STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
Web Site: portal.ct.gov/csc

VIA ELECTRONIC MAIL

April 19, 2023

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597
kbaldwin@rc.com

RE: **EM-VER-137-230209** – Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 212 Deans Mill Road, Stonington, Connecticut.

Dear Attorney Baldwin:

The Connecticut Siting Council (Council) is in receipt of your April 17, 2023 correspondence notifying the Council of a change to the model of the remote radio head (RRH) to RF4440d-13A due to the unavailability of the approved RRH model.

Pursuant to Regulations of Connecticut State Agencies §16-50j-73, the Council hereby acknowledges notification of the change in the RRH model. This acknowledgment applies only to the changes described in the April 17, 2023 correspondence.

The RRH installation is to be implemented as specified in the revised Structural Analysis prepared by Centek Engineering, dated April 10, 2023, associated Tower Modification Drawings and project plans for the above-referenced facility attached to the April 17, 2023 correspondence.

Thank you for your attention and cooperation.

Sincerely,

Melanie A. Bachman
Executive Director

MAB/ANM/laf

c: The Honorable Danielle Chesebrough, First Selectperson, Town of Stonington (selectmen@stonington-ct.gov)

Robinson+Cole

KENNETH C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

Also admitted in Massachusetts
and New York

April 17, 2023

Melanie A. Bachman, Esq.
Executive Director/Staff Attorney
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **EM-VER-137-230209 – Cellco Partnership d/b/a Verizon Wireless – 212 Deans Mill Road, Stonington, Connecticut**

Dear Attorney Bachman:

On March 13, 2023 the Siting Council approved the above referenced Exempt Modification filing permitting the modification of an existing telecommunications facility located at 212 Deans Mill Road in Stonington. Cellco recently learned that the remote radio head ("RRH") it intended to install at this site was no longer available. The new RRH, model number RF4440d-13A will be installed in its place.

Enclosed is a revised Structural Analysis and updated set of project plans showing the new RRH that Cellco intends to install.

Please contact me if you have any questions regarding this proposal.

Sincerely,

Kenneth C. Baldwin

Attachments

CENTEK engineering

Centered on Solutions℠

Structural Analysis Report

Antenna Mount

Proposed Verizon
Antenna Upgrade

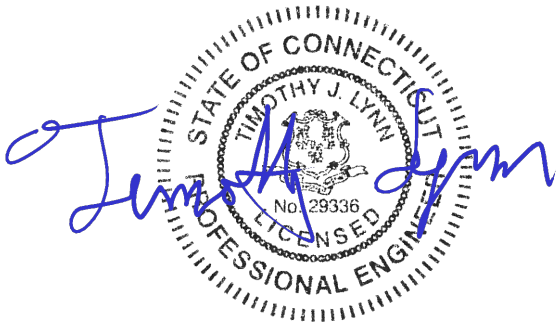
Site Ref: Mystic SC1

212 Deans Mill Road
Stonington, CT

CENTEK Project No. 22105.05

~~Date: September 13, 2022~~

Rev 2: April 10, 2023



Prepared for:

Verizon Wireless
20 Alexander Drive
Wallingford, CT 06492

Table of Contents

Introduction

The purpose of this structural analysis report (SAR) is to summarize the results, of the impacted structural components, by the equipment upgrade proposed by Verizon Wireless on the existing host building located in Stonington, CT.

The antenna is mounted on a structural steel pipe mast with steel base frame attached to the host building roof framing. The antenna mast/base frame is located within a RF transparent cupola. The mounts member sizes information were obtained from the original design documents prepared by Centek Engineering, dated February 2, 2016. Proposed/existing antenna and appurtenance information was taken from a RF data sheet dated 3/30/2023 provided by Verizon Wireless.

Primary Assumptions Used in the Analysis

- The host structure's theoretical capacity not including any assessment of the condition of the host structure.
- The existing steel antenna frames carry the horizontal and vertical loads due to the weight of equipment, and wind and transfers into host structure.
- Structure is in plumb condition.
- Loading for equipment and enclosure as listed in this report.
- All bolts are appropriately tightened providing the necessary connection continuity.
- All welds are fabricated with ER-70S-6 electrodes.
- All members are assumed to be as observed during roof framing mapping.
- All members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards.
- All member protective coatings are in good condition.

Antenna and Equipment Summary

Location	Appurtenance / Equipment	Rad Center Elevation (AGL)	Mount Type
Alpha Sector	~~(1) Andrew HBX-6513DS Antenna~~ **(1) Amphenol HTXCWW63111414F00 Antenna** ~~(1) Nokia B4 RRH 2x60-4R RRH~~ **(1) Samsung RF4440d-13A (B5/B13) RRH**	±24.9-ft	Pipe mast with steel base frame attached to roof deck located within cupola

~~Equipment~~ – Indicates equipment to be removed.
Equipment – Indicates equipment to be installed.

Analysis

The existing antenna frame was analyzed using a comprehensive computer program titled Risa3D. The program analyzes the antenna mounts considering the worst case code prescribed loading condition. The structures were considered to be loaded by concentric forces, and the model assumes that the members are subjected to bending, axial, and shear forces.

Design Loading

Loading was determined per the requirements of the 2021 International Building Code amended by the 2022 CSBC and ASCE 7-16 “Minimum Design Loads for Buildings and Other Structures”.

Wind Speed:	V_{ult} = 130 mph	Appendix P of the 2022 CT State Building Code
Risk Category:	II	2021 IBC; Table 1604.05
Exposure Category:	Surface Roughness C	ASCE 7-16; Section 26.7.2
Dead Load	Equipment and framing self-weight	Identified within SAR design calculations

Reference Standards

2021 International Building Code:

1. ACI 318-19, *Building Code Requirements for Structural Concrete.*
2. ACI 402/602-16, *Building Code Requirements for Masonry Structures*.
3. AISC 360-16, *Specification for Structural Steel Buildings*
4. AWS D1.4-18, *Structural Welding Code – Steel*.

Results

Structure stresses were calculated utilizing the structural analysis software RISA 3D. The stresses were determined based on the AISC standard.

- Calculated stresses for the antenna frame were found to **be within allowable** limits.

Sector	Component	Stress Ratio (percentage of capacity)	Result
All Sectors	Antenna Frame	4%	**PASS**

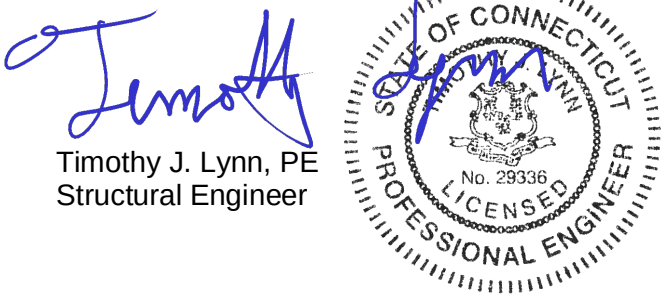
Conclusion

This analysis shows that the subject antenna mounts and host building **HAVE SUFFICIENT CAPACITY** to support the proposed modified antenna configuration.

