

ISSUE: Certificate of Appropriateness for alterations (small cell antenna)

APPLICANT: Cellco Partnership dba Verizon Wireless

LOCATION: Old and Historic Alexandria District
Dominion Energy utility pole in right-of-way near 1600 West Abingdon Drive

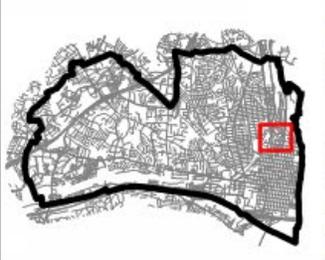
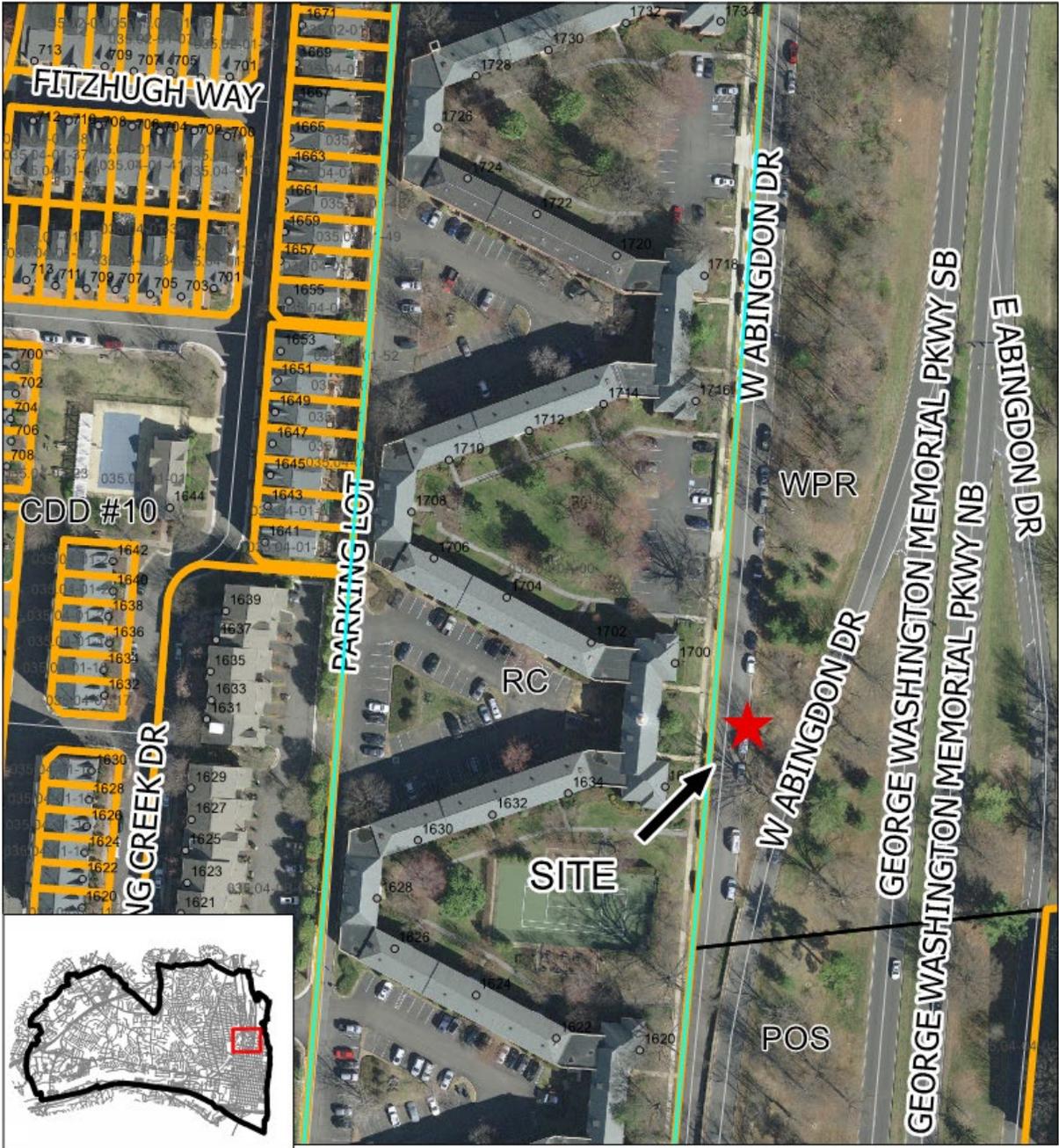
ZONE: RC/High Density Apartment Zone

STAFF RECOMMENDATION

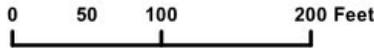
Staff recommends approval of the Certificate of Appropriateness, as submitted.

GENERAL NOTES TO THE APPLICANT

1. **ISSUANCE OF CERTIFICATES OF APPROPRIATENESS AND PERMITS TO DEMOLISH:** Applicants must obtain a copy of the Certificate of Appropriateness or Permit to Demolish PRIOR to applying for a building permit. Contact BAR Staff, Room 2100, City Hall, 703-746-3833, or preservation@alexandriava.gov for further information.
2. **APPEAL OF DECISION:** In accordance with the Zoning Ordinance, if the Board of Architectural Review denies or approves an application in whole or in part, the applicant or opponent may appeal the Board's decision to City Council on or before 14 days after the decision of the Board.
3. **COMPLIANCE WITH BAR POLICIES:** All materials must comply with the BAR's adopted policies unless otherwise specifically approved.
4. **BUILDING PERMITS:** Most projects approved by the Board of Architectural Review require the issuance of one or more construction permits by Department of Code Administration (including signs). The applicant is responsible for obtaining all necessary construction permits after receiving Board of Architectural Review approval. Contact Code Administration, Room 4200, City Hall, 703-746-4200 for further information.
5. **EXPIRATION OF APPROVALS NOTE:** In accordance with Sections 10-106(B) and 10-206(B) of the Zoning Ordinance, any official Board of Architectural Review approval will expire 12 months from the date of issuance if the work is not commenced and diligently and substantially pursued by the end of that 12-month period.
6. **HISTORIC PROPERTY TAX CREDITS:** Applicants performing extensive, certified rehabilitations of historic properties may separately be eligible for state and/or federal tax credits. Consult with the Virginia Department of Historic Resources (VDHR) prior to initiating any work to determine whether the proposed project may qualify for such credits.



BAR #2020-00430
1600 West Abingdon Drive



I. APPLICANT'S PROPOSAL

The applicant is requesting a Certificate of Appropriateness to replace the existing metal pole in the right-of-way in front of the parcel at 1600 West Abingdon Drive with a new metal pole.

- The existing 27'-5" high pole will be replaced with a new 33' high pole located within 2' of the existing pole.
- 5G small cell facility measuring approximately 3'8" high will be mounted on top of the pole.
- Verizon wireless meter box and center panel will be mounted on the pole, starting at 4'-6" from grade. Cabling will be run through the hollow interior of the pole.
- Prop Verizon wireless lockable load center panel & GFCI receptacle will be mounted at 5'-11" from grade
- Cubic volume of the antennas is 2.5 cubic feet.
- Cubic volume of the equipment is 1.78 cubic feet.
- All features of the wireless facility will be colored matched to the pole.
- All existing utilities and signage on the pole will be relocated to the new pole.

Site context

The subject pole sits at the west side of West Abingdon Drive near the intersection of West Abingdon Drive and Slater's Lane. The subject pole is visible from the George Washington Memorial Parkway.

II. HISTORY

The property that encompasses the lot at 1600 West Abingdon Drive is the Potowmack Crossing Condominium built in 1942. The 242 units, three-story, brick condominium building was built in the Garden Apartment style, which incorporates garden pockets among the buildings' blocks creating a green suburban atmosphere to the complex. Usually Garden Apartment complexes feature open lawns, landscaping and pathways, and each building has its own address. Garden Apartment Complexes were very common in the 1940s and 1950s.

III. ANALYSIS

To address the growing demand for wireless services across the United States, telecommunication providers are increasing the capacity of their networks by deploying small cell wireless facilities within the public right-of-way to reduce the data traffic load on roof-mounted equipment and larger cell towers. Small cell facilities are low-powered antennas that provide wireless service coverage to a limited geographic area (often with ranges of a few hundred feet) and are used to supplement and expand the coverage provided by the traditional, larger-scale network. The next generation of small cell wireless facilities, known as 5G, is currently being installed across the city. The new 5G networks will not just serve cellphones, but also be used as general internet service providers for laptops, desktop computers, smart home digital devices, urban infrastructure monitoring, smart traffic control, remote health monitoring, emergency monitoring and notification systems, connected and autonomous vehicles, and many more applications.

In the past several years, Federal and State legislation has been enacted to further streamline the local approval process for cellular facilities, shortening the approval time and limiting jurisdictions' authority. In 2017, and again in March 2020, City Council approved amendments to the zoning ordinance to ensure compliance with these laws.

In June 2019, the BAR approved the first small cell facilities in the historic district and shortly after adopted a BAR administrative policy for approval of certain small cell facilities (4G) in the historic districts. City Council has recently approved license agreements for some of the wireless carriers and the City has seen a sharp increase in the number of applications for small cell facilities. Because the design of the antennas has evolved since the BAR administrative policy was adopted in June 2019, BAR staff proposed amendments to the policy to allow for more administrative approvals at the Board's April 22, 2020 electronic hearing (conducted electronically due to the Covid-19 emergency) at which time the Board tabled proposed amendments and rescinded the administrative policy. As a result, at this time all small cell facilities must now be approved by the BAR at public hearing.

A Certificate of Appropriateness is required in the historic districts under Section 10-103 (A) and 203(A) of the zoning ordinance, which state that "No building or structure shall be erected, reconstructed, altered or restored within the Old and Historic Alexandria District unless and until an application for a certificate of appropriateness shall have been approved..."

Staff has no objection to the modestly taller replacement metal pole or the installation of the small cell facility equipment in this location. The metal poles are hollow allowing for the conduit to run through the interior of the pole, which results in a more streamlined appearance. The new equipment will also be color matched to the pole to help provide a degree of camouflage. The existence of utility poles and overhead wires, street signs, and light poles in the rights of way are part of the urban streetscape, and staff does not believe that the installation of the modestly taller pole with the small cell equipment and an overall height of 36'-7" will adversely impact the integrity of the historic district. Staff notes that the current pole is not listed in the licensing agreement the applicant has with the City but will be covered by the franchise agreement which will be brought to City Council for approval this fall. Further, the applicant must apply for a Right-of-Way permit through T&ES at which time staff will inspect the location and develop specific conditions. They will consider such things as ADA accessibility, sidewalk widths, tree conflicts and location of equipment boxes.

Staff recommends approval of the application, as submitted.

STAFF

Marina Novaes, Historic Preservation Planner, Planning & Zoning
Tony LaColla, AICP, Land Use Services Division Chief, Planning & Zoning

IV. CITY DEPARTMENT COMMENTS

Legend: C- code requirement R- recommendation S- suggestion F- finding

Zoning

- F1- Height of the pole shall not exceed 50.00 feet without a Special Use Permit.
Pole indicated on the plans show a height of 33.00 feet and overall height with equipment 36.58 (36' 7") feet

- F-2 Pole must be in the same general location as existing pole.
In Compliance

- F-3 The replacement pole is not located in a manner that requires the removal of an existing tree or impacts of root zone.
Trees and Shrubbery nearby:



- F-4 Replacement people shall be located that meets ADA requirements that do not impede or hinder pedestrian or vehicular travel.
In Compliance

- F-5 Wireless facility shall be painted to match similar infrastructure on the block or earth tone color.
Plans indicate a metal pole to be erected.
(ZAP2020-0321)

Code Administration

Code Administration has no comments.

Transportation and Environmental Services

- R-1 The building permit must be approved and issued prior to the issuance of any permit for demolition, if a separate demolition permit is required. (T&ES)
- R-2 Applicant shall be responsible for repairs to the adjacent city right-of-way if damaged during construction activity. (T&ES)
- R-3 No permanent structure may be constructed over any existing private and/or public utility easements. It is the responsibility of the applicant to identify any and all existing easements on the plan. (T&ES)
- F-1 After review of the information provided, an approved grading plan is not required at this time. Please note that if any changes are made to the plan it is suggested that T&ES be included in the review. (T&ES)
- F-2 If the alley located at the rear of the parcel is to be used at any point of the construction process the following will be required:
For a Public Alley - The applicant shall contact T&ES, Construction Permitting & Inspections at (703) 746-4035 to discuss any permits and accommodation requirements that will be required.
For a Private Alley - The applicant must provide proof, in the form of an affidavit at a minimum, from owner of the alley granting permission of use. (T&ES)
- C-1 The applicant shall comply with the City of Alexandria's Solid Waste Control, Title 5, Chapter 1, which sets forth the requirements for the recycling of materials (Sec. 5-1-99). (T&ES)
- C-2 The applicant shall comply with the City of Alexandria's Noise Control Code, Title 11, Chapter 5, which sets the maximum permissible noise level as measured at the property line. (T&ES)
- C-3 All secondary utilities serving this site shall be placed underground. (Sec. 5-3-3) (T&ES)
- C-4 Any work within the right-of-way requires a separate permit from T&ES. (Sec. 5-2) (T&ES)
- C-5 All improvements to the city right-of-way such as curbing, sidewalk, driveway aprons, etc. must be city standard design. (Sec. 5-2-1) (T&ES)

Alexandria Archaeology

No archaeological oversight required.

