



The City of Spartanburg Board of Architectural Design & Historic Review

AGENDA

July 11, 2024, at 5:30 P.M.

**Spartanburg County Council Chambers
366 N. Church Street – Spartanburg, SC 29303**

(Please Note: Items as they appear on the Docket may or may not be considered in the order as they are presented. The Chairman will announce any changes after the roll call)

- I. Call To Order.**
- II. Roll Call.**
- III.** Freedom of Information Act Compliance – Public notification of the City of Spartanburg’s Board of Architectural Design & Historic Review meeting has been published, posted and mailed in compliance with the Freedom of Information Act and the requirements of the City of Spartanburg’s Zoning Ordinance.
- IV. Approval of Agenda.**
- V. Disposition of Minutes from the May 9, 2024, Meeting.**
- VI. Old Business: None.**
- VII. New Business:**
 1. COA: 24-004-00018: Certificate of Appropriateness for Major Works – 400 Hampton Dr (TMS: 7-16-02-141.00) in the Hampton Heights Neighborhood Historic District. The applicant is seeking approval to pave the parking area for tenants. The property is located in the R-8 SFD (General Residential – Single-Family District) zoning district. Owner/Applicant: Phuoc Do and Theresa Phan Contractor: Work, Inc.
 2. COA: 24-004-00023: Certificate of Appropriateness for Major Works – 265 S Spring St (TMS: 7-12-114-204.00) in the Hampton Heights Neighborhood Historic District. The applicant is seeking approval to install a new utility pole, a new small cell equipment along with components and hardware. The property is located in the R-8 SFD (General Residential – Single-Family District) zoning district. Owner/Applicant: Verizon Wireless / Brian Deye Contractor: Justin Sullens.
 3. COA: 24-004-00024: Certificate of Appropriateness for Major Works – 216 Carlisle St (TMS: 7-12-14-186.00) in the Hampton Heights Neighborhood Historic District. The applicant is seeking approval to install a new utility pole, a new small cell equipment along with components and hardware. The property is located in the R-8 SFD (General Residential – Single-Family District) zoning district. Owner/Applicant: Verizon Wireless / Brian Deye Contractor: Justin Sullens.
 4. COA: 24-004-00029: Certificate of Appropriateness for Major Works – 516 Peronneau St (TMS: 7-16-02-120.00) in the Hampton Heights Neighborhood Historic District. The applicant is seeking approval to install paved driveway. The property is located in the R-8 SFD (General Residential – Single-Family District) zoning district. Owner/Applicant: Matt Johnston and Kimberly Rostan Contractor: Manello Construction.



The City of Spartanburg Board of Architectural Design & Historic Review

VIII. Election of new Chair and Vice Chair for the Board.

IX. Staff Updates:

X. Adjournment.

For more information, please contact the City of Spartanburg Planning Department at planning@cityofspartanburg.org or call (864) 596-2068.

Meeting Minutes of the Board of Architectural Design and Historic Review

Thursday, May 9th, 2024, at 5:30 PM

Spartanburg County Council Chambers

The City of Spartanburg Board of Architectural Design and Historic Review (HARB) met in County Council Chambers on Thursday, April 11th, 2024, at 5:30 PM with the following members in attendance: **Bill Michels, Mark Olencki, Rod McCants, Sylvelie Franke, and James Gaffney.** Representing the Planning Department is, **Martin Livingston, Community Director, Fredalyn Frasier, Planning Director, and Nan Zhou, Planner II.**

Roll Call:

Mr. Michels: Bill Michels

Mr. McCants: Rod McCants

Mr. Olencki: Mark Olencki

Mr. Gaffney: James Gaffney

Ms. Franke: Sylvelie Franke

Mr. Pittillo: Michael Pittillo

Mr. Gaffney: The Freedom of Information Act Compliance called for public notification to the City of Spartanburg's Board of Architectural Design and Historic Review meeting has been published, posted, and mailed in compliance with the Freedom of Information Act and the requirements of the City of Spartanburg Zoning Ordinance.

Approval of Agenda:

A motion was made by Mr. Michels, seconded by Mr. Pittillo, approve the agenda. The motion was approved with a vote of 6-0.

Approval of Meeting Minutes from April 11th, 2024.

A motion was made by Mr. Michels, seconded by Ms. Franke approve the agenda. The motion was approved with a vote of 6-0.

Old Business: None.

New Business:

Certificate of Appropriateness for Major Works – 197 Brookwood Ter. (TMS# 7-16-02-030.00) in the Hampton Heights Historic District. The applicant is seeking approval of a Certificate of Appropriateness to replace metal railings near around the front steps in the front yard. The property is located in the R-8/SFD (General Residential - Single Family District). Owner / Applicant: Walter Bethea / Contractor: Accent Iron Works

Project Description and History

The project site is an approximately 5,576 square foot lot in the Hampton Heights Historic District. The site abuts Brookwood Ter. to the north boundary. The lot currently contains one one-story wood framed primary structure that was built in 1926. The front porch of this front-gabled bungalow wraps around the left (east) side of the house. The structure has a brick foundation, an interior chimney, an open front porch, with a gable roof.

The applicant is requesting to replace the existing handrails due to aging and safety concerns on the front steps. The new proposed handrails will replicate the existing handrails for the design elements (pickets and lambs tongue) to the best of their ability. The new proposed handrails will be 33 inches off of the ground as opposed to the lower height of the existing handrails.

Analysis

Zoning Ordinance and Historic Design Manual Consistency

The project site is located in the Hampton Heights Historic District which has design guidelines for development. These guidelines are outlined in the Design Guidelines for the City of Spartanburg Historic Districts and Landmarks. The purpose of the Design Guidelines is to provide property owners guidance for the preservation and protection of historic and architecturally valuable districts and sites in the City. The project is also subject to Section 510 of the City of Spartanburg Zoning Ordinance, **Historic Preservation**. This section allows the Board to review applications involving historic structures and districts and issue a Certificate of Appropriateness subject to the Standards listed in the Ordinance.

Findings

Certificate of Appropriateness, Section 510.6 (C)

1. ***The character and appropriateness of the design –***

The new proposed handrails will be made of iron, 33 inches off of the ground with 1 and 7/8” cap rail, 1” post, ½ pickets, and 8 lambs tongue in design. The new proposed handrails will replicate the design of the existing handrails currently on the front steps. Unfortunately, staff did not receive any visual drawing showing the design of the handrails.

2. ***The scale of the buildings –***

The scale of the primary building will not be affected. Replacing handrails around front steps in the front yard will not impact the scale of the primary structure on the lot.

3. ***The texture and materials –***

The new proposed handrails, according to the specifications provided by the applicant, will be iron.

4. ***The relationship of such elements to similar features of structures in the immediate surroundings***

–

Currently, houses on the east side of Brookwood Ter. all have handrails of varied texture and materials, either with or without pickets, around front steps in the front yard due to topography and house elevation. Houses on the west side of the Brookwood Ter. do not have handrails in the front yard as they all sit on a flat surface.

5. ***If the property is in a Historic District, the extent to which the alteration or construction would be harmonious with the Historic District –***

Hampton Heights Design Guidelines currently does not provide design guidelines or suggestions for the design of handrails in terms of appearance, material, texture, and height. Replacing the unstable and aging handrails with handrails similar in design and material will relieve the safety concerns and improve the aesthetics features of the house. Installing the proposed handrails off the ground 33 inches will meet the current building code. It is harmonious with all the other properties along the same side (east side) of Brookwood Ter due to topography and house elevation.

recreation of the wood balusters and railings would be harmonious with the existing neighborhood features if replicated.

Applicant:

Walter Bethea, Owner.
Accent Iron Works, Contractor.

Consultant:

Donnie Love, Preservation Architect

Public Speakers:

None.

Discussion:

The proposed project meets the requirements for approval. The height of the railing will need to increase to a minimum of 34 inches.

A motion was made by Mr. Michels, seconded Mr. Pittillo to approve as presented the Certificate of Appropriateness by a vote of 6-0.

Staff Announcements:

A new Planning Director has joined the Planning Department, Fredalyn Frasier.

The meeting was adjourned at 5:47 PM.

James Gaffney, Chairman

TO: The Board of Architectural Design and Historic Review

RE: Certificate of Appropriateness for Major Works – 400 Hampton Dr. (TMS# 7-16-02-141.00) in the Hampton Heights Historic District. The applicant is seeking approval of a Certificate of Appropriateness to pave the parking area for tenants. The property is located in the R-8/SFD (General Residential - Single Family District). **Owner / Applicant: Phuoc Do and Theresa Phan; Contractor: Work, Inc.**

Date: July 5th, 2024

Project Description and History

The project site is an approximately 11,736 square foot lot in the Hampton Heights Historic District. The site abuts West Hampton Avenue to the north boundary and Hampton Drive to the east boundary. The lot currently contains one two-story structure, known as *The Alexander Apartment*, that was built in 1956. The structure has open front porches on both floors with a brick foundation. The structure has a hipped roof. Since this apartment complex was built prior to the adoption of the current City of Spartanburg Zoning Ordinance, it is a non-conforming use.

The applicant is requesting to pave the parking lot on the right side of the building to provide onsite parking for tenants due to the limited parking along Hampton Drive near the apartment complex.

Analysis

Zoning Ordinance and Historic Design Manual Consistency

The project site is in the Hampton Heights Historic District which has design guidelines used to evaluate the appropriateness of proposed changes in local historic districts to protect the visual qualities of historic properties that reflect the history and heritage of that community. These guidelines are outlined in the Design Guidelines for the City of Spartanburg Historic Districts and Landmarks. The purpose of the Design Guidelines is to provide property owners guidance for the preservation and protection of historic and architecturally valuable districts and sites in the City. The project is also subject to Section 510 of the City of Spartanburg Zoning Ordinance, **Historic Preservation**. This section allows the Board to review applications involving historic structures and districts and issue a Certificate of Appropriateness subject to the Standards listed in the Ordinance.

Findings

Certificate of Appropriateness, Section 510.6 (C)

1. *The character and appropriateness of the design*

Hampton Heights Design Guidelines – Landscape states that “.....new surfaces should be compatible with these [concrete, asphalt, and brick] predominant materials. The use of driving lanes, designed to facilitate only the car’s wheels, is a historic treatment which is encouraged to retain porous surface. Parking should be located in the side yard and rear yard spaces and not extend beyond the front setback line of historic buildings. Plant materials and enclosures should be utilized for screening parking areas. Paving of parking areas should be accomplished without the loss of existing vegetation or the creation of large impervious surfaces.

The use of porous pavers as a paving surface is encouraged. Parking should be addressed in a manner that does not distract from the overall character of the district. parking to serve private residential lots shall be accommodated on-site. It is preferable to expand an existing driveway for parking, rather than to add a separate parking pad. Plant materials can be added around parking spaces to visually buffer the parking from the street.”

- The proposed driveway and parking lot are concrete with some existing vegetation surrounding the parking lot.

2. *The scale of the buildings*

The scale of the primary building will not be affected. Paving the driveway and parking lot will not affect the scale of the two-story apartment complex building.

3. *The texture and materials*

The proposed material for the driveway and parking lot will be concrete.

4. *The relationship of such elements to similar features of structures in the immediate surroundings*

Currently, the immediate surrounding properties from the project site all have either a pre-existing concrete, gravel, or brick driveway in the front or side yard.

5. *If the property is in a Historic District, the extent to which the alteration or construction would be harmonious with the Historic District*

Hampton Heights Design Guidelines clearly state the recommended placement of the parking lot, the appropriate materials for the new surface, and the planting vegetation.

- Constructing a concrete driveway and a parking area to the side yard will accommodate the parking needs of the tenants and would be harmonious with the immediate surrounding properties that have a pre-existing concrete driveway.
- However, the proposed material for the driveway and parking lot does not meet the Hampton Heights Design Guidelines.

Submitted by:

Nan Zhou

Nan Zhou, AICP

City Planner II

City of Spartanburg Planning Department

Attachments:

Conditions of Approval

Application

Proposed Parking Lot Drawing from the Applicant

Photos – Site Photos

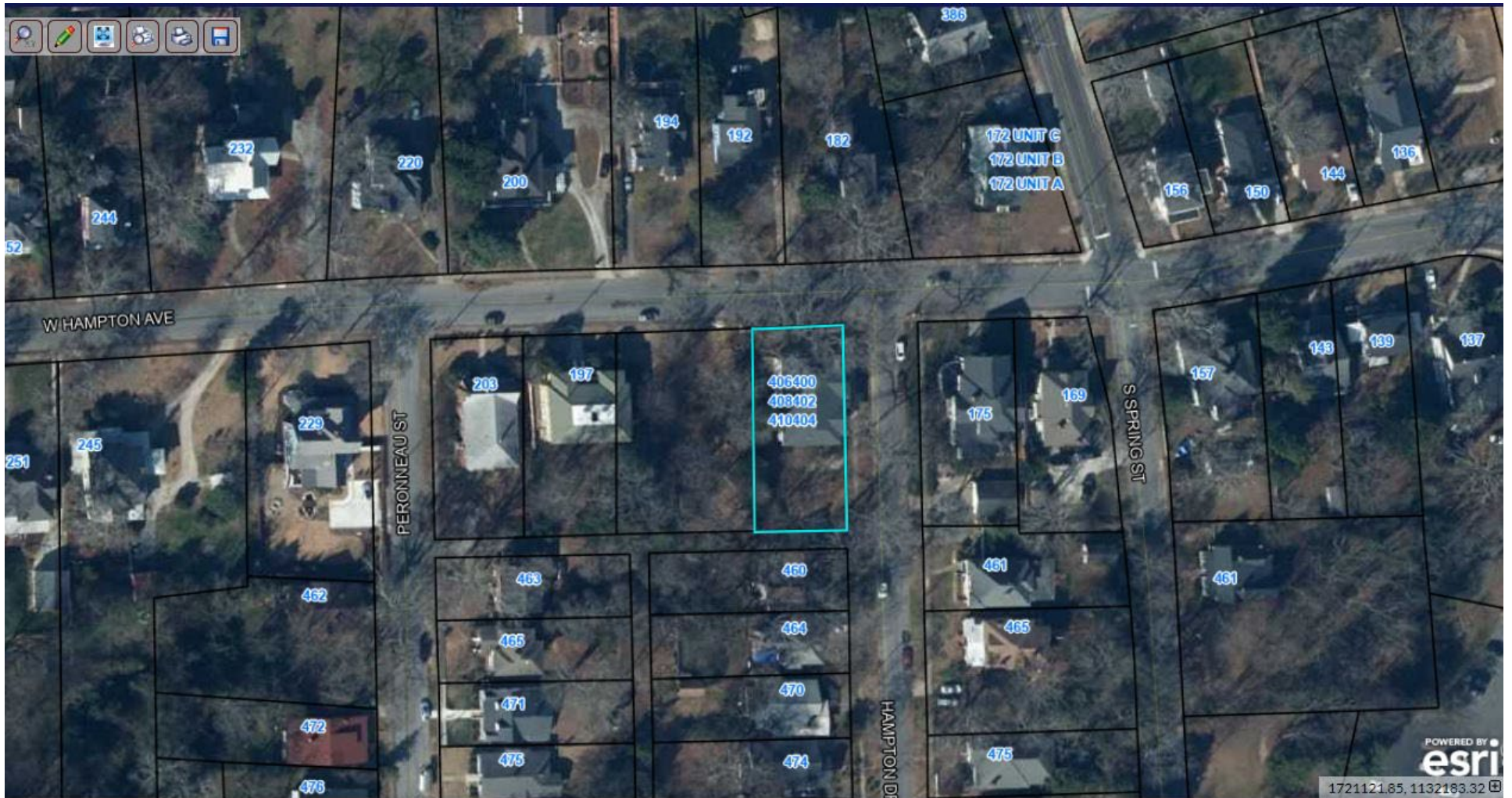
Supporting Letter from Neighbor

CONDITIONS OF APPROVAL FOR THE PROJECT ON PROPERTY LOCATED AT:

Certificate of Appropriateness for Major Works – 400 Hampton Drive (TMS# 7-16-02-141.00) in the Hampton Heights Historic District.

1. If one or more of the following conditions is not met with respect to all its terms, then this approval may be revoked.
2. Design must meet the Hampton Heights Historic District residential design guidelines.
3. All plans for future construction which are not covered by this review shall be submitted to the City Planning Department for review and approval.
4. Major modifications to plans or exceptions to completion may be granted only by the City authority which approved the project.
5. This permit shall be exercised **within six months** of the date of final approval, or it shall become null and void. Extensions may be granted with permission of the Board.
6. A building permit shall be obtained from the Building Department prior to commencement of work.
7. The development of the site shall be in substantial accordance with the approved plans submitted and on file in the Spartanburg City Planning Department.

SITE MAP – 400 Hampton Drive



Zoning Map – 400 Hampton Drive

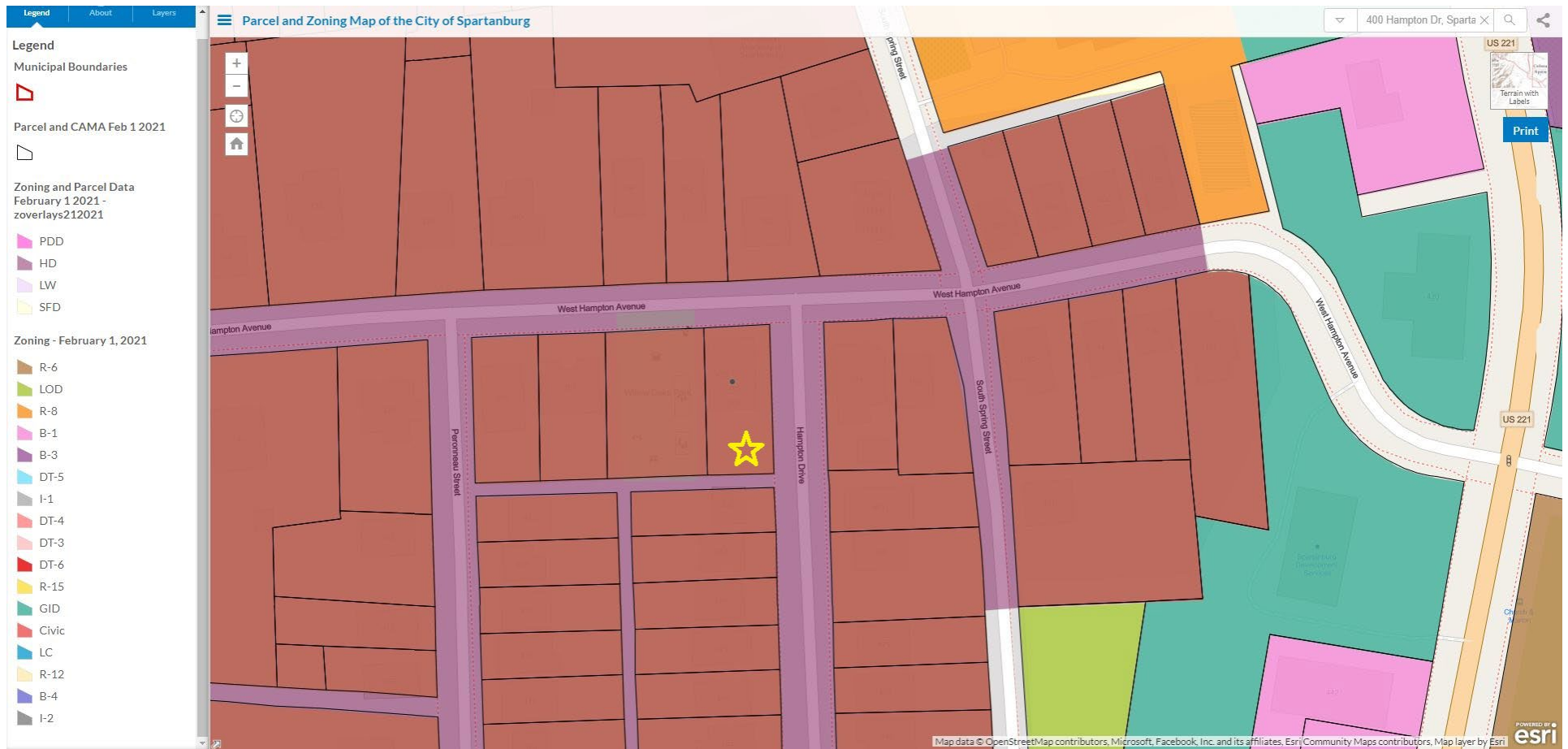


Photo – Front



Photo – Left Side



Photo – Right Side



Photo – Property to the Left Side of the Project Site



Photo – Property Directly Across from the Project Site



Photo – Hampton Drive Street View



Photo – Property Adjacent to the Project Site with Pre-existing Driveway



Photo – Property Adjacent to the Project Site with Pre-existing Driveway



Photo – Property Adjacent to the Project Site with Pre-existing Driveway



Photo – Proposed Parking Lot and Driveway Existing Conditions



Photo – Proposed Parking Lot and Driveway



Photo – Proposed Parking Lot and Driveway



Planning Department

PO Box 1749 • Spartanburg, SC 29304 • phone: (864) 596-2068 • email: planning@cityofspartanburg.org
website: www.cityofspartanburg.org

Certificate of Appropriateness (COA) Historic Properties

Owner: Phuoc Do / Theresa Phan Phone: 864. 205. 1439
Address: 323 W. Hampton Ave Email: phuochdo@yahoo.com
City: Spartanburg State: SC Zip: 29306

Applicant: Phuoc Do Phone: 864. 205. 1439
Address: 323 W. Hampton Ave Email: phuochdo@yahoo.com
City: Spartanburg State: SC Zip: 29306

Contractor: Work, Inc. Phone: 864. 585. 5931
Address: 261 Canaan Church Rd. Email: work4christieatt.net
City: Spartanburg State: SC Zip: 29306

Address of Property: 400 Hampton Drive
Tax Map Number: 7-16-02-141.00 Zoning District R-9

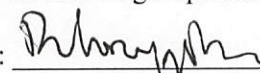
Please select the activity requested:

- ☐ Alteration of Structure/Property
☐ Repair of Structure/Property
☐ Addition to Existing Structure

- ☐ New Construction on Vacant Lot
☐ Demolition of Structure
☒ Other

Fees and Payments can be made using the Permit Number and the [City of Spartanburg Payment Portal](#).

To the best of my knowledge, the information on this application and all additional documentation is true, factual and complete. I hereby agree to abide by all conditions of any approvals granted by the City of Spartanburg. I understand that such conditions shall apply to the subject property only and are a right or obligation transferable by sale. I hereby authorize the staff of the Planning Department to inspect the premises of the above-described property.

Applicant Signature:  Date: 3/25/24

Staff Use Only

/ Received by:

Aksana / Nenu

Date Received: 3/25/24

Time: _____

Permit Number: 24-0400018

Certificate of Appropriateness (COA) Additional Items

Please attach to this Application any of the applicable items:

- | | |
|---|--|
| ☐ Site Plans or Surveys | ☐ Detail Drawing(s), Floor Plans(s) or Sketch(es) |
| ☐ Photographs of Existing property | ☐ Material(s) and Sample(s) |
| ☐ Photographs of Changes requested | ☐ Other |

Description of Proposed work (attach extra sheets as needed):

paving the parking area for tenants

Please read and initial the following statements:

- ☒ I am the owner of the property, or
- ☐ I am acting on behalf of the owner(s) of this property and have attached a letter from the owner(s) indicating their knowledge of this application.
- ☒ The information on this application represents an accurate description of the proposed work.
- ☒ I have omitted nothing that might affect the decision of the Historic Architect Review Board.
- ☒ I will attend (or send a representative to attend) the public hearing of this application before the Historic Architect Review Board.
- ☒ I understand that issuance of a Certificate of Appropriateness is not an authorization to begin work.

Received by: _____

Staff Use Only:

____ MCOA - Minor

____ COA - Major

Wash, 3/29

Mr. Pro Do

dropped
plus off.

Same.

Buoy

508 Peronneau

568 ~~Peronneau~~ S. Irwin Ave

528 Peronneau

456 S. Irwin

498 S. Irwin

607 S. Irwin

628 S. Irwin

304 W. Hampton Ave

348 W. Hampton Ave

268 W. Hampton Ave

Oksana Holbrooks

From: Oksana Holbrooks
Sent: Wednesday, May 15, 2024 11:43 AM
To: P Do
Subject: RE: Phuoc Do's email address

Good afternoon,

Your Major Certificate of Appropriateness Permit Application has been logged into the system. The Planner will start reviewing it shortly. If we have any questions, we will let you know.
At the meantime, if you wish to pay for the Major Certificate of Appropriateness Permit Application Reviewing Fee **in the amount of \$55.00** you can use the **reference number 24-00400018** to pay online.

<https://ssl.sc.gov/checkout/CityOfSpartanburg/PlanningZoning.html>

**Please allow 10 business days for approval process.*

Thank you,

Oksana Holbrooks

Administrative Assistant | Planning Department
P.O. Box 1749, Spartanburg, SC 29304
O: (864)596-2068 | planning@cityofspartanburg.org



From: P Do <phuochdo@yahoo.com>
Sent: Wednesday, May 15, 2024 11:36 AM
To: Oksana Holbrooks <oholbrooks@cityofspartanburg.org>
Subject: Phuoc Do's email address

CAUTION: This message has originated from an External Source. Please use proper judgment and caution when opening attachments, clicking links or responding to this email.

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

This is a valid email address. Please update. Thank you.

Best regards,

Phuoc Do

[Yahoo Mail: Search, Organize, Conquer](#)

CITY OF SPARTANBURG -CR
*** CUSTOMER RECEIPT ***

Batch ID: OHOLBROOKS 3/25/24 01 Receipt no: 12334

Year	Number	Type	SvcCd	Description	Amount
2024	400018	PZ		PLANNING & ZONING	\$95.00

Tender detail

CS Ref#:	2851	\$95.00
Total tendered:		\$95.00
Total payment:		\$95.00

Trans date: 3/25/24 Time: 8:39:13

THANK YOU FOR YOUR PAYMENT

CITY OF SPARTANBURG -CR
*** CUSTOMER RECEIPT ***

Batch ID: OHOLBROOKS 5/16/24 01 Receipt no: 17572

Type	SvcCd	Description	Amount
99		MISC PYMT ACCOUNT ENTRY	
	Qty	1.00	\$55.00

400 HAMPTON DR-24-0400018
NON-BUS. LIC. & BLD 00100003221900

Tender detail

CS Ref#:	2873	\$55.00
Total tendered:		\$55.00
Total payment:		\$55.00

Trans date: 5/15/24 Time: 14:36:44

THANK YOU FOR YOUR PAYMENT



P.O. Box 1749
Spartanburg, SC 29304

001144

Date 3/25/2024

RECEIVED FROM Phuoc Do
Ninty Five ^{00/100} _____ DOLLARS

Amount Paid \$ 95

☐ Cash ☒ Check ☐ Other 2851

M COA - 400 Hampton Dr

PHUOC DO OR THERESA PHAN
323 W HAMPTON AVE
SPARTANBURG, SC 29306

2851

67-776/532 9470

3/25/24 Date

Pay to the
Order of City of Spartanburg / Planning Dept. \$ 95⁰⁰
ninty five & 00/100 _____ Dollars



Wells Fargo Bank, N.A.
South Carolina
wellsfargo.com

For permit (640 Union St.) Phuoc Do MP

⑆029 67 1207 7666⑆ 10 10 18 206 1 1 2 1 ⑆ 02851

PROPERTY LINE

GREEN AREA

PARKING AREA

GREEN AREA

22'

58'

8'

58'

14'-4"

HAMPTON DR.











Concerning cert of appropriateness , 400 Hampton Dr in Hampton Hts.

katbird495@aol.com <katbird495@aol.com>

Mon 7/1/2024 7:10 PM

To:planning <planning@cityofspartanburg.org>

CAUTION: This message has originated from an External Source. Please use proper judgment and caution when opening attachments, clicking links or responding to this email.

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Ms. Zhou,

Thank you for the notice of work to be done at 400 Hampton Dr. I hope that this work is approved by Planning and Zoning Dept. This is a very busy street that intersects with Hampton Ave. There are usually several work trucks parked along the street in this area, along with a damaged vehicle across from the apts. Due to the parking needed, out front of this apt complex, it becomes a bit congested. Several times I've had to back out of Hampton Drive , as I am turning onto Hampton Drive to go home, and back out onto Hampton Ave, to let approaching vehicles pass. It's not that inconvenient, and I certainly don't mind doing this. But if some of these cars and trucks were taken off this particular corner of Hampton Dr. and Hampton Ave, traffic would move with easier access to both streets. If this is a matter of not wanting to add and concrete parking area, please be reminded, no house had driveways when these houses were built in Hampton Hts. We've had to adjust with the times. And if a permanent drive is, for some reason, frowned upon, perhaps a packed gravel driveway might be considered. Either way, there's several of us that would love seeing something to help clear all the cars parked right on the corner of Hampton Dr and Hampton Ave. I hope you can find a viable solution that suits all living on that corner. I'm sure the cars pulling in and out must be a distraction if not a safety issue.

Jim and Kathy Taylor
495 Hampton Dr.

TO: The Board of Architectural Design and Historic Review

RE: COA: 24-004-00023: Certificate of Appropriateness for Major Works – 265 S. Spring Street (TMS: 7-12-114-204.00) in the Hampton Heights Neighborhood Historic District. The applicant is seeking approval to install a new utility pole, a new small cell equipment along with components and hardware. The property is located in the R-8 SFD (General Residential – Single-Family District) zoning district. **Owner/Applicant: Verizon Wireless / Brian Deye**
Contractor: Justin Sullens.

DATE: July 11, 2024

Project Description and History

The project site is located near the corner of Beta Way and S. Spring Street. The applicant is seeking to s seeking approval to install a new utility pole, a new small cell equipment along with components and hardware in the city right of way. The project does not involve housing construction of any type of housing activity. These small cell sites are designed to provide better cell service coverage in densely populated areas and can be seen in several areas in downtown Spartanburg.

Analysis

Zoning Ordinance and Historic Design Manual Consistency

The project site is located in the Hampton Heights Neighborhood Historic District which has design guidelines for development. These guidelines are outlined in the Beaumont Village Design Guidelines for the City of Spartanburg Historic District Preservation Principles and Approaches. The purpose of the Guidelines is to provide property owners guidance for the preservation and protection of historic and architecturally valuable districts and sites in the City. The project is also subject to Section 510 of the City's Zoning Ordinance, Historic Preservation. This section allows the Board to review applications involving historic structures and districts and issue a Certificate of Appropriateness subject to the Standards listed in the Ordinance.

The project site has a zoning designation of R-8 SFD, General Residential -Single-Family District, which allows for single family dwelling units. Section 510.6 of the City of Spartanburg Zoning Ordinance list standards for reviewing Certificate of Appropriateness. Specifically, Section 510.6 (C)(2) states that in reviewing applications for new construction or alteration, the board shall consider the U.S. Secretary of the Interior's Standards for Rehabilitation and the five criteria listed in the findings.

This item is appearing before the HARB due to section **510.10 Effect On Municipal and Public Utilities**. All City departments and public utility companies shall be required to obtain approval from the Board in accordance with this Ordinance prior to widening or constructing streets or initiating any changes within the Historic Districts with regard to the character of street paving, sidewalks, parkways, trees, utility installation, lighting, walls, fences, structures, and buildings on property or easements owned or franchised by the City of Spartanburg or public utility companies.

Findings

Certificate of Appropriateness, Section 510.6 (C)

a. The character and appropriateness of the design –

The project site is located approximately mid-block on Carlise Street. The applicant is seeking approval to install a new utility pole and a new small cell equipment along with components and hardware in the city right of way. The project does not involve housing construction of any type or housing repair.

b. The scale of the buildings –

The scale of the building does not apply to this activity since it is in the city right of way. The utility pole and equipment would be visible from the street and would not have any effect on any existing structures.

c. The texture and materials –

The texture and materials do not apply. The poles will be wood poles similar to the nearby streetlights and other utility poles in the neighborhood.

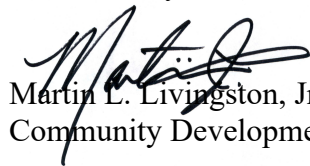
d. The relationship of such elements to similar features of structures in the immediate surroundings –

There are other utility poles in the neighborhood including wood utility and light poles and metal light poles. This pole will be similar in nature but shorter than a regular utility pole and taller than the light pole with equipment attached to the pole.

e. If the property is in a Historic District, the extent to which the alteration or construction would be harmonious with the Historic District –

There is no indication that the character of the neighborhood would change due to the installation of the utility pole. Only two scattered site poles are proposed in the neighborhood in strategic locations. This pole location will be in the right of way between two properties.

Submitted by:



Martin L. Livingston, Jr., AICP, CPM
Community Development Director

Attachments:

Conditions of Approval

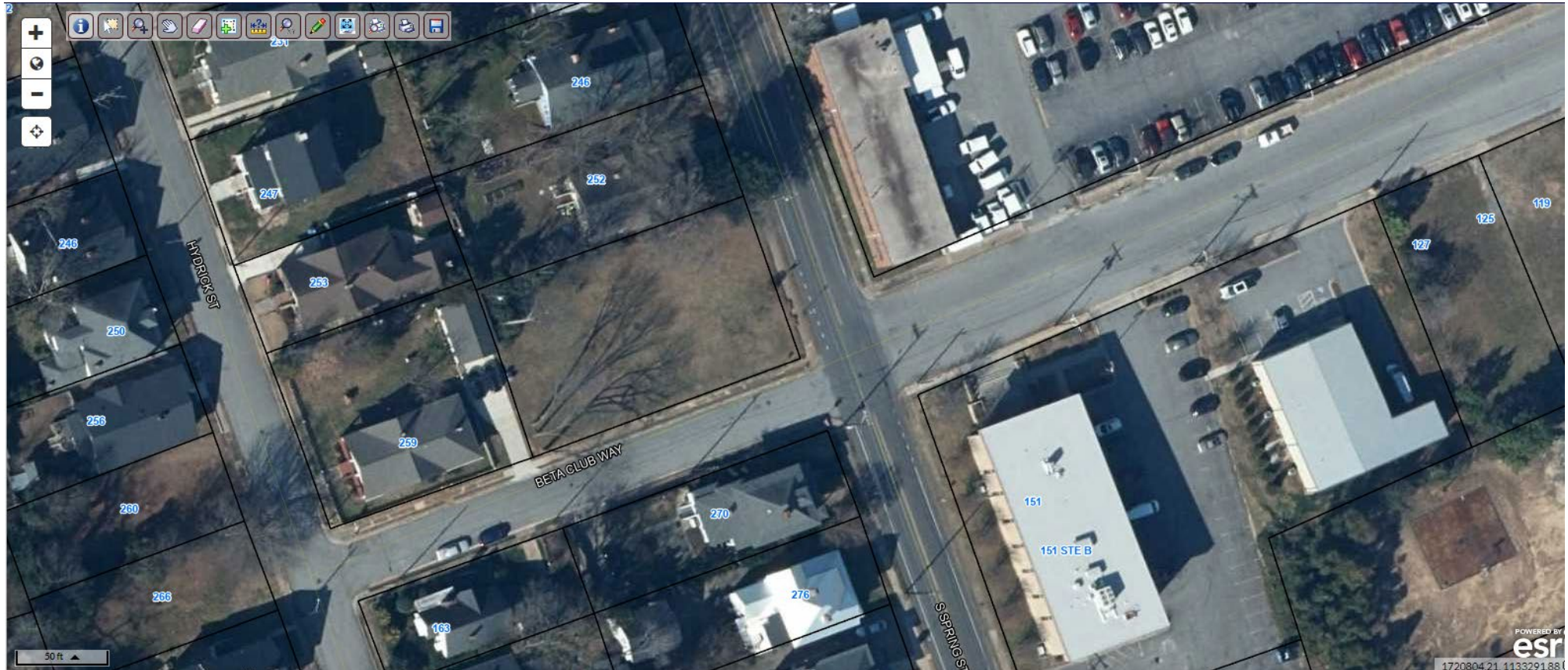
Application and Materials

Site Photos

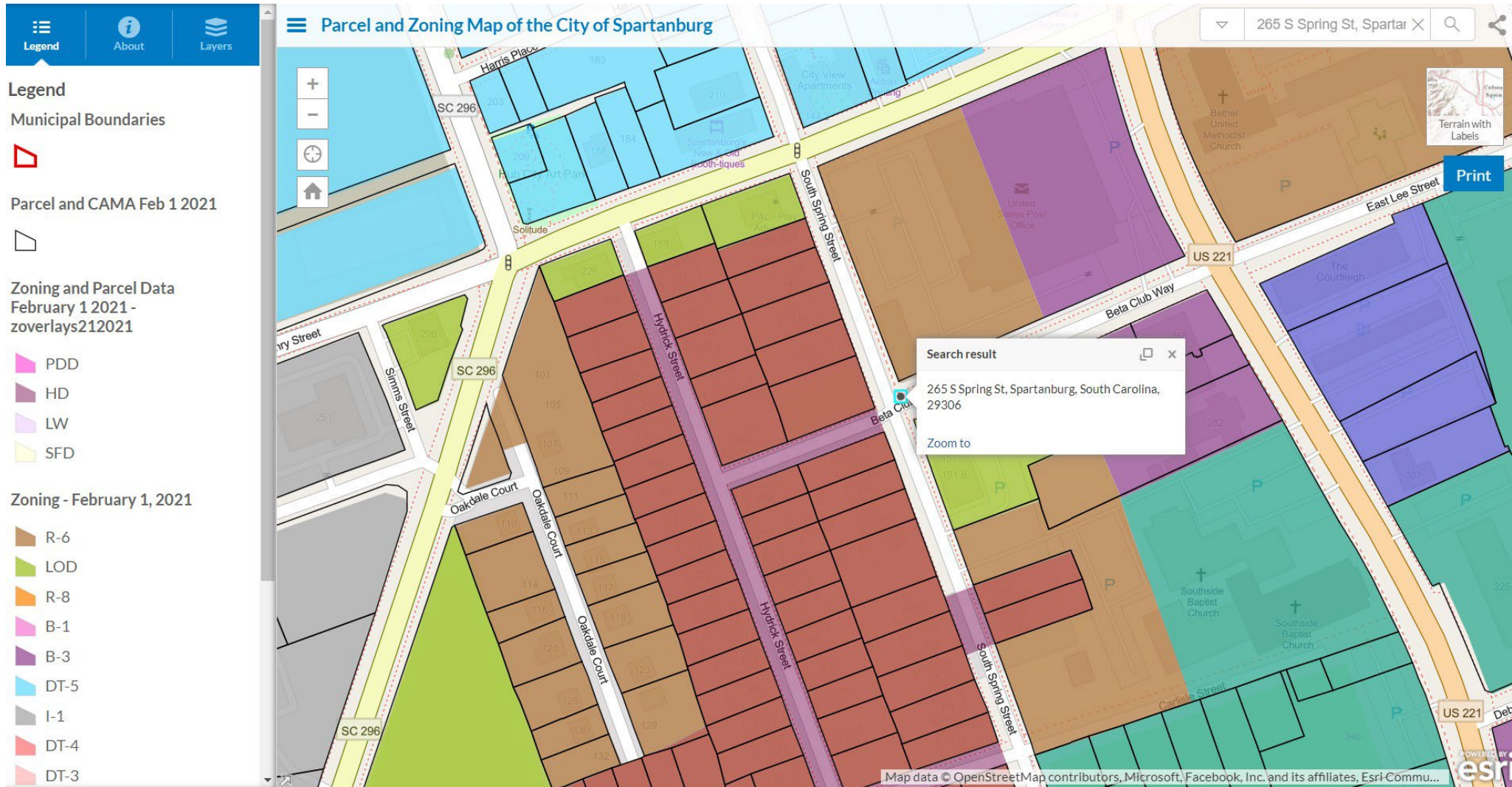
CONDITIONS OF APPROVAL FOR THE PROJECT ON PROPERTY AT:
Certificate of Appropriateness for Major Works – 265 S. Spring Street (TMS: 7-12-114-204.00
Owner/Applicant: Verizon Wireless / Brian Deye Contractor: Justin Sullens.

