

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

APPLICANT: Cellco Partnership dba Verizon Wireless

LOCATION: Old and Historic Alexandria District
New standalone pole in the right-of-way near 500 South Royal Street

ZONE: RM/Residential Townhouse Zone

STAFF RECOMMENDATION

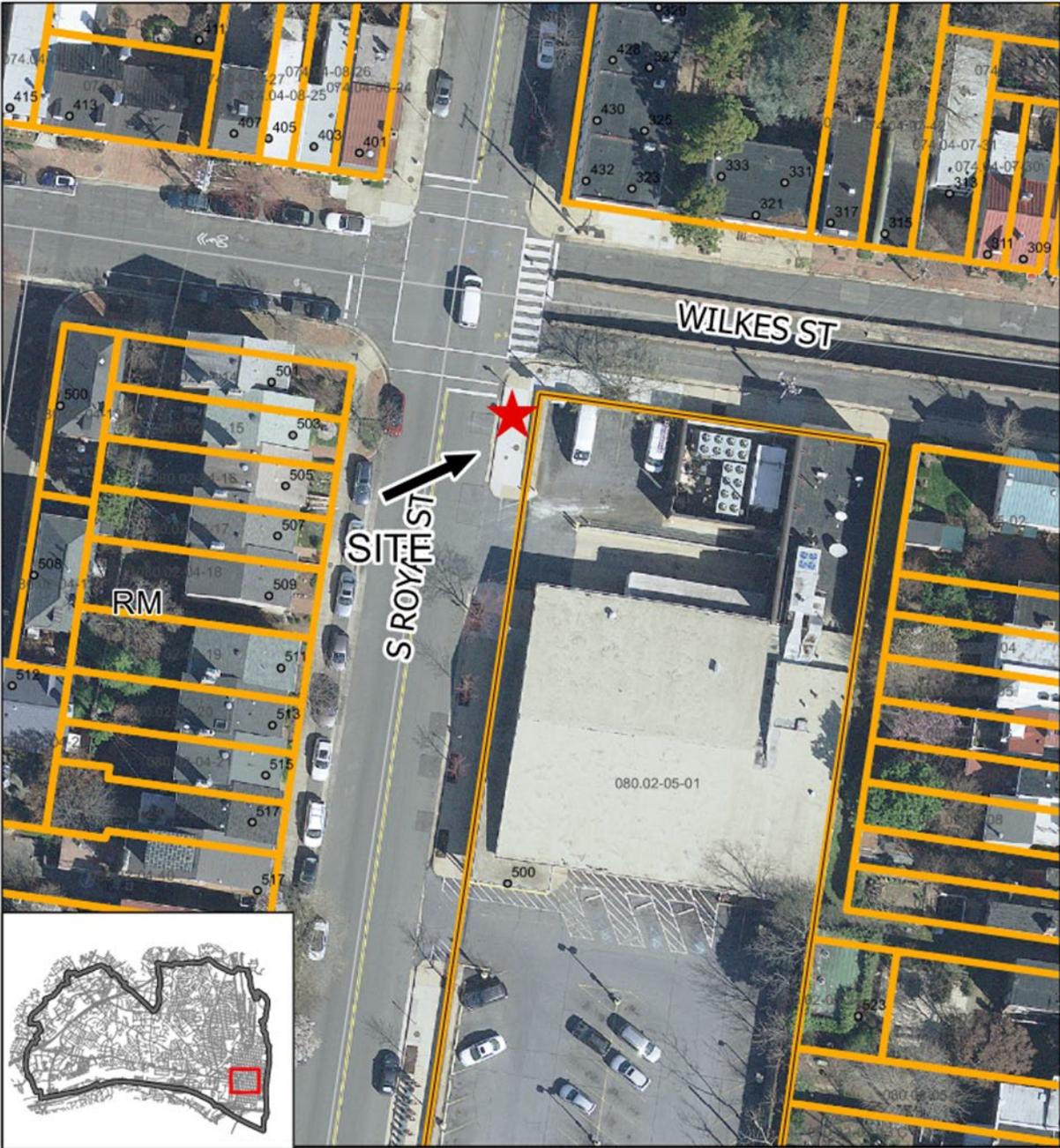
Staff recommends approval of the Certificate of Appropriateness as submitted.

BOARD ACTION: Deferred

By unanimous consent, the Board of Architectural Review accepted the request for deferral of BAR #2020-00598.

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 #2020-00598
500 South Royal Street



0 20 40 80 Feet

Update

The application was deferred from the January 21, 2021 hearing by the request of the applicant.

I. APPLICANT’S PROPOSAL

The applicant is requesting a Certificate of Appropriateness to install a new standalone metal pole with small cell equipment in the right-of-way in front of the parcel at 500 South Royal Street.

The new 40’-11” high standalone aluminum alloy smart pole will be placed on a concrete pier foundation. The decorative Raycap Stealth base (4.42 CU FT) is 20” in diameter and 5’-6” tall with a decorative top connecting it to the pole’s fluted Rapco Tri-Chamber 8” diameter shaft. The 5G small cell facility (1.92 CU FT) measuring approximately 2’6” high will be mounted on top of the pole which will have a Hapco cap and decorative finial at the top end (Figure 1). The pole and equipment will be black.

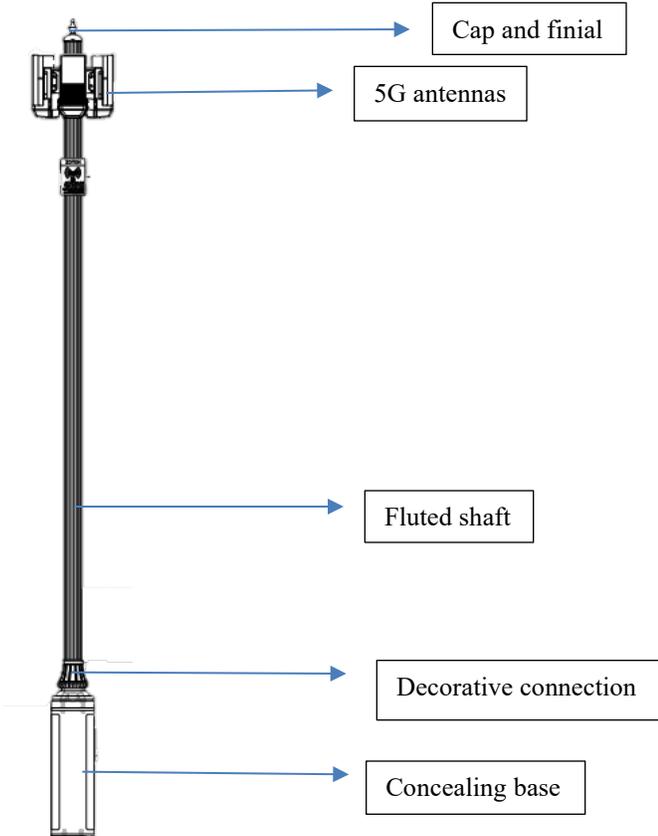


Figure 1- proposed pole

Site context

The new standalone metal pole will be installed at the southeast corner of South Royal and Wilkes streets intersection in the right-of-way in front of the Safeway Supermarket parking lot and service entrance. The pole will be across the street from a row of 1960s townhouses to the west and the Wilkes Tunnel to the north.

II. HISTORY

The one story, brick supermarket building was built in 1964. The site is adjacent to the historic Wilkes Tunnel entrance. The Wilkes Street Tunnel is noted as one of only two historic railroad structures currently in existence throughout the city. Completed in 1856, the tunnel was originally used by the Orange & Alexandria rail company as a route service and major connector between Washington D.C. and Richmond.¹

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. To date, several small cell facilities have been approved in the historic districts, either by the BAR at public hearing or administratively by staff. 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 states 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..."

