



Northeast Site Solutions
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November 23, 2021

Members of the Siting Council
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Exempt Modification Application
107 Buck Road, Hebron, CT 06248
Latitude: 41.654444
Longitude: -72.410833
Site #: 876387_Crown_VZW

Dear Ms. Bachman:

Verizon Wireless is requesting to file an exempt modification for an existing tower located at 107 Buck Road, Hebron, CT 06248. Verizon Wireless currently maintains twelve (12) antennas at the 97-foot level of the existing 120-foot tower. The property is owned by Mapleleaf Farm Land Trust LLC, and the tower is owned by Crown Castle. Verizon now intends to replace six (6) antennas and add three (3) antennas. The new antennas would be installed at the 97-foot level of the tower. This modification includes B2, B5 hardware that is both 4G (LTE), and 5G capable.

Verizon Planned Modifications:

Remove:

(2) 1-5/8" Coax

Remove and Replace:

(3) LPA-70063-6CF Antennas (REMOVE) – (3) NHH-65B-R2B Antennas (REPLACE)
(3) SPXW-8515-T4 Antennas (REMOVE) – (3) NHH-65B-R2B Antennas (REPLACE)

Install New:

(3) MT6407-77A Antennas
(3) Samsung RF440D-13A
(3) Samsung RF4439D-25A
(1) Hybrid Line
(1) Raycap RVDC-6627-PF-48

Existing to Remain:

(6) ANTEL Antennas
(6) Diplexers
(10) 1-5/8" Coax

The facility was approved by the Hebron Planning & Zoning Commission on February 8, 2000. Please see attached.



Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 16- SOj-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-SOj-73, a copy of this letter is being sent to Daniel Larson, Chairman of the Board of Selectmen, Andrew Tierney, Town Manager and Pat Gallagher, Town Planner for the Town of Hebron. A copy is also being sent to the tower owner and property owner.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading.

For the foregoing reasons, Verizon Wireless respectfully submits that the proposed modifications to the above referenced telecommunications facility constitute an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

Denise Sabo
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Fax: 413-521-0558
Office: 4 Angela's Way, Burlington CT 06013
E-mail: denise@northeastsitesolutions.com



NSS **NORTHEAST**
SITE SOLUTIONS
Turnkey Wireless Development

Attachments

Cc: Daniel Larson, Chairman - Board of Selectmen
Town of Hebron
15 Gilead Street
Hebron, CT 06248

Andrew Tierney, Town Manager
Town of Hebron
15 Gilead Street
Hebron, CT 06248

Pat Gallagher, Town Planner
Town of Hebron
15 Gilead Street
Hebron, CT 06248

Mapleleaf Farm Land Trust LLC
768 Gilead Street
Hebron, CT 06248

Crown Castle, Tower Owner

Exhibit A

Original Facility Approval



TOWN OF HEBRON

15 Gilead Street, Hebron, CT 06248

TEL (860) 228-5971 FAX (860) 228-5980

Planning/Zoning

Building

Health

Conservation

February 10, 2000

CERTIFIED MAIL

Spring PCS
9 Barnes Industrial Road
Wallingford, CT 06492

**RE: Petition 99-11, Application by Sprint PCS for Telecommunications Facility
on Buck Road, R-1 District**

Dear Sprint PCS:

Please be advised that at the February 8, 2000 meeting of the Planning and Zoning Commission, the Commission took the following action on the above-referenced application:

Approved with the following conditions:

1. The overall height of the tower shall not exceed 100 (one hundred) feet.
2. The tower shall be modified to be of such design and treated with an architectural material so that it is camouflaged to resemble a woody tree with a single trunk and branches on its upper part, in a manner acceptable to the Commission, unless waived by the Commission.
3. The tower shall be permitted to accommodate a single PCS provider, as shown on the plans, plus a GPS antenna. Any other antenna, including a potential co-locator shall require a Special Permit Application to the Commission.
4. The chain link fence surrounding the leased area shall be a green colored vinyl clad mesh material.
5. Evergreen plantings, a minimum of 6 (six) feet in height, shall be planted in double staggered rows along the south, east, and north sides of the fenced area, shown on a plan acceptable to the Commission.
6. This facility shall comply, at all times, with the standards promulgated by the FCC for non-ionizing electromagnetic emissions, as amended. After the facility is operational, the applicant shall submit, within 90 (ninety) days of beginning operations from this site, and annually thereafter, existing and maximum future projected measurements of non-ionizing electromagnetic emissions as well as the Federal standard established for such emissions.
7. Any change from the battery powered emergency generator system, as proposed, shall require application to, and approval from the Commission.
8. The property owner and owner(s) of the facility shall execute a statement, to be recorded in the land records of the Town of Hebron, agreeing to the requirements of Subsection 8.23.10.
9. The plans shall incorporate the items contained in the report of the Town Engineer.
10. As specified by the applicant, no lighting shall be mounted on the tower, and any lights within the leased area shall be shielded from glare off the property.
11. A Disposal Plan is needed as to how to dismantle the tower, either due to Section 8.23.10, or due to a decision to discontinue use of the tower by Sprint.

CERTIFIED MAIL

2-10-00

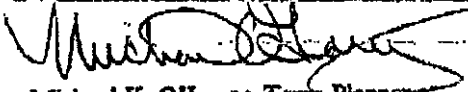
Sprint PCS

RE: Petition 99-11, Application by Sprint PCS for Telecommunications Facility (cont.)

Please have the plans revised to include the above conditions and forward one set of mylars and four blue-line sets of plans for signature by the Commission. Also, a Special Permit Certification must be filed in the Town Clerk's Office before the approval is effective. We will prepare the Certificate for you. A filing fee will be needed before filing with the Town Clerk.

If you have any questions, please call me.

Very truly yours,



Michael K. O'Leary, Town Planner
for the Planning and Zoning Commission

MKO/1

cc: Petition File #99-11
Thomas J. Regan, Esq., Brown, Rudnick, Freed, & Gesmer, PC
Edward A. and Renee J. Ellis

TOWN OF HEBRON, CONNECTICUT
PLANNING AND ZONING COMMISSION

IN RE: 99-11

APPLICATION OF SPRINT PCS
FOR SPECIAL PERMIT TO CONSTRUCT
A TELECOMMUNICATIONS TOWER
ON A 131 ACRE PARCEL OF LAND ON
BUCK ROAD IN THE TOWN OF HEBRON,
CONNECTICUT.

FINDINGS OF FACT

At its regular meeting on February 8, 2000, pursuant to statutory notice, the Town of Hebron Planning and Zoning Commission considered the above-captioned application and acted upon same. At that time the Commission adopted the following findings in support of their action:

1. Sprint Spectrum, LP, d/b/a Sprint PCS (hereinafter "Sprint" or "Applicant"), is a telecommunications company created to provide wireless communication services known as Personal Communications Service ("PCS"). Sprint is duly authorized to construct, operate and manage a wireless personal communication system using the FCC radio license of its sister company, Wireless Co. LP. Under that agreement, Sprint is authorized to make this application on behalf of Wireless Co. LP.
2. Sprint is, specifically, a provider of PCS service. PCS is digital a digital technology. Although similar to analog cellular service, digital service works on a higher frequency and at a lower power than analog service. While this gives PCS a higher quality, the geographic area covered by a digital facility is smaller than that covered by an analog facility. The result is that a digital network requires more antennae.
3. A PCS network is a grid made up of a continuous series of overlapping cells. A cell is the geographic area serviced by any single antenna facility. The size of any given cell is determined by topography and vegetation. PCS antennae must be located above the height of surrounding trees or structures to be effective. When a PCS user moves from one cell to another the call is automatically transferred to the next cell without interruption. In order for this to work there must be some overlap of cells.
4. Sprint is not provider of analog service. As such, if a Sprint user reaches gap in digital service, the call will not automatically switch to analog service. Once a gap is reached the Sprint user's PCS call will be dropped, regardless of the availability of analog coverage in the area.
5. Sprint maintains that it is charged with the responsibility of providing wireless telephone service throughout Connecticut including the area in and around the Town of Hebron. Sprint further maintains that it has a mandate to provide "seamless" service coverage throughout Connecticut.

