STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

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NEW CINGULAR WIRELESS PCS, LLC (AT&T)
PETITION FOR A DECLARATORY RULING,
PURSUANT TO CONNECTICUT GENERAL
STATUTES §4-176 AND §16-50K, FOR THE
INSTALLATION OF A SMALL CELL WIRELESS
TELECOMMUNICATIONS FACILITY ON PROPERTY
LOCATED AT 242 HOPE STREET, STAMFORD,
CONNECTICUT.

PETITION FOR A DECLARATORY RULING: INSTALLATION HAVING NO SUBSTANTIAL ADVERSE ENVIRONMENTAL EFFECT

I. <u>Introduction</u>

Pursuant to Section 16-50j-38 and 16-50j-39 of the regulations of Connecticut State Agencies ("R.C.S.A."), New Cingular Wireless PCS LLC ("AT&T") hereby petitions the Connecticut Siting Council (the "Council") for a declaratory ruling ("Petition") that no Certificate of Environmental Compatibility and Public Need ("Certificate") is required under Section 16-50k(a) of the Connecticut General Statutes ("C.G.S.") to install a new "small cell" wireless telecommunications facility on a new pole located on a property at 242 Hope Street, Stamford, Connecticut, owned by Fairfield County Federal Credit Union (the "Site"). AT&T will install a top mounted antenna at the top of the new pole as well as equipment at the base of the pole. The new pole will also support a light fixture (the "Facility"). Attachment 1 includes the property owner's authorization permitting AT&T to file this Petition.

II. <u>Factual Background</u>

a. AT&T's Need for the Proposed Facility

AT&T identified a need for additional coverage and/or capacity relief in its network in this area of Hartford. The proposed Facility is designed to assure reliable wireless service to AT&T customers and emergency service providers in the area of the Facility location.

b. AT&T's Proposed "Small Cell" Facility

AT&T proposes to install its proposed small cell Facility on a new 30' tall pole located at the edge of the existing parking lot at the Site. AT&T will own the new pole and will lease space from the property owner for the installation of the pole and small cell Facility. AT&T's proposed Facility consists of a top-mounted canister antenna and associated radio and electrical service

equipment within an equipment enclosure at the base of the pole. The top of AT&T's antenna will reach a height of approximately 33' above grade level. A light fixture will be installed on the pole at a height of approximately 27' above grade level. Specifications and details of AT&T's proposed Facility are shown on the drawings included in Attachment 2. Also, included in Attachment 3 is a structural analysis report confirming that the new pole installation will support AT&T's proposed small cell Facility as well as the light fixture.

c. Council Jurisdiction

Connecticut law confers jurisdiction to the Council over certain "facilities", including "telecommunication towers." C.G.S. §16-50i(a)(6). State regulations define "tower" as a "structure, whether free standing or attached to a building or another structure... used principally to support one or more antennas for receiving or sending radio frequency signals...". R.C.S.A. §16-50j-2a(30)(A). Utility structures used to support electric distribution lines located within the public ROW fall under PURA's jurisdiction. Thus, PURA has jurisdiction over small cell facility attachments to utility poles located within the public ROW. PURA, Docket 16-06-38.

Here, since AT&T's proposed small cell Facility is a "facility" located on a new free standing support structure on private property, the Council has jurisdiction over AT&T's proposed Facility.

III. Discussion

a. The Proposed Small Cell Facility Will Not Have A Substantial Environmental Impact

For the reasons set forth below, AT&T respectfully submits that its proposed small cell Facility will not have a substantial environmental impact and as such a Certificate pursuant to C.G.S. Section 16-50k(a) is not required .

i. Physical Environmental Effects

The proposed pole and AT&T's installation of a canister antenna and associated radio and electrical equipment will not result in any significant physical or environmental change to the property or any adjacent parcels. The new pole will be placed at the edge of an existing parking lot. Thus, AT&T's proposed small cell Facility will not require any tree removal and involves minimal disturbance.

ii. Visual Effects

The Site is improved with a commercial building and is surrounded by a gas station and automotive service station. The surrounding land uses are a mix of commercial and residential. The area is also characterized by above-ground utility poles which support

utility infrastructure. As shown in the photosimulation in Attachment 4, the proposed pole and AT&T's small cell Facility will not result in a significant visual impact to the area.

iii. FCC Compliance

The operation of AT&T's antenna will not increase the total radio frequency electromagnetic power density at the site to a level at or above applicable standards. A power density report is included in Attachment 5. The total radio frequency power density will be well within standards adopted by the Connecticut Department of Environmental Protection as set forth in Section 22a-162 of the Connecticut General Statutes and the MPE limits established by the Federal Communications Commission.

b. Notice of Petition Filing

Pursuant to R.C.S.A. Section 16-50j-40(a), notice of AT&T's intent to file this Petition was sent to each person appearing of record as an owner of property that abuts the site, as well as the appropriate municipal officials and government agencies as listed in Section 16-50*l* of the C.G.S. Certification of such notice, a copy of the notice and the list of property owners is included in Attachment 6 along with the map from the City's GIS website used to identify abutting property owners. Attachment 6 also includes a certification of service to municipal officials and government agencies to whom notice was sent.

IV. Conclusion

As set forth above, AT&T's proposed small cell Facility will not result in any known adverse environmental effects. Therefore, and for all the foregoing reasons, AT&T petitions the Council for a determination that the proposed small cell Facility does not require a Certificate of Environmental Compatibility and Public Need and that the Council issue an order approving same.

Respectfully submitted,

Lucia Chiocchio

On behalf of the Petitioner

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cc: Mayor David Martin, City of Stamford
David W. Woods, PhD, AICP, Deputy Director of Planning
AT&T
Centerline
Riddar Nget

ATTACHMENT 1



LETTER OF AUTHORIZATION

RE: AT&T Small Cell Installation // cRAN_stamford_22 - Stamford, CT

ADDRESS: 242 Hope Street, Stamford, CT

Fairfield County Federal, owners of the above described property, authorize New Cingular Wireless PCS, LLC ("AT&T") and/or their agent, to act as our nonexclusive agent for the sole purpose of filing and consummating any land use, zoning or building permit application(s) necessary to obtain approval of the applicable jurisdiction for AT&T's installation of a small cell facility at the above described property.

We understand that this application may be denied, modified or approved with conditions, and that any such conditions of approval or modifications will be the sole responsibility of the carrier and will be complied with prior to issuance of a building permit.

Fairfield County Federal

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ATTACHMENT 2



AT&T SITE ID: CRAN_STAMFORD_22 242 HOPE STREET STAMFORD, CT 06906

GENERAL NOTES THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTE ANY DUPLICATION ON DUE BY GOVERNMENT AGENCIES FOR THE PURPOSES DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES.

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SHEET INDEX

Design Group LLC

ROSONE

CENTERLINE

at&t

750 WEST CENTER STREET SUITE #301 EST BRIDGEWATER, MA 02379

ГОЯ ХОИІИ (ИОТ **ГОЯ СОИЗТЯ** В ТОИ)

AND DESCRIPTION OF USE CRANDON DESIGNA PROFESTY AND COPRIGHED WORK OF MAY.
ANY DIPLICATION AND USE WITHOUT EXPRESS WRITTEN CONSENT IS STREATLY PROHIBITED.
DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR
MATCLIX ALTHORAZED REGULLATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLAMED.
THE FACILITY IS SPECIFICATION TO THE PRODUC ROUTHER INSTALLATION IT IS ONLY
ACCESSED BY TRANED TICCHICANS FOR PRIODIC ROUTHE MAINTENANCE AND THEREORE
DOCES NOT REQUIRE ANY WHITE OR SAINTARY SERVES SERVED. THE PAGILITY IS NOT
DOCESHED BY REGULATIONS REQUIRING POBLIC ACCESS PER AGA REQUIREMENTS.

CONTRACTOR SHALL VERFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE CONSTRUCTIVE THE WITHOUT THE WART MOBILITY REPRESENTATIVE IN WRITHING OF DISCREPARISES BEFORE PROCEEDING WITH THE MORK OR BE RESPONSIBLE FOR SAME.

SUBMITTALS

VICINITY MAP (NOTTO SCALE) 1. THIS DOO ANY DUP, DULLANY DUP, DUPLICATION ANY DUPLY AN

DRIVING DIRECTIONS

INSTALLATION OF ANTENNA AND ASSOCIATED EQUIPMENT ON PROPOSED LIGHT PROF. IS AN UNMANNED AND RESTRICTED ACCESS EQUIPMENT SITE AND WILL BE USED FOR THE TRANSMISSION OF ARONO SIGHALS FOR THE PURPOSE OF IMPROVING CELLULAR AND WIRELESS INTEREIT SERVICE.

PROJECT SUMMARY

242 HOPE STREET STAMFORD, CT 06906

SITE ADDRESS:

41.068972" N 73.526937" W JIGHT POLE

FAIRFIELD

HUDSON DESIGN GROUP LLC 45 BEECHWOOD DRIVE NORTH ANDOVER, MA 01845

ARCHITECT/ENGINEER:

STRUCTURE TYPE:

COUNTY: LATITUDE: LONGITUDE:

PROJECT DESCRIPTION

KEY PLAN AND ELEVATION EQUIPMENT DETAILS

4-2

TITLE SHEET

SHEET NO. CRAN_STAMFORD_22

SITE ID: CRAN_STAMFORD_22 242 HOPE STREET STAMFORD, CT 06906 FAIRFIELD COUNTY

FROM ROCKY HILL, CT:

HEAD SOUTHEAST TOWARD CAPIAL, BLVD. TURN LEFT ONTO STATE HWY 411. TURN LEFT TO

MERGE ONTO 1–91 S. TAKE EXIT 17 TO MERGE ONTO CT-15 S/MILBUR CROSS PRINT. TAKE EXIT
36 FOR CT-106 S/OLD STAMFORD RD. TURN RIGHT ONTO CT-106 S/OLD STAMFORD RD. TURN RIGHT ONTO MOTO MIDDLESSE AS DOWN UNDELSSE AND ONTO MIDDLESSE AS CONTINUE ONTO GLENBROOK RD. CONTINUE ONTO CHURCH ST.