National Park Service

No comments received.

V. ATTACHMENTS

1 – Application for BAR 2020-00430: near 1600 West Abingdon Drive

2 – Supplemental Materials

ADDRESS OF PROJECT: _____

DISTRICT: Old & Historic Alexandria Parker – Gray 100 Year Old Building

TAX MAP AND PARCEL: _____ ZONING: _____

APPLICATION FOR: *(Please check all that apply)*

CERTIFICATE OF APPROPRIATENESS

PERMIT TO MOVE, REMOVE, ENCAPSULATE OR DEMOLISH
(Required if more than 25 square feet of a structure is to be demolished/impacted)

WAIVER OF VISION CLEARANCE REQUIREMENT and/or YARD REQUIREMENTS IN A VISION CLEARANCE AREA *(Section 7-802, Alexandria 1992 Zoning Ordinance)*

WAIVER OF ROOFTOP HVAC SCREENING REQUIREMENT
(Section 6-403(B)(3), Alexandria 1992 Zoning Ordinance)

Applicant: Property Owner Business *(Please provide business name & contact person)*

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ E-mail: _____

Authorized Agent *(if applicable):* Attorney Architect _____

Name: _____ Phone: _____

E-mail: _____

Legal Property Owner:

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ E-mail: _____

- Yes** **No** Is there an historic preservation easement on this property?
- Yes** **No** If yes, has the easement holder agreed to the proposed alterations?
- Yes** **No** Is there a homeowner’s association for this property?
- Yes** **No** If yes, has the homeowner’s association approved the proposed alterations?

If you answered yes to any of the above, please attach a copy of the letter approving the project.

NATURE OF PROPOSED WORK: *Please check all that apply*

- NEW CONSTRUCTION
- EXTERIOR ALTERATION: *Please check all that apply.*
 - awning fence, gate or garden wall HVAC equipment shutters
 - doors windows siding shed
 - lighting pergola/trellis painting unpainted masonry
 - other _____
- ADDITION
- DEMOLITION/ENCAPSULATION
- SIGNAGE

DESCRIPTION OF PROPOSED WORK: *Please describe the proposed work in detail (Additional pages may be attached).*

SUBMITTAL REQUIREMENTS:

Items listed below comprise the **minimum supporting materials** for BAR applications. Staff may request additional information during application review. Please refer to the relevant section of the *Design Guidelines* for further information on appropriate treatments.

Applicants must use the checklist below to ensure the application is complete. Include all information and material that are necessary to thoroughly describe the project. Incomplete applications will delay the docketing of the application for review. Pre-application meetings are required for all proposed additions. All applicants are encouraged to meet with staff prior to submission of a completed application.

Demolition/Encapsulation : *All applicants requesting 25 square feet or more of demolition/encapsulation must complete this section. Check N/A if an item in this section does not apply to your project.*

- N/A
- Survey plat showing the extent of the proposed demolition/encapsulation.
- Existing elevation drawings clearly showing all elements proposed for demolition/encapsulation.
- Clear and labeled photographs of all elevations of the building if the entire structure is proposed to be demolished.
- Description of the reason for demolition/encapsulation.
- Description of the alternatives to demolition/encapsulation and why such alternatives are not considered feasible.

Additions & New Construction: *Drawings must be to scale and should not exceed 11" x 17" unless approved by staff. Check N/A if an item in this section does not apply to your project.*

- ^{N/A} Scaled survey plat showing dimensions of lot and location of existing building and other structures on the lot, location of proposed structure or addition, dimensions of existing structure(s), proposed addition or new construction, and all exterior, ground and roof mounted equipment.
- FAR & Open Space calculation form.
- Clear and labeled photographs of the site, surrounding properties and existing structures, if applicable.
- Existing elevations must be scaled and include dimensions.
- Proposed elevations must be scaled and include dimensions. Include the relationship to adjacent structures in plan and elevations.
- Materials and colors to be used must be specified and delineated on the drawings. Actual samples may be provided or required.
- Manufacturer's specifications for materials to include, but not limited to: roofing, siding, windows, doors, lighting, fencing, HVAC equipment and walls.
- For development site plan projects, a model showing mass relationships to adjacent properties and structures.

Signs & Awnings: *One sign per building under one square foot does not require BAR approval unless illuminated. All other signs including window signs require BAR approval. Check N/A if an item in this section does not apply to your project.*

- ^{N/A} Linear feet of building: Front: _____ Secondary front (if corner lot): _____.
- Square feet of existing signs to remain: _____.
- Photograph of building showing existing conditions.
- Dimensioned drawings of proposed sign identifying materials, color, lettering style and text.
- Location of sign (show exact location on building including the height above sidewalk).
- Means of attachment (drawing or manufacturer's cut sheet of bracket if applicable).
- Description of lighting (if applicable). Include manufacturer's cut sheet for any new lighting fixtures and information detailing how it will be attached to the building's facade.

Alterations: *Check N/A if an item in this section does not apply to your project.*

- ^{N/A} Clear and labeled photographs of the site, especially the area being impacted by the alterations, all sides of the building and any pertinent details.
- Manufacturer's specifications for materials to include, but not limited to: roofing, siding, windows, doors, lighting, fencing, HVAC equipment and walls.
- Drawings accurately representing the changes to the proposed structure, including materials and overall dimensions. Drawings must be to scale.
- An official survey plat showing the proposed locations of HVAC units, fences, and sheds.
- Historic elevations or photographs should accompany any request to return a structure to an earlier appearance.

ALL APPLICATIONS: *Please read and check that you have read and understand the following items:*

- I have submitted a filing fee with this application. (Checks should be made payable to the City of Alexandria. Please contact staff for assistance in determining the appropriate fee.)
- I understand the notice requirements and will return a copy of the three respective notice forms to BAR staff at least five days prior to the hearing. If I am unsure to whom I should send notice I will contact Planning and Zoning staff for assistance in identifying adjacent parcels.
- I, the applicant, or an authorized representative will be present at the public hearing.
- I understand that any revisions to this initial application submission (including applications deferred for restudy) must be accompanied by the BAR Supplemental form and revised materials.

The undersigned hereby attests that all of the information herein provided including the site plan, building elevations, prospective drawings of the project, and written descriptive information are true, correct and accurate. The undersigned further understands that, should such information be found incorrect, any action taken by the Board based on such information may be invalidated. The undersigned also hereby grants the City of Alexandria permission to post placard notice as required by Article XI, Division A, Section 11-301(B) of the 1992 Alexandria City Zoning Ordinance, on the property which is the subject of this application. The undersigned also hereby authorizes the City staff and members of the BAR to inspect this site as necessary in the course of research and evaluating the application. The applicant, if other than the property owner, also attests that he/she has obtained permission from the property owner to make this application.

APPLICANT OR AUTHORIZED AGENT:

Signature: Joshua Schakela

Printed Name: _____

Date: _____

OWNERSHIP AND DISCLOSURE STATEMENT

Use additional sheets if necessary

1. Applicant. State the name, address and percent of ownership of any person or entity owning an interest in the applicant, unless the entity is a corporation or partnership, in which case identify each owner of more than three percent. The term ownership interest shall include any legal or equitable interest held at the time of the application in the real property which is the subject of the application.

Name	Address	Percent of Ownership
1.		
2.		
3.		

2. Property. State the name, address and percent of ownership of any person or entity owning an interest in the property located at _____(address), unless the entity is a corporation or partnership, in which case identify each owner of more than three percent. The term ownership interest shall include any legal or equitable interest held at the time of the application in the real property which is the subject of the application.

Name	Address	Percent of Ownership
1.		
2.		
3.		

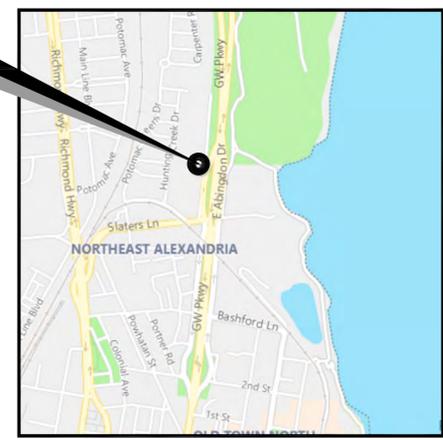
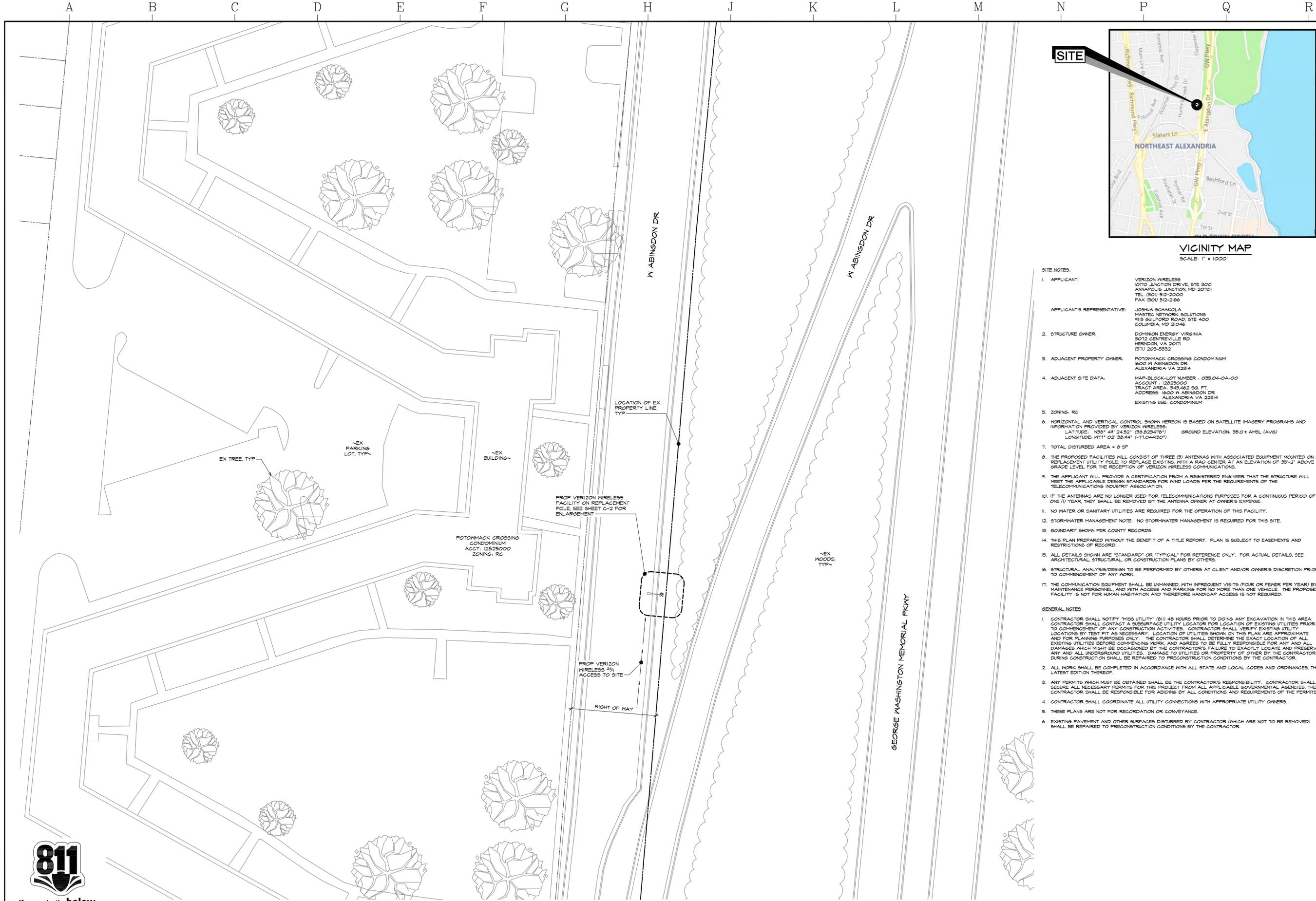
3. Business or Financial Relationships. Each person or entity listed above (1 and 2), with an ownership interest in the applicant or in the subject property is required to disclose **any** business or financial relationship, as defined by Section 11-350 of the Zoning Ordinance, existing at the time of this application, or within the 12-month period prior to the submission of this application with any member of the Alexandria City Council, Planning Commission, Board of Zoning Appeals or either Boards of Architectural Review.

Name of person or entity	Relationship as defined by Section 11-350 of the Zoning Ordinance	Member of the Approving Body (i.e. City Council, Planning Commission, etc.)
1.		
2.		
3.		

NOTE: Business or financial relationships of the type described in Sec. 11-350 that arise after the filing of this application and before each public hearing must be disclosed prior to the public hearings.

