL BE RIGID GALVANIZED STEEL.
- 2. JUNCTION AND PULL BOXES SHALL BE FURNISHED AND INSTALLED AS SHOWN OR WHERE REQUIRED TO FACILITATE PULLING OF WIRES OR CABLES. SUCH BOXES SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS. GASKETED COVER PLATES SHALL BE FURNISHED FOR OUTDOOR INSTALLATIONS.
- 3. ALL BOXES, WHETHER OUTLET, JUNCTION, PULL, OR EQUIPMENT SHALL BE FURNISHED WITH APPROPRIATE COVERS.
- 4. NO SECTIONALIZED BOXES SHALL BE USED.
- 5. ALL EMT CONDUIT FITTINGS SHALL BE COMPRESSION TYPE.
- ALL FIELD CUTS OF GALVANIZED ITEMS SHALL BE BRUSHED WITH MARINE GRADE GALVANIZING.
- 7. ALL METALLIC OBJECTS EXPOSED TO WEATHER SHALL BE GALVANIZED STEEL.

 B. WIRES & CABLE:
- I. BUILDING WIRE, UNLESS OTHERWISE INDICATED, SHALL BE 600 VOLT, TYPE THWN INSULATION FOR INTERIOR AND EXTERIOR USE. CONDUCTORS SHALL BE SOFT DRAWN COPPER OF NOT LESS THAN 98% CONDUCTIVITY. NO ROMEX OR AC (BX) CABLE WILL BE ALLOWED ON THE PROJECT.

- 2. NO WIRE SMALLER THAN NO. TWELVE (12) AWG SHALL BE USED UNLESS OTHERWISE INDICATED. CONDUCTORS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET AND FROM TERMINAL BOARD TO POINT OF FINAL CONNECTION, AND NO SPLICE SHALL BE MADE EXCEPT WITHIN OUTLET OR JUNCTION BOXES. ALL CONDUCTORS SHALL BE OF THE SIZES AS INDICATED. ALL WIRES NO. EIGHT (8) AWG AND LARGER SHALL BE STRANDED. THE CONTRACTOR SHALL MAKE WIRING CONNECTIONS OF ALL ELECTRICAL EQUIPMENT REQUIRING ELECTRICAL SERVICE. WIRES AND CABLES SHALL BE AS MANUFACTURED BY PIRELLI, ROYAL AND TRIANGLE OR EQUIVALENT.
- 3. ALL WIRING SHALL BE COLOR CODED. MATCH EXISTING SYSTEM COLOR CODING WHERE APPLICABLE.

C. <u>DISCONNECTS:</u>

I. FURNISH AND INSTALL SAFETY SWITCHES WHERE INDICATED AND AS REQUIRED FOR MOTOR OUTLETS OR OTHER EQUIPMENT. SWITCHES SHALL BE OF SIZE, NUMBER OF POLES AND FUSED OR NON-FUSED, AS REQUIRED FOR JOB CONDITIONS AND THE NATIONAL ELECTRICAL CODE.