The analysis is based, in part, on the information provided to this office by Verizon. If the existing conditions are different than the information in this report, Centek Engineering, Inc. must be contacted for resolution of any potential issues.

Please feel free to call with any questions or comments.

Respectfully Submitted by:

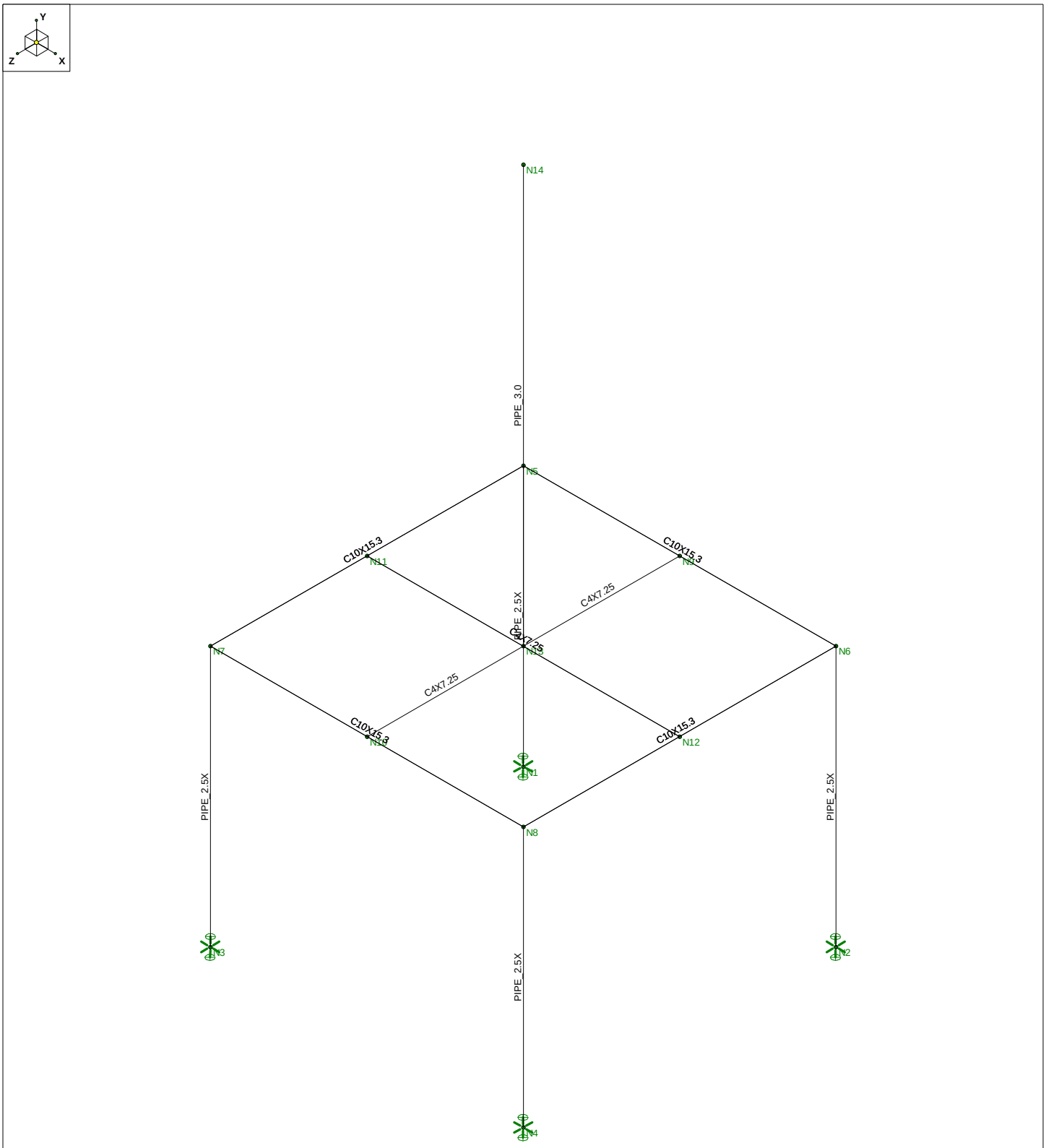


Timothy J. Lynn, PE
Structural Engineer

Standard Conditions for Furnishing of Professional Engineering Services on Existing Structures

All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessarily limited to:

- Information supplied by the client regarding the structure itself, its foundations, the soil conditions, the antenna and feed line loading on the structure and its components, or other relevant information.
- Information from the field and/or drawings in the possession of Centek Engineering, Inc. or generated by field inspections or measurements of the structure.
- It is the responsibility of the client to ensure that the information provided to Centek Engineering, Inc. and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and are in an un-corroded condition and have not deteriorated. It is therefore assumed that its capacity has not significantly changed from the “as new” condition.
- All services will be performed to the codes specified by the client, and we do not imply to meet any other codes or requirements unless explicitly agreed in writing. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement. In the absence of information to the contrary, all work will be performed in accordance with the latest revision of ANSI/ASCE10 & ANSI/EIA-222
- All services performed, results obtained, and recommendations made are in accordance with generally accepted engineering principles and practices. Centek Engineering, Inc. is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.



Envelope Only Solution

Centek Engineering		
TJL	Mystic SC1	Sept 13, 2022 at 2:52 PM
22105.05	Member Framing	Mount.r3d

(Global) Model Settings

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation?	Yes
Increase Nailing Capacity for Wind?	Yes
Include Warping?	Yes
Trans Load Btwn Intersecting Wood Wall?	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	.12
P-Delta Analysis Tolerance	0.50%
Include P-Delta for Walls?	Yes
Automatically Iterate Stiffness for Walls?	Yes
Max Iterations for Wall Stiffness	3
Gravity Acceleration (ft/sec^2)	32.2
Wall Mesh Size (in)	12
Eigensolution Convergence Tol. (1.E-)	4
Vertical Axis	Y
Global Member Orientation Plane	XZ
Static Solver	Sparse Accelerated
Dynamic Solver	Accelerated Solver

Hot Rolled Steel Code	AISC 15th(360-16): ASD
Adjust Stiffness?	Yes(Iterative)
RISAConnection Code	AISC 14th(360-10): ASD
Cold Formed Steel Code	AISI S100-10: ASD
Wood Code	AWC NDS-12: ASD
Wood Temperature	< 100F
Concrete Code	ACI 318-11
Masonry Code	ACI 530-11: ASD
Aluminum Code	AA ADM1-10: ASD - Building
Stainless Steel Code	AISC 14th(360-10): ASD
Adjust Stiffness?	Yes(Iterative)

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	Exact Integration
Parme Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections?	Yes
Use Cracked Sections Slab?	No
Bad Framing Warnings?	No
Unused Force Warnings?	Yes
Min 1 Bar Diam. Spacing?	No
Concrete Rebar Set	REBAR_SET_ASTMA615
Min % Steel for Column	1
Max % Steel for Column	8