As the applicant or the applicant's authorized agent, I hereby attest to the best of my ability that the information provided above is true and correct.

_____ _____ *Joshua Schakola*
 Date Printed Name Signature



- SITE NOTES:**
1. APPLICANT: VERIZON WIRELESS
8070 JUNCTION DRIVE, STE 300
ANNAPOLIS JUNCTION, MD 20701
TEL: (301) 512-2000
FAX: (301) 512-2186
 2. APPLICANT'S REPRESENTATIVE: JOSHUA SCHAKOLA
MASTEC NETWORK SOLUTIONS
4115 GUILFORD ROAD, STE 400
COLUMBIA, MD 21046
 3. STRUCTURE OWNER: DOMINION ENERGY VIRGINIA
8071 CENTREVILLE RD
HERNDON, VA 20171
(571) 203-9992
 4. ADJACENT PROPERTY OWNER: POTOVMACK CROSSINGS CONDOMINIUM
1600 W ABINGDON DR
ALEXANDRIA VA 22314
 4. ADJACENT SITE DATA: MAP-BLOCK-LOT NUMBER: 095-04-0A-00
ACCOUNT: 12825000
TRACT AREA: 545,462.50 SQ. FT.
ADDRESS: 1600 W ABINGDON DR
ALEXANDRIA VA 22314
EXISTING USE: CONDOMINIUM
 5. ZONING: RC
 6. HORIZONTAL AND VERTICAL CONTROL SHOWN HEREON IS BASED ON SATELLITE IMAGERY PROGRAMS AND INFORMATION PROVIDED BY VERIZON WIRELESS:
LATITUDE: N38° 41' 24.52" (39.6929475°) GROUND ELEVATION: 35.0' AMSL (AVG)
LONGITUDE: W77° 02' 38.94" (-77.044150°)
 7. TOTAL DISTURBED AREA = 8 SF
 8. THE PROPOSED FACILITIES WILL CONSIST OF THREE (3) ANTENNAS WITH ASSOCIATED EQUIPMENT MOUNTED ON A REPLACEMENT UTILITY POLE, TO REPLACE EXISTING WITH A RAD CENTER AT AN ELEVATION OF 35'-2" ABOVE GRADE LEVEL FOR THE RECEPTION OF VERIZON WIRELESS COMMUNICATIONS.
 9. THE APPLICANT WILL PROVIDE A CERTIFICATION FROM A REGISTERED ENGINEER THAT THE STRUCTURE WILL MEET THE APPLICABLE DESIGN STANDARDS FOR WIND LOADS PER THE REQUIREMENTS OF THE TELECOMMUNICATIONS INDUSTRY ASSOCIATION.
 10. IF THE ANTENNAS ARE NO LONGER USED FOR TELECOMMUNICATIONS PURPOSES FOR A CONTINUOUS PERIOD OF ONE (1) YEAR, THEY SHALL BE REMOVED BY THE ANTENNA OWNER AT OWNER'S EXPENSE.
 11. NO WATER OR SANITARY UTILITIES ARE REQUIRED FOR THE OPERATION OF THIS FACILITY.
 12. STORMWATER MANAGEMENT NOTE: NO STORMWATER MANAGEMENT IS REQUIRED FOR THIS SITE.
 13. BOUNDARY SHOWN PER COUNTY RECORDS.
 14. THIS PLAN PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. PLAN IS SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.
 15. ALL DETAILS SHOWN ARE 'STANDARD' OR 'TYPICAL' FOR REFERENCE ONLY. FOR ACTUAL DETAILS, SEE ARCHITECTURAL, STRUCTURAL, OR CONSTRUCTION PLANS BY OTHERS.
 16. STRUCTURAL ANALYSIS/DESIGN TO BE PERFORMED BY OTHERS AT CLIENT AND/OR OWNER'S DISCRETION PRIOR TO COMMENCEMENT OF ANY WORK.
 17. THE COMMUNICATION EQUIPMENT SHALL BE UNMANNED, WITH INFREQUENT VISITS (FOUR OR FEWER PER YEAR) BY MAINTENANCE PERSONNEL, AND WITH ACCESS AND PARKING FOR NO MORE THAN ONE VEHICLE. THE PROPOSED FACILITY IS NOT FOR HUMAN HABITATION AND THEREFORE HANDICAP ACCESS IS NOT REQUIRED.

- GENERAL NOTES:**
1. CONTRACTOR SHALL NOTIFY 'MISS UTILITY' (811) 48 HOURS PRIOR TO DOING ANY EXCAVATION IN THIS AREA. CONTRACTOR SHALL CONTACT A SUBSURFACE UTILITY LOCATOR FOR LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL VERIFY EXISTING UTILITY LOCATIONS BY TEST PIT AS NECESSARY. LOCATION OF UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE AND FOR PLANNING PURPOSES ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. DAMAGE TO UTILITIES OR PROPERTY OF OTHER BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED TO PRECONSTRUCTION CONDITIONS BY THE CONTRACTOR.
 2. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND ORDINANCES, THE LATEST EDITION THEREOF.
 3. ANY PERMITS WHICH MUST BE OBTAINED SHALL BE THE CONTRACTOR'S RESPONSIBILITY. CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT FROM ALL APPLICABLE GOVERNMENTAL AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
 4. CONTRACTOR SHALL COORDINATE ALL UTILITY CONNECTIONS WITH APPROPRIATE UTILITY OWNERS.
 5. THESE PLANS ARE NOT FOR RECORDATION OR CONVEYANCE.
 6. EXISTING PAVEMENT AND OTHER SURFACES DISTURBED BY CONTRACTOR (WHICH ARE NOT TO BE REMOVED) SHALL BE REPAIRED TO PRECONSTRUCTION CONDITIONS BY THE CONTRACTOR.

MRA
MORRIS & RITCHIE ASSOCIATES, INC.
 Civil / Structural Engineers
 1320-C East Joppa Road, Suite 505
 Towson, Maryland 21286
 410-821-1800
 410-821-1748 Fax

VICINITY MAP
 SCALE: 1" = 1000'

verizon
 NE ALEXANDRIA 8 - A - SMALL CELL
 ROW ADJACENT TO 1600 W ABINGDON DR
 ALEXANDRIA, VA 22314 (CITY OF ALEXANDRIA)

REVISIONS:

NO.	DESCRIPTION	DATE
1	PERMIT DWGS	7/8/20

DESIGNED BY: RJD
 DRAWN BY: FKK
 PROJECT NO: 10427.3085
 DATE: 06/26/2020
 SCALE: AS NOTED

TITLE:
Site Plan

SHEET:
C-1

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

PROTECT YOURSELF. GIVE THREE 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.

SITE PLAN
 SCALE: 1" = 20'-0"



verizon
 NE ALEXANDRIA 8 - A - SMALL CELL
 ROW ADJACENT TO 1600 W ABINGDON DR
 ALEXANDRIA, VA 22314 (CITY OF ALEXANDRIA)

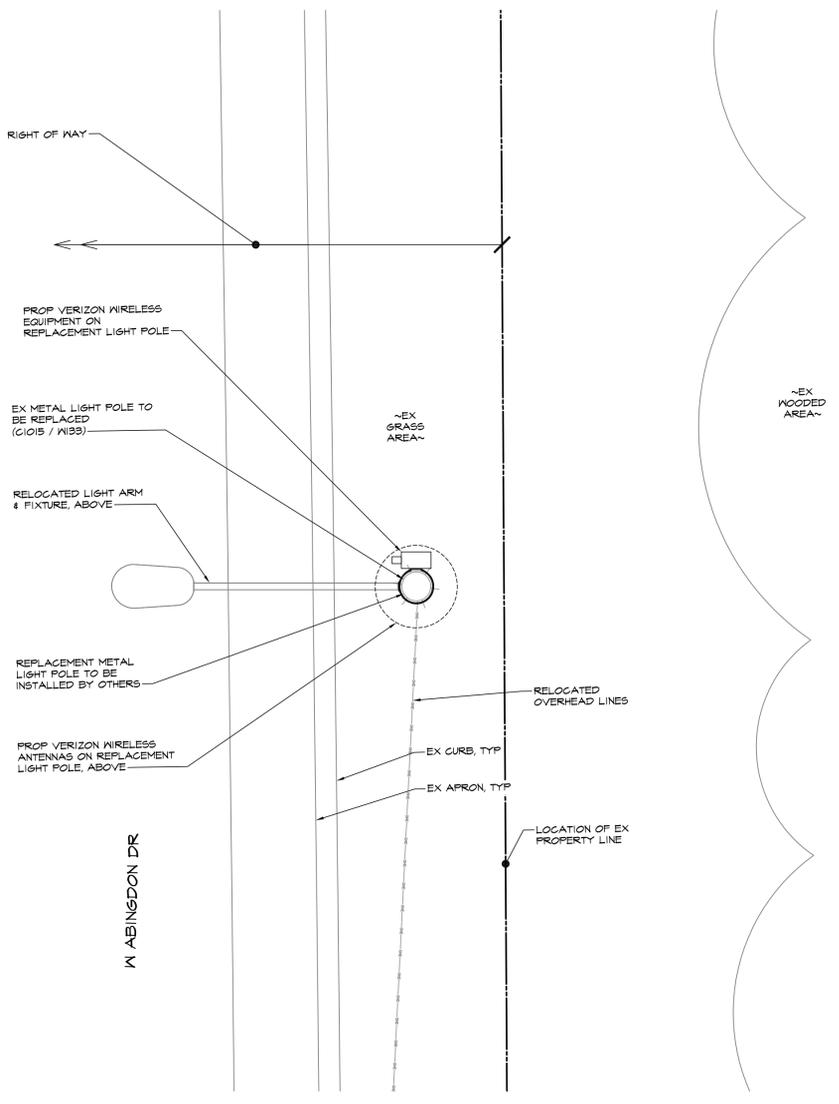
REVISIONS:

NO.	DESCRIPTION	DATE
1	PERMIT DWGS	7/8/20

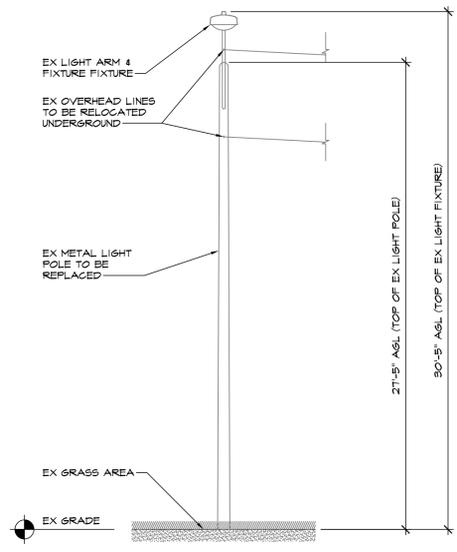
DESIGNED BY: RJD
 DRAWN BY: FKK
 PROJECT NO: 10427.3085
 DATE: 06/26/2020
 SCALE: AS NOTED

TITLE:
Site Details

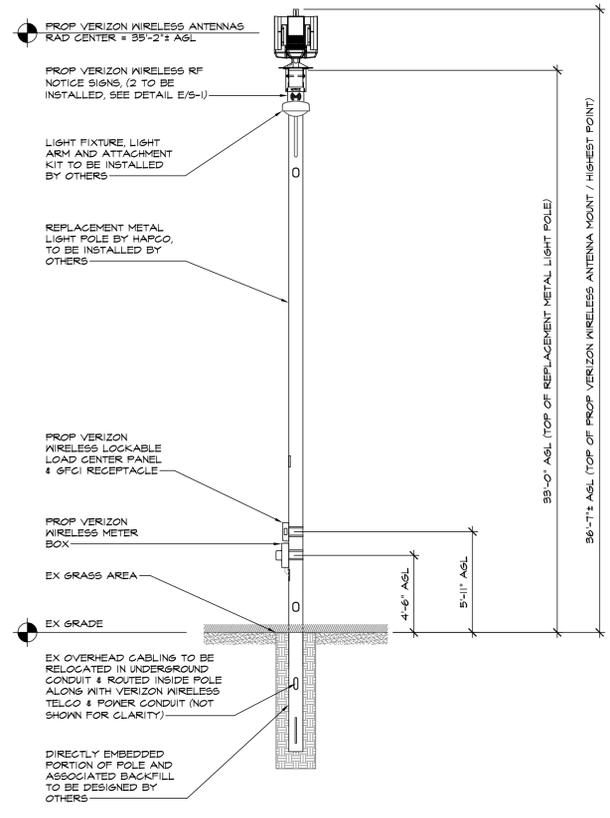
SHEET:
C-2



ENLARGED EQUIPMENT LAYOUT
 SCALE: 1/2" = 1'-0"



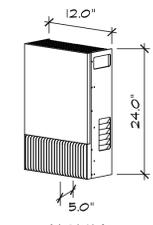
EXISTING LIGHT POLE ELEVATION
 SCALE: 1" = 5'-0"



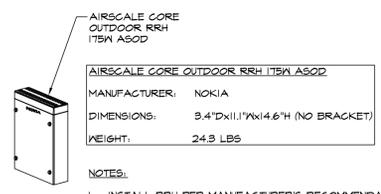
REPLACEMENT LIGHT POLE ELEVATION
 SCALE: 1" = 5'-0"

VOLUMETRIC CALCULATIONS

ANTENNA VOLUMETRIC CALCULATION		EQUIPMENT VOLUMETRIC CALCULATION	
NOKIA AEUB (3 ANTENNAS, 0.83 CU FT EACH)	2.50 CU FT	SQUARE D BOX No. 2R LOAD CENTER PANEL	0.28 CU FT
TOTAL	2.50 CU FT	200 AMP RINGLESS HORN OVERHEAD METER SOCKET	0.54 CU FT
		NOKIA ASODA RRH (3 UNITS, 0.52 CU FT EACH)	0.96 CU FT
		TOTAL	1.78 CU FT



NOKIA AEUB AIRSCALE
VERIZON WIRELESS ANTENNA DETAILS
 NOT TO SCALE



NOKIA AIRSCALE CORE OUTDOOR RRH 175 W ASOD DETAIL
 NOT TO SCALE

- NOTES:
- INSTALL RRH PER MANUFACTURER'S RECOMMENDATIONS.
 - FIBER, DC POWER & GROUND CONNECTIONS NOT SHOWN.

