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ATTORNEYS AT LAW

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January 4, 2022

Transmittal Via Email and Federal Express

Ms. Jackie Fife

Land Use Board

Township of Long Beach

6805 Long Beach Boulevard

Brant Beach, NJ 08008

**Re: CELLCO PARTNERSHIP d/b/a Verizon Wireless
Co-Location Application for Modification of Existing Wireless Facility
2415 Long Beach Boulevard - Lot 16 BI 5.18; Zone: C & R-50
Long Beach Township, NJ 08008
Notice of 60 Day Eligible Facilities Request Application**

Dear Ms. Fife:

We write to you on behalf of Cellco Partnership d/b/a Verizon Wireless with respect to its proposed collocation of antennas and associated base equipment at the existing 160' lattice tower at 2415 Long Beach Boulevard. Pursuant to my recent communications with Land Use Board Attorney Kevin S. Quinlan, I enclose an Application for Wireless Facilities and an Amended Site Plan Application (the "Application").

The Application qualifies as an eligible facilities request that must be approved under 47 U.S.C. § 1455 (the "Spectrum Act"). Further, review and approval of the Application must be conducted administratively in accordance with Federal Communications Commission ("FCC") order adopted October 18, 2014 (the "Spectrum Act Order"), codified as 47 C.F.R. §1.40001, and completed within 60 days of submittal in accordance with 47 C.F.R. §1.40001(c)(2). Under 47 C.F.R. §1.40001, the review of the Application by The Land Use Board is limited to determining whether it is an eligible facilities request that does not substantially change the physical dimensions of the existing wireless facility.

Project Description

As encouraged by federal and local standards, Verizon Wireless seeks to improve its existing service in Long Beach Township by collocating on an existing wireless facility. The subject 160' tall lattice tower owned by American Tower Corporation was most recently the subject of a November 12, 2020 Resolution which memorializes the Land Use Board's approval of AT&T's construction of a natural gas generator on an existing platform at the base of the tower.

The proposed Verizon Wireless facility features four panel antennas mounted at a centerline height of 130' AGL with associated cabling on the existing 160' lattice tower. Verizon Wireless proposes to construct a 9' x 15' elevated steel platform with handrails and ladder above concrete wall in an approximate equipment area of 135 sq. ft.. Verizon also proposes to remove an existing concrete pad with satellite dish.

The Application is an Eligible Facilities Request that Must Be Approved under the Spectrum Act.

Congress enacted the Spectrum Act in 2012 to expedite deployment of wireless facilities and upgrades in response to exponential growth in the demand for wireless voice and data services. The Spectrum Act states that “a State or local government may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station.”¹ An “eligible facilities request” is defined to include any collocation of new equipment, removal of existing equipment, or replacement of existing equipment.²

In order to clarify certain terms used in the Spectrum Act, the FCC initiated a rulemaking process that concluded with adoption of the Spectrum Act Order in October 2014. The Spectrum Act Order provides legally binding guidance on the meaning of “substantially change” and other key terms under the Spectrum Act, codified as 47 C.F.R. §1.40001 (attached).³ The Spectrum Act Order sets forth six thresholds that constitute a substantial increase in the physical dimensions of a [Tower or Base Station] such as the [building or other structure] on which the existing Verizon Wireless facility is located, none of which apply in this case. Specifically, a modification substantially changes the physical dimensions of a [Tower or Base Station] if it:

- 1) for towers other than towers in the public rights-of-way, it increases the height of the tower by more than 10% or by the height of one additional antenna array with separation from the nearest existing antenna not to exceed twenty feet, whichever is greater; for other eligible support structures, it increases the height of the structure by more than 10% or more than ten feet, whichever is greater;
- 2) for towers other than towers in the public rights-of-way, it involves adding an appurtenance to the body of the tower that would protrude from the edge of the tower more than twenty feet, or more than the width of the tower structure at the level of the appurtenance, whichever is greater; for other eligible support structures, it involves adding an

¹ 47 U.S.C. §1455(a)(1).

² 47 U.S.C. §1455(a)(2).

³ See *Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies; Final Rule*, Federal Register, Vol. 80, No. 5, 1238 et seq. (January 8, 2015).

appurtenance to the body of the structure that would protrude from the edge of the structure by more than six feet;

- 3) Involves the installation of more than the standard number of new equipment cabinets for the technology involved, but not to exceed four;
- 4) Entails any excavation or deployment outside the current site of the tower or base station;
- 5) Would defeat any concealment (stealth) elements of the existing facility; or
- 6) Does not comply with conditions associated with the prior approval of the existing facility, unless the non-compliance is due only to a change in height, width, etc., that does not exceed the first four thresholds.⁴

The Application clearly qualifies as an “eligible facilities request” under the Spectrum Act, as it does not exceed any of the thresholds such that it would “substantially change” the physical dimensions of the existing tower.

We encourage the Land Use Board to follow the requirements of federal law which limit review of the Application to determining whether it is an eligible facilities request and confirm that it must be approved within 60 days of submittal.

I will now outline the various enclosed Application components:

- 1) Check No. 7465 Check payable to Long Beach Township in the amount of \$500, representing the applicable wireless facilities application fee; Check No. 7512 in the amount of \$700 representing the applicable amended site plan application fee and Check No. 7513 in the amount of \$1,500 for payment of the amended site plan escrow fees of the LUB Engineer and Attorney;
- 2) 14 (fourteen) Amended Site Plan Application; Disclosure Statement; Letter of Authorization of American Tower Corporation; Zoning Authorization – Property Owner; May 5, 1988 Resolution of the Long Beach Township Planning Board; November 12, 2020; Resolution of the Township Land Use Board; LUB Technical Checklist; LUB Checklist for Initial Submission; Tax Certification; W-9 and Draft Hearing Notice;
- 3) 14 (fourteen) Site Plans of Peter E. Papay, P.E. of Papay Engineering & Construction, Inc. dated 12/21/21;
- 4) 14 (fourteen) Application for Wireless Facilities and Wireless Checklist; and

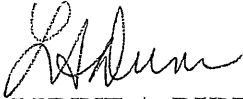
⁴ See Spectrum Act Order, ¶ 188; *see also* 47 CFR § 1.40001(b)(7).

- 5) Structural Analysis Report of Megan Engle, Structural Engineer of American Tower Corporation dated June 22, 2021.

As always, I welcome any comments or questions which you or any other Land Use Board professionals may have regarding this submission. I appreciate the opportunity to work with you.

Thank you for the privilege of your time and attention.

HIERING, DUPIGNAC, STANZIONE & DUNN, P.C.



LYNNE A. DUNN

cc: Kevin S. Quinlan, Esquire (via email and Federal Express)
Frank J. Little, Jr., P.E., C.M.E., P.P. (via email and Federal Express)
Anthony Egidio (via email)
Peter E. Papay, P.E. (via email)
Matthew Bartlett (via email)

TAB #1

TAB #2

APPLICATION TO THE LONG BEACH
TOWNSHIP LAND USE BOARD

Do not write below - for official use only

Project Name: OCC Spray Beach
Block: 5.18 Lot(s): 16
Property Address: 2415 Long Beach Blvd.

Date Received: _____
Application Fee: \$ _____
Escrow Fee: \$ _____
Docket Number: _____

CHECK ALL THAT APPLY:

- | | |
|--|---|
| <input type="checkbox"/> Bulk Variance | <input type="checkbox"/> Minor Subdivision (Exempt) |
| <input type="checkbox"/> Use Variance | <input type="checkbox"/> Major Subdivision/Preliminary |
| <input type="checkbox"/> Interpretation | <input type="checkbox"/> Major Subdivision Final Major |
| <input type="checkbox"/> Informal | <input type="checkbox"/> Site Plan/Preliminary Major |
| <input type="checkbox"/> Conditional Use | <input checked="" type="checkbox"/> Site Plan/Final (Amended) |

ANSWER ALL QUESTIONS. IF NOT APPLICABLE INDICATE WITH 'N/A' OR 'None'
DO NOT LEAVE BLANKS. INCOMPLETE APPLICATIONS WILL NOT BE
ACCEPTED OR WILL BE DEEMED INCOMPLETE

1. Applicant Name: Cellco Partnership
Address: Street: 512 Township Line Rd City: Blue Bell, PA Zip: 19422
Phone: _____ e-mail: _____

Applicant is : Owner Agent Corporation Partnership LLC

If applicant and/or owner is a corporation, LLC or partnership* set forth the names
addresses of all stockholders, partners or members having 10% or more interest on a
separate paper. Corporations must be represented by a New Jersey licensed attorney
and include a Resolution authorizing the Application. * See annexed.

2. Owner's Name: Comcast of Long Beach Island LLC
Address: Street: 1 Comcast Center 32nd Fl City: Phila., PA Zip: 19103
Phone: _____ e-mail: _____

All owners must be identified and sign application. (Use additional pages if necessary)

3. Attorney: Lynne A. Dunn - Hering, Dupignac, Stanzione + Dunn, P.C.
Address: Street: 236 Washington Street City: Toms River Zip: 08753
Phone: (732) 349-1212 x 119 e-mail: ldunn@hdsd.law.com

4. Planner/Surveyor: _____
Address: Street: _____ City: _____ Zip: _____
Phone: _____ e-mail: _____

5. Architect: Engineer: Peter E. Papay, P.E.
 Address: Street: 100 Hilltop Road City: Ramsey Zip: 07446
 Phone: (201) 934-2828 e-mail: papayeng@aol.com

Attache additional sheets if necessary.

6. Location of property:
 Zone: C Lot Area: 7,016 sf Lot Dimensions: 75.44' x 93.00'

7. Is the property located on a county road? Y

8. Current Use: Wireless Communications
 No. of Dwelling Units: 0 No. of Commercial Units: 2

9. Proposed Use: Wireless Communications +

10. When was the property purchased? _____

11. Date of Last Certificate of Occupancy: 11/2/20 LUB Resolution Attach Copy

12. Date of last construction, alteration or addition: _____ Attach copies of permits

13. Existing conditions	Pre-Existing non-conformity	Proposed conditions	Variance Needed
Building Height: <u>160.00</u>	<input type="checkbox"/>	Building Height: <u>133.00</u>	<input type="checkbox"/>
Front Yard Set Back <u>3.70</u>	<input type="checkbox"/>	Front Yard Set Back <u>44.40</u>	<input type="checkbox"/>
Side Yard Set Back <u>1.00</u>	<input type="checkbox"/>	Side Yard Set Back <u>1.70</u>	<input type="checkbox"/>
Side Yard Set Back <u>2.80</u>	<input type="checkbox"/>	Side Yard Set Back <u>54.90</u>	<input type="checkbox"/>
Rear Yard Set Back <u>2.80</u>	<input type="checkbox"/>	Rear Yard Set Back <u>32.70</u>	<input type="checkbox"/>
Dist. to Adj. Struct. <u>2.33</u>	<input type="checkbox"/>	Dist. to Adj. Struct. <u>2.33</u>	<input type="checkbox"/>
Lot Coverage (sq.ft.) <u>3,336.97</u>	<input type="checkbox"/>	Lot Coverage (sq.ft.) <u>3,371.97</u>	<input type="checkbox"/>
% Lot Coverage <u>48.00</u>	<input type="checkbox"/>	% Lot Coverage <u>48.00</u>	<input type="checkbox"/>
% Impervious Coverage <u>90.00</u>	<input type="checkbox"/>	% Impervious Coverage <u>90.00</u>	<input type="checkbox"/>
No. Principal Structures <u>1.00</u>	<input type="checkbox"/>	No. Principal Structures <u>1.00</u>	<input type="checkbox"/>
No. Accessory Structures <u>1.00</u>	<input type="checkbox"/>	No. Accessory Structures <u>1.00</u>	<input type="checkbox"/>
Lot Width <u>75.44</u>	<input type="checkbox"/>		

14. Existing Restrictions:
 (A) Deed Restrictions: _____ (Attach Copies) None
 (B) Easements: Access Easement (Attach Copies) None
 (C) Condominium: _____ (Attach Copies) None

15. Proposed Restriction: _____ None

16. Variances and Waivers:

(A) List Required Variances: (Include Ordinance Number)

None

On a separate paper provide legal theory supporting variance relief.

(B) List of Requested Waivers:

None

17. Briefly describe any prior or currently pending proceedings before the Land Use Board or any other Federal, State, County or local Board or Agency involving this property which is the subject of this application and attach copies of any application, supporting documentation, pleadings, decisions and/or orders from the relevant entity including any denials. None

*See annexed May 5, 1988 Resolution # 1-SP-88
of the Township Planning Board and November 12, 2020
Resolution # LUB-21-20PF.*

18. List all material submitted with this application i.e. plans, surveys, drawings, photos, reports etc.

See annexed cover letter of counsel.

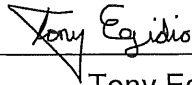
ALL OWNERS OF RECORD AND APPLICANT MUST SIGN APPLICATION. (ATTACH ADDITIONAL PAGES IF NECESSARY.)

See attached Zoning Authorizations of Property Owner + Tower Owner

Dates: _____
_____, Owner
(Print name under signature)

Dates: _____
_____, Owner
(Print name under signature)

Applicant Signature (if different from owner):

Dates: 12/23/21

_____, Applicant
(Print name under signature)

Dates: _____
_____, Applicant
(Print name under signature)

MUST BE SIGNED BY OWNER(S) AND/OR APPLICANT NOT ATTORNEY

DISCLOSURE STATEMENT

Cellco Partnership d/b/a Verizon Wireless
One Verizon Way
Basking Ridge, NJ 07920

Cellco Partnership d/b/a Verizon Wireless ("Cellco") is a general partnership formed under the laws of the State of Delaware. Cellco has four partners in total and is indirectly, wholly owned by Verizon Communications Inc. ("Verizon"). Verizon, a publicly traded company, has its principal place of business at 1095 Avenue of the Americas, New York, New York. The following is a listing of partners who own greater than a 5% interest in Cellco:

Bell Atlantic Mobile Systems LLC	23.630029%
GTE Wireless LLC	32.353112%
Verizon Americas Inc.	33.636424%
GTE Wireless of the Midwest Incorporated	10.380435%

Bell Atlantic Mobile Systems LLC, One Verizon Way, Basking Ridge, NJ 07920-1097

- a Delaware limited liability company with its principal place of business in New Jersey
- whose sole member is MCI Communications Services, Inc., a Delaware corporation with its principal place of business in Virginia

GTE Wireless LLC, One Verizon Way, Basking Ridge, NJ 07920-1097

- a Delaware limited liability company with its principal place of business in New Jersey
- whose sole member is GTE LLC, a Delaware limited liability company with its principal place of business in New Jersey

Verizon Americas Inc., One Verizon Way, Basking Ridge, NJ 07920-1097

- a Delaware corporation with its principal place of business in New Jersey

GTE Wireless of the Midwest Incorporated, One Verizon Way, Basking Ridge, NJ 07920-1097

- an Indiana corporation with its principal place of business in New Jersey
- whose sole member is Verizon Americas Inc.



AMERICAN TOWER®
CORPORATION

LETTER OF AUTHORIZATION

ATC SITE#/NAME/PROJECT: 207733/Spray Beach / OAA763960
SITE ADDRESS: 2415 LONG BEACH BLVD LONG BEACH TOWNSHIP, NJ 08008-2542
APN: 18-00005-18-00016
LICENSEE: VERIZON WIRELESS

I, Margaret Robinson, Senior Counsel for American Tower*, owner of the tower facility located at the address identified above (the "Tower Facility"), do hereby authorize **VERIZON WIRELESS**, its successors and assigns, and/or its agent, (collectively, the "Licensee") to act as American Tower's non-exclusive agent for the sole purpose of filing and consummating any land-use or building permit application(s) as may be required by the applicable permitting authorities for Licensee's telecommunications' installation.

We understand that this application may be denied, modified or approved with conditions. The above authorization is limited to the acceptance by Licensee only of conditions related to Licensee's installation and any such conditions of approval or modifications will be Licensee's sole responsibility.

Signature:

Print Name: Margaret Robinson
Senior Counsel
American Tower*

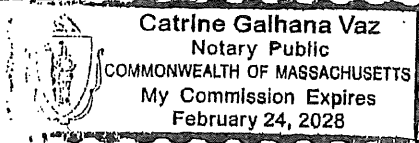
NOTARY BLOCK

Commonwealth of MASSACHUSETTS
County of Middlesex

This instrument was acknowledged before me by Margaret Robinson, Senior Counsel for American Tower*, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

WITNESS my hand and official seal, this 09th day of September 2021.

NOTARY SEAL



Notary Public
My Commission Expires: February 24, 2028

*American Tower includes all affiliates and subsidiaries of American Tower Corporation.

ZONING AUTHORIZATION – PROPERTY OWNER

I, Daniel Bonelli, hereby state to the Township of Long Beach and its Land Use Board as well as the Ocean County Planning Board, that **Comcast of Long Beach Island, LLC** is the **owner** of real property known as Block 5.18, Lot 16, also known as 2415 Long Beach Blvd, that **Cellco Partnership d/b/a Verizon Wireless** is the **Licensee** of a portion of the real property pursuant to an Antenna Site License Agreement dated September 24, 2020, which allows Cellco Partnership d/b/a Verizon Wireless to use a specified portion of the real property to install antennas on the existing tower and utilize specified antenna ground space of the real property and has the **consent and authorization of the owner** to make application(s) and seek any and all necessary permits for the development of the real property to include a Verizon Wireless collocation wireless communication facility.

Owner: Comcast of Long Beach Island, LLC
By: Daniel Bonelli
Name: DANIEL BONELLI
Its: VP, Finance + Accounting
Date: 1-25-2021

Sworn to and subscribed to
before me this 25th day of
January, 2021.

Christina A. Scelsi

(Notary)
My Commission Expires:

Commonwealth of Pennsylvania - Notary Seal
CHRISTINA A SCELSEI - Notary Public
Bucks County
My Commission Expires Apr 29, 2023
Commission Number 1145429

v2/OCC Spray Beach
#1-SP-88
CORRECT

LONG BEACH TOWNSHIP PLANNING BOARD
OCEAN COUNTY, NEW JERSEY

RESOLUTION NO. - 88

WHEREAS, the application of TKR Cable, Application No. 1-SP-88 for preliminary and final site plan approval for Lots 16 and 17, Block E-18 Spray Beach, Long Beach Township, Ocean County, New Jersey was heard and considered by the Planning Board at a regular meeting held on April 7, 1988; and

WHEREAS, the Application and Plan prepared by Horn, Tyson and Yoder, Inc., dated January 15, 1988 was reviewed by the Board and the Planning Board Engineer and the Planning Board Engineer's report under date of February 24, 1988 was presented to and considered by the Board; and

WHEREAS, the Planning Board determined that it had jurisdiction to entertain this application; and

WHEREAS, the Planning Board thereafter made the following factual findings and conclusions of law:

1. The Property is located on the East side of Long Beach Boulevard in the block between 24th and 25th Streets in the Spray Beach section. It lies in the C-General Commercial Zone and is occupied by an office building and cable TV receiving antenna tower.
2. It is proposed to construct a satellite receiver dish on a 10 foot by 10 foot concrete pad, adjacent to the building.
3. The Board adopts all findings and conclusions set forth in the report of Charles H. Mackie Associates, Inc. under letter dated February 24, 1988 as though the same were set forth at length herein.
4. The Applicant proposes to install a new satellite dish and remove 2

parking spaces thereby increasing a nonconformity by reducing to 8 the number of parking spaces available at the site where the Ordinance would require 16 spaces to accommodate a 2,640 square foot office building.

5. The applicant has shown that there will be no adverse visual impact with the installation of the satellite dish, which dish shall not exceed 25 feet in height.

WHEREAS, formal action was taken by the Planning Board at the regular meeting held on April 7, 1988 granting the Application for Preliminary and Final Site Plan Approval, with conditions, for the reasons aforesaid and as necessary to memorialize said action by the adoption of this Resolution;

NOW, THEREFORE, BE IT RESOLVED BY THE LONG BEACH TOWNSHIP PLANNING BOARD, OCEAN COUNTY, NEW JERSEY, as follows:

1. The Application for Preliminary and Final Site Plan Approval with regard to Lots 16 and 17, Block E-18, Spray Beach, Long Beach Township, New Jersey is granted for the aforesaid reasons.

2. This approval is expressly conditioned upon the Applicant's compliance with all terms and conditions set forth in the report of the Planning Board Engineer, Charles H. Mackie Associates, Inc., dated February 24, 1988, a copy of which is attached hereto and made a part hereof.

3. This approval is conditioned further upon the Applicant's installation of tubs with plants therein of sufficient size and placement on Applicant's sidewalk in order to prevent any parking on such sidewalk.

4. This approval is conditioned upon and subject to any and all governmental permits or approvals required by law including, but not limited to, those approvals set forth in the report of the Planning Board Engineer.

