

Structural Analysis for
verizon✓

Existing Metal Light Pole Modification

February 3, 2026

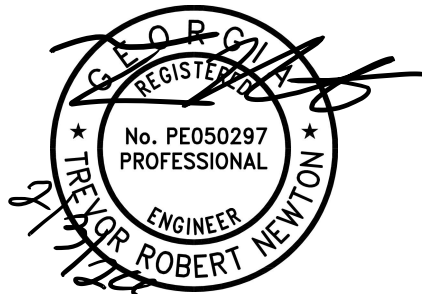
Site Name: Savannah ODAS
Site Address: Savannah, GA 31401
Chatham County

Kimley-Horn Job Number: 013509545

Analysis Results

Pole Structure	18.1%	PASS
Foundation Structure	7.96% increase	PASS

*Prepared in accordance with ANSI/TIA-222-H and AASHTO LRFD
Structural Supports for Highway Signs, Luminaries, and Traffic Signals,
First Edition (2015)*



Prepared By:
Dylan Carpenter

Reviewed By:
Trevor Newton, P.E. (GA)

Signed By:
Trevor Newton, P.E. (GA)

TABLE OF CONTENTS

Introduction.....	3
Applicable Sites	3
Supporting Documentation.....	4
Analysis Criteria	4
Appurtenance Listing	4
Conclusions and Recommendations	4
Assumptions and Limitations	5
Appendix	6

• INTRODUCTION

At the request of Verizon Wireless, Kimley-Horn and Associates, Inc. performed a structural analysis of the proposed pole mounted site located in Atlanta, GA. The purpose of the analysis is to determine the adequacy of the structure and proposed mount to support both the existing and proposed loads pursuant to the *Structural Standards for Steel Antenna Towers and Antenna Supporting Structures, ANSI/TIA-222-H* and *AASHTO LRFD Structural Supports for Highway Signs, Luminaries, and Traffic Signals, First Edition (2015)*.

• APPLICABLE SITES

Site Name	Latitude	Longitude	Address
SV02-A	32.065153	-81.095342	113 E. Waldburg Street
SV020-B-A	32.08086111	-81.09063055	2 E Bay Street
SV03-A	32.06675	-81.094217	121 E. Gwinnett St.
SV05-A	32.068847	-81.094403	607 Drayton Street
SV06-A	32.07093888	-81.09300833	429 Abercorn St.
SV07-A	32.07314722	-81.09215555	321 Abercorn St. Apt. 408/406 S
SV09-A	32.077822	-81.087467	402 E Broughton St.
SV11-A	32.076944	-81.084614	102 E. Broad St
SV20-A	32.081175	-81.09185833	2 E Bay St
SV25-A	32.076975	-81.092903	25 W. Oglethorpe Avenue
SV26-A	32.0748	-81.093867	3 W. Liberty St.
SV27-A	32.073164	-81.093572	1 E. Macon St.
SV28-A	32.07147222	-81.09542499	25-ODA West Wayne Street
SV29-A	32.07038055	-81.09078611	423-ODA Habersham Street
SV30-A	32.06964166	-81.09273055	206-ODA East Gaston Street
SV31-A	32.08076944	-81.09613611	29-ODA Montgomery Street
SV34-A	32.07607222	-81.093975	16-ODA West McDonough Street
SV35-A	32.07400833	-81.09094999	204-ODA East Liberty Street
SV36-A	32.07203611	-81.08987778	345 Habersham Street
SV37-A	32.07555	-81.087778	430 E. Oglethorpe Avenue
SV38-A	32.0762	-81.090261	208 E Oglethorpe Avenue
SV39-A	32.0785	-81.092978	14 W.State St.
SV42-A	32.078175	-81.09751944	201 Montgomery Street
SV43-A	32.076164	-81.0959	119 W. Perry St
SV44-A	32.07371944	-81.096286	123 W. Charlton St.
SV45-A	32.072086	-81.096444	424 Barnard St.

▪ SUPPORTING DOCUMENTATION

Information on proposed antennas and geometry was given to Kimley-Horn and Associates. It is assumed that all information provided to Kimley-Horn & Associates, Inc. is accurate. In the absence of information to the contrary, we assume the structure has been properly erected and maintained per the original design drawings and the capacity has not significantly changed from the “as new” condition. Further, limited information depicting the structural system of the existing pole structure was available for our review.

Construction Documents	Kimley-Horn and Associates, Inc. Dated 04/07/2025
Pole Specification	ConcealFab Corporation, Part #: 004473, dated 06/12/15
Application	Verizon RFDS, SITE ID: 5007972, 01/13/2025

▪ ANALYSIS CRITERIA

Code	ANSI/TIA-222-H / AASHTO
Basic Wind Speed	135 mph (3-Second Gust, V_{ult})
Structure Class	II ($I = 1.0$)
Exposure Category	B
Topographic Category	1

▪ APPURTENANCE LISTING

The tables below will show the final equipment configuration considered in the analysis. If the equipment in the field deviates from the information shown below, Kimley-Horn & Associates, Inc. should be contacted to perform an analysis revision immediately.

Proposed Final Co-location Equipment:

Antenna RAD (ft)	Description	Mount Type	Mount Elevation (ft)	Carrier	Status
26.58	(3) Ericsson AIR 1672	ConcealFab 901184	26.58	Verizon	Added
29.66	(1) JMA CX16OMI236-2Cx	ConcealFab 900894	29.33		
15	(1) Ericsson 4455	ConcealFab 901040	15		
26.58	(1) Ericsson Radio 4408	S.S. Straps	26.58		

▪ CONCLUSIONS AND RECOMMENDATIONS

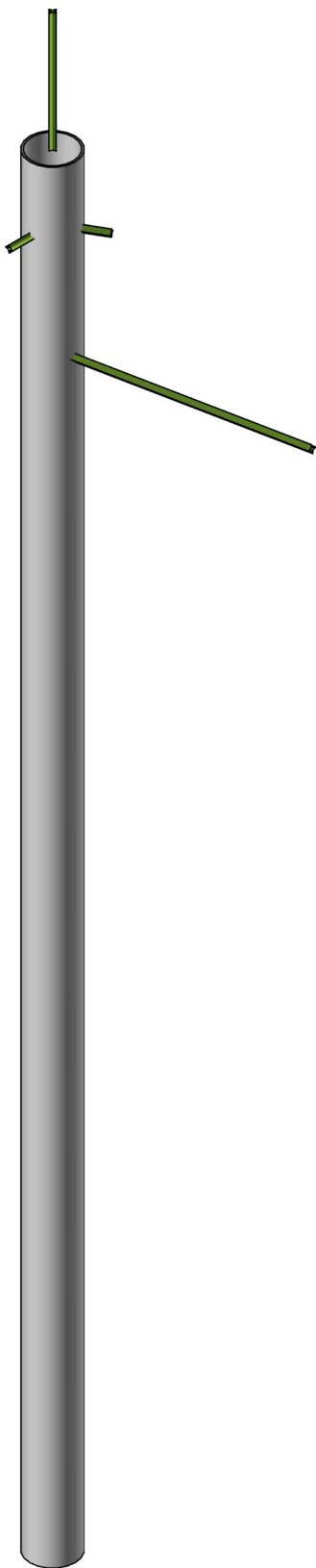
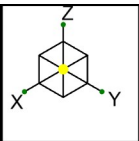
Per our structural review, the pole structure has been found to **PASS**. The existing pole structure **can** support the referenced loading in accordance with the structural strength requirements of *ANSI/TIA-222-H and AASHTO LRFD Structural Supports for Highway Signs, Luminaries, and Traffic Signals, First Edition (2015)*. In the absence of existing pole structural drawings, the basis of our opinion is from our experience, observations conducted in the field, and the code prescribed design loading for the existing pole structure. The proposed foundation was found to **PASS**. The existing foundation connection **can** support the referenced loading in accordance with the structural strength requirements of *ANSI/TIA-222-H and AASHTO LRFD Structural Supports for Highway Signs, Luminaries, and Traffic Signals, First Edition (2015)*. This analysis was performed assuming the above appurtenance loading, if any additional equipment is added Kimley-Horn should be notified to perform a revised analysis.

▪ ASSUMPTIONS AND LIMITATIONS

This report is not a condition assessment of the pole or foundation; It is an engineering analysis based upon the theoretical capacity of the structure. Unless told otherwise, we assume the pole and foundation to be in “like new” condition. If these assumptions are not accurate, Kimley-Horn & Associates, Inc. should be notified immediately to perform a revised analysis.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Kimley-Horn & Associates, Inc. is not responsible for the conclusions, opinions and recommendations made by others based on the information in this report. Kimley-Horn makes no warranties, expressed or implied in connection with this report and disclaims any liability arising from original design, material, fabrication, and section deficiencies or corrosion of the pole.

APPENDIX



Kimley-Horn	SV06-A_Proposed	SK-1
DCC		May 08, 2025 at 09:42 AM
013509545.1.100		SV06 Proposed.r3d

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [10^{-6}F^{-1}]	Density [k/ft ³]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A992	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	0.3	0.65	0.527	42	1.4	58	1.3
5	A500 Gr.B RECT	29000	11154	0.3	0.65	0.527	46	1.4	58	1.3
6	A500 Gr.C RND	29000	11154	0.3	0.65	0.527	46	1.4	62	1.3
7	A500 Gr.C RECT	29000	11154	0.3	0.65	0.527	50	1.4	62	1.3
8	A53 Gr.B	29000	11154	0.3	0.65	0.49	35	1.6	60	1.2
9	A1085	29000	11154	0.3	0.65	0.49	50	1.4	65	1.3
10	A913 Gr.65	29000	11154	0.3	0.65	0.49	65	1.1	80	1.1
11	A595 Gr.	29000	11154	0.3	0.65	0.49	55	1.1	66	1.1

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in ²]	Iyy [in ⁴]	Izz [in ⁴]	J [in ⁴]
1	P1	FlutedVPole	Column	HSS Pipe	A992	Typical	18.85	339.881	339.881	679.762

Hot Rolled Steel Design Parameters

	Label	Shape	Length [ft]	Lcomp top [ft]	Channel Conn.	a [ft]	Function
1	M1	P1	28	Lbyy	N/A	N/A	Lateral

Basic Load Cases

	BLC Description	Category	Z Gravity	Nodal	Distributed	Area(Member)
1	Dead	DL	-1	2	1	
2	Windx	WL		2	1	1
3	Windy	WL		3		1
4	BLC 2 Transient Area Loads	None			2	
5	BLC 3 Transient Area Loads	None			2	

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor
1	D+Wx	Yes	Y	1	1	2	1
2	D+Wy	Yes	Y	1	1	3	1

Load Combination Design

	Description	Service	Hot Rolled	Cold Formed	Wood	Concrete	Masonry	Aluminum	Stainless	Connection
1	D+Wx		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	D+Wy		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Envelope Node Reactions

	Node Label		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N1	max	1.269	1	1.611	2	1.899	2	0.311	1	20.341	1	0	2
2		min	0	2	0	1	1.899	1	-29.696	2	0	2	-0.47	1
3	Totals:	max	1.269	1	1.611	2	1.899	2						
4		min	0	2	0	1	1.899	1						

Company :Kimley-Horn
Designer :DCC
Job Number :013509545.1.100
Model Name:SV06-A_Existing

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Envelope AISC 15TH (360-16): ASD Member Steel Code Checks

Member	Shape	Code	CheckLoc[ft]	LC	Shear	CheckLoc[ft]	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn	
1	M1	FlutedVPole	0.168	0	2	0.01	0	1	357.056	564.358	179.745	179.745	1	H1-1b

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [10^{-6}°F^{-1}]	Density [k/ft ³]	Yield [ksi]	Ry	Fu [ksi]	Rt
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3	A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	0.3	0.65	0.527	42	1.4	58	1.3
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11	A595 Gr.	29000	11154	0.3	0.65	0.49	55	1.1	66	1.1

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	BLC Description	Category	Z Gravity	Nodal	Distributed	Area(Member)
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2	Windx	WL		5	1	1
3	Windy	WL		6		1
4	BLC 2 Transient Area Loads	None			4	
5	BLC 3 Transient Area Loads	None			5	

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor
1	D+Wx	Yes	Y	1	1	2	1
2	D+Wy	Yes	Y	1	1	3	1

Load Combination Design

	Description	Service	Hot Rolled	Cold Formed	Wood	Concrete	Masonry	Aluminum	Stainless	Connection
1	D+Wx		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	D+Wy		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Envelope Node Reactions