1. If one or more of the following conditions is not met with respect to all its terms, then this approval may be revoked.
2. All plans for future construction which are not covered by this review shall be submitted to the City Planning Department for review and approval.
3. Major modifications to plans or exceptions to completion may be granted only by the City authority which approved the project.
4. This permit shall be exercised within **six months of the date of final approval**, or it shall become null and void. Extensions may be granted with permission of the Board.
5. A building permit shall be obtained from the Building Department prior to commencement of work.
6. The development of the site shall be in substantial accordance with the approved plans submitted and on file in the Spartanburg City Planning Department. Major modifications to plans or exceptions to completion may be granted only by the City authority which approved the project. project.

SITE MAP



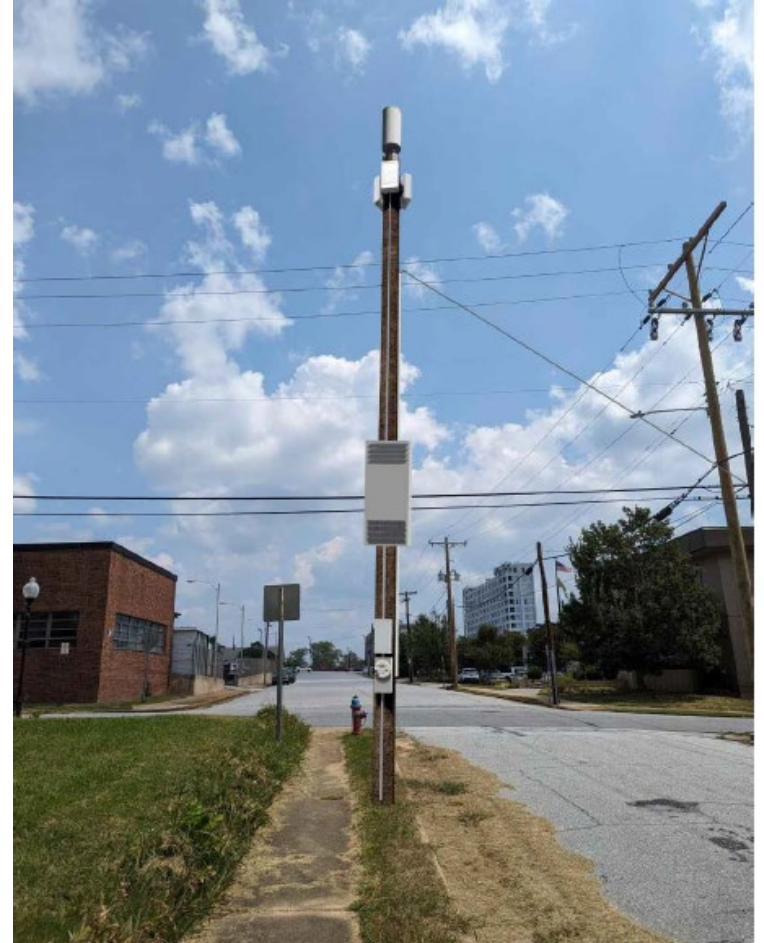
ZONING MAP



Current Condition



**Proposed Verizon
Small Cell**



Photos - 265 S. Spring St. Proposed cell tower



Kredalyn

MAY 30 2024



Planning Department

PO Box 1749 • Spartanburg, SC 29304 • phone: (864) 596-2068 • email: planning@cityofspartanburg.org
website: www.cityofspartanburg.org

Certificate of Appropriateness (COA) Historic Properties

Owner: Verizon Wireless Phone: (914) 714-6187
Address: 8921 Research Drive Email: _____
City: Charlotte State: NC Zip: 28262

Applicant: Brian Deye Phone: 470-391-2464
Address: 11720 Amber Park Drive, Suite 600 Email: brian.deye@kimley-horn.com
City: Alpharetta State: GA Zip: 30009

Contractor: Justin Sullens Phone: (706) 809-2669
Address: Summitt Cellular, IN PO BOX 330 Email: Justin.Sullens@nextedgenetworks.com
City: Cleveland State: GA Zip: 30528

Address of Property: 265 S SPRING STREET, SPARTANBURG, SC 29306
Tax Map Number: 712303730863 Zoning District: R-8/SFD

Please select the activity requested:

- | | |
|---|---|
| ☐ Alteration of Structure/Property | ☐ New Construction on Vacant Lot |
| ☐ Repair of Structure/Property | ☐ Demolition of Structure |
| ☐ Addition to Existing Structure | ☒ Other |

Fees and Payments can be made using the Permit Number and the City of Spartanburg Payment Portal.

To the best of my knowledge, the information on this application and all additional documentation is true, factual and complete. I hereby agree to abide by all conditions of any approvals granted by the City of Spartanburg. I understand that such conditions shall apply to the subject property only and are a right or obligation transferable by sale. I hereby authorize the staff of the Planning Department to inspect the premises of the above-described property.

Applicant Signature: Brian Deye Date: 5/29/2024

Staff Use Only /

Received by:

Martin/Owona

Date Received: 5/30/24

Time: _____

Permit Number: 24-0400023

Certificate of Appropriateness (COA) Additional Items

Please attach to this Application any of the applicable items:

- | | |
|---|--|
| ☒ Site Plans or Surveys | ☐ Detail Drawing(s), Floor Plans(s) or Sketch(es) |
| ☐ Photographs of Existing property | ☐ Material(s) and Sample(s) |
| ☐ Photographs of Changes requested | ☐ Other |

Description of Proposed work (attach extra sheets as needed):

THIS PROJECT CONSISTS OF INSTALLATION OF A NEW UTILITY POLE AND NEW SMALL CELL EQUIPMENT ALONG WITH ASSOCIATED ELECTRICAL COMPONENTS, MOUNTING HARDWARE AS NEEDED, AND ALL ASSOCIATED WORK.

Please read and initial the following statements:

_____ I am the owner of the property, or

_____ I am acting on behalf of the owner(s) of this property and have attached a letter from the owner(s) indicating their knowledge of this application.

BD The information on this application represents an accurate description of the proposed work.

BD I have omitted nothing that might affect the decision of the Historic Architect Review Board.

BD I will attend (or send a representative to attend) the public hearing of this application before the Historic Architect Review Board.

BD I understand that issuance of a Certificate of Appropriateness is not an authorization to begin work.

Received by: _____

Staff Use Only:
_____ MCOA - Minor

_____ COA - Major

Current Condition



NEAREST ADDRESS:

265 S SPRING STREET, SPARTANBURG, SC 29306

Site Name:

SMC_DT_SPB_S2_Node_3

Latitude/Longitude

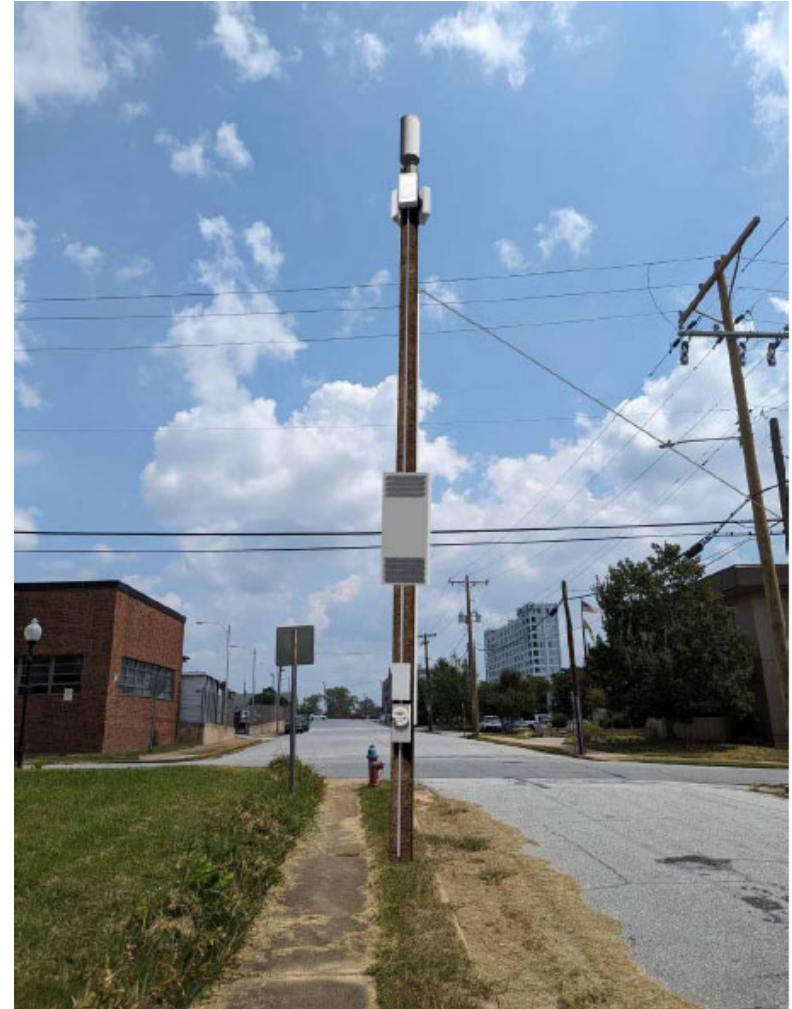
34.944724, -81.931664

GoPost ID and Number

216

23-4226

Proposed Verizon Small Cell

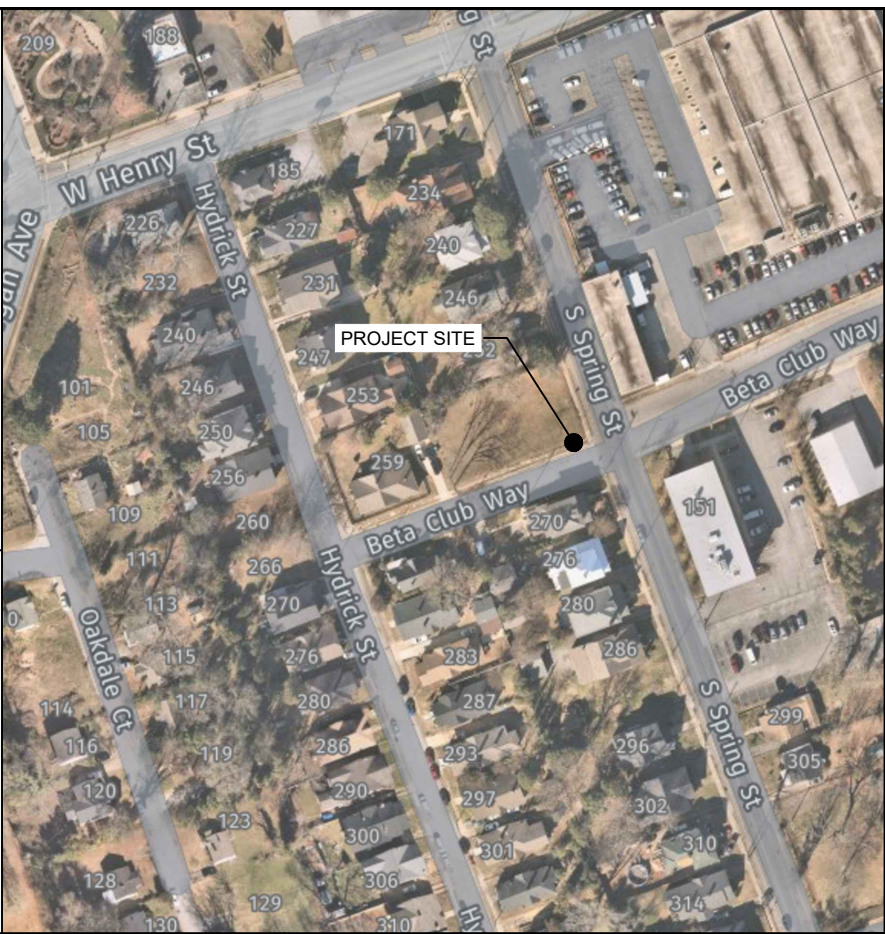




8921 RESEARCH DRIVE
CHARLOTTE, NC 28262

SITE NAME: SMC_DT_SPB_S2-NODE_3

PROPOSED ANTENNAS AND EQUIPMENT



SITE NAME:	SMC_DT_SPB_S2-NODE_3	APPLICANT:	VERIZON WIRELESS	ELECTRIC UTILITY:	DUKE ENERGY
POLE NUMBER:	N/A	ROW OWNER:	CITY OF SPARTANBURG	CONTACT:	BRANDON BLANTON
NEAREST ADDRESS:	265 S SPRING STREET SPARTANBURG, SC 29306 SPARTANBURG COUNTY	JURISDICTION:	CITY OF SPARTANBURG	PHONE:	(864) 373-5616
STRUCTURE OWNER:	VERIZON WIRELESS	VOLTAGE:	120/240	EMAIL:	BRANDON.BLANTON@DUKE-ENERGY.COM
		STRUCTURE TYPE:	NEW WOOD POLE		

NOTE: THIS DRAWING SET IS BASED ON DATA PROVIDED TO KIMLEY-HORN BY VERIZON WIRELESS

PROJECT INFORMATION

LOCAL UTILITY INFORMATION

LOCATION MAP

NEAREST ADDRESS:
265 S SPRING STREET
SPARTANBURG, SC 29306

LATITUDE: 34.944724
34° 56' 41.01"N
LONGITUDE: -81.931664
81° 55' 53.99"W

NOTES:
JURISDICTION DID NOT PROVIDE E911 ADDRESS FOR THIS PROJECT.

THE ADDRESS ON THE CONSTRUCTION DRAWINGS IS THE NEAREST ADDRESS TO THE PROPOSED PROJECT LOCATION.

PROJECT LOCATION / POLE COORDINATES

SHEET NUMBER	SHEET TITLE
T1	TITLE SHEET
C1	GENERAL NOTES
C2	PROPOSED NODE LOCATION
C3	POLE ELEVATION AND PHOTO SIM
C4	EQUIPMENT SPECIFICATIONS AND DETAILS
C5	EQUIPMENT SPECIFICATIONS AND DETAILS
C6	EQUIPMENT SPECIFICATIONS AND DETAILS
C7	EQUIPMENT SPECIFICATIONS AND DETAILS
E1	ELECTRICAL NOTES
E2	PANEL SCHEDULE AND RISER DIAGRAM
E3	GROUNDING DETAILS AND WIRING DIAGRAM
TC1	TRAFFIC CONTROL GENERAL NOTES
TC2	TRAFFIC CONTROL PLAN

SHEET INDEX

THIS PROJECT CONSISTS OF INSTALLATION OF A NEW UTILITY POLE AND NEW SMALL CELL EQUIPMENT ALONG WITH ASSOCIATED ELECTRICAL COMPONENTS, MOUNTING HARDWARE AS NEEDED, AND ALL ASSOCIATED WORK.

THE PLANS AND DETAILS IN THIS DRAWING SET REPRESENT A PORTION OF A SMALL CELL NETWORK TO BE CONSTRUCTED IN PUBLIC RIGHT OF WAY PURSUANT TO AUTHORITY GRANTED BY CITY OF SPARTANBURG.

PROPOSED FIBER TO BE ROUTED TO A HANDHOLE AT BASE OF POLE BY VERIZON ONE FIBER. PROPOSED FIBER TO BE ROUTED FROM HANDHOLE TO POLE BY CONTRACTOR.

POWER TO BE ROUTED TO PROPOSED METER BY LOCAL UTILITY.

LOCAL POWER AND FIBER UTILITY SHALL COORDINATE AND EXTEND SERVICE TO PROPOSED SITE AS INDICATED IN THIS DRAWING SET.

VERIZON CONTRACTOR TO CONTACT BRANDON BLANTONWITH DUKE ENERGY (BRANDON.BLANTON@DUKE-ENERGY.COM; (864) 373-5616) AT START OF CONSTRUCTION TO COORDINATE SCHEDULE AND POWER DELIVERY.

VERIZON WIRELESS WILL INSTALL (1) NEW WOOD POLE IN THE PUBLIC ROW AND WILL INSTALL THE FOLLOWING EQUIPMENT ON THE POLE:

(4) ANTENNAS
(1) RADIOS
(1) FIBER CABLE
(7) AC POWER CABLES
(4) COAXIAL CABLES

PROJECT DESCRIPTION

SCOPE OF WORK



VERIZON WIRELESS
8921 RESEARCH DRIVE
CHARLOTTE, NC 28262



KIMLEY-HORN AND ASSOCIATES, INC.
11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009

- ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FOLLOWING CODES AND STANDARDS:
 - 2021 SOUTH CAROLINA BUILDING CODE (2021 IBC WITH SC MODIFICATIONS)
 - 2021 SOUTH CAROLINA FIRE CODE (2021 IFC WITH SC MODIFICATIONS)
 - 2021 SOUTH CAROLINA PLUMBING CODE (2021 IPC WITH SC MODIFICATIONS)
 - 2021 SOUTH CAROLINA MECHANICAL CODE (2021 IMC WITH SC MODIFICATIONS)
 - 2020 NATIONAL ELECTRICAL CODE (NFPA 70) WITH SC MODIFICATIONS
- CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
- AFTER COMPLETION AND FINAL INSPECTION OF THE WORK, CONTRACTOR SHALL FURNISH THE OWNER WITH A CERTIFICATE OF COMPLETION AND APPROVAL.

PROJECT TEAM

DESIGN CODES AND STANDARDS



8921 RESEARCH DRIVE
CHARLOTTE, NC 28262

PROJECT INFORMATION:

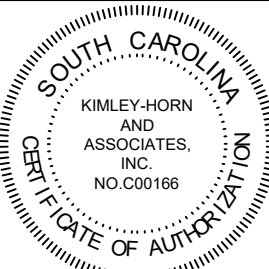
SITE NAME:
SMC_DT_SPB_S2-NODE_3

NEAREST ADDRESS:
265 S SPRING STREET
SPARTANBURG, SC 29306
SPARTANBURG COUNTY

PLANS PREPARED BY:



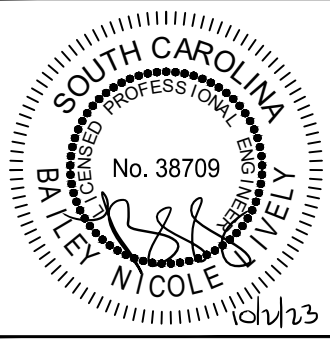
11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009
PHONE: 770-619-4280
WWW.KIMLEY-HORN.COM



REV: DATE: ISSUED FOR: BY:

1	10/02/23	CONSTRUCTION	BNL
0	07/27/23	PRELIMINARY	BNL

LICENSER:



KHA PROJECT NUMBER:

013509483

DRAWN BY: CHECKED BY:

MCN

BNL

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T1

k:\atl_wireless\000_verizon\cartn smc prdw\spartanburg market\Nodes\smc_dt_spb_s2_node_3\CAD\CD\WP-SWC_4G-5G.dwg ----- 10/02/23 1:17 PM by: Melissa.Norman

GENERAL NOTES:

1.

ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND VERIZON WIRELESS PROJECT SPECIFICATIONS.
2.

GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE APPROPRIATE PROVISIONS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
3.

ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.
4.

ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
5.

UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6.

PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
7.

THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8.

IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.
9.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFIRM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
10.

GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
11.

ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.
12.

SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. CONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS.
13.

THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEViate FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
14.

CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
15.

THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
16.

THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
17.

GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING.
18.

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
19.

THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
20.

THE GENERAL CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OT 2-A:10-B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
21.

ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.
22.

ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
23.

THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.

24.

CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
25.

NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
26.

THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE-APPROVED BY THE LOCAL JURISDICTION.
27.

ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
28.

ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
29.

CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
30.

CONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
31.

STRUCTURE IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY VERIZON WIRELESS TECHNICIANS.
32.

NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
33.

CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
34.

CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
35.

INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
36.

ALL CABLE INSTALLATIONS TO FOLLOW MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
37.

UNDERGROUND UTILITY INFORMATION PRESENTED HEREIN HAS BEEN DETERMINED BASED ON SURFACE EVIDENCE AND PLANS ON RECORD. ALL UNDERGROUND UTILITIES SHALL BE LOCATED IN THE FIELD BY CONTRACTOR PRIOR TO COMMENCEMENT OF SITE WORK. CONTRACTOR SHALL CALL DIGSAFE A MINIMUM OF 72 HOURS PRIOR TO PLANNED CONSTRUCTION ACTIVITY.
38.

THE CONTRACTOR SHALL PROVIDE A STATE DEPARTMENT OF TRANSPORTATION COMPLAINT TRAFFIC CONTROL PLAN IF REQUIRED BY THE AUTHORITY HAVING JURISDICTION.

ANTENNA MOUNTING:

1.

DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO CURRENT ANSI/TIA-222 OR APPLICABLE LOCAL CODES.
2.

ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION INACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS NOTED OTHERWISE.
3.

ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS NOTED OTHERWISE.
4.

DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
5.

ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH LOCK NUTS, DOUBLE NUTS AND SHALL BE TORQUED TO MANUFACTURER'S RECOMMENDATIONS.
6.

CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATION FOR INSTALLATION AND GROUNDING.
7.

PRIOR TO SETTING ANTENNA AZIMUTHS AND DOWNTILTS, ANTENNA CONTRACTOR SHALL CHECK THE ANTENNA MOUNT FOR TIGHTNESS AND ENSURE THAT THEY ARE PLUMB, ANTENNA AZIMUTHS SHALL BE SET FROM TRUE NORTH AND BE ORIENTED WITHIN +/- 5% AS DEFINED BY THE RFDS. ANTENNA DOWNTILTS SHALL BE WITHIN +/-0.5% AS DEFINED BY THE RFDS.

TORQUE REQUIREMENTS:

1.

ALL RF CONNECTIONS SHALL BE TIGHTENED BY A TORQUE WRENCH TO THE MANUFACTURES SPECIFIED TORQUE.
2.

ALL RF CONNECTIONS, GROUNDING HARDWARE AND ANTENNA HARDWARE SHALL HAVE A TORQUE MARK INSTALLED IN A CONTINUOUS STRAIGHT LINE FROM BOTH SIDES OF THE CONNECTION.

A.

RF CONNECTION BOTH SIDES OF THE CONNECTOR.

B.

GROUNDING AND ANTENNA HARDWARE ON THE NUT SIDE STARTING FROM THE THREADS TO THE SOLID SURFACE. EXAMPLE OF SOLID SURFACE: GROUND BAR, ANTENNA BRACKET METAL.

COAXIAL CABLE NOTES:

1.

TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED LENGTHS.
2.

CONTRACTOR SHALL VERIFY THE DOWN-TILT OF EACH ANTENNA WITH A DIGITAL LEVEL.
3.

CONTRACTOR SHALL CONFIRM COAX COLOR CODING PRIOR TO CONSTRUCTION.
4.

ALL JUMPERS TO THE ANTENNAS SHALL BE 1/2" DIA. LDF AND SHALL NOT EXCEED 6'-0".
5.

TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED LENGTHS.
6.

ALL COAXIAL CABLE SHALL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE, IN AN APPROVED MANNER, AT DISTANCES NOT TO EXCEED
7.

4'-0" OC.
8.

CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING BOTH THE INSTALLATION AND GROUNDING OF ALL COAXIAL CABLES, CONNECTORS, ANTENNAS, AND ALL OTHER EQUIPMENT.
9.

CONTRACTOR SHALL WEATHERPROOF ALL ANTENNA CONNECTORS WITH SELF-AMALGAMATING TAPE.

GENERAL CABLE & EQUIPMENT NOTES:

1.

CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ANTENNA, DIPLEXERS, AND COAX CONFIGURATION, MAKE AND MODELS PRIOR TO INSTALLATION.
2.

ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
3.

CONTRACTOR SHALL REFERENCE THE STRUCTURAL ANALYSIS / DESIGN DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION / ROUTING.
4.

ALL OUTDOOR RF CONNECTORS/CONNECTIONS SHALL BE WEATHERPROOFED, EXCEPT THE RET CONNECTORS, USING BUTYL TAPE AFTER INSTALLATION AND FINAL CONNECTIONS ARE MADE. BUTYL TAPE SHALL HAVE A MINIMUM OF ONE-HALF TAPE WIDTH OVERLAP ON EACH TURN AND EACH LAYER SHALL BE WRAPPED THREE TIMES. WEATHERPROOFING SHALL BE SMOOTH WITHOUT BUCKLING. BUTYL BLEEDING IS NOT ALLOWED.
5.

IF REQUIRED TO PAINT ANTENNAS AND/OR COAX:

A.

TEMPERATURE SHALL BE ABOVE 50° F, OR PAINTING TO BE PERFORMED IN A MANNER CONSISTENTWITH THE PAINT MANUFACTURER'S INSTRUCTIONS FOR COLD WEATHER PAINTING.

B.

PAINT COLOR MUST BE APPROVED BY BUILDING OWNER/LANDLORD.

C.

FOR REGULATED TOWERS, FAA/FCC APPROVED PAINT IS REQUIRED.

D.

DO NOT PAINT OVER COLOR CODING OR ON EQUIPMENT MODEL NUMBERS.
6.

ALL PROPOSED GROUND BAR DOWNLEADS ARE TO BE TERMINATED TO THE EXISTING ADJACENT GROUND BAR DOWNLEADS A MINIMUM DISTANCE OF 4'-0" BELOW GROUND BAR. TERMINATIONS MAY BE EXOTHERMIC OR COMPRESSION.
7.

ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATION & RECOMMENDATIONS.

ROW CONSTRUCTION NOTES STANDALONE:

1.

NO BOLT THREADS TO PROTRUDE MORE THAN 1-1/2" [.038M].
2.

90 SHORT SWEEPS UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).
3.

USE 90 CONNECTOR AT CABLE CONNECTION TO ANTENNAS.
4.

USE 1/2" [.013M] CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.
5.

FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.
6.

THE MINIMUM SIZE OF ALL ANTENNA POLE WILL BE ANSI CLASS 3, UNLESS NOTED OTHERWISE.

ABBREVIATIONS:

A - AMPERE	EL - ELEVATION	PCS - PERSONAL
AGL - ABOVE GROUND LEVEL	EMT - ELECTRIC METALLIC	COMMUNICATION SYSTEM
AMSL - ABOVE MEAN SEA	TUBING	PH - PHASE
LEVEL	FOSC - FIBER OPTIC SPLICE	PNL - PANEL
AWG - AMERICAN WIRE	CLOSURE	PNLBRD - PANEL BOARD
GAUGE	FSC - FLEXIBLE STEEL	PVC - RIGID NON-METALLIC
AWS - ADVANCED WIRELESS	CONDUIT	CONDUIT
SERVICE	GPS - GLOBAL POSITIONING	RGS - RIGID GALVANIZED
BCW - BARE COPPER WIRE	SYSTEM	STEEL CONDUIT
BFG - BELOW FINISHED	GRD - GROUND	RRH - REMOTE RADIO HEAD
GRADE	IGB - ISOLATED GROUND	SW - SWITCH
BKR - BREAKER	BAR	TGB - TOWER GROUND BAR
C - CONDUIT	IGR - INTERIOR GROUND	UL - UNDERWRITERS
CBRS - CITIZENS	RING (HALO)	LABORATORIES
BROADBAND RADIO SERVICE	KW - KILOWATTS	V - VOLTAGE
CKT - CIRCUIT	LAA - LICENSE ASSISTED	W - WATTS
DISC - DISCONNECT	ACCESS	XFMR - TRANSFORMER
EGR - EXTERNAL GROUND	NEC - NATIONAL ELECTRIC	XMTR - TRANSMITTER
RING	CODE	



PROJECT INFORMATION:

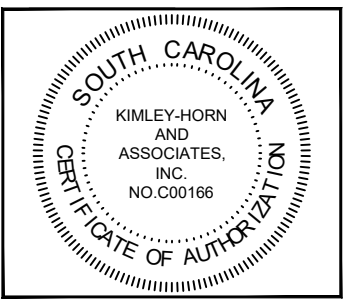
SITE NAME:

SMC_DT_SPB_S2-NODE_3

NEAREST ADDRESS:

265 S SPRING STREET
SPARTANBURG, SC 29306
SPARTANBURG COUNTY

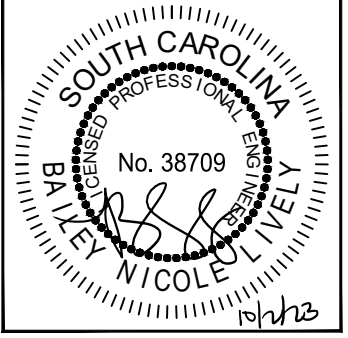
PLANS PREPARED BY:



REV:____DATE:____ISSUED FOR:____BY:____

1	10/02/23	CONSTRUCTION	BNL
0	07/27/23	PRELIMINARY	BNL

LICENSER:



KHA PROJECT NUMBER:_____

013509483

DRAWN BY:____CHECKED BY:____

MCN	BNL
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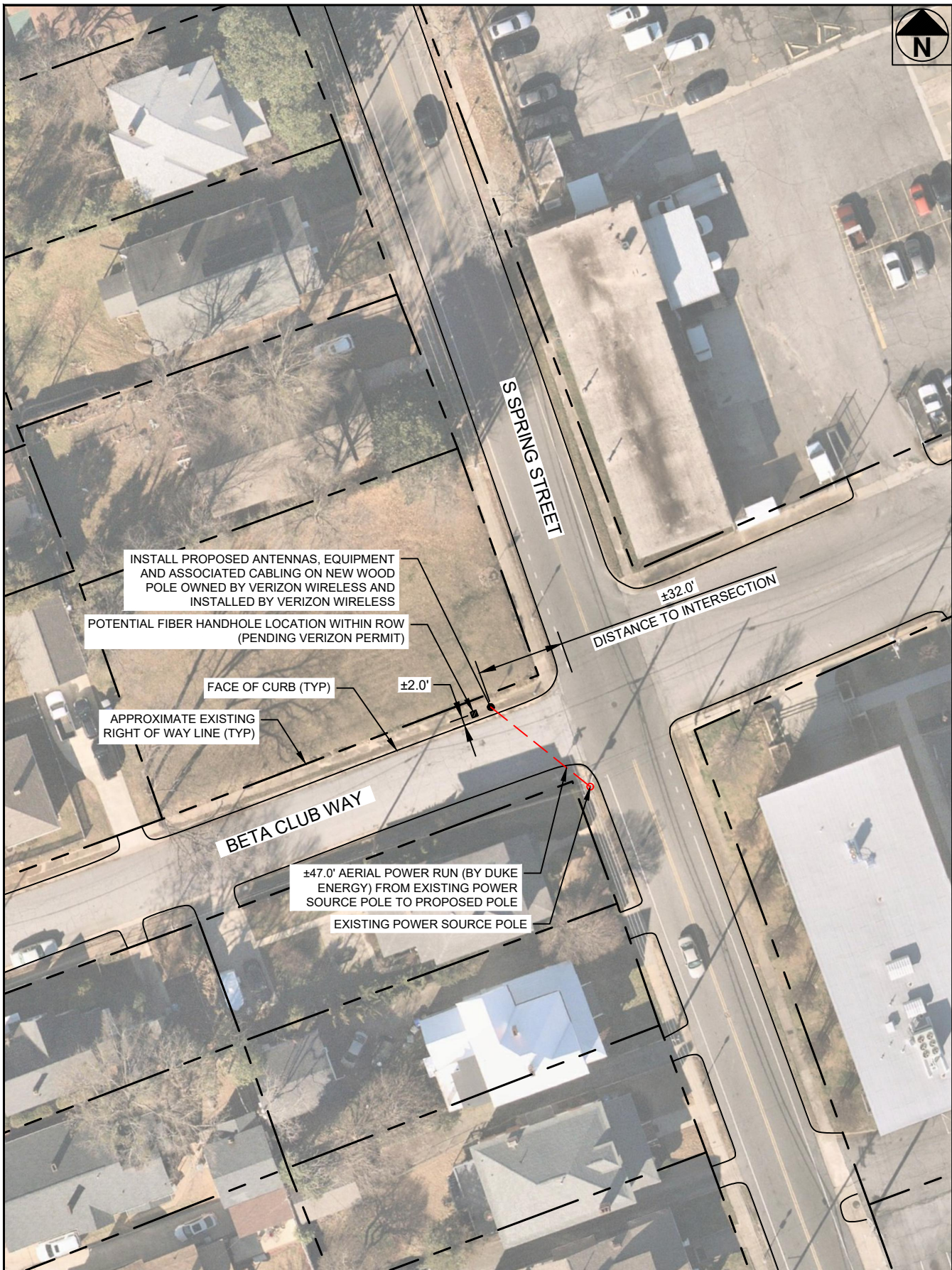
SHEET TITLE:_____

GENERAL NOTES

SHEET NUMBER:_____

C1

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PROPOSED NODE LOCATION PLAN

CONTRACTOR NOTES

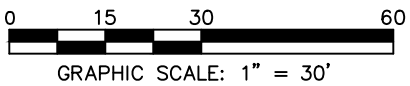
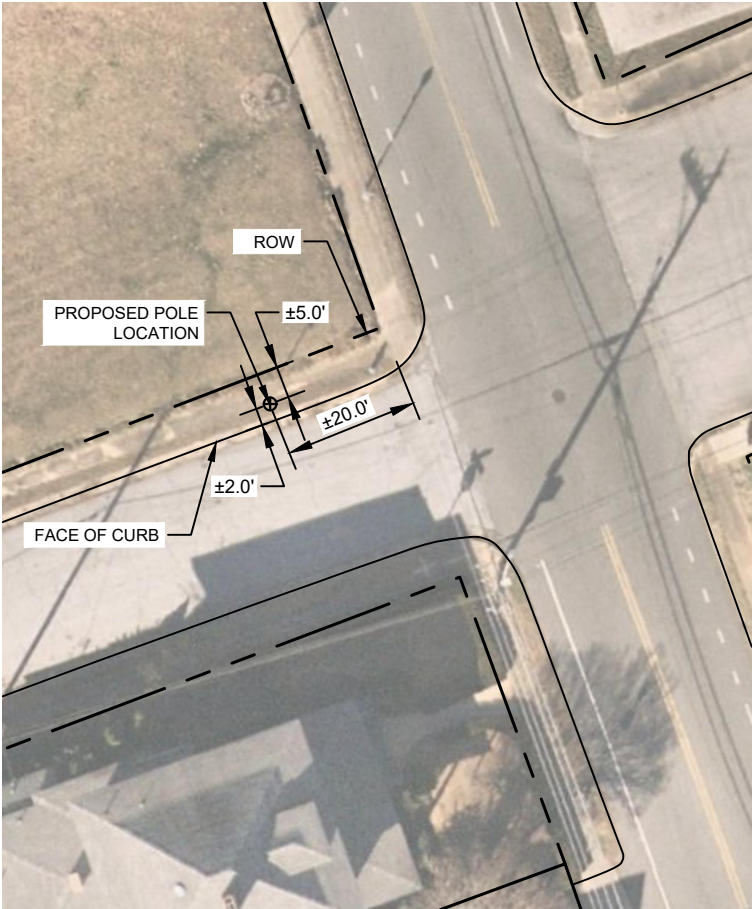
1. SITE PLAN INFORMATION WAS REPRODUCED FROM SPARTANBURG COUNTY GIS APPLICATION INFORMATION AND GOOGLE EARTH, AND IS PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY. KIMLEY-HORN DOES NOT GUARANTEE OR ENSURE THE PRECISION, ACCURACY, OR CORRECTNESS AND ASSUMES NO RESPONSIBILITY OR LIABILITY FOR THE DAMAGES, LOSS OF REVENUE, OR INJURY THAT MIGHT OCCUR.
2. CONTRACTOR IS TO ESTABLISH THE EXISTENCE AND LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES. IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES.
3. ALL SIDEWALK AND PAVEMENT SURFACES ALTERED DURING CONSTRUCTION TO BE REPAIRED PER THE SCDOT DESIGN STANDARDS.
4. BEFORE COMMENCING ANY EXCAVATIONS, CONTRACTOR TO NOTIFY EACH UTILITY OWNER HAVING UNDERGROUND UTILITIES LOCATED IN THE PROJECT LIMITS NOT LESS THAN TWO OR MORE THAN TEN WORKING DAYS PRIOR TO STARTING. CALL SOUTH CAROLINA ONE-CALL CENTER (1-800-721-7877) 48 HOURS BEFORE WORK COMMENCES.