D. PANELBOARDS:

- I. THE CONTRACTOR SHALL BALANCE THE LOADS ON ALL PANELBOARDS AS CLOSELY AS POSSIBLE AND TO THE SATISFACTION OF THE ENGINEER.
- 2. FURNISH AND INSTALL, WHERE INDICATED ON THE DRAWINGS, AUTOMATIC CIRCUIT BREAKER PANELBOARDS COMPLETE WITH ENCLOSING CABINETS. ENCLOSURES SHALL BE NEMA 3R WHERE EXPOSED TO WEATHER AS INDICATED. PANELBOARDS AND ENCLOSING CABINETS SHALL CONFORM TO STANDARDS ESTABLISHED BY UNDERWRITERS' LABORATORIES, INC. AND REQUIREMENTS OF THE NATIONAL ELECTRIC CODE.
- 3. ALL PANELBOARD INTERIORS SHALL BE FACTORY ASSEMBLED, COMPLETE WITH CIRCUIT BREAKERS AS SCHEDULED ON THE DRAWINGS. INTERIORS SHALL BE DESIGNED AND ASSEMBLED SO THAT ANY INDIVIDUAL BREAKER CAN BE REPLACED WITHOUT DISTURBING ADJACENT UNITS, WITHOUT REMOVING MAIN BUS, AND SHALL EMPLOY SEQUENCE BUSSING. MAIN BUSSES AND BACK PANS OF DISTRIBUTION AND POWER PANELBOARDS SHALL BE OF SUCH DESIGN THAT BRANCH CIRCUITS MAY BE CHANGED WITHOUT ADDITIONAL DRILLING, MACHINING, OR TAPPING. ALL CIRCUIT BREAKERS SHALL BE QUICK-MAKE AND SHALL BE TRIP INDICATING.
- 4. PANELBOARDS SHALL EMPLOY PLUG-IN BREAKERS OF NOT LESS THAN 22,000 SYMMETRICAL A.I.C. AT I20 VOLTS OR 240 VOLTS AS REQUIRED. PANELBOARDS SHALL BE EQUIPPED WITH COPPER BUS BARS. FURNISH SQUARE D, GENERAL ELECTRIC, OR WESTINGHOUSE AS INDICATED ON THE PANELBOARD SCHEDULE AND AS FOLLOWS:

MANUFACTURER INTERSECT DESIGNATION "PPI"

<u>TYPE</u> AA300G-IPH-42-3R

(INTEGRATED LOAD CENTER PANEL WITH INTEGRAL AUTOMATIC TRANSFER SWITCH AND SURGE SUPPRESSION)

- 5. PANELBOARDS SHALL BE EQUIPPED WITH A TYPEWRITTEN DIRECTORY, INDICATING PLAINLY WHAT EACH CIRCUIT OF THE PANEL CONTROLS.
- 6. PANELBOARD SHALL BE EQUIPPED WITH A COVER THAT HAS A CLASP THAT ALLOWS FOR THE INSTALLATION OF A PAD LOCK. PANELBOARD SHALL NOT BE EQUIPPED WITH KEY LOCK COVER.
- 7. PANELBOARDS SHALL EMPLOY PLUG-IN CIRCUIT BREAKERS ONLY, BOLT-ON CIRCUIT BREAKERS SHALL NOT BE USED.

E. GROUNDING:

- I. PROVIDE GROUND FOR ALL RACEWAYS, DEVICES, AND UTILIZATION EQUIPMENT PERMANENTLY AND EFFECTIVELY IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, AS HERINAFTER SPECIFIED. ALL GROUNDING AND BONDING CONNECTIONS SHALL BE SOLDERLESS.
- 2. PROVIDE INSULATED GROUNDING CONDUCTORS FOR FEEDER AND BRANCH CIRCUIT WIRING AS CALLED FOR ON THE PLANS. PROVIDE GROUNDING BLOCKS, TERMINALS, ETC., FOR CONNECTION OF GROUND WIRE IN ALL DISTRIBUTION

3. <u>SECTION 16400 - SERVICE & DISTRIBUTION</u>

- A. ELECTRICAL SERVICE:
- I. ELECTRICAL POWER TO THE NEW EQUIPMENT PAD SHALL BE EXTENDED FROM THE PROPOSED UTILITY METER AND SERVICE ENTRANCE RATED FUSED DISCONNECT SWITCH MOUNTED ON NEW ELECTRIC SERVICE BACKBOARD. LABEL METER AND DISCONNECT SWITCH WITH PHENOLIC NAMEPLATES READING "VERIZON WIRELESS".