6. The cell which Sprint seeks to cover comprises a significant portion of central/eastern Hebron, along with parts of the westerly portion of Marlborough. Within the cell is that portion of Rt. 66 running east from the Rt. 85 intersection, and that portion of Rt. 85 running north of the intersection with Rt. 66

7. Sprint maintains that there is a gap in PCS coverage along Routes 66 and 85, and in the immediate surrounding areas of Hebron

8. With its application Sprint provided a computer-generated map showing gaps in coverage within Hebron and the surrounding area and bearing the description "Holes visible on portions of Rt. 66 & 85." The representation was based on computer modeling and reflected what coverage would be based on surrounding sites, but without the planned Buck Road facility.

9. As to the coverage gaps within the Town of Hebron, the computer-generated map showed a gap in coverage along Rt. 66 from just west of the Marlborough town line to just east of the intersection with Jennifer Drive. The claimed gap extends south of Rt. 66 to the western half of Hope Valley Road, and north of the highway into Gilead. The map also showed gaps along Rt. 85, one near the intersection with Prentice Hill Road, and two others between Martin Road and the intersection with East Street.

10. Virtually the entire gap identified by Sprint falls within residential zoned districts, R-1 north of Rt. 66 and primarily R-2 south of Rt. 66.

11. Virtually all the coverage gaps identified by Sprint within the Town of Hebron encompass substantial portions of the Town's designated inland wetlands and watercourses

12. The Applicant has complied with basic site plan content requirements of Section 8.23.6 in that either with its application or in the course of the hearings it submitted the following documentation:

- (1) A plan showing where/how proposed antenna would be affixed to the tower.
- (2) Details of proposed antenna including size and color.
- (3) Elevations and details of proposed shielding.
- (4) Elevations of proposed equipment boxes/buildings and details of landscaping/lighting.
- (5) Description of tower co-location capacity, number and type of antennas, positions for co-locators and collapsing design.
- (6) Statement that performance standards in Regulation 5.6.3 shall be complied with and site will not interfere with public safety communications.
- (7) An analysis of fall zone prepared by licensed engineer
- (8) Proof of FFC license.
- (9) Maps depicting (a) planned town coverage; (b) future planned sites/towers in Hebron; (c) service area of proposed site; (d) search radius of proposed site (e) all existing, approved and planned towers and structures over 40' in planned area.
- (10) Simulation of site to ascertain visual impacts.
- (11) Certified letters to similar providers seeking co-location opportunities.

13. The Buck Road site selected by Sprint is situated on the westerly one-third of the gap identified by Sprint in its application.

14. The neighborhood consists of predominantly open and forested, presently vacant, residentially zoned land, with residential development currently averaging two acres or more per household. The area is situated in an R-1 zone. The topography consists of rolling hills ranging from 350 feet to 685 feet above mean sea level. There are 28 property owners located within 200 feet of the Ellis property on which the proposed tower would be built. The areas residences are single-family homes.

15. The Ellis property on which the proposed tower would be located is a 131-acre parcel consisting of mostly wooded land, with some open space dedicated to farming/pasturing.

16. Within the property, the site selected for the tower would be 683 feet from Buck Road. The proposed location would put the tower roughly 450 feet from the three-lot Buck Road Subdivision and roughly 750 feet from the only existing residence pictured on Applicant's plans.

17. The facility proposed by Sprint for the Ellis property would consist of ~~an access drive off~~ of Buck Road, a 100-foot square equipment compound, and a 150-foot-tall "monopole" tower with antennae mounted upon it.

18. The monopole would be constructed of galvanized steel. It would have an antenna platform located at the top. The platform would consist of three sectors forming a horizontally situated triangle. On each of the three sectors there would be mounted up to three panel antennae, for a total of up to nine antennae per platform. Each individual antenna would be five feet high, six inches wide, and two inches thick. The antenna panels would be off-white in color. With additional potential co-locators, successive arrays of antennae/platform would be added at 10-foot increments along the pole.

