**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 526 North Washington

Street

**ZONE:** OC/Office Commercial 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 (<u>including signs</u>). 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 <u>Virginia Department of Historic Resources (VDHR)</u> prior to initiating any work to determine whether the proposed project may qualify for such credits.



# 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 526 North Washington Street with a new metal pole.

- The existing 35'2" high pole will be replaced with a new 38' high pole installed 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.
- Cubic volume of the antennas is 2.5.
- Cubic volume of associated equipment is 1.78.
- 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 in front of a two-story frame commercial building constructed as a residence. There are a number of historic townhouse in the 500 block of North Washington Street and the pole is across the street from the historic Cotton Factory.

# II. HISTORY

The two-story, three bay frame townhouse with a front porch and mansard roof was constructed between 1902 and 1907, according to Sanborn Fire Insurance Maps. Staff could locate no previous BAR approvals for the subject property.

## 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 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 41'-8" 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

Stephanie Sample, Historic Preservation Planner, Planning & Zoning Tony LaColla, AICP, Land Use Services Division Chief, Planning & Zoning

# IV. <u>CITY DEPARTMENT COMMENTS</u>

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 33' feet and overall height is 41' 8"
- 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.

Pole will not require a tree to be removed; however, it sits between two trees.

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 facility to be a silver metal pole

# **Code Administration**

F-1 No Code comment.

# Transportation and Environmental Services

## **CONDITIONS**

- 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)

## **FINDINGS:**

- F-1 The City is in the process of establishing a written policy regarding pole height for small cells. The poles will not be permitted to increase in height by more than 10-ft from the existing pole height, and not to exceed 50-ft in height. More details will be available in June 2019. (T&ES)
- F-2 A released grading plan is required prior to submitting for building permits. (T&ES)

## **CODE REQUIREMENTS**

- 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 Roof, surface and sub-surface drains be connected to the public storm sewer system, if available, by continuous underground pipe. Where storm sewer is not available applicant must provide a design to mitigate impact of stormwater drainage onto adjacent properties and to the satisfaction of the Director of Transportation & Environmental Services. (Sec.5-6-224) (T&ES)
- C-4 All secondary utilities serving this site shall be placed underground. (Sec. 5-3-3) (T&ES)
- C-5 Any work within the right-of-way requires a separate permit from T&ES. (Sec. 5-2) (T&ES)
- C-6 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-7 An encroachment request will be required for projections into the public right of way. (T&ES)
- C-8 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

No archaeological oversite required.

## **National Park Service**

No comments received.

# V. <u>ATTACHMENTS</u>

1 – Supplemental Materials

2 – Application for BAR2020-00241: near 526 North Washington Street

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?

BAR Case # \_\_\_\_\_

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   doors windows   lighting pergola/trellis   other   ADDITION   DEMOLITION/ENCAPSULATION   SIGNAGE	
<b>DESCRIPTION OF PROPOSED WORK:</b> Please describe the proposed work in detail (Additional page be attached).	s may
SUBMITTAL REQUIREMENTS:	
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.	
Items listed below comprise the <b>minimum supporting materials</b> for BAR applications. Staff may request additional information during application review. Please refer to the relevant section of the	)
Items listed below comprise the <b>minimum supporting materials</b> for BAR applications. Staff may request additional information during application review. Please refer to the relevant section of the <i>Design Guidelines</i> for further information on appropriate treatments.  Applicants must use the checklist below to ensure the application is complete. Include all information 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 additional describes the project.	e ons.

BAR Case #

BAR Case #	

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.

	<u>N/A</u>	
		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.
	Ц	For development site plan projects, a model showing mass relationships to adjacent properties and structures.
illun	ninat	<b>&amp; Awnings:</b> One sign per building under one square foot does not require BAR approval unless ed. All other signs including window signs require BAR approval. Check N/A if an item in this section does y to your project.
		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.
Alt	erat	ions: Check N/A if an item in this section does not apply to your project.
		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.

	BAR Case #
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.
eleva accur action grants Section this a insperion	undersigned hereby attests that all of the information herein provided including the site plan, building tions, prospective drawings of the project, and written descriptive information are true, correct and rate. The undersigned further understands that, should such information be found incorrect, any in taken by the Board based on such information may be invalidated. The undersigned also hereby is the City of Alexandria permission to post placard notice as required by Article XI, Division A, on 11-301(B) of the 1992 Alexandria City Zoning Ordinance, on the property which is the subject of pplication. The undersigned also hereby authorizes the City staff and members of the BAR to not this site as necessary in the course of research and evaluating the application. The applicant, if than the property owner, also attests that he/she has obtained permission from the property owner aske this application.

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Signature: _	Joshua Schakola
Printed Nan	ne:
Date:	

# OWNERSHIP AND DISCLOSURE STATEMENT Use additional sheets if necessary

an interest in the applicant, ucase identify each owner of	address and percent of ownership inless the entity is a corporat more than three percent. The te interest held at the time of the lication.	ion or partnership, in which rm ownership interest shall
Name	Address	Percent of Ownership
1.		
2.		
3.		
an interest in the property loca entity is a corporation or partne percent. The term ownership in time of the application in the re	address and percent of ownership ted at_ership, in which case identify each atterest shall include any legal or each property which is the subject of	(address), unless the owner of more than three quitable interest held at the the application.
Name	Address	Percent of Ownership
1.		
2.		
3.		
ownership interest in the applicationship business or financial relationship	tionships. Each person or entity list cant or in the subject property is realip, as defined by Section 11-350 of	equired to disclose <b>any</b> of the Zoning Ordinance,
this application with any memb	ication, or within the12-month peri er of the Alexandria City Council, ds of Architectural Review	
	er of the Alexandria City Council,	
this application with any memb Zoning Appeals or either Board	der of the Alexandria City Council, des of Architectural Review.  Relationship as defined by Section 11-350 of the	Planning Commission, Board of  Member of the Approving Body (i.e. City Council,
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this application with any memb Zoning Appeals or either Board Name of person or entity  1.	der of the Alexandria City Council, des of Architectural Review.  Relationship as defined by Section 11-350 of the	Planning Commission, Board of  Member of the Approving Body (i.e. City Council,
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this application with any member Zoning Appeals or either Board Name of person or entity  1. 2. 3.  NOTE: Business or financial after the filing of this applicate to the public hearings.  As the applicant or the applica	relationships of the type descrition and before each public heads is true and correct.	Member of the Approving Body (i.e. City Council, Planning Commission, etc.)  ibed in Sec. 11-350 that arise aring must be disclosed prior

# GENERAL NOTES

- 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 PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
- 4. THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO
- COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.

  5. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 6. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
- 7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/ VENDOR'S SPECIFICATIONS UNLESS OTHERWISE NOTED OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
- 8. THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
- 9. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- IO. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY, OR LOCAL GOVERNMENT AUTHORITY.
- II. 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 VZW 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 VZW CONSTRUCTION & OPERATION REPRESENTATIVE PRIOR TO DECLARING CONSTRUCTION COMPLETE.
- 20.GENERAL CONTRACTOR SHALL PROVIDE A IOLBS.
  DRY-CHEMICAL FIRE EXTINGUISHER ON SITE DURING
  CONSTRUCTION. UPON COMPLETION OF ALL WORK,
  CONTRACTOR SHALL REMOVE FIRE EXTINGUISHER FROM
  SITE.

# Verizon\*

OLD TOWN N || - SMALL CELL ROW ADJACENT TO 526 N MASHINGTON ST ALEXANDRIA, VIRGINIA 22314

# INDEX OF DRAWINGS

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

# CODE ANALYSIS

APPLICABLE BUILDING CODE:

\_DING CODE: IBC 2015

USE GROUP: UTILITY (U)

CONSTRUCTION TYPE: IIB

UTILITY COMPANY:

DOMINION

Chop Shop Taco (1) See Sheraton Suites Old Charles States Postal Own Alexandria Post Office Pint See Short Combined Pint See Short Combine

(N) VICINITY PLAN

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

# PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE INSTALLATION OF VERIZON WIRELESS TELECOMMUNICATIONS EQUIPMENT ON A PROPOSED LIGHT POLE TO REPLACE EXISTING. THE ASSOCIATED ANTENNAS WILL BE MOUNTED ON THE PROPOSED LIGHT POLE AT A RAD CENTER OF 40'-2".

# DIRECTIONS TO SITE

FROM JUNCTION DRIVE:
- TURN LEFT ONTO HENKELS LANE

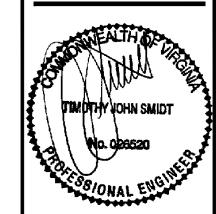
- TAKE RAMP ON LEFT FOR MD-32 EAST - TAKE EXIT #100 RAMP ON RIGHT FOR BALTIMO
- TAKE EXIT #10C RAMP ON RIGHT FOR BALTIMORE WASHINGTON PARKWAY SOUTH
- TAKE RAMP ON RIGHT FOR GEORGE WASHINGTON MEMORIAL PARKWAY SOUTH
   KEEP STRAIGHT ONTO VA-400/ NORTH WASHINGTON
- STREET
   DESTINATION WILL BE ON THE RIGHT

# VERIZON WIRELESS REVIEW

	<u> </u>
BUILDING OWNER	DATE
ENGINEERING	DATE
OPERATIONS	DATE
CONSTRUCTION	DATE

TELEGENT ENGINEERING

Telegent Engineering Inv 2216 Commerce Road, Suite 1 Forest Hill, MD 21050 410-692-5816 www.tel-eng.com



XANDRIA,

MAY ADJACENT TO 526 N WASHINGTON ST

REVISIONS:

NO. DESCRIPTION DATE

ADDRESS REVS. 5/8/20
PERMIT DWGS. 3/26/2

LAST REV.:
PROJECT NO:19126V
DATE:MARCH 26, 2020

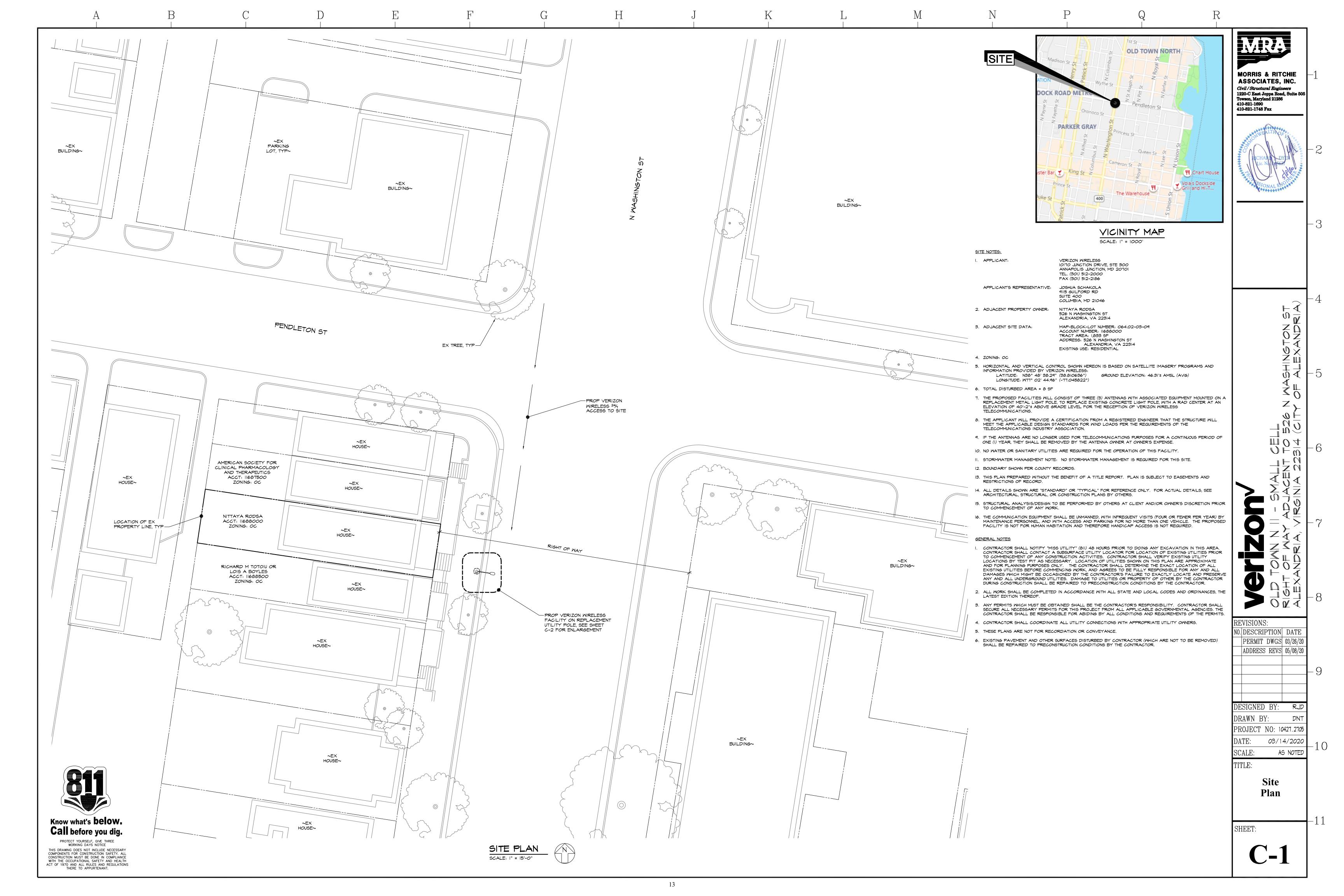
SCALE: AS NOTEI TITLE: SITE LOCATION AND VICINITY

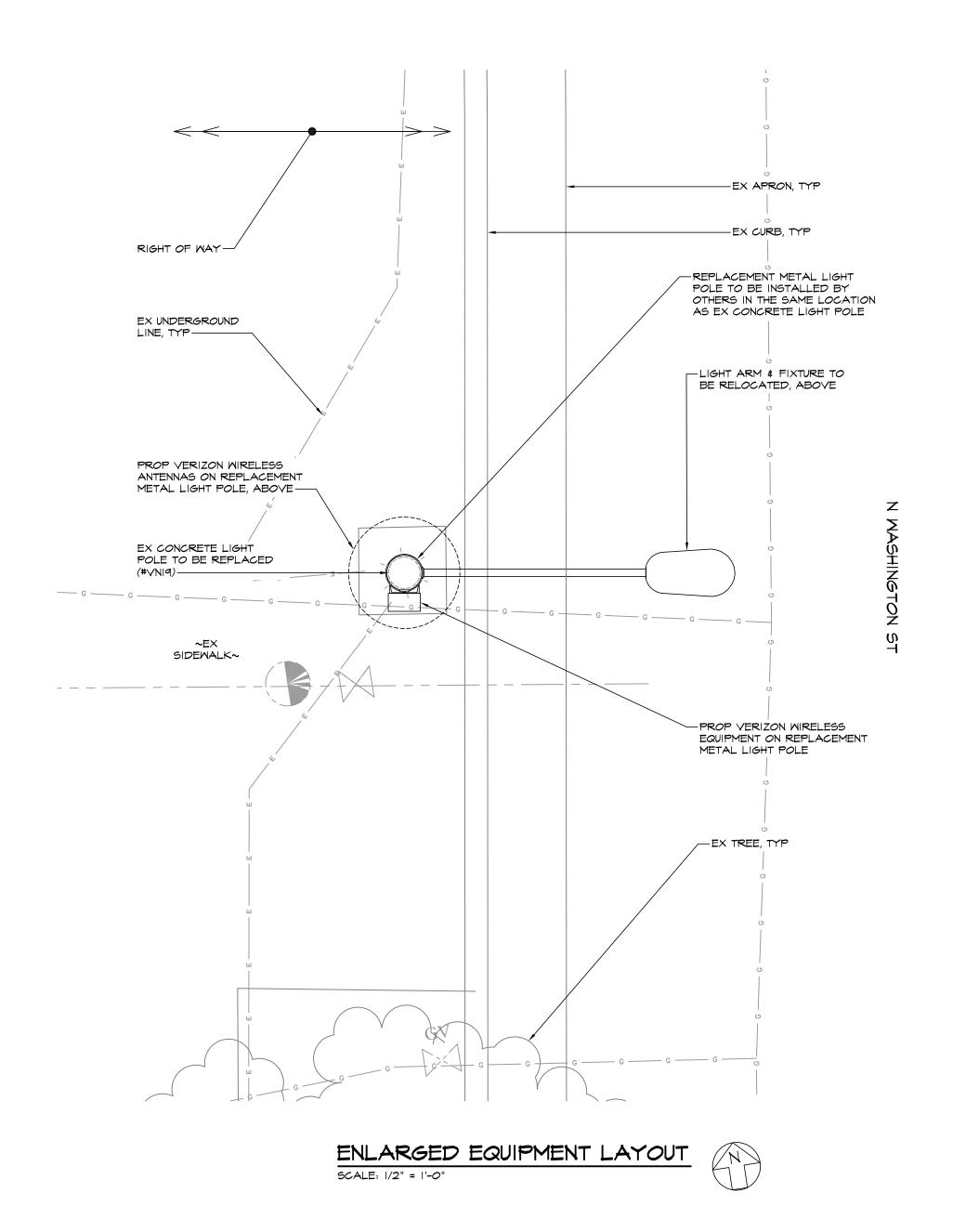
PLAN, INDEX OF DRAWINGS, AND

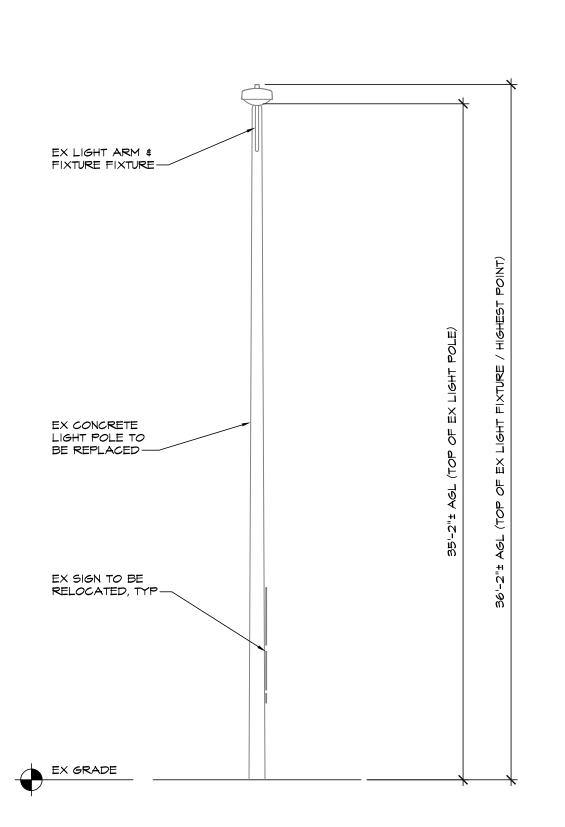
CODE ANALYSIS
SHEET:

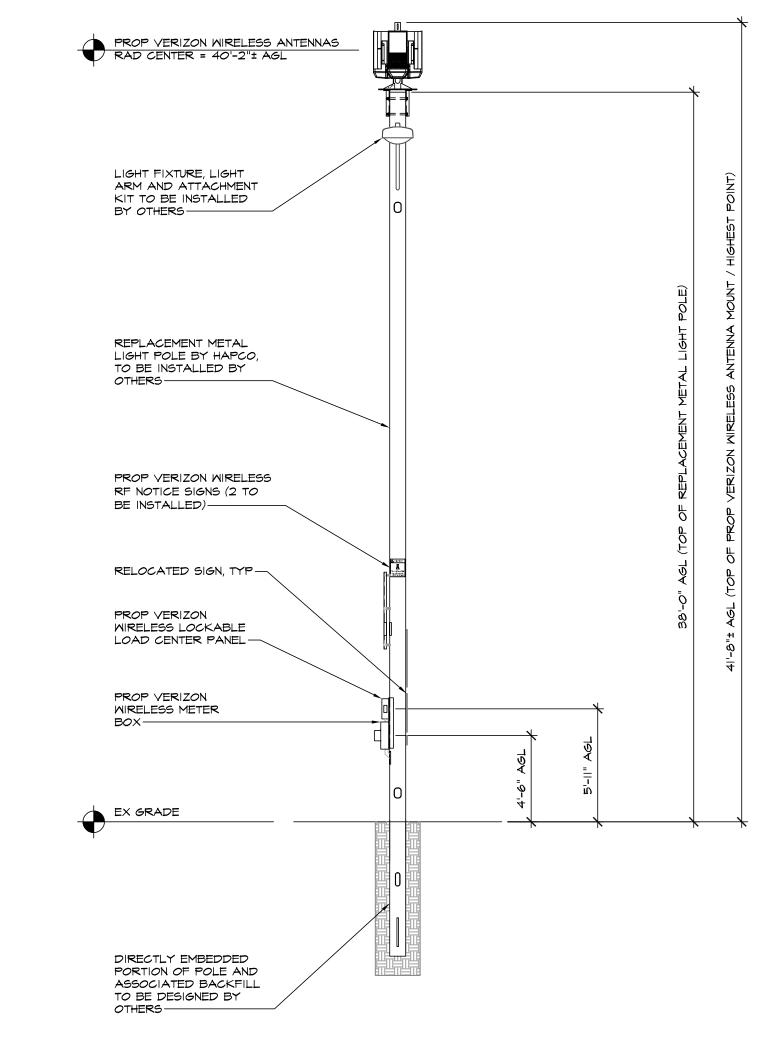
CS-1

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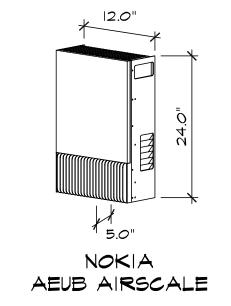
EXISTING LIGHT POLE ELEVATION

SCALE: |" = 5'-0"

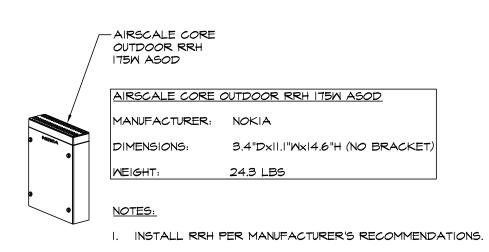
14

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

VOLUMETRIC CALCULATIONS					
ANTENNA VOLUMETRIC CALCULATION			EQUIPMENT VOLUMETRIC CA	ALCULATION	
NOKIA AEUB (3 ANTENNAS, O.83 CU FT EACH) TOTAL	2.50 CU FT	SQUARE D BOX No. 2R LOAD CENTER PANEL		0.28 CU FT	
	2.50 CU FT		200 AMP RINGLESS HORN OVERHEAD METER SOCKET	0.54 CU FT	
		J	NOKIA ASODA RRH (3 UNITS, 0.32 CU FT EACH)	0.96 CU FT	
			TOTAL	1.78 CU FT	



VERIZON WIRELESS ANTENNA DETAILS



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

NOKIA AIRSCALE CORE OUTDOOR RRH 175 W ASOD DETAIL



Details

SHEET:

NO. DESCRIPTION DATE

DESIGNED BY:

PROJECT NO: 10427.2705

03/14/2020

AS NOTED

DRAWN BY:

PERMIT DWGS 03/26/20 ADDRESS REVS 05/08/20

ASSOCIATES, INC.