(Global) Model Settings, Continued

Seismic Code	ASCE 7-10
Seismic Base Elevation (ft)	Not Entered
Add Base Weight?	Yes
Ct X	.02
Ct Z	.02
T X (sec)	Not Entered
T Z (sec)	Not Entered
R X	3
R Z	3
Ct Exp. X	.75
Ct Exp. Z	.75
SD1	1
SDS	1
S1	1
TL (sec)	5
Risk Cat	I or II
Drift Cat	Other
Om Z	1
Om X	1
Cd Z	4
Cd X	4
Rho Z	1
Rho X	1
Footing Overturning Safety Factor	1
Optimize for OTM/Sliding	No
Check Concrete Bearing	No
Footing Concrete Weight (k/ft^3)	150.001
Footing Concrete f'c (ksi)	4
Footing Concrete Ec (ksi)	3644
Lambda	1
Footing Steel fy (ksi)	60
Minimum Steel	0.0018
Maximum Steel	0.0075
Footing Top Bar	#3
Footing Top Bar Cover (in)	2
Footing Bottom Bar	#3
Footing Bottom Bar Cover (in)	3.5
Pedestal Bar	#3
Pedestal Bar Cover (in)	1.5
Pedestal Ties	#3

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (\...	Density[k/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	58	1.2
3	A992	29000	11154	.3	.65	.49	50	1.1	58	1.2
4	A500 Gr.42	29000	11154	.3	.65	.49	42	1.3	58	1.1
5	A500 Gr.46	29000	11154	.3	.65	.49	46	1.2	58	1.1
6	A53 Grade B	29000	11154	.3	.65	.49	35	1.5	58	1.2

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Ru...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Antenna Mast	PIPE_3.0	Column	Pipe	A53 Grade B	Typical	2.07	2.85	2.85	5.69
2	Post	PIPE_2.5X	Column	Pipe	A53 Grade B	Typical	2.1	1.83	1.83	3.66
3	C10	C10X15.3	Beam	Channel	A36 Gr.36	Typical	4.48	2.27	67.3	.209
4	C4	C4X7.25	Beam	Channel	A36 Gr.36	Typical	2.13	.425	4.58	.082

Hot Rolled Steel Design Parameters

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[...	Lcomp bot[...	L-torq...	Kyy	Kzz	Cb	Functi...
1	M1	Post	2.5									Lateral
2	M2	Post	2.5									Lateral
3	M3	Post	2.5									Lateral
4	M4	Post	2.5									Lateral
5	M5	C10	3			Lbyy						Lateral
6	M6	C10	3			Lbyy						Lateral
7	M7	C10	3			Lbyy						Lateral
8	M8	C10	3			Lbyy						Lateral
9	M9	C4	3			Lbyy						Lateral
10	M10	C4	1.5			Lbyy						Lateral
11	M11	C4	1.5			Lbyy						Lateral
12	M12	Antenna Mast	4									Lateral

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(...	Section/Shape	Type	Design List	Material	Design ...
1	M1	N5	N1			Post	Column	Pipe	A53 Grade B	Typical
2	M2	N6	N2			Post	Column	Pipe	A53 Grade B	Typical
3	M3	N7	N3			Post	Column	Pipe	A53 Grade B	Typical
4	M4	N8	N4			Post	Column	Pipe	A53 Grade B	Typical
5	M5	N7	N8		90	C10	Beam	Channel	A36 Gr.36	Typical
6	M6	N8	N6		90	C10	Beam	Channel	A36 Gr.36	Typical
7	M7	N6	N5		90	C10	Beam	Channel	A36 Gr.36	Typical
8	M8	N5	N7		90	C10	Beam	Channel	A36 Gr.36	Typical
9	M9	N11	N12		90	C4	Beam	Channel	A36 Gr.36	Typical
10	M10	N10	N13		90	C4	Beam	Channel	A36 Gr.36	Typical
11	M11	N13	N9		90	C4	Beam	Channel	A36 Gr.36	Typical
12	M12	N13	N14			Antenna Mast	Column	Pipe	A53 Grade B	Typical

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	0	0	0	0	
2	N2	3	0	0	0	
3	N3	0	0	3	0	
4	N4	3	0	3	0	
5	N5	0	2.5	0	0	
6	N6	3	2.5	0	0	
7	N7	0	2.5	3	0	
8	N8	3	2.5	3	0	
9	N9	1.5	2.5	0	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
10	N10	1.5	2.5	3	0	
11	N11	0	2.5	1.5	0	
12	N12	3	2.5	1.5	0	
13	N13	1.5	2.5	1.5	0	
14	N14	1.5	6.5	1.5	0	

Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	N3	Reaction	Reaction	Reaction		Reaction	
2	N4	Reaction	Reaction	Reaction		Reaction	
3	N1	Reaction	Reaction	Reaction		Reaction	
4	N2	Reaction	Reaction	Reaction		Reaction	

Member Point Loads (BLC 2 : Weight of Equipment)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	M12	Y	-.03	4
2	M12	Y	-.075	2

Member Distributed Loads

Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,k...	Start Location[ft..	End Location[ft,...
No Data to Print ...					

Basic Load Cases

	BLC Description	Category	X Gra...	Y Gra...	Z Gra...	Joint	Point	Distrib..	Area(...	Surfa...
1	Self Weight	DL		-1						
2	Weight of Equipment	DL					2			
3	Wind X-Direction	WLX								
4	Wind Z-Direction	WLZ								

Load Combinations

	Description	So...	P...	S...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...
1	IBC 16-8	Yes	Y		DL	1																				
2	IBC 16-9	Yes	Y		DL	1	LL	1	LLS	1																
3	IBC 16-12 (a) (a)	Yes	Y		DL	1	W...	.6																		
4	IBC 16-12 (a) (b)	Yes	Y		DL	1	W...	.6																		
5	IBC 16-12 (a) (c)	Yes	Y		DL	1	W...	-.6																		
6	IBC 16-12 (a) (d)	Yes	Y		DL	1	W...	-.6																		
7	IBC 16-13 (a) (a)	Yes	Y		DL	1	W...	.45	LL	.75	LLS	.75														
8	IBC 16-13 (a) (b)	Yes	Y		DL	1	W...	.45	LL	.75	LLS	.75														
9	IBC 16-13 (a) (c)	Yes	Y		DL	1	W...	-.45	LL	.75	LLS	.75														
10	IBC 16-13 (a) (d)	Yes	Y		DL	1	W...	-.45	LL	.75	LLS	.75														
11	IBC 16-15 (a)	Yes	Y		DL	.6	W...	.6																		
12	IBC 16-15 (b)	Yes	Y		DL	.6	W...	.6																		
13	IBC 16-15 (c)	Yes	Y		DL	.6	W...	-.6																		

Load Combinations (Continued)

	Description	So...	P...	S...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...
14	IBC 16-15 (d)	Yes	Y		DL	.6	W...	-.6																