19. Section 8.23.7 of Hebron's zoning regulations dictates minimum lot area and setback requirements for proposed telecommunications facilities. These are intended to achieve a minimum level of desired safety in the event of a structural failure and to achieve a sense of land use compatibility between diverse uses. Specifically, the regulations provide that a tower shall be located on a lot of two acres or more. The proposed facility on Buck Road complies with this requirement.

20. Section 8.23.7 of the regulations also dictates that all towers shall be setback from property lines the greater of 100 feet or the distance equal to one and one-half (1 1/2) times the tower height. This requirement includes all equipment/buildings related to the tower. Based on our review of the site plans we conclude that the proposed tower complies with the requirements of Section 8.23.7.3.

21. In addition, the Town's regulations require compliance with a number of general requirements contained within Section 8.23.8. With regard to those requirements we find the following:

- (1) The tower is not within 500' of any facilities identified in Section 8.

- (2) The proposed tower is not closer than three (3) times the tower height to any residence
- (3) The proposed tower, although over 75 feet, is not within 1000' of historic district.
- (4) The Applicant has produced evidence that the tower as planned would not require lighting in order to comply with FCC regulations.
- (5) The tower as planned would be galvanized and would weather to neutral gray.
- (6) The proposed tower is not located in town open space.
- (7) The proposed tower will be a monopole and will be designed to collapse upon itself.
- (8) Although the Applicant did not present any specific plan for camouflage of the proposed tower it did indicate a willingness to provide such camouflage if requested by the Commission.
- (9) The proposed tower at 150 feet will accommodate two additional users.
- (10) The site will be served by driveway and will have sufficient parking.
- (11) Not applicable.
- (12-13) The proposed facility will not include a dish antenna.
- (14) The site as designed will not interfere with public safety communications.
- (15) The site is not in Flood Hazard Plan.
- (16) Applicant has produced evidence that the design of the facility is such that it will comply with FCC standards for non-ionizing electromagnetic emissions
- (17) As designed all utilities leading to the tower will be underground. The compound will be surrounded by a 6-foot-high fence with locked gate and will be landscaped.
- (18) As proposed the facility will not include a generator and that no fuel will be stored.
- (19) Applicant has stated that Sprint personnel will visit the site at least monthly for maintenance and Sprint will be responsible for upkeep of the site.

22. The Commission is satisfied that there are no existing or approved towers, structures or buildings which would provide potential co-location opportunities.

23. Applicant has produced evidence to support the fact that once in operation the proposed tower facility would meet the following standards:

- a) The use will be carried on in such a manner and with such precautions against fire and explosion hazards as to produce no serious exposure hazard to adjacent property, and the storage of all flammable or explosive materials shall be in a manner approved by the Fire Marshall of the town of Hebron.
- b) The use will emit no offensive odors perceptible from any property line of the lot on which the operation is located, and shall emit no obnoxious, toxic or corrosive fumes or gases.
- c) The use will not exhaust, or waste into the air, dust created by any industrial operation in excess of one cubic centimeter of settled matter per cubic meter of air, or produce heat or glare perceptible from any property line of the lot on which the operation is located for a period exceeding three continuous minutes.
- d) Industrial and exterior lighting will not produce glare on public highways or neighboring property, or conflict with any traffic signals.

e) Smoke or other air contaminant will not be discharged into the atmosphere from any single source of emission for a period or periods aggregating more than three minutes in any one hour, which is as dark or darker in shade than as designated on No. 2 on the Ringelman Chart, as published by the United States Bureau of Mines, or which has of such opacity as to obscure an observers' view to a degree equal to or greater than does smoke designated as No. 2 on the Ringelman Chart.

f) The use will be operated in conformance with the following performance standards governing noise, and no sound pressure level shall exceed the decibel levels in the designated octave bands shown in Section 5.6.3 of the Hebron Zoning Regulations, with sound measurements being made in accordance with that section.

24. The site chosen for the proposed tower is in a residential zone, specifically, an R-1 district. Given that the proposed tower is over 75 feet tall the proposed site for this telecommunications facility is clearly the least favored location as defined by the town's zoning regulations.