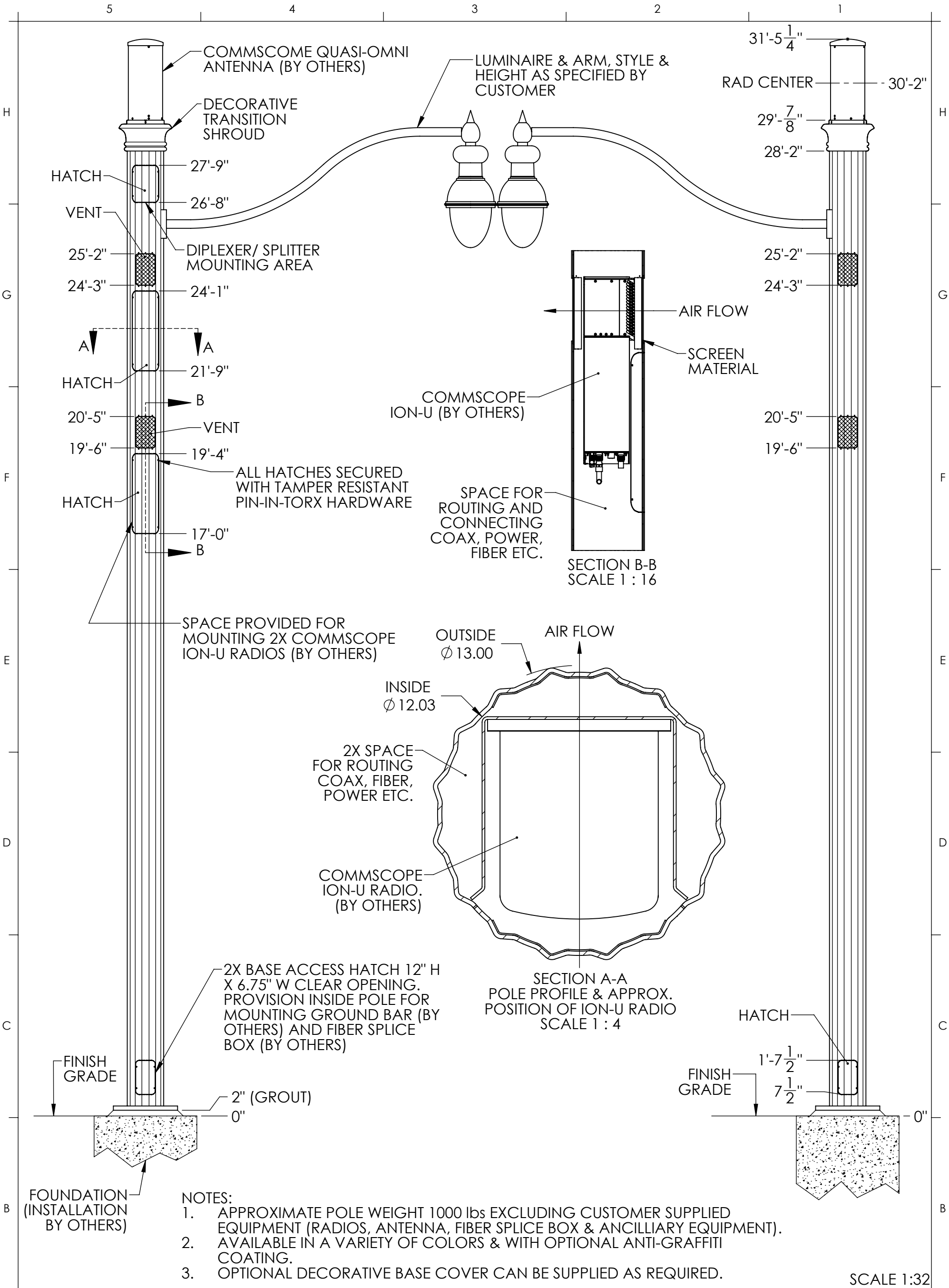
	Node Label		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N1	max	1.361	1	1.725	2	2.131	2	0.311	1	22.112	1	0.024	2
2		min	0	2	0	1	2.131	1	-32.059	2	0	2	-0.47	1
3	Totals:	max	1.361	1	1.725	2	2.131	2						
4		min	0	2	0	1	2.131	1						

Company :Kimley-Horn
Designer :DCC
Job Number :013509545.1.100
Model Name:SV06-A_Proposed

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Envelope AISC 15TH (360-16): ASD Member Steel Code Checks

Member	Shape	Code	CheckLoc[ft]	LC	Shear	CheckLoc[ft]	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn	
1	M1	FlutedSVPole	0.181	0	2	0.011	0	1	357.056	564.358	179.745	179.745	1	H1-1b



A	ConcealFab Corporation 3265 FILLMORE RIDGE HEIGHTS COLORADO SPRINGS, CO 80907 PH: 719-599-3400 FX: 719-599-0057 PROPRIETARY INFORMATION USE, REPRODUCTION, OR DISCLOSURE IS SUBJECT TO RESTRICTIONS SET FORTH IN NON-DISCLOSURE AGREEMENTS AND PERTINENT CONTRACTUAL DOCUMENTS. © 2014 ConcealFab Corp - All Rights Reserved Drawn By: OBC Date: 06/12/15 Ckd By: DOC Date: 06/12/15				Rev: A Date: 06/12/15 Description: NEW RELEASE Apvd: DOC		Project: DR-15-0219 SAVANNAH, GA 2X ION-U MONOPOLE		Consultant:		Consultant:	
							DO NOT SCALE DWG					
							DIMENSIONS ARE IN INCHES					
							DECIMAL X.XX ± 0.020 X.XXX ± 0.010		ANGLE X ± 1° X.X ± 0.5°		FRACTION ± 1/16"	
									Sheet Title: 13" FLUTED ION-U MONOPOLE W/ LUMINAIRE		Part Number: 004473	

5 4 3 2 1

Ground Wind Calculations

Reference: AASHTO Signs and Luminaries 2015 (LTS), ASCE 7-16
Location: Atlanta GA

Height of Pole: $h_{pole} := 28 \text{ ft}$ $Exp := \text{"B"}$ ASCE 26.7.3
 $\alpha := 7.0$
Height of Antenna: $h_{ant} := 30.33 \text{ ft}$ $z_g := 1200$ ASCE Table 26.11-1

Areas:

Existing ConcealFab: $A_{antE1} := 33 \text{ in} \cdot 10 \text{ in} = 2.292 \text{ ft}^2$

Proposed CX16: $A_{antCx} := 24 \text{ in} \cdot 15 \text{ in} = 2.5 \text{ ft}^2$

Proposed 4455: $A_{antP1} := 35 \text{ in} \cdot 12 \text{ in} = 2.917 \text{ ft}^2$

Proposed 1672 (Depth): $A_{antP2} := 22 \text{ in} \cdot 6 \text{ in} = 0.917 \text{ ft}^2$

Light: $A_{light} := 1.5 \text{ ft} \cdot 1 \text{ ft} = 1.5 \text{ ft}^2$

Misc Equipment 1: $A_{misc1} := 8 \text{ in} \cdot 8 \text{ in} = 0.444 \text{ ft}^2$

Wind Load Calculations

LTS Section 3.8

$$K_z := 2 \cdot \left(\frac{h_{pole}}{z_g} \right)^{\frac{2}{\alpha}} = 0.683 \quad K_d := 0.85 \quad G := 1.14 \quad V := 135 \quad C_d := 1.20$$

Wind pressure on pole:

$$q_z := 0.00256 \cdot K_z \cdot K_d \cdot G \cdot V^2 \cdot C_d \cdot \text{psf} = 37.081 \text{ psf} \quad \text{ASCE 26.10.2}$$

Point Loads:

$$F := q_z \cdot A$$

$$F_{antE1} := q_z \cdot (A_{antE1}) = 0.085 \text{ kip}$$

$$F_{antP2} := q_z \cdot A_{antP2} = 0.034 \text{ kip}$$

$$F_{antE2} := q_z \cdot (A_{antCx}) = 0.093 \text{ kip}$$

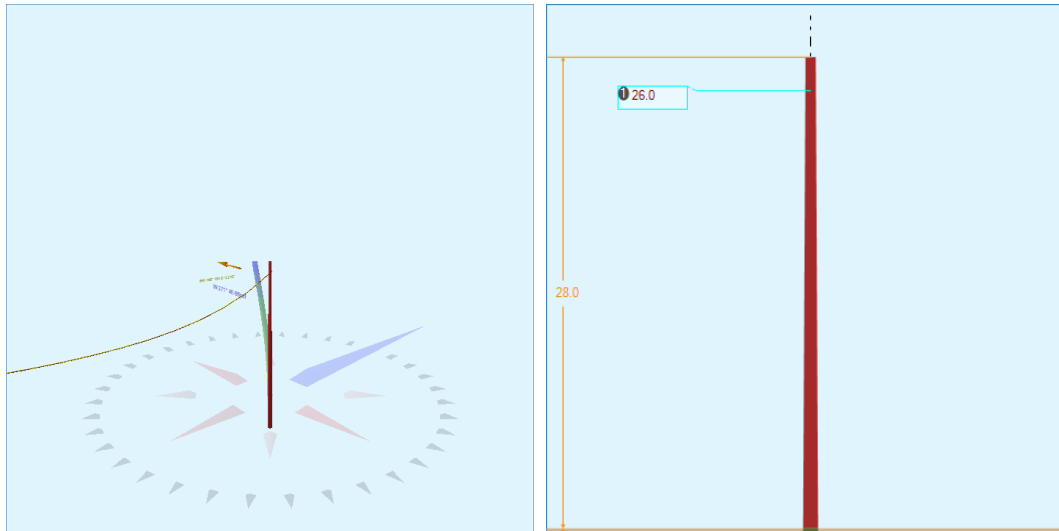
$$F_{antP1} := q_z \cdot A_{antP1} = 0.108 \text{ kip}$$

$$F_{light} := q_z \cdot A_{light} = 0.056 \text{ kip}$$

$$F_{misc1} := q_z \cdot A_{misc1} = 0.016 \text{ kip}$$

*Subtract wind pressure on pole
from antenna point loads

Pole Num:	SV06	Pole Length / Class:	35 / 3	Code:	NESC	Structure Type:	Deadend
Aux Data 1	Unset	Species:	SOUTHERN PINE	NESC Rule:	Rule 250C	Status	Unguyed
Aux Data 2	Unset	Setting Depth (ft):	7.0	Construction Grade:	C	Pole Strength Factor:	0.75
Aux Data 3	Unset	G/L Circumference (in):	33.62	Loading District:	Special	Transverse Wind LF:	0.87
Aux Data 4	Unset	G/L Fiber Stress (psi):	8,000	Ice Thickness (in):	0.00	Wire Tension LF:	1.00
Aux Data 5	Unset	Allowable Stress (psi):	6,000	Wind Speed (mph):	135.00	Vertical LF:	1.00
Aux Data 6	Unset	Fiber Stress Ht. Reduc:	No	Wind Pressure (psf):	46.66	Max 250C Wind (mph)	247.18
Latitude:	0	Longitude:	0	Elevation:	0M		



Pole Capacity Utilization (%)		Height (ft)	Wind Angle (deg)
Maximum	31.5	0.0	270.5
Groundline	31.5	0.0	270.5
Vertical	1.1	12.6	270.5

Pole Moments (ft-lb)		Load Angle (deg)	Wind Angle (deg)
Max Cap Util	18,865	244.8	270.5
Groundline	18,865	244.8	270.5
GL Allowable	60,164		
Overturn	94,709		

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 244.8°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Powers	353	34.6	9,659	51.2	16.1	914	9	0	914	15.2
Pole	666	65.4	9,204	48.8	15.3	871	753	8	879	14.7
Insulators	0	0.0	2	0.0	0.0	0	5	0	0	0.0
Pole Load	1,018	100.0	18,865	100.0	31.4	1,785	767	9	1,794	29.9
Pole Reserve Capacity			41,299		68.6	4,215			4,206	70.1

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 244.8°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
<Undefined>	353	34.6	9,661	51.2	16.1	914	14	0	914	15.2
Pole	666	65.4	9,204	48.8	15.3	871	753	8	879	14.7
Totals:	1,018	100.0	18,865	100.0	31.4	1,785	767	9	1,794	29.9

Detailed Load Components:

Power		Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Overlashed Bundle	6M		26.00	6.28	0.2420	3.54	0.104	100.0	198.4	100.1	379	7,065	-1	1,299	8,363
Secondary	DUPLEX 6 AWG		25.96	6.28	0.5370		0.071	100.0	198.4	100.1			-1	1,297	1,296
Totals:												7,065	-2	2,596	9,659

Insulator		Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Bolt	Single Bolt		26.00	0.00	0.0	0.0	5.00	3.00	0.10	0	2	2
Totals:										0	2	2

Pole Buckling													
Buckling Constant	Buckling Column Height* (ft)	Buckling Section Height (% Buckling Col. Hgt.)	Buckling Section Diameter (in)	Minimum Buckling Diameter at GL (in)	Diameter at Tip (in)	Diameter at GL (in)	Modulus of Elasticity (psi)	Pole Density (pcf)	Ice Density (pcf)	Pole Tip Height (ft)	Buckling Load Capacity at Height (lbs)	Buckling Load Applied at Height (lbs)	Buckling Load Factor of Safety
2.00	12.65	32.14	10.21	3.48	7.32	10.71	1.60e+6	60.00	57.00	28.00	68,596	696.88	90.91

K:\ATL_Wireless\000_Verizon\2021 Sites\Savannah oDAS Mods\SV27-A\CAD\CD\INB-SMC.dwg ----- 10/01/25 5:04 PM by: Trevor Newton



10300 OLD ALABAMA ROAD CONNECTOR
ALPHARETTA, GA 30022

SITE NAME: SV27-A

SITE ADDRESS:

1 E MACON ST
SAVANNAH, GA 31401
CHATHAM COUNTY

MDG LOCATION ID:

5000059582

POLE OWNER:

CITY OF SAVANNAH

SITE DATA:

LATITUDE:

32.073164°

32°4'23.39"N

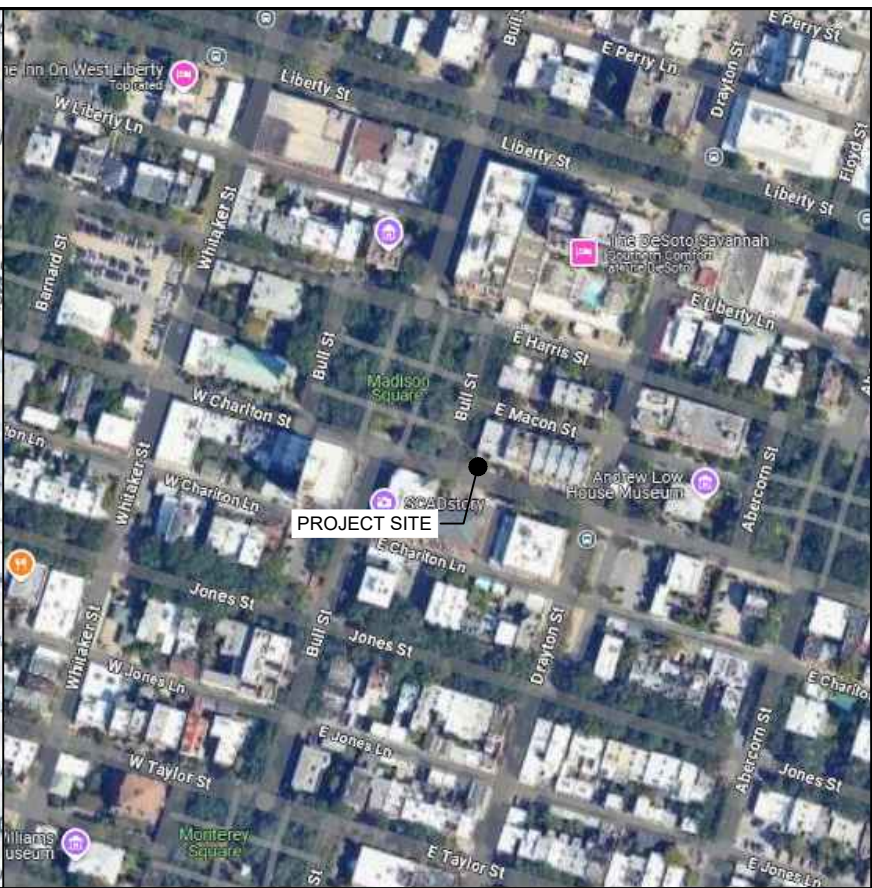
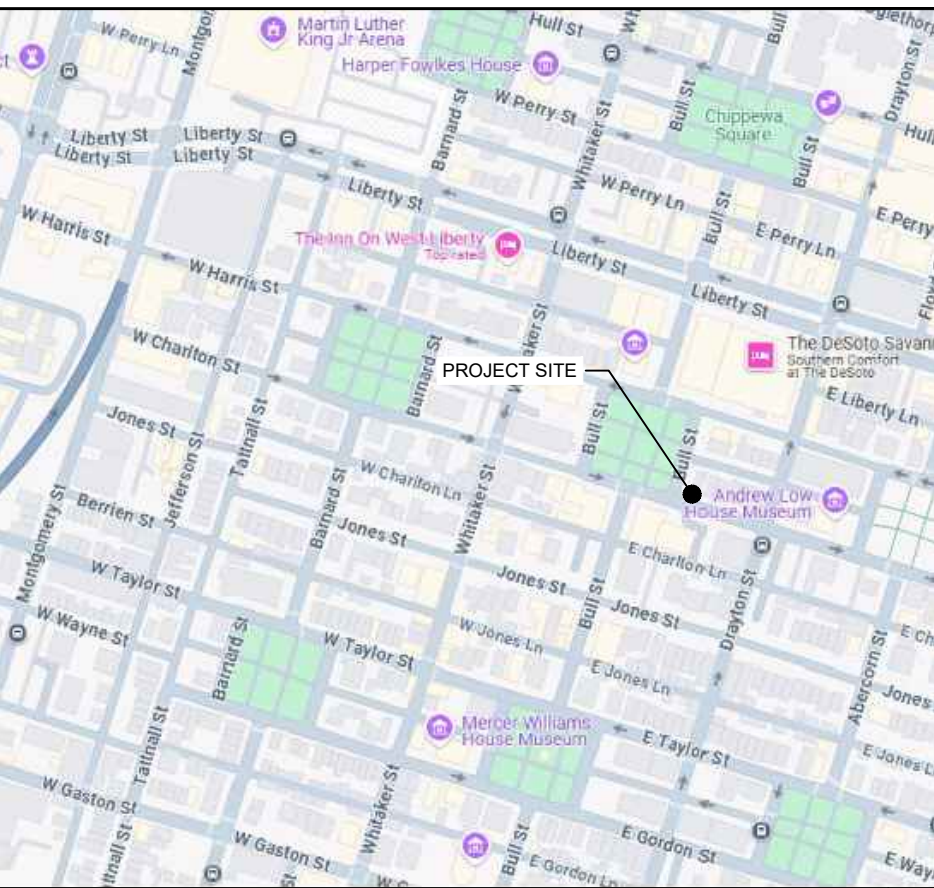
LONGITUDE:

-81.093572°

81°5'36.86"W

GROUND ELEVATION:

38.6' A.M.S.L.



10300 OLD ALABAMA ROAD CONNECTOR
ALPHARETTA, GEORGIA 30022

PROJECT INFORMATION:

SITE NAME:
SV27-A

1 E MACON ST
SAVANNAH, GA 31401
CHATHAM COUNTY

PLANS PREPARED BY:

Kimley»Horn

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

SITE IDENTIFICATION

VICINITY MAP

LOCATION MAP



VERIZON WIRELESS
10300 OLD ALABAMA ROAD CONN.
ALPHARETTA, GA 30022
PHONE: (678) 277-3612
ATTN.: MATTHEW HARTLEY



KIMLEY-HORN AND ASSOCIATES, INC.
11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009
PHONE: (470) 299-7052
ATTN.: TREVOR NEWTON, P.E. (AL, GA)

THIS PROJECT CONSISTS OF THE REMOVAL OF EXISTING SMALL CELL EQUIPMENT AND SUBSEQUENT INSTALLATION OF PROPOSED SMALL CELL EQUIPMENT, BY VERIZON WIRELESS, ON AN EXISTING METAL LIGHT POLE, OWNED BY CITY OF SAVANNAH, 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 SAVANNAH.

THIS PROJECT MEETS CITY OF SAVANNAH DESIGN MANUAL STANDARDS AND GUIDELINES.

EXISTING UNDERGROUND FIBER TO BE UTILIZED.
EXISTING UNDERGROUND POWER TO BE UTILIZED WITH MINOR UPGRADES REQUIRED.

- SCOPE OF WORK
- REMOVE EXISTING oDAS EQUIPMENT
 - INSTALL (1) OMNI ANTENNA & NEW CABLE SHROUD
 - INSTALL (1) RADIO 4408 IN EXISTING VACANT RADIO HATCH
 - INSTALL (3) CBAND ANTENNAS IN MODULAR SHROUD MOUNT
 - INSTALL (1) 1900/AWS RRU IN CONCEALMENT SHROUD MOUNT
 - INSTALL CIRCUITS & FEEDERS FOR EQUIPMENT
 - UPGRADE EXISTING BREAKER BOX TO INCLUDE A MCB OR INSTALL (1) NEW MCB SERVICE DISCONNECT

POWER DELIVERY METHOD: UNDERGROUND
FIBER DELIVERY METHOD: UNDERGROUND

MANDATORY CONSTRUCTION CODES:

- 1.) INTERNATIONAL BUILDING CODE, 2018 EDITION, WITH GEORGIA AMENDMENTS (2020), (2022)
- 2.) INTERNATIONAL RESIDENTIAL CODE, 2018 EDITION, WITH GEORGIA AMENDMENTS (2020)
- 3.) INTERNATIONAL FIRE CODE, 2018 EDITION, WITH NO GEORGIA AMENDMENTS
- 4.) INTERNATIONAL PLUMBING CODE, 2018 EDITION, WITH GEORGIA AMENDMENTS (2020), (2022), (2023)
- 5.) INTERNATIONAL MECHANICAL CODE, 2018 EDITION, GEORGIA AMENDMENTS (2020)
- 6.) INTERNATIONAL FUEL GAS CODE, 2018 EDITION, WITH GEORGIA AMENDMENTS (2020), (2022)
- 7.) NATIONAL ELECTRICAL CODE, 2023 EDITION
- 8.) INTERNATIONAL ENERGY CODE, 2015 EDITION, WITH GEORGIA SUPPLEMENTS AND AMENDMENTS (2020), (2022), (2023)



PROJECT TEAM

PROJECT SUMMARY

ELECTRIC: GEORGIA POWER

FIBER: UNITI FIBER

PROPERTY/ROW OWNER: CITY OF SAVANNAH

APPLICANT: VERIZON WIRELESS
10300 OLD ALABAMA ROAD CONN.
ALPHARETTA, GA 30022
PHONE: (678) 277-3612
ATTN.: MATTHEW HARTLEY

SHEET NO.	SHEET TITLE
T1	TITLE SHEET
N1	GENERAL NOTES
C1	OVERALL SITE PLAN
C2	SITE PLAN & EXISTING POLE PHOTO
C3	POLE ELEVATIONS
C4	PHOTO SIMULATION
C5	EQUIPMENT SPECIFICATIONS
C6	EQUIPMENT SPECIFICATIONS
C7	EQUIPMENT SPECIFICATIONS
C8	MODIFICATION SUMMARY
E1	ELECTRICAL NOTES
E2	PANEL SCHEDULE & RISER DIAGRAM
E3	GROUNDING DETAILS
E4	GPS MAP & ALL WORK LOCATIONS

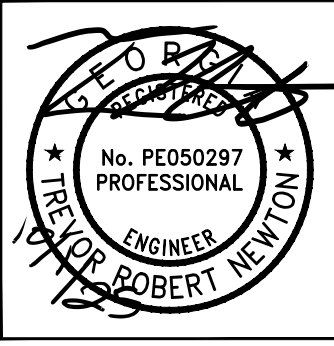
PROJECT INFORMATION

SHEET INDEX

REV: DATE: ISSUED FOR: BY:

6			
5			
4			
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2			
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0	09/30/25	CONSTRUCTION	TRN
B	05/14/25	PRELIMINARY	TRN
A	04/15/25	PRELIMINARY	TRN

LICENSER:



KHA PROJECT NUMBER:

013509545

DRAWN BY: CHECKED BY:

JVR

TRN

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T1

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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.

THE GENERAL CONTRACTOR AND EACH SUBCONTRACTOR ARE TO BE RESPONSIBLE FOR VERIFYING EXISTING SITE CONDITIONS, DIMENSIONS, AND THE LOCATION OF BURIED UTILITIES AT THE JOB SITE PRIOR TO THE COMMENCEMENT OF WORK. NO CLAIMS FOR EXTRA COMPENSATION FOR WORK RESULTING FROM CONFLICTS AND OMISSIONS WHICH COULD HAVE BEEN DISCOVERED BY FIELD VERIFICATION AND INSPECTION, WHETHER INDICATED IN THE CONTRACT DOCUMENTS OR NOT WILL BE ENTERTAINED OR PAID.
4.

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.
5.

ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
6.

UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
7.

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.
8.

THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9.

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.
10.

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.
11.

ALL WORK SHALL BE DONE IN STRICT COMPLIANCE WITH ALL APPLICABLE NATIONAL (OSHA), STATE AND LOCAL CODES, STANDARDS, ORDINANCES, RULES AND REGULATIONS.
12.

THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR DAMAGES TO THE EXISTING FACILITY AND INSTILLATION RESULTING FROM CONSTRUCTION AND GENERAL NEGLIGENCE. REPAIR ALL DAMAGES AND RESTORE FACILITY AND INSTALLATIONS TO THE SATISFACTION OF VERZION AND LANDLORD AT NO EXTRA CHARGE. NOTIFY THE CUSTOMER'S REPRESENTATIVE AND TOWER OWNER OF ANY SUCH DAMAGES PROMPTLY. REPAIR TO 100% SATISFACTION IMMEDIATELY.
13.

GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
14.

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.
15.

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.
16.

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.
17.

CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
18.

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.
19.

THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
20.

GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING.
21.

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
22.

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.
23.

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.

25.

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.
26.

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.
27.

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.
28.

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.
29.

NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUNDING. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
30.

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.
31.

ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
32.

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.
33.

CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
34.

CONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
35.

STRUCTURE IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY VERIZON WIRELESS TECHNICIANS.
36.

NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
37.

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.
38.

CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
39.

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.
40.

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

ANTENNA MOUNTING:

41.

DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO CURRENT ANSI/TIA-222 OR APPLICABLE LOCAL CODES.
42.

ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS NOTED OTHERWISE.
43.

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.
44.

DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
45.

ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH LOCK NUTS, DOUBLE NUTS AND SHALL BE TORQUED TO MANUFACTURER'S RECOMMENDATIONS.
46.

CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATION FOR INSTALLATION AND GROUNDING.
47.

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:

48.

ALL RF CONNECTIONS SHALL BE TIGHTENED BY A TORQUE WRENCH TO THE MANUFACTURES SPECIFIED TORQUE.
49.

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.

i.

RF CONNECTION BOTH SIDES OF THE CONNECTOR.

ii.

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:

50.

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.
51.

CONTRACTOR SHALL VERIFY THE DOWN-TILT OF EACH ANTENNA WITH A DIGITAL LEVEL.
52.

CONTRACTOR SHALL CONFIRM COAX COLOR CODING PRIOR TO CONSTRUCTION.
53.

ALL JUMPERS TO THE ANTENNAS SHALL BE 1/2" DIA. LDF AND SHALL NOT EXCEED 6'-0".
54.

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.
55.

ALL COAXIAL CABLE SHALL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE, IN AN APPROVED MANNER, AT DISTANCES NOT TO EXCEED 4'-0" OC.
56.

CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING BOTH THE INSTALLATION AND GROUNDING OF ALL COAXIAL CABLES, CONNECTORS, ANTENNAS, AND ALL OTHER EQUIPMENT.
57.

CONTRACTOR SHALL WEATHERPROOF ALL ANTENNA CONNECTORS WITH SELF-AMALGAMATING TAPE.
58.

ALL FIBER INSTALLED MUST BE LOW LOSS FIBER.
59.

ALL FIBER INSTALLED MUST BE OUTDOOR RATED AND UV STABILIZED.
60.

ALL FIBER MUST BE NON-CONDUCTIVE OR HAVE A JACKET RATED FOR 600V.
61.

ALL FIBER TERMINATIONS SHALL REQUIRED WEATHER PROOFING THAT MEETS MANUFACTURE SPECIFICATIONS.

ADDITIONAL VERIZON STANDARDS:

62.

CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ANTENNA, TMAS, DIPLEXERS, AND COAX CONFIGURATION, MAKE AND MODELS PRIOR TO INSTALLATION.
63.

ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
64.

CONTRACTOR SHALL REFERENCE THE STRUCTURAL ANALYSIS / DESIGN DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION / ROUTING.
65.

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.
66.

IF REQUIRED TO PAINT ANTENNAS AND/OR COAX:

i.

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

ii.

PAINT COLOR MUST BE APPROVED BY BUILDING OWNER/LANDLORD.

iii.

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

iv.

DO NOT PAINT OVER COLOR CODING OR ON EQUIPMENT MODEL NUMBERS.
67.

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.
68.

ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATION & RECOMMENDATIONS.
69.

NO BOLT THREADS TO PROTRUDE MORE THAN 1-1/2" [.038M].
70.

90 SHORT SWEEPS UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).
71.

USE 90 CONNECTOR AT CABLE CONNECTION TO ANTENNAS.
72.

PLACE GPS ON ARM WITH SOUTHERN SKY EXPOSURE AT MINIMUM 6' [1.83] FROM TRANSMIT ANTENNA, WHICH IS 24" [61M] AWAY FROM CENTER OF POLE.
73.

USE 1/2" [.013M] CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.
74.

FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.
75.

THE MINIMUM SIZE OF ALL ANTENNA POLE WILL BE ANSI CLASS 3, UNLESS NOTED OTHERWISE.
76.

CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT FROM ALL APPLICABLE GOVERNMENTAL AGENCIES.

i.

THE SMALL CELL RIGHT OF WAY PERMIT HAS BEEN APPLIED FOR BY VERZION AND WILL BE SUPPLIED TO THE CONTRACTOR PRIOR TO CONSTRUCTION

ii.

ANY PERMITS WHICH MUST BE OBTAINED SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS

iii.

ALL PERMITS MUST BE AVAILABLE AND DISPLAYED ON SITE WHEN PRESENT DURING ALL PHASES OF CONSTRUCTION.

iv.

CONTRACTOR IS RESPONSIBLE FOR THE CONTACTING OF AND COORDINATION WITH:

A.

LOCAL UTILITY PROTECTION SERVICES

B.

ELECTRIC POWER PROVIDER

C.

GOVERNING DIVISION OF ENGINEERING & CONSTRUCTION

D.

GOVERNING DIVISION OF TRAFFIC & ENGINEERING

E.

GOVERNING DIVISION OF POLICE & TRAFFIC

F.

AND ALL PRIVATE UTILITIES 48 HOURS BEFORE YOU DIG. CONTRACTOR TO SUPPLY VERIZON DIG TICKET NUMBER BEFORE START OF CONSTRUCTION.

77.

LANE CLOSURE PERMIT FOR RIGHT OF WAY CONSTRUCTION

i.

DEFINITION: ANY OBSTRUCTIONS TO THE RIGHT OF WAY INCLUDING ROADWAYS, SIDEWALKS, CURB, ADA RAMPS, TRAFFIC SIGNALIZATION AND APPURTENANCES.

ii.

LANE CLOSURE AND SIDEWALK OBSTRUCTION PERMITS ALL REPAIRS ARE TO BE PERFORMED PER THE LOCAL CITY STANDARDS AND DETAIL DRAWINGS WHICH WILL BE PROVIDED WITH THE SIDEWALK PERMIT OR UPON REQUEST.

78.

CITY STANDARDS SIDEWALK, DRIVEWAY AND APRON REPAIRS SIDEWALK, DRIVE WALK AND APRON REPLACEMENTS ARE TO BE DONE IN CONCRETE WITH AN AIR ENTRAINED CONCRETE MIX THAT HAS A MINIMUM OF 650 LBS. CEMENT PER CUBIC YARD. FULL SLAB REPAIRS ARE REQUIRED. JOINT-TO-JOINT WITH A BROOM FINISH AND TO LOCAL CODE SPECIFICATIONS. CONCRETE SHALL BE PLACED ON COMPACTED 2" THICK BASE OF SAND OR GRAVEL. PREMIUM FILL MATERIAL SHALL BE PLACED AND COMPACTED IN LIFTS OF 6 INCHES AT ALL AREAS UNDER THE SIDEWALK THAT THE SUB GRADE HAS BEEN EXCAVATED. NEW BRICK, CONCRETE OR GRANITE PAVERS MUST HAVE APPROVAL PRIOR TO I NSTALLATION. FULL SANDSTONE SLABS MAY BE RELAYED/RESET IF NOT BROKEN OR IF THE SURFACE IS DISHED OR WORN SMOOTH. ALL SIDEWALK REPAIRS IN THE CENTRAL BUSINESS DISTRICT MUST BE 6-INCH THICKNESS. SIDEWALK REPAIRS IN RESIDENTIAL AREAS ARE TO BE 4-INCH THICKNESS AND ALL RESIDENTIAL DRIVEWAYS AND APRONS ARE TO BE 6-INCH THICKNESS. AT ALL CHANGES IN SLAB THICKNESS, 1/2" THICK EXPANSION JOINT MATERIAL SHALL BE PLACED AND ALSO AT MINIMUM OF 30' INTERVALS. ALL AREAS OF NEW CONSTRUCTION SHALL BE PROTECTED AND BARRICADED UNTIL THE AREA CAN BE OPENED TO PEDESTRIAN OR VEHICLE TRAFFIC WITHOUT DAMAGE.

79.

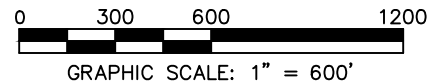
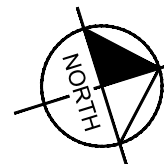
GENERAL CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS INCLUDED IN THE PLANS.
-
- 10300 OLD ALABAMA ROAD CONNECTOR
ALPHARETTA, GEORGIA 30022
- PROJECT INFORMATION:
- SITE NAME:
SV27-A
- 1 E MACON ST
SAVANNAH, GA 31401
CHATHAM COUNTY
- PLANS PREPARED BY:
- Kimley»Horn
- 11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009
PHONE: 770-619-4280
WWW.KIMLEY-HORN.COM
- REV: DATE: ISSUED FOR: BY:
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| B | 05/14/25 | PRELIMINARY | TRN |
| A | 04/15/25 | PRELIMINARY | TRN |
- LICENSER:
-
- KHA PROJECT NUMBER:
- 013509545
- DRAWN BY: CHECKED BY:
- JVR
- TRN
- SHEET TITLE:
- GENERAL NOTES
- SHEET NUMBER:
- N1
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1 OVERALL SITE PLAN
C1 SCALE: 1"=600'

NOTE:
INFORMATION SHOWN ABOVE WAS REPRODUCED FROM CHATHAM COUNTY GIS APPLICATION INFORMATION AND NEARMAP, AND IS PROVIDED HERE FOR ILLUSTRATIVE PURPOSES ONLY.



verizon

10300 OLD ALABAMA ROAD CONNECTOR
ALPHARETTA, GEORGIA 30022

PROJECT INFORMATION:

SITE NAME:
SV27-A

1 E MACON ST
SAVANNAH, GA 31401
CHATHAM 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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B	05/14/25	PRELIMINARY	TRN
A	04/15/25	PRELIMINARY	TRN

LICENSER:



KHA PROJECT NUMBER:

013509545

DRAWN BY: CHECKED BY:

JVR TRN

SHEET TITLE:

OVERALL
SITE PLAN

SHEET NUMBER:

C1

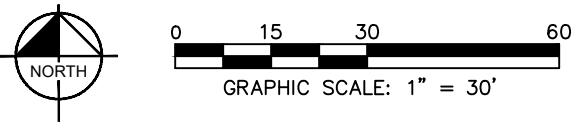
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1 EXISTING POLE PHOTO
C2 NOT TO SCALE



2 SITE PLAN
C2 SCALE: 1" = 30'



10300 OLD ALABAMA ROAD CONNECTOR
ALPHARETTA, GEORGIA 30022

PROJECT INFORMATION:

SITE NAME:
SV27-A

1 E MACON ST
SAVANNAH, GA 31401
CHATHAM COUNTY

PLANS PREPARED BY:

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LICENSER:

GEORGIA
REGISTERED
★ No. PE050297 ★
PROFESSIONAL
ENGINEER
TREVOR ROBERT NEWTON

KHA PROJECT NUMBER: _____

013509545

DRAWN BY: _____ CHECKED BY: _____

JVR TRN

SHEET TITLE:

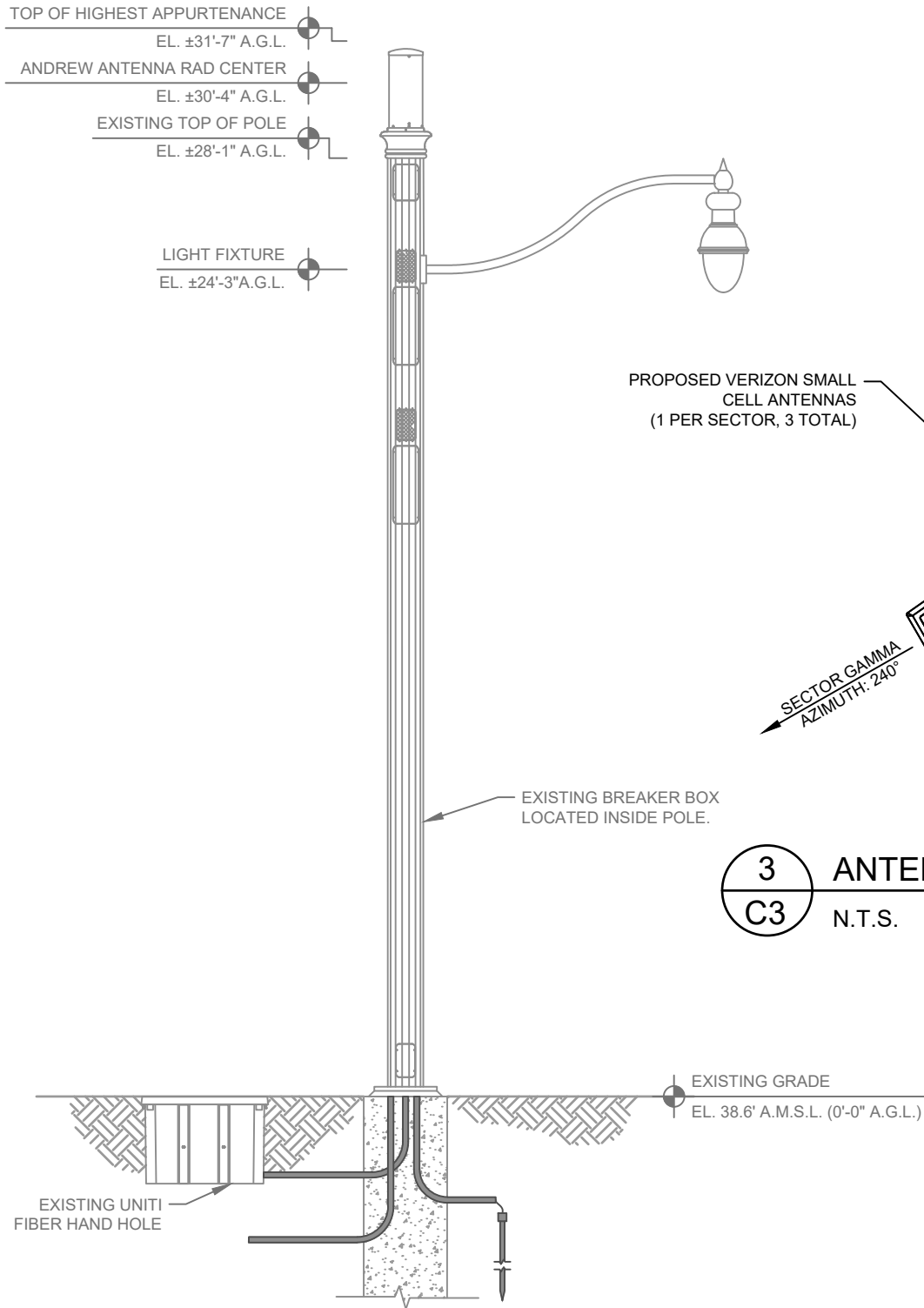
SITE PLAN &
EXISTING POLE
PHOTO

SHEET NUMBER: _____

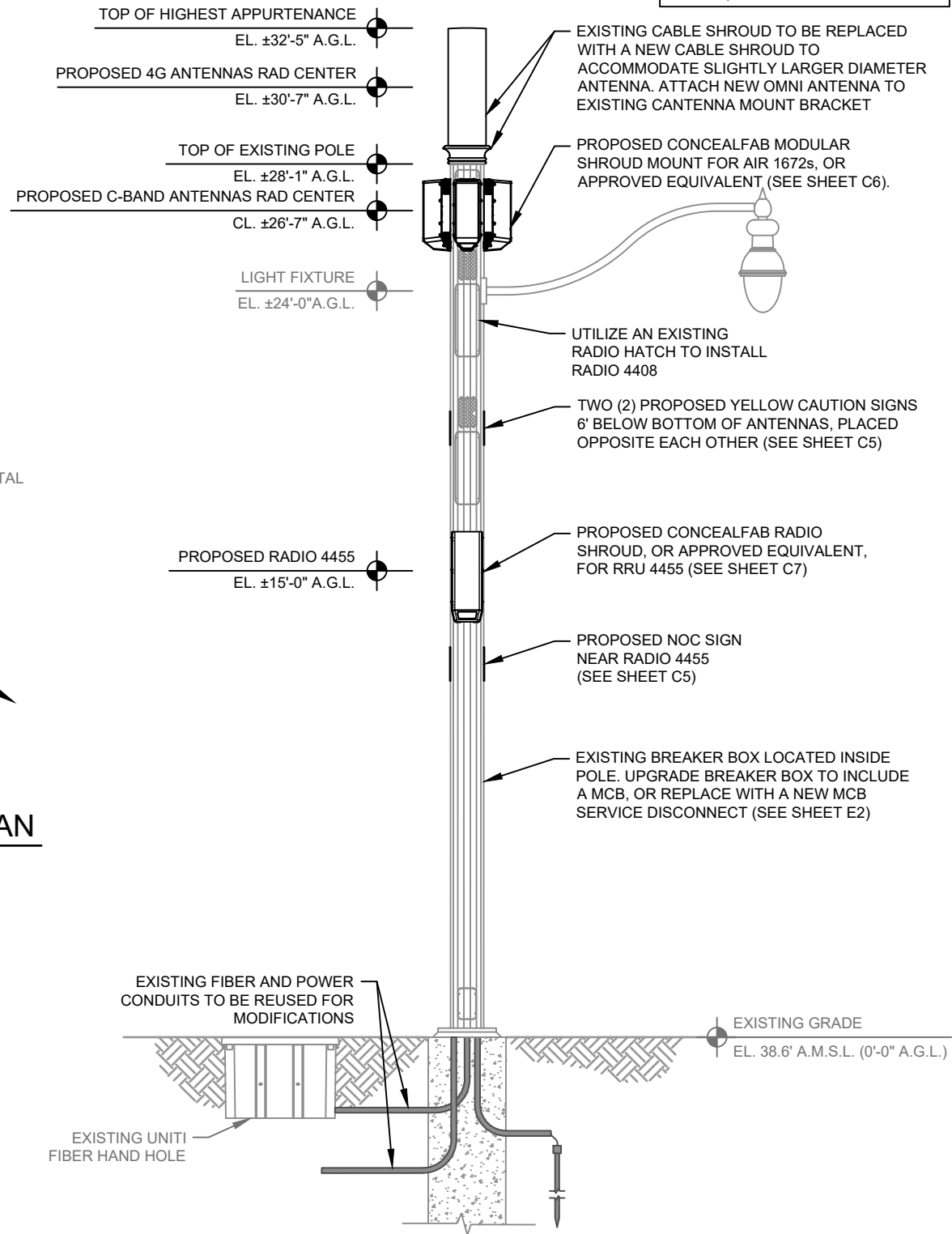
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1
C3
EXISTING POLE ELEVATION
N.T.S.



2
C3
PROPOSED POLE ELEVATION
N.T.S.

AESTHETIC NOTE: ALL VERIZON EQUIPMENT ATTACHED TO POLE TO BE PAINTED OR OTHERWISE CONCEALED IN A SAVANNAH GREEN COLOR TO MATCH POLE.

NOTE: SEE REGULATORY MITIGATION DOCUMENTS FOR APPROPRIATE MITIGATION REQUIREMENTS.

NOTE: SEE FINAL RFDS FOR FINAL AZIMUTHS, FINAL SECTOR COUNT, AND ANY TILTS.



PROJECT INFORMATION:

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SV27-A

1 E MACON ST
SAVANNAH, GA 31401
CHATHAM COUNTY

PLANS PREPARED BY:

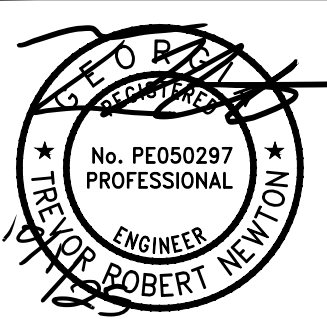
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KHA PROJECT NUMBER:

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TRN

SHEET TITLE:

POLE ELEVATIONS

SHEET NUMBER:

C3

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1 EXISTING POLE CONDITION
C4 NOT TO SCALE



2 PROPOSED POLE CONDITION
C4 NOT TO SCALE

verizon

10300 OLD ALABAMA ROAD CONNECTOR
ALPHARETTA, GEORGIA 30022

PROJECT INFORMATION:

SITE NAME:
SV27-A

1 E MACON ST
SAVANNAH, GA 31401
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KHA PROJECT NUMBER:

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SHEET TITLE:

PHOTO
SIMULATION

SHEET NUMBER:

C4

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INFORMATION

This is an ACCESS POINT to an area with transmitting antennas.

Obey all postings and boundaries beyond this point.

Call Verizon at 1-800-264-6620 for more information.

STATE: SWITCH:

SITE ID: 5000059582

verizon

NOTE: (2) YELLOW CAUTION SIGNS SHALL BE LOCATED AT THE ELEVATION SPECIFIED ON THE PLANS AND LOCATED OPPOSITE EACH OTHER (FIELD SIDE/ROAD SIDE).

1

C5

VERIZON SIGNAGE DETAIL

NOT TO SCALE

CAUTION

Transmitting Antenna(s)

Radio frequency fields beyond this point MAY EXCEED the FCC Occupational exposure limit.

Obey all posted signs and site guidelines.

Call Verizon at 1-800-264-6620 PRIOR to working beyond this point.

STATE: SWITCH:

SITE ID: 5000059582

SECTOR/NODE:

verizon

2

C5

VERIZON SIGNAGE DETAIL

NOT TO SCALE

verizon

10300 OLD ALABAMA ROAD CONNECTOR
ALPHARETTA, GEORGIA 30022

PROJECT INFORMATION:

SITE NAME:
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1 E MACON ST
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GEORGIA
REGISTERED
★ No. PE050297 ★
PROFESSIONAL
ENGINEER
TREVOR ROBERT NEWTON

KHA PROJECT NUMBER:
013509545

DRAWN BY: CHECKED BY:
JVR TRN

SHEET TITLE:
EQUIPMENT SPECIFICATIONS

SHEET NUMBER:
C5

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NNVSS-360M-F3



12-port quasi-omni antenna, 4x 698-896, 4x1695-2690 and 4x 3100-4000MHz, 360° horizontal beamwidth, Fixed tilt.

- Extended length to maximize gain with volume < 3 cu. ft
- Fixed tilt of 3 degrees for mid band and high band arrays

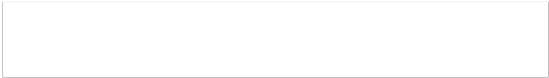
General Specifications

Antenna Type	Small Cell
Band	Multiband
Color	Light Gray (RAL 7035)
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Performance Note	Outdoor usage Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
Radome Material	ASA, UV stabilized
Radiator Material	Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, high band	4
RF Connector Quantity, mid band	4
RF Connector Quantity, low band	4
RF Connector Quantity, total	12

Dimensions

Length	1158 mm 45.591 in
Net Weight, antenna only	16 kg 35.274 lb
Outer Diameter	305 mm 12.008 in

Port Configuration



Page 1 of 3

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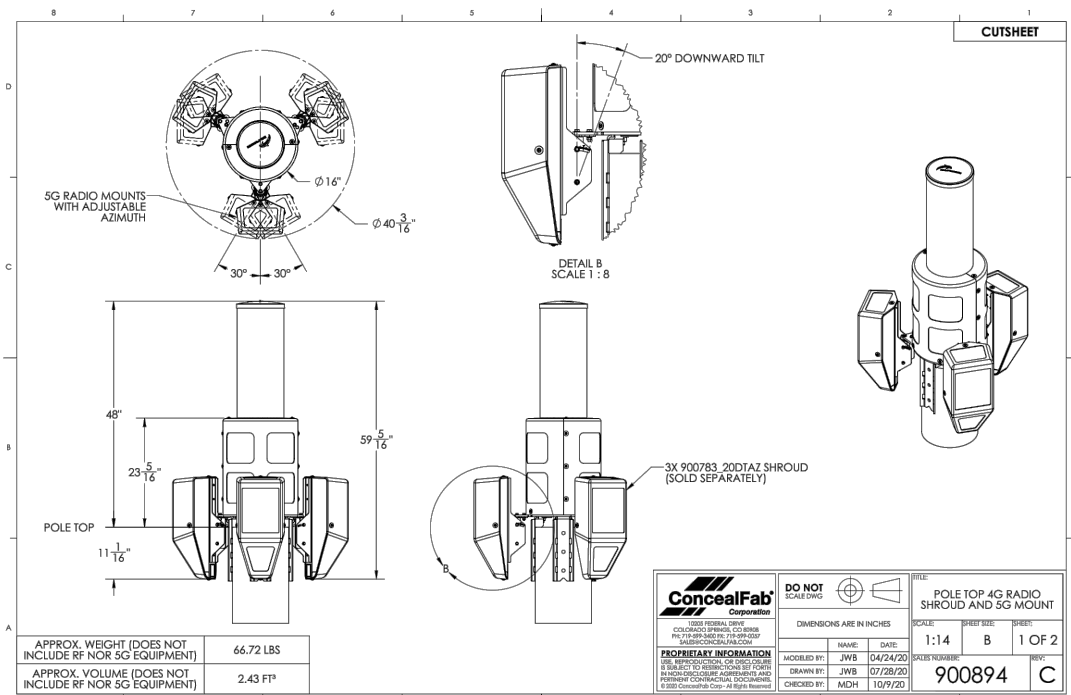


1

4G ANTENNA SPECIFICATION

C6

NOT TO SCALE



3

4G ANTENNA MOUNT SPECIFICATION

C6

NOT TO SCALE

AIR 1672 – AAS Street Product Dual Band - CBRS + B77

TRX Branches	16T16R
Antenna Elements	48
Antenna configuration	(3x1)x(2x4)
Operation band	3550 ~3980 MHz, CBRS+B77
IBW	350 MHz
Occupied BW (TCBW)	Upto 200 MHz with 8/4 DL/UL layers
EIRP	68 dBm in peak on band 37dBm/MHz/layer on CBRS*

Total Output Power (TRP)

80 W

Supported RAT

NR only

Size and Weight:

AIR 1672 (n48/B77)	Height	Width	Depth	Weight
wo protruding items	In (mm)	In (mm)	In (mm)	~33.1 lbs (~15 Kg)
w protruding items	22.1 In (568 mm)	8.1 In (204 mm)	6.0 In (150 mm)	

eCPRI link

2*25G

Operating temperature

40 to +55°C, with natural convection cooling

Power Supply

AC

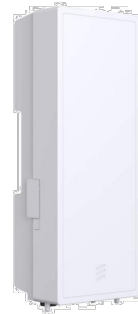
Power Consumption @full load

Tentative 460W (100% traffic, 75% DL & 25% UL TDD)

