CITY OF CHARLOTTESVILLE, VIRGINIA
CITY COUNCIL AGENDA

Agenda Date:	July 5, 2017
Action Required:	Make a determination to either uphold or overturn the decision of the Board of Architectural Review (BAR)
Presenter:	Mary Joy Scala, Preservation & Design Planner, Department of Neighborhood Development Services (NDS) Melanie Miller, Chair, BAR
Staff Contacts:	Alex Ikefuna, Director, NDS
Title:	**1521 University Avenue - Appeal of Board of Architectural Review (BAR) decision to deny a cell antenna concealment feature**

Background:

The format for an appeal of a BAR decision is: (1) staff report; (2) appellant's presentation; and (3) the BAR's position presented by the Chair of the BAR, Ms. Miller.

The zoning ordinance requires that an applicant shall set forth, in writing, the grounds for an appeal, including the procedure(s) or standard(s) alleged to have been violated or misapplied by the BAR....In any appeal the city council shall consult with the BAR and consider the written appeal, the criteria [standards for review] set forth within section 34-276 or 34-278, as applicable, and any other information, factors, or opinions it deems relevant to the application. [ATTACHMENT 1. ADC District Criteria and Standards and Guidelines]

1521-27 University Avenue "the Kenmore Building" was built in 1925 as a commercial duplex. It is a contributing structure in the Corner Architectural Design Control (ADC) district, and in the Rugby Road- University Corner National Register and Virginia Landmarks Register District. It is located opposite the UVA grounds. Mincer's has occupied the building since the late 1950's [ATTACHMENT 2. Historic Survey of the Kenmore Building (Mincer's)].

On April 18, 2017, the BAR reviewed three applications for Verizon Wireless, all located within ADC districts at the Corner and in Venable neighborhood. The BAR approved two of the applications, both located on non-contributing buildings, but denied (5-2) with Schwarz and Graves opposed) the proposal for a cell antenna within a "faux chimney" concealment feature to be located on the center of the flat roof of Mincer's, and related telecommunication equipment to be located on the outside of the east wall above the Virginian. [ATTACHMENT 3. BAR staff report April 18, 2017]

The BAR's full motion was:

Gastinger moved and Balut seconded to deny a certificate of appropriateness (COA) for BAR 17-04-02, proposing installation of wireless communication transmission equipment on the roof of a building located at 1521-1527 University Avenue, because the proposed

installation(s) and concealment feature is NOT architecturally compatible with the character of this property or the Corner ADC District. The nature and placement of the proposed "chimney" is not typical or common within this ADC District relevant for the structure, and is not in keeping with the commercial character of the existing building. The following Standards and Guidelines are referenced:

- *Standard #3 for the review of construction and alterations related to the interior standards for rehabilitation [Sec 34-276 (3) The Secretary of the Interior Standards for Rehabilitation set forth within the Code of Federal Regulations (36 C.F.R. §67.7(b)), as may be relevant]*
- *page 25 related to roofs*
- *page 28 related to building exterior roofs.*

(NOTE: A new BAR member referenced the Secretary of Interior"s Standards instead of the ADC district Standards and Guidelines. The ADC Guidelines *are based upon* the Secretary of Interior"s Standards, which are available online, and which apply to the rehabilitation of any contributing building in any historic district in the United States. The pertinent ADC Standards and Guidelines were included in the April 18, 2017 staff report for the BAR"s consideration.)

Discussion:

In 2012, congress enacted the "Spectrum Act" to facilitate expansion of wireless broadband services. Localities cannot deny, and must approve, the proposed placement of antennas on existing towers and base stations, if the physical dimensions of the tower or base station will not be substantially changed. *Note that the approval of even a single antenna on a building makes that building into a new "base station."*

As a result of the 2012 federal "Spectrum Act," the Telecommunication Facilities section of the City"s zoning ordinance was changed in September of 2016. Pertinent sections are:

Sec. 34-1073. Design control districts.
(a) Within the city's historic and entrance corridor overlay districts attached communications facilities that are visible from any adjacent street or property are prohibited; provided, however, that by special use permit city council may authorize such facilities on a specific lot.

Sec. 34-1080. Visibility and placement....
(b) Attached communications facilities that are permitted only if not visible from adjacent streets or properties shall comply with the following standards:
(1) Such facilities must be concealed by an architectural feature or lawful appurtenance of the support structure, provided that ground-level equipment may be concealed by landscape screening.
(2) The concealment referenced in [subsection] (b)(1), above, shall be provided to such an extent that the communications facilities cannot be distinguished from the architectural feature, appurtenance, or landscape plantings used to conceal them.
(3) Within a design control district, any exterior construction, reconstruction, and alteration proposed for the purpose of providing concealment for any component of a communications facility requires a certificate of appropriateness.

For any COA application, the BAR must approve an application *unless it finds* the proposal does not meet ADC district standards, or applicable guidelines, and the proposal is incompatible with the historic, cultural or architectural character of the district in which the property is located.

In making their determination in this case, the BAR considered that currently, there is no existing telecommunications equipment on the roof of Mincers. A memo dated September 24, 2015, sent by the Chief Deputy City Attorney [ATTACHMENT 4. City Attorney Telecomm Issues memo], emphasizes the significance of the *first* approval of telecommunication equipment on a building:

> "*Upon approval of even a single antenna to be located on an existing building, the City creates an „existing base station"". Therefore, collocations of new or replacements antennas cannot be denied if federal criteria are met.*"

The BAR determined that the proposed equipment and the specific type of proposed concealment, the "faux chimney" screening, would adversely affect the character of this property within the ADC District, because "The nature and placement of the proposed „chimney" is not typical or common within this ADC District relevant for the structure, and is not in keeping with the commercial character of the existing building."

(Notes: The applicant"s "Determination of Visual Effects" consultant report by Stantec, duplicated in Exhibits A and H, [ATTACHMENT 6 Applicant"s Appeal Submittal] incorrectly states that the Mincer building (VDHR # 104-133-52) has not been individually surveyed, and incorrectly identifies the National Register District in which it is located.

The applicant makes the argument that there already exist many examples of rooftop equipment and appurtenances in the environs, including a photo in Exhibit F that actually depicts the UVA smokestack that is located across University Avenue on JPA and that is incorrectly described in the applicant"s letter as a "cylindrical chimney" on the building east of College Inn.)

Alignment with City Council's Vision and Strategic Plan:

Upholding the BAR"s decision aligns with Council"s vision for *Charlottesville Arts and Culture:* Charlottesville cherishes and builds programming around the evolving research and interpretation of our historic heritage and resources. It contributes to Goal 2 of the Strategic Plan, to be a safe, equitable, thriving and beautiful community, and objective 2.5, to provide natural and historic resources stewardship.

Community Engagement:

The abutting owners were required to be notified of the Certificate of Appropriateness application. Staff received five emails from the public in opposition to the proposed cell antenna. [ATTACHMENT 5. Opposition letters received] In addition, the Chair received four additional letters in opposition. One member of the public also participated in the public comments portion of the BAR meeting.

Budgetary Impact:

None.

Recommendation:

Council must consider the written appeal; and the BAR"s determination based on ADC district criteria, standards and guidelines, and based on the proposal"s incompatibility with the property and the character of the district; and Council may consider any other information, factors, or opinions it deems relevant to the application.

Staff recommends that City Council uphold the BAR"s decision.

Alternatives:

1. City Council may determine that the BAR"s decision to deny the certificate of appropriateness for a proposed telecommunications facility on 1521 University Avenue was correctly made, and may therefore uphold the BAR"s decision and deny the COA.
2. City Council may determine that the BAR"s decision to deny the certificate of appropriateness for a proposed telecommunications facility on 1521 University Avenue was incorrectly made, and may overturn the BAR"s decision and approve the COA.

POSSIBLE MOTION (denial) or RESOLUTION (approval)
FOR BAR APPLICATION 17-04-02 (1521-1527 University Avenue)

1. **Denial Motion (to uphold the BAR's decision)**

I move to deny a COA for **BAR 17-04-02**, proposing installation of wireless communication transmission equipment on the roof of a building located at **1521-1527 University Avenue**, because the proposed installation(s) and concealment feature is NOT architecturally compatible with the character of this property or the Corner ADC District. For the reasons noted in the BAR"s April 18, 2017 decision, and for the reasons noted within the Staff Reports to both the BAR and this Council, the nature and placement of the proposed "chimney" is not typical or common within this ADC District, and is not in keeping with the character of the existing building.

2. **Approval Resolution (to overturn the BAR's decision)**

RESOLUTION
APPROVING A COA FOR WIRELESS COMMUNICATION EQUIPMENT
AT 1521-1527 UNIVERSITY AVENUE

WHEREAS, the Owner of property located at 1521-1527 University Avenue, Hampton Building Corporation, together with Cellco Partnership d/b/a Verizon Wireless, seeks a certificate of appropriateness to authorize the installation of certain wireless communication transmission equipment on the roof of the building located at that address (known as the Mincer"s Building); and

WHEREAS, this City Council disagrees with the BAR"s decision dated April 18, 2017 denying the requested COA, and this Council hereby finds that the proposed installation is architecturally compatible with the character of this property and of the Corner ADC District, now, therefore,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF CHARLOTTESVILLE, VIRGINIA, that a certificate of appropriateness ("COA") is hereby approved for **BAR 17-04-02**, proposing installation of wireless communication transmission equipment on the roof of a building located at **1521-1527 University Avenue,** subject to the following conditions:

Conditions of Council"s COA Approval:

Condition 1: All communications/ transmission equipment, and related facilities, shall be installed in accordance with a coordinated Concealment Plan, which shall be as follows:

- All communications/ transmission equipment, and related facilities, shall be disguised as architectural features, fixtures, or building appurtenances. Concealment elements created for the sole purpose of disguising or hiding such equipment and facilities shall be treated, considered and reviewed in the same manner as the architectural features, fixtures or appurtenances they mimic.
- In the aggregate, all architectural features, fixtures and appurtenances shall not exceed such number, and shall be of such massing, type and appearance, as may be compatible with similar features, fixtures and appurtenances on other building(s) within this ADC District. Approval of a concealment element for one installation does not guarantee approval of the same concealment element(s) for all future installations.
- All future installations of communications/ transmission equipment shall be in accordance with this Concealment Plan.

Condition 2: The current application proposes a single (1) antenna/data node, and related equipment and facilities, to be installed on the roof and east wall of the existing commercial building. Consistent with the above-referenced Concealment Plan, the concealment features of this proposed installation shall be as follows:

- The proposed 6.7" W x 23.6"H x 4.1"D antenna/data node shall be enclosed within a 60" H x 24" W x 24" D stealth concealment "chimney" designed and installed to have the appearance of a brick chimney.
- The concealment sleeve ("chimney") shall be of a color, and shall have a texture, that closely matches the bricks and mortar of the building"s façade. The concealment sleeve shall be mounted to have a height less than or equal to four (4) feet (or 41"above grade) above the existing parapet wall (that is 37" above grade), and no portion of the antenna/ data node within the sleeve shall extend above the concealment sleeve.
- The proposed antenna/ data node shall be mounted on a 7" x 7" non-penetrating, ballasted sled with the centerline placed 18" from the east wall and 34" from the north wall in the center of the roof of the building. No portion of the sled shall be visible at ground level from any adjacent street or property, unless it is disguised as part of the "chimney".
- Related equipment and cabinets supporting the operation of the antenna/ data node, shall be mounted on the east side of the existing building, behind the existing parapet wall that is 12 „ above grade and currently screens HVAC units and other rooftop facilities. The application represents that there will be several pieces of equipment mounted within an area no larger than 8" L x 4" H x 10.8"D with the top of all equipment mounted no higher than the south parapet wall that is 4.7" above the lower roof line. All conduit and equipment cabinets shall be painted to match the wall on which it is mounted.

Attachments:

1. ADC District Criteria [Zoning Ordinance Section 34-284 (b)] and Standards for Review of Construction and Alterations [Zoning Ordinance Section 34-276] and pertinent ADC District Guidelines
2. Historic Survey of the Kenmore Building (Mincer"s)
3. BAR staff report April 18, 2017
4. City Attorney Telecomm Issues memo
5. Opposition letters received
6. Applicant"s Appeal Submittal

ATTACHMENT 1. ADC District Criteria [Zoning Ordinance Section 34-284 (b)] and Standards for Review of Construction and Alterations [Zoning Ordinance Section 34-276] And pertinent ADC District Guidelines (all included in April 18, 2017 BAR staff report)

Review Criteria Generally

Sec. 34-284(b) of the City Code states that,
In considering a particular application the BAR shall approve the application unless it finds:
(1) That the proposal does not meet specific standards set forth within this division or applicable provisions of the Design Guidelines established by the board pursuant to Sec.34-288(6); and
(2) The proposal is incompatible with the historic, cultural or architectural character of the district in which the property is located or the protected property that is the subject of the application.

(Section 34-276) Pertinent Standards for Review of Construction and Alterations include:

(1) Whether the material, texture, color, height, scale, mass and placement of the proposed addition, modification or construction are visually and architecturally compatible with the site and the applicable design control district;
(2) The harmony of the proposed change in terms of overall proportion and the size and placement of entrances, windows, awnings, exterior stairs and signs;
(3) The Secretary of the Interior Standards for Rehabilitation set forth within the Code of Federal Regulations (36 C.F.R. §67.7(b)), as may be relevant;
(4) The effect of the proposed change on the historic district neighborhood;
(5) The impact of the proposed change on other protected features on the property, such as gardens, landscaping, fences, walls and walks;
(6) Whether the proposed method of construction, renovation or restoration could have an adverse impact on the structure or site, or adjacent buildings or structures;
(8) Any applicable provisions of the City's Design Guidelines.

Pertinent Design Review Guidelines for Site Design and Elements

H. Utilities and Other Site Appurtenances
Site appurtenances, such as overhead utilities, fuel tanks, utility poles and meters, antennae, exterior mechanical units, and trash containers, are a necessary part of contemporary life. However, their placement may detract from the character of the site and building.

1. Plan the location of overhead wires, utility poles and meters, electrical panels, antennae, trash containers, and exterior mechanical units where they are least likely to detract from the character of the site.

2. Screen utilities and other site elements with fences, walls or plantings

3. Encourage the installation of utility services underground.

4. Antennae and communication dishes should be placed in inconspicuous rooftop locations, not in a front yard.

5. Screen all rooftop mechanical equipment with a wall of material harmonious with the building or structure.

ATTACHMENT 2. Historic Survey of the Kenmore Building (Mincer's)

Architectural And Historic Survey

Identification

STREET ADDRESS: 1525-1527 University Avenue
MAP & PARCEL: 9-82
CENSUS TRACT AND BLOCK:
PRESENT ZONING: B-3
ORIGINAL OWNER: Eugene Hildreth, Fannie P. Brady and William S. Brady
ORIGINAL USE: Grocery/Men's Clothing Store
PRESENT USE: Tobacconist and Bookstore
PRESENT OWNER: Hampton Building Corporation
ADDRESS: 1527 University Avenue
Charlottesville, Virginia 22903

HISTORIC NAME: Kenmore Building
DATE / PERIOD: 1923
STYLE: Vernacular
HEIGHT (to cornice) OR STORIES: 3 storeys
DIMENSIONS AND LAND AREA: 59.3' x (3904 sq. ft.)
CONDITION: Good
SURVEYOR: Bibb
DATE OF SURVEY: Summer 1986
SOURCES: City Records Ch'ville City Directories
Sanborn Map Co. - 1920, 1929-57
Eddins, Around the Corner After World War I

ARCHITECTURAL DESCRIPTION

This duplex store building with apartments above is three storeys tall and two bays wide. Wall construction is of brick, laid in stretcher bond on the facade and east side and 4-course American-with-Flemish bond on the Ellewood Avenue elevation. Brick quoins mark the corners and separate the bays on the facade and the first bay on the Ellewood elevation. Both storefronts have recessed entrance loggias at the eastern side with 15-light doors and 3-light transoms. (The entrance to the eastern store room was closed in 1986). The eastern storefront has a slate pentroof with a steep half-timbered central gable with a scalloped bargeboard and a finial and pendant. The display window is in the form of a Victorian veranda, with turned posts at the corners and a turned balustrade below. There was once an arched opening between this entrance loggia and the one in the building to the east, from which an open stair gives access to the basements of both buildings. The western storefront is much plainer. There is a sign at the level of the other's pent-roof, and both probably cover glass-brick panels matching the one remaining in the first bay of the side elevation. A brick cornice with mousetoothing extends across both storefronts. Second and third storey windows on the facade are segmental-arched tri-partite compositions consisting of a 6-over-6 light window flanked by two narrow 1-over-1 light windows. A wooden cornice with modillions extends across the facade and along the Ellewood Avenue elevation below a plain brick parapet. The building extends back eight bays along Ellewood Avenue. In all but the end bays, there are segmental-arched 6-over-6 light windows at the upper levels and short and high segmental-arched windows (now closed) at the first storey level. In the rear bay, a frontispiece entrances gives access to the apartments above. Fluted pilasters carry an entablature with triglyphs and dentil moulding. The name KENMORE is over the door. Fennestration on the rear elevation is irregular, with windows on the stair landings.

HISTORICAL DESCRIPTION

Eugene Hildreth, Fannie P. Brady and William S. Brady purchased this lot in 1923 (City DB 42-274; 43-41, 440; 45-453). Tax records show that this building was erected the same year, and it appears on a plat in 1924 (DB 46-495). Mrs. Brady eventually acquired full ownership (WB 3-413, 436; DB 85-270), and she sold to W. D. Haden in 1943 (DB 114-227). Hampton Building Corporation bought it from his estate in 1970 (WB 5-333, DB 317-468). The eastern store room was occupied by Collins, Inc., a men's clothing store, from the mid--1930's until the mid-1950's, and then by Rohmann's University Sport Shops until 1986. Two grocery stores, the Cash and Carry and then the A & P, occupied the western store room in its first decade. Then it housed a restaurant called The Corner Shops from the mid-1930's until the mid-1950's. It has housed Mincer's Pipe shop since the late 1950's. The basement was occupied by a pool room in the 1933O's and 1940's.

Sources and bibliography

Published sources (Books, articles, etc., with bibliographic data.)

See Eddins, Brown's The Corner Office Vol. II, 1977.

Primary sources (Manuscript documentary or graphic materials; give location.)

1970 Sanborn Map Alderman Library Vol. 1A.

Names and addresses of persons interviewed

Plan (Indicate locations of rooms, doorways, windows, alterations, etc.)

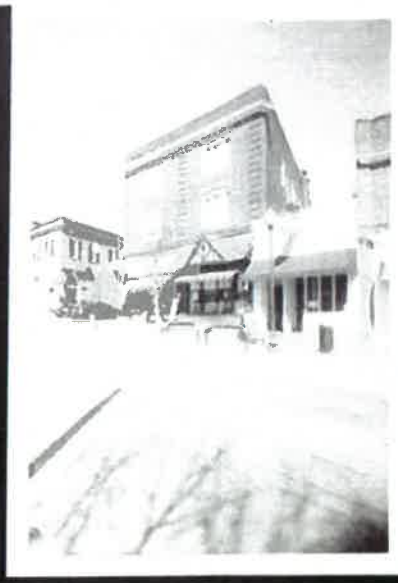
Site plan (Locate and identify outbuildings, dependencies and significant topographical features.)

Name, address and title of recorder

Karen Kummer U of VA Arch. History Grad Student

Date

March 1980



Date _____ File No. _____

Name _____

Town _____

County _____

Photographer _____

Contents _____

7. DESCRIPTION -- Inventory (continued)

UNIVERSITY AVENUE (continued)

1500 Block (continued)

104-133-54 1517 (Sophie's): Dance hall on main floor. Neo-Georgian Commercial. Ca. 1920s. Brick (random American bond); 2 stories; parapet roof; 4-bay front, including angled bay at E corner of building. Entry located in arched recess flanked by brick pilasters; Classical cornices above first and second stories. From 1942 to 1983, this Neo-Classical commercial building housed the University Cafeteria, one of the area's most popular eating establishments.

104-133-53 1521-23 (The Virginian): Restaurant; shops in basement. Commercial Vernacular. Ca. 1920s. Brick (stretcher bond); 1 story; parapet roof; asymmetrical 3-bay front; recessed entry to basement shops; modern shopfront of traditional form and materials. This single-story brick structure repeats the parapet roof and mousetooth brick cornice of its neighboring 1920s commercial buildings.

104-133-52 1525-27 (Kenmore Building): Shops on first floor, apartments above. Decorated Vernacular. Ca. 1920s. Brick (stretcher bond); 3 stories; parapet roof; 4-bay front. Rusticated brick quoins; corbelled mousetooth brick cornice above shopfronts; wooden modillion cornice below parapet; triple windows with segmental-arched heads; shopfront at No. 1525 features decorative Tudor-style cross-gable with mock half-timbering and scalloped bargeboards. Occupying a prominent corner lot at the intersection of Elliewood Avenue, this handsome 3-story brick building features a Tudor-style shopfront at No. 1525. Next door at No. 1527 is Mincer's tabacconist and bookseller, for over three decades one of the most popular shops on the Corner.

~~1600 Block~~

104-133-34 1601 (Stevens-Shepherd Building; Arnette's): Department store. Neo-Georgian Commercial. Ca. 1925. Brick (stretcher bond); 2 stories; parapet roof; symmetrical 3-bay front. Round-arched shop windows; recessed arched entry with large traceried fanlight; wooden entablature above first story, and corbelled brick cornice above second story. This attractive Neo-Georgian commercial building housed the Stevens-Shepherd Company, an exclusive men's clothing store, from the 1920s to the early 1960s.

-35 *1609 (Burger King): Restaurant. Vernacular. Built 1972. Brick veneer (stretcher bond); 1 story; "clip-on" mansard roof; symmetrical 3-bay front with large plate-glass windows. This modern building is relatively inconspicuous, being set back from the street with a gigantic hickory tree in front of it.

(See Continuation Sheet # 44)

ATTACHMENT 3. BAR staff report April 18, 2017

CITY OF CHARLOTTESVILLE
BOARD OF ARCHITECTURAL REVIEW
STAFF REPORT
April 18, 2017

Certificate of Appropriateness Application
BAR 17-04-02
1521 University Avenue
Tax Parcel 090082000
Hampton Building Corporation, Owner/ Verizon, Applicant
Proposed cell antenna

Background

1521 University Avenue is a brick commercial vernacular structure circa 1925. It is a contributing structure in the Corner ADC District, and in the Rugby Road- University Corner National Register District.

It is a 3-bay vertical frame with boarding below, one story parapet, with a flat roof. It has a corbelled cornice below the parapet with an angle recessed doorway in the west bay leading to a basement stairway. It also has a recessed entrance in the center bay, and a single plate glass window. After World War I the building housed a sandwich and soda fountain run by Mr. Billy Gooch and Ellis Brown. (The historic survey is attached.)

Application

The applicant is requesting approval the installation of a new attached, concealed, wireless telecommunications facility to be installed on the roof of the Mincer's UVA Imprinted Sportswear. This data node facility will consist of a 6.7"(W) x 23.6"(L) panel antenna that will be mounted using a non-penetrating, ballasted sled and enclosed within a stealth concealment chimney near the center of the roof. The chimney will be designed to look like bricks, using color and textures that closely match the bricks and mortar of the existing building. It will extend 4 feet above the highest point of Mincer's building wall.

The supporting base station transmitting equipment will consist of a radio cabinet that is approximately 23.4"(L) x 19.4"(W) x 10.8"(D), two Remote Radio Heads and a fiber optic cable Diplexer (coupler), which will be mounted on the side building wall with access to be provided from the roof of The Virginian restaurant.

The applicant sates that this equipment, which is like various types of other electrical equipment will not be visible from University Avenue, due to the existing parapet wall the currently screens HVAC units and other rooftop utilities. Other views from nearby properties and the UVa grounds will be obscured and/or blocked completely by the walls of adjoining buildings and trees lining the southern side of University Avenue. The security cabinet can also be painted to match the existing wall or any other color that is deemed acceptable by the BAR.

Criteria and Guidelines

Review Criteria Generally

Sec. 34-284(b) of the City Code states that,
In considering a particular application the BAR shall approve the application unless it finds:

(3) That the proposal does not meet specific standards set forth within this division or applicable provisions of the Design Guidelines established by the board pursuant to Sec.34-288(6); and
(4) The proposal is incompatible with the historic, cultural or architectural character of the district in which the property is located or the protected property that is the subject of the application.

Pertinent Standards for Review of Construction and Alterations include:

(1) Whether the material, texture, color, height, scale, mass and placement of the proposed addition, modification or construction are visually and architecturally compatible with the site and the applicable design control district;
(2) The harmony of the proposed change in terms of overall proportion and the size and placement of entrances, windows, awnings, exterior stairs and signs;
(3) The Secretary of the Interior Standards for Rehabilitation set forth within the Code of Federal Regulations (36 C.F.R. §67.7(b)), as may be relevant;
(4) The effect of the proposed change on the historic district neighborhood;
(5) The impact of the proposed change on other protected features on the property, such as gardens, landscaping, fences, walls and walks;
(6) Whether the proposed method of construction, renovation or restoration could have an adverse impact on the structure or site, or adjacent buildings or structures;
(8) Any applicable provisions of the City's Design Guidelines.

Pertinent Design Review Guidelines for Site Design and Elements

H. Utilities and Other Site Appurtenances
Site appurtenances, such as overhead utilities, fuel tanks, utility poles and meters, antennae, exterior mechanical units, and trash containers, are a necessary part of contemporary life. However, their placement may detract from the character of the site and building.
6. Plan the location of overhead wires, utility poles and meters, electrical panels, antennae, trash containers, and exterior mechanical units where they are least likely to detract from the character of the site.
7. Screen utilities and other site elements with fences, walls or plantings
8. Encourage the installation of utility services underground.
9. Antennae and communication dishes should be placed in inconspicuous rooftop locations, not in a front yard.
10. Screen all rooftop mechanical equipment with a wall of material harmonious with the building or structure.

Discussion and Recommendations

In 2012, congress enacted the "Spectrum Act" to facilitate expansion of wireless broadband services. Localities cannot deny, and must approve, the proposed placement of antennas on existing towers and base stations, if the physical dimensions of the tower or base station will not be substantially changed.

The Telecommunication Facilities section of the City's zoning ordinance was changed in September of 2016, due to the 2012 federal "Spectrum Act." Pertinent sections are:

Sec. 34-1073. Design control districts.
(a) *Within the city's historic* and entrance corridor *overlay districts* attached communications facilities that are visible from any adjacent street or property are prohibited; provided, however, that by special use permit city council may authorize such facilities on a specific lot.

Sec. 34-1080

(a) Attached communications facilities that are permitted to be visible from adjacent streets or properties shall comply with the following standards:
   (1) Such facilities shall be designed and located so as to blend in with the existing support structure. The facilities shall be attached to the support structure in the least visible location that is consistent with proper functioning of equipment. The colors of the facility and the attachment structure will be coordinated, and compatible neutral colors shall be utilized.

(b) Attached communications facilities that are permitted only if not visible from adjacent streets or properties shall comply with the following standards:
   (1) Such facilities must be concealed by an architectural feature or lawful appurtenance of the support structure, provided that ground-level equipment may be concealed by landscape screening.

Currently, there is not any existing telecommunications equipment on the roof of Mincers. The BAR should read the attached September 24, 2015 memo sent by the City Attorney on telecommunication issues, and decide if adding this proposed equipment and its screening will adversely affect the character of this property within the ADC District.

In a subsequent communication regarding 1521 University Avenue, she writes: "*The proposed attached [communications] facility is not visible from an adjacent street, so it is permitted by right in the CD, however, per 34-1080(b), concealment is required and, in an ADC District a COA is required for addition of a concealment feature. ...action on both the COA application and zoning verification will be completed within 60 days (this is not an eligible facilities request).*"

Staff would like to add while there may be little aesthetic impact on the overall property, putting telecommunications equipment on this roof will open up the property to the additions of more antennas in the future. Therefore, the BAR should discuss how future antennas would be screened. The city attorney writes, ***"Upon approval of even a single antenna to be located on an existing building, the City creates an 'existing base station'". Therefore, collocations of new or replacements antennas cannot be denied if federal criteria are met."***

The BAR may want further clarification of the appearance of the equipment to be located on the lower roof, and the conduits that will run along the rear of the building to make sure they will not have unexpected impacts.

Suggested Motion

Having considered the standards set forth within the City Code, including City Design Guidelines for Site Design and Elements, I move to find that the proposed cell antenna and additional telecommunications equipment satisfy/do not satisfy the BAR's criteria and are compatible/ not compatible with this property and other properties in The Corner ADC District, and that the BAR approves/denies the application as submitted, (or with the following modifications...).

ATTACHMENT 4. City Attorney Telecomm Issues memo

From: Robertson, Lisa
Sent: Thursday, September 24, 2015 4:46 PM
Subject: Telecomm Issues

Members of the BAR and ERB,

I am writing to call to your attention two circumstances in which applications seeking approval for installation of telecommunications equipment will not be subject to BAR/ ERB review. Staff has two pending applications that must be approved per federal law, but we wanted to provide you with the following information before approval letters are sent out.

1. **"Eligible Facilities Requests" pursuant to the Federal Spectrum Act.**

You may or may not be aware that, in 2012, as part of the Middle Class Tax Relief and Job Creation Act, Congress enacted the "Spectrum Act" in order to (among other things) facilitate the expansion of wireless broadband services. Pursuant to Section 6409 of the Spectrum Act (codified at 47 U.S.C. Sec. 1455(a)) localities cannot deny, and must approve, the proposed placement of antennas on existing towers and base stations, if the physical dimensions of the tower or base station will not be substantially changed. The FCC regulations implementing the Spectrum Act requirements are attached to this e-mail.

In a nutshell: in cases where **(i)** an existing building currently serves as the support for any "transmission equipment", including any antenna (together, the building and transmission equipment are referred to as an "existing base station"), **(ii)** the existing base station was reviewed and approved under the local zoning process, or an applicable state review process, **(iii)** the installation as proposed will not defeat any concealment element(s) of the building/ support structure, and **(iv)** the physical dimensions of the existing base station will not be substantially changed, then federal law prohibits the City from doing anything other than approving the application. Upon approval of even a single antenna to be located on an existing building, the City creates an "existing base station". Thereafter, collocations of new or replacement antennas cannot be denied if federal criteria are met. Localities cannot make applicants comply with general submission requirements for site plans or other development reviews—for "Eligible Facilities", the City may only require the submission of a minimal amount of information, as necessary to demonstrate that the federal criteria are met. The City is required to make a decision on an Eligible Facilities request within 60 days of the day on which the application is received. **Therefore, going forward, when NDS receives "Eligible Facilities" Requests, I am recommending that those requests be reviewed by staff in relation to the applicable criteria, and then approved by the Director of NDS without review by either the BAR or the Entrance Corridor Board.**

At the existing Monticello Hotel Building (500 Court Square) there are two pending applications (*see attached draft correspondence*). We have reached the 60-day deadline, and the applicants" attorney is requesting a decision. For each: **(i)** the existing building serves as the support for numerous items of transmission equipment, including antennas; **(ii)** one or more of the existing equipment items located on the rooftop was previously approved by the City, either upon original installation, or subsequent replacement; **(iii)** none of the existing equipment is concealed by any feature of the building, so there are no existing "concealment elements" that could be defeated by additional [unconcealed] antennas, and **(iv)** we have two applications which, according to plans and the certification of an attorney, propose installation of antennas in

a manner that will not substantially change the physical dimensions of the existing base station. **It is my opinion that these two applications must be approved administratively by the Director, without going through zoning review procedures, because there are no local limitations or requirements (other than USBC requirements) that can be imposed on these installations**.

2. **Certain "attached communications facilities" within historic and entrance corridor districts**

Under Sec. 34-1073 of the City"s Zoning Ordinance, certain attached communications facilities are permitted uses within the City"s historic and entrance corridor districts. These permitted facilities, so long as they comply with certain height and dimensional requirements, are not subject to the requirement for a certificate of appropriateness—only a building permit is required. *See* City Code 34-1083. The facilities are as follows:

- Attached communications facilities that utilize utility poles, or other electric transmission facilities, as the attachment structure (subject to certain visibility requirements of Sec. 34-1080), and

- Other attached communications, e.g., antennas mounted on an existing building, <u>if they are invisible</u> ("not visible from any adjacent street or property"). Examples: antennas concealed within existing exterior light fixtures; antennas concealed within an existing chimney structure.

For these facilities, compliance with the visibility, placement and dimensional requirements of the Code must be verified by zoning staff administratively, prior to the building official"s issuance of a building permit.

Note: I will qualify the above by saying that, in the event a NEW structure is proposed to be added onto an existing building—to serve as the concealment mechanism for an antenna—(for example, a fake chimney) then a certificate of appropriateness would need to be obtained for the new structure. (As part of that review, the BAR/ ERB should <u>also</u> address how subsequent antennas added to the same site will be concealed).

Recommendation: I recommend that, when the BAR or ERB receives an application seeking approval of the <u>first</u> antenna proposed on a building, the applicable review board (or staff granting administrative approval, if applicable) should consider requiring a comprehensive concealment plan demonstrating how that first, and each potential subsequent antenna, will be and remain concealed in the future. (See Paragraph 1, preceding above). If you don"t establish concealment requirements with the very first approval, then the new federal regulations don"t allow you to require concealment at the time when additional antennas are later proposed to be added.

We are planning to send the letters out tomorrow. Feel free to contact me with any questions.

Lisa
Lisa A. Robertson, Esq.
Chief Deputy City Attorney
City of Charlottesville| Office of The City Attorney
P: 434.970.3131 | robertsonl@charlottesville.org

ATTACHMENT 5. Opposition letters received

From: Chris Hendricks [mailto:chris@mincers.com]
Sent: Monday, April 17, 2017 1:59 PM
To: bar@charlottesville.org
Subject: Proposed Cell Tower on University Ave

Members of the Charlottesville Board of Architectural Review,

I arrived in Charlottesville in 1989 as a student at the University of Virginia.

I have lived and worked in our town since the fall of 1989.

The historic UVA Corner has been a second home to me for the last 26 years as a student at UVA, and then as an employee at Mincer's.

I am opposed to the cell tower being placed on the roof of our historic building.

A fake fiberglass chimney and cell tower have no place on a building listed on the National Historic Register.

Please reject the proposal to add a microcell to the roof at 1527 University Ave.

Thanks,

Chris Hendricks
UVA Class of 1993
chris@mincers.com

From: Suzanne Clark [mailto:sleighc6221@gmail.com]
Sent: Monday, April 17, 2017 4:13 PM
To: caschwarz83@gmail.com; Justin.sarafin@alumni.virginia.edu; Whit@evergreenbuilds.com; melanie@houseofmillers.com; bgastinger@gmail.com; corey.clayborne@gmail.com; earnst.emma@gmail.com; sbalut@hotmail.com; tmohr@tmdarch.com
Subject: Allowing Verizon Antenna

Good Evening,

I have been informed of the meeting this evening regarding Verizon and Mincers. I do not feel there should be an antenna allowed on the roof of Mincers. The corner is an Historic area, where tourists visit and spend money,and it should be protected.. Thank you for your consideration in this matter.

Sincerely, S. Clark

From: Jones, Susan [mailto:susan@pvcinc.com]
Sent: Monday, April 17, 2017 10:30 AM
To: caschwarz83@gmail.com; Justin.sarafin@alumni.virginia.edu; Whit@evergreenbuilds.com; melanie@houseofmillers.com; bgastinger@gmail.com; corey.clayborne@gmail.com; earnst.emma@gmail.com; sbalut@hotmail.com; tmohr@tmdarch.com
Subject: OPPOSED: Verizon Wireless antenna on top of Mincer's

Dear BAR members,

Please do not permit a Verizon Wireless tower (or any tower for that matter) to be placed atop the historical Mincer's building, or any other iconic buildings on University Ave. This area deserves the same protections as the other historical areas in Charlottesville and no technology should be visible from the lawn when looking over at The Corner buildings. I am a Verizon Wireless customer and never have any trouble getting connected anywhere on The Corner, so I do not see why this tower is even needed.

You are now the only the historical heart and soul of Charlottesville. The City Council seems determined to tear down old buildings, overbuild on any available property and cram any tax producing building in all corners of Charlottesville, without regard to historical significance, architectural continuity, neighborhood culture and maintaining our "Green City" status. We count on all of you to help protect these areas and are grateful for your work.

Kindest regards,

Susan Jones

Local property owner and townie (born and raised here)
1204 Edge Hill Rd.
Charlottesville, VA 22903
(804) 339-3941
Shjones000@aol.com

From: Mark Mincer [mailto:mark@mincers.com]
Sent: Monday, April 17, 2017 1:24 PM
To: BAR
Subject: OPPOSED: Verizon Equipment on The Corner

Members of the Board of Architectural Review,

I have worked here on The Corner for my grandfather, my father and now myself for over forty years. Unfortunately, I am now a tenant in this building, without direct input on decisions like this.

I am very much opposed to the Verizon equipment on our roof for many reasons including, but not limited to:

The addition of a false chimney is not in keeping with the historic character of this building that is listed on the National Historic Register and the Secretary of the Interior's Standards for the Treatment of Historic Properties.

Adding a non-essential structure to the existing roof of a historic building could damage the integrity of the structure unnecessarily.

This structure, a fake chimney, will be visible during the early Spring, late Fall, and Winter months as you look East down The Corner from in front of the Bank of America building and the historic UVA grounds.

This changes the historic context of this building and is not in keeping with BAR guidelines for development in a Charlottesville Historic District.

For these reasons, I ask the Board of Architectural review reject the proposal to add a microcell structure on the rooftop of 1527 University Avenue.

Mark Mincer
President/Owner
http://www.mincers.com
Mincer's University of Virginia Imprinted Sportswear
1527 University Avenue
Charlottesville VA 22903
(434) 296-5687
fax (434) 971-8821
mincer@cstone.net

Mark Mincer [mailto:mark@mincers.com]
Sent: Monday, April 17, 2017 2:04 PM
To: BAR
Subject: Legal Opinion on the Verizon equipment

Letter to me from John Little attached.

Mark Mincer
President/Owner
http://www.mincers.com
Mincer's University of Virginia Imprinted Sportswear
1527 University Avenue
Charlottesville VA 22903
(434) 296-5687
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JAMES P. COX, III
M. BRYAN SLAUGHTER (VA, WV)
J. GREGORY WEBB (VA, WV)
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MICHIE HAMLETT
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Direct Dial: (434) 951-7221 Direct Fax: (434) 951-7241 Email: jlittle@michiehamlett.com

April 3, 2017

Via Email

Mr. Mark Mincer
Mincers, Incorporated
1527 University Avenue
Charlottesville, Virginia 22903

Lease to Mincers, Incorporated

Dear Mark:

We have reviewed the lease dated July 2, 1992 between Hampton Building Corporation and Mincers, Incorporated and the letter dated March 14, 2017 from Tremblay & Smith, PLLC regarding whether the roof is part of the leased premises.

In Virginia, a lease is a conveyance of realty rather than a contract between landlord and tenant.

The lease provides for the lease of ". . . that certain property located at the northeast corner of Elliewood Avenue and University Avenue in the City of Charlottesville, Virginia, including the store premises now occupied by the Tenant, the space formerly occupied by University Sports Shop and the upper two floors of the said building, known as Kenmore Apartments." [Emphasis added.] This language effectively leases the entire building. The lease does not specifically exclude or reserve to the landlord the roof of the building or the air space above the roof. The lease does not contain a restriction that the tenant will not use the roof. The lease also contains a covenant of quiet enjoyment for the leased premises. The roof is not shared in common with any other tenant.

These facts are different from those in the Knable case cited in the letter. In the Knable case, the court found as determining facts the lease of a building (and not land), the lease of only part of the building, and the express agreement that the tenant would not use the roof. Here, the lease leases the property on the corner of Elliewood Avenue and University Avenue (including the building), the lease is for the entire building, and there is no agreement the tenant will not use the roof.

Based upon this analysis, the roof is part of the leased premises and subject to the landlord's covenant of quiet enjoyment and the landlord's obligation to maintain it.

I have enclosed a copy of the Knable case for your reference.

If you have any questions, please let me know.

Very truly yours,

John V. Little

Knable v. Martone, 195 Va. 310, 78 S.E.2d 638 (1953)

IN THE SUPREME COURT OF VIRGINIA
RICHMOND

PERCY F. KNABLE, INDIVIDUALLY AND TRADING AS KAY JEWELRY COMPANY, INCORPORATED
v.
DR. ALEXANDER L. MARTONE, AND MID-TOWN DEVELOPMENT CORPORATION.

Record No. 4105.
Decided: November 30, 1953.

Present, Hudgins, C.J., and Spratley, Buchanan, Miller, Smith and Whittle, JJ.

Landlord and Tenant — Rights of Tenant in Roof of Demised Premises.

Knable leased from Dr. Martone a one story brick building shown as unit 16 on the architect's plot plan of a shopping center, which plan showed that it was subject to revision and that unit 16 formed part of a larger structure and might be added to. Under the lease Knable agreed not to use the roof of the building. On these facts he was held to have no interest in the roof and no right to object to construction by the landlord of a building adjacent to and over top of the premises leased, where such construction did not in any way interfere with his light and air, access or quiet possession.

Appeal from a decree of the Circuit Court of the city of Norfolk. Hon. Clyde H. Jacob, judge presiding.

Affirmed.

The opinion states the case.

Ashburn, Agelasto & Sellers, for the appellant.

William L. Parker, for the appellees.

SPRATLEY, J., delivered the opinion of the court. **[Page 311]**

Percy F. Knable, individually and trading as Kay Jewelry Company, Incorporated, instituted this proceeding against Dr. Alexander L. Martone, Mid-Town Development Corporation, Virginia Engineering Company, Incorporated, and Sol Mednick, trading as Globe Iron Construction Company, seeking the determination of complainant's rights as lessee of a certain one-story building in the City of Norfolk, Virginia. He prayed for an award of damages, and for an injunction against defendants forbidding any trespass upon the leased building. From a decree dismissing his bill of complaint, he applied for and obtained this appeal only as to Dr. Martone and Mid-Town Development Corporation.

At the date of the lease in question, Dr. Martone owned a triangular parcel of land, on which he planned to build a shopping center. He employed Bernard Spigel, an architect, to draw up plans for the design and construction of the center. The "plot plan of Mid-Town Shopping Center," prepared by Spigel, and exhibited in evidence, was not a plat of a land subdivision, but an architect's plan which showed the building layout in twenty-three units. It was contemplated that, upon completion, the center would consist of a series of continuous stores or buildings, with each unit separated from the others only by partition walls. Units were to be erected as tenants were procured, with the construction conforming to the needs of tenants. The right was reserved to revise or modify the "plot plan" as conditions required. Knable selected "the building to be located and of the dimensions shown as No. 16," on the plan.

On June 20, 1946, Dr. Martone executed a lease to the complainant for ten years, "beginning on the first day of the calendar month next succeeding the calendar month in which the building to be erected by the lessor

is completed and ready for occupancy by the lessee," the description of the leased property therein being as follows:

> "The one story brick or masonry store building having a frontage of twenty-five (25) feet and depth of fifty (50) feet, which is to be constructed *as a part of the Midtown* **[Page 312]** *Shopping Center*, located on Sewell's Point Road and Granby Street, in the City of Norfolk, Virginia near the intersection of said Road and said Street; the building to be located and of the dimensions shown as No. 16 on the plot plan of Midtown Shopping Center, Norfolk, Virginia made by Bernard S. Spigel, Architect, Norfolk Virginia, *to be revised.*
>
> "To be used as a Jewelry Store and for such other items as are customarily carried in cash and credit Jewelry Stores and for no other purpose." (Italics added.)

The lease was prepared on the standard form used by the Norfolk Real Estate Board, and, in addition to the usual printed terms and conditions, contained a page of typewritten terms and conditions. Among a number of restrictive covenants as to the use of the building was the following express provision:

> "The tenant agrees that he will not use, or permit to be used, the roof of the said premises. * * *."

A one-story building of the dimensions shown was thereupon constructed at the prescribed location to meet Knable's requirements, and he entered into occupancy thereof on January 1, 1947.

On October 31, 1947, Dr. Martone conveyed the property described in the above lease to Mid-Town Development Corporation.

The question presented is whether the lessee is entitled, under the terms of the lease, to the possession of building No. 16, its roof, and the air space above the roof.

Unit 16 occupied a corner of a building which also housed Units 17 and 18. A common roof covered all three, with partition walls between the units. There were no openings in any of the surrounding walls, except the show windows and the door on the front of each unit. There was no skylight or opening of any kind in the roof. The back and side walls enclosing Unit 16 were of solid masonry.

In the month of June, 1950, Mid-Town Development Corporation entered into a contract with the Virginia Engineering Company, Inc., to construct a department store **[Page 313]** building upon the land area adjoining Unit 16 on the west, designated on the architect's plan as "Future Building," embracing Units 14 and 15, with an extension of the structure over the area above Units 16, 17 and 18.

After work had been begun on said building, Knable complained to the lessor about its construction, and thereafter instituted this suit. The building was, however, completed and the lessee thereof put in possession before this case was heard in the lower court.

The record shows that in constructing the department store building, steel columns were installed on concrete foundations on the land on each side of Unit 16, and steel girders extending over Unit 16 then laid on the top of the columns. No part of the new structure touched any part of Unit 16. The front of Unit 16, the only source of light and air, and of ingress to and egress from the building, was not obstructed in any way. The new construction added no fire hazard, and the quiet possession of the lessee of Unit 16 was not interfered with in any respect.

With respect to the rights of tenants in roofs of buildings, the rule is stated in 32 Am. Jur., Landlord and Tenant, § 173, page 167 *et seq.*, as follows:

> "In case of the lease of a part of a building, such as the ground-floor store or an upper floor, this would not itself carry any interest in the roof. The lessor in such a case retains full control of the roof and may use it for such purposes as he chooses so long as it does not endanger or interfere with the tenant's use of the part of the premises leased to him. This has been held true where the lease described the demised premises as the store and basement of a building which was only one story in height, having merely an air chamber between the ceiling of the store and the roof."

In 51 C. J. S., Landlord and Tenant, § 292, page 945, we find:

"*Roof.* In the absence of contrary provisions in the lease, it has ordinarily been held that the lease of an entire **[Page 314]** building includes the roof, and the same principle has been applied where the lease covered a portion of a building entirely independent of other portions. On the other hand, where there is a common roof over premises occupied by a landlord and tenants, or by different tenants, ordinarily the part of the roof covering the portion leased to one tenant is not included in the lease, and may not, without special agreement, be sublet, but remains in the control of the landlord. In the absence of an agreement relating thereto, tenants sharing a common roof have no easement thereof except for purposes of shelter."

The only case cited to us closely in point is that of *Macnair v. Ames*, 29 R. I. 45, 68 A. 950, 16 Am. & Eng. Ann. Cas. 1208. In that case, there was no reservation with respect to the roof, as is true here. There the lessee of a store and basement sought to enjoin the erection of a bill-board upon the roof of the building by the defendant, who justified his action by a license from the lessor. The building in question was a one-story building, in which were located other stores, adjoining the premises demised to the complainant. After discussing the respective rights of landlord and tenant in such a case, the court said:

"It is to be observed that the lease does not purport to let the entire building, but only 'the store numbered 322 Weybosset street and the basement as per annexed drawing *in the front portion* of the building number 322, 324, and 326 Weybosset street.' And it is conceded that there are four other tenants in other parts of the building, one of them occupying the basement only. The lease also contains the following covenants, 'And the said lessee also covenants and agrees not to lease or underlet, nor permit any other person or persons to occupy, or improve, or make, or suffer to be made, any alteration in the premises hereby leased, without the written consent of said lessor having first been obtained, and that the said lessor may enter to view and make improvements in said premises as may be necessary or expedient. And the lessor agrees to keep the exterior of the premises in good repair.' **[Page 315]**

"The lessor unquestionably has the right to enter to make improvements as also the right of access to the roof to make repairs, and the lessee has agreed that he will not 'make, or suffer to be made, any alteration in the premises without the written consent of the lessor.' Doubtless it would have been competent for the parties to have contracted specifically that the complainant lessee should have control of the roof, but the lease is silent on that point, and we cannot say that the lessee of a part only of this business block is entitled to more than the lease describes — that is to say, the 'store and basement' in the building as distinct from the land on which it stands and as distinct also from the entire building. *McMillan v. Solomon*, 42 Ala. 356, 94 Am. Dec. 654."

In the opinion in the above case there is quoted the following statement from *O. J. Gude Co. v. Farley*, 28 Misc. (N. Y.) 184, 186, 58 N. Y. S. 1036:

"'The building was of three stories; the first was used as a liquor store by McMenamey,' [the tenant] 'and the second and third floors sublet by him as tenements. The respondent asks the court to hold that there was nothing in McMenamey's lease to prevent him from subletting the roof which 'is a part of third story,' while the contention of the appellant is that the right of McMenamey to sublet was limited to the second and third floors and did not include the roof. The decision of the court is as follows: 'The purpose of the roof of a building is primarily to shelter it and all of its occupants, and the tenant of the top floor has no better title to the roof or better right to use it for any other purpose than shelter than has the tenant of any other floor, and his right to use the roof over him is like his right to use the supporting walls of the foundation, one that is necessary and essential to the safety and quiet enjoyment of his apartments under the roof in the usual manner and any extension of that right must be by agreement with or license from the owner. * * * * '"

The language of the lease under review, as applied to the **[Page 316]** circumstances of the case, is clear and definite. That which is plain needs no explanation or interpretation. The lease shows that it was limited to a single one-story building; that it was not meant to give the grantee any right to use the roof or the space above the roof; and that the landlord reserved the right to revise or modify the building plan of the shopping center,

including the right to make an addition to building unit No. 16. The lessee got what was given to him in the lease and nothing more.

Broken down and analyzed, the granting clause shows a lease of the following described property:

(1) A "one story brick or masonry store building" (not a parcel of land); (2) "having a frontage of twenty-five (25) feet and depth of fifty (50) feet" (the dimensions of the building); (3) "which is to be constructed as a part of the Midtown Shopping Center" (a part of a larger building); (4) "the building to be located and of the dimensions shown as No. 16 on the plot plan of Midtown Shopping Center, Norfolk, Virginia, made by Bernard S. Spigel, Architect, Norfolk, Virginia, to be revised." (Showing the location of Unit 16 with relation to other units of the shopping center, and serving notice that the plot plan was subject to revision.)

In addition to the specific words of the granting clause, there was further an express agreement by the lessee that he would not use, or permit to be used, the roof of the building. This makes it very clear that lessee had no right to the use of the roof, or to the space above it. Lessee's possession was by the terms of the lease restricted to the space within the enclosures of building No. 16. That which was not granted remained in the owner of the reversion, the assignee of the lessor.

We find no error in the ruling of the trial court, and for the foregoing reasons we affirm the decree complained of.

Affirmed.

Filename:	/var/casefinder/data/html/va_scp/195vas/va_scp039406.gml

ATTACHMENT 6. Applicant's Appeal Submittal

CITY COUNCIL AGENDA
Wednesday, July 5, 2017

5:30 p.m.	**Closed session as provided by Section 2.2-3712 of the Virginia Code** *Second Floor Conference Room* (Consultation with legal counsel regarding the status of pending litigation between the City and Charlottesville Parking Center, Inc.; Boards and Commissions)
7:00 p.m.	**Special Meeting - CALL TO ORDER** *Council Chambers*
PLEDGE OF ALLEGIANCE **ROLL CALL**	
AWARDS/RECOGNITIONS **ANNOUNCEMENTS**	Parks and Recreation Month
CITY MANAGER RESPONSE TO MATTERS BY THE PUBLIC	
MATTERS BY THE PUBLIC	Public comment is provided for up to 15 speakers at the beginning of the meeting (limit 3 minutes per speaker.) Pre-registration is available for up to 10 spaces, and pre-registered speakers are announced by noon the day of the meeting. The number of speakers is unlimited at the end of the meeting.
1. CONSENT AGENDA*	(Items removed from consent agenda will be considered at the end of the regular agenda.)
a. Minutes for June 19, 2017	
b. APPROPRIATION:	Virginia Department of Health Special Nutrition Program Summer Food Service Program – $90,000 (2nd of 2 readings)
c. APPROPRIATION:	$23,312.37 to Charlottesville Affordable Housing Fund for loan repay (2nd of 2 readings)
d. APPROPRIATION:	Strategic Investment Area Form-Based Code – $228,000 (1st of 2 readings)
e. RESOLUTION:	Expanding McIntire Recycling Center Hours (1st of 1 reading)
f. RESOLUTION:	RSWA Local Government Support Agreement for Recycling Programs (1st of 1 reading)
g. ORDINANCE:	Cemetery Access Easement at Buford Middle School (2nd of 2 readings)
h. ORDINANCE:	City Land Conveyance at Grady Avenue and Preston Avenue (2nd of 2 readings)
i. ORDINANCE:	Quitclaim Gas Easements to VDOT (Fontana and Hyland Ridge Subdivisions) (1st of 2 readings)
2. PUBLIC HEARING / ORDINANCE*	Approval of Sale of Baylor Lane Lot (1st of 2 readings) – 10 min
3. PUBLIC HEARING / ORDINANCE*	King St. Rezoning Application (1st of 2 readings) – 15 min
4. PUBLIC HEARING / RESOLUTION*	1011 E. Jefferson Special Use Permit (1st of 1 reading) – 40 min
5. RESOLUTION*	BAR Denial Appeal – 1521 University Avenue (1st of 1 reading) – 20 min
6. ORDINANCE*	Solar Energy Systems Zoning Text Amendment (1st of 2 readings) – 15 min
7. REPORT: **RESOLUTION*** **ORDINANCE*** **RESOLUTION***	Parking Update – 20 min • Establishing Parking Rates (1st of 1 reading) • Parking Ordinance Changes (1st of 2 readings) • Parking Advisory Board (1st of 1 reading)
8. REPORT	Efficiency Study Priority 1 Recommendations Update – 15 min
9. RESOLUTION*	Vinegar Hill Monument (1st of 1 reading) – 15 min
10. RESOLUTION*	Liberation Day (1st of 1 reading) – 10 min
OTHER BUSINESS	

2nd mtg August

Board of Architectural Review (BAR)
Certificate of Appropriateness

Appeal

Please Return To: City of Charlottesville
Department of Neighborhood Development Services
P.O. Box 911, City Hall
Charlottesville, Virginia 22902
Telephone (434) 970-3130 Email scala@charlottesville.org

Please submit ten (10) hard copies and one (1) digital copy of application form and all attachments.
Please include application fee as follows: New construction project $375; Demolition of a contributing structure $375; Appeal of BAR decision $125; Additions and other projects requiring BAR approval $125; Administrative approval $100. Make checks payable to the City of Charlottesville.
The BAR meets the third Tuesday of the month.
Deadline for submittals is Tuesday 3 weeks prior to next BAR meeting by 3:30 p.m.

Owner Name Hampton Building Corporation Applicant Name Cellco Partnership d/b/a Verizon Wireless

Project Name/Description Verizon UVA MC N010 (Mincer's) Parcel Number 090082000

Project Property Address 1521-27 University Avenue, Charlottesville, Virginia 22903

Applicant Information

Address: c/o Lori H. Schweller, Esq., LeClairRyan, 123 East Main Street, 8th Floor, Charlottesville, VA 22902
Email: LSchweller@leclairryan.com
Phone: (W) 434-245-3448 (C) 804-248-8700

Property Owner Information (if not applicant)

Address: Hampton Building Corporation, 314 East Water Street, Charlottesville, Virginia 22902
Email:
Phone: (W) 434-244-0182 (C)

Do you intend to apply for Federal or State Tax Credits for this project? no

Signature of Applicant

I hereby attest that the information I have provided is, to the best of my knowledge, correct.

Lori H Schweller 6-2-2017
Signature Date

Lori H. Schweller June 2, 2017
Print Name Date

Property Owner Permission (if not applicant)

I have read this application and hereby give my consent to its submission.

Signature Date

Print Name Date

Description of Proposed Work (attach separate narrative if necessary):
to install 23.6" small cell communications antenna concealed within an RF-invisible faux chimney, mounted on a non-penetrating ballasted rooftop sled, with supporting equipment wall-mounted below the level of the parapet in a location that would not be visible from University Avenue.

List All Attachments (see reverse side for submittal requirements):
Zoning and construction drawings dated 5/5/2017 and photosimulations of conduit and wall-mounted equipment. Appeal package was submitted to Clerk of the City Council under separate cover on May 2, 2017.

For Office Use Only
Received by: O. Edwards
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@ PT-0091

LECLAIRRYAN

May 2, 2017

VIA HAND DELIVERY

Ms. Paige Barfield
Clerk of the City Council
PO Box 911
Charlottesville, VA 22902

RE: ***Appeal of Certificate of Appropriateness Application Denial, BAR 17-04-02***
1521 University Avenue, Tax Parcel 090082000
Owner/Lessor: Hampton Building Corporation
Applicant: Cellco Partnership d/b/a Verizon Wireless
Proposed Attached Communications Facility (small cell)

Dear Ms. Barfield and City Council:

On behalf of Verizon Wireless, Stephen Waller, Site Development Consultant with GDNsites, and I respectfully appeal the decision of the Board of Architectural Review to deny an application for an attached communications facility on the rooftop of the building located at 1521 University Avenue, which houses Mincer's.

Stephen Waller and I submitted a zoning verification application on February 6, 2017 and a Certificate of Appropriateness (COA) application (**Exhibit A**) on March 10, 2017 for a small cell attached communications facility. Zoning Administrator Read Broadhead issued a zoning verification on April 7, 2017 (**Exhibit B**).

The City of Charlottesville Board of Architectural Review (BAR) reviewed and denied the COA application by vote of 5-2 on April 18, 2017.

Written notice of the decision, including a statement of the reasons for the denial, was provided by Preservation and Design Planner Mary Joy Scala via email on April 25, 2017 as follows:

> "Gastinger moved to deny because the proposed installation(s) and concealment feature is NOT architecturally compatible with the character of this property or the Corner ADC District. The nature and placement of the proposed "chimney" is not typical or common within this ADC District relevant for the structure, and is not in keeping with the commercial character of the existing building. The following Standards and Guidelines are referenced:

E-mail: Lori.Schweller@leclairryan.com
Direct Phone: (434) 245-3448
Direct Fax: (434) 296-0905

123 East Main Street, Suite 800
Charlottesville, Virginia 22902
Phone: 434.245.3444 \ Fax: 434.296.0905

- Standard #3 for the review of construction and alterations related to the interior standards for rehabilitation [Sec 34-276 (3) The Secretary of the Interior Standards for Rehabilitation set forth within the Code of Federal Regulations (36 C.F.R. §67.7(b)), as may be relevant]
- page 25 related to roofs
- page 28 related to building exterior roofs.

Balut seconded. Motion passed (5-2 with Schwarz and Graves opposed)."

Verizon Wireless respectfully appeals this denial pursuant to City Code Sec. 34-285(b) and offers the following grounds for the appeal pursuant to City Code Sec. 34-286(a).

A. "Standards violated and misapplied"

1. <u>Neither the BAR's discussion nor visual evidence supports the BAR's conclusion that the proposed concealment element is not architecturally compatible with the character of the property or the ADC district</u>.

Pursuant to City Code Section 34-1073(a), "attached communications facilities that are visible from any adjacent street or property are prohibited..." within the city's architectural design control districts. Pursuant to Section 34-1083(b), Verizon Wireless submitted a zoning verification request. The zoning verification, dated April 7, 2017, from the Zoning Administrator confirmed that the proposed attached facility met applicable zoning requirements:

"It will not be visible for (sic) an adjacent street, so it is permitted as a by-right use in the Corner District (CD). The Subject Property is also located within the Corner District Architectural Design Control District (ADC). Per section 34-1080(b) of the Zoning Ordinance, concealment is required in a (sic) ADC district and a Certificate of Appropriateness (COA) is required for the addition of a concealment feature."

The Zoning Administrator, through issuance of the zoning verification, had already verified prior to the BAR hearing that the equipment serving the antenna met the non-visibility requirements of the Zoning Ordinance. The sole purpose of the BAR hearing was to evaluate the antenna concealment feature as a rooftop addition.

The City's Telecommunications Facilities Division 5 of the Zoning Ordinance, Sec. 34-1080(b) provides as follows:

"Attached communications facilities that are permitted only if not visible from adjacent streets or properties shall comply with the following standards:

(1) Such facilities must be concealed by an architectural feature or lawful appurtenance of the support structure...
(2) The concealment referenced in [subsection] (b)(1) above, shall be provided to such an extent that the communications facilities cannot be distinguished from the architectural feature, appurtenance, or landscape plantings used to conceal them.
(3) Within a design control district, any exterior construction, reconstruction, and alteration proposed for the purpose of providing concealment for any component of a

communications facility requires (sic) a certificate of appropriateness."

The only construction or alteration of the subject building proposed for the purpose of concealing any portion of the communications facility was the faux chimney enclosure for the small (23.6") antenna.

However, most of the discussion at the BAR hearing challenged the visibility of the equipment proposed to be mounted behind a rooftop parapet, which would conceal the equipment completely from neighboring roadways and properties when viewed from ground level, as shown by the applicant's photosimulations submitted in the application package. Based on its numerous suggested design changes, the BAR appeared unconvinced that the ancillary equipment would not be visible. Other discussion addressed the location and visibility of conduit on the back of the building connecting the equipment and antenna with power and telephone sources. The back wall of 1521 University Avenue is approximately two feet from the building with address 3 Elliewood Avenue, so most of the back of the building is not visible. Evident from photographs taken on April 30, 2017 from Elliewood Avenue, attached as **Exhibit C**, unpainted and unscreened conduit is currently attached to the back and side of the subject building as well as on the side exterior wall of the building immediately to the west of Elliewood Avenue. Verizon Wireless proposes to attach conduit painted to match the building only on the back of the building, so visual impact of the conduit will be minimal.

Chris Hendricks, who identified himself as a Mincer's employee, was the only member of the public to comment on the application. Mr. Hendricks first challenged the structural integrity of the building to hold the antenna. The zoning verification package includes a structural report, and the COA application includes a direct effects evaluation, discussed below, confirming structural sufficiency.

In short, there was little discussion of the appropriateness of the proposed antenna concealment element. However, the BAR's stated reason for its decision was based on its analysis of the antenna concealment device: "(t)he BAR concluded that the proposed installation(s) and concealment feature is NOT architecturally compatible with the character of this property or the Corner ADC District. The nature and placement of the proposed "chimney" is not typical or common within this ADC District relevant for the structure, and is not in keeping with the commercial character of the existing building."

2. **A chimney addition is compatible with the character of the property and ADC district.**

The BAR denied the proposed installation and concealment feature as "NOT architecturally compatible with the character of this property or the Corner ADC District," further stating that "(t)he nature and placement of the proposed 'chimney' is not typical or common within this ADC District relevant for the structure, and is not in keeping with the commercial character of the existing building."