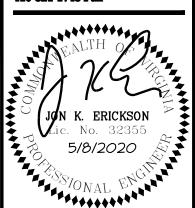
Civil/Structural Engineers 1220-C East Joppa Road, Suite 505 Towson, Maryland 21286 410-821-1690 410-821-1748 Fax

# TRANSPORTATION MANAGEMENT PLAN

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







			NOTE OF ZAY A ALIEXANDRIA, VII	_
ŔΕ	VISIONS			
0.	DESCRI	PTION	DATE	
	PERMIT	DWGS	03/26/2	(

DESIGNED BY: DRAWN BY: PROJECT NO: 1*0*427.27*0*5 03/14/2020

AS NOTED

**TRANSPORTATION MANAGEMENT** PLAN NOTES

# PROJECT INFORMATION

- 1. THE PROJECT'S TMP PLAN HAS BEEN DESIGNED IN CONFORMANCE WITH TMP TYPE A.
- 2. 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.
- 3. 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.
- 4. EXISTING INTERSECTIONS: THE NEAREST INTERSECTION IS PENDLETON ST AND N WASHINGTON ST. ALL EXISTING INTERSECTIONS ARE TO REMAIN OPEN AND FUNCTIONAL DURING CONSTRUCTION
- EXISTING PEDESTRIAN ACCESS POINTS: THERE IS EXISTING SIDEWALK LOCATED WITHIN THE PROJECT LIMITS.
- EXISTING BUS STOPS: THERE ARE NO BUS STOPS WITHIN THE PROJECT LIMITS.
- EXISTING ENTRANCES: THERE ARE RESIDENTIAL ENTRANCES LOCATED WITHIN THE CONSTRUCTION LIMITS.
- 5. THE TRAFFIC ON THE ROADWAY CONSIST PRIMARILY OF PASSENGER VEHICLES AND PEDESTRIANS. THE SURROUNDING AREA IS RESIDENTIAL
- 6. 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.

- 7. 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.
- 8. 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
- 9. 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.
- 10. 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.
- 11. 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.

- 12. 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.
- 16. 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. 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.
- 17. CONTACT NUMBERS

PROJECT MANAGER: TBD TBD CITY INSPECTOR: 911 EMERGENCY CALL:

NON-EMERGENCY NUMBERS:

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

GENERAL CONSTRUCTION NOTES

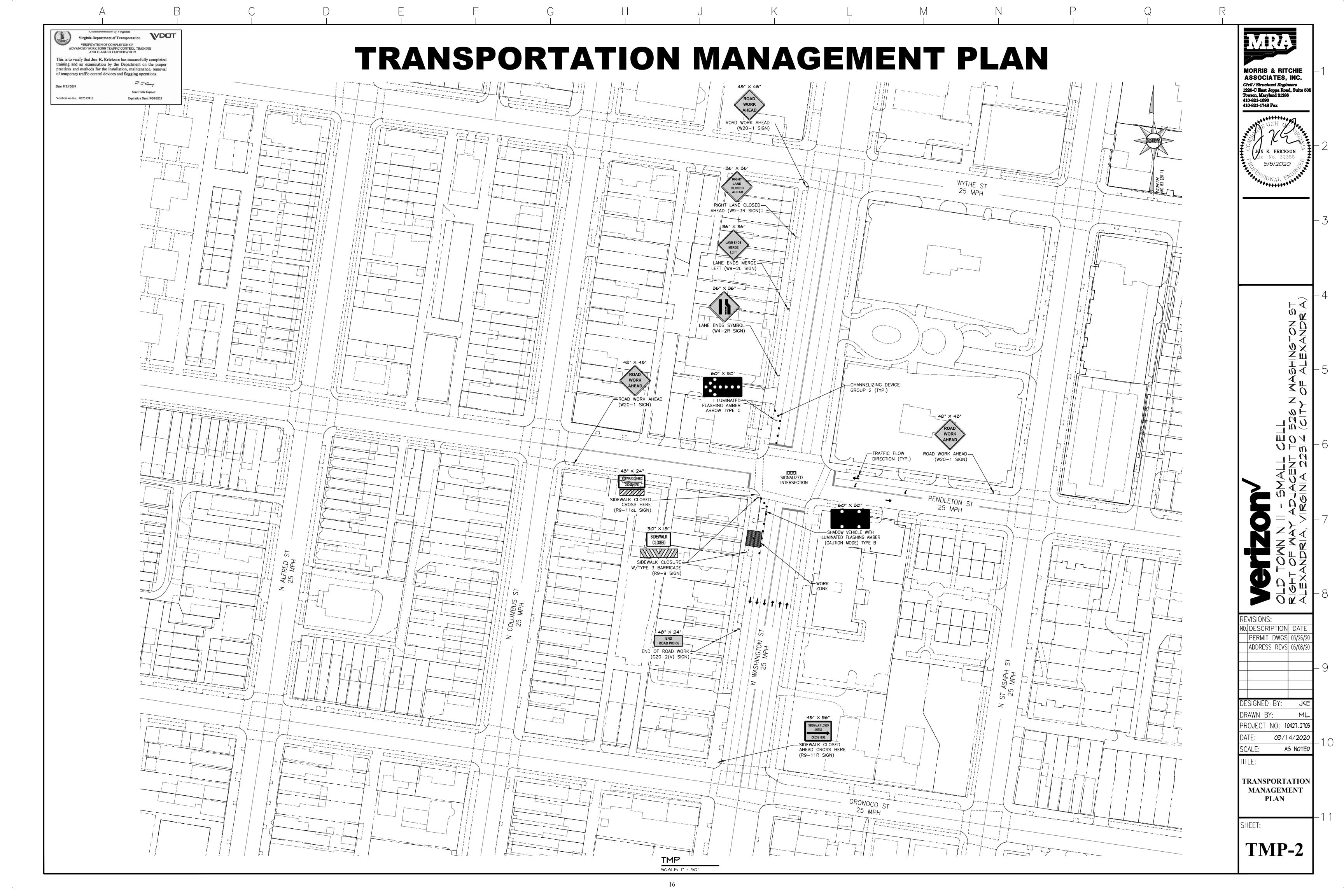
- NOTE: VWAPM VIRGINIA WORK AREA PROTECTION MANUAL (2011) INCLUDING REVISION 1 DATED 2015.
- 1. THE CONTRACTOR SHALL MAKE ANY NECESSARY ADJUSTMENTS DURING BOTH WORK AND NON-WORK HOURS TO ENSURE THE PROTECTION AND SAFETY OF PEDESTRIANS, VEHICULAR TRAFFIC, AND THE GENERAL PUBLIC FROM ANY CONSTRUCTION RELATED ACTIVITY. CONSTRUCTION EQUIPMENT. AND THE CONSTRUCTION SITE ITSELF.

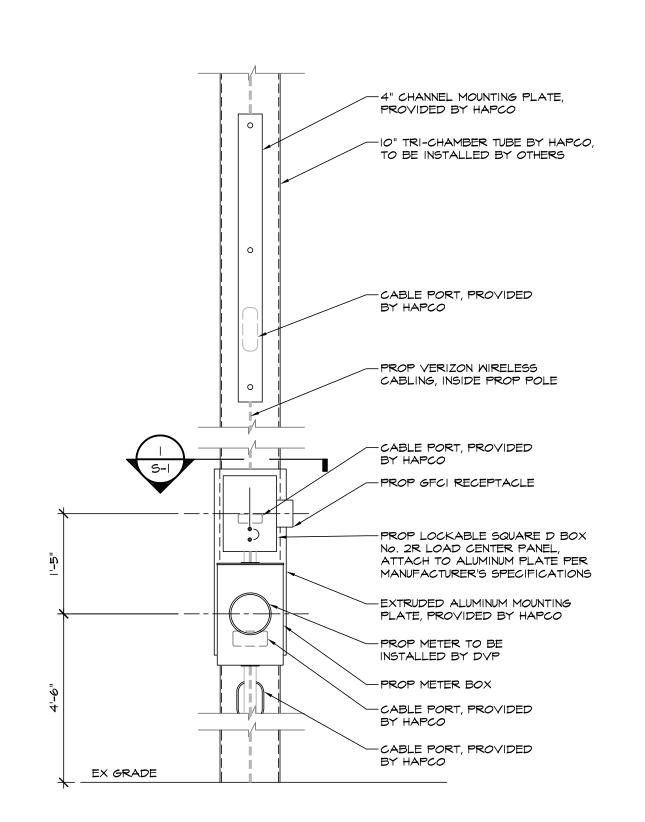
Page 6H-38 Typical Traffic Control Outside Lane Closure Operation on a Four-Lane Roadway (Figure TTC-16.1) 1. On divided highways having a median wider than 8', right and left sign assemblies shall be 2. Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where 3. Care should be exercised when establishing the limits of the work zone to insure maximum possible sight distance in advance of the transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. For Limited Access highways a minimum of 1000' is desired. 4. All vehicles, equipment, workers, and their activities should be restricted to one side of the pavement. 5. Taper Length (L) and Channelizing Device Spacing shall be: Channelizing Device Spacing Lane Width (Feet) Speed Limit (mph) construction Access Spacing may be increased to this distance but shall not exceed one access per 1/4 mile. 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 . An arrow board shall be used when a lane is closed. When more than one lane is closed, a separate arrow board shall be used for each closed lane (see Figure TTC-18). 7. The buffer space length shall be shown in Table 6H-3 on Page 6H-5 for the posted speed limit. 8. A shadow vehicle with either a Type B or C arrow board operating in the caution mode, or at least one high intensity amber rotating, flashing, or oscillating light shall be parked 80'-120' in advance of the first work crew. When the posted speed limit is 45 mph or greater, a truck-9. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or loscillating lights but can be used to supplement the amber rotating, flashing, 10. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed as needed. 1: Revision 1 – 4/1/2015 August 2011 Page 6H-76 **Typical Traffic Control** Sidewalk Closure and Bypass Sidewalk Operation (Figure TTC-35.0) **NOTES** 1. 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. Guidance: 2. 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. 3. Audible information devices should be considered where midblock closings and changed crosswalk areas cause inadequate communication to be provided to pedestrians who have visual disabilities. 4. Temporary markings should be considered for operations exceeding three days in duration. 5. 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. 6. For nighttime closures, Type A Flashing warning lights may be used on barricades that support signs and close sidewalks. 7. Signs, such as KEEP RIGHT (R4-V7R) and KEEP LEFT (R4-V7L), may be placed along a temporary sidewalk to guide or direct pedestrians. 8. All sidewalk closures shall be closed with Type 3 Barricades.