UTILITY NOTES

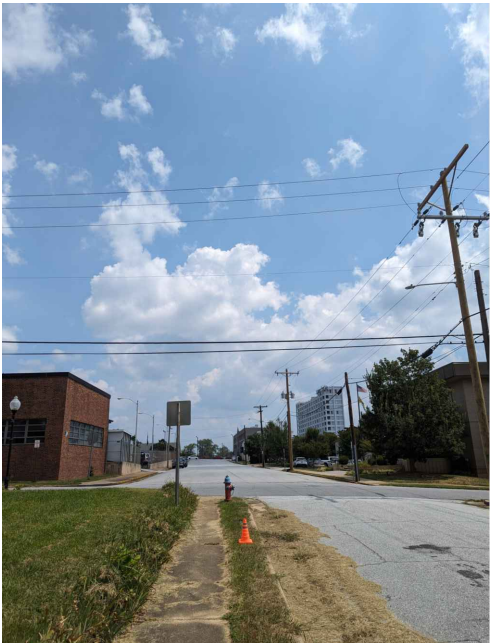
1. DUKE ENERGY TO RUN PROPOSED POWER ROUTING FROM EXISTING POWER SOURCE TO PROPOSED POLE.
2. DUKE ENERGY TO PROVIDE METER AND VERIZON CONTRACTOR TO PROVIDE AND INSTALL METER BASE.
3. DUKE ENERGY TO BRING POWER TO POLE UNDER SEPARATE PERMIT.
4. VERIZON ONE FIBER TO BRING FIBER TO POLE UNDER SEPARATE PERMIT.

CONTRACTOR AND UTILITY NOTES

NOTE:
DIMENSIONS PROVIDED BELOW ARE SHOWN FOR REFERENCE ONLY. THESE DIMENSIONS ARE BASED ON AERIAL IMAGERY AND COUNTY GIS MAPPING, AND AS A RESULT DO NOT PROVIDE SURVEY LEVEL ACCURACY



49 of 120
PROPOSED NODE SITE LOCATION PLAN



PROPOSED NODE LOCATION PHOTO



PROJECT INFORMATION:

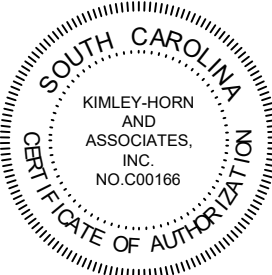
SITE NAME:
SMC_DT_SPB_S2-NODE_3

NEAREST ADDRESS:
265 S SPRING STREET
SPARTANBURG, SC 29306
SPARTANBURG COUNTY

PLANS PREPARED BY:



11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009
PHONE: 770-619-4280
WWW.KIMLEY-HORN.COM



REV: DATE: ISSUED FOR: BY:

1	10/02/23	CONSTRUCTION	BNL
0	07/27/23	PRELIMINARY	BNL

LICENSER:



KHA PROJECT NUMBER:

013509483

DRAWN BY: CHECKED BY:

MCN

BNL

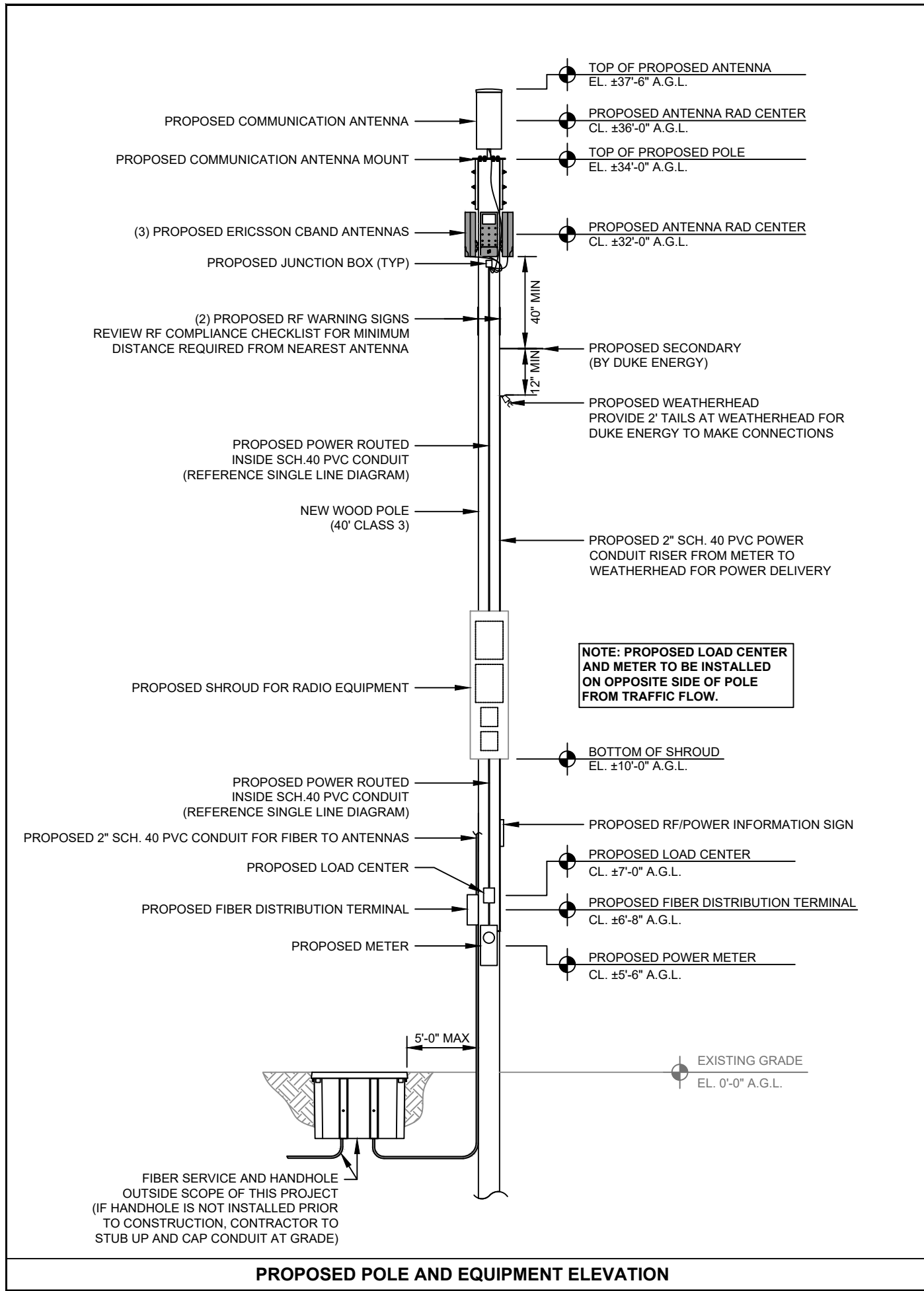
SHEET TITLE:

PROPOSED NODE
LOCATION

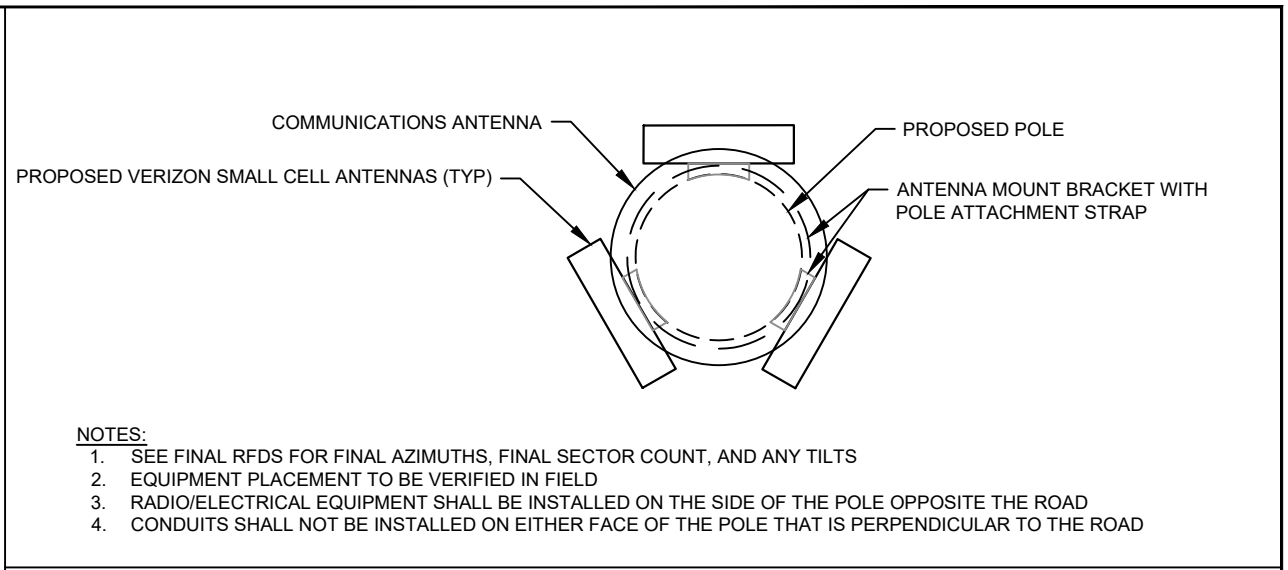
SHEET NUMBER:

C2

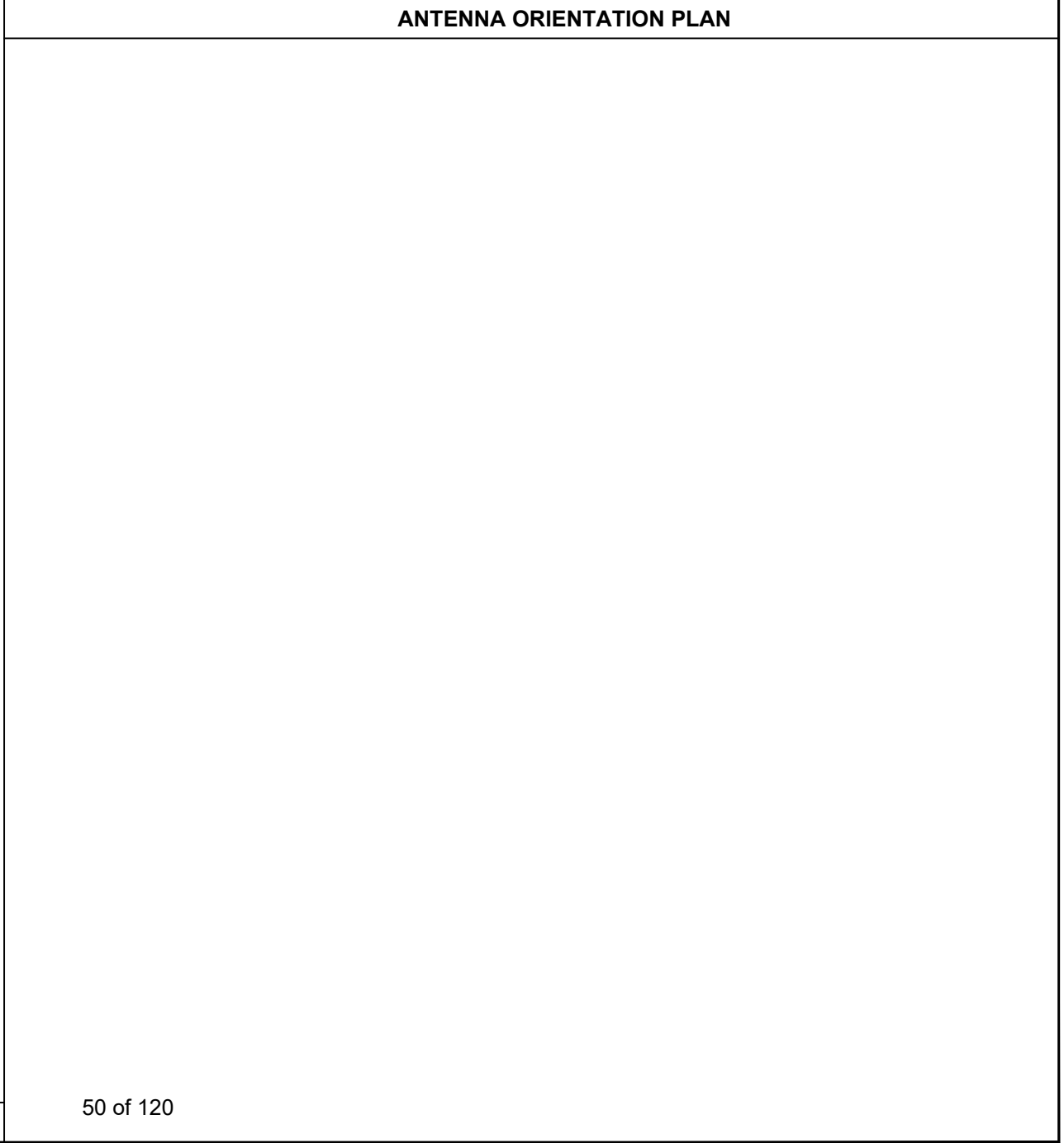
k:\atl_wireless\000_verizon\cartn smc prw\spartanburg market\Nodes\smc_dt_spb_s2-node_3\CAD\CD\WPB-SMC_4G-5G.dwg -- -- 10/02/23 1:18 PM by: Melissa.Norman



PROPOSED POLE AND EQUIPMENT ELEVATION



ANTENNA ORIENTATION PLAN





8921 RESEARCH DRIVE
CHARLOTTE, NC 28262

PROJECT INFORMATION:

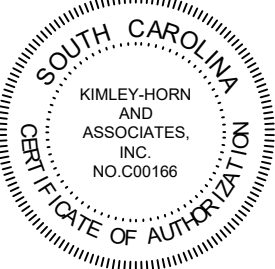
SITE NAME:
SMC_DT_SPB_S2-NODE_3

NEAREST ADDRESS:
265 S SPRING STREET
SPARTANBURG, SC 29306
SPARTANBURG COUNTY

PLANS PREPARED BY:



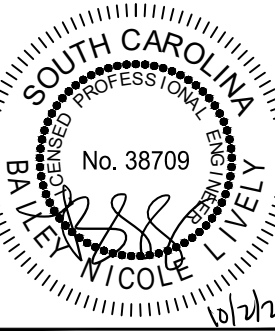
11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009
PHONE: 770-619-4280
WWW.KIMLEY-HORN.COM



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KHA PROJECT NUMBER:

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DRAWN BY: CHECKED BY:

MCN BNL

SHEET TITLE:

POLE ELEVATION
AND PHOTO SIM

SHEET NUMBER:

C3

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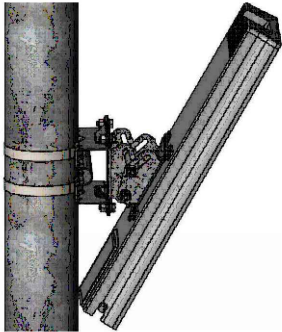
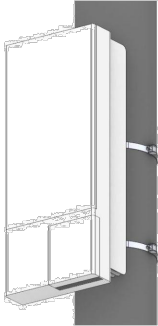
AIR 16XX – AAS STREET PRODUCT
C-BAND (B77D)

TRX Branches 16T16R
Antenna Elements 48
Antenna configuration (3x1)x(2x4)
Operation band 3700 ~3980 MHz, B77D
IBW 200 MHz
Occupied BW (TCBW) Upto 200 MHz with 8/4 DL/UL layers
EIRP 68 dBm in peak on C-band
Total Output Power (TRP) 80 W
Supported RAT NR only
Size and Weight:

AIR 16XX C-BAND (B77D)	Height	Width	Depth	Weight
wo protruding items	20.9 In (530 mm)	7.9 In (200 mm)	5.52 In (140 mm)	35.3 lbs (16 Kg)
w protruding items	20.9 In (530 mm)	8.1 In (204 mm)	5.52 In (140 mm)	

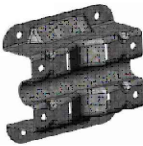
eCPRI link 2*25G
Operating temperature 40 to +55°C, with natural convection cooling
Power Supply AC
Power Consumption @full load Tentative 460W (100% traffic, 75% DL & 25% UL TDD)
Ext.alarm support NA

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Streetmacro Bracket
Modular Design

- The modular bracket contains 3 parts + fasteners
- **Base clamp**, for pole, wall and utility pole mounting
 - **Tilt joint**, for tilting the unit 30deg. Azimuth, horizontal or both azimuth and horizontal if two tilt joints are used.
 - **Back clamp**, to mount the base clamp on a pole



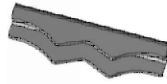
BASE CLAMP

- Weight: 0.6 kg
- Dimensions: H = 134mm, W = 155mm, D = 52 mm (30mm for the slim version)
- Mounting profile: Pipe, Angle, Square, Wall, utility pole



TILT JOINT

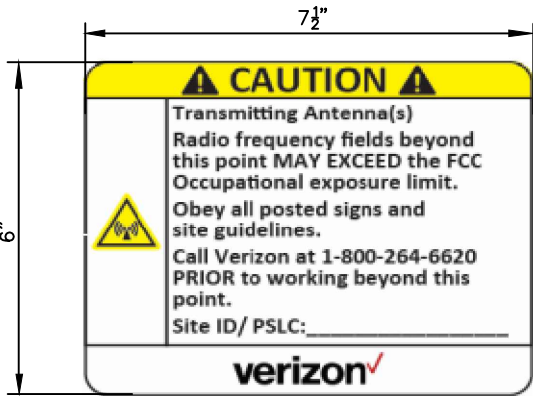
- Weight: 1.6 kg
- Dimensions: H = 136mm, W = 126mm, D = 50 mm
- Tilt: 30deg



BACK CLAMP

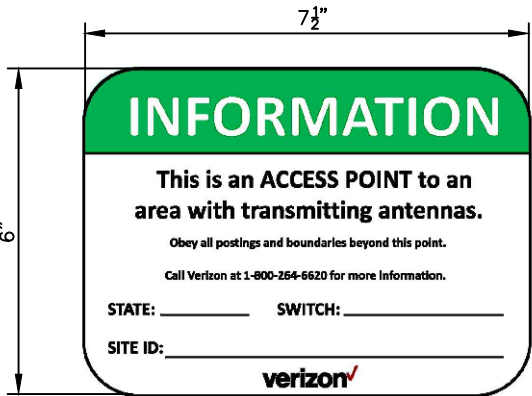
- Weight: 0.5 kg
- Dimensions: H = 40mm, W = 170mm, D = 40 mm

ANTENNA SPECIFICATIONS



- NOTES:
1. INSTALL NEAR ANTENNAS (+/- 2'-0" BELOW) TOWARDS TOP OF POLE
 2. MINIMUM LETTER HEIGHTS TO BE 0.2" CALIBRI FONT

RF WARNING/CAUTION SIGN DETAIL



- NOTES:
1. INSTALL NEAR METER BASE
 2. MINIMUM LETTER HEIGHTS TO BE 0.2" CALIBRI FONT

SITE INFORMATION SIGN DETAIL



- NOTES:
1. INSTALL NEAR METER BASE WHEN MULTIPLE POWER SOURCES EXIST ON POLE
 2. MINIMUM LETTER HEIGHTS TO BE 0.2" CALIBRI FONT

MULTIPLE POWER SOURCES SIGN DETAIL



PROJECT INFORMATION:

SITE NAME:
SMC_DT_SPB_S2-NODE_3

NEAREST ADDRESS:
265 S SPRING STREET
SPARTANBURG, SC 29306
SPARTANBURG COUNTY

PLANS PREPARED BY:



11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009
PHONE: 770-619-4280
WWW.KIMLEY-HORN.COM



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KHA PROJECT NUMBER:

013509483

DRAWN BY: _____ CHECKED BY: _____

MCN BNL

SHEET TITLE:

EQUIPMENT
SPECIFICATIONS
AND DETAILS

SHEET NUMBER:

C4

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RADIO 4455 MEDIUM POWER B2/25 & B66A FOR STREET MACRO APPLICATIONS



- › 4 antenna ports, 4TX/4RX for 2 bands with common RF ports
- › Up to 160W RF Power shared between 2 bands
 - › Examples:
 - › 4x20W on each band or
 - › 4x10W and 4x30W
- › Carrier Capacity:
 - › Up to (6DL/12UL) carrier and up to 60/65+70 MHZ OBW for LTE (B2 60M & B25 65M)
- › Size and Weight:

Radio 4455 - B2 & B66A	Height	Width	Depth	Weight
wo protruding items	30 In (760 mm)	10.4 In (262 mm)	5.9 In (149 mm)	59.5 lbs (27 Kg)
w protruding items	32.3 In (820 mm)	11.9 In (300 mm)	9.3/6.5 In Square 165mm)	

- › AC power (Nominal voltage 100 - 250 V)
- › Power 840 W (PSU max output)
- › 2 x 10.1 Gbps CPRI, with max 3 Radios in cascading
- › AISG RET:1 ALD port, max 25W
- › Type 4.3-10 RF connectors
- › IP 65, -40° to +55° C
- › Support optional sun-shield, included in the protruding dimensions above

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RADIO SPECIFICATIONS

COMMScope®



Mini Rapid Fiber Distribution Terminal (RDT)
Outdoor Wall Box

CommScope's mini Rapid Fiber distribution terminal (RDT) is designed to provide a quick and simple solution for installing fiber in small and medium sized multi-dwelling units (MDUs). Utilizing CommScope's RapidReel cable spool in conjunction with the 3.6mm internal / external 12-fiber microcable technology, CommScope is able to offer a full plug-and-play customer termination solution for in-building fiber applications...

The mini RDT incorporates a unique fiber cable spooling system that stores up to 66 feet (20 m) of 3.6mm indoor/outdoor cable within the enclosure. The 3.6mm cable is supplied with a low-loss hardened multifiber optical connector (HMFOC) or MPO connector. With a single click, 12 fibers can be terminated directly to a wall box, fiber distribution hub or other HMFOC or MPO-enabled equipment - eliminating the need for fusion or mechanical splicing. The inherent of the cable breaks out to 12 low-loss SC/APC adapter ports which enables fast, plug-and-play drop cable connections.

Benefits

- Greatly reduces time to install and removes craft sensitivity
- Removes the need for field termination / fusion splice
- Reduces inventory requirements for multiple cable types and lengths
- Removes the need for extensive site survey/inspections
- Weatherproof housing suitable for external environmental conditions
- 3.6mm cable suitable for outside plant mounting / duct installation
- Easy installation, requires no special tools
- Quick service turn-up / maintenance

Applications

- Up to 20m of multifiber cable can be installed internally
- Additional cable storage provided on an external spool solution
- 3.6mm G657 A2 microcable technology
- IP55-rated enclosure
- Cable terminated to a single HMFOC or MPO connector
- Cable entry through incoming conduit to meet aesthetic applications

Mini Rapid Fiber Distribution Terminal (RDT)
Outdoor Wall Box

General Mechanical Specifications

Cable Ports:	12
Dimensions	8 1/2 (0.4 x (W) 7.05 x (D) 2.8 inches
Weight	2.20 lbs
Material	LSH Plastic
Colour	Grey (RAL 7033)
Cable Length	20m / 40m / 60m / 80m
Cable Dimension	3.6mm
Cable Material	LSH Compliant
Fiber	per ITU G657 A2
Optical Connectors Customer	SC/LC
Optical Performance	0.25dB Max (0.18 Typ)
Optical Connector Distribution HMFOC / MPO	
• Optical Performance HMFOC	0.62dB Max (0.35dB Typ)
• Optical Performance MPO	0.5dB Max (0.35dB Typ)
Operating Temperature	-40°C to +65°C



External spool included for cable lengths over 20 M (65')

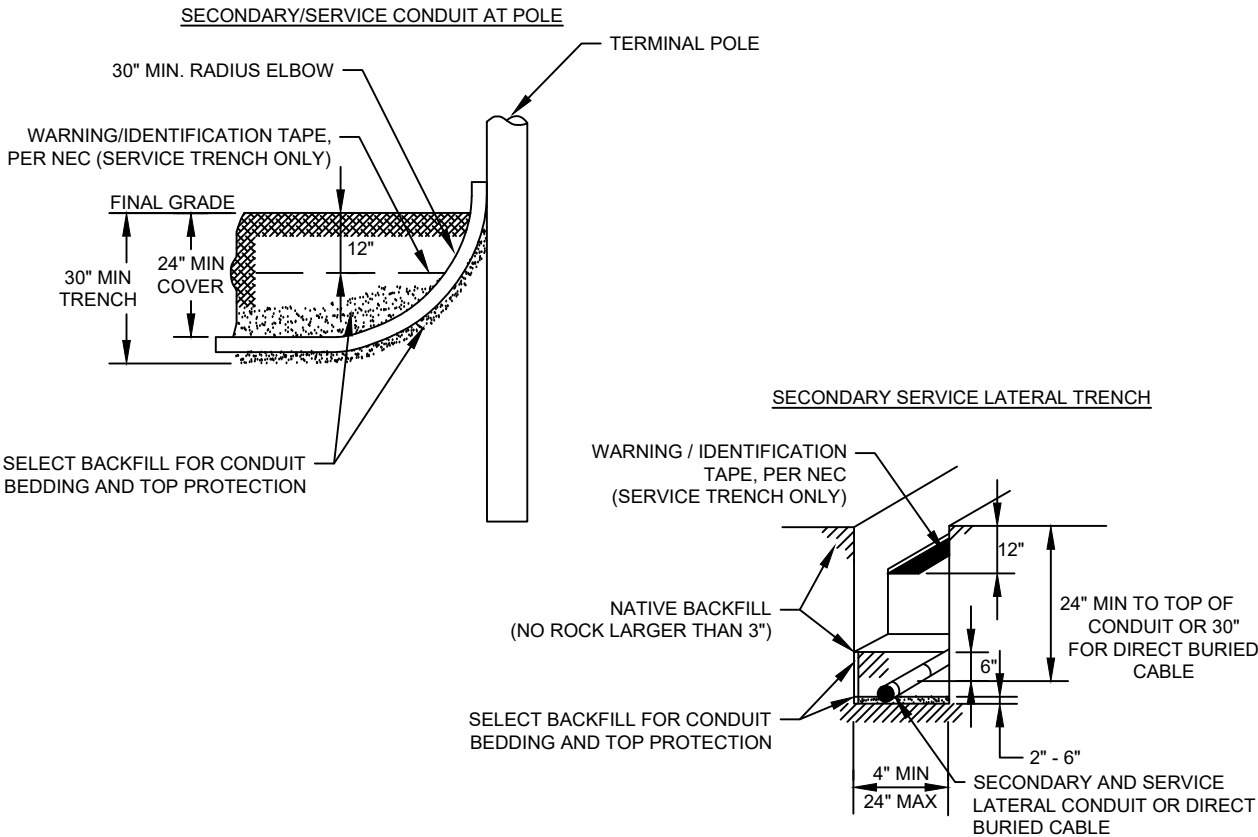
Ordering Information

EFDT - 12XXXXX - XX - XXMIO - TE

Stubbed End Configuration	Cable Length
MPO / MPO connector	20 20 meters (66')
HMFOC / HMFOC connector	40 40 meters (131')
	60 60 meters (197')
	80 80 meters (262')

Connector Type
S1 SC/APC
S1 SC/APC
L1 LC/APC
L1 LC/APC

COMMScope®
www.commscope.com



NOTE:
SEPARATION DIMENSIONS BETWEEN BURIED CABLE / CONDUIT TO BE VERIFIED WITH LOCAL UTILITY REQUIREMENTS

verizon
8921 RESEARCH DRIVE
CHARLOTTE, NC 28262

PROJECT INFORMATION:

SITE NAME:
SMC_DT_SPB_S2-NODE_3

NEAREST ADDRESS:
265 S SPRING STREET
SPARTANBURG, SC 29306
SPARTANBURG COUNTY

PLANS PREPARED BY:

Kimley»Horn

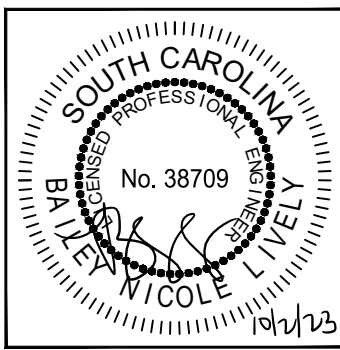
11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009
PHONE: 770-619-4280
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MCN

BNL

SHEET TITLE:

**EQUIPMENT
SPECIFICATIONS
AND DETAILS**

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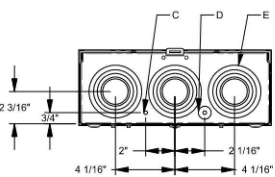
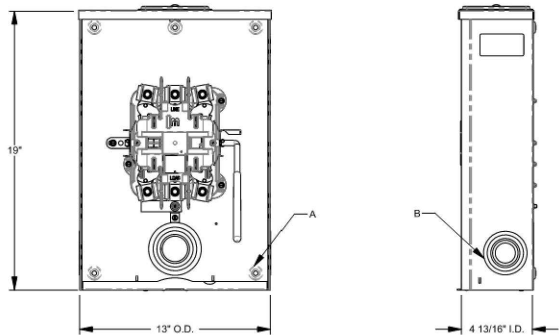
C5

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UAP9551-X-QG-HSP

Catalog Number	UAP9551-X-QG-HSP	Enclosure	Aluminum with Powder Coat Finish
Marketing Product Description	5 Terminal Ringless Large Closing Plate Quadplex Ground Lever Bypass Stainless Steel Hasp Aluminum Painted	Jaw Quantity	5 Terminal
LPC	784572300729	Bypass Type	Lever Bypass
Length (IN)	4.844	Number of Meter Positions	1 Position
Width (IN)	13	Equipment Ground	Quadplex Ground
Height (IN)	19	Hub Opening	Large Closing Plate
Brand Name	Milbank	Line Side Wire Range	6 AWG - 350 kcmil
Type	Ringless Meter Socket	Load Side Wire Range	6 AWG - 350 kcmil
Application	Meter Socket	Number Of Receptacles	0
Standard	UL Listed>Type 3R		
Voltage Rating	600 Volts Alternating Current		
Amperage Rating	200 Continuous Ampere		
Phase	1 Phase		
Frequency Rating	60 Hertz		
Size	4.844L x 13W x 19H		
Number Of Cutouts	0		
Cutout Size	No Main Breaker		
Cable Entry	Overhead or Underground		
Terminal	Lay in		
Insulation	Glass Polyester		
Mounting	Surface Mount		



POWER METER DETAIL

DATA SHEET
powered by
Strikesorb
AC Disconnect with Integrated Surge Protection for Small Cell Radio Heads

The RSD-F series are AC Disconnect, Load Center and Surge Protection Devices that are Suitable for Use as Service Equipment (SUSE). They are designed to provide robust overvoltage surge protection for up to 16 AC power circuits for today's small cell radio systems.