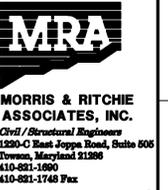


Know what's below. Call before you dig.

PROTECT YOURSELF, GIVE THREE WORKING DAYS NOTICE
 THIS DRAWING DOES NOT INCLUDE NECESSARY COMMENTS 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.

TRANSPORTATION MANAGEMENT PLAN

TEMPORARY TRAFFIC CONTROL PLAN NOTES & WORK AREA PROTECTION MANUAL TTC'S



PROJECT INFORMATION

- THE PROJECT'S TMP PLAN HAS BEEN DESIGNED IN CONFORMANCE WITH TMP TYPE A.
- WORK ZONE AREAS SHALL BE SETUP AS SHOWN ON TTC'S ON THIS PLAN SHEET. THE WORK ZONE LENGTHS AND WIDTHS MAY VARY BY LOCATION IN ACCORDANCE WITH APPLICABLE TTC.
- CONSTRUCTION HOURS: 9AM-3:30PM MONDAY-THURSDAY, 9AM-2PM FRIDAY. NO WORK ON NIGHTS, WEEKENDS OR HOLIDAYS. NO LANE CLOSURES WILL BE ALLOWED FROM NOON ON THE DAY BEFORE A HOLIDAY UNTIL NOON ON THE WORKDAY FOLLOWING THE HOLIDAY. HOLIDAYS INCLUDE ALL STATE AND FEDERAL HOLIDAYS.
- EXISTING INTERSECTIONS: THE NEAREST INTERSECTION IS ORONO ST AND N PITT ST.
EXISTING PEDESTRIAN ACCESS POINTS: THERE IS EXISTING SIDEWALK LOCATED WITHIN THE PROJECT LIMITS.
EXISTING BUS STOPS: THERE ARE NO BUS STOPS NEAR THE PROJECT LIMITS.
EXISTING ENTRANCES: THERE ARE RESIDENTIAL ENTRANCES LOCATED WITHIN THE CONSTRUCTION LIMITS.
- THE TRAFFIC ON THE ROADWAY CONSIST PRIMARILY OF PASSENGER VEHICLES AND PEDESTRIANS. THE SURROUNDING AREA IS RESIDENTIAL.
- THE CONTRACTOR SHALL:
DESIGNATE A PERSON ASSIGNED TO THE PROJECT WHO WILL HAVE THE PRIMARY RESPONSIBILITY, WITH SUFFICIENT AUTHORITY, FOR IMPLEMENTING THE TMP/SOC AND OTHER SAFETY AND MOBILITY ASPECTS OF THE PERMITTED WORK. THIS PERSON SHALL COORDINATE WITH THE INSPECTOR FOR THE DURATION OF CONSTRUCTION.
ENSURE THAT PERSONNEL IMPLEMENTING THE MOT ARE TRAINED IN TRAFFIC CONTROL TO A LEVEL COMMENSURATE WITH THEIR RESPONSIBILITY IN ACCORDANCE WITH VIRGINIA WORK ZONE TRAFFIC CONTROL TRAINING GUIDELINES.
INFORM COUNTY OF ANY WORK REQUIRING LANE SHIFTS, LANE CLOSURES, AND/OR PHASE CHANGES A MINIMUM OF TWO WORKING DAYS PRIOR TO IMPLEMENTING THIS ACTIVITY
PERFORM REVIEWS OF THE CONSTRUCTION AREA TO ENSURE COMPLIANCE WITH CONTRACT DOCUMENTS AT REGULARLY SCHEDULED INTERVALS AT THE DIRECTION OF COUNTY ENGINEERS. CONTRACTOR SHALL MAINTAIN A COPY OF THE TEMPORARY TRAFFIC CONTROL PLAN AT THE WORK SITE AT ALL TIMES.
COORDINATE WITH CITY OF ALEXANDRIA POLICE DEPARTMENT AND CITY OF ALEXANDRIA FIRE/RESCUE DEPARTMENT FOR ANY LANE CLOSURES AND ANY DETOURS OF ANY NATURE, AT NO ADDITIONAL COST TO THE PROJECT.
SCHEDULE ALL PHASES OF CONSTRUCTION IN SUCH A MANNER THAT WATER, SANITARY SEWER, CABLE, FIBER CABLE/OPTIC CABLE, ANY OVERHANGING UTILITIES, AND ANY UNDERGROUND UTILITIES SERVICES WILL NOT BE INTERRUPTED.
- THIS TMP PLAN IS INTENDED AS A GUIDE. IF THE CONTRACTOR IS TO DEVIATE FROM THE APPROVED TMP, A NEW OR REVISED TMP MUST BE SUBMITTED TO COUNTY FOR REVIEW AND APPROVAL.
- CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FOR THE DURATION OF THE PROJECT. CONTRACTOR SHALL ADD ANY ADDITIONAL TEMPORARY MEASURES NECESSARY TO FACILITATE PROPER, POSITIVE DRAINAGE FOR THE DURATION OF CONSTRUCTION.
- WHERE GROUP 2 CHANNELIZING DEVICES ARE USED TO SEPARATE THE CONSTRUCTION AREA AND TRAFFIC, A MINIMUM CLEAR ZONE AREA SUCH AS DEFINED IN THE VWAPM IS TO BE MAINTAINED.
- CONTRACTOR IS TO COORDINATE WITH CITY FOR LOCATION(S) OF THE CONSTRUCTION STAGING AREA. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS AND/OR EASEMENTS AS NECESSARY.
- IMPLEMENTING THE TRANSPORTATION MANAGEMENT PLAN
DURING THE FIRST DAY OF THE NEW WORK ZONE TRAFFIC PATTERN, THE PROJECT'S MANAGER AND CITY'S INSPECTOR SHALL INSPECT THE WORK ZONE TO ENSURE COMPLIANCE WITH THE TMP. ON THE THIRD TO FIFTH DAY OF IMPLEMENTATION OF THE TMP'S NEW WORK ZONE TRAFFIC PATTERN THE CONSTRUCTION INSPECTOR SHALL CONDUCT AN ON-SITE REVIEW OF THE WORK ZONE'S PERFORMANCE IN COORDINATION WITH COUNTY AND RECOMMEND TO THE CONTRACTOR ANY REQUIRED CHANGES TO THE TMP TO ENHANCE THE WORK ZONE'S SAFETY AND MOBILITY. ALL SUCH CHANGES SHALL BE DOCUMENTED. AN ON-SITE REVIEW OF THE PROJECT'S WORK ZONE TRAFFIC CONTROL BY THE PROJECT MANAGER AND CONTRACTOR SHALL BE CONDUCTED (WITH COORDINATION FROM COUNTY) WITHIN 48 HOURS OF ANY FATAL INCIDENT/CRASH WITHIN THE WORK ZONE.
- PUBLIC COMMUNICATIONS PLAN
THE CONTRACTOR SHALL BE RESPONSIBLE FOR:
A. NOTIFYING THE PROJECT MANAGER AND CITY INSPECTOR TWO WEEKS IN ADVANCE OF ANY SCHEDULED WORK PLANS AND TRAFFIC DELAYS.
B. NOTIFYING THE PROJECT MANAGER, CITY INSPECTOR, AND CORRESPONDING COUNTY ENGINEER OF ANY UNSCHEDULED TRAFFIC DELAYS.
- TRANSPORTATION OPERATIONS
THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND PROVIDING THE FOLLOWING:
A. NOTIFY THE REGIONAL TRANSPORTATION OPERATIONS CENTER (TOC) 1 WEEK IN ADVANCE IN ORDER TO PLAN LANE CLOSURE INFORMATION ON THE 511 SYSTEM AND VA-TRAFFIC.
B. IMMEDIATELY REPORT ANY TRAFFIC INCIDENTS THAT MAY OCCUR IN THE WORK ZONE.
C. NOTIFY THE PROJECT'S CONSTRUCTION INSPECTOR AND COUNTY ENGINEER OF ANY INCIDENTS AND EXPECTED TRAFFIC DELAYS.
D. WITHIN 24 HOURS OF ANY INCIDENTS WITHIN THE CONSTRUCTION WORK ZONE, A REVIEW OF THE TRAFFIC CONTROLS SHALL BE COMPLETED AND NECESSARY ADJUSTMENT MADE TO REDUCE THE FREQUENCY AND SEVERITY OF ANY FUTURE INCIDENTS.
- CONTACT NUMBERS
PROJECT MANAGER: TBD
CITY INSPECTOR: TBD
EMERGENCY CALL: 911

NON-EMERGENCY NUMBERS:
CITY OF ALEXANDRIA POLICE: 703-746-4444
CITY OF ALEXANDRIA FIRE & RESCUE: 703-746-4357

GENERAL CONSTRUCTION NOTES

NOTE: VWAPM VIRGINIA WORK AREA PROTECTION MANUAL (2011) INCLUDING REVISION 1 DATED 2015.

- THE CONTRACTOR SHALL MAKE ANY NECESSARY ADJUSTMENTS DURING BOTH WORK AND NON-WORK HOURS TO ENSURE THE PROTECTION AND SAFETY OF PEDESTRIANS, VEHICULAR TRAFFIC, AND THE GENERAL PUBLIC FROM ANY CONSTRUCTION RELATED ACTIVITY, CONSTRUCTION EQUIPMENT, AND THE CONSTRUCTION SITE ITSELF.

Page 6H-14

April 2015

Typical Traffic Control Stationary Operation on a Shoulder (Figure TTC-4.1) NOTES

Standard

- For long-term stationary work (more than 3 days) on divided highways having a median wider than 8', sign assemblies on both sides of the roadway shall be required as shown (ROAD WORK AHEAD (W20-1), RIGHT SHOULDER CLOSED AHEAD (W21-5bR), RIGHT SHOULDER CLOSED (W21-5aR)), even though only one shoulder is being closed. For operations less than 3 days in duration, sign assemblies will only be required on the side where the shoulder is being closed and a RIGHT SHOULDER CLOSED (W21-5aR) sign shall be added to that side.

Guidance

- Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.

Option:

- The SHOULDER WORK (W21-5) sign on an intersecting roadway may be omitted where drivers emerging from that roadway will encounter another advance warning sign prior to this activity area.
- For short duration operations of 60 minutes or less, all signs and channelizing devices may be eliminated if a vehicle with activated high-intensity amber rotating, flashing, or oscillating lights is used.

Standard:

- Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or oscillating lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, or oscillating lights.
- Taper length (L) and channelizing device spacing shall be at the following:

Speed Limit (mph)	Taper Length (L)			
	9	10	11	12
25	95	105	115	125
30	135	150	165	180
35	185	205	225	245
40	240	270	295	320
45	405	450	495	540
50	450	500	550	600
55	495	550	605	660
60	540	600	660	720
65	585	650	715	780
70	630	700	770	840

Minimum taper lengths for Limited Access highways shall be 1000 feet.
Shoulder Taper = 1/2 L Minimum

Location	Channelizing Device Spacing	
	0 - 35	36 +
Transition Spacing	20'	40'
Travelway Spacing	40'	80'
Construction Access*	80'	120'

* Spacing may be increased to this distance, but shall not exceed one access per 1/4 mile.

On roadways with paved shoulders having a width of 8 feet or more, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled way.