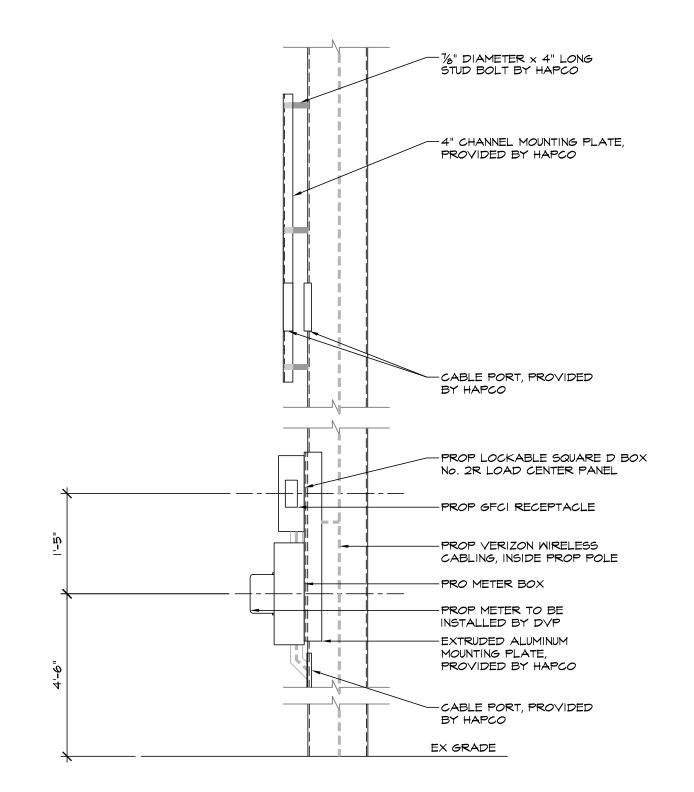
SHADOW VEHICLE REQUIRED TMA REQUIREMENT SEE NOTE 8) ILLUMINATED FLASHING (AMBER CAUTION MODE) TYPE B OR C NOTE 7 ILLUMINATED FLASHING NOTE 5 AMBER ARROW SEE NOTES 3 & 6 SHOULDER TAPER SEE NOTES SEE NOTE 5 NOTE 2 LEFT NOTE 2 August 2011 Page 6H-77 Sidewalk Closure and Bypass Sidewalk Operation (Figure TTC-35.0) LEFT SIDEWALK DIVERSION TYPE 3 BARRICADE

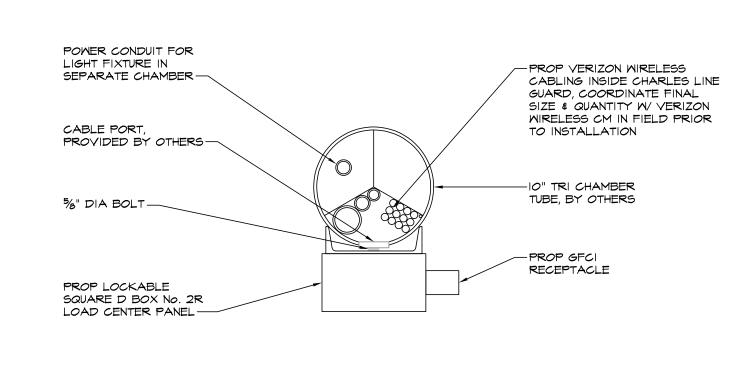
Outside Lane Closure Operation on a Four-Lane Roadway

(Figure TTC-16.1)





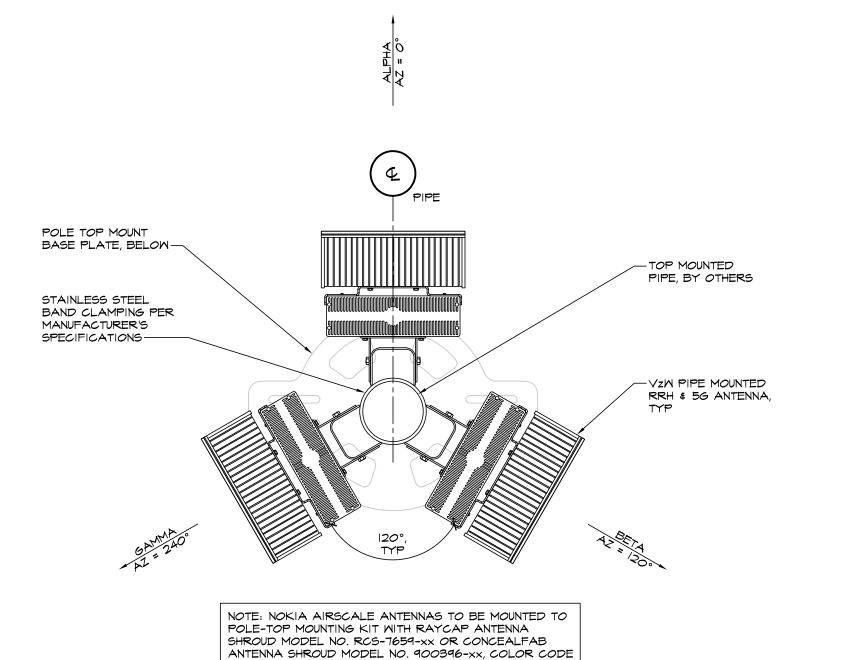




EQUIPMENT MOUNT

POLE EQUIPMENT FRONT ELEVATION

POLE EQUIPMENT SIDE ELEVATION



PROP NOKIA AEUB AIRSCALE MAA
ANTENNA ATTACHED TO ASODA
RRH, TYP OF (3) MAX

NOKIA ANTENNAS WITH RAYCAP
CABLE CONCEALMENT SHROUD
AT BASE OF ANTENNAS

RAYCAP POLE TOP MOUNTING BRACKET
WITH 55" O.D. PIPE MOUNT, PICTURED, OR
CONCEALFAB POLE TOP MOUNTING
BRACKET WITH 55" O.D. PIPE MOUNT,
ATTACHED TO TOP OF EXISTING POLE
PER MANUFACTURER'S SPECIFICATIONS

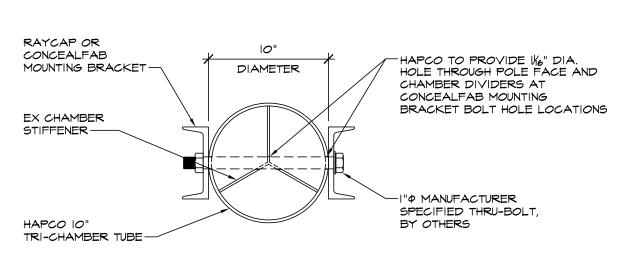
PROP ANTENNA CABLING, TYP
(ROUTE CANTENNA CABLING
WITHIN 55" O.D. PIPE AND
CABLE SHROUD)

PROP I" DIA THRU BOLT,
TYP OF (2), BY OTHERS

56 PANEL ANTENNA SECTION
SCALE: |-|/2" = |'-0"

(xx) TO BE CONFIRMED WITH VERIZON WIRELESS

CONSTRUCTION MANAGER PRIOR TO INSTALLATION ON



TYPICAL THRU-BOLTING DETAIL

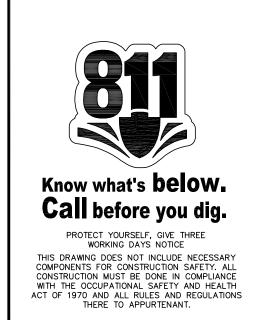
SCALE: |-|/2" = |'-0"

56 PANEL ANTENNA MOUNT

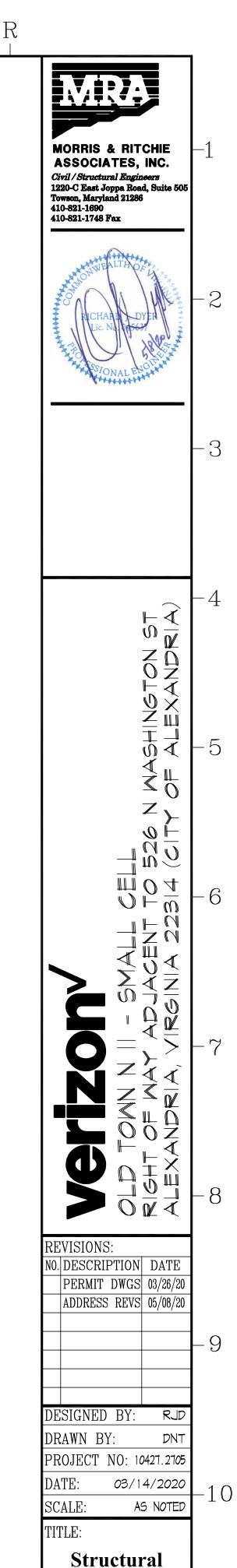
SCALE: |" = |'-0"

PROP ALUMINUM

POLE BY OTHERS-



17



**Sections &** 

**Details** 

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 • THE TIA STANDARD (TIA-222-G) AND ALL SUBSEQUENT SUPPLEMENTS • IN ADDITION, ALL CONSTRUCTION SHALL CONFORM WITH ANY LOCAL CODES AND REQUIREMENTS. <u>DESIGN LOADS</u> A. THE DESIGN DEAD LOADING FOR ALL FRAMING IS BASED ON THE CONSTRUCTION MATERIALS SHOWN ON THE DRAMINGS. ALL FRAMING IS DESIGNED FOR THE WEIGHT OF THE EQUIPMENT INDICATED ON THE DRAMINGS. B. WIND LOAD DESIGN DATA C. SEISMIC LOAD DESIGN DATA 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 (Fy = 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 DI.I. 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 AI23 AFTER FABRICATION. ALL BOLTS, SCREMS, MASHERS & 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 I-1/6" DIA. AND SHALL BE GROUND 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 <u>ALUMINUM</u> 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: C. UNLESS NOTED OTHERWISE, ALL ALUMINUM STRUCTURAL CONNECTIONS SHALL BE MADE WITH  $^34$ " DIAMETER GALVANIZED ASTM F3125 GRADE A325 BOLTS WITH  $^{13}6$ " DIAMETER HOLES ON GAGE, FIELD DRILL AS REQUIRED. SEE STRUCTURAL AND MISCELLANEOUS STEEL NOTES FOR ADDITIONAL INFORMAITON.