~~25. However, the gap in coverage that Sprint seeks to fill falls entirely within residential districts of this town.~~

26. Based on the evidence presented and our own review of the topography and vegetation in the area, we are satisfied that in order to provide any reasonable degree of coverage along the Rt. 66 corridor the Sprint must locate its antenna facility within a residential area.

27. In the abstract, the Ellis parcel on Buck Road, given its size, its present use, the fact that it is about ¼ wooded and is largely vacant, and given its proximity to Rt. 66 we find that the 131-acre parcel in question is a reasonable location for a telecommunications facility, given the restrictions placed upon us by the Federal Telecommunications Act of 1996.

28. The average tree height in the area of the proposed site is approximately 75 feet.

29. As for the specific location of the proposed tower and compound within the 131-acre parcel, the neighbors have expressed great concern about the location of the tower in such proximity to their residences.

30. The proposed site is on a large parcel of land (131 acres) that could contain the site further from established residences. The proposed tower is approximately 750' to the closest residence. The Commission asked the applicant if the tower could be moved into the open field (and perhaps camouflaged) further from the established residences. The applicant responded that the tower could be moved slightly in one direction or the other but essentially had to stay very close to the proposed site or coverage would be lost on Rt. 66.

31. Evidence as to the applicant's statement that moving the site into the open field would not work was not provided by the applicant. A 100' propagation map was asked of the applicant for the site in the open field. The applicant responded with the need to fill the cell with a 150' tower and further studies are not necessary.

32. Indeed, the chosen site is much closer to both the public road and to the neighbors than would be necessary simply based on the size of the parcel. In assessing the appropriateness of this specific location there are several factors to consider under our Regulations.

33. We find that given the setbacks and distances from surrounding residences, even at 150-feet the proposed tower, as located, would not pose a risk to the health and safety of the local residents in the event of a structural failure. Moreover, given that the Applicant will not be storing hazardous materials at the site, we find that the equipment in the compound would not present a hazard to neighbors.

34. While the Commission recognizes and understands the concerns of the neighbors about the possible effects of radio frequency radiation, this Commission cannot consider such concerns so long as the facility, as planned, is in compliance with FCC guidelines. We find that the applicant has submitted sufficient documentation to satisfy us that the proposed facility will be well within FCC guidelines.

35. During the public hearing the applicant submitted data from other towns to support their contention that there would be no negative impact on the value of surrounding property in this case. Members of the public opposed to the tower also submitted material suggesting that towers do tend to decrease property values. No evidence was submitted by anyone, however, regarding the value of the properties surrounding this particular site and no direct opinion evidence was submitted as to any potential impact of a tower at this site on neighboring property values.

36. While there are questions about the methodology of the studies provided by the applicant, and questions about the applicability of those studies to this neighborhood in Hebron, the commission concludes for the purpose of this application that there is no credible evidence that the placement of a PROPERLY CAMOUFLAGED telecommunications tower at this site on Buck road would seriously harm the surrounding property values.

37. The commission finds that the proposed tower facility would have an impact on the "appearance and beauty" of the community.

38. However, any tower significantly higher than the tree height would be visible from the surrounding neighborhood.

39. In order to achieve coverage on Rt. 66 it will be necessary to place a tower in such a position that it will rise above the tree height.

40. Based on the evidence presented in the hearings we find that, assuming proper camouflage of a nature acceptable to the Commission, the location of a telecommunications tower of some height at the proposed location would be appropriate, in light of the restrictions place upon us by Federal Telecommunications Act.

41. Hebron's zoning regulations provide "The maximum height of a tower proposed under this regulation shall be 150 feet including the antenna and all other appurtenances and shall not exceed the minimum height necessary to carry out the function of the facility

42. Sprint's radio frequency engineer, Alessandro Ponce, stated that Sprint's main concern was covering Rt. 66 and Rt. 85. He said that most of the cellular traffic comes from people driving on the roads and that Route 66 and Route 85 provide a lot of traffic. In short, Sprints main objective in placing a tower at the Buck Road site is to "cover the main thoroughfares through Town."