¹ City of Alexandria website, https://www.alexandriava.gov/news_display.aspx?id=13486 last accessed 1/13/21

Staff has no objection to the pole’s design or the installation of the small cell facility equipment in this location. The proposed smart pole was developed specifically for small cell facilities and is compatible with the standalone pole design approved by the City Council (Figure 2). The base conceals the equipment which would otherwise be placed in the right-of-way or mounted on an existing pole and the shaft is divided in chambers for wiring management. The smart poles are more efficient and have a more streamlined appearance than regular poles carrying multiple utility functions.

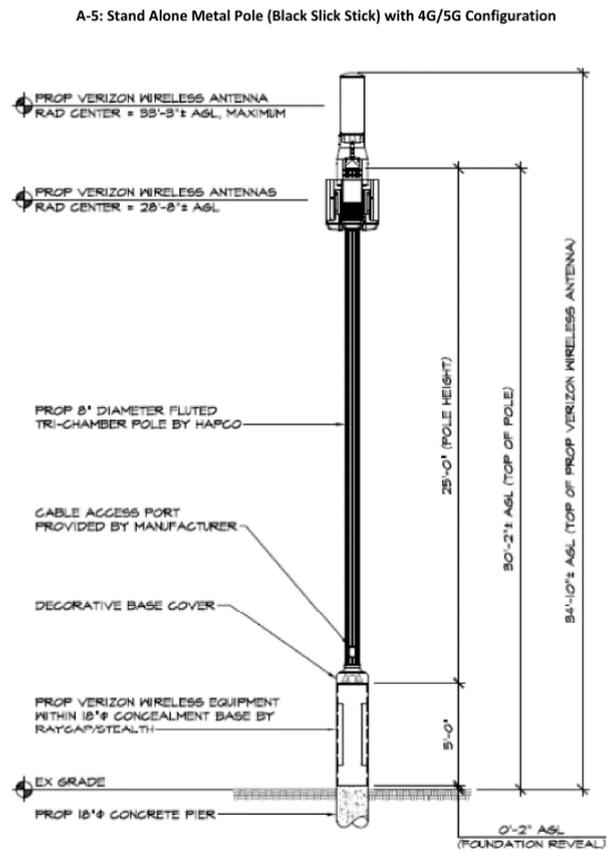


Figure 2- Standalone pole design approved by the City Council

The standalone metal pole design has been found to be appropriate by the City’s internal Small Cell Pole Design Review Committee based upon design requirements for 4G and 5G installations. The Review Committee was composed of staff from Land Use Services, Historic Preservation and Transportation and Environmental Services. This style of standalone pole is the same as, or similar to, poles that have been installed in other historic districts throughout the country and would be installed in other locations around the city as well. In addition, the standalone metal pole design has been approved by City Council under the Verizon’s Franchise Agreement passed on December 12, 2020, therefore 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

- F-1 Height of the pole shall not exceed 50.00 feet without a Special Use Permit.
Pole height is 34' feet and overall height is 40' 11". There will be a base with concealed equipment that will measure 5' 6"

- F-2 Pole must be in the same general location as existing pole.
There is no pole in proposed location. This will be a new pole.

- F-3 The pole is not located in a manner that requires the removal of an existing tree or impacts of root zone.
Pole will not require a tree to be removed

- F-4 Pole 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.
**Revised plans indicate facility to be a metal pole wood pole.
(ZAP2020-00360)**

Code Administration

A building permit and plan review are required prior to construction.

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)
- 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)
- C-6 An encroachment request will be required for projections into the public right of way. (T&ES)

- C-7 The owner shall obtain and maintain a policy of general liability insurance in the amount of \$1,000,000 which will indemnify the owner (and all successors in interest); and the City as an Additional Insured, against claims, demands, suits and related costs, including attorneys' fees, arising from any bodily injury or property damage which may occur as a result of the encroachment. (Sec. 5-29 (h)(1)) (T&ES)

**Please submit Insurance Certificate:
City of Alexandria T&ES
Attn: Development Services
301 King Street, Room 4130
Alexandria, VA 22314**

Alexandria Archaeology

F-1 No archaeological oversight required

V. ATTACHMENTS

1 – Application Materials
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).* metal not wood updated for 2.17.2021 BAR Hearing

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 Schakola

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

GENERAL NOTES

1. 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.
2. 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 PRIORITIZE 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 TO THE SITE 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.
10. 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.
11. 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.
14. 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.
16. 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. 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 REQUIREMENTS STIPULATED BY THE VZIA CONSTRUCTION ENGINEER.
18. CONTRACTOR IS RESPONSIBLE FOR STORAGE OF ALL MATERIALS PROVIDED BY VERIZON AND IS LIABLE FOR THOSE MATERIALS ONCE PICKED UP FROM THE WAREHOUSE.
19. CONTRACTOR SHALL PERFORM A PUNCH WALK WITH VZIA CONSTRUCTION & OPERATION REPRESENTATIVE PRIOR TO DECLARING CONSTRUCTION COMPLETE.
20. GENERAL CONTRACTOR SHALL PROVIDE A 10LBS. DRY-CHEMICAL FIRE EXTINGUISHER ON SITE DURING CONSTRUCTION. UPON COMPLETION OF ALL WORK, CONTRACTOR SHALL REMOVE FIRE EXTINGUISHER FROM SITE.

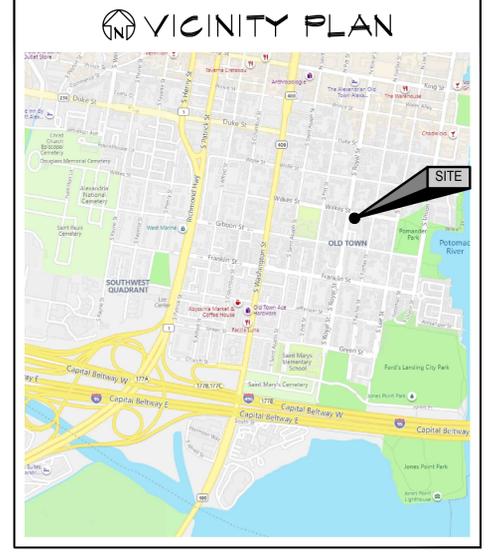
INDEX OF DRAWINGS

CS-1	SITE LOCATION AND VICINITY PLAN, INDEX OF DRAWINGS, AND CODE ANALYSIS
C-1	SITE PLAN
C-2	SITE DETAILS
TMP-1	TRANSPORTATION MANAGEMENT PLAN NOTES
TMP-2	TRANSPORTATION MANAGEMENT PLAN
S-1	STRUCTURAL SECTIONS AND DETAILS
S-2	GENERAL NOTES
E-1	ROUTING SITE PLAN
E-2	ELECTRICAL SPECIFICATIONS, SYMBOLS LIST, PANEL SCHEDULE AND DETAILS
E-3	POWER PLANS, POWER RISER, DETAILS, AND NOTES
E-4	GROUNDING DIAGRAM, DETAILS, AND NOTES
E-5	DIAGRAMS

CODE ANALYSIS

APPLICABLE BUILDING CODE:	IBC 2015
USE GROUP:	UTILITY (U)
CONSTRUCTION TYPE:	IIB
UTILITY COMPANY:	DOMINION

RAND McNALLY LICENSE # RL04-S-9T



PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE INSTALLATION OF VERIZON WIRELESS TELECOMMUNICATIONS EQUIPMENT ON A PROPOSED DECORATIVE METAL POLE PLANT. THE ASSOCIATED ANTENNAS WILL BE MOUNTED ON THE PROPOSED DECORATIVE METAL POLE PLANT AT A RAD CENTER OF 38'-6".