In fact, the building does have a chimney already, as shown on the enclosed photographs attached as **Exhibit D**. The building immediately to the west of the subject building on the west side of Elliewood Avenue, currently housing a Starbucks, has two brick chimneys of different sizes as shown on the photographs attached as **Exhibit E**. The building immediately east of the subject building housing the College Inn Restaurant has a tall, narrow brick chimney, and the building to the

east of College Inn has a cylindrical chimney, all as shown on the photographs attached as **Exhibit F**. **Therefore, the "nature" of the proposed architectural concealment element is, in fact, entirely compatible with the commercial character of the structure and the ADC District.**

3. **The communications facility would cause "no adverse effect" on historic resources, specifically including the Rotunda.**

Mr. Hendricks declared that the proposed attachment would be visible from the steps of the Rotunda, which is a National Historic Landmark. Chair Miller agreed with this statement and sited this visibility as one of the reasons that the application should be denied. Such assertion is not supported by visual evidence. Attached as **Exhibit G** is a series of photographs taken on April 30, 2017 from the north portico of the Rotunda and from both east and west extremities of the Rotunda's terrace walk. From the west end of the upper walkway at the level of the north portico, any view of Mincer's would be screened by Brooks Hall along with the many mature trees on the north lawn on the University. From the eastern locations of the walkway, views of Mincer's is blocked by multiple trees, including evergreens, as shown on the photographs in Exhibit G as well as in the exhibits to the architectural historian's report discussed below.

Federal law requires evaluation of potential direct and visual impacts on historic, archeological, tribal, and environmental resources when a communications facility is proposed. As part of its extensive due diligence, the applicant commissioned the Stantec "Determination of Visual Effects" report, which is included with the application and attached as **Exhibit H**. The subject building's rooftop already contains an array of visible, unscreened equipment larger than the proposed antenna concealment feature that, theoretically, if Mr. Hendricks' assertion were correct, would be equally visible from the Rotunda. However, such assertion is contradicted by the results of the visual effects survey conducted by Stantec, dated December 13, 2016. This report concludes that the proposed installation would have no adverse effect on the historic resources within the Area of Potential Effect (APE). As the photographs in the report reflect, the analysis took place in the winter ***when there were no leaves on the trees to mitigate visibility***. The reviewers specifically evaluated visual impact from the Rotunda, along with other historic structures and monuments within the 0.25 mile APE. Based on the proposed location of the disguised antenna on the roof, the report concluded that it would "not impact the Rotunda" and other structures as it "**was not visible from any of the points of survey from these NRHP-listed or eligible resources due to distance, changes in elevation, and the existing built environment, which shields the view of the proposed antenna installation site from the historic resources within the 0.25-mile APE.** The building and/or proposed antenna location was visible from … [several other listed historic resources, including the Anderson Brothers Bookstore], [but] (s)ince the antenna will be stealthed within a false chimney and due to the small size of the antenna and the limited visibility of the proposed installation it is recommended that the proposed … site will have No Adverse Effect to the resources within the APE for visual effects" (emphasis added).

Based on applicable City ordinances and ADC Guidelines, the faux chimney was proposed as the best design for a concealment device for an attached communications facility critically needed owing to heavy wireless use in the hospital and university area. The location is dictated by the needs of the Verizon Wireless network. The design is based on the standards set out in the Zoning Ordinance and the guidance provided by the ADC Guidelines, further discussed in Section 4 below.

4. **The standards stated as support for the BAR's conclusion are not applicable to the proposed addition or are inconsistent with the criteria set out in the Code and ADC Guidelines.**

The BAR's stated standard for denial of the COA is Standard #3 for the review of construction and alterations (City Code Sec. 34-276), namely The Secretary of the Interior Standards for Rehabilitation set forth within the Code of Federal Regulations (36 C.F.R. §67.7(b)*), as may be relevant*] (italics added). These standards "are the criteria used to determine if a rehabilitation project qualifies as a certified rehabilitation" 36 C.F.R. § 67.7(a). Since the proposed attached communications facility is not a rehabilitation, the applicant questions whether Sec. 34-276(3) is relevant to this application. Even if relevant, however, the standards here are not consistent with the specific guidelines for rooftop additions set out below in Section 5.

The standard mentioned in the hearing was as follows:

"(9) New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment." 36 C.F.R. § 67.7(9).

The BAR pointed out that the proposed new architectural feature, designed to blend in with the existing building would not satisfy this requirement to differentiate the new addition from the old. The applicant has no objection to employing an architectural concealment device designed to appear more utilitarian. such a gray vent pipe vent, as a more obvious addition for a new purpose, if the BAR determined that doing so would not be inconsistent with the standards the Zoning Ordinance sets out in Sec. 34-276 ("Standards for review of construction and alterations). The subject building currently has two large cylindrical metal vents on the east end of the rooftop as shown in **Exhibit 1**. A much smaller cylindrical vent pipe design has been employed by the applicant on a number of other buildings.

The final two criteria listed in the denial letter –

- "• page 25 related to roofs
- page 28 related to building exterior roofs." --

are references to page numbers in an unidentified document. The references to roofs in the ADC Guidelines are found in Section 3 and Section 4, neither of which has enough pages to be the correct document. I received no explanation to my question regarding these references. If references to statutes or regulations that have been bound in a paginated document for the use of City employees and commissions, such document is not available online for the public, so it is impossible to address their relevance.

5. **The proposed attached communications facility concealment device complies with Zoning Ordinance standards and ADC Guidelines.**

The City Code Section 34-276 sets out the standards for review of construction and alterations in design control districts. These standards and our comments in bold follow.

(1) whether the material, texture, color, height, scale, mass and placement of the proposed addition, modification or construction are visually and architecturally compatible with the site and the applicable design control district;

The proposed concealment feature would completely screen the antenna, and the proposed concealment material was specially designed to match precisely the texture and color of the building. The enclosure would be four feet taller than the building parapet and would appear similar to the other chimneys on the buildings on the Corner. The chimneys on the Corner vary widely in height and width, but the proposed concealment structure would be shorter and smaller by comparison.

(2) The harmony of the proposed change in terms of overall proportion …

The proposed addition would be placed equidistant from the east and west parameters of the building and would not detrimentally affect the harmony of the overall proportions of the structure.

(3) The Secretary of the Interior Standards for Rehabilitation set forth within the Code of Federal Regulations (36 C.F.R. §67.7(b)), as may be relevant;

]Discussed above.]

(4) The effect of the proposed change on the historic neighborhood;

The Stantec report and the photosimulations demonstrate that the proposed change would have no adverse effect on the historic neighborhood as the attachment would not be visible from most locations, and, given the environment, would be an unremarkable feature that would pass unnoticed in its context.

(5) The impact of the proposed change on other protected features on the property, such as gardens, landscaping, fences, walls and walks;

The proposed facility would have no impact on gardens, landscaping, fences, walls, and walks.

(6) Whether the proposed method of construction, renovation or restoration could have an adverse impact on the structure or site, or adjacent buildings or structures ….

As indicated in the structural report included with the application, as well as the Stantec report, which also evaluated direct effect on the building, the proposed facility would have no adverse physical impact on the structure.

(7) Any applicable provisions of the city's design guidelines (see section 34-288(6)).”

Charlottesville Architectural Design Control District Guidelines, Part III New Construction and Additions, Section G(3) regarding Rooftop Screening (page 13), provide the following guidance with regard to screening rooftop equipment:

4. "Antennae and communication dishes should be placed in inconspicuous rooftop locations, not in a front yard."

The proposed antenna will be completely concealed from view and installed near the center of the roof, set back approximately 33 feet from the front wall facing the public road right-of-way along University Avenue.

5. Screen all rooftop mechanical equipment with a wall of material harmonious with the building or structure.

Base station equipment proposed for supporting this concealed antenna will be installed on the eastern wall of Mincer's and at a point that can only be accessed or readily seen from the rooftop of the Virginian restaurant. Therefore, because of the screening that is provided by the existing parapet wall and adjoining wall of the next building to the east, no additional screening should be necessary.

As shown in the photographs attached as **Exhibit J**, antennas, exhaust vents, satellite dishes, HVAC equipment, pipes, lightning rods, ladders, and fire escapes as well as electric poles, lines and transformers are all a part of the visual landscape in the building's immediate environs.

Criteria: Conclusion

Pursuant to Sec. 34-284(b), "the BAR shall approve the application unless it finds:

(1) That the proposal does not meet specific standards set forth within this division or applicable provisions of the design guidelines established by the board pursuant to section 34-288(6); and
(2) The proposal is incompatible with the historic, cultural or architectural character of the district in which the property is located or the protected property that is the subject of the application."

The Board's decision concludes, but does not explain how, the proposed antenna concealment feature fails to meet the criteria set out in the Code and ADC Guidelines. The Board concludes that the concealment feature would not be architecturally compatible with the character of this property or the Corner ADC District, presumably because the nature and placement of the proposed "chimney" is not typical or common within this ADC District relevant for the structure, and is not in keeping with the commercial character of the existing building. No evidence is offered for these conclusions, and the visual evidence and standards offered as guidance do not support the conclusions. As the exhibits show, a chimney is fully in keeping with the nature of the building and district, and the enclosure and equipment placement have been designed to meet all criteria of the Code and ADC Guidelines.

B. "Procedures violated"

The BAR based its decision on *ex parte* communications.

Finally, the BAR appeared to take into consideration a number of emails sent to the Preservation and Design Planner and to the BAR chair that were not made available to the applicant or public. At our request after the hearing, Ms. Scala provided copies of four emails, attached as **Exhibit K**, noting

3. Rooftop Screening

a. If roof-mounted mechanical equipment is used, it should be screened from public view on all sides.

The proposed antenna and related equipment would be completely screened.

b. The screening material and design should be consistent with the design, textures, materials, and colors of the building.

The proposed screening material for the antenna would appear to match the design, texture, material and color of the building.

c. The screening should not appear as an afterthought or addition the the (sic) building.

The screening would appear to be a chimney, which is a common appurtenance on the historic buildings on The Corner.

Chapter II: Site Design & Elements - Section H. Utilities & Other Site Appurtenances of the city's design guidelines, acknowledges that antennas and similar items are a "necessary part of contemporary life. However, their placement may detract from the character of the site and building."

Five guidelines have been set forth in order to achieve this goal, and Verizon Wireless addressed them in the application as follows (in bold type):

1. "Plan the location of overhead wires, utility poles and meters, electrical panels, antennae, trash containers, and exterior mechanical units where they are least likely to detract from the character of the site."

The proposed antenna will be screened within an architecturally-compatible, RF-friendly concealment element that will be designed to look like a chimney. The ancillary equipment would be mounted on the building wall behind the parapet on The Virginian restaurant rooftop. The conduit will run along the back wall of the building

2. "Screen utilities and other site elements with fences, walls or plantings."

Supporting base station transmitting equipment will be placed mounted on the eastern side wall and screened from views by the parapet wall of the Virginian Restaurant, other adjacent building walls and the tops of existing trees along University Avenue. Therefore, off-site views of the antenna and equipment will not be an issue and additional screening should not be necessary.

3. "Encourage the installation of utility services underground."

The main power line will be run from an existing meter that is located at the rear of the building and no new overhead lines will be necessary. Conduit housing the communication feedlines that connect the antenna with the base station equipment will be run flush along the interior wall of the building and parallel with the existing vent pipes so as to be screened from all views beyond the brief gap above the Virginian Restaurant.

on historic buildings throughout Charlottesville. Like utility companies, wireless companies need infrastructure to provide services that have become essential to our lives.

Based on the standards of the Zoning Ordinance and ADC Guidelines, the applicant designed the small concealment element to appear integrated with the built landscape. The enclosure material was carefully matched to the color and texture of the existing brick. The chimney enclosure was designed to extend four feet above the height of the building's parapet and would not be visible from most locations. The photograph attached as **Exhibit L** was taken from the sidewalk in front of the subject building, which is a three-story building, tall for this street. Because of the shallow setback and building height, passers-by on University Avenue would not see enclosure element. Visibility from most other locations is blocked by buildings and trees.

Verizon Wireless requests an opportunity to be heard on this appeal. Thank you for your careful consideration of this information.

Very truly yours,

Lori H. Schweller

Enclosures

cc: via email:
Lisa Robertson, Senior Deputy Attorney
Catherine Faulkner, Verizon Wireless
Colleen Hall, Verizon Wireless
Stephen Waller, GDNsites

that BAR Chair Miller may have received additional emails and/or letters (which Ms. Miller referred to during the hearing). Ms. Miller did not respond to this email or provide the emails or letters, so the applicant has no way to verify their receipt or contents.

The emails are from (1) the owner of Mincer's, who, at the time of the hearing, was disputing the lease with the building owners and so had ulterior motives for opposing the application, and (2) Chris Hendricks, who refers to a "cell tower being placed on the roof of our historic building....fake fiberglass chimney and cell tower," (3) a person who doesn't identify as a City resident or business owner, and (4) a City property owner who refers to a "tower" to be placed on the building. The fifth letter Ms. Scala provided was a legal opinion from the Mincer's owner's attorney opining on the validity of the Verizon Wireless lease with the building owner. The building owner has a legal opinion on such point as well, but such opinions are entirely irrelevant to the BAR decision.

Therefore, with only complaints from the Mincer's owner, employee, and attorney, all of whom were in dispute with the building owner, we are left with two emails, one of which is from a person who misapprehends the possibility of a cell tower on the rooftop of a historic building.

Yet, Chair Miller cited as a reason for denial the fact that the BAR had received nine letters from "merchants" -- all in opposition to the application – and none in favor. These alleged letters in opposition should not have weighed in the BAR's decision as they were not available for the applicant to dispute the prevailing faulty understanding of the proposed facility as a "cell tower," the alleged lack of need for the facility, and, in large part, a family feud among the building's owners. Reading into the record a list of names of opponents without any information about who these alleged opponents are, the validity of their grounds of opposition, or an opportunity to respond to their points of contention was unfairly prejudicial against the applicant.

C. Additional Relevant Information/Factors

Applications for communications facilities are submitted in direct respond to citizens' demands for wireless service to access internet resources for school, work, and entertainment and to communicate wirelessly. "Data flowing across wireless networks has increased 25x since 2010," and is expected to grow 5x in the next five years, according to CTIA.org. With the rapid deployment of the internet of things, connected cars, buildings, and "smart cities," communities that support 4G and 5G technology will see significant benefits. Information from customers and its engineers' analyses have caused Verizon Wireless to prioritize the densely populated areas around the UVA Medical Center and The Corner at the highest level for additional data transmission capacity. Verizon Wireless serves Charlottesville with a handful of "macro" sites, including dedicated cell towers and antennas located on the Norfolk Southern railroad tower. Cell towers are widely considered inappropriate in residential and historic districts and are not permitted by Charlottesville zoning in these areas. Visually unobtrusive small cells provide a solution to the critical need for additional coverage and wireless capacity in these high-use areas. If small cells are not permitted, wireless service will degrade, and Charlottesville residents and workers will not be able to enjoy the wireless connectivity they have come to expect, enjoyed by citizens in other technologically progressive localities.

Localities typically impose a stricter standard of scrutiny upon wireless communications facilities -- regardless of their size, design, or visual impact -- than upon utilities or appurtenances installed for other commercial and/or public necessities. Rooftop attachments for modern uses are commonplace

EXHIBIT A

LECLAIRRYAN

February 6, 2017

VIA HAND DELIVERY

Mary Joy Scala, AICP, Preservation and Design
Planner
City of Charlottesville
Department of Neighborhood Development Services
City Hall - 610 East Market Street
P.O. Box 911
Charlottesville, VA 22902

Re: Board of Architectural Review Application for Attached Communications Facility
UVA N010

Dear Ms. Scala:

On behalf of Cellco Partnership d/b/a Verizon Wireless, Stephen Waller and I submit to you ten (10) copies of each of the following documents in support of a Certificate of Appropriateness, required pursuant to City Code §34-1080(b)(3), for an attached communications facility proposed for installation on the Mincer's store building, located at 1521 University Avenue, Charlottesville, Virginia:

1. BAR application;
2. Descriptive narrative;
3. Proposed final site plan;
4. Photosimulations of the installation;
5. Stantec Determination of Visual Effects; and
6. A check for $125.00.

The proposed attached facility will be entirely screened within a faux brick chimney to be situated in the center of the rooftop, so the communications facility will not be visible from neighboring roadways or properties. The supporting mechanical equipment will be wall-

E-mail: Lori.Schweller@leclairryan.com
Direct Phone (434) 245-3446
Direct Fax (434) 296-0905

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Charlottesville, Virginia 22902
Phone 434.245.3444 \ Fax 434.296.0905

mounted on the rooftop and will also not be visible from neighboring roadways or properties. Therefore, the proposed facility meets applicable requirements of the zoning ordinance for a new attached communications facility. We are submitting an application for a Certificate of Appropriateness for the stealth architectural element and we request action on the submission within sixty (60) days of our submittal.

Please contact me if you have questions or need additional information or clarification. Thank you for your consideration.

Very truly yours,

Lori H. Schweller

Attachments

cc: Lisa Robertson, Deputy City Attorney
Stephen Waller, GDNsites

Board of Architectural Review (BAR)
Certificate of Appropriateness

Please Return To: City of Charlottesville
Department of Neighborhood Development Services
P.O. Box 911, City Hall
Charlottesville, Virginia 22902
Telephone (434) 970-3130 Email scala@charlottesville.org

Please submit ten (10) hard copies and one (1) digital copy of application form and all attachments.
Please include application fee as follows: New construction project $375; Demolition of a contributing structure $375; Appeal of BAR decision $125; Additions and other projects requiring BAR approval $125; Administrative approval $100.
Make checks payable to the City of Charlottesville.
The BAR meets the third Tuesday of the month.
Deadline for submittals is Tuesday 3 weeks prior to next BAR meeting by 3:30 p.m.

Owner Name Hampton Building Corporation Applicant Name Verizon

Project Name/Description Verizon - UVA MC N010 (Mincer's) Parcel Number 090082000

Project Property Address 1521 University Avenue

Applicant Information

Address: Verizon Wireless - C/O Stephen Waller, AICP
8159 Cancun Court, Gainesville, VA 20155
Email: stephen.waller@gdnsites.com
Phone: (W) 434-825-9617 (C) _____

Property Owner Information (if not applicant)

Address: Hampton Building Corporation
314 East Water Street, Charlottesville, VA 22902
Email: _____
Phone: (W) 434-244-0182 (C) _____

Do you intend to apply for Federal or State Tax Credits for this project? No

Signature of Applicant

I hereby attest that the information I have provided is, to the best of my knowledge, correct.

Signature 2/3/2017
Signature Date

Stephen Waller, AICP
Print Name Date

Property Owner Permission (if not applicant)
I have read this application and hereby give my consent to its submission.

Signature Date

Print Name Date

For Office Use Only

Received by: _____
Fee paid: _____ Cash/Ck. # _____
Date Received: _____
Revised 2016

Approved/Disapproved by: _____
Date: _____
Conditions of approval: _____

HISTORIC DISTRICT ORDINANCE: You can review the *Historical Preservation and Architectural Design Control Overlay Districts* regulations in the City of Charlottesville Zoning Ordinance starting with Section 34-271 online at www.charlottesville.org or at Municode.com for the City of Charlottesville.

DESIGN REVIEW GUIDELINES: Please refer to the current *ADC Districts Design Guidelines* online at www.charlottesville.org.

SUBMITTAL REQUIREMENTS: The following information and exhibits shall be submitted along with each application for Certificate of Appropriateness, per *Sec. 34-282 (d)* in the City of Charlottesville Zoning Ordinance:

(1) Detailed and clear depictions of any proposed changes in the exterior features of the subject property;

(2) Photographs of the subject property and photographs of the buildings on contiguous properties;

(3) One set of samples to show the nature, texture and color of materials proposed;

(4) The history of an existing building or structure, if requested;

(5) For new construction and projects proposing expansion of the footprint of an existing building: a three-dimensional model (in physical or digital form);

(6) In the case of a demolition request where structural integrity is at issue, the applicant shall provide a structural evaluation and cost estimates for rehabilitation, prepared by a professional engineer, unless waived by the BAR.

VERIZON - SITE NAME: "UVA MC NODE N010"
SMALL CELL ANTENNA NODE INSTALLATION AT MINCER'S
1521 UNIVERSITY AVENUE

Project Description:

Verizon respectfully requests approval of a Zoning Verification and Certificate of Appropriateness that are both being submitted in support of the installation of a new attached, concealed, wireless telecommunications facility to be installed on the roof of the Mincer's UVA Imprinted Sportswear ("Mincers") store, which is located at 1521 University Avenue. This property is identified as Parcel ID# 090082000 in the City of Charlottesville's tax records and GIS mapping and contains 0.0900 acres zoned Corner District (CDH) in the Venable Neighborhood. Because the proposed communications facility will not be visible from adjacent streets and properties, it is permitted by right with a Zoning Verification. The property is located within The Corner Architectural Design Control district; therefore, a Certificate of Appropriateness must be obtained for the antenna concealment feature.

This "small cell" data node facility will consist of a 6.7" (W) x 23.6" (L) panel antenna that will be mounted using a non-penetrating, ballasted sled and enclosed within a "Stealth" concealment chimney near the center of the roof. The tallest part of the building's wall is currently 37 feet high, and an attached vent pipe extending from The Virginian Restaurant located next door, is at 40'-6", while the top of Verizon's proposed chimney enclosure will be 41' high. The antenna concealment chimney will be designed to look like bricks, using color and textures that closely match the bricks and mortar of the existing building.

Supporting base station transmitting equipment will consist of a radio cabinet that is approximately 23.4" (L) x 19.4" (W), and 10.8" (D), two Remote Radio Heads, a fiber optic cable Diplexer (coupler) will be mounted on the side building wall with access to be provided from the roof of The Virginian restaurant, which is located on the same parcel and shares ownership with the Mincer's building. This equipment, which is like various types of other electrical, telephone and communications equipment will not be visible from University Avenue, due to the existing parapet wall that currently screens HVAC units and other rooftop utilities. Other views from nearby properties and the UVA grounds will be obscured and/or blocked completely by the walls of adjoining buildings and trees lining the southern side of University Avenue. The security cabinet can also be painted to match the existing wall or any other color that is deemed acceptable and in accordance with the Certificate of Appropriateness.

Character of the Area:

Mincer's is a 3-story retail commercial building that fronts on University Avenue at the intersection with Elliewood Avenue, just south of the intersection with Virginia Avenue. All of the adjacent properties surrounding this building on the northeastern side of the street share the same CDH zoning designation, while the opposite side of the street consists of open space and buildings serving various research, academic, faculty and staff operations for the University of Virginia.

Mincer's, the adjacent parcels and a large part of the surrounding area are included within the City's own University Corner Historic District and Corner Architectural Design Control District.

The special designations of both overlay districts require the issuance of a Certificate of Appropriateness as part of the City's review and approval process. Therefore, special care is being taken to ensure that the proposed screening design will be compatible with the existing walls of this brick building even though this particular section of the Mincer's rooftop of is not visible from that many vantage points nearby.

Network Improvements:

The deployment of this node and similar facilities throughout the area will help Verizon further improve its state-of-the-art, high-speed wireless data services that are being provided over its 4G LTE (Long-Term Evolution) network for the residents, visitors, business owners and consumers throughout the City of Charlottesville. Slow data transmission due to greater distances from existing facilities and/or a high number of users during peak hours can directly impact citizens' ability to perform various tasks that range from doing business and schoolwork in their homes, to communicating with family and friends, and even receiving messages regarding emergencies, weather, traffic and other local issues that may impact the quality of our daily lives.

Verizon is working throughout Virginia to increase the capacity for data transmission on its wireless networks as needed to handle the increased demands for service by the company's growing customer base. These small cell/node facilities are much smaller in scale than the more traditional "Macro" facilities (such as a cell towers), often using a single and very inconspicuous antenna that is supported by compact base station equipment. Unlike the macro facilities that serve areas that are at least a mile in diameter, these nodes are meant to provide improved coverage that is concentrated in more densely-populated urban areas such as city centers with dense resid ential areas, shopping centers, sports fields, entertainment venues, community centers and similar developments where data usage tend to be high. The placement of small cells within the areas that are marginally covered by existing macro sites also allows network traffic to be offloaded from those macro sites and distributed through the small cells within their specifically targeted areas. This then helps to increase data speeds that are experienced by users across the network, thus providing more reliable access to high-speed data transmissions and overall service improvements and seamless coverage for all users as they move between a reliance upon the macro sites to the small cell nodes and vice versa.

In addition to using the measurable data that is compiled by the company's Network Traffic Engineers, Verizon has also taken the input it receives from the local community into consideration when designing and locating these small cell nodes. This is important because it means that ma ny of the customers who have filed reports of slower data speeds, spotty coverage and complete loss of service at certain times and locations throughout this area will benefit from the installation of this proposed facility.

Due to the addition of this new site, area residents, visitors and businesses will be able to benefit greatly from the technological advances that have taken place in the wireless industry since the introduction of smartphones and wireless broadband services. With the increased usage of smartphones, tablets, laptops and similar devices that allow users to work, research, shop and communicate, the needs for access to high speed, high quality wireless networks will

only continue to grow. In fact, wireless networks have become such an integral part of our lives and our economy that access to the highest levels of service has in many cases allowed consumers to save money by "cutting the cords" and reducing the needs for multiple subscriptions and accounts to both landline and wireless telephone services, along with other hardline communication utilities, such as cable and internet. To that end, the addition of this proposed data node antenna will allow Verizon to provide another reliable choice for high quality option for data streaming services to its customers within the City of Charlottesville.

Service Objectives:

Verizon is licensed by the Federal Communications Commission ("FCC") to provide state-of-the-art wireless communication services to citizens, businesses and visitors within City of Charlottesville. To that end, Verizon currently provides service in the area using several existing and more traditional towers, as well as macro facilities collocated on other structures such as power towers and rooftops. However, Verizon is also constantly seeking ways to improve these services through the deployment of state-of-the-art technologies that help to increase network capacity that is necessary for supporting the growing needs for data. Today's citizens expect to be able to stream information, entertainment and data through their phones, tablets, laptops and other devices, and stay in constant contact with family and friends. While the existing wireless macro sites have adequately supported network voice services for many years, the ability to meet the escalating demand for the transfer of a large volume data is requiring that these small cells and data node antennas be located closer to the customers in areas with higher user intensity so that data service providers can meet the ever-increasing demands.

It should also be noted in most cases that these needs for access to higher capacity levels and the best data services are largely being experienced in the most densely developed area that offer the fewest (if any) options and insufficient land area that would be necessary for the construction of traditional macro wireless facilities. On the other hand, the small cell nodes are designed to offer designs that are visually unobtrusive and low-powered, while still meeting the specific site coverage requirements for those smaller geographical areas that are being targeted.

The proposed antenna and compact ground equipment footprint of this installation will help to expand services into this busy commercial district while also being sensitive to the goals and guidelines that were put in place to preserve certain historic and architectural characteristics within the district. This is an important factor because it allows Verizon to implement design solutions that greatly reduce the size and visibility from that of a traditional macro cellular facility. This specific small cell /data node will be screened within and faux brick chimney on the roof of the brick building, while increasing its top height by 4 feet and it will only be ½-foot taller than the existing, aluminum kitchen vent pipe that extends above the wall from The Virginia Restaurant. Therefore, the proposed installation should be viewed as an acceptable and compatible solution for improving mobile wireless data services within this historic, commercial are that also has related architectural design controls.

Compatibility with Design Guidelines for Historic and Architectural Design Districts:

Antennas and wireless facilities that are not visible from adjacent streets or properties are allowed to be attached to existing buildings and similar structures by-right in the CD Zoning

District. Chapter II: Site Design & Elements - Section H. Utilities & Other Site Appurtenances, acknowledges that antennas and similar items are a "necessary part of contemporary life. However, their placement may detract from the character of the site and building." Data nodes such as the ones proposed for City of Charlottesville and urban ring of Albemarle County are designed to have very minimal visual impacts while helping to deploy the latest technologies in data services with increased capacity for peak usage by the residents, employees and visitors in this area. Five guidelines have been set forth in order to achieve this goal, and Verizon will address them below (**in bold type**):

1. "Plan the location of overhead wires, utility poles and meters, electrical panels, antennae, trash containers, and exterior mechanical units where they are least likely to detract from the character of the site."

The proposed antenna will be screened within a architecturally-compatible, RF-friendly concealment element that will be designed to look like a chimney, that extends 4-feet above the highest point of the Mincer's building wall.

2. "Screen utilities and other site elements with fences, walls or plantings."

Supporting base station transmitting equipment will be placed mounted on the eastern side wall and screened from views by the parapet wall of the Virginian Restaurant, other adjacent building walls and the tops of existing trees along University Avenue. Therefore, off-site views of the antenna and equipment will not be an issue and additional screening should not be necessary.

3. "Encourage the installation of utility services underground."

The main power line will be run from an existing meter that is located at the rear of the building and no new overhead lines will be necessary. Conduit housing the communication feedlines that connect the antenna with the base station equipment will be run flush along the interior wall of the building and parallel with the existing vent pipes so as to be screened from all views beyond the brief gap above the Virginian Restaurant.

4. "Antennae and communication dishes should be placed in inconspicuous rooftop locations, not in a front yard."

The proposed antenna will be completely concealed from view and installed near the center of the roof, set back approximately 33 feet from the front wall facing the public road right-of-way along University Avenue, whereas the CD zoning district requires at least seventy-five (75) percent of a building's wall to be built to (setback 0' from) the property line adjacent to its primary street frontage. Therefore, this requirement has been more than adequately addressed.

5. Screen all rooftop mechanical equipment with a wall of material harmonious with the building or structure.

Base station equipment proposed for supporting this concealed antenna will be installed on the eastern wall of Mincer's and at a point that can only be accessed or readily seen from the rooftop of the Virginian restaurant. Therefore, because of the screening that is provided by the existing parapet wall and adjoining wall of the next building to the east, no additional screening should be necessary.

Conclusions:

A Zoning Verification and Certificate of Appropriateness are being requested to allow the addition of this antenna and its supporting equipment that will improve data capacity and

wireless coverage for customers who are visiting businesses in the Corner District as well as the nearby open space and buildings on the adjacent grounds of the University of Virginia. The installation of a small cell facility for the use and enjoyment of residents and visitors in this densely-populated area will help to enhance quality of life due to the increased availability of high speed, high quality wireless network services. Verizon is confident that the proposed small cell facility should be deemed as acceptable under the City's Architectural Design Guidelines for the antennas and similar utilities and appurtenances, and this is further supported by the favorable factors that are listed below:

1. The provision of more reliable wireless and broadband services supports citizens and businesses greater access to a wide range of educational, recreational, economic tools and public service information that are important to achieving various goals and objectives that are set forth in the City's Comprehensive Plan.

2. Small cells, such as the one proposed in this application, are more compact and less visually obtrusive than many other types of utilities and appurtenances that do not require BAR review in other areas outside of Historic and Design Control Districts.

3. The proposed antenna and the supporting equipment will have very little, if any, adverse visual impacts upon the Mincer's building or other structures within the historic district due to the compatible design, color and texture of the faux brick chimney.

Please contact me if you should have any comments, questions or needs for additional information.

Sincerely,

Stephen Waller, AICP
GDNsites
Site Development Consultants to Verizon

verizon wireless

UVA MC N010

1521 UNIVERSITY AVE

CHARLOTTESVILLE, VA 22903

E911 ADDRESS YES ☒ NO ☐

PROJECT DESCRIPTION

INSTALLATION AND OPERATION OF A SMALL CELL NODE AND ASSOCIATED EQUIPMENT ON AN EXISTING BUILDING

UTILITIES INFO:
POWER: DOMINION 540.672.6126
TELEPHONE: VERIZON 434.293.3216

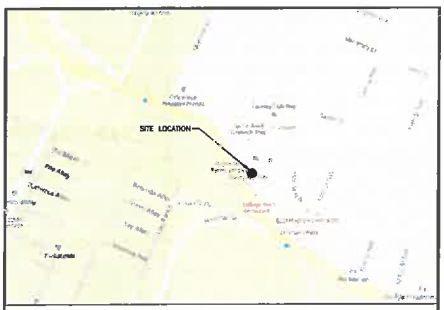
2 WORKING DAYS BEFORE YOU DIG 811 TOLL FREE MISS UTILITY

EMERGENCY INFO:
JURISDICTION: CITY OF CHARLOTTESVILLE LOCAL FIRE AND RESCUE: 434.970.3240 LOCAL POLICE: 434.970.3280

DIRECTIONS FROM SHOCKOE SWITCH (1831 RADY CT., RICHMOND, VA 23222):

TURN LEFT ONTO RADY ST., 0.1 MI. TURN LEFT ONTO MACKLIN ST., 0.6 MI. TURN RIGHT ONTO MECHANICSVILLE TURNPIKE, 171 FEET. MERGE ONTO I-64 W, 4.9 MILES. MERGE ONTO I-64 W VIA EXIT 79 TOWARD POWHITE PKWY/CHARLOTTESVILLE, 88.2 MI. TAKE EXIT 121 TOWARD CHARLOTTESVILLE/SCOTTSVILLE, 0.2 MI. TURN RIGHT ONTO MONTICELLO AVE/VA-20, 0.4 MI. TURN LEFT ONTO ELLIOT AVE, 0.9 MI. ELLIOT AVE BECOMES CHERRY AVE, 0.4 MI. TURN RIGHT ONTO ROOSEVELT BROWN BLVD, 0.3 MI. TURN LEFT ONTO W MAIN ST, 0.4 MI. DESTINATION IS ON THE RIGHT

DIRECTIONS



LOCAL MAP N.T.S.

VICINITY MAP N.T.S.

APPROX. TRUE NORTH

PROJECT TEAM

REAL ESTATE: CHAD FRECKMAN	PHONE NUMBER:	434.998.4473
ZONING: JOSIE LODDER	PHONE NUMBER:	704.560.1422
CONSTRUCTION: RICHARD ROSS	PHONE NUMBER:	504.903.0212
UTILITIES: RICHARD ROSS	PHONE NUMBER:	504.903.0212

REV. NO.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	BAR	01/12/16
1	FOR CONSTRUCTION	KKB	02/09/16

REV. NO.	DESCRIPTION	BY	DATE

A & E CONSULTING TEAM

ARCHITECTURE AND ENGINEERING:
DEWBERRY ENGINEERS INC
4805 LAKE BROOK DRIVE, SUITE 200
GLEN ALLEN, VA 23060
PHONE // 804.205.3337
CONTACT: DEREK MARSHALL, PE, LEED AP

PROJECT SUMMARY

PROPERTY OWNER:
HAMPTON BUILDING CORPORATION
114 E WATER ST
CHARLOTTESVILLE, VA 22902

PROJECT INFO:
LOCATION NAME: UVA MC N010

APPLICANT INFO:
VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222
PHONE: 704.560.1422
CONTACT: JOSIE LODDER

PROJECT DATA:
ZONING: C3H
PARCEL ID: 090083000
ACREAGE: 0.09
JURISDICTION: CITY OF CHARLOTTESVILLE
SITE TYPE: ROOFTOP
SITE TYPE: SMALL CELL
BUILDING HEIGHT: 37'-0"±
LEASE AREA: 164 SF
AREA OF DISTURBANCE: 1018 SF

CENTER OF PROPOSED ANTENNA*:
LATITUDE: 38° 02' 07.45" N
LONGITUDE: 78° 30' 02.08" W
ELEVATION: 533' AMSL
*PER GOOGLE EARTH

THIS DOCUMENT WAS DEVELOPED TO REFLECT A SPECIFIC SITE AND ITS SITE CONDITIONS AND IS NOT TO BE USED FOR ANOTHER SITE OR WHEN OTHER CONDITIONS PERTAIN. REUSE OF THIS DOCUMENT IS AT THE SOLE RISK OF THE USER.

A.D.A. COMPLIANCE:
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.

INDEX OF DRAWINGS

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S-1	STRUCTURAL DETAILS
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E-3	GROUNDING DETAILS

verizon wireless

VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222

UVA MC N010

CONSTRUCTION DRAWINGS

1	02/09/16	FOR CONSTRUCTION
0	01/12/16	FOR CONSTRUCTION

Dewberry

Dewberry Engineers Inc.
4805 Lake Brook Drive, Suite 200
Glen Allen, VA 23060
Phone 804.287.3337
Fax 804.287.7930
www.dewberry.com

COMMONWEALTH OF VIRGINIA
DEREK B. MARSHALL
Lic. No. 45810
02/09/16
PROFESSIONAL ENGINEER

DRAWN BY:	KKB
REVIEWED BY:	BAR
CHECKED BY:	DBM
PROJECT NUMBER:	50074583
SITE ADDRESS:	

1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1

GENERAL CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK IN ORDER TO BECOME FAMILIARIZE WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
2. CONTRACTOR SHALL CONTACT "MISS UTILITY" (1-800-552-7001) FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
4. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
5. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
6. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
7. THESE DRAWINGS DO NOT INCLUDE NECESSARY CONSTRUCTION FOR CONSTRUCTION SAFETY WHICH IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. EXCAVATION SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR RODS, ETC.
9. CONTRACTOR SHALL DETERMINE POINT LOCATION OF EXISTING UTILITIES, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
10. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING.
11. EACH CONTRACTOR SHALL COOPERATE WITH THE OWNER'S REPRESENTATIVE, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
12. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE VERIZON WIRELESS CONSTRUCTION MANAGER.
13. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
14. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR WILL NOTIFY OWNER'S CONSTRUCTION MANAGER, AND LANDLORD IMMEDIATELY.
15. CONTRACTING SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
16. ALL ROOF WORK SHALL BE DONE BY A QUALIFIED AND EXPERIENCED ROOFING CONTRACTOR IN COORDINATION WITH ANY CONTRACTOR MAINTAINING THE ROOF TO ENSURE THAT THE WARRANTY IS MAINTAINED.
17. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
18. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH LANDLORD AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
19. CONTRACTOR SHALL FURNISH THE OWNER WITH THREE AS-BUILT SETS OF DRAWINGS UPON COMPLETION OF WORK.
20. ANTENNAS AND CABLES ARE TYPICALLY PROVIDED BY VERIZON WIRELESS. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON WIRELESS' PROJECT MANAGER TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED BY VERIZON WIRELESS. ALL ITEMS NOT PROVIDED BY VERIZON WIRELESS SHALL BE PURCHASED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED BY VERIZON WIRELESS.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR WILL COORDINATE WITH VERIZON WIRELESS PROJECT MANAGER TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY VERIZON WIRELESS. ALL REQUIRED PERMITS NOT OBTAINED BY VERIZON WIRELESS MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
22. IF APPLICABLE, THE GENERAL CONTRACTOR SHALL HAVE A LICENSED HVAC CONTRACTOR START THE HVAC UNITS, SYNCHRONIZE THE THERMOSTATS, ADJUST ALL SETTINGS ON EACH UNIT ACCORDING TO VERIZON WIRELESS CONSTRUCTION MANAGER'S SPECIFICATIONS, AND THOROUGHLY TEST AND BALANCE EACH UNIT TO ENSURE PROPER OPERATION PRIOR TO TURNING THE SITE OVER TO OWNER.
23. CONTRACTOR SHALL SUBMIT ALL VENDOR DRAWINGS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
24. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO VERIZON WIRELESS SPECIFICATIONS, AND AS SHOWN ON THESE PLANS.
25. CONTRACTOR SHALL NOTIFY THE OWNER'S A MINIMUM OF 48 HOURS IN ADVANCE PRIOR TO CONSTRUCTION START, WORK SEQUENTIALLY INCLUDE: SAWING ANY FLOOR, WALL OR ROOF PENETRATION, FINAL UTILITY CONNECTIONS, PLACING CONCRETE, BACKFILLING UTILITY TRENCHES AND STRUCTURAL VISIT OR MOUNTING CONNECTIONS, FOR ENGINEERING REVIEW AND INSPECTION.
26. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING FIRE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
27. DETECTION WIRE SHALL BE BURIED DIRECTLY ABOVE NON-METALLIC PIPING AT A DISTANCE NOT TO EXCEED TWELVE (12) INCHES ABOVE THE TOP OF PIPE. THE WIRE SHALL EXTEND CONTINUOUSLY AND UNBROKEN FROM POINT OF ACCESS TO POINT OF ACCESS. THE ENDS OF THE WIRE SHALL TERMINATE WITH A MINIMUM OF THREE (3) FEET OF WIRE COILED, REMAINING ACCESSIBLE AT TERMINATION POINTS. DETECTION WIRE SHALL BE 12 GAUGE FOR A BURIED DEPTH OF LESS THAN 4 FEET AND 4 GAUGE FOR A BURIED DEPTH GREATER THAN OR EQUAL TO 4 FEET.
28. THE CONTRACTOR SHALL GIVE ALL NOTICES AND REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONS. COPIES RELATIVE TO 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.
29. THE CONTRACTOR OR BIDDER SHALL BORE THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE CONSTRUCTION MANAGER OF ANY CONFLICTS, ERRORS OR OMISSIONS FROM TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES, THE CONTRACTOR SHALL PRICE THE MORE QUALITY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
30. 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.
31. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY EXPRESS BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
32. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/VENDORS SPECIFICATIONS UNLESS OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
33. THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS ON CLASSIFICATION AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
34. 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.
35. 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.
36. 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.
37. THE CONTRACTOR SHALL MAINTAIN THE GENERAL WORK AREA AS CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
38. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
39. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER 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 CONSTRUCTION MANAGER.
40. EROSION CONTROL MEASURES SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR STORM WATER RETENTION CONTROL.
41. ALL CONSTRUCTION AND DESIGN FOR THE PROPOSED ANTENNA MOUNTS SHALL CONFORM IN ACCORDANCE WITH THE CURRENT STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES.
42. CONTRACTOR TO VERIFY ANTENNA ELEVATION AND AZIMUTH WITH RF ENGINEERING PRIOR TO INSTALLATION.
43. THE CONTRACTOR SHALL POST ALL SIGNS REQUIRED BY THE LATEST VERSION OF THE VERIZON WIRELESS "RADIO FREQUENCY COMPLIANCE SIGNAGE & DEMARCATION POLICY" THIS MAY INCLUDE BUT ARE NOT LIMITED TO:
    - A. NOTICE SIGNS TO DISTINGUISH THE BOUNDARY BETWEEN GENERAL POPULATION/UNCONTROLLED AREAS AND OCCUPATIONAL AREAS
    - B. CAUTION SIGNS TO DISTINGUISH THE CONTROLLED AREAS WHERE RADIO FREQUENCY (RF) EXPOSURE CAN EXCEED THE OCCUPATIONAL/CONTROLLED MAXIMUM PERMISSIBLE EXPOSURE (MPE) LIMIT.
    - C. WARNING SIGNS TO DISTINGUISH THE BOUNDARY OF AREAS WITH RF LEVELS SUBSTANTIALLY ABOVE THE FCC LIMITS, GREATER THAN TEN (10) TIMES THE OCCUPATIONAL/CONTROLLED MPE LIMIT.
    - D. NOTICE-GUIDELINES FOR WORKING IN RADIOFREQUENCY ENVIRONMENTS: THIS SIGN IS TO BE POSTED ANYTIME SIGNAGE IS REQUIRED TO ACHIEVE FCC COMPLIANCE. IT MUST BE POSTED ON EVERY ACCESS POINT WHERE MOTION IS EXPECTED TO EXCEED THE FCC GENERAL POPULATION EXPOSURE LIMIT AND ON EVERY ANTENNA ARRAY IN ACCESSIBLE AREAS.

verizon wireless

VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222

UVA MC N010

CONSTRUCTION DRAWINGS

1	02/08/19	FOR CONSTRUCTION	
0	01/12/19	FOR CONSTRUCTION	

Dewberry

Dewberry Engineers Inc.
4000 Ruby Glen Drive, Suite 202
Rancho Cordova, CA 95670
Phone: 916.858.0642
Fax: 916.858.0137
www.dewberry.com

COMMONWEALTH OF VIRGINIA
DAVID E. MARSHALL
Lic. No. 48510
02/08/19
PROFESSIONAL ENGINEER

DRAWN BY:	MCH
REVIEWED BY:	BAR
CHECKED BY:	DRM
PROJECT NUMBER:	50074503
SITE ADDRESS:	

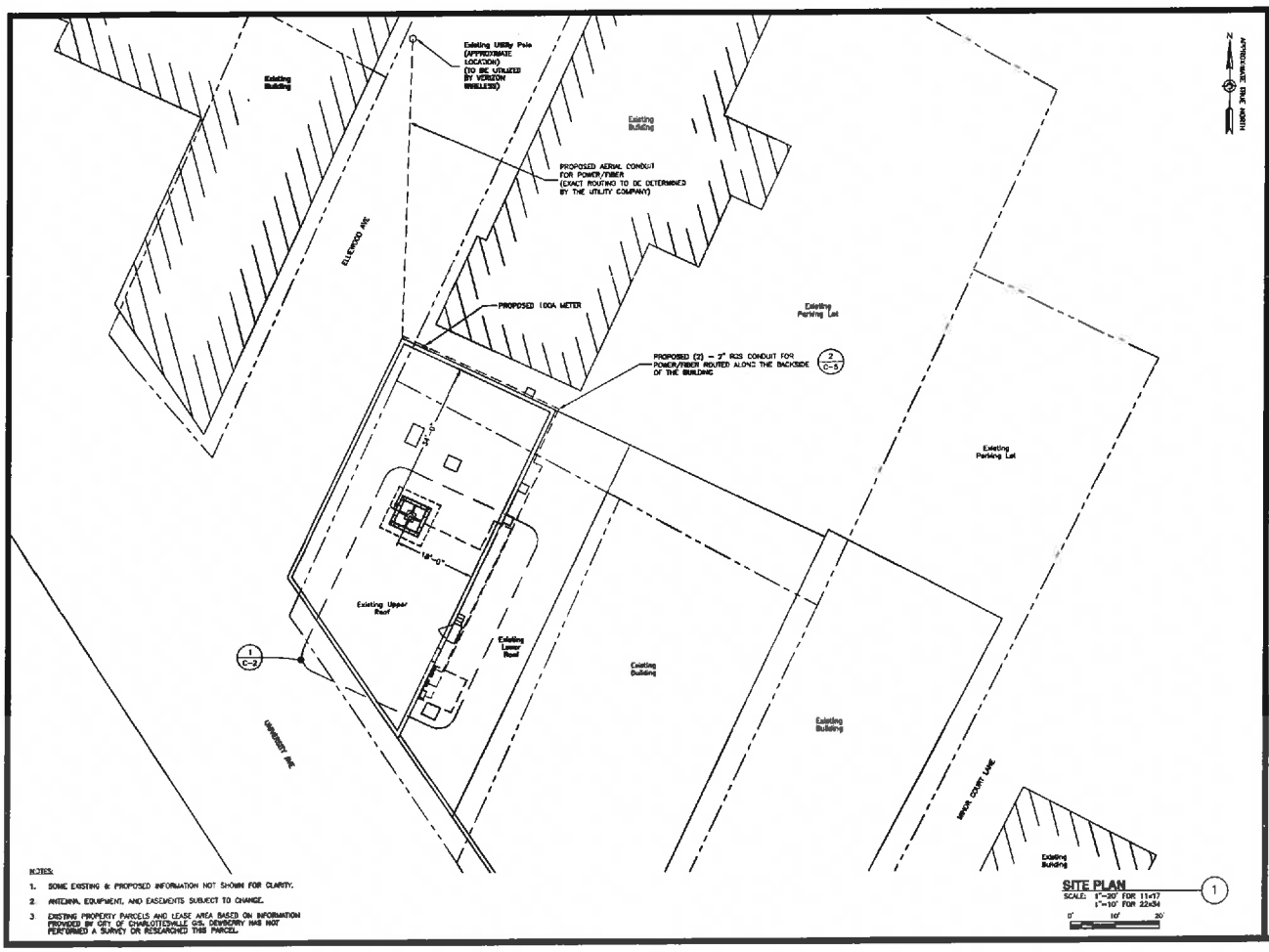
1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

G-1



NOTES:

1. SOME EXISTING & PROPOSED INFORMATION NOT SHOWN FOR CLARITY.
2. ANTENNA, EQUIPMENT, AND EASEMENTS SUBJECT TO CHANGE.
3. EXISTING PROPERTY PARCELS AND LEASE AREA BASED ON INFORMATION PROVIDED BY CITY OF CHARLOTTESVILLE GIS. DEWBERRY HAS NOT PERFORMED A SURVEY OR RESEARCHED THIS PARCEL.

verizon wireless

VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222

UVA MC N010

CONSTRUCTION DRAWINGS

1	03/28/16	FOR CONSTRUCTION
0	01/13/16	FOR CONSTRUCTION

Dewberry

Dewberry Engineers Inc.
8609 Lottsford Road, Suite 200
Upper Marlboro, MD 20774
Phone: 301.731.5477
Fax: 301.731.7430
www.dewberry.com

COMMONWEALTH OF VIRGINIA
Patrick E. MARSHALL
Lic. No. 43810
03/28/16
PROFESSIONAL ENGINEER

DRAWN BY:	KMB
REVIEWED BY:	BAR
CHECKED BY:	GRM
PROJECT NUMBER:	50074563
SITE ADDRESS:	

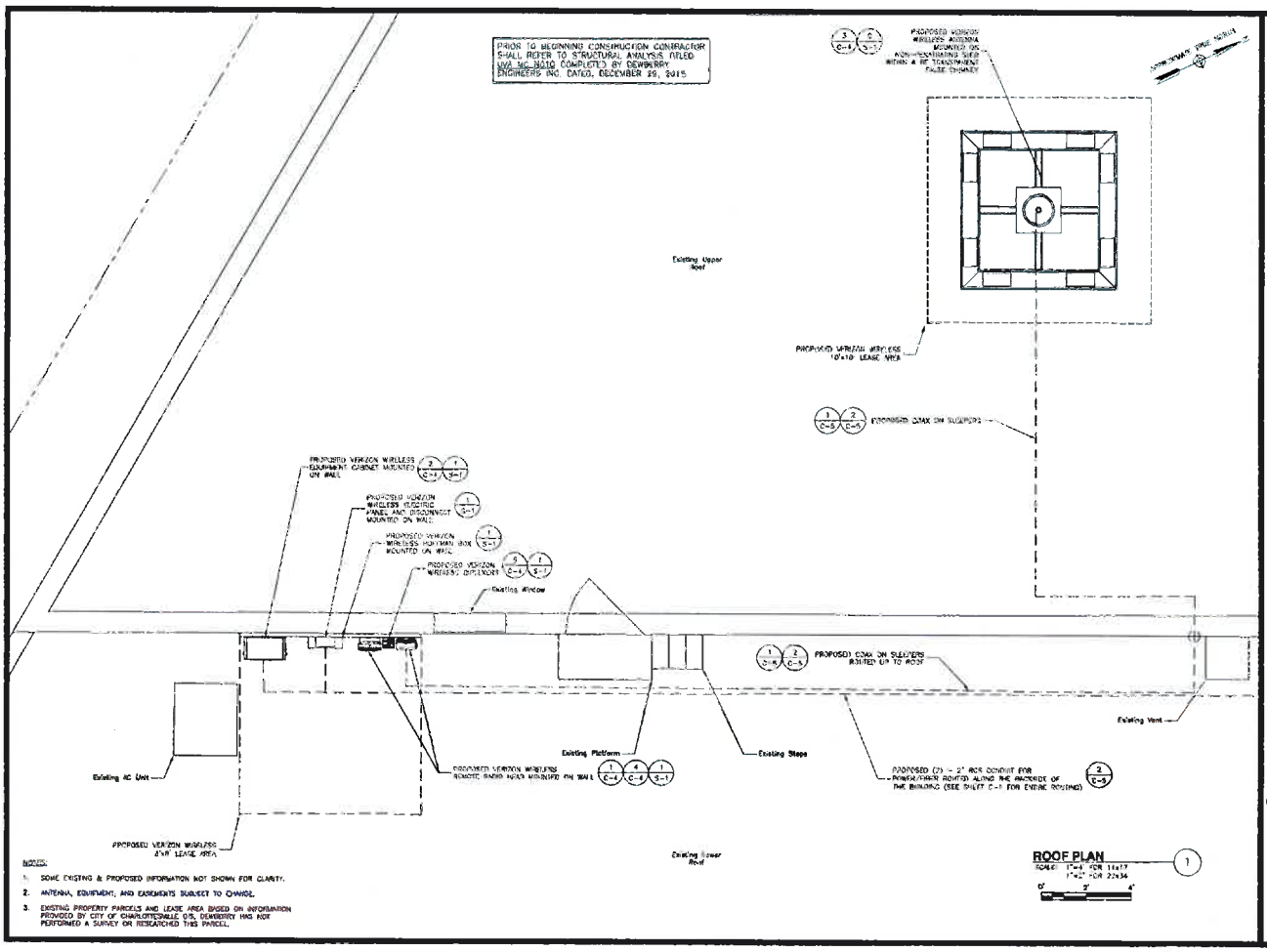
1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

SHEET TITLE

SITE PLAN

SHEET NUMBER

C-1



NOTES:

1. SOME EXISTING & PROPOSED INFORMATION NOT SHOWN FOR CLARITY.
2. ANTENNA, EQUIPMENT, AND EASEMENTS SUBJECT TO CHANGE.
3. EXISTING PROPERTY PARCELS AND LEASE AREA BASED ON INFORMATION PROVIDED BY CITY OF CHARLOTTESVILLE GIS, DEWBERRY HAS NOT PERFORMED A SURVEY OR RESEARCHED THIS PARCEL.

verizon wireless

VERIZON WIRELESS
1651 RACY COURT
RICHMOND, VA 23233

UVA MC N010

CONSTRUCTION DRAWINGS

1	02/09/16	FOR CONSTRUCTION
0	01/12/16	FOR CONSTRUCTION

Dewberry

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Glen Allen, VA 23060
Phone: 804.200.7300
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COMMONWEALTH OF VIRGINIA
DEREK B. MARSHALL
Lic. No. 42510
02/09/16
PROFESSIONAL ENGINEER

Drawn By:	RWS
REVIEWED BY:	BAR
CHECKED BY:	DBM
PROJECT NUMBER	50074593
SITE ADDRESS:	

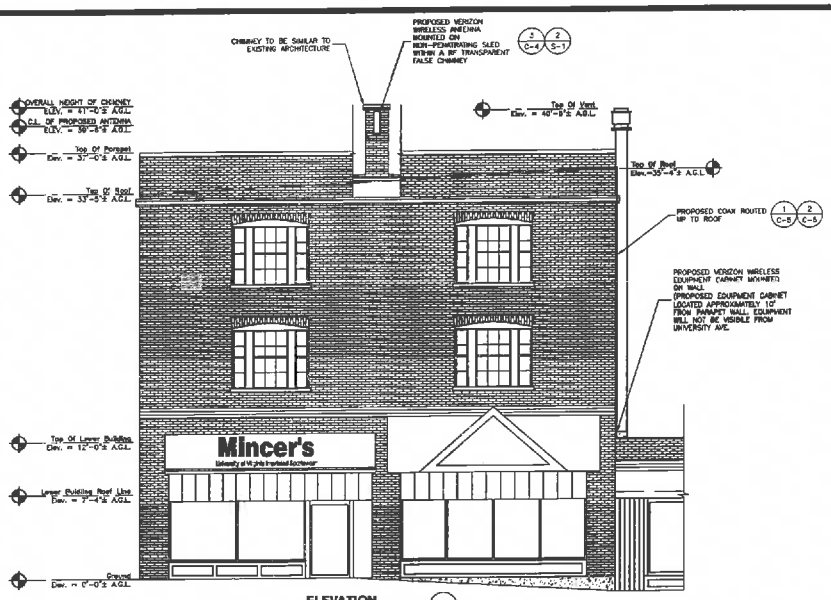
1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

SHEET TITLE

ROOF PLAN

SHEET NUMBER

C-2



verizon wireless

VERIZON WIRELESS
1631 RADY COURT
RICHMOND, VA 23222

UVA MC N010

CONSTRUCTION DRAWINGS

1	02/08/18	FOR CONSTRUCTION
0	01/12/18	FOR CONSTRUCTION

Dewberry

Dewberry Engineers Inc.
[illegible]

DEREK E. MARSHALL
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02/08/18
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DRAWN BY:	KKB
REVIEWED BY:	BAR
APPROVED BY:	DRM
PROJECT NUMBER:	50074583
SITE ADDRESS:	

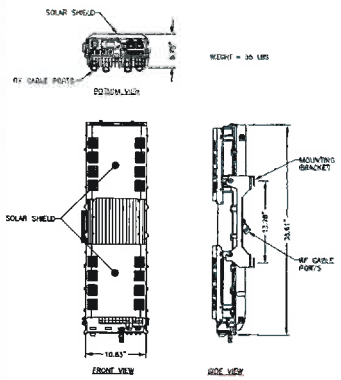
1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

SHEET TITLE

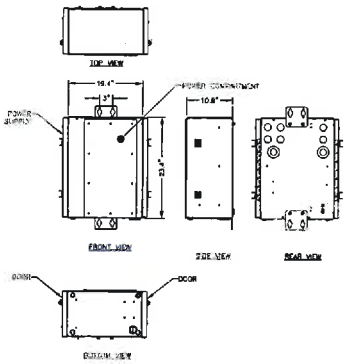
ELEVATION

SHEET NUMBER

C-3

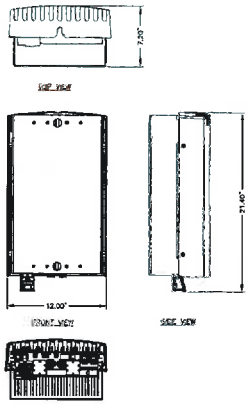


AWS RRH 2x60 (REMOTE RADIO HEAD) (1)
SCALE: N.T.S.

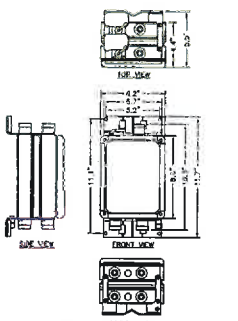


CUBE-SC1041NNNE EQUIPMENT CABINET (2)
SCALE: N.T.S.

ANDREW-V65S-1XR (PANEL ANTENNA) (3)
SCALE: N.T.S.



PCS RRH4x30-B25 (REMOTE RADIO HEAD) (4)
SCALE: N.T.S.



DIPLEXER DETAIL (5)
SCALE: N.T.S.

RF SYSTEM SCHEDULE

ANTENNA SECTOR	STATUS	ANTENNA MANUFACTURER	ANTENNA MODEL	RAD CENTER	ANTENNA AZIMUTH	ANTENNA TILT	RRH QUANTITY & MODEL	CABLE SIZE AND QUANTITY
ALPHA	PROPOSED	ANDREW	V65S-1XR	30.5'	270°	0°	(1) PCS RRH4x30-B25 (1) AWS (RRH2x40)	(2) - 1/2"ø

NOTE: 1. ALL CHANGES TO THIS SCHEDULE SHOULD BE APPROVED BY VERIZON RF ENGINEERING.

NOTES:

1. CONTRACTOR TO VERIFY ANTENNA INFORMATION WITH CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.
2. CONTRACTOR TO VERIFY PROPOSED ANTENNA INFORMATION IS THE MOST CURRENT DATA AT TIME OF CONSTRUCTION.
3. CONTRACTOR TO CONFIRM CABLE LENGTHS PRIOR TO CONSTRUCTION.
4. CONTRACTOR IS RESPONSIBLE TO BUILD FROM THE LATEST RF SHEET.

verizon wireless

VERIZON WIRELESS
7431 RAGT COURT
RICHMOND, VA 23227

UVA MC N010

CONSTRUCTION DRAWINGS

1	02/09/16	FOR CONSTRUCTION
0	01/12/16	FOR CONSTRUCTION

Dewberry

Dewberry Engineers Inc.

COMMONWEALTH OF VIRGINIA
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DRAWN BY:	KKB
REVIEWED BY:	BJR
CHECKED BY:	DRM
PROJECT NUMBER	09374363
SITE ADDRESS	

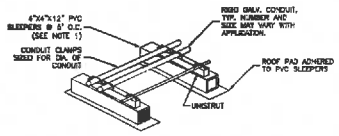
1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

SHEET TITLE

CONSTRUCTION DETAILS

SHEET NUMBER

C-4

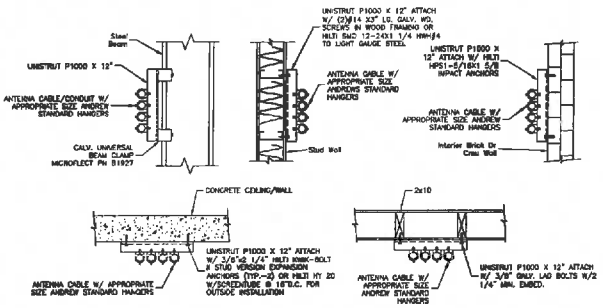


NOTE:

1. PVC SLEEPERS TO BE FILLED WITH CONCRETE EVERY 5'-0".

CONDUIT ON PVC SLEEPERS (1)

SCALE: N.T.S.



NOTES:

1. ALL COAX CABLE SUPPORT SPACING: 4'-0" MAX.
2. ALL CONDUIT SUPPORT SPACING: 10' MAX.

CABLE CONDUIT SUPPORT (2)

SCALE: N.T.S.

verizon wireless

VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222

UVA MC N010

CONSTRUCTION DRAWINGS

1	02/09/15	FOR CONSTRUCTION
0	01/12/15	FOR CONSTRUCTION

Dewberry

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COMMONWEALTH OF VIRGINIA
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REVIEWED BY:	BAR
CHECKED BY:	DRM
PROJECT NUMBER:	80074593
SITE ADDRESS:	

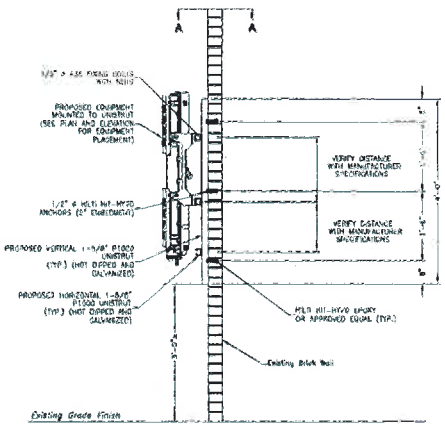
1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

SHEET TITLE

CONSTRUCTION DETAILS

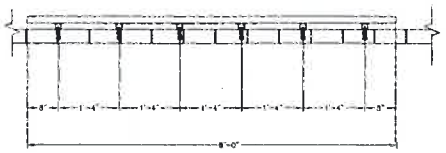
SHEET NUMBER

C-5



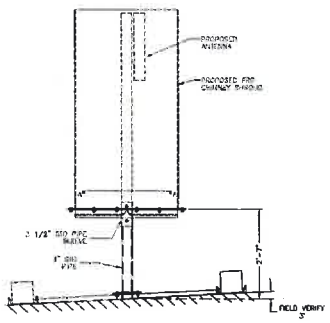
EQUIPMENT WALL MOUNTING DETAIL SECTION (1)

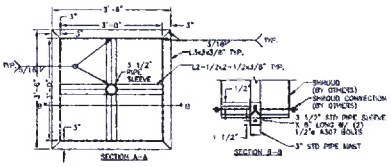
SCALE: N.T.S.