TURN LEFT ONTO HOPE ST.

SHEET NUMBER

TITLE SHEET

SHEET TILLE

IMME	DIATE ADJOINING P	IMMEDIATE ADJOINING PROPERTY OWNER INFORMATION	FORMATION
PARCEL	OWNER	PHYSICAL ADDRESS	MAILING ADDRESS
004 / 2171	LASALANDRA GRACE M FAMILY LTD ET AL C/O DEPAOLO FAMILY LTD PTNSP 23.5%	229 HOPE STREET STAMFORD, CT 06906	188 INTERVALE ROAD STAMFORD, CT 06905
000 / 1277	LOVALLO JOSEPH J.	236 HOPE STREET STAMFORD, CT 06906	67 SKYMEADOW DRIVE STAMFORD, CT 06903
001 / 6299	FAIRFIELD COUNTY FEDERAL C/0 C/0 CREDIT UNION	242 HOPE STREET STAMFORD, CT 06906	1515 BLACK ROCK TURNPIKE FAIRFIELD, CT 06825
000 / 3283	CARRIER LOUIS C	241 HOPE STREET STAMFORD, CT 06906	241 HOPE STREET STAMFORD, CT 06906
001 / 1655	250 HOPE STREET LLC	250 HOPE STREET STAMFORD, CT 06906	250 HOPE STREET STAMFORD, CT 06906

CENTERLINE

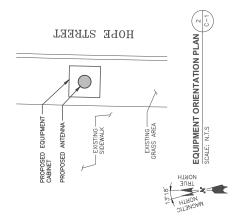
at&t

750 WEST CENTER STREET SUITE #301 WEST BRIDGEWATER, MA 02379



LAT: LONG:

45 BEECHWOOD DRIVE N. ANDOVER. MA 01845		



CRAN_STAMFORD_22

SUBMITTALS

SITE ID: CRAN_STAMFORD_22

SITE ADDRESS:
242 HOPE STREET
STAMFORD, CT 06906
FAIRFIELD COUNTY

SITE PLAN



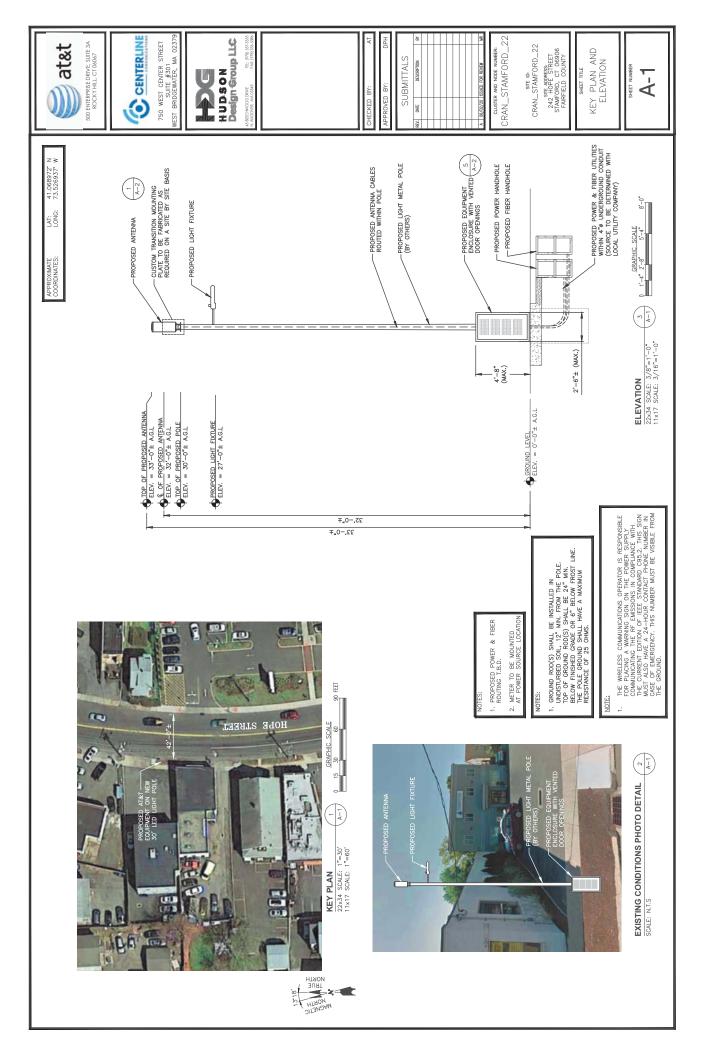


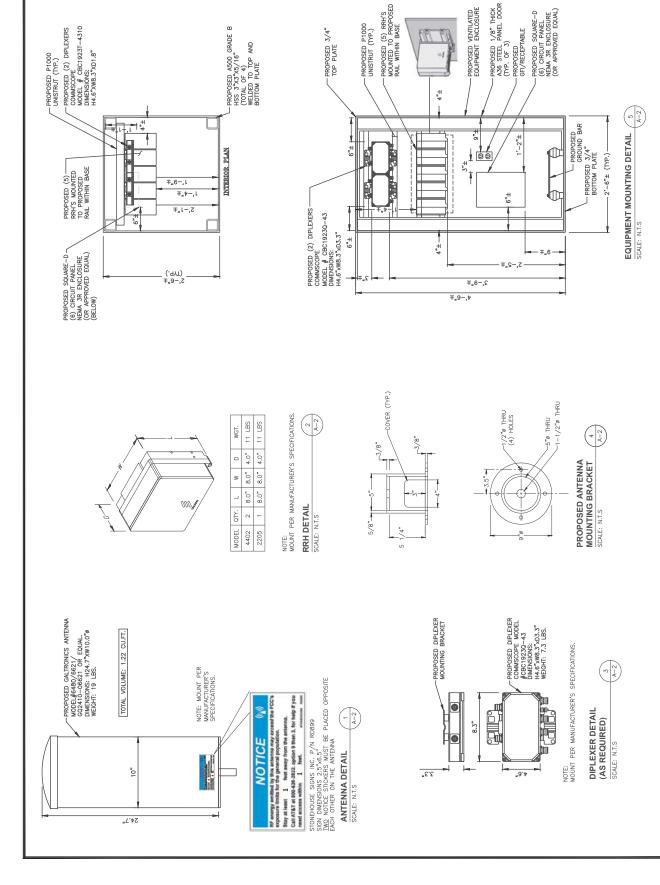




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SITE PLAN 22x34 SCALE: 1"=30' 11x17 SCALE: 1"=60'





CRAN_STAMFORD_22

SUED FOR REVIEW

SUBMITTALS

STE ID:
CRAN_STAMFORD_22
SITE ADDRESS:
242 HOPE STREET
STAMFORD, CT 06906
FARFIELD COUNTY

EQUIPMENT DETAILS

A-2

CENTERLINE

atst

scoenierprise Drive, suite 3A
ROCKY HILL, CT 66667

750 WEST CENTER STREET SUITE #301 WEST BRIDGEWATER, MA 02379 HUDSON Design Group LLC

ATTACHMENT 3

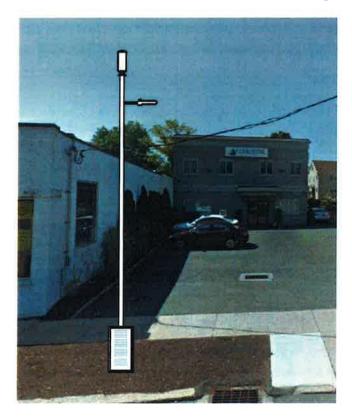
STRUCTURAL ANALYSIS REPORT

For

CRAN_Stamford_22

242 Hope Street Stamford, CT 06906

Equipment Mounted on Proposed Light Pole



Prepared for:





Dated: June 05, 2020

Prepared by:



45 Beechwood Drive North Andover, MA 01845 Phone: (978), 557-5553





SCOPE OF WORK:

Hudson Design Group LLC (HDG) has been authorized by AT&T to conduct a structural evaluation of the proposed light pole supporting the proposed AT&T equipment.

This report represents this office's findings, conclusions and recommendations pertaining to the support of the proposed AT&T equipment listed below.

CONCLUSION SUMMARY:

Based on our evaluation, we have determined that the proposed pole <u>is in conformance</u> with the National Electric Safety Code 2017 (NESC). <u>The light pole structure is rated at 2.0%</u>.

APPURTENANCES CONFIGURATION:

Appurtenances	Elevation	Mount
(1) GQ2410-06621 Antenna	32'-0''	Top of Light Pole
(1) Light Fixture	27'-0''	Side of Light Pole
(2) CBC1923Q-43 Diplexers	4'-0"	Equipment Enclosure
(5) RRH's	2'-9"	Equipment Enclosure
(1) Equipment Enclosure	2'-4"	Side of Light Pole

ANALYSIS RESULTS SUMMARY:

Component	Max. Stress Ratio	Elev. of Component (ft.)	Pass/Fail
Light Pole (Proposed)	2.0%	0 – 30.0	PASS



DESIGN CRITERIA:

National Electric Safety Code 2017 (NESC) and the 2018 Connecticut State Building Code Amendments				
Wind				
City/Town:	Stamford			
County:	Fairfield			
NESC Rule	Rule 250B	NESC Section 25		
Construction Grade	С	NESC Section 25		
Wind Load:	39.53 mph	NESC Table 230-2		
Ice				
Loading District	Heavy	NESC Figure 250-1		
Radial Ice Thickness:	0.50 in	NESC Table 230-1		

1. Approximate height above grade to center of the proposed antenna: 32'-0" +/-

^{*}Calculations and referenced documents are attached.



