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
www.ct.gov/csc

VIA ELECTRONIC MAIL

May 10, 2019

Lucia Chiocchio, Esq.
Cuddy & Feder, LLP
445 Hamilton Avenue, 14th floor
White Plains, New York 10601

RE: **TS-CING-054-190501** – New Cingular Wireless PCS, LLC (AT&T) request for an order to approve tower sharing at an existing telecommunications facility located at 63 Woodland Street, Glastonbury, Connecticut.

Dear Attorney Chiocchio:

The Connecticut Siting Council (Council) is in receipt of your correspondence of May 8, 2019 submitted in response to the Council's May 2, 2019 notification of an incomplete request for tower sharing with regard to the above-referenced matter.

The submission renders the request for tower sharing complete and the Council will process the request in accordance with the Federal Communications Commission 60-day timeframe.

Thank you for your attention and cooperation.

Sincerely,

Melanie A. Bachman
Executive Director

MAB/IN/emr

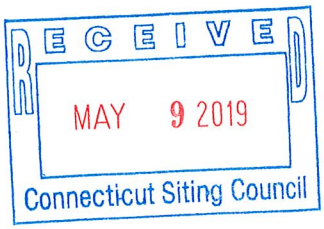
CUDDY +FEDER LLP

445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
T 914 761 1300
F 914 761 5372
cuddyfeder.com

ts-cng-054-190501

Lucia Chiocchio
lchiocchio@cuddyfedder.com

May 8, 2019



VIA EMAIL AND OVERNIGHT DELIVERY
Members of the Connecticut Siting Council
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Re: Tower Sharing Request by New Cingular Wireless PCS, LLC
Facility as Approved in Siting Council Docket 478
Premises: 63 Woodland Street, Glastonbury, Connecticut

Dear Members of the Siting Council:

This letter is respectfully submitted on behalf of our client, New Cingular Wireless PCS, LLC ("AT&T"), in connection with the request dated April 30, 2019 for an order from the Connecticut Siting Council (the "Council") to approve the proposed shared use of a communications tower and associated compound at the parcel identified as 63 Woodland Street in the Town of Glastonbury.

The Council issued a notice of incompletion dated May 2, 2019 requesting a structural analysis signed and stamped by a professional engineer registered in the State of Connecticut as well as proof of proper notice of this tower share request to the underlying property owner, the chief elected official of the host municipality, and the respective Planning and Zoning Department. With this letter, AT&T hereby submits an electronic version and fifteen hard copies of the following in response to the Council's request:

- Rigorous Structural Analysis Report prepared by Morrison Hershfield dated February 22, 2019 signed and sealed by G. Lance Cooke, P.E. (CT License No. PEN.0028133)[1];
- Proof of proper notice of the tower share request to the underlying property owner, Paul Cavanna;
- Proof of proper notice of the tower share request to the Town of Glastonbury Town Council Chairman Thomas P. Gullotta;

[1] Please note that the structural analysis was electronically certified by a professional engineer licensed in Connecticut. However, the electronic signature was not transmitted on the copies sent with the original filing.

- Proof of proper notice of the tower share request to the Town of Glastonbury Town Manager Richard J. Johnson; and
- Proof of proper notice of the tower share request to the Town of Glastonbury Planning and Zoning Department.

Thank you for your consideration of this request. Should the Council members or Staff have any questions regarding the foregoing, please do not hesitate to contact me.

Very truly yours,

Lucia Chiocchio

Attachments

cc: AT&T
Smartlink LLC
C Squared Systems, LLC
Daniel Patrick, Esq.
Julie Durkin

Eco-Site

MORRISON HERSHFIELD

Kimberly Anthony
Eco-Site
240 Leigh Farm Road, Suite 415
Durham, NC 27707
(919) 551-5041

Morrison Hershfield
1455 Lincoln Parkway, Suite 500
Atlanta, GA 30346
(770) 379-8500

Date: February 22, 2019

Subject: **Rigorous Structural Analysis Report**

Eco-Site Site Number: CT-0007
Eco-Site Site Name: HOPEWELL

Carrier: AT&T Mobility
Carrier Site Number: CT2421
Carrier Site Name: Glatsonbury_Woodland Ln

Site Address: 63 Woodland Street, Glastonbury, Hartford County, CT 06073
Site Coordinates: Latitude 41° 39' 38.85", Longitude 72° 34' 26.75"
Tower Description: 150 ft –Monopole

Morrison Hershfield Project Number: ECO-077 / 190025101

Dear Ms. Anthony,

Morrison Hershfield has carried out a structural analysis of the above referenced structure for the existing and proposed antenna and equipment noted. This rigorous analysis has been performed in accordance with the 2018 Connecticut Building Code (2015 IBC) based upon an ultimate 3-second gust wind speed of 125 mph converted to a nominal 3-second gust wind speed of 97 mph per Section 1609.3.1 as required for use in the TIA-222-G Standard per Exception #5 of Section 1609.1.1. Exposure Category C, Topographic Category 1 and Risk Category II were used in this analysis.

Our analysis demonstrates that the existing tower and foundation **ARE in conformance (tower at 75.2% and foundation at 74.2%)** with the requirements of the above noted standards under the effects of loading described.

We at *Morrison Hershfield* appreciate the opportunity of providing our continuing professional services to you and Eco-Site. If you have any questions or need further assistance on this or any other projects please give us a call.

Respectfully submitted by:
Morrison Hershfield

STATE OF CONNECTICUT
G. LANCE COOKE
No. 28133
LICENSED PROFESSIONAL ENGINEER

Digitally signed by G.Lance Cooke
Date: 2019.02.22 08:28:28-08'00'

G. Lance Cooke, P.E. (CT License No. PEN.0028133)
Senior Engineer

Firm License No. 0918208

INTRODUCTION

This tower is a 150 ft monopole designed by Ehresmann Engineering, Inc., in December of 2018. The tower was originally designed for a wind speed of 103 mph and per TIA-222-G Standard.

This rigorous analysis has been performed in accordance with the requirements of the 2018 Connecticut Building Code (2015 IBC) based upon an ultimate 3-second gust wind speed of 125 mph converted to a nominal 3-second gust wind speed of 97 mph with no ice, 50 mph with 1.00 inch of radial ice thickness and 60 mph under service conditions per section 1609.3.1 as required for use in the TIA-222-G Standard per Exception # 5 of Section 1609.1.1. Exposure category C, Topographic Category 1 and Risk Category II were used in this analysis. The design spectral response accelerations of S_{DS} = 0.144 and S_{D1} = 0.071 for Site Soil Class C were considered in this analysis.

Seismic design factors have been considered in this analysis. The seismic spectral response acceleration at short periods (S_s = 0.18) was determined to be less than 1.00; therefore as per ASCE7-10 seismic effects have not been considered in this analysis.

The structural analysis was based on the following documentation:

Documentation

Document	Description	Source
Geotechnical Report	FDH Velocitel., Project No. 18PGJC1600, dated 04/10/2018	Client
Tower and Foundation Design	Ehresmann Engineering, Inc., Job No. 102800, dated 12/17/2018	Client
Proposed Loading	Client Collocation Application, Site ID: CT2421, dated 02/13/2019	Client

1.0 ANALYSIS LOADING

The existing and proposed antennas, transmission lines, and other equipment considered in this analysis were provided by the client and are noted in the attachments.

ANALYSIS PROCEDURE

tnxTower (Version 8.0.5.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is attached at the end of this report.

2.0 ASSUMPTIONS

The analysis provided by Morrison Hershfield is based on the theoretical capacity of the structure and is not a condition assessment of the tower. Morrison Hershfield has not performed an engineering inspection of the tower and the analysis was completed based on information supplied by the client. Morrison Hershfield has not made any independent determination of the accuracy of the information provided.