RSD-FMC-Z16MS-21NN
(16 Breakers, Strikesorb SPD, External Disconnect)

Mounting Bracket Included

- Features**
- Suitable for Use as Service Equipment (SUSE) without condition per UL and NEC with 60A or 100A main breaker
 - Up to sixteen circuits for individual power control and over current protection
 - Comes standard with (16) din rail 13mm breakers (2x20A, 14x10A) providing (16) 120VAC circuits which can be bridged to provide (8) 240V feeds
 - 120/240VAC split phase configuration
 - Available Surge Protection:
 - Optional Strikesorb 30-A-2CHV Surge Protective Device (SPD)
 - Class I SPD, certified by VDE per the IEC 61643-11 standard as suitable for installation in areas where induced lightning exposure is expected
 - Withstand direct surge currents up to 5kA (10/350us) and induced surge currents of up to 60kA (8/20)
 - Low in through / clamping voltage - as it does not employ spark gaps or other switching elements
 - Optional Raycap ProTec Din Rail Surge Protective Device (SPD)
 - Class II SPD, certified by VDE per the IEC 61643-11 standard
 - Withstand induced surge currents of up to 50kA (8/20)
 - High-Energy MOV and Thermal Protection
 - Visual status indication
 - Lockable front hatch access to the main breaker (Optional). Main power can be turned on and off without opening the main enclosure door. Lockout Tagout (LOTO) functionality.
 - Pole mount bracket facilitates mounting on up to 4" diameter pole using existing clamps. Can also be banded to any diameter pole. Center mount holes (5/8") for center pole mount.
 - Top, bottom or side cable entry allows for cleaner installations
 - Customer specified knockouts available
 - Patent pending design

Benefits

- Offers unique maintenance free protection
- NEMA 4 rated enclosure, allowing for installation in harsh environments
- Lightweight design allows easy installation



www.raycap.com

Strikesorb is a registered trademark of Raycap.
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028-019738 180794

SPECIFICATIONS
powered by
Strikesorb
AC Disconnect with Integrated Surge Protection for Small Cell Radio Heads

Product Information	Strikesorb SPD Models	ProTec SPD Models
Model Number	RSD-FMN-X16MS-21NN Available up to 16 circuits Service Disconnect	RSD-FMN-X16MP-21NN Available up to 16 circuits 60A main breaker
Number of Circuits	RSD-FMC-X16MS-21NN Available up to 16 circuits Service Disconnect	RSD-FMC-X16MP-21NN Available up to 16 circuits 60A main breaker
Number of Circuits	RSD-FMN-Z16MS-21NN Available up to 16 circuits Service Disconnect	RSD-FMN-Z16MP-21NN Available up to 16 circuits 60A main breaker
Number of Circuits	RSD-FMC-Z16MS-21NN Available up to 16 circuits Service Disconnect	RSD-FMC-Z16MP-21NN Available up to 16 circuits 60A main breaker

Breakers	13mm DIN Rail	13mm DIN Rail
Breakers Provided*	2x20A, 14x10A	2x20A, 14x10A
Breaker Interrupt Rating (kAIC)	10kA	10kA
Connection (Power)	Main Breaker #12 - #20 AWG (3.31 - 67.4mm ²) Branch Breaker #14 - #2 AWG (2.5 - 66mm ²) Ground and Neutral Busses #14 - #2 AWG (2.5 - 33.6mm ²)	Main Breaker #12 - #20 AWG (3.31 - 67.4mm ²) Branch Breaker #14 - #2 AWG (2.5 - 66mm ²) Ground and Neutral Busses #14 - #2 AWG (2.5 - 33.6mm ²)

Enclosure Type (Outdoor)	Powder Coated Steel	Powder Coated Steel
Enclosure	Hinged with Padlockable Latches	Hinged with Padlockable Latches
Environmental Ingress Protection (IP) Rating	NEMA 4	NEMA 4
Operation Temperature (°C)	-40° C to +80° C	-40° C to +80° C
Storage Temperature (°C)	-40° C to +80° C	-70° C to +80° C
Dimensions (W x H x D)	8.10" x 16.25" x 6.05" (201 x 414 x 154 mm)	8.10" x 16.25" x 6.05" (201 x 414 x 154 mm)
Weight (including 16 Breakers) lbs	Unit: 20.9 Bracket: 2.7 System: 23.6	Unit: 20.9 Bracket: 2.7 System: 23.6

Surge Suppression Specifications	Strikesorb 30-A-2CHV Surge Suppression	ProTec T2 Surge Suppression
Surge Protection Device (SPD) Type per UL 1449 4th Ed.	Recognized UL SPD	Recognized UL SPD
Surge Protection Device (SPD) Type per IEC 61643-11	Class I	Class II
Normal Operating Voltage (V)	120V / 240V split phase	120V / 240V split phase
Normal Discharge Current (I _n) per UL 1449 4th Ed.	20kA 8/20µs	20kA 8/20µs
Maximum Discharge Current (I _m) per IEC 61643-11	60kA 8/20µs	50kA 8/20µs
Impulse Discharge Current (I _p) per IEC 61643-11	5kA 10/350µs	-
Maximum Continuous Operating Voltage (V _{mco})	150V per line	150V per line
Voltage Protection Level (U _p) per IEC 61643-11	700V	-
Voltage Protection Rating (UL)	-	600V
Suppression Technology	MOV	MOV
Protection Modes	L1 to Neutral, L2 to Neutral	L1 to Neutral, L2 to Neutral

*Additional breakers and sizes are available and sold separately



PROJECT INFORMATION:

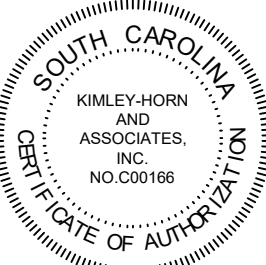
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SPARTANBURG, SC 29306
SPARTANBURG COUNTY

PLANS PREPARED BY:



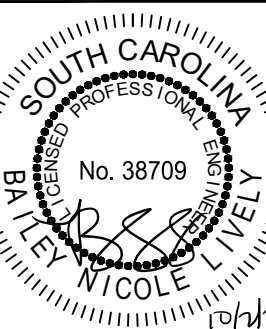
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MCN

BNL

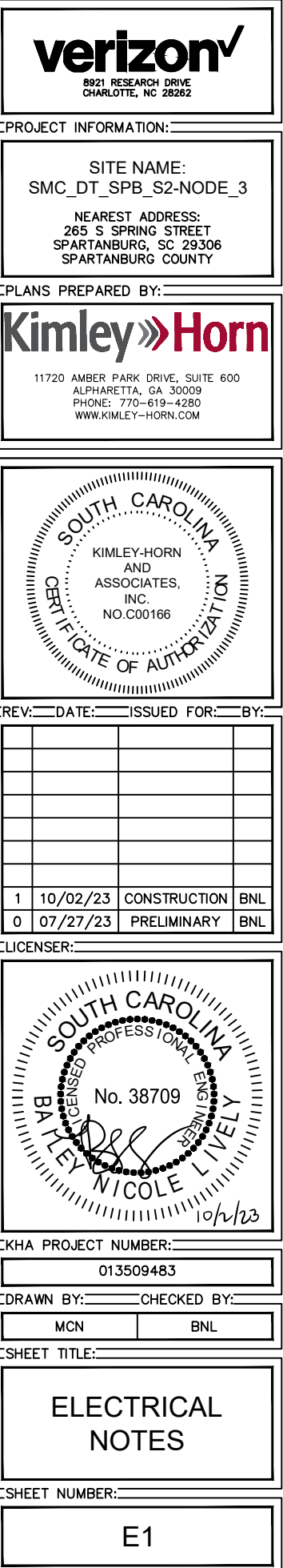
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EQUIPMENT
SPECIFICATIONS
AND DETAILS

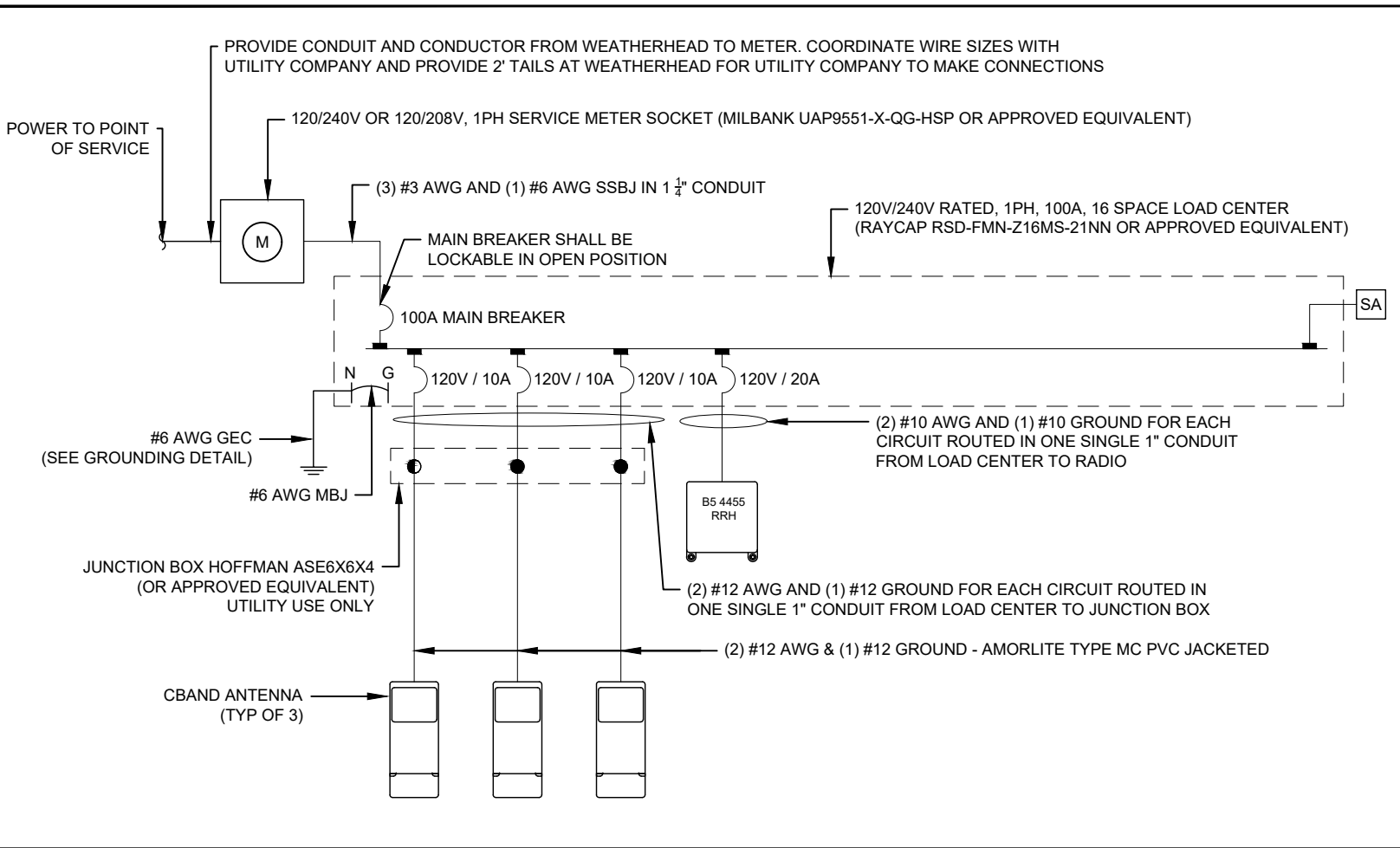
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C6

LOAD CENTER DETAIL



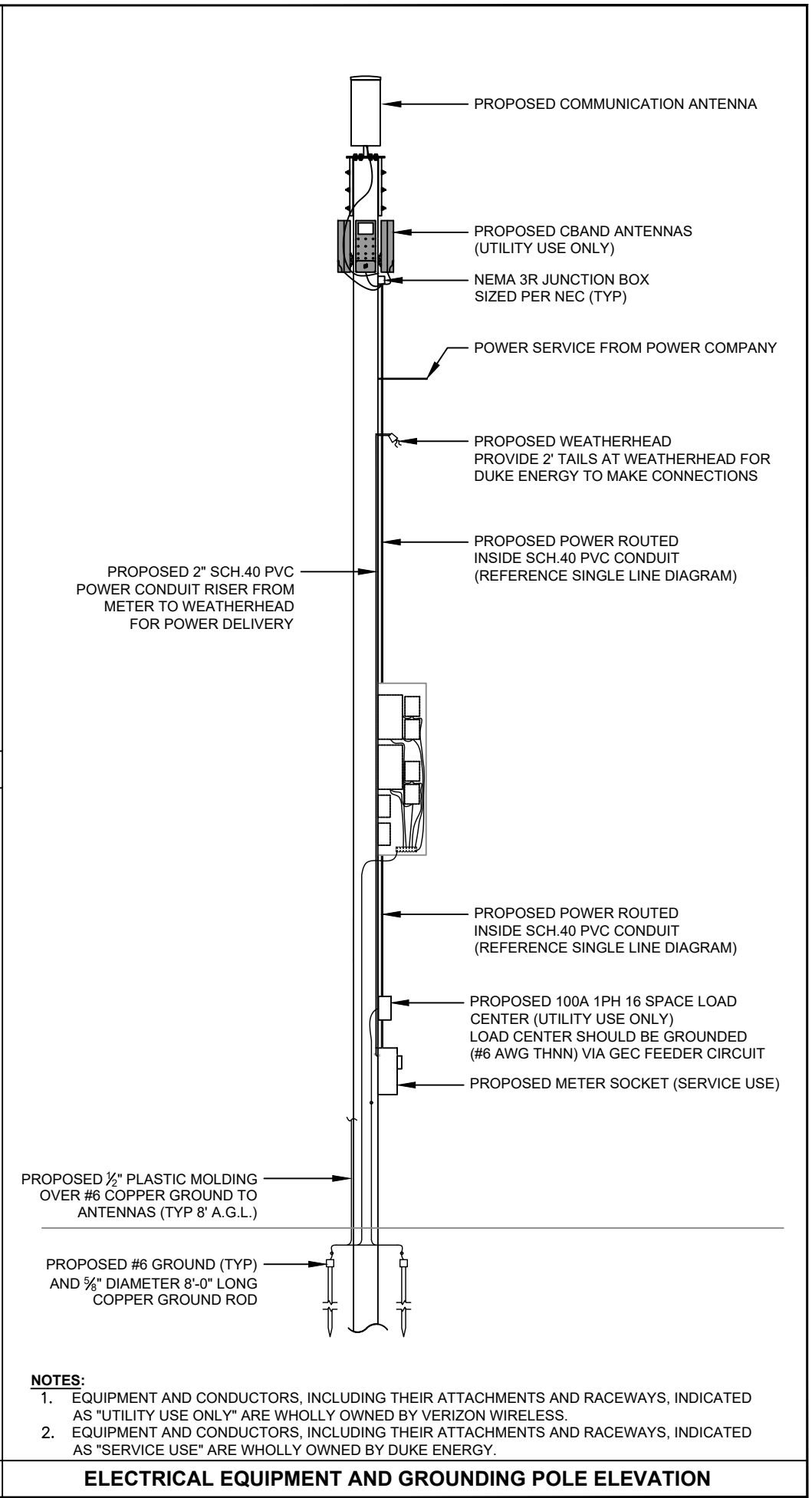
k:\atl_wireless\000_verizon\cartn_smc_prow\spartanburg_market\Nodes\smc_dt_spb_s2-node_3\CAD\CD\NB-SMC_4G-5G.dwg 10/02/23 1:18 PM by: Melissa.Norman



SINGLE LINE DIAGRAM

PANEL SCHEDULE				
Voltage: 120/240 or 120/208 Volts		MCB Size: 100 Amps		
Phase, Wires: Single Phase, 3 Wire		AIC Rating: 10,000 Amps min		
Mounting Type: Pole		Enclosure Type: NEMA 3R Outdoor		
Circuit Number	Load (VA)		Circuit Breaker Size	Load Served
	A	B		
1	900	-	1P-20	RRH
2	-	-	1P-20	Spare
3	-	-	1P-20	Spare
4	-	-	1P-20	Spare
5	500	-	1P-10	Antenna (Alpha)
6	-	500	1P-10	Antenna (Beta)
7	500	-	1P-10	Antenna (Gamma)
8	-	-	1P-10	Spare
9	-	-	1P-10	Spare
10	-	-	1P-10	Spare
11	-	-	1P-10	Spare
12	-	-	1P-10	Spare
13	-	-	1P-10	Spare
14	-	-	1P-10	Spare
15	-	-	1P-10	Spare
16	-	-	1P-10	Spare
Total VA	1900	500		
	2400			

PANEL SCHEDULE



ELECTRICAL EQUIPMENT AND GROUNDING POLE ELEVATION



8921 RESEARCH DRIVE
CHARLOTTE, NC 28262

PROJECT INFORMATION:

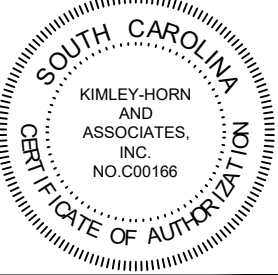
SITE NAME:
SMC_DT_SPB_S2-NODE_3

NEAREST ADDRESS:
265 S SPRING STREET
SPARTANBURG, SC 29306
SPARTANBURG COUNTY

PLANS PREPARED BY:



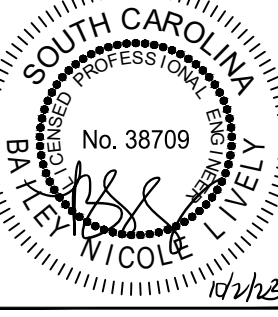
11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009
PHONE: 770-619-4280
WWW.KIMLEY-HORN.COM



REV: DATE: ISSUED FOR: BY:

1	10/02/23	CONSTRUCTION	BNL
0	07/27/23	PRELIMINARY	BNL

LICENSER:



KHA PROJECT NUMBER:

013509483

DRAWN BY: CHECKED BY:

MCN BNL

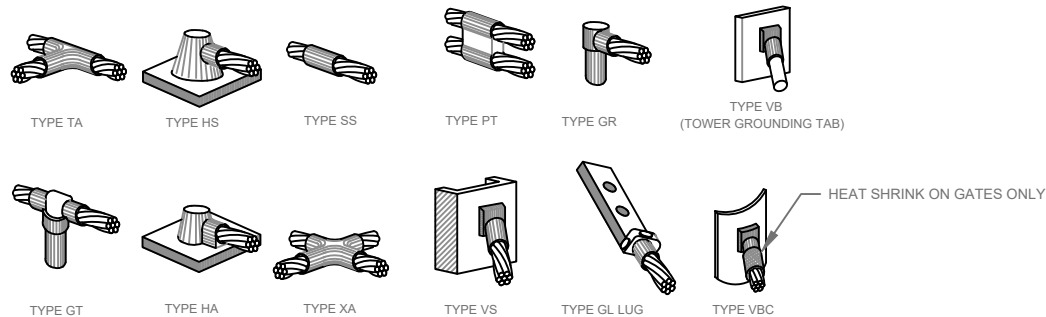
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PANEL SCHEDULE AND RISER DIAGRAM

SHEET NUMBER:

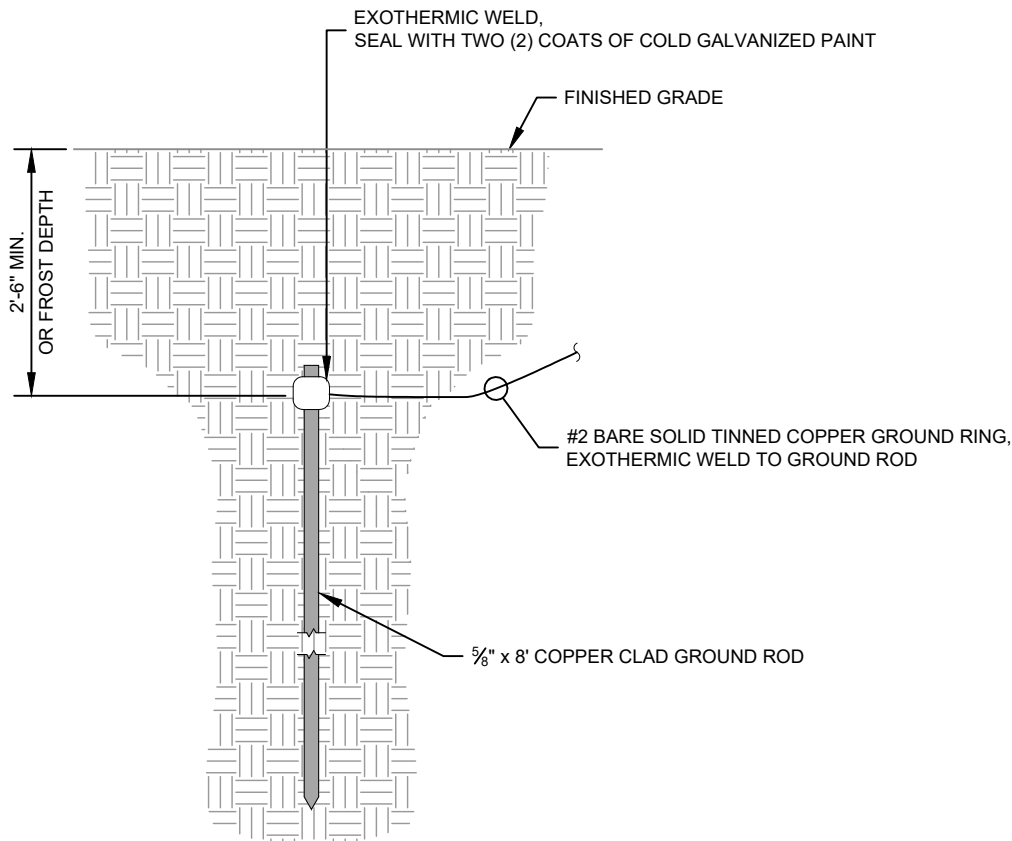
E2

k:\atl_wireless\000_verizon\cartn smc prw\spartanburg market\Nodes\smc_dt_spb_s2-node_3\CAD\CD\WPB-SWC_4G-5G.dwg 10/02/23 1:18 PM by: Melissa.Norman

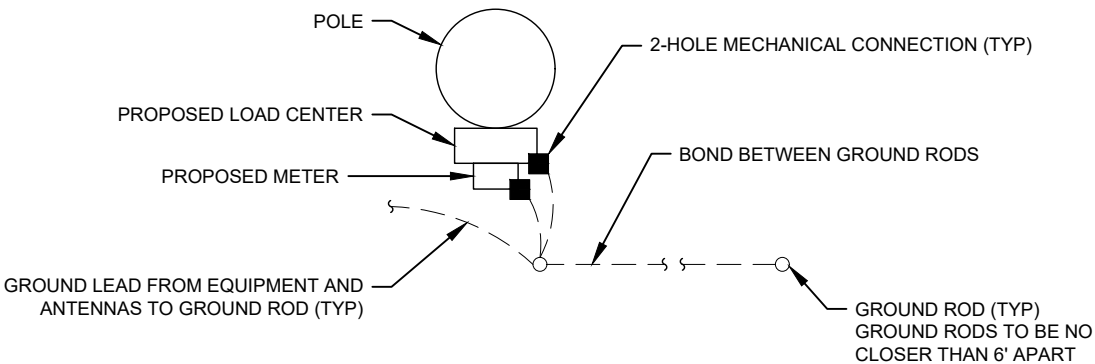


NOTE: CADWELD TYPES SHOWN ABOVE ARE EXAMPLES. PROVIDE APPROPRIATE TYPES AS REQUIRED

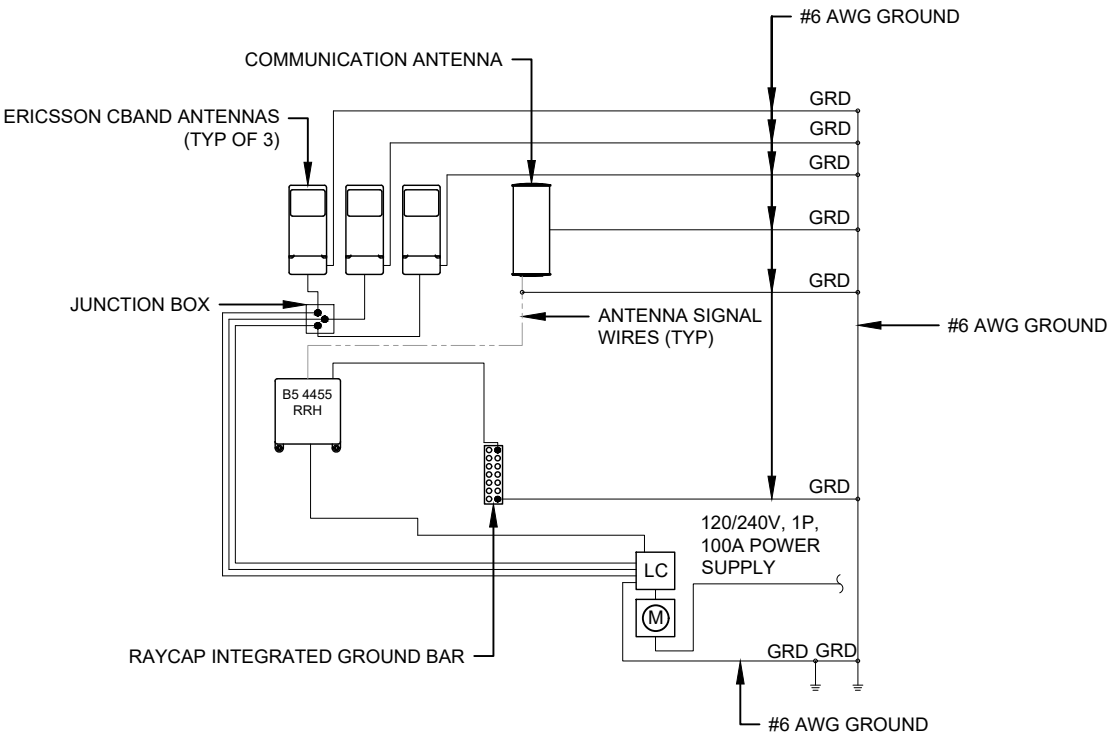
TYPICAL CAD WELDS



GROUND ROD DETAIL



POLE GROUNDING PLAN



POWER SUPPLY NOTE:
1. CONTRACTOR SHALL COMPLY WITH DUKE ENERGY REQUIREMENTS FOR SERVICE. IF DUKE ENERGY REQUIREMENTS DISAGREE WITH DETAILS SHOWN ON THESE DRAWINGS, STOP WORK AND NOTIFY THE ENGINEER IMMEDIATELY

GENERAL WIRING DIAGRAM



PROJECT INFORMATION:

SITE NAME:
SMC_DT_SPB_S2-NODE_3
NEAREST ADDRESS:
265 S SPRING STREET
SPARTANBURG, SC 29306
SPARTANBURG COUNTY

PLANS PREPARED BY:

Kimley»Horn
11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009
PHONE: 770-619-4280
WWW.KIMLEY-HORN.COM



REV: DATE: ISSUED FOR: BY:

1	10/02/23	CONSTRUCTION	BNL
0	07/27/23	PRELIMINARY	BNL

LICENSER:



KHA PROJECT NUMBER:

013509483

DRAWN BY: CHECKED BY:

MCN

BNL

SHEET TITLE:

**GROUNDING
DETAILS AND
WIRING DIAGRAM**

SHEET NUMBER:

E3

k:\atl_wireless\000_verizon\cartn smc prw\spartanburg market\Nodes\smc_dt_spb_s2-node_3\CAD\CD\INB-SMC_4G-5G.dwg -- -- 10/02/23 1:18 PM by: Melissa.Norman

TRAFFIC CONTROL NOTES

ALL TRAFFIC CONTROL SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS SUPPLEMENTED BY THE CITY OF SPARTANBURG STANDARDS FOR CITY STREETS, SPARTANBURG COUNTY STANDARDS FOR COUNTY STREETS, AND SCDOT ROADWAY STANDARDS FOR STATE OWNED STREETS. FIELD MODIFICATIONS MAY BE MADE TO ADDRESS LOCAL CONDITIONS WITH THE APPROVAL OF THE ENGINEER.

GENERAL NOTES

ADAPT THE TRAFFIC CONTROL PLANS, WHEN DIRECTED BY THE ENGINEER, TO MEET FIELD CONDITIONS TO PROVIDE SAFE AND EFFICIENT TRAFFIC AND PEDESTRIAN MOVEMENT. CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS SHOWN ON THE PLANS AND STANDARD DETAILS ARE NOT ATTAINABLE, OR RESULT IN DUPLICATE, OR OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING OR REMOVAL OF DEVICES.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- A) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER AS NOTED ON PLANS.
- B) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE AS NOTED ON PLANS.

TRAFFIC CONTROL DEVICES

- A) CONTRACTOR IS RESPONSIBLE FOR INSTALLATION, MAINTENANCE, AND REMOVAL OF TRAFFIC CONTROL DEVICES. AFTER REMOVAL, CONTRACTOR IS RESPONSIBLE FOR RESTORATION OF MODIFICATIONS TO ROADWAY AND SIDEWALK SURFACES, ROADWAY MARKINGS, AND SIGNAGE DUE TO TRAFFIC CONTROL DEVICES OR CONSTRUCTION ACTIVITY.
- B) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER THAN THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII.

LOCAL NOTES

- A) DO NOT PARK, PLACE EQUIPMENT, OR RESTRICT PEDESTRIAN MOVEMENTS ON SIDEWALKS AT ANY TIME, UNLESS OTHERWISE APPROVED BY THE CITY OR THE ENGINEER.
- B) ALL SIDEWALKS AND CROSSWALKS SHALL BE ACCESSIBLE. CONTRACTOR SHALL PROVIDE SIDEWALK DETOUR WHEREVER PEDESTRIAN MOVEMENTS ARE AFFECTED BY CONSTRUCTION ACTIVITIES.
- C) CONTRACTOR IS RESPONSIBLE TO PROTECT THE WORK AREA AND MAINTAIN ACCESS TO ALL DRIVEWAYS AND OCCUPIED PROPERTIES IN THE WORK ZONE AT ALL TIMES UNLESS OTHERWISE NOTED OR DIRECTED BY THE CITY OR ENGINEER.



PROJECT INFORMATION:

SITE NAME:
SMC_DT_SPB_S2-NODE_3

NEAREST ADDRESS:
265 S SPRING STREET
SPARTANBURG, SC 29306
SPARTANBURG COUNTY

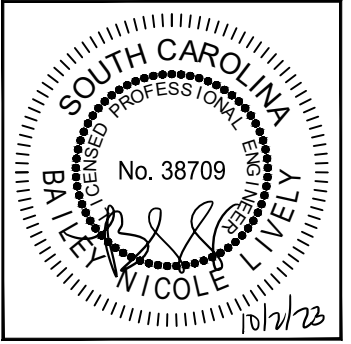
PLANS PREPARED BY:



REV: DATE: ISSUED FOR: BY:

1	10/02/23	CONSTRUCTION	BNL
0	07/27/23	PRELIMINARY	BNL

LICENSER:



KHA PROJECT NUMBER:

013509483

DRAWN BY: CHECKED BY:

MCN

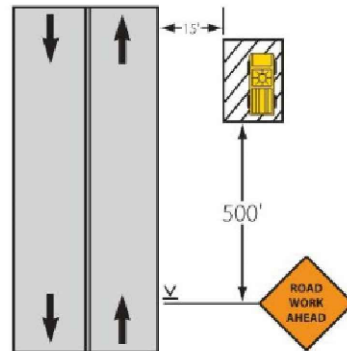
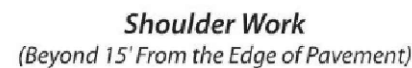
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SHEET TITLE:

TRAFFIC CONTROL
GENERAL NOTES

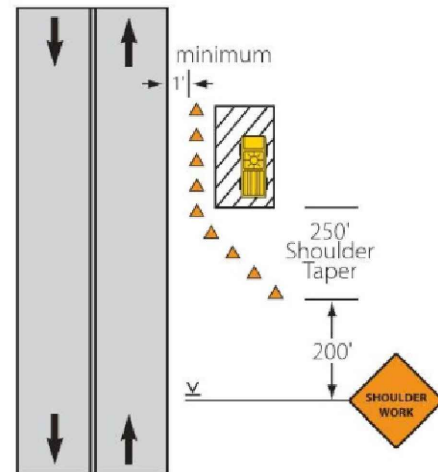
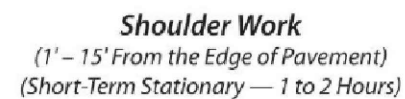
SHEET NUMBER:

TC1



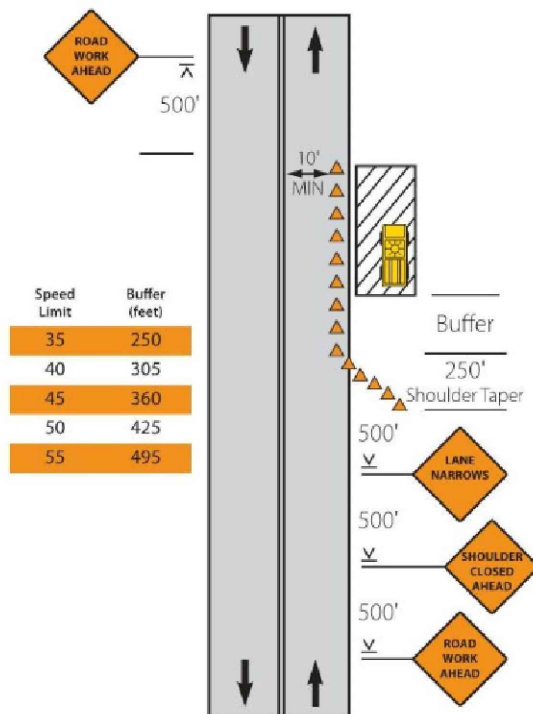
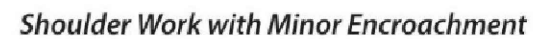
Notes:

1. For low speed conditions (35 MPH or less), a 200-foot sign spacing may be used. For speeds of 40 to 50 MPH a 350-foot sign spacing may be used.
2. For operations of 60 minutes or less, all signs and channelizing devices may be eliminated **if the work vehicles are equipped with an activated amber rotating, flashing, or strobe light mounted on top of each vehicle in accordance with the following conditions:**
 - If the vehicle and work activity are both behind guardrail or beyond 15' but within 30' of the near edge of an adjacent travel lane.**Vehicle hazard warning signals are not an acceptable alternative.
3. An advance warning sign is required at all times during the performance of work within 30' of the near edge of an adjacent travel lane, if the vehicles or equipment will intermittently access the work space from the roadway during the performance of the work, if equipment will travel on or cross the highway, or if the activity may distract motorists.
4. Acceptable advance warning signs are those indicating "Shoulder Work", "Road Work Ahead", or "Utility Work Ahead".



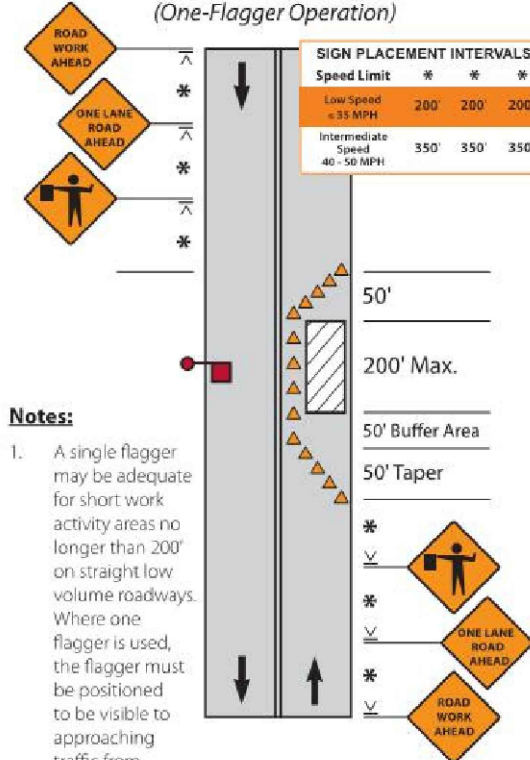
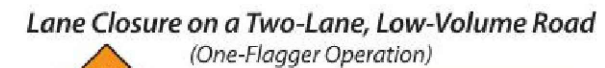
Notes:

1. For intermediate speed conditions (40 to 50 MPH), a 350-foot sign spacing may be used, and for high speed conditions (55 to 60 MPH), use a 500-foot sign spacing.
2. For short-term stationary work zones in a shoulder area, an array of advance warning signs is required. Install these advance warning sign arrays as follows:
 - a. Low Speed Conditions (35 MPH or less) – this sign array will include "Shoulder Work".
 - b. Intermediate Speed Conditions (40 to 50 MPH) – this sign array will include "Road Work Ahead", "Right (Left) Shoulder Closed Ahead", and "Shoulder Work".
 - c. High Speed Conditions (55 to 60 MPH) – this sign array will include "Road Work 1500 FT", "Right (Left) Shoulder Closed 1000 FT", and "Right (Left) Shoulder Closed 500 FT".
3. "Utility Work Ahead" or "Workers" symbol signs may be used instead of the "Shoulder Work" sign.



Notes:

1. This typical application applies to roadways with posted speed limits of 55 MPH or less.
2. Maintain a minimum lane width of 10'; however, on a low volume roadway, a minimum lane width of 9' is acceptable if traffic does not include wide loads.
3. For low speed conditions (35 MPH or less), a 200-foot sign spacing may be used and for intermediate speed conditions (40 to 50 MPH), a 350-foot sign spacing may be used.
4. An array of 3 advance warning signs is required. This sign array will include "Road Work Ahead", "Right (Left) Shoulder Closed Ahead", and "Lane Narrows".



Notes:

1. A single flagger may be adequate for short work activity areas no longer than 200' on straight low volume roadways. Where one flagger is used, the flagger must be positioned to be visible to approaching traffic from both directions.

Standing on the shoulder directly opposite the work area, the flagger directs traffic with the STOP/SLOW paddle.
2. A single flagger operation is restricted to daytime hours ONLY.
3. For low speed (35 MPH or less) conditions, a 200-foot sign spacing may be used. For speeds of 40 to 50 MPH a 350-foot sign spacing may be used.
4. An array of 3 advance warning signs is required in each direction. This sign array will include "Road Work Ahead", "One Lane Road Ahead", and "Flagger" symbol sign.

NOTE: TRAFFIC CONTROL PLANS ARE FROM THE WORK ZONE SAFETY GUIDELINES FOR THE SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION, MUNICIPALITIES, COUNTIES, UTILITIES, AND CONTRACTORS (2013), ALSO KNOWN AS THE "FLIP BOOK"

8921 RESEARCH DRIVE
CHARLOTTE, NC 28262

PROJECT INFORMATION:==

SITE NAME:
SMC_DT_SPB_S2-NODE_3

NEAREST ADDRESS:
265 S SPRING STREET
SPARTANBURG, SC 29306
SPARTANBURG COUNTY

PLANS PREPARED BY:==

Kimley»Horn

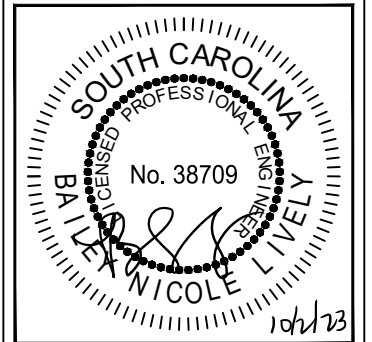
11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009
PHONE: 770-619-4280
WWW.KIMLEY-HORN.COM



REV: DATE: ISSUED FOR: BY:

1	10/02/23	CONSTRUCTION	BNL
0	07/27/23	PRELIMINARY	BNL

LICENSER: _____

KHA PROJECT NUMBER:

013509483

DRAWN BY: _____ CHECKED BY: _____

MCN

BNL

SHEET TITLE: _____

TRAFFIC CONTROL PLAN

SHEET NUMBER: _____

TC2

DONALD L. LOVE JR, ARCHITECT, AIA

608 Otis Boulevard, Spartanburg, SC · 864.415.0459

lovejrd@gmail.com

March 10, 2024

Martin Livingston
City of Spartanburg
Neighborhood Services Director

Dear Martin,

The purpose of this letter is to assist the Spartanburg Historic Architecture Review Board with a request to install cellular antennas and equipment in the Hampton Heights Historic District. I have reviewed the Guidelines for the Historic District as well as the Guidelines from several other cities and the Spartanburg Downtown Code to form the basis for my opinion.

The applicant has requested approval to install two cellular antennas and associated equipment on poles, one is near 216 Carlisle Street and the other is near 265 South Spring Street. Before and after images as well as construction drawings for both locations were provided for review.

Cellular antennas are not addressed in the Guidelines for the Historic District, nor are they addressed in any of the Guidelines for Districts in our area. Most Guidelines do provide guidance for similar equipment such as satellite dishes and other types of antenna and they agree that this type of equipment should not be visible from the street or at a minimum should be screened. The Spartanburg Downtown Code references wireless telecommunication facilities in terms of "stealth" and "tower." Stealth is defined as "equipment that is unobtrusive in its appearance . . ." and co-located on an existing structure. Tower is defined as a free-standing structure that extends more than 20 feet above the structure on which it is placed. The Downtown Code does not reference free-standing towers placed on the ground. The City of Columbus, Ohio has adopted guidelines for locating small cells and wireless support structures which require cellular antennas not be located in front of individually listed historic buildings, however this does not apply to buildings that are part of a historic district.

The proposed cellular antennas are to be installed in the right of way between the street and the sidewalk. In these locations the antennas will be seen from the street with no way to screen them from view. The antenna proposed for Carlisle Street is located near the lot line between two houses and the one proposed for South Spring Street is located adjacent to an empty lot.