- A. A 9"XII" RF NOTICE SIGN MUST BE INSTALLED ON BOTH SIDES OF THE POLE A MAXIMUM OF ONE (I) FOOT ABOVE THE UPPERMOST EQUIPMENT APPURTENANCE. THIS SIGN MARKS THE POINT WHERE RF EXPOSURE LEVELS MAY EXCEED "FCC OET-65 APPENDIX A" LIMITS FOR UNCONTROLLED GENERAL POPULATION EXPOSURE. WORKING ABOVE THIS POINT REQUIRES DE-ENERGIZING THE ANTENNA. THIS SIGN MUST INCLUDE THE STANDARD RE 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 C95.2 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 C95.2 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 1910.269 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
- 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 MORKMANSHIP 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.

**DOMINION SPECIFICATIONS:** 

**MORRIS & RITCHIE** ASSOCIATES, INC. Civil / Structural Engineers 1220-C East Joppa Road, Suite 50 Towson, Maryland 21286 410-821-1690 410-821-1748 Fax



 $\mathcal{O}_{\mathcal{N}}$ 

NO.|DESCRIPTION| DAT |PERMIT DWGS| 03/26/2 |ADDRESS REVS| 05/08/2 ESIGNED BY: )RAWN BY: PROJECT NO: 1*0*427.27*0*5 03/14/2020

> General Notes

AS NOTED

Know what's **below.** Call before you dig. PROTECT YOURSELF. GIVE THREE WORKING DAYS NOTICE THIS DRAWING DOES NOT INCLUDE NECESSARY WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS
THERE TO APPURTENANT. TENSILE ULTIMATE STRENGTH, Ftu TENSILE YIELD STRENGTH, Ftu:

MODULUS OF ELASTICITY, E:

COMPRESSION YIELD STREGTH, Fay:

(AASHTO LRFDLTS-I 2015)

RISK CATEGORY:

NOT APPLICABLE:

WIND EXPOSURE CATEGORY:

BASIC WIND SPEED (ULTIMATE 3-SECOND GUST): 115 MPH

89.1 MPH

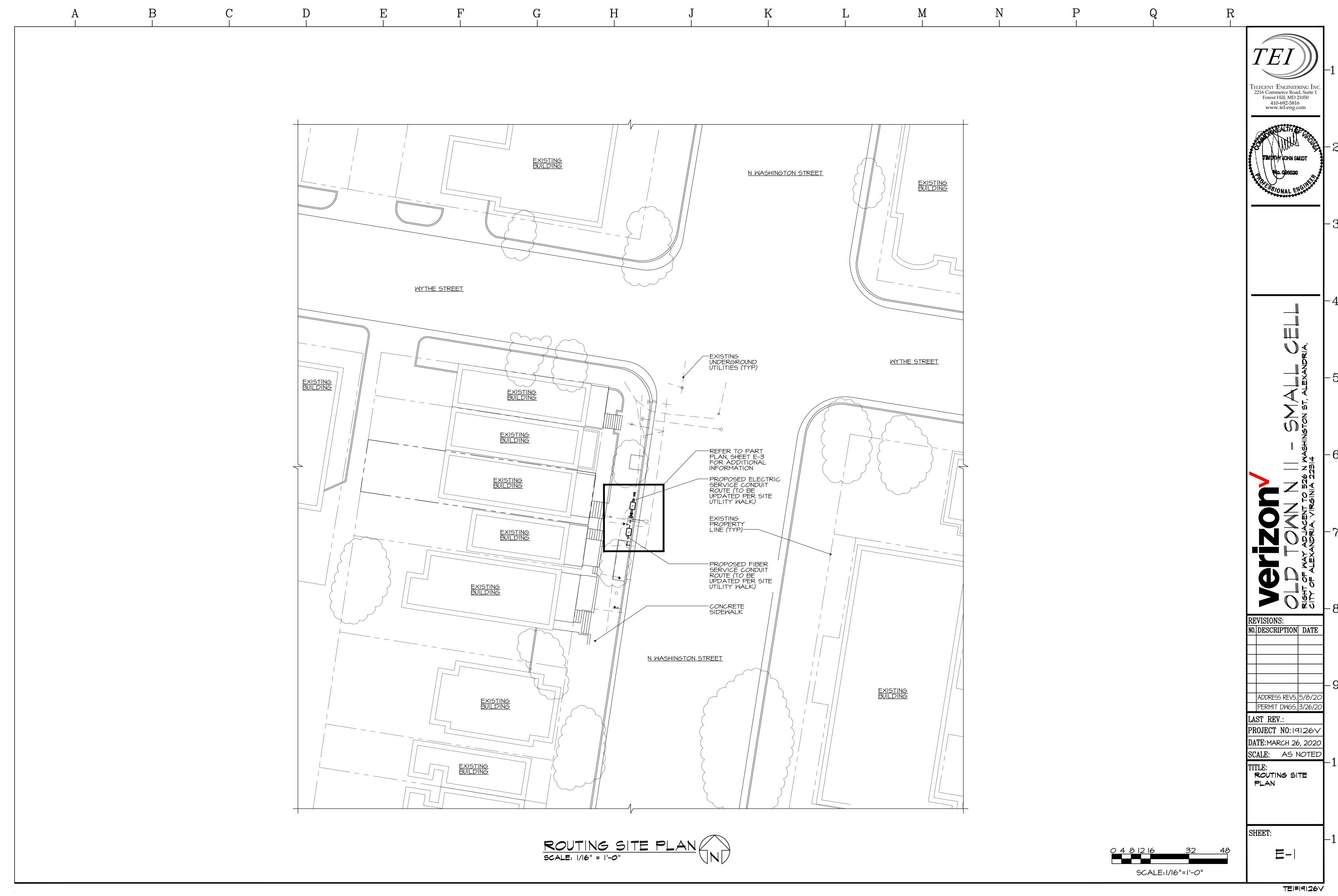
5s < 1.0

31 KSI

31 KSI

10,000 KSI

BASIC WIND SPEED (NOMINAL 3-SECOND GUST):



# ELECTRICAL SPECIFICATIONS

- SECTION 16010 BASIC ELECTRICAL REQUIREMENTS
- A. THE WORK INCLUDES FURNISHING AND INSTALLING THE MATERIAL, EQUIPMENT AND SYSTEMS COMPLETE AS SPECIFIED AND/OR INDICATED ON THE DRAWINGS. THE ELECTRICAL INSTALLATIONS, WHEN FINISHED, SHALL BE COMPLETE AND COORDINATED AND READY FOR SATISFACTORY SERVICE
- B. ALL WORK UNDER THIS CONTRACT SHALL BE DONE IN STRICT ACCORDANCE WITH ALL APPLICABLE MUNICIPAL, STATE, BOCA, AND LOCAL ELECTRICAL CODES THAT GOVERN EACH PARTICULAR TRADE AND THE 2014 NATIONAL ELECTRICAL CODE.
- C. THE CONTRACTOR SHALL COORDINATE THE ELECTRICAL EQUIPMENT INSTALLATION WITH ALL TRADES.
- D. THE CONTRACTOR SHALL MAKE APPLICATION AND PAY ALL CHARGES FOR ALL NECESSARY PERMITS, LICENSES, AND INSPECTIONS AS REQUIRED UNDER THE ABOVE CODES. UPON COMPLETION OF THE WORK, THE CUSTOMARY CERTIFICATIONS OF APPROVAL SHALL BE FURNISHED.
- E. NO MATERIALS OR EQUIPMENT SHALL BE USED IN THE WORK UNTIL APPROVED. ALL MATERIALS SHALL BE U.L. LISTED.
- F. THE CONTRACTOR SHALL EXAMINE ALL DRAWINGS AND SHALL INSPECT THE EXISTING CONDITIONS OF THE SITE. FAILURE TO COMPLY WITH THIS REQUIREMENT WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR COMPLYING WITH THE CONTRACT DOCUMENTS.
- G. THE DRAWINGS INDICATE THE GENERAL ARRANGEMENT OF THE ELECTRICA INSTALLATIONS. DETAILS OF PROPOSED DEPARTURES DUE TO ACTUAL FIELD CONDITIONS OR OTHER CAUSES SHALL BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION. REWORK OF COMPLETED ITEMS DUE TO IMPROPER FIELD COORDINATION SHALL BE AT THE CONTRACTOR'S EXPENSE.
- H. PROVIDE SUFFICIENT ACCESS AND CLEARANCE FOR ALL ITEMS OF EQUIPMENT REQUIRING SERVICING AND MAINTENANCE.
- UPON COMPLETION OF THE ELECTRICAL INSTALLATION, THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF PRINTS OF THE ELECTRICAL CONTRACT DRAWINGS WHICH SHALL BE LEGIBLY MARKED IN RED TO SHOW ALL CHANGES AND DEPARTURES OF THE INSTALLATIONS COMPARED WITH THE ORIGINAL DESIGN. THEY SHALL BE SUITABLE FOR USE IN PREPARATION OF RECORD DRAWINGS.
- J. GUARANTEE: ALL NEW ELECTRICAL INSTALLATIONS SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR BEGINNING THE DAY OF THE FINAL ACCEPTANCE OF THE WORK OR BENEFICIAL OCCUPANCY OF THE OWNER, WHICHEVER OCCURS FIRST. THE ABOVE SHALL NOT IN ANY WAY VOID OR ABBROGATE EQUIPMENT MANUFACTURER'S GUARANTEE OR WARRANTY. CERTIFICATES OF GUARANTEE SHALL BE DELIVERED TO THE OWNER. UPON RECEIPT OF NOTICE FROM THE OWNER OF FAILURE OF ANY PART OF THE ELECTRICAL INSTALLATION DURING THE GUARANTEE PERIOD, NEW REPLACEMENT PARTS SHALL BE FURNISHED AND INSTALLED PROMPTLY AND AT NO COST TO VERIZON.
- K. ANY ELECTRICAL WORK WHICH WILL INTERFERE WITH THE NORMAL OPERATION OF THE STREET LIGHT SHALL BE DONE AT SUCH TIME OR TIMES AS SHALL BE MUTUALLY AGREED UPON BETWEEN THE CONTRACTOR AND THE DOMINION REPRESENTATIVE (IF APPLICABLE).
- SUPPORTS, HANGERS, AND FOUNDATIONS: PROVIDE ALL SUPPORTS, HANGERS BRACES, ÁTTACHMENTS, AND FOUNDATIONS REQUIRED FOR THE WORK. SUPPORT AND SET THE WORK IN Å THOROUGHLY SUBSTANTIAL AND WORKMANLIKE MANNER. WITHOUT PLACING STRAINS ON THE MATERIALS, EQUIPMENT, OR THE BUILDING STRUCTURE. SUPPORTS, HANGERS, BRACES AND ATTACHMENTS SHALL BE STANDARD MANUFACTURED ITEMS OR FABRICATED STRUCTURAL STEEL SHAPES.
- M. THERE SHALL BE NO INTERRUPTION OF POWER TO EXISTING ELECTRICAL SYSTEMS WITHOUT PRIOR CONSENT FROM VERIZON. SUCH INTERRUPTIONS SHALL BE KEPT TO A MINIMUM. ANY COST FOR WORK THAT MUST BE DONE ON AN OVERTIME BASIS SHALL BE INCLUDED IN THE BID.
- N. MOUNTING AND SUPPORTING OF ALL EQUIPMENT PROVIDED BY THIS CONTRACTOR SHALL BE COORDINATED WITH VERIZON IN THE FIELD.
- O. PROVIDE ALL CUTTING AND PATCHING NECESSARY FOR THE INSTALLATION OF THE ELECTRICAL WORK. ANY DAMAGE DONE TO THE WORK ALREADY IN PLACE BY REASON OF THIS WORK SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE BY A QUALIFIED MECHANIC EXPERIENCED IN SUCH WORK. PATCHING SHALL BE UNIFORM IN APPEARANCE AND SHALL MATCH THE SURROUNDING SURFACE.