1) Tower and structures were built in accordance with the manufacturer's specifications and the applicable ANSI/TIA/EIA standard.
2) The tower and structures have been maintained in accordance with the manufacturer's specification.
3) The tower is assumed to be in good condition and capable of supporting its full design capacity.
4) The foundation was properly designed and constructed for the original design loads.
5) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in the attached Tower Analysis Summary Form.
6) All existing/proposed antennas and antenna mounts are assumed to be adequate for the existing/proposed loads. Analysis of these antennas and antenna mounts is considered to be outside of the scope of this analysis. Morrison Hershfield has not performed an analysis of the existing/proposed antennas or antenna mounts.
7) Proposed loading for AT&T Mobility has been taken from the Client Collocation Application, Site No. CT-0007, dated 02/13/2019, and is considered to be correct.

8) Reserved loading for AT&T Mobility has been taken as an aggregate wind load surface area of twenty eight thousand (28,000) square inches as requested by the client.
9) Reserved loading for T-Mobile has been taken as an aggregate wind load surface area of twenty five thousand (25,000) square inches and twenty-four (24) 1-5/8" lines as requested by the client.

If any assumptions are not valid or have been made in error, this analysis is invalid. Morrison Hershfield should be notified to determine the effect on the structural integrity of the tower.

3.0 SUMMARY OF RESULTS

The following tables summarize the location and utilized percentage of available capacity for each component of the tower. With consideration to the appropriate safety factors, 100% represents the full capacity of the component. Percentages below 100% indicate available capacity and conformance of the component. Percentages above 100% indicate an overstressed situation requiring structural modification to ensure conformance with the applicable codes and standards.

Based on our analysis results, the **tower and foundation ARE within capacity** to support the loads under the current loading scenario.

Tower Section Capacity

Section No.	*Elevation ft*	*Component Type*	*Size*	*% Capacity*	*Pass Fail*
L1	150 - 100	Pole	TP39.6x26.4x0.3	53.3	Pass
L2	100 - 65.5	Pole	TP48.3x37.7x0.4	46.9	Pass
L3	65.5 - 32.25	Pole	TP56.3x45.7x0.4	46.9	Pass
L4	32.25 - 0	Pole	TP64x53.4x0.4	54.4	Pass
				Summary	
			Pole (L4)	54.4	Pass
			RATING =	**54.4**	**Pass**

Capacity of Additional Components

Component	*% Capacity*	*Pass/Fail*
Anchor Rods	65.7	Pass
Base Plate	75.2	Pass
Caisson Soil Interaction (Option #1)	22.9	Pass
Caisson Structural (Option #1)	50.2	Pass
Foundation Bearing (Option #2)	26.4	Pass
Foundation Overturning (Option #2)	74.2	Pass

Note: This analysis has been performed according to the controlling load case of reserved and proposed loading

4.0 RECOMMENDATIONS

1. All assumptions made in this analysis should be carefully reviewed. Morrison Hershfield should be contacted for any discrepancies so that a full assessment may be made to validate the results of this analysis.

ATTACHMENTS: Tower Loading, Tower Profile, Program Output, Coax Sketch, Additional Calculations, ASCE Design Parameters and Colocation Application.

Site Inventory Analysis Sheet

Analysis Results (% Maximum Usage)

	Reserved	*Rserved + Proposed*
Pole	47.7%	54.4%
Anchor Rods	57.6%	65.7%
Base Plate	66.0%	75.2%
Caisson Soil Interaction (Option #1)	19.8%	22.9%
Caisson Structural (Option #1)	43.4%	50.2%
Foundation Bearing (Option #2)	23.0%	26.4%
Foundation Overturning (Option #2)	65.3%	74.2%

Reserved Loading

Appurtenances						Mount			Feed Lines	
Mount Height (ft)	Antenna CL (ft)	Quantity	Appurtenance Description	Carrier	Azimuth	Quantity	Manufacturer	Type	Quantity	Size
136	136	-	28,000 sq. in.	AT&T Mobility	-	-	-	Same as Proposed	-	-

Proposed Loading

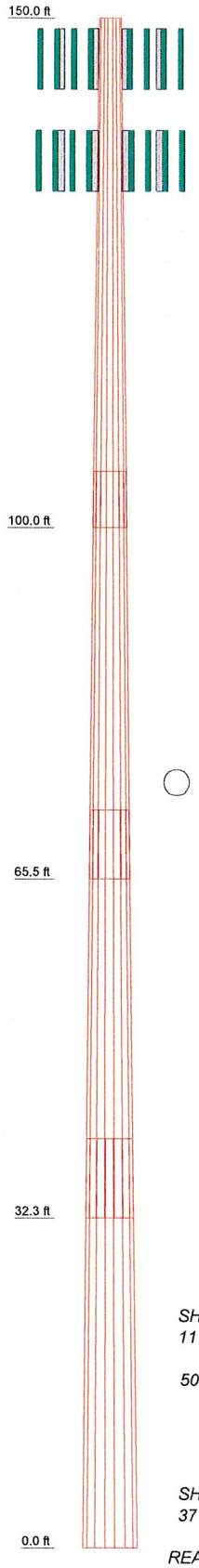
Appurtenances						Mount			Feed Lines	
Mount Height (ft)	Antenna CL (ft)	Quantity	Appurtenance Description	Carrier	Azimuth	Quantity	Manufacturer	Type	Quantity	Size
136	136	6	CCI TPA65R-BU8D Panel	AT&T Mobility	120/240/340	3	Sabre	C10857001C Sector Mount	6	5/8" DC
136	136	3	CCI HPA65R-BU8A Panel						2	3/8" Fiber
136	136	3	Ericsson 4478 B14 RRH							
136	136	3	Ericsson E2-700 RRH							
136	136	3	Ericsson 4415 B30 RRH							
136	136	3	Ericsson 4449 RRH							
136	136	3	Ericsson 8843 RRH							
136	136	3	DC Box							

Reserved Loading

Appurtenances						Mount			Feed Lines	
Mount Height (ft)	Antenna CL (ft)	Quantity	Appurtenance Description	Carrier	Azimuth	Quantity	Manufacturer	Type	Quantity	Size
146	146	-	25,000 sq. in.	T-Mobile	-	-	Unknown		24	1-5/8"

Section	1	2	3	4
Length (ft)	50.0	40.0	40.0	40.0
Number of Sides	18	18	18	18
Thickness (in)	0.3	0.4	0.4	0.4
Socket Length (ft)	5.5	6.8	7.8	
Top Dia (in)	26.4	37.7	45.7	53.4
Bot Dia (in)	39.6	48.3	56.3	64.0
Grade	A572-65			
Weight (K)	4.4	6.9	9.6	11.0

31.9



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
(4) Generic Panel (2083 sq. in.) (R)	146	RRUS-E2 B29	136
(4) Generic Panel (2083 sq. in.) (R)	146	RRUS-E2 B29	136
(4) Generic Panel (2083 sq. in.) (R)	146	RRUS-E2 B29	136
(2) CCI HPA65R-BU8A	136	RRUS 4415	136
(2) CCI HPA65R-BU8A	136	RRUS 4415	136
(2) CCI HPA65R-BU8A	136	RRUS 4415	136
CCI TPA65R-BU8D	136	Ericsson 8843	136
CCI TPA65R-BU8D	136	Ericsson 8843	136
CCI TPA65R-BU8D	136	Ericsson 8843	136
B14 4478	136	DC Box	136
B14 4478	136	DC Box	136
B14 4478	136	DC Box	136
RADIO 4449 B12/B71	136	Sector Mount [SM 602-1]	136
RADIO 4449 B12/B71	136	Sector Mount [SM 602-1]	136
RADIO 4449 B12/B71	136	Sector Mount [SM 602-1]	136