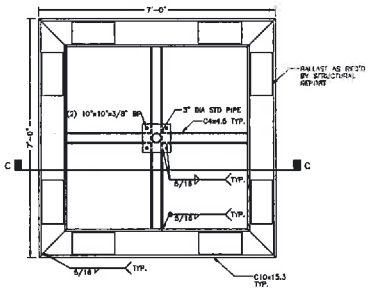


SECTION A-A

SCALE: N.T.S.







ANTENNA BALLAST MOUNT DETAIL (2)

SCALE: N.T.S.

PROVIDE BALLAST AS INDICATED IN THE STRUCTURAL ANALYSIS.

verizon wireless

VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222

UVA MC N010

CONSTRUCTION DRAWINGS

1	02/09/16	FOR CONSTRUCTION
0	01/12/16	FOR CONSTRUCTION

Dewberry

Dewberry Engineers Inc.

COMMONWEALTH OF VIRGINIA
DEREK B. MARSHALL
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02/09/16
PROFESSIONAL ENGINEER

DRAWN BY:	KKB
REVIEWED BY:	BAR
CHECKED BY:	DRM
PROJECT NUMBER:	50074583
SITE ADDRESS:	

1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

SHEET TITLE

STRUCTURAL DETAILS

SHEET NUMBER

S-1

Dewberry

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Glen Allen, VA 23060

Structural Analysis Report and Design Calculations
For a Wireless Telecommunications Upgrade

Site Name: UVA MC N010
Site Address: 1521 University Ave
Charlottesville, VA 22903

Prepared for:
Verizon Wireless
1631 Rady Court
Richmond, VA 23222

December 21, 2015
Revised: December 28, 2016

Prepared by:
Dewberry Engineers Inc.
4805 Lake Brook Drive,
Suite 200
Glen Allen, VA 23060
Dewberry Project Number: 50074583

DEREK R. MARSHALL
Lic. No. 45310
12/29/15

Prepared by: Jason Soucie
Jason Soucie, P.E.
Project Designer

Reviewed by: Derek Marshall
Derek Marshall, P.E.
Virginia Professional Engineer
License No.: 0402048810

Verizon Wireless
Site Name: UVA MC N010
Revised: December 28, 2016

1.0 INTRODUCTION AND PROJECT SUMMARY

The objective of this report is to assess the installation of one new non-penetrating antenna sled surrounded by a false chimney and telecom equipment mounted to the exterior face of an existing masonry building.

The existing structure is a multi-story 37 foot tall building in Charlottesville, VA. The proposed antenna will mount to a non-penetrating sled with a proposed 50" transparent false chimney surrounding it. The proposed equipment will mount to unistrut anchored to a masonry wall.

2.0 PROPOSED ANTENNAS & EQUIPMENT

The following antennas and equipment are proposed:

- One (1) Commscope model V65B-1KR antenna measuring 29.6"H x 8.7"W x 4.1"D, and weighing 8.4 lb.
- One (1) Antenna Concealment Box 65.0"H x 24.0"W x 24.0"D and weighing 130 lb.
- One (1) RRH2x60-AWS measuring 26.8"H x 10.8"W x 6.7"D and weighing 58 lb.
- One (1) B21 RRH4x30-4R measuring 21.4"H x 13.8"W x 7.2"D and weighing 51 lb.
- One (1) Charles RF Cabinet measuring 80.3"H x 19.4"W x 19.8"D and weighing 100 lb.
- One (1) AC Panel measuring 20.8"H x14.8"W x 8.8"D and weighing 22.4 lb.
- Two (2) diplexers measuring 6.3"H x 4.4"W x 3.6"D and weighing 5.9 lb each.

3.0 CODES, STANDARDS, AND REFERENCES

The structure was analyzed and the proposed installation designed per the provisions of the following Codes and standards.

- *International Building Code (IBC) 2012*, International Code Council
- American Society of Civil Engineers *ASCE 7-10 Minimum Design Loads for Buildings and Other Structure*
- American Institute of Steel Construction *AISC 360-10, Specifications for Structural Steel Buildings*
- *TIA-222-G Structural Standard for Antenna Supporting Structures and Antennas*

4.0 LOADING AND PERFORMANCE CRITERIA

The following Code-specified serviceability load combination was considered in the overturning analysis of the ballasted antenna mount:

1. 1.0D+1.0W

Where,
D = dead load of mount and new equipment.
W= design wind load for site location on mount and new equipment.

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Verizon Wireless
Site Name: UVA MC N010
Revised: December 28, 2016

The following site-specific design parameters were considered in this analysis per the provisions of TIA-222-G:

- Class: II — Table 2-1
- Exposure: C
- Basic Wind Speed : 90 mph — Annex B
- Basic Ice Thickness: 0.75 in — Annex B

This assessment is founded on the premise that pursuant to *2012 International Building Code* sections "3403.3 Existing structure tolerance carrying gravity load" and "3403.4 Existing structural members carrying lateral load," if the proposed installation causes an increase in gravity loads by more than 5% and or increases the demand-capacity ratio by more than 10% in the lateral load-carrying structural members load those elements shall be strengthened, supplemented, replaced, or otherwise altered as needed to carry the increase in load as required by the Code for new structures.

5.0 CALCULATIONS

Calculations for this analysis and the design of the installation are included in Appendices of this report.

6.0 CONCLUSIONS, COMMENTARY, AND RECOMMENDATIONS

Antenna Mount
The proposed antennas will be mounted to a pipe mast supported by a *strap-built non-penetrating ballasted sled*. A 3"x3"x0.25x3"H non-penetrable shroud has been assumed to be rounded to the provided shroud frame at 2'-7 1/2" above the base frame. Based on our analysis, the sled would require a total of 89 lb of ballast per side (356 lb total) to prevent overturning for the configuration described above. This may be achieved with two (2) hollow Anfield CMU blocks at 45 lb each per side.

The proposed ballasted antenna mount would exert a total of approximately 16 x psf to the roof over the equipment frame footprint. The loading is less than the 75 psf assumed roof live load. The roof structure is judged to adequately support the proposed non-penetrating antenna mount as described above without additional analysis of the existing building roof structure. Additionally, ballast tie-down kits are recommended to prevent the removal of ballast by others

Equipment Mount
The proposed equipment shall be mounted to unistrut channel directly anchored to the existing exterior masonry façade. From site photos, the existing building wall structure is assumed to be constructed of masonry brick. The unistrut channels are to be mounted to the brick with ¾" diameter HIS HRT-HTD anchors with 2" embedment.

The equipment is considered to be shielded by the structure; therefore, no additional wind load will be applied to the existing masonry wall. The weights of the equipment and support channel are considered negligible compared to the capacities of the brick wall and the supporting anchors. Because the loading on the existing wall is negligible, the existing structure and proposed anchors are judged to be adequate to resist the proposed load.

The global impact of the antenna mounts on the existing structure as a whole is negligible. Existing structural members other than the primary supporting members explicitly checked need not be investigated. Therefore, the proposed installations may be installed as planned. Please see details for the proposed installation included in the final construction drawings.

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Verizon Wireless
Site Name: UVA MC N010
Revised: December 28, 2016

Dewberry Engineers Inc. reserves the right to add to or modify this report if more information becomes available. The conclusions reached by Dewberry Engineers Inc. in this report are only applicable to the previously mentioned existing structural elements supporting the proposed wireless telecommunications installation. The results of this report are based on the assumption that existing structural elements have been installed per the original design documents, have been well maintained, and are uncompromised. This report does not imply that a thorough inspection of the existing structure has been performed. Any deviation of this support condition, loading, location, placement, equipment configuration, etc., will require Dewberry Engineers Inc. to generate an additional structural analysis. Further, no structural qualification is made or implied by this report of any existing structural elements.

---

verizon wireless

VERIZON WIRELESS
1631 RADY COURT
RICHMOND, VA 23222

UVA MC N010

CONSTRUCTION DRAWINGS

1	02/09/16	FOR CONSTRUCTION
0	01/12/16	FOR CONSTRUCTION

Dewberry

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02/09/16

DRAWN BY:	KKB
REVIEWED BY:	BAR
CHECKED BY:	DRM
PROJECT NUMBER:	50074583
SITE ADDRESS:	

1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

SHEET TITLE

STRUCTURAL LETTERS

SHEET NUMBER

S-2

ELECTRICAL GENERAL NOTES

A. GENERAL

1. SUBMITTAL OF BID INDICATES CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT. CONTRACTOR IS RESPONSIBLE FOR ALL FIELD VERIFICATION.
2. THESE PLANS ARE DIAGRAMMATIC ONLY, AND NOT TO BE SCALED.
3. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST KIND AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORY AND SHALL BEAR THE INSPECTION LABEL, WHERE SUBJECT TO SAFETY APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA, AND ARMA.
4. COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF NO LESS THAN ONE YEAR AFTER THE DATE OF JOB ACCEPTANCE BY OWNER. ANY WORK, MATERIAL OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE REMOVED AT ONCE, UPON WRITTEN NOTIFICATION AT THE EXPENSE OF THE CONTRACTOR.
5. PROVIDE ALL LABOR, MATERIAL, EQUIPMENT, INSURANCE AND SERVICES TO COMPLETE THIS PROJECT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND PRESENT IT AS FULLY OPERATIONAL TO THE SATISFACTION OF THE OWNER.
6. THE CONTRACTOR/M&O WILL COORDINATE POWER AND TELCO WORK WITH THE LOCAL UTILITY COMPANY AS IT MAY APPLY TO THIS SITE. ALL WORK IS TO COMPLY WITH THE RULES AND REGULATIONS OF THE UTILITIES INVOLVED.
7. PREPARATION AND INSTALLATION OF THE COMPLETE ELECTRICAL SYSTEM SHALL BE DONE WITH FIRST CLASS WORKMANSHIP PER NECA STANDARD 1-2000 BY QUALIFIED PERSONNEL, LICENSED AND EXPERIENCED IN SUCH WORK, AND SHALL SCHEDULE THE WORK IN AN ORDERLY MANNER SO AS TO NOT IMPEDE THE PROGRESS OF THE PROJECT.
8. DURING PROGRESS OF THE WORK, MAINTAIN AN ACCURATE RECORD OF THE INSTALLATION OF THE ELECTRIC SYSTEMS, LOCATING EACH CIRCUIT PRECISELY AND DIMENSIONING EQUIPMENT, CONDUIT AND CABLE LOCATIONS. UPON COMPLETION OF THE INSTALLATION, TRANSFER ALL RECORD DATA TO RED LINE PRINTS OF THE ORIGINAL DRAWINGS AND SUBMIT THESE DRAWINGS AS RECORD DRAWINGS TO THE CONSTRUCTION MANAGER.
9. THE CONTRACTOR SHALL NOTIFY MISS UTILITY A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO ANY CONSTRUCTION OR EXCAVATION. THE CONTRACTOR SHALL ALSO NOTIFY A PRIVATE UTILITY CONTRACTOR FOR ALL ON-SITE UTILITY LOCATIONS.
10. COORDINATE ALL UTILITY WORK WITH LOCAL UTILITY COMPANY.

B. BASIC MATERIALS AND METHODS

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE EDITION OF THE NEC ACCEPTED BY THE LOCAL JURISDICTION AND TO THE APPLICABLE LOCAL CODES AND REGULATIONS.
2. ALL MATERIALS AND EQUIPMENT SHALL BE NEW. MATERIALS AND EQUIPMENT SHALL BE THE STANDARD PRODUCT OF MANUFACTURER'S CURRENT DESIGN. ANY FIRST-CLASS PRODUCT MADE BY A REPUTABLE MANUFACTURER MAY BE USED PROVIDING IT CONFORMS TO THE CONTRACT REQUIREMENTS AND MEET THE APPROVAL OF THE CONSULTANT AND OWNER.
3. ARRANGE CONDUIT, INSTALL EQUIPMENT, AND WORK GENERALLY AS SHOWN, PROVIDING ALL APPROPRIATE ELBOWS AND ACCESS. CAREFULLY EXAMINE ALL CONTRACT DRAWINGS AND FIT THE WORK IN EACH LOCATION WITHOUT SUBSTANTIAL ALTERATION. WHERE CONFLICTS ARE PROPOSED BECAUSE OF FIELD CONDITIONS OR OTHER CAUSES NOT SHOWN OR DETAILED, SUBMIT FOR ACCEPTANCE.
4. THE CONTRACT DRAWINGS ARE GENERALLY DIAGRAMMATIC AND ALL OFFSETS, BENDS, FITTINGS, AND ACCESSORIES ARE NOT SHOWN. PROVIDE ALL SUCH ITEMS AS MAY BE REQUIRED TO FIT THE WORK TO THE CONDITIONS.
5. MAINTAIN ALL CLEARANCES AS REQUIRED BY THE NATIONAL ELECTRICAL CODE (NEC).

C. CONDUCTORS AND CONNECTORS

1. UNLESS NOTED OTHERWISE, ALL CONDUCTORS SHALL BE COPPER, MINIMUM SIZE #12 AWG WITH THERMOPLASTIC INSULATION CONFORMING TO NEMA WC5 OR CROSS-LINKED POLYETHYLENE INSULATION CONFORMING TO NEMA WC7 (TYPES THHN OR THWN). INSULATION SHALL BE RATED FOR 90°C. CONDUCTORS SHALL BE COLOR CODED IN ACCORDANCE WITH THE NEC.
2. ALL CONDUCTORS USED FOR CIRCUIT GROUNDING SHALL BE COPPER AND SHALL HAVE GREEN INSULATION.
3. FOR COPPER CONDUCTORS #6 AWG AND SMALLER, USE 3M SCOTCH LOK OR IDEAL STA-KON COMPRESSION TYPE CONNECTORS WITH INTEGRAL OR SEPARATE INSULATION CAPS. FOR COPPER CONDUCTORS LARGER THAN #6 AWG, USE SOLDERLESS (HEAT HEX SCREW OR BOLT TYPE PRESSURE CONNECTORS OR DOUBLE COMPRESSION C-CLAMP CONNECTORS, UNLESS NOTED OTHERWISE ON DRAWINGS.
4. UNLESS NOTED OTHERWISE ALL LUGS SHALL BE TIN PLATED COPPER, TWO-HOLE LONG BARREL COMPRESSION TYPE.
5. CONDUCTOR LENGTHS SHALL BE CONTINUOUS FROM TERMINATION TO TERMINATION WITHOUT SPLICES. SPLICES ARE NOT ACCEPTABLE. IF SPLICES ARE UNAVOIDABLE, PRIOR APPROVAL FROM OWNER'S REPRESENTATIVE MUST BE OBTAINED.

D. RACEWAYS AND BOXES

1. ALL CONDUIT SHALL BE UL LISTED.
2. ALL EMPTY CONDUITS INSTALLED FOR FUTURE USE SHALL HAVE A PULL CORD.
3. SHEET METAL BOXES SHALL BE NEMA 3R AND CONFORM TO NEMA OS1. CAST-METAL BOXES SHALL BE NEMA 3R AND CONFORM TO NEMA 61 AND SHALL BE SIZED IN ACCORDANCE WITH NEC UNLESS OTHERWISE NOTED.

E. CONDUIT

1. RIGID CONDUIT SHALL BE U.L. LABEL, GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH THE EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUMITE WRAP PROCESS NO. 3.
2. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, INTENDED TO BE USED WITH COMPRESSION TYPES. DIE CAST SHALL BE USED ONLY FOR INTERIOR RUNS.
3. LIQUID-TIGHT FLEXIBLE METAL CONDUIT SHALL BE U.L. LISTED AND SHALL BE USED AT FINAL CONNECTIONS TO MECHANICAL EQUIPMENT & APPLIANCES AND WHERE SUBJECTED TO OILS. ALL CONDUITS IN LENGTHS OF SIX FEET OR LONGER SHALL CONTAIN A FULL-SIZED GROUND CONDUCTOR.
4. CONDUIT RUNS SHALL BE SURFACE MOUNTED ON WALLS AND CEILINGS UNLESS NOTED OTHERWISE. ALL CONDUIT SHALL RUN PARALLEL OR PERPENDICULAR TO WALLS, FLOORS, CEILING OR BEAMS. NEATLY CHASE BEHIND OR ALL EXPOSED CONDUIT WITH THE PROJECT MANAGER PRIOR TO INSTALLING.
5. PVC CONDUIT MAY ONLY BE PROVIDED WHERE SHOWN, OR IN UNDERGROUND INSTALLATIONS. PROVIDE UV-RESISTANT CONDUIT WHERE EXPOSED TO THE ATMOSPHERE. PROVIDE GROUND CONDUCTOR IN ALL PVC RUNS, EXCEPT WHERE PERMITTED BY CODE TO OMIT.

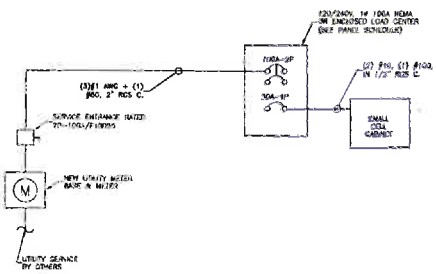
F. GROUNDING

1. ALL SAFETY GROUNDING OF THE ELECTRICAL EQUIPMENT SHALL BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT VERSION OF THE NEC.
2. GROUND LUGS ARE SPECIFIED UNDER SECTION "C. CONDUCTORS AND CONNECTORS"
3. ALL GROUND WIRE AND CONNECTIONS CONNECTIONS SHALL BE COATED WITH AN ANTI-OXIDANT AGENT SUCH AS NO-OX, KOPALTE, PENETROX, OR NON-METALLIC.
4. PROVIDE LOCK WASHERS FOR ALL MECHANICAL CONNECTIONS FOR GROUND CONDUCTORS. USE STAINLESS STEEL HARDWARE THROUGHOUT.
5. DO NOT INSTALL GROUND RING (IF REQUIRED) OUTSIDE OF PROPERTY LINE.
6. REMOVE ALL PAINT AND CLEAN ALL DIRT FROM SURFACES REQUIRING GROUND CONNECTIONS. REPAINT TO MATCH AFTER CONNECTIONS ARE MADE TO MAINTAIN CORROSION RESISTANCE.
7. ALL EXTERIOR GROUNDING CONDUCTORS (INCLUDING EXTERIOR GROUND RING (IF REQUIRED) SHALL BE #2 AWG SOLID BARE TINNED COPPER. MAKE ALL GROUND CONNECTIONS AS SHORT AND DIRECT AS POSSIBLE. AVOID ANY SHARP BENDS. THE RADIUS OF ANY BEND SHALL NOT BE LESS THAN 8" AND THE ANGLE OF ANY BEND SHALL BE EXCESS 90°. GROUNDING CONDUCTORS SHALL BE ROUTED DOWNWARD TOWARD THE BURIED GROUND RING.
8. ALL GROUND CONNECTIONS SHALL BE APPROVED FOR THE METALS BEING CONNECTED.
9. ALL EXTERNAL GROUND CONNECTIONS SHALL BE EXOTHERMICALLY WELDED. ALL EXOTHERMIC WELDS TO THE EXTERIOR GROUND RING SHALL BE "T" TYPE LOCATED ON TOP OF GROUND RODS. REPAIR ALL GALVANIZED REGIONS THAT HAVE BEEN DAMAGED BY EXOTHERMIC WELDING USING SPRAY CONTAINING 95% ZINC (ZRC "COLDZINC OR EQUIVALENT).
11. IF A NEW GROUND RING IS REQUIRED, CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER WHEN THE GROUND RING IS INSTALLED SO THE MANAGER CAN INSPECT THE GROUND RING BEFORE IT IS BACKFILLED WITH SOIL.
12. WHERE MECHANICAL CONNECTORS (TWO-HOLE OR CLAMP) ARE USED, APPLY A LIQUID PROTECTIVE COATING OF AN ANTI-OXIDANT COMPOUND SUCH AS "NO OXIDE A" BY DEARBORN CHEMICAL COMPANY TO ALL CONNECTIONS.
13. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY REPRESENTATIVE AT THE SITE TO DISCONNECT THE UTILITY NEUTRAL FROM GROUNDING SYSTEM DURING FINAL INSPECTION SO THE REQUIRED TESTING ON THE GROUND SYSTEM CAN BE PERFORMED. IF THE CONTRACTOR FAILS TO HAVE THE UTILITY REPRESENTATIVE PRESENT DURING FINAL RESISTANCE TESTING, THE CONTRACTOR SHALL PAY THE COST FOR AN INDEPENDENT GROUNDING CONSULTANT TO PERFORM THE GROUND RESISTANCE TEST. GROUNDING CONSULTANT TO BE SELECTED BY THE CONSTRUCTION MANAGER. IF THE UTILITY REPRESENTATIVE FAILS TO APPEAR AT NO FAULT OF THE CONTRACTOR, NO PENALTY SHALL APPLY.
14. PAINT, ENAMEL, LACQUER AND OTHER ELECTRICALLY NON-CONDUCTIVE COATINGS SHALL BE REMOVED FROM THREADS AND SURFACE AREAS WHERE CONNECTIONS ARE MADE TO ENSURE GOOD ELECTRICAL CONTINUITY.
15. CONNECTIONS BETWEEN DISSIMILAR METALS SHALL NOT BE MADE UNLESS TWO CONDUCTORS ARE SEPARATED BY A SUITABLE MATERIAL THAT IS PART OF THE ATTACHMENT DEVICE. ONLY ATTACHMENT DEVICES LISTED AND APPROVED FOR DISSIMILAR METALS MAY BE USED.

LOAD CENTER									
VOLTS:	120/240	WIRE:	3	MCB:	100A	NEUTRAL BAR:	YES		
PHASE:	1	BUS:	100	MAIN CB AMP. TRIP:		GROUND BAR:	YES		
GROUND CB:	0	NEMA TYPE:	3R OUTDOOR			MFR:	SQUARE "D"		
KEY LOCK:	NO	MOUNTING:	SURFACE						

MAIN						
A	B	CIRCUIT DESCRIPTION	CONDUCTOR	VOLTS	BRK	CKT
10		EQUIPMENT CABINET	#10	1	30	1
	-	SPACE	-	1		2
-		SPACE	-	1		3
	-	SPACE	-	1		4
-		SPACE	-	1		5
	-	SPACE	-	1		6

PANEL SCHEDULE



ELECTRICAL ONE LINE DIAGRAM
SCALE: N.T.S.

verizon wireless

VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222

UVA MC N010

CONSTRUCTION DRAWINGS

1	02/09/16	RFP CONSTRUCTION
0	01/12/16	FOR CONSTRUCTION

Dewberry

Dewberry Engineers Inc.

COMMONWEALTH OF VIRGINIA
DEREK E. MARSHALL
Lic. No. 48910
02/09/16
PROFESSIONAL ENGINEER

DRAWN BY:	KKB
REVIEWED BY:	BAR
CHECKED BY:	DEM
PROJECT NUMBER	50074503
SITE ADDRESS:	

1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

SHEET TITLE

ELECTRICAL NOTES AND ONE LINE DIAGRAM

SHEET NUMBER

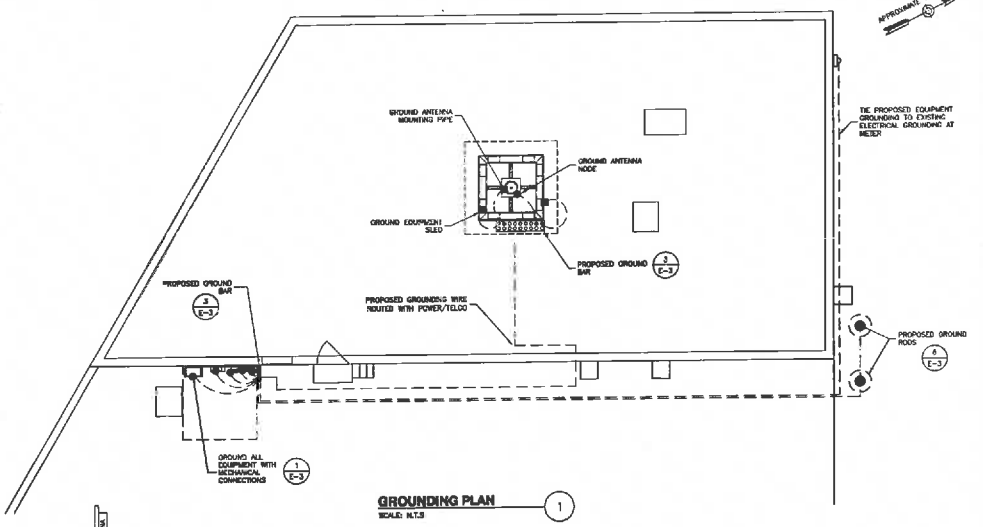
E-1

GROUNDING NOTES

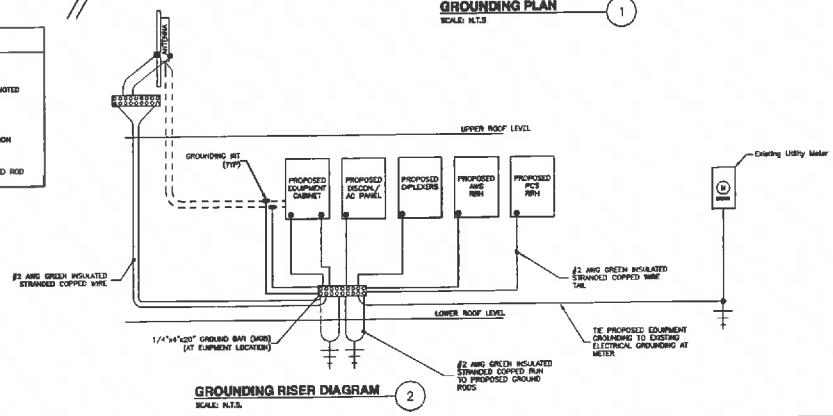
1. WHERE MECHANICAL CONNECTIONS ARE SPECIFIED, BOLTED, COMPRESSION-TYPE, CLAMPS OR SPLIT-BOLT TYPE CONNECTORS SHALL BE USED.
2. INSTALL GROUNDING KITS AT ANTENNA CENTERLINE, GROUND COAX LINES. EXOTHERMICALLY WELD #2 DOWN CONDUCTOR TO PLATES, RUN DOWN BUILDING AND TIE INTO GROUNDING SYSTEM.
3. PRIOR TO THE START OF GROUNDING WORK, THE CONTRACTOR SHALL OBTAIN THE LATEST COPY OF THE VERIZON SOUTHERN VIRGINIA RUGRN GROUNDING STANDARDS. ANY OMISSION OF INFORMATION ON THIS DOCUMENT DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY. ALL VERIZON GROUNDING REQUIREMENTS SHALL BE MET AS OUTLINED IN VERIZON'S GROUNDING STANDARDS. ALL GROUNDING WORK SHALL COMPLY WITH VERIZON WIRELESS SPECIFICATIONS AND STANDARDS. FOLLOWING COMPLETION OF WORK, GROUND SYSTEM MUST BE TESTED AND SHALL HAVE A RESISTANCE OF 5 OHMS OR LESS (SUBMIT AN INDEPENDENT "FALL POTENTIAL" TESTING REPORT).
4. NOTIFY CONSTRUCTION MANAGER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.
5. GROUNDING RING IS SHOWN AS SCHEMATIC ONLY. IT IS DESIGNED WITHOUT BENEFIT OF RESISTIVITY TESTING AND DOES NOT NECESSARILY REPRESENT A GROUNDING SYSTEM TO MEET ANY SPECIFIC GROUND RESISTANCE.
6. GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.
7. ALL GROUNDING DEVICES SHALL BE U.L. APPROVED OR LISTED FOR THEIR INTENDED USE.
8. ROUTE GROUNDING CONDUCTORS THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. BEND GROUNDING LEADS WITH A MINIMUM 12" RADIUS.
9. INSTALL #2 AWG GREEN-INSULATED STRANDED WIRE FOR ABOVE GRADE GROUNDING AND #2 TINNED SOLID COPPER WIRE FOR BELOW GRADE GROUNDING, UNLESS OTHERWISE NOTED.
10. THE GROUND ELECTRODE SYSTEM SHALL CONSIST OF DRIVEN GROUND RODS POSITIONED ACCORDING TO GROUNDING PLAN. THE GROUND RODS SHALL BE 5/8"x10'-0" COPPER CLAD STEEL. INTERCONNECTED WITH #2 TINNED SOLID COPPER WIRE BURIED 36" BELOW GRADE. BURY GROUND RODS A MINIMUM OF 10' APART AND A MINIMUM OF 10' APART.
11. WHERE BARE COPPER GROUND WIRES ARE ROUTED FROM ANY CONNECTION ABOVE GRADE TO GROUND RING, INSTALL WIRE IN 3/4" PVC SLEEVE, FROM 1" BELOW GRADE AND SEAL TOP WITH SILICONE MATERIAL.

GROUNDING LEGEND

- GROUND BAR
- GROUND COPPER WIRE, SIZE AS NOTED
- MECHANICAL CONNECTION
- EXOTHERMIC (CADWELL) CONNECTION
- 5/8"x10' COPPER CLAD STEEL GROUND ROD



GROUNDING PLAN (1)
SCALE: N.T.S



GROUNDING RISER DIAGRAM (2)
SCALE: N.T.S.

verizon wireless

VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222

UVA MC N010

CONSTRUCTION DRAWINGS

1	02/08/16	FOR CONSTRUCTION
0	01/12/16	FOR CONSTRUCTION

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COMMONWEALTH OF VIRGINIA
DEREK S. MARSHALL
Lic. No. 43610
02/08/16
PROFESSIONAL ENGINEER

DRAWN BY:	MKB
REVIEWED BY:	BAR
CHECKED BY:	DRM
PROJECT NUMBER:	60074583
SITE ADDRESS:	

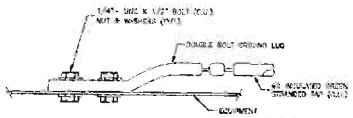
1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

SHEET TITLE

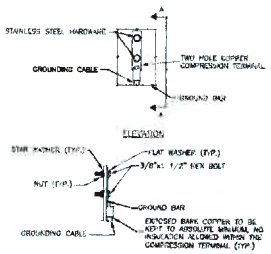
GROUNDING PLAN

SHEET NUMBER

E-2

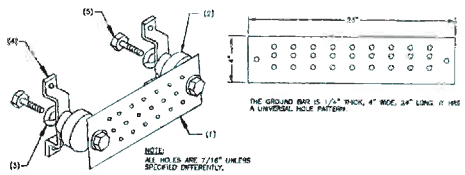


CONNECTION TO EQUIPMENT DETAIL (1)
SCALE: N.T.S.



NOTES:
1. DOUBLING UP ON GROUND OR CONNECTIONS IS NOT PERMITTED.
2. GROUT INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.

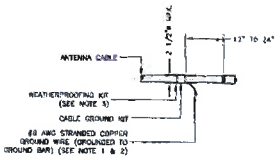
TYPICAL GROUND BAR MECHANICAL CONNECTION DETAIL (2)
SCALE: N.T.S.



NOTE:
ALL HOLES ARE 7/16" UNLESS SPECIFIED DIFFERENTLY.

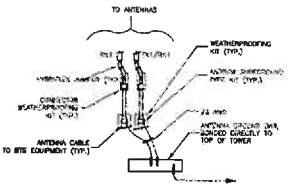
LEGEND
1. GALVANIZED GROUND BAR, 1/4"x4"x24", SITE PRO P/N HGGR2483-K. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION.
2. STANDOFF INSULATORS (INCLUDED IN KIT)
3. GALVANIZED WASHER
4. STAINLESS STEEL MOUNTING BRACKET (INCLUDED IN KIT).
5. TAMPER RESISTANT SS BOLT FOR GROUND BARS, SITE PRO P/N TRHK

GROUND BAR DETAIL (3)
SCALE: N.T.S.

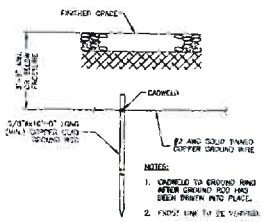


NOTES:
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND PART. ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE ANDREW SUPERGROUND TYPE KIT WITH TWO-HOLE LUG.
3. WEATHER PROOFING SHALL BE ANDREW TWO-PART EPOXY SUPPLIED WITH KIT. COLD SHRINK SHALL NOT BE USED.

CONNECTION OF CABLE GROUND KIT TO ANTENNA CABLE DETAIL (4)
SCALE: N.T.S.

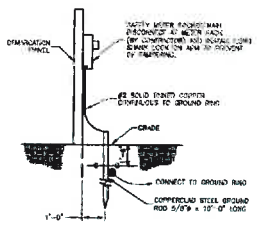


CONNECTION OF GROUND WIRE TO GROUNDING BAR DETAIL (5)
SCALE: N.T.S.



NOTES:
1. CADWELD TO GROUND ROD AFTER GROUND ROD HAS BEEN DRIVEN INTO PLACE.
2. EXACT LINK TO BE VERIFIED.

GROUND ROD (6)
SCALE: N.T.S.



METER SOCKET GROUNDING (7)
SCALE: N.T.S.

verizon wireless

VERIZON WIRELESS
1631 RADY COURT
RICHMOND, VA 23222

UVA MC N010

CONSTRUCTION DRAWINGS

A	12/09/16	FOR CONSTRUCTION
0	01/12/16	FOR CONSTRUCTION

Dewberry

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COMMONWEALTH OF VIRGINIA
DEREK R. MARSHALL
Lic. No. 48510
12/09/16
PROFESSIONAL ENGINEER

DRAWN BY:	MKR
REVIEWED BY:	BKR
CHECKED BY:	DRM
PROJECT NUMBER:	50074593
SITE ADDRESS:	

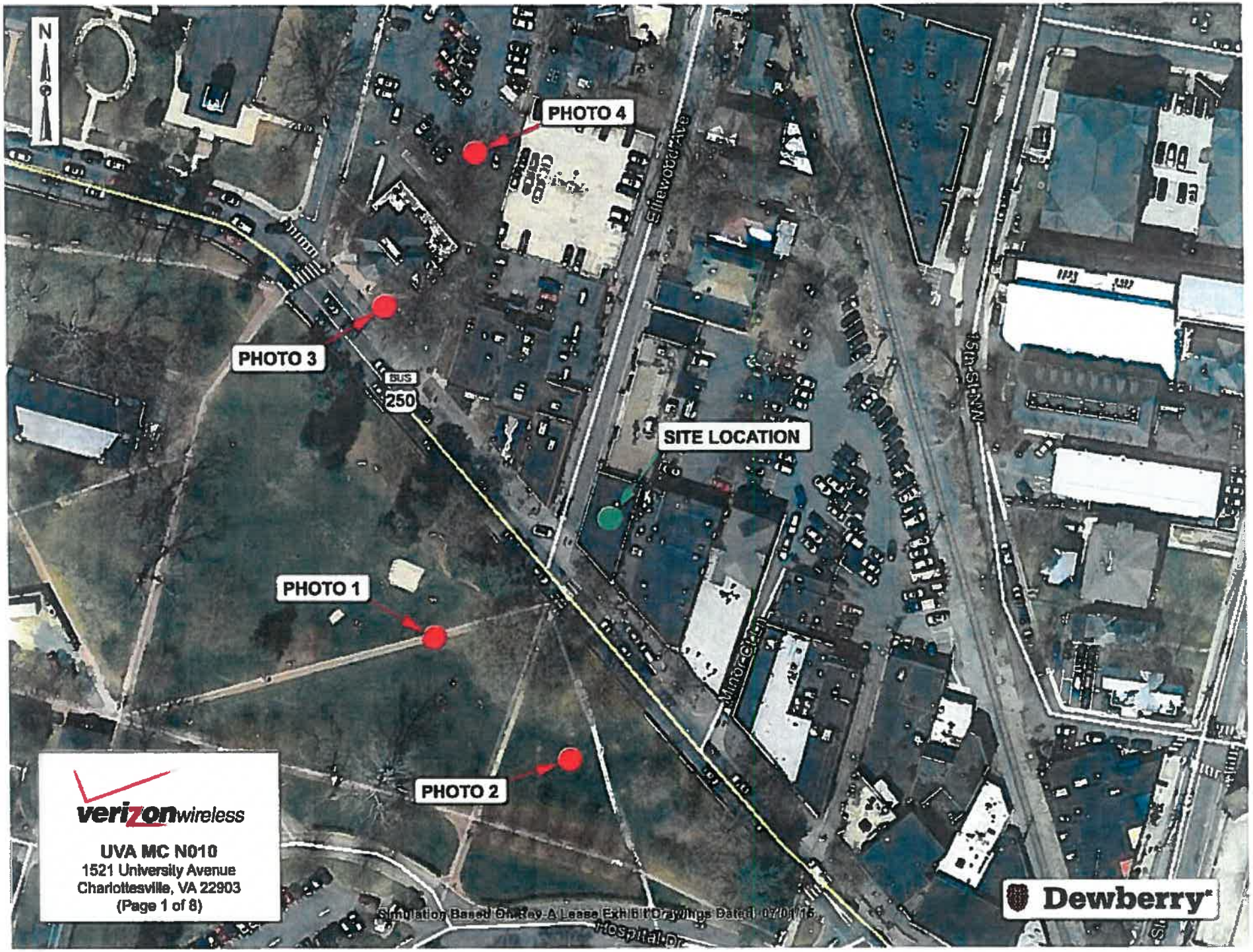
1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

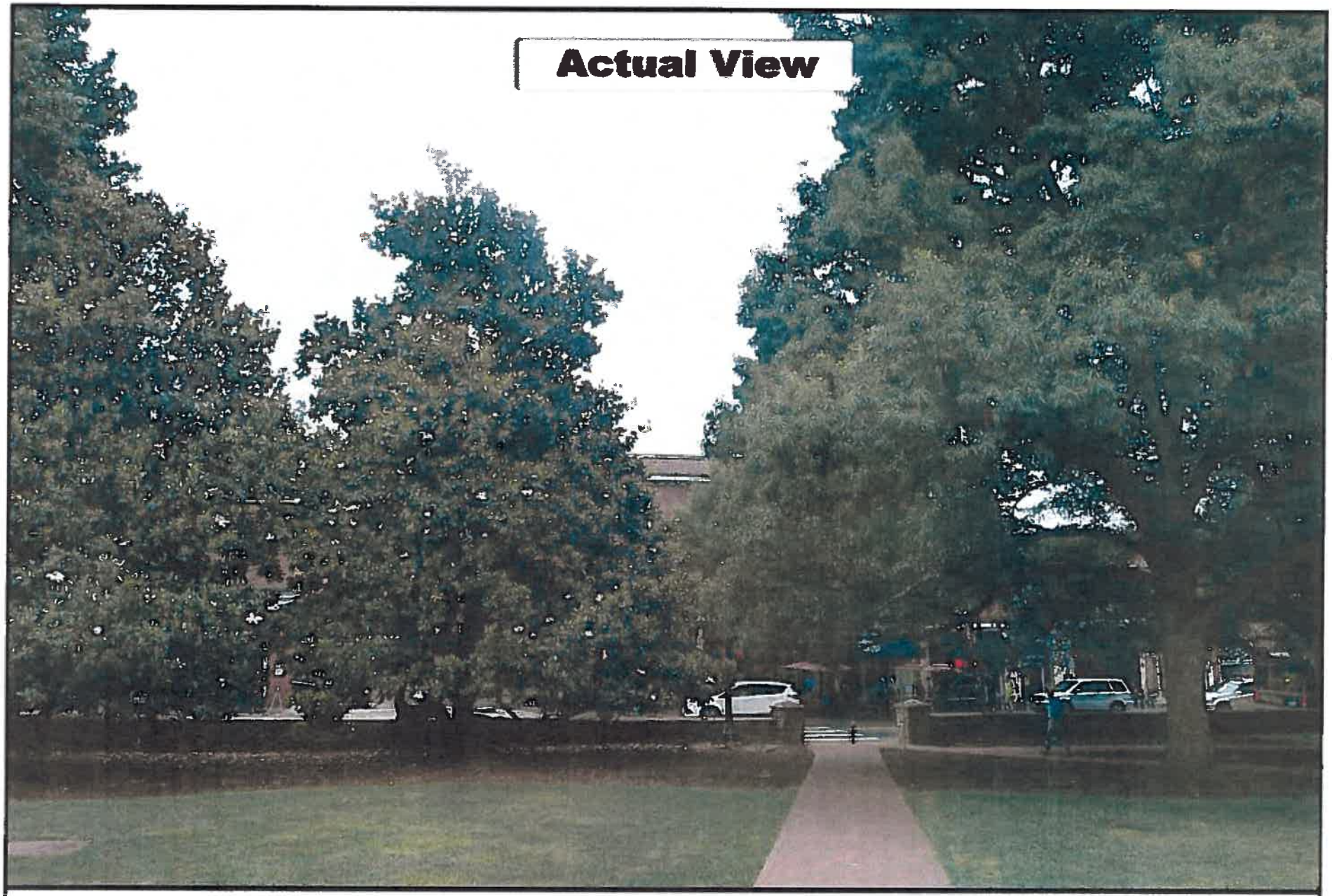
SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

E-3


N
PHOTO 4
PHOTO 3
PHOTO 1
PHOTO 2
SITE LOCATION
BUS
250
Stewart Ave
15th St NW
Hospital Dr
verizonwireless
UVA MC N010
1521 University Avenue
Charlottesville, VA 22903
(Page 1 of 8)
Simulation Based On Rev-A Lease Exhibit Drawings Dated: 07/01/16
Dewberry



verizonwireless

UVA MC N010
Photo 1A
View Facing Northeast
From 15th Street NW
(Page 2 of 8)

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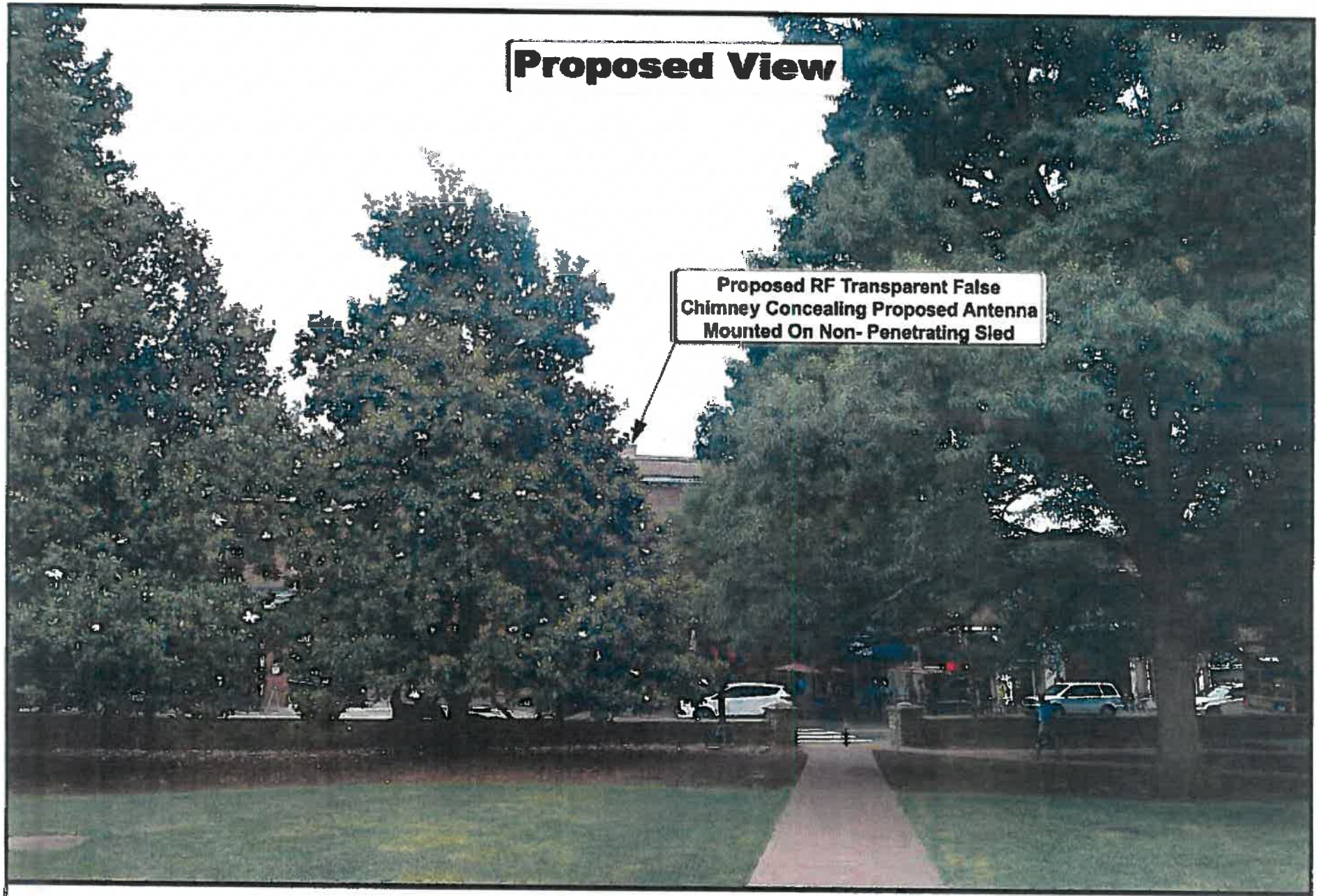

verizonwireless

UVA MC N010
Photo 1B
View Facing Northeast
From 15th Street NW
(Page 3 of 8)

Dewberry*
4806 Lake Brook Drive, Suite 200
Glen Allen, VA 23060
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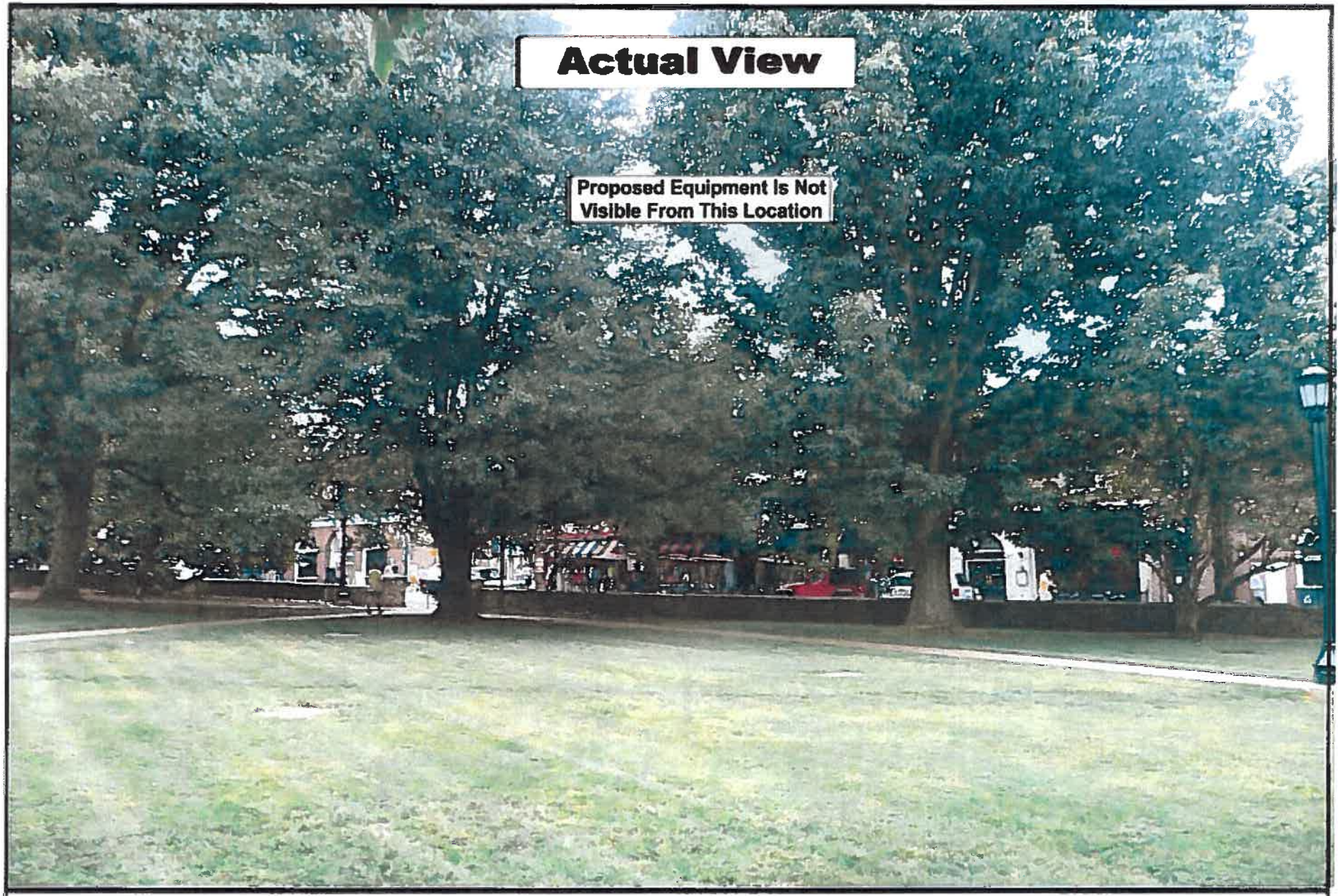

verizonwireless

UVA MC N010
Photo 2
View Facing North
Off Of University Avenue
(Page 4 of 8)

Dewberry
4806 Lake Brook Drive, Suite 200
Glen Allen, VA 23060
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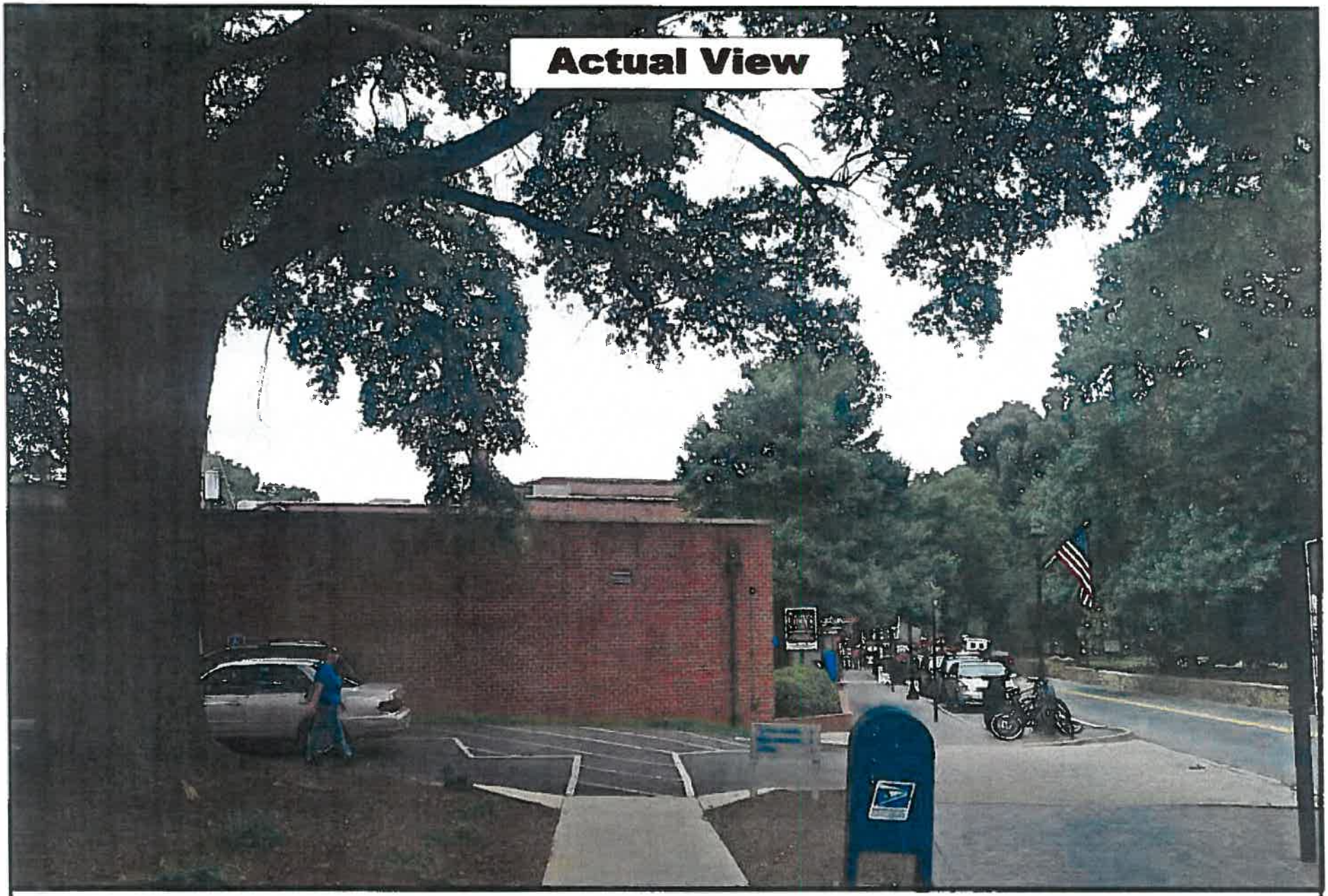

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UVA MC N010
Photo 3A
View Facing Southeast
From University Avenue
(Page 5 of 8)

Dewberry
4806 Lake Brook Drive, Suite 200
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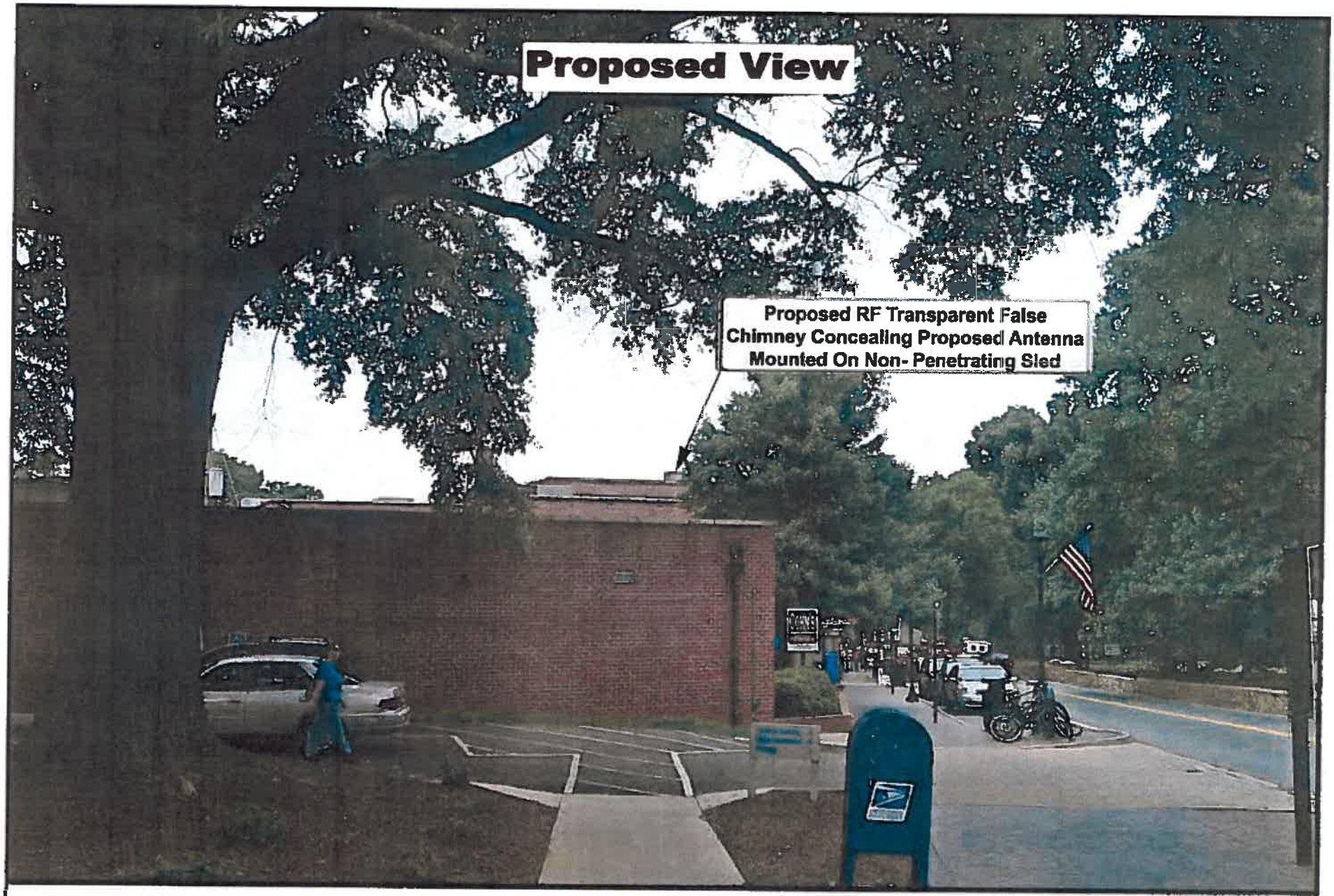

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UVA MC N010
Photo 3B
View Facing Southeast
From University Avenue
(Page 6 of 8)

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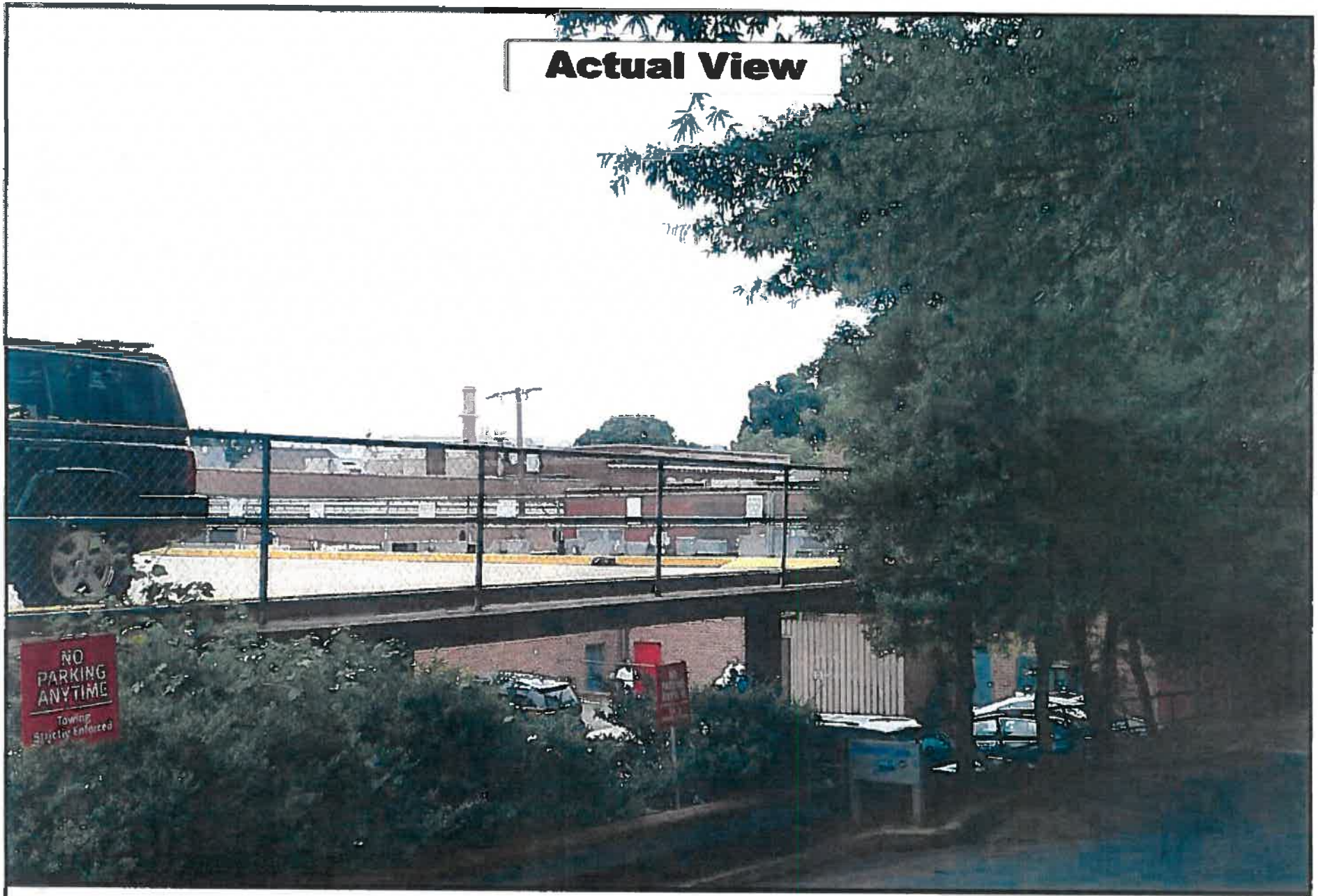
Actual View



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UVA MC N010
Photo 4A
View Facing South
From University Avenue
(Page 7 of 8)

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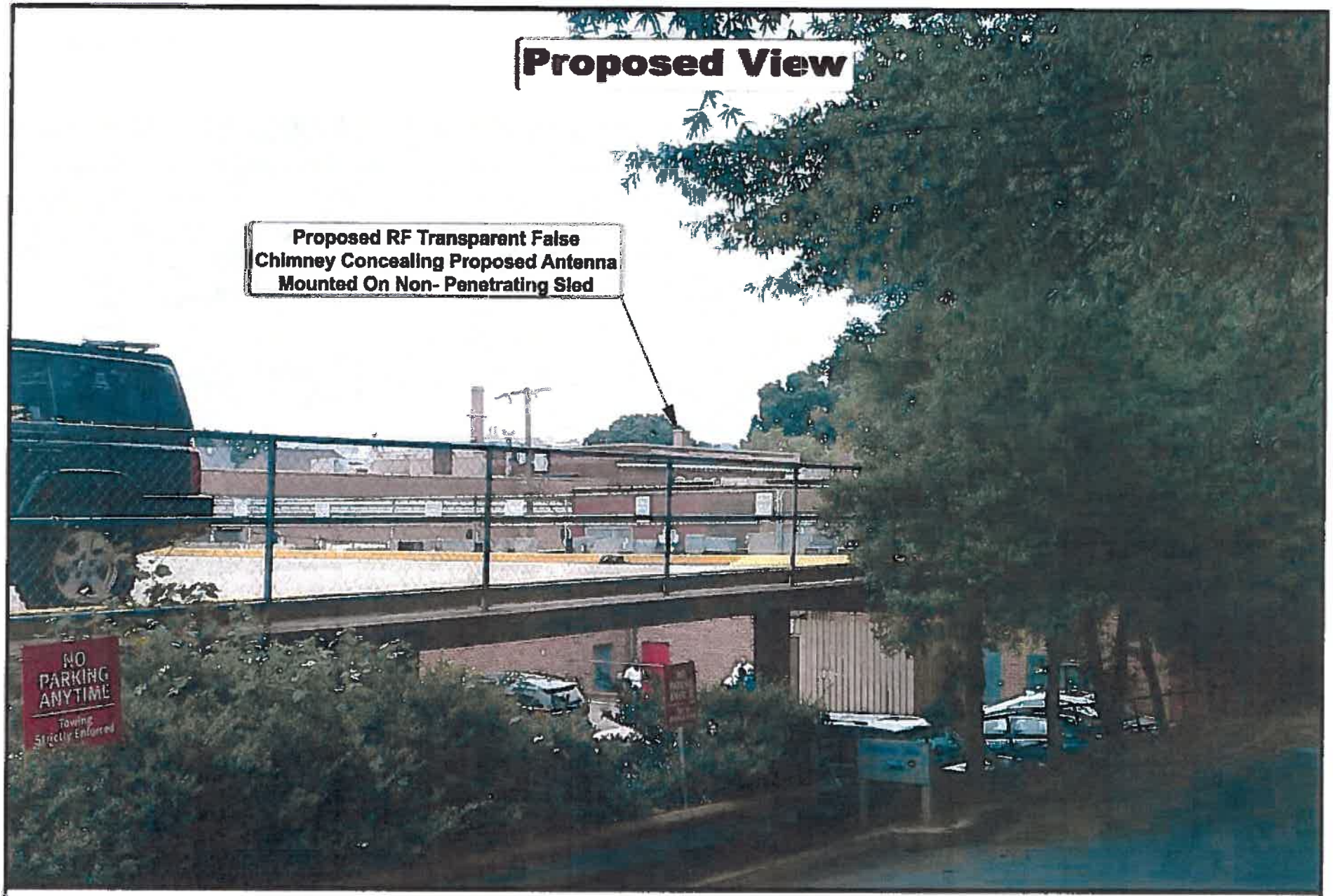

verizon wireless

UVA MC N010
Photo 4B
View Facing South
From University Avenue
(Page 8 of 8)

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December 13, 2016
File: 203400673 Task 242

Mr. Andrew Hendricks, P.G.
Geo-Technology Associates, Inc.
43760 Trade Center Place, Suite 110
Sterling, Virginia 20166

RE: Determination of Visual Effects for the Charlottesville Small Cell Installation Located at 1521 University Avenue (UVA MC N010), Charlottesville, Virginia

Dear Mr. Hendricks:

The report that follows presents the results of the visual effects survey for the Verizon Wireless (Verizon) small cell site located at 1521 University Avenue (UVA MC N010), Charlottesville, Virginia (Figures 1-5). The site visit was conducted by Tracey MacDonald and the report reviewed by Ellen M. Brady, Senior Principal Investigator, and Sandra DeChard, Senior Architectural Historian, on behalf of Geo-Technology Associates Inc. (GTA) on December 5, 2016.