- 2. SECTION 16050 BASIC ELECTRICAL MATERIALS & METHODS
- A. <u>CONDUIT & BOXES:</u>
  - ALL CONDUIT BELOW GRADE SHALL BE SCHEDULE 40 PVC. ALL CONDUIT ABOYE GRADE SHALL BE NON METALLIC ELECTRIC GRADE OR PVC AS NOTED
  - 2. JUNCTION AND PULL BOXES SHALL BE FURNISHED AND INSTALLED AS SHOWN OR WHERE REQUIRED TO FACILITATE PULLING OF WIRES OR CABLES. SUCH BOXES SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS. GASKETED COVER PLATES SHALL BE FURNISHED FOR OUTDOOR INSTALLATIONS.
  - 3. ALL BOXES, WHETHER OUTLET, JUNCTION, PULL, OR EQUIPMENT SHALL BE FURNISHED WITH APPROPRIATE COVERS.
  - 4. NO SECTIONALIZED BOXES SHALL BE USED
  - 5. ALL EMT CONDUIT FITTINGS SHALL BE COMPRESSION TYPE.
  - 6. ALL FIELD CUTS OF GALVANIZED ITEMS SHALL BE BRUSHED WITH MARINE GRADE GALVANIZING.
  - 7. ALL METALLIC OBJECTS EXPOSED TO WEATHER SHALL BE GALVANIZED.
- B. <u>MIRES & CABLE</u>
- WIRE, UNLESS OTHERWISE INDICATED, SHALL BE 600 VOLT, TYPE THWN INSULATION FOR INTERIOR AND EXTERIOR USE. CONDUCTORS SHALL BE SOFT DRÁWN COPPER OF NOT LESS THAN 98% CONDUCTIVITY. NO ROMÉX OR AC (BX) CABLE WILL BE ALLOWED ON THE PROJECT.
- 2. NO WIRE SMALLER THAN NO. TWELVE (12) AWG SHALL BE USED UNLESS OTHERWISE INDICATED. CONDUCTORS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET AND FROM TERMINAL BOARD TO POINT OF FINAL CONNECTION, AND NO SPLICE SHALL BE MADE EXCEPT WITHIN OUTLET OR JUNCTION BOXES. ALL CONDUCTORS SHALL BE OF THE SIZES AS INDICATED. ALL WIRES NO. EIGHT (8) AWG AND LARGER SHALL BE STRANDED. THE CONTRACTOR SHALL MAKE WIRING CONNECTIONS OF ALL ELECTRICAL EQUIPMENT REQUIRING ELECTRICAL SERVICE. WIRES AND CABLES SHALL BE AS MANUFACTURED BY PIRELLI, ROYAL, AND TRIANGLE OR EQUIVALENT.
- 3. ALL WIRING SHALL BE COLOR CODED. MATCH EXISTING SYSTEM COLOR CODING WHERE APPLICABLE.
- C. <u>DISCONNECTS:</u>
- FURNISH AND INSTALL SAFETY SWITCHES WHERE INDICATED AND AS REQUIRED FOR MOTOR OUTLETS OR OTHER EQUIPMENT. SWITCHES SHALL BE OF SIZE, NUMBER OF POLES AND FUSED OR NON-FUSED, AS REQUIRED FOR JOB CONDITIONS AND THE NATIONAL ELECTRICAL CODE.
- D. GROUNDING:
- PROVIDE GROUND FOR ALL RACEWAYS, DEVICES, AND UTILIZATION EQUIPMENT PERMANENTLY AND EFFECTIVELY IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, AS HERINAFTER SPECIFIED. ALL GROUNDING AND BONDING CONNECTIONS SHALL BE SOLDERLESS.
- 2. PROVIDE INSULATED GROUNDING CONDUCTORS FOR FEEDER AND BRANCH CIRCUIT WIRING AS CALLED FOR ON THE PLANS. PROVIDE GROUNDING BLOCKS FERMINALS, ETC., FOR CONNECTION OF GROUND WIRE IN ALL DISTRIBUTION EQUIPMENT.
- 3. <u>SECTION 16400 SERVICE & DISTRIBUTION</u>
- A. ELECTRICAL SERVICE:
  - ELECTRICAL POWER TO THE NEW EQUIPMENT SHALL BE EXTENDED FROM THE PROPOSED UTILITY METER AND SERVICE ENTRANCE RATED PANELBOARD MOUNTED ON NEW POLE. LABEL METER WITH PHENOLIC NAMEPLATE READING "VERIZON WIRELESS". LABEL PANEL WITH PHENOLIC NAMEPLATE READING "VERIZON WIRELESS SERVICE DISCONNECT".
- B. COMMUNICATIONS SERVICE:
- TELEPHONE SERVICE SHALL BE EXTENDED BY THE TELEPHONE COMPANY PROVIDE SERVICE CONDUITS, SLEEVES, AND OTHER EQUIPMENT SHOWN ON THE DRAWINGS FOR USE BY THE TELEPHONE COMPANY. ALL CHARGES BY THE UTILITY COMPANY SHALL BE PAID BY THE OWNER.
- 2. ALL ELBOWS IN CONDUIT RUNS SHALL BE WIDE SWEEP FIELD BENDS. INSTALL PULL BOXES AS REQUIRED AND WHERE DIRECTED BY THE TELEPHONE COMPANY AND/OR AS REQUIRED BY THE NATIONAL ELECTRICAL CODE.

# DOMINION SPECIFICATIONS

- I. A 9"XII" RF NOTICE SIGN MUST BE INSTALLED ON BOTH SIDES OF THE POLE A MINIMUM OF ONE FOOT ABOVE THE UPPERMOST ELECTRIC SUPPLY FACILITIES. THIS SIGN MARKS THE POINT WHERE RF EXPOSURE LEVELS MAY EXCEED "FCC OET-65 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 C95.2 STANDARDS.
- 2. A POWER DISCONNECT MUST BE INSTALLED. THIS DEVICE MUST PROVIDE DISCONNECTING MEANS FOR DE-ENERGIZING AC AND DC (BATTERY BACK UP) POWER TO THE ANTENNA. 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.
- 3. 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 C95.2 STANDARDS.
- 4. THE ANTENNA SHALL BE MOUNTED THE GREATER VALUE OF NESC MINIMUM CLEARANCE OR THE MINIMUM CLEARANCE REQUIRED TO MEET OET UNCONTROLLED EXPOSURE GUIDELINES AT A POINT I' ABOVE THE ELECTRIC FACILITIES. THE ANTENNA INCLUDING ATTACHING HARDWARE SHALL BE MOUNTED A MINIMUM OF 45" ABOVE PRIMARY INSTALLATIONS AND 40" ABOVE SECONDARY INSTALLATIONS. (NESC TABLE 238-I)
- 5. ANTENNA EQUIPMENT IS PERMISSIBLE ON WOOD POLES ONLY.
- 6. ONLY NON METALLIC ELECTRIC GRADE CONDUIT OR RISERS CAN BE USED FOR ROUTING THE COMMUNICATION CABLES THROUGH THE SUPPLY SPACE. THE CONDUIT INSTALLATION SHALL NOT OBSTRUCT THE CLIMBING SPACE OR WORKING SPACE ON THE POLE AND SHALL NOT OBSTRUCT SUPPLY EQUIPMENT. (NESC 239B, AND NESC 239H4).
- 7. THE INSTALLATION MUST MEET ALL NESC REQUIREMENTS.
- 8. A DOMINION DISTRIBUTION REPRESENTATIVE MUST APPROVE ALL ANTENNA ATTACHMENT POLES. ANTENNAS ARE NOT ALLOWED ON POLES FREQUENTLY VISITED BY OPERATIONS PERSONNEL. THESE INCLUDE EQUIPMENT POLES SUCH AS RECLOSERS, THREE PHASE TRANSFORMER BANKS, THREE PHASE TERMINALS, CAPACITORS, SWITCHES, ETC.
- 9. INSTALLERS WORKING IN THE AREA OF THE POLE ABOVE THE NORMAL COMMUNICATIONS SPACE MUST MEET OSHA 1910.269 REQUIREMENTS.

- IO. AN ANTENNA GROUND WIRE AND GROUNDING ELECTRODE IS REQUIRED. THIS GROUND SHALL BE BONDED TO THE COMPANY GROUND WIRE.
- VERIZON TO LEAVE MINIMUM 3' LEADS COILED AND SECURED TO PREVENT ACCIDENTAL CONTACT WITH SECONDARY CONDUCTORS.
- 12. SERVICE WILL BE CONNECTED BY VERIZON IN COMPLIANCE WITH FILED
- 13. LINE ARRESTER INSTALLATIONS ARE REQUIRED ON POLES WITH PRIMARY CONDUCTORS.
- 14. 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.
- 15. 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.
- 16. THE METER BASE, EQUIPMENT BRACKET, AND DISCONNECT SHOULD BE MOUNTED PROVIDING DOMINION BLUE BOOK AND NEC CLEARANCE. THEY MAY BE MOUNTED AT OPERATIONAL HEIGHT THAT: THE EQUIPMENT BRACKET DOES NOT OBSTRUCT A WALKWAY OR IS
- SUBJECT TO VEHICULAR TRAFFIC. THE EQUIPMENT BRACKET CAN NOT BE USED ALONE OR IN CONJUNCTION WITH A FENCE, PEDESTAL, ETC. AS A CLIMBING AID.
- 17. FOR SAFETY PURPOSES DEVICES WITH LEAD ACID BATTERIES SHALL NOT BE USED.
- 18. DUE TO OPERATIONAL CONCERNS, SECONDARY POLES OR GUY STUB POLES ARE PREFERRED FOR ANTENNA ATTACHMENTS. PRIMARY POLES SHOULD ONLY BE CONSIDERED WHEN THERE IS NO OTHER SUITABLE POLE IN THE AREA.
- 19. ONE RADIO CABINET, A SERVICE DISCONNECT AND THE METER BASE MAY BE POLE MOUNTED. ADDITIONAL EQUIPMENT, OR LARGE CABINETS SHALL BE PAD MOUNTED. PAD MOUNTED EQUIPMENT MUST BE LOCATED A MINIMUM OF 10' FROM THE BASE OF THE POLE.