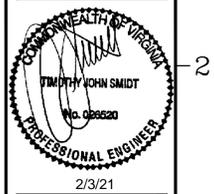
DIRECTIONS TO SITE

- FROM JUNCTION DRIVE:
- TURN LEFT ONTO HENKELS LANE
 - TAKE RAMP ON LEFT FOR MD-32 EAST
 - TAKE EXIT #10C RAMP ON RIGHT FOR BALTIMORE WASHINGTON PARKWAY SOUTH
 - TAKE EXIT #11C RAMP ON RIGHT FOR I-495 SOUTH
 - TAKE EXIT #11TB RAMP ON RIGHT FOR US-1 NORTH
 - KEEP STRAIGHT ONTO CHURCH STREET
 - TURN LEFT ONTO VA-400
 - TURN RIGHT ONTO WILKES STREET
 - TURN RIGHT ONTO SOUTH ROYAL STREET
 - DESTINATION WILL BE ON THE LEFT

VERIZON WIRELESS REVIEW

BUILDING OWNER	DATE
ENGINEERING	DATE
OPERATIONS	DATE
CONSTRUCTION	DATE

verizon ✓
 OLD TOWN 4 - D - SMALL CELL
 RIGHT OF WAY ADJACENT TO 500 S ROYAL ST
 ALEXANDRIA, VIRGINIA 22314



verizon ✓
 OLD TOWN 4 - D - SMALL CELL
 RIGHT OF WAY ADJACENT TO 500 S ROYAL ST, ALEXANDRIA, CITY OF ALEXANDRIA, VIRGINIA 22314

REVISIONS:

NO.	DESCRIPTION	DATE

LAST REV.:
 PROJECT NO: 20103B
 DATE: AUGUST 31, 2020
 SCALE: AS NOTED

TITLE:
 SITE LOCATION AND VICINITY PLAN, INDEX OF DRAWINGS, AND CODE ANALYSIS

SHEET:
 CS-1



VICINITY MAP
SCALE: 1" = 1000'

- SITE NOTES:**
- APPLICANT: VERIZON WIRELESS
8070 JUNCTION DRIVE, STE 300
ANNAPOLIS JUNCTION, MD 20701
TEL: (301) 512-2000
FAX: (301) 512-2099
 - APPLICANT'S REPRESENTATIVE: JOSHUA SCHAKOLA
MASTEC NETWORK SOLUTIONS
4115 GUILFORD RD, STE 400
COLUMBIA, MD 21046
 - STRUCTURE OWNER: VERIZON WIRELESS
8070 JUNCTION DRIVE, STE 300
ANNAPOLIS JUNCTION, MD 20701
TEL: (301) 512-2000
 - ADJACENT PROPERTY OWNER: RODERICK H CUSHMAN
CO SAFEMAY INC
1871 OAKLAND BLVD STE 200
WALNUT CREEK, CA 94596-4344
 - ADJACENT SITE DATA: MAP-BLOCK-LOT NUMBER: 050.02-05-01
ACCOUNT NUMBER: 12448000
TRACT AREA: 43,500.50 SQ FT
ADDRESS: 500 S ROYAL ST
ALEXANDRIA, VIRGINIA 22314
EXISTING USE: COMMERCIAL
 - ZONING: RM
 - HORIZONTAL AND VERTICAL CONTROL SHOWN HEREON IS BASED ON SATELLITE IMAGERY PROGRAMS AND INFORMATION PROVIDED BY VERIZON WIRELESS.
LATITUDE: N26° 47' 59.21" (88.769447) GROUND ELEVATION: 16.0' AMSL (AVS)
LONGITUDE: W77° 02' 40.34" (-77.044553)
 - TOTAL DISTURBED AREA = 8 SF
 - THE PROPOSED FACILITIES WILL CONSIST OF THREE (3) ANTENNAS WITH ASSOCIATED EQUIPMENT MOUNTED ON A NEW DECORATIVE POLE WITH A RAD CENTER AT AN ELEVATION OF 38'-6" ABOVE GRADE LEVEL FOR THE RECEPTION OF VERIZON WIRELESS TELECOMMUNICATIONS.
 - 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.
 - 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.
 - NO WATER OR SANITARY UTILITIES ARE REQUIRED FOR THE OPERATION OF THIS FACILITY.
 - STORMWATER MANAGEMENT NOTE: NO STORMWATER MANAGEMENT IS REQUIRED FOR THIS SITE.
 - BOUNDARY SHOWN PER COUNTY RECORDS.
 - THIS PLAN PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. PLAN IS SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.
 - ALL DETAILS SHOWN ARE 'STANDARD' OR 'TYPICAL' FOR REFERENCE ONLY. FOR ACTUAL DETAILS, SEE ARCHITECTURAL, STRUCTURAL, OR CONSTRUCTION PLANS BY OTHERS.
 - STRUCTURAL ANALYSIS/DESIGN TO BE PERFORMED BY OTHERS AT CLIENT AND/OR OWNER'S DISCRETION PRIOR TO COMMENCEMENT OF ANY WORK.
 - 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:**
- 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.
 - ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND ORDINANCES, THE LATEST EDITION THEREOF.
 - 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.
 - CONTRACTOR SHALL COORDINATE ALL UTILITY CONNECTIONS WITH APPROPRIATE UTILITY OWNERS.
 - THESE PLANS ARE NOT FOR RECORDATION OR CONVEYANCE.
 - EXISTING PAVEMENT AND OTHER SURFACES DISTURBED BY CONTRACTOR (WHICH ARE NOT TO BE REMOVED) SHALL BE REPAIRED TO PRECONSTRUCTION CONDITIONS BY THE CONTRACTOR.

#	PROPERTY OWNER	ACCOUNT NO.	TRACT AREA (SQ FT)	ZONING
1	JASON C ROBERTS TR, HEIDI N GOMEZ TR	11751520	1,466	RM
2	YUNYUN CHENS TURIM, JASON R TURIM	11751540	1,440	RM
3	SUZANNE B LIPCAMAN	11751560	1,440	RM

MRA
MORRIS & RITCHIE ASSOCIATES, INC.
 Civil/Structural Engineers
 1320-C East Joppa Road, Suite 505
 Towson, Maryland 21286
 410-821-1600
 410-821-1748 Fax

verizon
 OLD TOWN 4 - D - SMALL CELL
 RIGHT OF WAY ADJACENT TO 500 S ROYAL ST
 ALEXANDRIA, VIRGINIA 22314 (CITY OF ALEXANDRIA)

REVISIONS:

NO.	DESCRIPTION	DATE
1	PERMIT DWGS	08/31/20
2	POLE UPDATE	02/03/21

DESIGNED BY: RJD
 DRAWN BY: CMS
 PROJECT NO: 10427.2441
 DATE: 07/31/2020
 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"

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

MRA
MORRIS & RITCHIE ASSOCIATES, INC.
 Civil / Structural Engineers
 1320-C East Joppa Road, Suite 505
 Towson, Maryland 21286
 410-821-1600
 410-821-1748 Fax



verizon
 OLD TOWN 4 - D - SMALL CELL
 RIGHT OF WAY ADJACENT TO 500 S ROYAL ST
 ALEXANDRIA, VIRGINIA 22314 (CITY OF ALEXANDRIA)