PROPOSED STRUCTURE:

The proposed 30'-0" +/- light pole is assumed to have a 10" diameter. If field conditions differ from what is assumed in this report, then the engineer of record is to be notified as soon as possible.

ANTENNA SUPPORT RECOMMENDATIONS:

The new antenna is proposed to be installed on a Galtronics pole top mounting bracket secured to the metal light pole using thru bolts.

EQUIPMENT SUPPORT RECOMMENDATIONS:

The new equipment is proposed to be installed inside the new equipment enclosure using the approved manufacturer's mounts.

<u>Limitations and assumptions:</u>

- Reference the latest HDG construction drawings for all the equipment locations details.
- 2. Mount all equipment per manufacturer's specifications.
- 3. All structural members and their connections are assumed to be in good condition and are free from defects with no deterioration to its member capacities. Contractor to perform pre-inspection prior to construction.
- 4. All antennas and waveguide cables are assumed to be properly installed and supported as per the manufacturer requirements.
- 5. HDG is not responsible for any modifications completed prior to and hereafter which HDG was not directly involved.
- 6. If field conditions differ from what is assumed in this report, then the engineer of record is to be notified as soon as possible.
- 7. HDG did not perform any geotechnical analysis / or / investigation. Soil Information is unknown.



Project Name: CRAN_RCTB_BURLV_002

Designed By: CL Checked By: MSC



ICE WEIGHT CALCULATIONS

Thickness of ice: 0.50 in.

Density of ice: 56 pcf

GQ2410-06621 Antenna

Weight of ice based on total radial SF area:

Depth (in): 24.7 Diameter(in): 10.0

Total weight of ice on object: 13 lbs

Weight of object: 19 lbs

Combined weight of ice and object: 32 lbs

Street Light Arm

Weight of ice based on total radial SF area:

Height (in): 2.4
Width (in): 2.4
Depth (in): 36.0

Total weight of ice on object: 4 lbs

Weight of object: 11.0 lbs

Combined weight of ice and object: 15 lbs

Street Light

Weight of ice based on total radial SF area:

Height (in): 30.0
Width (in): 14.0
Depth (in): 6.0

Total weight of ice on object: 24 lbs

Weight of object: 50.0 lbs

Combined weight of ice and object: 74 lbs

10" Pipe

Per foot weight of ice:

diameter (in): 10.75

Per foot weight of ice on object: 7 plf

Project Name: CRAN_Stamford_22

Designed By: CL Checked By: MSC



2.6.5.2 Velocity Pressure Coeff:



 $Kzmin \le Kz \le 2.01$

Table 2-4

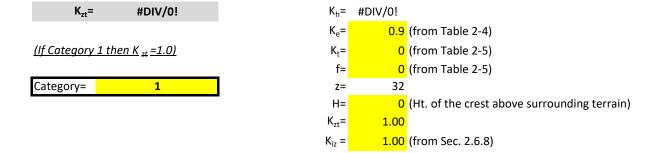
Exposure	$\mathbf{Z}_{\mathbf{g}}$	α	K_{zmin}	K _e
В	1200 ft	7.0	0.70	0.9
С	900 ft	9.5	0.85	1.0
D	700 ft	11.5	1.03	1.1

2.6.6.4 Topographic Factor:

Table 2-5

Topo. Category	K _t	f
2	0.43	1.25
3	0.53	2.0
4	0.72	1.5

$$K_{zt} = [1 + (K_e K_t/K_h)]^2$$
 $K_h = e^{(f^*z/H)}$



2.6.8 Design Ice Thickness



Project Name: CRAN_Stamford_22

Designed By: CL Checked By: MSC



2.6.7 Gust Effect Factor

2.6.7.1 Self Supporting Lattice Structures

Gh = 1.0 Latticed Structures > 600 ft

Gh = 0.85 Latticed Structures 450 ft or less

Gh = 0.85 + 0.15 [h/150 - 3.0]

h= ht. of structure



Gh=	0.85

2.6.7.2 Guyed Masts

2.6.7.3 Pole Structures

2.6.9 Appurtenances

2.6.7.4 Structures Supported on Other Structures

(Cantilivered tubular or latticed spines, pole, structures on buildings (ht.: width ratio > 5)

2.6.9.2 Design Wind Force on Appurtenances

 $F = q_z *Gh*(EPA)_A$

$$q_z = 0.00256*K_z*K_{zt}*K_d*V_{max}^2*I$$

$$K_z = 0.714$$
 $K_{zt} = 1.0$

 $q_z = 2.71$ $q_{z (ice)} = 1.56$

 $K_{d} = 0.95$ (from Table 2-2) $V_{max} = 39.53$ $V_{max (ice)} = 30$

 $V_{\text{max (ice)}}$ = 30 $I_{\text{max (ice)}}$ = 1.0 (from Table 2-3) I_{wice} = 1.0 (from Table 2-3)

Table 2-2

Structure Type	Wind Direction Probability Factor, Kd
Latticed structures with triangular, square or rectangular cross sections	0.85
Tubular pole structures, latticed structures with other cross sections, appurtenances	0.95

Project Name: CRAN_Stamford_22

Designed By: CL Checked By: MSC



Determine Ca:

Table 2-8

	Force Coefficients (Ca) for Appurtenances						
Member Type		Aspect Ratio ≤ 2.5	Aspect Ratio = 7	Aspect Ratio ≥ 25			
		Ca	Ca	Ca			
	Flat	1.2	1.4	2.0			
Round	C < 32 (Subcritical)	0.7	0.8	1.2			
	32 ≤ C ≤ 64 (Transitional)	3.76/(C ^{0.485})	3.37/(C ^{0.415})	38.4/(C ^{.1.0})			
	C > 64 (Supercritical)	0.5	0.6	0.6			

Aspect Ratio is the overall length/width ratio in the plane normal to the wind direction. (Aspect ratio is independent of the spacing between support points of a linear appurtenance, and the section length considered to have uniform wind load).

Note: Linear interpolation may be used for aspect ratios other than those shown.

Ice Thickness = 1.00 in

<u>Appurtenances</u>	<u>Height</u>	Width	<u>Depth</u>	Flat Area	Aspect Ratio	<u>Ca</u>	Force (lbs)	Force (lbs) (w/lce)
GQ2410-06621 Antenna	24.7	10.0	10.0	1.72	2.47	1.20	8	6
Street Light (Generic)	14.0	30.0	6.0	2.92	0.47	1.20	13	9
Street Light Arm (Generic)	2.4	36.0	2.4	0.60	0.07	1.20	3	3
10" Light Pole	10.8	12.0		0.90	0.90	1.20	4	3

Project Name: CRAN_Stamford_22Project No.: CRAN_Stamford_22

Designed By: CL Checked By: MSC



Wind Analysis → Equipment Enclosure

Reference Codes:

'-Connecticut State Building Code (2018)

-International Building Code 2015 (IBC 2015)

-Minimum Design Loads for Buildings and Other Structures (ASCE 7-10)

Structure Classification		II	(ASCE 7-10 Table 1.5-1)
Basic Wind Speed, V		39.53 mph	(NESC Table 230-2)
Importance Factor, I		1	(ASCE 7-10 Table 1.5-2)
Exposure Category		В	(ASCE 7-10 Section 26.7)
Height Above Ground Level, z		2.5 ft	(Center of Enclosure)
Exposure Coefficient, K _z		0.57	(ASCE 7-10 Table 29-3.1)
Wind Directionality Coef., K _d		0.90	(ASCE 7-10 Table 26.6-1)
Topographic Factor, K _{zt}		1.00	(ASCE 7-10 Section 26.8.2)
Velocity Pressure, q _z	$= 0.00256K_{z}K_{z}$ $= 2.0$	_{zt} K _d V ² 15 psf	(ASCE 7-10 Equation 29.3-1)
Gust Factor, G		0.85	(ASCE 7-10 Section 26.9)
Enclosure Shape:		Square	
Net Force Coeficient, C _f		1.31	(ASCE 7-10 Figure 29.5-1)
Projected Area Normal to Wind	d, A	12 ft ²	(4.7 ft x 2.5 ft W)
Wind Force, F	= q_zGC_{f}	A _f 17 <u>lbs</u>	(ASCE 7-10 Equation 29.5-2)



Current Date: 6/5/2020 5:06 PM
Units system: English
File name: W:\STRUCTURAL DEPARTMENT\ANALYSIS SOFTWARE\RAM Elements\RAM Projects\AT&T\CT\CT Small Cell\CRAN_Stamford_22\CRAN_Stamford_22 (File name)







Current Date: 6/5/2020 5:07 PM
Units system: English
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A53 GrB PIPE 10x0.365





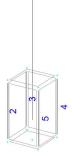
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Not designed
Error on design Design O.K.
With warnings





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Units system: English

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Cell\CRAN_Stamford_22\CRAN_Stamford_22 (Proposed).retx\

Load data

GLOSSARY

Comb : Indicates if load condition is a load combination

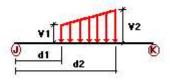
Load Conditions

Condition	Description	Comb.	Category
DL	Dead Load	No	DL
Wf	Wind Load (FRONT)	No	WIND
Ws	Wind Load (SIDE)	No	WIND
Wfice	Wind ICE (FRONT)	No	WIND
Wsice	Wind ICE (SIDE)	No	WIND
Di	Ice Load	No	LL