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

1. Tower is located in Hartford County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-G Standard.
3. Tower designed for a 97 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Structure Class II.
7. Topographic Category 1 with Crest Height of 0.0 ft
8. TOWER RATING: 54.4%

ALL REACTIONS ARE FACTORED

AXIAL 78 K

SHEAR 11 K *MOMENT 1125 kip-ft*

50 mph WIND - 1.0 in ICE

AXIAL 47 K

SHEAR 37 K *MOMENT 4079 kip-ft*

REACTIONS - 97 mph WIND

Morrison Hershfield
1455 Lincoln Parkway, Suite 500
Atlanta, GA
Consulting Engineers
Phone: (770) 379-8500
FAX: (770) 379-8501

Job: *ECO-077 / 190025101*			
Project: *CT-0007/Hopewell*			
Client: Eco-Site	Drawn by: GWESH	App'd:	
Code: TIA-222-G	Date: 02/21/19	Scale: NTS	
Path:		Dwg No. E-1	

Tower Input Data

The tower is a monopole.
This tower is designed using the TIA-222-G standard.
The following design criteria apply:

Tower is located in Hartford County, Connecticut.
Basic wind speed of 97 mph.
Structure Class II.
Exposure Category C.
Topographic Category 1.
Crest Height 0.0 ft.
Nominal ice thickness of 1.0 in.
Ice thickness is considered to increase with height.
Ice density of 56 pcf.
A wind speed of 50 mph is used in combination with ice.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 60 mph.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

	Consider Moments - Legs		Distribute Leg Loads As Uniform		Use ASCE 10 X-Brace Ly Rules
	Consider Moments - Horizontals		Assume Legs Pinned	√	Calculate Redundant Bracing Forces
	Consider Moments - Diagonals	√	Assume Rigid Index Plate		Ignore Redundant Members in FEA
	Use Moment Magnification	√	Use Clear Spans For Wind Area		SR Leg Bolts Resist Compression
√	Use Code Stress Ratios		Use Clear Spans For KL/r		All Leg Panels Have Same Allowable
√	Use Code Safety Factors - Guys		Retension Guys To Initial Tension		Offset Girt At Foundation
	Escalate Ice	√	Bypass Mast Stability Checks	√	Consider Feed Line Torque
	Always Use Max Kz	√	Use Azimuth Dish Coefficients		Include Angle Block Shear Check
	Use Special Wind Profile	√	Project Wind Area of Appurt.		Use TIA-222-G Bracing Resist. Exemption
	Include Bolts In Member Capacity		Autocalc Torque Arm Areas		Use TIA-222-G Tension Splice Exemption
	Leg Bolts Are At Top Of Section		Add IBC .6D+W Combination		Poles
	Secondary Horizontal Braces Leg	√	Sort Capacity Reports By Component		Include Shear-Torsion Interaction
	Use Diamond Inner Bracing (4 Sided)		Triangulate Diamond Inner Bracing		Always Use Sub-Critical Flow
	SR Members Have Cut Ends		Treat Feed Line Bundles As Cylinder		Use Top Mounted Sockets
	SR Members Are Concentric		Ignore KL/ry For 60 Deg. Angle Legs		Pole Without Linear Attachments
					Pole With Shroud Or No Appurtenances
					Outside and Inside Corner Radii Are Known

Tapered Pole Section Geometry

Section	*Elevation*	*Section Length*	*Splice Length*	*Number of Sides*	*Top Diameter*	*Bottom Diameter*	*Wall Thickness*	*Bend Radius*	*Pole Grade*
	ft	*ft*	*ft*		*in*	*in*	*in*	*in*	
L1	150.0-100.0	50.0	5.5	18	26.4	39.6	0.3	1.0	A572-65 (65 ksi)
L2	100.0-65.5	40.0	6.8	18	37.7	48.3	0.4	1.5	A572-65 (65 ksi)
L3	65.5-32.3	40.0	7.8	18	45.7	56.3	0.4	1.8	A572-65 (65 ksi)
L4	32.3-0.0	40.0		18	53.4	64.0	0.4	1.8	A572-65

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
									(65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in^2	I in^4	r in	C in	I/C in^3	J in^4	It/Q in^2	w in	w/t
L1	26.8	20.7	1792.4	9.3	13.4	133.7	3587.1	10.4	4.2	16.825
	40.2	31.3	6127.4	14.0	20.1	304.3	12262.8	15.6	6.5	26.147
L2	39.7	44.4	7809.6	13.2	19.1	407.9	15629.4	22.2	6.0	15.927
	49.0	57.0	16530.0	17.0	24.5	674.0	33081.7	28.5	7.8	20.899
L3	48.2	62.9	16311.9	16.1	23.2	702.0	32645.3	31.5	7.3	16.641
	57.1	77.6	30640.1	19.8	28.6	1070.7	61320.5	38.8	9.1	20.903
L4	56.2	73.6	26073.6	18.8	27.1	961.0	52181.4	36.8	8.6	19.725
	64.9	88.3	45055.3	22.6	32.5	1385.8	90169.9	44.1	10.5	23.987

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
****									
*****									
1-5/8" (ATT)	A	No	No	Inside Pole	136.0 - 2.0	2	No Ice	0.0	1.0
							1/2" Ice	0.0	1.0
							1" Ice	0.0	1.0
1-5/8" (ATT)	B	No	No	Inside Pole	136.0 - 2.0	2	No Ice	0.0	1.0
							1/2" Ice	0.0	1.0
							1" Ice	0.0	1.0
1-5/8" (ATT)	C	No	No	Inside Pole	136.0 - 2.0	2	No Ice	0.0	1.0
							1/2" Ice	0.0	1.0
							1" Ice	0.0	1.0
Fiber (3/8") (ATT)	A	No	No	Inside Pole	136.0 - 2.0	1	No Ice	0.0	0.1
							1/2" Ice	0.0	0.1
							1" Ice	0.0	0.1
Fiber (3/8") (ATT)	B	No	No	Inside Pole	136.0 - 2.0	1	No Ice	0.0	0.1
							1/2" Ice	0.0	0.1
							1" Ice	0.0	0.1
*****									
1-5/8" (TMO)	B	No	No	Inside Pole	146.0 - 2.0	24	No Ice	0.0	0.8
							1/2" Ice	0.0	0.8
							1" Ice	0.0	0.8

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	150.0-100.0	A	0.000	0.000	0.000	0.000	0.1
		B	0.000	0.000	0.000	0.000	1.0
		C	0.000	0.000	0.000	0.000	0.1
L2	100.0-65.5	A	0.000	0.000	0.000	0.000	0.1
		B	0.000	0.000	0.000	0.000	0.8
		C	0.000	0.000	0.000	0.000	0.1
L3	65.5-32.3	A	0.000	0.000	0.000	0.000	0.1
		B	0.000	0.000	0.000	0.000	0.7
		C	0.000	0.000	0.000	0.000	0.1
L4	32.3-0.0	A	0.000	0.000	0.000	0.000	0.1

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
		B	0.000	0.000	0.000	0.000	0.7
		C	0.000	0.000	0.000	0.000	0.1

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	150.0-100.0	A	2.282	0.000	0.000	0.000	0.000	0.1
		B		0.000	0.000	0.000	0.000	1.0
		C		0.000	0.000	0.000	0.000	0.1
L2	100.0-65.5	A	2.191	0.000	0.000	0.000	0.000	0.1
		B		0.000	0.000	0.000	0.000	0.8
		C		0.000	0.000	0.000	0.000	0.1
L3	65.5-32.3	A	2.079	0.000	0.000	0.000	0.000	0.1
		B		0.000	0.000	0.000	0.000	0.7
		C		0.000	0.000	0.000	0.000	0.1
L4	32.3-0.0	A	1.862	0.000	0.000	0.000	0.000	0.1
		B		0.000	0.000	0.000	0.000	0.7
		C		0.000	0.000	0.000	0.000	0.1