5. That a certified copy of this Resolution be forwarded to the Applicant and filed with the Township Clerk within ten (10) days from the date of adoption and that notice of final decision be published in accordance with law.

AYE: Gullant, Gedberg, Kimmel, Luedtke, Marcus,
Redman, Tool, Fruchtman

NO: None

ABSTAIN: None

CERTIFICATION

I, DOROTHY S. CRANMER, Clerk of the Planning Board of the Township of Long Beach, County of Ocean, State of New Jersey, do hereby certify that the above is a true and correct copy of a Resolution adopted by the Long Beach Township Planning Board at a meeting held on May 5,, 1988.

Dorothy S. Cranmer
DOROTHY S. CRANMER
PLANNING BOARD CLERK

(SEAL)

APPROVED
LAND USE BOARD

APPLICATION NO. LUB 21-20 PF

LONG BEACH TOWNSHIP LAND USE BOARD

Date November 12, 2020 **RESOLUTION OF MEMORIALIZATION**

WHEREAS, application has been made to the Long Beach Township Land Use Board by NEW CINGULAR WIRELESS PCS, LLC ('ATT'), a New Jersey Corporation, for the lands and premises known and designated as Lot 16 in Block 5.18 on the Official Tax Map of Long Beach Township, which premises are located at 2415 Long Beach Boulevard, Spray Beach, New Jersey, for Minor Site Plan approval, to permit the installation of a gas generator to the existing leased premises; and

WHEREAS, the jurisdictional requirements of N.J.S.A. 40:55D-11 have been satisfied in that notice of this application has been given to all property owners within two hundred (200') feet of the property in question and notice of this application has been duly published in the Beach Haven Times, the official newspaper of the Township, all as required by law; and

WHEREAS, the Long Beach Township Planning Board, granted Site Plan approval to install a satellite receiver dish on a 10 foot by 10-foot concrete pad adjacent to the building, with conditions by Resolution number 1-88 adopted on May 5, 1988; and

WHEREAS, the Long Beach Township Land Use Board has received the report of its Engineer, Frank J. Little, Jr., P.E., P.P., C.M.E. who issued his report dated October 7, 2020, which report was marked B-2 in Evidence during the public meeting and is fully incorporated herein; and

WHEREAS, the Long Beach Township Land Use Board, after carefully considering the application, plans, exhibits and testimony presented by the applicants, and member of the public, as well as the representations of the applicants' attorney, Christopher Quinn, Esquire, at the hearing conducted on October 14, 2020 has made the following general findings of fact:

1. The applicant, New Cingular Wireless PCS, L.L.C. ("AT&T") is a New Jersey Limited Liability Company whose offices are located at One AT&T Way, Bedminster, NJ 07921.
2. LBI Cablevision, L.L.C. with offices located at 1 Comcast Center, 32nd Floor, Philadelphia, PA 19103, is the owner of the above described premises.
3. The premises have the dimensions of 75.22 feet in width by 93 feet in depth, for a total area of approximately 7,015 square feet and are located in C Commercial Zone.
4. Telecommunication Facilities are a permitted use in the Commercial Zone and no special reasons variance is required.
5. The premises are currently improved by a 160-foot tower.
6. The Applicant is proposing a natural gas generator to be mounted on an existing upper level steel platform of the existing tower approximately 13 feet above grade and the top of the proposed elevation will be approximately 16 feet 4 inches above grade. A pipe will be mounted to the concrete wall and

175LF of PE Pipe will be buried to meet with the proposed natural gas meter near Long Beach Boulevard.

7. The Board incorporates herein by reference the plans prepared by GT Wireless Engineering entitled "2415 Long Beach Boulevard National Site ID NYNYNJ6059 Minor Site Plan" dated 09/15/2020 bearing no revision date consisting of:

- A. Sheet 1 of 5 Title Sheet;
- B. Sheet 2 of 5 Amended Site Plan and Elevation;
- C. Sheet 3 of 5 Abutters Plan and Information;
- D. Sheet 4 of 5 Existing and Proposed Equipment Plans; and
- E. Sheet 5 of 5 Generator Details.

8. No Bulk Variance are required as the proposed generator will be installed on an existing platform of the Tower.

9. The applicant's Engineer testified that the generator was being installed at the request of the Township so that cell phone communications can be maintained for emergency purposes in the event of a power outage.

10. The Board finds that the stated purposes is a benefit to the public and the Township and the amendment to the Site plan is warranted.

11. The Board notes that the adjoining property owners objected to the noise that will be created by the generator but finds that the minor inconvenience to the adjoining property owners when the generator is tested twice a month is outweighed by the public benefit.

12. The proposed site plan complies with all Site Plan requirements with the exception that the Plat submitted be based on a land survey less than 12 months old and since the generator is being installed on an existing platform and will not cover any additional portion of the lot, the Board finds that the applicant is entitled to a waiver of that requirement.

13. The Board further notes that the applicant may install a different, more powerful generator so long as it is placed on the platform as proposed.

NOW THEREFORE, BE IT RESOLVED, this 12th day of November, 2020, by the Long Beach Township Land Use Board that the application of NEW CINGULAR WIRELESS PCS, LLC ('ATT'), for amended Site Plan approval, to permit a natural gas generator be installed on the cell tower be and is hereby granted for reasons stated herein. The relief granted shall be subject to the following conditions:

A) That the applicant complies with all of the requirements of the Long Beach Township Engineer, as set forth in the Township Engineer's Reports dated October 7, 2020, and such further requirements that the Long Beach Township Engineer may require during the course of construction; and

B) That the applicants post any and all required performance bonds, as well as any and all inspection fees required by the Township Engineer, the Construction Code Official, Building Officer and/or as required by the Land Use Ordinances of the Township of Long Beach; the amount of the said bonds and inspection fees shall be determined by the Township Engineer and shall be in the forms approved by the Township Attorney.

This Resolution is intended to memorialize the action taken by the Long Beach Township Land Use Board on October 14, 2020.

Moved by: HUMMEL

Seconded by: DUCKER


ROLL CALL VOTE:

Ayes: HUMMEL, JONES, PINGARO, SCHNELL, SOUTHWICK, ROTH and DUCKER

Nays: NONE

Certified to be a true copy of a Resolution adopted at a regular meeting of the Long Beach Township Land Use Board held on November 12, 2020.

DATED: ~~November~~ November 12, 2020.



Ronald Pingaro, Secretary

Publication Date: November 19, 2020

TOWNSHIP OF LONG BEACH
LAND USE BOARD
TECHNICAL CHECKLIST

KEY: X= REQUIRED P= PROVIDED W= WAIVER N/R= NOT REQUIRED or APPLICABLE

DESCRIPTION	VARIANCE APPLICATION		MINOR APPLICATION		MAJOR SITE PLAN		MAJOR SUBDIVISION		CIRCLE ONE
	BULK	USE	SITE PLAN	SUBDIVISION	PRELIMINARY	FINAL	PRELIMINARY	FINAL	MUST BE COMPLETED
MAN-MADE FEATURES									
Show existing structures and setbacks from existing and proposed property lines, indicating those to be modified or removed or to remain. Show setback of structures on adjacent properties.	X	X	X	X	X	X	X	X	(P)
Location of proposed buildings, finished grade, first floor and basement elevations, setbacks of all buildings from nearest lot lines, building height and other pertinent improvements.	X	X	X	X	X	X	X	X	(P)
Building coverage and lot coverage calculations.	X	X	X		X	X			(P)
Existing and proposed easements, rights-of-way and their purposes.	X	X	X	X	X	X	X	X	(P)
Existing and proposed manholes, sewer lines, stormwater management facilities, waterlines, fire hydrants and utility poles within 200 FT.			X	X	X	X	X	X	(P)
Plans and profiles of proposed utility layouts, such as sewers, storm drains, water, gas, communications and electric, showing feasible connections to existing or proposed utility systems as well as channel section details, pipe sizes, types and inverts, road crowns and slopes.					X	X	X	X	(P)
All monumentation as required as per the "Map Filing Law" including all monuments found, set or to be set.				X			X	X	(N/R)

TOWNSHIP OF LONG BEACH
LAND USE BOARD
TECHNICAL CHECKLIST

KEY: X= REQUIRED P= PROVIDED W= WAIVER N/R= NOT REQUIRED or APPLICABLE

DESCRIPTION	VARIANCE APPLICATION		MINOR APPLICATION		MAJOR SITE PLAN		MAJOR SUBDIVISION		CIRCLE ONE
	BULK	USE	SITE PLAN	SUBDIVISION	PRELIMINARY	FINAL	PRELIMINARY	FINAL	MUST BE COMPLETED
Offstreet parking and loading spaces required and proposed, and location and dimensions of access drives, aisles and parking stalls		X	X		X	X			(P)
STREET									
Location, names and widths of all existing and proposed streets, sidewalks and street widening within 200 FT of the site.			X	X	X	X	X	X	(P)
Plans, profiles and cross-sections of paved areas, curbs and sidewalks.			X	X	X	X	X	X	(N/R)
MISCELLANEOUS									
Exterior Lighting Plan, including the location, direction of illumination, amount of illumination expressed in horizontal foot candles, wattage and drawn details of all outdoor lighting standards and fixtures.			X		X	X	X	X	(N/R)
Landscaping and Screening Plan showing the location, type of tree or shrub and the location, type and amount of each type of ground cover.			X	X	X	X	X	X	(N/R)
Storm drainage calculations.					X		X		(N/R)
Stormwater management facilities shown on the grading plan showing all aspects of the stormwater system.			X		X	X	X	X	(N/R)

TOWNSHIP OF LONG BEACH
LAND USE BOARD
TECHNICAL CHECKLIST

KEY: X= REQUIRED P= PROVIDED W= WAIVER N/R= NOT REQUIRED or APPLICABLE

DESCRIPTION	VARIANCE APPLICATION		MINOR APPLICATION		MAJOR SITE PLAN		MAJOR SUBDIVISION		CIRCLE ONE
	BULK	USE	SITE PLAN	SUBDIVISION	PRELIMINARY	FINAL	PRELIMINARY	FINAL	MUST BE COMPLETED
Applications for new construction or additions to buildings: See Initial Checklist for number of copies to distribute of building plans showing elevations and floor areas (including dimensions) for all floors. "Multi-family units and commercial uses require sealed Architectural Plans;" Building elevation to be provided for the full height of the building from grade to roof peak. Plan scale shall be a minimum of 1/4" per foot. Building elevations shall be provided for all sides and shall be labeled North, South, East and West.	X	X							(N/R)
Location of all signs and drawn details showing the size, construction type, height and content of all signs.			X		X	X			(N/R)
Drawn details of the type of screening to be used for the refuse storage areas, outdoor equipment and bulk storage.			X		X	X			(N/R)

LONG BEACH TOWNSHIP LAND USE BOARD CHECKLIST FOR INITIAL SUBMISSION

PLEASE NOTE: A signed, completed checklist must be received by the Land Use Board Clerk and attorney prior to deeming your application complete.

All applications and all required documents shall be submitted at least thirty (30) days prior to the regularly scheduled meeting of the Land Use Board at which consideration is sought.
NUMBER OF COPIES REQUIRED -All documents must be submitted at the same time.
INCOMPLETE SUBMISSIONS WILL NOT BE ACCEPTED!!!!

DISTRIBUTION

Please note it is the Applicant's responsibility to distribute completed applications.

Kevin S. Quinlan, Esq., 207 W Main Street, Tuckerton NJ 08087

- 1 Copy of complete Application
- 1 Copy of Variance Map, Site Plan or Sub-division Map
- 1 Copy of Architectural Plan
- 1 Copy of color photos
- 1 Copy of Tax Map with property Lot and Block highlighted.
- 1 Copy of Affidavit of Ownership, Consent, Authorization and Non-Collusion.
- 1 Copy of Proposed Notice to Property Owners and for Publication
- 1 Copy of Checklist

Frank Little, P.E., P.P. , Owen Little and Assoc., Inc. 443 Atlantic City Blvd. Beachwood, NJ 08722

- 1 Copy of Completed Application
- 1 Copy of Variance Map, Site Plan or Sub-division Map
- 1 Copy of Architectural Plans
- 1 Copy of color photos
- 1 Copy of Tax Map with property Lot and Block highlighted
- 1 Copy of Technical Check List

Board Clerk

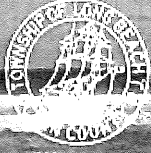
- 1 Original of each - Application Variance Plat, Site Plan or Sub-division Plat, Architectural Plan(s) Tax Map Zoning Denial, Color Photos and items marked with **. (Check all that apply)
- 14 Copies of Application
- 14 Copies of Variance Plat, Site Plan or Subdivision
- 14 Copies of Architectural Plan(s)
- 14 Copies of Tax Map with property Lot and Block highlighted
- 14 Copies of Zoning Denial Letter
- 14 Color copies of Property Photos
- 1 W-9 Form
- 1 copy of Affidavit of Ownership, Consent, Authorization and Non-Collusion.
- 1 copy of Signed Checklist (must be submitted with initial documentation. Application will not be accepted without signed Checklist.
- 1 Copy of Technical Check List
- Electronic copy of all of the above in PDF format.**
- Check for Application Fee \$ _____
- Check for Initial Escrow \$ _____

Board secretary will distribute copies to fire company after deemed complete, as necessary.

Signed: _____

LYNNE A. DUNN
(Print name under signature)
ATTORNEY AT LAW
STATE OF NEW JERSEY

Date: 1-4-22



TOWNSHIP OF LONG BEACH

OCEAN COUNTY, NEW JERSEY

Block/Lot/Qual:	5.18 16.	Tax Account Id:	2069
Property Location:	2415 LONG BEACH BLVD	Property Class:	4A - Commercial
Owner Name/Address:	LBI CABLEVISION, LLC	Land Value:	656,300
	1 COMCAST CENTER 32ND FL	Improvement Value:	57,900
	PHILADELPHIA, PA 19103	Exempt Value:	0
		Total Assessed Value:	714,200
		Additional Lots:	17
Special Taxing Districts:		Deductions:	

Taxes Utilities

Make a Payment View Tax Rates View Current Bill Project Interest							
Year	Due Date	Type	Billed	Balance	Interest	Total Due	Status
2022	02/01/2022	Tax	1,439.12	1,439.12	0.00	1,439.12	OPEN
2022	05/01/2022	Tax	1,439.11	1,439.11	0.00	1,439.11	OPEN
	Total 2022		2,878.23	2,878.23	0.00	2,878.23	
2021	02/01/2021	Tax	1,689.80	0.00	0.00	0.00	PAID
2021	05/01/2021	Tax	1,689.80	0.00	0.00	0.00	PAID
2021	08/01/2021	Tax	1,188.43	0.00	0.00	0.00	PAID
2021	11/01/2021	Tax	1,188.42	6.42	0.07	6.49	OPEN
	Total 2021		5,756.45	6.42	0.07	6.49	
2020	02/01/2020	Tax	1,705.10	0.00	0.00	0.00	PAID
2020	05/01/2020	Tax	1,705.10	0.00	0.00	0.00	PAID
2020	08/01/2020	Tax	1,674.50	0.00	0.00	0.00	PAID
2020	11/01/2020	Tax	1,674.50	0.00	0.00	0.00	PAID
	Total 2020		6,759.20	0.00	0.00	0.00	
Last Payment: 10/25/21							

[Return to Home](#)

NOTICE OF HEARING

PLEASE TAKE NOTICE that Cellco Partnership d/b/a Verizon Wireless has made application to the Long Beach Township Land Use Board for approval to: collocate antennas and base equipment at the existing 160' tall lattice tower at the property located at 2415 Long Beach Boulevard, Long Beach Township, NJ also known as Lot 16, Block 5.18 on the Long Beach Township Tax Map.

Applicant requests amended site plan approval related to the proposed improvements. Applicant will seek other variances, waivers and other relief as may be required by the Long Beach Township Land Use Board at the time the matter is being heard at the time of the Public Hearing.

This matter is on the Clerk's Docket and a hearing has been ordered for Wednesday, _____, 2022 at 7:00 PM in the Administration Building, First Floor Court Room, 6805 Long Beach Boulevard, Brant Beach, NJ, at which time persons interested may appear personally or by agent or attorney with a properly authorized power of attorney. Please note that this is an in person meeting only. There will be no virtual component.

Should the meeting format change, the Township website will be updated with necessary information up to and including the date of the meeting. You will not receive notice of a meeting format change. It is up to you to check the Township website or call the Township (609.361.6653) during normal business hours on the day of the hearing for any change from in person to virtual meeting.

Documents are available for inspection at the Land Use Board Office, 6805 Long Beach Boulevard, Brant Beach, New Jersey during normal business hours Monday through Friday 9:00 a.m. to 3:00 p.m.

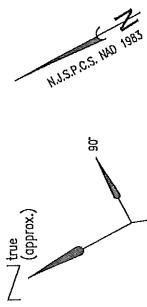
Hiering, Dupignac, Stanzone & Dunn, P.C.

By: Lynne A. Dunn, Esquire

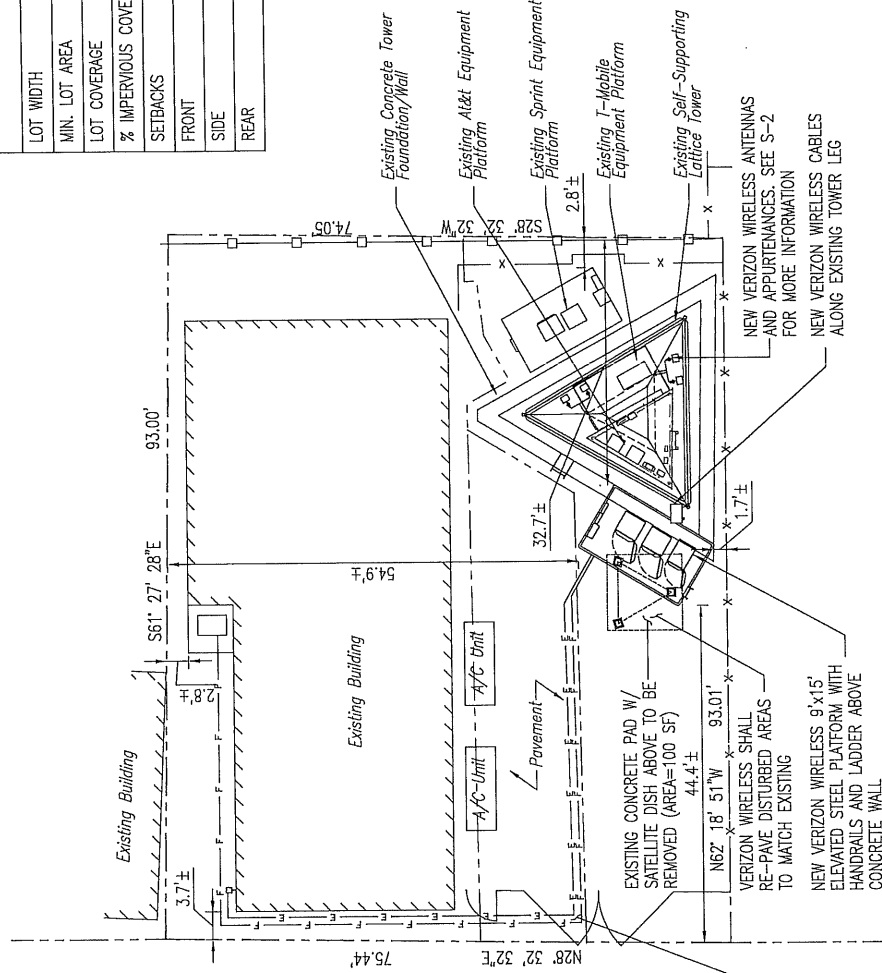
TAB #3

BULK TABLE
LONG BEACH TOWNSHIP
ZONE C: GENERAL COMMERCIAL

	REQUIRED	EXISTING	PROPOSED	REMARKS
LOT WIDTH	60'	75.44'	N/A	EXISTING CONFORMING
MIN. LOT AREA	60,000 SF	7,015.92 SF	N/A	EXISTING CONFORMING
LOT COVERAGE	60% MAX	48%	48%	EXISTING CONFORMING
% IMPERVIOUS COVERAGE	N/A	90%	90%	N/A
SETBACKS				
FRONT	N/A	3.7'	3.7'	N/A
SIDE	3'	1.0'	1.7'	EXISTING NON-CONFORMING
REAR	10'	2.8'	32.7'	CONFORMING

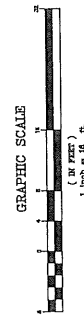


Long Beach Boulevard
100' R.O.W. / 70' PAVED



NEW UNDERGROUND ELECTRIC, FIBER SERVICES TO RESPECTIVE METERS PER UTILITY COMPANY REQUIREMENTS. NEW ELECTRIC GANG METER SHALL BE REQUIRED