Cellular towers are reviewed by the SHPO to assess the effect they will have on identified historic properties as a part of the larger approval process. The towers proposed for Hampton Heights are similar to other towers installed in Greenville, Columbia, and Charleston Historic Districts. The majority of the towers reviewed by the SHPO have been placed in commercial areas, but there have been some installed in residential areas. All of the towers that have been installed to date were determined by the SHPO to cause "no adverse effect" on the historic properties near where they were placed.

Please let me know if you have any questions or require any additional information.

Regards,



Donald L. Love, Jr, Architect, AIA
Historic Preservation

PO Box 1749 • Spartanburg, SC 29304 • Phone: (864) 596-2068 • email: planning@cityofspartanburg.org
website: www.cityofspartanburg.org

TO: The Board of Architectural Design and Historic Review

RE: COA: 24-004-00024: Certificate of Appropriateness for Major Works – 216 Carlisle Street (TMS: 7-12-14-186.00) in the Hampton Heights Neighborhood Historic District. The applicant is seeking approval to install a new utility pole, a new small cell equipment along with components and hardware. The property is located in the R-8 SFD (General Residential – Single-Family District) zoning district. **Owner/Applicant: Verizon Wireless / Brian Deye**
Contractor: Justin Sullens.

DATE: July 11, 2024

Project Description and History

The project site is located approximately mid-block on Carlise Street between Hydrick street and the end of the cul-de-sac. The applicant is seeking to s seeking approval to install a new utility pole, a new small cell equipment along with components and hardware in the city right of way. The project does not involve housing construction of any type of housing activity. These small cell sites are designed to provide better cell service coverage in densely populated areas and can be seen in several areas in downtown Spartanburg.

Analysis

Zoning Ordinance and Historic Design Manual Consistency

The project site is located in the Hampton Heights Neighborhood Historic District which has design guidelines for development. These guidelines are outlined in the Beaumont Village Design Guidelines for the City of Spartanburg Historic District Preservation Principles and Approaches. The purpose of the Guidelines is to provide property owners guidance for the preservation and protection of historic and architecturally valuable districts and sites in the City. The project is also subject to Section 510 of the City's Zoning Ordinance, Historic Preservation. This section allows the Board to review applications involving historic structures and districts and issue a Certificate of Appropriateness subject to the Standards listed in the Ordinance.

The project site has a zoning designation of R-8 SFD, General Residential -Single-Family District, which allows for single family dwelling units. Section 510.6 of the City of Spartanburg Zoning Ordinance list standards for reviewing Certificate of Appropriateness. Specifically, Section 510.6 (C)(2) states that in reviewing applications for new construction or alteration, the board shall consider the U.S. Secretary of the Interior's Standards for Rehabilitation and the five criteria listed in the findings.

This item is appearing before the HARB due to section **510.10 Effect On Municipal and Public Utilities**. All City departments and public utility companies shall be required to obtain approval from the Board in accordance with this Ordinance prior to widening or constructing streets or initiating any changes within the Historic Districts with regard to the character of street paving, sidewalks, parkways, trees, utility installation, lighting, walls, fences, structures, and buildings on property or easements owned or franchised by the City of Spartanburg or public utility companies.

Findings

Certificate of Appropriateness, Section 510.6 (C)

a. The character and appropriateness of the design –

The project site is located approximately mid-block on Carlise Street. The applicant is seeking approval to install a new utility pole and a new small cell equipment along with components and hardware in the city right of way. The project does not involve housing construction of any type or housing repair.

b. The scale of the buildings –

The scale of the building does not apply to this activity since it is in the city right of way. The utility pole and equipment would be visible from the street and would not have any effect on any existing structures.

c. The texture and materials –

The texture and materials does not apply. The poles will be wood poles similar to the nearby streetlights and other utility poles in the neighborhood.

d. The relationship of such elements to similar features of structures in the immediate surroundings –

There are other utility poles in the neighborhood including wood utility poles and metal light poles. This pole will be similar in nature but shorter than a regular utility pole and taller than the light pole with equipment attached to the pole.

e. If the property is in a Historic District, the extent to which the alteration or construction would be harmonious with the Historic District –

There is no indication that the character of the neighborhood would change due to the installation of the utility pole. Only two scattered site poles are proposed in the neighborhood in strategic locations. This pole location will be in the right of way between two properties.

Submitted by:

Martin L. Livingston, Jr., AICP, CPM
Community Development Director

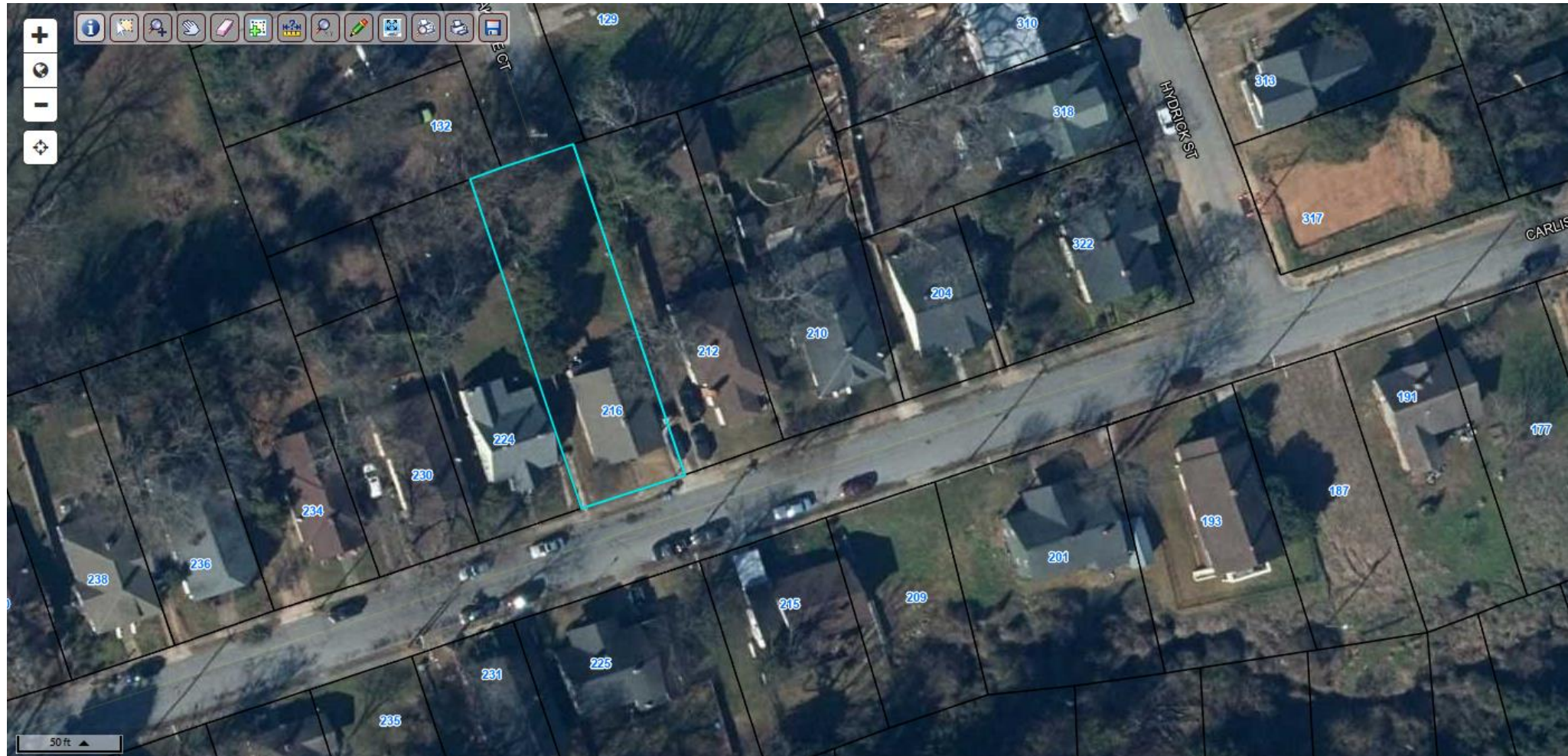
Attachments:

Conditions of Approval
Application and Materials
Site Photos

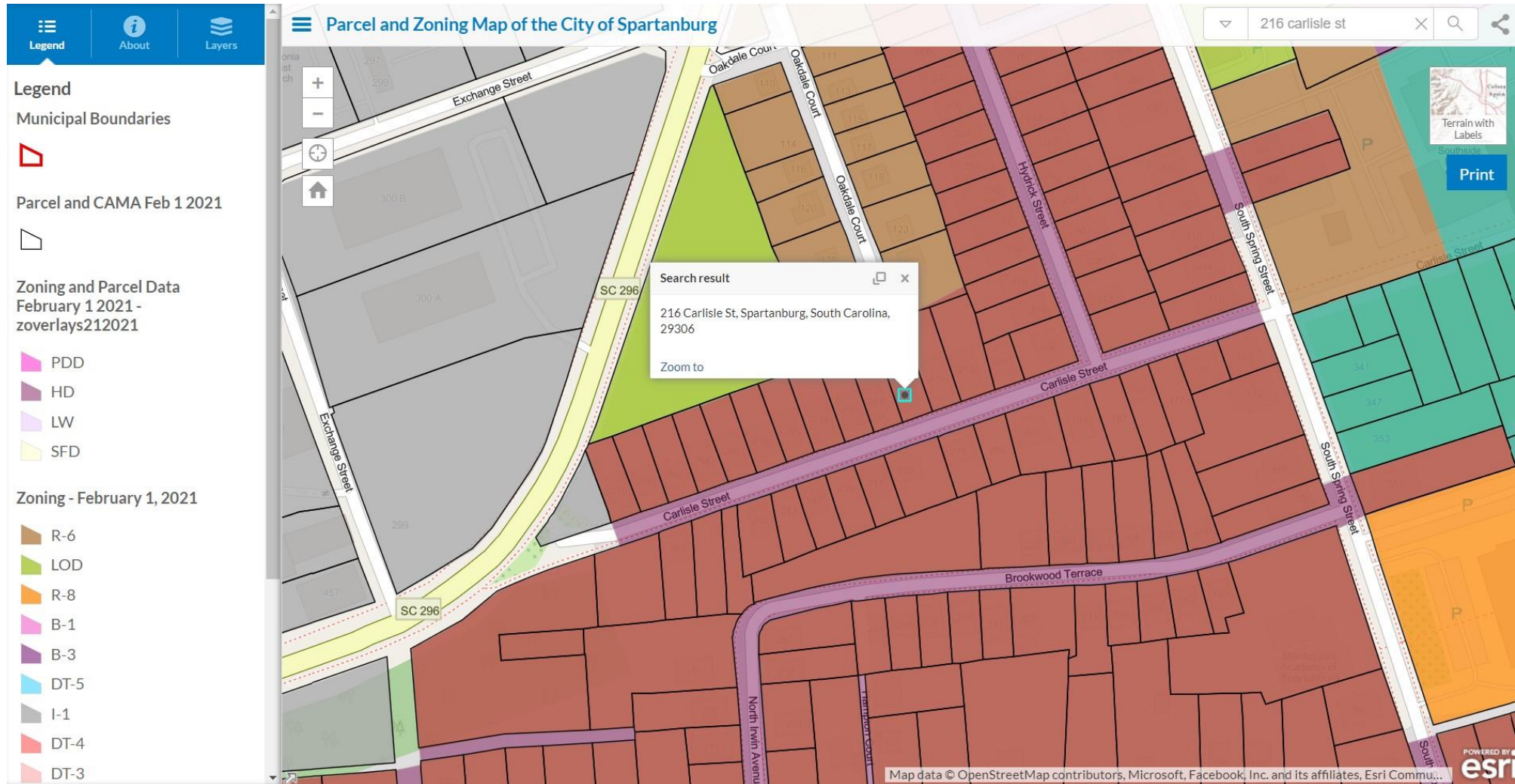
**CONDITIONS OF APPROVAL FOR THE PROJECT ON PROPERTY AT:
Certificate of Appropriateness for Major Works – 216 Carlisle Street (TMS: 7-12-14-186.00)
Owner/Applicant: Verizon Wireless / Brian Deye Contractor: Justin Sullens.**

1. If one or more of the following conditions is not met with respect to all its terms, then this approval may be revoked.
2. All plans for future construction which are not covered by this review shall be submitted to the City Planning Department for review and approval.
3. Major modifications to plans or exceptions to completion may be granted only by the City authority which approved the project.
4. This permit shall be exercised within **six months of the date of final approval**, or it shall become null and void. Extensions may be granted with permission of the Board.
5. A building permit shall be obtained from the Building Department prior to commencement of work.
6. The development of the site shall be in substantial accordance with the approved plans submitted and on file in the Spartanburg City Planning Department. Major modifications to plans or exceptions to completion may be granted only by the City authority which approved the project. project.

SITE MAP



ZONING MAP



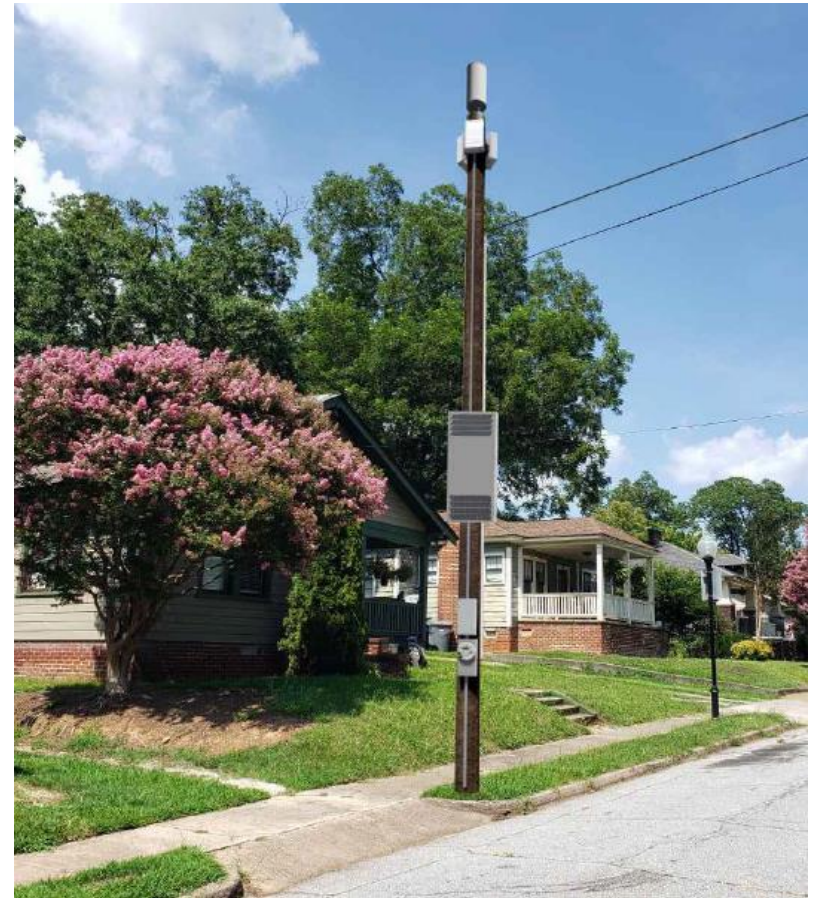
PHOTOS

216 Carlisle St. – proposed cell tower

Current Condition



**Proposed Verizon
Small Cell**



PHOTOS

216 Carlisle St. – proposed cell tower



PHOTOS

216 Carlisle St. – proposed cell tower location





Planning Department

PO Box 1749 • Spartanburg, SC 29304 • phone: (864) 596-2068 • email: planning@cityofspartanburg.org
website: www.cityofspartanburg.org

Certificate of Appropriateness (COA) Historic Properties

Owner: Verizon Wireless Phone: (914) 714-6187

Address: 8921 Research Drive

Email: _____

City: Charlotte

State: NC

Zip: 28262

Applicant: Brian Deye

Phone: 470-391-2464

Address: 11720 Amber Park Drive, Suite 600

Email: brian.deye@kimley-horn.com

City: Alpharetta

State: GA

Zip: 30009

Contractor: Justin Sullens

Phone: (706) 809-2669

Address: Summitt Cellular, IN PO BOX 330

Email: Justin.Sullens@nextedgenetworks.com

City: Cleveland

State: GA

Zip: 30528

Address of Property: 216 Carlisle ST, SPARTANBURG, SC 29306

Tax Map Number: 712302470289

Zoning District R-8/SFD

Please select the activity requested:

☐
☐
☐

Alteration of Structure/Property
Repair of Structure/Property
Addition to Existing Structure

☐
☐
☒

New Construction on Vacant Lot
Demolition of Structure
Other

Fees and Payments can be made using the Permit Number and the City of Spartanburg Payment Portal.

To the best of my knowledge, the information on this application and all additional documentation is true, factual and complete. I hereby agree to abide by all conditions of any approvals granted by the City of Spartanburg. I understand that such conditions shall apply to the subject property only and are a right or obligation transferable by sale. I hereby authorize the staff of the Planning Department to inspect the premises of the above-described property.

Applicant: Signature: Brian Deye

Date: 5/29/2024

Staff Use Only / Received by: _____

Date Received: _____

Time: _____

Permit Number: _____

Certificate of Appropriateness (COA) Additional Items

Please attach to this Application any of the applicable items:

- | | |
|---|--|
| ☒ Site Plans or Surveys | ☐ Detail Drawing(s), Floor Plans(s) or Sketch(es) |
| ☐ Photographs of Existing property | ☐ Material(s) and Sample(s) |
| ☐ Photographs of Changes requested | ☐ Other |

Description of Proposed work (attach extra sheets as needed):

THIS PROJECT CONSISTS OF INSTALLATION OF A NEW UTILITY POLE AND NEW SMALL CELL EQUIPMENT ALONG WITH ASSOCIATED ELECTRICAL COMPONENTS, MOUNTING HARDWARE AS NEEDED, AND ALL ASSOCIATED WORK.

Please read and initial the following statements:

_____ I am the owner of the property, or

_____ I am acting on behalf of the owner(s) of this property and have attached a letter from the owner(s) indicating their knowledge of this application.

BD The information on this application represents an accurate description of the proposed work.

BD I have omitted nothing that might affect the decision of the Historic Architect Review Board.

BD I will attend (or send a representative to attend) the public hearing of this application before the Historic Architect Review Board.

BD I understand that issuance of a Certificate of Appropriateness is not an authorization to begin work.

Received by: _____

Staff Use Only:

_____ MCOA - Minor

_____ COA - Major

Current Condition



NEAREST ADDRESS:

216 CARLISLE STREET, SPARTANBURG, SC 29306

Site Name:

SMC_DT_SPB_S2_Node_2

Latitude/Longitude

34.942736, -81.932830

GoPost ID and Number

217

23-4225

Proposed Verizon Small Cell



K:\ATL_Wireless\000_Verizon\CARTN_SMC_PROW\Spartanburg_Market\Nodes\SMC_DT_SPB_S2_Node_2\CAD\CD\NB-SMC_4G-5G.dwg 10/02/23 12:05 PM by: Melissa.Norman



8921 RESEARCH DRIVE
CHARLOTTE, NC 28262

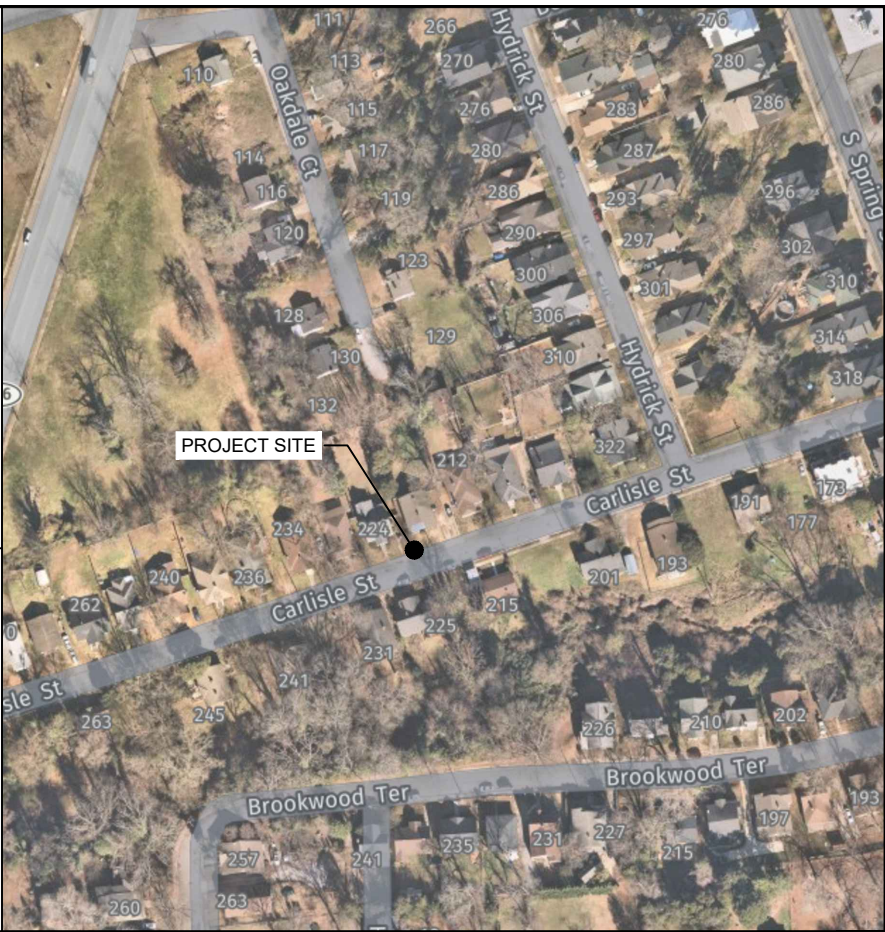
SITE NAME: SMC_DT_SPB_S2_NODE_2

PROPOSED ANTENNAS AND EQUIPMENT

SITE NAME: SMC_DT_SPB_S2_NODE_2
POLE NUMBER: N/A
NEAREST ADDRESS: 216 CARLISLE STREET
SPARTANBURG, SC 29306
SPARTANBURG COUNTY
STRUCTURE OWNER: VERIZON WIRELESS
APPLICANT: VERIZON WIRELESS
ROW OWNER: CITY OF SPARTANBURG
JURISDICTION: CITY OF SPARTANBURG
VOLTAGE: 120/240
STRUCTURE TYPE: NEW WOOD POLE

NOTE: THIS DRAWING SET IS BASED ON DATA PROVIDED TO KIMLEY-HORN BY VERIZON WIRELESS

ELECTRIC UTILITY: DUKE ENERGY
CONTACT: BRANDON BLANTON
PHONE: (864) 373-5616
EMAIL: BRANDON.BLANTON@DUKE-ENERGY.COM



PROJECT INFORMATION

LOCAL UTILITY INFORMATION

LOCATION MAP



NEAREST ADDRESS:
216 CARLISLE STREET
SPARTANBURG, SC 29306

LATITUDE: 34.942736
34° 56' 33.85"N
LONGITUDE: -81.932830
81° 55' 58.19"W

NOTES:
JURISDICTION DID NOT PROVIDE E911 ADDRESS FOR THIS PROJECT.

THE ADDRESS ON THE CONSTRUCTION DRAWINGS IS THE NEAREST ADDRESS TO THE PROPOSED PROJECT LOCATION.

THIS PROJECT CONSISTS OF INSTALLATION OF A NEW UTILITY POLE AND NEW SMALL CELL EQUIPMENT ALONG WITH ASSOCIATED ELECTRICAL COMPONENTS, MOUNTING HARDWARE AS NEEDED, AND ALL ASSOCIATED WORK.

THE PLANS AND DETAILS IN THIS DRAWING SET REPRESENT A PORTION OF A SMALL CELL NETWORK TO BE CONSTRUCTED IN PUBLIC RIGHT OF WAY PURSUANT TO AUTHORITY GRANTED BY CITY OF SPARTANBURG.

PROPOSED FIBER TO BE ROUTED TO A HANDHOLE AT BASE OF POLE BY VERIZON ONE FIBER. PROPOSED FIBER TO BE ROUTED FROM HANDHOLE TO POLE BY CONTRACTOR.

POWER TO BE ROUTED TO PROPOSED METER BY LOCAL UTILITY.

LOCAL POWER AND FIBER UTILITY SHALL COORDINATE AND EXTEND SERVICE TO PROPOSED SITE AS INDICATED IN THIS DRAWING SET.

VERIZON CONTRACTOR TO CONTACT BRANDON BLANTONWITH DUKE ENERGY (BRANDON.BLANTON@DUKE-ENERGY.COM; (864) 373-5616) AT START OF CONSTRUCTION TO COORDINATE SCHEDULE AND POWER DELIVERY.

VERIZON WIRELESS WILL INSTALL (1) NEW WOOD POLE IN THE PUBLIC ROW AND WILL INSTALL THE FOLLOWING EQUIPMENT ON THE POLE:

- (4) ANTENNAS
- (1) RADIOS
- (1) FIBER CABLE
- (7) AC POWER CABLES
- (4) COAXIAL CABLES

PROJECT LOCATION / POLE COORDINATES

SHEET NUMBER	SHEET TITLE
T1	TITLE SHEET
C1	GENERAL NOTES
C2	PROPOSED NODE LOCATION
C3	POLE ELEVATION AND PHOTO SIM
C4	EQUIPMENT SPECIFICATIONS AND DETAILS
C5	EQUIPMENT SPECIFICATIONS AND DETAILS
C6	EQUIPMENT SPECIFICATIONS AND DETAILS
C7	EQUIPMENT SPECIFICATIONS AND DETAILS
E1	ELECTRICAL NOTES
E2	PANEL SCHEDULE AND RISER DIAGRAM
E3	GROUNDING DETAILS AND WIRING DIAGRAM
TC1	TRAFFIC CONTROL GENERAL NOTES
TC2	TRAFFIC CONTROL PLAN

SHEET INDEX

PROJECT DESCRIPTION



VERIZON WIRELESS
8921 RESEARCH DRIVE
CHARLOTTE, NC 28262



KIMLEY-HORN AND ASSOCIATES, INC.
11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009

SCOPE OF WORK

- ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FOLLOWING CODES AND STANDARDS:
 - 2021 SOUTH CAROLINA BUILDING CODE (2021 IBC WITH SC MODIFICATIONS)
 - 2021 SOUTH CAROLINA FIRE CODE (2021 IFC WITH SC MODIFICATIONS)
 - 2021 SOUTH CAROLINA PLUMBING CODE (2021 IPC WITH SC MODIFICATIONS)
 - 2021 SOUTH CAROLINA MECHANICAL CODE (2021 IMC WITH SC MODIFICATIONS)
 - 2020 NATIONAL ELECTRICAL CODE (NFPA 70) WITH SC MODIFICATIONS
- CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
- AFTER COMPLETION AND FINAL INSPECTION OF THE WORK, CONTRACTOR SHALL FURNISH THE OWNER WITH A CERTIFICATE OF COMPLETION AND APPROVAL.

PROJECT TEAM

DESIGN CODES AND STANDARDS



8921 RESEARCH DRIVE
CHARLOTTE, NC 28262

PROJECT INFORMATION:

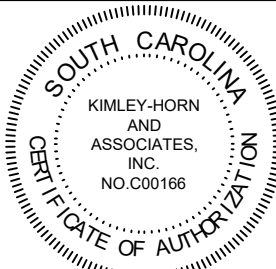
SITE NAME:
SMC_DT_SPB_S2_NODE_2

NEAREST ADDRESS:
216 CARLISLE STREET
SPARTANBURG, SC 29306
SPARTANBURG COUNTY

PLANS PREPARED BY:



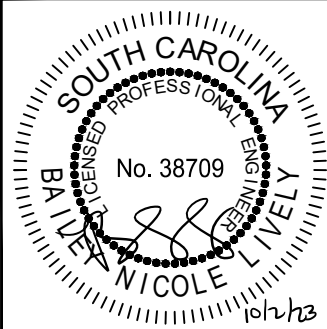
11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009
PHONE: 770-619-4280
WWW.KIMLEY-HORN.COM



REV: DATE: ISSUED FOR: BY:

1	10/02/23	CONSTRUCTION	BNL
0	07/31/23	PRELIMINARY	BNL

LICENSER:



KHA PROJECT NUMBER:

013509483

DRAWN BY: CHECKED BY:

MCN

BNL

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T1

K:\ATL_Wireless\000_Verizon\CARTN_SMC_PROJ\W_Spartanburg_Market\Notes\SMC_DT_SPB_S2_Node_2\CAD\CD\INB-SMC_4G-5G.dwg --- 10/02/23 12:05 PM by: Melissa Norman

GENERAL NOTES:

1.

ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND VERIZON WIRELESS PROJECT SPECIFICATIONS.
2.

GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE APPROPRIATE PROVISIONS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
3.

ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.
4.

ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
5.

UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6.

PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
7.

THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8.

IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.
9.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFIRM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
10.

GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
11.

ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.
12.

SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. CONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS.
13.

THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
14.

CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
15.

THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
16.

THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
17.

GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING.
18.

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
19.

THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
20.

THE GENERAL CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OT 2-A:10-B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
21.

ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.
22.

ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
23.

THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.

24.

CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
25.

NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
26.

THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE-APPROVED BY THE LOCAL JURISDICTION.
27.

ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
28.

ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
29.

CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
30.

CONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
31.

STRUCTURE IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY VERIZON WIRELESS TECHNICIANS.
32.

NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
33.

CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
34.

CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
35.

ALL CABLE INSTALLATIONS TO FOLLOW MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
36.

ALL CABLE INSTALLATIONS TO FOLLOW MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
37.

UNDERGROUND UTILITY INFORMATION PRESENTED HEREIN HAS BEEN DETERMINED BASED ON SURFACE EVIDENCE AND PLANS ON RECORD. ALL UNDERGROUND UTILITIES SHALL BE LOCATED IN THE FIELD BY CONTRACTOR PRIOR TO COMMENCEMENT OF SITE WORK. CONTRACTOR SHALL CALL DIGSAFE A MINIMUM OF 72 HOURS PRIOR TO PLANNED CONSTRUCTION ACTIVITY.
38.

THE CONTRACTOR SHALL PROVIDE A STATE DEPARTMENT OF TRANSPORTATION COMPLAINT TRAFFIC CONTROL PLAN IF REQUIRED BY THE AUTHORITY HAVING JURISDICTION.

ANTENNA MOUNTING:

1.

DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO CURRENT ANSI/TIA-222 OR APPLICABLE LOCAL CODES.
2.

ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION INACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS NOTED OTHERWISE.
3.

ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS NOTED OTHERWISE.
4.

DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
5.

ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH LOCK NUTS, DOUBLE NUTS AND SHALL BE TORQUED TO MANUFACTURER'S RECOMMENDATIONS.
6.

CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATION FOR INSTALLATION AND GROUNDING.
7.

PRIOR TO SETTING ANTENNA AZIMUTHS AND DOWNTILTS, ANTENNA CONTRACTOR SHALL CHECK THE ANTENNA MOUNT FOR TIGHTNESS AND ENSURE THAT THEY ARE PLUMB, ANTENNA AZIMUTHS SHALL BE SET FROM TRUE NORTH AND BE ORIENTED WITHIN +/- 5% AS DEFINED BY THE RFDS. ANTENNA DOWNTILTS SHALL BE WITHIN +/-0.5% AS DEFINED BY THE RFDS.

TORQUE REQUIREMENTS:

1.

ALL RF CONNECTIONS SHALL BE TIGHTENED BY A TORQUE WRENCH TO THE MANUFACTURES SPECIFIED TORQUE.
2.

ALL RF CONNECTIONS, GROUNDING HARDWARE AND ANTENNA HARDWARE SHALL HAVE A TORQUE MARK INSTALLED IN A CONTINUOUS STRAIGHT LINE FROM BOTH SIDES OF THE CONNECTION.

A.

RF CONNECTION BOTH SIDES OF THE CONNECTOR.

B.

GROUNDING AND ANTENNA HARDWARE ON THE NUT SIDE STARTING FROM THE THREADS TO THE SOLID SURFACE. EXAMPLE OF SOLID SURFACE: GROUND BAR, ANTENNA BRACKET METAL.

COAXIAL CABLE NOTES:

1.

TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED LENGTHS.
2.

CONTRACTOR SHALL VERIFY THE DOWN-TILT OF EACH ANTENNA WITH A DIGITAL LEVEL.
3.

CONTRACTOR SHALL CONFIRM COAX COLOR CODING PRIOR TO CONSTRUCTION.
4.

ALL JUMPERS TO THE ANTENNAS SHALL BE 1/2" DIA. LDF AND SHALL NOT EXCEED 6'-0".
5.

TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED LENGTHS.
6.

ALL COAXIAL CABLE SHALL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE, IN AN APPROVED MANNER, AT DISTANCES NOT TO EXCEED
7.

4'-0" OC.
8.

CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING BOTH THE INSTALLATION AND GROUNDING OF ALL COAXIAL CABLES, CONNECTORS, ANTENNAS, AND ALL OTHER EQUIPMENT.
9.

CONTRACTOR SHALL WEATHERPROOF ALL ANTENNA CONNECTORS WITH SELF-AMALGAMATING TAPE.

GENERAL CABLE & EQUIPMENT NOTES:

1.

CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ANTENNA, DIPLEXERS, AND COAX CONFIGURATION, MAKE AND MODELS PRIOR TO INSTALLATION.
2.

ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
3.

CONTRACTOR SHALL REFERENCE THE STRUCTURAL ANALYSIS / DESIGN DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION / ROUTING.
4.

ALL OUTDOOR RF CONNECTORS/CONNECTIONS SHALL BE WEATHERPROOFED, EXCEPT THE RET CONNECTORS, USING BUTYL TAPE AFTER INSTALLATION AND FINAL CONNECTIONS ARE MADE. BUTYL TAPE SHALL HAVE A MINIMUM OF ONE-HALF TAPE WIDTH OVERLAP ON EACH TURN AND EACH LAYER SHALL BE WRAPPED THREE TIMES. WEATHERPROOFING SHALL BE SMOOTH WITHOUT BUCKLING. BUTYL BLEEDING IS NOT ALLOWED.
5.

IF REQUIRED TO PAINT ANTENNAS AND/OR COAX:

A.

TEMPERATURE SHALL BE ABOVE 50° F, OR PAINTING TO BE PERFORMED IN A MANNER CONSISTENTWITH THE PAINT MANUFACTURER'S INSTRUCTIONS FOR COLD WEATHER PAINTING.

B.

PAINT COLOR MUST BE APPROVED BY BUILDING OWNER/LANDLORD.

C.

FOR REGULATED TOWERS, FAA/FCC APPROVED PAINT IS REQUIRED.

D.

DO NOT PAINT OVER COLOR CODING OR ON EQUIPMENT MODEL NUMBERS.
6.

ALL PROPOSED GROUND BAR DOWNLEADS ARE TO BE TERMINATED TO THE EXISTING ADJACENT GROUND BAR DOWNLEADS A MINIMUM DISTANCE OF 4'-0" BELOW GROUND BAR. TERMINATIONS MAY BE EXOTHERMIC OR COMPRESSION.
7.

ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATION & RECOMMENDATIONS.

ROW CONSTRUCTION NOTES STANDALONE:

1.

NO BOLT THREADS TO PROTRUDE MORE THAN 1-1/2" [.038M].
2.

90 SHORT SWEEPS UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).
3.

USE 90 CONNECTOR AT CABLE CONNECTION TO ANTENNAS.
4.

USE 1/2" [.013M] CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.
5.

FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.
6.

THE MINIMUM SIZE OF ALL ANTENNA POLE WILL BE ANSI CLASS 3, UNLESS NOTED OTHERWISE.