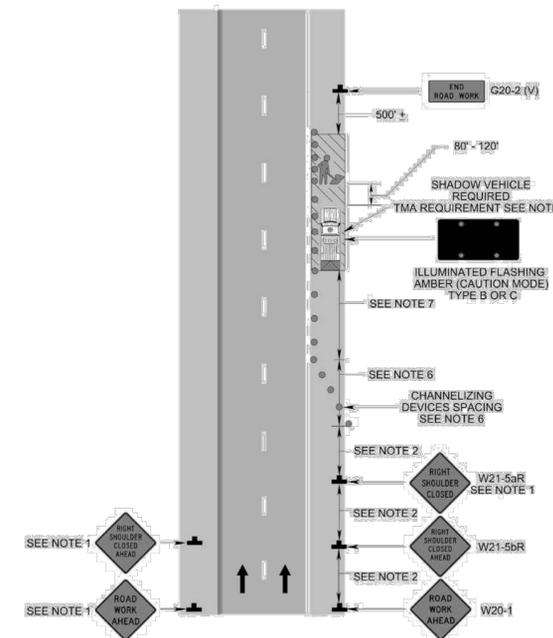
- The buffer space length shall be as shown in Table 6H-3 on Page 6H-5 for the posted speed limit.
- A truck-mounted attenuator (TMA) shall be used on the shadow vehicle on Limited Access highways and multi-lane roadways with posted speed limit equal to or greater than 45 mph for operations with a duration greater than 60 minutes.
- When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed.

1: Revision 1 - 4/1/2015

April 2015

Page 6H-15

Stationary Operation on a Shoulder (Figure TTC-4.1)



verizon
 NE ALEXANDRIA 8 - A - SMALL CELL
 ROW ADJACENT TO 1600 W ARLINGTON DR
 ALEXANDRIA, VA 22314 (CITY OF ALEXANDRIA)

REVISIONS:	
NO.	DESCRIPTION DATE

DESIGNED BY: JKE
 DRAWN BY: ML
 PROJECT NO: 10421.3065
 DATE: 06/30/2020
 SCALE: AS NOTED

TITLE:
**TRANSPORTATION
 MANAGEMENT
 PLAN**

SHEET:
TMP-1

A B C D E F G H J K L M N P Q R

TRANSPORTATION MANAGEMENT PLAN

Commonwealth of Virginia
 Virginia Department of Transportation **VDOT**
 VERIFICATION OF COMPLETION OF
 ADVANCED WORK ZONE TRAFFIC CONTROL TRAINING
 AND FLAGGER CERTIFICATION

This is to verify that Jon K. Erickson has successfully completed training and an examination by the Department on the proper practices and methods for the installation, maintenance, removal of temporary traffic control devices and flagging operations.

Date: 9/25/2019
 State Traffic Engineer
 Verification No.: 092519410
 Expiration Date: 9/30/2023

MRA
 MORRIS & RITCHIE
 ASSOCIATES, INC.
 Civil / Structural Engineers
 1200-C East Joppa Road, Suite 606
 Towson, Maryland 21286
 410-821-1890
 410-821-1746 Fax

COMMONWEALTH OF VIRGINIA
 J. K. ERICKSON
 P.E. No. 32325
 06/30/2020
 PROFESSIONAL ENGINEER



verizon
 NE ALEXANDRIA 8 - A - SMALL CELL
 ROW ADJACENT TO 1600 W ABINGDON DR
 ALEXANDRIA, VA 22314 (CITY OF ALEXANDRIA)

REVISIONS:

NO.	DESCRIPTION	DATE

DESIGNED BY: JKE
 DRAWN BY: ML
 PROJECT NO: 10421.3085
 DATE: 06/30/2020
 SCALE: AS NOTED
 TITLE:

TRANSPORTATION
 MANAGEMENT
 PLAN

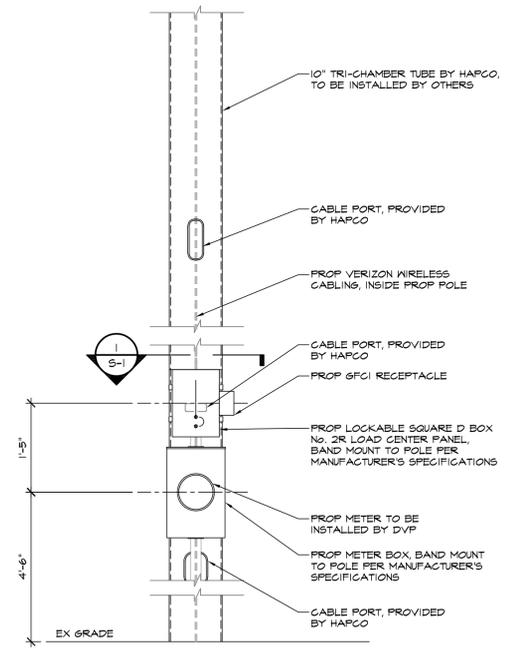
SHEET:
TMP-2



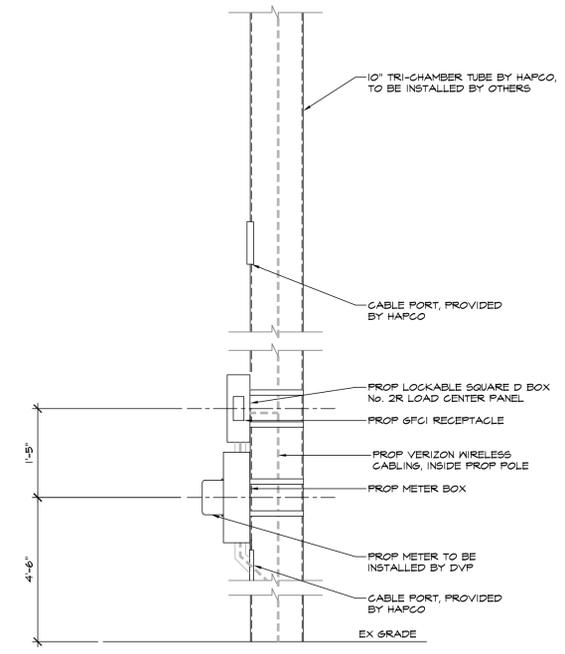
**Know what's below.
 Call before you dig.**

PROTECT YOURSELF. GIVE THREE 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.

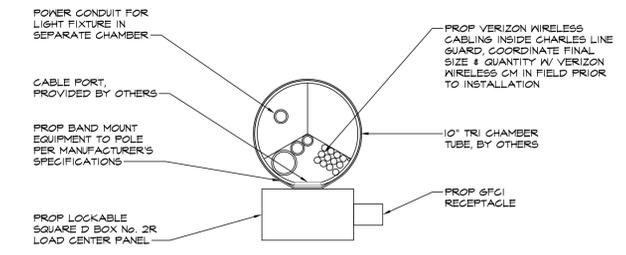
TMP
 SCALE: 1" = 50'



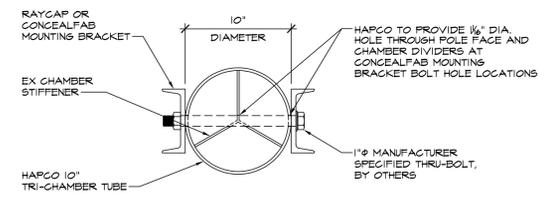
A POLE EQUIPMENT FRONT ELEVATION
SCALE: 3/4" = 1'-0"



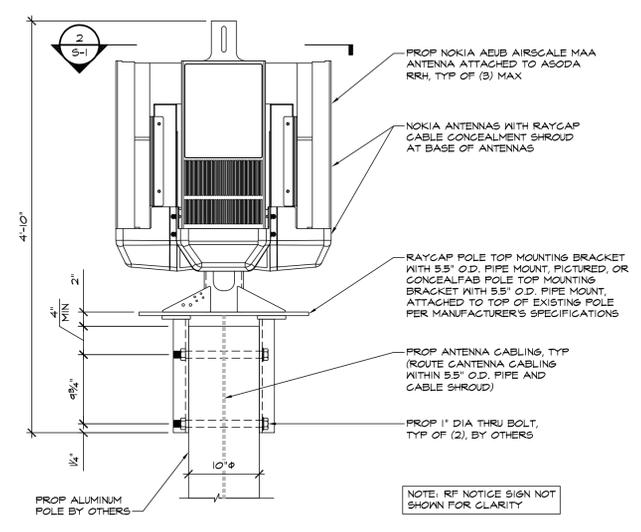
B POLE EQUIPMENT SIDE ELEVATION
SCALE: 3/4" = 1'-0"



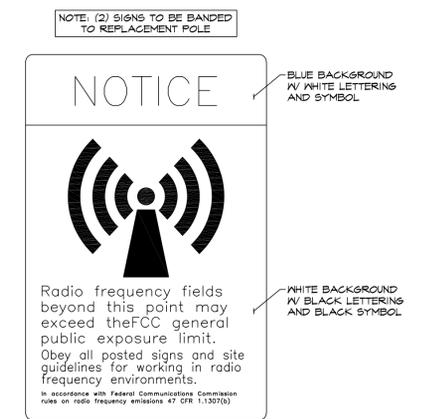
I EQUIPMENT MOUNT
SCALE: 1 1/2" = 1'-0"



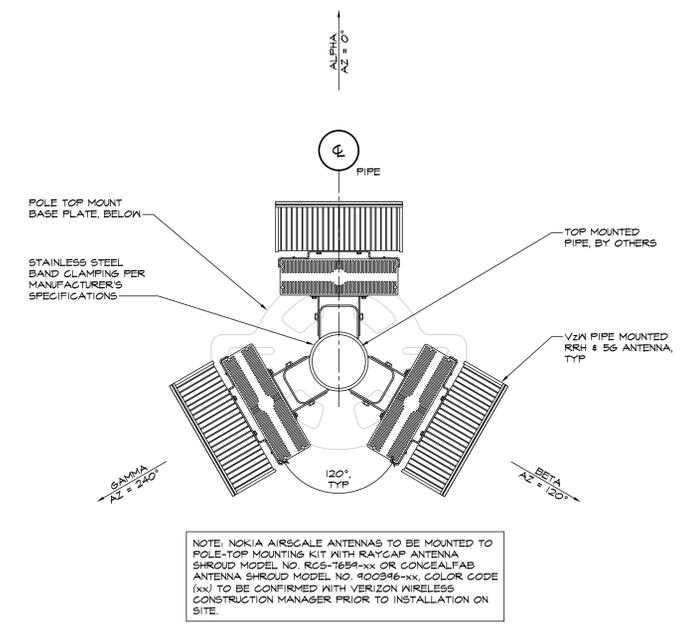
D TYPICAL THRU-BOLTING DETAIL
SCALE: 1-1/2" = 1'-0"



C 5G PANEL ANTENNA MOUNT
SCALE: 1" = 1'-0"



E RF NOTICE SIGN DETAIL
SCALE: 3" = 1'-0"



2 5G PANEL ANTENNA SECTION
SCALE: 1-1/2" = 1'-0"

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verizon
NE ALEXANDRIA 8 - A - SMALL CELL
ROW ADJACENT TO 1600 WABINGDON DR
ALEXANDRIA, VA 22314 (CITY OF ALEXANDRIA)

REVISIONS:

NO.	DESCRIPTION	DATE
1	PERMIT DWGS	7/8/20

DESIGNED BY: RJD
DRAWN BY: FKK
PROJECT NO: 10427.3085
DATE: 06/26/2020
SCALE: AS NOTED

TITLE:
Structural Sections & Details

SHEET:
S-1





MORRIS & RITCHE ASSOCIATES, INC.
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 Towson, Maryland 21286
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 410-821-1748 Fax



GENERAL STRUCTURAL NOTES

BUILDING CODES

- A. ALL CONSTRUCTION SHALL CONFORM WITH:
 - THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE 2015 CONSTRUCTION CODE (VA USBC 2015)
 - THE INTERNATIONAL BUILDING CODE (IBC 2015) AND ALL SUBSEQUENT SUPPLEMENTS & DOCUMENTS.
 - LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES, AND TRAFFIC SIGNALS (AASHTO LRFD 1-1-2015)
 - THE ANSI/TA-222-H-2011 "STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS" AND ALL SUBSEQUENT SUPPLEMENTS
 - IN ADDITION, ALL CONSTRUCTION SHALL CONFORM WITH ANY LOCAL CODES AND REQUIREMENTS.