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Reserved									
(4) Generic Panel (2083 sq. in.)	A	From Leg	4.0	0.00	146.0	No Ice	17.4	9.2	0.0
(R)			0.0			1/2" Ice	18.2	10.0	0.0
			0.0			1" Ice	19.0	10.7	0.0
(4) Generic Panel (2083 sq. in.)	C	From Leg	4.0	0.00	146.0	No Ice	17.4	9.2	0.0
(R)			0.0			1/2" Ice	18.2	10.0	0.0
			0.0			1" Ice	19.0	10.7	0.0
(4) Generic Panel (2083 sq. in.)	B	From Leg	4.0	0.00	146.0	No Ice	17.4	9.2	0.0
(R)			0.0			1/2" Ice	18.2	10.0	0.0
*****						1" Ice	19.0	10.7	0.0
*****									
Proposed									
(2) CCI HPA65R-BU8A	A	From Leg	4.0	0.00	136.0	No Ice	18.1	8.2	0.1
			0.0			1/2" Ice	18.7	8.8	0.2
			0.0			1" Ice	19.4	9.4	0.3
(2) CCI HPA65R-BU8A	B	From Leg	4.0	0.00	136.0	No Ice	18.1	8.2	0.1
			0.0			1/2" Ice	18.7	8.8	0.2
			0.0			1" Ice	19.4	9.4	0.3
(2) CCI HPA65R-BU8A	C	From Leg	4.0	0.00	136.0	No Ice	18.1	8.2	0.1
			0.0			1/2" Ice	18.7	8.8	0.2
			0.0			1" Ice	19.4	9.4	0.3
CCI TPA65R-BU8D	A	From Leg	4.0	0.00	136.0	No Ice	18.1	8.2	0.1
			0.0			1/2" Ice	18.7	8.8	0.2
			0.0			1" Ice	19.4	9.4	0.3
CCI TPA65R-BU8D	B	From Leg	4.0	0.00	136.0	No Ice	18.1	8.2	0.1
			0.0			1/2" Ice	18.7	8.8	0.2
			0.0			1" Ice	19.4	9.4	0.3
CCI TPA65R-BU8D	C	From Leg	4.0	0.00	136.0	No Ice	18.1	8.2	0.1
			0.0			1/2" Ice	18.7	8.8	0.2

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Offsets: Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.0				1" Ice	19.4	9.4	0.3
B14 4478	A	From Leg	2.0		0.00	136.0	No Ice	1.8	1.1	0.1
			0.0				1/2" Ice	2.0	1.2	0.1
			0.0				1" Ice	2.2	1.3	0.1
B14 4478	B	From Leg	2.0		0.00	136.0	No Ice	1.8	1.1	0.1
			0.0				1/2" Ice	2.0	1.2	0.1
			0.0				1" Ice	2.2	1.3	0.1
B14 4478	C	From Leg	2.0		0.00	136.0	No Ice	1.8	1.1	0.1
			0.0				1/2" Ice	2.0	1.2	0.1
			0.0				1" Ice	2.2	1.3	0.1
RADIO 4449 B12/B71	A	From Leg	2.0		0.00	136.0	No Ice	1.6	1.2	0.1
			0.0				1/2" Ice	1.8	1.3	0.1
			0.0				1" Ice	2.0	1.4	0.1
RADIO 4449 B12/B71	B	From Leg	2.0		0.00	136.0	No Ice	1.6	1.2	0.1
			0.0				1/2" Ice	1.8	1.3	0.1
			0.0				1" Ice	2.0	1.4	0.1
RADIO 4449 B12/B71	C	From Leg	2.0		0.00	136.0	No Ice	1.6	1.2	0.1
			0.0				1/2" Ice	1.8	1.3	0.1
			0.0				1" Ice	2.0	1.4	0.1
RRUS-E2 B29	A	From Leg	2.0		0.00	136.0	No Ice	3.4	1.6	0.1
			0.0				1/2" Ice	3.6	1.8	0.1
			0.0				1" Ice	3.9	1.9	0.1
RRUS-E2 B29	B	From Leg	2.0		0.00	136.0	No Ice	3.4	1.6	0.1
			0.0				1/2" Ice	3.6	1.8	0.1
			0.0				1" Ice	3.9	1.9	0.1
RRUS-E2 B29	C	From Leg	2.0		0.00	136.0	No Ice	3.4	1.6	0.1
			0.0				1/2" Ice	3.6	1.8	0.1
			0.0				1" Ice	3.9	1.9	0.1
RRUS 4415	A	From Leg	2.0		0.00	136.0	No Ice	1.6	0.7	0.0
			0.0				1/2" Ice	1.8	0.8	0.1
			0.0				1" Ice	2.0	0.9	0.1
RRUS 4415	B	From Leg	2.0		0.00	136.0	No Ice	1.6	0.7	0.0
			0.0				1/2" Ice	1.8	0.8	0.1
			0.0				1" Ice	2.0	0.9	0.1
RRUS 4415	C	From Leg	2.0		0.00	136.0	No Ice	1.6	0.7	0.0
			0.0				1/2" Ice	1.8	0.8	0.1
			0.0				1" Ice	2.0	0.9	0.1
Ericsson 8843	A	From Leg	2.0		0.00	136.0	No Ice	1.6	1.4	0.1
			0.0				1/2" Ice	1.8	1.5	0.1
			0.0				1" Ice	2.0	1.7	0.1
Ericsson 8843	B	From Leg	2.0		0.00	136.0	No Ice	1.6	1.4	0.1
			0.0				1/2" Ice	1.8	1.5	0.1
			0.0				1" Ice	2.0	1.7	0.1
Ericsson 8843	C	From Leg	2.0		0.00	136.0	No Ice	1.6	1.4	0.1
			0.0				1/2" Ice	1.8	1.5	0.1
			0.0				1" Ice	2.0	1.7	0.1
DC Box	A	From Leg	1.5		0.00	136.0	No Ice	1.5	4.8	0.0
			0.0				1/2" Ice	1.7	5.0	0.1
			0.0				1" Ice	1.9	5.3	0.1
DC Box	B	From Leg	1.5		0.00	136.0	No Ice	1.5	4.8	0.0
			0.0				1/2" Ice	1.7	5.0	0.1
			0.0				1" Ice	1.9	5.3	0.1
DC Box	C	From Leg	1.5		0.00	136.0	No Ice	1.5	4.8	0.0
			0.0				1/2" Ice	1.7	5.0	0.1
			0.0				1" Ice	1.9	5.3	0.1
Sector Mount [SM 602-1]	A	None			0.00	136.0	No Ice	18.8	10.6	0.5
							1/2" Ice	24.8	15.2	0.7
							1" Ice	30.7	19.7	0.9
Sector Mount [SM 602-1]	B	None			0.00	136.0	No Ice	18.8	10.6	0.5

tnxTower	Job	Page
	ECO-077 / 190025101	5 of 5
Morrison Hershfield 1455 Lincoln Parkway, Suite 500 Atlanta, GA Phone: (770) 379-8500 FAX: (770) 379-8501	**Project** CT-0007/Hopewell	**Date** 17:24:59 02/20/19
	Client Eco-Site	**Designed by** GWESH

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Sector Mount [SM 602-1]	C	None		0.00	136.0	1/2" Ice	24.8	15.2	0.7
						1" Ice	30.7	19.7	0.9
						No Ice	18.8	10.6	0.5
						1/2" Ice	24.8	15.2	0.7
						1" Ice	30.7	19.7	0.9