ABBREVIATIONS:

A - AMPERE	EL - ELEVATION	PCS - PERSONAL
AGL - ABOVE GROUND LEVEL	EMT - ELECTRIC METALLIC	COMMUNICATION SYSTEM
AMSL - ABOVE MEAN SEA	TUBING	PH - PHASE
LEVEL	FOSC - FIBER OPTIC SPLICE	PNL - PANEL
AWG - AMERICAN WIRE	CLOSURE	PNLBRD - PANEL BOARD
GAUGE	FSC - FLEXIBLE STEEL	PVC - RIGID NON-METALLIC
AWS - ADVANCED WIRELESS	CONDUIT	CONDUIT
SERVICE	GPS - GLOBAL POSITIONING	RGS - RIGID GALVANIZED
BCW - BARE COPPER WIRE	SYSTEM	STEEL CONDUIT
BFG - BELOW FINISHED	GRD - GROUND	RRH - REMOTE RADIO HEAD
GRADE	IGB - ISOLATED GROUND	SW - SWITCH
BKR - BREAKER	BAR	TGB - TOWER GROUND BAR
C - CONDUIT	IGR - INTERIOR GROUND	UL - UNDERWRITERS
CBRS - CITIZENS	RING (HALO)	LABORATORIES
BROADBAND RADIO SERVICE	KW - KILOWATTS	V - VOLTAGE
CKT - CIRCUIT	LAA - LICENSE ASSISTED	W - WATTS
DISC - DISCONNECT	ACCESS	XFMR - TRANSFORMER
EGR - EXTERNAL GROUND	NEC - NATIONAL ELECTRIC	XMTR - TRANSMITTER
RING	CODE	



PROJECT INFORMATION:

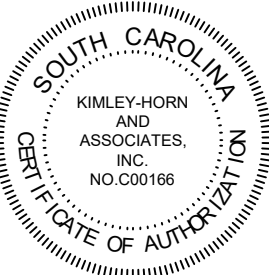
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SPARTANBURG COUNTY

PLANS PREPARED BY:



11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009
PHONE: 770-619-4280
WWW.KIMLEY-HORN.COM



REV: DATE: ISSUED FOR: BY:

1	10/02/23	CONSTRUCTION	BNL
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LICENSER:



KHA PROJECT NUMBER:

013509483

DRAWN BY: CHECKED BY:

MCN	BNL
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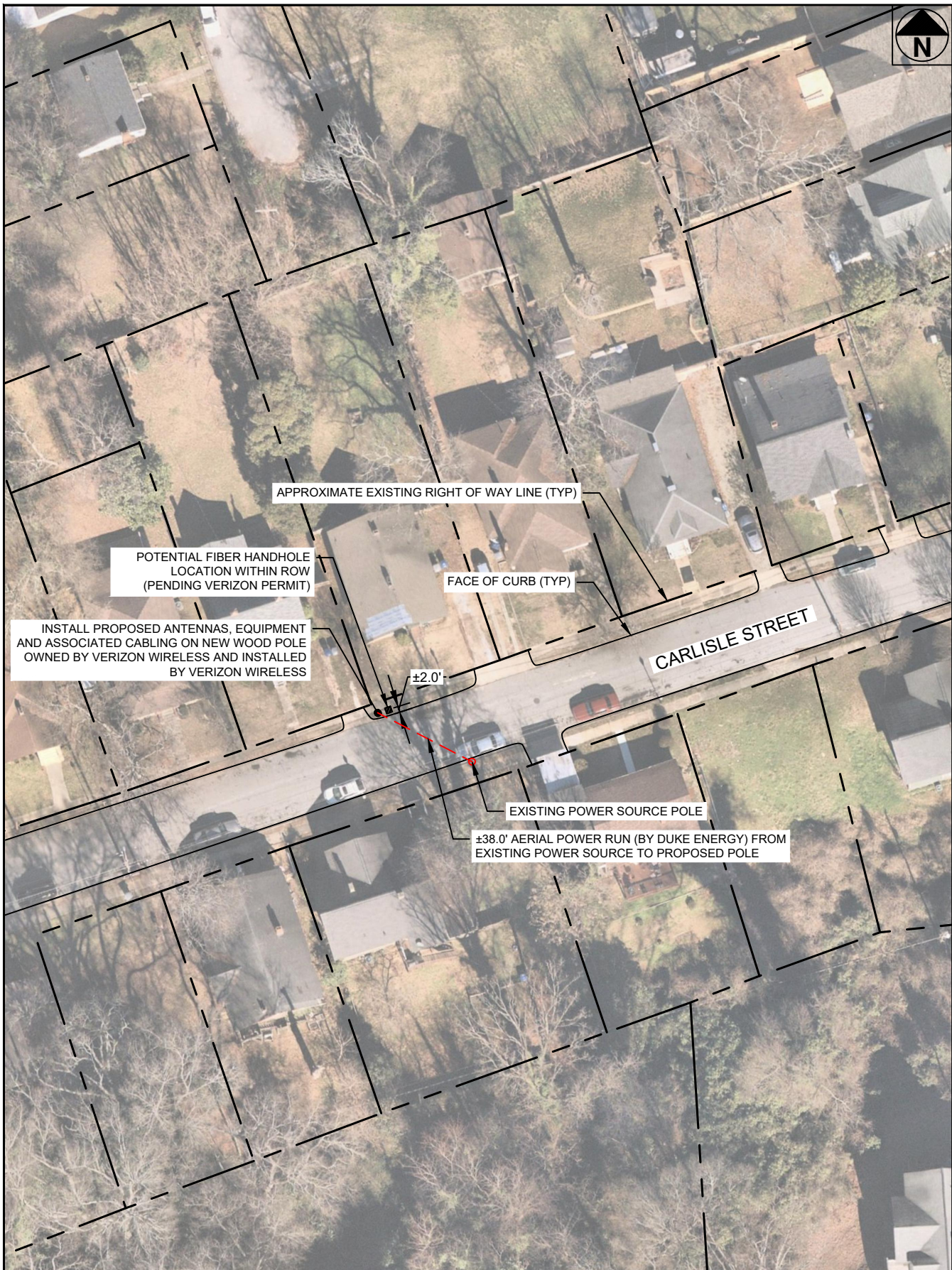
SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

C1

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PROPOSED NODE LOCATION PLAN

CONTRACTOR NOTES

1. SITE PLAN INFORMATION WAS REPRODUCED FROM SPARTANBURG COUNTY GIS APPLICATION INFORMATION AND GOOGLE EARTH, AND IS PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY. KIMLEY-HORN DOES NOT GUARANTEE OR ENSURE THE PRECISION, ACCURACY, OR CORRECTNESS AND ASSUMES NO RESPONSIBILITY OR LIABILITY FOR THE DAMAGES, LOSS OF REVENUE, OR INJURY THAT MIGHT OCCUR.
2. CONTRACTOR IS TO ESTABLISH THE EXISTENCE AND LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES. IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES.
3. ALL SIDEWALK AND PAVEMENT SURFACES ALTERED DURING CONSTRUCTION TO BE REPAIRED PER THE SCDOT DESIGN STANDARDS.
4. BEFORE COMMENCING ANY EXCAVATIONS, CONTRACTOR TO NOTIFY EACH UTILITY OWNER HAVING UNDERGROUND UTILITIES LOCATED IN THE PROJECT LIMITS NOT LESS THAN TWO OR MORE THAN TEN WORKING DAYS PRIOR TO STARTING. CALL SOUTH CAROLINA ONE-CALL CENTER (1-800-721-7877) 48 HOURS BEFORE WORK COMMENCES.

UTILITY NOTES

1. DUKE ENERGY TO RUN PROPOSED POWER ROUTING FROM EXISTING POWER SOURCE TO PROPOSED POLE.
2. DUKE ENERGY TO PROVIDE METER AND VERIZON CONTRACTOR TO PROVIDE AND INSTALL METER BASE.
3. DUKE ENERGY TO BRING POWER TO POLE UNDER SEPARATE PERMIT.
4. VERIZON ONE FIBER TO BRING FIBER TO POLE UNDER SEPARATE PERMIT.

CONTRACTOR AND UTILITY NOTES

NOTE:
DIMENSIONS PROVIDED BELOW ARE SHOWN FOR REFERENCE ONLY. THESE DIMENSIONS ARE BASED ON AERIAL IMAGERY AND COUNTY GIS MAPPING, AND AS A RESULT DO NOT PROVIDE SURVEY LEVEL ACCURACY



74 of 120
PROPOSED NODE SITE LOCATION PLAN



PROPOSED NODE LOCATION PHOTO



PROJECT INFORMATION:

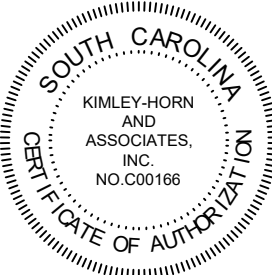
SITE NAME:
SMC_DT_SPB_S2_NODE_2

NEAREST ADDRESS:
216 CARLISLE STREET
SPARTANBURG, SC 29306
SPARTANBURG COUNTY

PLANS PREPARED BY:



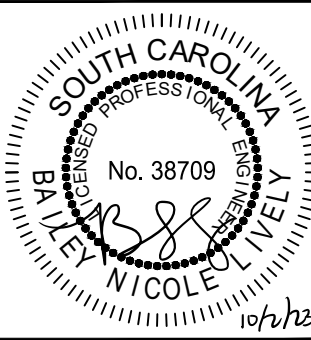
11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009
PHONE: 770-619-4280
WWW.KIMLEY-HORN.COM



REV: DATE: ISSUED FOR: BY:

1	10/02/23	CONSTRUCTION	BNL
0	07/31/23	PRELIMINARY	BNL

LICENSER:



KHA PROJECT NUMBER:

013509483

DRAWN BY: CHECKED BY:

MCN

BNL

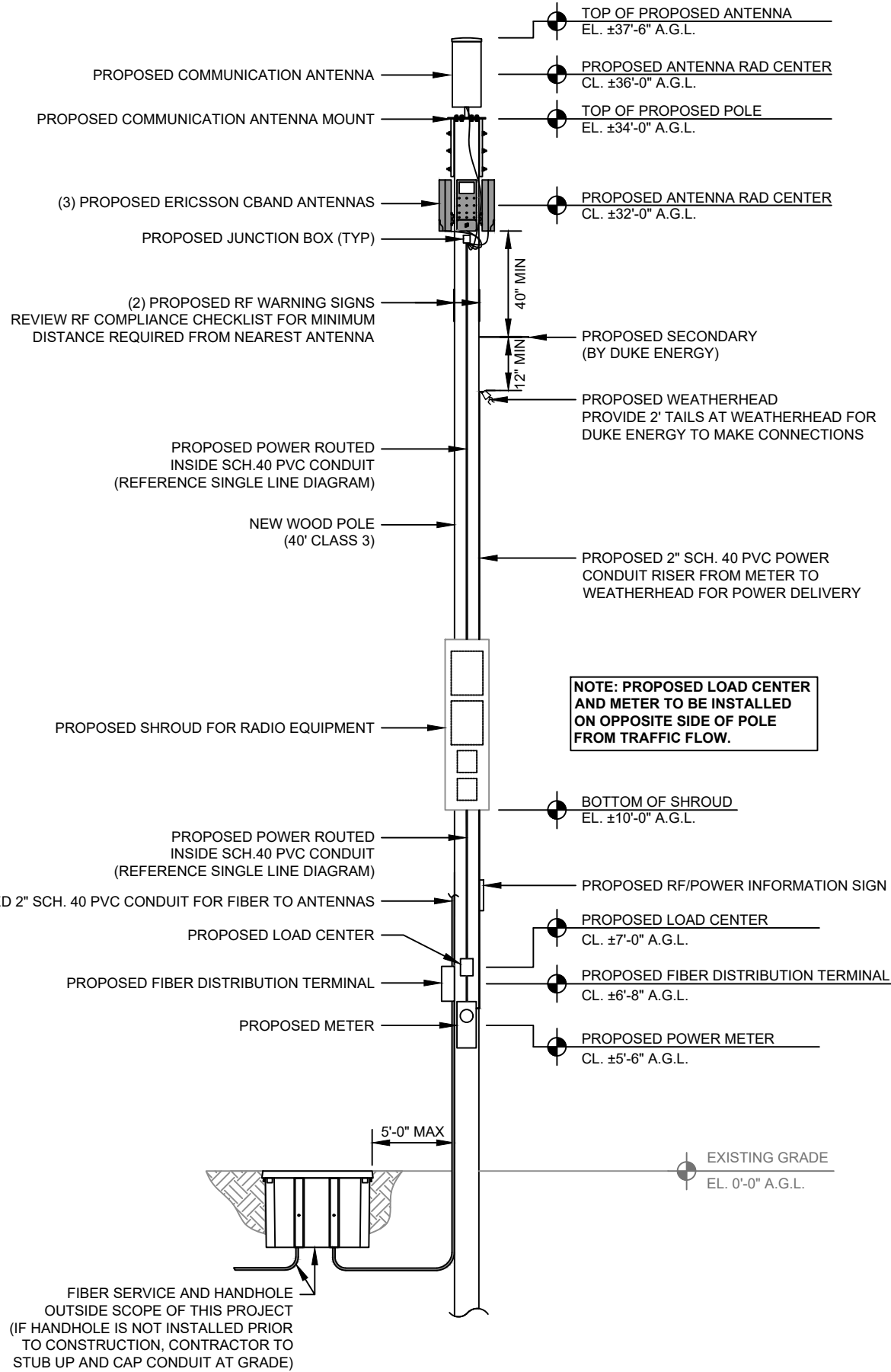
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PROPOSED NODE
LOCATION

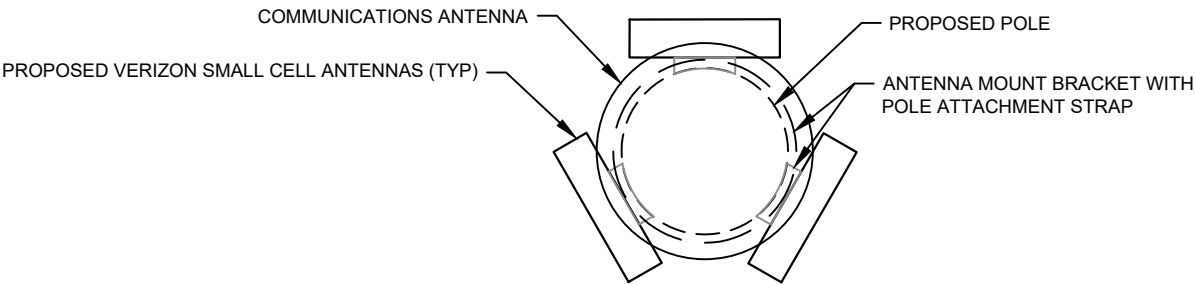
SHEET NUMBER:

C2

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PROPOSED POLE AND EQUIPMENT ELEVATION



- NOTES:
1. SEE FINAL RFDS FOR FINAL AZIMUTHS, FINAL SECTOR COUNT, AND ANY TILTS
 2. EQUIPMENT PLACEMENT TO BE VERIFIED IN FIELD
 3. RADIO/ELECTRICAL EQUIPMENT SHALL BE INSTALLED ON THE SIDE OF THE POLE OPPOSITE THE ROAD
 4. CONDUITS SHALL NOT BE INSTALLED ON EITHER FACE OF THE POLE THAT IS PERPENDICULAR TO THE ROAD

ANTENNA ORIENTATION PLAN



8921 RESEARCH DRIVE
CHARLOTTE, NC 28262

PROJECT INFORMATION:

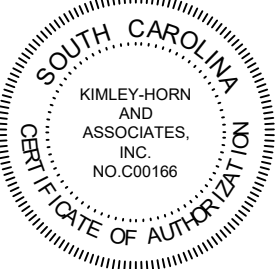
SITE NAME:
SMC_DT_SPB_S2_NODE_2

NEAREST ADDRESS:
216 CARLISLE STREET
SPARTANBURG, SC 29306
SPARTANBURG COUNTY

PLANS PREPARED BY:



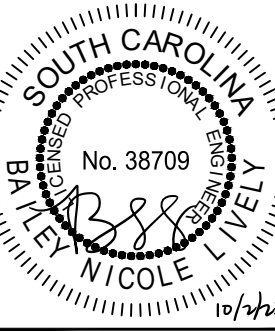
11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009
PHONE: 770-619-4280
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DRAWN BY: CHECKED BY:

MCN BNL

SHEET TITLE:

POLE ELEVATION
AND PHOTO SIM

SHEET NUMBER:

C3

K:\ATL_Wireless\000_Verizon\CARTN_SMC_PROW\Spartanburg_Market\Nodes\SMC_DT_SPB_S2_Node_2\CAD\CD\INB-SMC_4G-5G.dwg 10/02/23 12:05 PM by: Melissa Norman

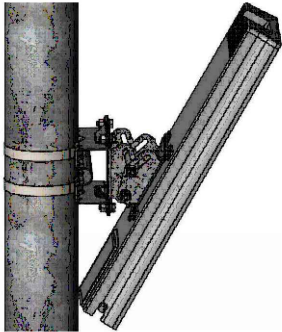
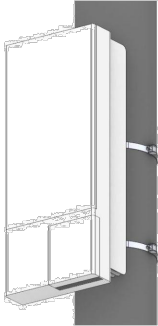
AIR 16XX – AAS STREET PRODUCT
C-BAND (B77D)

TRX Branches 16T16R
Antenna Elements 48
Antenna configuration (3x1)x(2x4)
Operation band 3700 ~3980 MHz, B77D
IBW 200 MHz
Occupied BW (TCBW) Upto 200 MHz with 8/4 DL/UL layers
EIRP 68 dBm in peak on C-band
Total Output Power (TRP) 80 W
Supported RAT NR only
Size and Weight:

AIR 16XX C-BAND (B77D)	Height	Width	Depth	Weight
wo protruding items	20.9 In (530 mm)	7.9 In (200 mm)	5.52 In (140 mm)	35.3 lbs (16 Kg)
w protruding items	20.9 In (530 mm)	8.1 In (204 mm)	5.52 In (140 mm)	

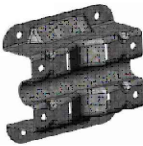
eCPRI link 2*25G
Operating temperature 40 to +55°C, with natural convection cooling
Power Supply AC
Power Consumption @full load Tentative 460W (100% traffic, 75% DL & 25% UL TDD)
Ext.alarm support NA

PA2 | 2021-06-11 | Commercial in Confidence | Page 1



Streetmacro Bracket
Modular Design

- The modular bracket contains 3 parts + fasteners
- **Base clamp**, for pole, wall and utility pole mounting
 - **Tilt joint**, for tilting the unit 30deg. Azimuth, horizontal or both azimuth and horizontal if two tilt joints are used.
 - **Back clamp**, to mount the base clamp on a pole



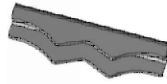
BASE CLAMP

- Weight: 0.6 kg
- Dimensions: H = 134mm, W = 155mm, D = 52 mm (30mm for the slim version)
- Mounting profile: Pipe, Angle, Square, Wall, utility pole



TILT JOINT

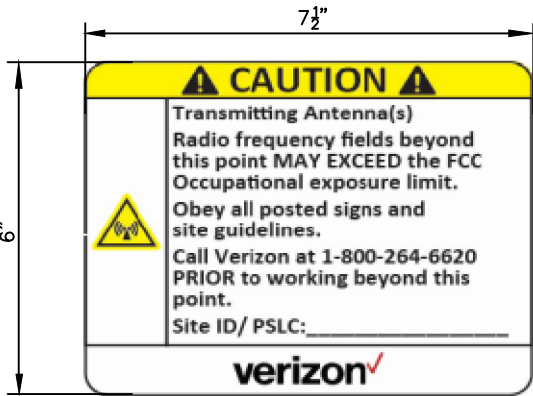
- Weight: 1.6 kg
- Dimensions: H = 136mm, W = 126mm, D = 50 mm
- Tilt: 30deg



BACK CLAMP

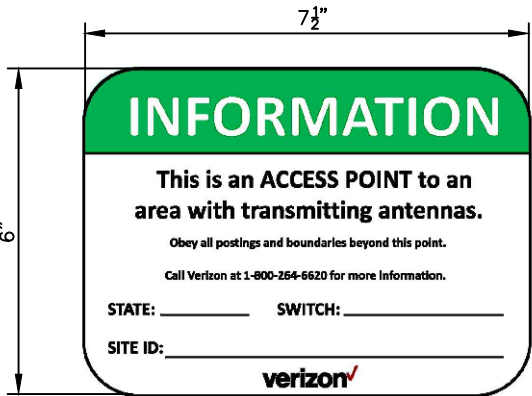
- Weight: 0.5 kg
- Dimensions: H = 40mm, W = 170mm, D = 40 mm

ANTENNA SPECIFICATIONS



- NOTES:
1. INSTALL NEAR ANTENNAS (+/- 2'-0" BELOW) TOWARDS TOP OF POLE
 2. MINIMUM LETTER HEIGHTS TO BE 0.2" CALIBRI FONT

RF WARNING/CAUTION SIGN DETAIL



- NOTES:
1. INSTALL NEAR METER BASE
 2. MINIMUM LETTER HEIGHTS TO BE 0.2" CALIBRI FONT

SITE INFORMATION SIGN DETAIL



- NOTES:
1. INSTALL NEAR METER BASE WHEN MULTIPLE POWER SOURCES EXIST ON POLE
 2. MINIMUM LETTER HEIGHTS TO BE 0.2" CALIBRI FONT

MULTIPLE POWER SOURCES SIGN DETAIL



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SPARTANBURG COUNTY

PLANS PREPARED BY:



11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009
PHONE: 770-619-4280
WWW.KIMLEY-HORN.COM



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KHA PROJECT NUMBER:

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DRAWN BY: _____ CHECKED BY: _____

MCN BNL

SHEET TITLE:

EQUIPMENT
SPECIFICATIONS
AND DETAILS

SHEET NUMBER:

C4

K:\ATL_Wireless\000_Verizon\Cartn_SMC_PROW\Spartanburg_Market\Nodes\SMC_DT_SPB_S2_Node_2\CAD\CD\INB-SMC_4G-5G.dwg 10/02/23 12:05 PM by: Melissa.Norman

RADIO 4455 MEDIUM POWER B2/25 & B66A FOR STREET MACRO APPLICATIONS



- › 4 antenna ports, 4TX/4RX for 2 bands with common RF ports
- › Up to 160W RF Power shared between 2 bands
 - › Examples:
 - › 4x20W on each band or
 - › 4x10W and 4x30W
- › Carrier Capacity:
 - › Up to (6DL/12UL) carrier and up to 60/65+70 MHZ OBW for LTE (B2 60M & B25 65M)
- › Size and Weight:

Radio 4455 - B2 & B66A	Height	Width	Depth	Weight
wo protruding items	30 In (760 mm)	10.4 In (262 mm)	5.9 In (149 mm)	59.5 lbs (27 Kg)
w protruding items	32.3 In (820 mm)	11.9 In (300 mm)	9.3/6.5 In Square 165mm)	

- › AC power (Nominal voltage 100 - 250 V)
- › Power 840 W (PSU max output)
- › 2 x 10.1 Gbps CPRI, with max 3 Radios in cascading
- › AISG RET:1 ALD port, max 25W
- › Type 4.3-10 RF connectors
- › IP 65, -40° to +55° C
- › Support optional sun-shield, included in the protruding dimensions above

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RADIO SPECIFICATIONS

COMMScope®



Mini Rapid Fiber Distribution Terminal (RDT)
Outdoor Wall Box

CommScope's mini Rapid Fiber distribution terminal (RDT) is designed to provide a quick and simple solution for installing fiber in small and medium sized multi-dwelling units (MDUs). Utilizing CommScope's RapidReel cable spool in conjunction with the 3.6mm internal / external 12-fiber microcable technology, CommScope is able to offer a full plug-and-play customer termination solution for in-building fiber applications...

The mini RDT incorporates a unique fiber cable spooling system that stores up to 66 feet (20 m) of 3.6mm indoor/outdoor cable within the enclosure. The 3.6mm cable is supplied with a low-loss hardened multifiber optical connector (HMFOC) or MPO connector. With a single click, 12 fibers can be terminated directly to a wall box, fiber distribution hub or other HMFOC or MPO-enabled equipment - eliminating the need for fusion or mechanical splicing. The inherent of the cable breaks out to 12 low-loss SC/APC adapter ports which enables fast, plug-and-play drop cable connections.

Benefits

- Greatly reduces time to install and removes craft sensitivity
- Removes the need for field termination / fusion splice
- Reduces inventory requirements for multiple cable types and lengths
- Removes the need for extensive site survey/inspections
- Weatherproof housing suitable for external environmental conditions
- 3.6mm cable suitable for outside plant mounting / duct installation
- Easy installation, requires no special tools
- Quick service turn-up / maintenance

Applications

- Up to 20m of multifiber cable can be installed internally
- Additional cable storage provided on an external spool solution
- 3.6mm G657 A2 microcable technology
- IP55-rated enclosure
- Cable terminated to a single HMFOC or MPO connector
- Cable entry avoids incoming conduit to meet aesthetic applications

Mini Rapid Fiber Distribution Terminal (RDT)
Outdoor Wall Box

General Mechanical Specifications

Cable Ports:	12
Dimensions	8 1/2 (0.4 x (W) 7.05 x (D) 2.8 inches
Weight	2.20 lbs
Material	LSH Plastic
Colour	Grey (RAL 7033)
Cable Length	20m / 40m / 60m / 80m
Cable Dimension	3.6mm
Cable Material	LSH Compliant
Fiber	per ITU G657 A2
Optical Connectors Customer	SC/LC
Optical Performance	0.25dB Max (0.18 Typ)
Optical Connector Distribution HMFOC / MPO	
• Optical Performance HMFOC	0.62dB Max (0.35dB Typ)
• Optical Performance MPO	0.5dB Max (0.35dB Typ)
Operating Temperature	-40°C to +65°C



External spool included for cable lengths over 20 M (65')

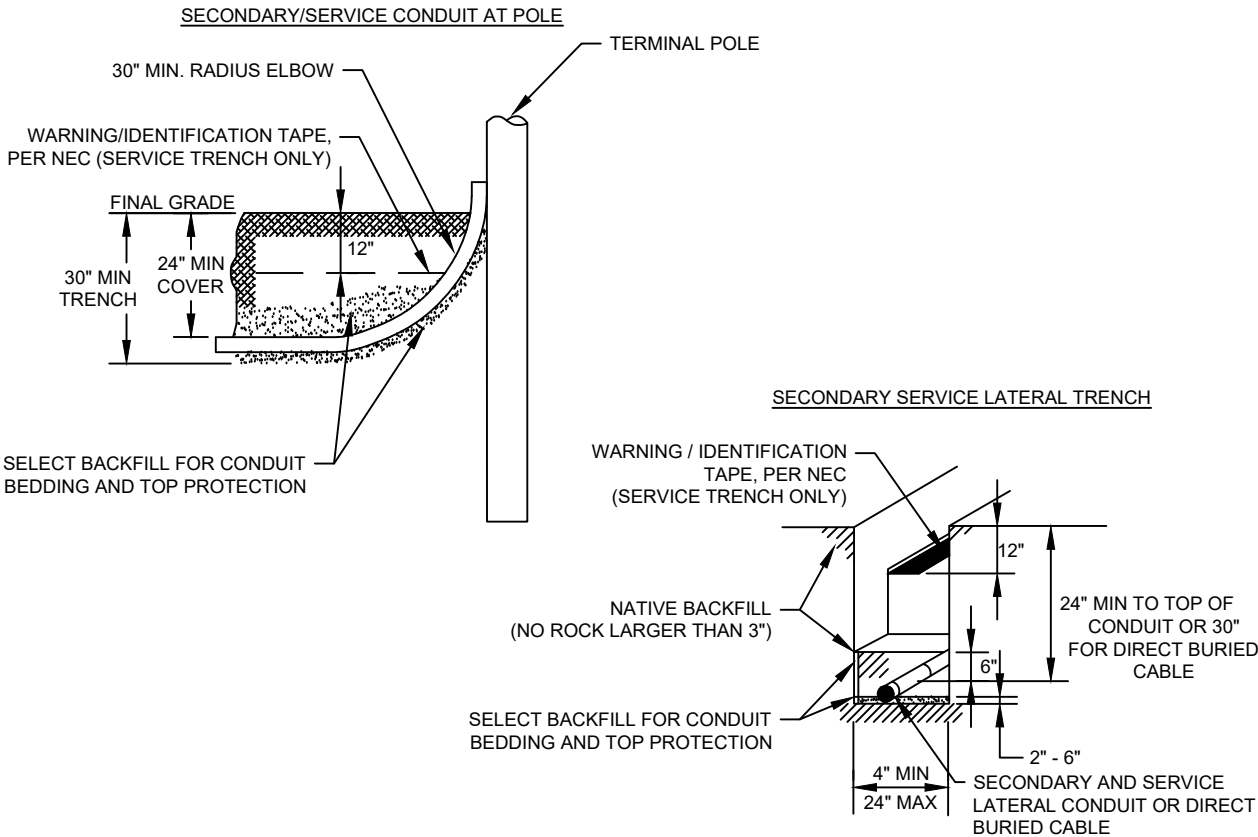
Ordering Information

EFD - 12XXXX - XX - XXMIO - TE

Stubbed End Configuration	Cable Length
MPO / MPO connector	20 20 meters (66')
HMFOC / HMFOC connector	40 40 meters (131')
	60 60 meters (197')
	80 80 meters (262')

Connector Type
S1 SC/APC
S1 SC/APC
L1 LC/APC
L1 LC/APC

COMMScope®
www.commscope.com



NOTE:
SEPARATION DIMENSIONS BETWEEN BURIED CABLE / CONDUIT TO BE VERIFIED WITH LOCAL UTILITY REQUIREMENTS



PROJECT INFORMATION:

SITE NAME:
SMC_DT_SPB_S2_NODE_2

NEAREST ADDRESS:
216 CARLISLE STREET
SPARTANBURG, SC 29306
SPARTANBURG COUNTY

PLANS PREPARED BY:

Kimley»Horn

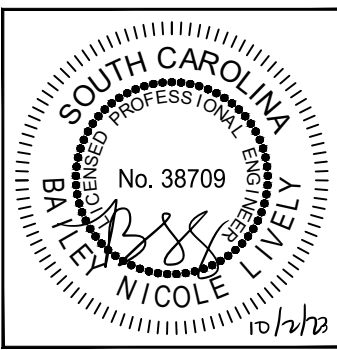
11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009
PHONE: 770-619-4280
WWW.KIMLEY-HORN.COM



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KHA PROJECT NUMBER:

013509483

DRAWN BY: CHECKED BY:

MCN BNL

SHEET TITLE:

**EQUIPMENT
SPECIFICATIONS
AND DETAILS**

SHEET NUMBER:

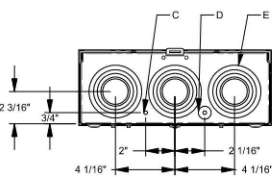
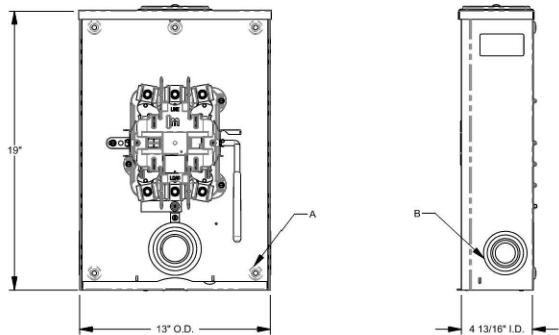
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UAP9551-X-QG-HSP

Catalog Number	UAP9551-X-QG-HSP	Enclosure	Aluminum with Powder Coat Finish
Marketing Product Description	5 Terminal Ringless Large Closing Plate Quadplex Ground Lever Bypass Stainless Steel Hasp Aluminum Painted	Jaw Quantity	5 Terminal
LPC	784572300729	Bypass Type	Lever Bypass
Length (IN)	4.844	Number of Meter Positions	1 Position
Width (IN)	13	Equipment Ground	Quadplex Ground
Height (IN)	19	Hub Opening	Large Closing Plate
Brand Name	Milbank	Line Side Wire Range	6 AWG - 350 kcmil
Type	Ringless Meter Socket	Load Side Wire Range	6 AWG - 350 kcmil
Application	Meter Socket	Number Of Receptacles	0
Standard	UL Listed>Type 3R		
Voltage Rating	600 Volts Alternating Current		
Amperage Rating	200 Continuous Ampere		
Phase	1 Phase		
Frequency Rating	60 Hertz		
Size	4.844L x 13W x 19H		
Number Of Cutouts	0		
Cutout Size	No Main Breaker		
Cable Entry	Overhead or Underground		
Terminal	Lay in		
Insulation	Glass Polyester		
Mounting	Surface Mount		



POWER METER DETAIL

DATA SHEET
powered by
Strikesorb
The RSD-F series are AC Disconnect, Load Center and Surge Protection Devices that are Suitable for Use as Service Equipment (SUSE). They are designed to provide robust overvoltage surge protection for up to 16 AC power circuits for today's small cell radio systems.



- UL 67
- UL 67
Suitable for use as Service Equipment (SUSE) without condition per UL and NEC with 60A or 100A main breaker
- Features
- Suitable for Use as Service Equipment (SUSE) without condition per UL and NEC with 60A or 100A main breaker
 - Up to sixteen circuits for individual power control and over current protection
 - Comes standard with (16) din rail 13mm breakers (2x20A, 14x10A) providing (16) 120VAC circuits which can be bridged to provide (8) 240V feeds
 - 120/240VAC split phase configuration
 - Available Surge Protection:
 - Optional Strikesorb 30-A-2CHV Surge Protective Device (SPD)
 - Class I SPD, certified by VDE per the IEC 61643-11 standard as suitable for installation in areas where induced lightning exposure is expected
 - Withstand direct surge currents up to 5kA (10/350us) and induced surge currents of up to 60kA (8/20)
 - Low let through / clamping voltage - as it does not employ spark gaps or other switching elements
 - Optional Raycap ProTec Din Rail Surge Protective Device (SPD)
 - Class II SPD, certified by VDE per the IEC 61643-11 standard
 - Withstand induced surge currents of up to 50kA (8/20)
 - High-Energy MOV and Thermal Protection
 - Visual status indication
- Lockable front hatch access to the main breaker (Optional). Main power can be turned on and off without opening the main enclosure door. Lockout Tagout (LOTO) functionality.
 - Pole mount bracket facilitates mounting on up to 4" diameter pole using existing clamps. Can also be banded to any diameter pole. Center mount holes (5/8") for center pole mount.
 - Top, bottom or side cable entry allows for cleaner installations
 - Customer specified knockouts available
 - Patent pending design



RSD-FMC-Z16MS-21NN
(16 Breakers, Strikesorb SPD, External Disconnect)

Mounting Bracket Included



www.raycap.com

Strikesorb is a registered trademark of Raycap.
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028-01-732 180794

SPECIFICATIONS
powered by
Strikesorb
AC Disconnect with Integrated Surge Protection for Small Cell Radio Heads

Product Information	Strikesorb SPD Models	ProTec SPD Models
Model Number	RSD-FMN-X16MS-21NN Available up to 16 circuits Service Disconnect	RSD-FMN-X16MP-21NN Available up to 16 circuits 60A main breaker
Number of Circuits	RSD-FMC-X16MS-21NN Available up to 16 circuits Service Disconnect	RSD-FMC-X16MP-21NN Available up to 16 circuits 60A main breaker (with external disconnect)
Number of Circuits	RSD-FMN-Z16MS-21NN Available up to 16 circuits Service Disconnect	RSD-FMN-Z16MP-21NN Available up to 16 circuits 100A main breaker
Number of Circuits	RSD-FMC-Z16MS-21NN Available up to 16 circuits Service Disconnect	RSD-FMC-Z16MP-21NN Available up to 16 circuits 100A main breaker (with external disconnect)
Breakers	13mm DIN Rail	13mm DIN Rail
Breakers Provided*	2x20A, 14x10A	2x20A, 14x10A
Breaker Interrupt Rating (kAIC)	10kA	10kA
Connection (Power)	Main Breaker #12 - #20 AWG (3.31 - 67.4mm ²) Branch Breaker #14 - #2 AWG (2.5 - 66mm ²) Ground and Neutral Buses #14 - #2 AWG (2.5 - 33.6mm ²)	Main Breaker #12 - #20 AWG (3.31 - 67.4mm ²) Branch Breaker #14 - #2 AWG (2.5 - 66mm ²) Ground and Neutral Buses #14 - #2 AWG (2.5 - 33.6mm ²)
Enclosure Type (Outdoor)	Powder Coated Steel	Powder Coated Steel
Enclosure	Hinged with Padlockable Latches	Hinged with Padlockable Latches
Environmental Ingress Protection (IP) Rating	NEMA 4	NEMA 4
Operation Temperature (°C)	-40° C to +80° C	-40° C to +80° C
Storage Temperature (°C)	-40° C to +80° C	-70° C to +80° C
Dimensions (W x H x D)	8.10" x 16.25" x 6.05" (201 x 494 x 154 mm)	8.10" x 16.25" x 6.05" (201 x 494 x 154 mm)
Weight (including 16 Breakers) lbs	Unit: 20.9 Bracket: 2.7 System: 23.6	Unit: 28.9 Bracket: 2.7 System: 31.6
Surge Suppression Specifications	Surge Protection Device (SPD) Type to UL	Strikesorb 30-A-2CHV Surge Suppression
Surge Protective Device (SPD) Type per UL 1449 4th Ed.	Recognized UL SPD	Recognized UL SPD
Surge Protection Device (SPD) Class to IEC 61643-11	Class I	Class II
Normal Operating Voltage (V)	120V / 240V split phase	120V / 240V split phase
Normal Discharge Current (I _n) per UL 1449 4th Ed.	20kA 8/20µs	20kA 8/20µs
Maximum Discharge Current (I _m) per IEC 61643-11	60kA 8/20µs	60kA 8/20µs
Impulse Discharge Current (I _{imp}) per IEC 61643-11	5kA 10/350µs	-
Maximum Continuous Operating Voltage (V _{oc}) (MCOV)	150V per line	150V per line
Voltage Protection Level (U _p) per IEC 61643-11	700V	-
Voltage Protection Rating (UL)	-	600V
Suppression Technology	MOV	MOV
Protection Modes	L1 to Neutral, L2 to Neutral	L1 to Neutral, L2 to Neutral
Strikesorb modules are compliant to the following Surge Protective Device (SPD) standards:		
UL 1449 4th Edition: 2011, IEC 61643-11: 2011, EN 61643-11: 2012, IEEE C62.41: 2002, IEEE C62.46: 2002, NEMA-LS-1		
Certification	UL VDE, CE	
Panel Board Certification	UL 67 (suitable for use as service equipment)	

*Additional breakers and sizes are available and sold separately



PROJECT INFORMATION:

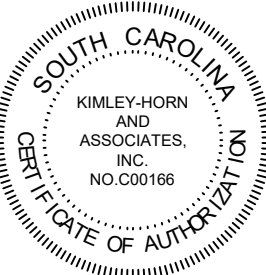
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SPARTANBURG COUNTY

PLANS PREPARED BY:



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KHA PROJECT NUMBER:

013509483

DRAWN BY: CHECKED BY:

MCN

BNL

SHEET TITLE:

EQUIPMENT
SPECIFICATIONS
AND DETAILS

SHEET NUMBER:

C6

LOAD CENTER DETAIL

CODES, STANDARDS, AND SPECIFICATIONS

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL MATERIALS AND LABOR RELATED DIRECTLY OR INDIRECTLY TO ALL ELECTRICAL WORK DOCUMENTED IN THESE DRAWINGS SHALL BE PROVIDED AND PERFORMED IN CONFORMANCE WITH ALL CURRENT GOVERNING CODES, STANDARDS, AND PROFESSIONAL STANDARD OF CARE TO INCLUDE THE AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM), UNDERWRITERS LABORATORY (UL), NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA), AMERICAN STANDARDS ASSOCIATION (ASA), NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), AND THE NATIONAL ELECTRICAL CODE (NEC).
2. MATERIALS SHALL BE NEW AND SHALL CONFORM TO ALL APPLICABLE CURRENT GOVERNING STANDARDS ESTABLISHED FOR EACH ITEM BY ASTM, UL, NEMA, ASA, AND NFPA.
3. ALL ELECTRICAL WORK SHALL COMPLY WITH ALL APPLICABLE STATE, COUNTY, AND MUNICIPAL CODES AND ORDINANCES, AS WELL AS ALL CURRENT GOVERNING STANDARDS AND PRACTICES AS REQUIRED BY NEC, NEMA, ANSI, NFPA, UBC, UL, IEEE, AND THE LOCAL UTILITY COMPANY.
4. ALL ELECTRICAL GROUNDING SHALL COMPLY WITH THE CURRENT EDITION OF THE NEC.
5. CONTRACTOR SHALL MAINTAIN UL LISTED FIRE RATINGS OF ANY WALL PENETRATIONS.
6. CONTRACTOR SHALL MAINTAIN A MINIMUM CLEARANCE OF 36" IN FRONT OF ALL ELECTRICAL EQUIPMENT AS REQUIRED BY NEC.