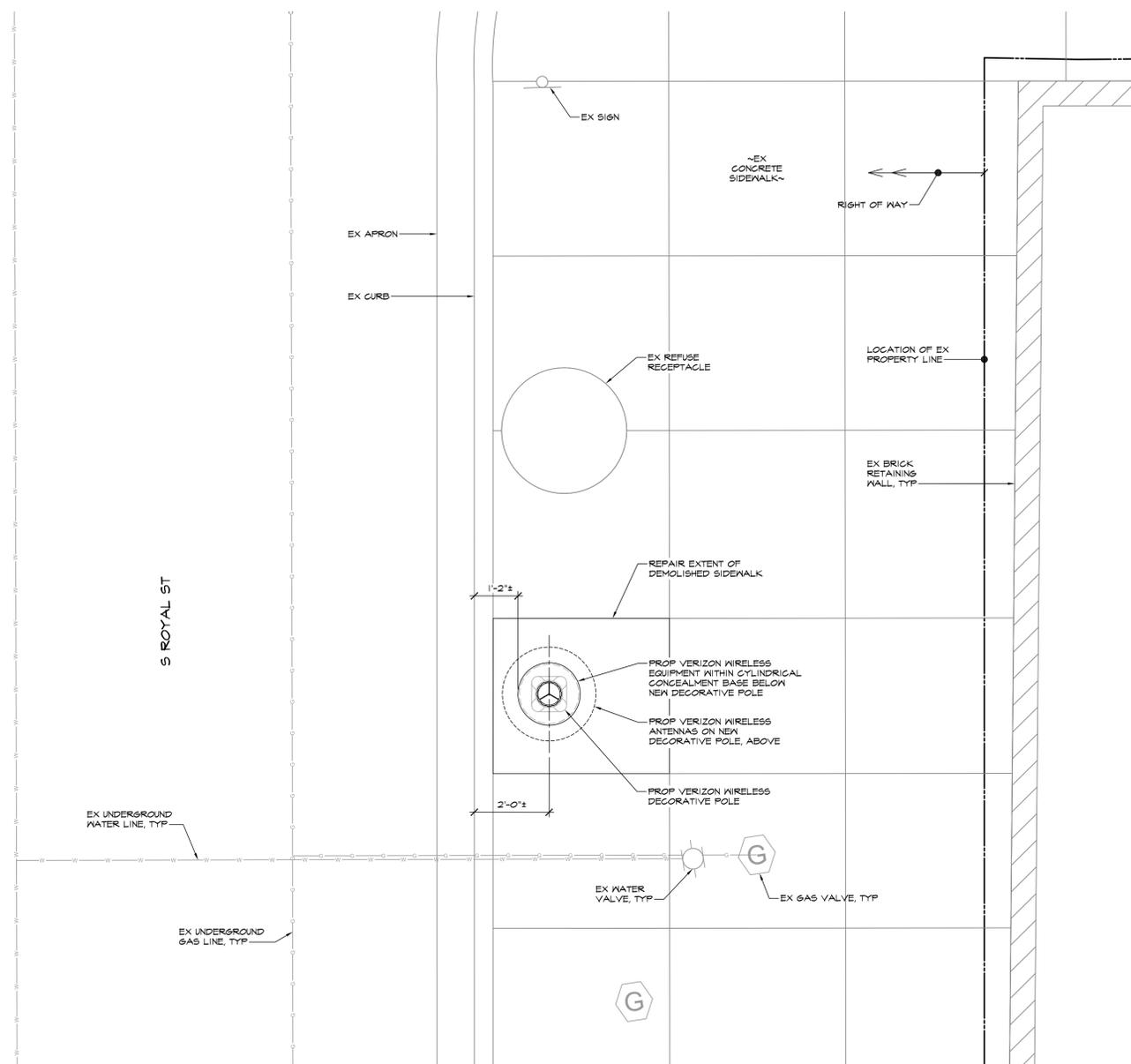
REVISIONS:

NO.	DESCRIPTION	DATE
1	PERMIT DWGS	08/31/20
2	POLE UPDATE	02/03/21

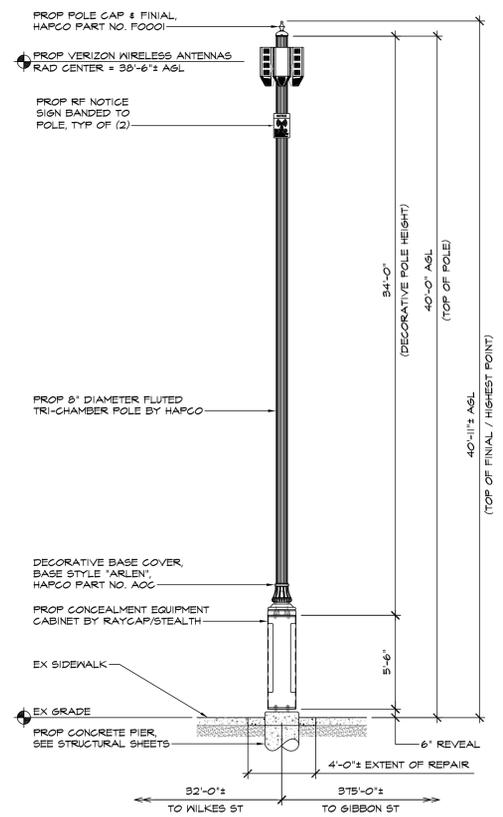
DESIGNED BY: RJD
 DRAWN BY: CMS
 PROJECT NO: 10427.2441
 DATE: 07/31/2020
 SCALE: AS NOTED

TITLE:
Site Details

SHEET:
C-2



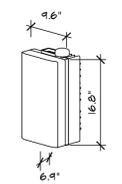
ENLARGED EQUIPMENT LAYOUT
 SCALE: 1" = 5'-0"



PROPOSED POLE ELEVATION
 SCALE: 1" = 5'-0"

VOLUMETRIC CALCULATIONS

ANTENNA VOLUMETRIC CALCULATION		EQUIPMENT VOLUMETRIC CALCULATION	
SAMSUNG NR AU (3 ANTENNAS, 0.64 CU FT EACH)	1.92 CU FT	RAYCAP/STEALTH CONCEALMENT BASE	12.0 CU FT
TOTAL	1.92 CU FT	TOTAL	12.0 CU FT



SAMSUNG VZ-ATIKOI NR AU
VERIZON WIRELESS ANTENNA DETAILS
 NOT TO SCALE

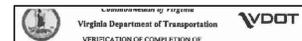


Know what's below. Call before you dig.

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.

TRANSPORTATION MANAGEMENT PLAN

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



 VERIFICATION OF COMPLETION OF ADVANCED WORK ZONE TRAFFIC CONTROL TRAINING AND FLASHER 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: 6/21/2019

 Verifications No.: 00219413



 State Traffic Engineer

 Expires Date: 9/30/2023



MORRIS & RITCHIE ASSOCIATES, INC.