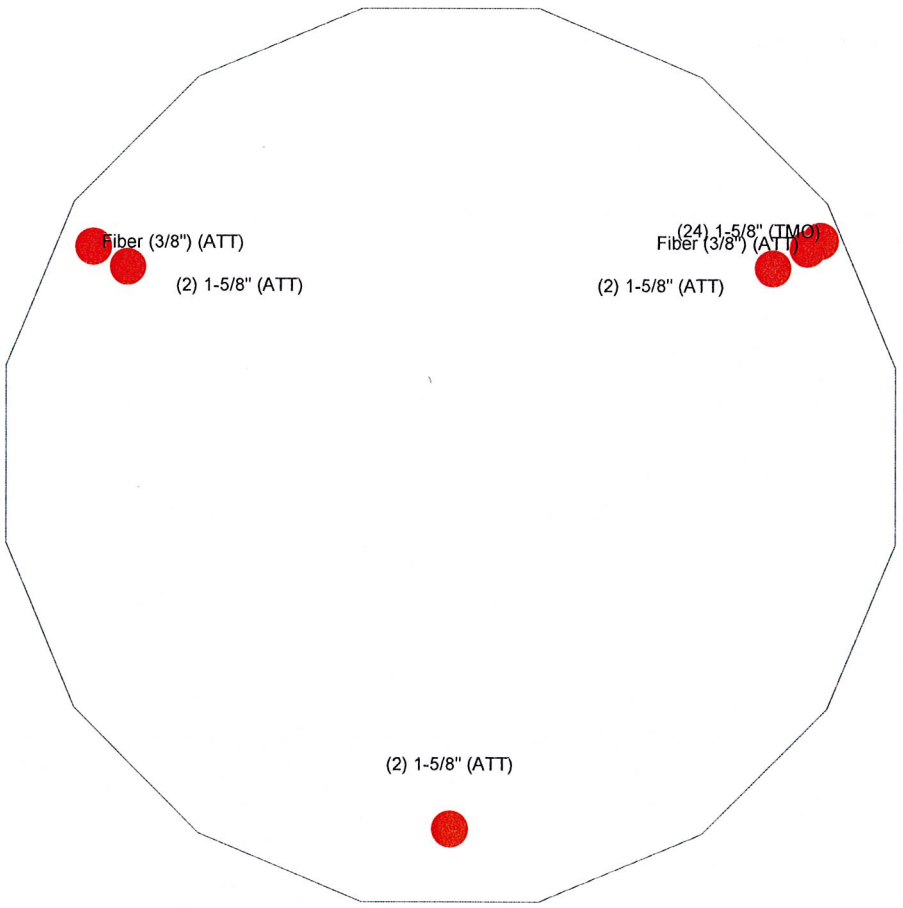
Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	150 - 100	Pole	TP39.6x26.4x0.3	1	-8.4	1946.6	53.3	Pass
L2	100 - 65.5	Pole	TP48.3x37.7x0.4	2	-17.2	3843.7	46.9	Pass
L3	65.5 - 32.25	Pole	TP56.3x45.7x0.4	3	-29.2	5234.5	46.9	Pass
L4	32.25 - 0	Pole	TP64x53.4x0.4	4	-46.6	5814.0	54.4	Pass
							Summary	
						Pole (L4)	54.4	Pass
						RATING =	**54.4**	**Pass**

Feed Line Plan
65'6"

Round Flat App In Face App Out Face

Section @ 65'6"



Morrison Hershfield
1455 Lincoln Parkway, Suite 500
Atlanta, GA
Consulting Engineers
Phone: (770) 379-8500
FAX: (770) 379-8501

Job: ***ECO-077 / 190025101***		
Project: ***CT-0007/Hopewell***		
Client: Eco-Site	Drawn by: GWESH	App'd:
Code: TIA-222-G	Date: 02/20/19	Scale: NTS
Path:		Dwg No. E-7

MORRISON HERSHFIELD

Project:	ECO-077 / 190025101	Client	Eco-Site
Site Name:	Hopewell	Site ID:	CT-0007
Des. By:	GW	Ck. By:	TH
Date:	2/21/2019	page:	1 OF 1

Base Plate & Anchor Rod Analysis Summary

Base Reactions:		
Mu:	4079	*ft-kips*
Axial, Pu:	47	*kips*
Shear, Vu:	37	*kips*
Eta Factor, η	0.7	*TIA G (Fig. 4-4)*
Anchor Rod Data:		
Number of Anchor Rods:	22	*EA*
Anchor Rod Diam:	2.25	*in*
Anchor Strength (Fu):	75	*ksi*
Anchor Yield (Fy):	-	*ksi*
Bolt Circle:	72	*in*
Base Plate Data:		
Base Plate Diam:	79	*in*
Base Plate Thickness:	2	*in*
Base Plate Grade (Fy):	50	*ksi*
Stiffener Data:		
Is Stiffened?	NO	
Stiffener Configuration:	N/A	
Stiffener Height:		*in*
Stiffener Width:		*in*
Notch:		*in*
Stiffener Grade:		*ksi*
Weld Type:		
Weld Electrode:		
Groove Depth:		*in*
Groove Angle:		*in*
Horz. Fillet Weld Size:		*in*
Vert. Fillet Weld Size:		*in*
Pole Data:		
Pole Base Diameter:	64	*in*
Pole Shell Thickness:	0.4375	*in*
Pole Number of Sides:	18	
Pole Grade (Fy):	65	*ksi*
Pole Strength (Fu):	80	*ksi*

Analysis Results:		
Anchor Rod Capacity	**65.7%**	***PASS***
Base Plate Capacity	**75.2%**	***PASS***
Stiffener Weld Capacity	**n/a**	
Stiffener Structural Capacity	**n/a**	

MORRISON HERSHFIELD

Project:	ECO-077 / 190025101	Client	Eco-Site
Site Name:	Hopewell	Site ID:	CT-0007
Des. By:	GW	Ck. By:	TH
Date:	2/21/2019	page:	1 OF 1

Pad & Pier Analysis Summary

Base Reactions:		
TIA Revision :	G	
Factored DL Axial, Pdu:	39	*kips*
Factored WL Axial, Pwu:	8	*kips*
Factored WL Shear, Vu:	37	*kips*
Factored WL Moment, Mu:	4079	*ft-kips*
Pad and Pier Data:		
Base PL Dist. Above Pier:	0	*in*
Pier Dist. Above Grade:	6	*in*
Pad Bearing Depth, D:	4	*ft*
Pad Thickness, T:	3	*ft*
Pad Width/Length, L:	28	*ft*
Pier Cross Section Shape:	Round	
Enter Pier Diameter:	8	*ft*
Concrete Density:	150	*pcf*
Pier Cross Section Area:	50.27	ft^2
Pier Height:	1.5	*ft*
Soil (above pad) Height:	1	*ft*
Soil Parameters:		
Unit Weight, γ:	105	*pcf*
Ultimate Bearing Capacity, qn:	20	*ksf*
Strength Reduct. factor, φ:	0.35	
Angle of Friction, Φ:	29	*degrees*
Undrained Shear Strength, Cu:	0	*ksf*
*Allowable Bearing: φ*qn:*	7	*ksf*
Passive Pres. Coeff., Kp:	2.88	

Bearing Results:		
Orthogonal Direction =	22.0%	***Pass***
Diagonal Direction =	26.4%	***Pass***
Overturning Stability Results:		
Moment Orthogonal =	74.2%	***Pass***
Moment Diagonal =	74.2%	***Pass***

CAISSON Version 4.57 10:32:43 AM Thursday, February 21, 2019
Morrison Hershfield Ltd.

```
*************************************************************************
*                                                                       *
*  PIER FOUNDATIONS ANALYSIS AND DESIGN - (C) 1995, POWER LINE SYSTEMS, INC.*
*                                                                       *
*************************************************************************
```