1 SITE PLAN
S-1 SCALE: 1/16"=1'-0"



LEGEND

PROVISION NUMBER	DATE	DESCRIPTION
1	12/21/21	ISSUED FOR APPROVAL
2	11/08/21	ISSUED FOR APPROVAL
3	08/18/20	ISSUED FOR APPROVAL
4		
5		
6		

CELLO PARTNERSHIP
4/1/16

512 TOWNSHIP LINE ROAD
100 HELLGATE RD., BLDG 3
BLUE BELT, PA 19422

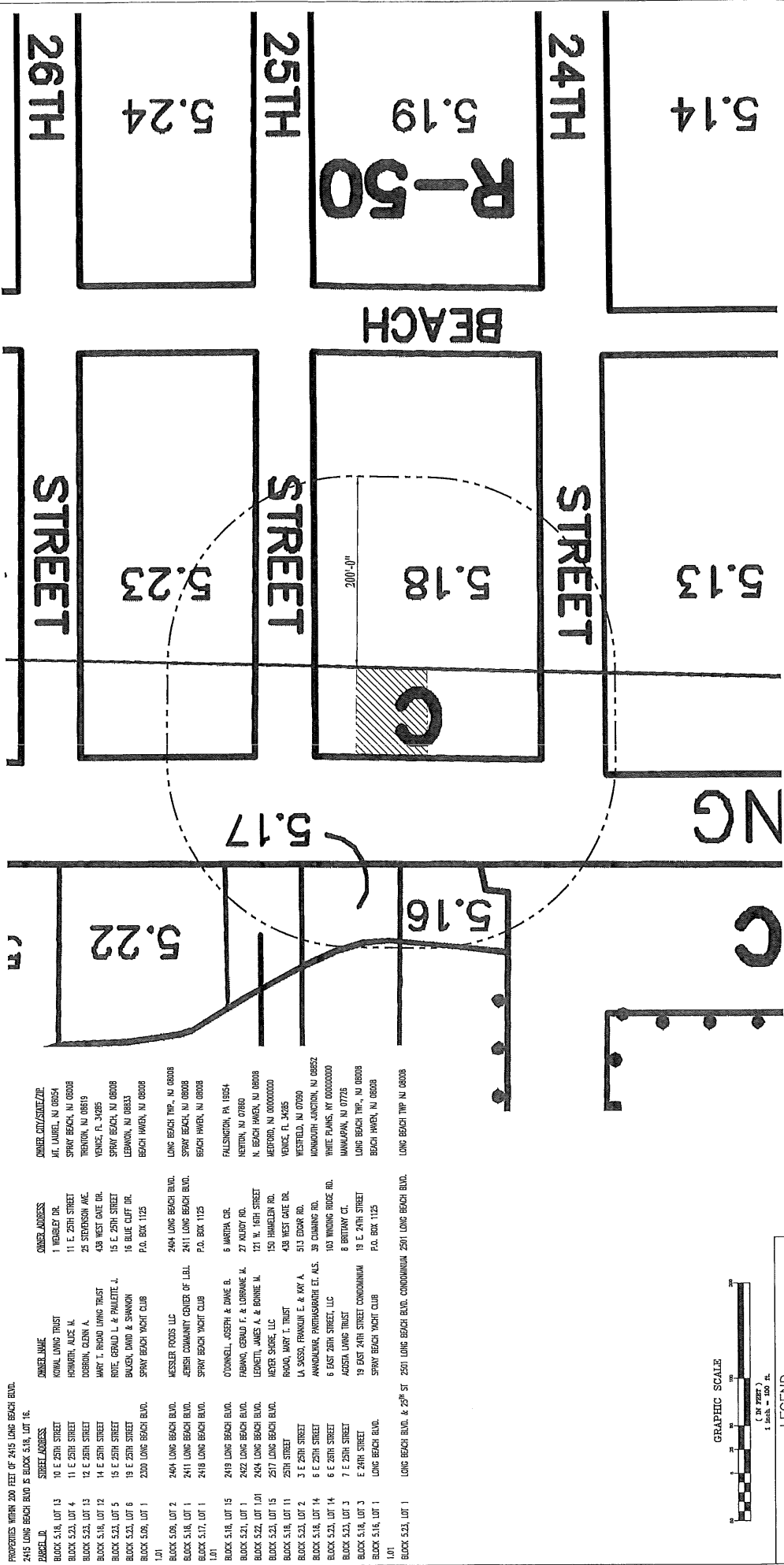
P&C
PLAY ENGINEERING & CONSTRUCTION, INC.
100 HELLGATE RD., BLDG 3
BLUE BELT, PA 19422
NJ CERTIFICATE OF AUTHORIZATION NO. 24037032000

PROJECT INFORMATION:
LOT: 16
BLOCK: 518
ZONE: C & R-50
COORDINATES: LONGITUDE: 74.2289
LATITUDE: 39.5786
DATE: 12/21/21

PETER E. PAPAY
N.J. PROFESSIONAL ENGINEER NO. 36281

SITE NAME: NNJ - OCC SPRAY BEACH
JOB NUMBER: 3235
DATE: 12/21/21

REASON NUMBER: 2
2 OF 7



PROPERTIES WITHIN 200 FEET OF 2415 LONG BEACH BLVD.

BLOCK ID	STREET ADDRESS	OWNER NAME	OWNER ADDRESS	OWNER CITY/STATE/ZIP
2415 LONG BEACH BLVD R BLOCK 5.18, LOT 16				
BLOCK 5.18, LOT 13	10 E 26TH STREET	KOMAL LING TRUST	1 HENRIETY DR.	ATL DUNWOOD, NJ 08054
BLOCK 5.23, LOT 4	11 E 26TH STREET	HOMARTH, ALICE M.	11 E 26TH STREET	SPRAY BEACH, NJ 08008
BLOCK 5.23, LOT 13	12 E 26TH STREET	DORRAN, CLARA A.	25 STEVENSON AVE.	TRENTON, NJ 08619
BLOCK 5.18, LOT 12	14 E 26TH STREET	MARY T. RHODD LING TRUST	438 WEST OAK DR.	VENICE, PA 34085
BLOCK 5.23, LOT 5	15 E 26TH STREET	ROUTE GERALD L. & PAULETTE J.	15 E 26TH STREET	SPRAY BEACH, NJ 08008
BLOCK 5.23, LOT 6	19 E 26TH STREET	BALLEN, DAVID B. SHANNON	16 BLUE CLIFF DR.	LEHANNON, NJ 08833
BLOCK 5.09, LOT 1	2300 LONG BEACH BLVD.	SPRAY BEACH YACHT CLUB	P.O. BOX 1125	BEACH HAVEN, NJ 08008
1.01				
BLOCK 5.09, LOT 2	2404 LONG BEACH BLVD.	MESSLER POOLS, LLC	2404 LONG BEACH BLVD.	LONG BEACH TWP., NJ 08008
BLOCK 5.18, LOT 1	2411 LONG BEACH BLVD.	JERISH COMMUNITY CENTER OF L.B.L.	2411 LONG BEACH BLVD.	SPRAY BEACH, NJ 08008
BLOCK 5.17, LOT 1	2418 LONG BEACH BLVD.	SPRAY BEACH YACHT CLUB	P.O. BOX 1125	BEACH HAVEN, NJ 08008
1.01				
BLOCK 5.18, LOT 15	2419 LONG BEACH BLVD.	O'DONNELL, JOSEPH & DAWE B.	6 MARTHA CIR.	FALLSBURGH, PA 19024
BLOCK 5.21, LOT 1	2422 LONG BEACH BLVD.	FARINA, GERALD F. & LORENAE M.	27 WALDOY RD.	NEWTOWN, NJ 07080
BLOCK 5.22, LOT 1.01	2424 LONG BEACH BLVD.	LEONETTI, JAMES A. & BONNIE M.	121 N. 16TH STREET	N. BEACH HAVEN, NJ 08008
BLOCK 5.23, LOT 15	2517 LONG BEACH BLVD.	MEYER SHORE, LLC	150 HANDELLEN RD.	NEAPOLIS, NJ 08008
BLOCK 5.18, LOT 11	25TH STREET	RHODD, MARY T. TRUST	438 WEST OAK DR.	VENICE, PA 34085
BLOCK 5.23, LOT 2	3 E 25TH STREET	LA SASSO, FRANKLIN E. & MAY A.	513 EDGAR RD.	WESTFIELD, NJ 07090
BLOCK 5.18, LOT 14	6 E 25TH STREET	ANNOUNCING PARTHASARATHI ET. ALS.	39 CUMMING RD.	MONMOUTH JUNCTION, NJ 08852
BLOCK 5.23, LOT 14	6 E 25TH STREET	6 EAST 26TH STREET, LLC	103 WINDING RIDGE RD.	WHITE PLAINS, NY 06000
BLOCK 5.23, LOT 3	7 E 25TH STREET	ADASH LING TRUST	6 BRITANNY CT.	MANALAPAN, NJ 07735
BLOCK 5.18, LOT 3	E 24TH STREET	19 EAST 24TH STREET CONDOMINIUM	19 E 24TH STREET	LONG BEACH TWP., NJ 08008
BLOCK 5.16, LOT 1	LONG BEACH BLVD.	SPRAY BEACH YACHT CLUB	P.O. BOX 1125	BEACH HAVEN, NJ 08008
1.01				
BLOCK 5.23, LOT 1	LONG BEACH BLVD. & 25th ST.	2501 LONG BEACH BLVD. CONDOMINIUM	2501 LONG BEACH BLVD.	LONG BEACH TWP. NJ 08008

GRAPHIC SCALE
 1" = 100'
 1/4" = 25'
 1/2" = 50'
 3/4" = 75'
 1" = 100'

LEGEND
 Existing Conditions
 NEW CONDITIONS

1 200' RADIUS MAP
 SCALE: 1"=100'
 S-3

PROJECT INFORMATION:
 LOT: 16
 BLOCK: 5.18
 ZONE: C & R-50
 COORDINATES: 74.2788' LONGITUDE, 74.2289' DATUM: NAD 83

CELLULO PARTNERSHIP
 9/9/6
verizon
 512 TOWNSHIP LINE ROAD
 BUILDING #2, FLOOR 3
 BLUE BELL, PA 19422

FE & C
 PETER P. PAPAY & COMPANY, INC.
 1000 BELLEVILLE AVENUE, SUITE 200
 SPRINGFIELD, NJ 07081
 NJ COMPANILE OF PROFESSIONAL NO. 4402933000

SITE NAME: NNJ - OCC SPRAY BEACH
JOB NUMBER: 3335
DATE: 12/21/21
REVISION NUMBER: 2
 S-3
 4 OF 7

PETER P. PAPAY
 N.J. PROFESSIONAL ENGINEER NO. 6622011

NUMBER	DATE	DESCRIPTION
2	12/21/21	ISSUED FOR APPROVAL
1	11/09/21	ISSUED FOR APPROVAL
0	08/19/20	ISSUED FOR APPROVAL

1. THE EXISTING FACILITY IS UN-MANNED AND VISITED APPROXIMATELY ONCE A MONTH FOR ROUTINE MAINTENANCE. THEREFORE, POTABLE WATER, GAS AND SANITARY SEWER SERVICES ARE NOT REQUIRED NOR PROPOSED. NO SOLID WASTE IS GENERATED.

2. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. THE WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, APPURTENANCES, LABOR AND TEMPORARY MEASURES NECESSARY TO EFFECT ALL INSTALLATIONS AS INDICATED ON THE CONTRACT DOCUMENTS.

3. PRIOR TO THE SUBMISSION OF A BID, THE CONTRACTOR SHALL VISIT THE PROJECT SITE AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROJECT CONSTRUCTION AND INSTALLATION OF ALL PROPOSED MATERIALS AND EQUIPMENT AND REMOVAL/DENOLITION OF EXISTING ITEMS SHOWN. THE CONTRACTOR SHALL MAKE PROVISIONS FOR THE COST OF SUCH CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS. SUBMISSION OF A BID BY THE CONTRACTOR GUARANTEES THAT ALL WORK MAY BE ACCOMPLISHED AS DEPICTED ON THE CONTRACT DOCUMENTS.

4. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY ALL DIMENSIONS. SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, EXISTING CONDITIONS OR DESIGN INTENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WRITTEN CLARIFICATION FROM THE CONSTRUCTION MANAGER PRIOR TO PROCEEDING WITH THE WORK.

5. THE CONTRACTOR SHALL OBTAIN ALL CLARIFICATIONS AND AUTHORIZATIONS IN WRITING BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.

6. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS, UNLESS SPECIFICALLY OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.

7. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER OF ALL PRODUCTS OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT FOUND TO BE IN THE FIELD.

8. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES HAVING JURISDICTION. CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY BEARING ON THE PERFORMANCE AND EXECUTION OF THE WORK. ELECTRICAL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE MUNICIPAL AND STATE JURISDICTIONAL CODES, THE NATIONAL ELECTRICAL CODE, AND UTILITY COMPANY SPECIFICATIONS.

9. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL CITY, STATE AND O.S.H.A. SAFETY REQUIREMENTS.

10. ALL ITEMS REQUIRING INSPECTION SHALL BE INSPECTED AND APPROVED PRIOR TO CONCEALMENT OF SUCH ITEMS.

11. DURING THE COURSE OF THE WORK, THE PROPERTY OWNER(S), HIS EMPLOYEES, SUPPLIERS, CLIENTS, TENANTS AND VISITORS SHALL CONTINUE TO OCCUPY AND USE THE FACILITY AND PREMISES. THE CONTRACTOR SHALL SCHEDULE AND COORDINATE THE WORK ACCORDINGLY.

12. THE DESIGN, SPECIFICATION, PERFORMANCE AND INSTALLATION OF RADIO EQUIPMENT ARE THE RESPONSIBILITY OF OTHERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH THE WORK OF OTHERS AS IT MAY RELATE TO RADIO EQUIPMENT AND OTHER PORTIONS OF THE WORK WHICH ARE PERFORMED BY OTHERS.

13. SEAL ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES WITH U.L. LISTED AND FIRE CODE APPROVED MATERIALS. ALL EXTERIOR PENETRATIONS SHALL BE WEATHERPROOF.

14. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS. SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.

15. THE CONTRACTOR SHALL MAKE ALL NECESSARY PROVISIONS TO PROTECT ALL EXISTING AREAS OF THE PROJECT SITE FROM DAMAGE MADE BY THE HANDLING OF MATERIALS, EQUIPMENT, TOOLS AND NORMAL CONSTRUCTION ACTIVITY FOR THE DURATION OF THE WORK. ALL AFFECTED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION UPON COMPLETION OF THE WORK.

16. KEEP PROJECT AREA CLEAN AND HAZARD FREE THROUGHOUT THE DURATION OF THE WORK. DISPOSE OF ALL DEBRIS, RUBBISH, EQUIPMENT REMOVED AND NOT SPECIFIED TO REMAIN ON THE PROPERTY OF THE OWNER, LEAVE PREMISES IN A FIRST CLASS CLEAN CONDITION, FREE FROM PAINT SPOTS, DUST, OR SHADINGS OF ANY NATURE. REPAIR AND PAINT ALL EXISTING SURFACES THAT HAVE BEEN DAMAGED OR OTHERWISE EFFECTED BY THE WORK SUCH THAT THEY BLEND WITH ADJACENT SURFACES.

17. THE CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING AS REQUIRED TO PROVIDE ACCESS FOR THE INSTALLATION OF VARIOUS PARTS OF THE WORK. ALL HOLES IN WEADRY OR CONCRETE SURFACES SHALL BE CORE-DRILLED OR SAW-CUT. OFF THE SURFACE IS NOT COMPROMISED.

18. DO NOT DEVIATE FROM MANUFACTURERS LISTED WITHIN THE CONTRACT DOCUMENTS, UNLESS UNAVAILABLE. OBTAIN PRIOR APPROVAL FROM CONSTRUCTION MANAGER FOR SUCH DEVIATIONS.

19. THE CONTRACTOR IS THE DESIGNATED "RESPONSIBLE PERSON IN CHARGE OF CONSTRUCTION" AND THE SITE SUPERVISOR RESPONSIBLE FOR CONSTRUCTION SITE SAFETY DURING THE COURSE OF SITE IMPROVEMENTS PURSUANT TO N.J.A.C. 5:23-2.21 (c) and (d) of the N. J. UNIFORM CONSTRUCTION CODE.

20. DELIVER ALL MAINTENANCE AND INSTRUCTION MANUALS AND SPARE PARTS TO THE CONSTRUCTION MANAGER.

21. ALL MATERIALS AND WORKMANSHIP PROVIDED UNDER THIS CONTRACT SHALL BE GUARANTEED TO BE FREE FROM DEFECTS FOR A PERIOD OF ONE YEAR AFTER SUBSTANTIAL COMPLETION, OR LONGER IF OFFERED BY CONTRACT MANUFACTURERS OR REQUIRED ELSEWHERE WITHIN THE CONTRACT DOCUMENTS. ANY DEFICIENCIES THAT BECOME EVIDENT DURING THE GUARANTEE PERIOD SHALL BE CORRECTED TO THE SATISFACTION OF THE CONSTRUCTION MANAGER AT THE CONTRACTOR'S EXPENSE. ALL EXISTING ROOF OR OTHER BUILDING WARRANTIES SHALL REMAIN IN EFFECT AND INTACT DURING THE COURSE OF THE WORK. THE CONTRACTOR SHALL COORDINATE WITH SMO GUARANTOR(S) SUCH THAT THOSE WARRANTIES ARE MAINTAINED.

22. LOCATE AND MARK-OUT ALL UNDERGROUND UTILITIES AND STRUCTURES THROUGH THE USE OF A UTILITY LOCATING SERVICE PRIOR TO ANY EXCAVATION WORK. HAND DIG IN AREAS OF EXISTING UTILITIES AND/OR STRUCTURES.

23. THIS SET OF PLANS SHALL NOT BE USED FOR CONSTRUCTION UNTIL IT HAS BEEN DEPICTED AS SUCH IN THE ISSUE BLOCK.

24. ALL WORK SHALL COMPLY WITH THE NEW JERSEY UNIFORM CONSTRUCTION CODE AND NATIONAL ELECTRIC CODE.

25. ALL CONDUCTORS SHALL BE COPPER. MINIMUM CONDUCTOR SIZE SHALL BE #12 AWG, UNLESS OTHERWISE NOTED. CONDUCTORS SHALL BE TYPE THIN, RATED IN ACCORDANCE WITH NEC 110-14(c).

26. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THE MAXIMUM INTERRUPTING CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C. SERVICE EQUIPMENT SHALL WITHSTAND FAULT CURRENT ESTABLISHED BY THE UTILITY.

<p>12/21/21</p> <p>DATE</p>		<p>3235</p> <p>JOB NUMBER</p>		<p>NNJ - OCC SPRAY BEACH</p> <p>SITE NAME</p>	
<p>2</p> <p>REASON NUMBER</p>		<p>GN-1</p> <p>ISS</p>		<p>2415 LONG BEACH BLVD. SPRAY BEACH, NJ 08008</p> <p>ADDRESS</p>	
<p>6 OF 7</p> <p>PAGES</p>		<p>OCEAN COUNTY</p> <p>COUNTY</p>		<p>12/21/21</p> <p>DATE</p>	

<p>LOT: 16 BLOCK: 5.18 ZONE: C & R-50</p> <p>COORDINATES: LATITUDE: 39.5788° LONGITUDE: -74.2289° DATUM: NAD 83</p>		<p>PROJECT INFORMATION:</p>	
<p>CELLULO PARTNERSHIP 4/9/6</p> <p>verizon</p> <p>510 TRINITY LANE ROAD BUILDING 40, FLOOR 3 BLUE BELT, PA 19422</p>		<p>N.J. PROFESSIONAL ENGINEER NO. 6523811</p>	

<p>2</p> <p>12/21/21</p> <p>ISSUED FOR APPROVAL</p> <p>M.A.P.</p>	<p>1</p> <p>11/26/21</p> <p>ISSUED FOR APPROVAL</p> <p>S.T.A.</p>	<p>0</p> <p>08/17/20</p> <p>ISSUED FOR APPROVAL</p> <p>S.T.A.</p>	<p>DATE</p>	<p>DESCRIPTION</p>
<p>REVISION NUMBER</p>	<p>DATE</p>	<p>DESCRIPTION</p>	<p>DRAWN BY</p>	<p>CHECKED BY</p>

TAB #4

TOWNSHIP OF LONG BEACH

APPLICATION FOR WIRELESS FACILITIES

(Chapter 205 – §205-38L Application – Collocation and Non-Substantial Changes to Small Wireless Facilities)

FOR TOWNSHIP USE ONLY

Application No.: _____ Applicant's Name: _____

Received by: _____ Date: _____ Time: _____

TO THE APPLICANT

This application applies to the collocation and non-substantial changes to wireless facilities. The attached checklist must be completed and all documentation required herein must be submitted in order for the Township to deem the application to be complete pursuant to the Chapter 205 of the Township Code and all applicable state and federal law.