 Civil / Structural Engineers

 1230-C East Joppa Road, Suite 808

 Towson, Maryland 21286

 410-821-1600

 410-821-1748 Fax



 COMMONWEALTH OF VIRGINIA

 JON K. ERICKSON

 No. 32355

 08/21/2020

 PROFESSIONAL ENGINEER

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 WILKES ST AND S ROYAL 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 IS A COMMERCIAL ENTRANCE 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 VWPM 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:
 - NOTIFYING THE PROJECT MANAGER AND CITY INSPECTOR TWO WEEKS IN ADVANCE OF ANY SCHEDULED WORK PLANS AND TRAFFIC DELAYS.
 - 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:
 - 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.
 - IMMEDIATELY REPORT ANY TRAFFIC INCIDENTS THAT MAY OCCUR IN THE WORK ZONE.
 - NOTIFY THE PROJECT'S CONSTRUCTION INSPECTOR AND COUNTY ENGINEER OF ANY INCIDENTS AND EXPECTED TRAFFIC DELAYS.
 - 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: VWPM VIRGINIA WORK AREA PROTECTION MANUAL (2011) INCLUDING REVISION 2 DATED SEPTEMBER 1, 2019.
- 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 September 2019

Typical Traffic Control

Stationary Operation on a Shoulder (Figure TTC-4.2)

NOTES

- 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 (W21-5aR), 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.
- 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.
- 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.
- 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) shall be at the following:

Speed Limit (mph)	Lane Width (Feet)				Remarks
	9	10	11	12	
25	95	105	115	125	L-S/W60
30	135	150	165	180	L-S/W60
35	185	205	225	245	L-S/W60
40	240	270	295	320	L-S/W60
45	405	450	495	540	L-S/W

Limited Access highways shall use a 1000' merging taper regardless of the posted speed, for shifting taper see Table 6H.2.1
Shoulder Taper = 1/4 Minimum

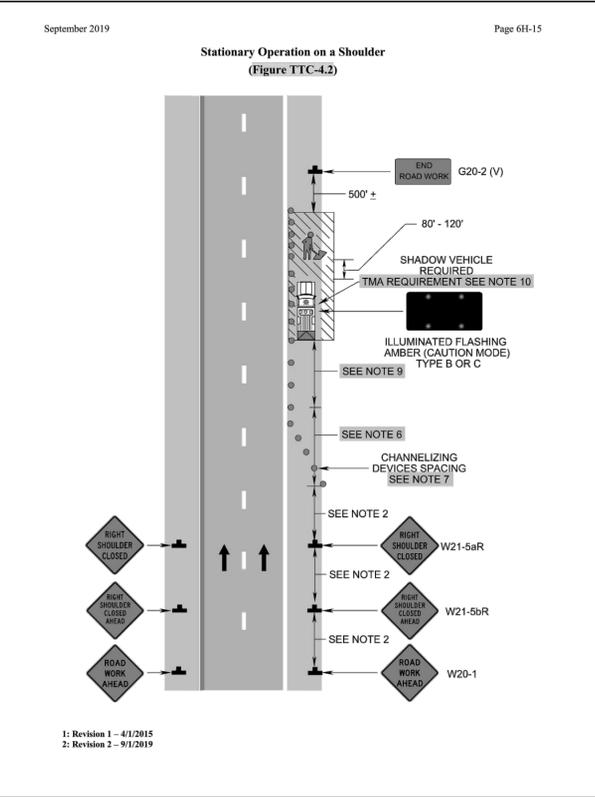
Channelizing Device Spacing					
Location Spacing	Speed Limit (mph)	Location Spacing	Speed Limit (mph)	Location Spacing	Speed Limit (mph)
Transition	20'	40'	Travelway	40'	80'
	0-35	36+		0-35	36+
	36+			36+	

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

1: Revision 1 - 4/1/2015
2: Revision 2 - 9/1/2019

September 2019 Page 6H-15

Stationary Operation on a Shoulder (Figure TTC-4.2)



END ROAD WORK G20-2 (V)

 500' ±

 80' - 120'

 SHADOW VEHICLE REQUIRED

 TMA REQUIREMENT SEE NOTE 10

 ILLUMINATED FLASHING AMBER (CAUTION MODE) TYPE B OR C

 SEE NOTE 9

 SEE NOTE 6

 CHANNELIZING DEVICES SPACING SEE NOTE 7

 SEE NOTE 2

 RIGHT SHOULDER CLOSED W21-5aR

 SEE NOTE 2

 RIGHT SHOULDER CLOSED W21-5bR

 SEE NOTE 2

 ROAD WORK AHEAD W20-1

1: Revision 1 - 4/1/2015
2: Revision 2 - 9/1/2019

Page 6H-78 September 2019

Typical Traffic Control

Sidewalk Closure and Bypass Sidewalk Operation (Figure TTC-35.1)

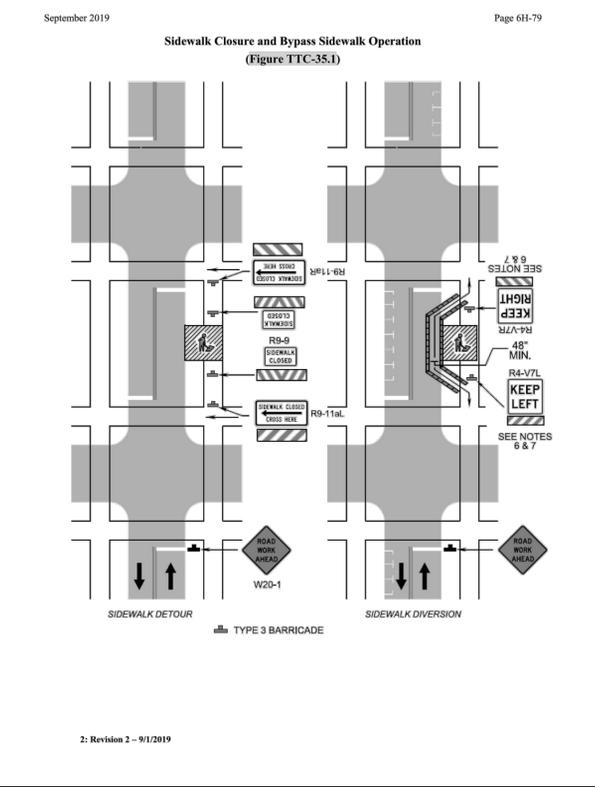
NOTES

- When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility.
- Where high speeds are anticipated, a temporary traffic barrier and, if necessary, a crash cushion should be used to separate the temporary sidewalks from vehicular traffic.
- Audible information devices should be considered where midblock crossings and changed crosswalk areas cause inadequate communication to be provided to pedestrians who have visual disabilities.
- Temporary markings should be considered for operations exceeding three days in duration.
- Only the TTC devices related to pedestrians are shown. Other devices, such as lane closure signing or ROAD NARROWS (W5-1) signs, may be used to control vehicular traffic.
- For nighttime closures, Type A Flashing warning lights may be used on barricades that support signs and close sidewalks.
- Signs, such as KEEP RIGHT (R4-VTR) and KEEP LEFT (R4-VTL), may be placed along a temporary sidewalk to guide or direct pedestrians.
- All sidewalk closures shall be closed with Type 3 Barricades. The SIDEWALK CLOSED (R9-9) sign and the SIDEWALK CROSS HERE (R9-11) sign shall be installed above the Type 3 barricade. The KEEP RIGHT sign can cover the top rail of the Type 3 Barricade.