The investigations were conducted with reference to state (*Guidelines For Conducting Cultural Resource Survey In Virginia: Additional Guidance for the Implementation of the Federal Standards Entitled Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* (48 FR 44742, September 29, 1983 [Virginia Department of Historic Resources {VDHR} 2001]) and federal guidelines (*Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation* [United States Department of the Interior {USDI} 1983]) for conducting cultural resources investigations as well as in accordance with the *Nationwide Programmatic Agreement Regarding the Section 106 National Historic Preservation Act Review Process* (NPA) effective March 7, 2005.

AREA OF POTENTIAL EFFECT

The Area of Potential Effect (APE) for indirect visual effects for UVA MC N010, as determined by the NPA, and in consultation with the VDHR, was 0.25 miles. This survey was designed to assess visual effects to the National Register of Historic Places (NRHP)-eligible or listed resources within the APE.

The APE for direct effects to the building by the proposed small cell antenna project is limited to the structure area where the antenna and associated equipment will be installed.

PROJECT DESCRIPTION

Verizon proposes to install a small cell antenna and associated equipment on roof top of the three-story building near the roof's center. The antenna will be stealthed within a newly constructed false brick chimney and will be installed on a non-penetrating sled mount. The radio head and the equipment will be mounted on the southeastern side of the building just below the roof line of the adjacent one-story building. The radio head and the equipment will not extend

above the parapet wall and will not be visible from the street. The antenna and false chimney will extend approximately 4 feet above the edge of the parapet (Figures 3-5).

PROJECT LOCATION

Charlottesville N010
1521 University Avenue

The building, located at 1521 University Avenue, is located at the corner of University Avenue and Elliewood Avenue. The three-story, brick building was constructed c. 1900 and features retail space on the first floor and residential space on the second and third (Figure 1). The building also features brick quoins, a modillioned cornice, elliptical arched windows, and a parapet roof. The windows are vinyl replacement sashes. The building has not been individually surveyed; however, is located within the Venable Neighborhood Historic District (VDHR #104-0133).

The area immediately surrounding 1521 University Avenue consists of poured concrete sidewalks on the southwest and northwest along the building. A small one-story brick commercial building is located immediately adjacent to the southeast elevation of the building with a more modern building immediately behind. The building is within a commercial area of Charlottesville with a park area belonging to the University of Virginia across the street (Figure 2 and 6-9).

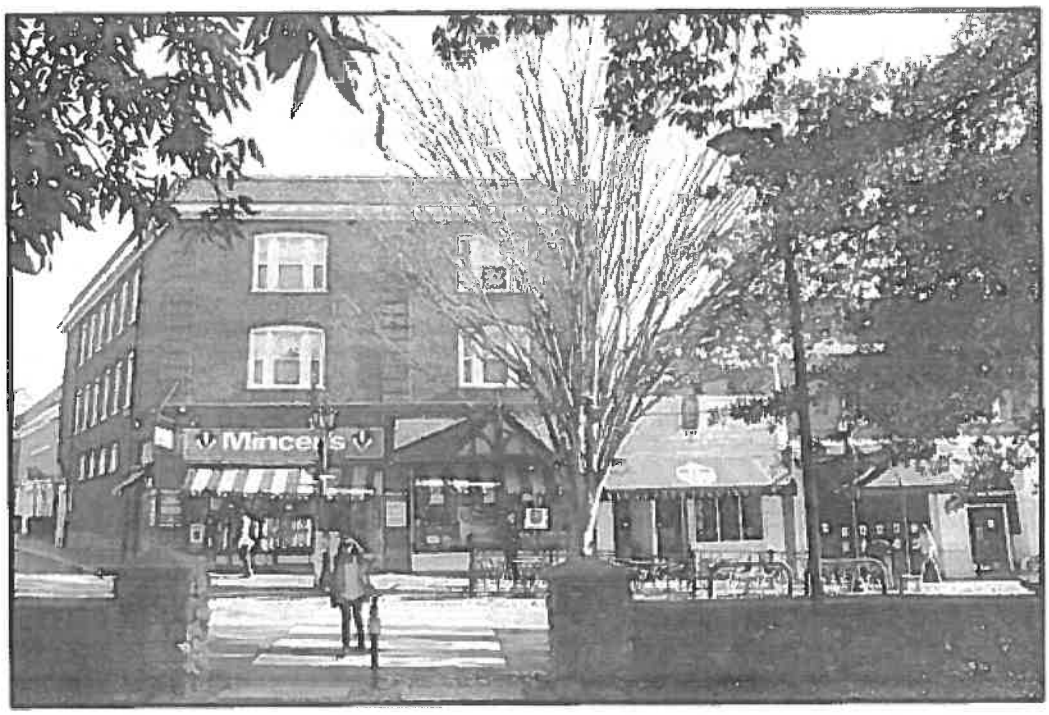


Figure 1. 1521 University Avenue, Charlottesville, Virginia.

RESULTS OF BACKGROUND RESEARCH

Background research for the project involved a review of the VDHR's Virginia Cultural Resources Information System (V-CRIS) database. This review was conducted in order to determine whether

any architectural resources, including historic districts, located within the APE of the small cell site have been listed or are eligible for listing on the NRHP. According to V-CRIS, three NRHP-listed or eligible historic districts and 11 individually listed or eligible resources are located within the 0.25-mile APE of the proposed UVA MC N010 small cell site. In addition, the NRHP-listed Charlottesville, Virginia Multiple Resource Area is located within the APE, although the boundaries of the Area are not currently mapped in VCRIS (Table 1; Figure 10).

The three NRHP-listed architectural resources located within the 0.25-mile APE of the UVA MC N010 cellular site include parts the University of Virginia Historic District (VDHR #002-5161), the Venable Neighborhood Historic District (VDHR #104-0133), and the Wertland Street Historic District (VDHR #104-0136) (Table 1; Figure 10). The 11 individual resources include the Rotunda (VDHR #002-5055), the Lewis Brook Hall of Natural History (VDHR #002-5056), and the Carr's Hill/President's House (VDHR #002-5082), located within the University of Virginia Historic District; the Anderson Brothers Bookstore (VDHR #104-0132, the Turner-LaRowe House (VDHR #104-0234), the King-Runkle House, and the McConnell-Neve House (VDHR #104-0397; Demolished), located within the Venable Neighborhood Historic District; and the Dinsmore Hous/Heiskell-McKennie House (VDHR #104-0018), the Barringer Mansion (VDHR #104-0022), and the George Rogers Clark Statue and Four Monumental Figurative Outdoor Statues, which includes the Clark Statue (VDHR #104-0252 and #104-5091).

DIRECT EFFECTS EVALUATION

Since the building is over 45 years of age, direct effects consideration is required. The antenna will be mounted on the roof top and stealthed within a newly constructed false brick chimney. The antenna itself will be installed on a non-penetrating sled mount. The radio head and the associated equipment will be mounted on the southeastern side of the building just below the roof line of the adjacent one-story building. The historic fabric of the building will be minimally impacted only on the parapet wall where the radio head and associated equipment will be attached.

INDIRECT EFFECTS EVALUATION

The purpose of the indirect effects investigation is to determine if any of the NRHP-eligible or listed resources under consideration within the APE will view the proposed small cell installation. The survey was undertaken to ensure compliance with the NPA and with Section 106 of the National Historic Preservation Act (as amended). Since listed and eligible resources were located within the APE, an indirect visual effects study was conducted for each resource (Table1; Figure 11; Photos 1-27). The study included photographing the individual resources and their views towards the small cell site to evaluate the visual impact of the undertaking on the historic resources within the defined APE. In the case of historic districts only views from points within the historic district towards the small cell site were taken as these photographs already capture resources within the district.

The proposed small cell antenna will be mounted on a non-penetrating sled mount within a false chimney, which will extend 4 feet above the edge of the parapet. As such the proposed antenna had the potential to be viewed from the surrounding NRHP-listed or eligible historic districts or NRHP individually listed resources within the APE. However, due to the existing building stock surrounding the node site, the distance of the NRHP-listed or eligible resources from the proposed node location, and changes in landscape, only in areas within the Venable Neighborhood Historic District and University of Virginia Historic District immediately surrounding the building viewed the building and/or the proposed location of the UVA MC N010 small cell antenna. Two individual resources within the district, the Lewis Brook Hall of Natural History and the Anderson Brothers

Bookstore viewed the proposed small cell location. The proposed antenna location and the building were not visible from any other survey point within the 0.25-mile APE from the resources within the APE under consideration.

CONCLUSION

The UVA MC N010 collocation site, located 1521 University Avenue, Charlottesville, meets the age requirement for direct effects evaluation as the building meets the age criteria of 45 year or older. The antenna will be mounted on a non-penetrating sled mount within a false chimney, which will extend 4 feet above the edge of the parapet. The associated equipment will be installed on the southeast wall of the building below the roof line of the adjacent building (see Figures 3-5). The historic fabric of the building will be minimally impacted only on the southeast wall where the antenna and associated equipment will be attached. The building; however, has not been formerly surveyed and therefore not individually evaluated for eligibility for listing on the NRHP by DHR. In addition, it is unlikely that the building would be considered eligible for listing on the NRHP as evaluated by Criteria A, B, C, and D. According to the NPA, since the subject building itself has not been individually evaluated for eligibility for listing on the NRHP there are no historic properties within the direct effects APE.

The building is also located within the NRHP-listed Venable Neighborhood Historic District. Based on information gathered at the site and the proposed location of the small cell antennas on the roof it appears that the proposed antennas and associated equipment will not impact the Rotunda (VDHR #002-5055), Carr's Hill/President's House (VDHR #104-5082), the Dinsmore House/Heiskell-McKennie House (VDHR #104-0018), the Barringer Mansion (VDHR #104-0022), the Wertland Street Historic District (VDHR #104-0136), the Turner-LaRowe House (VDHR #104-0234),the King-Runkle House (VDHR #104-0248), the George Rogers Clark Statue (VDHR #104-0252), the McConnell-Neve House (VDHR #104-0397; Demolished), and the Four Monumental Figurative Outdoor Sculptures (VDHR #104-5091). The building and/or the proposed antenna location was not visible from any of the points of survey from these NRHP-listed or eligible resources due to distance, changes in elevation, and the existing built environment, which shields the view of the proposed antenna installation site from the historic resources within the 0.25-mile APE. The building and/or proposed antenna location was visible from the Lewis Brook Hall of Natural History (VDHR #002-5056), the University of Virginia Historic District (VDHR #002-5161), the Anderson Brothers Bookstore (VDHR #104-0132), and the Venable Neighborhood Historic District (VDHR #104-0133) (Photos 4, 7, 8, 14, and 15). Since the proposed location of the small cell was viewed from the Anderson Brothers Bookstore, it was also viewed from the Charlottesville, Virginia Multiple Resource Area as the resouce is individually listed under the Area nomination. However, since the antenna will be stealthed within a false chimney and due to the small size of the antenna and the limited visibility of the proposed installation it is recommended that the proposed 1521 University Avenue UVA MC N010 collocation site will have **No Adverse Effect** to resources within the APE for visual effects.

Sincerely,

Ellen M. Brady
Senior Principal Investigator

Sandra DeChard
Senior Architectural Historian

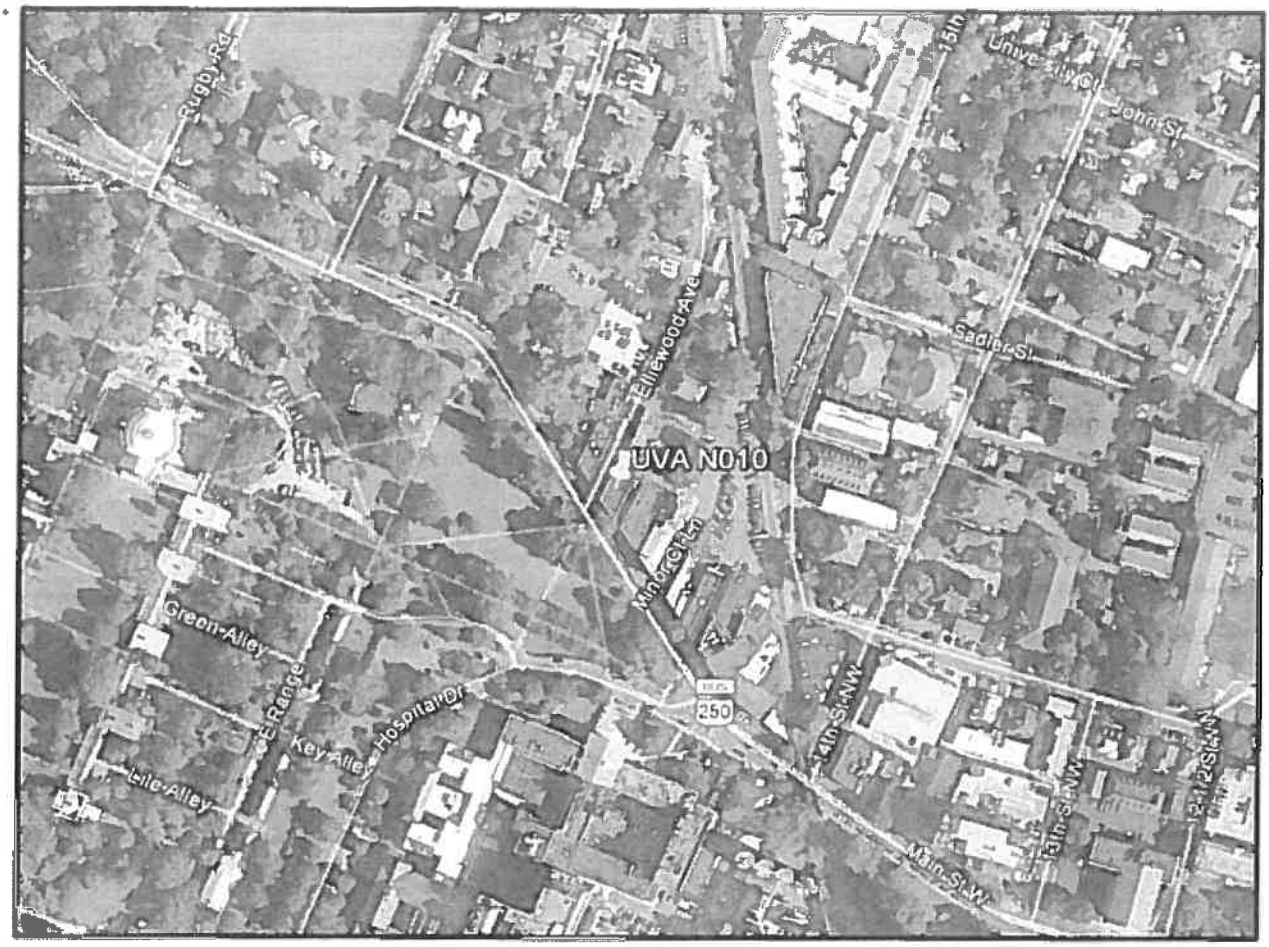


Figure 2. Location of 1521 University Avenue.

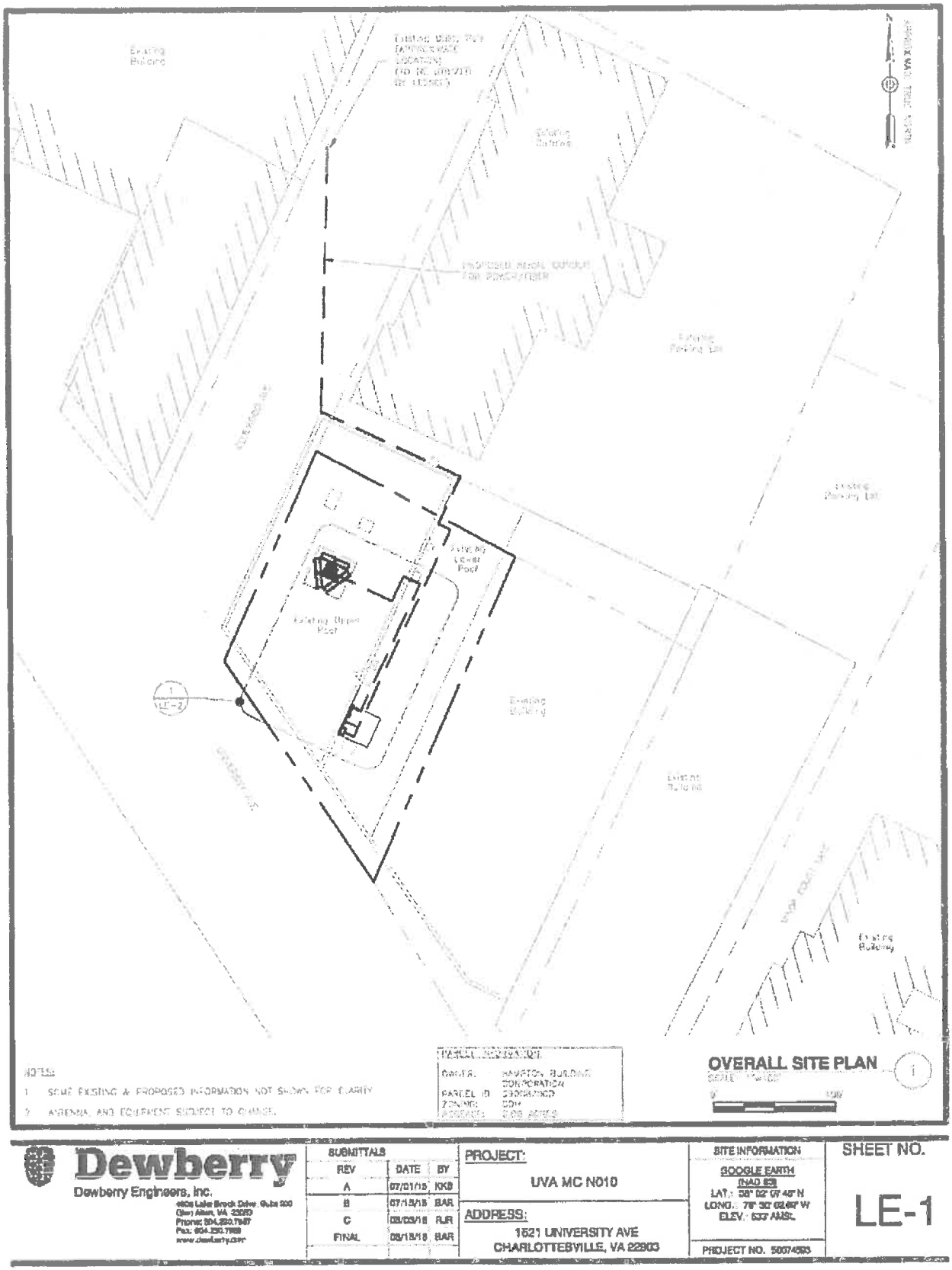


Figure 3. Site Plan of 1521 University Avenue Collocation Site (UVA MC N010), Charlottesville, Virginia.

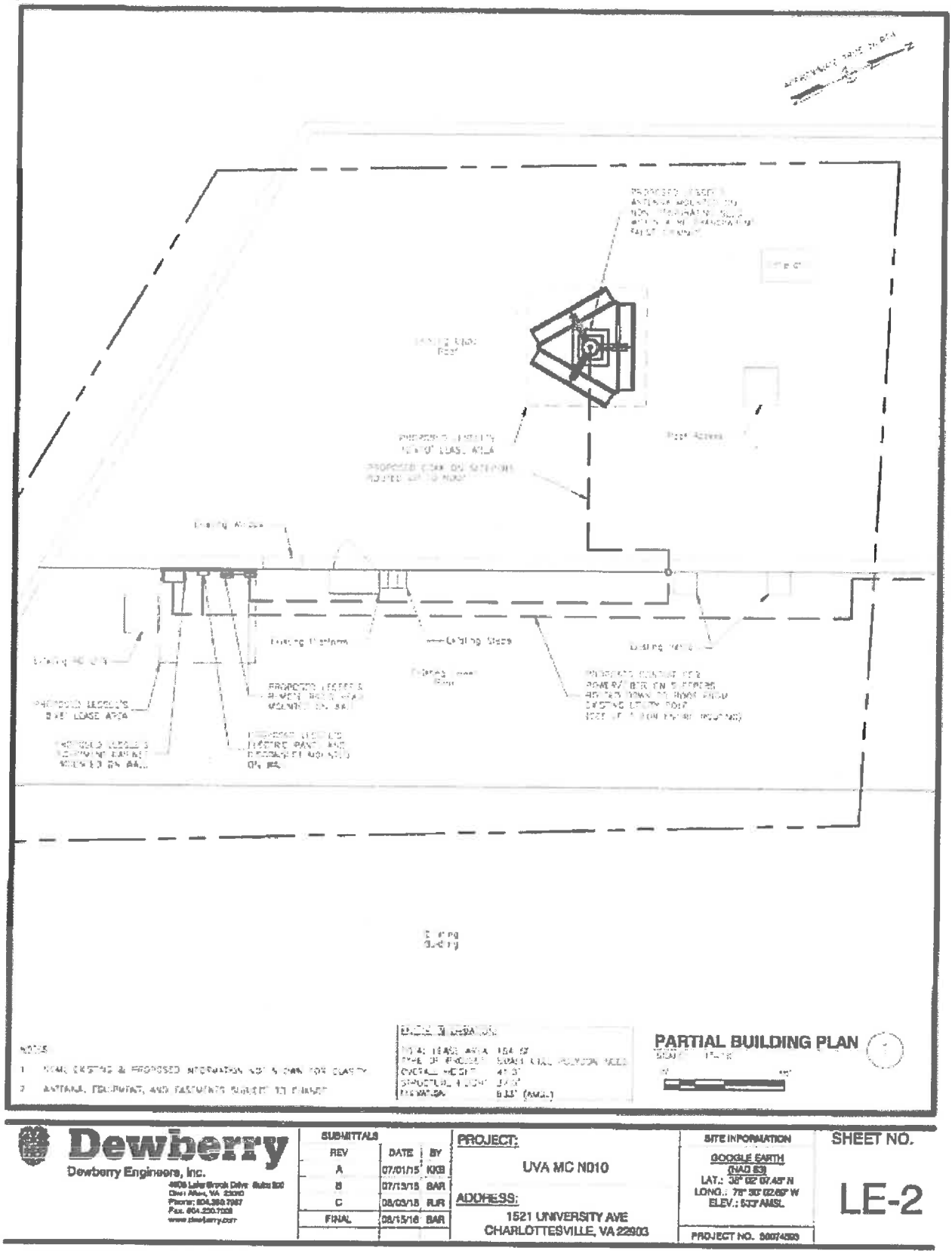


Figure 4. Rooftop Plan of 1521 University Avenue Collocation Site (UVA MC N010), Charlottesville, Virginia.

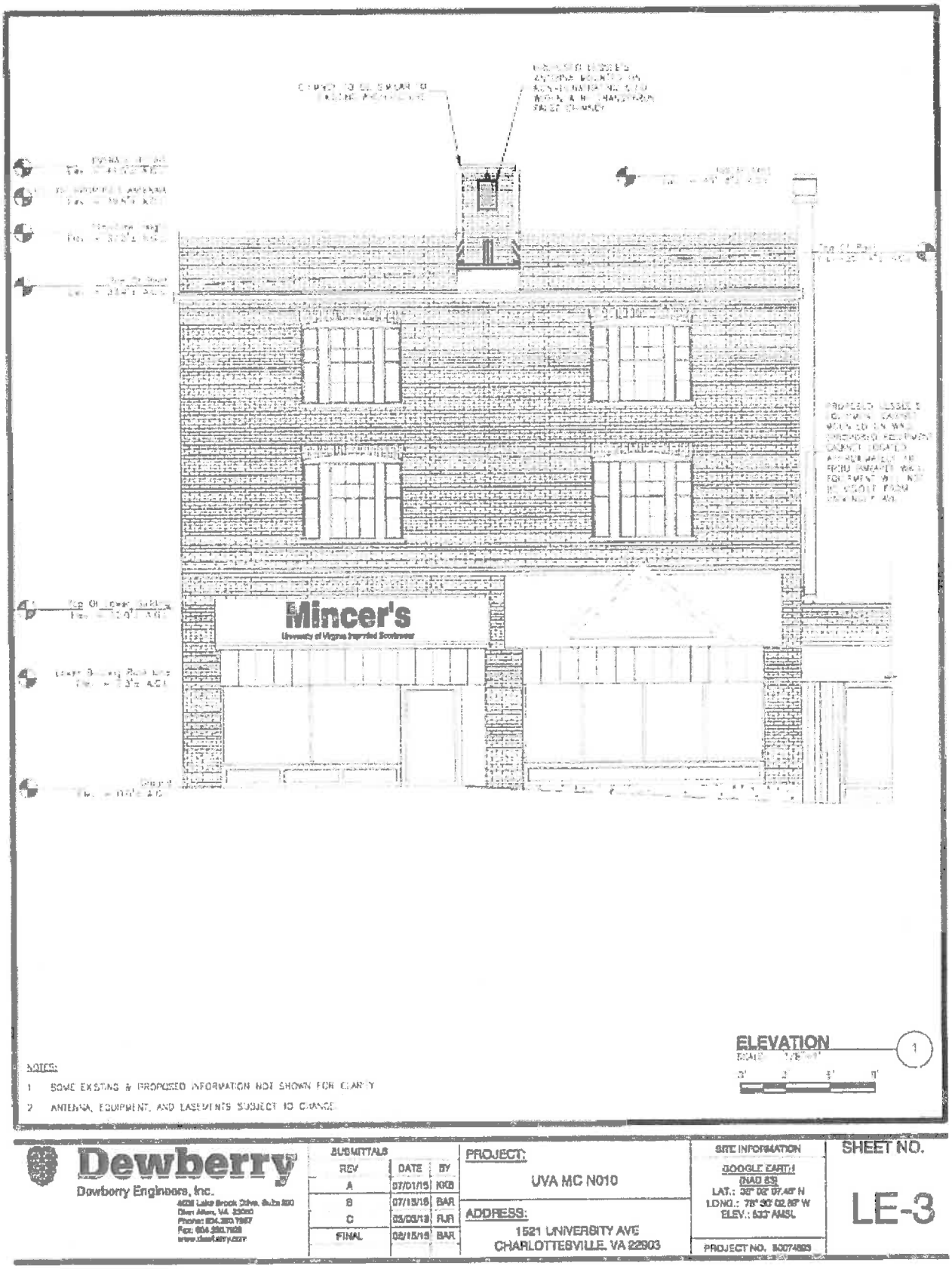


Figure 5. Elevation of 1521 University Avenue Collocation Site (UVA MC N010), Charlottesville, Virginia.

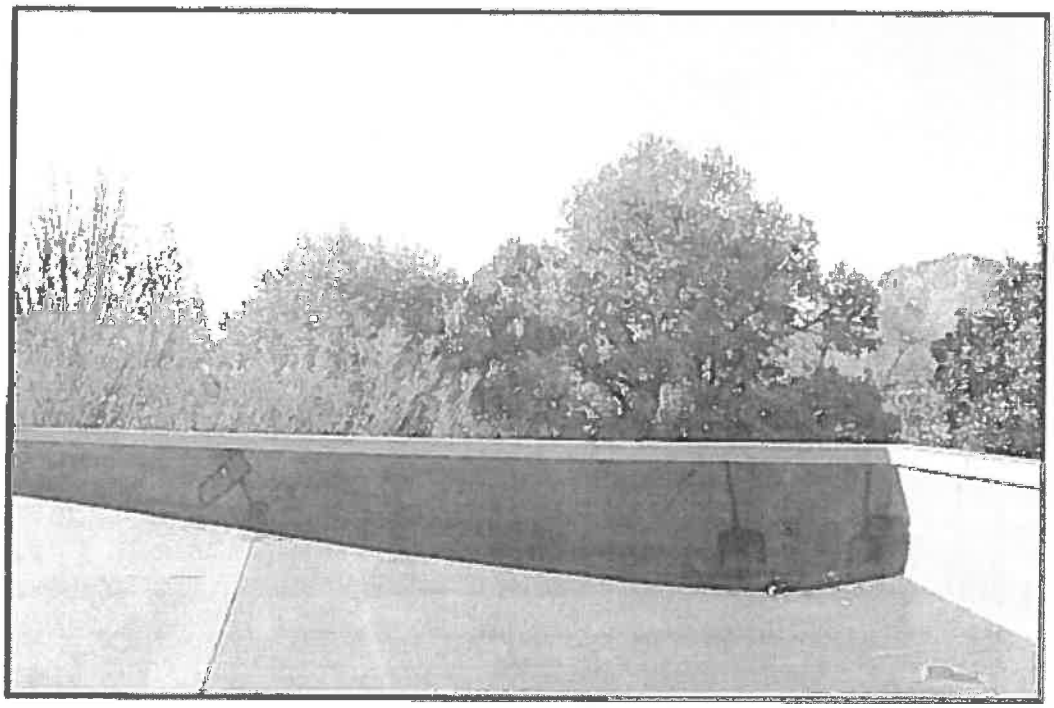


Figure 6. Views from Roof Level of 1521 University Avenue Collocation Site (UVA MC N010), Charlottesville, Virginia, Looking South.

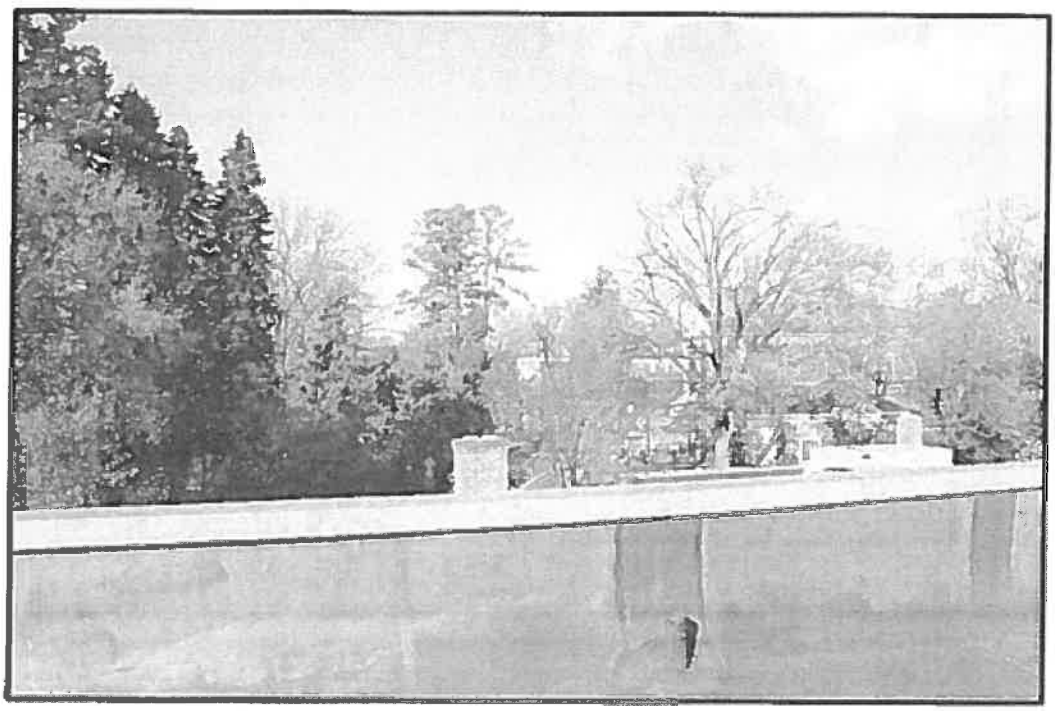


Figure 7. Views from Roof Level 1521 University Avenue Collocation Site (UVA MC N010), Charlottesville, Virginia, Looking West.

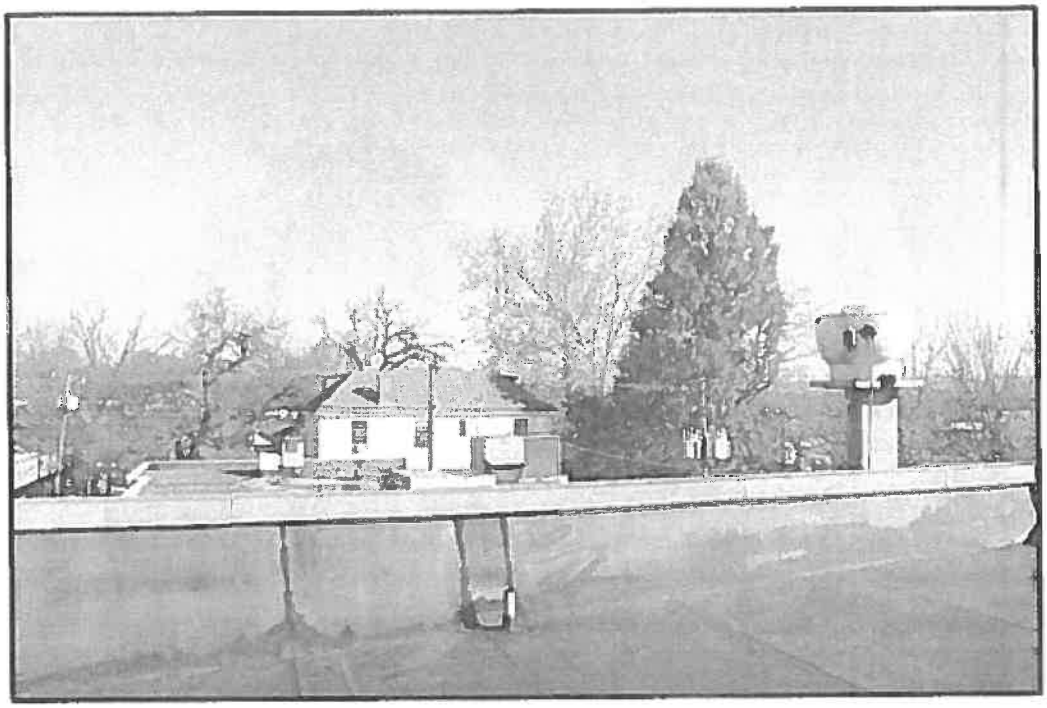


Figure 8. Views from Roof Level 1521 University Avenue Collocation Site (UVA MC N010), Charlottesville, Virginia, Looking North.

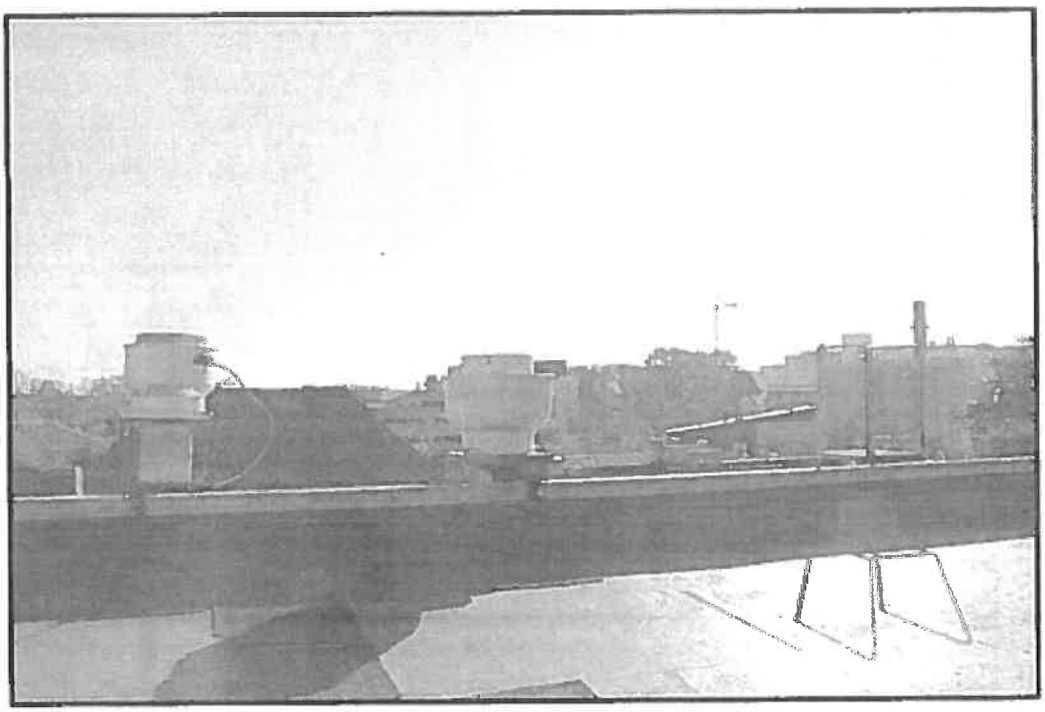


Figure 9. Views from Roof Level 1521 University Avenue Collocation Site (UVA MC N010), Charlottesville, Virginia, Looking East.

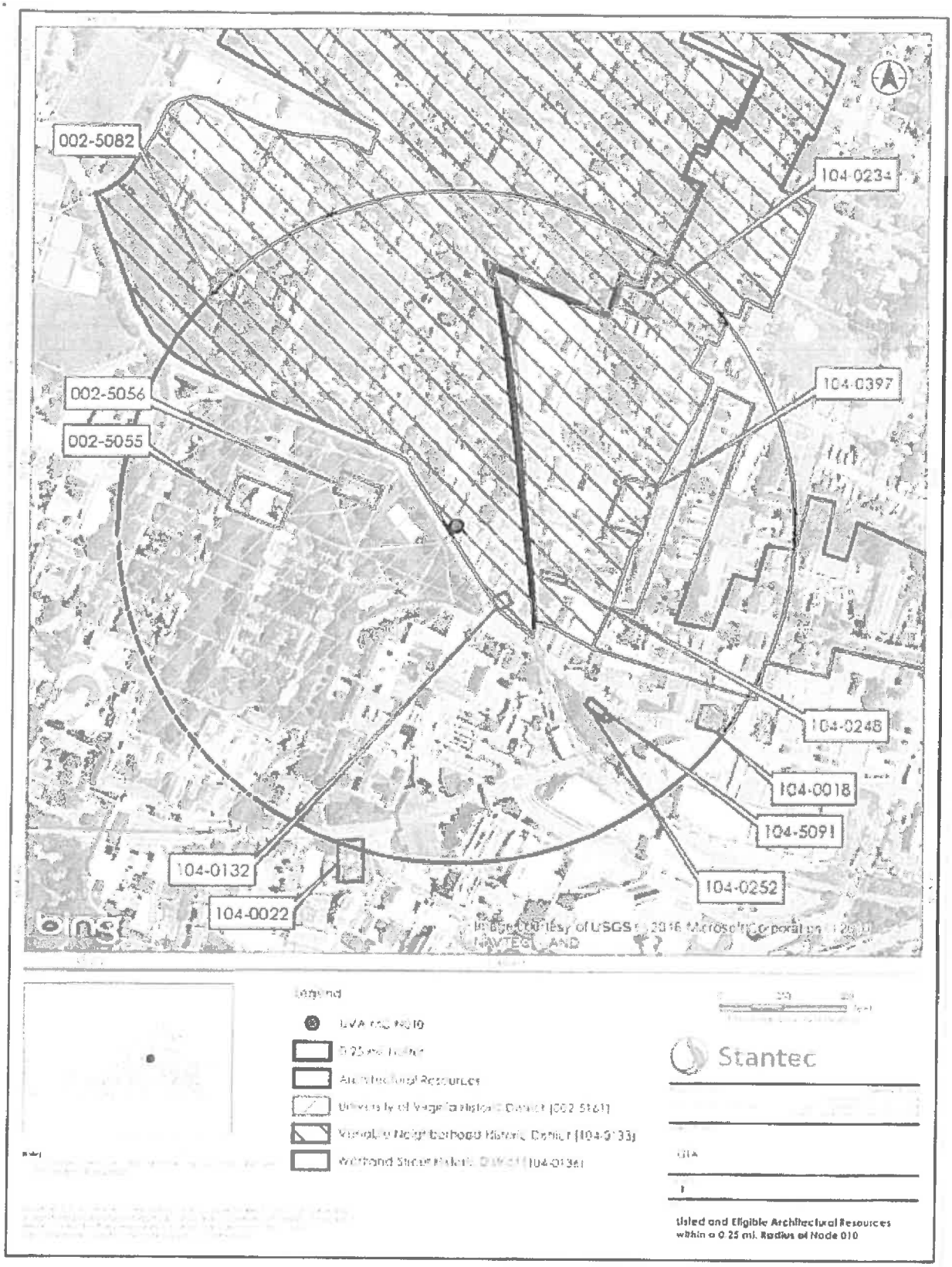


Figure 10. Architectural Resources under Consideration Within a 0.25-Mile Radius of 1521 University Avenue Collocation Site (UVA MC N010), Charlottesville, Virginia.

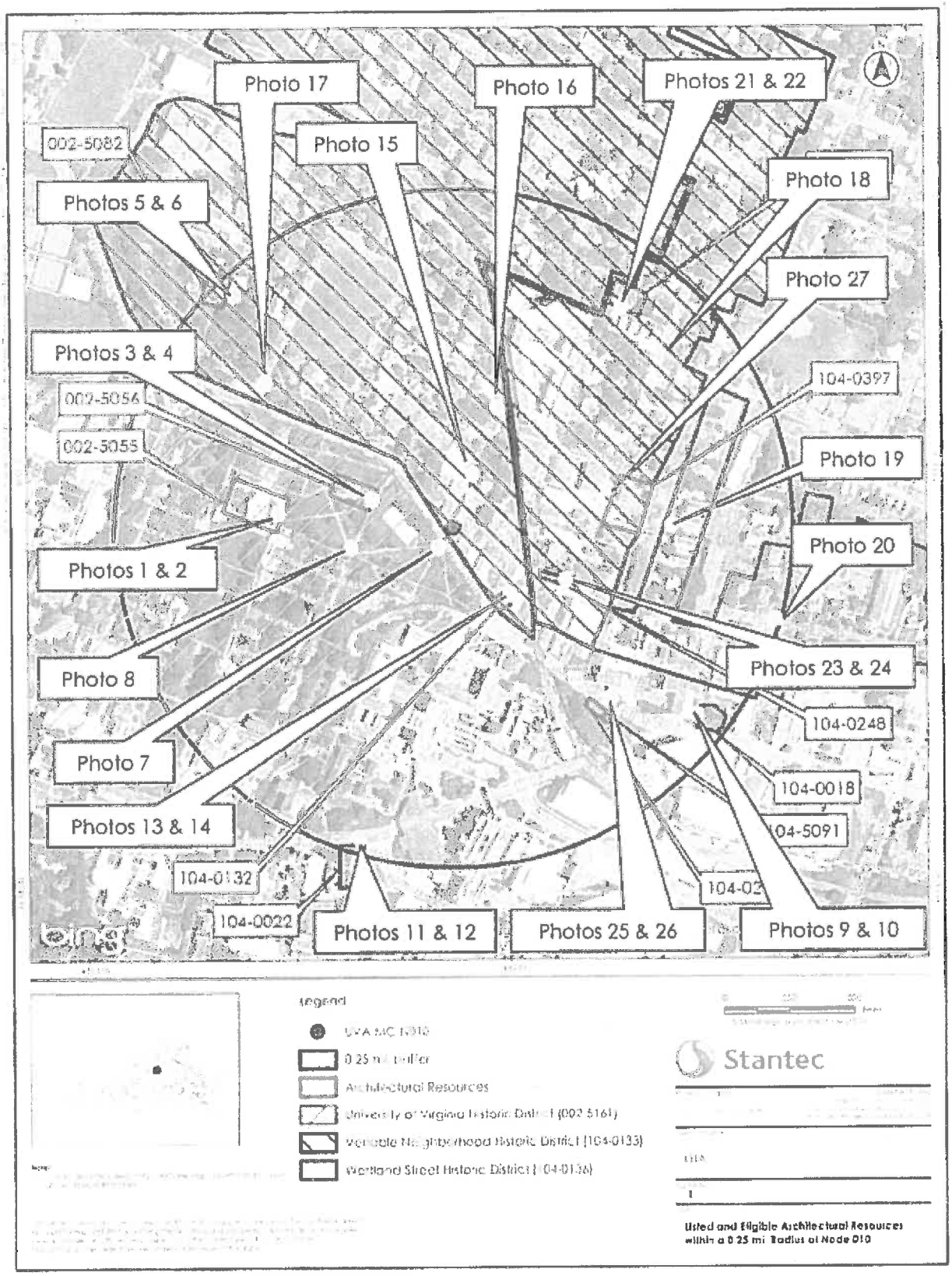


Figure 11. Key to Photographs for UVA MC N010, Charlottesille, Virginia.

VDHR #	Resource	Description	NRHP-Listed	NRHP-Eligible	Effect Assessment	Photo Reference
002-5055	Rotunda, University of Virginia, Main Street	The Rotunda, designed by Thomas Jefferson, at the University of Virginia was built c. 1819 and housed the University's library collection from 1826 to 1938. The building's design was based on Rome's Pantheon. In the 19th century an addition was constructed onto the building, however, in 1895 the building burned. Restoration efforts were undertaken by McKim, Mead, and White shortly after. The building was again restored in 1976. The Rotunda was listed as a National Historic Landmark (NHL) in 1965 and on the NRHP in 1966. The building is also considered a contributing resource to the NHL/NRHP-listed University of Virginia Historic District.	X (NHL)		No Effect	Photos 1 & 2
002-5056	Lewis Brook Hall of Natural History, University Avenue	The building, constructed in 1876, is a three-story, brick building with stone trim. Designed by John R. Thomas in the Second Empire-style, the building, which was one of the first natural history museum in the US, features interior brick chimneys, raised granite basement, elliptical arched two-over-two wood double-hung sash windows, denticulated cornice, and stone belt course. The building was listed on the NRHP in 1977 for its significance in architecture and education. The building is also a contributing resource to the NHL/NRHP-listed University of Virginia Historic District (VDHR #002-5161)	X		No Adverse Effect	Photos 3 & 4
002-5082	Carr's Hill/President's House, UVA, University Avenue	The house is a two-story, Georgian Revival dwelling constructed c. 1912. The dwelling was designed by the notable New York architectural firm of McKim, Mead, and White and features a hipped roof, monumental front portico with pediment, a porte-cochere off the west gable end of the dwelling, and sidelights and elliptical fan light over the front entry, among other notable architectural features. The resource was listed on the NRHP in 2008 under Criterion A and C for its significance in education and architecture. The dwelling is also considered a contributing resource to the Venable Neighborhood Historic District.	X		No Effect	Photos 5 & 6

VDHR #	Resource	Description	NRHP-Listed	NRHP-Eligible	Effect Assessment	Photo Reference
002-5161	University of Virginia Historic District	Construction of the University began following the laying of the cornerstone in 1817, the General Assembly officially chartered the school in 1819. Thomas Jefferson conceived the idea of the institution, he designed all of the original buildings and supervised their construction, selected the first faculty, drew up the ciriculum, and served as the first rector of the Board of Visitors. While the University represents a major achievement in the educational history of the country, its architectural concept and design was revolutionary. There are 109 contributing resources.	X (NHL)		No Adverse Effect	Photos 7 & 8
104-0018	Dinsmore House/Heiskell-McKennie House, 1211 West Main Street	The house, constructed c. 1826, is a two-and-a-half-story Federal style dwelling which features brick exterior walls laid in a Flemish bond pattern, four bays across the front façade, a entry portico with heavy wood Tuscan-style columns with pediment, sidelights, and ellipitical fan light. The annex constructed onto the in the mid-19th century, is a two-story, brick dwelling with three-bays and center entry with pedimented hood supported by ornate brackets. The resource was determined eligible for listing on the NRHP in 2009 for its architectural significance.		X	No Effect	Photos 9 & 10
104-0022	Barringer Mansion, 1404 Jefferson Park Avenue	The Barringer Mansion, constructed c. 1894, was built for Dr. Paul Brandon Barringer. At the time of the dwelling's construction Dr. Barringer was part of the faculty of the University of Virginia's Medical School. The dwelling was designed in the Queen Anne style and features brick exterior walls, corner turret with garland frieze, a large Jacobean-style brick chimney, and porte-cochere, which connects to the front porch. The resource was listed on the NRHP in 1982 for its significance in architecture, education, and science. The resource, according to the V-CRIS form, is associated with the NRHP-listed Charlottesville, Virginia Multiple Resource Area.	X		No Effect	Photos 11 & 12
104-0075	Charlottesville, Virginia Multiple Resource Area	The multiple resource area comprises approximately 10.4 square miles within the City of Charlottesville and includes a cross section of the City's historic time periods beginning in the 1760s. The resource area was listed in 1981 for its significance in architecture, commerse, industry, religion and transportation. The district comprises 83 structures throughout the city and two districts. The Multiple Resource Area is not mapped in VCRIS.	X		No Adverse Effect	See Photos 11-14 & 21-24

VDHR #	Resource	Description	NRHP-Listed	NRHP-Eligible	Effect Assessment	Photo Reference
104-0132	Anderson Brothers Bookstore, 1417 University Avenue	The Anderson Brothers Bookstore building, constructed c. 1848, is one of the largest surviving metal façade buildings in Charlottesville. The building is three stories with seven bays with brick exterior walls in a six-course American bond pattern. The building also features a plain frieze, projecting cornice with ornate modillions and stylized floral bands. Pilasters with tall plinths and Corinthian capitals adorn the second and third floors. The building was listed on the NRHP in 1982 as part of the NRHP-listed Charlottesville, Virginia Multiple Resource Area.	X		No Adverse Effect	Photos 13 & 14
104-0133	Venable Neighborhood Historic District/Rugby Road – University Corner Historic District	The Venable Neighborhood Historic District comprises approximately 84 acres north of the University of Virginia. The buildings within the district include mainly residential, commercial, and institutional buildings associated with the university prior to WWII. Most were constructed between 1890 and 1930 during the University's rapid expansion. The district was listed on the NHRP in 1984 for its significance in architecture, education, and commerse with a period of significance from 1890 to 1940.	X		No Adverse Effect	Photos 15-18
104-0136	Wertland Street Historic District	The Wertland Street Historic District comprises approximately 47 acres of a residential area to the northeast of the University of Virginia. Architectural styles include mainly turn of the twentieth century Queen Anne and Colonial Revivial frame and brick dwellings. The oldest house located within the district is the 1830 Wertenbaker House. Wertenbaker was appointed librarian to the University of Virginia by Thomas Jefferson. The district was listed on the NRHP in 1985 for its significance in education and architecture.	X		No Effect	Photos 19 & 20
104-0234	Turner-LaRowe House, 1 University Court	The Turner-LaRowe House was constructed on a five-acre parcel allotted to Mary Turner as her widow's dower in 1890. The house, built in 1892, the dwelling features brick exterior walls, a hipped roof clad in standing seam metal, a projecting two-story bay window on the front façade, and a full-width, five-bay front porch with hipped roof and Tuscan-style wood columns. The house was converted into sorority housing in 1983. The house was listed on the NRHP in 1983 as part of the NRHP-listed Charlottesville, Virginia Multiple Resource Area.	X		No Effect	Photos 21 & 22

VDHR #	Resource	Description	NRHP-Listed	NRHP-Eligible	Effect Assessment	Photo Reference
104-0248	King-Runkle House	The King-Runkle House, constructed c. 1891, is a two-story, Victorian (Queen Anne) style dwelling set on a narrow lot. The exterior walls are clad in weatherboards with decorative wood shingles in the gable ends. A one-story shed-roofed entry porch, located on the southwest side of the building features a turned wood post, ornate brackets, and spindlework. Other features include Queen Anne-style windows with square stained glass lights, a projecting shed-roofed window and decorative scroll work in the front roof gable. The house was listed on the NRHP in 1983 as part of the NRHP-listed Charlottesville, Virginia Multiple Resource Area.	X		No Effect	Photos 23 & 24
104-0252	George Rogers Clark Statue, University Avenue	The statue, erected in 1921, was designed by the Gorham Company of New York. The bronze statue with granite base depicts Clark, of Lewis and Clark fame, on a horse with three members of his expedition party behind and three Native Americans in front. One of the Native Americans, a chief. The statue was listed on the NRHP in 1997 under Criterion C for its significance in art.	X		No Effect	Photos 25 & 26
104-0397	McConnell-Neve House, 228 Fourteenth Street	Demolished	X		N/A	Photo 27
104-5091	Four Monumental Figurative Outdoor Sculptures, Main Street	The four sculptures were donated by Paul Goodloe McIntire c. 1919 and include the NRHP-listed statue of George Rogers Clark (VDHR #104-0252), the Meriwether Lewis and William Clark Sculpture (VDHR #104-0273), the Thomas Jonathan Jackson Sculpture (VDHR #104-0251), and the Robert Edward Lee Scupture (VDHR #104-0264). The National Park Service accepted the nomination for this resource in 1997; however, the resource has not been officially listed.		X	No Effect	Photos 25 & 26

Photo 1. View of Rotunda (VDHR #002-5055), Looking Southwest.

Photo 2. View to Proposed Small Cell Antenna Site from the Rotunda (VDHR #002-5055), Looking East (Not Visible).

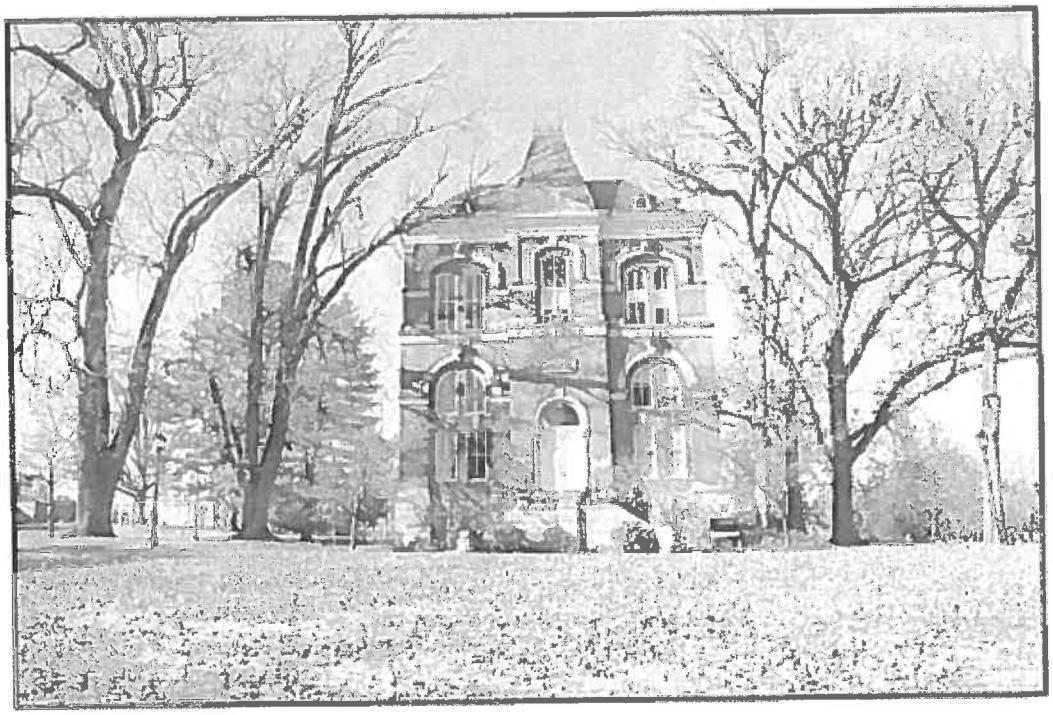


Photo 3. View of Lewis Brook Hall of Natural History (VDHR #002-5056), Looking West.

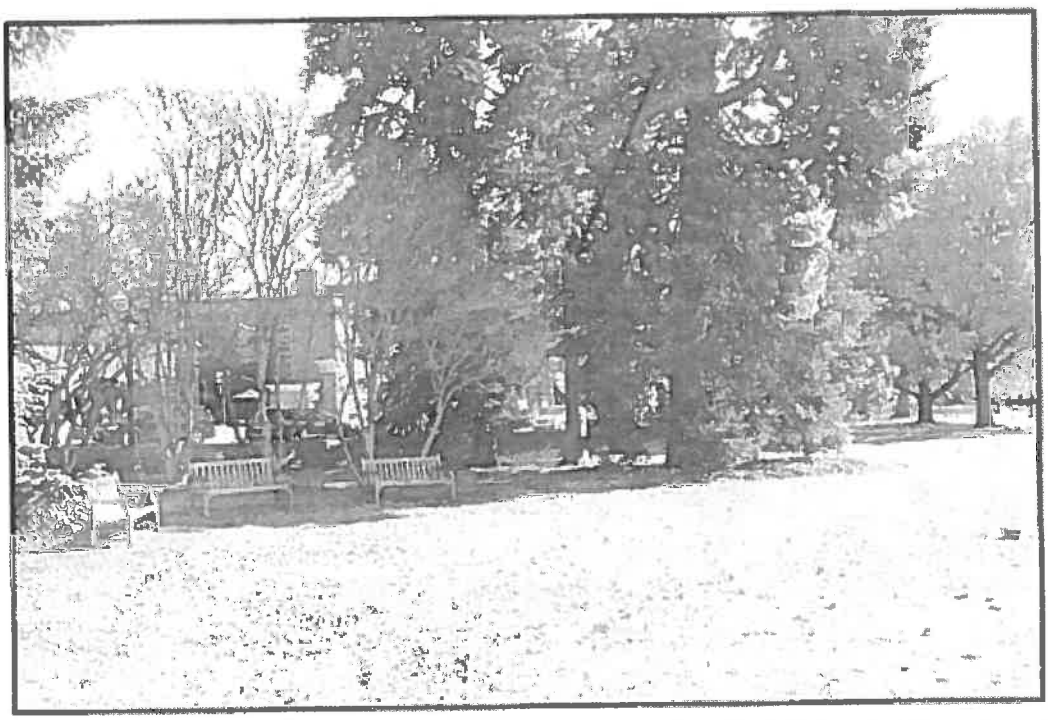


Photo 4. View to Proposed Small Cell Antenna Site from Lewis Brook Hall of Natural History (VDHR #002-5056), Looking East (Visible).

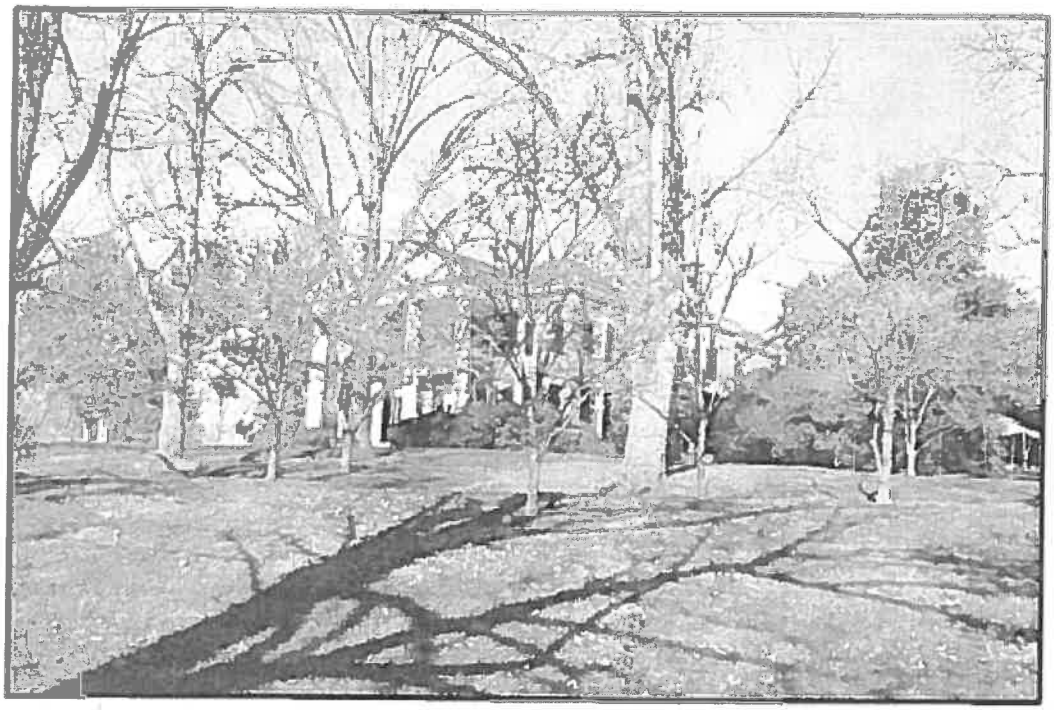


Photo 5. View of Carr's Hill/President's House (VDHR #002-5082), Looking Northwest.