If it is determined by the Township that the request is not for the collocation and non-substantial changes to wireless facilities, the applicant shall receive notice that the application has not been accepted and will be directed to complete the appropriate application and checklist required by the Township Code.

This application must be signed by an authorized representative of the applicant and shall be accompanied by the required application fee of \$500 for an application including 1 to 5 location sites and \$100 for each additional location site for a maximum of 10 collocations and non-substantial changers per each application. Additional fees and costs, as required by the Township Code, if any, shall be the applicant's responsibility and all application fees and other required costs and fees are mandatory and non-refundable, regardless of whether the application is denied or is not accepted on the bases that it has been deemed incomplete or that the request is deemed not to qualify. Incomplete applications or those submitted without the proper fee shall be returned to the applicant.

APPLICANT'S INFORMATION

Name: Celleo Partnership d/b/a Verizon Wireless

Street Address: 512 Township Line Road

City: Blue Bell State: PA Zip: 19422

Phone: _____ Facsimile: _____ Email: _____

Contact Person: Anthony Egidio

Contact Person's Address: 180 Washington Valley Road

City: Bedminster State: NJ Zip: 07920

Phone: 908 256 7515 Facsimile: _____ Email: anthony.egidio@

verizonwireless.com

PROPOSED OR ACTUAL LOCATION OF WIRELESS FACILITIES

Street Address(es): 2415 Long Beach Blvd.

Block and Lot(s): 5.18/16

Existing Zoning of Property(ies): C - General Commercial

Existing Use(s) of Property: Wireless Communications

PROPOSED FACILITY(IES) AND/OR CHANGES - GENERAL INFORMATION

Type of Wireless Communications Facility(ies): Lattice Tower

Identity of Approving Authority(ies): American Tower Corp. (Tower Owner)

Street Addresses of Approving Authority(ies): 10 Presidential Way

City: Woburn State: MA Zip: 01801

Phone: 781 926 4500 Facsimile: 781 926-4555 Email: _____

Contact Person: Julie Arnold Erb

Contact Person's Address: 3500 Regency Parkway

City: Cony State: NC Zip: 27518

Phone: (410) 292-2143 Facsimile: _____ Email: julie.erb@americantower.com

Name of Property Owner(2): Comcast of Long Beach Island, LLC

Street Address of Owner(s): 1 Comcast Center 32nd Fl

City: Phila, State: PA Zip: 19103

Phone: (215) 583-8078 Facsimile: _____ Email: _____

Contact Person(s): Daniel Bonelli

Contact Person's Address(es): _____

City: _____ State: _____ Zip: _____

Phone: _____ Facsimile: _____ Email: _____

PROPOSED FACILITY(IES) – SPECIFIC INFORMATION

Height of the small wireless facility pole(s) and/or utility pole(s): 160' lattice tower

The separation distances between the collocation and the nearest wireless communications facilities, including utility poles and small wireless facility poles: ±15' to Sprint Antennas

The separation distance between the collocation and non-substantial changes to wireless facilities and the nearest residentially zoned property(ies): Ø

Description of the type and quantity of the equipment to be installed and/or changed: _____

4 Panel Antennas a.c.b. 130' A.G.C. on existing 160' lattice

tower w/ equipment cabinets on elevated steel platform; associated equipment + cabling
Number and size of the equipment cabinets to be installed and/or changed: _____

3 proposed cabinets to be placed on steel platform

Excavation Required (Y/N): Y If so, Describe the Type of Excavation Work: _____

Applicant proposes to remove satellite dish + concrete pad, resulting in removal/recycling of approximately 10 cy of concrete.

Does the Wireless Facility Proposed Accommodate Future Collocation (Y/N): Y

Applicant agrees that if the application is approved that prior to the issuance of a permit and authorization to begin construction and installation that the applicant shall post all bonds as required by the Township Code in a form approved by the Township Attorney (Y/N): Y

Tony Egidio

Printed Name of Authorized Agent of Applicant

Tony Egidio

Signature of Authorized Agent of Applicant

Date: 12/22/21

TOWNSHIP OF LONG BEACH

CHECKLIST FOR WIRELESS FACILITIES

(Chapter 205 – §205-38L Application – Collocation and Non-Substantial Changes to Small Wireless Facilities)

In order for the application to be deemed complete, the applicant shall initial next to each separate requirement below and submit the documents and information that complies with each such request thereto. The failure to initial any of the requirements and/or to provide the responsive documents and information required shall result in the rejection of the application.

DOCUMENTS/INFORMATION	INITIALS
1. Completed application and application fee. If the person executing the application and certification is an authorized agent, a power of attorney shall be provided establishing the authorized agent's authority.	TE
2. Statement and supporting proofs that application qualifies as the collocation and non-substantial changes to wireless facilities.	TE
3. Applicant's certification that applicant possesses the legal authority for the collocation and non-substantial changes to wireless facilities at the location and that the proofs submitted with this application establish said legal authority to collocate at the proposed site and/or perform the non-substantial changes to the small wireless facilities.	TE
4. Proofs establishing approval from appropriate approving authority and all consents required by federal, State, and local law and regulations, including N.J.S.A. 48:3-18 and N.J.S.A. 48:3-18.	TE
* 5. Fully-executed indemnification and hold harmless agreement (provided with application packet).	TE
6. Scaled location plan clearly indicating the location, type, and height of the proposed wireless communications facility, on-site land uses and zoning, adjacent land uses and zoning (including when adjacent to other municipalities), adjacent roadways, proposed means of access, setbacks from property lines, elevation drawings of the proposed wireless communications facility and any other structures, topography, parking, and other information as required by the Township Code, or as required by the Township to enable comprehensive review of the application.	TE
* 7. Location plan or map certified by a licensed engineer or licensed land surveyor depicting the separation distance from other wireless communications facilities and information regarding the type of construction of the existing wireless communications support structure(s) and the owner/operator of wireless communications support structure(s) within 1 mile of the proposed site.	TE
8. Plan evidencing compliance with the architecture, aesthetics, color, and use of stealth technology requirements.	TE
9. Description of any change in wireless support structure height and/or width as a result of the proposed collocation, removal, or replacement.	TE

* Denotes waiver requested due to de minimis nature of proposed improvements - collocation, eligible facilities request. -LAD

10. Written report of the suitability or non-suitability of the use of existing wireless communications facilities or other structures for services to be provided through the use of the proposed new wireless communications facility, including certification from a structural engineer that the existing or new utility pole is structurally suitable and safe for new construction and/or installation of all wireless communications facilities that include new utility poles for the siting of small wireless facilities in the ROW, the collocation of non-small wireless facilities, substantial changes to small wireless facilities, and non-substantial changes to non-small wireless facilities.	TE
11. Report from a qualified expert certifying that the wireless communications facility complies with the latest structural and wind loading requirements as set forth in the International Building Code, New Jersey State edition, as amended, or the applicable New Jersey structural and wind requirements, including a description of the number and type of antennae it is designed to accommodate.	TE
12. Statement by the applicant demonstrating whether construction of the wireless communications facility will accommodate collocation of additional antenna for future users. The statement shall commit the wireless communications support structure owner and successors in interest.	TE
13. Elevations of all proposed wireless communications facilities generally depicting all existing and proposed antennae, wireless communications support structures, platforms, finish materials, as well as all other accessory equipment.	TE
* 14. Inventory of its existing wireless communications facilities or sites approved for wireless communications support structures or antennae within the jurisdiction of the Township.	TE
15. Drawing of the proposed small wireless facility pole and small wireless facility that depicts to scale and sets for the size of all antenna(e), equipment, and cabinets.	TE
* 16. Proof of Insurance in the minimum coverage amount of \$2,000,000.00 for any one claim and \$3,000,000.00 for any aggregate claim.	TE
* 17. Proof that the small wireless facility will not generate radio frequency emissions or radiation in excess of the standards and regulations of the FCC.	TE
* 18. Proof that the small wireless facility shall comply all applicable noise regulations, including the Township Code.	TE
19. Documentation of compliance with all of the applicable requirements of the Township Code.	TE

Tony Egidio

Printed Name of Authorized Agent of Applicant

Senior Engineer - Project Management

Title of Authorized Agent

Tony Egidio

Signature of Authorized Agent of Applicant

12/23/2021

Dated

CERTIFICATION OF AUTHORITY

I, Tony Egidio, being of full age, do hereby certify and say as follows.

1. I am the authorized agent of the applicant and am duly authorized to submit this application and certification on behalf of the applicant and am familiar with the facts and circumstances set forth herein.

2. The applicant hereby certifies as true that it possesses the legal authority for the collocation and/or non-substantial changes to wireless facilities at the location and that the proofs submitted with this application establish said legal authority to construct same at the proposed site

I hereby certify that the foregoing statements made by me are true and I am aware that should the foregoing statements be willfully false that I am subject to punishment.

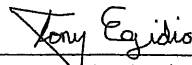
Dated: 12/23/2021

Tony Egidio

Printed Name of Authorized Agent of Applicant

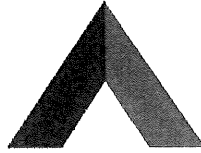
Senior Engineer - Project Management

Title of Authorized Agent



Signature of Authorized Agent of Applicant

TAB #5



AMERICAN TOWER®
CORPORATION

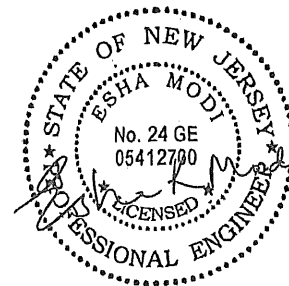
Structural Analysis Report

Structure : 160 ft Self Supported Tower
ATC Site Name : Spray Beach, NJ
ATC Asset Number : 207733
Engineering Number : OAA763960_C3_01
Proposed Carrier : VERIZON WIRELESS
Carrier Site Name : 502775
Carrier Site Number : OCC Spray Beach
Site Location : 2415 Long Beach Boulevard
Long Beach, NJ 08008
39.578800,-74.228900
County : Ocean
Date : June 22, 2021
Max Usage : 102%
Result : Pass

Prepared By:
Megan Engle
Structural Engineer

Megan Engle

Reviewed By:



Authorized by "EOR"
22 Jun 2021 10:38:36 cosign

COA: 24GA28099400



Table of Contents

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Supporting Documents	1
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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 160 ft self supported tower to reflect the change in loading by VERIZON WIRELESS.

Supporting Documents

Tower Drawings	Mapping by SC #170790, dated October 10, 2017 Mapping by FDH Job #146FXY1500, dated November 12, 2014
Foundation Drawing	Mapping by Delta Oaks Group Project #BGI21-08342-02, dated June 10, 2021
Geotechnical Report	Delta Oaks Group Project #GEO21-08342-02, dated June 10, 2021

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	127 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	40 mph (3-Second Gust) w/ 1" radial ice concurrent
Code:	ANSI/TIA-222-H / 2018 IBC
Exposure Category:	D
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Spectral Response:	$S_s = 0.13$, $S_1 = 0.04$
Site Class:	D - Stiff Soil

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.



Existing and Reserved Equipment

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
145.0	3	Alcatel-Lucent 1900 MHz RRH 4x40W	Leg	(7) 1 1/4" Hybriflex Cable	SPRINT NEXTEL
	3	Alcatel-Lucent 800 MHz 2X50W RRH w/ Filter			
	3	Alcatel-Lucent TD-RRH8x20-25			
	3	RFS APXVTM14-C-I20			
	1	RFS APXV9ERR18-C-A20			
	2	RFS P40-16-XLPP-RR-A			
140.0	6	Generic RRU (Model TBD)	Leg	(6) 7/8" Coax	T-MOBILE
	3	RFS APX18-206516L-CT2			
	6	Andrew ETM19V2S12UB			
130.0	1	Raycap RCMDC-6627-PF-48	Sector Frame	(2) 1.4" (35.6mm) Hybrid	VERIZON WIRELESS
	4	Quintel QS6656-5 (72 lbs)			
107.8	1	Alcatel-Lucent RRH4x25-WCS-4R	T-Arm	(4) 1 5/8" Coax (1) 2" conduit	
	1	Nokia AHLBBA			
	1	Alcatel-Lucent RRH2x40-AWS			
	1	Alcatel-Lucent B25 RRH4x30-4R			
	1	Nokia AirScale RRH 4T4R B5 160W AHCA			
	1	Raycap DC6-48-60-18-8F			
	1	Generic 12" x 12" Junction Box			
	2	Commscope NNHH-65A-R4			
	1	Commscope NNHH-65A-R4			
96.5	1	Generic 12" x 12" Junction Box	T-Arm	(4) 1 5/8" Coax (1) 2" conduit	AT&T MOBILITY
	1	Raycap DC6-48-60-18-8F			
	1	Commscope NNHH-65A-R4 (83.8 lbs)			
	2	Commscope NNHH-65A-R4			
	1	Alcatel-Lucent RRH4x25-WCS-4R			
	1	Nokia AHLBBA			
	1	Alcatel-Lucent RRH2x40-AWS			
	1	Alcatel-Lucent B25 RRH4x30-4R			
	1	Nokia AirScale RRH 4T4R B5 160W AHCA			
90.0	1	Gabriel DFPD2-52	Leg	-	
79.5	1	Nokia AHLBBA	T-Arm	(4) 1 5/8" Coax (1) 2" conduit	
	1	Alcatel-Lucent RRH2x40-AWS			
	3	CCI OPA-45R-BU5CA-K			
	1	Nokia AirScale RRH 4T4R B5 160W AHCA			
	1	Raycap DC6-48-60-18-8F			
	1	Generic 12" x 12" Junction Box			
	1	Alcatel-Lucent RRH4x25-WCS-4R			
	1	Alcatel-Lucent B25 RRH4x30-4R			



Equipment to be Removed

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
130.0	2	Nokia AHFIC AirScale Dual RRH 4T4R B2/66a 320W	-	-	VERIZON WIRELESS
	2	Nokia AHBCC AirScale Dual RRH 4T4R B5/13 320W			

Proposed Equipment

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
130.0	2	Samsung B5/B13 RRH-BR04C	Sector Frame	-	VERIZON WIRELESS
	2	Samsung B2/B66A RRH-BR049			

¹Contracted elevations are shown for appurtenances within contracted installation tolerances. Appurtenances outside of contract limits are shown at installed elevations.



Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	76%	Pass
Diagonals	53%	Pass
Horizontals	7%	Pass
Anchor Bolts	101%	Pass
Leg Bolts	70%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Uplift (Kips)	178.4	86%
Axial (Kips)	217.5	102%

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

Deflection, Twist and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Twist (°)	Sway (Rotation) (°)
130.0	Samsung B5/B13 RRH-BR04C	VERIZON WIRELESS	0.149	0.007	0.102
	Samsung B2/B66A RRH-BR049				
90.0	Gabriel DFPD2-52	AT&T MOBILITY	0.075	0.005	0.076

*Deflection, Twist and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-H



Standard Conditions

All engineering services performed by ATC Tower Services LLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of ATC Tower Services LLC

It is the responsibility of the client to ensure that the information provided to ATC Tower Services LLC and used in the performance of our engineering services is correct and complete.

All assets of American Tower Corporation, its affiliates and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

Unless explicitly agreed by both the client and ATC Tower Services LLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. ATC Tower Services LLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

Quant 1

160.00

Sect 11

140.00

Sect 10

120.00

Sect 9

110.00

Sect 8

100.00

Sect 7

90.00

Sect 6

80.00

Sect 5

60.00

Sect 4

50.00

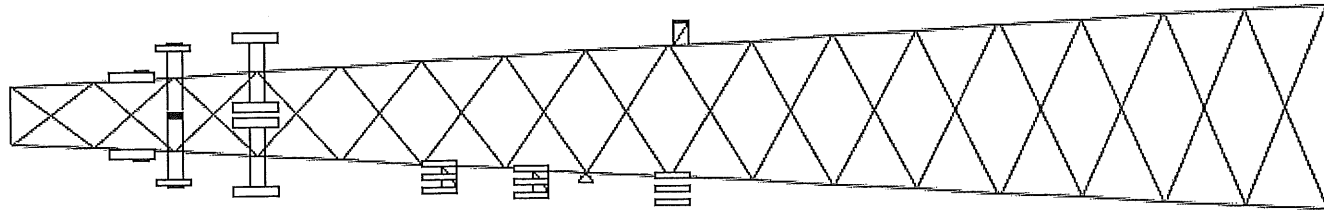
Sect 3

40.00

Sect 2

20.00

Sect 1



Loads: 127 mph no ice
 40 mph w/ 1" radial ice
 Site Class: D Ss: 0.13 S1: 0.04
 60 mph Serviceability

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Job Information

Client : Verizon Wireless
 Tower : 207733
 Location : Spray Beach, NJ
 Base Width : 25.00 ft
 Code : ANSITIA-222-H
 Topo Method: Method 1
 Top Width : 7.00 ft
 Risk Cat : II
 Topo: 1
 Tower Ht : 160.00 ft
 Exposure : D
 Shape : Triangle

Sections Properties

Section	Leg Members	Diagonal Members	Horizontal Members
1 - 2	PX 50 ksi 5" DIA PIPE	DAE 36 ksi 4X4X0.25	
3 - 5	PX 50 ksi 4" DIA PIPE	DAE 36 ksi 3.5X3.5X0.25	
6 - 7	PX 50 ksi 3-1/2" DIA PIPE	DAE 36 ksi 2.5X2.5X0.1875	
8 - 9	PST 50 ksi 3" DIA PIPE	DAE 36 ksi 3X3X0.25	
10	PX 50 ksi 2-1/2" DIA PIPE	SAE 36 ksi 3X3X0.25	
11	PST 50 ksi 2-1/2" DIA PIPE	SAE 36 ksi 2.5X2.5X0.25	

Discrete Appearance

Elev (ft)	Type	Qty	Description
145.00	Panel	2	RFS P40-16-XLPP-RR-A
145.00	Panel	1	RFS APXV9ERR18-C-A20
145.00	Panel	3	RFS APXVTM14-C-120
145.00	Panel	3	Alcatel-Lucent TD-RRH8x20-25
145.00	Panel	3	Alcatel-Lucent 1900 MHz RRH 4x
145.00	Panel	3	Alcatel-Lucent 800 MHz 2X50W R
140.00	Mounting Frame	3	Flat Light Sector Frame
140.00	Panel	6	Generic RRU (Model TBD)
140.00	Panel	3	RFS APX18-206516L-CT2
140.00	Panel	6	Andrew ETM19V2S12UB
130.00	Mounting Frame	2	Generic Flat Light Sector Fram
130.00	Panel	4	Quintel QS6656-5 (72 lbs)
130.00	Panel	1	Raycap RCWDC-6627-PF-48
130.00	Panel	2	Samsung B2/B66A RRR-BR049
130.00	Panel	2	Samsung B5/B13 RRR-BR04C
107.80	Straight Arm	1	Generic Flat T-Arm
107.80	Panel	1	Commscope NNHH-65A-R4
107.80	Panel	2	Commscope NNHH-65A-R4
107.80	Panel	1	Alcatel-Lucent RRRH4x25-WCS-4R
107.80	Panel	1	Nokia AHLBBA
107.80	Panel	1	Alcatel-Lucent RRRH2x40-AWS
107.80	Panel	1	Alcatel-Lucent B25 RRRH4x30-4R
107.80	Panel	1	Nokia AirScale RRRH 4T4R B5 160
107.80	Panel	1	Raycap DC6-48-60-18-8F
96.50	Straight Arm	1	Generic 12" x 12" Junction Box
96.50	Panel	1	Generic Flat T-Arm
96.50	Panel	1	Commscope NNHH-65A-R4 (83.8 lb
96.50	Panel	2	Commscope NNHH-65A-R4
96.50	Panel	1	Alcatel-Lucent RRRH4x25-WCS-4R
96.50	Panel	1	Nokia AHLBBA
96.50	Panel	1	Alcatel-Lucent RRRH2x40-AWS
96.50	Panel	1	Alcatel-Lucent B25 RRRH4x30-4R
96.50	Panel	1	Nokia AirScale RRRH 4T4R B5 160
96.50	Panel	1	Raycap DC6-48-60-18-8F
96.50	Dish	1	Generic 12" x 12" Junction Box
90.00	Straight Arm	1	Gabriel DFDPD2-52
79.50	Straight Arm	1	Generic Flat T-Arm
79.50	Panel	3	CCI OPA-45R-BU5CA-K
79.50	Panel	1	Alcatel-Lucent RRRH4x25-WCS-4R
79.50	Panel	1	Nokia AHLBBA
79.50	Panel	1	Alcatel-Lucent RRRH2x40-AWS
79.50	Panel	1	Alcatel-Lucent B25 RRRH4x30-4R
79.50	Panel	1	Nokia AirScale RRRH 4T4R B5 160
79.50	Panel	1	Raycap DC6-48-60-18-8F
79.50	Panel	1	Generic 12" x 12" Junction Box