B. COMMUNICATIONS SERVICE:

- I. TELEPHONE SERVICE SHALL BE EXTENDED BY THE TELEPHONE COMPANY.
 PROVIDE SERVICE CONDUITS, BACKBOARDS, SLEEVES, AND OTHER EQUIPMENT
 SHOWN ON THE DRAWINGS FOR USE BY THE TELEPHONE COMPANY. ALL
 CHARGES BY THE UTILITY COMPANY SHALL BE PAID BY THE OWNER.
- 2. ALL ELBOWS IN CONDUIT RUNS SHALL BE WIDE SWEEP FIELD BENDS. INSTALL PULL BOXES AS REQUIRED AND WHERE DIRECTED BY THE TELEPHONE COMPANY AND/OR AS REQUIRED BY THE NATIONAL ELECTRICAL CODE.
- 3. PROVIDE I/4" POLYPROPYLENE PULL ROPE IN ALL CONDUITS LEFT EMPTY. ALL CONDUITS SHALL BE TERMINATED WITH NYLON INSULATING BUSHINGS.
- 4. PROVIDE ONE (I) CONDUIT AS SHOWN ON DRAWINGS BETWEEN TELEPHONE COMPANY DEMARC AND DEMARC LOCATED ON EQUIPMENT BACKBOARD.
- 5. FIBER SPLICES, IF NECESSARY, SHALL BE FUSION SPLICES. MECHANICAL CONNECTIONS ARE NOT PERMITTED.

C. STAND-BY GENERATOR:

- I. THE CONTRACTOR SHALL INSTALL THE OWNER FURNISHED KOHLER STAND-BY GENERATOR. VERIZON WIRELESS HAS PRE-PURCHASED THE FOLLOWING EQUIPMENT:
 - GENERATOR: 120/240 VOLT, I¢, 3 WIRE, 30 KW DIESEL POWERED GENERATOR WITH A SOUND ATTENUATED, WEATHERPROOF ENCLOSURE.
 GENERATOR SHALL BE FURNISHED WITH A 2PI50A MAIN LINE CIRCUIT BREAKER.
- 2. COORDINATE ALL INSTALLATION REQUIREMENTS WITH VERIZON WIRELESS AND THE EQUIPMENT MANUFACTURER.
- 3. PROVIDE ALL MATERIALS FOR STARTUP AND TESTING; TURN OVER A COMPLETE, FUNCTIONAL SYSTEM TO VERIZON WIRELESS.
- 4. GENERATOR SHALL BE SUPPLIED WITH WEATHERPROOF HOUSING, SILENCER MOUNTING KIT FOR HOUSING AND CRITICAL EXHAUST SILENCER.

ELECTRICAL SYMBOLS LIST

NOTE: ALL MOUNTING HEIGHTS ARE TO CENTER LINE OF THE OUTLET BOX UNLESS OTHERWISE INDICATED.

ENCLOSED CIRCUIT BREAKER

DISCONNECT SWITCH - FUSED/NON FUSED

I20/240V, IΦ, INTERSECT PANEL

EQUIPMENT MOUNTING BACKBOARD

(5) DRAWING NOTE

— — E — BURIED ELECTRIC FEEDERS

— — T — BURIED TELEPHONE SERVICE

— — — BURIED BRANCH CIRCUIT

METE:

GROUND CONDUCTOR BELOW GRADE

● R BURIED GROUND ROD

▼ DESIGNATES FRONT

T DRY TYPE TRANSFORMER

LIGHT FIXTURE - SURFACE MOUNT

\$T SWITCH - 120V, SINGLE POLE, 20A - TIMER

ι / 120/240 VOLTS ΙΦ					D AMP MAIN C.B.	
DESCRIPTION	B R K R	С К Т	O K T	B K K K	DESCRIPTION	
EQUIPMENT LIGHTING	20		2	20	BATTERY CHARGER	
CHARLES CABINET RECPT.	20	3	4	20	BLOCK HEATER	
CHARLES CABINET RECTIFIER I	30	5 7	6	30	CHARLES CABINET RECTIFIER 7	Ħ
CHARLES CABINET RECTIFIER 2	30	9 11	10 12	30	CHARLES CABINET RECTIFIER 8	*
CHARLES CABINET RECTIFIER 3	30	13 15	14 16	30	CHARLES CABINET RECTIFIER 9	*
CHARLES CABINET RECTIFIER 4	30	17 19	18 20	30	CHARLES CABINET RECTIFIER IO	*
CHARLES CABINET RECTIFIER 5	30	21 23	22 24	30	CHARLES CABINET RECTIFIER II	*
CHARLES CABINET RECTIFIER 6	30	25 27	26 28	30	CHARLES CABINET RECTIFIER 12	*
SPACE	1	29	30	20	GFI RECEPTACLE	
SPACE	1	31	32	1	SPACE	
SPACE	1	33	34	1	SPACE	
SPACE	1	35	36	_	SPACE	
SPACE	1	37	38	-	SPACE	
SPACE	ı	39	40	-	SPACE	
SPACE	_	41	42	_	SPACE	
LIGHTING LOAD: RECEPTACLE LOAD: MISC. LOAD: CHARLES CABINET LO TOTAL LOAD:	<u>4D:</u>		D. <i>0</i> 4		/A x 125% = 0.05 KVA 0.36 KVA 1.69 KVA <u>11.52 KVA</u> 3.62 KVA = 56.75 A @ 120/240V, 1¢, 3W	

* CONTRACTOR SHALL FIELD COORDINATE OVERCURRENT PROTECTION WITH MANUFACTURER'S RECOMMENDATIONS.

** PANEL SCHEDULE SHALL NOT BE HAND-WRITTEN.

ELECTRICAL ENGINEER PROVIDED AND INSTALLED PEEL-AND-STICK PANEL SCHEDULE AT TIME OF PUNCH WALK, LABEL SHALL BE MOUNTED ON INSIDE COVER OF VERIZON WIRELESS PANEL "PPI". PANEL SCHEDULE SHALL BE TYPED (NOT HAND-WRITTEN) AND CLEARLY IDENTIFY EACH CIRCUIT AS SHOWN ON THE PANEL SCHEDULE ABOVE, CONTRACTOR SHALL CLEARLY LABEL EACH CIRCUIT NUMBER NEXT TO EACH BREAKER POSITION.

	** LIGHTING FIXTURE SCHEDULE							
		LAMPS	MOUNTING	description/voltage	CATALOG NO.			
jė.	A	2750 LUMENS 25 WATT LED 4000K	SURFACE	CORROSION-RESISTANT HOUSING IN DARK BRONZE OR WHITE FINISH AND SEALED	LITHONIA LED FLOODLIGHT CATALOG NUMBER: HGX LED 2RH 40K I20 DDB			

* NO PHOTOCELL OR MOTION DETECTOR, FIXTURE SHALL BE CONNECTED TO SWITCHED PORTION OF LIGHTING CIRCUIT AND BE CONTROLLED BY SPRING-WOUND TIMER SWITCH.

** NO LIGHT FIXTURE SUBSTITUTIONS, FIXTURES SHALL BE PROVIDED AS SPECIFIED.

TELEGENT ENGINEERING INC. 2216 Commerce Road, Suite 1 Forest Hill, MD 21050 410-692-5816 www.tel-eng.com .10346 08/08/2024 I AM RESPONSIBLE FOR DETERMINING
THAT THE ENGINEERING DESIGNS
INCLUDED IN THIS APPLICATION ARE IN
COMPLIANCE WITH ALL LAWS AND
REGULATIONS OF THE DISTRICT OF
COLUMBIA. I HAVE PERSONALLY
PREPARED, OR DIRECTLY SUPERVISED
THE DEVELOPMENT OF THE ENGINEERING
DESIGNS INCLUDED IN THIS APPLICATION. REVISIONS: NO.|DESCRIPTION DATE VzW COMMENTS 108/08/2 | PERMIT DRAWINGS |06/26/2 LAST REV.: PROJECT NO: 23002 JUNE 26, 2024 AS NOTEI ELECTRICAL SPECIFICATIONS, SYMBOLS LIST, AND SCHEDULES TEI#23002Y