DESIGN LOADS

- A. THE DESIGN DEAD LOADINGS FOR ALL FRAMING IS BASED ON THE CONSTRUCTION MATERIALS SHOWN ON THE DRAWINGS. ALL FRAMING IS DESIGNED FOR THE WEIGHT OF THE EQUIPMENT INDICATED ON THE DRAWINGS.
- B. WIND LOAD DESIGN DATA

BASIC WIND SPEED (ULTIMATE 3-SECOND GUST):	115 MPH
BASIC WIND SPEED (NOMINAL 3-SECOND GUST):	84.1 MPH
RISK CATEGORY:	II
WIND EXPOSURE CATEGORY:	C
- C. SEISMIC LOAD DESIGN DATA

NOT APPLICABLE:	Se < 1.0
-----------------	----------

MISCELLANEOUS

- A. THE CONTRACTOR SHALL INSTALL THE EMBEDDED STEEL POLE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
- B. THE CONTRACTOR SHALL VERIFY IN SITU GEOTECHNICAL CONDITIONS PRIOR TO CONSTRUCTION TO ENSURE ASSUMPTIONS MADE BY POLE MANUFACTURER AS PART OF THE ANALYSIS AND DESIGN OF STEEL POLE ARE NOT INVALIDATED. IF DISCREPANCIES ARE NOTED BETWEEN THE EXISTING SITE CONDITIONS AND THE STRUCTURAL ANALYSIS OF THE PROPOSED POLE, THE POLE MANUFACTURER SHALL BE NOTIFIED AND CLARIFICATION SHALL BE OBTAINED PRIOR TO START OF CONSTRUCTION.
- C. THE CONTRACTOR SHALL LOCATE ALL UTILITIES IN THE AREA OF CONSTRUCTION AND PREVENT DAMAGE TO THEM. SHOULD DAMAGE OCCUR TO ANY UTILITIES, THE CONTRACTOR IS REQUIRED TO REPAIR THE DAMAGE TO THE SATISFACTION OF THE OWNER AT HIS OWN EXPENSE.
- D. IN CASES OF CONFLICT BETWEEN THE DRAWINGS AND/OR SPECIFICATIONS OR EXISTING CONDITIONS, CONTRACTOR SHALL NOTIFY THE DESIGN PROFESSIONALS AND OBTAIN CLARIFICATION PRIOR TO BIDDING AND PROCEEDING WITH WORK.
- E. THE CONTRACTOR SHALL NOT SUBMIT REPRODUCTIONS OF THE STRUCTURAL CONTRACT DOCUMENTS AS SHOP DRAWINGS.
- F. SCALES SHOWN ON THE STRUCTURAL CONTRACT DRAWINGS ARE FOR GENERAL INFORMATION ONLY. DIMENSIONAL INFORMATION SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS.
- G. APPLY DETAILS, SECTIONS AND NOTES ON THE DRAWINGS WHERE CONDITIONS ARE SIMILAR TO THOSE INDICATED BY DETAIL, DETAIL TITLE OR NOTE.
- H. PROVIDE SHORING AND PROTECTION FOR EXCAVATION AS NECESSARY TO PREVENT CAVING AND COMPLY WITH ALL APPLICABLE OSHA RULES AND REGULATIONS.
- I. SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOWN ON THE CONTRACT DOCUMENTS MUST BE SUBMITTED BY THE CONTRACTOR OR OWNER FOR REVIEW BY THE ENGINEER. IF THE CONTRACTOR OR OWNER FAILS TO SUBMIT THE SHOP DRAWINGS, THE ENGINEER WILL NOT BE RESPONSIBLE FOR STRUCTURAL CERTIFICATION AND DESIGN OF THE PROJECT. THE SHOP DRAWINGS SHALL INDICATE ANY DEVIATIONS OR OMISSIONS FROM THE CONTRACT DOCUMENTS. THE GENERAL CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS PRIOR TO SUBMISSION AND MAKE ALL CORRECTIONS DEEMED NECESSARY.

STRUCTURAL AND MISCELLANEOUS STEEL

- A. ALL STEEL CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE AISC STEEL CONSTRUCTION MANUAL "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" (ANSI/AISC 360) AND THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
- B. ALL MISCELLANEOUS STEEL (CHANNELS AND PLATES) SHALL CONFORM TO ASTM A36 (F_y = 36 KSI).
- C. ALL BOLTS SHALL CONFORM TO ASTM A325. ALL NUTS SHALL CONFORM TO ASTM A563. ALL WASHERS SHALL CONFORM TO ASTM F436.
- D. ALL SHOP WELDS SHALL BE PERFORMED BY CERTIFIED WELDERS AND CONFORM TO THE AMERICAN WELDING SOCIETY CODE FOR BUILDINGS AWS D11. WELDS SHALL DEVELOP THE FULL STRENGTH OF MATERIALS BEING WELDED UNLESS OTHERWISE INDICATED.
- E. AN INDEPENDENT INSPECTION AGENCY SHALL INSPECT ALL STRUCTURAL STEEL AND VERIFY THAT IT CONFORMS TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. FIELD INSPECTION REPORTS SHALL BE SUBMITTED TO THE ENGINEER WITHIN 5 DAYS OF THE INSPECTION. THE CONTRACTOR SHALL NOTIFY THE INSPECTION AGENCY OF ALL PHASES OF STEEL CONSTRUCTION AND WELDING.
- F. STEEL MEMBERS, FABRICATIONS AND ASSEMBLIES EXPOSED TO WEATHER OR INDICATED TO BE GALVANIZED SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123 AFTER FABRICATION. ALL BOLTS, SCREWS, WASHERS & NUTS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM F2329.
- G. PROVIDE HOLES IN STEEL AS REQUIRED TO PREVENT ANY ACCUMULATION OF WATER. ALL PENETRATIONS THROUGH MAIN MEMBERS SHALL NOT EXCEED 1-1/8" DIA. AND SHALL BE ROUND SMOOTH. THESE DRAINS MUST BE KEPT CLEAN AND OPEN.
- H. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS INDICATING THE SIZES, EXTENT, AND LOCATION OF ALL STRUCTURAL AND MISCELLANEOUS STEEL FRAMING INCLUDING ALL CONNECTIONS, FASTENERS, AND BEARINGS.
- I. SHOW ALL COPES, HOLES, OPENINGS AND MODIFICATIONS REQUIRED IN STRUCTURAL STEEL MEMBERS FOR ERECTION OR THE WORK OF OTHER TRADES ON THE SHOP DRAWINGS FOR APPROVAL BY THE STRUCTURAL ENGINEER.

ALUMINUM

- A. ALL ALUMINUM CONSTRUCTION SHALL CONFORM TO THE 2015 EDITION OF THE ALUMINUM ASSOCIATION ALUMINUM DESIGN MANUAL (ADM 2015).
- B. ALUMINUM POLE SHALL BE EXTRUDED FROM 6005A-T5 ALUMINUM WITH THE FOLLOWING MINIMUM PROPERTIES:

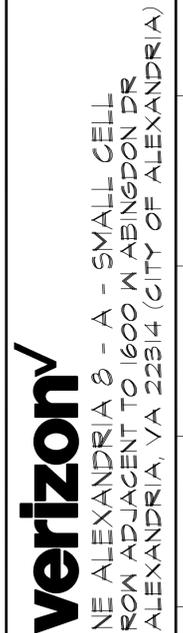
TENSILE ULTIMATE STRENGTH, F _{tu} :	36 KSI
TENSILE YIELD STRENGTH, F _y :	31 KSI
COMPRESSION YIELD STRENGTH, F _{cy} :	31 KSI
MODULUS OF ELASTICITY, E:	10,000 KSI
- C. UNLESS NOTED OTHERWISE, ALL ALUMINUM STRUCTURAL CONNECTIONS SHALL BE MADE WITH 3/8" DIAMETER GALVANIZED ST1M F1229 GRADE A325 BOLTS WITH 3/8" DIAMETER NUTS ON GAGE FIELD DRILL AS REQUIRED. SEE STRUCTURAL AND MISCELLANEOUS STEEL NOTES FOR ADDITIONAL INFORMATION.

DOMINION SPECIFICATIONS:

- A. A 9"X11" RF NOTICE SIGN MUST BE INSTALLED ON BOTH SIDES OF THE POLE A MAXIMUM OF ONE (1) FOOT ABOVE THE UPPERMOST APPURTENANCE. THIS SIGN MARKS THE POINT WHERE RF EXPOSURE LEVELS MAY EXCEED FCC OET-68 APPENDIX A' LIMITS FOR UNCONTROLLED GENERAL POPULATION EXPOSURE. WORKING ABOVE THIS POINT REQUIRES DE-ENERGIZING THE ANTENNA. THIS SIGN MUST INCLUDE THE STANDARD RF SYMBOL AND STATE "NON RF WORKERS MUST POWER DOWN DEVICE WHEN WORKING ABOVE THIS POINT." THE SIGN SHALL BE 60 MIL LEXAN WITH U.V. INHIBITORS AND SIGNS SHALL ADHERE TO IEEE C45.2 STANDARDS.
- B. A POWER DISCONNECT MUST BE INSTALLED. THIS DEVICE MUST PROVIDE DISCONNECTING MEANS FOR DE-ENERGIZING AC AND DC (BATTERY BACK UP) POWER TO THE ANTENNAS. THE DISCONNECT SHOULD BE A STANDARD NEMA TYPE HINGED ENCLOSURE AND IS SUBJECT TO COMPANY APPROVAL. THE DISCONNECT SHALL BE CLEARLY LABELED AS THE ANTENNA POWER DISCONNECT.
- C. AN ADDITIONAL RF LABEL ON THE EQUIPMENT MUST INCLUDE COMMUNICATION COMPANY NAME, AND A 24-HR CONTACT PHONE NUMBER. THE LABEL SHALL ADHERE TO IEEE C45.2 STANDARDS.
- D. MAXIMUM OF FOUR (4) ANTENNAS ARE ALLOWED PER POLE.
- E. A DOMINION DISTRIBUTION REPRESENTATIVE MUST APPROVE ALL ANTENNA ATTACHMENT POLES.
- F. INSTALLERS WORKING IN THE AREA OF THE POLE ABOVE THE NORMAL COMMUNICATIONS SPACE MUST MEET OSHA 1910.264 REQUIREMENTS.
- G. AN ANTENNA GROUND WIRE AND GROUNDING ELECTRODE IS REQUIRED. THIS GROUND SHALL BE BONDED TO THE COMPANY GROUND WIRE.
- H. SERVICE WILL BE CONNECTED BY VERIZON IN COMPLIANCE WITH FILED RATE PLAN.
- I. VERIZON'S GROUND MAY NOT BE USED TO SATISFY NEC REQUIREMENTS FOR THE EQUIPMENT BRACKET AC SERVICE GROUND. THE EQUIPMENT AND ITS AC SERVICE GROUND ARE REQUIRED TO BE BONDED TO THE COMPANY GROUND CONDUCTOR ON THE POLE AT LEAST 6' ABOVE GROUND LEVEL USING A No. 6 Cu CONDUCTOR. CONNECTION TO THE COMPANY'S GROUND ROD OR CONNECTOR IS NOT APPROVED.
- J. BONDS SHALL BE MADE BETWEEN THE GROUND WIRE AND THE EQUIPMENT CABINET (NOT NEUTRAL BUS) OF THE POWER SUPPLY/SWITCH. THESE CONNECTIONS ARE TO AVOID POTENTIAL DIFFERENCES BETWEEN DEVICES ON THE POLES. BOND TO THE POWER SUPPLY/SWITCH SHALL BE EXTERNAL AND VISIBLE FROM THE GROUND. WHEN A COMPANY DRIVEN GROUND EXISTS ON THE POLE, THE EQUIPMENT CASE BONDING WIRE NEED EXTEND ONLY FROM THE SWITCH TO THE COMPANY GROUND WIRE.
- K. THE METER BASE, EQUIPMENT BRACKET, AND DISCONNECT MAY BE MOUNTED AT OPERATIONAL HEIGHT THAT:
 - A. THE EQUIPMENT BRACKET DOES NOT OBSTRUCT A WALKWAY OR IS SUBJECT TO VEHICULAR TRAFFIC.
 - B. THE EQUIPMENT BRACKET CAN NOT BE USED ALONE OR IN CONJUNCTION WITH A FENCE, PEDESTAL, ETC. AS A CLIMBING AID.
- L. FOR SAFETY PURPOSES DEVICES WITH LEAD ACID BATTERIES SHALL NOT BE USED.

POST-INSTALLATION INSPECTION

- A. A POST-INSTALLATION INSPECTION REPORT IS REQUIRED AND SHALL BE INCLUDED IN THE CONTRACTOR'S BID. A POST-INSTALLATION INSPECTION IS A VISUAL INSPECTION OF TOWER INSTALLATIONS AND A REVIEW OF CONSTRUCTION INSPECTIONS AND OTHER REPORTS TO ENSURE THE INSTALLATION WAS CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, NAMELY THE INSTALLATION DRAWINGS.
- B. THE POST-INSTALLATION INSPECTION REPORT SHALL BE COMPLETED BY A PROFESSIONAL ENGINEER LICENSED IN THE JURISDICTION IN WHICH THE PROJECT IS LOCATED.
- C. THE INTENT OF THE POST-INSTALLATION INSPECTION REPORT IS TO CONFIRM INSTALLATION AND CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE INSTALLATION DESIGN ITSELF.
- D. TO ENSURE THAT THE REQUIREMENTS OF THE POST-INSTALLATION INSPECTION REPORT ARE MET, IT IS VITAL THAT THE CONTRACTOR AND POST-INSTALLATION INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PO IS RECEIVED.