*** ANALYSIS IDENTIFICATION : ECO-077 / 190025101
NOTES :

*** PIER PROPERTIES CONCRETE STRENGTH (ksi) = 4.50 STEEL STRENGTH (ksi) = 65.00
DIAMETER (ft) = 8.000 DISTANCE FROM TOP OF PIER TO GROUND LEVEL (ft) = 0.50

*** SOIL PROPERTIES

LAYER	TYPE	THICKNESS (ft)	DEPTH AT TOP OF LAYER (ft)	DENSITY (pcf)	CU (psf)	KP	PHI (degrees)
1	S	2.00	0.00	105.0		2.882	29.00
2	S	3.00	2.00	120.0		3.537	34.00
3	S	5.00	5.00	130.0		4.204	38.00
4	S	5.00	10.00	68.0		4.204	38.00
5	C	15.00	15.00	98.0	15000.0		

*** DESIGN (FACTORED) LOADS AT TOP OF PIER MOMENT (ft-k) = 4079.0 VERTICAL (k) = 47.0 SHEAR (k) = 37.0
ADDITIONAL SAFETY FACTOR AGAINST SOIL FAILURE = 5.80

*** CALCULATED PIER LENGTH (ft) = 24.000

*** CHECK OF SOILS PROPERTIES AND ULTIMATE RESISTING FORCES ALONG PIER

TYPE	TOP OF LAYER BELOW TOP OF PIER (ft)	THICKNESS (ft)	DENSITY (pcf)	CU (psf)	KP	FORCE (k)	ARM (ft)
S	0.50	2.00	105.0		2.882	14.53	1.83
S	2.50	3.00	120.0		3.537	99.32	4.23
S	5.50	5.00	130.0		4.204	451.51	8.30
S	10.50	5.00	68.0		4.204	701.23	13.10
C	15.50	3.70	98.0	15000.0		3554.24	17.35
C	19.20	4.80	98.0	15000.0		-4605.74	21.60

*** SHEAR AND MOMENTS ALONG PIER

DISTANCE BELOW TOP OF PIER (ft)	WITH THE ADDITIONAL SAFETY FACTOR SHEAR (k)	WITH THE ADDITIONAL SAFETY FACTOR MOMENT (ft-k)	WITHOUT ADDITIONAL SAFETY FACTOR SHEAR (k)	WITHOUT ADDITIONAL SAFETY FACTOR MOMENT (ft-k)
0.00	215.1	24436.2	37.1	4213.1
2.40	202.0	24944.1	34.8	4300.7
4.80	132.6	25357.7	22.9	4372.0
7.20	-15.5	25518.1	-2.7	4399.7
9.60	-244.8	25220.8	-42.2	4348.4
12.00	-542.6	24286.1	-93.6	4187.3
14.40	-882.5	22583.9	-152.2	3893.8
16.80	-2299.5	19342.8	-396.5	3335.0
19.20	-4603.5	11059.2	-793.7	1906.8
21.60	-2304.0	2764.8	-397.2	476.7
24.00	0.0	-0.0	0.0	-0.0

*** TOTAL REINFORCEMENT PCT = 0.44 REINFORCEMENT AREA (in^2) = 31.85
*** USABLE AXIAL CAP. (k) = 47.0 USABLE MOMENT CAP. (ft-k) = 6241.3

*** US Standard Re-Bars (Select one of the following):

160	BARS #4	(AREA = 0.20 in^2	DIA = 0.500 in) AT SPACING (in) =	1.69
103	BARS #5	(AREA = 0.31 in^2	DIA = 0.625 in) AT SPACING (in) =	2.62
73	BARS #6	(AREA = 0.44 in^2	DIA = 0.750 in) AT SPACING (in) =	3.70
54	BARS #7	(AREA = 0.60 in^2	DIA = 0.875 in) AT SPACING (in) =	5.00
41	BARS #8	(AREA = 0.79 in^2	DIA = 1.000 in) AT SPACING (in) =	6.59
32	BARS #9	(AREA = 1.00 in^2	DIA = 1.128 in) AT SPACING (in) =	8.44
26	BARS #10	(AREA = 1.27 in^2	DIA = 1.270 in) AT SPACING (in) =	10.39
21	BARS #11	(AREA = 1.56 in^2	DIA = 1.410 in) AT SPACING (in) =	12.87
15	BARS #14	(AREA = 2.25 in^2	DIA = 1.693 in) AT SPACING (in) =	18.01

*** PRESSURE UNDER CAISSON DUE TO DESIGN AXIAL LOAD (psf) = 935.0

MORRISON HERSHFIELD

Project:	ECO-077 / 190025101	Client	Eco-Site
Site Name:	Hopewell	Site ID:	CT-0007
Des. By:	GW	Ck. By:	TH
Date:	2/21/2019	page:	1 OF 1

Moment Capacity of Drilled Concrete Shaft Summary

Maximum Shaft Superimposed Forces:			
	M:	4399.7	*ft-kips*
	Axial, P:	47.0	*kips*
	Code Rev	G	
Pier Properties:			
	Pier Diameter:	8	*ft*
	Clear Cover to Tie:	6.00	*in*
	Horz. Tie Bar Size:	5	
	Vertical Bar Size:	10	
	Number of Bars:	38	
Material Properties:			
	Concrete Comp. Strength, f'c:	4500	*psi*
	Reinforcement Yield Strength, Fy:	60	*ksi*
	Reinforcing Modulus of Elasticity, E:	29000	*ksi*
	Limiting Compressive Strain:	0.003	
	Analysis ACI Code:	2008	
	Seismic Design Category:	B	

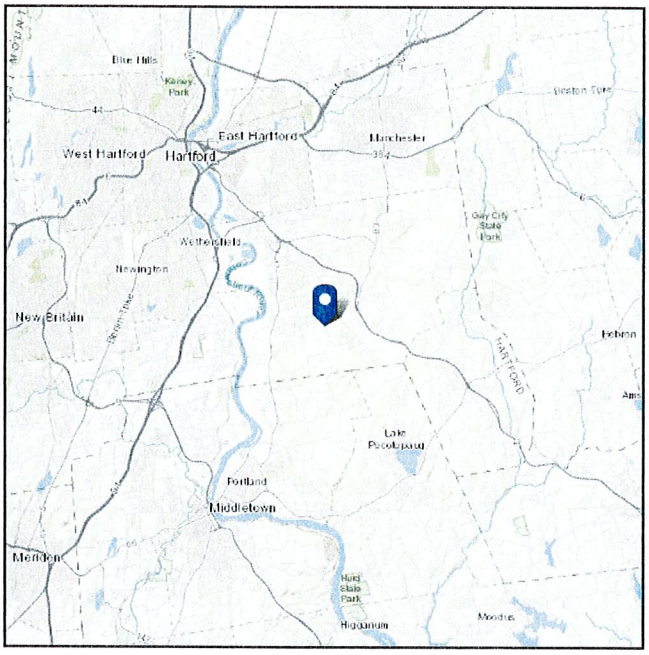
Analysis Results:			
	Drilled Shaft Flexure:	**50.2%**	***Pass***

ASCE 7 Hazards Report

Address:
63 Woodland St
South Glastonbury, Connecticut, 06073

Standard: ASCE/SEI 7-10
Risk Category: II
Soil Class: C - Very Dense Soil and Soft Rock

Elevation: 304.56 ft (NAVD 88)
Latitude: 41.667093
Longitude: -72.564706



Wind

Results:

Wind Speed:	125 Vmph
10-year MRI	77 Vmph
25-year MRI	87 Vmph
50-year MRI	94 Vmph
100-year MRI	102 Vmph
Data Source:	ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1–CC-4, incorporating errata of March 12, 2014
Date Accessed:	Mon Feb 18 2019

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-10 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2. Glazed openings need not be protected against wind-borne debris.