Load on nodes

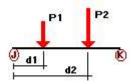
Condition	Node	FX [Kip]	FY [Kip]	FZ [Kip]	MX [Kip*ft]	MY [Kip*ft]	MZ [Kip*ft]
DL	 2	0.00	-0.019	0.00	0.00	0.00	0.00
Wf	2	0.00	0.00	-0.008	0.00	0.00	0.00
Ws	2	-0.008	0.00	0.00	0.00	0.00	0.00
Wfice	2	0.00	0.00	-0.006	0.00	0.00	0.00
Wsice	2	-0.006	0.00	0.00	0.00	0.00	0.00
Di	2	0.00	-0.013	0.00	0.00	0.00	0.00

Distributed force on members



Condition	Member	Dir1	Val1 [Kip/ft]	Val2 [Kip/ft]	Dist1 [ft]	%	Dist2 [ft]	%
Wf	1	Z	-0.004	-0.004	16.00	Yes	100.00	Yes
Ws	1	Х	-0.004	-0.004	16.00	Yes	100.00	Yes
Wfice	1	Z	-0.003	-0.003	16.00	Yes	100.00	Yes
Wsice	1	Х	-0.003	-0.003	16.00	Yes	100.00	Yes
Di	1	у	-0.007	-0.007	16.00	Yes	100.00	Yes

Concentrated forces on members



Condition	Member	Dir1	Value1 [Kip]	Dist1 [ft]	%
DL	1	у	-0.05	27.00	No
		у	-0.011	27.00	No
		у	-0.008	4.00	No
		у	-0.008	4.00	No
		у	-0.011	2.75	No
		у	-0.011	2.75	No
		у	-0.011	2.75	No
		у	-0.011	2.75	No
		у	-0.011	2.75	No
Wf	1	Z	-0.013	27.00	No
		Z	-0.003	27.00	No
Ws	1	Х	-0.013	27.00	No
		Х	-0.003	27.00	No
Wfice	1	Z	-0.009	27.00	No
		Z	-0.009	27.00	No
Wsice	1	Х	-0.009	27.00	No
		Х	-0.009	27.00	No
Di	1	у	-0.024	27.00	No
		у	-0.004	27.00	No

Load on shells

Condition	Shell	Pressure [Kip/ft2]	Temp. [F]	
Wf	4	-0.021	0.00	
Ws	1	-0.021	0.00	
Wfice	4	-0.021	0.00	
Wsice	1	-0.021	0.00	

Self weight multipliers for load conditions

			Self weight multiplier				
Condition	Description	Comb.	MultX	MultY	MultZ		
DL	Dead Load	No	0.00	-1.00	0.00		
Wf	Wind Load (FRONT)	No	0.00	0.00	0.00		
Ws	Wind Load (SIDE)	No	0.00	0.00	0.00		
Wfice	Wind ICE (FRONT)	No	0.00	0.00	0.00		
Wsice	Wind ICE (SIDE)	No	0.00	0.00	0.00		
Di	Ice Load	No	0.00	0.00	0.00		

Earthquake (Dynamic analysis only)

Condition	a/g	Ang. [Deg]	Damp. [%]	
DL	0.00	0.00	0.00	
Wf	0.00	0.00	0.00	
Ws	0.00	0.00	0.00	
Wfice	0.00	0.00	0.00	
Wsice	0.00	0.00	0.00	
Di	0.00	0.00	0.00	



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Units system: English

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Steel Code Check

Report: Summary - Group by member

Load conditions to be included in design :

LC1=1.2DL+Wf

LC2=1.2DL+Ws

LC3=0.9DL+Wf

LC4=0.9DL+Ws

LC5=1.2DL+Wfice+Di

LC6=1.2DL+Wsice+Di

LC7=1.2DL

LC8=0.9DL

Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
	HSS_SQR 3X3X5_16	2	LC2 at 100.00%	0.00	 OK	
		3	LC2 at 100.00%	0.00	OK	
		4	LC1 at 100.00%	0.00	OK	
		5	LC7 at 100.00%	0.00	OK	
	PIPE 10x0.365	1	LC2 at 15.63%	0.02	ок	



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Geometry data

GLOSSARY

Cb22, Cb33 : Moment gradient coefficients

Cm22, Cm33 : Coefficients applied to bending term in interaction formula : Tapered member section depth at J end of member DJX : Rigid end offset distance measured from J node in axis X DJY : Rigid end offset distance measured from J node in axis Y DJZ : Rigid end offset distance measured from J node in axis Z DKX : Rigid end offset distance measured from K node in axis X DKY : Rigid end offset distance measured from K node in axis Y DKZ : Rigid end offset distance measured from K node in axis Z dL : Tapered member section depth at K end of member

Ig factor : Inertia reduction factor (Effective Inertia/Gross Inertia) for reinforced concrete members

K22 : Effective length factor about axis 2 K33 : Effective length factor about axis 3

L22 : Member length for calculation of axial capacity
L33 : Member length for calculation of axial capacity

LB pos : Lateral unbraced length of the compression flange in the positive side of local axis 2
LB neg : Lateral unbraced length of the compression flange in the negative side of local axis 2

RX : Rotation about X
RY : Rotation about Y
RZ : Rotation about Z

TO : 1 = Tension only member 0 = Normal member

TX : Translation in X
TY : Translation in Y
TZ : Translation in Z

Nodes

Node	X [ft]	Y [ft]	Z [ft]	Rigid Floor
1	0.00	0.00	0.00	0
2	0.00	30.00	0.00	0
3	-1.25	0.00	-1.25	0
4	1.25	0.00	-1.25	0
5	-1.25	0.00	1.25	0
6	1.25	0.00	1.25	0
7	-1.25	4.67	1.25	0
8	-1.25	4.67	-1.25	0
9	1.25	4.67	1.25	0
10	1.25	4.67	-1.25	0

Restraints

Node	TX	TY	TZ	RX	RY	RZ
3	1	1	1	0	0	0
4	1	1	1	0	0	0
5	1	1	1	0	0	0
6	1	1	1	0	0	0

Members

Member	NJ	NK	Description	Section	Material	d0 [in]	dL [in]	lg factor
1	1	2		PIPE 10x0.365	A53 GrB	0.00	0.00	0.00
2	7	5		HSS_SQR 3X3X5_16	A500 GrB rectangular	0.00	0.00	0.00
3	8	3		HSS_SQR 3X3X5_16	A500 GrB rectangular	0.00	0.00	0.00
4	10	4		HSS_SQR 3X3X5_16	A500 GrB rectangular	0.00	0.00	0.00
5	9	6		HSS_SQR 3X3X5_16	A500 GrB rectangular	0.00	0.00	0.00

Shells

Shell	Description	Material	Thickness [in]	Center of gravity [ft]	Area [ft2]	N1, N2,, Nn
1		A36	0.13	(1.25, 2.34, 0.00)	11.68	4, 10, 9, 6
2		A36	0.13	(0.00, 2.34, -1.25)	11.68	3, 8, 10, 4
3		A36	0.13	(-1.25, 2.34, 0.00)	11.68	5, 7, 8, 3
4		A36	0.13	(0.00, 2.34, 1.25)	11.68	6, 9, 7, 5
5		A36	0.75	(0.00, 4.67, 0.00)	6.25	9, 10, 8, 7
6		A36	0.75	(0.00, 0.00, 0.00)	6.25	6, 4, 3, 5



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N 2





Current Date: 6/5/2020 5:11 PM

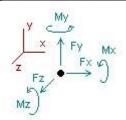
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Cell\CRAN_Stamford_22\CRAN_Stamford_22 (Proposed).retx\

Analysis result

Reactions



Direction of positive forces and moments

		Forces [Kip]		Moments [Kip*ft]		
Node	FX	FY	FZ	MX	MY	MZ
Condition	DL=Dead Load					
3	0.00170	0.22896	0.00170	0.00000	0.00000	0.00000
4	-0.00170	0.22896	0.00170	0.00000	0.00000	0.00000
5	0.00170	0.22896	-0.00170	0.00000	0.00000	0.00000
6	-0.00170	0.22896	-0.00170	0.00000	0.00000	0.00000
FEM: 15	-0.00034	0.29226	0.00000	0.00000	0.00000	0.00000
FEM: 19	0.00000	0.29226	0.00034	0.00000	0.00000	0.00000
FEM: 23	0.00034	0.29226	0.00000	0.00000	0.00000	0.00000
FEM: 26	0.00000	0.29226	-0.00034	0.00000	0.00000	0.00000
SUM	0.00000	2.08489	0.00000	0.00000	0.00000	0.00000
Condition	Wf=Wind Load (FR	ONT)				
3	-0.01914	0.51904	0.04187	0.00000	0.00000	0.00000
4	0.01914	0.51904	0.04187	0.00000	0.00000	0.00000
5	0.01018	-0.52418	0.04143	0.00000	0.00000	0.00000
6	-0.01018	-0.52418	0.04143	0.00000	0.00000	0.00000
FEM: 15	-0.00857	0.00777	0.18631	0.00000	0.00000	0.00000
FEM: 19	0.00000	0.15351	-0.10508	0.00000	0.00000	0.00000
FEM: 23	0.00857	0.00777	0.18631	0.00000	0.00000	0.00000
FEM: 26	0.00000	-0.15878	-0.06417	0.00000	0.00000	0.00000
SUM	0.00000	0.00000	0.36997	0.00000	0.00000	0.00000
Condition	Ws=Wind Load (SI	DE)				
3	0.04187	0.51904	-0.01914	0.00000	0.00000	0.00000
4	0.04143	-0.52418	0.01018	0.00000	0.00000	0.00000
5	0.04187	0.51904	0.01914	0.00000	0.00000	0.00000
6	0.04143	-0.52418	-0.01018	0.00000	0.00000	0.00000
FEM: 15	-0.06417	-0.15878	0.00000	0.00000	0.00000	0.00000
FEM: 19	0.18631	0.00777	0.00857	0.00000	0.00000	0.00000
FEM: 23	-0.10508	0.15351	0.00000	0.00000	0.00000	0.00000
FEM: 26	0.18631	0.00777	-0.00857	0.00000	0.00000	0.00000
SUM	0.36997	0.00000	0.00000	0.00000	0.00000	0.00000