Envelope Joint Reactions

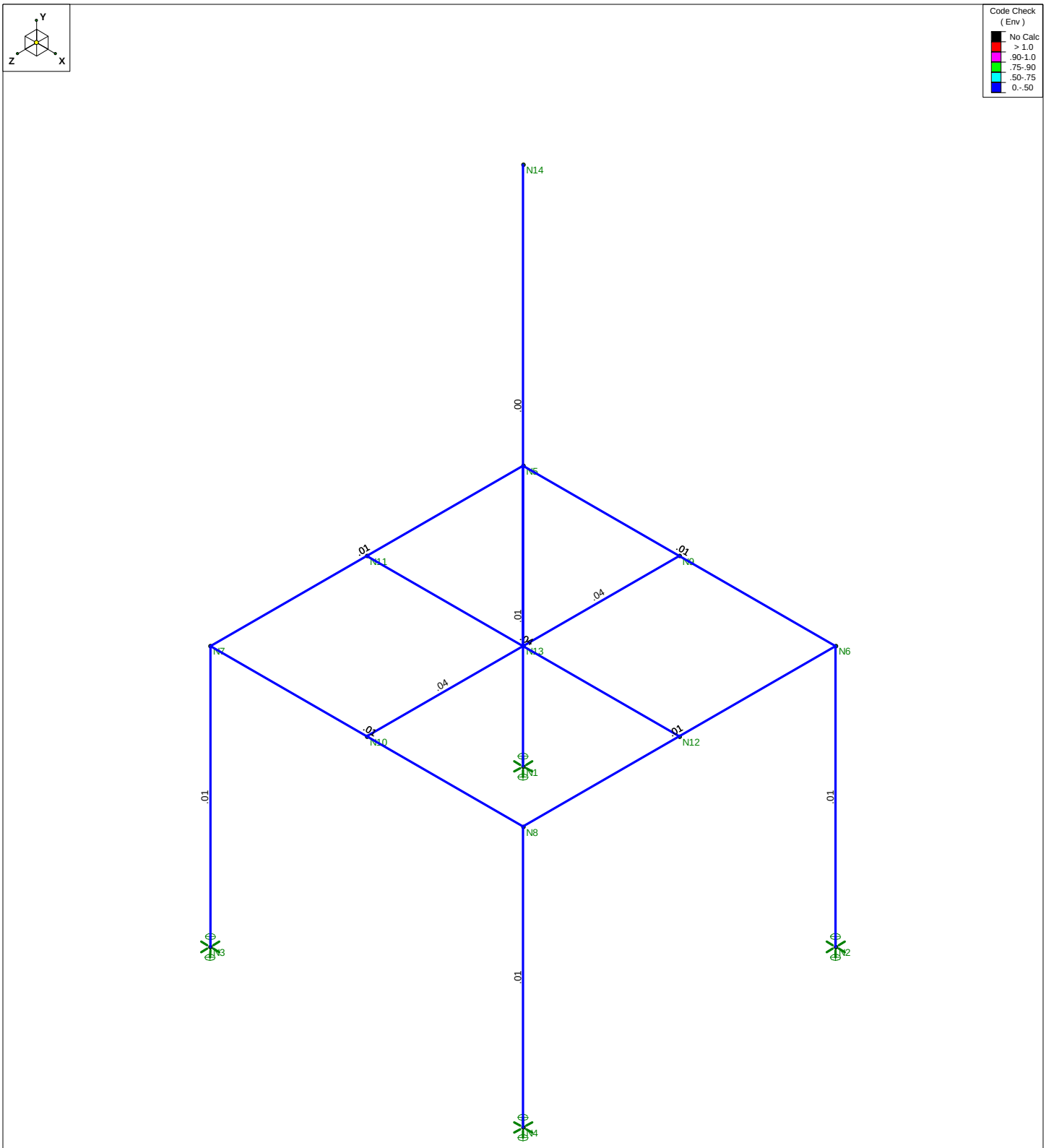
	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N3	max	.009	10	.108	10	-.005	14	0	14	0	14	0	14
2		min	.005	11	.065	11	-.009	1	0	1	0	1	0	1
3	N4	max	-.005	14	.108	10	-.005	14	0	14	0	14	0	14
4		min	-.009	1	.065	11	-.009	1	0	1	0	1	0	1
5	N1	max	.009	10	.108	10	.009	10	0	14	0	14	0	14
6		min	.005	11	.065	11	.005	11	0	1	0	1	0	1
7	N2	max	-.005	14	.108	10	.009	10	0	14	0	14	0	14
8		min	-.009	1	.065	11	.005	11	0	1	0	1	0	1
9	Totals:	max	0	14	.431	10	0	14						
10		min	0	1	.259	11	0	1						

Envelope Joint Displacements

	Joint		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
1	N1	max	0	14	0	14	0	14	-1.869e-05	14	0	14	3.115e-05	10
2		min	0	1	0	1	0	1	-3.115e-05	1	0	1	1.869e-05	11
3	N2	max	0	14	0	14	0	14	-1.869e-05	14	0	14	-1.869e-05	14
4		min	0	1	0	1	0	1	-3.115e-05	1	0	1	-3.115e-05	1
5	N3	max	0	14	0	14	0	14	3.115e-05	10	0	14	3.115e-05	10
6		min	0	1	0	1	0	1	1.869e-05	11	0	1	1.869e-05	11
7	N4	max	0	14	0	14	0	14	3.115e-05	10	0	14	-1.869e-05	14
8		min	0	1	0	1	0	1	1.869e-05	11	0	1	-3.115e-05	1
9	N5	max	0	10	0	14	0	10	6.459e-05	10	0	14	-3.875e-05	14
10		min	0	11	0	1	0	11	3.875e-05	11	0	1	-6.459e-05	1
11	N6	max	0	14	0	14	0	10	6.459e-05	10	0	14	6.459e-05	10
12		min	0	1	0	1	0	11	3.875e-05	11	0	1	3.875e-05	11
13	N7	max	0	10	0	14	0	14	-3.875e-05	14	0	14	-3.875e-05	14
14		min	0	11	0	1	0	1	-6.459e-05	1	0	1	-6.459e-05	1
15	N8	max	0	14	0	14	0	14	-3.875e-05	14	0	14	6.459e-05	10
16		min	0	1	0	1	0	1	-6.459e-05	1	0	1	3.875e-05	11
17	N9	max	0	14	0	14	0	10	2.133e-04	10	0	14	0	14
18		min	0	1	0	1	0	11	1.28e-04	11	0	1	0	1
19	N10	max	0	14	0	14	0	14	-1.28e-04	14	0	14	0	14
20		min	0	1	0	1	0	1	-2.133e-04	1	0	1	0	1
21	N11	max	0	10	0	14	0	14	0	14	0	14	-1.28e-04	14
22		min	0	11	0	1	0	1	0	1	0	1	-2.133e-04	1
23	N12	max	0	14	0	14	0	14	0	14	0	14	2.133e-04	10
24		min	0	1	0	1	0	1	0	1	0	1	1.28e-04	11
25	N13	max	0	14	-.003	14	0	14	0	14	0	14	0	14
26		min	0	1	-.005	1	0	1	0	1	0	1	0	1
27	N14	max	0	14	-.003	14	0	14	0	14	0	14	0	14
28		min	0	1	-.005	1	0	1	0	1	0	1	0	1