Ext.alarm support

NA

| 2023-09-01 | Commercial in Confidence | Page 23



Now confirmed
max measurements/ will not exceed

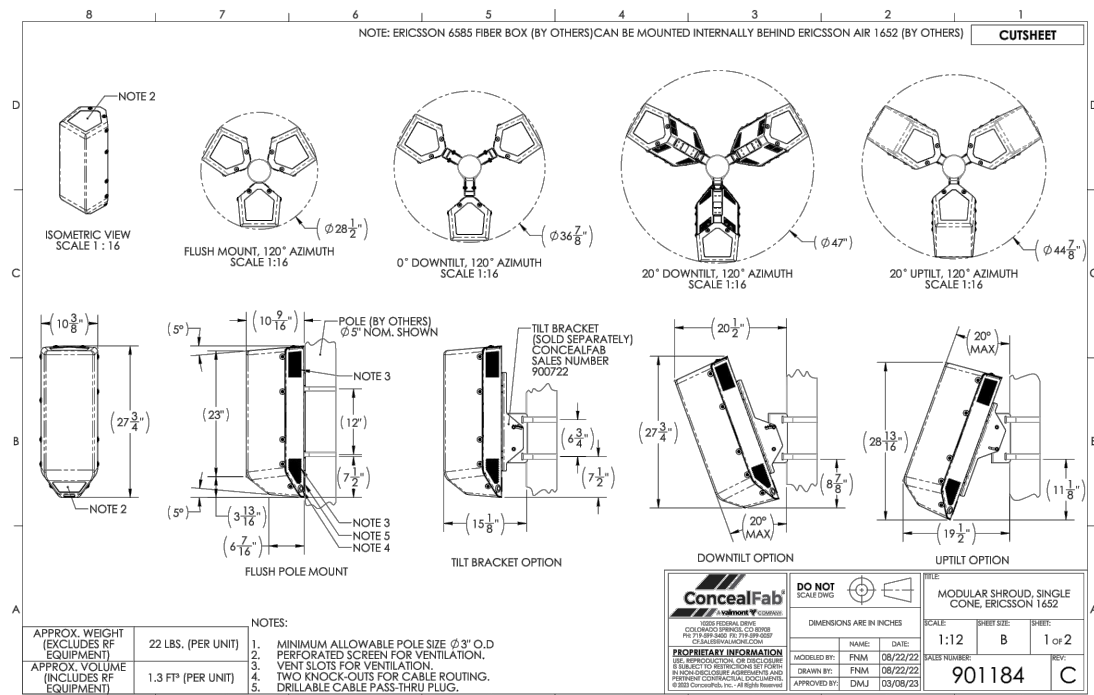
*Per the current FCC rules. The 80W Rf Power can be shared between both bands according to FCC rules.

2

C-BAND ANTENNA SPECIFICATION

C6

NOT TO SCALE



4

CBAND ANTENNA MOUNT SPECIFICATION

C6

NOT TO SCALE

verizon

10300 OLD ALABAMA ROAD CONNECTOR
ALPHARETTA, GEORGIA 30022

PROJECT INFORMATION:

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1 E MACON ST
SAVANNAH, GA 31401
CHATHAM COUNTY

PLANS PREPARED BY:

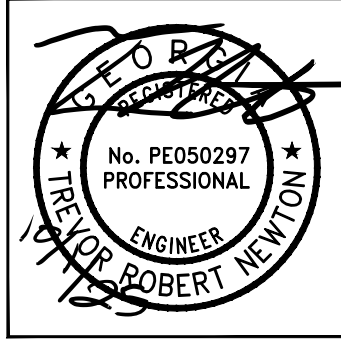
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EQUIPMENT
SPECIFICATIONS

SHEET NUMBER:

C6

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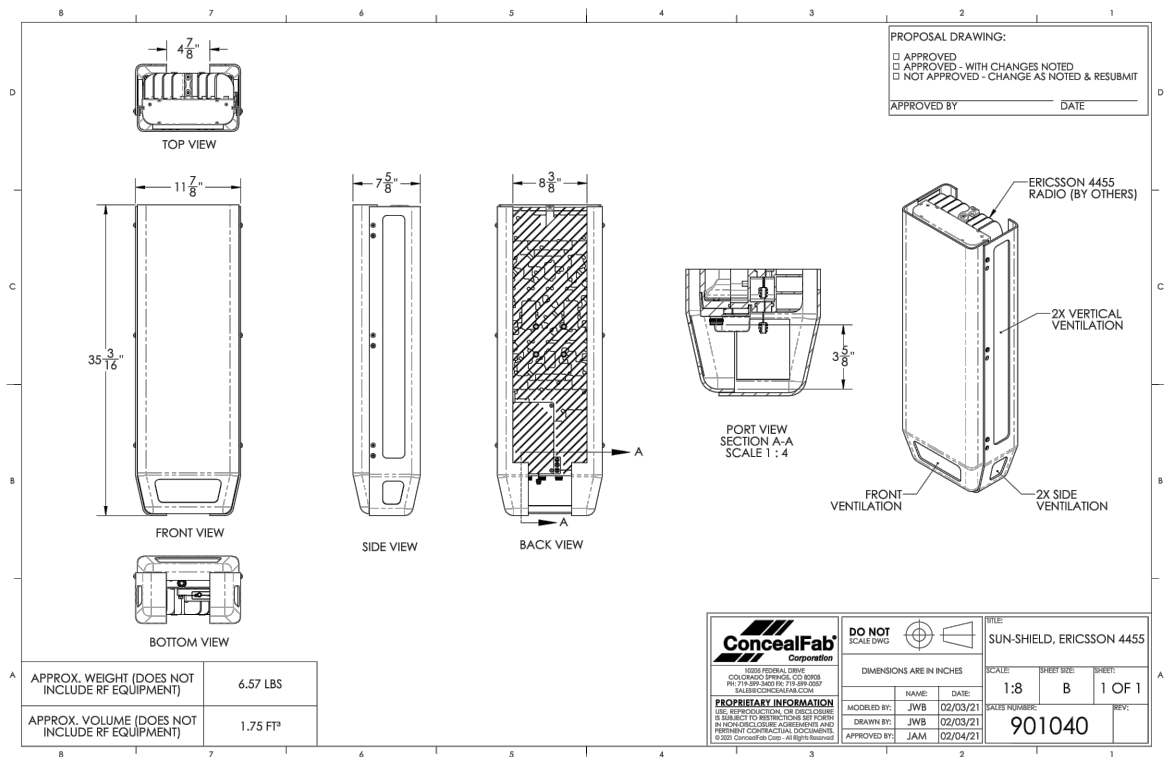
RADIO 4455 MEDIUM POWER B2/25 & B66A FOR STREET MACRO APPLICATIONS

- 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

Now confirmed max measurements/ will not exceed



1 RADIO 4455 SPECIFICATION

C7 NOT TO SCALE

2 RADIO 4455 MOUNT SPECIFICATION

C7 NOT TO SCALE

RADIO 4408

- Same building practice as Radio 2203/2208
- 4TX/4RX
 - Tx Power 4x5W
 - Up to 6 LTE carriers, IBW up to 150 MHz
ENM dependency (full support 6 carriers in ENM 20Q1)
 - 2x 2.5/5/9.8/10.1Gbps CPRI
 - Size and Weight:

Radio 4408 Single Radio	Height	Width	Depth	Weight
wo integrated antenna	8.4 in (213.5 mm)	7.9 in (200 mm)	4.2 in (105 mm)	10.2 lbs (4.6 Kg)
w integrated antenna	8.4 in (213.5 mm)	7.9 in (200 mm)	5.0 in (125 mm)	11.1 lbs (5.0 Kg)

- AC or -48 VDC Support Units,
(single new version compared to 2208, dual SUP support release TBD)
- Integrated (Antenna 6524) or external antenna
- RF Connector: NEX10
- 2 external alarm
- IP 65
- 40 to +55 °C
- Operating Bands: B48/ CBRS

Now confirmed max measurements/ will not exceed



[Back to Agenda](#)

3 RADIO 4408 SPECIFICATION

C7 NOT TO SCALE



PROJECT INFORMATION:

SITE NAME:
SV27-A

1 E MACON ST
SAVANNAH, GA 31401
CHATHAM COUNTY

PLANS PREPARED BY:

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**EQUIPMENT
SPECIFICATIONS**

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EQUIPMENT REPLACEMENT SUMMARY SCHEDULE		
EQUIPMENT	QUANTITY	DESCRIPTION
EXISTING EQUIPMENT		
ANTENNAS	1	ANDREW NH360QS-DG-F0M
FEEDLINES	-	-
OTHER EQUIPMENT	1	ERICSSON 2203 B66A
	1	ERICSSON RRUS11 B13
	1	ERICSSON RRUS12 B2
	1	ERICSSON RRUS12 B5
EQUIPMENT TO BE REMOVED		
ANTENNAS	1	ANDREW NH360QS-DG-F0M
FEEDLINES	-	-
OTHER EQUIPMENT	1	ERICSSON 2203 B66A
	1	ERICSSON RRUS11 B13
	1	ERICSSON RRUS12 B2
	1	ERICSSON RRUS12 B5
EQUIPMENT TO BE INSTALLED		
ANTENNAS	1	COMMSCOPE NNVVSS-360M-F3
	3	ERICSSON AIR1672
FEEDLINES	-	-
OTHER EQUIPMENT	1	ERICSSON 4408 B48 AC
	1	ERICSSON 4455
FINAL CONFIGURATION		
ANTENNAS	1	COMMSCOPE NNVVSS-360M-F3
	3	ERICSSON AIR1672
FEEDLINES	-	-
OTHER EQUIPMENT	1	ERICSSON 4408 B48 AC
	1	ERICSSON 4455

1

C8

MODIFICATION SUMMARY



10300 OLD ALABAMA ROAD CONNECTOR
ALPHARETTA, GEORGIA 30022

PROJECT INFORMATION:

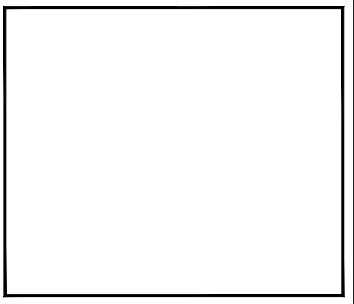
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LICENSER:

FOR ILLUSTRATIVE
PURPOSES ONLY-
NO SIGNATURE
REQUIRED

KHA PROJECT NUMBER:

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MODIFICATION
SUMMARY

SHEET NUMBER:

C8

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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

7.
- 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.
8.
- CONTRACTOR SHALL SCHEDULE AND SHOULD ATTEND ALL INSPECTIONS REQUIRED BY THE JURISDICTION HAVING AUTHORITY.
9.
- CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, ACCESSORIES, ETC., FOR A COMPLETE WORKING ELECTRICAL INSTALLATION.
10.
- 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.
11.
- CONTRACTOR SHALL PROTECT ADJACENT EQUIPMENT AND FINISHES FROM DAMAGE AND SHALL REPAIR TO ORIGINAL CONDITION ANY ITEMS DAMAGED AS A RESULT OF THE WORK
12.
- IF CONDUIT RUNS HAVE MORE THAN THREE (3) CONSECUTIVE 90 DEGREE TURNS, THEN CONTRACTOR SHALL INSTALL PULL BOXES AS REQUIRED BY NEC.
13.
- WHEN INSTALLING A NEW GROUND ROD, MAINTAIN 6' MINIMUM DISTANCE FROM EXISTING GROUND RODS.

MATERIALS

14.
- ALL EQUIPMENT AND MATERIALS SHOWN SHALL BE CONSIDERED NEW UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS.
15.
- 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.
16.
- CONTRACTOR SHALL SEAL ALL CONDUITS ENTERING AN ENCLOSURE WITH CONDUIT SEALANT THAT IS COMPATIBLE WITH THE INSULATION OF THE CONDUCTORS IN THE CONDUIT.
17.
- CONDUIT RUNS SHALL HAVE A CONTINUOUS DOWNWARD SLOPE AWAY FROM ALL EQUIPMENT TO PREVENT WATER INFILTRATION.
18.
- CONTRACTOR SHALL FIELD DETERMINE ACTUAL CONDUIT ROUTING AND SHALL OBTAIN APPROVAL FROM VERIZON AND AHJ OF THE PROPOSED ROUTING PRIOR TO CONDUIT INSTALLATION.
19.
- 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.
20.
- 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

21.
- 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.
22.
- 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.
23.
- CONTRACTOR SHALL VERIFY, PRIOR TO ROUGH-IN, THAT SITE CONDITIONS ALLOW FOR THE PLACEMENT OF THE ELECTRICAL EQUIPMENT AS SHOWN ON THE PLANS.
24.
- 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.
25.
- CONTRACTOR SHALL PERFORM AN ARC FLASH ANALYSIS AT THE LOAD CENTER ON THE VERIZON TELECOMMUNICATIONS CABINET AND PROVIDE ARC FLASH LABEL PER NEC.
26.
- 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.
27.
- 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.

verizon

10300 OLD ALABAMA ROAD CONNECTOR
ALPHARETTA, GEORGIA 30022

PROJECT INFORMATION:

SITE NAME:
SV27-A

1 E MACON ST
SAVANNAH, GA 31401
CHATHAM COUNTY

PLANS PREPARED BY:

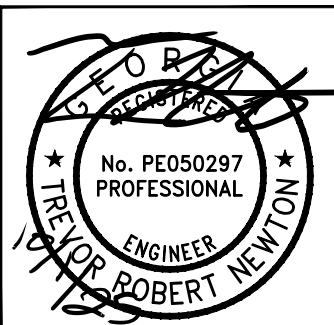
Kimley»Horn

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

REV: DATE: ISSUED FOR: BY:

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0	09/30/25	CONSTRUCTION	TRN
B	05/14/25	PRELIMINARY	TRN
A	04/15/25	PRELIMINARY	TRN

LICENSER:



KHA PROJECT NUMBER:

013509545

DRAWN BY: CHECKED BY:

JVR

TRN

SHEET TITLE:

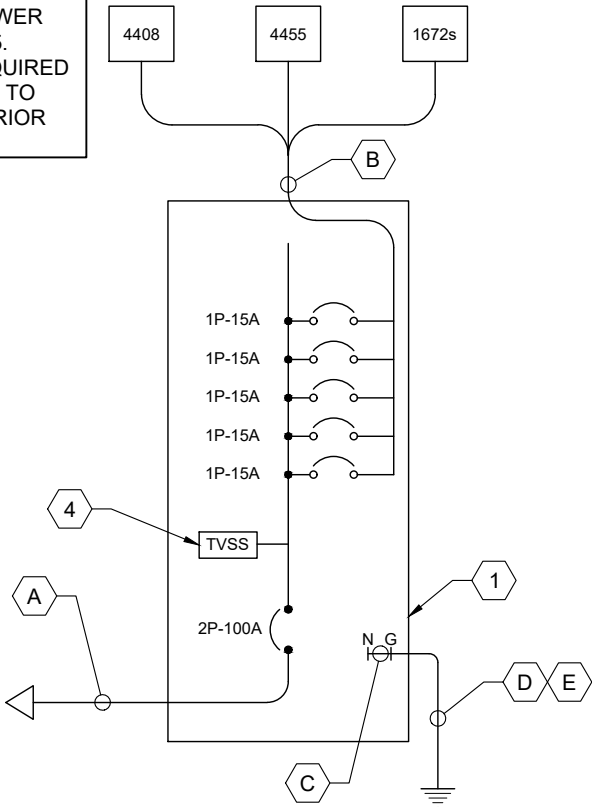
ELECTRICAL
NOTES

SHEET NUMBER:

E1

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GEORGIA POWER NOTE:
PROJECT IS FILED UNDER GEORGIA POWER
JUMPS APPLICATION NUMBER CO2265195.
TEMPORARY DISCONNECT WILL BE REQUIRED
FOR THIS MODIFICATION. CONTRACTOR TO
COORDINATE WITH GEORGIA POWER PRIOR
TO COMMENCING CONSTRUCTION.



1
E2 ELECTRICAL SINGLE LINE DIAGRAM

Verizon Panel				
Voltage: 120 Volts			MCB Size: 100 Amps	
Phase, Wires: Single Phase, 2 Wire			AIC Rating: See Utility for AFC	
Mounting Type: Surface			Bus Rating: 100 Amps	
Enclosure Type: Nema 3R			Neutral Rating: 100%	
Load Served	Load (kVA)	Circuit Bkr Size	Ckt Nbr	Phase
MAIN		2P-100	1	●
			2	●
Ericsson 1672	0.46	1P-15	3	●
Ericsson 1672	0.46	1P-15	2	●
Ericsson 1672	0.46	1P-15	3	●
Ericsson 4408	0.12	1P-15	4	●
Ericsson 4455	0.89	1P-15	5	●
TVSS			8	●
Sub-Total (kVA)	2.39			

		A		Total Connected (kVA)
		2.39		
		2.39		Total Connected (kVA)
RADIO EQP	Connected Load (kVA)	Demand Factor	Demand Load (kVA)	
	A		A	
RADIO EQP	2.39	1.25	2.99	
			0.00	
Total Power per Phase			2.99	kVA
Total Demand Current per Phase			24.90	Amps
Total Demand Power			2.99	kVA

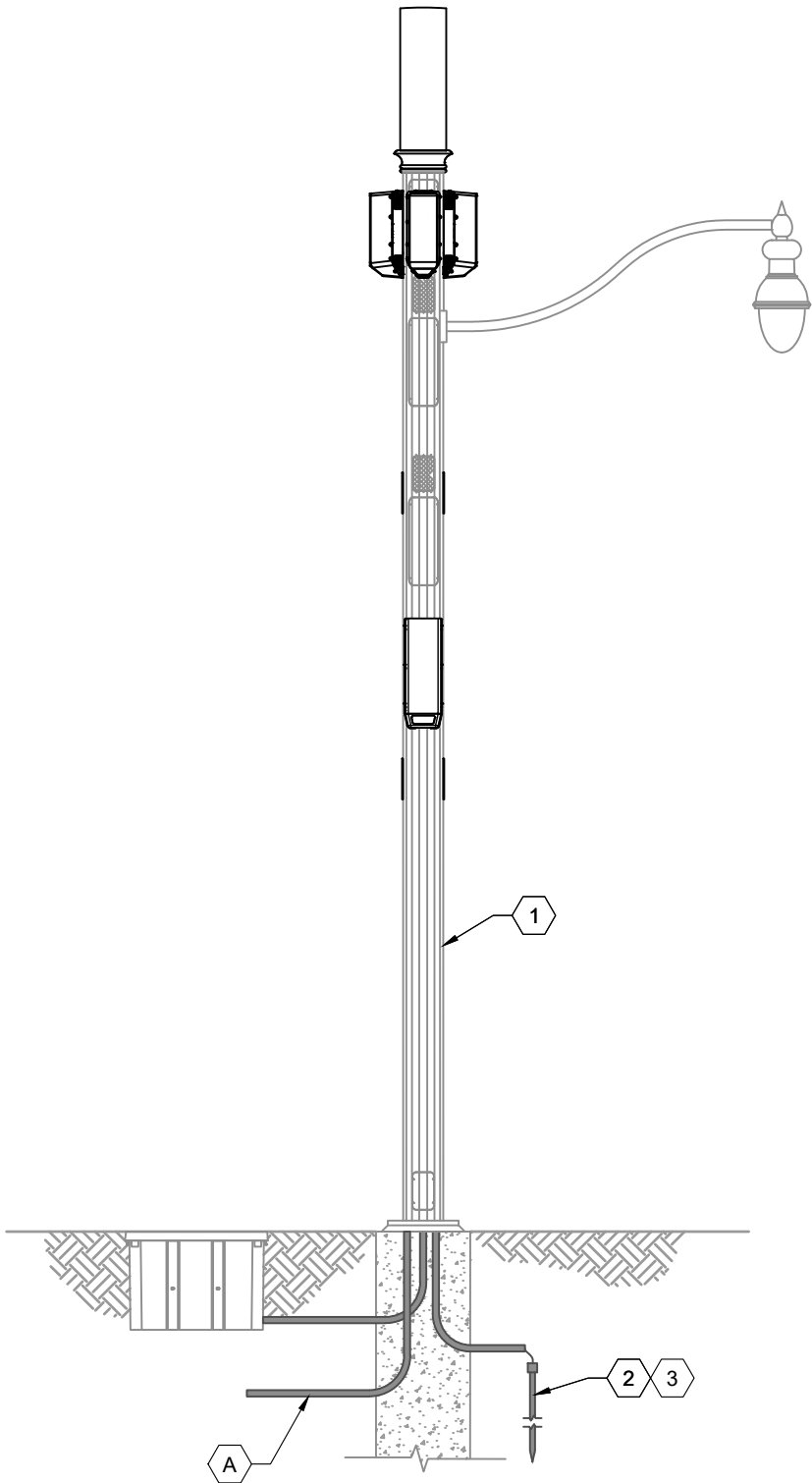
2
E2 PANEL SCHEDULE

KEY NOTES - CONDUIT, CONDUCTORS, & MISC

- A EXISTING 120V, 100A, 1Ø SERVICE PROVIDED BY GEORGIA POWER. CONTRACTOR TO VERIFY EXISTING SERVICE CONDUCTORS SIZES ARE ADEQUATE FOR A 100A SERVICE.
- B FOR EACH CIRCUIT, ROUTE (1) MANUFACTURER PROVIDED MULTI-CONDUCTOR FLEXIBLE CABLE WITH GROUND IN RIGID CONDUIT WITH WEATHERHEAD. CONDUCTORS TO BE SIZED ACCORDING TO BREAKER RATING AND CABLE SPECIFICATIONS. REFER TO NEC ARTICLE 400 FOR APPLICABLE ADJUSTMENT FACTORS.
- C #2 AWG MBJ. CONTRACTOR TO VERIFY EXISTING PANEL IS SE RATED.
- D #2 AWG GEC. EXOTHERMIC WELD TO GROUND ROD.
- E BOND TO EXISTING GROUNDING ELECTRODE SYSTEM WITH #2 AWS SBTC IF PRESENT. (SEE GROUNDING DETAILS).

KEY NOTES - ELECTRICAL EQUIPMENT

- 1 UPGRADE OR INSTALL NEW SE RATED, 120V, 100A MCB SERVICE DISCONNECT, 8 SPACE LOAD CENTER IN NEMA ENCLOSURE.
- 2 EXISTING GROUND ROD (IF PRESENT).
- 3 IF NECESSARY, INSTALL (2) TWO NEW GROUND RODS WITH MINIMUM 6' OF SEPARATION (SEE GROUNDING DETAILS FOR MORE DETAIL).
- 4 RAYCAP AC DATA AC1080-02W SPD OR EQUIVALENT. SEE MANUFACTURER SPECIFICATIONS FOR INSTALLATION DETAILS.



3
E2 RISER DIAGRAM
NOT TO SCALE

verizon
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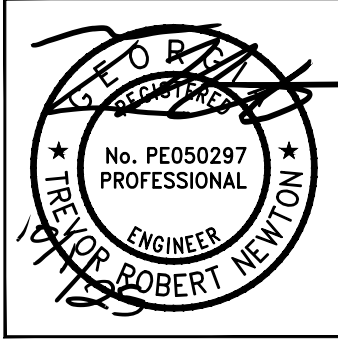
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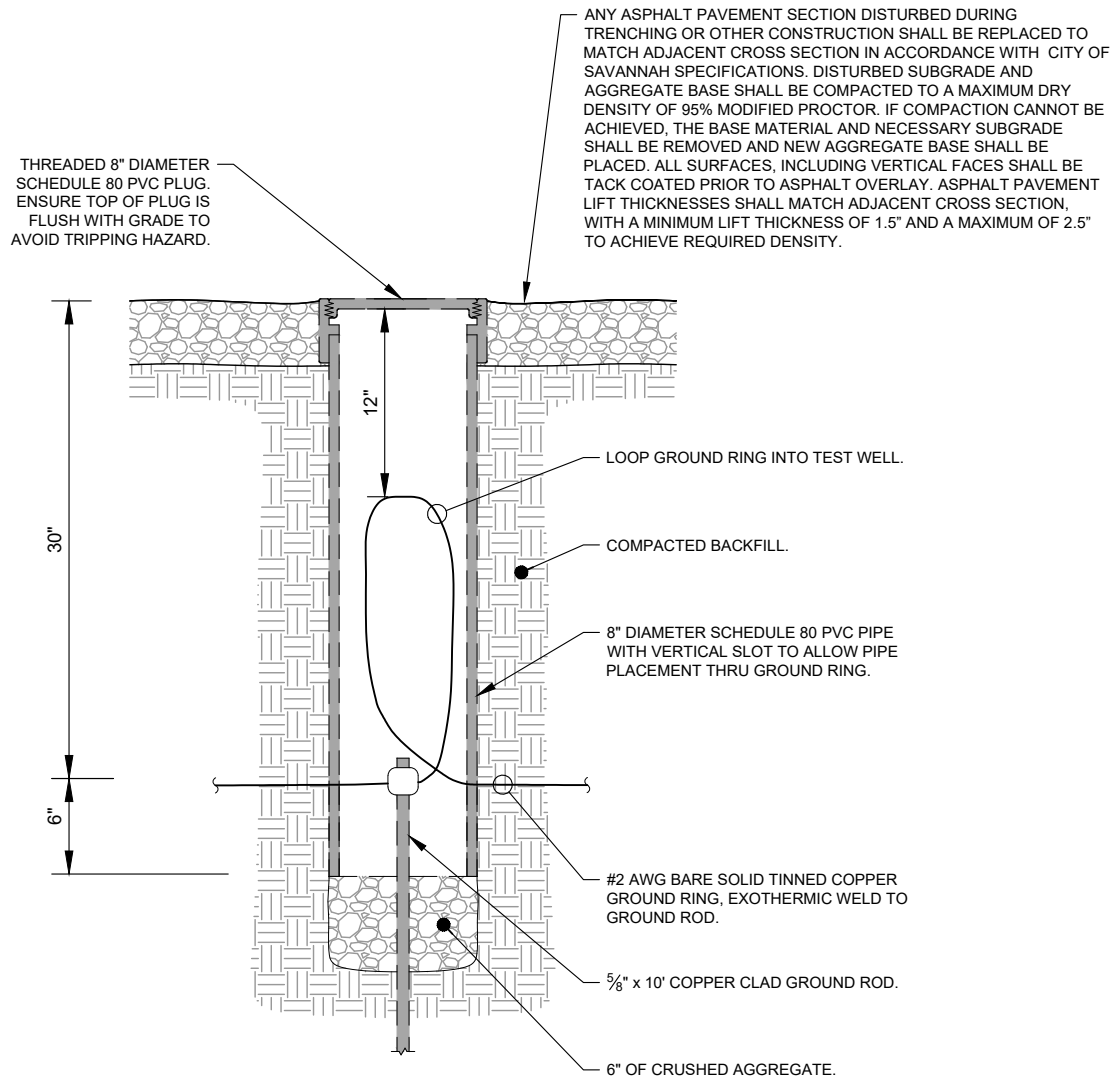
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**PANEL SCHEDULE
& RISER DIAGRAM**