Job Information

Client : Verizon Wireless Location : Spray Beach, NJ Base Width : 25.00 ft
 Tower : 207733 Topo Method: Method 1 Top Width : 7.00 ft
 Code : ANS/TIA-222-H Topo : 1 Tower Ht : 160.00 ft
 Risk Cat : II Exposure : D Shape : Triangle

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Linear Appurtenance

Elev (ft)	From	To	Qty	Description
0.00	145.00	1	Waveguide	
0.00	145.00	7	1 1/4" Hybriflex Cab	
0.00	140.00	1	Waveguide	
0.00	140.00	6	7/8" Coax	
0.00	130.00	1	Waveguide	
0.00	130.00	2	1.4" (35.6mm) Hybrid	
0.00	108.00	1	Waveguide	
0.00	107.80	1	2" conduit	
0.00	107.80	4	1 5/8" Coax	
0.00	96.50	1	2" conduit	
0.00	96.50	4	1 5/8" Coax	
0.00	79.50	1	2" conduit	
0.00	79.50	4	1 5/8" Coax	

Global Base Foundation Design Loads

Load Case	Moment (k-ft)	Vertical (kip)	Horizontal (kip)
DL + WL	4,381.26	45.53	53.25
DL + WL + IL	748.00	85.99	9.21

Individual Base Foundation Design Loads

Vertical (kip)	Uplift (kip)	Horizontal (kip)
217.54	178.42	30.27

Site Number: 207733
 Site Name: Spray Beach, NJ
 Customer: Verizon Wireless

Code: ANSI/TIA-222-H
 Engineering Number: OAA763960_C3_01

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6/22/2021 3:45:11 PM

Analysis Parameters

Location:	Ocean County, NJ	Height (ft):	160
Code:	ANSI/TIA-222-H	Base Elevation (ft):	0.00
Shape:	Triangle	Bottom Face Width (ft):	25.00
Tower Manufacturer:		Top Face Width (ft):	7.00
Tower Type:	Self Support	Anchor Bolt Detail Type	c
Kd:	0.85		
Ke:	1.00		

Ice & Wind Parameters

Exposure Category:	D	Design Windspeed Without Ice:	127 mph
Risk Category:	II	Design Windspeed With Ice:	40 mph
Topographic Factor Procedure:	Method 1	Operational Windspeed:	60 mph
Topographic Category:	1	Design Ice Thickness:	1.00 in
Crest Height:	0 ft	HMSL:	2.00 ft

Seismic Parameters

Analysis Method:	Equivalent Lateral Force Method		
Site Class:	D - Stiff Soil		
Period Based on Rayleigh Method (sec):	0.61		
T _L (sec):	6	p:	1.3
S _s :	0.132	S ₁ :	0.041
F _a :	1.600	F _v :	2.400
S _{ds} :	0.141	S _{d1} :	0.066
		C _s :	0.036
		C _{s, Max} :	0.036
		C _{s, Min} :	0.030

Load Cases

1.2D + 1.0W Normal	127 mph Normal with No Ice
1.2D + 1.0W 60 deg	127 mph 60 degree with No Ice
1.2D + 1.0W 90 deg	127 mph 90 degree with No Ice
0.9D + 1.0W Normal	127 mph Normal with No Ice (Reduced DL)
0.9D + 1.0W 60 deg	127 mph 60 deg with No Ice (Reduced DL)
0.9D + 1.0W 90 deg	127 mph 90 deg with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi Normal	40 mph Normal with 1.00 in Radial Ice
1.2D + 1.0Di + 1.0Wi 60 deg	40 mph 60 deg with 1.00 in Radial Ice
1.2D + 1.0Di + 1.0Wi 90 deg	40 mph 90 deg with 1.00 in Radial Ice
1.2D + 1.0Ev + 1.0Eh Normal	Seismic Normal
1.2D + 1.0Ev + 1.0Eh 60 deg	Seismic 60 deg
1.2D + 1.0Ev + 1.0Eh 90 deg	Seismic 90 deg
0.9D - 1.0Ev + 1.0Eh Normal	Seismic (Reduced DL) Normal
0.9D - 1.0Ev + 1.0Eh 60 deg	Seismic (Reduced DL) 60 deg
0.9D - 1.0Ev + 1.0Eh 90 deg	Seismic (Reduced DL) 90 deg
1.0D + 1.0W Service Normal	Serviceability - 60 mph Wind Normal
1.0D + 1.0W Service 60 deg	Serviceability - 60 mph Wind 60 deg
1.0D + 1.0W Service 90 deg	Serviceability - 60 mph Wind 90 deg

Site Number: 207733
 Site Name: Spray Beach, NJ
 Customer: Verizon Wireless

Code: ANSI/TIA-222-H
 Engineering Number: OAA763960_C3_01

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Tower Loading

Discrete Appurtenance Properties ^{1.2D + 1.0W}

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
145.0	Alcatel-Lucent 800	3	64	2.1	1.6	13.0	12.2	0.80	0.50	0.0	0.0	53.64	113	230
145.0	Alcatel-Lucent 1900	3	44	3.3	1.9	13.0	17.3	0.80	0.50	0.0	0.0	53.64	180	158
145.0	Alcatel-Lucent TD-	3	66	3.7	2.1	17.5	5.7	0.80	0.50	0.0	0.0	53.64	203	238
145.0	RFS APXVTM14-C-I20	3	53	6.3	4.7	12.6	6.3	0.80	0.66	0.0	0.0	53.64	458	190
145.0	RFS APXV9ERR18-C-	1	62	8.0	6.0	11.8	7.9	0.80	1.00	0.0	0.0	53.64	293	74
145.0	RFS P40-16-XLPP-	2	64	9.1	4.5	20.0	6.5	0.80	0.71	0.0	0.0	53.64	470	154
140.0	Andrew	6	11	0.7	0.8	8.6	2.3	0.80	0.50	0.0	0.0	53.32	78	81
140.0	RFS APX18-206516L-	3	19	3.5	4.4	6.7	3.2	0.80	0.67	0.0	0.0	53.32	257	67
140.0	Generic RRU (Model	6	55	4.6	1.8	25.0	7.4	0.80	0.50	0.0	0.0	53.32	496	396
140.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.0	53.32	1223	1440
130.0	Samsung B5/B13	2	70	1.9	1.3	15.0	8.1	0.90	0.50	0.0	0.0	52.63	75	169
130.0	Samsung B2/B66A	2	84	1.9	1.3	15.0	10.0	0.90	0.50	0.0	0.0	52.63	75	203
130.0	Raycap RCMDC-	1	32	4.1	2.5	16.5	12.6	0.90	0.67	0.0	0.0	52.63	109	38
130.0	Quintel QS6656-5	4	72	8.1	6.0	12.0	9.6	0.90	0.74	0.0	0.0	52.63	969	346
130.0	Generic Flat Light	2	400	17.9	0.0	0.0	0.0	0.90	0.90	0.0	0.0	52.63	1297	960
107.8	Generic 12" x 12"	1	10	1.2	1.0	12.0	8.0	0.90	0.50	0.0	0.0	50.95	23	12
107.8	Raycap DC6-48-60-	1	20	1.3	2.0	9.7	9.7	0.90	0.50	0.0	0.0	50.95	25	24
107.8	Nokia AirScale RRH	1	35	1.3	1.1	11.6	6.5	0.90	0.50	0.0	0.0	50.95	25	42
107.8	Alcatel-Lucent B25	1	51	2.1	1.8	12.0	7.2	0.90	0.50	0.0	0.0	50.95	42	61
107.8	Alcatel-Lucent	1	44	2.2	2.0	10.6	6.7	0.90	0.50	0.0	0.0	50.95	42	53
107.8	Nokia AHLBBA	1	95	2.8	2.0	14.1	7.8	0.90	0.50	0.0	0.0	50.95	55	114
107.8	Alcatel-Lucent	1	70	3.2	2.6	12.0	8.7	0.90	0.50	0.0	0.0	50.95	62	84
107.8	Commscope NNHH-	2	67	9.1	4.6	19.6	7.8	0.90	1.00	0.0	0.0	50.95	710	161
107.8	Commscope NNHH-	1	67	9.1	4.6	19.6	7.8	0.90	1.00	0.0	0.0	50.95	355	81
107.8	Generic Flat T-Arm	1	313	12.9	0.0	0.0	0.0	1.00	1.00	0.0	0.0	50.95	559	375
96.50	Generic 12" x 12"	1	10	1.2	1.0	12.0	8.0	0.90	0.50	0.0	0.0	49.98	23	12
96.50	Raycap DC6-48-60-	1	20	1.3	2.0	9.7	9.7	0.90	0.50	0.0	0.0	49.98	24	24
96.50	Nokia AirScale RRH	1	35	1.3	1.1	11.6	6.5	0.90	0.50	0.0	0.0	49.98	25	42
96.50	Alcatel-Lucent B25	1	51	2.1	1.8	12.0	7.2	0.90	0.50	0.0	0.0	49.98	41	61
96.50	Alcatel-Lucent	1	44	2.2	2.0	10.6	6.7	0.90	0.50	0.0	0.0	49.98	41	53
96.50	Nokia AHLBBA	1	95	2.8	2.0	14.1	7.8	0.90	0.50	0.0	0.0	49.98	54	114
96.50	Alcatel-Lucent	1	70	3.2	2.6	12.0	8.7	0.90	0.50	0.0	0.0	49.98	61	84
96.50	Commscope NNHH-	2	67	9.1	4.6	19.6	7.8	0.90	1.00	0.0	0.0	49.98	696	161
96.50	Commscope NNHH-	1	84	9.1	4.6	19.6	7.8	0.60	1.00	0.0	0.0	49.98	232	101
96.50	Generic Flat T-Arm	1	313	12.9	0.0	0.0	0.0	1.00	1.00	0.0	0.0	49.98	548	375
90.00	Gabriel DFPD2-52	1	14	5.2	2.0	24.0	0.0	1.00	1.00	0.0	0.0	49.37	219	17
79.50	Generic 12" x 12"	1	10	1.2	1.0	12.0	8.0	0.90	0.50	0.0	0.0	48.32	22	12
79.50	Raycap DC6-48-60-	1	20	1.3	2.0	9.7	9.7	0.90	0.50	0.0	0.0	48.32	23	24
79.50	Nokia AirScale RRH	1	35	1.3	1.1	11.6	6.5	0.90	0.50	0.0	0.0	48.32	24	42
79.50	Alcatel-Lucent B25	1	51	2.1	1.8	12.0	7.2	0.90	0.50	0.0	0.0	48.32	40	61
79.50	Alcatel-Lucent	1	44	2.2	2.0	10.6	6.7	0.90	0.50	0.0	0.0	48.32	40	53
79.50	Nokia AHLBBA	1	95	2.8	2.0	14.1	7.8	0.90	0.50	0.0	0.0	48.32	52	114
79.50	Alcatel-Lucent	1	70	3.2	2.6	12.0	8.7	0.90	0.50	0.0	0.0	48.32	58	84
79.50	Generic Flat T-Arm	1	313	12.9	0.0	0.0	0.0	1.00	1.00	0.0	0.0	48.32	530	375
79.50	CCI OPA-45R-BU5CA-	3	71	13.4	4.6	29.1	8.9	0.90	1.00	0.0	0.0	48.32	1490	254
Totals		78	6512	429.1									12435	7814

Discrete Appurtenance Properties ^{0.9D + 1.0W}

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
145.0	Alcatel-Lucent 800	3	64	2.1	1.6	13.0	12.2	0.80	0.50	0.0	0.0	53.64	113	173

Site Number: 207733
 Site Name: Spray Beach, NJ
 Customer: Verizon Wireless

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Tower Loading

145.0	Alcatel-Lucent 1900	3	44	3.3	1.9	13.0	17.3	0.80	0.50	0.0	0.0	53.64	180	119
145.0	Alcatel-Lucent TD-	3	66	3.7	2.1	17.5	5.7	0.80	0.50	0.0	0.0	53.64	203	178
145.0	RFS APXVTM14-C-I20	3	53	6.3	4.7	12.6	6.3	0.80	0.66	0.0	0.0	53.64	458	143
145.0	RFS APXV9ERR18-C-	1	62	8.0	6.0	11.8	7.9	0.80	1.00	0.0	0.0	53.64	293	56
145.0	RFS P40-16-XLPP-	2	64	9.1	4.5	20.0	6.5	0.80	0.71	0.0	0.0	53.64	470	115
140.0	Andrew	6	11	0.7	0.8	8.6	2.3	0.80	0.50	0.0	0.0	53.32	78	60
140.0	RFS APX18-206516L-	3	19	3.5	4.4	6.7	3.2	0.80	0.67	0.0	0.0	53.32	257	50
140.0	Generic RRU (Model	6	55	4.6	1.8	25.0	7.4	0.80	0.50	0.0	0.0	53.32	496	297
140.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.0	53.32	1223	1080
130.0	Samsung B5/B13	2	70	1.9	1.3	15.0	8.1	0.90	0.50	0.0	0.0	52.63	75	127
130.0	Samsung B2/B66A	2	84	1.9	1.3	15.0	10.0	0.90	0.50	0.0	0.0	52.63	75	152
130.0	Raycap RCMDC-	1	32	4.1	2.5	16.5	12.6	0.90	0.67	0.0	0.0	52.63	109	29
130.0	Quintel QS6656-5	4	72	8.1	6.0	12.0	9.6	0.90	0.74	0.0	0.0	52.63	969	259
130.0	Generic Flat Light	2	400	17.9	0.0	0.0	0.0	0.90	0.90	0.0	0.0	52.63	1297	720
107.8	Generic 12" x 12"	1	10	1.2	1.0	12.0	8.0	0.90	0.50	0.0	0.0	50.95	23	9
107.8	Raycap DC6-48-60-	1	20	1.3	2.0	9.7	9.7	0.90	0.50	0.0	0.0	50.95	25	18
107.8	Nokia AirScale RRH	1	35	1.3	1.1	11.6	6.5	0.90	0.50	0.0	0.0	50.95	25	32
107.8	Alcatel-Lucent B25	1	51	2.1	1.8	12.0	7.2	0.90	0.50	0.0	0.0	50.95	42	46
107.8	Alcatel-Lucent	1	44	2.2	2.0	10.6	6.7	0.90	0.50	0.0	0.0	50.95	42	40
107.8	Nokia AHLBBA	1	95	2.8	2.0	14.1	7.8	0.90	0.50	0.0	0.0	50.95	55	85
107.8	Alcatel-Lucent	1	70	3.2	2.6	12.0	8.7	0.90	0.50	0.0	0.0	50.95	62	63
107.8	Commscope NNHH-	2	67	9.1	4.6	19.6	7.8	0.90	1.00	0.0	0.0	50.95	710	121
107.8	Commscope NNHH-	1	67	9.1	4.6	19.6	7.8	0.90	1.00	0.0	0.0	50.95	355	60
107.8	Generic Flat T-Arm	1	313	12.9	0.0	0.0	0.0	1.00	1.00	0.0	0.0	50.95	559	281
96.50	Generic 12" x 12"	1	10	1.2	1.0	12.0	8.0	0.90	0.50	0.0	0.0	49.98	23	9
96.50	Raycap DC6-48-60-	1	20	1.3	2.0	9.7	9.7	0.90	0.50	0.0	0.0	49.98	24	18
96.50	Nokia AirScale RRH	1	35	1.3	1.1	11.6	6.5	0.90	0.50	0.0	0.0	49.98	25	32
96.50	Alcatel-Lucent B25	1	51	2.1	1.8	12.0	7.2	0.90	0.50	0.0	0.0	49.98	41	46
96.50	Alcatel-Lucent	1	44	2.2	2.0	10.6	6.7	0.90	0.50	0.0	0.0	49.98	41	40
96.50	Nokia AHLBBA	1	95	2.8	2.0	14.1	7.8	0.90	0.50	0.0	0.0	49.98	54	85
96.50	Alcatel-Lucent	1	70	3.2	2.6	12.0	8.7	0.90	0.50	0.0	0.0	49.98	61	63
96.50	Commscope NNHH-	2	67	9.1	4.6	19.6	7.8	0.90	1.00	0.0	0.0	49.98	696	121
96.50	Commscope NNHH-	1	84	9.1	4.6	19.6	7.8	0.60	1.00	0.0	0.0	49.98	232	75
96.50	Generic Flat T-Arm	1	313	12.9	0.0	0.0	0.0	1.00	1.00	0.0	0.0	49.98	548	281
90.00	Gabriel DFPD2-52	1	14	5.2	2.0	24.0	0.0	1.00	1.00	0.0	0.0	49.37	219	13
79.50	Generic 12" x 12"	1	10	1.2	1.0	12.0	8.0	0.90	0.50	0.0	0.0	48.32	22	9
79.50	Raycap DC6-48-60-	1	20	1.3	2.0	9.7	9.7	0.90	0.50	0.0	0.0	48.32	23	18
79.50	Nokia AirScale RRH	1	35	1.3	1.1	11.6	6.5	0.90	0.50	0.0	0.0	48.32	24	32
79.50	Alcatel-Lucent B25	1	51	2.1	1.8	12.0	7.2	0.90	0.50	0.0	0.0	48.32	40	46
79.50	Alcatel-Lucent	1	44	2.2	2.0	10.6	6.7	0.90	0.50	0.0	0.0	48.32	40	40
79.50	Nokia AHLBBA	1	95	2.8	2.0	14.1	7.8	0.90	0.50	0.0	0.0	48.32	52	85
79.50	Alcatel-Lucent	1	70	3.2	2.6	12.0	8.7	0.90	0.50	0.0	0.0	48.32	58	63
79.50	Generic Flat T-Arm	1	313	12.9	0.0	0.0	0.0	1.00	1.00	0.0	0.0	48.32	530	281
79.50	CCI OPA-45R-BU5CA-	3	71	13.4	4.6	29.1	8.9	0.90	1.00	0.0	0.0	48.32	1490	190
Totals		78	6512	429.1									12435	5860

Discrete Appurtenance Properties 1.2D + 1.0Di + 1.0Wi

Elevation (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
145.0	Alcatel-Lucent 800	3	115	2.7	1.6	13.0	12.2	0.80	0.50	0.0	0.0	5.32	15	385
145.0	Alcatel-Lucent 1900	3	117	4.1	1.9	13.0	17.3	0.80	0.50	0.0	0.0	5.32	22	378
145.0	Alcatel-Lucent TD-	3	122	4.6	2.1	17.5	5.7	0.80	0.50	0.0	0.0	5.32	25	405
145.0	RFS APXVTM14-C-I20	3	145	7.8	4.7	12.6	6.3	0.80	0.66	0.0	0.0	5.32	56	466
145.0	RFS APXV9ERR18-C-	1	183	9.9	6.0	11.8	7.9	0.80	1.00	0.0	0.0	5.32	36	195
145.0	RFS P40-16-XLPP-	2	214	10.5	4.5	20.0	6.5	0.80	0.71	0.0	0.0	5.32	54	453