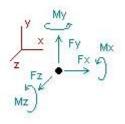
Condition Wfice=Wind ICE (FRONT)							
3	-0.01574	0.44189	0.03852	0.00000	0.00000	0.00000	
4	0.01574	0.44189	0.03852	0.00000	0.00000	0.00000	
5	0.00679	-0.44703	0.03808	0.00000	0.00000	0.00000	
6	-0.00679	-0.44703	0.03808	0.00000	0.00000	0.00000	
						0.00000	
FEM: 15	-0.00857	0.00777	0.16171	0.00000	0.00000		
FEM: 19	0.00000	0.13002	-0.08637	0.00000	0.00000	0.00000	
FEM: 23	0.00857	0.00777	0.16171	0.00000	0.00000	0.00000	
FEM: 26	0.00000	-0.13529 	-0.04546 	0.00000	0.00000	0.00000	
SUM	0.00000	0.00000	0.34477	0.00000	0.00000	0.00000	
Condition	Wsice=Wind ICE (S	SIDE)					
3	0.03852	0.44189	-0.01574	0.00000	0.00000	0.00000	
4	0.03808	-0.44703	0.00679	0.00000	0.00000	0.00000	
5	0.03852	0.44189	0.01574	0.00000	0.00000	0.00000	
6	0.03808	-0.44703	-0.00679	0.00000	0.00000	0.00000	
FEM: 15	-0.04546	-0.13529	0.00000	0.00000	0.00000	0.00000	
FEM: 19	0.16171	0.00777	0.00857	0.00000	0.00000	0.00000	
FEM: 23	-0.08637	0.13002	0.00000	0.00000	0.00000	0.00000	
FEM: 26	0.16171	0.00777	-0.00857	0.00000	0.00000	0.00000	
SUM	0.34477	0.00000	0.00000	0.00000	0.00000	0.00000	
Condition	Di=Ice Load						
3	-0.00008	0.00340	-0.00008	0.00000	0.00000	0.00000	
4	0.00008	0.00340	-0.00008	0.00000	0.00000	0.00000	
5	-0.00008	0.00340	0.00008	0.00000	0.00000	0.00000	
6	0.00008	0.00340	0.00008	0.00000	0.00000	0.00000	
FEM: 15	-0.00001	0.00685	0.00000	0.00000	0.00000	0.00000	
FEM: 19	0.00000	0.00685	0.00001	0.00000	0.00000	0.00000	
FEM: 23	0.00001	0.00685	0.00000	0.00000	0.00000	0.00000	
FEM: 26	0.00001	0.00685	-0.00001	0.00000	0.00000	0.00000	
SUM	0.00000	0.04100	0.00000	0.00000	0.00000	0.00000	
Condition	LC1=1.2DL+Wf						
3	-0.01710	0.79379	0.04391	0.00000	0.00000	0.00000	
4	0.01710	0.79379	0.04391	0.00000	0.00000	0.00000	
5	0.01222	-0.24942	0.03940	0.00000	0.00000	0.00000	
6	-0.01222	-0.24942	0.03940	0.00000	0.00000	0.00000	
FEM: 15	-0.00898	0.35848	0.18631	0.00000	0.00000	0.00000	
FEM: 19	0.00000	0.50422	-0.10466	0.00000	0.00000	0.00000	
FEM: 23	0.00898	0.35848	0.18631	0.00000	0.00000	0.00000	
FEM: 26	0.00000	0.19194	-0.06458	0.00000	0.00000	0.00000	
SUM	0.00000	2.50187	0.36997	0.00000	0.00000	0.00000	
Condition	LC2=1.2DL+Ws						
3	0.04391	0.79379	-0.01710	0.00000	0.00000	0.00000	
4	0.03940	-0.24942	0.01222	0.00000	0.00000	0.00000	
5	0.04391	0.79379	0.01710	0.00000	0.00000	0.00000	
6	0.03940	-0.24942	-0.01222	0.00000	0.00000	0.00000	
FEM: 15	-0.06458	0.19194	0.00000	0.00000	0.00000	0.00000	
FEM: 19	0.18631	0.35848	0.00898	0.00000	0.00000	0.00000	
FEM: 23	-0.10466	0.50422	0.00090	0.00000	0.00000	0.00000	
FEM: 26	0.18631	0.35848	-0.00898	0.00000	0.00000	0.00000	
SUM							
JUIVI	0.36997	2.50187	0.00000	0.00000	0.00000	0.00000	

Condition I	C3=0.9DL+Wf					
3	-0.01761	0.72511	0.04340	0.00000	0.00000	0.00000
4	0.01761	0.72511	0.04340	0.00000	0.00000	0.00000
5	0.01171	-0.31811	0.03990	0.00000	0.00000	0.00000
6	-0.01171	-0.31811	0.03990	0.00000	0.00000	0.00000
FEM: 15	-0.00888	0.27081	0.18631	0.00000	0.00000	0.00000
FEM: 19	0.00000	0.41655	-0.10477	0.00000	0.00000	0.00000
FEM: 23	0.00888	0.27081	0.18631	0.00000	0.00000	0.00000
FEM: 26	0.00000	0.10426 	-0.06448 	0.00000	0.00000	0.00000
SUM	0.00000	1.87640	0.36997	0.00000	0.00000	0.00000
Condition L	C4=0.9DL+Ws					
3	0.04340	0.72511	-0.01761	0.00000	0.00000	0.00000
4	0.03990	-0.31811	0.01171	0.00000	0.00000	0.00000
5	0.04340	0.72511	0.01761	0.00000	0.00000	0.00000
6	0.03990	-0.31811	-0.01171	0.00000	0.00000	0.00000
FEM: 15	-0.06448	0.10426	0.00000	0.00000	0.00000	0.00000
FEM: 19	0.18631	0.27081	0.00888	0.00000	0.00000	0.00000
FEM: 23	-0.10477	0.41655	0.00000	0.00000	0.00000	0.00000
FEM: 26	0.18631	0.27081	-0.00888	0.00000	0.00000	0.00000
SUM	0.36997	 1.87640	0.00000	0.00000	0.00000	0.00000
Condition I	C5=1.2DL+Wfice+	⊦ Di				
3	-0.01379	0.72004	0.04047	0.00000	0.00000	0.00000
4	0.01379	0.72004	0.04047	0.00000	0.00000	0.00000
5	0.00874	-0.16887	0.03613	0.00000	0.00000	0.00000
6	-0.00874	-0.16887	0.03613	0.00000	0.00000	0.00000
FEM: 15	-0.00874	0.36534	0.16171	0.00000	0.00000	0.00000
FEM: 19	0.00000	0.48758	-0.08595	0.00000	0.00000	0.00000
FEM: 23	0.00899	0.36534	0.16171	0.00000	0.00000	0.00000
FEM: 26	0.00000	0.22228	-0.04589 	0.00000	0.00000	0.00000
SUM	0.00000	2.54287	0.34477	0.00000	0.00000	0.00000
Condition L	C6=1.2DL+Wsice	+Di				
3	0.04047	0.72004	-0.01379	0.00000	0.00000	0.00000
4	0.03613	-0.16887	0.00874	0.00000	0.00000	0.00000
5	0.04047	0.72004	0.01379	0.00000	0.00000	0.00000
6	0.03613	-0.16887	-0.00874	0.00000	0.00000	0.00000
FEM: 15	-0.04589	0.22228	0.00000	0.00000	0.00000	0.00000
FEM: 19	0.16171	0.36534	0.00899	0.00000	0.00000	0.00000
FEM: 23	-0.08595	0.48758	0.00000	0.00000	0.00000	0.00000
FEM: 26	0.16171	0.36534	-0.00899	0.00000	0.00000	0.00000
SUM	0.34477	2.54287	0.00000	0.00000	0.00000	0.00000
Condition L						
3	0.00204	0.27475	0.00204	0.00000	0.00000	0.00000
4	-0.00204	0.27475	0.00204	0.00000	0.00000	0.00000
5	0.00204	0.27475	-0.00204	0.00000	0.00000	0.00000
6	-0.00204	0.27475	-0.00204	0.00000	0.00000	0.00000
FEM: 15	-0.00041	0.35071	0.00000	0.00000	0.00000	0.00000
FEM: 19	0.00000	0.35071	0.00041	0.00000	0.00000	0.00000
FEM: 23	0.00041	0.35071	0.00000	0.00000	0.00000	0.00000
FEM: 26	0.00000	0.35071	-0.00041	0.00000	0.00000	0.00000
SUM	0.00000	2.50187	0.00000	0.00000	0.00000	0.00000

Condition	LC8=0.9DL					
3	0.00153	0.20606	0.00153	0.00000	0.00000	0.00000
4	-0.00153	0.20606	0.00153	0.00000	0.00000	0.00000
5	0.00153	0.20606	-0.00153	0.00000	0.00000	0.00000
6	-0.00153	0.20606	-0.00153	0.00000	0.00000	0.00000
FEM: 15	-0.00031	0.26304	0.00000	0.00000	0.00000	0.00000
FEM: 19	0.00000	0.26304	0.00031	0.00000	0.00000	0.00000
FEM: 23	0.00031	0.26304	0.00000	0.00000	0.00000	0.00000
FEM: 26	0.00000	0.26304	-0.00031	0.00000	0.00000	0.00000
SUM	0.00000	1.87640	0.00000	0.00000	0.00000	0.00000