GENERAL

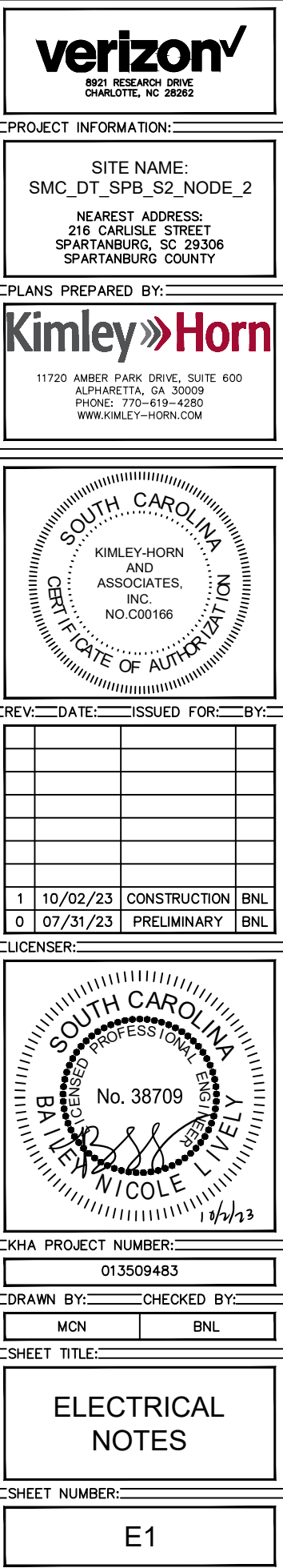
1. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS AND ASSOCIATED FEES RELATED TO THE PROJECT AND SHALL DELIVER A COPY OF ALL PERMITS TO THE VERIZON REPRESENTATIVE.
2. CONTRACTOR SHALL SCHEDULE AND SHOULD ATTEND ALL INSPECTIONS REQUIRED BY THE JURISDICTION HAVING AUTHORITY.
3. CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, ACCESSORIES, ETC., FOR A COMPLETE WORKING ELECTRICAL INSTALLATION.
4. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH APPLICABLE BUILDING CODES AND LOCAL ORDINANCES, INSTALLED IN A NEAT MANNER, AND SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER.
5. CONTRACTOR SHALL PROTECT ADJACENT EQUIPMENT AND FINISHES FROM DAMAGE AND SHALL REPAIR TO ORIGINAL CONDITION ANY ITEMS DAMAGED AS A RESULT OF THE WORK
6. IF CONDUIT RUNS HAVE MORE THAN THREE (3) CONSECUTIVE 90 DEGREE TURNS, THEN CONTRACTOR SHALL INSTALL PULL BOXES AS REQUIRED BY NEC.
7. WHEN INSTALLING A NEW GROUND ROD, MAINTAIN 6' MINIMUM DISTANCE FROM EXISTING GROUND RODS.

MATERIALS

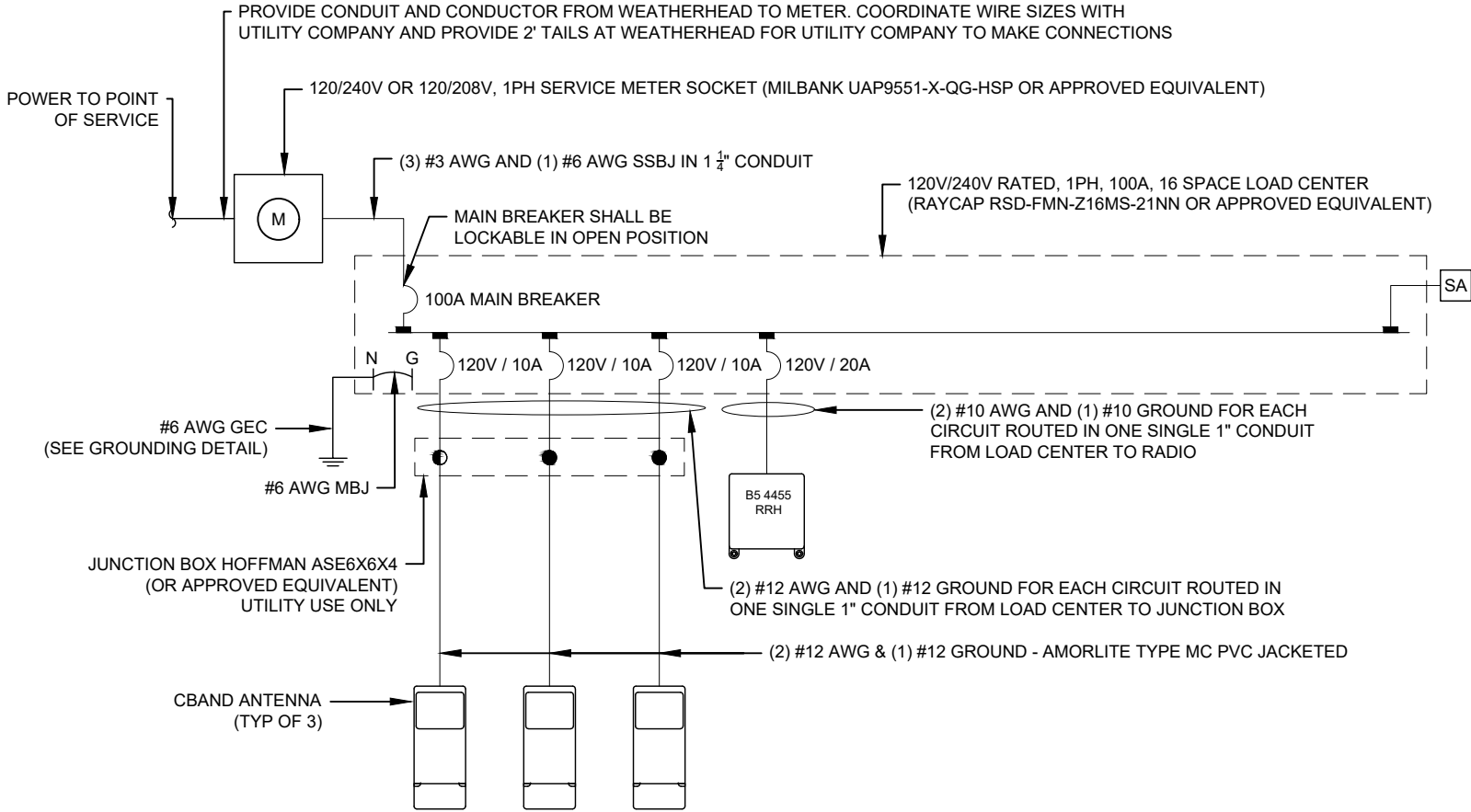
1. ALL EQUIPMENT AND MATERIALS SHOWN SHALL BE CONSIDERED NEW UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS.
2. FINAL CONNECTIONS OF EQUIPMENT SHALL BE PER MANUFACTURER'S APPROVED WIRING DIAGRAMS, DETAILS, AND INSTRUCTIONS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT SUPPLIED BY VERIZON.
3. CONTRACTOR SHALL SEAL ALL CONDUITS ENTERING AN ENCLOSURE WITH CONDUIT SEALANT THAT IS COMPATIBLE WITH THE INSULATION OF THE CONDUCTORS IN THE CONDUIT.
4. CONDUIT RUNS SHALL HAVE A CONTINUOUS DOWNWARD SLOPE AWAY FROM ALL EQUIPMENT TO PREVENT WATER INFILTRATION.
5. CONTRACTOR SHALL FIELD DETERMINE ACTUAL CONDUIT ROUTING AND SHALL OBTAIN APPROVAL FROM VERIZON AND AHJ OF THE PROPOSED ROUTING PRIOR TO CONDUIT INSTALLATION.
6. ALL CONDUCTORS SHALL BE COPPER WITH THWN INSULATION AND ALL TERMINATIONS SHALL BE RATED FOR AT LEAST 75 DEGREES CELSIUS. INSULATION TO BE RATED SUNLIGHT RESISTANT WHERE EXPOSED.
7. ALL NEUTRAL CONDUCTORS SHALL HAVE WHITE INSULATION. ALL GROUND CONDUCTORS SHALL HAVE GREEN INSULATION. COLOR TAPE IDENTIFICATION OF THESE CONDUCTORS IS NOT PERMITTED.

PRE-CONSTRUCTION COORDINATION

1. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID AND NOTE EXISTING CONDITIONS THAT MIGHT AFFECT THEIR WORK. ALL SUCH CONDITIONS SHALL BE REPORTED TO THE ENGINEER PRIOR TO BID.
2. CONTRACTOR SHALL PROVIDE A UTILITY LOCATOR AND SHALL VERIFY THE ACTUAL LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
3. CONTRACTOR SHALL VERIFY, PRIOR TO ROUGH-IN, THAT SITE CONDITIONS ALLOW FOR THE PLACEMENT OF THE ELECTRICAL EQUIPMENT AS SHOWN ON THE PLANS.
4. ALL OUTAGES SHALL BE CONDUCTED AT A TIME AGREED UPON IN WRITING WITH THE BUILDING OWNER. POWER OUTAGE DURATION SHALL BE PRE-APPROVED IN WRITING BY THE BUILDING OWNER.
5. CONTRACTOR SHALL PERFORM AN ARC FLASH ANALYSIS AT THE LOAD CENTER ON THE VERIZON TELECOMMUNICATIONS CABINET AND PROVIDE ARC FLASH LABEL PER NEC.
6. WHEN A NEW ELECTRICAL SERVICE IS REQUIRED, CONTRACTOR SHALL COORDINATE WITH LOCAL ELECTRICAL UTILITY REGARDING THE EXACT LOCATION OF THE TRANSFORMER, ALL METERING REQUIREMENTS, AND CONDUIT ROUTING BETWEEN TRANSFORMER AND METER.
7. ALL CIRCUIT BREAKERS AND EQUIPMENT SHALL HAVE A MINIMUM AIC RATING OF 10,000 AMPS. IF THE RATING OF THE UTILITY TRANSFORMER PROVIDING THE ELECTRICAL SERVICE IS GREATER THAN 75 kVA, THE CONTRACTOR SHALL PERFORM A SHORT CIRCUIT CURRENT ANALYSIS TO DETERMINE THE REQUIRED AIC RATING FOR THE CIRCUIT BREAKERS AND THE EQUIPMENT. PRIOR TO PURCHASING EQUIPMENT, THE CONTRACTOR SHALL CONTACT THE ELECTRIC UTILITY AND OBTAIN IN WRITING THE MAXIMUM AVAILABLE FAULT CURRENT (AFC) AT THE UTILITY SERVICE POINT. PROVIDE MAX. AFC SIGNAGE AS REQUIRED PER NEC 110.24. THE CONTRACTOR SHALL ENSURE ALL ELECTRICAL EQUIPMENT, CIRCUIT BREAKERS, DISCONNECTS, FUSES, AND PANELBOARDS HAVE A FAULT CURRENT INTERRUPTING RATING GREATER THAN THE AVAILABLE FAULT CURRENT.



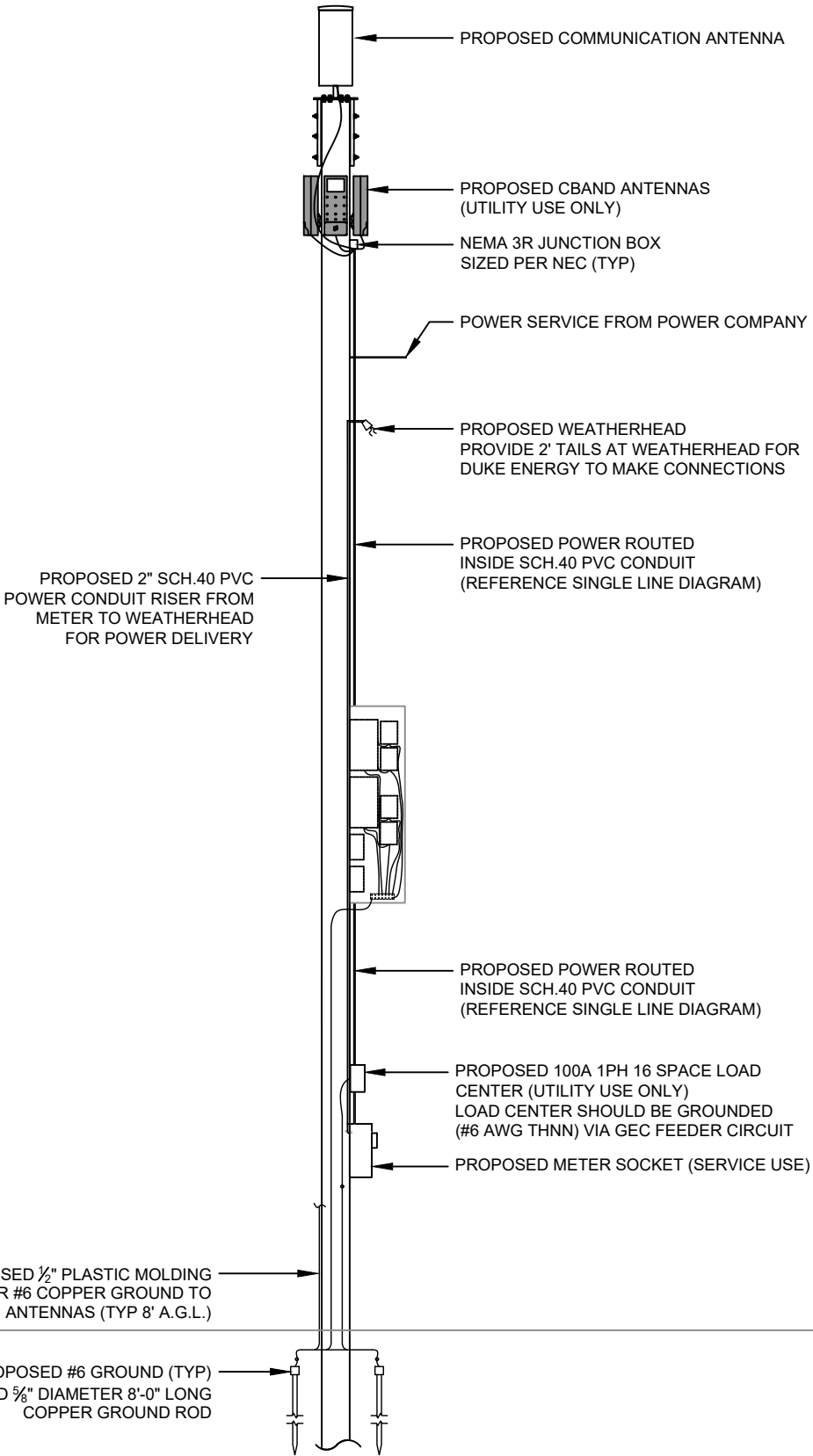
K:\ATL_Wireless\000_Verizon\Cartn_SMC_PROW\Spartanburg_Market\Nodes\SMC_DT_SPB_S2_Node_2\CAD\CD\INB-SMC_4G-5G.dwg 10/02/23 12:05 PM by: Melissa.Norman



SINGLE LINE DIAGRAM

PANEL SCHEDULE				
Voltage: 120/240 or 120/208 Volts		MCB Size: 100 Amps		
Phase, Wires: Single Phase, 3 Wire		AIC Rating: 10,000 Amps min		
Mounting Type: Pole		Enclosure Type: NEMA 3R Outdoor		
Circuit Number	Load (VA)		Circuit Breaker Size	Load Served
	A	B		
1	900	-	1P-20	RRH
2	-	-	1P-20	Spare
3	-	-	1P-20	Spare
4	-	-	1P-20	Spare
5	500	-	1P-10	Antenna (Alpha)
6	-	500	1P-10	Antenna (Beta)
7	500	-	1P-10	Antenna (Gamma)
8	-	-	1P-10	Spare
9	-	-	1P-10	Spare
10	-	-	1P-10	Spare
11	-	-	1P-10	Spare
12	-	-	1P-10	Spare
13	-	-	1P-10	Spare
14	-	-	1P-10	Spare
15	-	-	1P-10	Spare
16	-	-	1P-10	Spare
Total VA	1900	500		
	2400			

PANEL SCHEDULE



- NOTES:
- EQUIPMENT AND CONDUCTORS, INCLUDING THEIR ATTACHMENTS AND RACEWAYS, INDICATED AS "UTILITY USE ONLY" ARE WHOLLY OWNED BY VERIZON WIRELESS.
 - EQUIPMENT AND CONDUCTORS, INCLUDING THEIR ATTACHMENTS AND RACEWAYS, INDICATED AS "SERVICE USE" ARE WHOLLY OWNED BY DUKE ENERGY.

ELECTRICAL EQUIPMENT AND GROUNDING POLE ELEVATION



8921 RESEARCH DRIVE
CHARLOTTE, NC 28262

PROJECT INFORMATION:

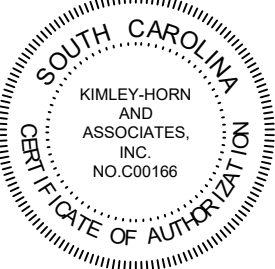
SITE NAME:
SMC_DT_SPB_S2_NODE_2

NEAREST ADDRESS:
216 CARLISLE STREET
SPARTANBURG, SC 29306
SPARTANBURG COUNTY

PLANS PREPARED BY:



11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009
PHONE: 770-619-4280
WWW.KIMLEY-HORN.COM

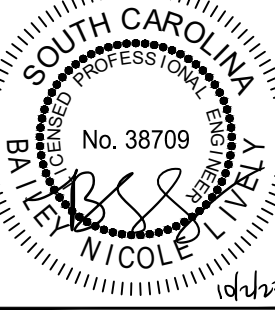


SOUTH CAROLINA
KIMLEY-HORN AND ASSOCIATES, INC.
NO. C00166
CERTIFICATE OF AUTHORIZATION

REV: DATE: ISSUED FOR: BY:

1	10/02/23	CONSTRUCTION	BNL
0	07/31/23	PRELIMINARY	BNL

LICENSER:



SOUTH CAROLINA
BAILEY
LICENSED PROFESSIONAL ENGINEER
No. 38709
NICOLE L. BAILEY
10/1/23

KHA PROJECT NUMBER:

013509483

DRAWN BY: CHECKED BY:

MCN BNL

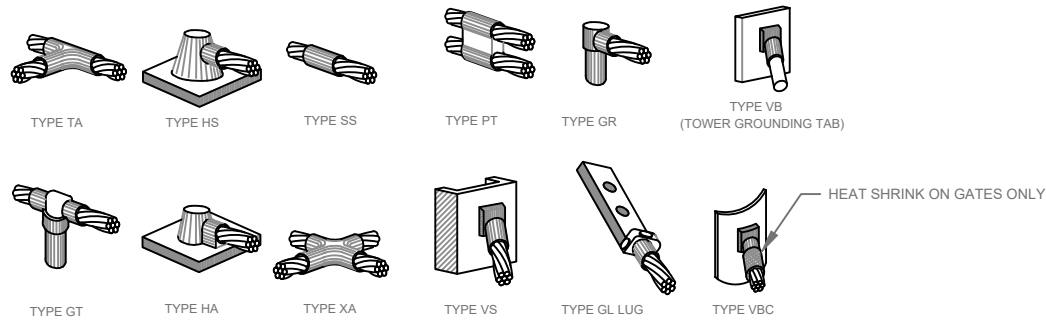
SHEET TITLE:

PANEL SCHEDULE AND RISER DIAGRAM

SHEET NUMBER:

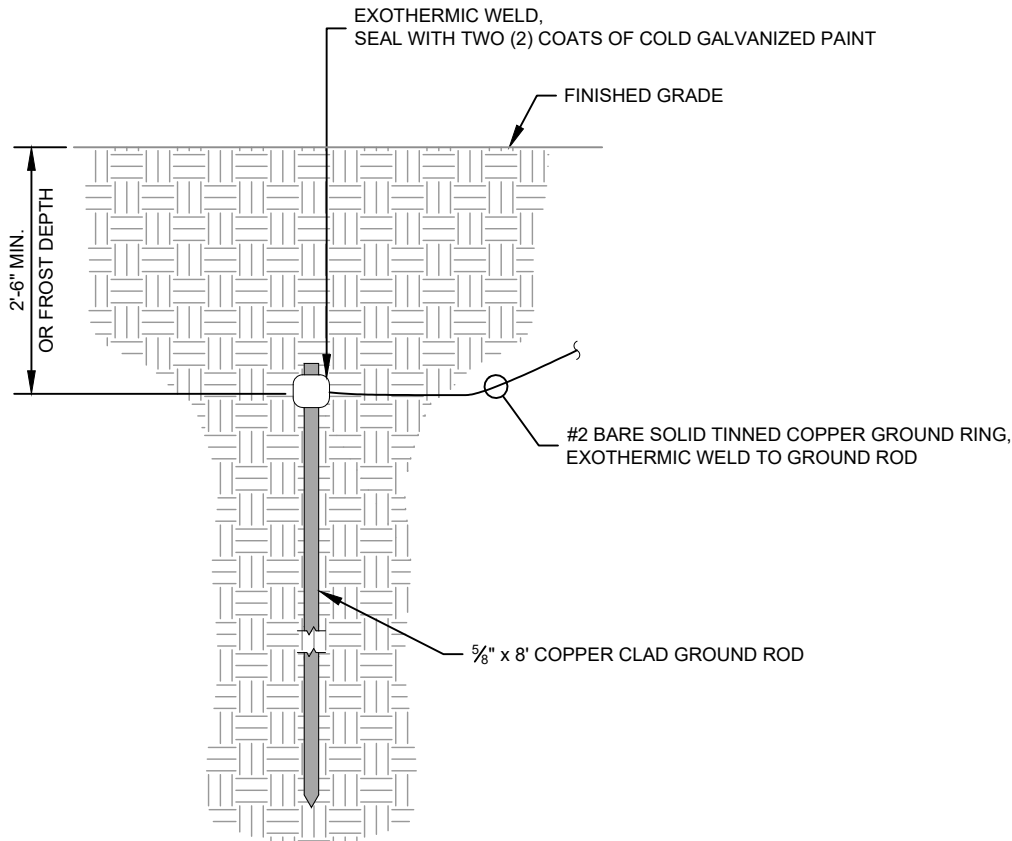
E2

K:\ATL_Wireless\000_Verizon\CARTN_SMC_PROW\Spartanburg_Market\Nodes\SMC_DT_SPB_S2_Node_2\CAD\CD\INB-SMC_4G-5G.dwg 10/02/23 12:05 PM by: Melissa.Norman

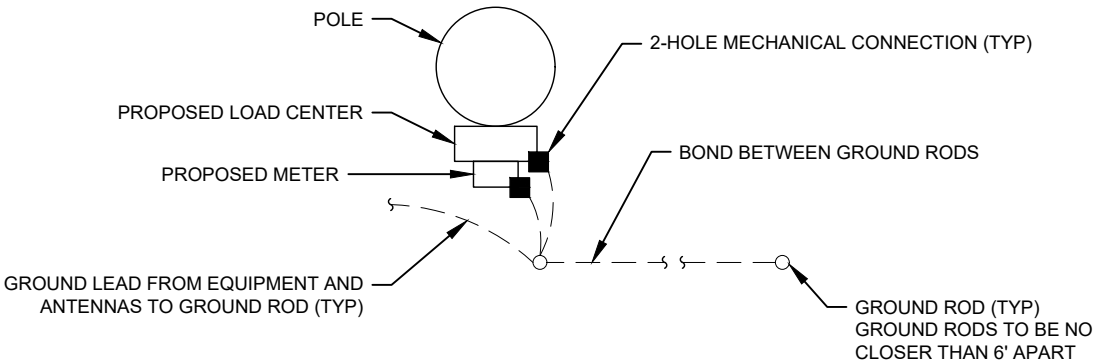


NOTE: CADWELD TYPES SHOWN ABOVE ARE EXAMPLES. PROVIDE APPROPRIATE TYPES AS REQUIRED

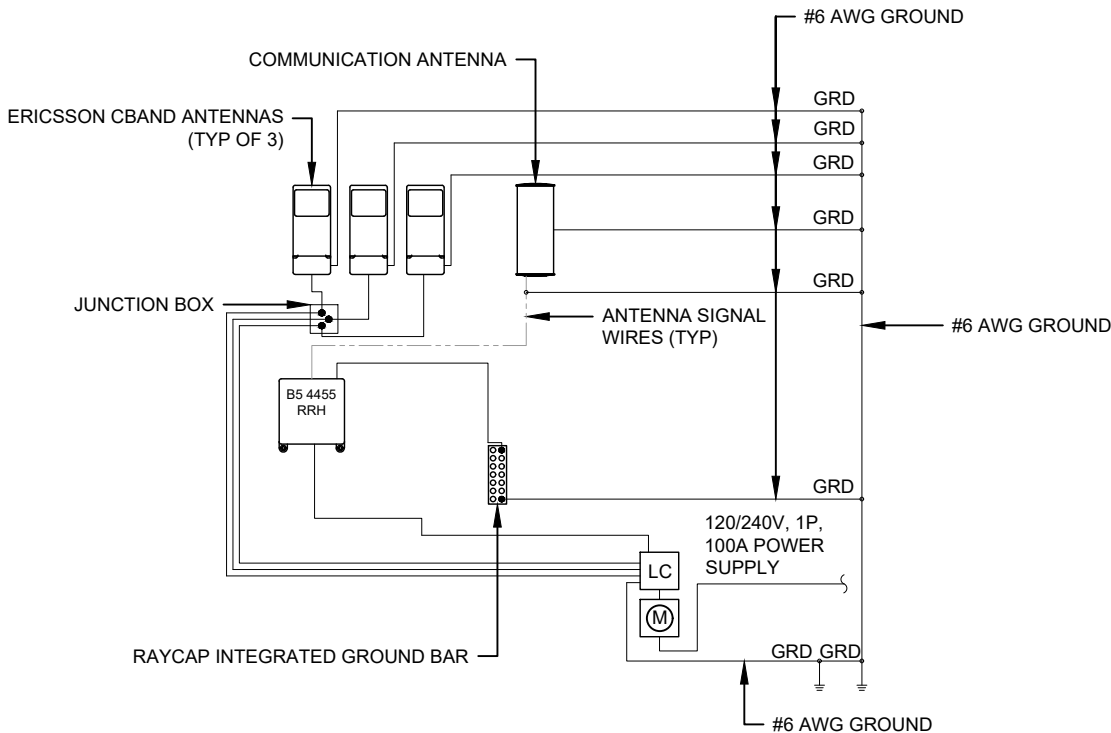
TYPICAL CAD WELDS



GROUND ROD DETAIL



POLE GROUNDING PLAN



POWER SUPPLY NOTE:
1. CONTRACTOR SHALL COMPLY WITH DUKE ENERGY REQUIREMENTS FOR SERVICE. IF DUKE ENERGY REQUIREMENTS DISAGREE WITH DETAILS SHOWN ON THESE DRAWINGS, STOP WORK AND NOTIFY THE ENGINEER IMMEDIATELY

GENERAL WIRING DIAGRAM

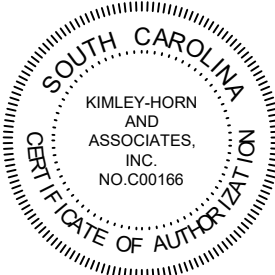


PROJECT INFORMATION:

SITE NAME:
SMC_DT_SPB_S2_NODE_2
NEAREST ADDRESS:
216 CARLISLE STREET
SPARTANBURG, SC 29306
SPARTANBURG COUNTY

PLANS PREPARED BY:

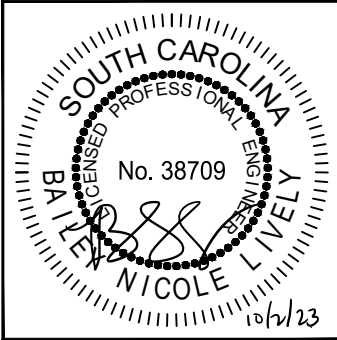
Kimley»Horn
11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009
PHONE: 770-619-4280
WWW.KIMLEY-HORN.COM



REV: DATE: ISSUED FOR: BY:

1	10/02/23	CONSTRUCTION	BNL
0	07/31/23	PRELIMINARY	BNL

LICENSER:



KHA PROJECT NUMBER:

013509483

DRAWN BY: CHECKED BY:

MCN

BNL

SHEET TITLE:

**GROUNDING
DETAILS AND
WIRING DIAGRAM**

SHEET NUMBER:

E3

K:\ATL_Wireless\000_Verizon\CARTN_SMC_PROJ\SPartanburg_Market\Nodes\SMC_DT_SPB_S2_Node_2\CAD\CD\INB-SMC_4G-5G.dwg 10/02/23 12:05 PM by: Melissa.Norman

TRAFFIC CONTROL NOTES

ALL TRAFFIC CONTROL SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS SUPPLEMENTED BY THE CITY OF SPARTANBURG STANDARDS FOR CITY STREETS, SPARTANBURG COUNTY STANDARDS FOR COUNTY STREETS, AND SCDOT ROADWAY STANDARDS FOR STATE OWNED STREETS. FIELD MODIFICATIONS MAY BE MADE TO ADDRESS LOCAL CONDITIONS WITH THE APPROVAL OF THE ENGINEER.

GENERAL NOTES

ADAPT THE TRAFFIC CONTROL PLANS, WHEN DIRECTED BY THE ENGINEER, TO MEET FIELD CONDITIONS TO PROVIDE SAFE AND EFFICIENT TRAFFIC AND PEDESTRIAN MOVEMENT. CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS SHOWN ON THE PLANS AND STANDARD DETAILS ARE NOT ATTAINABLE, OR RESULT IN DUPLICATE, OR OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING OR REMOVAL OF DEVICES.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- A) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER AS NOTED ON PLANS.
- B) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE AS NOTED ON PLANS.

TRAFFIC CONTROL DEVICES

- A) CONTRACTOR IS RESPONSIBLE FOR INSTALLATION, MAINTENANCE, AND REMOVAL OF TRAFFIC CONTROL DEVICES. AFTER REMOVAL, CONTRACTOR IS RESPONSIBLE FOR RESTORATION OF MODIFICATIONS TO ROADWAY AND SIDEWALK SURFACES, ROADWAY MARKINGS, AND SIGNAGE DUE TO TRAFFIC CONTROL DEVICES OR CONSTRUCTION ACTIVITY.
- B) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER THAN THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII.

LOCAL NOTES

- A) DO NOT PARK, PLACE EQUIPMENT, OR RESTRICT PEDESTRIAN MOVEMENTS ON SIDEWALKS AT ANY TIME, UNLESS OTHERWISE APPROVED BY THE CITY OR THE ENGINEER.
- B) ALL SIDEWALKS AND CROSSWALKS SHALL BE ACCESSIBLE. CONTRACTOR SHALL PROVIDE SIDEWALK DETOUR WHEREVER PEDESTRIAN MOVEMENTS ARE AFFECTED BY CONSTRUCTION ACTIVITIES.
- C) CONTRACTOR IS RESPONSIBLE TO PROTECT THE WORK AREA AND MAINTAIN ACCESS TO ALL DRIVEWAYS AND OCCUPIED PROPERTIES IN THE WORK ZONE AT ALL TIMES UNLESS OTHERWISE NOTED OR DIRECTED BY THE CITY OR ENGINEER.



8921 RESEARCH DRIVE
CHARLOTTE, NC 28262

PROJECT INFORMATION:

SITE NAME:
SMC_DT_SPB_S2_NODE_2

NEAREST ADDRESS:
216 CARLISLE STREET
SPARTANBURG, SC 29306
SPARTANBURG COUNTY

PLANS PREPARED BY:



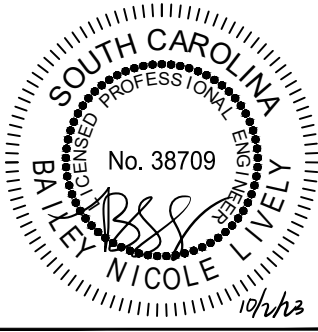
11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009
PHONE: 770-619-4280
WWW.KIMLEY-HORN.COM



REV: DATE: ISSUED FOR: BY:

1	10/02/23	CONSTRUCTION	BNL
0	07/31/23	PRELIMINARY	BNL

LICENSER:



KHA PROJECT NUMBER:

013509483

DRAWN BY: CHECKED BY:

MCN

BNL

SHEET TITLE:

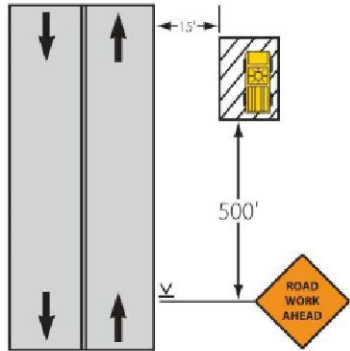
TRAFFIC CONTROL
GENERAL NOTES

SHEET NUMBER:

TC1

K:\ATL_Wireless\000_Verizon\Cartin_SMC_PROW\Spartanburg_Market\Notes\SMC_DT_SPB_S2_Node_2\CAD\CD\INB-SMC_4G-5G.dwg --- 10/02/23 12:05 PM by: Melissa Norman

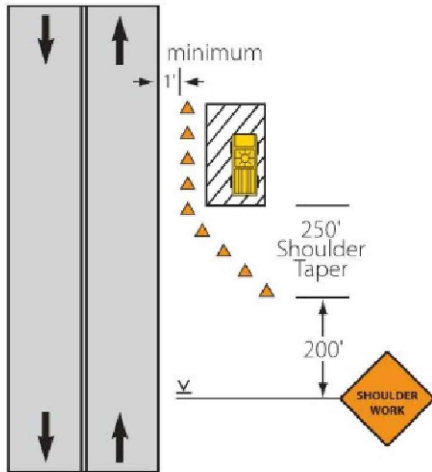
Shoulder Work
(Beyond 15' From the Edge of Pavement)



Notes:

- For low speed conditions (35 MPH or less), a 200-foot sign spacing may be used. For speeds of 40 to 50 MPH a 350-foot sign spacing may be used.
- For operations of 60 minutes or less, all signs and channelizing devices may be eliminated **if the work vehicles are equipped with an activated amber rotating, flashing, or strobe light mounted on top of each vehicle in accordance with the following conditions:**
If the vehicle and work activity are both behind guardrail or beyond 15' but within 30' of the near edge of an adjacent travel lane.
Vehicle hazard warning signals are not an acceptable alternative.
- An advance warning sign is required at all times during the performance of work within 30' of the near edge of an adjacent travel lane, if the vehicles or equipment will intermittently access the work space from the roadway during the performance of the work, if equipment will travel on or cross the highway, or if the activity may distract motorists.
- Acceptable advance warning signs are those indicating "Shoulder Work", "Road Work Ahead", or "Utility Work Ahead".