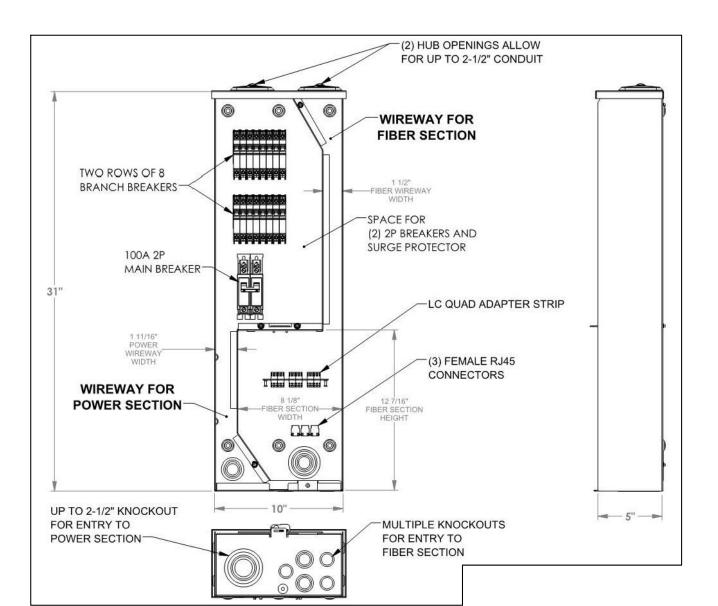
EQUIPMENT SCHEDULE								
MANUFACTURER PART # COMPONENT TYPE QUANTITY DIMENSIONS (HXMXD) WEIGHT								
NOKIA	AIRSCALE AEUB & ASODA RRH	ANTENNA/ REMOTE RADIO HEAD	3	24.0"xl2.0"x5.0"	68.3 LBS.			
INFINITE ELECTRONICS	I	31.0"x10.0"x5.0"	50.0 LBS.					
DOMINION STANDARD 65.737000		ELECTRIC METER	Ι	17.0"x11.0"x5.0"	5.25 LBS.			
	CONDUIT CABLING 3±							
		TOTAL WEIGHT:	280.15 LBS.					

# CTRICAL SYMBOLS LIST

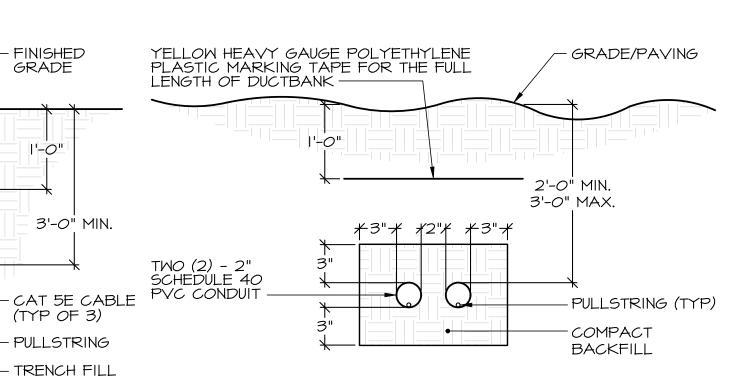
ALL MOUNTING HEIGHTS ARE TO CENTER LINE OF THE OUTLET BOX UNLESS OTHERWISE INDICATED.

	120/240V, IΦ, SQUARE D LOAD CENTER
(5)	DRAWING NOTE
— —E— —	ELECTRIC FEEDERS
— — T — —	TELEPHONE SERVICE
	BRANCH CIRCUIT
M	METER
/ \	GROUND CONDUCTOR
● <sup>R</sup>	BURIED GROUND ROD

DESIGNATES FRONT



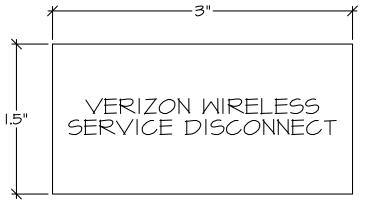
detail - Panelboard NOT TO SCALE



DETAIL - FIBER SERVICE DETAIL - ELECTRIC SERVICE CONDUIT SECTION

NO SCALE

(HANDHOLE TO POLE)



TOTAL VOLUME:

\* PHENOLIC NAMEPLATE SHALL HAVE A BLACK BACKGROUND WITH WHITE LETTERING AND BE PERMANENTLY INSTALLED ON FRONT OF LOAD CENTER PANEL.

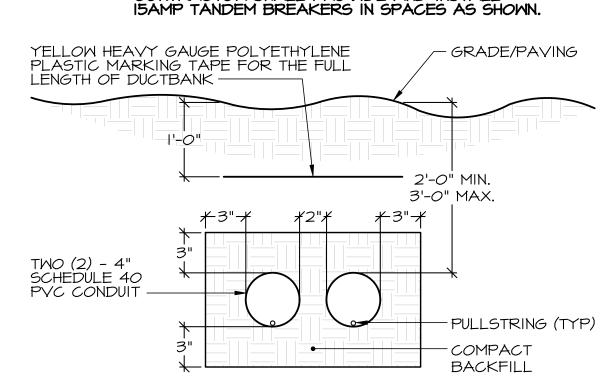
# DETAIL - LOAD CENTER PLACARD NO SCALE

(PROPOSED) (NEMA 3R) "VERIZON WIRELESS" 120/240 VOLTS IP 3 WIRE 100 AMP MAIN C.B m∝×∝||5||5||5||5||5||5| ||5 | 12 | | 13 | | 14 | POWER LOAD: 2.34 KVA x |25% = 2.93 KVA = 12.21 MPS @ 120/240V, 1Φ, 3M

\* PANEL SHALL BE LOCKABLE WITH PADLOCK. \*\* PANEL SHALL BE SERVICE ENTRANCE RATED.

\*\*\* PANELBOARD SHALL BE EQUIPPED WITH A TYPEMRITTEN DIRECTORY, INDICATING PLAINLY WHAT EACH CIRCUIT OF THE PANEL CONTROLS. THIS SCHEDULE SHALL BE PLACED ON FRONT COVER OF PANEL

\*\*\*\* CONTRACTOR SHALL PROVIDE AND INSTALL ISAMP TANDEM BREAKERS IN SPACES AS SHOWN.

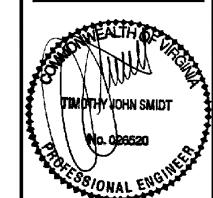


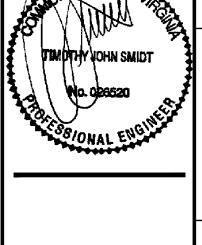
(UTILITY POLE/MANHOLE TO HANDHOLE)

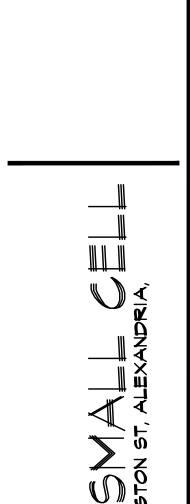
NO SCALE



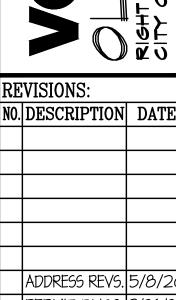
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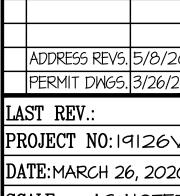