Site Number: 207733
 Site Name: Spray Beach, NJ
 Customer: Verizon Wireless

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Tower Loading

140.0 Andrew	6	22	1.1	0.8	8.6	2.3	0.80	0.50	0.0	0.0	5.29	12	148
140.0 RFS APX18-206516L-	3	64	4.7	4.4	6.7	3.2	0.80	0.67	0.0	0.0	5.29	34	202
140.0 Generic RRU (Model	6	126	5.5	1.8	25.0	7.4	0.80	0.50	0.0	0.0	5.29	59	820
140.0 Flat Light Sector	3	598	27.8	0.0	0.0	0.0	0.75	0.67	0.0	0.0	5.29	189	2035
130.0 Samsung B5/B13	2	108	2.5	1.3	15.0	8.1	0.90	0.50	0.0	0.0	5.22	10	244
130.0 Samsung B2/B66A	2	126	2.5	1.3	15.0	10.0	0.90	0.50	0.0	0.0	5.22	10	287
130.0 Raycap RCMD-	1	116	5.0	2.5	16.5	12.6	0.90	0.67	0.0	0.0	5.22	13	122
130.0 Quintel QS6656-5	4	203	10.0	6.0	12.0	9.6	0.90	0.74	0.0	0.0	5.22	118	870
130.0 Generic Flat Light	2	598	27.8	0.0	0.0	0.0	0.90	0.90	0.0	0.0	5.22	200	1356
107.8 Generic 12" x 12"	1	37	1.7	1.0	12.0	8.0	0.90	0.50	0.0	0.0	5.05	3	39
107.8 Raycap DC6-48-60-	1	54	1.7	2.0	9.7	9.7	0.90	0.50	0.0	0.0	5.05	3	58
107.8 Nokia AirScale RRH	1	61	1.8	1.1	11.6	6.5	0.90	0.50	0.0	0.0	5.05	3	68
107.8 Alcatel-Lucent B25	1	90	2.8	1.8	12.0	7.2	0.90	0.50	0.0	0.0	5.05	5	100
107.8 Alcatel-Lucent	1	83	2.8	2.0	10.6	6.7	0.90	0.50	0.0	0.0	5.05	5	92
107.8 Nokia AHLBBA	1	145	3.6	2.0	14.1	7.8	0.90	0.50	0.0	0.0	5.05	7	164
107.8 Alcatel-Lucent	1	129	4.0	2.6	12.0	8.7	0.90	0.50	0.0	0.0	5.05	8	143
107.8 Commscope NNHH-	2	194	10.5	4.6	19.6	7.8	0.90	1.00	0.0	0.0	5.05	81	415
107.8 Commscope NNHH-	1	194	10.5	4.6	19.6	7.8	0.90	1.00	0.0	0.0	5.05	41	208
107.8 Generic Flat T-Arm	1	481	18.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	5.05	78	543
96.50 Generic 12" x 12"	1	37	1.7	1.0	12.0	8.0	0.90	0.50	0.0	0.0	4.96	3	39
96.50 Raycap DC6-48-60-	1	54	1.7	2.0	9.7	9.7	0.90	0.50	0.0	0.0	4.96	3	58
96.50 Nokia AirScale RRH	1	60	1.8	1.1	11.6	6.5	0.90	0.50	0.0	0.0	4.96	3	67
96.50 Alcatel-Lucent B25	1	90	2.8	1.8	12.0	7.2	0.90	0.50	0.0	0.0	4.96	5	100
96.50 Alcatel-Lucent	1	83	2.8	2.0	10.6	6.7	0.90	0.50	0.0	0.0	4.96	5	91
96.50 Nokia AHLBBA	1	144	3.5	2.0	14.1	7.8	0.90	0.50	0.0	0.0	4.96	7	163
96.50 Alcatel-Lucent	1	128	4.0	2.6	12.0	8.7	0.90	0.50	0.0	0.0	4.96	8	142
96.50 Commscope NNHH-	2	193	10.5	4.6	19.6	7.8	0.90	1.00	0.0	0.0	4.96	80	413
96.50 Commscope NNHH-	1	210	10.5	4.6	19.6	7.8	0.60	1.00	0.0	0.0	4.96	27	226
96.50 Generic Flat T-Arm	1	479	18.1	0.0	0.0	0.0	1.00	1.00	0.0	0.0	4.96	76	542
90.00 Gabriel DFPD2-52	1	49	6.2	2.0	24.0	0.0	1.00	1.00	0.0	0.0	4.90	26	52
79.50 Generic 12" x 12"	1	36	1.6	1.0	12.0	8.0	0.90	0.50	0.0	0.0	4.79	3	38
79.50 Raycap DC6-48-60-	1	53	1.7	2.0	9.7	9.7	0.90	0.50	0.0	0.0	4.79	3	57
79.50 Nokia AirScale RRH	1	60	1.8	1.1	11.6	6.5	0.90	0.50	0.0	0.0	4.79	3	67
79.50 Alcatel-Lucent B25	1	89	2.8	1.8	12.0	7.2	0.90	0.50	0.0	0.0	4.79	5	99
79.50 Alcatel-Lucent	1	82	2.8	2.0	10.6	6.7	0.90	0.50	0.0	0.0	4.79	5	90
79.50 Nokia AHLBBA	1	143	3.5	2.0	14.1	7.8	0.90	0.50	0.0	0.0	4.79	6	162
79.50 Alcatel-Lucent	1	127	4.0	2.6	12.0	8.7	0.90	0.50	0.0	0.0	4.79	7	141
79.50 Generic Flat T-Arm	1	474	18.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	4.79	73	537
79.50 CCI OPA-45R-BU5CA-	3	242	15.0	4.6	29.1	8.9	0.90	1.00	0.0	0.0	4.79	165	769
Totals	78	12745	559.0									1602	14047

Discrete Appurtenance Properties 1.0D + 1.0W Service

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
145.0	Alcatel-Lucent 800	3	64	2.1	1.6	13.0	12.2	0.80	0.50	0.0	0.0	11.97	25	192
145.0	Alcatel-Lucent 1900	3	44	3.3	1.9	13.0	17.3	0.80	0.50	0.0	0.0	11.97	40	132
145.0	Alcatel-Lucent TD-	3	66	3.7	2.1	17.5	5.7	0.80	0.50	0.0	0.0	11.97	45	198
145.0	RFS APXVTM14-C-I20	3	53	6.3	4.7	12.6	6.3	0.80	0.66	0.0	0.0	11.97	102	159
145.0	RFS APXV9ERR18-C-	1	62	8.0	6.0	11.8	7.9	0.80	1.00	0.0	0.0	11.97	65	62
145.0	RFS P40-16-XLPP-	2	64	9.1	4.5	20.0	6.5	0.80	0.71	0.0	0.0	11.97	105	128
140.0	Andrew	6	11	0.7	0.8	8.6	2.3	0.80	0.50	0.0	0.0	11.90	17	67
140.0	RFS APX18-206516L-	3	19	3.5	4.4	6.7	3.2	0.80	0.67	0.0	0.0	11.90	57	56
140.0	Generic RRU (Model	6	55	4.6	1.8	25.0	7.4	0.80	0.50	0.0	0.0	11.90	111	330
140.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.0	11.90	273	1200
130.0	Samsung B5/B13	2	70	1.9	1.3	15.0	8.1	0.90	0.50	0.0	0.0	11.75	17	141

Site Number: 207733
 Site Name: Spray Beach, NJ
 Customer: Verizon Wireless

Code: ANSI/TIA-222-H
 Engineering Number: OAA763960_C3_01

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Tower Loading

130.0	Samsung B2/B66A	2	84	1.9	1.3	15.0	10.0	0.90	0.50	0.0	0.0	11.75	17	169
130.0	Raycap RCMDC-	1	32	4.1	2.5	16.5	12.6	0.90	0.67	0.0	0.0	11.75	24	32
130.0	Quintel QS6656-5	4	72	8.1	6.0	12.0	9.6	0.90	0.74	0.0	0.0	11.75	216	288
130.0	Generic Flat Light	2	400	17.9	0.0	0.0	0.0	0.90	0.90	0.0	0.0	11.75	290	800
107.8	Generic 12" x 12"	1	10	1.2	1.0	12.0	8.0	0.90	0.50	0.0	0.0	11.37	5	10
107.8	Raycap DC6-48-60-	1	20	1.3	2.0	9.7	9.7	0.90	0.50	0.0	0.0	11.37	5	20
107.8	Nokia AirScale RRH	1	35	1.3	1.1	11.6	6.5	0.90	0.50	0.0	0.0	11.37	6	35
107.8	Alcatel-Lucent B25	1	51	2.1	1.8	12.0	7.2	0.90	0.50	0.0	0.0	11.37	9	51
107.8	Alcatel-Lucent	1	44	2.2	2.0	10.6	6.7	0.90	0.50	0.0	0.0	11.37	9	44
107.8	Nokia AHLBBA	1	95	2.8	2.0	14.1	7.8	0.90	0.50	0.0	0.0	11.37	12	95
107.8	Alcatel-Lucent	1	70	3.2	2.6	12.0	8.7	0.90	0.50	0.0	0.0	11.37	14	70
107.8	Commscope NNHH-	2	67	9.1	4.6	19.6	7.8	0.90	1.00	0.0	0.0	11.37	158	134
107.8	Commscope NNHH-	1	67	9.1	4.6	19.6	7.8	0.90	1.00	0.0	0.0	11.37	79	67
107.8	Generic Flat T-Arm	1	313	12.9	0.0	0.0	0.0	1.00	1.00	0.0	0.0	11.37	125	313
96.50	Generic 12" x 12"	1	10	1.2	1.0	12.0	8.0	0.90	0.50	0.0	0.0	11.15	5	10
96.50	Raycap DC6-48-60-	1	20	1.3	2.0	9.7	9.7	0.90	0.50	0.0	0.0	11.15	5	20
96.50	Nokia AirScale RRH	1	35	1.3	1.1	11.6	6.5	0.90	0.50	0.0	0.0	11.15	5	35
96.50	Alcatel-Lucent B25	1	51	2.1	1.8	12.0	7.2	0.90	0.50	0.0	0.0	11.15	9	51
96.50	Alcatel-Lucent	1	44	2.2	2.0	10.6	6.7	0.90	0.50	0.0	0.0	11.15	9	44
96.50	Nokia AHLBBA	1	95	2.8	2.0	14.1	7.8	0.90	0.50	0.0	0.0	11.15	12	95
96.50	Alcatel-Lucent	1	70	3.2	2.6	12.0	8.7	0.90	0.50	0.0	0.0	11.15	14	70
96.50	Commscope NNHH-	2	67	9.1	4.6	19.6	7.8	0.90	1.00	0.0	0.0	11.15	155	134
96.50	Commscope NNHH-	1	84	9.1	4.6	19.6	7.8	0.60	1.00	0.0	0.0	11.15	52	84
96.50	Generic Flat T-Arm	1	313	12.9	0.0	0.0	0.0	1.00	1.00	0.0	0.0	11.15	122	313
90.00	Gabriel DFPD2-52	1	14	5.2	2.0	24.0	0.0	1.00	1.00	0.0	0.0	11.02	49	14
79.50	Generic 12" x 12"	1	10	1.2	1.0	12.0	8.0	0.90	0.50	0.0	0.0	10.79	5	10
79.50	Raycap DC6-48-60-	1	20	1.3	2.0	9.7	9.7	0.90	0.50	0.0	0.0	10.79	5	20
79.50	Nokia AirScale RRH	1	35	1.3	1.1	11.6	6.5	0.90	0.50	0.0	0.0	10.79	5	35
79.50	Alcatel-Lucent B25	1	51	2.1	1.8	12.0	7.2	0.90	0.50	0.0	0.0	10.79	9	51
79.50	Alcatel-Lucent	1	44	2.2	2.0	10.6	6.7	0.90	0.50	0.0	0.0	10.79	9	44
79.50	Nokia AHLBBA	1	95	2.8	2.0	14.1	7.8	0.90	0.50	0.0	0.0	10.79	12	95
79.50	Alcatel-Lucent	1	70	3.2	2.6	12.0	8.7	0.90	0.50	0.0	0.0	10.79	13	70
79.50	Generic Flat T-Arm	1	313	12.9	0.0	0.0	0.0	1.00	1.00	0.0	0.0	10.79	118	313
79.50	CCI OPA-45R-BU5CA-	3	71	13.4	4.6	29.1	8.9	0.90	1.00	0.0	0.0	10.79	333	212
	Totals	78	6512	429.1									2776	6512

Site Number: 207733

Code: ANSI/TIA-222-H

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Site Name: Spray Beach, NJ

Engineering Number: OAA763960_C3_01

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Customer: Verizon Wireless

Tower Loading

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Block	Spread On Faces	Bundling Arrangement	Cluster Dia (in)	Out Of Zone	Spacing (in)	Orientation Factor	Ka Override
0.00	145.0	1 1/4" Hybriflex	7	1.54	1.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	145.0	Waveguide	1	2.00	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	140.0	7/8" Coax	6	1.09	0.33	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	140.0	Waveguide	1	2.00	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	130.0	1.4" (35.6mm)	2	1.40	1.30	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	130.0	Waveguide	1	2.00	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	108.0	Waveguide	1	2.00	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	107.8	1 5/8" Coax	4	1.98	0.82	100	2	Individual	0.00	N	1.00	1.00	0.40
0.00	107.8	2" conduit	1	2.38	3.65	100	2	Individual	0.00	N	1.00	1.00	0.00
0.00	96.50	1 5/8" Coax	4	1.98	0.82	100	2	Individual	0.00	N	1.00	1.00	0.40
0.00	96.50	2" conduit	1	2.38	3.65	100	2	Individual	0.00	N	1.00	1.00	0.00
0.00	79.50	1 5/8" Coax	4	1.98	0.82	100	2	Individual	0.00	N	1.00	1.00	0.40
0.00	79.50	2" conduit	1	2.38	3.65	100	2	Individual	0.00	N	1.00	1.00	0.00

Site Number: 207733
 Site Name: Spray Beach, NJ
 Customer: Verizon Wireless

Code: ANSI/TIA-222-H
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Equivalent Lateral Force Method

Spectral Response Acceleration for Short Period (S_g):	0.13
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.04
Long-Period Transition Period (T_L - Seconds):	6
Importance Factor (I_e):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	3.00
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.14
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.07
Seismic Response Coefficient (C_s):	0.04
Upper Limit C_s :	0.04
Lower Limit C_s :	0.03
Period based on Rayleigh Method (sec):	0.61
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.06
Total Unfactored Dead Load:	37.94 k
Seismic Base Shear (E):	1.76 k

LoadCase 1.2D + 1.0Ev + 1.0Eh

Seismic

Section	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
11	150.00	1,127	224,589	0.066	117	1,385
10	130.00	1,807	309,502	0.091	161	2,220
9	115.00	1,439	216,558	0.064	112	1,768
8	105.00	1,593	217,668	0.064	113	1,956
7	95.00	1,486	182,709	0.054	95	1,825
6	85.00	1,544	168,816	0.050	88	1,897
5	70.00	4,774	425,088	0.125	221	5,863
4	55.00	2,492	171,992	0.051	89	3,061
3	45.00	2,561	142,963	0.042	74	3,145
2	30.00	6,140	223,336	0.066	116	7,541
1	10.00	6,467	73,681	0.022	38	7,943
Alcatel-Lucent 800 MHz 2X50W RRH w/	145.00	192	36,904	0.011	19	236
Alcatel-Lucent 1900 MHz RRH 4x40W	145.00	132	25,371	0.007	13	162
Alcatel-Lucent TD-RRH8x20-25	145.00	198	38,057	0.011	20	243
RFS APXVTM14-C-I20	145.00	159	30,503	0.009	16	195
RFS APXV9ERR18-C-A20	145.00	62	11,917	0.004	6	76
RFS P40-16-XLPP-RR-A	145.00	128	24,603	0.007	13	157
Andrew ETM19V2S12UB	140.00	67	12,446	0.004	6	83
RFS APX18-206516L-CT2	140.00	56	10,390	0.003	5	69
Generic RRU (Model TBD)	140.00	330	61,120	0.018	32	405
Flat Light Sector Frame	140.00	1,200	222,253	0.066	115	1,474
Samsung B5/B13 RRH-BR04C	130.00	141	24,079	0.007	12	173
Samsung B2/B66A RRH-BR049	130.00	169	28,909	0.009	15	207
Raycap RCMDC-6627-PF-48	130.00	32	5,480	0.002	3	39
Quintel QS6656-5 (72 lbs)	130.00	288	49,323	0.015	26	354

Site Number: 207733

Code: ANSI/TIA-222-H

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Site Name: Spray Beach, NJ

Engineering Number: OAA763960_C3_01

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Customer: Verizon Wireless

Equivalent Lateral Force Method

Generic Flat Light Sector Frame	130.00	800	137,009	0.040	71	983
Generic 12" x 12" Junction Box	107.80	10	1,405	0.000	1	12
Raycap DC6-48-60-18-8F	107.80	20	2,810	0.001	1	25
Nokia AirScale RRH 4T4R B5 160W AHCA	107.80	35	4,960	0.001	3	43
Alcatel-Lucent B25 RRH4x30-4R	107.80	51	7,166	0.002	4	63
Alcatel-Lucent RRH2x40-AWS	107.80	44	6,183	0.002	3	54
Nokia AHLBBA	107.80	95	13,321	0.004	7	116
Alcatel-Lucent RRH4x25-WCS-4R	107.80	70	9,836	0.003	5	86
Commscope NNHH-65A-R4	107.80	134	18,885	0.006	10	165
Commscope NNHH-65A-R4	107.80	67	9,443	0.003	5	83
Generic Flat T-Arm	107.80	313	43,912	0.013	23	384
Generic 12" x 12" Junction Box	96.50	10	1,250	0.000	1	12
Raycap DC6-48-60-18-8F	96.50	20	2,500	0.001	1	25
Nokia AirScale RRH 4T4R B5 160W AHCA	96.50	35	4,413	0.001	2	43
Alcatel-Lucent B25 RRH4x30-4R	96.50	51	6,375	0.002	3	63
Alcatel-Lucent RRH2x40-AWS	96.50	44	5,500	0.002	3	54
Nokia AHLBBA	96.50	95	11,850	0.003	6	116
Alcatel-Lucent RRH4x25-WCS-4R	96.50	70	8,750	0.003	5	86
Commscope NNHH-65A-R4	96.50	134	16,800	0.005	9	165
Commscope NNHH-65A-R4 (83.8 lbs)	96.50	84	10,475	0.003	5	103
Generic Flat T-Arm	96.50	313	39,063	0.012	20	384
Gabriel DFPD2-52	90.00	14	1,626	0.000	1	17
Generic 12" x 12" Junction Box	79.50	10	1,019	0.000	1	12
Raycap DC6-48-60-18-8F	79.50	20	2,037	0.001	1	25
Nokia AirScale RRH 4T4R B5 160W AHCA	79.50	35	3,596	0.001	2	43
Alcatel-Lucent B25 RRH4x30-4R	79.50	51	5,195	0.002	3	63
Alcatel-Lucent RRH2x40-AWS	79.50	44	4,482	0.001	2	54
Nokia AHLBBA	79.50	95	9,656	0.003	5	116
Alcatel-Lucent RRH4x25-WCS-4R	79.50	70	7,130	0.002	4	86
Generic Flat T-Arm	79.50	313	31,830	0.009	17	384
CCI OPA-45R-BU5CA-K	79.50	212	21,543	0.006	11	260
		37,943	3,388,277	1.000	1,759	46,600

LoadCase 0.9D - 1.0Ev + 1.0Eh

Seismic (Reduced DL)

Section	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
11	150.00	1,127	224,589	0.066	117	983
10	130.00	1,807	309,502	0.091	161	1,576
9	115.00	1,439	216,558	0.064	112	1,255
8	105.00	1,593	217,668	0.064	113	1,389
7	95.00	1,486	182,709	0.054	95	1,296
6	85.00	1,544	168,816	0.050	88	1,346
5	70.00	4,774	425,088	0.125	221	4,162
4	55.00	2,492	171,992	0.051	89	2,173
3	45.00	2,561	142,963	0.042	74	2,233
2	30.00	6,140	223,336	0.066	116	5,353
1	10.00	6,467	73,681	0.022	38	5,638
Alcatel-Lucent 800 MHz 2X50W RRH w/	145.00	192	36,904	0.011	19	167
Alcatel-Lucent 1900 MHz RRH 4x40W	145.00	132	25,371	0.007	13	115
Alcatel-Lucent TD-RRH8x20-25	145.00	198	38,057	0.011	20	173
RFS APXVTM14-C-I20	145.00	159	30,503	0.009	16	138
RFS APXV9ERR18-C-A20	145.00	62	11,917	0.004	6	54
RFS P40-16-XLPP-RR-A	145.00	128	24,603	0.007	13	112

Site Number: 207733

Code: ANSI/TIA-222-H

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Site Name: Spray Beach, NJ

Engineering Number: OAA763960_C3_01

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Customer: Verizon Wireless

Equivalent Lateral Force Method

Andrew ETM19V2S12UB	140.00	67	12,446	0.004	6	59
RFS APX18-206516L-CT2	140.00	56	10,390	0.003	5	49
Generic RRU (Model TBD)	140.00	330	61,120	0.018	32	288
Flat Light Sector Frame	140.00	1,200	222,253	0.066	115	1,046
Samsung B5/B13 RRH-BR04C	130.00	141	24,079	0.007	12	123
Samsung B2/B66A RRH-BR049	130.00	169	28,909	0.009	15	147
Raycap RCMD-6627-PF-48	130.00	32	5,480	0.002	3	28
Quintel QS6656-5 (72 lbs)	130.00	288	49,323	0.015	26	251
Generic Flat Light Sector Frame	130.00	800	137,009	0.040	71	697
Generic 12" x 12" Junction Box	107.80	10	1,405	0.000	1	9
Raycap DC6-48-60-18-8F	107.80	20	2,810	0.001	1	17
Nokia AirScale RRH 4T4R B5 160W AHCA	107.80	35	4,960	0.001	3	31
Alcatel-Lucent B25 RRH4x30-4R	107.80	51	7,166	0.002	4	44
Alcatel-Lucent RRH2x40-AWS	107.80	44	6,183	0.002	3	38
Nokia AHLBBA	107.80	95	13,321	0.004	7	83
Alcatel-Lucent RRH4x25-WCS-4R	107.80	70	9,836	0.003	5	61
Commscope NNHH-65A-R4	107.80	134	18,885	0.006	10	117
Commscope NNHH-65A-R4	107.80	67	9,443	0.003	5	59
Generic Flat T-Arm	107.80	313	43,912	0.013	23	272
Generic 12" x 12" Junction Box	96.50	10	1,250	0.000	1	9
Raycap DC6-48-60-18-8F	96.50	20	2,500	0.001	1	17
Nokia AirScale RRH 4T4R B5 160W AHCA	96.50	35	4,413	0.001	2	31
Alcatel-Lucent B25 RRH4x30-4R	96.50	51	6,375	0.002	3	44
Alcatel-Lucent RRH2x40-AWS	96.50	44	5,500	0.002	3	38
Nokia AHLBBA	96.50	95	11,850	0.003	6	83
Alcatel-Lucent RRH4x25-WCS-4R	96.50	70	8,750	0.003	5	61
Commscope NNHH-65A-R4	96.50	134	16,800	0.005	9	117
Commscope NNHH-65A-R4 (83.8 lbs)	96.50	84	10,475	0.003	5	73
Generic Flat T-Arm	96.50	313	39,063	0.012	20	272
Gabriel DFPD2-52	90.00	14	1,626	0.000	1	12
Generic 12" x 12" Junction Box	79.50	10	1,019	0.000	1	9
Raycap DC6-48-60-18-8F	79.50	20	2,037	0.001	1	17
Nokia AirScale RRH 4T4R B5 160W AHCA	79.50	35	3,596	0.001	2	31
Alcatel-Lucent B25 RRH4x30-4R	79.50	51	5,195	0.002	3	44
Alcatel-Lucent RRH2x40-AWS	79.50	44	4,482	0.001	2	38
Nokia AHLBBA	79.50	95	9,656	0.003	5	83
Alcatel-Lucent RRH4x25-WCS-4R	79.50	70	7,130	0.002	4	61
Generic Flat T-Arm	79.50	313	31,830	0.009	17	272
CCI OPA-45R-BU5CA-K	79.50	212	21,543	0.006	11	184
		37,943	3,388,277	1.000	1,759	33,080