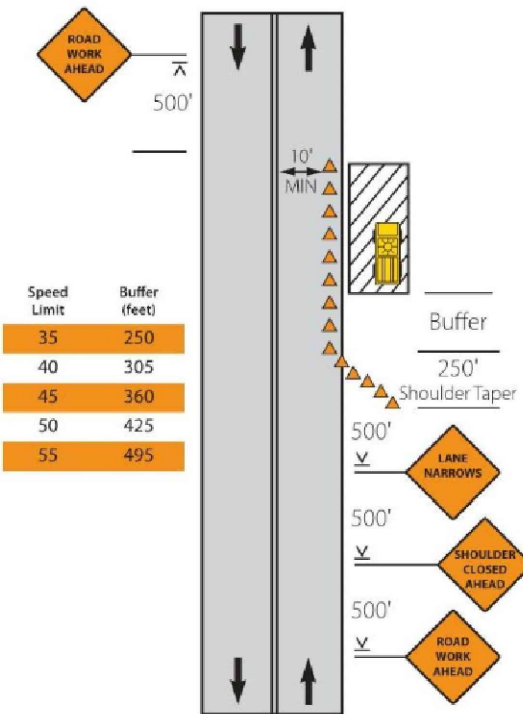
Shoulder Work
(1' – 15' From the Edge of Pavement)
(Short-Term Stationary — 1 to 2 Hours)



Notes:

- For intermediate speed conditions (40 to 50 MPH), a 350-foot sign spacing may be used, and for high speed conditions (55 to 60 MPH), use a 500-foot sign spacing.
- For short-term stationary work zones in a shoulder area, an array of advance warning signs is required. Install these advance warning sign arrays as follows:
 - Low Speed Conditions (35 MPH or less) – this sign array will include "Shoulder Work".
 - Intermediate Speed Conditions (40 to 50 MPH) – this sign array will include "Road Work Ahead", "Right (Left) Shoulder Closed Ahead", and "Shoulder Work".
 - High Speed Conditions (55 to 60 MPH) – this sign array will include "Road Work 1500 FT", "Right (Left) Shoulder Closed 1000 FT", and "Right (Left) Shoulder Closed 500 FT".
- "Utility Work Ahead" or "Workers" symbol signs may be used instead of the "Shoulder Work" sign.

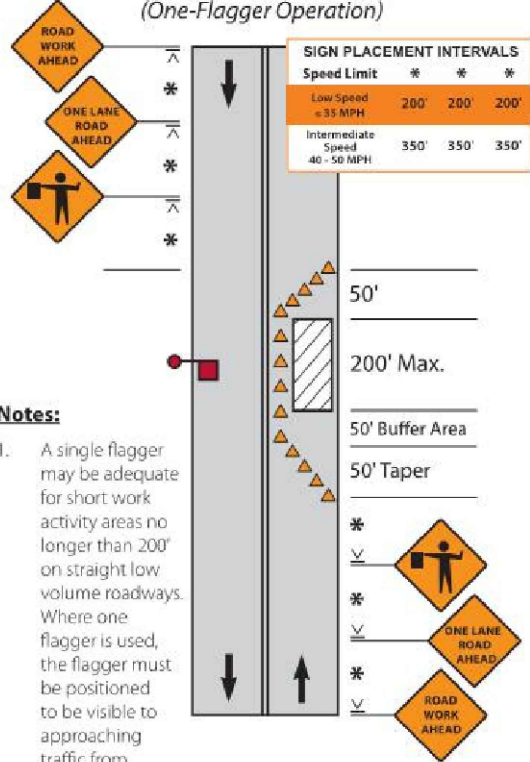
Shoulder Work with Minor Encroachment



Notes:

- This typical application applies to roadways with posted speed limits of 55 MPH or less.
- Maintain a minimum lane width of 10'; however, on a low volume roadway, a minimum lane width of 9' is acceptable if traffic does not include wide loads.
- For low speed conditions (35 MPH or less), a 200-foot sign spacing may be used and for intermediate speed conditions (40 to 50 MPH), a 350-foot sign spacing may be used.
- An array of 3 advance warning signs is required. This sign array will include "Road Work Ahead", "Right (Left) Shoulder Closed Ahead", and "Lane Narrows".

Lane Closure on a Two-Lane, Low-Volume Road
(One-Flagger Operation)



Notes:

- A single flagger may be adequate for short work activity areas no longer than 200' on straight low volume roadways. Where one flagger is used, the flagger must be positioned to be visible to approaching traffic from both directions. Standing on the shoulder directly opposite the work area, the flagger directs traffic with the STOP/SLOW paddle.
- A single flagger operation is restricted to daytime hours ONLY.
- For low speed (35 MPH or less) conditions, a 200-foot sign spacing may be used. For speeds of 40 to 50 MPH a 350-foot sign spacing may be used.
- An array of 3 advance warning signs is required in each direction. This sign array will include "Road Work Ahead", "One Lane Road Ahead", and "Flagger" symbol sign.

NOTE: TRAFFIC CONTROL PLANS ARE FROM THE WORK ZONE SAFETY GUIDELINES FOR THE SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION, MUNICIPALITIES, COUNTIES, UTILITIES, AND CONTRACTORS (2013), ALSO KNOWN AS THE "FLIP BOOK"



PROJECT INFORMATION:

SITE NAME:
SMC_DT_SPB_S2_NODE_2

NEAREST ADDRESS:
216 CARLISLE STREET
SPARTANBURG, SC 29306
SPARTANBURG COUNTY

PLANS PREPARED BY:



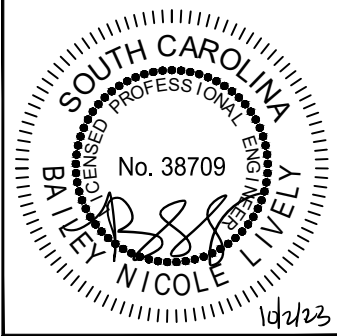
11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009
PHONE: 770-619-4280
WWW.KIMLEY-HORN.COM



REV: DATE: ISSUED FOR: BY:

1	10/02/23	CONSTRUCTION	BNL
0	07/31/23	PRELIMINARY	BNL

LICENSER:



KHA PROJECT NUMBER:

013509483

DRAWN BY: CHECKED BY:

MCN BNL

SHEET TITLE:

TRAFFIC CONTROL
PLAN

SHEET NUMBER:

TC2

DONALD L. LOVE JR, ARCHITECT, AIA

608 Otis Boulevard, Spartanburg, SC · 864.415.0459

lovejrd@gmail.com

March 10, 2024

Martin Livingston
City of Spartanburg
Neighborhood Services Director

Dear Martin,

The purpose of this letter is to assist the Spartanburg Historic Architecture Review Board with a request to install cellular antennas and equipment in the Hampton Heights Historic District. I have reviewed the Guidelines for the Historic District as well as the Guidelines from several other cities and the Spartanburg Downtown Code to form the basis for my opinion.

The applicant has requested approval to install two cellular antennas and associated equipment on poles, one is near 216 Carlisle Street and the other is near 265 South Spring Street. Before and after images as well as construction drawings for both locations were provided for review.

Cellular antennas are not addressed in the Guidelines for the Historic District, nor are they addressed in any of the Guidelines for Districts in our area. Most Guidelines do provide guidance for similar equipment such as satellite dishes and other types of antenna and they agree that this type of equipment should not be visible from the street or at a minimum should be screened. The Spartanburg Downtown Code references wireless telecommunication facilities in terms of "stealth" and "tower." Stealth is defined as "equipment that is unobtrusive in its appearance . . ." and co-located on an existing structure. Tower is defined as a free-standing structure that extends more than 20 feet above the structure on which it is placed. The Downtown Code does not reference free-standing towers placed on the ground. The City of Columbus, Ohio has adopted guidelines for locating small cells and wireless support structures which require cellular antennas not be located in front of individually listed historic buildings, however this does not apply to buildings that are part of a historic district.

The proposed cellular antennas are to be installed in the right of way between the street and the sidewalk. In these locations the antennas will be seen from the street with no way to screen them from view. The antenna proposed for Carlisle Street is located near the lot line between two houses and the one proposed for South Spring Street is located adjacent to an empty lot.

Cellular towers are reviewed by the SHPO to assess the effect they will have on identified historic properties as a part of the larger approval process. The towers proposed for Hampton Heights are similar to other towers installed in Greenville, Columbia, and Charleston Historic Districts. The majority of the towers reviewed by the SHPO have been placed in commercial areas, but there have been some installed in residential areas. All of the towers that have been installed to date were determined by the SHPO to cause "no adverse effect" on the historic properties near where they were placed.

Please let me know if you have any questions or require any additional information.

Regards,



Donald L. Love, Jr, Architect, AIA
Historic Preservation

TO: The Board of Architectural Design and Historic Review

RE: Certificate of Appropriateness for Major Works – 516 Peronneau Street (TMS# 7-16-02-120.00) in the Hampton Heights Historic District. The applicant is seeking approval of a Certificate of Appropriateness to install paved driveway. The property is located in the R-8/SFD (General Residential - Single Family District).

Owner / Applicant: Matt Johnston and Kimberly Rostan; Contractor: Manello Construction

Date: July 5th, 2024

Project Description and History

The project site is an approximately 1.71 acre lot in the Hampton Heights Historic District. The site abuts Peronneau Street to the east boundary and South Hampton Drive to the south boundary. The lot currently contains one two-story single-family structure constructed in 1911. The house is a free classic Queen Anne house that has a cross-gabled, flared roof; the gable ends are clad in shingles and feature diamond-shaped windows. The front porch was restored during renovations in 2005, and based on evidence under the porch roof, the corner porch posts were doubled. The bay on the north side of the house has exposed brackets. The garage is original, though the doors had to be replaced using renovations. A previous owner purchased the house in 2000 and restored the exterior of the house and the garage and cleared the interior. The current owner purchased the house in 2008 and made some renovations to the interior of the house, including opening up the attic space for use, and have taken steps to secure LEED certification.

The applicants request to replace the existing gravel driveway with a concrete driveway to match the existing concrete partial driveway. The current driveway is half concrete and half gravel.

Analysis

Zoning Ordinance and Historic Design Manual Consistency

The project site is in the Hampton Heights Historic District which has design guidelines to evaluate the appropriateness of proposed changes in local historic districts to protect the visual qualities of historic properties that reflect the history and heritage of that community. These guidelines are outlined in the Design Guidelines for the City of Spartanburg Historic Districts and Landmarks. The purpose of the Design Guidelines is to provide property owners guidance for the preservation and protection of historic and architecturally valuable districts and sites in the City. The project is also subject to Section 510 of the City of Spartanburg Zoning Ordinance, **Historic Preservation**. This section allows the Board to review applications involving historic structures and districts and issue a Certificate of Appropriateness subject to the Standards listed in the Ordinance.

Findings

Certificate of Appropriateness, Section 510.6 (C)

1. *The character and appropriateness of the design*

Hampton Heights Design Guidelines – Landscape states that “.....the established pattern of walks and drives within the district should be continued. Existing paving materials of concrete, asphalt, and brick should be repaired, where feasible. New surfaces should be compatible with these [concrete, asphalt, and brick] predominant materials. The use of driving lanes, designed to facilitate only the

car's wheels, is a historic treatment which is encouraged to retain porous surface. Parking should be located in the side yard and rear yard spaces and not extend beyond the front setback line of historic buildings.

Plant materials and enclosures should be utilized for screening parking areas. Paving of parking areas should be accomplished without the loss of existing vegetation or the creation of large impervious surfaces. The use of porous pavers as a paving surface is encouraged. Parking should be addressed in a manner that does not distract from the overall character of the district. parking to serve private residential lots shall be accommodated on-site. It is preferable to expand an existing driveway for parking, rather than to add a separate parking pad. Plant materials can be added around parking spaces to visually buffer the parking from the street.”

- The proposed driveway is an extension of the existing concrete/cement driveway behind the public right of way. Existing planting vegetation is along the driveway.

2. *The scale of the buildings*

The scale of the primary building will not be affected. Replacing/installing a driveway will not affect the scale of the primary structure.

3. *The texture and materials*

The proposed material for the replacement of the gravel driveway will be concrete/cement.

4. *The relationship of such elements to similar features of structures in the immediate surroundings*

Currently, the immediate surrounding properties from the project site have either a pre-existing concrete driveway/pad or a two-strip concrete driveway in the front yard.

5. *If the property is in a Historic District, the extent to which the alteration or construction would be harmonious with the Historic District*

Hampton Heights Design Guidelines clearly state the recommended placement and material of the driveway. The allowable driveway options presented in the design guideline include gravel/crushed stone driveway or a two-strip concrete driving lane.

Submitted by:



Nan Zhou, AICP
City Planner II
City of Spartanburg Planning Department

Attachments:

Conditions of Approval

Application

Photos – Site Photos

Supporting Documents from the Applicant

CONDITIONS OF APPROVAL FOR THE PROJECT ON PROPERTY LOCATED AT:

Certificate of Appropriateness for Major Works – 516 Peronneau Street (TMS# 7-16-02-120.00) in the Hampton Heights Historic District.

1. If one or more of the following conditions is not met with respect to all its terms, then this approval may be revoked.
2. Design must meet the Hampton Heights Historic District residential design guidelines.
3. All plans for future construction which are not covered by this review shall be submitted to the City Planning Department for review and approval.
4. Major modifications to plans or exceptions to completion may be granted only by the City authority which approved the project.
5. This permit shall be exercised **within six months** of the date of final approval, or it shall become null and void. Extensions may be granted with permission of the Board.
6. A building permit shall be obtained from the Building Department prior to commencement of work.
7. The development of the site shall be in substantial accordance with the approved plans submitted and on file in the Spartanburg City Planning Department.

SITE MAP – 516 Peronneau Street



Zoning Map – 516 Peronneau Street

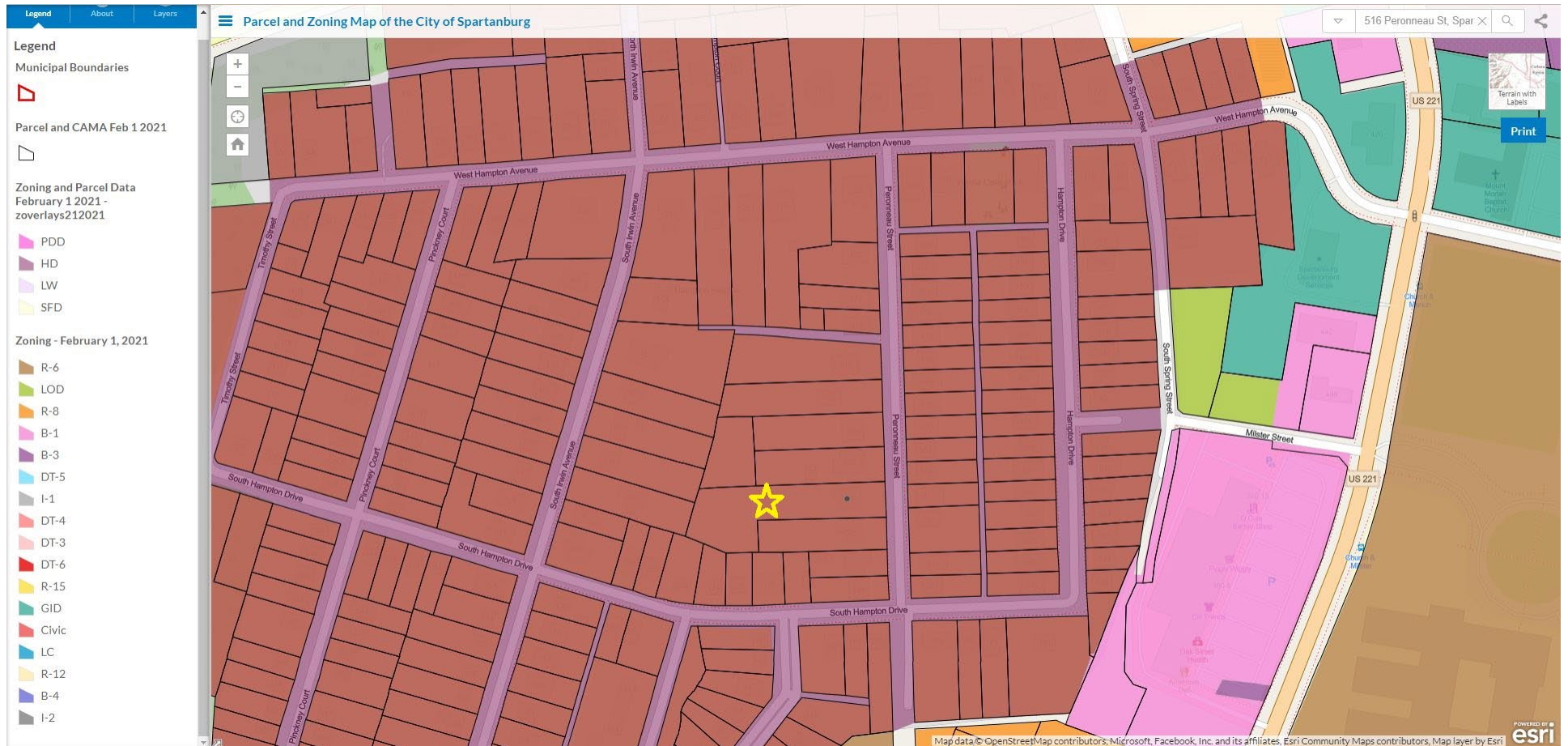


Photo – Front



Photo – Left Side



Photo – Right Side



Photo – Properties to the Right Side of the Project Site



Photo – Property Directly Across from the Project Site



Photo – Property in the Immediate Surrounding of the Project Site



Photo – Property in the Immediate Surrounding of the Project Site



Photo – Property in the Immediate Surrounding of the Project Site



Photo – Property to the Left Side of the Project Site



PO Box 1749 • Spartanburg, SC 29304 • phone: (864) 596-2068 • email: planning@cityofspartanburg.org
website: www.cityofspartanburg.org

Certificate of Appropriateness (COA) Historic Properties

Owner: Matt Johnston & Kimberly Rostan Phone: 608-217-1424, 608-213-5700
Address: 516 Peronneau St. Email: mpjohnst@gmail.com
City: Spartanburg State: SC Zip: 29306

Applicant: Matt Johnston & Kimberly Rostan Phone: 608-217-1424, 608-213-5700
Address: 516 Peronneau St. Email: mpjohnst@gmail.com
City: Spartanburg State: SC Zip: 29306

Contractor: Manello Construction Phone: 864-597-9982
Address: 151 Cove Rd. Email: fwmanello@gmail.com
City: Inman State: SC Zip: 29349

Address of Property: 516 Peronneau St., Spartanburg, SC 29306
Tax Map Number: 7-16-02-120.00 Zoning District D3

Please select the activity requested:

- | | |
|--|---|
| ☒ Alteration of Structure/Property | ☐ New Construction on Vacant Lot |
| ☒ Repair of Structure/Property | ☐ Demolition of Structure |
| ☐ Addition to Existing Structure | ☐ Other |

Fees and Payments can be made using the Permit Number and the [City of Spartanburg Payment Portal](#).

To the best of my knowledge, the information on this application and all additional documentation is true, factual and complete. I hereby agree to abide by all conditions of any approvals granted by the City of Spartanburg. I understand that such conditions shall apply to the subject property only and are a right or obligation transferable by sale. I hereby authorize the staff of the Planning Department to inspect the premises of the above-described property.

Applicant: Signature:   Date: 6/21/24

Staff Use Only / Received by: _____

Date Received: _____ Time: _____ Permit Number: _____

Certificate of Appropriateness (COA) Additional Items

Please attach to this Application any of the applicable items:

- | | |
|--|---|
| ☒ Site Plans or Surveys | ☒ Detail Drawing(s), Floor Plans(s) or Sketch(es) |
| ☒ Photographs of Existing property | ☒ Material(s) and Sample(s) |
| ☐ Photographs of Changes requested | ☐ Other |

Description of Proposed work (attach extra sheets as needed):

[1] Driveway apron — Top 25' adjacent to sidewalk is currently concrete. We would like to repour this top section to address damage. [2] Middle section — Single lane section of driveway from concrete apron continuing along side of porch. This section is currently non-original, non-porous gravel. We request to convert this to cement to manage storm water causing the house to subside. [3] End section — This large area behind the house includes spaces for 2 cars to park in front of garage with room for both to turn around. This section is currently non-original, non-porous gravel. We would like to convert this to cement with proper drains to manage excessive storm water problems. [4] Front walkway — This section is currently non-original, non-porous gravel. We would like to convert this to a non-grouted, flagstone pathway with added drains to manage storm water.

Please read and initial the following statements:

- X _____ I am the owner of the property, or
- _____ I am acting on behalf of the owner(s) of this property and have attached a letter from the owner(s) indicating their knowledge of this application.
- _____ The information on this application represents an accurate description of the proposed work.
- _____ I have omitted nothing that might affect the decision of the Historic Architect Review Board.
- _____ I will attend (or send a representative to attend) the public hearing of this application before the Historic Architect Review Board.
- _____ I understand that issuance of a Certificate of Appropriateness is not an authorization to begin work.

Filename: I:\Projects\19081\001\data\WK-Landscape.dwg
Plot Time: 7/6/2023 10:55:54 AM

Certificate of Appropriateness (COA) Supplemental Materials

Description of Proposed work [same text from Certificate of Appropriateness form]

[1] Driveway apron — Top 25' adjacent to sidewalk is currently concrete. We would like to repour this top section to address damage.

[2] Middle section — Single lane section of driveway from concrete apron continuing along side of porch. This section is currently non-original, non-porous gravel. We would like to convert this to cement to better manage storm water, which is causing house structure to subside.

[3] End section — This large area behind the house includes spaces for 2 cars to park in front of garages with room for both to turn around. This section is currently non-original, non-porous gravel. We would like to convert this to cement with proper drains to manage excessive storm water problems.

[4] Curved front walkway — This section is currently non-original, non-porous gravel. We would like to convert this to a non-grouted, flagstone pathway with added drains to manage storm water.



Satellite view from Google Maps showing rough section outlines. Proposed work would directly mirror the adjacent driveway, which was fully poured with concrete several years ago.

Historic driveway surface at 516 Peronneau St.

UNKNOWN

We know of no historical records that state or picture the original driveway surface. The only early photo we have of the property is from when it was condemned in the late 1990s [included below].



The property had been divided into 6 units so most of the front yard was used for parking with the surface being a mix of black top, coarse crush and run gravel, and hard pack dirt. When we purchased the property in 2008 it was still condemned and vacant. Due to the impermeable layer throughout the majority of the front section of the house, we could not plant grass in the front yard. We had to use a pick axe to punch 20-30 holes through the patchwork of hard materials to even plant the shrubs. The section of driveway along the house and in front of the garage was mostly dirt ruts with patches of gravel used to fill the numerous muddy pot holes.

Current driveway surface at 516 Peronneau St.

NON-ORIGINAL, NON-POROUS GRAVEL

When we moved in we wanted the driveway to be permeable so we added a layer of gravel and edged it with non-grouted red brick. However, only later did we learn that gravel surfaces are classified as ***not permeable*** when managing storm water or by green building standards. We regret this mistake with every storm. During heavy rains water would sheet down the entire length of our driveway and pool in front of our garage. The interior of the garage flooded often and muddy areas would remain for days where we entered and exited our cars in front of the garage.

Flooding and storm water management

To help address storm water infiltration into the basement crawlspace of the house and to eliminate garage flooding, we trenched large drains from various locations alongside the house through yard, terminating all the way down in the drainage gully at the back of our property.



Rough sketch of drainage pipes buried in the deep in the yard, terminating in the gully at the back of our property.



Drainage pipes from house where they spill into the gully at the back of our property.

Description of Proposed work – Additional Materials and Photos.

[1] Driveway apron — Top 25' adjacent to sidewalk is currently concrete. We would like to repour this top section to address damage.



View from street down the driveway. Top ~20-25' is damaged concrete that we would like to repour. Ideally we would like all three sections of our driveway to be concrete so we can manage storm water similarly to our neighbors to the north and south.



View of top section looking towards street.



Close up of one of the damaged areas. We would also like to widen this concrete pad by a few feet. Delivery trucks like Amazon and UPS would always run off the side of the driveway, which is why it eventually eroded and broke. I added a few rows of red brick but we would like a more permanent solution.

[2] Middle section — Single lane section of driveway from concrete apron continuing along side of porch. This section is currently non-original, non-porous gravel. We would like to convert this to cement to better manage storm water.

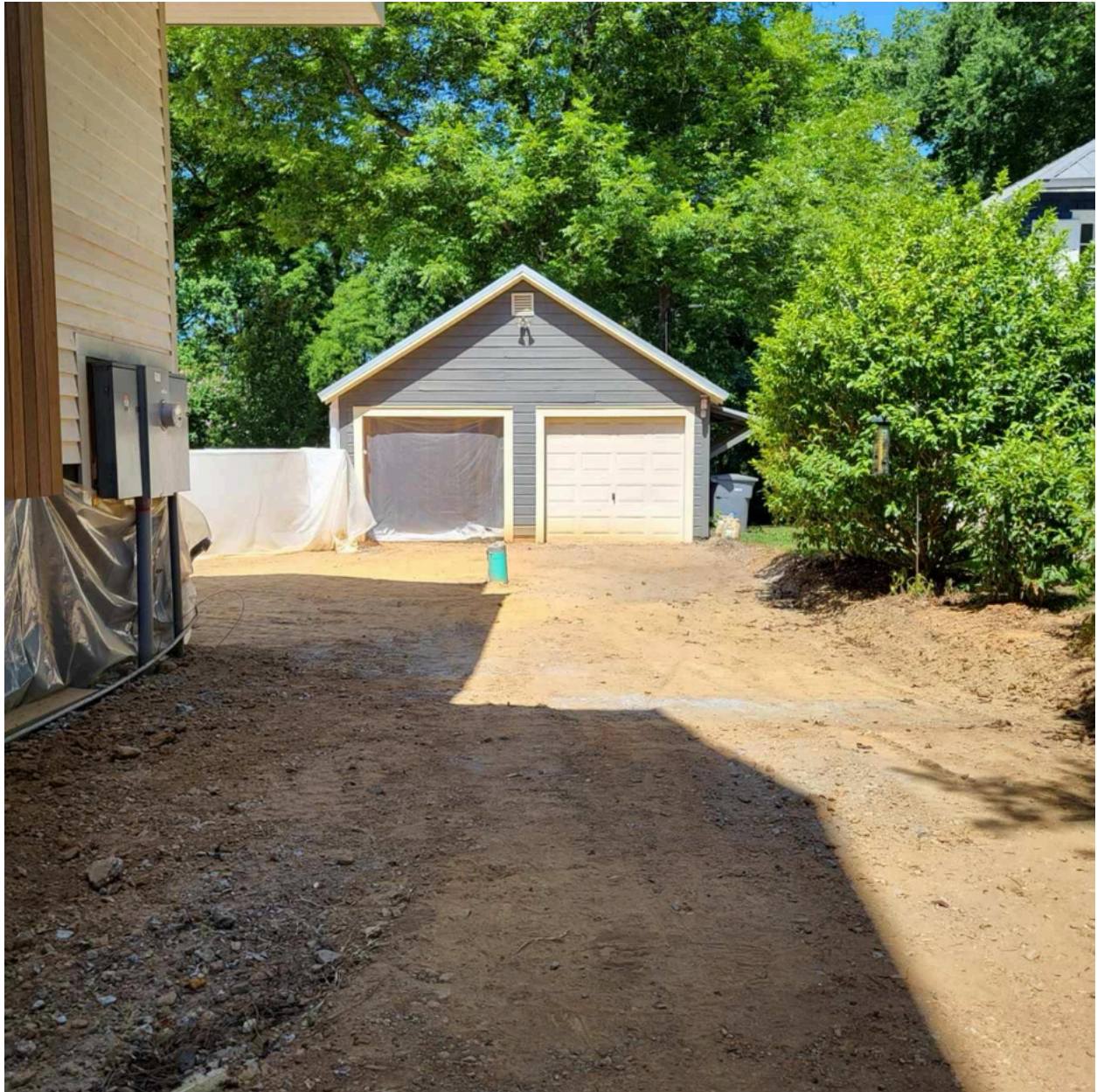


The storm water that travels down this middle section driveway seeps into our foundation along the whole side of the house. Over time the dining room and bedroom above it have seriously subsided – it is easily noticeable when standing on the sidewalk. There is a 6" drop (or more) in that bedroom from the south side to the northside. To address this inside the house we had to cut out the entire floor of the bedroom and rebuilt it level, even though the ceiling is still badly slanted. We are really worried this portion of the house will continue subsiding if nothing is changed. To stop this from happening we want to convert this section to cement with integrated curbs on either side. Any water flowing down the driveway will bypass the house entirely and end up in the large catch basin in the bottom section.



Middle section of driveway looking towards street. The single lane width of the middle section ends where the old portion of the house outside the dining room bay windows meets the new mudroom — approximately at the location of the red line.

[3] End section — This large area behind the house includes spaces for 2 cars to park in front of garages with room for both to turn around. This section is currently non-original, non-porous gravel. We would like to convert this to cement with proper drains to manage excessive storm water problems.



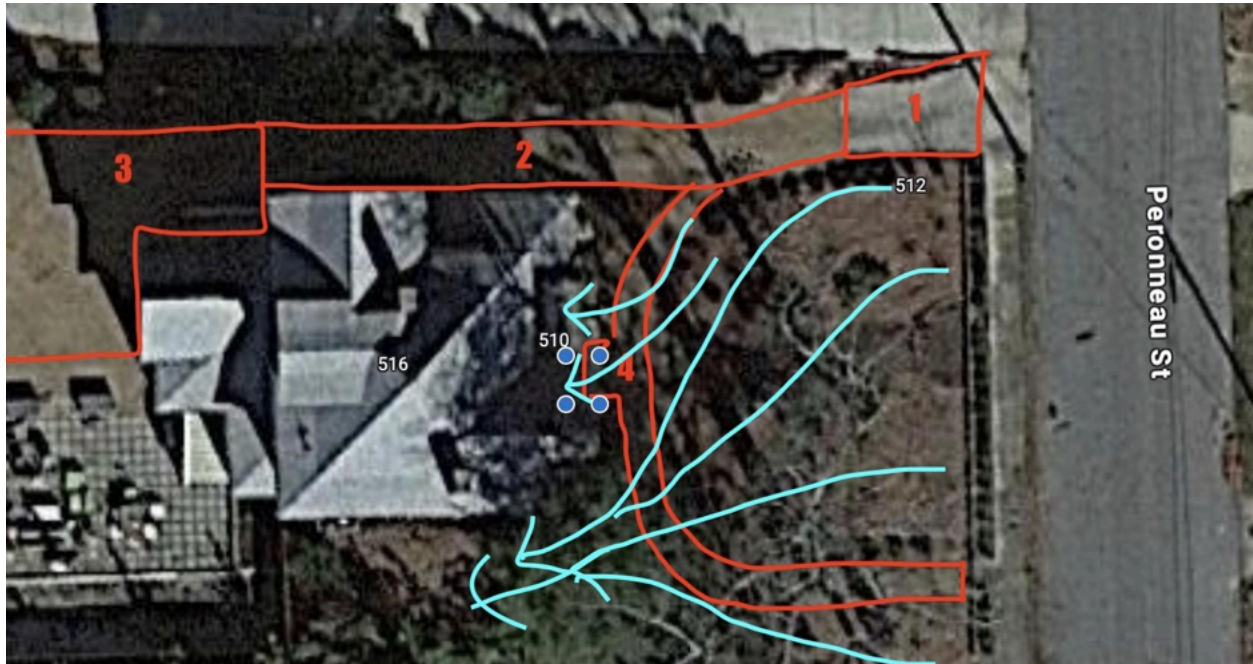
In that back section of driveway [3] we are prepped for a trench drain in front of the garage, a smaller drain near the stucco wall (which encloses our pool), and a main central catch basin to manage the majority of storm water run off.



View of back section of driveway facing northwest.

[4] Curved front walkway — This section is currently non-original, non-porous gravel. We would like to convert this to a non-grouted, flagstone pathway with added drains to manage storm water.

Storm water considerations

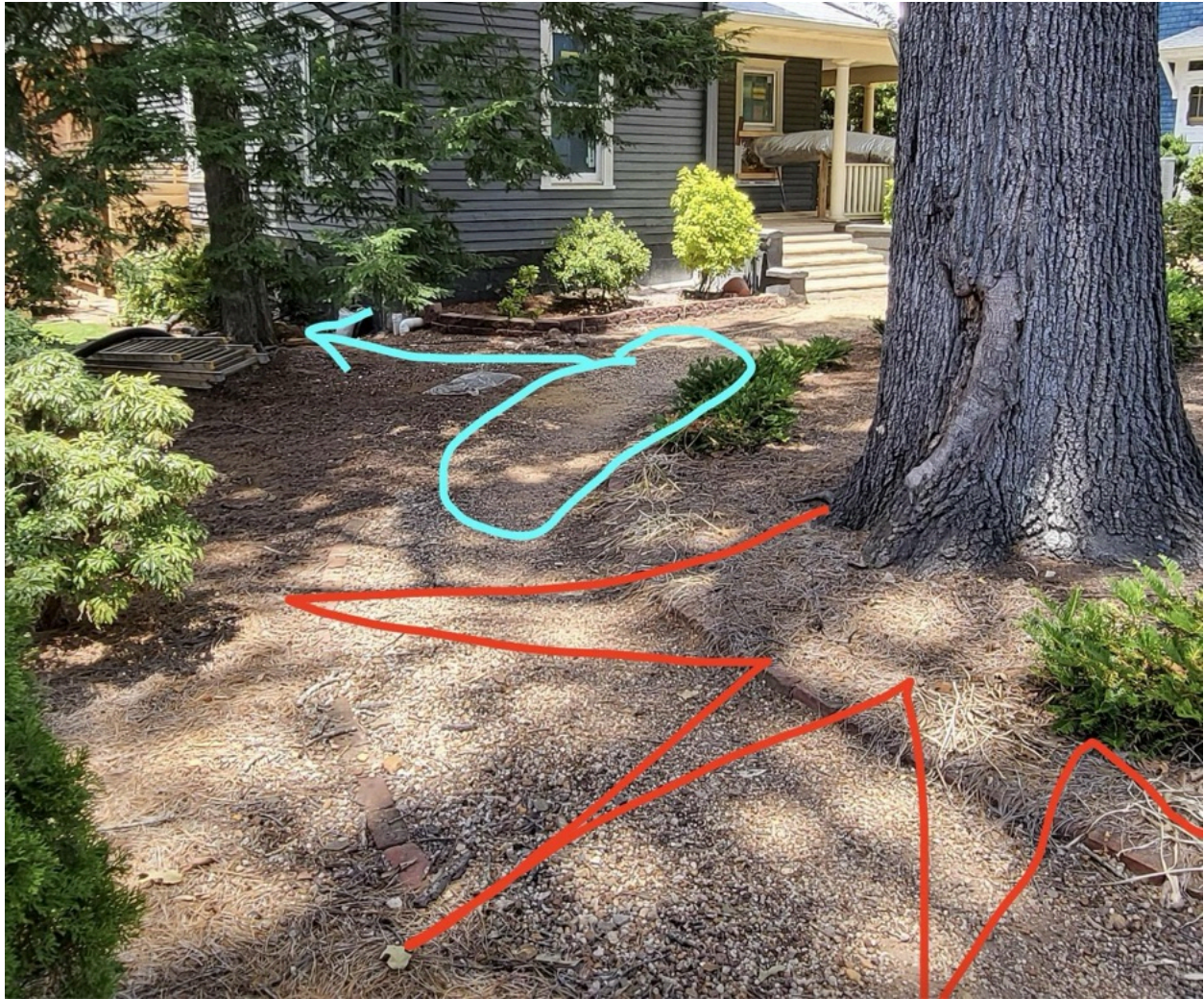


Our foot path in front is at a slightly lower grade than the surrounding area. Currently most of the storm water run off from the front yard pools in the lower bend of our walkway, before eventually spilling over the red brick edging. At that point it passes between a narrow section between the house foundation and a large hemlock we are trying to protect in the front yard.

Our new storm water drains that we trenched to the back gully should be able to catch this water in a basin before it gets so close to the house. We would also like to add a small trench drain in front of the steps to stop storm water infiltrating our crawl space of the house. To stop water from pooling on the path itself, we would like to raise the grade of the path slightly and add a J-drain on the inside edge of the path. That water will also be directed to the large trenched drain to the back gully.

Tree considerations

In addition to the hemlock concerns, there is a HUGE red oak in the front yard that is directly adjacent to the foot path. The gravel surface is too low and pools water, but we do not want to replace it with cement or grouted (wetset) pavers of any kind. We don't want to damage the tree roots in anyway and we assume they would eventually break the cement path or grouted pavers anyway.



Blue circle shows the low spot in walkway, which is where storm water pools before spilling over and passing VERY close to the house foundation and hemlock roots. We are very worried about the house foundation subsiding even more than it already has on the driveway side. The red marks illustrate how close the red oak roots are to the path. To address the water we want to build the grade of the patch up slightly instead of digging down which could harm the tree.

Proposed solution

We would like to put in a historic style flagstone walkway that is not grouted, but floating on a leveled bed of gravel and sand. This will allow drainage between and underneath the stones, and they can shift naturally as the tree roots grow. As mentioned above, we would also include a J-drain on the road side (uphill) of the path to direct the majority of water underneath the new path.



This is an example of the type of foot path we would like to put in. It would consist of tight-fitting, but not grouted flagstones.

Existing foot path pictures.