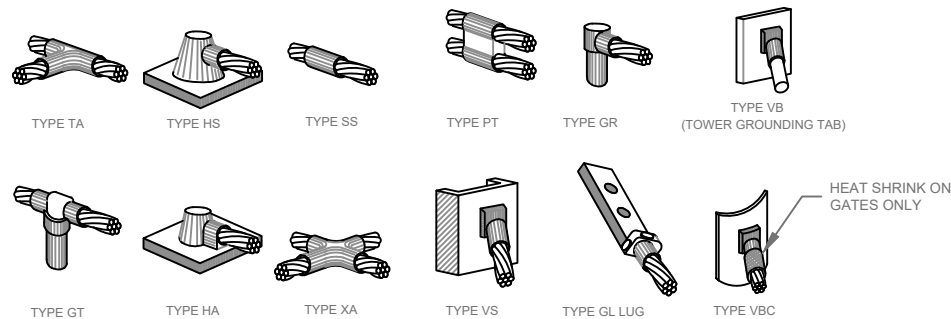
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E2

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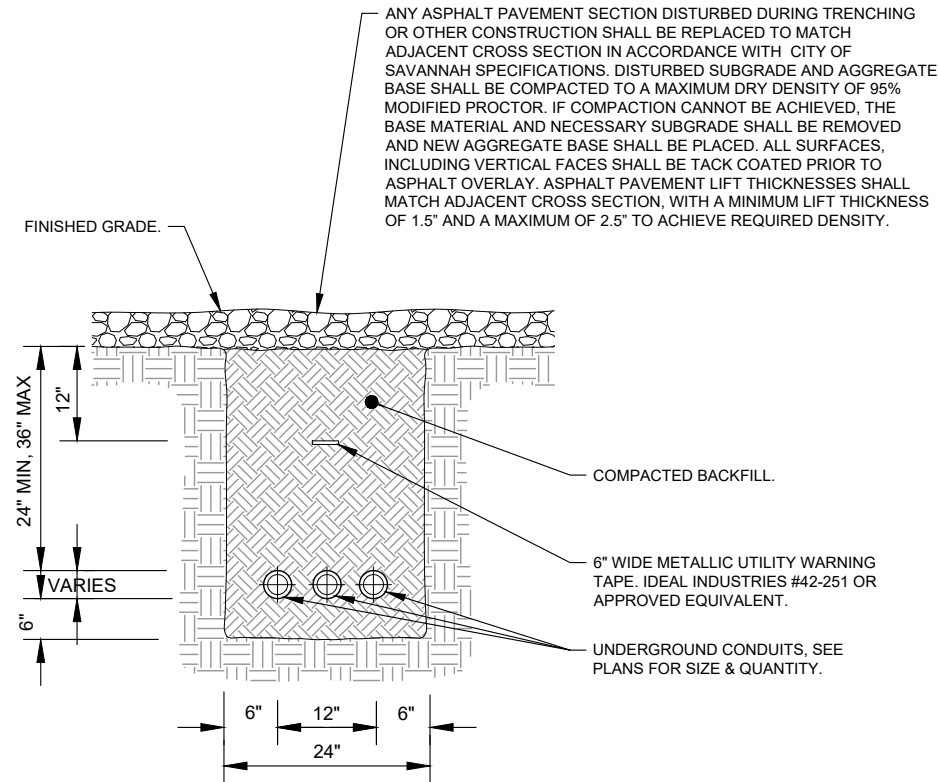


1 TYPICAL GROUND ROD DETAIL
E3 NOT TO SCALE



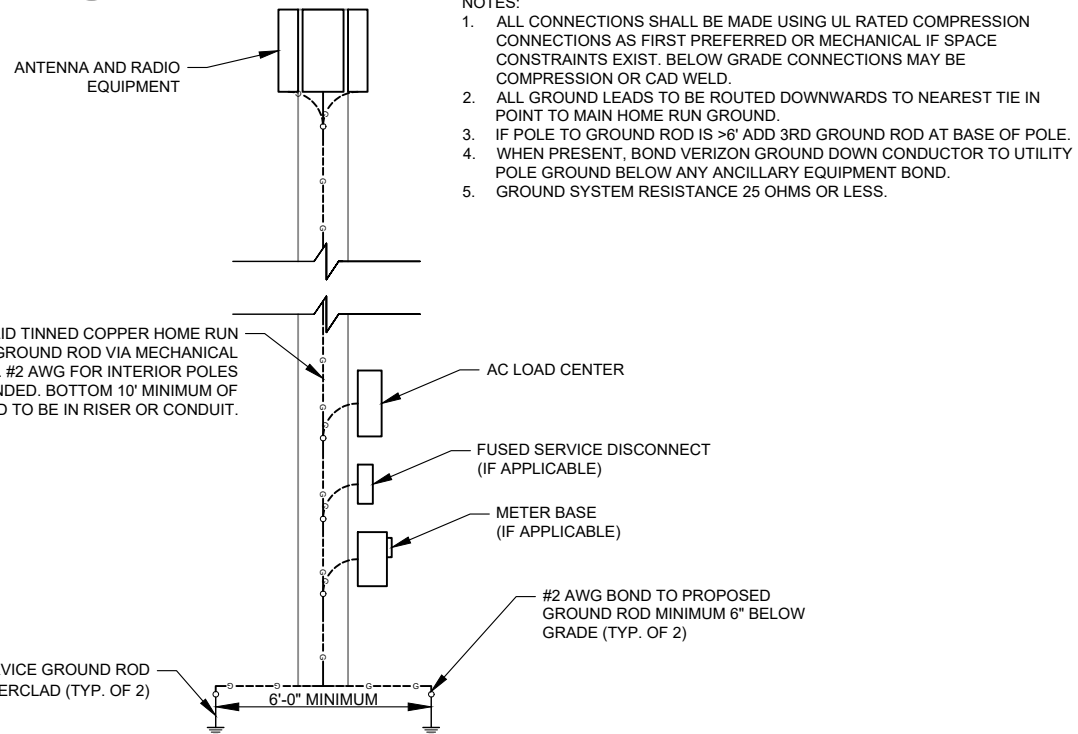
NOTE:
CADWELD "TYPES" SHOWN ABOVE ARE EXAMPLES.
PROVIDE APPROPRIATE TYPES AS REQUIRED.

3 TYPICAL CAD WELDS
E3 NOT TO SCALE



- NOTES:
- IF GROUND SURFACE IS OTHER THAN NEWLY GRAVELED AREA. CONTRACTOR IS TO RESTORE TO ORIGINAL CONDITION.
 - PROVIDE PVC CONDUIT BELOW GRADE EXCEPT AS NOTED BELOW.
 - PROVIDE SCHEDULE 80 PVC CONDUIT & ELBOWS AT STUB UP LOCATIONS (I.E. POLES, EQUIPMENT, ETC.)
 - PROVIDE SCHEDULE 80 PVC CONDUIT BELOW PARKING LOTS AND ROADWAYS.

2 TYPICAL TRENCH DETAIL
E3 NOT TO SCALE



4 GROUNDING DIAGRAM
E3 NOT TO SCALE



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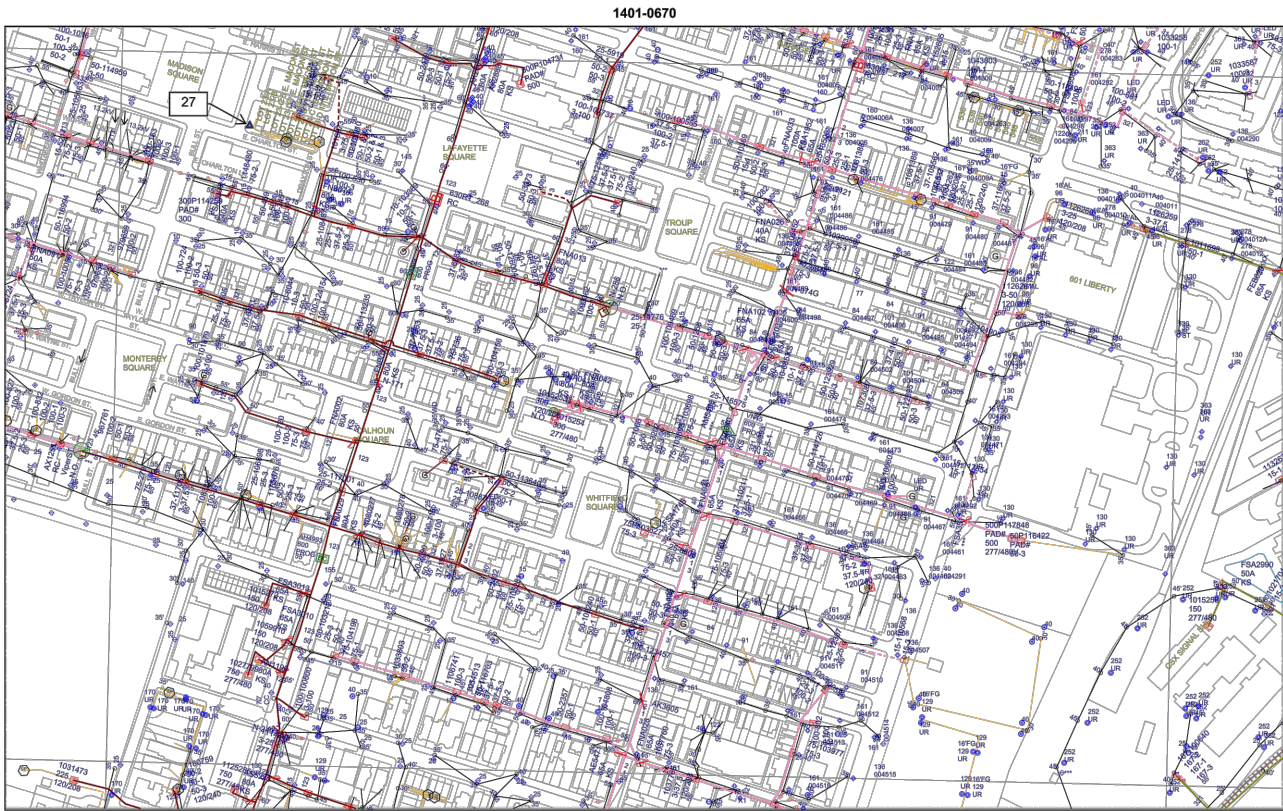
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**GROUNDING
DETAILS**

SHEET NUMBER:

E3

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1
E4
GPC MAP
NOT TO SCALE

2
E4
ALL WORK LOCATIONS
NOT TO SCALE

Antenna Work Locations Engineering Inspection Report Verizon Wireless 2265195 Savannah All Work Locations

Page 1 of 1
Date Printed: 9/16/2025

Work Order # N/A Tracking # 2265195 NJUNS Project #82715

Note: All new attachments to GPC poles should be made as low as possible on pole while still maintaining all required NESC clearances.

Pole #: 027 Power Map: 1401-0670 ComplID: NOM Location: 1 East Macon Street
Pole Owner: City of Savannah Pole Height: Pole Class: Pole Year: Pole Use:
Station #: Substation: BOLTON STREET Circuit: B5362-9428 Voltage: 13.2kV NJUNS #: 7072963
Latitude: 32.07318 Longitude: -81.09358 STA #: Trans. Line Name:

At Pole Measurements

Midspan Measurements



Original Construction Notes

- ***NOTE***
- Antenna will utilize 3' of pole space. Power supplied to wireless antenna from transformer# 100-530 . Verizon Wireless to upgrade facilities on City of Savannah traffic pole.
- Verizon Wireless
- 1 Verify existing equipment and check for impacts of all proposed equipment to their facilities. Upgrades will need to be determined, and agreed upon by all parties involved as part of building and operating all systems in compliance with regulations and safety needs for facility owners, the general public, and the energy supply company. Complete upgrades of equipment and required facilities. Call Georgia Power at 404-506-2255 when the new device is installed to update the energy billing account.
- Georgia Power
- 2 Update/create energy billing account.
- Georgia Power
- 3 Close job once work is completed.

Pole-Clearance Violations

Midspan-Clearance Violations

*The points of attachment on this report will correct existing NESC violations and / or provide space for a new attachment. It is the responsibility of each facility owner to insure that the points of attachment comply with it's own engineering standards and practices.

Pike Engineering has reviewed certain field conditions as authorized in the scope of work of the stated project number. Pike Engineering does not warrant and accepts no responsibility for the identification of any conditions related to NESC safety violations not specifically required to be identified by the scope of work of this project.



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LICENSER:

FOR ILLUSTRATIVE
PURPOSES ONLY-
NO SIGNATURE
REQUIRED

KHA PROJECT NUMBER:

013509545

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SHEET TITLE:

GPS MAP & ALL
WORK LOCATIONS

SHEET NUMBER:

E4