NE ALEXANDRIA & - A - SMALL CELL
 ROW ADJACENT TO 1600 W ABINGDON DR
 ALEXANDRIA, VA 22314 (CITY OF ALEXANDRIA)

REVISIONS:

NO.	DESCRIPTION	DATE
1	PERMIT DWGS	7/8/20

DESIGNED BY: RJD
 DRAWN BY: FKK
 PROJECT NO: 10427.3085
 DATE: 06/26/2020
 SCALE: AS NOTED

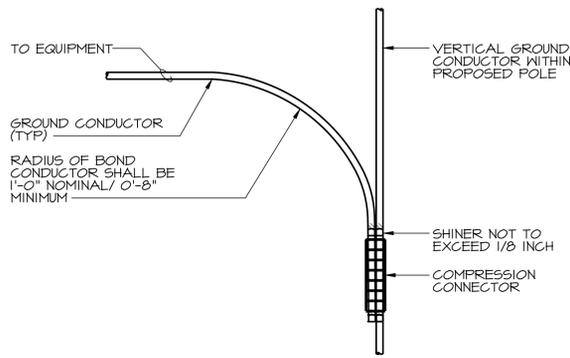
TITLE:
General Notes

SHEET:
S-2

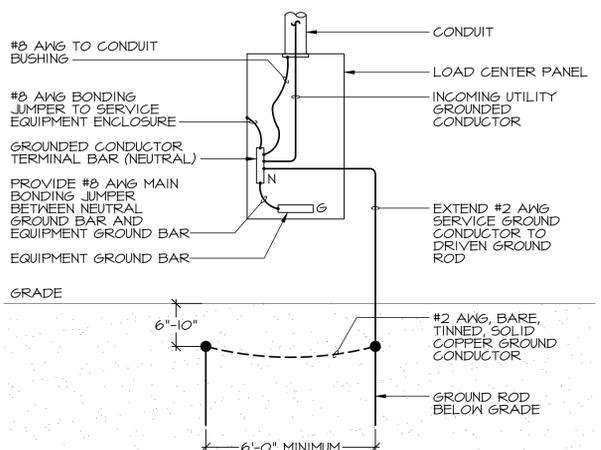


**Know what's below.
 Call before you dig.**

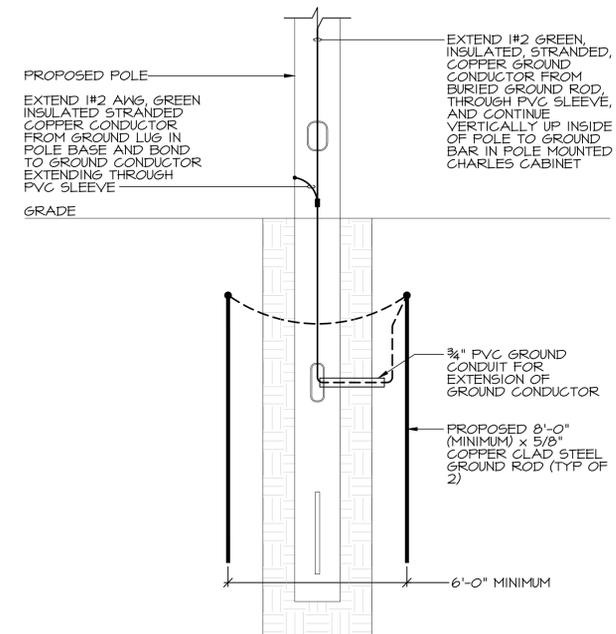
PROTECT YOURSELF. GIVE THREE WORKING DAYS NOTICE.
 THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERE TO APPURTENANT.



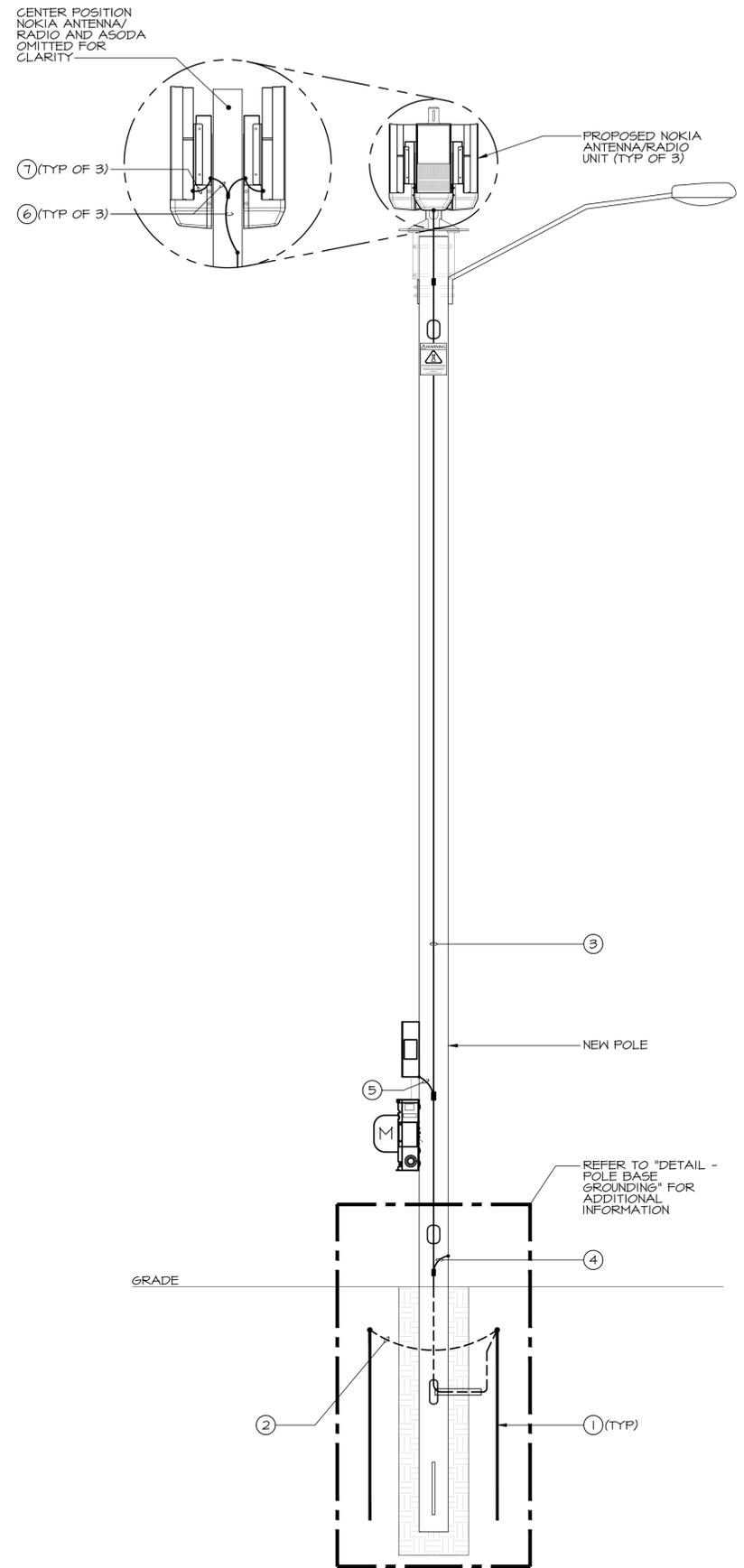
DETAIL - DIRECTIONAL SPLICE
NO SCALE



DETAIL - TYP. ELECTRIC SERVICE GROUNDING ELECTRODE
NO SCALE



DETAIL - POLE BASE GROUNDING
NO SCALE



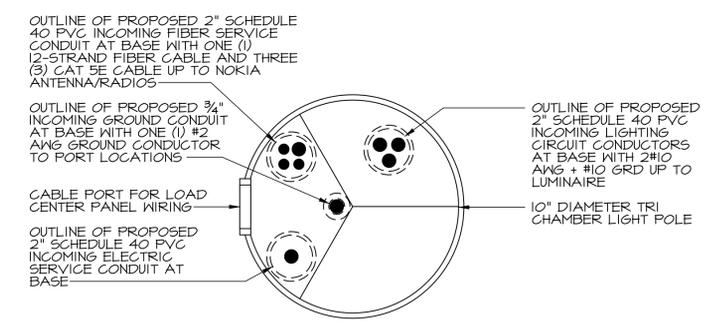
POLE GROUNDING DIAGRAM
NO SCALE

GROUNDING GENERAL NOTES

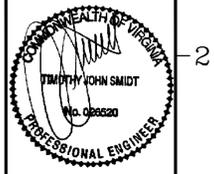
1. ALL GROUND CONNECTIONS BELOW GRADE SHALL BE EXOTHERMIC (CADWELD) TO NEAREST REINFORCING BAR USING ERICO CADWELD "ONE-SHOT" CONNECTIONS.
2. ALL EXTERIOR GROUND CONDUCTORS SHALL BE #2 AWG BARE, TINNED SOLID COPPER, UNLESS NOTED OTHERWISE.
3. ALL GROUND CONNECTIONS ABOVE GRADE SHALL BE TWO-HOLE COPPER COMPRESSION TYPE WITH STANDARD LENGTH BARREL (BURNDY # YA2CL- 2TC14E1). SINGLE HOLE LUGS ARE NOT ACCEPTABLE.
4. ALL MOUNTING HARDWARE FOR EXTERIOR LOCATIONS SHALL BE GALVANIZED INCLUDING NUTS, BOLTS, FLAT AND LOCK WASHERS.
5. ALL EXTERIOR MECHANICAL CONNECTIONS SHALL BE MADE USING OXIDE-INHIBITING JOINT COMPOUND. THE COMPOUND SHALL BE APPLIED TO ALL SURFACES OF BOLTS, WASHERS, NUTS AND CONNECTING SURFACES OF GROUND BAR PLATES. ALL BARE COPPER SURFACES OF CONDUCTORS SHALL BE COATED PRIOR TO LUGGING. JOINT COMPOUND SHALL BE NO-OX. KOPR-SHIELD SHALL NOT BE PERMITTED.
6. TYPICAL BI-DIRECTIONAL BONDING CONNECTIONS TO THE INTERIOR GROUND RISER SHALL BE MADE USING DOUBLE GRIMP TYPE "C" TAP CONNECTORS.
7. ALL EXOTHERMIC WELD CONNECTIONS AND FIELD CUTS OF METALLIC OBJECTS EXPOSED TO WEATHER SHALL BE FIRST SPRAYED WITH COLD GALVANIZING (AFTER COOL DOWN) THEN BE TOPPED WITH BRUSH ON MARINE GRADE GALVANIZING.
8. ALL CONDUIT USED AS SLEEVES FOR GROUNDING OR BONDING CONDUCTORS SHALL BE PVC.
9. ALL GROUND RODS SHALL BE DRIVEN VERTICALLY USING A GROUND ROD SHIELD TO PREVENT THE ENDS FROM "MUSHROOMING".
10. JOINT COMPOUND FOR GROUNDING SHALL BE NO-OX. KOPR-SHIELD SHALL NOT BE PERMITTED.

DRAWING NOTES

1. PROVIDE 8'-0" (MINIMUM) x 5/8" COPPER CLAD STEEL GROUND ROD (TYP OF 2).
2. BURIED GROUND RING SHALL BE #2 AWG, BARE, TINNED, SOLID COPPER.
3. EXTEND #2 AWG, GREEN INSULATED, STRANDED COPPER GROUND CONDUCTOR FROM BURIED GROUND ROD VERTICALLY UP INSIDE OF LIGHT POLE FOR GROUNDING OF EQUIPMENT/ANTENNAS.
4. EXTEND #2 AWG, GREEN INSULATED, STRANDED COPPER GROUND CONDUCTOR FROM GROUND LUG IN POLE BASE AND BOND TO GROUND CONDUCTOR EXTENDING THROUGH PVC SLEEVE.
5. EXTEND #2 AWG, GREEN INSULATED, STRANDED COPPER GROUND CONDUCTOR FROM ENCLOSURE OF PROPOSED LOAD CENTER PANEL AND BOND TO GROUND CONDUCTOR EXTENDING TO BURIED GROUND ROD. REFER TO SERVICE GROUNDING DETAIL, THIS SHEET FOR ADDITIONAL INFORMATION.
6. EXTEND #6 AWG, GREEN INSULATED, STRANDED COPPER GROUND CONDUCTOR FROM EACH NOKIA ASODA AND BOND TO GROUND PIGTAIL CONDUCTOR. EXTEND GROUND PIGTAIL AND BOND TO GROUND CONDUCTOR EXTENDING DOWN LIGHT POLE TO BURIED GROUND ROD. REFER TO DIRECTIONAL SPLICE DETAIL, THIS SHEET.
7. EXTEND #6 AWG, GREEN INSULATED, STRANDED COPPER GROUND CONDUCTOR FROM EACH ANTENNA GROUND LUG AND BOND TO NOKIA ASODA GROUND LUG.