Mountainous terrain, gorges, ocean promontories, and special wind regions should be examined for unusual wind conditions.

ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

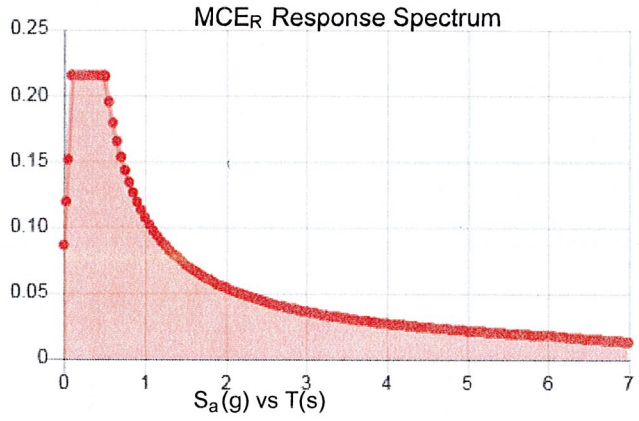
Seismic

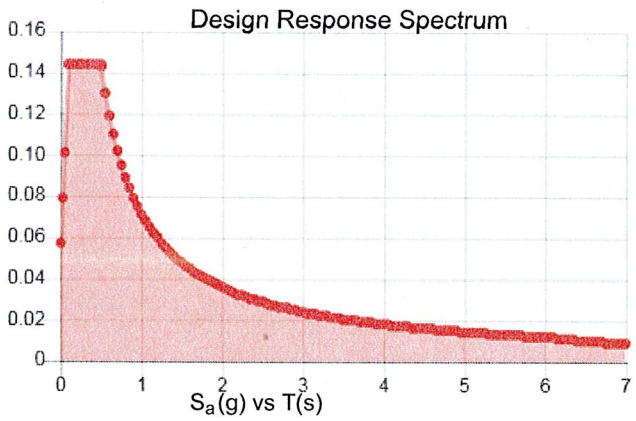
Site Soil Class: C - Very Dense Soil and Soft Rock

Results:

S_S :	0.18	S_{DS} :	0.144
S_1 :	0.063	S_{D1} :	0.071
F_a :	1.2	T_L :	6
F_v :	1.7	PGA :	0.091
S_{MS} :	0.215	PGA_M :	0.109
S_{M1} :	0.107	F_{PGA} :	1.2
		I_e :	1

Seismic Design Category B





Data Accessed: Mon Feb 18 2019

Date Source: USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

Ice

Results:

Ice Thickness:	1.00 in.
Concurrent Temperature:	5 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8
Date Accessed:	Mon Feb 18 2019

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 50-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Eco-Site

Colocation Application

Check one:	**New** ☒ **Addition to Existing** ☐ **Modification** ☐ *(Double click to check)*		
PLEASE RETURN THIS APPLICATION TO:		Eco-Site Site Number:	CT-0007
		Eco-Site Site Name:	Hopewell
ECO-SITE, LLC	E-Mail: sales@eco-site.com		
240 Leigh Farm Rd		Date Received:	2/13/19
Suite 415	Office: 919-636-6810	Revision Dates:	
Durham, NC 27707		**Install Date:**	

APPLICANT/CARRIER INFORMATION

Carrier Name:	AT&T Mobility	Contact Name:	David Walsh
Carrier Site Name:	Glastonbury_Woodland Ln	Contact Number:	860.933.5191
Carrier Site Number:	CT2421	Contact Fax:	N/A
Carrier Legal Entity Name:	New Cingular Wireless PCS, LLC		
State of Registration:	Delaware		
Type of Entity (LP, LLC, Corp)			
d/b/a (if applicable):	Limited liability company	Contact Address:	85 Rangeway Rd.
Carrier Invoice Address:	575 Morosgo Drive NE, 13F		Bldg. #3 #102
	Atlanta, GA 30324		North Billerica, MA 01862
		Contact Email:	David.Walsh@smartlinkllc.com
		Other:	
Carrier Invoice Contact Name:	TBD		
Title:	TBD		
Phone No:	TBD		

ADDITIONAL CARRIER INFORMATION

Leasing Contact Name/Number:	David Walsh 860.933.5191
RF Contact Name/Number:	David Walsh 860.933.5191
Construction Contact Name/Number:	Robert Picard 603.209.5505
Emergency Contact Name/Number:	David Walsh 860.933.5191

SITE INFORMATION

Latitude:	41	39	38.85	N	Existing Structure Type:	Monopole
Longitude:	-72	34	26.75	W	Existing Structure Height:	150
Site Address:	63 Woodland St, Glastonbury , CT, 06073					

ANTENNAS & CABLES

Sector	**1**	**2**	**3**	**4**
Desired Rad Center (AGL)	136	136	136	-
Antenna Mount Mounting Height (CL - AGL)	136	136	136	-
Antenna Mounting Type	T-Frame ☐ Sector ☒ Platform ☐ Low Profile ☐ Other:			
Antenna Mounting Manufacturer	Saber Industries	Saber Industries	Saber Industries	-
Antenna Mounting Model No./Part No.	C10857001C (mount) C10899050 (tri-collar)	C10857001C (mount) C10899050 (tri-collar	C10857001C (mount) C10899050 (tri-collar	-
Antenna Quantity	3	3	3	-
Antenna Manufacturer	CCI	CCI	CCI	-
Antenna Model (attach spec sheet)	(2) TPA65R-BU8D, (1) HPA65R-BU8A	(2) TPA65R-BU8D, (1) HPA65R-BU8A	(2) TPA65R-BU8D, (1) HPA65R-BU8A	-
Antenna Dimensions (H"xW"xD")	96 X 21 X 7.8	96 X 21 X 7.8	96 X 21 X 7.8	-
Antenna Weight (per antenna)	(2) 83 lbs. (1) 57.5 lbs.	(2) 83 lbs. (1) 57.5 lbs.	(2) 83 lbs. (1) 57.5 lbs.	-
Antenna Orientation/Azimuth (degrees)	120	240	340	-
Antenna Mechanical Tilt (degrees)	0	0	0	-
DC Surge Protector Quantity	1	1	1	-
DC Surge Protector Dimensions	18.2 x 10.2 x 31.4	18.2 x 10.2 x 31.4	18.2 x 10.2 x 31.4	-
DC Surge Protector Weight	26.2	26.2	26.2	-
RRU Quantity	5	5	5	-
RRU Manufacturer & Model	Ericsson-4478 B14 / E2-700 / 4415 B30 / 4449 / 8843	Ericsson-4478 B14 / E2-700 / 4415 B30 / 4449 / 8843	Ericsson-4478 B14 / E2-700 / 4415 B30 / 4449 / 8843	-

Eco-Site

Colocation Application (Page 2)