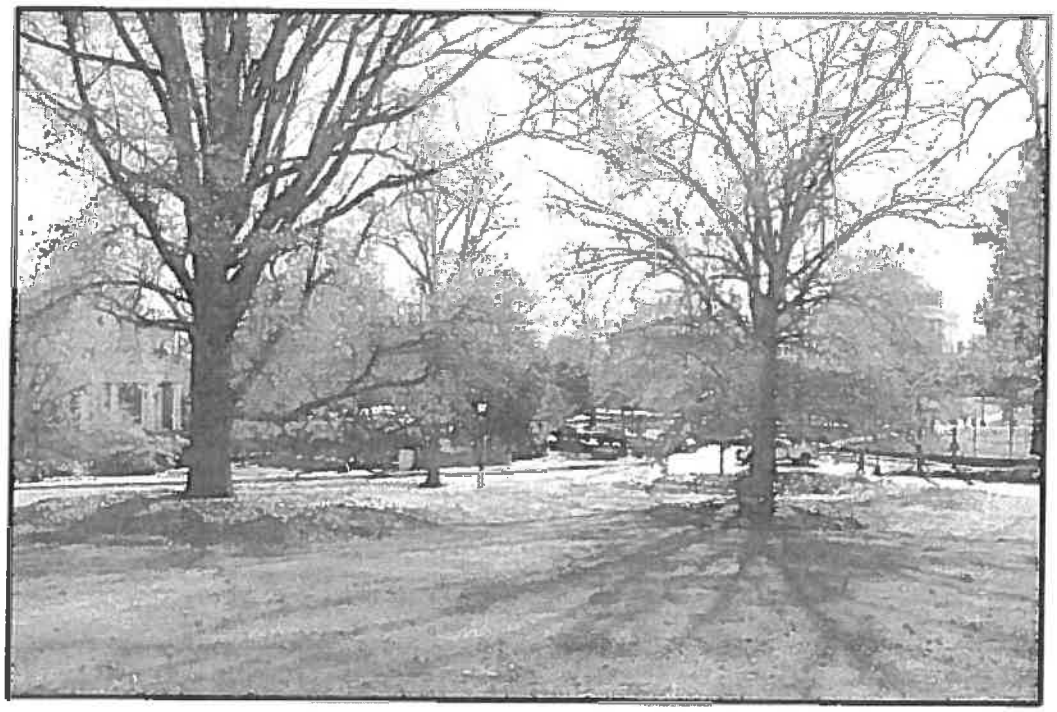


Photo 6. View to Proposed Small Cell Antenna Site from Carr's Hill/President's House (VDHR #002-5082), Looking Southeast (Not Visible).

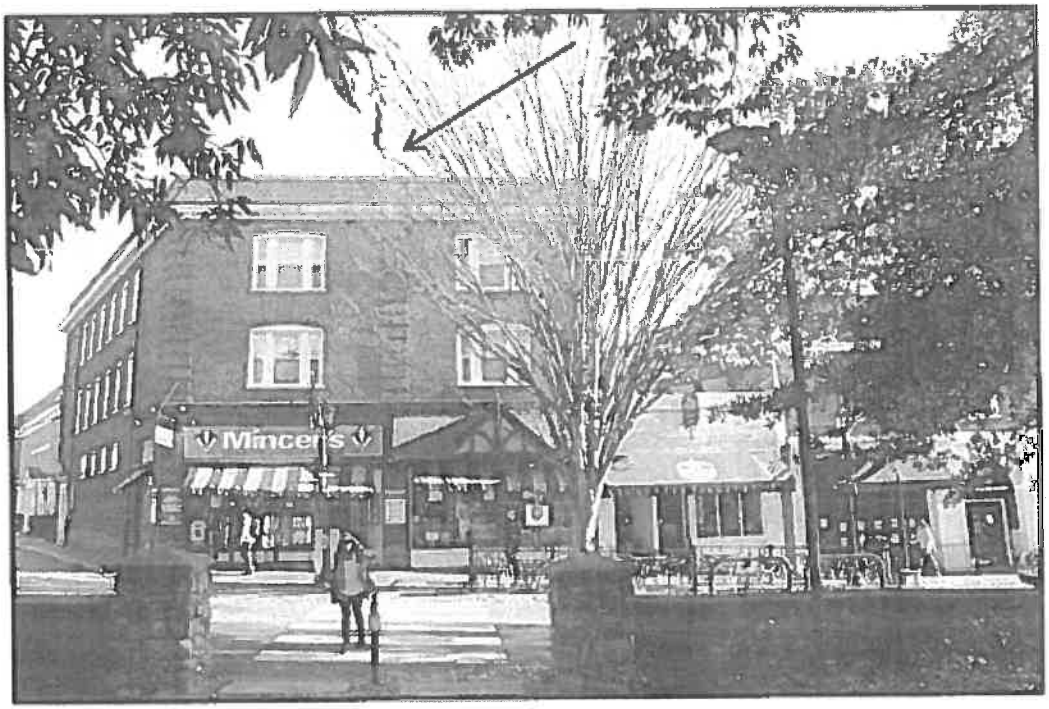


Photo 7. View to Proposed Small Cell Antenna Site from the University of Virginia Historic District (VDHR #002-5161), Looking Northeast (Visible).

Photo 8. View to Proposed Small Cell Antenna Site from the University of Virginia Historic District (VDHR #002-5161), Looking Northeast (Visible).

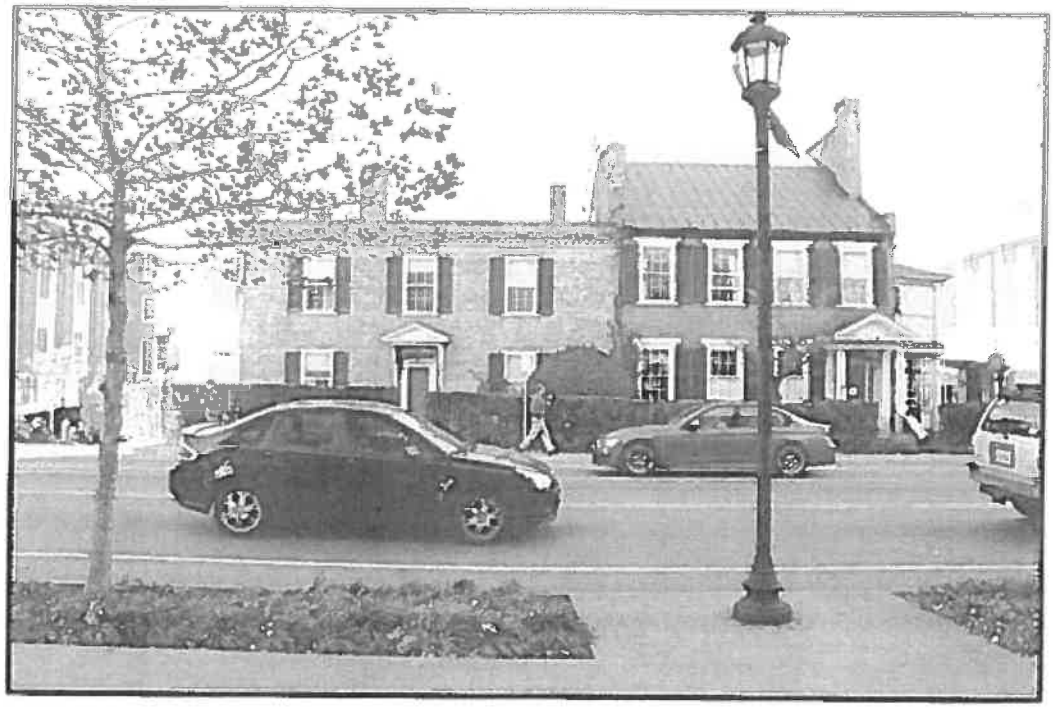


Photo 9. View of Dinsmore House/Heiskell-McKennie House (VDHR #104-0018), Looking Northeast.

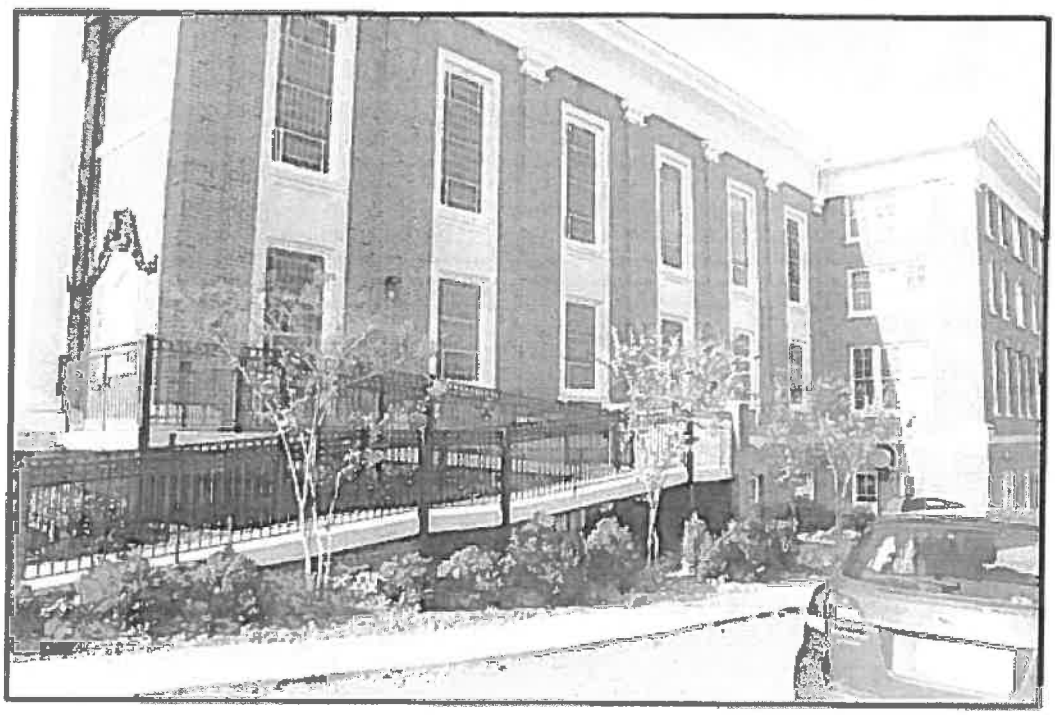


Photo 10. View to Proposed Small Cell Antenna Site from the Dinsmore House/Heiskell-McKennie House (VDHR #104-0018), Looking Northwest (Not Visible).

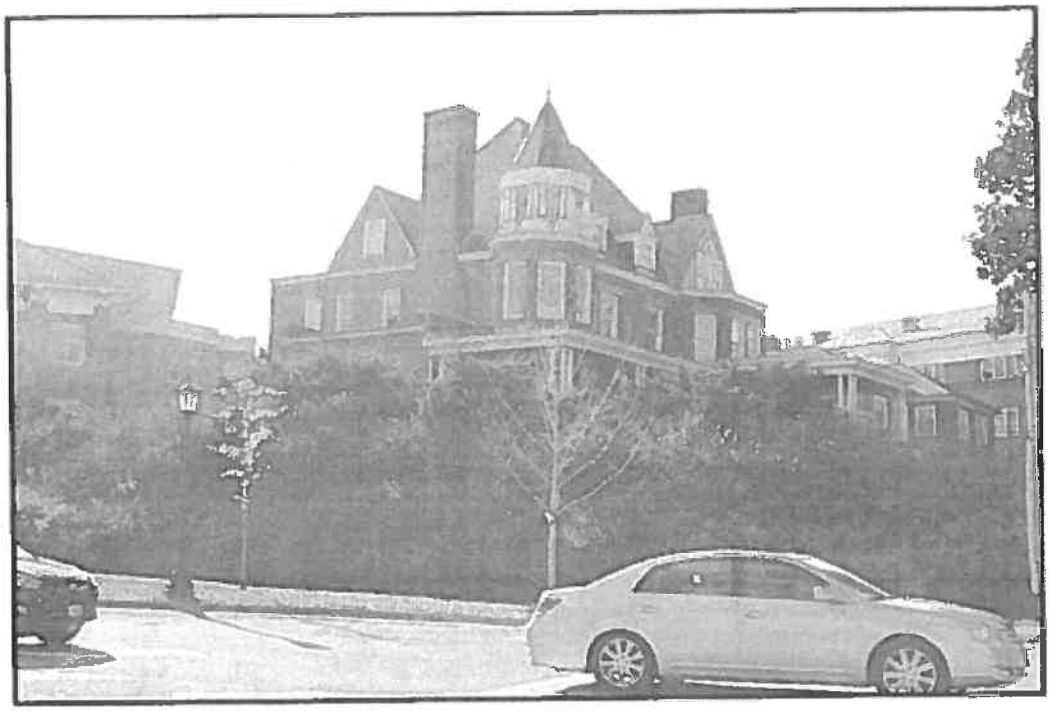


Photo 11. View of Barringer Mansion (VDHR #104-0022), Looking Southwest.

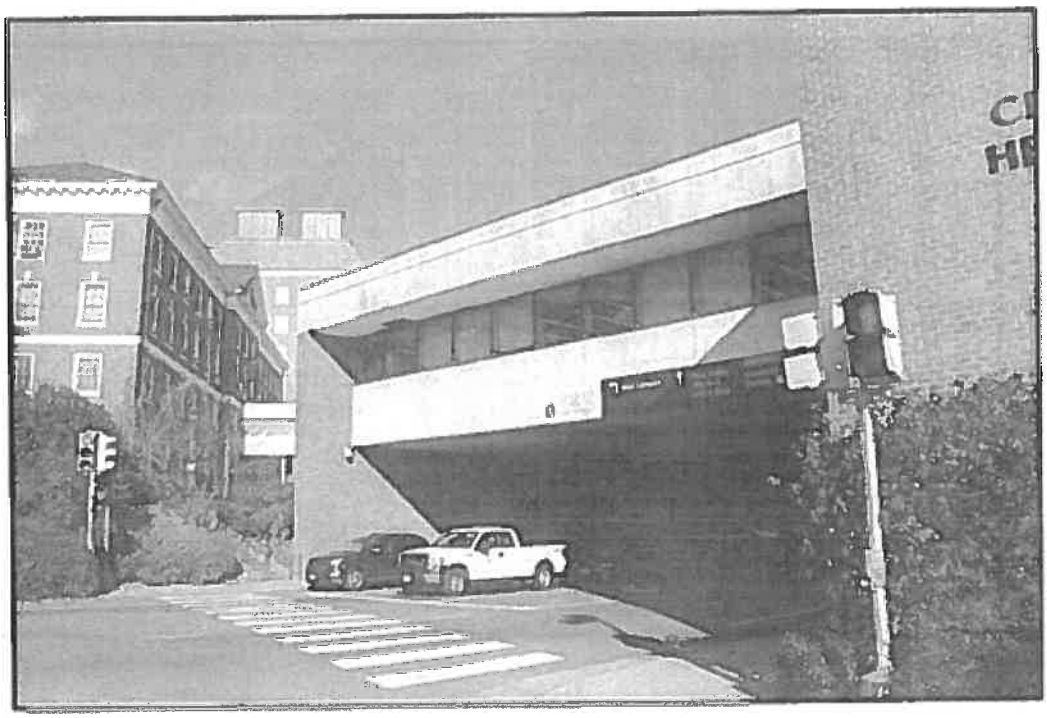


Photo 12. View to Proposed Small Cell Antenna Site from the Barringer Mansion (VDHR #104-0022), Looking Northeast (Not Visible).

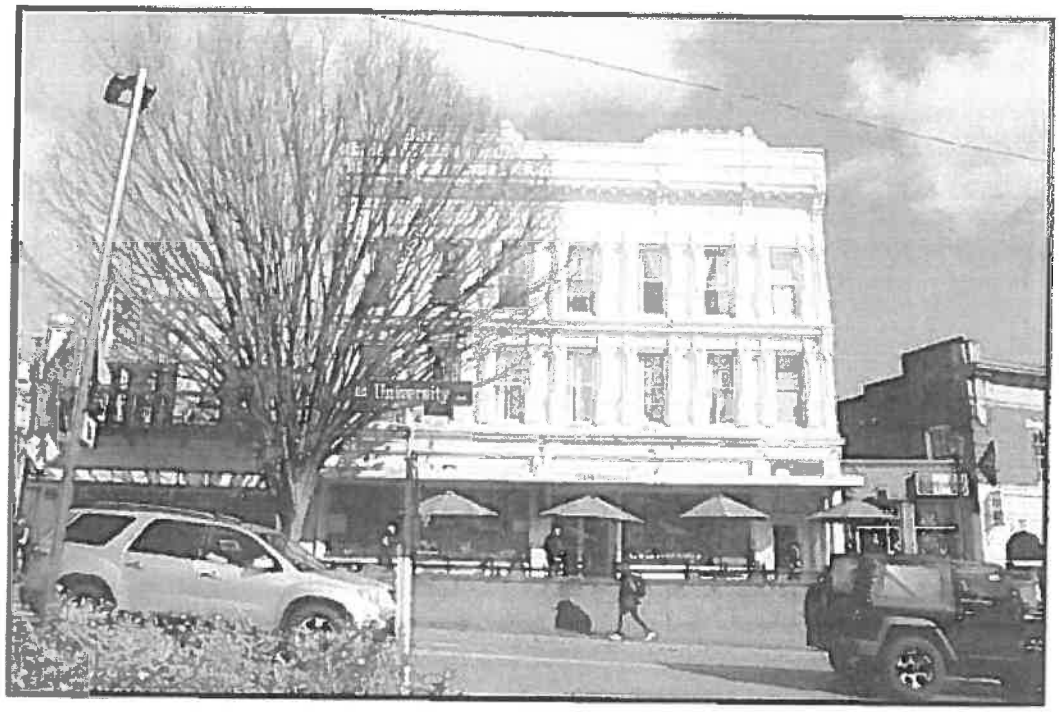


Photo 13. View of Anderson Brothers Bookstore (VDHR #104-0132), Looking Northeast.

Photo 14. View to Proposed Small Cell Antenna Site from the Anderson Brothers Bookstore (VDHR #104-0132), Looking Northwest (Visible).

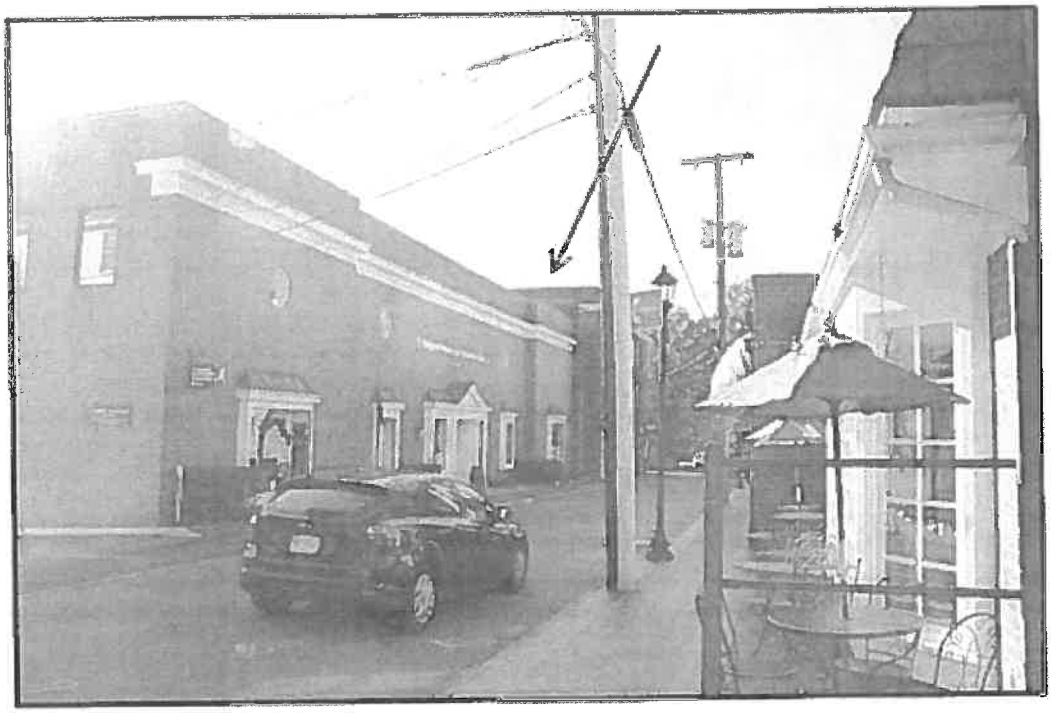


Photo 15. View to Proposed Small Cell Antenna Site from the Venable Neighborhood Historic District (VDHR #104-0133) from Elliwood Avenue, Looking Northeast (Visible).

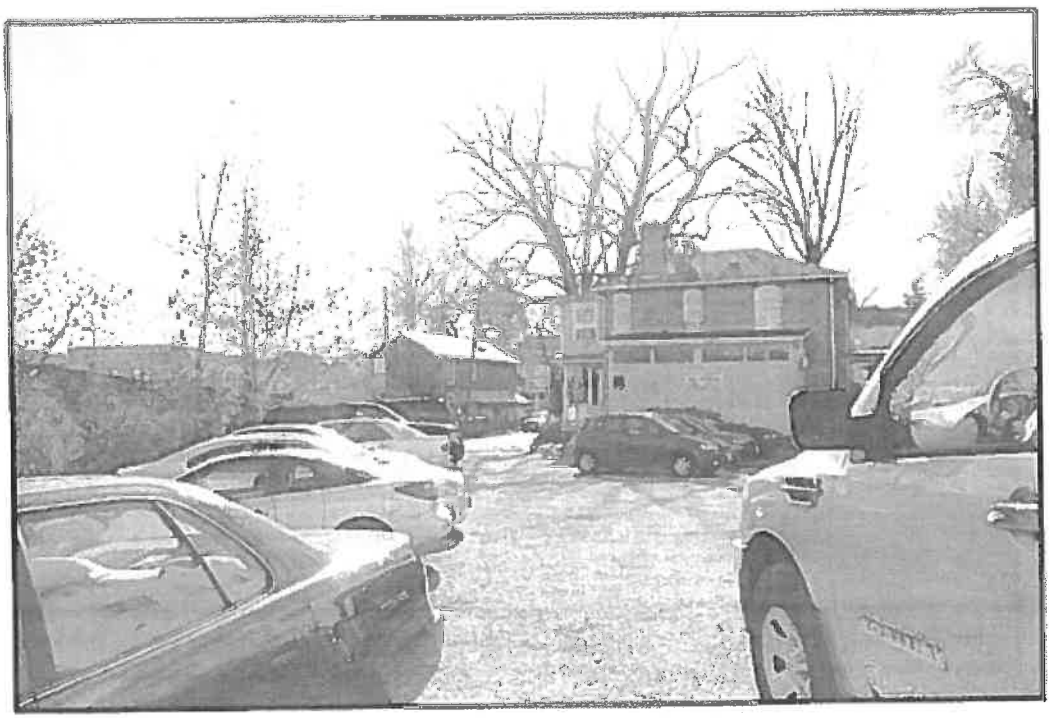


Photo 16. View to Proposed Small Cell Antenna Site from the Venable Neighborhood Historic District (VDHR #104-0133) from Elliwood Avenue, Looking Southwest (Not Visible).

Photo 17. View to Proposed Small Cell Antenna Site from the Venable Neighborhood Historic District (VDHR #104-0133) from the Intersection of Rugby Road and Carr's Hill Road, Looking Northeast (Not Visible).

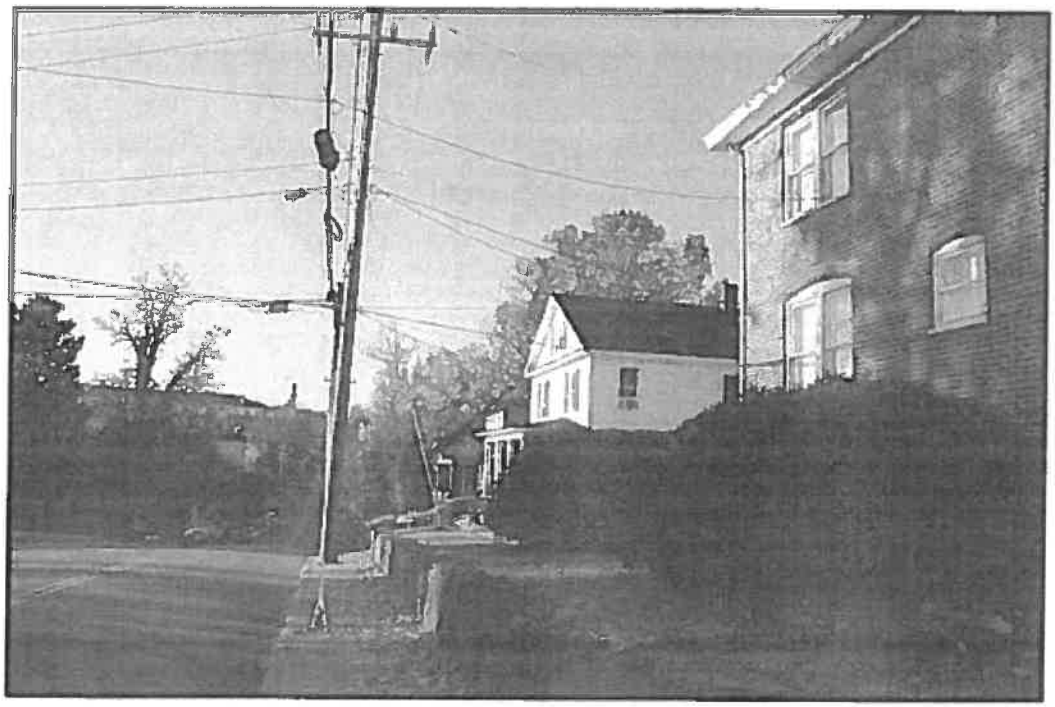


Photo 18. View to Proposed Small Cell Antenna Site from the Venable Neighborhood Historic District (VDHR #104-0133) along 14th Street NW North of John Street, Looking Southwest (Not Visible).

Photo 19. View to Proposed Small Cell Antenna Site from the Wertland Street Historic District (VDHR #104-0136) within Apartment Complex off Wertland Street, Looking Southwest (Not Visible).

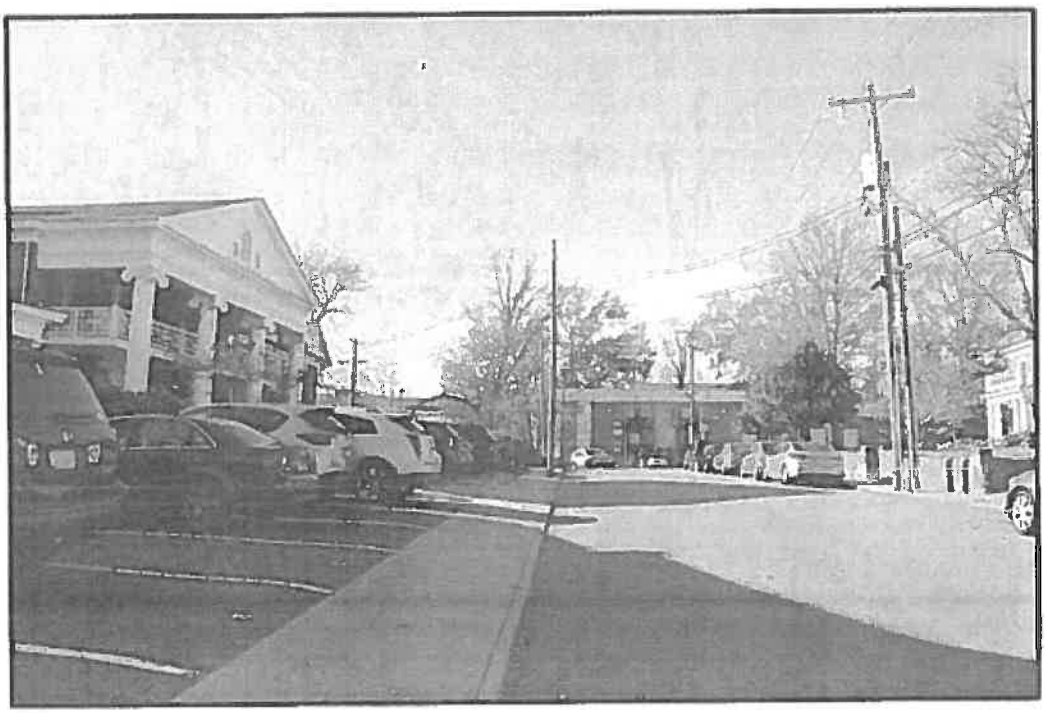


Photo 20. View to Proposed Small Cell Antenna Site from the Wertland Street Historic District (VDHR #104-0136) from Intersection of Wertland Street and 12th Street NW, Looking West (Not Visible).

Photo 21. View of Turner-LaRowe House (VDHR #104-0234), Looking East.

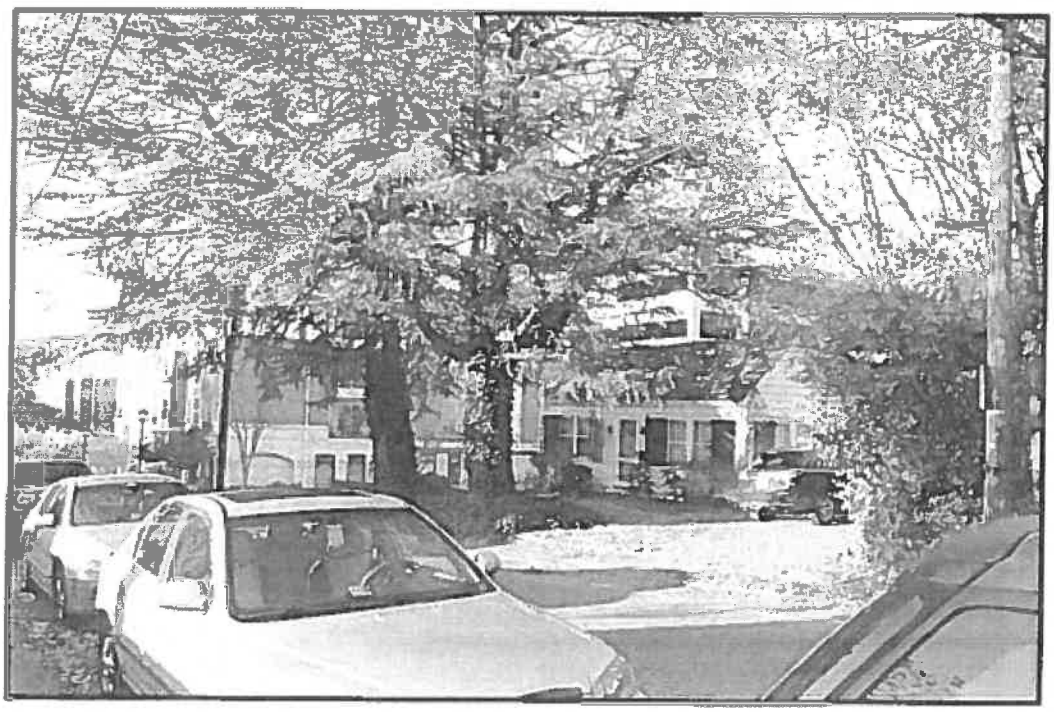


Photo 22. View to Proposed Small Cell Antenna Site from Turner-LaRowe House (VDHR #104-0234), Looking Southwest (Not Visible).

Photo 23. View of King-Runkle House (VDHR #104-0248), Looking West.

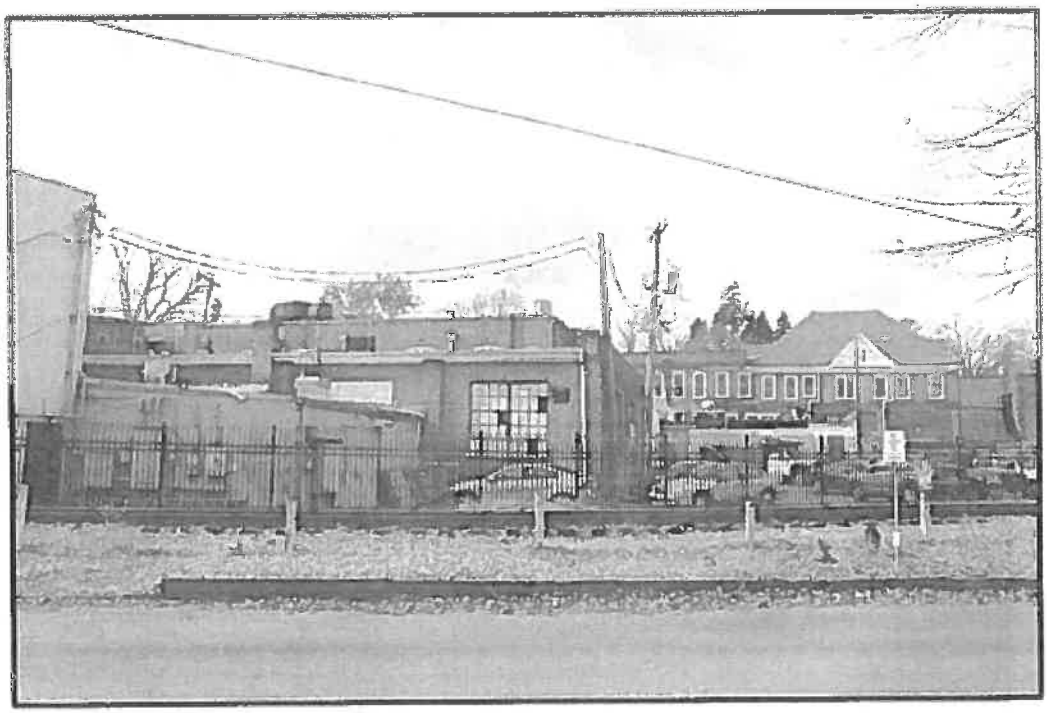


Photo 24. View to Proposed Small Cell Antenna Site from the King-Runkle House (VDHR #104-0248), Looking Northwest (Not Visible).

Photo 25. View of George Rogers Clark Statue (VDHR #104-0252 and #104-5091), Looking Southwest.

Photo 26. View to Proposed Small Cell Antenna Site from the George Rogers Clark Statue (VDHR #104-0252 and #104-5091), Looking Northwest (Not Visible).

Photo 27. View of Modern Apartment Building, Former Location of McConnell-Neve House (VDHR #104-0397), Looking Souteast (Resource as Plotted in VCRIS Appears to have been Demolished).

EXHIBIT B

CITY OF CHARLOTTESVILLE
"A World Class City"

Neighborhood Development Services

610 East Market Street
Charlottesville, VA 22902
Telephone 434-970-3182
Fax 434-970-3359

April 7,, 2017

Verizon
c/o Stephen Weller
8159 Cancun Court
Gainesville, VA 20155

Re: 1521 University Avenue (TMP: 090082000) ("Subject Property")

The purpose of this letter is to address Zoning Verification request that was submitted to my office on February 3, 2017. An attached communication facility is being proposed to be placed at the property located at 1521 University Avenue. It will not be visible for an adjacent street, so it is permitted as a by-right use in the Corner District (CD). The Subject Property is also located within the Corner District Architectural Design Control District (ADC). Per section 34-1080(b) of the Zoning Ordinance, concealment is required in a ADC district and a Certificate of Appropriateness (COA) is required for the addition of a concealment feature.

An application to the Board of Architectural Review (BAR) was submitted to the concealment structure on March 10, 2017. The BAR will hear this application at the April 18, 2017 meeting.

Sincerely,

Read Brodhead
Zoning Administrator

EXHIBIT C


duo
duo

EXHIBIT D

EXHIBIT E


Boots
Bagels


Outsider Visual Art


COHN'S
on the
CORNER
24 HOUR
FOOD STORE

EXHIBIT F

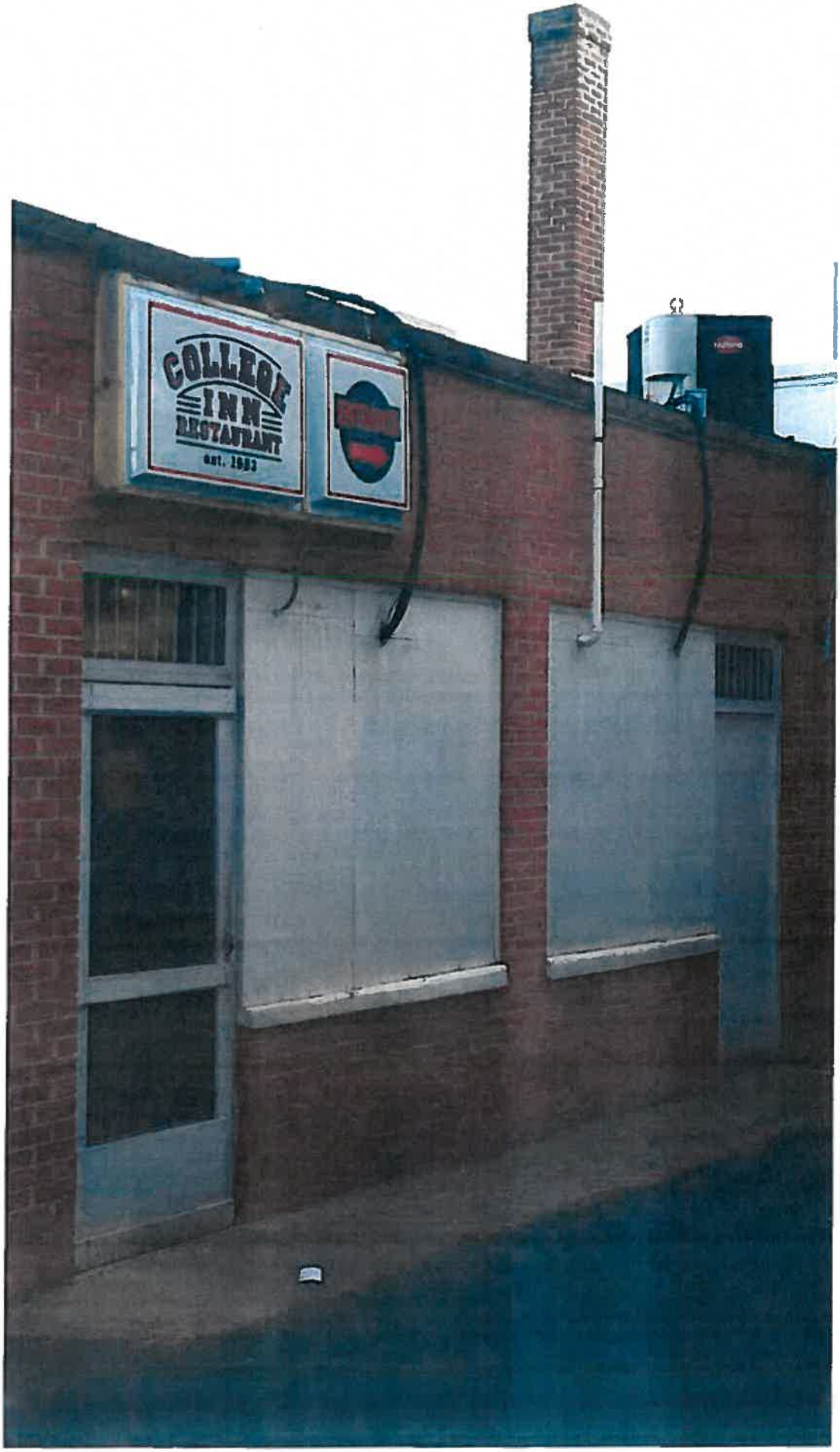
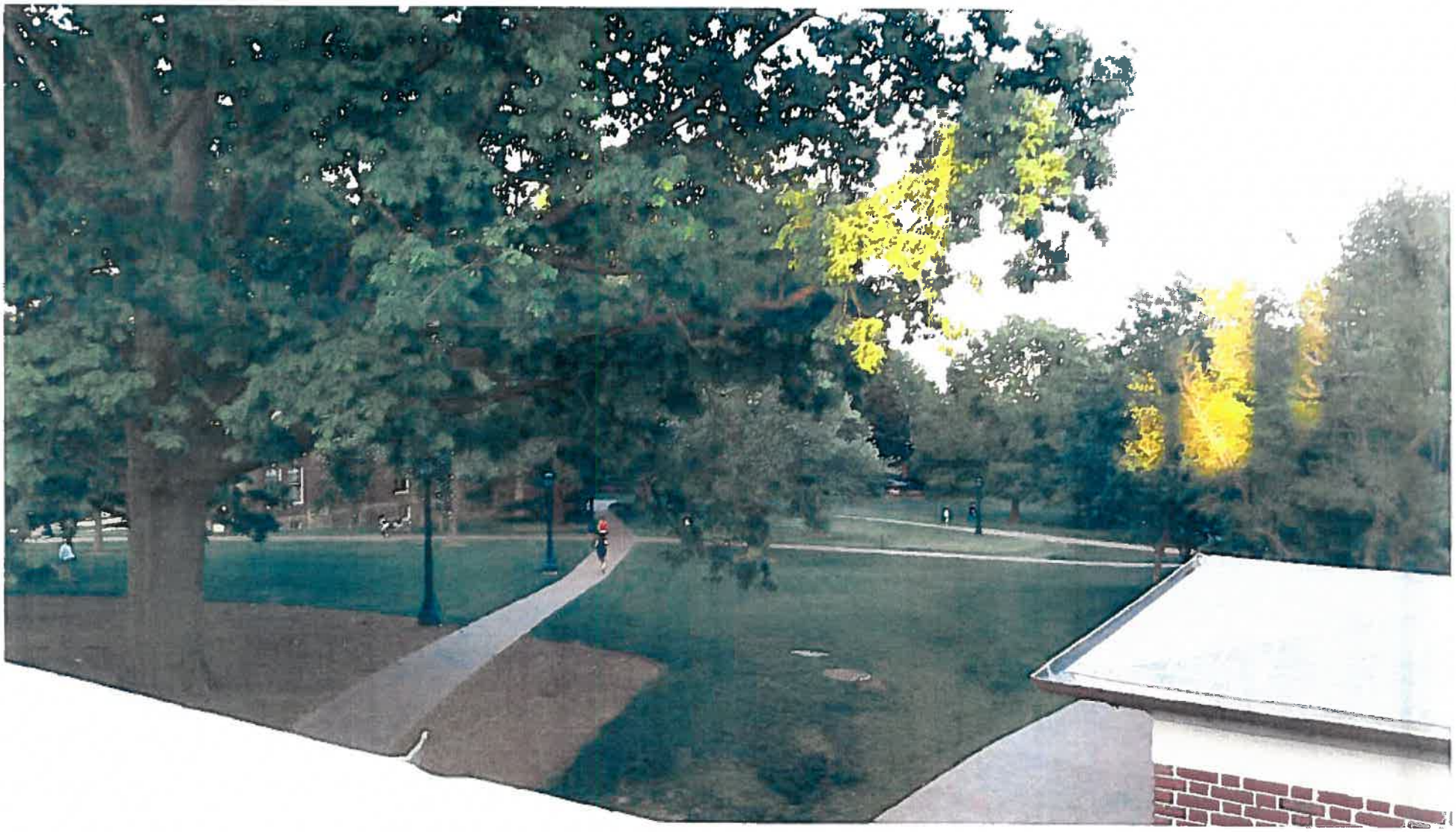

COLLEGE
INN
RESTAURANT
est. 1983

EXHIBIT G



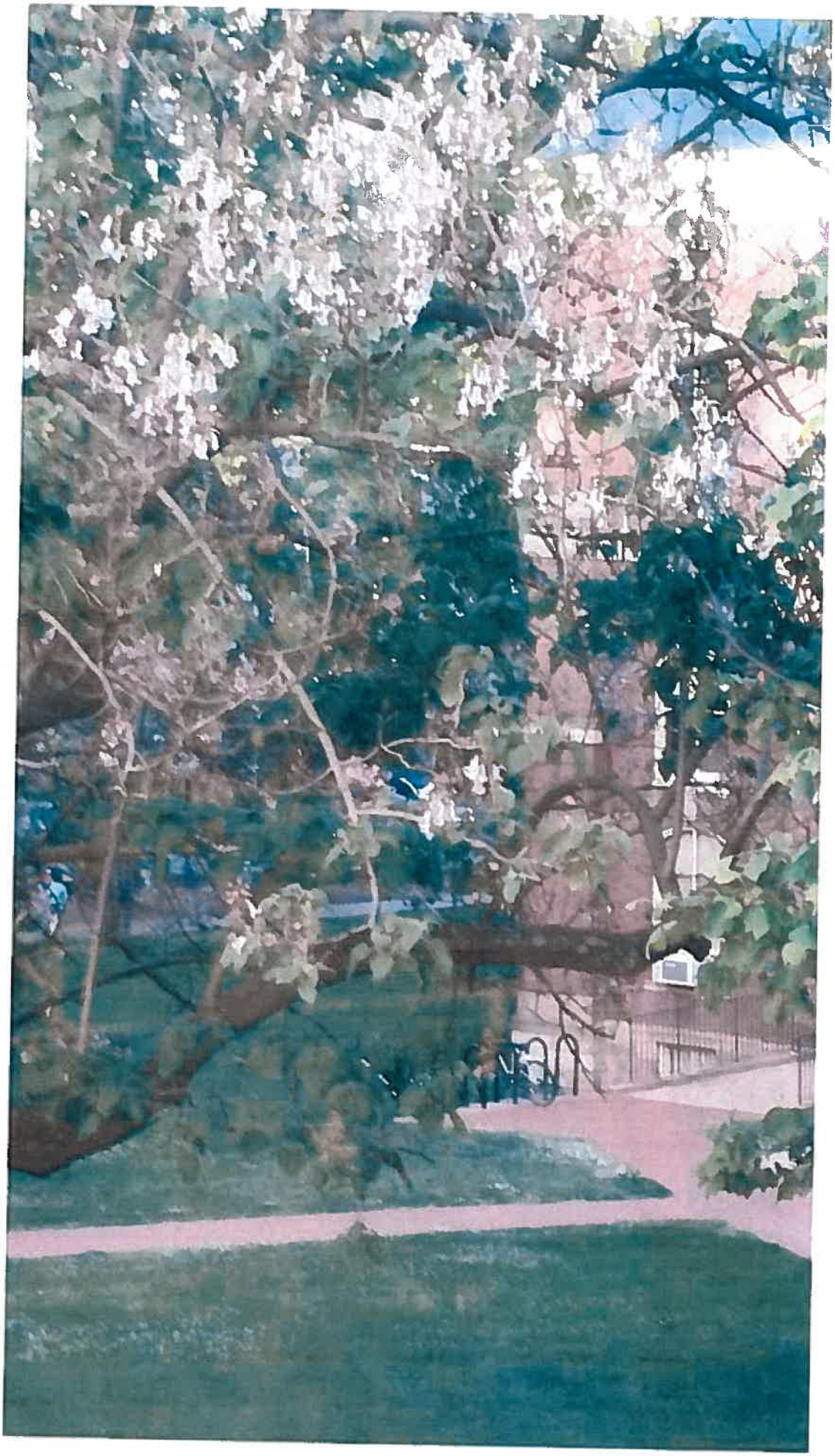


EXHIBIT H

Stantec
1049 Technology Park Drive
Glen Allen, VA 23059
(804) 355-7200
(804) 355-1590 (Fax)

December 13, 2016
File: 203400673 Task 242

Mr. Andrew Hendricks, P.G.
Geo-Technology Associates, Inc.
43760 Trade Center Place, Suite 110
Sterling, Virginia 20166

RE: Determination of Visual Effects for the Charlottesville Small Cell Installation Located at 1521 University Avenue (UVA MC N010), Charlottesville, Virginia

Dear Mr. Hendricks:

The report that follows presents the results of the visual effects survey for the Verizon Wireless (Verizon) small cell site located at 1521 University Avenue (UVA MC N010), Charlottesville, Virginia (Figures 1-5). The site visit was conducted by Tracey MacDonald and the report reviewed by Ellen M. Brady, Senior Principal Investigator, and Sandra DeChard, Senior Architectural Historian, on behalf of Geo-Technology Associates Inc. (GTA) on December 5, 2016.

The investigations were conducted with reference to state (*Guidelines For Conducting Cultural Resource Survey in Virginia: Additional Guidance for the Implementation of the Federal Standards Entitled Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* (48 FR 44742, September 29, 1983 [Virginia Department of Historic Resources (VDHR) 2001]) and federal guidelines (*Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation* [United States Department of the Interior (USDI) 1983]) for conducting cultural resources investigations as well as in accordance with the *Nationwide Programmatic Agreement Regarding the Section 106 National Historic Preservation Act Review Process* (NPA) effective March 7, 2005.

AREA OF POTENTIAL EFFECT

The Area of Potential Effect (APE) for indirect visual effects for UVA MC N010, as determined by the NPA, and in consultation with the VDHR, was 0.25 miles. This survey was designed to assess visual effects to the National Register of Historic Places (NRHP)-eligible or listed resources within the APE.

The APE for direct effects to the building by the proposed small cell antenna project is limited to the structure area where the antenna and associated equipment will be installed.

PROJECT DESCRIPTION

Verizon proposes to install a small cell antenna and associated equipment on roof top of the three-story building near the roof's center. The antenna will be stealthed within a newly constructed false brick chimney and will be installed on a non-penetrating sled mount. The radio head and the equipment will be mounted on the southeastern side of the building just below the roof line of the adjacent one-story building. The radio head and the equipment will not extend

above the parapet wall and will not be visible from the street. The antenna and false chimney will extend approximately 4 feet above the edge of the parapet (Figures 3-5).

PROJECT LOCATION

Charlottesville N010
1521 University Avenue

The building, located at 1521 University Avenue, is located at the corner of University Avenue and Elliewood Avenue. The three-story, brick building was constructed c. 1900 and features retail space on the first floor and residential space on the second and third (Figure 1). The building also features brick quoins, a modillioned cornice, elliptical arched windows, and a parapet roof. The windows are vinyl replacement sashes. The building has not been individually surveyed; however, is located within the Venable Neighborhood Historic District (VDHR #104-0133).

The area immediately surrounding 1521 University Avenue consists of poured concrete sidewalks on the southwest and northwest along the building. A small one-story brick commercial building is located immediately adjacent to the southeast elevation of the building with a more modern building immediately behind. The building is within a commercial area of Charlottesville with a park area belonging to the University of Virginia across the street (Figure 2 and 6-9).

Figure 1. 1521 University Avenue, Charlottesville, Virginia.

RESULTS OF BACKGROUND RESEARCH

Background research for the project involved a review of the VDHR's Virginia Cultural Resources Information System (V-CRIS) database. This review was conducted in order to determine whether

any architectural resources, including historic districts, located within the APE of the small cell site have been listed or are eligible for listing on the NRHP. According to V-CRIS, three NRHP-listed or eligible historic districts and 11 individually listed or eligible resources are located within the 0.25-mile APE of the proposed UVA MC N010 small cell site. In addition, the NRHP-listed Charlottesville, Virginia Multiple Resource Area is located within the APE, although the boundaries of the Area are not currently mapped in VCRIS (Table 1; Figure 10).

The three NRHP-listed architectural resources located within the 0.25-mile APE of the UVA MC N010 cellular site include parts the University of Virginia Historic District (VDHR #002-5161), the Venable Neighborhood Historic District (VDHR #104-0133), and the Wertland Street Historic District (VDHR #104-0136) (Table 1; Figure 10). The 11 individual resources include the Rotunda (VDHR #002-5055), the Lewis Brook Hall of Natural History (VDHR #002-5056), and the Carr's Hill/President's House (VDHR #002-5082), located within the University of Virginia Historic District; the Anderson Brothers Bookstore (VDHR #104-0132, the Turner-LaRowe House (VDHR #104-0234), the King-Runkle House, and the McConnell-Neve House (VDHR #104-0397; Demolished), located within the Venable Neighborhood Historic District; and the Dinsmore Hous/Heiskell-McKennie House (VDHR #104-0018), the Barringer Mansion (VDHR #104-0022), and the George Rogers Clark Statue and Four Monumental Figurative Outdoor Statues, which includes the Clark Statue (VDHR #104-0252 and #104-5091).

DIRECT EFFECTS EVALUATION

Since the building is over 45 years of age, direct effects consideration is required. The antenna will be mounted on the roof top and stealthed within a newly constructed false brick chimney. The antenna itself will be installed on a non-penetrating sled mount. The radio head and the associated equipment will be mounted on the southeastern side of the building just below the roof line of the adjacent one-story building. The historic fabric of the building will be minimally impacted only on the parapet wall where the radio head and associated equipment will be attached.

INDIRECT EFFECTS EVALUATION

The purpose of the indirect effects investigation is to determine if any of the NRHP-eligible or listed resources under consideration within the APE will view the proposed small cell installation. The survey was undertaken to ensure compliance with the NPA and with Section 106 of the National Historic Preservation Act (as amended). Since listed and eligible resources were located within the APE, an indirect visual effects study was conducted for each resource (Table1; Figure 11; Photos 1-27). The study included photographing the individual resources and their views towards the small cell site to evaluate the visual impact of the undertaking on the historic resources within the defined APE. In the case of historic districts only views from points within the historic district towards the small cell site were taken as these photographs already capture resources within the district.

The proposed small cell antenna will be mounted on a non-penetrating sled mount within a false chimney, which will extend 4 feet above the edge of the parapet. As such the proposed antenna had the potential to be viewed from the surrounding NRHP-listed or eligible historic districts or NRHP individually listed resources within the APE. However, due to the existing building stock surrounding the node site, the distance of the NRHP-listed or eligible resources from the proposed node location, and changes in landscape, only in areas within the Venable Neighborhood Historic District and University of Virginia Historic District immediately surrounding the building viewed the building and/or the proposed location of the UVA MC N010 small cell antenna. Two individual resources within the district, the Lewis Brook Hall of Natural History and the Anderson Brothers

Bookstore viewed the proposed small cell location. The proposed antenna location and the building were not visible from any other survey point within the 0.25-mile APE from the resources within the APE under consideration.

CONCLUSION

The UVA MC N010 collocation site, located 1521 University Avenue, Charlottesville, meets the age requirement for direct effects evaluation as the building meets the age criteria of 45 year or older. The antenna will be mounted on a non-penetrating sled mount within a false chimney, which will extend 4 feet above the edge of the parapet. The associated equipment will be installed on the southeast wall of the building below the roof line of the adjacent building (see Figures 3-5). The historic fabric of the building will be minimally impacted only on the southeast wall where the antenna and associated equipment will be attached. The building; however, has not been formerly surveyed and therefore not individually evaluated for eligibility for listing on the NRHP by DHR. In addition, it is unlikely that the building would be considered eligible for listing on the NRHP as evaluated by Criteria A, B, C, and D. According to the NPA, since the subject building itself has not been individually evaluated for eligibility for listing on the NRHP there are no historic properties within the direct effects APE.

The building is also located within the NRHP-listed Venable Neighborhood Historic District. Based on information gathered at the site and the proposed location of the small cell antennas on the roof it appears that the proposed antennas and associated equipment will not impact the Rotunda (VDHR #002-5055), Carr's Hill/President's House (VDHR #104-5082), the Dinsmore House/Heiskell-McKennie House (VDHR #104-0018), the Barringer Mansion (VDHR #104-0022), the Wertland Street Historic District (VDHR #104-0136), the Turner-LaRowe House (VDHR #104-0234),the King-Runkle House (VDHR #104-0248), the George Rogers Clark Statue (VDHR #104-0252), the McConnell-Neve House (VDHR #104-0397; Demolished), and the Four Monumental Figurative Outdoor Sculptures (VDHR #104-5091). The building and/or the proposed antenna location was not visible from any of the points of survey from these NRHP-listed or eligible resources due to distance, changes in elevation, and the existing built environment, which shields the view of the proposed antenna installation site from the historic resources within the 0.25-mile APE. The building and/or proposed antenna location was visible from the Lewis Brook Hall of Natural History (VDHR #002-5056), the University of Virginia Historic District (VDHR #002-5161), the Anderson Brothers Bookstore (VDHR #104-0132), and the Venable Neighborhood Historic District (VDHR #104-0133) (Photos 4, 7, 8, 14, and 15). Since the proposed location of the small cell was viewed from the Anderson Brothers Bookstore, it was also viewed from the Charlottesville, Virginia Multiple Resource Area as the resouce is individually listed under the Area nomination. However, since the antenna will be stealthed within a false chimney and due to the small size of the antenna and the limited visibility of the proposed installation it is recommended that the proposed 1521 University Avenue UVA MC N010 collocation site will have **No Adverse Effect** to resources within the APE for visual effects.

Sincerely,

Ellen M. Brady
Senior Principal Investigator

Sandra DeChard
Senior Architectural Historian

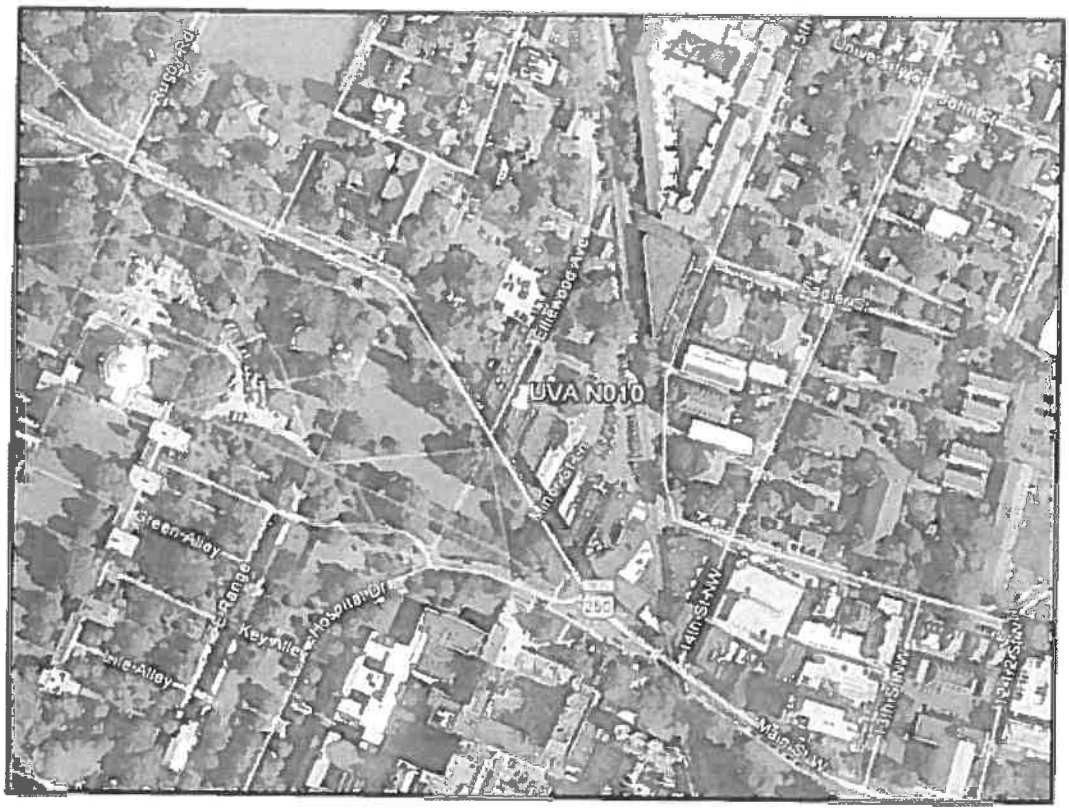


Figure 2. Location of 1521 University Avenue.

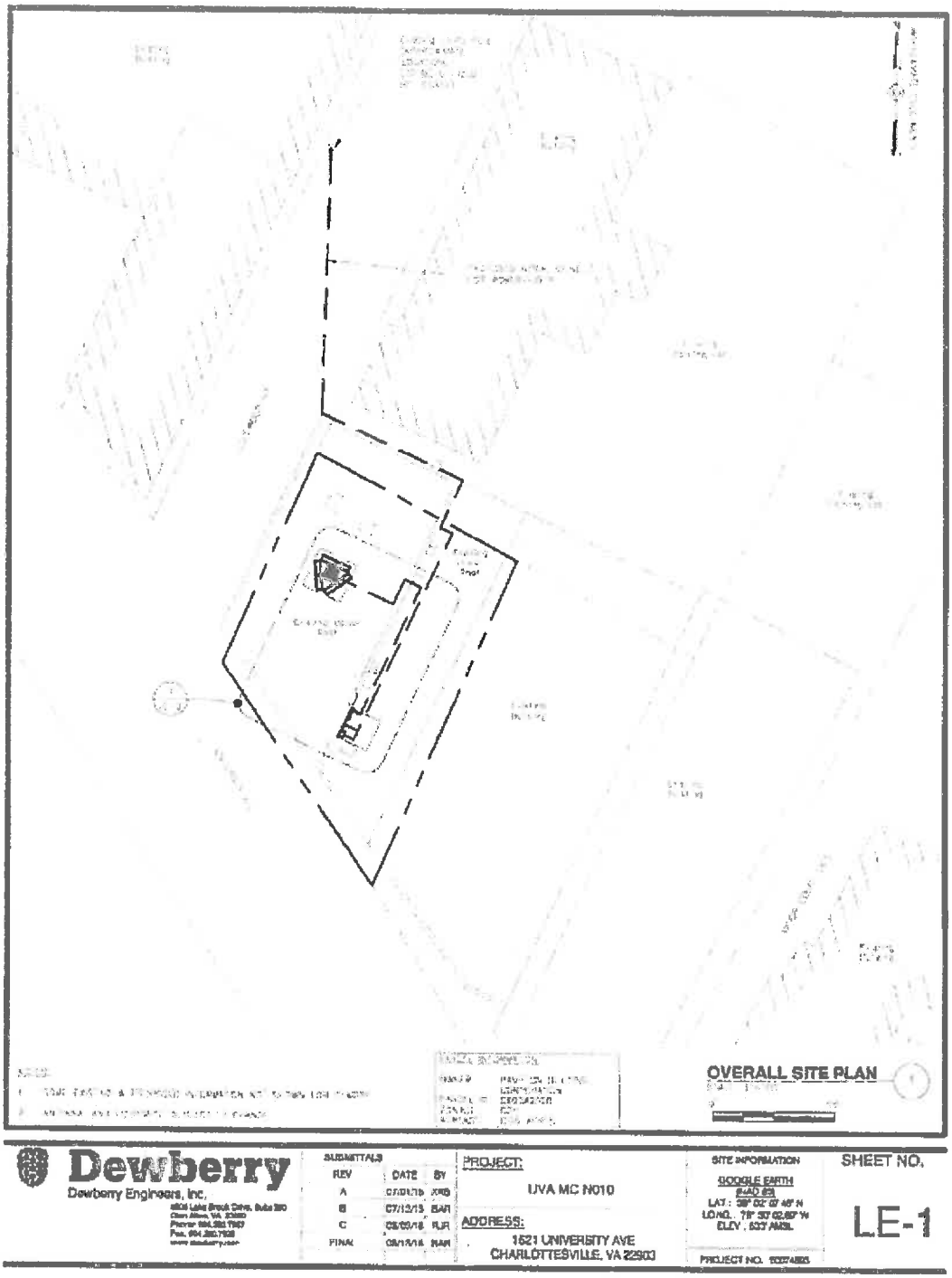


Figure 3. Site Plan of 1521 University Avenue Collocation Site (UVA MC N010), Charlottesville, Virginia.