2: Revision 2 - 9/1/2019

September 2019 Page 6H-79

Sidewalk Closure and Bypass Sidewalk Operation (Figure TTC-35.1)



SIDEWALK DETOUR

 SIDEWALK DIVERSION

 TYPE 3 BARRICADE

 SEE NOTE 8

 SEE NOTE 9

 SEE NOTE 10

 SEE NOTE 11

 SEE NOTE 12

 SEE NOTE 13

 SEE NOTE 14

 SEE NOTE 15

 SEE NOTE 16

 SEE NOTE 17

 SEE NOTE 18

 SEE NOTE 19

 SEE NOTE 20

 SEE NOTE 21

 SEE NOTE 22

 SEE NOTE 23

 SEE NOTE 24

 SEE NOTE 25

 SEE NOTE 26

 SEE NOTE 27

 SEE NOTE 28

 SEE NOTE 29

 SEE NOTE 30

2: Revision 2 - 9/1/2019

verizon

 OLD TOWN 4 - D - SMALL CELL

 RIGHT OF WAY ADJACENT TO 500 S ROYAL ST

 ALEXANDRIA, VIRGINIA 22314 (CITY OF ALEXANDRIA)

REVISIONS:

NO.	DESCRIPTION	DATE
1	PERMIT DWGS	08/27/20

DESIGNED BY: JKE

 DRAWN BY: ML

 PROJECT NO: 10421.241

 DATE: 07/31/2020

 SCALE: AS NOTED

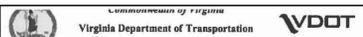
 TITLE:

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



 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



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

 JON K. ERICKSON

 Lic. No. 32355

 08/21/2020

 PROFESSIONAL ENGINEER



verizon
 OLD TOWN 4 - D - SMALL CELL
 RIGHT OF WAY ADJACENT TO 500 S ROYAL ST
 ALEXANDRIA, VIRGINIA 22314 (CITY OF ALEXANDRIA)

REVISIONS:

NO.	DESCRIPTION	DATE
1	PERMIT DWGS	08/27/20

DESIGNED BY: JKE
 DRAWN BY: ML
 PROJECT NO: 10421.2441
 DATE: 07/31/2020
 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.



 SCALE: 1" = 30'



verizon
 OLD TOWN 4 - D - SMALL CELL
 RIGHT OF WAY ADJACENT TO 500 S ROYAL ST
 ALEXANDRIA, VIRGINIA 22314 (CITY OF ALEXANDRIA)

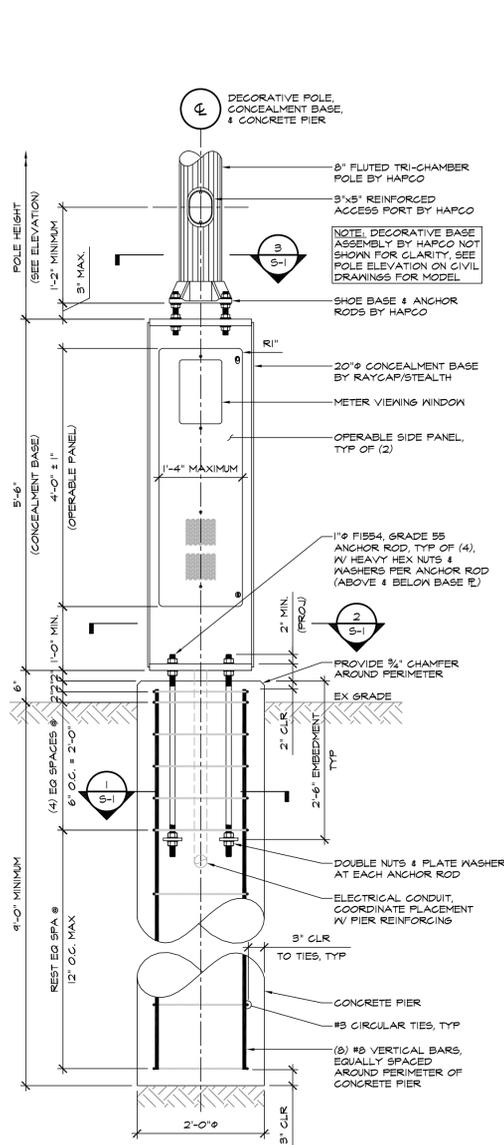
REVISIONS:

NO.	DESCRIPTION	DATE
1	PERMIT DWGS	08/31/20
2	POLE UPDATE	02/03/21

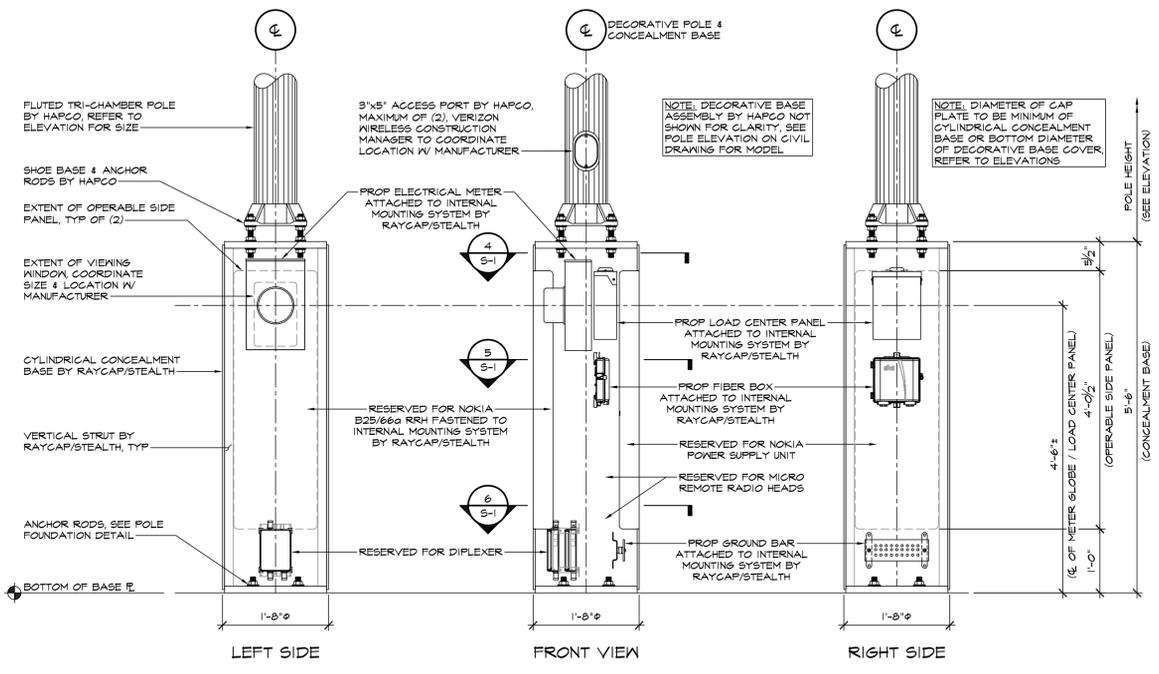
DESIGNED BY: RJD
 DRAWN BY: CMS
 PROJECT NO: 10427.2441
 DATE: 07/31/2020
 SCALE: AS NOTED

TITLE:
Structural Sections & Details

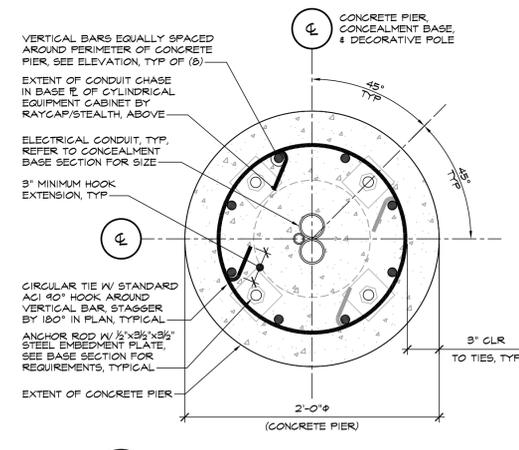
SHEET:
S-1



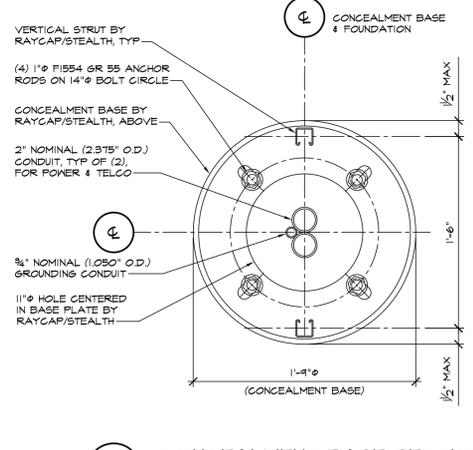
A POLE FOUNDATION DETAIL
 SCALE: 3/4" = 1'-0"