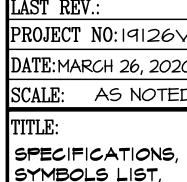












Panel Schedule and details

TE|#|9|26\

₭──TRENCH──₭

YELLOW HEAVY GAUGE POLYETHYLENE

PLASTIC MARKING TAPE FOR THE FULL

CONDUIT SECTION

ENGTH OF DUCTBANK -

2" SCHEDULE

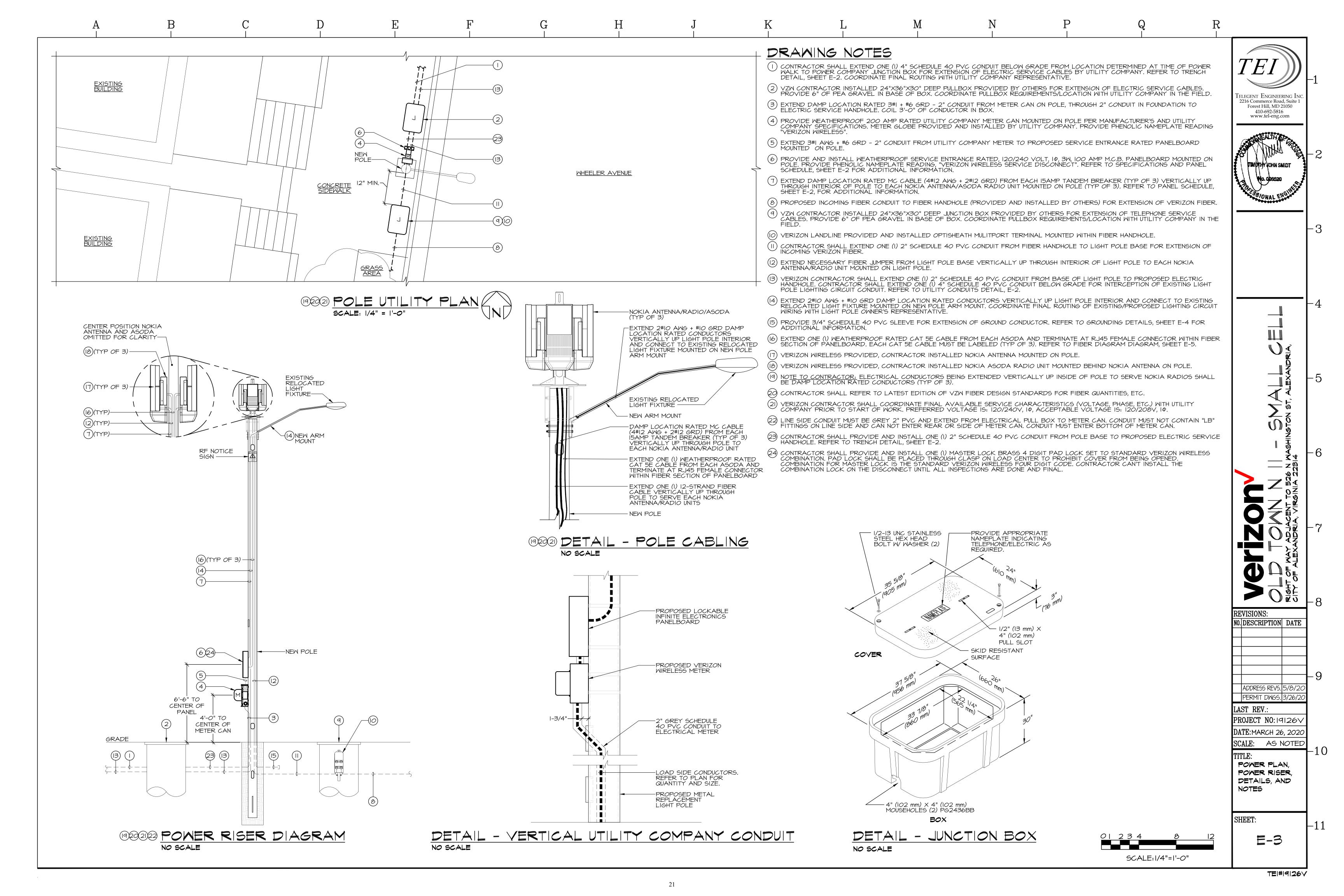
CONDUIT -

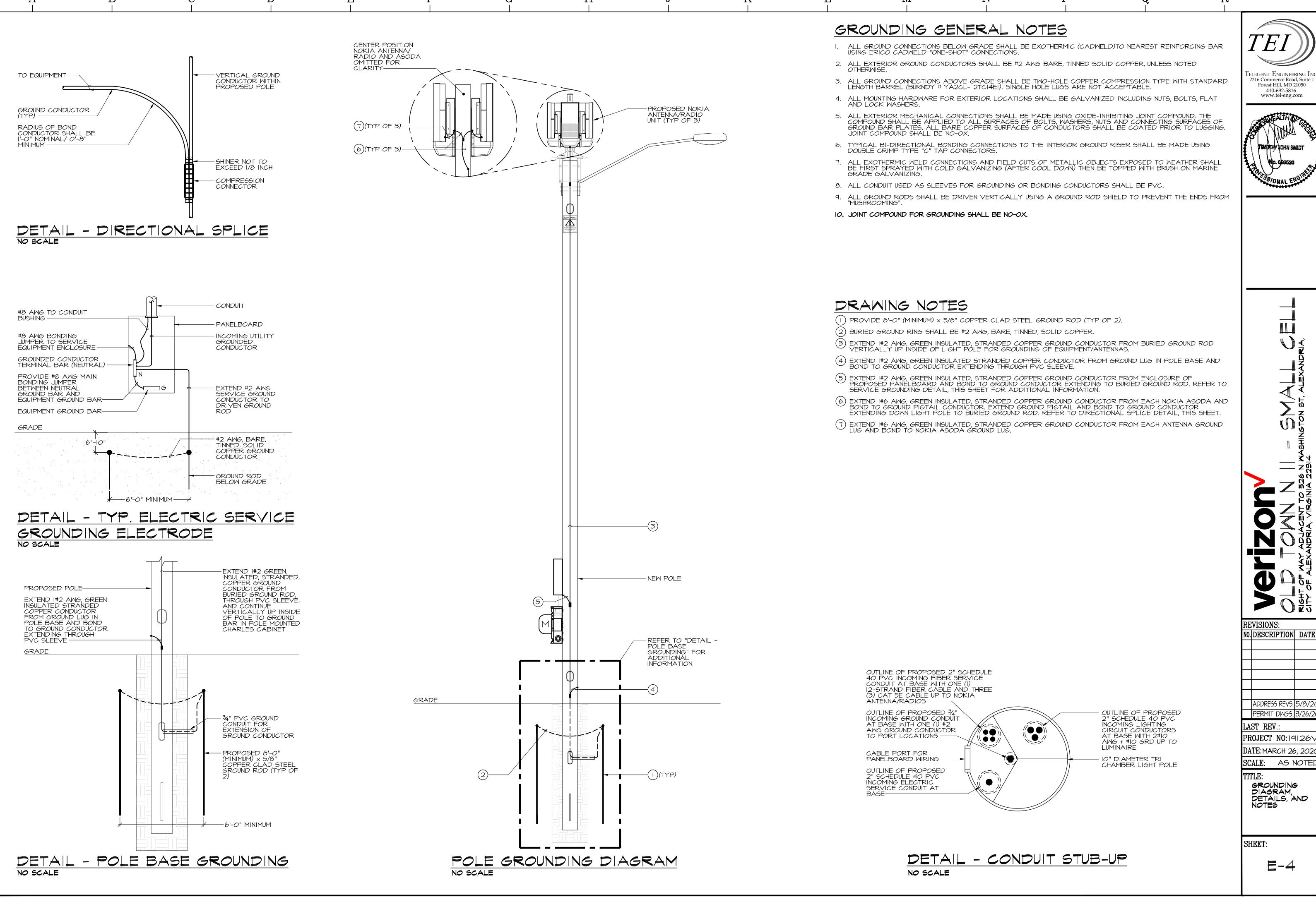
12-STRAND

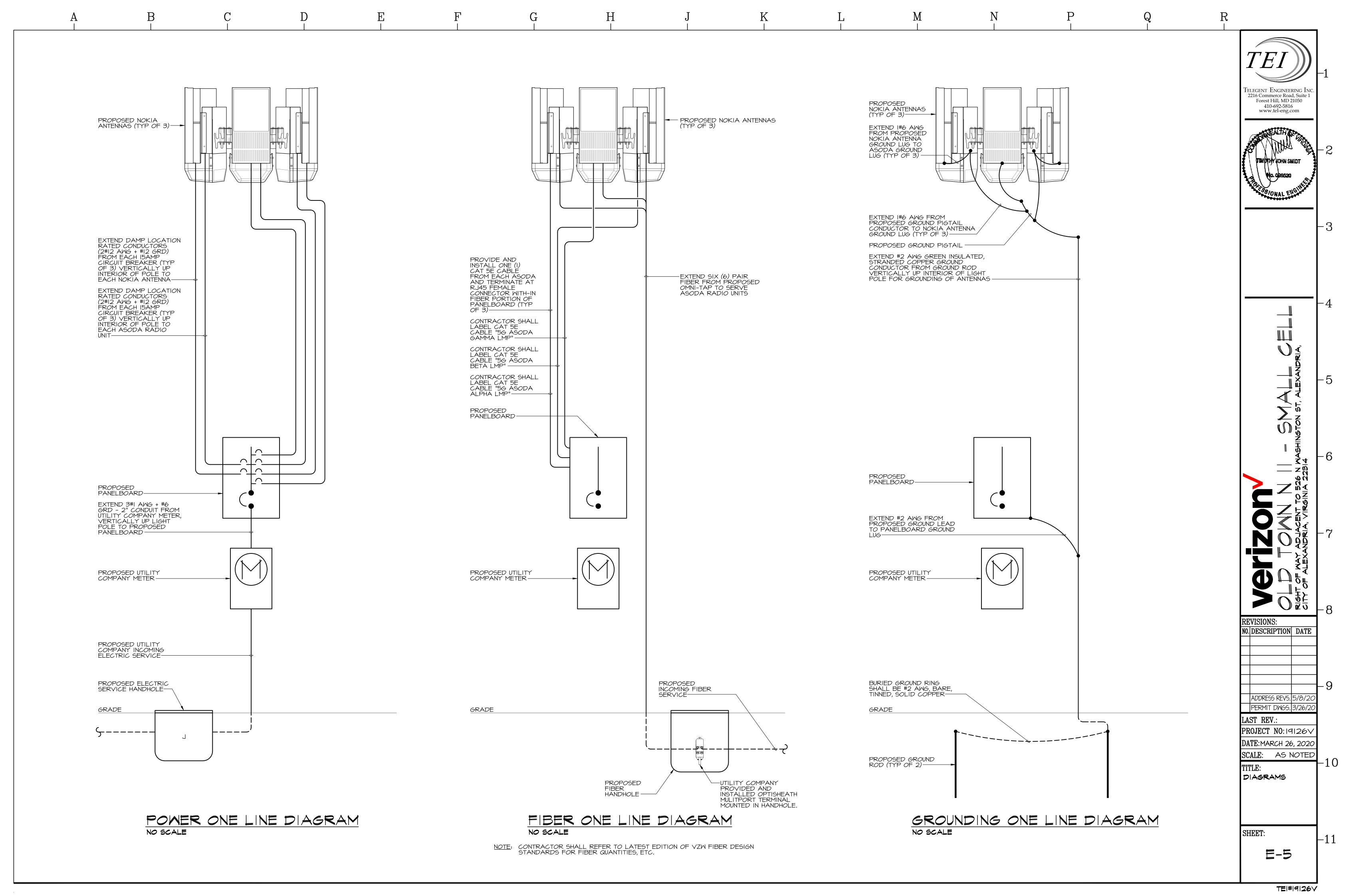
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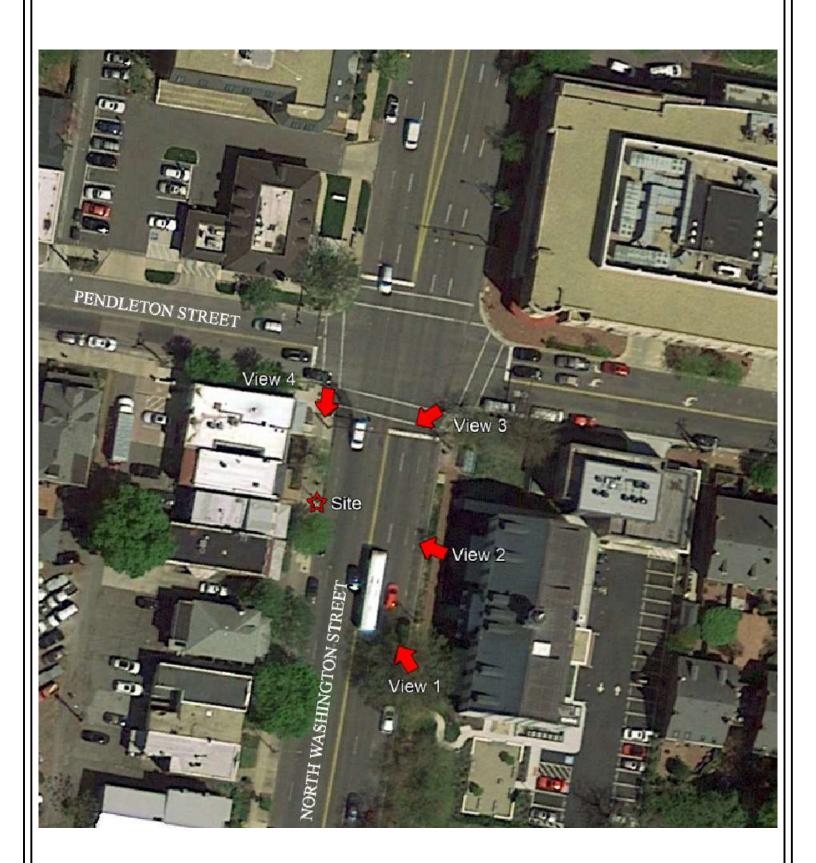
40 PVC FIBER

FIBER CABLES-











**Old Town N11**Overall Site Layout

vertzon/





Old Town N11
Existing View 1

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Old Town N11 Proposed View 1

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Old Town N11
Existing View 2

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Old Town N11 Proposed View 2

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Old Town N11
Existing View 3

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Old Town N11 Proposed View 3

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Old Town N11
Existing View 4

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Old Town N11 Proposed View 4

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