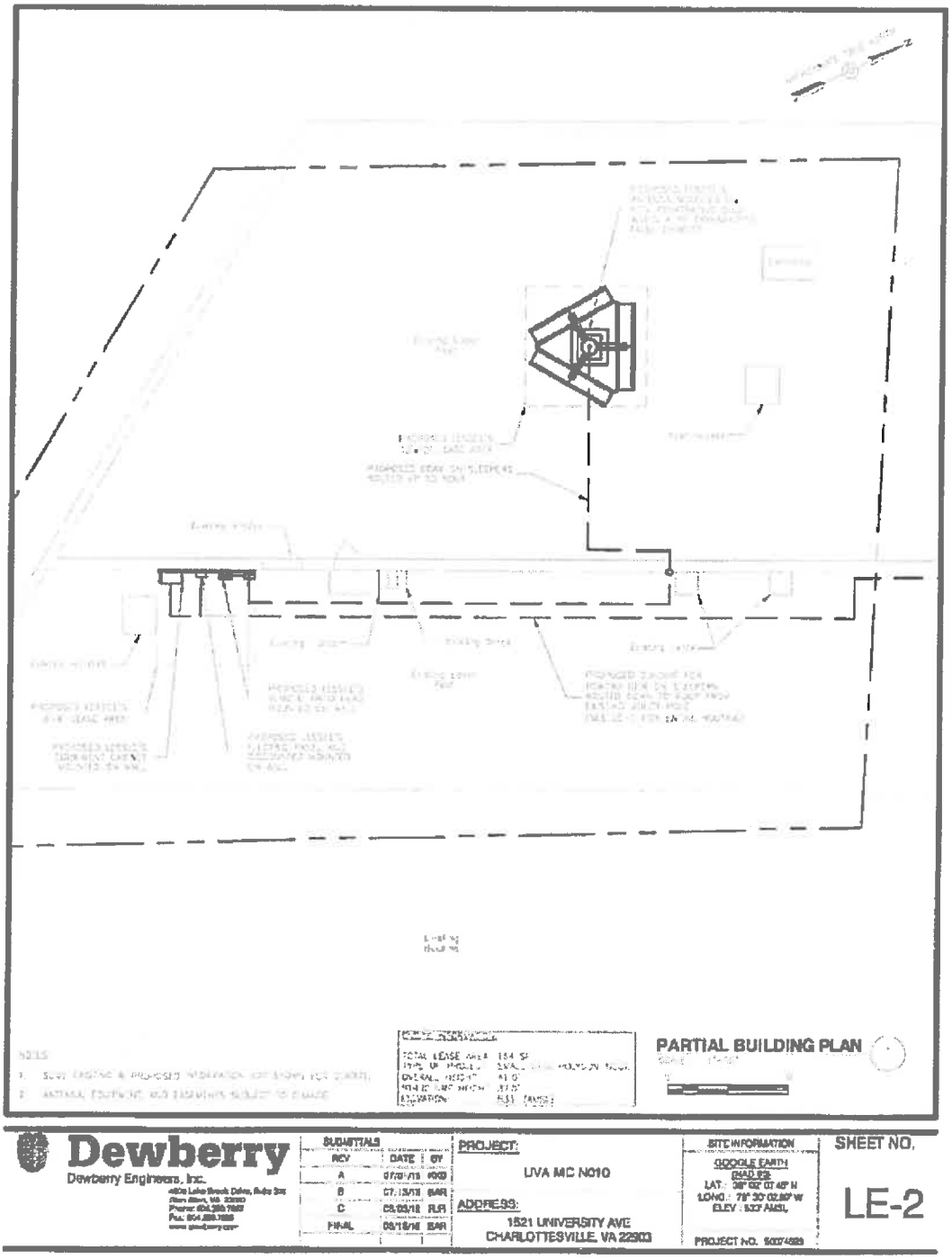


Figure 4. Rooftop Plan of 1521 University Avenue Collocation Site (UVA MC N010), Charlottesville, Virginia.

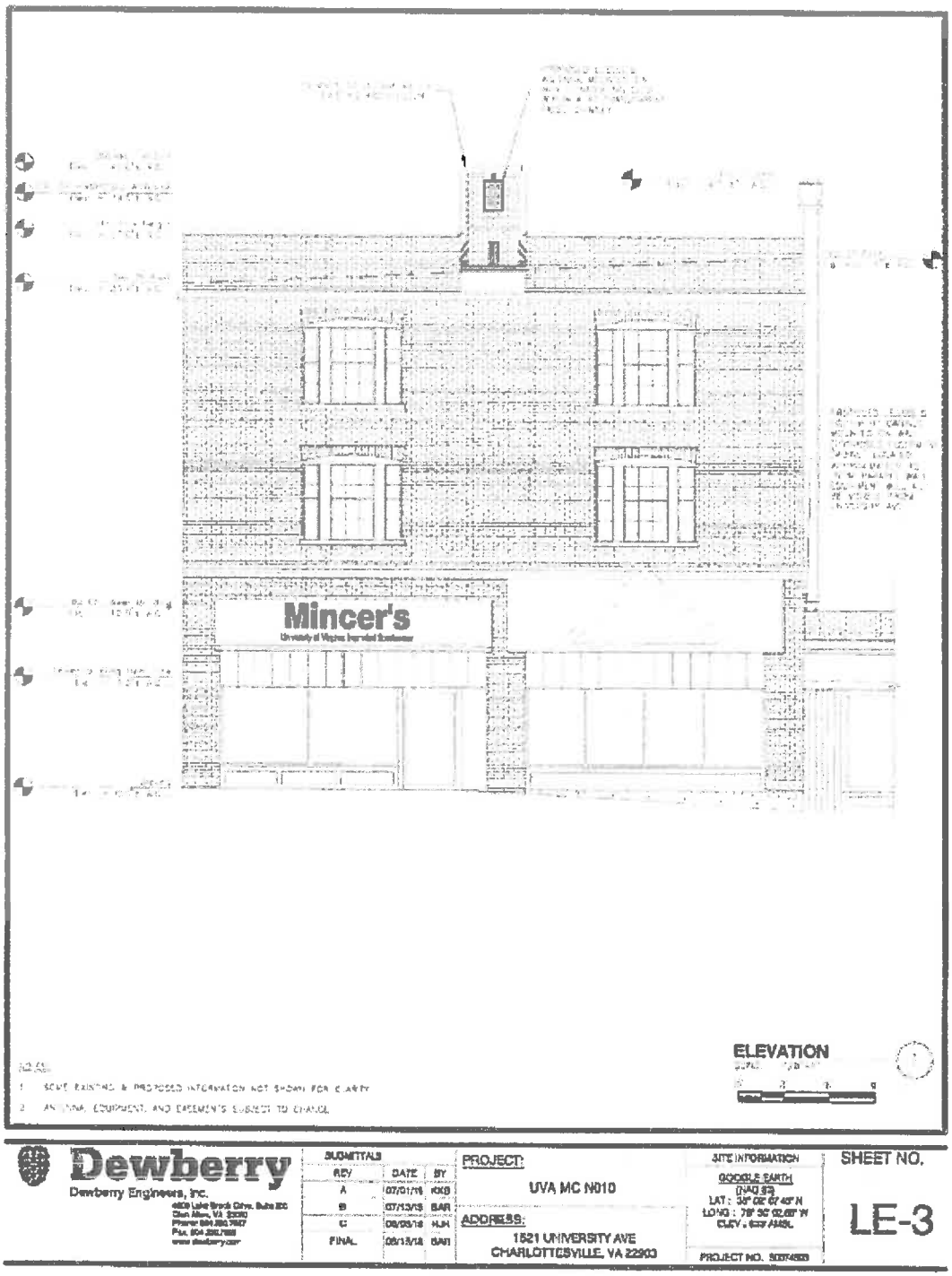


Figure 5. Elevation of 1521 University Avenue Collocation Site (UVA MC N010), Charlottesville, Virginia.

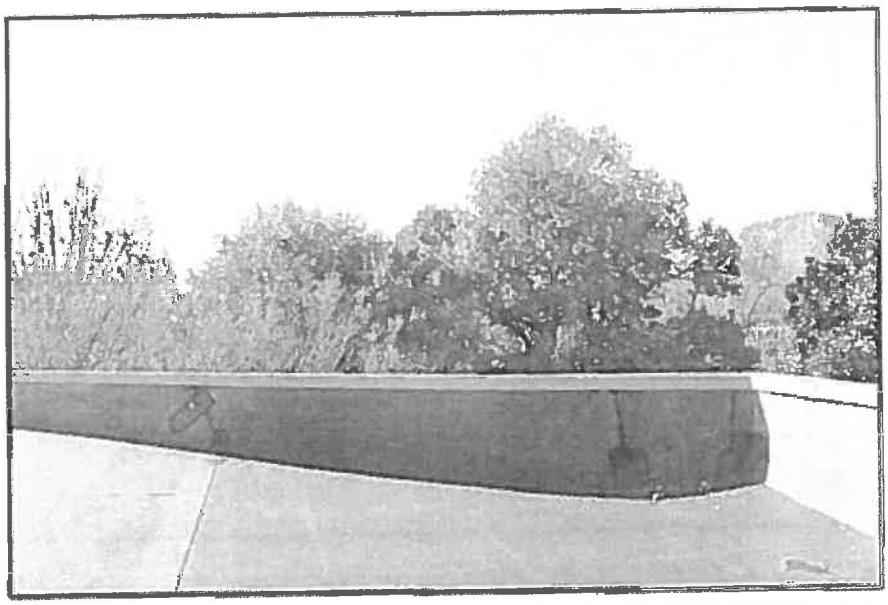


Figure 6. Views from Roof Level of 1521 University Avenue Collocation Site (UVA MC N010), Charlottesville, Virginia, Looking South.

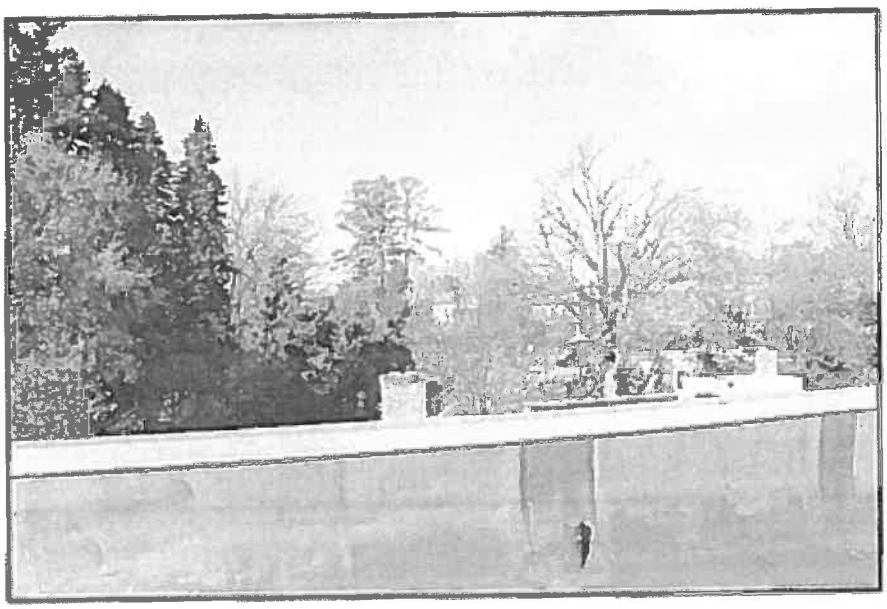


Figure 7. Views from Roof Level 1521 University Avenue Collocation Site (UVA MC N010), Charlottesville, Virginia, Looking West.

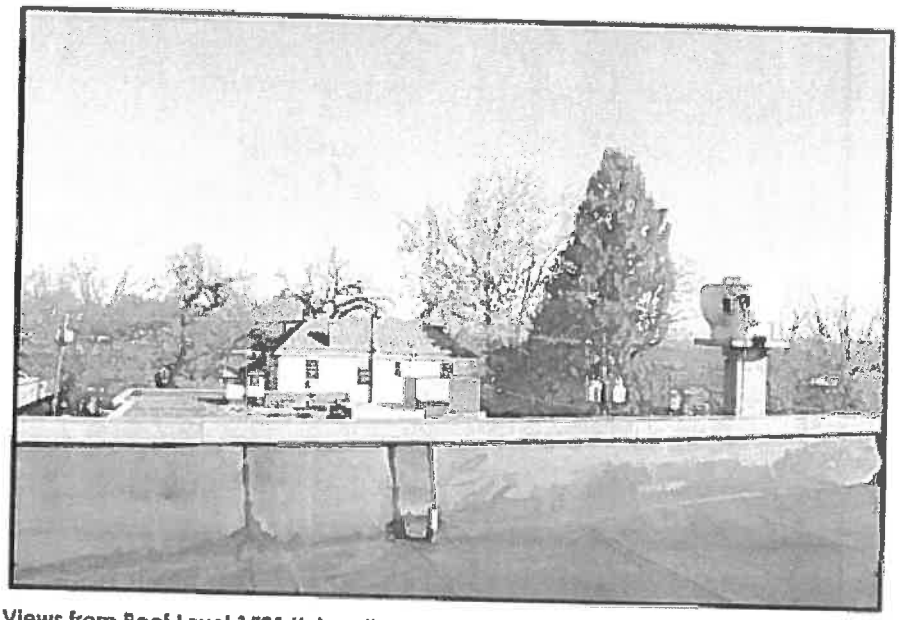


Figure 8. Views from Roof Level 1521 University Avenue Collocation Site (UVA MC N010), Charlottesville, Virginia, Looking North.

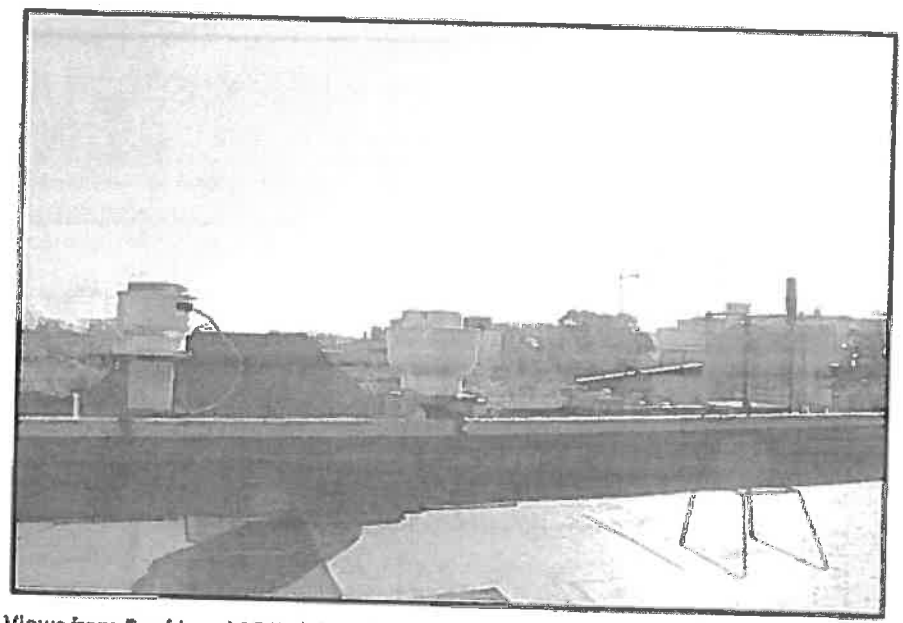


Figure 9. Views from Roof Level 1521 University Avenue Collocation Site (UVA MC N010), Charlottesville, Virginia, Looking East.

Figure 10. Architectural Resources under Consideration Within a 0.25-Mile Radius of 1521 University Avenue Collocation Site (UVA MC N010), Charlottesville, Virginia.

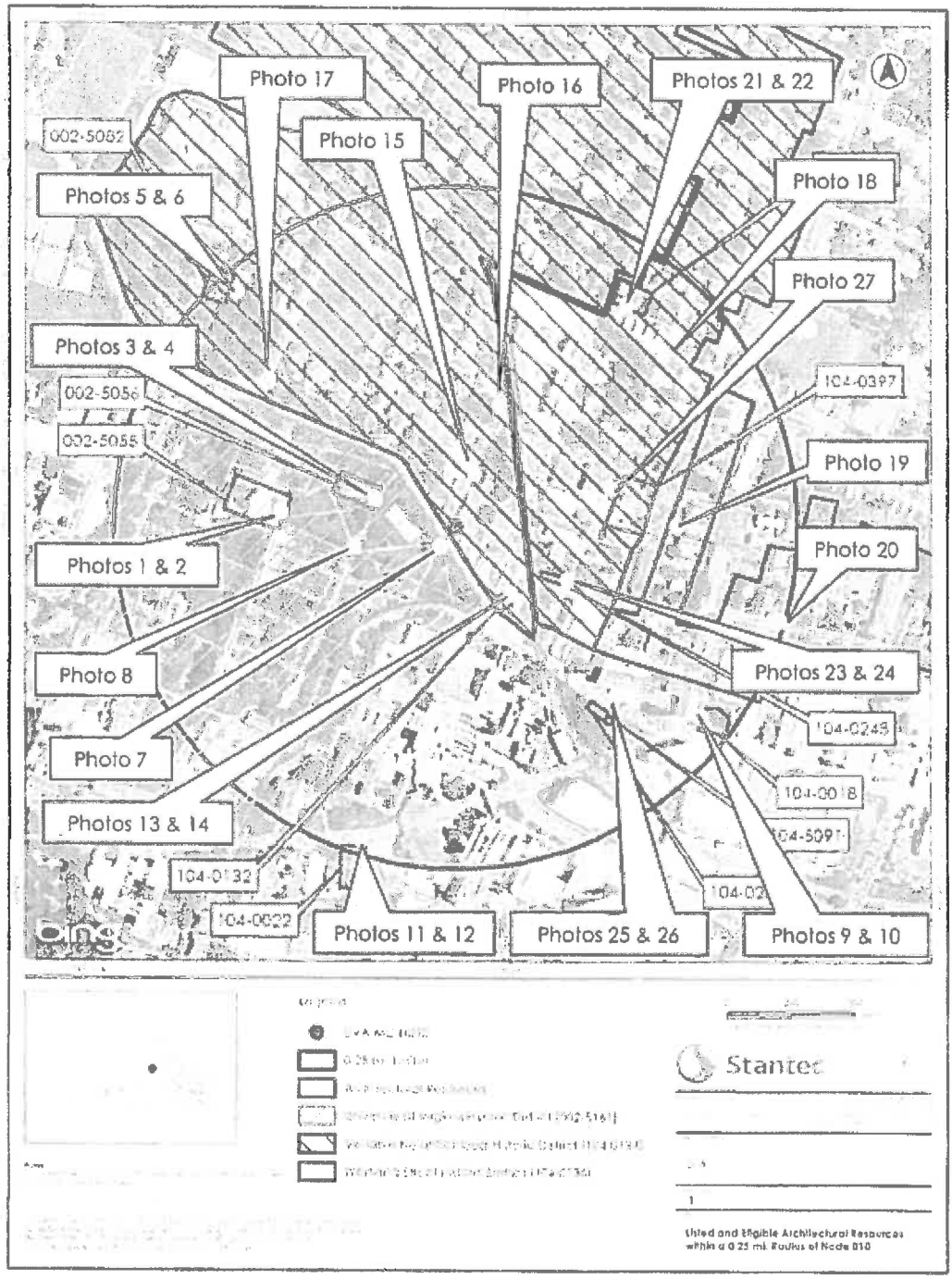


Figure 11. Key to Photographs for UVA MC N010, Charlottesille, Virginia.

VDHR #	Resource	Description	NRHP-Listed	NRHP-Eligible	Effect Assessment	Photo Reference
002-5055	Rotunda, University of Virginia, Main Street	The Rotunda, designed by Thomas Jefferson, at the University of Virginia was built c. 1819 and housed the University's library collection from 1826 to 1938. The building's design was based on Rome's Pantheon. In the 19th century an addition was constructed onto the building, however, in 1895 the building burned. Restoration efforts were undertaken by McKim, Mead, and White shortly after. The building was again restored in 1976. The Rotunda was listed as a National Historic Landmark (NHL) in 1965 and on the NRHP in 1966. The building is also considered a contributing resource to the NHL/NRHP-listed University of Virginia Historic District.	X (NHL)		No Effect	Photos 1 & 2
002-5056	Lewis Brook Hall of Natural History, University Avenue	The building, constructed in 1876, is a three-story, brick building with stone trim. Designed by John R. Thomas in the Second Empire-style, the building, which was one of the first natural history museum in the US, features interior brick chimneys, raised granite basement, elliptical arched two-over-two wood double-hung sash windows, denticulated cornice, and stone belt course. The building was listed on the NRHP in 1977 for its significance in architecture and education. The building is also a contributing resource to the NHL/NRHP-listed University of Virginia Historic District (VDHR #002-5161)	X		No Adverse Effect	Photos 3 & 4
002-5082	Carr's Hill/President's House, UVA, University Avenue	The house is a two-story, Georgian Revival dwelling constructed c. 1912. The dwelling was designed by the notable New York architectural firm of McKim, Mead, and White and features a hipped roof, monumental front portico with pediment, a porte-cochere off the west gable end of the dwelling, and sidelights and elliptical fan light over the front entry, among other notable architectural features. The resource was listed on the NRHP in 2008 under Criterion A and C for its significance in education and architecture. The dwelling is also considered a contributing resource to the Venable Neighborhood Historic District.	X		No Effect	Photos 5 & 6

VDHR #	Resource	Description	NRHP-Listed	NRHP-Eligible	Effect Assessment	Photo Reference
002-5161	University of Virginia Historic District	Construction of the University began following the laying of the cornerstone in 1817, the General Assembly officially chartered the school in 1819. Thomas Jefferson conceived the idea of the institution, he designed all of the original buildings and supervised their construction, selected the first faculty, drew up the ciriculum, and served as the first rector of the Board of Visitors. While the University represents a major achievement in the educational history of the country, its architectural concept and design was revolutionary. There are 109 contributing resources.	X (NHL)		No Adverse Effect	Photos 7 & 8
104-0018	Dinsmore House/Heiskell-McKennie House, 1211 West Main Street	The house, constructed c. 1826, is a two-and-a-half-story Federal style dwelling which features brick exterior walls laid in a Flemish bond pattern, four bays across the front façade, a entry portico with heavy wood Tuscan-style columns with pediment, sidelights, and ellipitical fan light. The annex constructed onto the in the mid-19th century, is a two-story, brick dwelling with three-bays and center entry with pedimented hood supported by ornate brackets. The resource was determined eligible for listing on the NRHP in 2009 for its architectural significance.		X	No Effect	Photos 9 & 10
104-0022	Barringer Mansion, 1404 Jefferson Park Avenue	The Barringer Mansion, constructed c. 1894, was built for Dr. Paul Brandon Barringer. At the time of the dwelling's construction Dr. Barringer was part of the faculty of the University of Virginia's Medical School. The dwelling was designed in the Queen Anne style and features brick exterior walls, corner turret with garland frieze, a large Jacobean-style brick chimney, and porte-cochere, which connects to the front porch. The resource was listed on the NRHP in 1982 for its significance in architecture, education, and science. The resource, according to the V-CRIS form, is associated with the NRHP-listed Charlottesville, Virginia Multiple Resource Area.	X		No Effect	Photos 11 & 12
104-0075	Charlottesville, Virginia Multiple Resource Area	The multiple resource area comprises approximately 10.4 square miles within the City of Charlottesville and includes a cross section of the City's historic time periods beginning in the 1760s. The resource area was listed in 1981 for its significance in architecture, commerse, industry, religion and transportation. The district comprises 83 structures throughout the city and two districts. The Multiple Resource Area is not mapped in VCRIS.	X		No Adverse Effect	See Photos 11-14 & 21-24

VDHR #	Resource	Description	NRHP-Listed	NRHP-Eligible	Effect Assessment	Photo Reference
104-0132	Anderson Brothers Bookstore, 1417 University Avenue	The Anderson Brothers Bookstore building, constructed c. 1848, is one of the largest surviving metal façade buildings in Charlottesville. The building is three stories with seven bays with brick exterior walls in a six-course American bond pattern. The building also features a plain frieze, projecting cornice with ornate modillions and stylized floral bands. Pilasters with tall plinths and Corinthian capitals adorn the second and third floors. The building was listed on the NRHP in 1982 as part of the NRHP-listed Charlottesville, Virginia Multiple Resource Area.	X		No Adverse Effect	Photos 13 & 14
104-0133	Venable Neighborhood Historic District/Rugby Road – University Corner Historic District	The Venable Neighborhood Historic District comprises approximately 84 acres north of the University of Virginia. The buildings within the district include mainly residential, commercial, and institutional buildings associated with the university prior to WWII. Most were constructed between 1890 and 1930 during the University's rapid expansion. The district was listed on the NHRP in 1984 for its significance in architecture, education, and commerse with a period of significance from 1890 to 1940.	X		No Adverse Effect	Photos 15-18
104-0136	Wertland Street Historic District	The Wertland Street Historic District comprises approximately 47 acres of a residential area to the northeast of the University of Virginia. Architectural styles include mainly turn of the twentieth century Queen Anne and Colonial Revivial frame and brick dwellings. The oldest house located within the district is the 1830 Wertenbaker House. Wertenbaker was appointed librarian to the University of Virginia by Thomas Jefferson. The district was listed on the NRHP in 1985 for its significance in education and architecture.	X		No Effect	Photos 19 & 20
104-0234	Turner-LaRowe House, 1 University Court	The Turner-LaRowe House was constructed on a five-acre parcel allotted to Mary Turner as her widow's dower in 1890. The house, built in 1892, the dwelling features brick exterior walls, a hipped roof clad in standing seam metal, a projecting two-story bay window on the front façade, and a full-width, five-bay front porch with hipped roof and Tuscan-style wood columns. The house was converted into sorority housing in 1983. The house was listed on the NRHP in 1983 as part of the NRHP-listed Charlottesville, Virginia Multiple Resource Area.	X		No Effect	Photos 21 & 22

VDHR #	Resource	Description	NRHP-Listed	NRHP-Eligible	Effect Assessment	Photo Reference
104-0248	King-Runkle House	The King-Runkle House, constructed c. 1891, is a two-story, Victorian (Queen Anne) style dwelling set on a narrow lot. The exterior walls are clad in weatherboards with decorative wood shingles in the gable ends. A one-story shed-roofed entry porch, located on the southwest side of the building features a turned wood post, ornate brackets, and spindlework. Other features include Queen Anne-style windows with square stained glass lights, a projecting shed-roofed window and decorative scroll work in the front roof gable. The house was listed on the NRHP in 1983 as part of the NRHP-listed Charlottesville, Virginia Multiple Resource Area.	X		No Effect	Photos 23 & 24
104-0252	George Rogers Clark Statue, University Avenue	The statue, erected in 1921, was designed by the Gorham Company of New York. The bronze statue with granite base depicts Clark, of Lewis and Clark fame, on a horse with three members of his expedition party behind and three Native Americans in front. One of the Native Americans, a chief. The statue was listed on the NRHP in 1997 under Criterion C for its significance in art.	X		No Effect	Photos 25 & 26
104-0397	McConnell-Neve House, 228 Fourteenth Street	Demolished	X		N/A	Photo 27
104-5091	Four Monumental Figurative Outdoor Sculptures, Main Street	The four sculptures were donated by Paul Goodloe McIntire c. 1919 and include the NRHP-listed statue of George Rogers Clark (VDHR #104-0252), the Meriwether Lewis and William Clark Sculpture (VDHR #104-0273), the Thomas Jonathan Jackson Sculpture (VDHR #104-0251), and the Robert Edward Lee Scupture (VDHR #104-0264). The National Park Service accepted the nomination for this resource in 1997; however, the resource has not been officially listed.		X	No Effect	Photos 25 & 26

Photo 1. View of Rotunda (VDHR #002-5055), Looking Southwest.

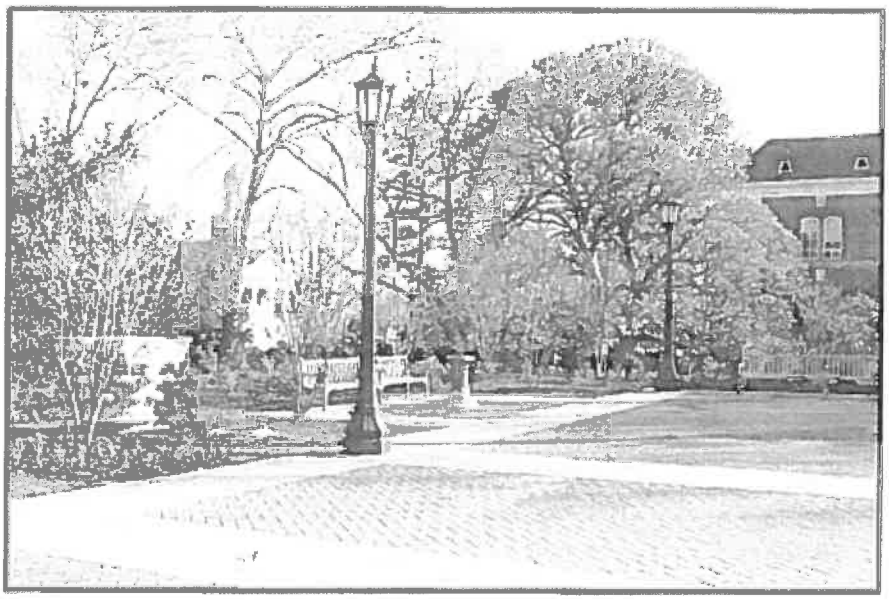


Photo 2. View to Proposed Small Cell Antenna Site from the Rotunda (VDHR #002-5055), Looking East (Not Visible).

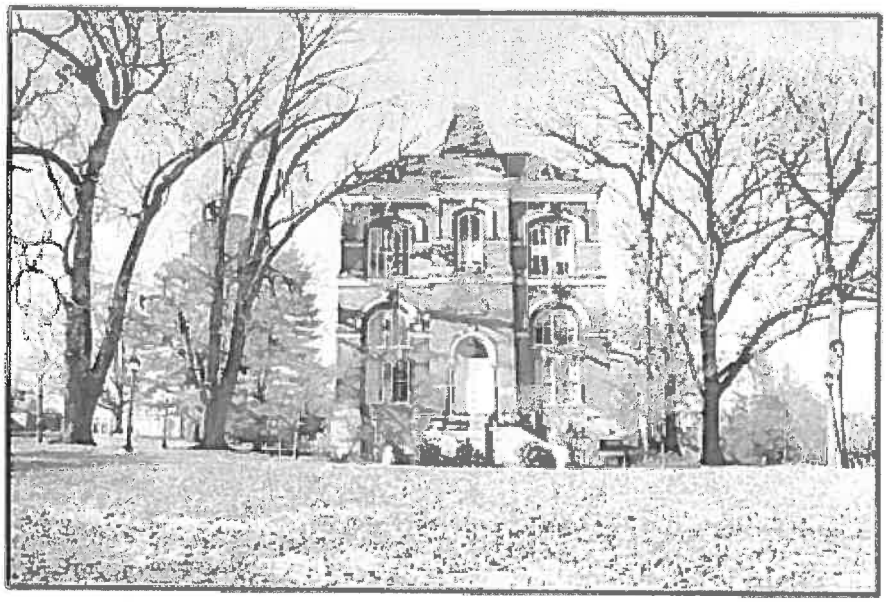


Photo 3. View of Lewis Brook Hall of Natural History (VDHR #002-5056), Looking West.

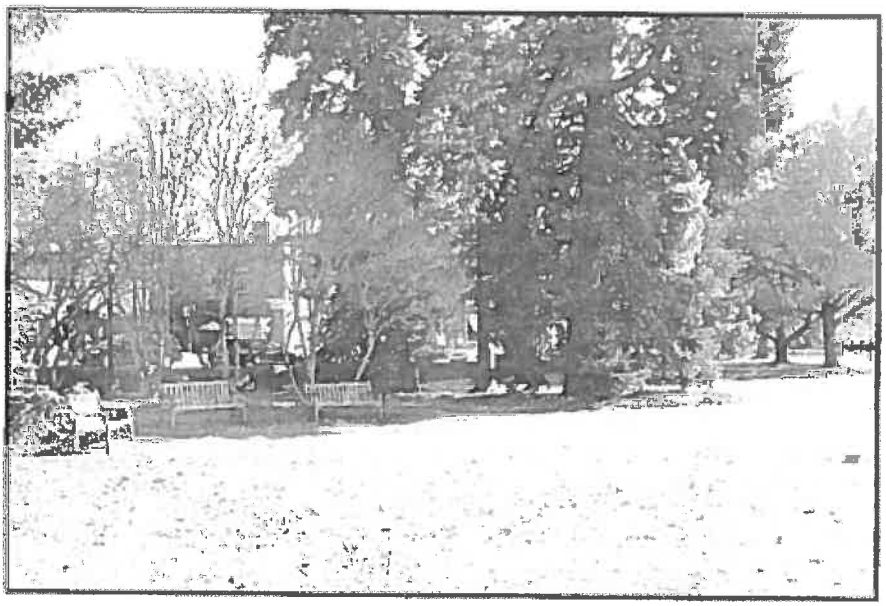


Photo 4. View to Proposed Small Cell Antenna Site from Lewis Brook Hall of Natural History (VDHR #002-5056), Looking East (Visible).

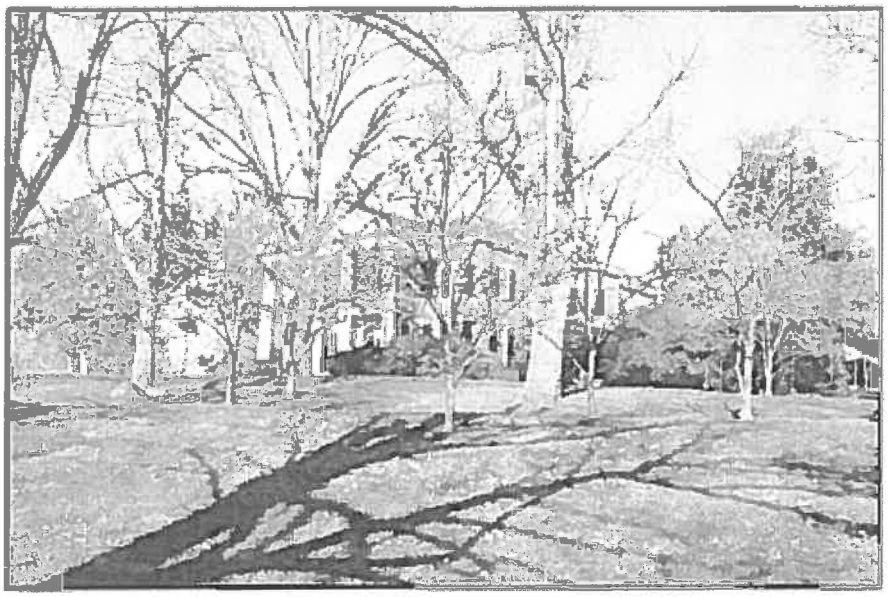


Photo 5. View of Carr's Hill/President's House (VDHR #002-5082), Looking Northwest.

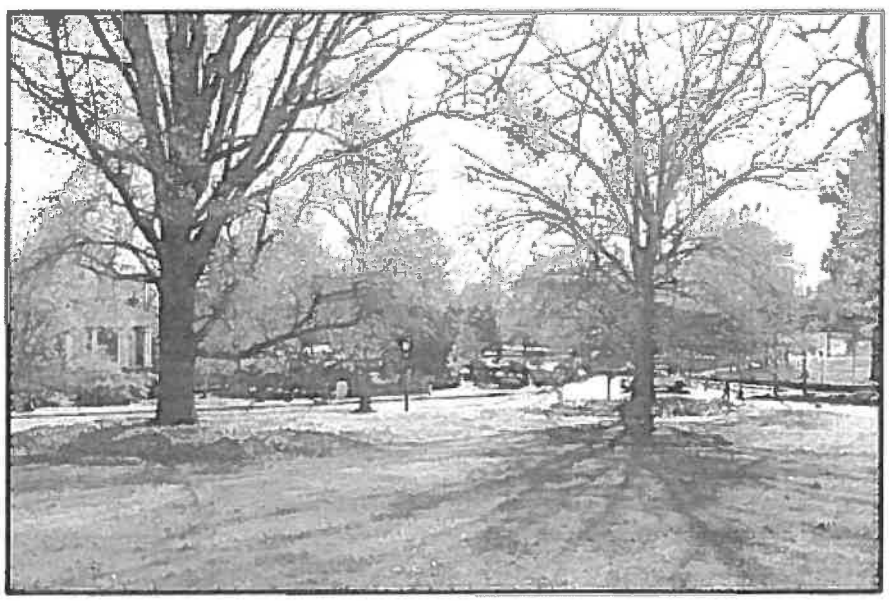


Photo 6. View to Proposed Small Cell Antenna Site from Carr's Hill/President's House (VDHR #002-5082), Looking Southeast (Not Visible).

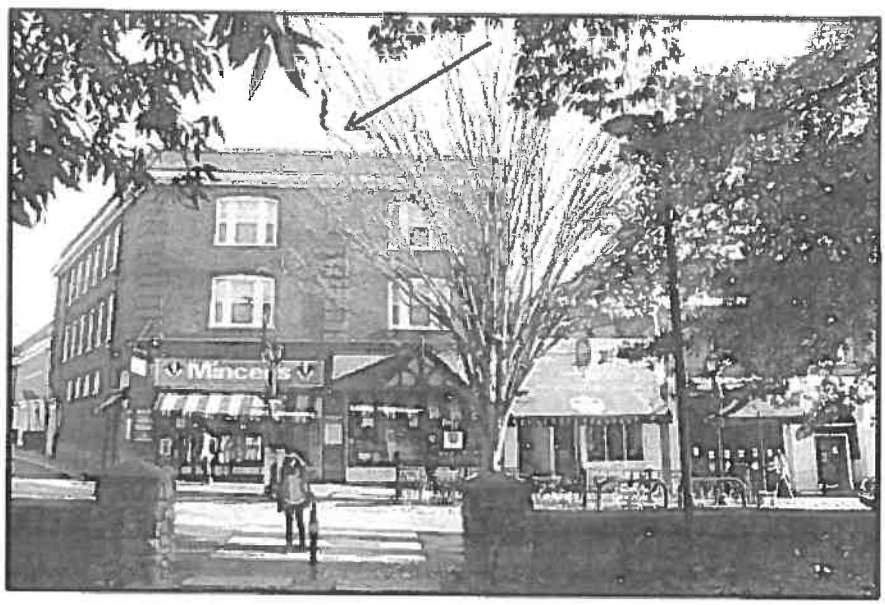


Photo 7. View to Proposed Small Cell Antenna Site from the University of Virginia Historic District (VDHR #002-5161), Looking Northeast (Visible).

Photo 8. View to Proposed Small Cell Antenna Site from the University of Virginia Historic District (VDHR #002-5161), Looking Northeast (Visible).

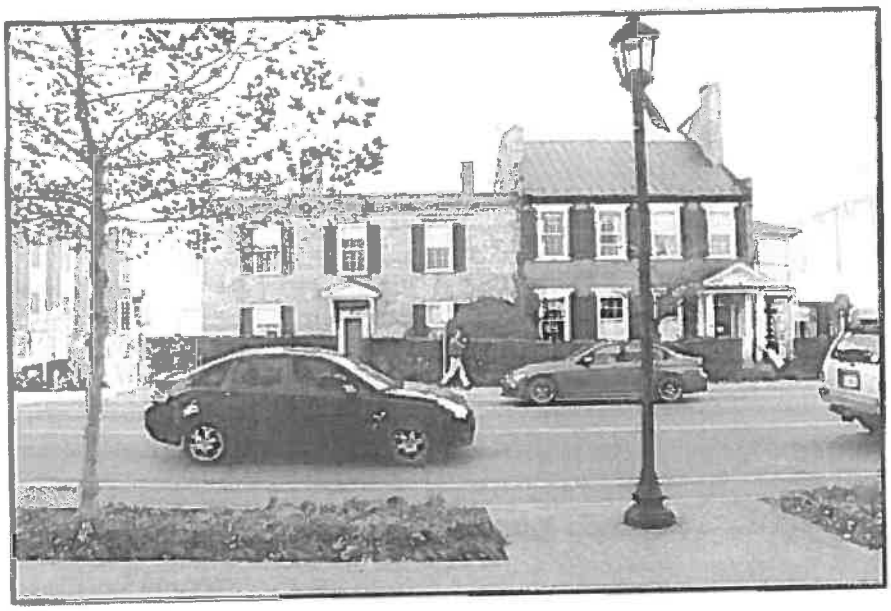


Photo 9. View of Dinsmore House/Heiskell-McKennie House (VDHR #104-0018), Looking Northeast.

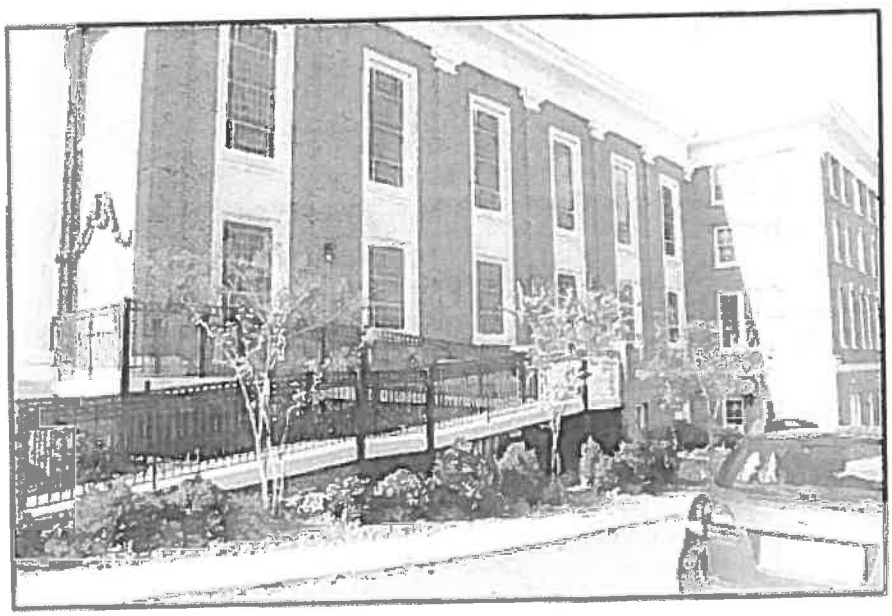


Photo 10. View to Proposed Small Cell Antenna Site from the Dinsmore House/Heiskell-McKennie House (VDHR #104-0018), Looking Northwest (Not Visible).

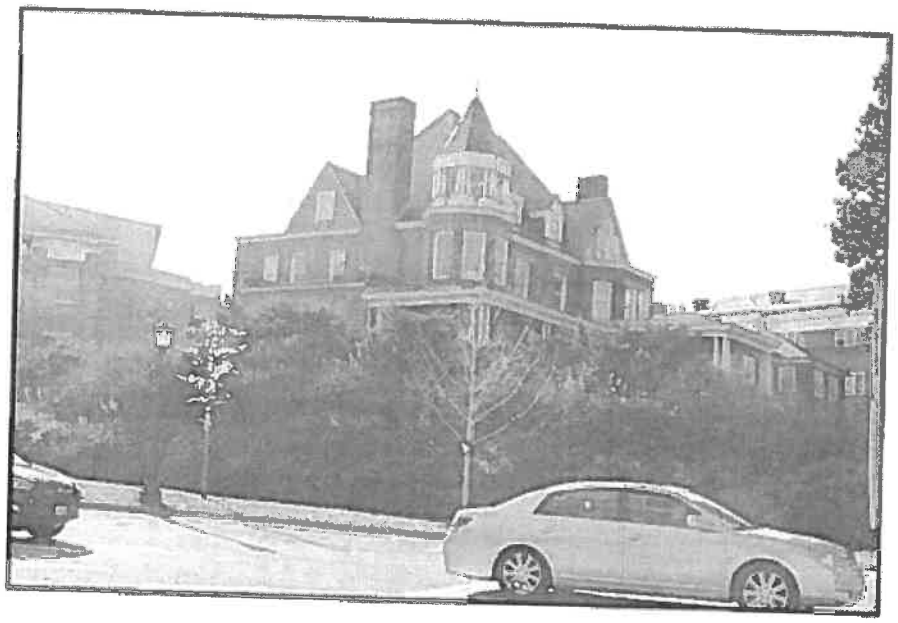


Photo 11. View of Barringer Mansion (VDHR #104-0022), Looking Southwest.

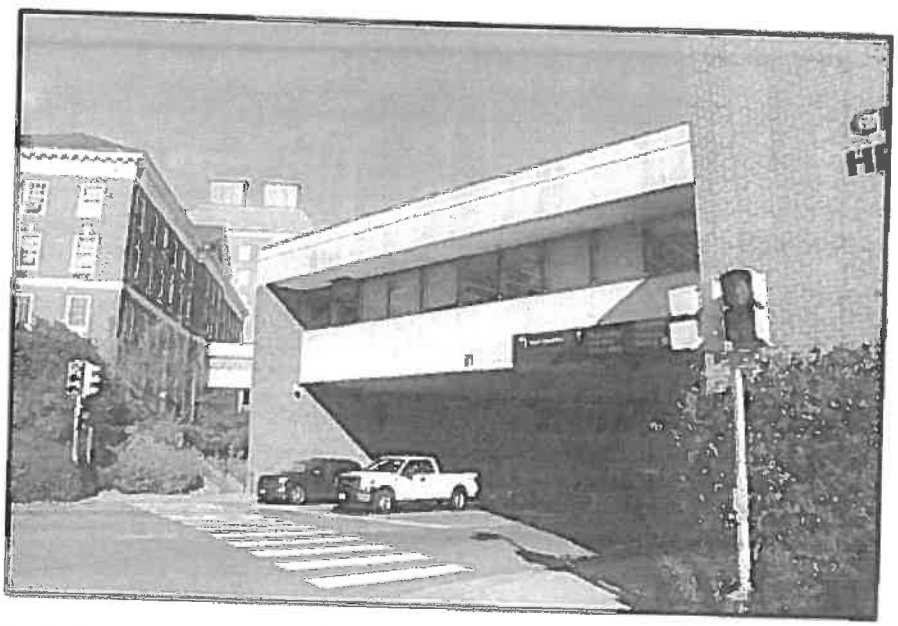


Photo 12. View to Proposed Small Cell Antenna Site from the Barringer Mansion (VDHR #104-0022), Looking Northeast (Not Visible).

Photo 13. View of Anderson Brothers Bookstore (VDHR #104-0132), Looking Northeast.

Photo 14. View to Proposed Small Cell Antenna Site from the Anderson Brothers Bookstore (VDHR #104-0132), Looking Northwest (Visible).

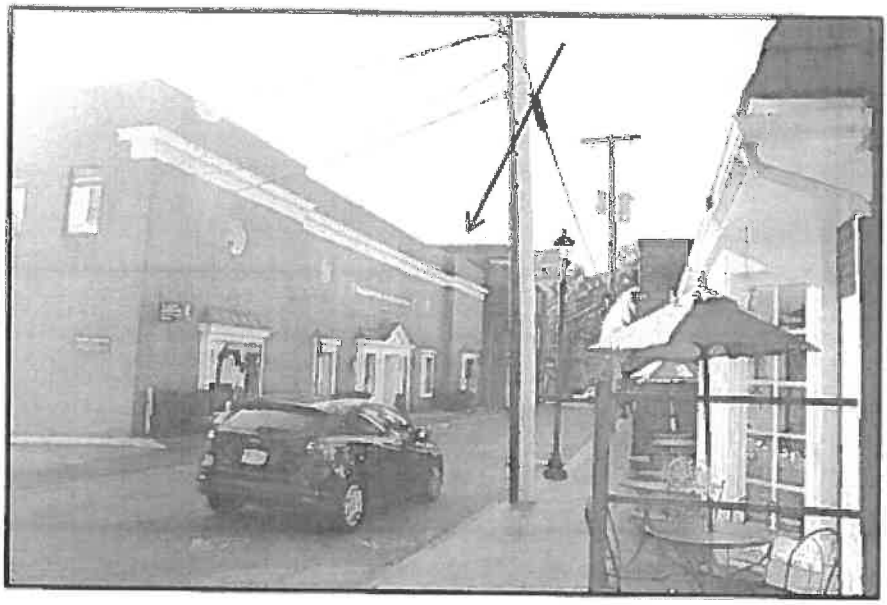


Photo 15. View to Proposed Small Cell Antenna Site from the Venable Neighborhood Historic District (VDHR #104-0133) from Elliwood Avenue, Looking Northeast (Visible).

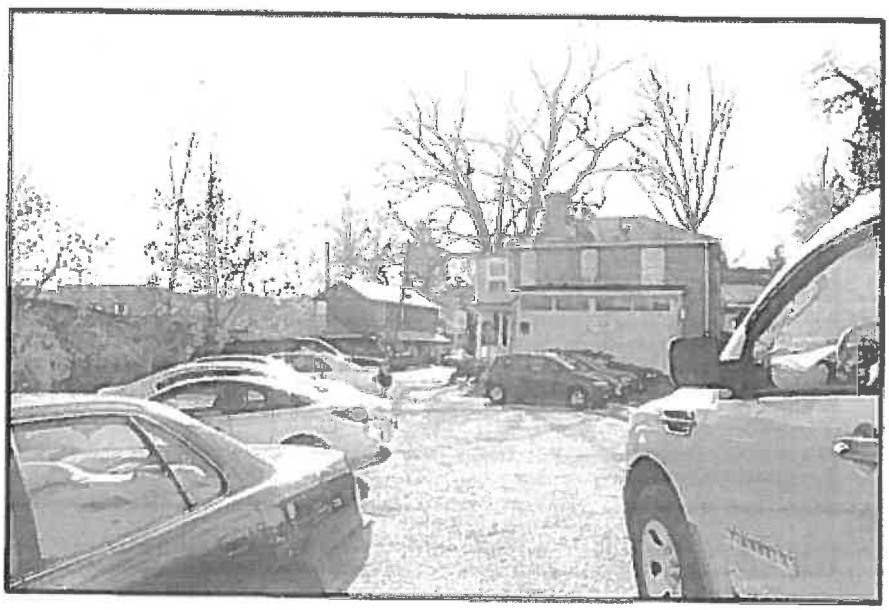


Photo 16. View to Proposed Small Cell Antenna Site from the Venable Neighborhood Historic District (VDHR #104-0133) from Elliwood Avenue, Looking Southwest (Not Visible).

Photo 17. View to Proposed Small Cell Antenna Site from the Venable Neighborhood Historic District (VDHR #104-0133) from the intersection of Rugby Road and Carr's Hill Road, Looking Northeast (Not Visible).

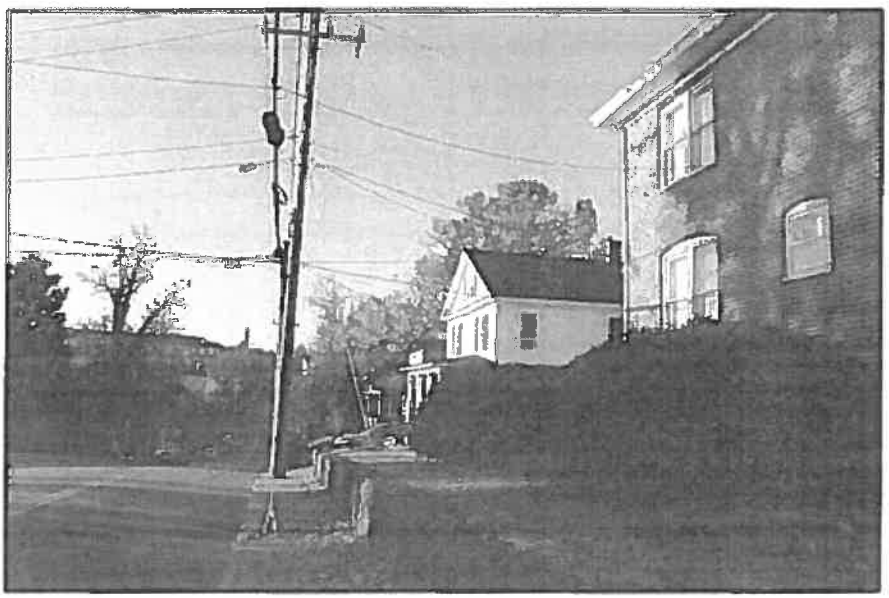


Photo 18. View to Proposed Small Cell Antenna Site from the Venable Neighborhood Historic District (VDHR #104-0133) along 14th Street NW North of John Street, Looking Southwest (Not Visible).

Photo 19. View to Proposed Small Cell Antenna Site from the Wertland Street Historic District (VDHR #104-0136) within Apartment Complex off Wertland Street, Looking Southwest (Not Visible).

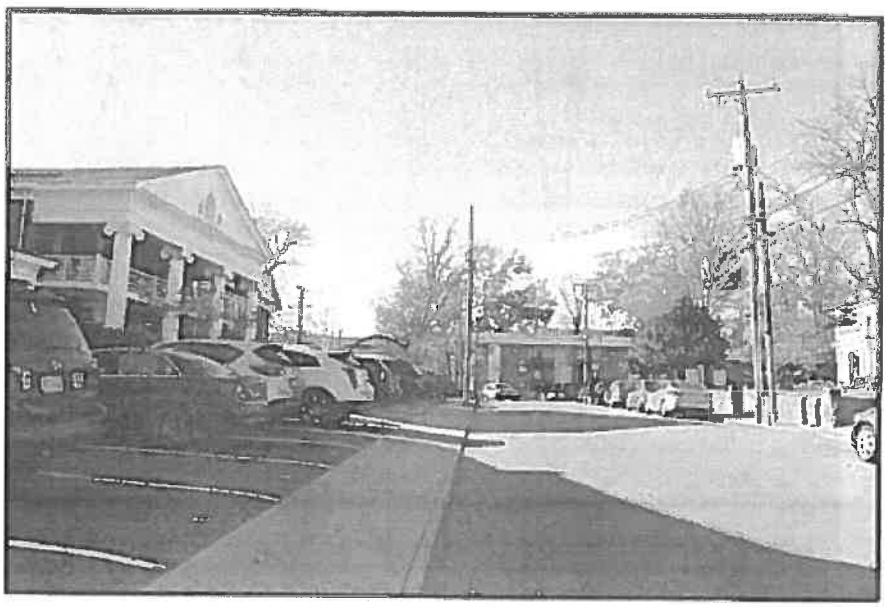


Photo 20. View to Proposed Small Cell Antenna Site from the Wertland Street Historic District (VDHR #104-0136) from Intersection of Wertland Street and 12th Street NW, Looking West (Not Visible).

Photo 21. View of Turner-LaRowe House (VDHR #104-0234), Looking East.

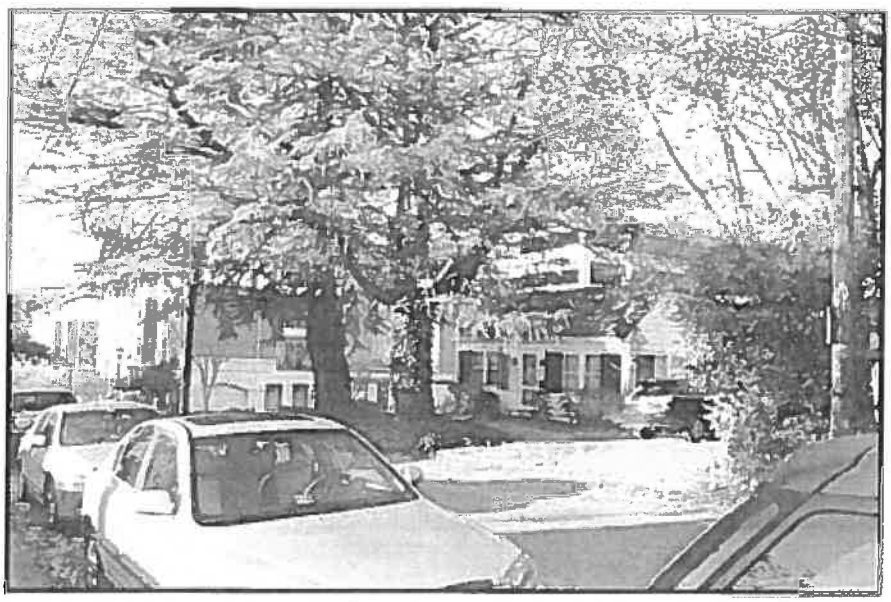


Photo 22. View to Proposed Small Cell Antenna Site from Turner-LaRowe House (VDHR #104-0234), Looking Southwest (Not Visible).

Photo 23. View of King-Runkle House (VDHR #104-0248), Looking West.

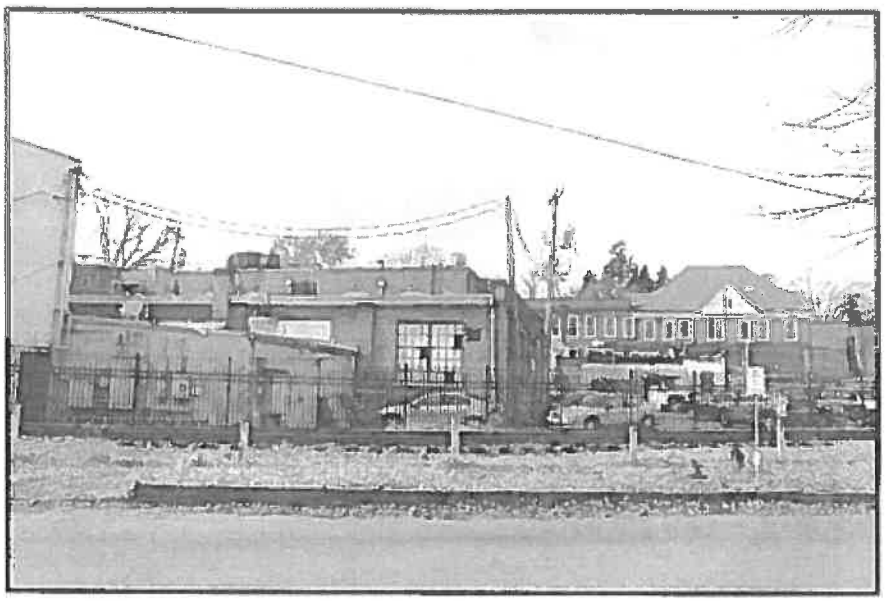


Photo 24. View to Proposed Small Cell Antenna Site from the King-Runkle House (VDHR #104-0248). Looking Northwest (Not Visible).

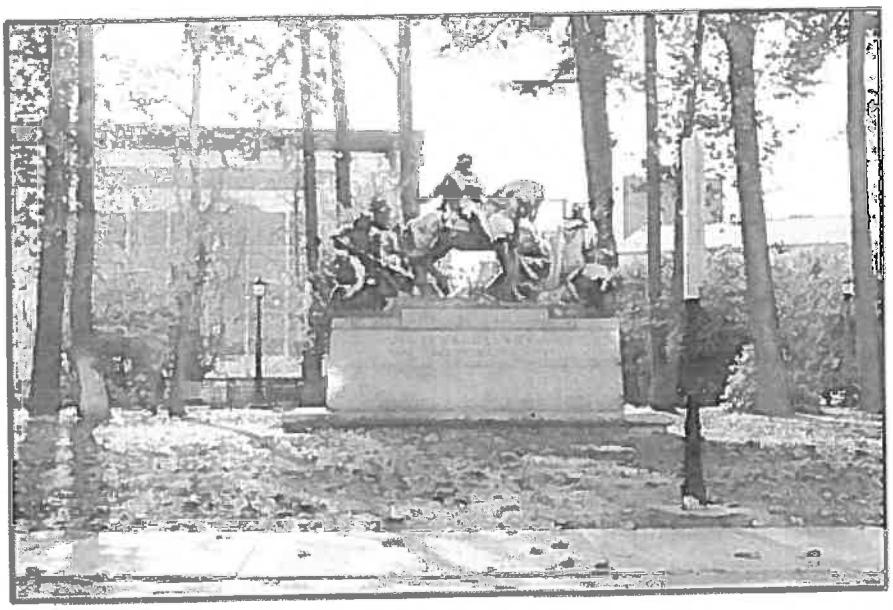


Photo 25. View of George Rogers Clark Statue (VDHR #104-0252 and #104-5091), Looking Southwest.

Photo 26. View to Proposed Small Cell Antenna Site from the George Rogers Clark Statue (VDHR #104-0252 and #104-5091), Looking Northwest (Not Visible).

Photo 27. View of Modern Apartment Building, Former Location of McConnell-Neve House (VDHR #104-0397), Looking Southeast (Resource as Plotted in VCRIS Appears to have been Demolished).

Photo 1. View of Rotunda (VDHR #002-5055), Looking Southwest.

Photo 2. View to Proposed Small Cell Antenna Site from the Rotunda (VDHR #002-5055), Looking East (Not Visible).

Photo 3. View of Lewis Brook Hall of Natural History (VDHR #002-5056), Looking West.

Photo 4. View to Proposed Small Cell Antenna Site from Lewis Brook Hall of Natural History (VDHR #002-5056), Looking East (Visible).