Site Number: 207733
 Site Name: Spray Beach, NJ
 Customer: Verizon Wireless

Code: ANSI/TIA-222-H
 Engineering Number: OAA763960_C3_01

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Force/Stress Summary

Section: 1		1		Bot Elev (ft): 0.00				Height (ft): 20.000				Shear		Bear		Use	
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	phiRnv (kip)	phiRn (kip)	%	Controls		
LEG	PX - 5" DIA PIPE	-218.50	1.2D + 1.0W Normal	0.17	100	100	100	0.0	0.0	307.50	0	0	0.00	0.00	71	User Input	
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0		
DIAG	DAE - 4X4X0.25	-11.29	1.2D + 1.0W 90 deg	25.31	50	50	25	127.8	35.7	68.04	2	2	27.61	34.80	40	Bolt Shear	

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls	
LEG	PX - 5" DIA PIPE	180.14	0.9D + 1.0W 60 deg	50	65	275.00	0	0	0.00	0.00		65	User Input	
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00	0		
DIAG	DAE - 4X4X0.25	11.20	1.2D + 1.0W 90 deg	36	58	115.37	2	2	27.61	20.88	31.81	53	Bolt Bear	

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		152.73	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		185.99	1.2D + 1.0W Normal	0.00	0		
Bot Tension		180.14	0.9D + 1.0W 60 deg	272.58	45	4	1 A687
Bot Compression		218.50	1.2D + 1.0W Normal	254.41	101		

Section: 2		1		Bot Elev (ft): 20.00				Height (ft): 20.000				Shear		Bear		Use	
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	phiRnv (kip)	phiRn (kip)	%	Controls		
LEG	PX - 5" DIA PIPE	-185.45	1.2D + 1.0W Normal	0.17	100	100	100	0.0	0.0	307.50	0	0	0.00	0.00	60	User Input	
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0		
DIAG	DAE - 4X4X0.25	-10.66	1.2D + 1.0W 90 deg	24.26	50	50	25	122.5	35.7	73.74	2	2	27.61	34.80	38	Bolt Shear	

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls	
LEG	PX - 5" DIA PIPE	153.09	0.9D + 1.0W 60 deg	50	65	275.00	0	0	0.00	0.00		55	User Input	
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00	0		
DIAG	DAE - 4X4X0.25	10.49	1.2D + 1.0W 90 deg	36	58	115.37	2	2	27.61	20.88	31.81	50	Bolt Bear	

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		124.50	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		151.38	1.2D + 1.0W Normal	0.00	0		
Bot Tension		152.73	0.9D + 1.0W 60 deg	218.07	70	4	1 A325
Bot Compression		0.00		0.00	0		

Site Number: 207733
 Site Name: Spray Beach, NJ
 Customer: Verizon Wireless

Code: ANSI/TIA-222-H
 Engineering Number: OAA763960_C3_01

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Force/Stress Summary

Section: 3		1		Bot Elev (ft): 40.00				Height (ft): 10.00								
		Pu	Load Case	Len	Bracing %			F'y	Phic Pn	Num	Num	Shear	Bear	Blk Shear	Use	Controls
Max Compression Member		(kip)		(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	
LEG	PX - 4" DIA PIPE	-150.73	1.2D + 1.0W Normal	0.17	100	100	100	0.0	0.0	198.30	0	0	0.00	0.00	76	User Input
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG	DAE - 3.5x3.5x0.25	-9.68	1.2D + 1.0W 90 deg	22.22	50	50	25	127.5	36.0	59.49	2	2	27.61	34.80	35	Bolt Shear

		Pu	Load Case	Fy	Fu	Phit Pn	Num	Num	Shear	Bear	Blk Shear	Use	Controls
Max Tension Member		(kip)		(ksi)	(ksi)	(kip)	Bolts	Holes	phiRnv	phiRn	phit Pn	%	
									(kip)	(kip)	(kip)		
LEG	PX - 4" DIA PIPE	124.93	0.9D + 1.0W 60 deg	50	65	277.50	0	0	0.00	0.00		45	User Input
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	
DIAG	DAE - 3.5x3.5x0.25	9.55	1.2D + 1.0W 90 deg	36	58	99.06	2	2	27.61	20.88	31.81	45	Bolt Bear

Max Splice Forces		Pu	Load Case	phiRnt	Use	Num	Bolt Type
		(kip)		(kip)	%	Bolts	
Top Tension		109.15	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		132.99	1.2D + 1.0W Normal	0.00	0		
Bot Tension		124.50	0.9D + 1.0W 60 deg	218.07	57	4	1 A325
Bot Compression		0.00		0.00	0		

Section: 4		1		Bot Elev (ft): 50.00				Height (ft): 10.00								
		Pu	Load Case	Len	Bracing %			F'y	Phic Pn	Num	Num	Shear	Bear	Blk Shear	Use	Controls
Max Compression Member		(kip)		(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	
LEG	PX - 4" DIA PIPE	-124.42	1.2D + 1.0W Normal	9.85	100	100	100	0.0	0.0	198.30	0	0	0.00	0.00	62	User Input
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG	DAE - 3.5x3.5x0.25	-9.82	1.2D + 1.0W 90 deg	21.23	50	50	25	121.9	36.0	64.86	2	2	27.61	34.80	35	Bolt Shear

		Pu	Load Case	Fy	Fu	Phit Pn	Num	Num	Shear	Bear	Blk Shear	Use	Controls
Max Tension Member		(kip)		(ksi)	(ksi)	(kip)	Bolts	Holes	phiRnv	phiRn	phit Pn	%	
									(kip)	(kip)	(kip)		
LEG	PX - 4" DIA PIPE	102.14	0.9D + 1.0W 60 deg	50	65	239.70	0	0	0.00	0.00		42	User Input
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	
DIAG	DAE - 3.5x3.5x0.25	9.65	1.2D + 1.0W 90 deg	36	58	99.06	2	2	27.61	20.88	31.81	46	Bolt Bear

Max Splice Forces		Pu	Load Case	phiRnt	Use	Num	Bolt Type
		(kip)		(kip)	%	Bolts	
Top Tension		96.12	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		117.22	1.2D + 1.0W Normal	0.00	0		
Bot Tension		109.15	0.9D + 1.0W 60 deg	218.07	50	4	1 A325
Bot Compression		0.00		0.00	0		

Site Number: 207733
 Site Name: Spray Beach, NJ
 Customer: Verizon Wireless

Code: ANSI/TIA-222-H
 Engineering Number: OAA763960_C3_01

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Force/Stress Summary

Section: 5		1		Bot Elev (ft): 60.00				Height (ft): 20.000				Shear		Bear		Use	
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	phiRnv (kip)	phiRn (kip)	%	Controls		
LEG	PX - 4" DIA PIPE	-116.70	1.2D + 1.0W Normal	0.17	100	100	100	0.0	0.0	198.30	0	0	0.00	0.00	58	User Input	
	HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0		
DIAG	DAE - 3.5x3.5x0.25	-8.87	1.2D + 1.0W 90 deg	20.23	50	50	25	116.1	36.0	70.11	2	2	27.61	34.80	32	Bolt Shear	

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls	
LEG	PX - 4" DIA PIPE	96.45	0.9D + 1.0W 60 deg	50	65	239.70	0	0	0.00	0.00		40	User Input	
	HORIZ	0.00		0	0	0.00	0	0	0.00	0.00	0.00	0		
DIAG	DAE - 3.5x3.5x0.25	8.83	1.2D + 1.0W 90 deg	36	58	99.06	2	2	27.61	20.88	31.81	42	Bolt Bear	

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		67.42	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		82.80	1.2D + 1.0W Normal	0.00	0		
Bot Tension		96.12	0.9D + 1.0W 60 deg	166.22	58	4	0.875" A325
Bot Compression		0.00		0.00	0		

Section: 6		1		Bot Elev (ft): 80.00				Height (ft): 10.000				Shear		Bear		Use	
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	phiRnv (kip)	phiRn (kip)	%	Controls		
LEG	PX - 3-1/2" DIA PIPE	-82.29	1.2D + 1.0W Normal	0.17	100	100	100	0.0	0.0	165.50	0	0	0.00	0.00	49	User Input	
	HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0		
DIAG	DAE - 2.5X2.5X0.1875	-7.13	1.2D + 1.0W 90 deg	18.29	50	50	25	144.8	36.0	24.59	2	2	27.61	26.10	28	Member Y	

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls	
LEG	PX - 3-1/2" DIA PIPE	66.36	1.2D + 1.0W 60 deg	50	65	213.50	0	0	0.00	0.00		31	User Input	
	HORIZ	0.00		0	0	0.00	0	0	0.00	0.00	0.00	0		
DIAG	DAE - 2.5X2.5X0.1875	7.09	1.2D + 1.0W 90 deg	36	58	50.31	2	2	27.61	15.66	17.74	45	Bolt Bear	

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		53.77	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		66.99	1.2D + 1.0W Normal	0.00	0		
Bot Tension		67.42	0.9D + 1.0W 60 deg	166.22	41	4	0.875" A325
Bot Compression		0.00		0.00	0		

Site Number: 207733
 Site Name: Spray Beach, NJ
 Customer: Verizon Wireless

Code: ANSI/TIA-222-H
 Engineering Number: OAA763960_C3_01

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Force/Stress Summary

Section: 7		1		Bot Elev (ft): 90.00				Height (ft): 10.000							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PX - 3-1/2" DIA PIPE	-59.35	1.2D + 1.0W Normal	9.85	100	100	100	90.3	50.0	91.27	0	0	0.00	0.00	65 Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0
DIAG	DAE - 2.5X2.5X0.1875	-7.28	1.2D + 1.0W 90 deg	17.37	50	50	25	137.5	36.0	27.27	2	2	27.61	26.10	27 Bolt Bear

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	PX - 3-1/2" DIA PIPE	47.17	0.9D + 1.0W 60 deg	50	65	165.60	0	0	0.00	0.00		28	Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	
DIAG	DAE - 2.5X2.5X0.1875	7.17	1.2D + 1.0W 90 deg	36	58	50.31	2	2	27.61	15.66	17.74	45	Bolt Bear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		41.56	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		52.36	1.2D + 1.0W Normal	0.00	0		
Bot Tension		53.77	0.9D + 1.0W 60 deg	166.22	32	4	0.875" A325
Bot Compression		0.00		0.00	0		

Section: 8		1		Bot Elev (ft): 100.0				Height (ft): 10.000								
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	PST - 3" DIA PIPE	-52.04	1.2D + 1.0W Normal	0.17	100	100	100	0.0	0.0	100.30	0	0	0.00	0.00	51 User Input	
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG	DAE - 3X3X0.25	-5.73	1.2D + 1.0W 90 deg	16.44	50	50	25	109.5	36.0	64.61	2	2	17.67	27.84	32 Bolt Shear	

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	PST - 3" DIA PIPE	40.74	1.2D + 1.0W 60 deg	50	65	168.90	0	0	0.00	0.00		24	User Input
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	
DIAG	DAE - 3X3X0.25	5.71	1.2D + 1.0W 90 deg	36	58	84.78	2	2	17.67	16.53	26.10	34	Bolt Bear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		29.41	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		38.47	1.2D + 1.0W Normal	0.00	0		
Bot Tension		41.56	0.9D + 1.0W 60 deg	166.22	25	4	0.875" A325
Bot Compression		0.00		0.00	0		

Site Number: 207733
 Site Name: Spray Beach, NJ
 Customer: Verizon Wireless

Code: ANSI/TIA-222-H
 Engineering Number: OAA763960_C3_01

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Force/Stress Summary

Section: 9		1		Bot Elev (ft): 110.0				Height (ft): 10.000				Shear		Bear		Use	
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn (Bolts)	Num (Holes)	phiRnv (kip)	phiRn (kip)	Use %	Controls		
LEG	PST - 3" DIA PIPE	-31.98	1.2D + 1.0W Normal	9.85	100	100	100	101.9	50.0	46.94	0	0	0.00	0.00	68	Member X	
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0		
DIAG	DAE - 3X3X0.25	-5.15	1.2D + 1.0W 90 deg	15.57	50	50	25	103.7	36.0	68.64	2	2	17.67	27.84	29	Bolt Shear	

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phi (kip)	Pn (Bolts)	Num (Holes)	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phiRn (kip)	Use %	Controls	
LEG	PST - 3" DIA PIPE	24.51	0.9D + 1.0W 60 deg	50	65	100.35	0	0	0.00	0.00			24	Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00	0		
DIAG	DAE - 3X3X0.25	5.03	1.2D + 1.0W 90 deg	36	58	84.78	2	2	17.67	16.53	26.10	30	Bolt Bear	

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num (Bolts)	Bolt Type
Top Tension		19.91	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		26.64	1.2D + 1.0W Normal	0.00	0		
Bot Tension		29.41	0.9D + 1.0W 60 deg	166.22	18	4	0.875" A325
Bot Compression		0.00		0.00	0		

Section: 10		1		Bot Elev (ft): 120.0				Height (ft): 20.000				Shear		Bear		Use	
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn (Bolts)	Num (Holes)	phiRnv (kip)	phiRn (kip)	Use %	Controls		
LEG	PX - 2-1/2" DIA PIPE	-20.45	1.2D + 1.0W Normal	9.85	100	100	100	128.0	50.0	31.04	0	0	0.00	0.00	65	Member X	
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0		
DIAG	SAE - 3X3X0.25	-4.41	1.2D + 1.0W 90 deg	14.70	50	50	50	149.0	36.0	18.56	1	1	8.84	13.92	49	Bolt Shear	

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phi (kip)	Pn (Bolts)	Num (Holes)	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phiRn (kip)	Use %	Controls	
LEG	PX - 2-1/2" DIA PIPE	19.44	1.2D + 1.0W 60 deg	50	65	101.25	0	0	0.00	0.00			19	Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00	0		
DIAG	SAE - 3X3X0.25	4.46	1.2D + 1.0W 90 deg	36	58	42.39	1	1	8.84	8.27	13.05	53	Bolt Bear	

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num (Bolts)	Bolt Type
Top Tension		2.42	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		5.73	1.2D + 1.0W Normal	0.00	0		
Bot Tension		19.91	0.9D + 1.0W 60 deg	120.41	17	4	0.75" A325
Bot Compression		0.00		0.00	0		

Site Number: 207733
 Site Name: Spray Beach, NJ
 Customer: Verizon Wireless

Code: ANSI/TIA-222-H
 Engineering Number: OAA763960_C3_01

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Force/Stress Summary

Section: 11 1		Bot Elev (ft): 140.0				Height (ft): 20.000									
		Pu	Len	Bracing %			F'y	Phic Pn Num	Num	Shear Bear				Use	
		(kip)	(ft)	X	Y	Z	KL/R	(kip)	Bolts	Holes	phiRnv	phiRn	%	Controls	
		Load Case									(kip)	(kip)			
Max Compression Member															
LEG	PST - 2-1/2" DIA PIP	-2.53	9.85	100	100	100	124.9	50.0	24.69	0	0	0.00	0.00	10	Member X
HORIZ	SAE - 2.5X2.5X0.25	-0.69	7.000	100	100	100	171.1	36.0	11.64	1	1	8.84	13.92	7	Bolt Shear
DIAG	SAE - 2.5X2.5X0.25	-1.15	13.11	50	50	50	160.3	36.0	13.25	1	1	8.84	13.92	13	Bolt Shear
Max Tension Member															
		Pu	Fy	Fu	Phit Pn	Num	Num		Shear		Bear	Blk Shear		Use	
		(kip)	(ksi)	(ksi)	(kip)	Bolts	Holes		phiRnv		phiRn	phit Pn		%	
		Load Case							(kip)		(kip)	(kip)		Controls	
LEG	PST - 2-1/2" DIA PIP	2.77	50	65	76.68	0	0		0.00		0.00			3	Member
HORIZ	SAE - 2.5X2.5X0.25	0.59	36	58	34.24	1	1		8.84		8.27	11.69		7	Bolt Bear
DIAG	SAE - 2.5X2.5X0.25	0.99	36	58	34.24	1	1		8.84		8.27	11.69		12	Bolt Bear
Max Splice Forces															
		Pu		phiRnt	Use	Num									
		(kip)		(kip)	%	Bolts	Bolt Type								
		Load Case													
Top Tension		0.00		0.00	0	0									
Top Compression		0.25		0.00	0										
Bot Tension		2.42		81.36	3	4	5/8 A325								
Bot Compression		0.00		0.00	0										

Site Number: 207733
 Site Name: Spray Beach, NJ
 Customer: Verizon Wireless

Code: ANSI/TIA-222-H
 Engineering Number: OAA763960_C3_01

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Detailed Reactions

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	FX (kip)	FY (kip)	FZ (kip)	(-) = Uplift (+) = Down
1.2D + 1.0W Normal	14.43	00.00	0	1	0.00	217.54	-30.27	
	14.43	00.00	120	1a	9.55	-86.00	-11.49	
	14.43	00.00	240	1b	-9.55	-86.00	-11.49	
1.2D + 1.0W 60 deg	14.43	00.00	0	1	-4.99	110.15	-14.37	
	14.43	00.00	120	1a	-14.94	110.15	2.86	
	14.43	00.00	240	1b	-22.94	-174.76	-13.25	
1.2D + 1.0W 90 deg	14.43	00.00	0	1	-5.76	15.18	-0.62	
	14.43	00.00	120	1a	-23.11	182.36	9.88	
	14.43	00.00	240	1b	-21.58	-152.01	-9.26	
0.9D + 1.0W Normal	14.43	00.00	0	1	0.00	213.61	-30.07	
	14.43	00.00	120	1a	9.74	-89.73	-11.61	
	14.43	00.00	240	1b	-9.74	-89.73	-11.61	
0.9D + 1.0W 60 deg	14.43	00.00	0	1	-4.99	106.28	-14.15	
	14.43	00.00	120	1a	-14.75	106.28	2.76	
	14.43	00.00	240	1b	-23.14	-178.42	-13.36	
0.9D + 1.0W 90 deg	14.43	00.00	0	1	-5.76	11.38	-0.40	
	14.43	00.00	120	1a	-22.92	178.44	9.78	
	14.43	00.00	240	1b	-21.78	-155.68	-9.38	
1.2D + 1.0Di + 1.0Wi Normal	14.43	00.00	0	1	0.00	63.21	-5.05	
	14.43	00.00	120	1a	1.78	11.39	-2.08	
	14.43	00.00	240	1b	-1.78	11.39	-2.08	
1.2D + 1.0Di + 1.0Wi 60 deg	14.43	00.00	0	1	-0.88	45.38	-2.41	
	14.43	00.00	120	1a	-2.53	45.38	0.44	
	14.43	00.00	240	1b	-4.27	-4.77	-2.46	
1.2D + 1.0Di + 1.0Wi 90 deg	14.43	00.00	0	1	-1.02	28.66	0.04	
	14.43	00.00	120	1a	-3.93	57.85	1.68	
	14.43	00.00	240	1b	-3.99	-0.53	-1.72	
1.2D + 1.0Ev + 1.0Eh Normal M1	14.43	00.00	0	1	0.00	23.03	-1.89	
	14.43	00.00	120	1a	-0.41	10.99	0.08	
	14.43	00.00	240	1b	0.41	10.99	0.08	
1.2D + 1.0Ev + 1.0Eh 60 deg M1	14.43	00.00	0	1	-0.13	19.02	-1.39	
	14.43	00.00	120	1a	-1.27	19.02	0.58	
	14.43	00.00	240	1b	-0.09	6.97	-0.05	
1.2D + 1.0Ev + 1.0Eh 90 deg M1	14.43	00.00	0	1	-0.15	15.00	-0.90	
	14.43	00.00	120	1a	-1.56	21.96	0.81	
	14.43	00.00	240	1b	-0.01	8.05	0.08	
0.9D - 1.0Ev + 1.0Eh Normal M1	14.43	00.00	0	1	0.00	18.67	-1.63	
	14.43	00.00	120	1a	-0.19	6.64	-0.05	
	14.43	00.00	240	1b	0.19	6.64	-0.05	
0.9D - 1.0Ev + 1.0Eh 60 deg M1	14.43	00.00	0	1	-0.13	14.66	-1.14	
	14.43	00.00	120	1a	-1.05	14.66	0.45	
	14.43	00.00	240	1b	-0.31	2.63	-0.18	
0.9D - 1.0Ev + 1.0Eh 90 deg M1	14.43	00.00	0	1	-0.15	10.65	-0.64	
	14.43	00.00	120	1a	-1.34	17.60	0.68	