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

	Memb...	Shape	Code Check	L...	LC	Sh...	L...	Dir	...	Pnc/o...	Pnt/o...	Mnyy/om [k-ft]	Mn...	Cb	Eqn
1	M1	PIPE_2.5X	.011	0	10	.001	0		...	41.746	44.012	3.091	3.091	1....	H1...
2	M2	PIPE_2.5X	.011	0	10	.001	0		...	41.746	44.012	3.091	3.091	1....	H1...
3	M3	PIPE_2.5X	.011	0	10	.001	0		...	41.746	44.012	3.091	3.091	1....	H1...
4	M4	PIPE_2.5X	.011	0	10	.001	0		...	41.746	44.012	3.091	3.091	1....	H1...
5	M5	C10X15.3	.013	0	10	.006	1....	z	...	84.408	96.575	3.319	28....	1....	H1...
6	M6	C10X15.3	.013	0	10	.006	1....	z	...	84.408	96.575	3.319	28....	1....	H1...
7	M7	C10X15.3	.013	0	10	.006	1....	z	...	84.408	96.575	3.319	28....	1....	H1...
8	M8	C10X15.3	.013	3	10	.006	1....	z	...	84.408	96.575	3.319	28....	1....	H1...
9	M9	C4X7.25	.039	1.5	10	.003	3	z	...	32.618	45.916	.969	4.913	1	H1...
10	M10	C4X7.25	.039	1.5	10	.003	0	z	...	42.154	45.916	.969	5.102	1	H1...
11	M11	C4X7.25	.039	0	10	.003	1.5	z	...	42.154	45.916	.969	5.102	1	H1...
12	M12	PIPE_3.0	.003	0	10	.000	0		...	39.822	43.383	3.825	3.825	1	H1...



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

Centek Engineering		
TJL	Mystic SC1	Sept 13, 2022 at 2:52 PM
22105.05	Unity Check	Mount.r3d

verizon fuze | RFDS

EAST > North East > New England > New England West > MYSTIC SC 1 CT

RF Submit by: Stevens, Wesley - wesley.stevens@verizonwireless.com - 3/30/2023, 7:38:58 AM

EE Submit by: Driscoll, Janet - janet.driscoll@verizonwireless.com - 7/19/2022, 8:23:55 AM

Project Details

FUZE Project ID:	16774002
Project Name:	Radio Swap
Project Alt Name:	MYSTIC SC 1 CT - NENG_SC_ESNAP
Project Type:	Modification
Modification Type:	RF
Designed Sector Carrier 4G:	2
Designed Sector Carrier 5G:	N/A
Additional Sector Carrier 4G:	N/A
Additional Sector Carrier 5G:	N/A
FP Solution Type & Tech Type:	MODIFICATION;4G_700,4G_850,4G_Radio Swap
Carrier Aggregation:	false
MPT Id:	
eCIP-0:	false
Suffix:	Rev1_20230330

Location Information

Site ID:	3400790
E-NodeB ID:	064405,064439
PSLC:	467653
Switch Name:	Wallingford 1
Tower Owner:	
Tower Type:	Rooftop
Site Type:	SMALL-CELL
Site Sub Type:	SPOKE
Street Address:	212 Deans Mill Rd
City:	Stonington
State:	CT
Zip Code:	06378
County:	New London
Latitude:	41.37148056 / 41° 22' 17.33" N
Longitude:	-71.92881611 / 71° 55' 43.738" W

RFDS Project Scope:

Per ESNAP direction, changing to 700/850
Swap antenna to HTXCWW63111414F
Swap RRH to SS dual-band (700/850)

Rev1_20230330: updated RRH to ORAN
Rev0_20220223: initial design

Antenna Summary

Added

700	850	AWS	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID
LTE	LTE		AMPHENOL	HTXCWW63111414F	24.9	25.9	295(04)	false	false	PHYSICAL	1	

Removed

700	850	AWS	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID
		LTE	ANDREW	HBX-6513DS-A1M	26.6	27.7	295(04)	false	false	PHYSICAL	1	

Retained

700	850	AWS	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID

No data available.

Added: 1 **Removed:** 1 **Retained:** 0

Equipment Summary

Added

Equipment Type	Location	700	850	AWS	Make	Model	Cable Length	Cable Size	Install Type	Quantity	Item ID
Kit	Tower				GEMINI	1600131299A			PHYSICAL	1	000000001900078
Kit	Tower				GEMINI	1600270671A			PHYSICAL	1	000000001900057
Kit	Tower				QUADELECTRIC	F113CGRS0101FLF025			PHYSICAL	2	000000001900038
Kit	Tower				QUADELECTRIC	FLI002OT010046M010			PHYSICAL	2	000000001900038
Kit	Tower				QUADELECTRIC	SAM-CBRS-BRT-NID			PHYSICAL	1	000000001900005
Kit	Tower				QUADELECTRIC	TRAT303H1B1J00F050			PHYSICAL	8	000000001900028
Kit	Tower				QUADELECTRIC	UXP-4MT-12S			PHYSICAL	8	0000000019001671
Kit	Tower				QUADELECTRIC	WPS-4F			PHYSICAL	8	0000000019001667
Kit	Tower				QUADELECTRIC	WPS-N-4S			PHYSICAL	8	0000000019001668
Kit	Tower				QUADELELECTRIC	V3000			PHYSICAL	1	000000001900059
Other	Tower				SAMSUNGELE-001	SLS-BB1150EDEX			PHYSICAL	1	0000000019001673
RRU	Tower	LTE	LTE		Samsung	B5/B13 RRH ORAN (RF4440d-13A)			PHYSICAL	1	

Removed

Equipment Type	Location	700	850	AWS	Make	Model	Cable Length	Cable Size	Install Type	Quantity	Item ID
RRU	Tower			LTE	Nokia	UHIC B4 RRH 2x60-4R			PHYSICAL	1	

Retained

Equipment Type	Location	700	850	AWS	Make	Model	Cable Length	Cable Size	Install Type	Quantity	Item ID

No data available.

Service Info

700 MHz LTE

	0001
Sector	**04**
Azimuth	295
Cell / ENode B ID	064439
Antenna Model	HTXCWW63111414F
Antenna Make	AMPHENOL
Antenna Centerline(Ft)	24.9
Mechanical Down-Tilt(Deg.)	0
Electrical Down-Tilt	5
Tip Height	25.9
Regulatory Power	4.22
DLEARFCN	5230
Channel Bandwidth(MHz)	10
Total ERP (W)	38.02
TMA Make	
TMA Model	
RRU Make	Samsung
RRU Model	B5/B13 RRH ORAN (RF4440d-13A)
Number of Tx, Rx Lines	2,2
Position	
Transmitter Id	12436008
Source	ATOLL_API

850 MHz LTE

	0001
Sector	**04**
Azimuth	295
Cell / ENode B ID	064439
Antenna Model	HTXCWW63111414F
Antenna Make	AMPHENOL
Antenna Centerline(Ft)	24.9
Mechanical Down-Tilt(Deg.)	0
Electrical Down-Tilt	5
Tip Height	25.9
Regulatory Power	8.45
DLEARFCN	2450
Channel Bandwidth(MHz)	10
Total ERP (W)	38.02
TMA Make	
TMA Model	
RRU Make	Samsung
RRU Model	B5/B13 RRH ORAN (RF4440d-13A)
Number of Tx, Rx Lines	2,2
Position	
Transmitter Id	12436009
Source	ATOLL_API