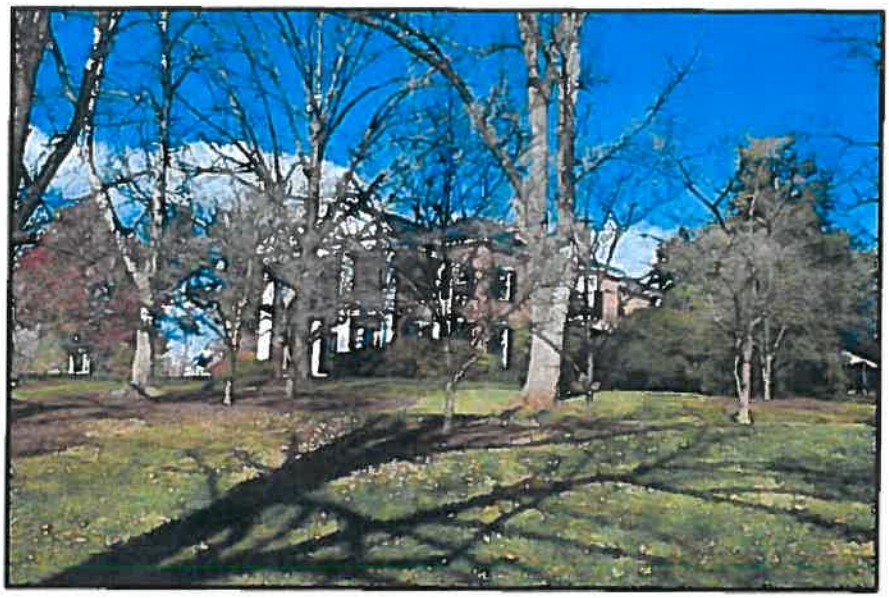


Photo 5. View of Carr's Hill/President's House (VDHR #002-5082), Looking Northwest.

Photo 6. View to Proposed Small Cell Antenna Site from Carr's Hill/President's House (VDHR #002-5082), Looking Southeast (Not Visible).

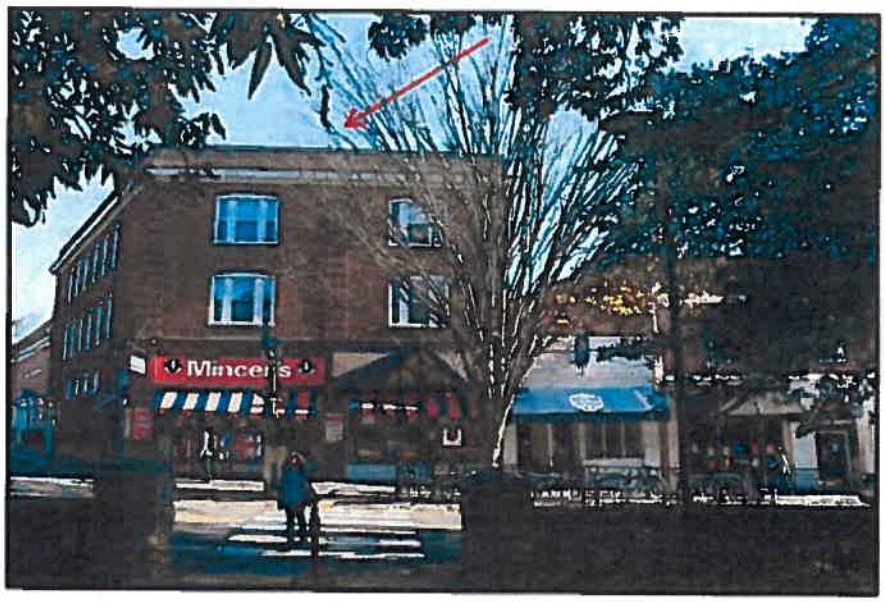


Photo 7. View to Proposed Small Cell Antenna Site from the University of Virginia Historic District (VDHR #002-5161), Looking Northeast (Visible).

Photo 8. View to Proposed Small Cell Antenna Site from the University of Virginia Historic District (VDHR #002-5161), Looking Northeast (Visible).

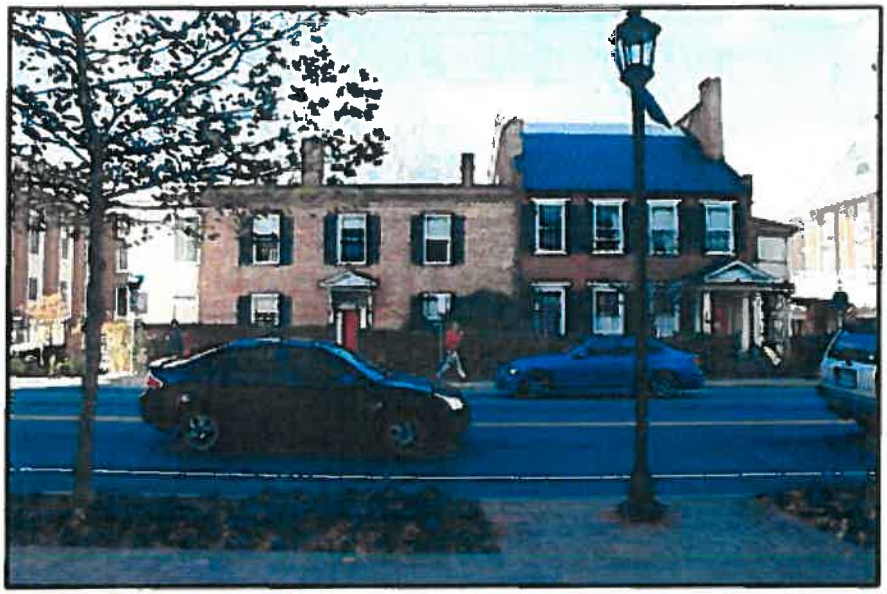


Photo 9. View of Dinsmore House/Heiskell-McKennie House (VDHR #104-0018), Looking Northeast.

Photo 10. View to Proposed Small Cell Antenna Site from the Dinsmore House/Heiskell-McKennie House (VDHR #104-0018), Looking Northwest (Not Visible).

Photo 11. View of Baringer Mansion (VDHR #104-0022), Looking Southwest.

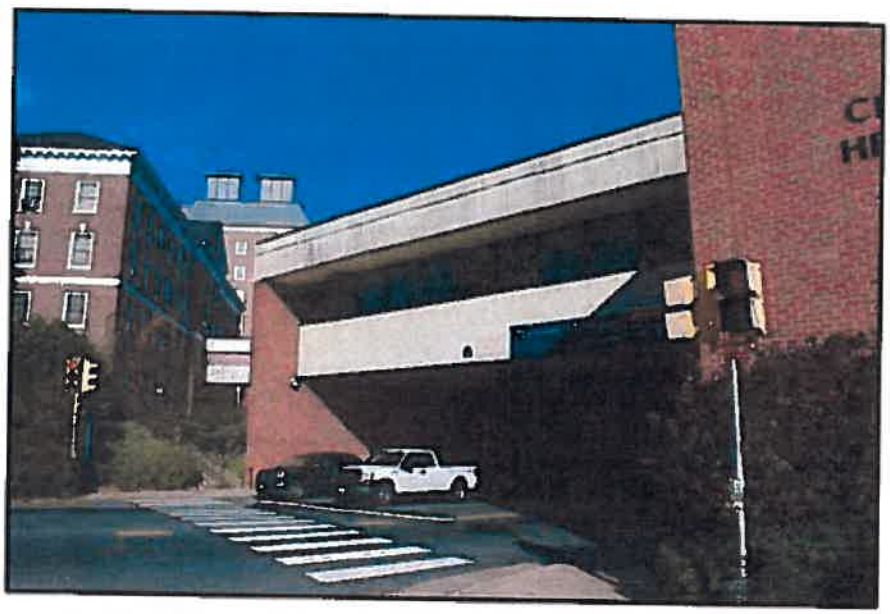


Photo 12. View to Proposed Small Cell Antenna Site from the Baringer Mansion (VDHR #104-0022), Looking Northeast (Not Visible).

Photo 13. View of Anderson Brothers Bookstore (VDHR #104-0132), Looking Northeast.

Photo 14. View to Proposed Small Cell Antenna Site from the Anderson Brothers Bookstore (VDHR #104-0132), Looking Northwest (Visible).

Photo 15. View to Proposed Small Cell Antenna Site from the Venable Neighborhood Historic District (VDHR #104-0133) from Ellwood Avenue, Looking Northeast (Visible).

Photo 16. View to Proposed Small Cell Antenna Site from the Venable Neighborhood Historic District (VDHR #104-0133) from Ellwood Avenue, Looking Southwest (Not Visible).

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Photo 18. View to Proposed Small Cell Antenna Site from the Venable Neighborhood Historic District (VDHR #104-0133) along 14th Street NW North of John Street, Looking Southwest (Not Visible).

Photo 19. View to Proposed Small Cell Antenna Site from the Wertland Street Historic District (VDHR #104-0136) within Apartment Complex off Wertland Street, Looking Southwest (Not Visible).

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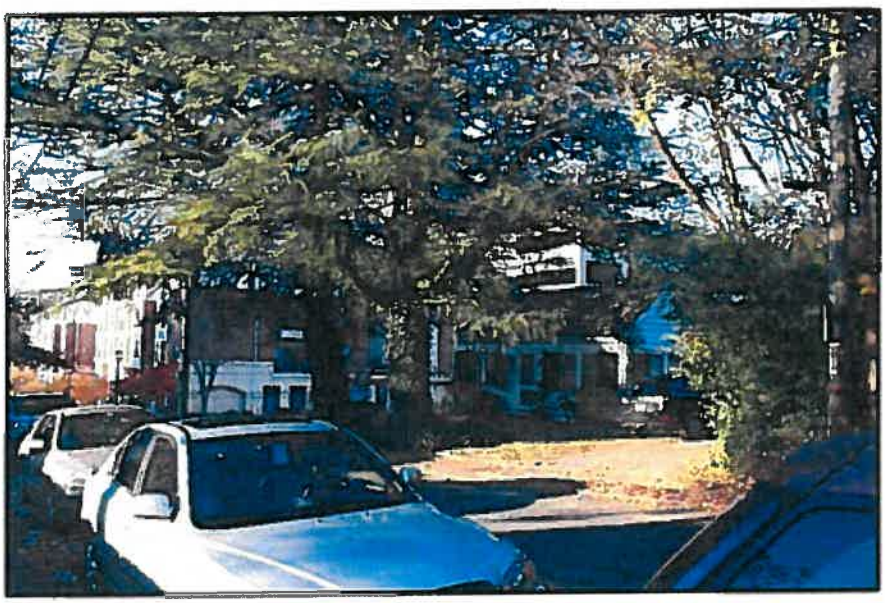

Photo 22. View to Proposed Small Cell Antenna Site from Turner-LaRowe House (VDHR #104-0234), Looking Southwest (Not Visible).

Photo 23. View of King-Runkle House (VDHR #104-0248), Looking West.

Photo 24. View to Proposed Small Cell Antenna Site from the King-Runkle House (VDHR #104-0248), Looking Northwest (Not Visible).

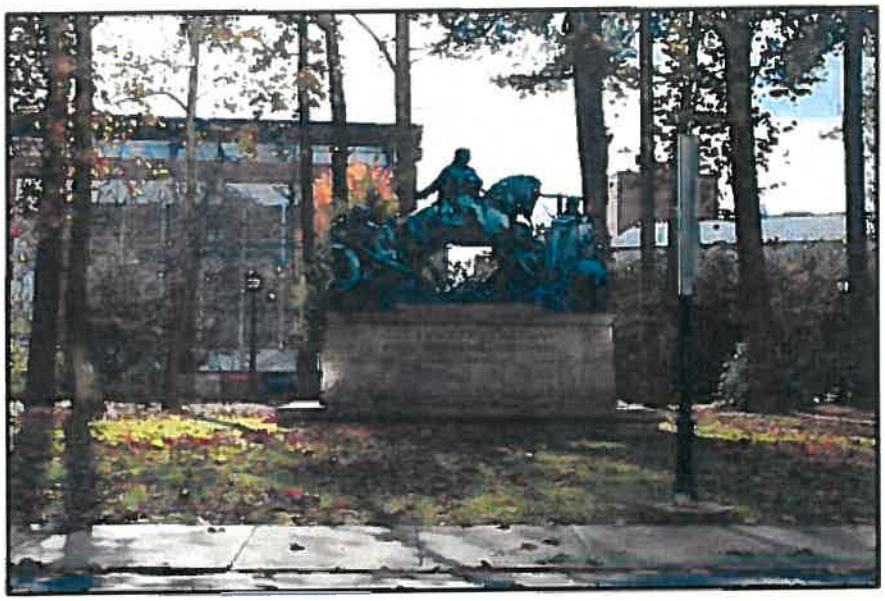

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Photo 27. View of Modern Apartment Building, Former Location of McConnell-Neve House (VDHR #104-0397), Looking Southeast (Resource as Plotted in VCRIS Appears to have been Demolished).

EXHIBIT I

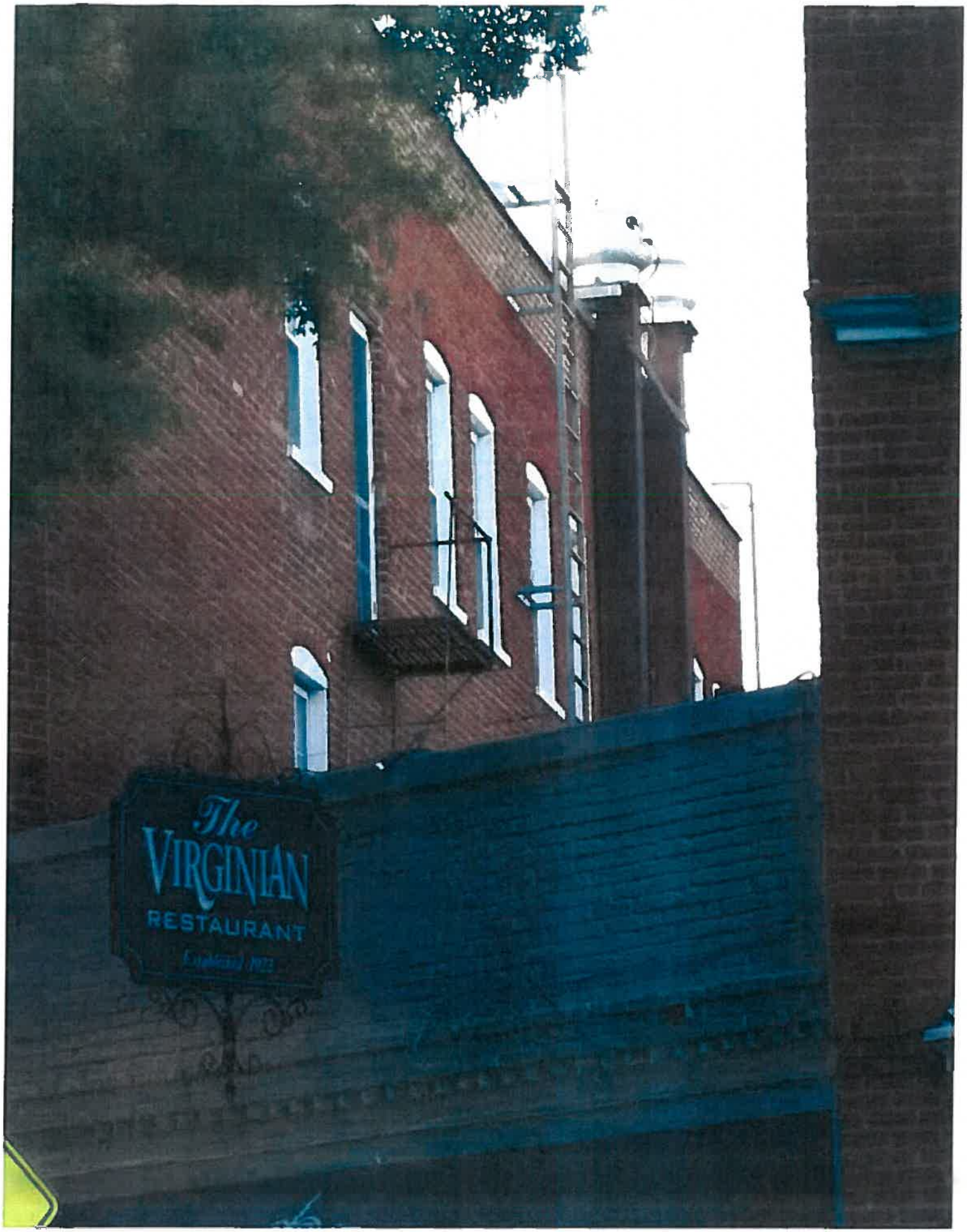
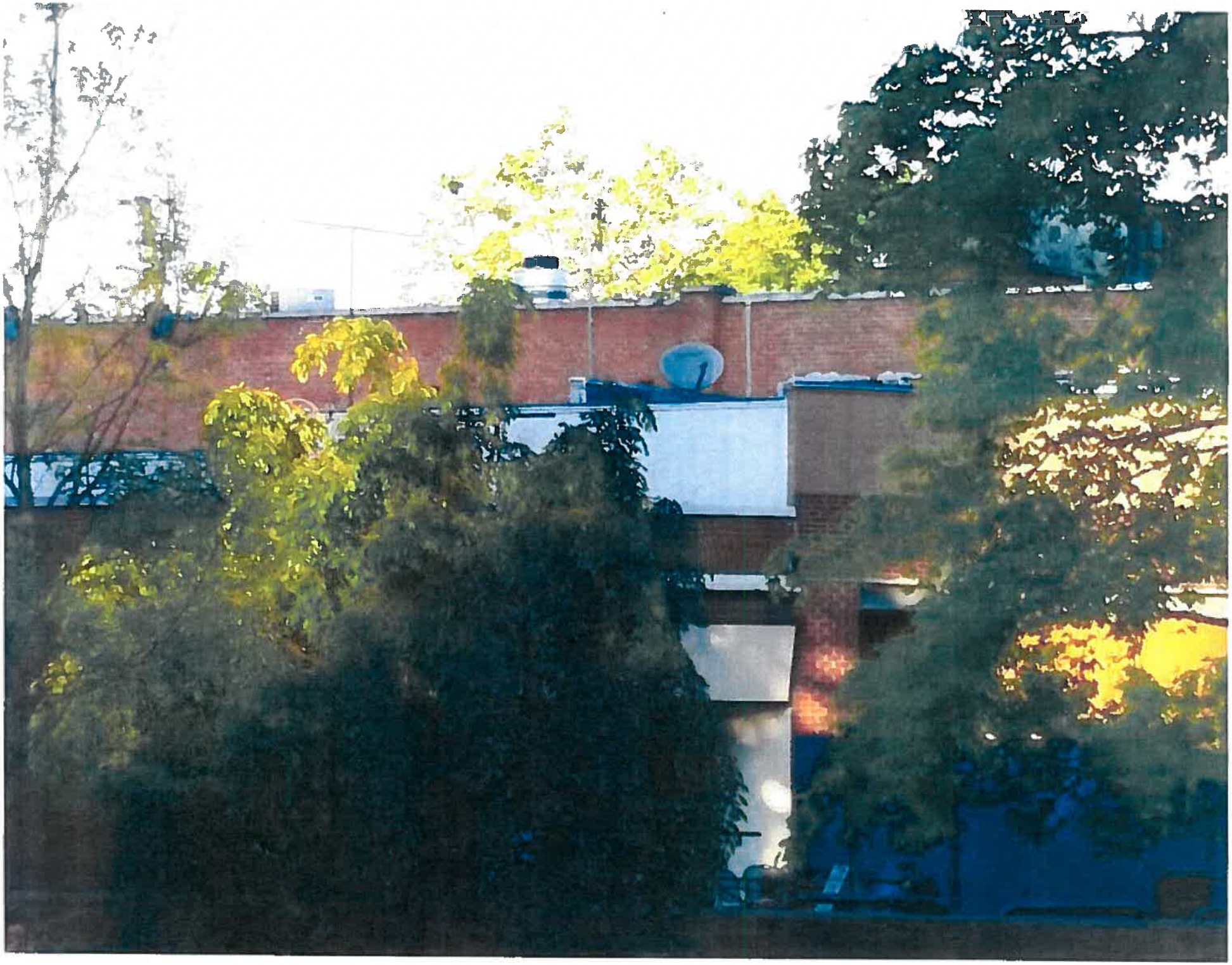

The
VIRGINIAN
RESTAURANT

EXHIBIT J




COLLEGE
INN
RESTAURANT
est. 1963
Breakfast
COLLEGE INN
OPEN
PARKING

EXHIBIT K

Schweller, Lori H.

From: Scala, Mary Joy <scala@charlottesville.org>
Sent: Tuesday, April 25, 2017 3:24 PM
To: Schweller, Lori H.
Cc: Miller, Melanie
Subject: Mincers letters
Attachments: Letter to Mark Mincer 04032017 + Knable case.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Lori,
You asked for copies of letters received from the public. Here are 5 emails I received. Melanie Miller may have received additional.

From: Mark Mincer [mailto:mark@mincers.com]
Sent: Monday, April 17, 2017 1:24 PM
To: BAR
Subject: OPPOSED: Verizon Equipment on The Corner

Members of the Board of Architectural Review,

I have worked here on The Corner for my grandfather, my father and now myself for over forty years. Unfortunately, I am now a tenant in this building, without direct input on decisions like this.

I am very much opposed to the Verizon equipment on our roof for many reasons including, but not limited to:

The addition of a false chimney is not in keeping with the historic character of this building that is listed on the National Historic Register and the Secretary of the Interior's Standards for the Treatment of Historic Properties.

Adding a non-essential structure to the existing roof of a historic building could damage the integrity of the structure unnecessarily.

This structure, a fake chimney, will be visible during the early Spring, late Fall, and Winter months as you look East down The Corner from in front of the Bank of America building and the historic UVA grounds.

This changes the historic context of this building and is not in keeping with BAR guidelines for development in a Charlottesville Historic District.

For these reasons, I ask the Board of Architectural review reject the proposal to add a microcell structure on the rooftop of 1527 University Avenue.

Mark Mincer
President/Owner
http://www.mincers.com
Mincer's University of Virginia Imprinted Sportswear
1527 University Avenue
Charlottesville VA 22903
(434) 296-5687
fax (434) 971-8821
mincer@cstone.net

Mark Mincer [mailto:mark@mincers.com]
Sent: Monday, April 17, 2017 2:04 PM
To: BAR
Subject: Legal Opinion on the Verizon equipment

Letter to me from John Little attached.

Mark Mincer
President/Owner
http://www.mincers.com
Mincer's University of Virginia Imprinted Sportswear
1527 University Avenue
Charlottesville VA 22903
(434) 296-5687
fax (434) 971-8821
mincer@cstone.net

From: Chris Hendricks [mailto:chris@mincers.com]
Sent: Monday, April 17, 2017 1:59 PM
To: bar@charlottesville.org
Subject: Proposed Cell Tower on University Ave

Members of the Charlottesville Board of Architectural Review,

I arrived in Charlottesville in 1989 as a student at the University of Virginia.

I have lived and worked in our town since the fall of 1989.

The historic UVA Corner has been a second home to me for the last 26 years as a student at UVA, and then as an employee at Mincer's.

I am opposed to the cell tower being placed on the roof of our historic building.

A fake fiberglass chimney and cell tower have no place on a building listed on the National Historic Register.

Please reject the proposal to add a microcell to the roof at 1527 University Ave.

Thanks,

Chris Hendricks
UVA Class of 1993
chris@mincers.com

From: Suzanne Clark [mailto:sleighc6221@gmail.com]
Sent: Monday, April 17, 2017 4:13 PM
To: caschwarz83@gmail.com; Justin.sarafin@alumni.virginia.edu; Whit@evergreenbuilds.com; melanie@houseofmillers.com; bgastinger@gmail.com; corey.clayborne@gmail.com; earnst.emma@gmail.com; sbalut@hotmail.com; tmohr@tmdarch.com
Subject: Allowing Verizon Antenna

Good Evening,

I have been informed of the meeting this evening regarding Verizon and Mincers. I do not feel there should be an antenna allowed on the roof of Mincers. The corner is an Historic area, where tourists visit and spend money,and it should be protected.. Thank you for your consideration in this matter.

Sincerely, S. Clark

From: Jones, Susan [mailto:susan@pvcinc.com]
Sent: Monday, April 17, 2017 10:30 AM
To: caschwarz83@gmail.com; Justin.sarafin@alumni.virginia.edu; Whit@evergreenbuilds.com; melanie@houseofmillers.com; bgastinger@gmail.com; corey.clayborne@gmail.com; earnst.emma@gmail.com; sbalut@hotmail.com; tmohr@tmdarch.com
Subject: OPPOSED: Verizon Wireless antenna on top of Mincer's

Dear BAR members,

Please do not permit a Verizon Wireless tower (or any tower for that matter) to be placed atop the historical Mincer's building, or any other iconic buildings on University Ave. This area deserves the same protections as the other historical areas in Charlottesville and no technology should be visible from the lawn when looking over at The Corner buildings. I am a Verizon Wireless customer and never have any trouble getting connected anywhere on The Corner, so I do not see why this tower is even needed.

You are now the only the historical heart and soul of Charlottesville. The City Council seems determined to tear down old buildings, overbuild on any available property and cram any tax producing building in all corners of Charlottesville, without regard to historical significance, architectural continuity, neighborhood culture and maintaining our "Green City' status. We count on all of you to help protect these areas and are grateful for your work.

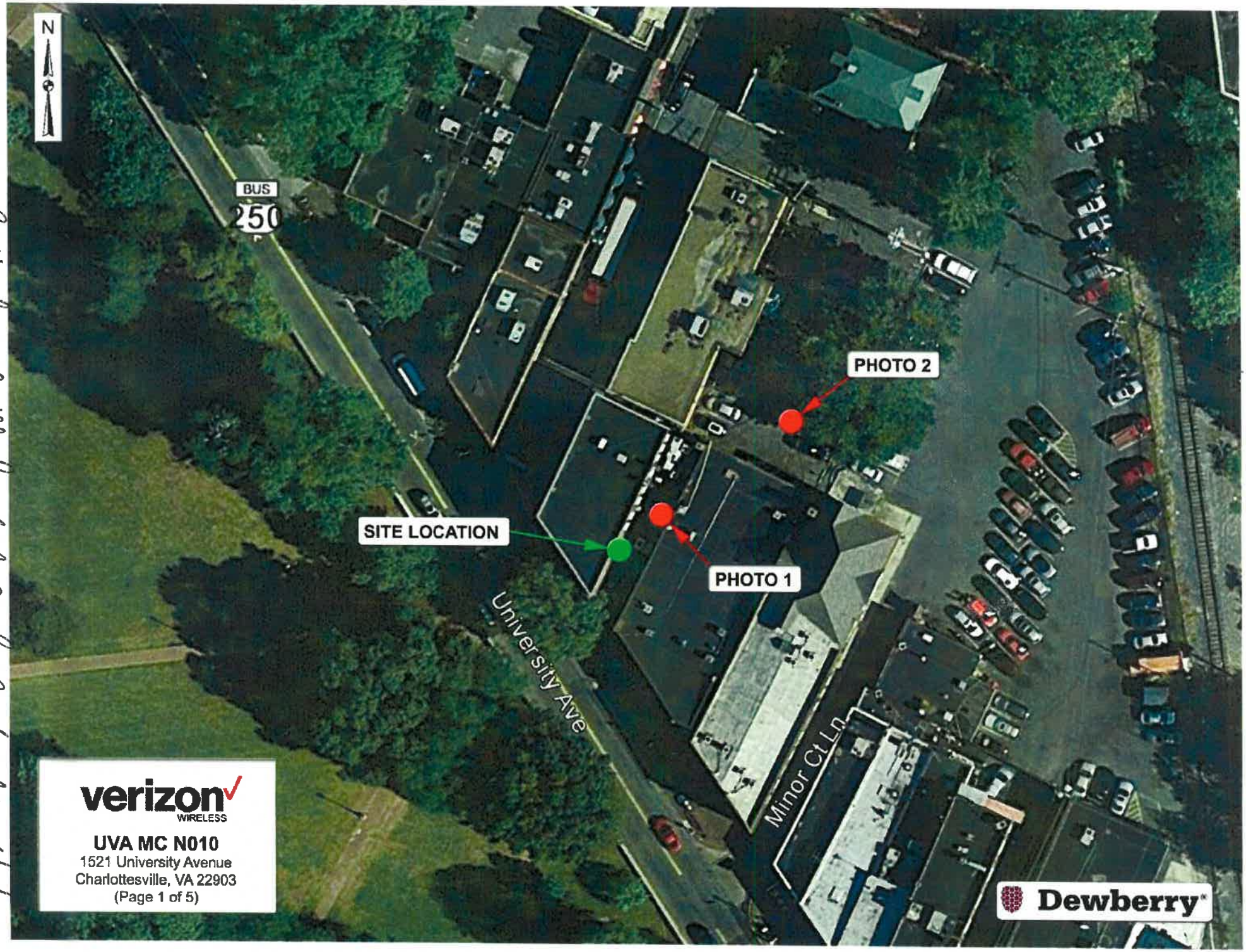
Kindest regards,

Susan Jones

Local property owner and townie (born and raised here)
1204 Edge Hill Rd.
Charlottesville, VA 22903
(804) 339-3941
Shjones000@aol.com

Mary Joy Scala, AICP
Preservation and Design Planner
City of Charlottesville
Department of Neighborhood Development Services
City Hall – 610 East Market Street
P.O. Box 911
Charlottesville, VA 22902
Ph 434.970.3130 FAX 434.970.3359
scala@charlottesville.org

EXHIBIT L



Revised - submitted w/ Appeal Application 6/2/2017

verizon WIRELESS

UNA MC N010
Photo 1A
View Facing Southwest
From Roof
(Page 2 of 5)

Dewberry®
4805 Lake Brook Drive, Suite 200
Glen Allen, VA 23060
Phone: 804.290.7957
Fax:804.290.7928
www.dewberry.com

verizon WIRELESS

UNA MC N010
Photo 1B
View Facing Southwest
From Roof
(Page 3 of 5)

Dewberry
4805 Lake Brook Drive, Suite 200
Glen Allen, VA 23060
Phone: 804.290.7957
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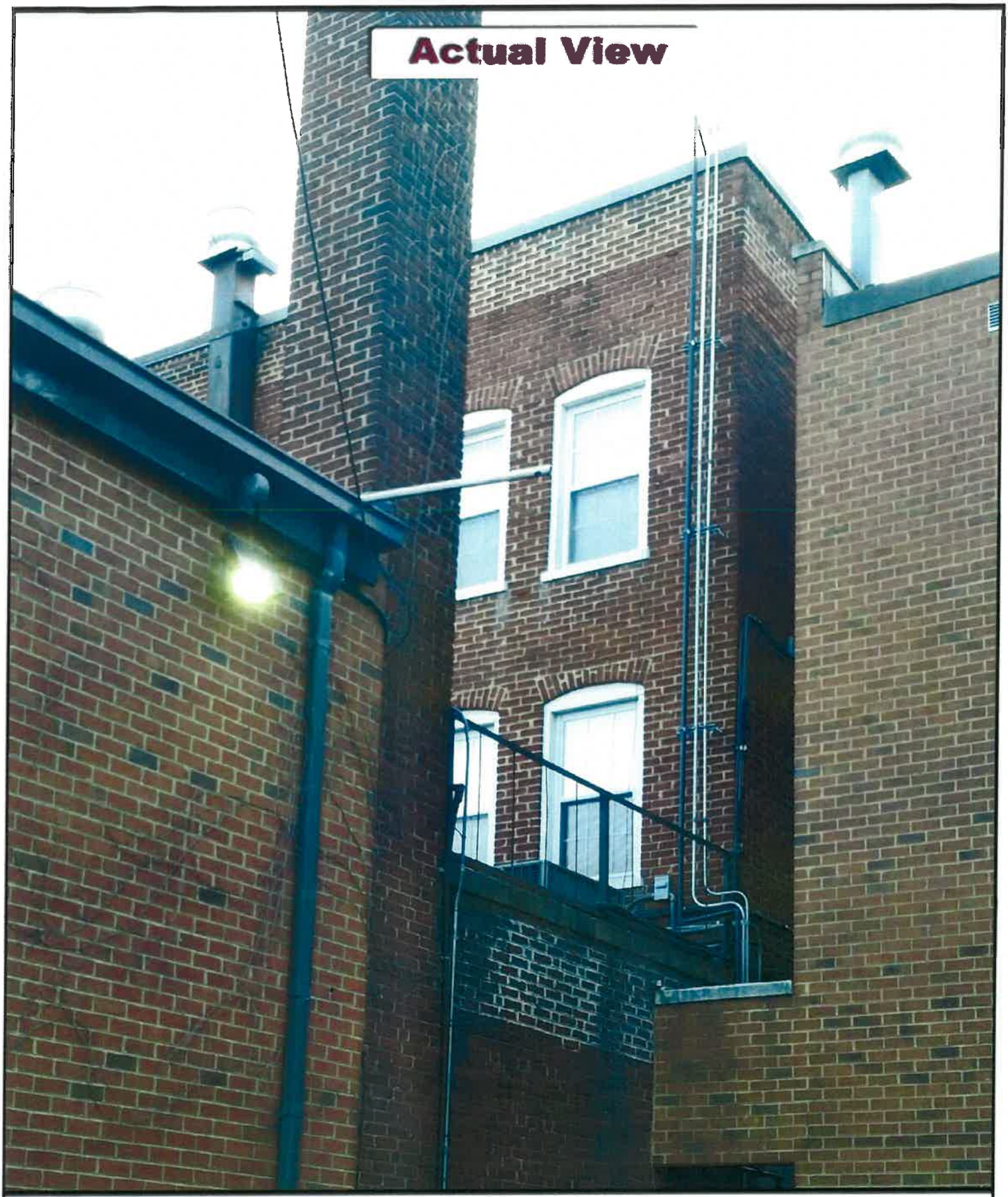


verizon WIRELESS

UNA MC N010
Photo 2A
View Facing Southwest
From Parking Lot
(Page 4 of 5)

Dewberry
4805 Lake Brook Drive, Suite 200
Glen Allen, VA 23060
Phone: 804.290.7957
Fax:804.290.7928
www.dewberry.com

verizon WIRELESS

UNA MC N010

Photo 2B

View Facing Southwest
From Parking Lot
(Page 5 of 5)

Dewberry
4805 Lake Brook Drive, Suite 200
Glen Allen, VA 23060
Phone: 804.290.7957
Fax:804.290.7928
www.dewberry.com

verizon wireless

UVA MC N010
1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

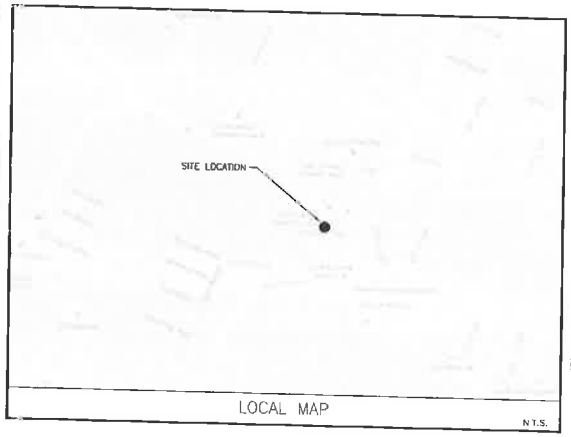
E911 ADDRESS YES ☒ NO ☐

PROJECT DESCRIPTION
INSTALLATION AND OPERATION OF A SMALL CELL NODE AND ASSOCIATED EQUIPMENT ON AN EXISTING BUILDING

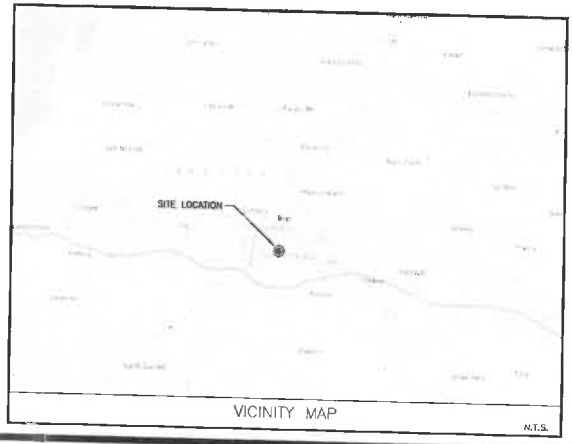
DIRECTIONS FROM SHOCKOE SWITCH (1831 RADY CT., RICHMOND, VA 23222):

TURN LEFT ONTO RADY ST., 0.1 MI. TURN LEFT ONTO MAGNOLIA ST., 0.6 MI. TURN RIGHT ONTO MECHANICSVILLE TURNPIKE, 171 FEET. MERGE ONTO I-64 W. 4.9 MILES. MERGE ONTO I-64 W VIA EXIT 79 TOWARD POWHITE PKWY/CHARLOTTESVILLE, 65.2 MI. TAKE EXIT 121 TOWARD CHARLOTTESVILLE/SCOTTSVILLE, 0.2 MI. TURN RIGHT ONTO MONTICELLO AVE/VA-20, 0.4 MI. TURN LEFT ONTO ELLIOT AVE, 0.9 MI. ELLIOT AVE BECOMES CHERRY AVE, 0.4 MI. TURN RIGHT ONTO ROOSEVELT BROWN BLVD, 0.3 MI. TURN LEFT ONTO W MAIN ST, 0.4 MI. DESTINATION IS ON THE RIGHT

DIRECTIONS



LOCAL MAP N.T.S.



VICINITY MAP N.T.S.

UTILITIES INFO:
POWER: DOMINION
540.672.6126
TELEPHONE: VERIZON
434.293.3216

2 WORKING DAYS BEFORE YOU DIG 811 TOLL FREE MISS UTILITY

EMERGENCY INFO:
JURISDICTION: CITY OF CHARLOTTESVILLE
LOCAL FIRE AND RESCUE: 434.970.3240
LOCAL POLICE: 434.970.3280

PROJECT TEAM

REAL ESTATE: CHAD FRECKMAN	PHONE NUMBER:	434.996.4473
ZONING: JOSIE LODDER	PHONE NUMBER:	704.560.1422
CONSTRUCTION: RICHARD ROSS	PHONE NUMBER:	504.903.0212
UTILITIES: RICHARD ROSS	PHONE NUMBER:	504.903.0212

REV. NO.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	BAR	01/12/16
1	FOR CONSTRUCTION	KKB	02/09/16
2	FOR CONSTRUCTION	RJR	08/03/16
3	FOR CONSTRUCTION	KKB	11/08/16
4	REVISED STEALTH, ADDED STEALTH DWGs	HGS	02/24/17
5	ADDED COAX LENGTH	BAR	03/28/17
6	ADDED ROOF SLOPE	WLJ	04/05/17
7	REV. CONDUIT ROUTING AND EQUIP. LAYOUT	BAR	50/05/17

A & E CONSULTING TEAM

ARCHITECTURE AND ENGINEERING:
DEWBERRY ENGINEERS INC.
4805 LAKE BROOK DRIVE, SUITE 200
GLEN ALLEN, VA 23060
PHONE # 804.205.3337
CONTACT: DEREK MARSHALL, PE, LEED AP

PROJECT SUMMARY

PROPERTY OWNER:
HAMPTON BUILDING CORPORATION
314 E WATER ST
CHARLOTTESVILLE, VA 22902

PROJECT INFO:
LOCATION NAME: UVA MC N010

APPLICANT INFO:
VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222
PHONE: 704.560.1422
CONTACT: JOSIE LODDER

PROJECT DATA:
ZONING: CDH
PARCEL ID: 090082000
ACREAGE: 0.09
JURISDICTION: CITY OF CHARLOTTESVILLE
SITE TYPE: ROOFTOP
SITE TYPE: SMALL CELL
OVERALL HEIGHT: 41.0'±
STRUCTURE HEIGHT: 37.0'±
LEASE AREA: 164 SF
AREA OF DISTURBANCE: 10± SF

CENTER OF PROPOSED ANTENNA*:
LATITUDE: 38° 02' 07.45" N
LONGITUDE: 78° 30' 02.69" W
ELEVATION: 533' AMSL
*PER GOOGLE EARTH

THIS DOCUMENT WAS DEVELOPED TO REFLECT A SPECIFIC SITE AND ITS SITE CONDITIONS AND IS NOT TO BE USED FOR ANOTHER SITE OR WHEN OTHER CONDITIONS PERTAIN. REUSE OF THIS DOCUMENT IS AT THE SOLE RISK OF THE USER.

A.D.A. COMPLIANCE:
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.

INDEX OF DRAWINGS

SHT. NO.	DESCRIPTION
T-1	TITLE SHEET
G-1	GENERAL NOTES
C-1	SITE PLAN
C-2	ROOF PLAN
C-3	ELEVATION
C-4	CONSTRUCTION DETAILS
C-5	CONSTRUCTION DETAILS
S-1	STRUCTURAL DETAILS
S-2	STRUCTURAL LETTERS
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N2	NOTES & SPECIFICATIONS
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S1	ASSEMBLY - ELEVATIONS

verizon wireless

VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222

UVA MC N010

CONSTRUCTION DRAWINGS

7	05/05/17	FOR CONSTRUCTION
6	04/05/17	FOR CONSTRUCTION
5	03/28/17	FOR CONSTRUCTION
4	02/24/17	FOR CONSTRUCTION
3	11/08/16	FOR CONSTRUCTION
2	08/03/16	FOR CONSTRUCTION

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COMMONWEALTH OF VIRGINIA
DEREK R. MARSHALL
Lic. No. 48510
05/05/17
PROFESSIONAL ENGINEER

DRAWN BY: KKB
REVIEWED BY: BAR
CHECKED BY: DRM
PROJECT NUMBER: 50074593
SITE ADDRESS:
1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903
SHEET TITLE
TITLE SHEET
SHEET NUMBER
T-1

Revised - Submitted w/ Appeal Application 6/2/2017

GENERAL CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK IN ORDER TO BECOME FAMILIARIZE WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
2. CONTRACTOR SHALL CONTACT "MISS UTILITY" (1-800-552-7001) FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
4. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
5. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
6. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
7. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
9. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
10. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING.
11. EACH CONTRACTOR SHALL COOPERATE WITH THE OWNER'S REPRESENTATIVE, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
12. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE VERIZON WIRELESS CONSTRUCTION MANAGER.
13. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
14. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR WILL NOTIFY ENGINEER, CONSTRUCTION MANAGER, AND LANDLORD IMMEDIATELY.
15. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
16. ALL ROOF WORK SHALL BE DONE BY A QUALIFIED AND EXPERIENCED ROOFING CONTRACTOR IN COORDINATION WITH ANY CONTRACTOR WARRANTING THE ROOF TO ENSURE THAT THE WARRANTY IS MAINTAINED.
17. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
18. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH LANDLORD AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
19. CONTRACTOR SHALL FURNISH THE CARRIER WITH THREE AS-BUILT SETS OF DRAWINGS UPON COMPLETION OF WORK.
20. ANTENNAS AND CABLES ARE TYPICALLY PROVIDED BY VERIZON WIRELESS. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON WIRELESS PROJECT MANAGER TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED BY VERIZON WIRELESS. ALL ITEMS NOT PROVIDED BY VERIZON WIRELESS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED BY VERIZON WIRELESS.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR WILL COORDINATE WITH VERIZON WIRELESS PROJECT MANAGER TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY VERIZON WIRELESS. ALL REQUIRED PERMITS NOT OBTAINED BY VERIZON WIRELESS MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
22. IF APPLICABLE, THE GENERAL CONTRACTOR SHALL HAVE A LICENSED HVAC CONTRACTOR START THE HVAC UNITS, SYNCHRONIZE THE THERMOSTATS, ADJUST ALL SETTINGS ON EACH UNIT ACCORDING TO VERIZON WIRELESS CONSTRUCTION MANAGER'S SPECIFICATIONS, AND THOROUGHLY TEST AND BALANCE EACH UNIT TO ENSURE PROPER OPERATION PRIOR TO TURNING THE SITE OVER TO OWNER.
23. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
24. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO VERIZON WIRELESS SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
25. CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 48 HOURS IN ADVANCE PRIOR TO CONSTRUCTION START, MORE SPECIFICALLY BEFORE; SEALING ANY FLOOR, WALL OR ROOF PENETRATION, FINAL UTILITY CONNECTIONS, POURING CONCRETE, BACKFILLING UTILITY TRENCHES AND STRUCTURAL POST OR MOUNTING CONNECTIONS, FOR ENGINEERING REVIEW AND INSPECTION.
26. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
27. DETECTION WIRE SHALL BE BURIED DIRECTLY ABOVE NON-METALLIC PIPING AT A DISTANCE NOT TO EXCEED TWELVE (12) INCHES ABOVE THE TOP OF PIPE. THE WIRE SHALL EXTEND CONTINUOUSLY AND UNBROKEN FROM POINT OF ACCESS TO POINT OF ACCESS. THE ENDS OF THE WIRE SHALL TERMINATE WITH A MINIMUM OF THREE (3) FEET OF WIRE, COILED, REMAINING ACCESSIBLE AT TERMINATION POINTS. DETECTION WIRE SHALL BE 12 GAUGE FOR A BURIED DEPTH OF LESS THAN 4 FEET AND 4 GAUGE FOR A BURIED DEPTH GREATER THAN OR EQUAL TO 4 FEET.
28. THE CONTRACTOR SHALL GIVE ALL NOTICES AND 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.
29. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE CONSTRUCTION MANAGER 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.
30. 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.
31. 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.
32. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/VENDORS SPECIFICATIONS UNLESS OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
33. 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.
34. 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.
35. 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.
36. 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.
37. THE CONTRACTOR SHALL MAINTAIN THE GENERAL WORK AREA AS CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
38. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
39. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER 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 CONSTRUCTION MANAGER.
40. EROSION CONTROL MEASURES SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
41. ALL CONSTRUCTION AND DESIGN FOR THE PROPOSED ANTENNA MOUNTS SHALL CONFORM IN ACCORDANCE WITH THE CURRENT STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES.
42. CONTRACTOR TO VERIFY ANTENNA ELEVATION AND AZIMUTH WITH RF ENGINEERING PRIOR TO INSTALLATION.
43. THE CONTRACTOR SHALL POST ALL SIGNS REQUIRED BY THE LATEST VERSION OF THE VERIZON WIRELESS "RADIO FREQUENCY COMPLIANCE SIGNAGE & DEMARCATION POLICY" THIS MAY INCLUDE BUT ARE NOT LIMITED TO:
    A. NOTICE SIGNS TO DISTINGUISH THE BOUNDARY BETWEEN GENERAL POPULATION/UNCONTROLLED AREAS AND OCCUPATIONAL AREAS
    B. CAUTION SIGNS TO DISTINGUISH THE CONTROLLED AREAS WHERE RADIO FREQUENCY (RF) EXPOSURE CAN EXCEED THE OCCUPATIONAL/CONTROLLED MAXIMUM PERMISSIBLE EXPOSURE (MPE) LIMIT.
    C. WARNING SIGNS TO DISTINGUISH THE BOUNDARY OF AREAS WITH RF LEVELS SUBSTANTIALLY ABOVE THE FCC LIMITS, GREATER THAN TEN (10) TIMES THE OCCUPATIONAL/CONTROLLED MPE LIMIT.
    D. NOTICE-GUIDELINES FOR WORKING IN RADIOFREQUENCY ENVIRONMENTS: THIS SIGN IS TO BE POSTED ANYTIME SIGNAGE IS REQUIRED TO ACHIEVE FCC COMPLIANCE. IT MUST BE POSTED ON EVERY ACCESS POINT WHERE VERIZON IS EXPECTED TO EXCEED THE FCC GENERAL POPULATION EXPOSURE LIMIT AND ON EVERY ANTENNA ARRAY IN ACCESSIBLE AREAS.

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VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222

UVA MC N010

CONSTRUCTION DRAWINGS

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COMMONWEALTH OF VIRGINIA
DEREK R. MARSHALL
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05/05/17
PROFESSIONAL ENGINEER

DRAWN BY:	KKB
REVIEWED BY:	BAR
CHECKED BY:	DRM
PROJECT NUMBER:	50074593

SITE ADDRESS:

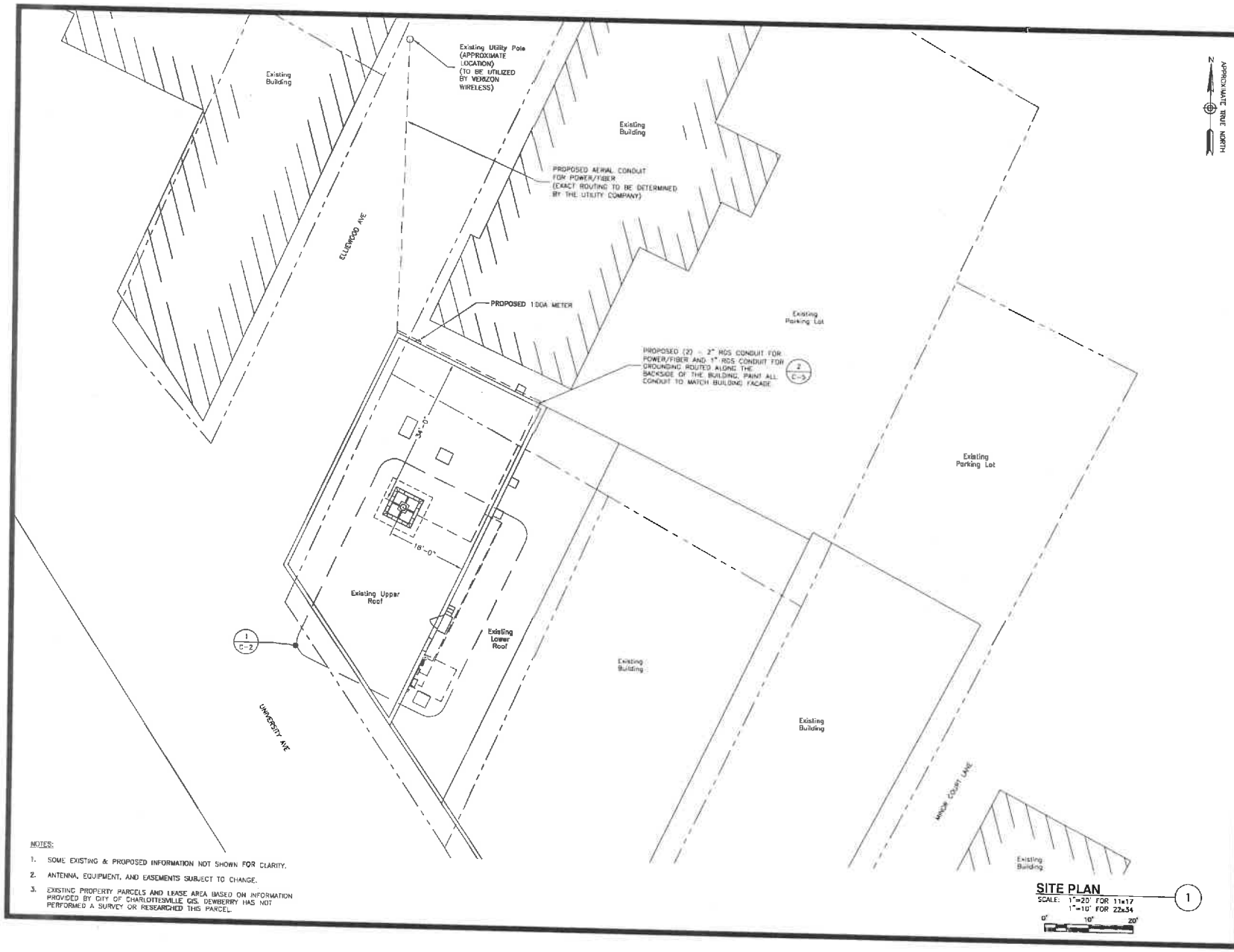
1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

G-1



NOTES:

1. SOME EXISTING & PROPOSED INFORMATION NOT SHOWN FOR CLARITY.
2. ANTENNA, EQUIPMENT, AND EASEMENTS SUBJECT TO CHANGE.
3. EXISTING PROPERTY PARCELS AND LEASE AREA BASED ON INFORMATION PROVIDED BY CITY OF CHARLOTTESVILLE GIS. DEWBERRY HAS NOT PERFORMED A SURVEY OR RESEARCHED THIS PARCEL.

SITE PLAN 1
SCALE: 1"=20' FOR 11x17
1"=10' FOR 22x34
0' 10' 20'

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VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222

UVA MC N010

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REVIEWED BY:	BAR
CHECKED BY:	DRM
PROJECT NUMBER:	50074593
SITE ADDRESS:	

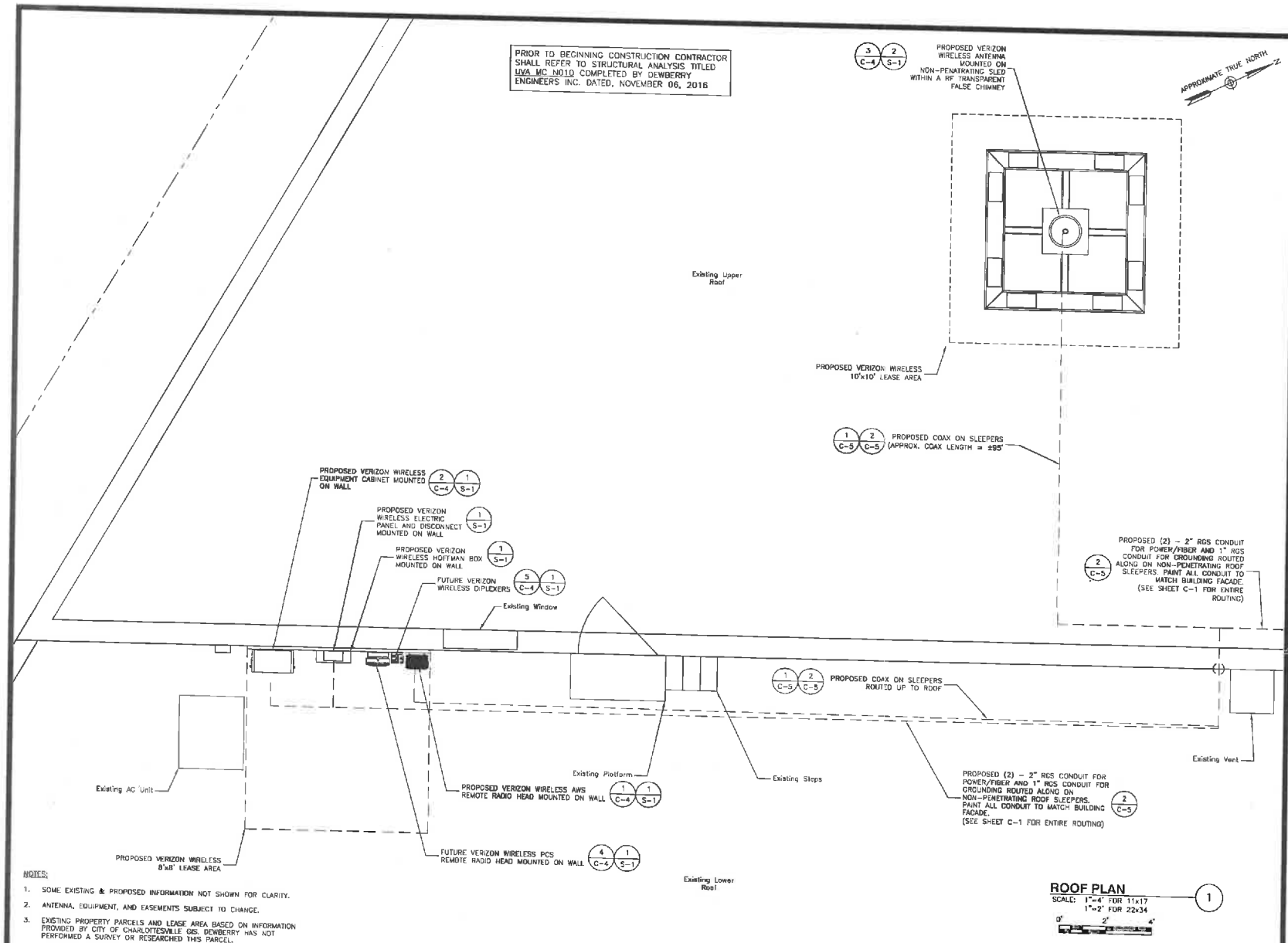
1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

SHEET TITLE:

SITE PLAN

SHEET NUMBER

C-1



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VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222

UVA MC N010

CONSTRUCTION DRAWINGS		
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05/05/17
PROFESSIONAL ENGINEER

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REVIEWED BY:	BAR
CHECKED BY:	DRM
PROJECT NUMBER:	50074593

SITE ADDRESS:

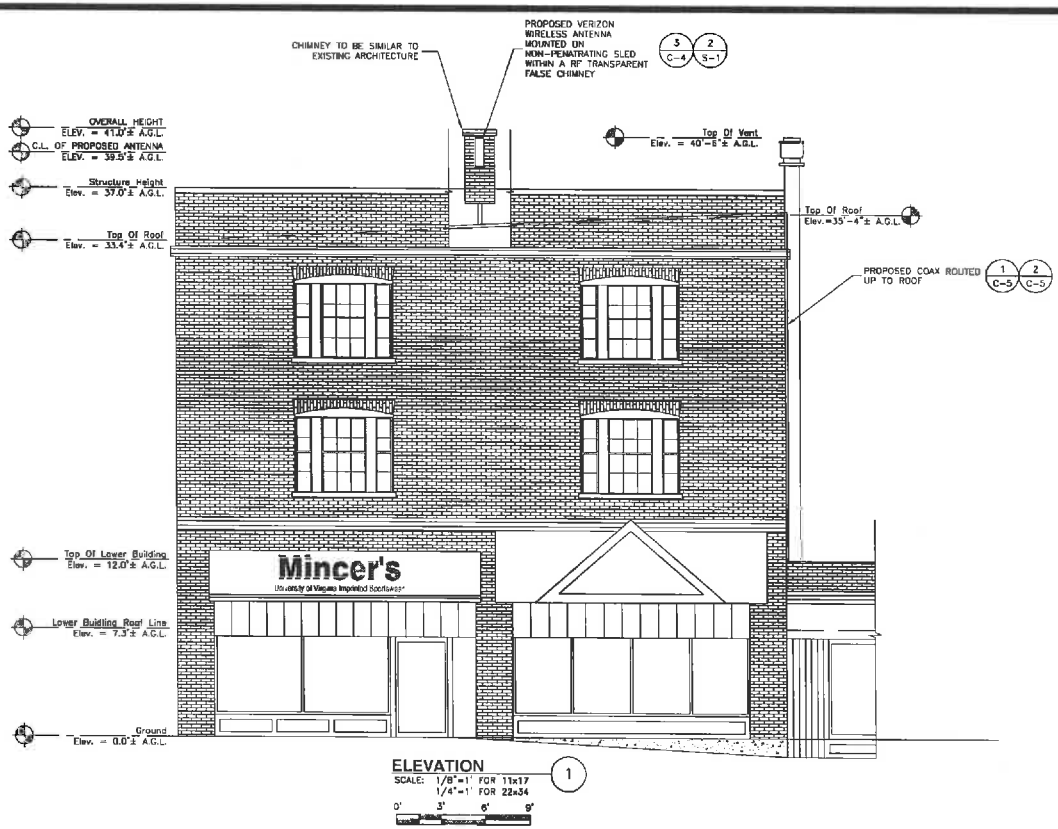
1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

SHEET TITLE

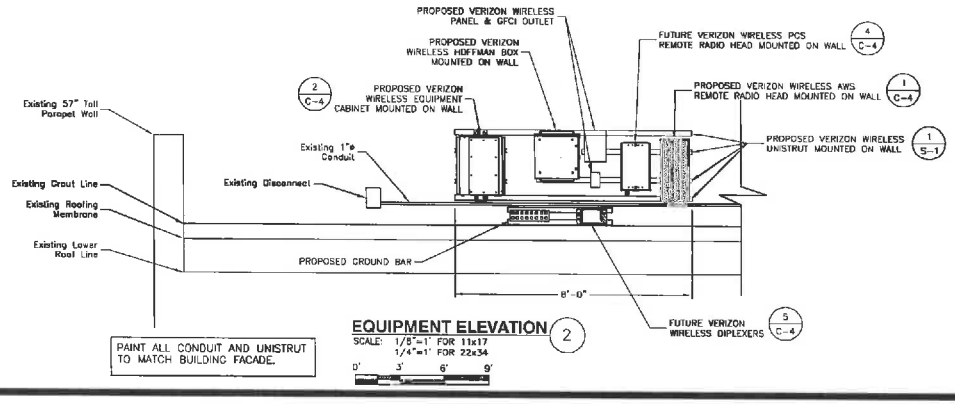
ROOF PLAN

SHEET NUMBER

C-2



ELEVATION 1
SCALE: 1/8"=1' FOR 11x17
1/4"=1' FOR 22x34
0' 3' 6' 9'



PAINT ALL CONDUIT AND UNISTRUT TO MATCH BUILDING FACADE.

EQUIPMENT ELEVATION 2
SCALE: 1/8"=1' FOR 11x17
1/4"=1' FOR 22x34
0' 3' 6' 9'

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VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222

UVA MC N010

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PROJECT NUMBER:	50074593
SITE ADDRESS:	

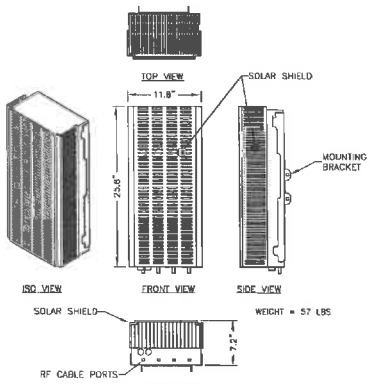
1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

SHEET TITLE

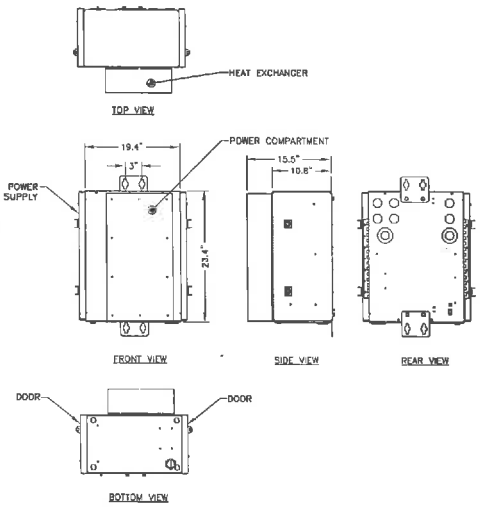
ELEVATION

SHEET NUMBER

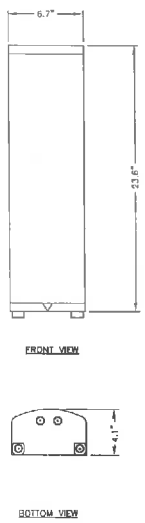
C-3



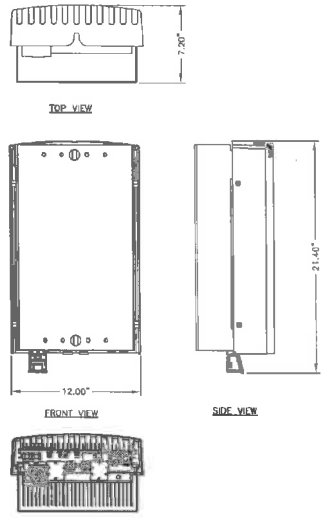
AWS B66a RRH 4x45W (REMOTE RADIO HEAD)
SCALE: N.T.S. (1)



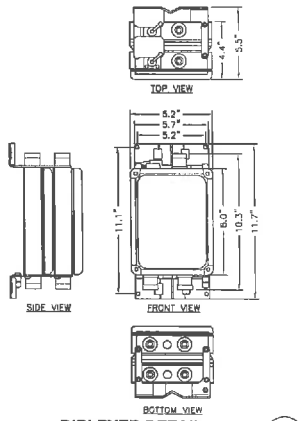
CUBE-SC1041NAN3 EQUIPMENT CABINET (2)
SCALE: N.T.S.