RRU Dimensions (H"xW"xD")	18 x 13 x 8.2 / 20 x 18.5 x 7.4 / 16.5 x 13.4 x 6 / 15 x 13 x 10 / 15 x 13 x 11	18 x 13 x 8.2 / 20 x 18.5 x 7.4 / 16.5 x 13.4 x 6 / 15 x 13 x 10 / 15 x 13 x 11	18 x 13 x 8.2 / 20 x 18.5 x 7.4 / 16.5 x 13.4 x 6 / 15 x 13 x 10 / 15 x 13 x 11	-
RRU Weight	59 / 52 / 44 / 73 / 75	59 / 52 / 44 / 73 / 75	59 / 52 / 44 / 73 / 75	-
TMA/Diplexer Quantity	-	-	-	-
TMA/Diplexer Manufacturer & Model	-	-	-	-
TMA/Diplexer Dimensions (H"xW"xD")	-	-	-	-
TMA/Diplexer Weight	-	-	-	-
Other Equipment Quantity	-	-	-	-
Other Equipment Manufacturer & Model	-	-	-	-
Other Equipment Dimensions (H"xW"xD")	-	-	-	-
Other Equipment Weight	-	-	-	-
Quantity of Coax Cables	2 (DC)	2 (DC)	2 (DC)	-
Diameter of Coax Cables	5/8"	5/8"	5/8"	-
Quantity of Fiber/Hybrid Cables	1 (Fiber)	1 (Fiber)	-	-
Diameter of Fiber/Hybrid Cables	3/8"	3/8"	-	-
# Of Channels	12 / 6	12 / 6	12 / 6	-
ERP (watts)	16.4 dBi / 15.9 dBi	16.4 dBi / 15.9 dBi	16.4 dBi / 15.9 dBi	-
Transmit Frequency	Please see attached FX table	Please see attached FX table	Please see attached FX table	-
Receive Frequency	Please see attached FX table	Please see attached FX table	Please see attached FX table	-
Type of Service (i.e. LTE, CDMA, UMTS)	FirstNet (B14), AWS, LTE, WCS, 700, 850 and PCS	FirstNet (B14), AWS, LTE, WCS, 700, 850 and PCS	FirstNet (B14), AWS, LTE, WCS, 700, 850 and PCS	-

MICROWAVE

Sector	1	2	3	4
Microwave Desired Rad Center (AGL)	-	-	-	-
Microwave Mount Mounting Height (AGL)	-	-	-	-
Microwave Quantity	-	-	-	-
Microwave Manufacturer	-	-	-	-
Microwave Model (attach spec sheet)	-	-	-	-
Microwave Dimensions (diameter)	-	-	-	-
Microwave Weight (per dish)	-	-	-	-
Microwave Orientation/Azimuth (degrees)	-	-	-	-
Microwave Mechanical Tilt (degrees)	-	-	-	-
ODU Quantity	-	-	-	-
ODU Manufacturer & Model	-	-	-	-
ODU Dimensions (H"xW"xD")	-	-	-	-
ODU Weight	-	-	-	-
Quantity of Coax Cables	-	-	-	-
Diameter of Coax Cables	-	-	-	-
Quantity of Fiber/Hybrid Cables	-	-	-	-
Diameter of Fiber/Hybrid Cables	-	-	-	-
Transmit Frequency	-	-	-	-
Receive Frequency	-	-	-	-

GROUND SPACE REQUIREMENTS

Total Ground Area Dimensions (length x width in ft.)	10'x20'	**Generator:** ☒ Diesel ☐ Propane ☐ Natural Gas (*Double click to check)* Pad Dimension (L X W X H in ft.): 4' x 6' Size (KW): 15 kW	Sound Attenuation:
Cabinet Dimensions L x W x D	6'4" x 6'4" Walk In	Cabinet Manufacturer	Vertiv
Shelter Dimensions L x W x D	-	Shelter Manufacturer	-

AC POWER REQUIREMENTS

Voltage:	240	Total Amperage:	200

BRIEF DESCRIPTION OF WORK TO BE PERFORMED/ADDITIONAL COMMENTS

Install the following at 136' centerline – (9) Panel Antenna, (15) RRU, (3) Demarc Boxes, (2) 3/8" fiber lines, (6) 5/8" DC lines.

Install on ground in 10'x20' area – (1) 15kW Diesel Generator on 4'x6' pad, (1) 6' x 6' walk in cabinet on a 8' x 8' pad.

FedEx Shipment Receipt

Address Information

Ship to:	**Ship from:**
Paul Cavanna	Lucia Chiocchio, Esq. Cuddy & Feder LLP
80 Woodland Street	445 Hamilton Avenue Suite 1400
SOUTH GLASTONBURY, CT	White Plains, NY
06073	10601
US	US
8606591956	9147611300

Shipment Information:
Tracking no.: 775165498372
Ship date: 05/08/2019
Estimated shipping charges: 20.11 USD

Package Information
Pricing option: FedEx Standard Rate
Service type: Priority Overnight
Package type: FedEx Pak
Number of packages: 1
Total weight: 1 LBS
Declared Value: 0.00 USD
Special Services: Residential Delivery
Pickup/Drop-off: Use an already scheduled pickup at my location

Billing Information:
Bill transportation to: CuddyFeder-963
Your reference: 1844-3348
P.O. no.:
Invoice no.:
Department no.:

Thank you for shipping online with FedEx ShipManager at fedex.com.

Please Note

FedEx Shipment Receipt

Address Information

Ship to:	**Ship from:**
Thomas P. Gullotta	Lucia Chiocchio, Esq.
Town Council Chairman	Cuddy & Feder LLP
Town of Glastonbury/Town Hall	445 Hamilton Avenue
2155 Main Street	Suite 1400
GLASTONBURY, CT	White Plains, NY
06033	10601
US	US
914 761 1300	9147611300

Shipment Information:
Tracking no.: 775163101791
Ship date: 05/08/2019
Estimated shipping charges: 15.35 USD

Package Information
Pricing option: FedEx Standard Rate
Service type: Priority Overnight
Package type: FedEx Pak
Number of packages: 1
Total weight: 1 LBS
Declared Value: 0.00 USD
Special Services:
Pickup/Drop-off: Use an already scheduled pickup at my location

Billing Information:
Bill transportation to: CuddyFeder-963
Your reference: 1844-3348
P.O. no.:
Invoice no.:
Department no.:

Thank you for shipping online with FedEx ShipManager at fedex.com.

Please Note

FedEx Shipment Receipt

Address Information

Ship to:	**Ship from:**
Richard J. Johnson	Lucia Chiocchio, Esq.
Town Manager	Cuddy & Feder LLP
Town of Glastonbury	445 Hamilton Avenue
2155 Main Street	Suite 1400
GLASTONBURY, CT	White Plains, NY
06033	10601
US	US
8606527500	9147611300

Shipment Information:
Tracking no.: 775163026597
Ship date: 05/08/2019
Estimated shipping charges: 15.35 USD

Package Information
Pricing option: FedEx Standard Rate
Service type: Priority Overnight
Package type: FedEx Pak
Number of packages: 1
Total weight: 1 LBS
Declared Value: 0.00 USD
Special Services:
Pickup/Drop-off: Use an already scheduled pickup at my location

Billing Information:
Bill transportation to: CuddyFeder-963
Your reference: 1844-3248
P.O. no.:
Invoice no.:
Department no.:

Thank you for shipping online with FedEx ShipManager at fedex.com.

Please Note

FedEx Shipment Receipt

Address Information

Ship to:	**Ship from:**
Ms. Khara Dodds	Lucia Chiocchio, Esq.
Dir.of Land Use & Planning Services	Cuddy & Feder LLP
Town of Glastonbury Town Hall	445 Hamilton Avenue
2155 Main Street	Suite 1400
GLASTONBURY, CT	White Plains, NY
06033	10601
US	US
8606527515	9147611300

Shipment Information:
Tracking no.: 775163464305
Ship date: 05/08/2019
Estimated shipping charges: 15.35 USD

Package Information
Pricing option: FedEx Standard Rate
Service type: Priority Overnight
Package type: FedEx Pak
Number of packages: 1
Total weight: 1 LBS
Declared Value: 0.00 USD
Special Services:
Pickup/Drop-off: Use an already scheduled pickup at my location

Billing Information:
Bill transportation to: CuddyFeder-963
Your reference: 1844-3348
P.O. no.:
Invoice no.:
Department no.:

Thank you for shipping online with FedEx ShipManager at fedex.com.

Please Note