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	14.43	00.00	240	1b	-0.23	3.70	-0.05
1.0D + 1.0W Service Normal	14.43	00.00	0	1	0.00	58.00	-7.37
	14.43	00.00	120	1a	1.64	-10.03	-2.33
	14.43	00.00	240	1b	-1.64	-10.03	-2.33
1.0D + 1.0W Service 60 deg	14.43	00.00	0	1	-1.11	33.94	-3.82
	14.43	00.00	120	1a	-3.86	33.94	0.94
	14.43	00.00	240	1b	-4.71	-29.94	-2.72
1.0D + 1.0W Service 90 deg	14.43	00.00	0	1	-1.31	12.65	-0.72
	14.43	00.00	120	1a	-5.68	50.13	2.52
	14.43	00.00	240	1b	-4.41	-24.83	-1.80

Max Uplift:	178.42 (kip)	Moment Ice:	748.00 (kip-ft)	Moment:	4,381.26 (kip-ft)	1.2D + 1.0W Normal
Max Down:	217.54 (kip)	Total Down Ice:	85.99 (kip)	Total Down:	45.53 (kip)	
Max Shear:	30.27 (kip)	Total Shear Ice:	9.21 (kip)	Total Shear:	53.25 (kip)	

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Deflections and Rotations

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
127 mph Normal with No Ice	79.83	0.264	0.0241	0.5402	0.5402
127 mph Normal with No Ice	90.00	0.334	0.0197	0.3429	0.3434
127 mph Normal with No Ice	99.83	0.405	0.0292	0.6751	0.6751
127 mph Normal with No Ice	110.00	0.487	0.0222	0.3888	0.3894
127 mph Normal with No Ice	130.00	0.665	0.0259	0.4577	0.4584
127 mph Normal with No Ice	140.00	0.761	0.0352	0.7609	0.7609
127 mph Normal with No Ice	140.17	0.763	0.0348	0.7547	0.7547
127 mph 60 degree with No Ice	79.83	0.249	-0.0247	0.5052	0.5052
127 mph 60 degree with No Ice	90.00	0.314	-0.0194	0.3214	0.3220
127 mph 60 degree with No Ice	99.83	0.382	-0.0306	0.6298	0.6298
127 mph 60 degree with No Ice	110.00	0.458	-0.0224	0.3639	0.3646
127 mph 60 degree with No Ice	130.00	0.627	-0.0263	0.4296	0.4304
127 mph 60 degree with No Ice	140.00	0.716	-0.0366	0.7193	0.7193
127 mph 60 degree with No Ice	140.17	0.718	-0.0362	0.7129	0.7129
127 mph 90 degree with No Ice	79.83	0.253	-0.0278	0.4961	0.4964
127 mph 90 degree with No Ice	90.00	0.317	-0.0222	0.3410	0.3418
127 mph 90 degree with No Ice	99.83	0.388	-0.0340	0.6180	0.6183
127 mph 90 degree with No Ice	110.00	0.464	-0.0253	0.3880	0.3888
127 mph 90 degree with No Ice	130.00	0.635	-0.0296	0.4536	0.4546
127 mph 90 degree with No Ice	140.00	0.728	-0.0408	0.7062	0.7064
127 mph 90 degree with No Ice	140.17	0.730	-0.0404	0.6997	0.7000
127 mph Normal with No Ice (Reduced DL)	79.83	0.264	0.0241	0.5402	0.5402
127 mph Normal with No Ice (Reduced DL)	90.00	0.333	0.0197	0.3427	0.3432
127 mph Normal with No Ice (Reduced DL)	99.83	0.405	0.0291	0.6748	0.6748
127 mph Normal with No Ice (Reduced DL)	110.00	0.486	0.0222	0.3885	0.3892
127 mph Normal with No Ice (Reduced DL)	130.00	0.665	0.0258	0.4573	0.4581
127 mph Normal with No Ice (Reduced DL)	140.00	0.760	0.0351	0.7603	0.7603
127 mph Normal with No Ice (Reduced DL)	140.17	0.762	0.0348	0.7541	0.7541
127 mph 60 deg with No Ice (Reduced DL)	79.83	0.249	-0.0247	0.5041	0.5041
127 mph 60 deg with No Ice (Reduced DL)	90.00	0.314	-0.0194	0.3211	0.3217
127 mph 60 deg with No Ice (Reduced DL)	99.83	0.381	-0.0305	0.6286	0.6286
127 mph 60 deg with No Ice (Reduced DL)	110.00	0.458	-0.0223	0.3636	0.3642
127 mph 60 deg with No Ice (Reduced DL)	130.00	0.626	-0.0263	0.4291	0.4299
127 mph 60 deg with No Ice (Reduced DL)	140.00	0.716	-0.0365	0.7176	0.7176
127 mph 60 deg with No Ice (Reduced DL)	140.17	0.718	-0.0361	0.7113	0.7113
127 mph 90 deg with No Ice (Reduced DL)	79.83	0.253	-0.0277	0.4961	0.4963
127 mph 90 deg with No Ice (Reduced DL)	90.00	0.317	-0.0222	0.3408	0.3415
127 mph 90 deg with No Ice (Reduced DL)	99.83	0.388	-0.0339	0.6177	0.6180
127 mph 90 deg with No Ice (Reduced DL)	110.00	0.464	-0.0253	0.3877	0.3885
127 mph 90 deg with No Ice (Reduced DL)	130.00	0.635	-0.0296	0.4532	0.4542
127 mph 90 deg with No Ice (Reduced DL)	140.00	0.727	-0.0407	0.7046	0.7048
127 mph 90 deg with No Ice (Reduced DL)	140.17	0.729	-0.0403	0.6982	0.6985
40 mph Normal with 1.00 in Radial Ice	79.83	0.045	0.0042	0.0900	0.0900
40 mph Normal with 1.00 in Radial Ice	90.00	0.056	0.0033	0.0574	0.0575
40 mph Normal with 1.00 in Radial Ice	99.83	0.069	0.0051	0.1115	0.1115
40 mph Normal with 1.00 in Radial Ice	110.00	0.082	0.0037	0.0642	0.0643
40 mph Normal with 1.00 in Radial Ice	130.00	0.112	0.0044	0.0750	0.0751
40 mph Normal with 1.00 in Radial Ice	140.00	0.128	0.0059	0.1161	0.1163
40 mph Normal with 1.00 in Radial Ice	140.17	0.128	0.0058	0.1148	0.1149
40 mph 60 deg with 1.00 in Radial Ice	79.83	0.044	-0.0041	0.0899	0.0899
40 mph 60 deg with 1.00 in Radial Ice	90.00	0.056	-0.0032	0.0550	0.0551
40 mph 60 deg with 1.00 in Radial Ice	99.83	0.067	-0.0051	0.1095	0.1095
40 mph 60 deg with 1.00 in Radial Ice	110.00	0.081	-0.0037	0.0626	0.0627
40 mph 60 deg with 1.00 in Radial Ice	130.00	0.109	-0.0043	0.0748	0.0749
40 mph 60 deg with 1.00 in Radial Ice	140.00	0.124	-0.0058	0.1292	0.1292

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40 mph 60 deg with 1.00 in Radial Ice	140.17	0.124	-0.0057	0.1278	0.1278
40 mph 90 deg with 1.00 in Radial Ice	79.83	0.044	-0.0048	0.0870	0.0870
40 mph 90 deg with 1.00 in Radial Ice	90.00	0.056	-0.0037	0.0581	0.0582
40 mph 90 deg with 1.00 in Radial Ice	99.83	0.067	-0.0058	0.1058	0.1058
40 mph 90 deg with 1.00 in Radial Ice	110.00	0.081	-0.0042	0.0657	0.0659
40 mph 90 deg with 1.00 in Radial Ice	130.00	0.110	-0.0050	0.0770	0.0772
40 mph 90 deg with 1.00 in Radial Ice	140.00	0.125	-0.0067	0.1252	0.1253
40 mph 90 deg with 1.00 in Radial Ice	140.17	0.125	-0.0066	0.1238	0.1239
Seismic Normal M1	79.83	0.011	0.0011	0.0219	0.0220
Seismic Normal M1	90.00	0.014	0.0009	0.0144	0.0144
Seismic Normal M1	99.83	0.017	0.0014	0.0284	0.0285
Seismic Normal M1	110.00	0.021	0.0010	0.0164	0.0164
Seismic Normal M1	130.00	0.029	0.0012	0.0204	0.0204
Seismic Normal M1	140.00	0.033	0.0016	0.0351	0.0351
Seismic Normal M1	140.17	0.033	0.0016	0.0351	0.0351
Seismic 60 deg M1	79.83	0.011	-0.0011	0.0256	0.0256
Seismic 60 deg M1	90.00	0.014	-0.0009	0.0154	0.0155
Seismic 60 deg M1	99.83	0.017	-0.0014	0.0333	0.0333
Seismic 60 deg M1	110.00	0.021	0.0010	0.0177	0.0177
Seismic 60 deg M1	130.00	0.029	-0.0012	0.0211	0.0211
Seismic 60 deg M1	140.00	0.033	-0.0016	0.0356	0.0356
Seismic 60 deg M1	140.17	0.033	-0.0016	0.0351	0.0351
Seismic 90 deg M1	79.83	0.011	-0.0013	0.0245	0.0245
Seismic 90 deg M1	90.00	0.014	-0.0010	0.0155	0.0156
Seismic 90 deg M1	99.83	0.017	-0.0016	0.0319	0.0319
Seismic 90 deg M1	110.00	0.021	-0.0012	0.0178	0.0178
Seismic 90 deg M1	130.00	0.029	-0.0014	0.0216	0.0216
Seismic 90 deg M1	140.00	0.033	-0.0019	0.0341	0.0341
Seismic 90 deg M1	140.17	0.033	-0.0019	0.0336	0.0336
Seismic (Reduced DL) Normal M1	79.83	0.011	0.0011	0.0214	0.0214
Seismic (Reduced DL) Normal M1	90.00	0.014	0.0009	0.0145	0.0146
Seismic (Reduced DL) Normal M1	99.83	0.017	0.0014	0.0277	0.0277
Seismic (Reduced DL) Normal M1	110.00	0.021	0.0010	0.0165	0.0166
Seismic (Reduced DL) Normal M1	130.00	0.029	0.0012	0.0205	0.0205
Seismic (Reduced DL) Normal M1	140.00	0.033	0.0016	0.0351	0.0351
Seismic (Reduced DL) Normal M1	140.17	0.033	0.0016	0.0350	0.0350
Seismic (Reduced DL) 60 deg M1	79.83	0.011	-0.0011	0.0248	0.0248
Seismic (Reduced DL) 60 deg M1	90.00	0.014	-0.0009	0.0153	0.0153
Seismic (Reduced DL) 60 deg M1	99.83	0.017	-0.0014	0.0322	0.0322
Seismic (Reduced DL) 60 deg M1	110.00	0.021	0.0010	0.0174	0.0175
Seismic (Reduced DL) 60 deg M1	130.00	0.029	-0.0012	0.0210	0.0210
Seismic (Reduced DL) 60 deg M1	140.00	0.033	-0.0016	0.0355	0.0355
Seismic (Reduced DL) 60 deg M1	140.17	0.033	-0.0016	0.0350	0.0350
Seismic (Reduced DL) 90 deg M1	79.83	0.011	-0.0013	0.0237	0.0238
Seismic (Reduced DL) 90 deg M1	90.00	0.014	-0.0010	0.0155	0.0155
Seismic (Reduced DL) 90 deg M1	99.83	0.017	-0.0016	0.0308	0.0309
Seismic (Reduced DL) 90 deg M1	110.00	0.021	-0.0012	0.0177	0.0178
Seismic (Reduced DL) 90 deg M1	130.00	0.029	-0.0014	0.0215	0.0216
Seismic (Reduced DL) 90 deg M1	140.00	0.033	-0.0019	0.0340	0.0340
Seismic (Reduced DL) 90 deg M1	140.17	0.033	-0.0019	0.0335	0.0335
Serviceability - 60 mph Wind Normal	79.83	0.059	0.0056	0.1185	0.1185
Serviceability - 60 mph Wind Normal	90.00	0.075	0.0045	0.0761	0.0763
Serviceability - 60 mph Wind Normal	99.83	0.091	0.0068	0.1481	0.1481
Serviceability - 60 mph Wind Normal	110.00	0.109	0.0051	0.0863	0.0865
Serviceability - 60 mph Wind Normal	130.00	0.149	0.0059	0.1017	0.1019
Serviceability - 60 mph Wind Normal	140.00	0.170	0.0081	0.1677	0.1677
Serviceability - 60 mph Wind Normal	140.17	0.170	0.0081	0.1665	0.1665
Serviceability - 60 mph Wind 60 deg	79.83	0.056	-0.0053	0.1150	0.1150
Serviceability - 60 mph Wind 60 deg	90.00	0.070	-0.0042	0.0722	0.0723
Serviceability - 60 mph Wind 60 deg	99.83	0.085	-0.0065	0.1427	0.1427
Serviceability - 60 mph Wind 60 deg	110.00	0.102	-0.0048	0.0817	0.0818
Serviceability - 60 mph Wind 60 deg	130.00	0.140	-0.0056	0.0962	0.0964

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Serviceability - 60 mph Wind 60 deg	140.00	0.160	-0.0078	0.1614	0.1614
Serviceability - 60 mph Wind 60 deg	140.17	0.160	-0.0077	0.1597	0.1597
Serviceability - 60 mph Wind 90 deg	79.83	0.057	-0.0062	0.1119	0.1120
Serviceability - 60 mph Wind 90 deg	90.00	0.071	-0.0050	0.0762	0.0763
Serviceability - 60 mph Wind 90 deg	99.83	0.087	-0.0076	0.1384	0.1384
Serviceability - 60 mph Wind 90 deg	110.00	0.104	-0.0056	0.0866	0.0868
Serviceability - 60 mph Wind 90 deg	130.00	0.142	-0.0066	0.1012	0.1014
Serviceability - 60 mph Wind 90 deg	140.00	0.163	-0.0091	0.1584	0.1584
Serviceability - 60 mph Wind 90 deg	140.17	0.163	-0.0090	0.1567	0.1568

Maximum Reactions Summary

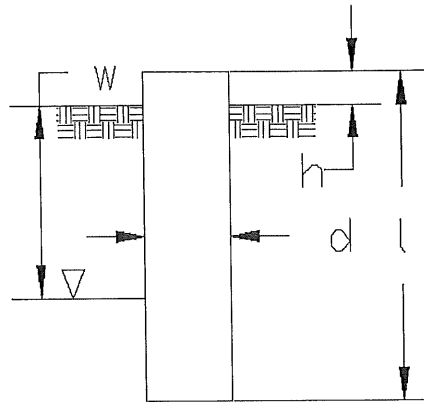
Anchor Group	Vertical (kip)				Horizontal (kip)		Moment (kip-ft)	
	DL+WL	DL+WL+IL	UpLift	Shear	DL+WL	DL+WL+IL	DL+WL	DL+WL+IL
Base	45.53	85.99	217.54	30.27	53.25	9.21	4381.26	748.00

Site Name: Spray Beach, NJ
 Site Number: 207733
 Tower Type: SST
 Design Base Loads (Factored) - Analysis per TIA-222-H Standards

Pier Foundation Analysis

Foundation Analysis Parameters

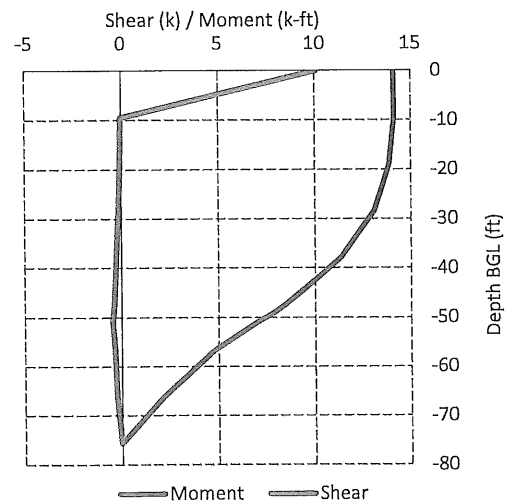
Analyze or Design a Foundation?	Analyze	-
Foundation Mapped:	Y	-
Moment (M):	0.0	k-ft
Shear/Leg (V):	10.1	k
Compression/Leg (P):	72.5	k
Uplift/Leg (U):	59.5	k
Diameter of Caisson (d):	0.667	ft
Caisson Embedment (L-h):	75.6	ft
Caisson Height Above Ground (h):	1.4	ft
Depth Below Ground Surface to Water Table (w):	6	ft
Unit Weight of Concrete:	150	pcf
Unit Weight of Water:	62.4	pcf
Tension/Compression Skin Friction Factor:	1	-
Pullout Angle:	30	°



Depth (ft)		γ_{Soil} (pcf)	C_u (psf)	ϕ (degree)	Ultimate Skin Friction (psf)	Ultimate Bearing Pressure (psf)
Top	Bottom					
0	2	105	0	0	0	0
2	8	105	0	29	135	0
8	13	105	200		220	0
13	23	105		28	235	0
23	43	105		29	385	0
43	53	120		33	930	0
53	63	105	750		805	0
63	76.6	110		31	1,040	20,780

Soil Strength Capacities

Required Embedment:	#N/A	ft
Volume of Concrete:	26.9	ft ³
Buoyant Weight of Concrete:	2.5	k
Average Soil Unit Weight:	50.4	pcf
Skin Friction Resistance:	88.9	k
Compressive Bearing Resistance:	7.3	k
Pullout Weight (Minus Concrete Weight):	7771.2	k
Nominal Uplift Capacity per Leg ($f_s T_n$):	66.7	k
Nominal Compressive Capacity per Leg ($f_s P_n$):	72.1	k
T_u :	57.21	k
$T_u/f_s T_n$:	86%	Pass
P_u :	73.9	k
$P_u/f_s P_n$:	102%	Pass
Total Lateral Resistance:	745.7	k
Inflection Point (Below Ground Surface):	50.9	ft
Moment At Inflection Point (M_b):	527.9	k-ft
Nominal Moment Capacity ($f_s M_n$):	8272.9	k-ft
f_s :	0.75	-
$M_b/f_s M_n$:	6%	Pass



Eligibility Checklist

Read the definition of when a modification "substantially changes" physical dimensions of a base station if it meets any of the following criteria:

Outside the right-of-way, does the modification / colocation involve a height increase greater than 20 feet from the top of the lower antenna to the bottom up the proposed upper antenna? (Exceeding zone district height limit is ok) (Example: Monopole, stealth structure, rooftop, etc.)

In, public right-of-way, does the modification / colocation increase the structure height by more than 10 feet or 10% whichever is greater? (Ex. traffic signal, utility pole, etc.)

Outside the right of way, does the modification / colocation proposed involve installing equipment that will protrude from edge of tower more than 20 feet?

In the public right-of-way, does the modification / colocation result in the base station equipment protruding from the edge of the structure more than 6 feet?

Regardless of the structure location, does the proposed modification / colocation involve the installation of more than 4 BTS cabinets? (Does not include tower mounted equipment like RRH's)

Regardless of the structure location, does the modification involve any excavation or deployment outside the current site of tower or base station? (Ex. compound expansion)

Regardless of the structure location, do the modifications "reasonably" defeat existing concealment elements of tower or base station? (Ex. An existing monopine can be modified, but must still reasonably look like a monopine to a member of the public)

Does the proposed modification violate the conditions of approval associated with prior zoning approval?

Does the proposed installation require a replacement of the structure?

If ALL boxes are checked "No", please discuss this project for 6409 eligibility with your market real estate and legal.

Other Factors:

- Shot Clock starts 60-days from formal written application that starts a process.
- SHPO driven MOU's supersede the need for an additional environmental assessment

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