ANDREW-V65S-1XR (PANEL ANTENNA) (3)
SCALE: N.T.S.



PCS RRH4x30-B25 (REMOTE RADIO HEAD) (4)
SCALED N.T.S.



DIPLEXER DETAIL (5)
SCALE: N.T.S.

RF SYSTEM SCHEDULE								
ANTENNA SECTOR	STATUS	ANTENNA MANUFACTURER	ANTENNA MODEL	RAD CENTER	ANTENNA AZIMUTH	DOWN TILT	RRH QUANTITY & MODEL	CABLE SIZE AND QUANTITY
ALPHA	PROPOSED	ANDREW	V65S-1XR	39.5'	270°	0°	(1) PCS RRH4x30-B25 (1) AWS RRH2x40	(2) - 1/2"ø
NOTE:	1. ALL CHANGES TO THIS SCHEDULE SHOULD BE APPROVED BY VERIZON RF ENGINEERING.							

NOTES:

1. CONTRACTOR TO VERIFY ANTENNA INFORMATION WITH CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.
2. CONTRACTOR TO VERIFY PROPOSED ANTENNA INFORMATION IS THE MOST CURRENT DATA AT TIME OF CONSTRUCTION.
3. CONTRACTOR TO CONFIRM CABLE LENGTHS PRIOR TO CONSTRUCTION.
4. CONTRACTOR IS RESPONSIBLE TO BUILD FROM THE LATEST RF SHEET.

verizon wireless

VERIZON WIRELESS
1831 RADY COURT
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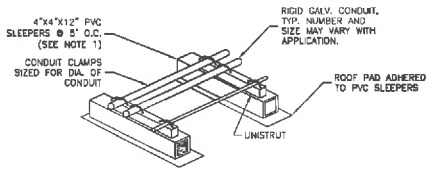
PROFESSIONAL ENGINEER

DRAWN BY:	KKB
REVIEWED BY:	BAR
CHECKED BY:	DRM
PROJECT NUMBER:	50074563

SITE ADDRESS:
1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

SHEET TITLE
CONSTRUCTION DETAILS

SHEET NUMBER
C-4

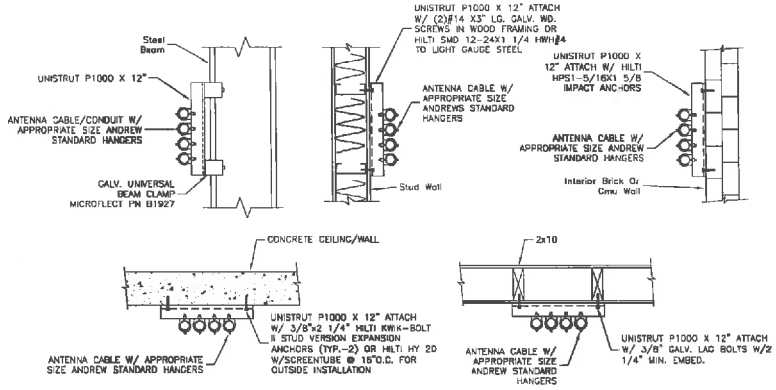


NOTE:

1. PVC SLEEPERS TO BE FILLED WITH CONCRETE EVERY 5'-0".

CONDUIT ON PVC SLEEPERS (1)

SCALE: N.T.S.



NOTES:

1. ALL COAX CABLE SUPPORT SPACING: 4'-0" MAX.
2. ALL CONDUIT SUPPORT SPACING: 10' MAX.

CABLE CONDUIT SUPPORT (2)

SCALE: N.T.S.

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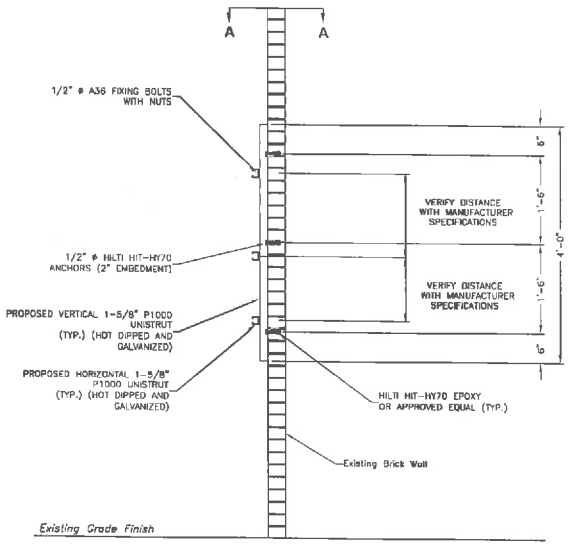
SHEET TITLE

CONSTRUCTION DETAILS

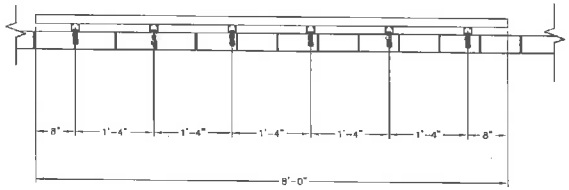
SHEET NUMBER

C-5



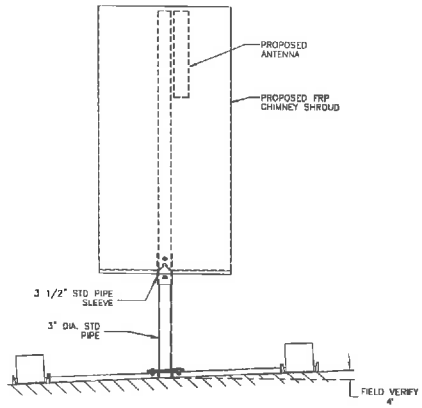
EQUIPMENT WALL MOUNTING DETAIL SECTION (1)

SCALE: N.T.S.

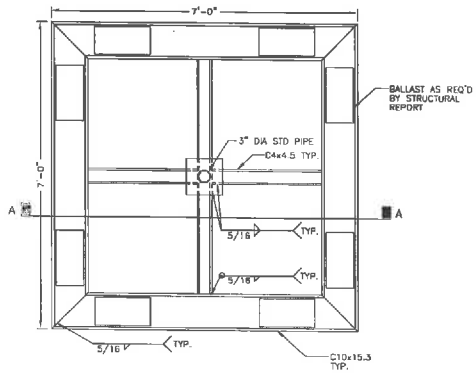


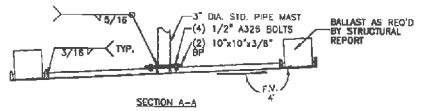
SECTION A-A

SCALE: N.T.S.



3" DIA. PIPE TO BE CUT AT BASE TO MATCH SLOPE OF ROOF TO ENSURE PIPE IS PLUMB.





SECTION A-A

ANTENNA BALLAST MOUNT DETAIL (2)

SCALE: N.T.S.

PROVIDE BALLAST AS INDICATED IN THE STRUCTURAL ANALYSIS.

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VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222

UVA MC N010

CONSTRUCTION DRAWINGS		
7	05/05/17	FOR CONSTRUCTION
6	04/05/17	FOR CONSTRUCTION
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COMMONWEALTH OF VIRGINIA
DEREK R. MARSHALL
Lic. No. 48510
05/05/17
PROFESSIONAL ENGINEER

DRAWN BY:	KKB
REVIEWED BY:	BAR
CHECKED BY:	DRM
PROJECT NUMBER:	50074593
SITE ADDRESS:	

1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

SHEET TITLE

STRUCTURAL DETAILS

SHEET NUMBER

S-1

Dewberry

Structural Analysis Report and Design Calculations
For a Wireless Telecommunications Upgrade

Site Name: UVA MC N010
Site Address: 1521 University Ave
Charlottesville, VA 22903

Verizon Wireless

December 21, 2015

Dewberry Engineers Inc.

Prepared by: Jason Giroux

Reviewed by: Derek Marshall

Derek Marshall, P.E.
Virginia Professional Engineer

1.0 INTRODUCTION AND PROJECT SUMMARY

2.0 PROPOSED ANTENNAS & EQUIPMENT

The following antennas and equipment are proposed:

3.0 CODES, STANDARDS, AND REFERENCES

- *International Building Code (IBC) 2012*
- American Society of Civil Engineers ASCE 7-10
- American Institute of Steel Construction AISC 360-10
- TIA-222-G

4.0 LOADING AND PERFORMANCE CRITERIA

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5.0 CALCULATIONS

6.0 CONCLUSIONS, COMMENTARY, AND RECOMMENDATIONS

Antenna Mount

Equipment Mount

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1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

SHEET TITLE

STRUCTURAL LETTERS

SHEET NUMBER

S-2

ELECTRICAL GENERAL NOTES

A. GENERAL

1. SUBMITTAL OF BID INDICATES CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT. CONTRACTOR IS RESPONSIBLE FOR ALL FIELD VERIFICATION.
2. THESE PLANS ARE DIAGRAMMATIC ONLY, AND NOT TO BE SCALED.
3. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORY AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA, AND NBFU.
4. COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF NO LESS THAN ONE YEAR AFTER THE DATE OF JOB ACCEPTANCE BY OWNER. ANY WORK, MATERIAL, OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION AT THE EXPENSE OF THE CONTRACTOR.
5. PROVIDE ALL LABOR, MATERIAL, EQUIPMENT, INSURANCE AND SERVICES TO COMPLETE THIS PROJECT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND PRESENT IT AS FULLY OPERATIONAL TO THE SATISFACTION OF THE OWNER.
6. THE CONSTRUCTION MANAGER WILL COORDINATE POWER AND TELCO WORK WITH THE LOCAL UTILITY COMPANY AS IT MAY APPLY TO THIS SITE. ALL WORK IS TO COMPLY WITH THE RULES AND REGULATIONS OF THE UTILITIES INVOLVED.
7. FABRICATION AND INSTALLATION OF THE COMPLETE ELECTRICAL SYSTEM SHALL BE DONE WITH FIRST CLASS WORKMANSHIP PER NECA STANDARD 1-2000 BY QUALIFIED PERSONNEL, LICENSED AND EXPERIENCED IN SUCH WORK AND SHALL SCHEDULE THE WORK IN AN ORDERLY MANNER SO AS TO NOT IMPEDE THE PROGRESS OF THE PROJECT.
8. DURING PROGRESS OF THE WORK, MAINTAIN AN ACCURATE RECORD OF THE INSTALLATION OF THE ELECTRIC SYSTEMS, LOCATING EACH CIRCUIT PRECISELY AND DIMENSIONING EQUIPMENT, CONDUIT AND CABLE LOCATIONS. UPON COMPLETION OF THE INSTALLATION, TRANSFER ALL RECORD DATA TO RED LINE PRINTS OF THE ORIGINAL DRAWINGS AND SUBMIT THESE DRAWINGS AS RECORD DRAWINGS TO THE CONSTRUCTION MANAGER.
9. THE CONTRACTOR SHALL NOTIFY MISS UTILITY A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO ANY CONSTRUCTION OR EXCAVATION. THE CONTRACTOR SHALL ALSO NOTIFY A PRIVATE UTILITY CONTRACTOR FOR ALL ON-SITE UTILITY LOCATIONS.
10. COORDINATE ALL METER WORK WITH LOCAL UTILITY COMPANY.

B. BASIC MATERIALS AND METHODS

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE EDITION OF THE NEC ACCEPTED BY THE LOCAL JURISDICTION AND TO THE APPLICABLE LOCAL CODES AND REGULATIONS.
2. ALL MATERIALS AND EQUIPMENT SHALL BE NEW. MATERIALS AND EQUIPMENT SHALL BE THE STANDARD PRODUCTS OF MANUFACTURER'S CURRENT DESIGN. ANY FIRST-CLASS PRODUCT MADE BY A REPUTABLE MANUFACTURER MAY BE USED PROVIDING IT CONFORMS TO THE CONTRACT REQUIREMENTS AND MEET THE APPROVAL OF THE CONSULTANT AND OWNER.
3. ARRANGE CONDUIT, WIRING, EQUIPMENT, AND OTHER WORK GENERALLY AS SHOWN, PROVIDING ALL APPROPRIATE CLEARANCE AND ACCESS. CAREFULLY EXAMINE ALL CONTRACT DRAWINGS AND FIT THE WORK IN EACH LOCATION WITHOUT SUBSTANTIAL ALTERATION. WHERE DEPARTURES ARE PROPOSED BECAUSE OF FIELD CONDITIONS OR OTHER CAUSES PREPARE AND SUBMIT DETAILED DRAWINGS FOR ACCEPTANCE.
4. THE CONTRACT DRAWINGS ARE GENERALLY DIAGRAMMATIC AND ALL OFFSETS, BENDS, FITTINGS, AND ACCESSORIES ARE NOT SHOWN. PROVIDE ALL SUCH ITEMS AS MAY BE REQUIRED TO FIT THE WORK TO THE CONDITIONS.
5. MAINTAIN ALL CLEARANCES AS REQUIRED BY THE NATIONAL ELECTRICAL CODE (NEC).

C. CONDUCTORS AND CONNECTORS

1. UNLESS NOTED OTHERWISE, ALL CONDUCTORS SHALL BE COPPER, MINIMUM SIZE #12 AWG WITH THERMOPLASTIC INSULATION CONFORMING TO NEMA WC5 OR CROSS-LINKED POLYETHYLENE INSULATION CONFORMING TO NEMA WC7 (TYPES THHN OR THWN). INSULATION SHALL BE RATED FOR 90°C. CONDUCTORS SHALL BE COLOR CODED IN ACCORDANCE WITH THE NEC.
2. ALL CONDUCTORS USED FOR CIRCUIT GROUNDING SHALL BE COPPER AND SHALL HAVE GREEN INSULATION.
3. FOR COPPER CONDUCTORS #8 AWG AND SMALLER, USE 3M SCOTCH LOK OR T&B STA-KON COMPRESSION TYPE CONNECTORS WITH INTEGRAL OR SEPARATE INSULATION CAPS. FOR COPPER CONDUCTORS LARGER THAN #6 AWG, USE SOLDERLESS IDENT HEX SCREW OR BOLT TYPE PRESSURE CONNECTORS OR DOUBLE COMPRESSION C-CLAMP CONNECTORS, UNLESS NOTED OTHERWISE ON DRAWINGS.
4. UNLESS NOTED OTHERWISE ALL LUGS SHALL BE TIN PLATED COPPER. TWO-HOLE LONG BARREL COMPRESSION TYPE.
5. CONDUCTOR LENGTHS SHALL BE CONTINUOUS FROM TERMINATION TO TERMINATION WITHOUT SPLICES. SPLICES ARE NOT ACCEPTABLE. IF SPLICES ARE UNAVOIDABLE, PRIOR APPROVAL FROM CINGULAR'S REPRESENTATIVE MUST BE OBTAINED.

E. RACEWAYS AND BOXES

1. ALL CONDUIT SHALL BE UL LABELED.
2. ALL EMPTY CONDUITS INSTALLED FOR FUTURE USE SHALL HAVE A PULL CORD.
3. SHEET METAL BOXES SHALL BE NEMA 3R AND CONFORM TO NEMA OS1. CAST-METAL BOXES SHALL BE NEMA 3R AND CONFORM TO NEMA 81 AND SHALL BE SIZED IN ACCORDANCE WITH NEC UNLESS OTHERWISE NOTED.

E. CONDUIT

1. RIGID CONDUIT SHALL BE U.L. LABEL, GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH THE EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.
2. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTINGS TO BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.
3. LIQUID-TIGHT FLEXIBLE METAL CONDUIT SHALL BE U.L. LISTED AND SHALL BE USED AT FINAL CONNECTIONS TO MECHANICAL EQUIPMENT & RECTIFIERS AND WHERE PERMITTED BY CODE. ALL CONDUIT IN EXCESS OF SIX FEET IN LENGTH SHALL CONTAIN A FULL-SIZED GROUND CONDUCTOR.
4. CONDUIT RUNS SHALL BE SURFACE MOUNTED ON WALLS AND CEILINGS UNLESS NOTED OTHERWISE. ALL CONDUIT SHALL RUN PARALLEL OR PERPENDICULAR TO WALLS, FLOOR, CEILING, OR BEAMS. VERIFY EXACT ROUTING OF ALL EXPOSED CONDUIT WITH THE PROJECT MANAGER PRIOR TO INSTALLING.
5. PVC CONDUIT MAY ONLY BE PROVIDED WHERE SHOWN, OR IN UNDERGROUND INSTALLATIONS. PROVIDE UV-RESISTANT CONDUIT WHERE EXPOSED TO THE ATMOSPHERE. PROVIDE GROUND CONDUCTOR IN ALL PVC RUNS; EXCEPT WHERE PERMITTED BY CODE TO OMIT.

F. GROUNDING

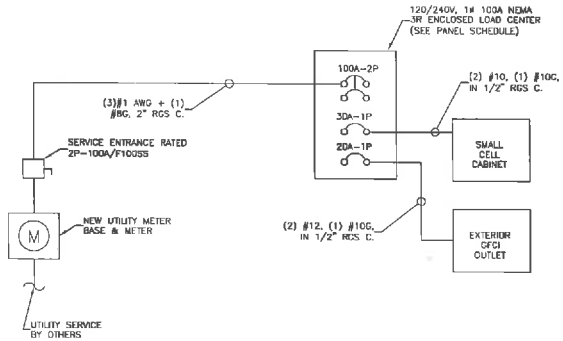
1. ALL SAFETY GROUNDING OF THE ELECTRICAL EQUIPMENT SHALL BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT EDITION OF THE NEC.
2. GROUND LUGS ARE SPECIFIED UNDER SECTION "C. CONDUCTORS AND CONNECTORS"
3. ALL GROUND LUG AND COMPRESSION CONNECTIONS SHALL BE COATED WITH AN ANTI-OXIDENT AGENT SUCH AS NO-OX, NOALOZ, PENETROZ, OR KOPRSHIELD.
4. PROVIDE LOCK WASHERS FOR ALL MECHANICAL CONNECTIONS FOR GROUND CONDUCTORS. USE STAINLESS STEEL HARDWARE THROUGHOUT.
5. DO NOT INSTALL GROUND RING (IF REQUIRED) OUTSIDE OF PROPERTY LINE.
6. REMOVE ALL PAINT AND CLEAN ALL DIRT FROM SURFACES REQUIRING GROUND CONNECTIONS. REPAINT TO MATCH AFTER CONNECTIONS ARE MADE TO MAINTAIN CORROSION RESISTANCE.
7. ALL EXTERIOR GROUNDING CONDUCTORS INCLUDING EXTERIOR GROUND RING (IF REQUIRED) SHALL BE #2 AWG SOLID BARE TINNED COPPER. MAKE ALL GROUND CONNECTIONS AS SHORT AND DIRECT AS POSSIBLE. AVOID ANY SHARP BENDS. THE RADIUS OF ANY BEND SHALL NOT BE LESS THAN 8" AND THE ANGLE OF ANY BEND SHALL BE EXCEED 90°. GROUNDING CONDUCTORS SHALL BE ROUTED DOWNWARD TOWARD THE BURIED GROUND RING.
8. ALL GROUND CONNECTIONS SHALL BE APPROVED FOR THE METALS BEING CONNECTED.
9. ALL EXTERNAL GROUND CONNECTIONS SHALL BE EXOTHERMICALLY WELDED. ALL EXOTHERMIC WELDS TO THE EXTERIOR GROUND RING SHALL BE TEE TYPE LOCATED ON TOP OF GROUND RODS. REPAIR ALL GALVANIZED SURFACES THAT HAVE BEEN DAMAGED BY EXOTHERMIC WELDING USING SPRAY CONTAINING 95% ZINC (Z.R.C. "GALVANITE OR EQUIVALENT).
11. IF A NEW GROUND RING IS REQUIRED, CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER WHEN THE BURIED RING IS INSTALLED SO THE MANAGER CAN INSPECT THE GROUND RING BEFORE IT IS BACKFILLED WITH SOIL.
12. WHERE MECHANICAL CONNECTORS (TWO-HOLE OR CLAMP) ARE USED, APPLY A LIBERAL PROTECTIVE COATING OF AN ANTI-OXIDANT COMPOUND SUCH AS "NO OXIDE A" BY DEARBORN CHEMICAL COMPANY ON ALL CONNECTORS.
13. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY REPRESENTATIVE AT THE SITE TO DISCONNECT THE UTILITY NEUTRAL FROM GROUNDING SYSTEM DURING FINAL INSPECTION SO THE REQUIRED TESTING ON THE GROUND SYSTEM CAN BE PERFORMED. IF THE CONTRACTOR FAILS TO HAVE THE UTILITY REPRESENTATIVE PRESENT DURING FINAL RESISTANCE TESTING, THE CONTRACTOR SHALL PAY THE COST FOR AN INDEPENDENT GROUNDING CONSULTANT TO PERFORM THE GROUND RESISTANCE TEST. GROUNDING CONSULTANT TO BE SELECTED BY THE CONSTRUCTION MANAGER. IF THE UTILITY REPRESENTATIVE FAILS TO APPEAR AT NO FAULT OF THE CONTRACTOR, NO PENALTY SHALL APPLY.
14. PAINT, ENAMEL, LACQUER AND OTHER ELECTRICALLY NON-CONDUCTIVE COATINGS SHALL BE REMOVED FROM THREADS AND SURFACE AREAS WHERE CONNECTIONS ARE MADE TO ENSURE GOOD ELECTRICAL CONTINUITY.
15. CONNECTIONS BETWEEN DISSIMILAR METALS SHALL NOT BE MADE UNLESS THE CONDUCTORS ARE SEPARATED BY A SUITABLE MATERIAL THAT IS PART OF THE ATTACHMENT DEVICE. ONLY ATTACHMENT DEVICES LISTED AND APPROVED FOR DISSIMILAR METALS MAY BE USED.

LOAD CENTER							
VOLTS:	120/240	WIRE:	3	AIC:	*	NEUTRAL BAR:	YES
PHASE:	1	AMP:	100	MAIN CB AMP:	100	GROUND BAR:	YES
BRANCH CB:	6	NEMA TYPE:	3R OUTDOOR			MFR:	SQUARE "D"
KEY LOCK:	NO	MOUNTING:	SURFACE				

WATTS A	WATTS B	CIRCUIT DESCRIPTION	CONDUCTOR	POLES	BRK	CKT
2238		EQUIPMENT CABINET	#10	1	30	1
	180	EXTERIOR GFCI OUTLET	#12	1	20	2
-		SPACE	-	1		3
	-	SPACE	-	1		4
		SPACE	-	1		5
	-	SPACE	-	1		6

* AS REQUIRED TO MEET AVAILABLE FAULT CURRENT

PANEL SCHEDULE



ELECTRICAL ONE LINE DIAGRAM

SCALE: N.T.S.

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VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222

UVA MC N010

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DRAWN BY:	KKB
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CHECKED BY:	DRM
PROJECT NUMBER:	50074593
SITE ADDRESS:	

1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

SHEET TITLE

ELECTRICAL NOTES AND ONE LINE DIAGRAM

SHEET NUMBER

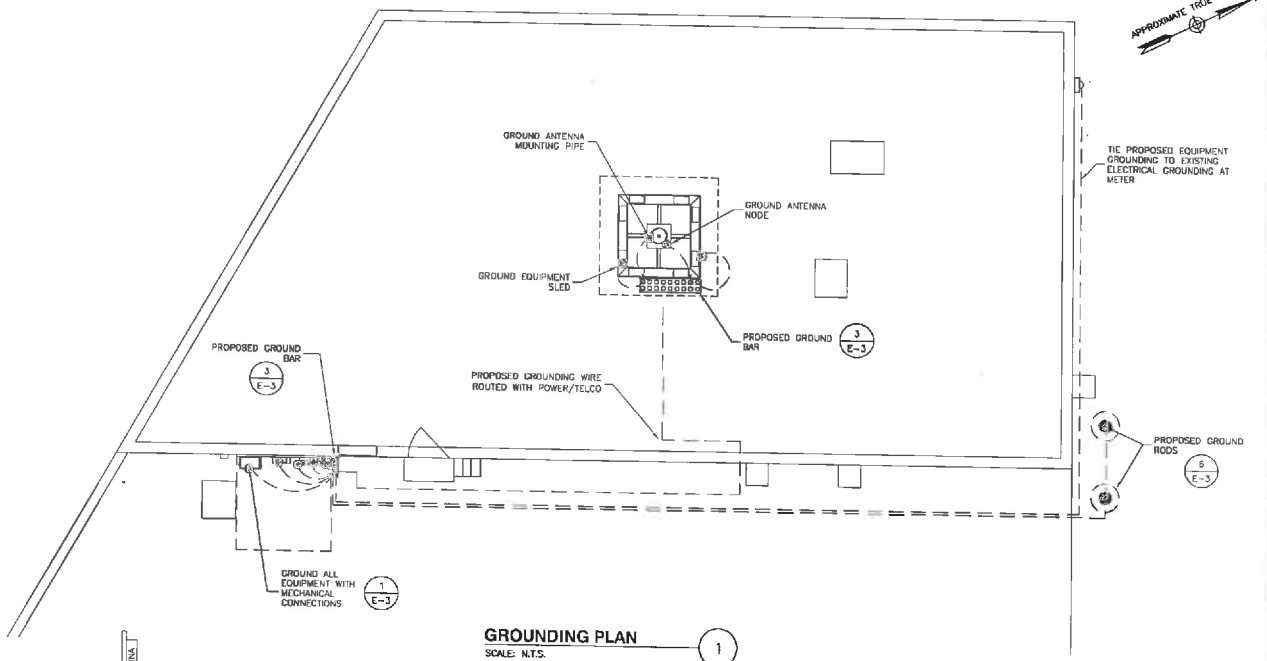
E-1

GROUNDING NOTES

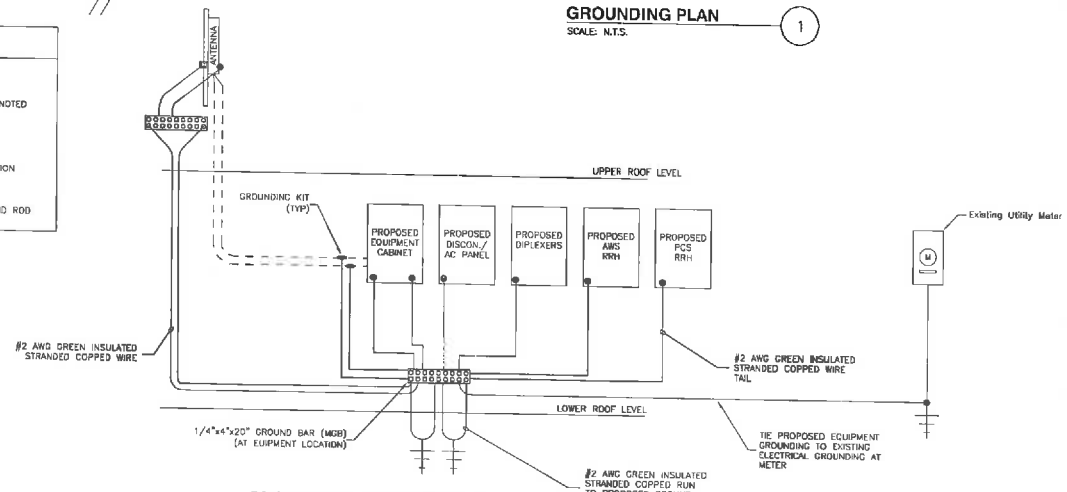
1. WHERE MECHANICAL CONNECTIONS ARE SPECIFIED, BOLTED, COMPRESSION-TYPE, CLAMPS OR SPLIT-BOLT TYPE CONNECTORS SHALL BE USED.
2. INSTALL GROUNDING KITS AT ANTENNA CENTERLINE. GROUND COAX LINES, EXOTHERMICALLY WELD #2 DOWN CONDUCTOR TO PLATES, RUN DOWN BUILDING AND TIE INTO GROUNDING SYSTEM.
3. PRIOR TO THE START OF GROUNDING WORK, THE CONTRACTOR SHALL OBTAIN THE LATEST COPY OF THE VERIZON SOUTHERN VIRGINIA REGION GROUNDING STANDARDS. ANY OMISSION OF INFORMATION ON THIS DOCUMENT DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY. ALL VERIZON GROUNDING REQUIREMENTS SHALL BE MET AS OUTLINED IN VERIZON'S GROUNDING STANDARDS. ALL GROUNDING WORK SHALL COMPLY WITH VERIZON WIRELESS SPECIFICATIONS AND STANDARDS. FOLLOWING COMPLETION OF WORK, GROUND SYSTEM MUST BE TESTED AND SHALL HAVE A RESISTANCE OF 5 OHMS OR LESS (SUBMIT AN INDEPENDENT "FALL POTENTIAL" TESTING REPORT).
4. NOTIFY CONSTRUCTION MANAGER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.
5. GROUNDING RING IS SHOWN AS SCHEMATIC ONLY. IT IS DESIGNED WITHOUT BENEFIT OF RESISTIVITY TESTING AND DOES NOT NECESSARILY REPRESENT A GROUNDING SYSTEM TO MEET ANY SPECIFIC GROUND RESISTANCE.
6. GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.
7. ALL GROUNDING DEVICES SHALL BE U.L. APPROVED OR LISTED FOR THEIR INTENDED USE.
8. ROUTE GROUNDING CONDUCTORS THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. BEND GROUNDING LEADS WITH A MINIMUM 12" RADIUS.
9. INSTALL #2 AWG GREEN-INSULATED STRANDED WIRE FOR ABOVE GRADE GROUNDING AND #2 TINNED SOLID COPPER WIRE FOR BELOW GRADE GROUNDING, UNLESS OTHERWISE NOTED.
10. THE GROUND ELECTRODE SYSTEM SHALL CONSIST OF DRIVEN GROUND RODS POSITIONED ACCORDING TO GROUNDING PLAN. THE GROUND RODS SHALL BE 5/8"x10'-0" COPPER CLAD STEEL INTERCONNECTED WITH #2 TINNED SOLID COPPED WIRE BURIED 36" BELOW GRADE. BURY GROUND RODS A MAXIMUM OF 15' APART AND A MINIMUM OF 10' APART.
11. WHERE BARE COPPER GROUND WIRES ARE ROUTED FROM ANY CONNECTION ABOVE GRADE TO GROUND RING, INSTALL WIRE IN 3/4" PVC SLEEVE, FROM 1" BELOW GRADE AND SEAL TOP WITH SILICONE MATERIAL.

GROUNDING LEGEND

- GROUND BAR
- GROUND COPPER WIRE, SIZE AS NOTED
- MECHANICAL CONNECTION
- EXOTHERMIC (CADWELL) CONNECTION
- 5/8"X10' COPPER CLAD STEEL GROUND ROD



GROUNDING PLAN (1)
SCALE: N.T.S.



GROUNDING RISER DIAGRAM (2)
SCALE: N.T.S.

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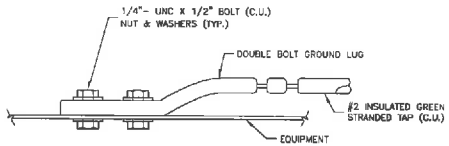
CHARLOTTESVILLE, VA 22903

SHEET TITLE

GROUNDING PLAN

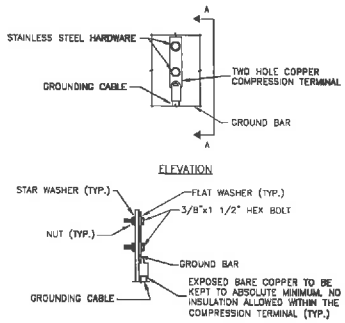
SHEET NUMBER

E-2



CONNECTION TO EQUIPMENT DETAIL 1

SCALE: N.T.S.

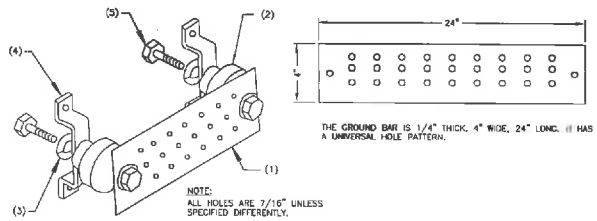


NOTES:

1. DOUBLING UP OR STACKING OF CONNECTIONS IS NOT PERMITTED.
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.

TYPICAL GROUND BAR MECHANICAL CONNECTION DETAIL 2

SCALE: N.T.S.

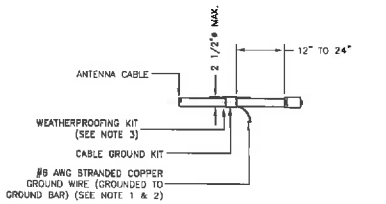


LEGEND

1. GALVANIZED GROUND BAR, 1/4"x4"x24", SITE PRO P/N HDG42463-K. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION.
2. STANDOFF INSULATORS (INCLUDED IN KIT).
3. GALVANIZED WASHER.
4. STAINLESS STEEL MOUNTING BRACKET (INCLUDED IN KIT).
5. TAMPER RESISTANT SS BOLT FOR GROUND BARS, SITE PRO P/N TRHK.

GROUND BAR DETAIL 3

SCALE: N.T.S.

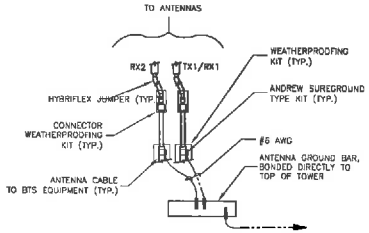


NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE ANDREW SUREGROUND TYPE KIT WITH TWO-HOLE LUG.
3. WEATHER PROOFING SHALL BE ANDREW TWO-PART TAPE SUPPLIED WITH KIT. COLD SHRINK SHALL NOT BE USED.

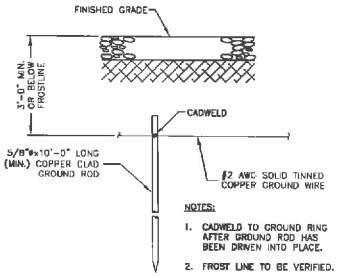
CONNECTION OF CABLE GROUND KIT TO ANTENNA CABLE DETAIL 4

SCALE: N.T.S.



CONNECTION OF GROUND WIRE TO GROUNDING BAR DETAIL 5

SCALE: N.T.S.

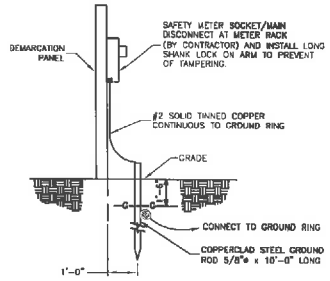


NOTES:

1. CADWELD TO GROUND RING AFTER GROUND ROD HAS BEEN DRIVEN INTO PLACE.
2. FROST LINE TO BE VERIFIED.

GROUND ROD 6

SCALE: N.T.S.



METER SOCKET GROUNDING 7

SCALE: N.T.S.

verizon wireless

VERIZON WIRELESS
1831 RADY COURT
RICHMOND, VA 23222

UVA MC N010

CONSTRUCTION DRAWINGS

7	05/05/17	FOR CONSTRUCTION
6	04/05/17	FOR CONSTRUCTION
5	03/28/17	FOR CONSTRUCTION
4	02/24/17	FOR CONSTRUCTION
3	11/08/16	FOR CONSTRUCTION
2	08/03/16	FOR CONSTRUCTION

Dewberry

Dewberry Engineers Inc.
4805 Lake Brook Drive, Suite 200
Glen Allen, VA 23060
Phone: 804.740.7900
Fax: 804.967.7901
www.dewberry.com

COMMONWEALTH OF VIRGINIA
DEREK K. MARSHALL
Lic. No. 48510
05/05/17
PROFESSIONAL ENGINEER

DRAWN BY:	KKB
REVIEWED BY:	BAR
CHECKED BY:	DRM
PROJECT NUMBER:	50074593
SITE ADDRESS:	

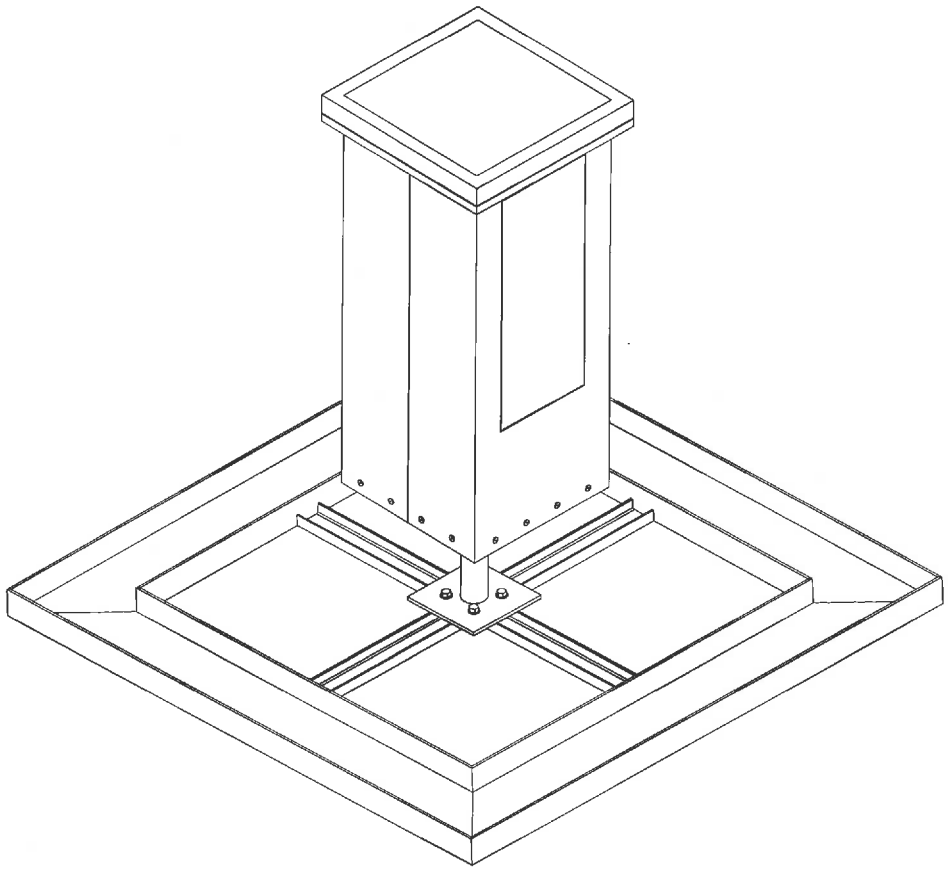
1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

E-3



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PROJECT MANAGER: JOHN WHEELER | 843-614-8981

FINAL ENGINEERING

GDN SITES
UVA MC N010
1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

STEALTH JOB #: VZ16-01658W-17R1

DRAWING INDEX

COMMONWEALTH OF VIRGINIA
ANDREW M. MILLER
No. 050195
2/16/17
PROFESSIONAL ENGINEER

ANDREW M. MILLER, P.E

advantage engineers

T1

REVISION 2

2/16/17

GENERAL

1. THE TYPICAL NOTES SHALL APPLY FOR ALL CASES UNLESS OTHERWISE SPECIFICALLY DETAILED WITHIN THE DRAWINGS. SOME NOTES MAY NOT BE APPLICABLE IN PART OR IN WHOLE FOR EVERY PROJECT.
2. ANY ITEMS REFERENCED AS BEING ON "HOLD" ARE TO BE INCLUDED IN THE WORK AS SHOWN. HOWEVER, CONSTRUCTION OR FABRICATION IS NOT TO BEGIN UNTIL THE "HOLD" REFERENCE IS REMOVED.
3. DIMENSIONS CONTAINED WITHIN MUST BE FIELD VERIFIED AND CUSTOMER APPROVED PRIOR TO FABRICATION OF MATERIALS.
4. THE MODIFICATIONS DEPICTED IN THESE DRAWINGS ARE INTENDED TO PROVIDE STRUCTURAL SUPPORT FOR THE ADDITION OF THE ANTENNA SCREENING SYSTEMS OUTLINED WITHIN. THE EXISTING STRUCTURE OR BUILDING SHALL BE ANALYZED AND RETROFITTED AS REQUIRED, BY OTHERS, TO WITHSTAND THE LOADS IMPOSED BY THE NEW STEALTH® ENCLOSURE SHOWN ON THE DRAWINGS.
5. ANTENNA CONCEALMENT PRODUCTS SHALL BE INSTALLED BY A CONTRACTOR EXPERIENCED IN SIMILAR WORK. CARE SHALL BE TAKEN IN THE INSTALLATION OF ANY AND ALL MEMBERS IN ACCORDANCE WITH RECOGNIZED INDUSTRY STANDARDS AND PROCEDURES. ALL APPLICABLE OSHA SAFETY GUIDELINES ARE TO BE FOLLOWED. STEALTH® IS NOT PROVIDING FIELD INSTALLATION SUPERVISION.
6. THESE DRAWINGS INDICATE THE MAJOR OPERATIONS TO BE PERFORMED, BUT DO NOT SHOW EVERY FIELD CONDITION THAT MAY BE ENCOUNTERED. THEREFORE, PRIOR TO BEGINNING OF WORK THE CONTRACTOR SHOULD SURVEY THE JOB SITE THOROUGHLY TO MINIMIZE FIELD PROBLEMS.
7. PROTECTION OF EXISTING STRUCTURES DURING THE COURSE OF THE CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
8. THE STRUCTURAL INTEGRITY OF THIS STRUCTURE IS DESIGNED TO BE ATTAINED IN ITS COMPLETED STATE. WHILE UNDER CONSTRUCTION ANY TEMPORARY BRACING OR SHORING WHICH MAY BE REQUIRED TO MAINTAIN STABILITY PRIOR TO COMPLETION SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
9. THE PLANS AND DETAILS WITHIN DO NOT INCLUDE DETAILS OR DESIGN FOR DRAINAGE FROM OR WATERPROOFING OF EXTERIOR OR INTERIOR SURFACES OF THE EXISTING BUILDING OR STRUCTURE. THESE DETAILS MUST BE COMPLETED BY OTHERS.

DESIGN NOTES:

STRUCTURAL DESIGN IS BASED ON THE 2012 IBC & THE ASCE 7-10 STANDARD.

SITE LOCATION:
CHARLOTTESVILLE, VIRGINIA

DESIGN LOADS:
WIND:
BASIC WIND SPEED: 115 MPH (3-SEC GUST)
RISK CATEGORY: II
EXPOSURE: B

SEISMIC:
IMPORTANCE FACTOR: 1.0
RISK CATEGORY: II
SITE CLASS: D
MAPPED SPECTRAL RESPONSE ACCELERATIONS S_S = 0.209g S_1 = 0.069g
SEISMIC DESIGN CATEGORY: B
SPECTRAL RESPONSE COEFFICIENTS: S_{DS} = 0.223g S_{D1} = 0.110g

ASD DESIGN WIND PRESSURE: 26.51 psf (0.6 WIND)
ROOFTOP CONCEALMENT
WEIGHT: 800 LBS TOTAL
HORIZONTAL REACTION: 530 LBS TOTAL

STEALTHSKIN PANELS

1. FASTENER HOLES IN STEALTHSKIN FOAM COMPOSITE PANELS ARE NOT FACTORY DRILLED AND MUST BE DRILLED IN THE FIELD.
2. PANEL FASTENERS TO BE SPACED 12" O.C. MAX. AND LOCATED 6" MAX. HORIZONTALLY FROM EACH EDGE AT TOP AND BOTTOM OF PANEL. MAINTAIN 1 ½" MIN. EDGE DISTANCE FROM ALL EDGES. 4' WIDE PANELS REQUIRE (4) FASTENERS TOP AND BOTTOM. 5' WIDE PANELS REQUIRE (5) FASTENERS TOP AND BOTTOM.
3. WHEN FASTENER BOLT HEAD OR NUT BEARS DIRECTLY ON SURFACE OF STEALTHSKIN PANEL, TIGHTEN PANEL BOLTS ONLY ⅓ TURN PAST SNUG. APPLY THREAD LOCK COMPOUND TO THE THREADS OF METAL BOLTS. USE THIN BEAD OF EPOXY TO LOCK THE NUTS OF FRP BOLTS AND STEALTH® STAINLESS STEEL PANEL BOLTS. USE WASHER OR FLANGED HEAD BOLT, OR FASTENER WITH LARGE BEARING SURFACE.
4. PANELS WILL EXPAND AND CONTRACT DUE TO TEMPERATURE. WHEN INSTALLING PANELS IN COLD TEMPERATURES, EVENLY SPACE PANELS ALONG LENGTH OF SCREEN WALL WITH EQUAL GAPS BETWEEN PANELS TO ALLOW FOR EXPANSION DURING WARM TEMPERATURES.
5. ADJACENT FLAT PANELS ARE JOINED BY A VERTICAL FOAM SPLINE THAT IS INSERTED INTO GROOVES CUT INTO THE SIDE OF EACH PANEL. DO NOT LIFT PANELS BY GROOVES. PANELS MUST BE LIFTED WITH FORCE DIRECTED ONTO PANEL SURFACE.
6. ADJACENT RADIUS PANELS ARE JOINED BY A VERTICAL H-CHANNEL. INSERT PANELS INTO EACH SIDE OF H-CHANNEL.
7. RADIUS PANELS MUST BE EVENLY SPACED ALONG RADIUS SUPPORT. CONTRACTOR TO MEASURE LENGTH OF RADIUS SUPPORT AND DIVIDE BY THE NUMBER OF RADIUS PANELS TO DETERMINE PROPER SPACING. H-CHANNEL CONNECTORS ARE USED TO COVER THE GAP BETWEEN PANELS AND TO ALLOW FOR PANEL EXPANSION AND CONTRACTION.
8. SURFACES OF PANELS SHALL BE COATED WITH SUITABLE PAINT FOR UV PROTECTION. TOP EDGE OF PANEL MUST BE COVERED TO PREVENT WATER TRAVEL BETWEEN PANELS. USE SHERWIN WILLIAMS "COROTHANE II" OR PRE APPROVED EQUIVALENT.
9. EXPOSED TOP AND SIDE FOAM EDGES OF PANELS MUST BE COVERED OR COATED FOR UV PROTECTION. STEALTH® WILL PROVIDE PANEL EDGE CAPS TO BE FIELD APPLIED FOR THIS PURPOSE FOR MOST APPLICATIONS. PANEL EDGE CAPS TO BE SECURED WITH TEK SCREW INSTALLED @ 12" MAXIMUM SPACING ON THE INSIDE FACE OF THE PANEL.

STRUCTURAL STEEL

1. STEEL FABRICATION AND INSTALLATION SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL AND SPECIFICATIONS.
2. STEEL I-SHAPE, ANGLE, CHANNEL, AND MISCELLANEOUS MEMBERS SHALL CONFORM TO ASTM A36 (36 KSI MIN. YIELD STRENGTH) STEEL SPECIFICATIONS, U.N.O.
3. STEEL PLATE MEMBERS SHALL CONFORM TO ASTM A36 (36 KSI MIN. YIELD STRENGTH) STEEL SPECIFICATIONS U.N.O.
4. STEEL PIPE AND ROUND TUBE MEMBERS SHALL CONFORM TO ASTM A500 GRADE B (42 KSI MIN. YIELD STRENGTH) STEEL SPECIFICATIONS, U.N.O.
5. STEEL RECTANGULAR AND SQUARE TUBE MEMBERS SHALL CONFORM TO ASTM A500 GRADE B (46 KSI MIN. YIELD STRENGTH) STEEL SPECIFICATIONS, U.N.O.
6. STEEL WIDEFLANGE MEMBERS SHALL CONFORM TO ASTM A992 (50 KSI MIN, YIELD STRENGTH) STEEL SPECIFICATIONS U.N.O.
7. BOLTS SHALL BE DOMESTIC, NEW HIGH STRENGTH GALVANIZED BOLTS, BEARING TYPE "X" (THREADS EXCLUDED), U.N.O., AND SHALL CONFORM TO ASTM A325 SPECIFICATIONS, U.N.O.
8. STRUCTURAL BOLTS SHALL BE TIGHTENED USING TURN-OF-THE-NUT METHOD.
9. BOLT HOLE EDGE DISTANCES SHALL BE A MINIMUM 1", U.N.O.
10. ALL WELDING SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS AND PROCEDURES OF THE AMERICAN WELDING SOCIETY (AWS) BY CERTIFIED WELDERS PER AWS D1.1 FOR STEEL AND AWS D1.2 FOR ALUMINUM. ALL WELDING SHALL BE PERFORMED IN A SHOP APPROVED BY THE BUILDING OFFICIAL. STEEL WELDS SHALL BE BY E70XX, LOW HYDROGEN ELECTRODES.
11. STEEL SHALL BE HOT DIP GALVANIZED PER ASTM A123 SPECIFICATIONS AFTER FABRICATION OR PAINTED WITH RUST INHIBITIVE PRIMER.
12. STEEL HARDWARE SHALL BE HOT DIP GALVANIZED PER ASTM A153, U.N.O.
13. AFTER ANY FIELD HOLE PUNCHING / DRILLING OR CUTTING HAS BEEN COMPLETED, OR FOR ANY DAMAGED STRUCTURAL MEMBER, TOUCH UP ALL BARE MATERIAL AND WELDED AREAS WITH TWO COATS OF GALCON OR SIMILAR MATERIAL TO RESTORE THE GALVANIZED PROTECTION ON THE MEMBERS.
14. ALL WELDED STEEL ASSEMBLIES AND INDIVIDUAL STEEL PARTS SHOULD HAVE THE PART NUMBER WELDED ONTO THE PART OR ASSEMBLY. THE PART NUMBERS SHOULD BE LOCATED CONSISTENTLY AND AWAY FROM ANY CONNECTION POINT TO AVOID ANY INTERFERENCE ISSUES WITH THE WELD.

FRP STRUCTURAL MEMBERS

1. FRP STRUCTURAL SHAPES SHALL BE STEALTH® FRP SERIES 1525, MANUFACTURED USING THE PULTRUSION PROCESS.
2. IF PREFABRICATED MEMBERS DO NOT ASSEMBLE PER PLAN, CONTACT STEALTH® CONCEALMENT SOLUTIONS, INC. BEFORE CUTTING OR ALTERING FABRICATED MEMBERS.
3. FRP STRUCTURAL MEMBERS SHALL BE FABRICATED AND ASSEMBLED AS INDICATED ON THE DRAWINGS.
4. THE CONTRACTOR SHALL PROTECT THE FRP STRUCTURAL MEMBERS FROM ABUSE TO PREVENT BREAKAGE, NICKS, GOUGES, ETC. DURING FABRICATION, HANDLING, AND INSTALLATION.
5. FRP BOLTS SHOULD BE TIGHTENED ⅓ TURN PAST SNUG AND LOCKED WITH EPOXY.

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COMMONWEALTH OF VIRGINIA
ANDREW M. MILLER
No. 030195
2/16/17
PROFESSIONAL ENGINEER

ANDREW M. MILLER, P.E.
VIRGINIA PROFESSIONAL ENGINEER
LICENSE # 0504285

DRAWING NOT TO SCALE UNLESS SPECIFIED
OTHERWISE DIMENSIONS SHOWN ARE IN INCHES
TOLERANCES
DECIMALS: X ± 1/16" XXX ± 0.01"
ANGULAR: X ± 0.5°

NOTES & SPECIFICATIONS

GDN SITES
UVA MC N010
1521 UNIVERSITY AVE
CHARLOTTESVILLE, VA 22903

advantage engineers

JOB #: VZ16-01658W-17R1
DRAWN: SCJ
DESIGNED: AE
REVISED: AE

N1
2/16/17

REVISION: 2

REVISION TABLE

REVISION	DESIGNER	DATE	SCOPE OF REVISION
0	AE	1/9/17	FINAL ENGINEERING
1	AE	2/3/17	REV PER COMMENTS
2	AE	2/16/17	ACCESS PANEL HEIGHT INCREASED TO 3-0"

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DRAWING NOT TO SCALE. UNLESS SPECIFIED OTHERWISE DIMENSIONS SHOWN ARE IN INCHES

TOLERANCES

DECIMALS	ANGULAR
X ± 1/16"	X ± 0.5°
.XXX ± 0.01"	

NOTES & SPECIFICATIONS

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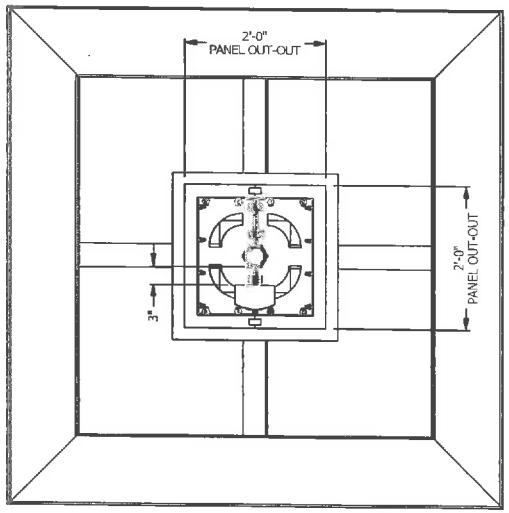
REVISED: AE

N2
2/16/17

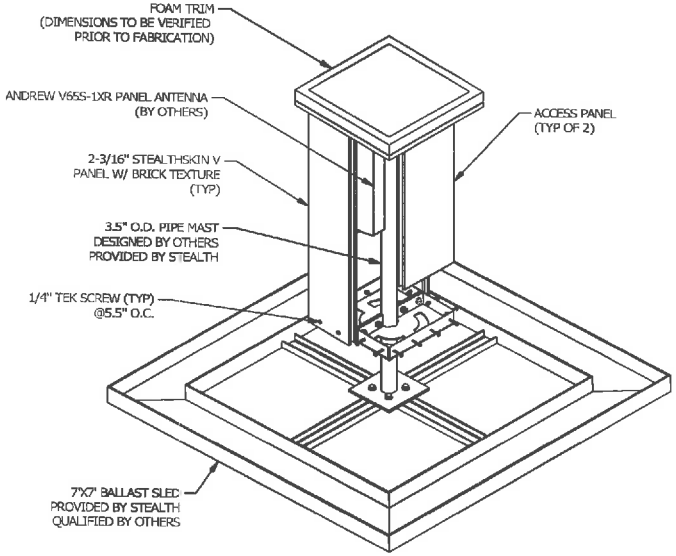
REVISION 2



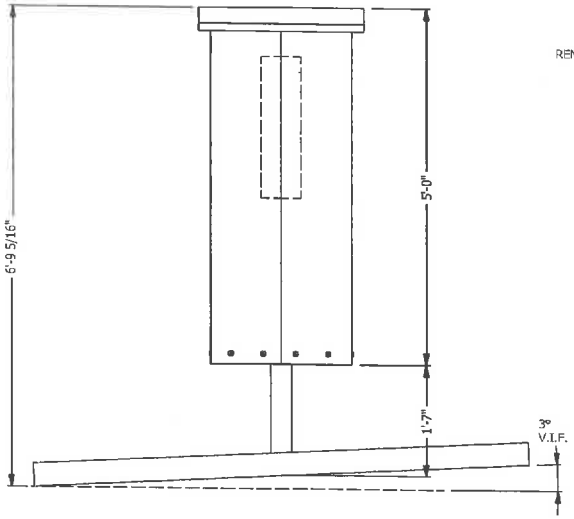
NOTES:

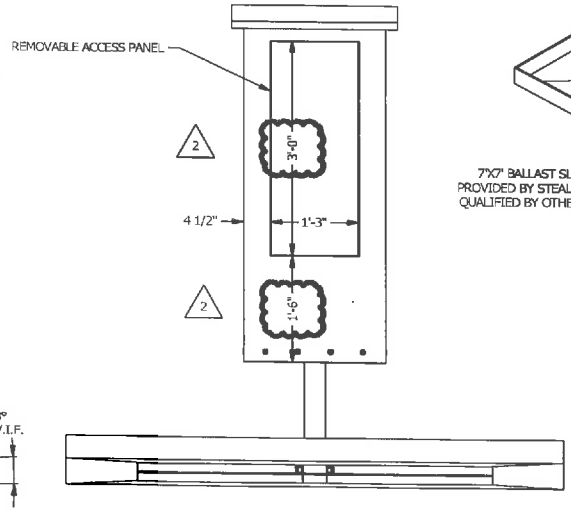
1.) THE INTEGRITY OF THE EXISTING STRUCTURE MUST BE VERIFIED BY OTHERS.
2.) DIMENSIONS OF THE EXISTING STRUCTURE ARE BASED UPON DRAWINGS BY DEWBERRY ENGINEERS INC, DATED 11/08/16 AND HAVE NOT BEEN PHYSICALLY VERIFIED BY STEALTH®. VERIFICATION OF THESE DIMENSIONS IS THE RESPONSIBILITY OF THE CUSTOMER.
3.) THE ATTACHMENT TO EXISTING (DESIGN AND FASTENERS) MUST BE PROVIDED BY OTHERS. STEALTH® WILL ONLY SUPPLY FASTENER SIZE AND QUANTITY REQUIRED, FOR ATTACHMENT TO EXISTING.
4.) THE PANELS ARE TO BE PAINTED / TEXTURED ACCORDING TO THE CUSTOMER APPROVED SAMPLE(S).
5.) THIS CONCEALMENT WAS DESIGNED TO ACCEPT THE FOLLOWING ANTENNA: ANDREW V65S-1XR. IT IS THE CUSTOMERS RESPONSIBILITY TO ENSURE THE FIT OF THE ANTENNA AND COAX WITH THEIR SPECIFIC MOUNTING EQUIPMENT.
6.) IT IS STRONGLY RECOMMENDED THAT THE CUSTOMER REVIEWS THE RF CONSIDERATIONS IN THIS DESIGN.

ROOF SLOPE MUST BE VERIFIED PRIOR TO FABRICATION



(PANEL NOT SHOWN FOR CLARITY)





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DECIMALS: X ± 1/16", XXX ± 0.01"
ANGULAR: X ± 0.5°

ASSEMBLY - ELEVATIONS

GDN SITES
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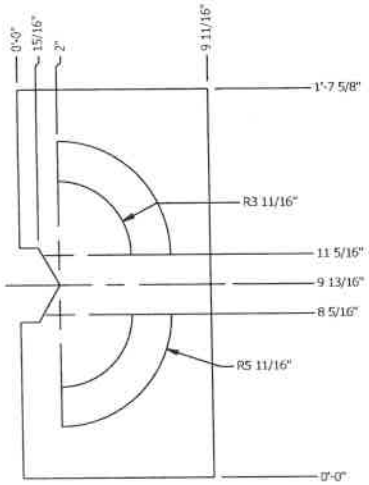
CHARLOTTESVILLE, VA 22903

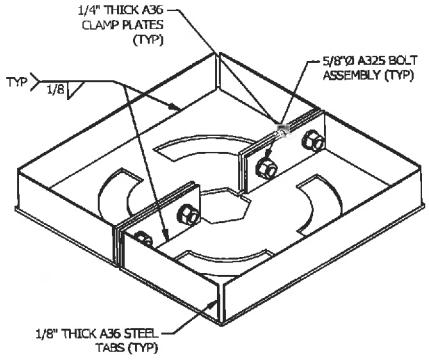
JOB #: VZ16-01658W-1/R1
DRAWN: SCJ
DESIGNED: AE
REVISED: AE

S1
2/16/17
REVISION 2

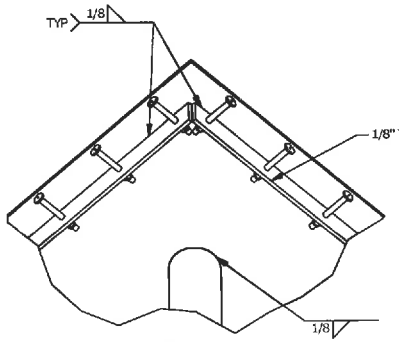
advantage engineers



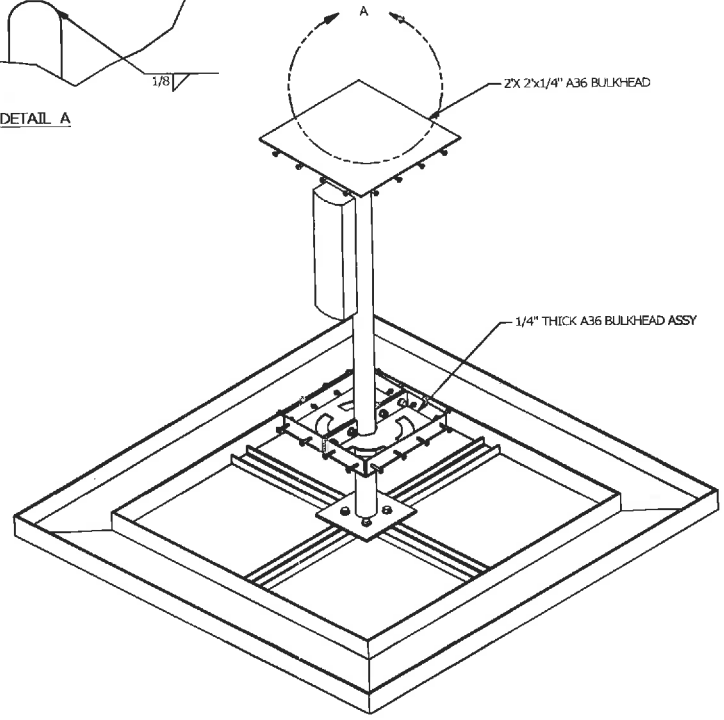
LOWER BULKHEAD



LOWER BULKHEAD ASSEMBLY



DETAIL A



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JOB #: VZ16-01658W-17R1
DRAWN: SCJ
DESIGNED: AE
REVISED: AE

advantage engineers

S2
2/16/17

REVISION 2