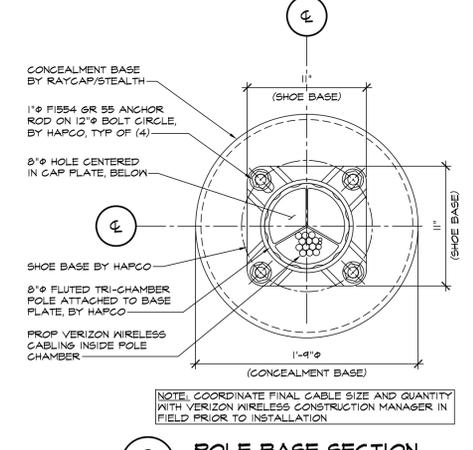
B BASE CYLINDRICAL EQUIPMENT CABINET DETAILS
 SCALE: 3/4" = 1'-0"



1 PIER REINFORCING SECTION
 SCALE: 1-1/2" = 1'-0"

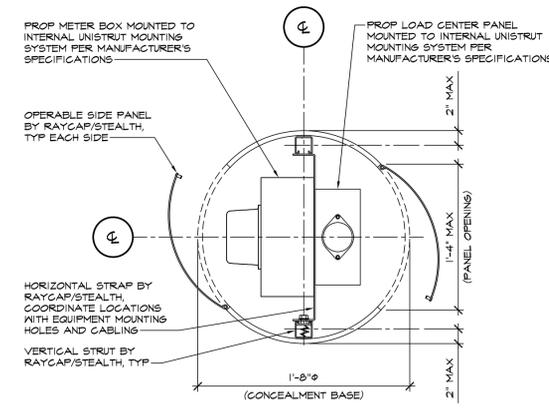


2 CONCEALMENT BASE SECTION
 SCALE: 1-1/2" = 1'-0"

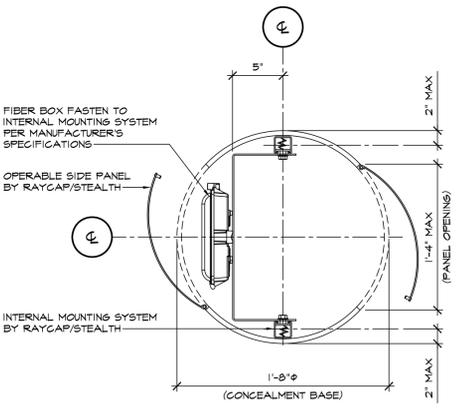


3 POLE BASE SECTION
 SCALE: 1-1/2" = 1'-0"

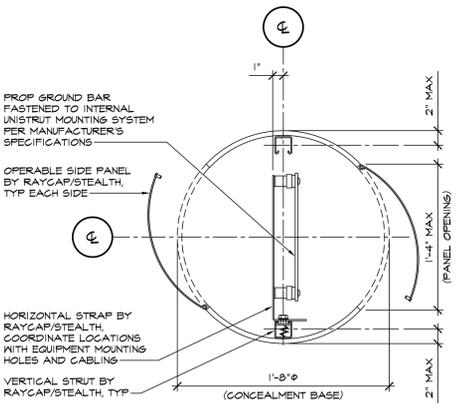
NOTE: PROPOSED POLE ANTENNAS AND EQUIPMENT ARE TO BE COLORED BLACK. COORDINATE WITH VERIZON WIRELESS CONSTRUCTION MANAGER PRIOR TO COLORING.



4 TYPICAL EQUIPMENT CONCEALMENT BASE SECTION
 SCALE: 1-1/2" = 1'-0"



5 UPPER EQUIPMENT CONCEALMENT BASE SECTION
 SCALE: 1-1/2" = 1'-0"

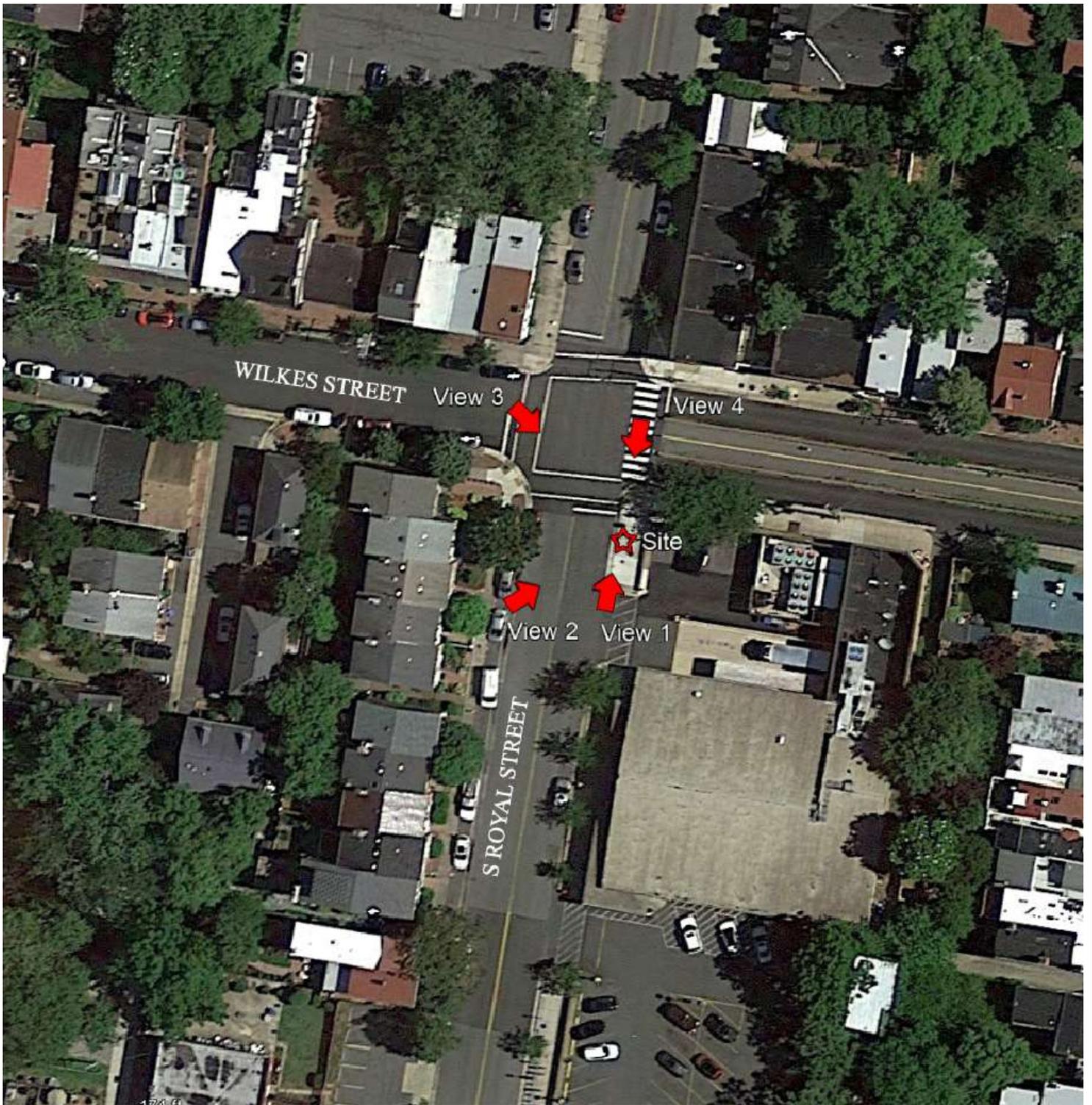


6 LOWER EQUIPMENT CONCEALMENT BASE SECTION
 SCALE: 1-1/2" = 1'-0"



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.