Envelope for nodal reactions

Note.- Ic is the controlling load condition



Direction of positive forces and moments

Envelope of nodal reactions for

DL=Dead Load

Wf=Wind Load (FRONT)

Ws=Wind Load (SIDE)

Wfice=Wind ICE (FRONT)

Wsice=Wind ICE (SIDE)

Di=Ice Load

LC1=1.2DL+Wf

LC2=1.2DL+Ws

LC3=0.9DL+Wf

LC4=0.9DL+Ws

LC5=1.2DL+Wfice+Di

LC6=1.2DL+Wsice+Di

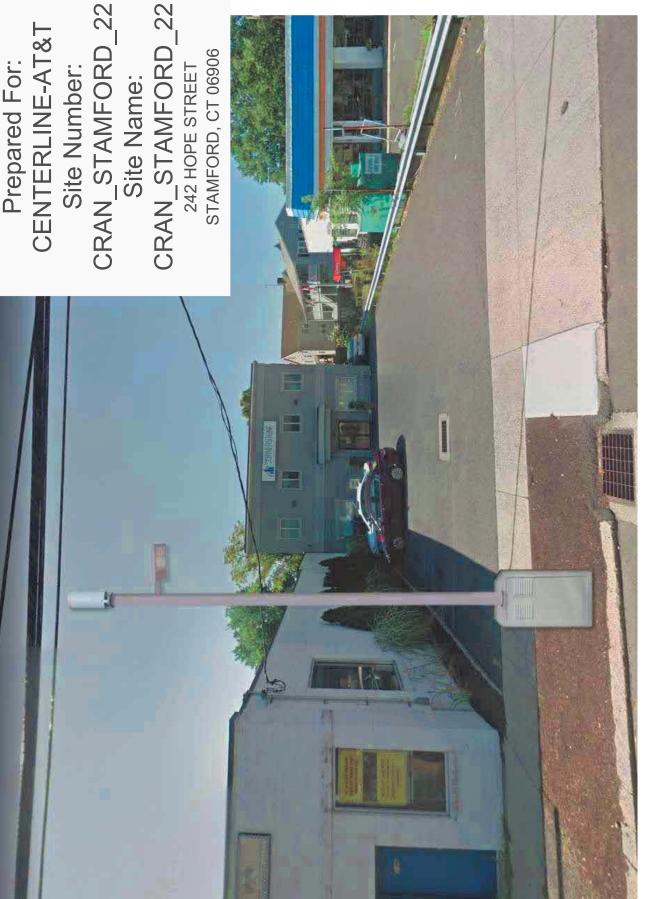
LC7=1.2DL

LC8=0.9DL

				Fo	orces					Mome	ents		
Node		Fx [Kip]	lc	Fy [Kip]	lc	Fz [Kip]	lc	Mx [Kip*ft]	lc	My [Kip*ft]	lc	Mz [Kip*ft]	lc
3	Max Min	0.044 -0.019	LC2 Wf	0.794 0.003	LC2 Di	0.044 -0.019	LC1 Ws	0.00000	DL DL	0.00000 0.00000	DL DL	0.00000 0.00000	DL DL
4	Max	0.041	Ws	0.794	LC1	0.044	LC1	0.00000	DL	0.00000	DL	0.00000	DL
	Min	-0.002	LC7	-0.524	Ws	0.000	Di	0.00000	DL	0.00000	DL	0.00000	DL
5	Max	0.044	LC2	0.794	LC2	0.041	Wf	0.00000	DL	0.00000	DL	0.00000	DL
	Min	0.000	Di	-0.524	Wf	-0.002	LC7	0.00000	DL	0.00000	DL	0.00000	DL
6	Max	0.041	Ws	0.275	LC7	0.041	Wf	0.00000	DL	0.00000	DL	0.00000	DL
	Min	-0.012	LC1	-0.524	Ws	-0.012	LC2	0.00000	DL	0.00000	DL	0.00000	DL

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ATTACHMENT 4



CRAN_STAMFORD_22 SITE NO: SITE NAME: CRAN_STAMFORD_22

ADDRESS: 242 HOPE STREET STAMFORD, CT 06906







DATE: 05/29/2020 **DRAWN BY: VP** SCALE: N.T.S.

THIS STUDY DOES NOT CLAIM IN ANY WAY TO SHOW THE ONLY AREAS OF VISIBILITY. IT IS MEANT TO SHOW A BROAD REPRESENTATION OF AREAS WHERE THE PROPOSED INSTALLATION MAY BE VISIBLE BASED UNDN THE BEST INFORMATION FOR TOPOGRAPHY AND VEGETATION LOCATIONS AVAILABLE TO DATE. REV: 0 SITE TYPE: LIGHT POLE







HUDSON Design Group LLC

750 WEST CENTER STREET SUITE #301 WEST BRIDGEWATER, MA 02379

DATE: 05/29/2020 DRAWN BY: VP

SCALE: N.T.S.

THIS STUDY DOES NOT CLAIM IN ANY WAY TO SHOW THE ONLY AREAS OF VISIBILITY. IT IS MEANT TO SHOW A BROAD REPRESENTATION OF AREAS WHERE THE PROPOSED INSTALLATION MAY BE VISIBLE BASED UPON THE BEST INFORMATION FOR TOPOGRAPHY AND VEGETATION LOCATIONS AVAILABLE TO DATE.

REV: 0

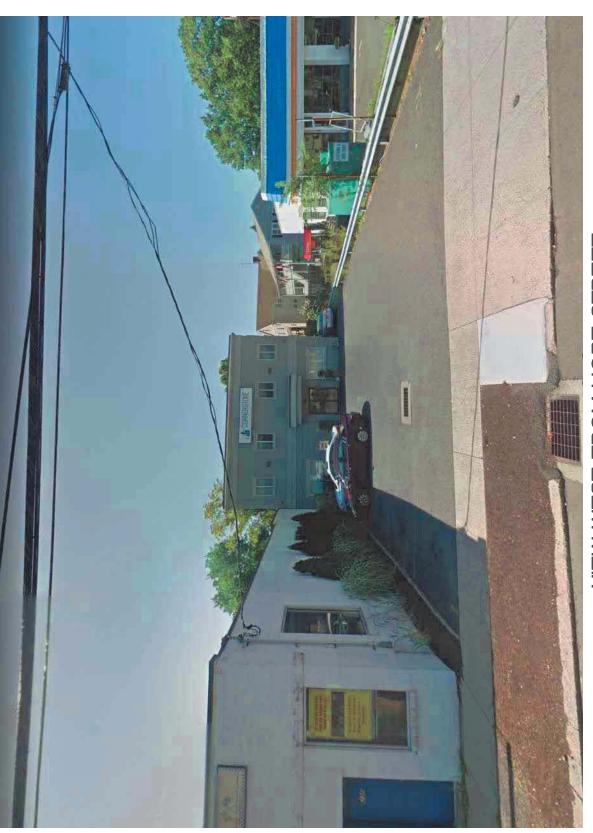
SITE TYPE: LIGHT POLE

PHOTO LOCATION

PAGE 2 OF 4

242 HOPE STREET STAMFORD, CT 06906 CRAN_STAMFORD_22 SITE NAME: CRAN_STAMFORD_22 ADDRESS: SITE NO:

500 ENTERPRISE DRIVE SUITE 3A ROCKY HILL, CT 06067



VIEW WEST FROM HOPE STREET

CRAN_STAMFORD_22 SITE NAME: CRAN_STAMFORD_22 SITE NO:

ADDRESS: 242 HOPE STREET STAMFORD, CT 06906





HUDSON Design Group LLC

DRAWN BY: VP

SCALE: N.T.S.

TEL: (978) 557-5553 FAX: (978) 336-5586

REV: 0 DATE: 05/29/2020

SITE TYPE: LIGHT POLE

THIS STUDY DOES NOT CLAIM IN ANY WAY TO SHOW THE ONLY AREAS OF VISIBILITY. IT IS MEANT TO SHOW A BROAD REPRESENTATION OF AREAS WHERE THE PROPOSED INSTALLATION MAY BE VISIBLE BASED UPON THE BEST INFORMATION FOR TOPOGRAPHY AND VEGETATION LOCATIONS AVAILABLE TO DATE.

PAGE 3 OF 4

WEW WEST FROM HOPE STREET

CRAN_STAMFORD_22 SITE NO:

SITE NAME: CRAN_STAMFORD_22

242 HOPE STREET STAMFORD, CT 06906 **ADDRESS**:





HUDSON Design Group LLC

SCALE: N.T.S. TEL: (978) 557-5553 FAX: (978) 336-5586

REV: 0 SITE TYPE: LIGHT POLE DATE: 05/29/2020 DRAWN BY: VP

THIS STUDY DOES NOT CLAIM IN ANY WAY TO SHOW THE ONLY AREAS OF VISIBILITY. IT IS MEANT TO SHOW A BROAD REPRESENTATION OF AREAS WHERE THE PROPOSED INSTALLATION MAY BE VISIBLE BASED UPON THE BEST INFORMATION FOR TOPOGRAPHY AND VEGETATION LOCATIONS AVAILABLE TO DATE.

PAGE 4 OF 4

ATTACHMENT 5



Radio Frequency Emissions Analysis Report

AT&T

Site Name: cRAN_Stamford_22

242 Hope Street Stamford, Connecticut 06906

May 18, 2020

Centerline Communications Project Number: 950010-177

Site Compliance Summary		
Compliance Status:	Compliant	
Site total MPE% of		
FCC general population	0.67%	
allowable limit:		



May 18, 2020

AT&T Mobility – New England Attn: John Benedetto, RF Manager 550 Cochituate Road Suite 550 – 13&14 Framingham, MA 01701

Emissions Analysis for Site: cRAN Stamford 22

Centerline Communications, LLC ("Centerline") was directed to analyze the proposed AT&T facility to be located on **Utility Pole** near **242 Hope Street**, **Stamford Connecticut 06906** for the purpose of determining whether the emissions from the proposed facility are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (μ W/cm2). The number of μ W/cm² calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) - (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general population may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter (μ W/cm²). The general population exposure limits for the 1900 MHz (PCS), 2100 MHz (AWS) and 5 GHz (B46) bands is 1000 μ W/cm².



Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits, as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.



CALCULATIONS

Calculations were performed for the proposed facility using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since AT&T is proposing focused omnidirectional antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was focused at the base of the tower. This is a very conservative estimate since the gain reduction in actual applications is typically greater than 10 dB in the direction of ground immediately surrounding the facility. Real world emissions values from this facility are expected to be lower than values listed in this report at ground level. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. All power values expressed and analyzed are maximum power levels expected to be used on all radios.

For each sector the following channel counts, frequency bands and power levels were utilized as shown in *Table 1*:

RRH#				Transmit Power per
	Technology	Frequency Band	Channel Count	Channel (W)
1	LTE	1900 MHz (PCS Band)	2 (2 x 2 MIMO)	5
2	LTE	2100 MHz (AWS Band)	2 (2 x 2 MIMO)	5
3	LTE	5 GHz (Band 46)	2 (2 x 2 MIMO)	0.316

Table 1: Channel Data Table



The following antennas listed in *Table 2* were used in the modeling for transmission in the 1900 MHz (PCS), 2100 MHz (AWS) and 5 GHz (Band 46) frequency bands. This is based on information from the carrier with regard to anticipated antenna selection. Maximum gain values for all antennas are listed in the AT&T Antenna Inventory & Power Levels table (Table 3) below in the Results section. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

			Antenna
	Antenna		Centerline
Sector	Number	Antenna Make / Model	(ft)
A	1	Galtronics GQ2410-06621	32

Table 2: Antenna Data

All calculations were done with respect to uncontrolled / general population threshold limits.



RESULTS

Per the calculations completed for the proposed AT&T configurations *Table 3* shows resulting emissions power levels and percentages of the FCC's allowable general population limit.

			Antenna	Antenna		Total TX		
Antenna	Antenna Make /		Gain	Height	Channel	Power		
ID	Model	Frequency Bands	(dBd)	(ft)	Count	(W)	ERP (W)	MPE %
Antenna	Galtronics GQ2410-							
A1	06621	1900 MHz (PCS Band)	6.75 dBd	32	4	20	94.63	0.33 %
Antenna	Galtronics GQ2410-							
A1	06621	2100 MHz (AWS Band)	6.75 dBd	32	4	20	94.63	0.33 %
Antenna	Galtronics GQ2410-							
A1	06621	5 GHz (Band 46)	3.35 dBd	32	4	1.3	2.73	0.01 %
	Sector A Composite MPE%						0.67 %	

Table 3: AT&T Antenna Inventory & Power Levels



FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. *Table 6* below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated AT&T sector(s). Since this proposed facility is utilizing an omnidirectional antenna there is only one sector for this site (Sector A).

AT&T_ Frequency Band / Technology Max Power Levels	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (□W/cm²)	Frequency (MHz)	Allowable MPE (\(\Propto W/cm^2 \))	Calculated % MPE
AT&T 1900 MHz	2	23.66	32	1.66	1900 MHz	1000	0.17%
AT&T 1900 MHz	2	23.66	32	1.66	1900 MHz	1000	0.17%
AT&T 2100 MHz	2	23.66	32	1.66	2100 MHz	1000	0.17%
AT&T 2100 MHz	2	23.66	32	1.66	2100 MHz	1000	0.17%
AT&T 5200 MHz	2	0.68	32	0.05	5200 MHz	1000	0.00%
AT&T 5200 MHz	2	0.68	32	0.05	5200 MHz	1000	0.00%
						Sector A Total:	0.67%

Table 6: AT&T Maximum Sector MPE Power Values



Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

The anticipated maximum composite contributions from the AT&T facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

AT&T Sector	Power Density Value (%)
Sector A:	0.67%
AT&T Maximum Site Total:	0.67%
Site Total:	0.67%
Site Compliance Status:	Compliant

The anticipated composite MPE value for this site assuming all carriers present is **0.67%** of the allowable FCC established general population limit sampled at the ground level.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.

Michelle L. Stone

RF Compliance Consultant

Centerline Communications, LLC

750 West Center St. Suite 301 West Bridgewater, MA 02379

ATTACHMENT 6

CERTIFICATION OF SERVICE

I hereby certify that on the 10th day of June 2020, a copy of the following notice of intended filing of a Petition with the Connecticut Siting Council for a declaratory ruling was sent by first class certified mail to the list below.

Dated: //

Cuddy & Feder LLP

45 Hamilton Avenue, 14th Floor White Plains, New York 10601

Attorneys for:

New Cingular Wireless PCS, LLC ("AT&T)

State

	State
THE HONORABLE WILLIAM TONG	DEPARTMENT OF ECONOMIC AND
ATTORNEY GENERAL	COMMUNITY DEVELOPMENT,
OFFICE OF THE ATTORNEY GENERAL	CULTURE AND TOURISM
165 CAPITOL AVENUE	DAVID LEHMAN, COMMISSIONER
HARTFORD, CT 06106	450 COLUMBUS BLVD, HARTFORD
	HARTFORD, CT 06103
DEPARTMENT OF PUBLIC HEALTH	DEPARTMENT OF ENERGY AND
DEIDRE S. GIFFORD, MD, MPH,	ENVIRONMENTAL PROTECTION
ACTING COMMISSIONER	PUBLIC UTILITIES REGULATORY
410 CAPITOL AVENUE	AUTHORITY
HARTFORD, CT 06134	MARISSA P. GILLETT, CHAIRMAN
	TEN FRANKLIN SQUARE
	NEW BRITAIN, CT 06051
COUNCIL ON ENVIRONMENTAL	DEPARTMENT OF TRANSPORTATION
QUALITY	JOSEPH GIULIETTI, COMMISSIONER
PETER B. HEARN, EXECUTIVE	2800 BERLIN TURNPIKE
DIRECTOR	P.O. BOX 317546
79 ELM STREET, 6th FLOOR	NEWINGTON, CT 06131
HARTFORD, CT 06106	
DEPARTMENT OF ENERGY &	DEPARTMENT OF AGRICULTURE
ENVIRONMENTAL PROTECTION	BRYAN P. HURLBURT, COMMISSIONER
KATIE DYKES, COMMISSIONER	450 COLUMBUS BOULEVARD
79 ELM STREET	SUITE 701
HARTFORD, CT 06106	HARTFORD, CT 06103
OFFICE OF POLICY AND	DEPARTMENT OF EMERGENCY
MANAGEMENT	SERVICES & PUBLIC PROTECTION
MELISSA MCCAW, SECRETARY	DIVISION OF EMERGENCY
450 CAPITOL AVENUE	MANAGEMENT AND HOMELAND
HARTFORD, CT 06106	SECURITY
	JAMES C. ROVELLA, COMMISSIONER
	1111 COUNTRY CLUB ROAD
	MIDDLETOWN, CT 06457
	MIDDLETOWN, CT 0045/

STATE HISTORIC PRESERVATION	SECRETARY OF STATE
OFFICER DEPARTMENT OF ECONOMIC	DENISE MERRILL
AND COMMUNITY DEVELOPMENT	165 CAPITOL AVENUE
450 COLUMBUS BLVD., 5 TH FLOOR,	HARTFORD, CT 06106
HARTFORD, CT 06103	,
STATE HOUSE REPRESENTATIVE-	STATE HOUSE REPRESENTATIVE-
DISTRICT 144	DISTRICT 145
CAROLINE SIMMONS	PATRICIA BILLIE MILLER
STATE CAPITOL	LEGISLATIVE OFFICE BUILDING,
210 CAPITOL AVENUE, ROOM C110	300 CAPITOL AVENUE
HARTFORD, CT 06106	HARTFORD, CT 06106
STATE HOUSE REPRESENTATIVE-	STATE HOUSE REPRESENTATIVE-
DISTRICT 146	DISTRICT 147
DAVID MICHEL	MATT BLUMENTHAL
LEGISLATIVE OFFICE BUILDING,	LEGISLATIVE OFFICE BUILDING,
ROOM 4000	ROOM 4000
300 CAPITOL AVENUE	300 CAPITOL AVENUE
HARTFORD, CT 06106	HARTFORD, CT 06106
STATE HOUSE REPRESENTATIVE-	STATE HOUSE REPRESENTATIVE-
DISTRICT 148	DISTRICT 149
DANIEL J. FOX	LIVVY FLOREN
LEGISLATIVE OFFICE BUILDING,	LEGISLATIVE OFFICE BUILDING,
ROOM 2202	ROOM 4200
300 CAPITOL AVENUE	300 CAPITOL AVENUE
HARTFORD, CT 06106	HARTFORD, CT 06106
STATE SENATOR- DISTRICT 27	STATE SENATOR- DISTRICT 36
CARLO LEONE	ALEX KASSER
LEGISLATIVE OFFICE BUILDING,	LEGISLATIVE OFFICE BUILDING,
ROOM 3300	ROOM 2400
300 CAPITOL AVENUE	300 CAPITOL AVENUE
HARTFORD, CT 06106	HARTFORD, CT 06106
WESTERN CONNECTICUT COUNCIL OF	
GOVERNMENTS	
JAYME STEVENSON, CHAIRMAN	
1 RIVERSIDE ROAD	
SANDY HOOK, CT 06482	