2100 MHz LTE

0000

Sector	**04**
Azimuth	295
Cell / ENode B ID	064439
Antenna Model	HBX-6513DS-A1M
Antenna Make	ANDREW
Antenna Centerline(Ft)	26.6
Mechanical Down-Tilt(Deg.)	0
Electrical Down-Tilt	0
Tip Height	27.7
Regulatory Power	111.33
DLEARFCN	2050
Channel Bandwidth(MHz)	20
Total ERP (W)	1221.52
TMA Make	
TMA Model	
RRU Make	Nokia
RRU Model	UHIC B4 RRH 2x60-4R
Number of Tx, Rx Lines	2,2
Position	
Transmitter Id	1962387
Source	ATOLL_API

Service Comments

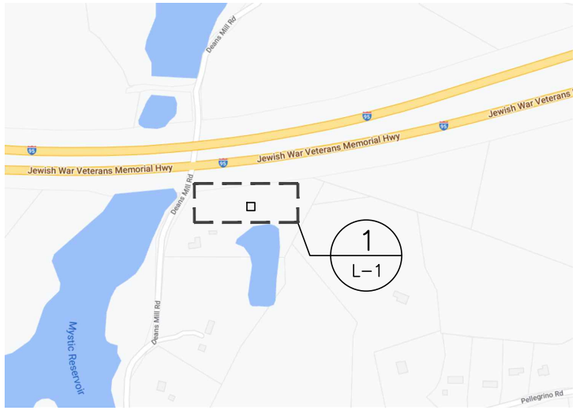
Callsigns Per Antenna

Sector	Antenna Make	Antenna Model	Ant CL Height AGL	Tip Height	Azimuth (TN)	Elec Tilt	Mech Tilt	Gain	Beam Width	Regulatory Power	Callsigns						
											700	850	1900	2100	28 GHz	31 GHz	39 GHz
No data available.																	

Callsigns

Callsign	Market	Radio Code	Market Number	Block	State	County	Licensee Name	Wholly Owned	Total MHZ	Freq Range 1	Freq Range 2	Freq Range 3	Freq Range 4	Regulatory Power	Threshold (W)	POPs /Sq Mi	Status	Action	Approved for Insvc
WQJQ689	*Northeast*	*WU*	*REA001*	*C*	*CT*	*New London*	*Cellco Partnership*	*Yes*	*22.000*	*746.000-757.000*	*776.000-787.000*	*.000-.000*	*.000-.000*	*4.22*	*1000*	*403.90*	*Active*	*added*	*Yes*
KNKA745	*New London-Norwich, CT*	*CL*	*CMA154*	*A*	*CT*	*New London*	*Cellco Partnership*	*Yes*	*25.000*	*824.000-835.000*	*869.000-880.000*	*845.000-846.500*	*890.000-891.500*	*8.45 - PSD*	*400*	*403.90*	*Active*	*added*	*Yes*
WQGD494	*New London-Norwich, CT*	*AW*	*CMA154*	*A*	*CT*	*New London*	*Cellco Partnership*	*Yes*	*20.000*	*1710.000-1720.000*	*2110.000-2120.000*	*.000-.000*	*.000-.000*		*1640*	*403.90*	*Active*	*removed*	*Yes*
WQGA906	*New York-No. New Jer.-Long Island, NY-NJ-CT-PA-MA-*	*AW*	*BEA010*	*B*	*CT*	*New London*	*Cellco Partnership*	*Yes*	*20.000*	*1720.000-1730.000*	*2120.000-2130.000*	*.000-.000*	*.000-.000*		*1640*	*403.90*	*Active*	*removed*	*Yes*
WQDU931	New London-Norwich, CT	CW	BTA319	C	CT	New London	Cellco Partnership	Yes	10.000	1900.000-1905.000	1980.000-1985.000	.000-.000	.000-.000		1640	403.90	Active		Yes
WQEM954	New London-Norwich, CT	CW	BTA319	C	CT	New London	Cellco Partnership	Yes	10.000	1895.000-1900.000	1975.000-1980.000	.000-.000	.000-.000		1640	403.90	Active		Yes
KNLH263	New London-Norwich, CT	CW	BTA319	F	CT	New London	Cellco Partnership	Yes	10.000	1890.000-1895.000	1970.000-1975.000	.000-.000	.000-.000		1640	403.90	Active		Yes
WREE835	C09011 - New London, CT	UU	C09011	L1	CT	New London	Cellco Partnership	Yes	425.000	27500.000-27925.000	.000-.000	.000-.000	.000-.000			403.90	Active		Yes
WREE836	C09011 - New London, CT	UU	C09011	L2	CT	New London	Cellco Partnership	Yes	425.000	27925.000-28350.000	.000-.000	.000-.000	.000-.000			403.90	Active		Yes
WRHD609	New York, NY	UU	PEA001	M1	CT	New London	Cellco Partnership	Yes	100.000	37600.000-37700.000	.000-.000	.000-.000	.000-.000			403.90	Active		Yes
WRHD610	New York, NY	UU	PEA001	M10	CT	New London	Cellco Partnership	Yes	100.000	38500.000-38600.000	.000-.000	.000-.000	.000-.000			403.90	Active		Yes
WRHD611	New York, NY	UU	PEA001	M2	CT	New London	Cellco Partnership	Yes	100.000	37700.000-37800.000	.000-.000	.000-.000	.000-.000			403.90	Active		Yes
WRHD612	New York, NY	UU	PEA001	M3	CT	New London	Cellco Partnership	Yes	100.000	37800.000-37900.000	.000-.000	.000-.000	.000-.000			403.90	Active		Yes
WRHD613	New York, NY	UU	PEA001	M4	CT	New London	Cellco Partnership	Yes	100.000	37900.000-38000.000	.000-.000	.000-.000	.000-.000			403.90	Active		Yes
WRHD614	New York, NY	UU	PEA001	M5	CT	New London	Cellco Partnership	Yes	100.000	38000.000-38100.000	.000-.000	.000-.000	.000-.000			403.90	Active		Yes
WRHD615	New York, NY	UU	PEA001	M6	CT	New London	Cellco Partnership	Yes	100.000	38100.000-38200.000	.000-.000	.000-.000	.000-.000			403.90	Active		Yes
WRHD616	New York, NY	UU	PEA001	M7	CT	New London	Cellco Partnership	Yes	100.000	38200.000-38300.000	.000-.000	.000-.000	.000-.000			403.90	Active		Yes
WRHD617	New York, NY	UU	PEA001	M8	CT	New London	Cellco Partnership	Yes	100.000	38300.000-38400.000	.000-.000	.000-.000	.000-.000			403.90	Active		Yes
WRHD618	New York, NY	UU	PEA001	M9	CT	New London	Cellco Partnership	Yes	100.000	38400.000-38500.000	.000-.000	.000-.000	.000-.000			403.90	Active		Yes
WRHD619	New York, NY	UU	PEA001	N1	CT	New London	Cellco Partnership	Yes	100.000	38600.000-38700.000	.000-.000	.000-.000	.000-.000			403.90	Active		Yes
WRNE581	New York, NY	PM	PEA001	A1	CT	New London	Cellco Partnership	Yes	20.000	3700.000-3720.000	.000-.000	.000-.000	.000-.000		1640	403.90	Active		Yes