MORRIS & RITCHIE
ASSOCIATES, INC.
1220-C East Joppa Road, Suite 505
Towson, Maryland 21286
410-821-1690
410-821-1748 Fax

Old Town 4 - D Overall Site Layout

03 February 2021



Project# 10427.2941



MORRIS & RITCHIE
ASSOCIATES, INC.
1220-C East Joppa Road, Suite 505
Towson, Maryland 21286
410-821-1690
410-821-1748 Fax

Old Town 4 - D Existing View 1

03 February 2021



Project# 10427.2941



PROPOSED VERIZON WIRELESS
ANTENNAS COLORED BLACK

NEW POLE



MORRIS & RITCHIE
ASSOCIATES, INC.
1220-C East Joppa Road, Suite 505
Towson, Maryland 21286
410-821-1690
410-821-1748 Fax

Old Town 4 - D Proposed View 1

03 February 2021



Project# 10427.2941



MORRIS & RITCHIE
ASSOCIATES, INC.
1220-C East Joppa Road, Suite 505
Towson, Maryland 21286
410-821-1690
410-821-1748 Fax

Old Town 4 - D Existing View 2

03 February 2021



Project# 10427.2941



PROPOSED VERIZON WIRELESS
ANTENNAS COLORED BLACK

NEW POLE



MORRIS & RITCHIE
ASSOCIATES, INC.
1220-C East Joppa Road, Suite 505
Towson, Maryland 21286
410-821-1690
410-821-1748 Fax

Old Town 4 - D Proposed View 2

03 February 2021



Project# 10427.2941



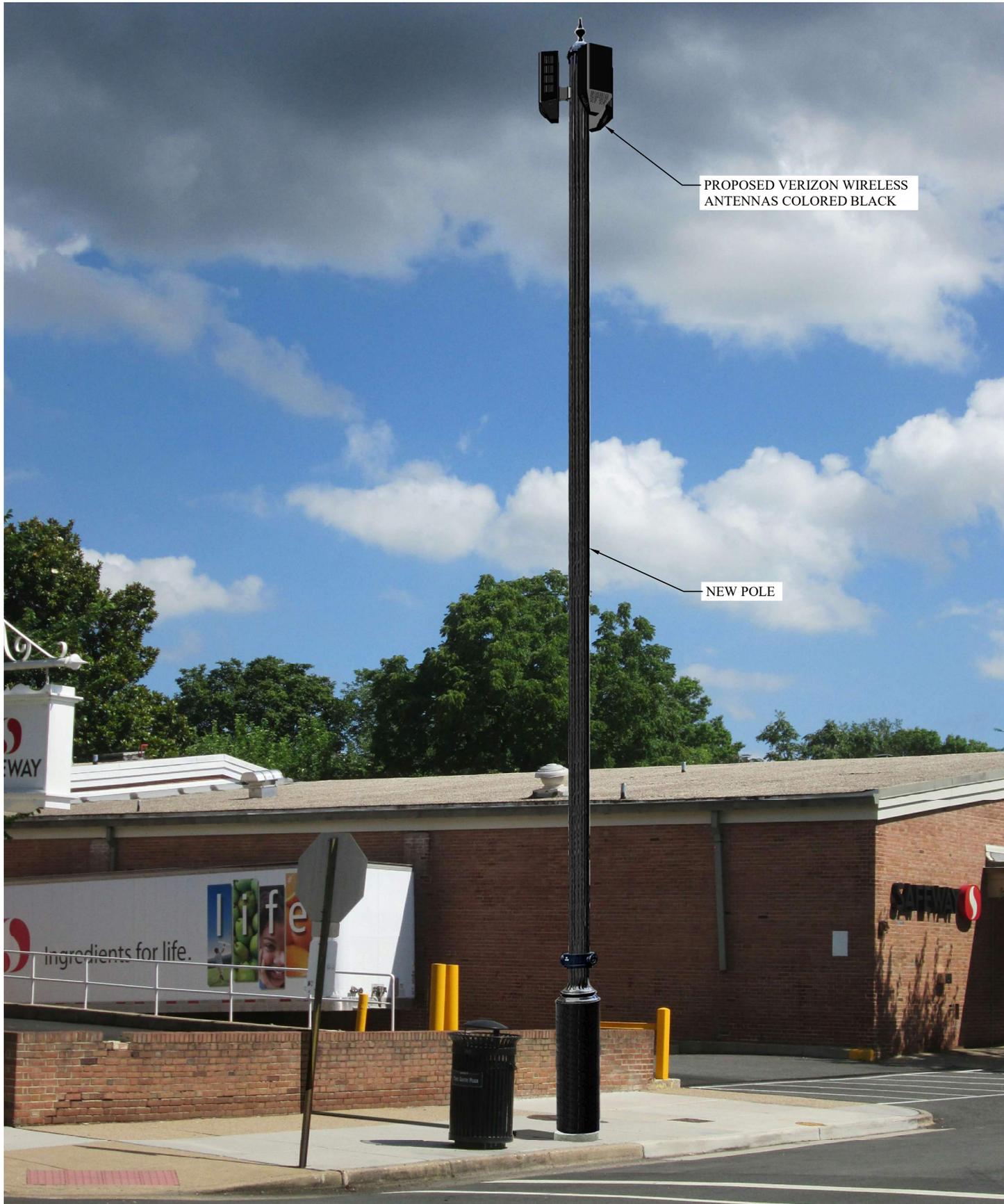
MORRIS & RITCHIE
ASSOCIATES, INC.
1220-C East Joppa Road, Suite 505
Towson, Maryland 21286
410-821-1690
410-821-1748 Fax

Old Town 4 - D Existing View 3

03 February 2021



Project# 10427.2941



PROPOSED VERIZON WIRELESS ANTENNAS COLORED BLACK

NEW POLE



MORRIS & RITCHIE ASSOCIATES, INC.
1220-C East Joppa Road, Suite 505
Towson, Maryland 21286
410-821-1690
410-821-1748 Fax

Old Town 4 - D Proposed View 3

03 February 2021



Project# 10427.2941



MORRIS & RITCHIE
ASSOCIATES, INC.
1220-C East Joppa Road, Suite 505
Towson, Maryland 21286
410-821-1690
410-821-1748 Fax

Old Town 4 - D Existing View 4

03 February 2021



Project# 10427.2941



PROPOSED VERIZON WIRELESS
ANTENNAS COLORED BLACK

NEW POLE



MORRIS & RITCHIE
ASSOCIATES, INC.
1220-C East Joppa Road, Suite 505
Towson, Maryland 21286
410-821-1690
410-821-1748 Fax

Old Town 4 - D Proposed View 4

03 February 2021



Project# 10427.2941