Federal

rec	reuerai				
FEDERAL COMMUNICATIONS	FEDERAL AVIATION ADMINISTRATION				
COMMISSION	800 INDEPENDENCE AVENUE, SW				
445 12 TH STREET SW	WASHINGTON, DC 20591				
WASHINGTON, DC 20554					
U.S. SENATOR CHRISTOPHER MURPHY	U.S. SENATOR RICHARD BLUMENTHAL				
COLT GATEWAY	90 STATE HOUSE SQUARE, 10TH FLOOR				
120 HUYSHOPE AVENUE	HARTFORD, CT 06103				
SUITE 401					
HARTFORD, CT 06106					
U.S. CONGRESSMAN- 4 TH DISTRICT					
JIM HIMES					
211 STATE STREET, 2 ND FLOOR					
BRIDGEPORT, CT 06604					

City of Stamford

DAVID R. MARTIN, MAYOR STAMFORD GOVERNMENT CENTER 888 WASHINGTON BOULEVARD 10 TH FLOOR STAMFORD, CT 06901	PLANNING & ZONING COMMISSION STAMFORD GOVERNMENT CENTER 888 WASHINGTON BOULEVARD 7 TH FLOOR STAMFORD, CT 06901
INLAND WETLANDS & WATERCOURSES COMMISSION STAMFORD GOVERNMENT CENTER 888 WASHINGTON BOULEVARD 7 TH FLOOR STAMFORD, CT 06901	CITY AND TOWN CLERK LYDA RUIJTER STAMFORD GOVERNMENT CENTER 888 WASHINGTON BOULEVARD GROUND FLOOR STAMFORD, CT 06901
HISTORIC PRESERVATION ADVISORY COMMISSION 888 WASHINGTON BOULEVARD 6 TH FLOOR STAMFORD, CT 06901	

NOTICE

Notice is hereby given, pursuant to Section 16-50j-40(a) of the Regulations of Connecticut State Agencies of a Petition being filed with the Connecticut Siting Council ("Siting Council") on or after June 11, 2020 by New Cingular Wireless PCS, LLC ("AT&T"). AT&T seeks a declaratory ruling that no Certificate of Environmental Compatibility and Public Need ("Certificate") is required under Section 16-50k(a) of the Connecticut General Statutes ("C.G.S.") to install a new "small cell" wireless telecommunications facility on a new pole.

The proposed telecommunications facility will be located on property owned by Fairfield County Federal Credit Union, at 242 Hope Street, in the City of Stamford and identified on the City of Stamford's GIS as Parcel ID 001/6299 (the "Property"). AT&T's proposed Facility will be placed at the corner of the existing parking lot and consists of a new 30' tall pole with a top-mounted canister antenna, associated radio electrical service equipment within an equipment enclosure at the base of the pole and a light fixture to be installed on the pole at a height of approximately 27' above grade level. The top of AT&T's antenna will reach a height of approximately 33' above grade level. The proposed Facility is designed to assure reliable wireless service to AT&T customers and emergency service providers in the area of the Facility location.

The Petition will provide additional details of the proposal and explain why AT&T submits that this proposed small cell Facility presents no significant adverse environmental effects. The location, height and other features of the proposal are subject to review and potential change under the provisions of Connecticut General Statutes Sections 16-50g et. seq.

Copies of the Petition will be available for review during normal business hours on or after June 11, 2020 at the following:

Connecticut Siting Council 10 Franklin Square New Britain, Connecticut 06051 City and Town Clerk of Stamford Lyda Ruijter Stamford Government Center 888 Washington Boulevard Stamford, CT 06901

or the offices of the undersigned. A copy of the Petition will also be available on the Connecticut Siting Council website: https://www.ct.gov/cSc/site/default.asp under Pending Matters. All inquiries should be addressed to the Connecticut Siting Council or to the undersigned.

Lucia Chiocchio, Esq. Cuddy & Feder LLP 445 Hamilton Ave, 14th Floor White Plains, New York 10601 (914) 761-1300 Attorneys for the Petitioner

CERTIFICATION OF SERVICE

I hereby certify that on the 10th day of June 2020, a copy of the following letter and notice of the intended filing of a Petition with the Connecticut Siting Council for a declaratory ruling was sent by certified mail, return receipt requested, to the attached list of abutting property owners:

Dated: 6 / 1 0 / 20

Cuddy & Feder LLP

45 Hamilton Avenue, 14th Floor White Plains, New York 10601

Attorneys for:

New Cingular Wireless PCS, LLC (AT&T)

LASALANDRA GRACE M FAMILY LTD ET AL	JOSEPH LOVALLO JR.	
C/O DEPAOLO FAMILY LTD PTNSP	67 SKYMEADOW DRIVE	
188 INTERVALE ROAD	STAMFORD, CT 06903	
STAMFORD, CT 06905		
FAIRFIELD COUNTY FEDERAL	LOUIS C. CARRIER	
C/O CREDIT UNION	241 HOPE STREET	
1515 BLACK ROCK TURNPIKE	STAMFORD, CT 06906	
FAIRFIELD, CT 06825		
250 HOPE STREET LLC		
250 HOPE STREET		
STAMFORD, CT 06906		
·		

June 10, 2020

<u>VIA CERTIFIED MAIL/</u> RETURN RECEIPT REQUESTED

Re: New Cingular Wireless PCS, LLC ("AT&T")

Installation of A Small Cell Wireless Telecommunication Facility

242 Hope Street, Stamford, Connecticut

Dear Sir or Madam:

We are writing to you on behalf of our client New Cingular Wireless PCS, LLC ("AT&T") with respect to the above referenced matter and our client's intent to file a petition for a declaratory ruling with the State of Connecticut Siting Council for approval of installation of a small cell wireless telecommunication facility on a new pole (the "Facility") to be installed at above-captioned property owned by Fairfield County Federal Credit Union.

State law requires that record owners of property abutting a parcel on which a facility is proposed be sent notice of an applicant's intent to file a petition with the Siting Council.

Included with this letter please find a Notice of this submission and details of the proposal. Of note, the location, height and other features of the Facility are subject to review and potential change by the Connecticut Siting Council under the provisions of Connecticut General Statutes §16-50g et seq.

If you have any questions concerning this petition, please contact the Connecticut Siting Council or the undersigned after June 11, 2020 the date that the petition is expected to be on file.

Very truly yours,

Lucia Chiocchio Enclosure

NOTICE

Notice is hereby given, pursuant to Section 16-50j-40(a) of the Regulations of Connecticut State Agencies of a Petition being filed with the Connecticut Siting Council ("Siting Council") on or after June 11, 2020 by New Cingular Wireless PCS, LLC ("AT&T"). AT&T seeks a declaratory ruling that no Certificate of Environmental Compatibility and Public Need ("Certificate") is required under Section 16-50k(a) of the Connecticut General Statutes ("C.G.S.") to install a new "small cell" wireless telecommunications facility on a new pole.

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The Petition will provide additional details of the proposal and explain why AT&T submits that this proposed small cell Facility presents no significant adverse environmental effects. The location, height and other features of the proposal are subject to review and potential change under the provisions of Connecticut General Statutes Sections 16-50g et. seq.

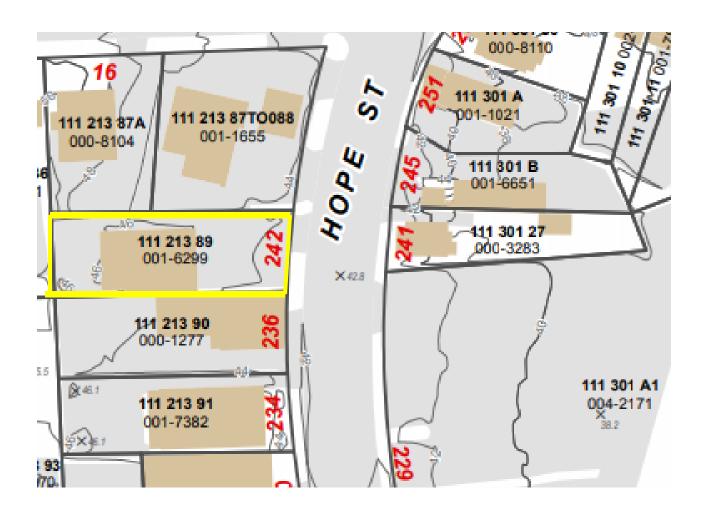
Copies of the Petition will be available for review during normal business hours on or after June 11, 2020 at the following:

Connecticut Siting Council 10 Franklin Square New Britain, Connecticut 06051 City and Town Clerk of Stamford Lyda Ruijter Stamford Government Center 888 Washington Boulevard Stamford, CT 06901

or the offices of the undersigned. A copy of the Petition will also be available on the Connecticut Siting Council website: https://www.ct.gov/cSc/site/default.asp under Pending Matters. All inquiries should be addressed to the Connecticut Siting Council or to the undersigned.

Lucia Chiocchio, Esq. Cuddy & Feder LLP 445 Hamilton Ave, 14th Floor White Plains, New York 10601 (914) 761-1300 Attorneys for the Petitioner

Abutter's Map



Abutters List

Parcel ID	Site Address	Owner Name	Mailing Address	City	State	Zip
004/2171	229 HOPE STREET	LASALANDRA GRACE M FAMILY LTD ET AL	188 INTERVALE ROAD	STAMFORD	СТ	06905
000/1277	236 HOPE STREET	JOSEPH LOVALLO JR.	67 SKYMEADOW DRIVE	STAMFORD	СТ	06903
001/6299	242 HOPE STREET	FAIRFIELD COUNTY FEDERAL	1515 BLACK ROCK TURNPIKE	FAIRFIELD	СТ	06825
000/3283	241 HOPE STREET	LOUIS C. CARRIER	241 HOPE STREET	STAMFORD	СТ	06906
001/1655	250 HOPE STREET	250 HOPE STREET LLC	250 HOPE STREET	STAMFORD	СТ	06906