WRNE582	New York, NY	PM	PEA001	A2	CT	New London	Cellco Partnership	Yes	20.000	3720.000-3740.000	.000-.000	.000-.000	.000-.000		1640	403.90	Active		Yes
WRNE583	New York, NY	PM	PEA001	A3	CT	New London	Cellco Partnership	Yes	20.000	3740.000-3760.000	.000-.000	.000-.000	.000-.000		1640	403.90	Active		Yes
WRNE584	New York, NY	PM	PEA001	A4	CT	New London	Cellco Partnership	Yes	20.000	3760.000-3780.000	.000-.000	.000-.000	.000-.000		1640	403.90	Active		No
WRNE585	New York, NY	PM	PEA001	A5	CT	New London	Cellco Partnership	Yes	20.000	3780.000-3800.000	.000-.000	.000-.000	.000-.000		1640	403.90	Active		No
WRNE586	New York, NY	PM	PEA001	B1	CT	New London	Cellco Partnership	Yes	20.000	3800.000-3820.000	.000-.000	.000-.000	.000-.000		1640	403.90	Active		No
WRNE587	New York, NY	PM	PEA001	B2	CT	New London	Cellco Partnership	Yes	20.000	3820.000-3840.000	.000-.000	.000-.000	.000-.000		1640	403.90	Active		No
WRNE588	New York, NY	PM	PEA001	B3	CT	New London	Cellco Partnership	Yes	20.000	3840.000-3860.000	.000-.000	.000-.000	.000-.000		1640	403.90	Active		No



KEY PLAN

SCALE: 1" = 200'

NORTH

SITE COORDINATES: LAT.: 41° 22' 17.333"
LNG.: 71° 55' 43.738"

GROUND ELEVATION: 82.25'± A.M.S.L.

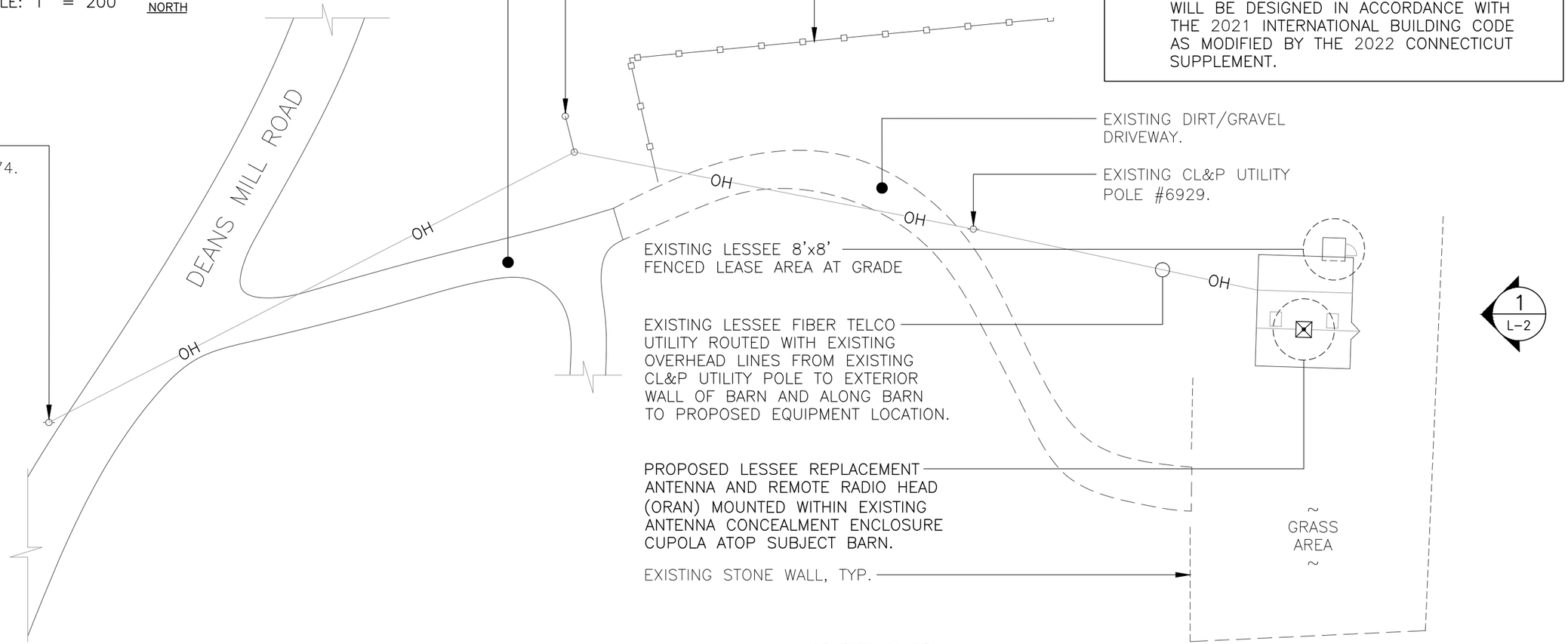
(SITE COORDINATES AND GROUND ELEVATION REFERENCED FROM FAA 2-C SURVEY CERTIFICATION AS PREPARED FOR VERIZON WIRELESS BY CENTEK ENGINEERING, DATED DECEMBER 03, 2015)

LEASE EXHIBIT

THIS LEASE PLAN IS DIAGRAMMATIC IN NATURE AND IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION AND SIZE OF THE PROPOSED WIRELESS COMMUNICATION FACILITY. THE SITE LAYOUT WILL BE FINALIZED UPON COMPLETION OF SITE SURVEY AND FACILITY DESIGN.

WORK SCOPE NOTES:

1. THE PROPOSED LESSEE FACILITY UPGRADE TO CONSIST OF THE REPLACEMENT OF A TOTAL OF (1) ANTENNA AND (1) REMOTE RADIO UNIT (ORAN), AT THEIR RESPECTIVE EXISTING LOCATIONS.
2. THE PROPOSED LESSEE FACILITY UPGRADE WILL BE DESIGNED IN ACCORDANCE WITH THE 2021 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2022 CONNECTICUT SUPPLEMENT.



1 / L-1 **SITE LOCATION PLAN**

SCALE: 1" = 40'

APPROXIMATE NORTH

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

1 inch = 40 ft.