DETAIL - CONDUIT STUB-UP
NO SCALE



verizon
NE ALEXANDRIA 8 - A - SMALL CELL
ROW ADJACENT TO 1600 N. ARLINGTON DR., ALEXANDRIA
CITY OF ALEXANDRIA, VIRGINIA 22314

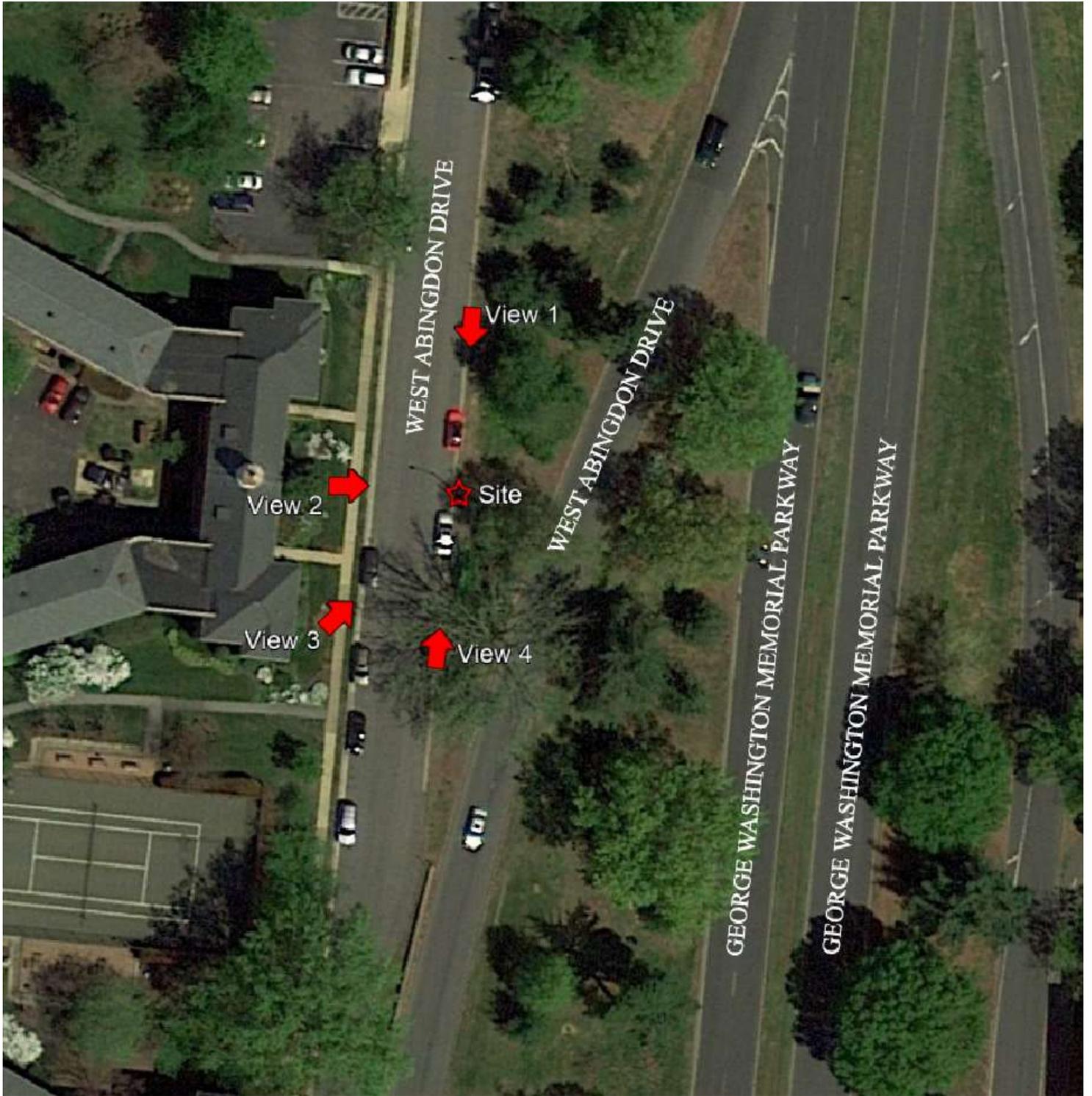
REVISIONS:

NO.	DESCRIPTION	DATE

PERMIT DWG# 17/8/20

LAST REV.:
PROJECT NO: 20084B
DATE: JULY 8, 2020
SCALE: AS NOTED
TITLE:
GROUNDING
DIAGRAM,
DETAILS,
AND NOTES

SHEET:
E-4



NE Alexandria_8 - A
Overall Site Layout



MORRIS & RITCHIE
ASSOCIATES, INC.
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Towson, Maryland 21286
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410-821-1748 Fax



06 May 2020



EXISTING LIGHT
POLE TO BE
REMOVED

NE Alexandria_8 - A

Existing View 1

06 May 2020



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PROPOSED VERIZON WIRELESS ANTENNAS

RELOCATED LIGHT FIXTURE

NEW METAL LIGHT POLE

PROPOSED VERIZON WIRELESS LOAD CENTER PANEL

PROPOSED VERIZON WIRELESS METER BOX

NE Alexandria_8 - A

Proposed View 1

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EXISTING LIGHT
POLE TO BE
REMOVED

NE Alexandria_8 - A

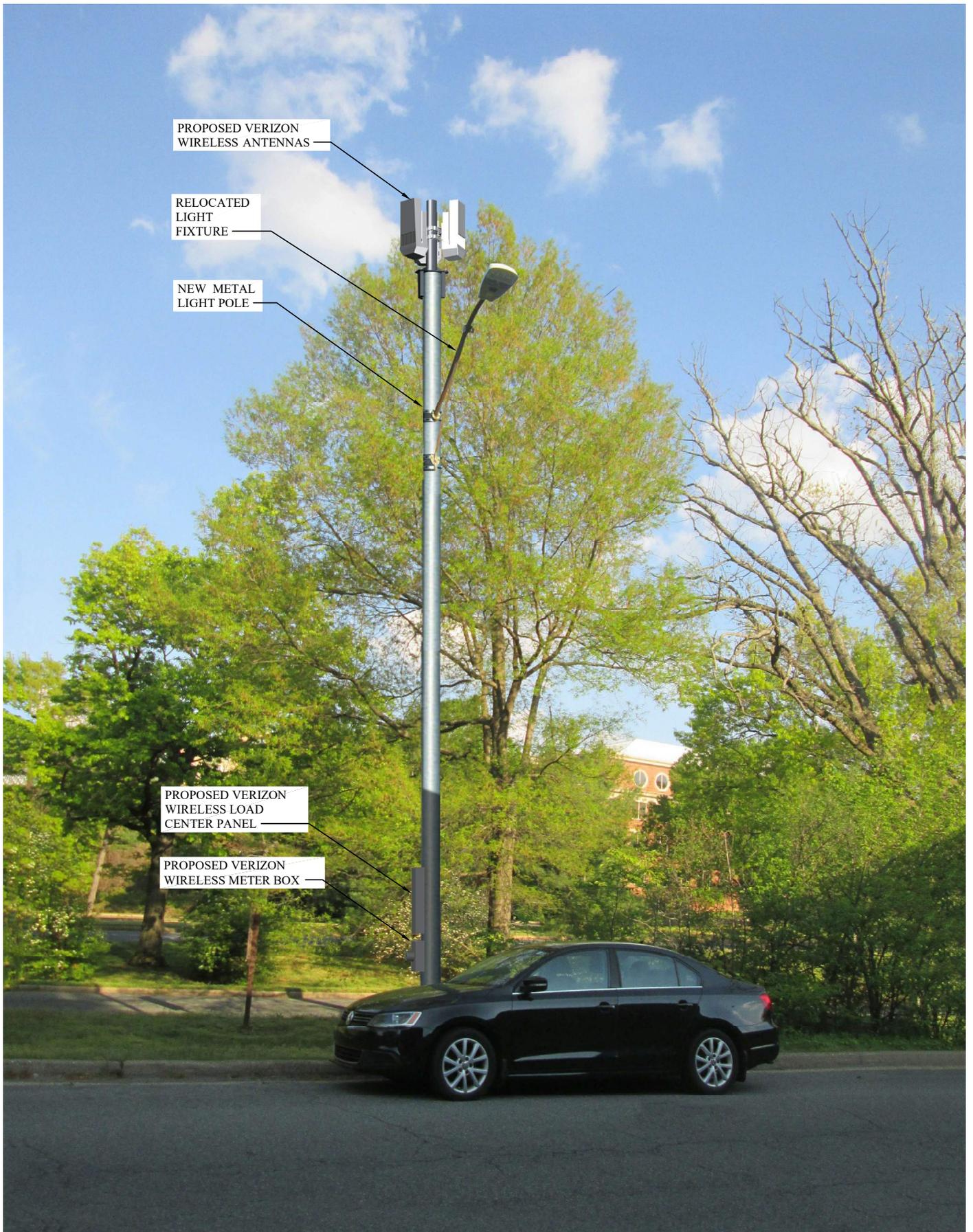
Existing View 2

06 May 2020



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PROPOSED VERIZON
WIRELESS ANTENNAS

RELOCATED
LIGHT
FIXTURE

NEW METAL
LIGHT POLE

PROPOSED VERIZON
WIRELESS LOAD
CENTER PANEL

PROPOSED VERIZON
WIRELESS METER BOX

NE Alexandria_8 - A

Proposed View 2

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EXISTING LIGHT
POLE TO BE
REMOVED

NE Alexandria_8 - A

Existing View 3

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PROPOSED VERIZON
WIRELESS ANTENNAS

RELOCATED
LIGHT
FIXTURE

NEW METAL
LIGHT POLE

PROPOSED VERIZON
WIRELESS LOAD
CENTER PANEL

PROPOSED VERIZON
WIRELESS METER BOX

NE Alexandria_8 - A

Proposed View 3

06 May 2020



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EXISTING LIGHT
POLE TO BE
REMOVED

NE Alexandria_8 - A

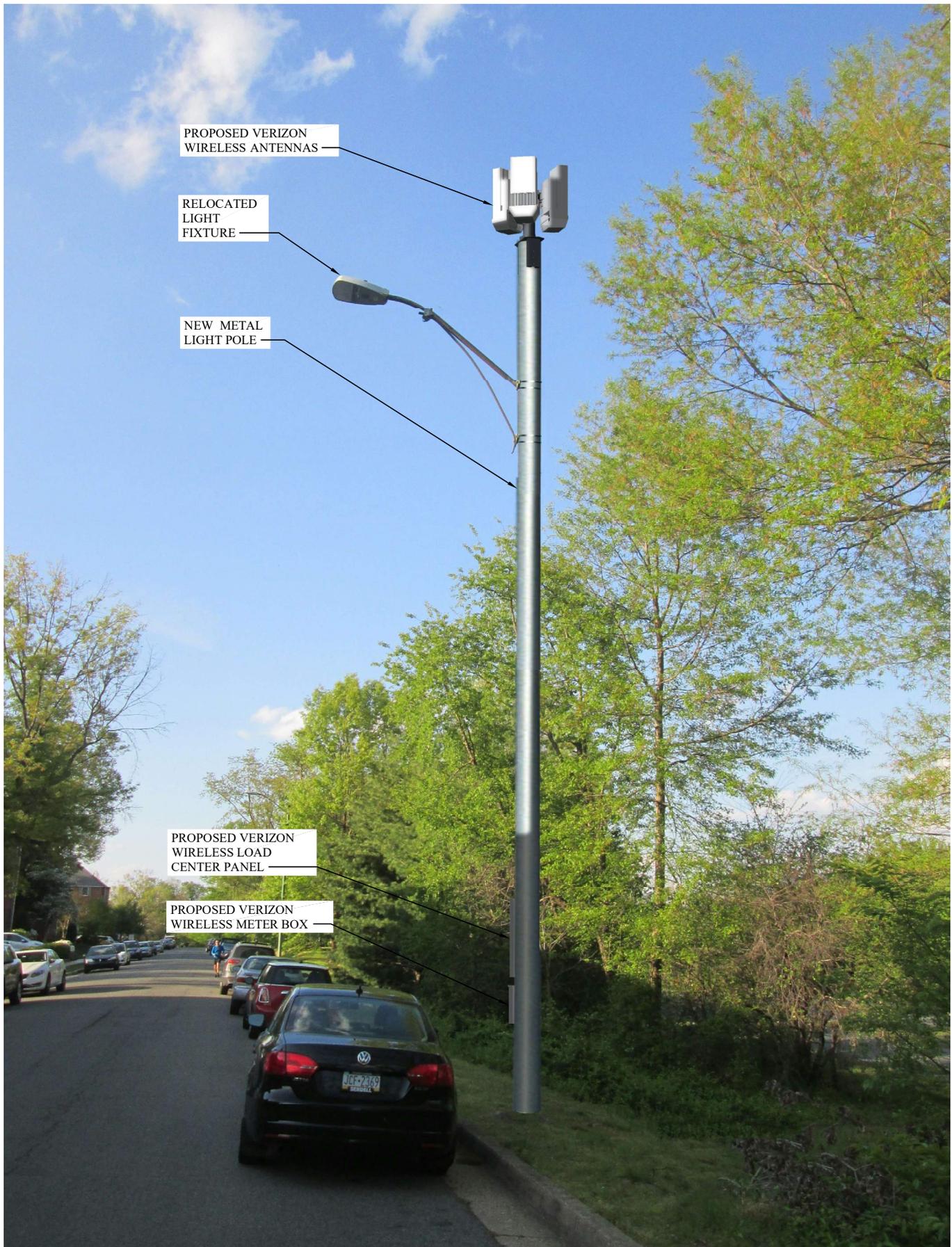
Existing View 4

06 May 2020



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PROPOSED VERIZON
WIRELESS ANTENNAS

RELOCATED
LIGHT
FIXTURE

NEW METAL
LIGHT POLE

PROPOSED VERIZON
WIRELESS LOAD
CENTER PANEL

PROPOSED VERIZON
WIRELESS METER BOX

NE Alexandria_8 - A

Proposed View 4

06 May 2020



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