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
D	04/10/23	DRA	TJR	LEASE EXHIBIT - REVISED PER UPDATED RFDS
C	03/15/23	TJR	DMD	LEASE EXHIBIT - REVISED PER CLIENT COMMENTS
B	03/01/23	TJR	DMD	LEASE EXHIBIT - REVISED PER CSC COMMENTS
A	09/12/22	TJR	DMD	LEASE EXHIBIT - ISSUED FOR CLIENT REVIEW

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CENTEK engineering
Centered on Solutions
(203) 488-0580
(203) 488-8587 Fax
63-2 North Branford Road
Branford, CT 06405
www.CentekEng.com

verizon

Cellco Partnership d/b/a Verizon Wireless

MYSTIC SC1

212 DEANS MILL ROAD
STONINGTON, CT 06378

DATE:	09/12/2022
SCALE:	AS SHOWN
JOB NO.	22105.05

SHEET NO. L-1

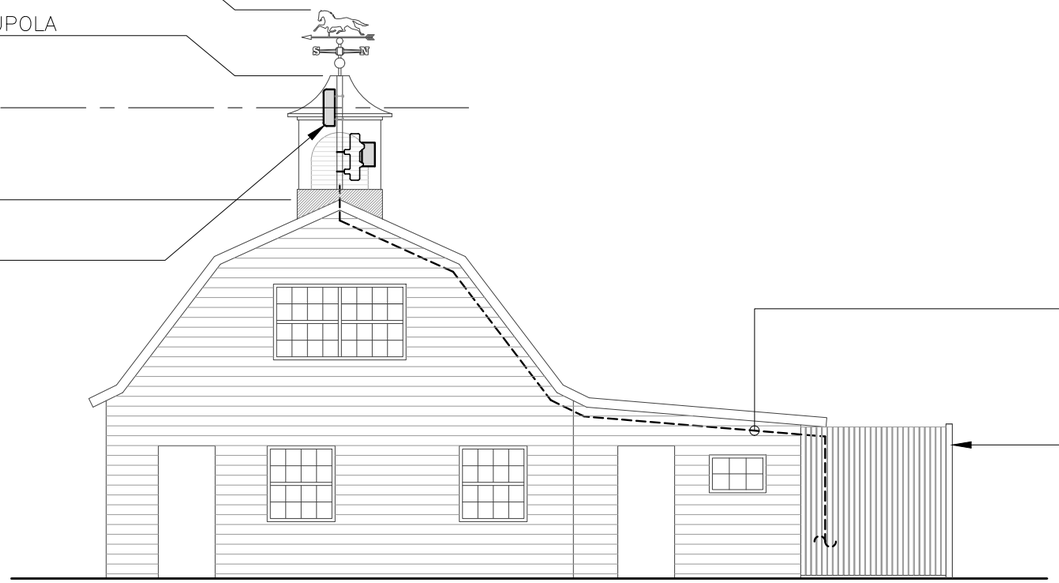
TOP OF EXISTING WEATHER VANE
EL. ±29'-6" A.G.L.

TOP OF EXISTING ANTENNA CONCEALMENT CUPOLA
EL. ±26'-10" A.G.L.

℄ OF EXISTING/PROPOSED LESSEE ANTENNA
EL. ±24'-11" A.G.L.

TOP OF EXISTING ROOF
EL. ±20'-4" A.G.L.

PROPOSED LESSEE REPLACEMENT ANTENNA AND REMOTE RADIO HEAD (ORAN) MOUNTED WITHIN EXISTING ANTENNA CONCEALMENT ENCLOSURE CUPOLA ATOP SUBJECT BARN.
(REMOVABLE ACCESS PANEL LOCATED ON EAST SIDE OF CUPOLA)



EXISTING LESSEE ELECTRICAL, TELCO, AND GROUND CONDUITS ROUTED FROM CUPOLA, DOWN THE INTERIOR OF THE ROOF, TO THE EXTERIOR OF BARN.

EXISTING LESSEE 8' TALL VINYL FENCE W/ 4' WIDE ACCESS GATE ENCLOSING A ±8'x8' LEASE AREA FOR LESSEE EQUIPMENT ON CONC. PAD AT GRADE.

LEASE EXHIBIT

THIS LEASE PLAN IS DIAGRAMMATIC IN NATURE AND IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION AND SIZE OF THE PROPOSED WIRELESS COMMUNICATION FACILITY. THE SITE LAYOUT WILL BE FINALIZED UPON COMPLETION OF SITE SURVEY AND FACILITY DESIGN.

1 / L-2 **EAST ELEVATION**
SCALE: 1" = 8'

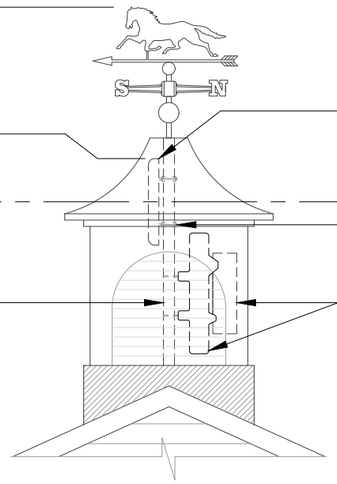
GRAPHIC SCALE
8 0 4 8 16 32
(IN FEET)
1 inch = 8 ft.

TOP OF EXISTING WEATHER VANE
EL. ±29'-6" A.G.L.

TOP OF EXISTING ANTENNA
EL. ±26'-0" A.G.L.

℄ OF EXISTING/PROPOSED LESSEE ANTENNA
EL. ±24'-11" A.G.L.

EXISTING 3.5" O.D. PIPE MAST TO REMAIN

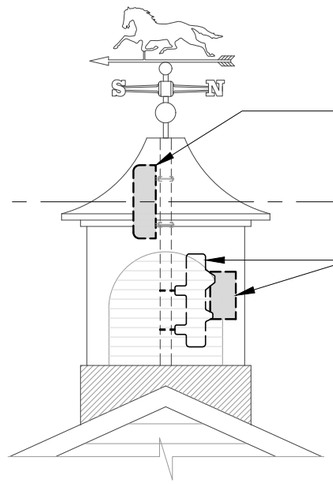


EXISTING LESSEE ANTENNA TO BE REPLACED

EXISTING LESSEE ANTENNA MOUNT TO REMAIN

EXISTING LESSEE RADIO (RRU) AND SUPPORT BRACKET TO BE REPLACED

EXISTING CONDITION



PROPOSED LESSEE REPLACEMENT ANTENNA MOUNTED TO EXISTING ANTENNA MOUNT

PROPOSED LESSEE REPLACEMENT REMOTE RADIO HEAD (ORAN) AND SUPPORT BRACKET

PROPOSED CONDITION

2 / L-2 **ANTENNA/MOUNT ELEVATIONS**
SCALE: 1" = 4'

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
D	04/10/23	DRA	TJR	LEASE EXHIBIT - REVISED PER UPDATED RFDS
C	03/15/23	TJR	DMD	LEASE EXHIBIT - REVISED PER CLIENT COMMENTS
B	03/01/23	TJR	DMD	LEASE EXHIBIT - REVISED PER CSC COMMENTS
A	09/12/22	TJR	DMD	LEASE EXHIBIT - ISSUED FOR CLIENT REVIEW

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(203) 488-8587 Fax
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Branford, CT 06405
www.CentekEng.com

Cellco Partnership d/b/a Verizon Wireless

MYSTIC SC1
212 DEANS MILL ROAD
STONINGTON, CT 06378

DATE: 09/12/2022
SCALE: AS SHOWN
JOB NO. 22105.05

SHEET NO.
L-2