43. Sprint does not believe that the cell will be filled at a lower height than 150 feet. To illustrate this point, Mr. Ponce presented at the October 12, 1999 hearing a propagation study showing what the coverage would be if the Buck Road tower were limited to 120-feet. This study was prepared by Sprint not in response to any request by the Commission but because it was aware of subsequent changes in the town's zoning regulations capping tower height at 120 feet. Those revisions in the regulations, however, are inapplicable to this application.

44. At the October 12, 1999 hearing a Commission member specifically questioned whether the amount of coverage shown at 150 feet and the amount shown at 120 feet was significantly different, questioning the value of the higher tower. Sprint's response to this was that it had only generated the 120-foot study because "we know the Town's preference for a tower at that height." The Applicant's spokesman went on to say:

"... to be honest with you, it probably hurts more than helps showing you that because when you look at a blob of green and a blob of blue, I agree with you. It doesn't look significantly different, but I guess from our perspective, the important point for you to hear is that the tower at 120 feet, in our opinion, doesn't fulfill the coverage need."

45. At the November 9, 1999 hearing Sprint provided each Commission member a packet of propagation studies for the Buck Road site, each reflecting the coverage achieved by a different height tower. The packet was supposed to have included a map again showing the limitations of a 120-foot tower at the proposed site, but for some reason this 120-foot propagation study was not included in the packet of propagation studies provided to the individual commissioners at that hearing. A copy was provided to the Commission staff and the Commission members had an opportunity to review this in detail at a subsequent meeting.

46. The 120-foot study submitted on November 9, 1999 had been prepared on November 4, 1999. This study actually showed worse coverage than had been reflected by the 120-foot study presented at the first hearing, i.e. the one conducted sua sponte by Sprint on October 12, 1999. Specifically, the November 4, 1999 study demonstrated a larger gap in coverage along Rt. 66 west of the Marlborough town line, and it also showed a *new* gap on Rt. 66 in the area of Stone House Lane.

47. On careful comparison of the two studies it is clear that the location of the hypothetical 120-foot tower on the second study was at a different longitude and latitude that had been reflected on the first study.

48. With its application Sprint submitted a propagation study map dated July 19, 1999 purporting to show the coverage that would be achieved by the proposed 150 foot tower (560-02) that map being further identified as "Holes covered on portions of Rt. 66 & 85."

49. That July 19, 1999 propagation study showed that a 150-foot tower would achieve a substantial increase in coverage in the sparsely populated areas north and south of Rt. 66. It also showed that such a tower would eliminate the significant gap along Rt. 66 between the Marlborough town line and Jennifer Drive. However, the study showed that the proposed tower would not close the gap on Rt. 66 west of the town center. Further, the study also showed that the gaps on Rt. 85, while modestly reduced by the 150-foot Buck Road tower, would not be eliminated.

50. Even Sprint's own expert admitted that the 150-foot tower as proposed would still leave gaps along Route 66. Any gap, no matter how small, will cause the traveling caller to drop his call.

51. At the time of the October 12, 1999 hearing a Commission member raised questions about the fact that the 150 foot tower would not be able to achieve the seamless coverage that Sprint was putting forth as justification for the tower. At that time the available propagation study for 150 feet was the one prepared on July 19, 1999 and included in the application materials.

52. The propagation study prepared on November 4, 1999, and entered into the record at the December 7, 1999 hearing, showed greater coverage with a 150-foot tower than had been reflected in the July 1999 study submitted with the application. Specifically, the November version eliminated the gap on Rt. 66 west of the town line completely, eliminated the northernmost gap on Rt. 85 (near Prentice Road), and eliminated a small gap on Rt. 85 near Hills Farm.

53. To help evaluate the technical data the Commission retained the services of a consultant, CompComm, a telecommunications-engineering firm from New Jersey. John W. Sieber, PE, an engineer with CompComm, reviewed the materials provided by the applicant prior to the first public hearing. Among other things, CompComm's initial evaluation highlighted the need to request propagation studies from Sprint showing potential coverage at heights less than 150 feet, including 125 feet, 100 feet and 80 feet.

54. After reviewing the additional submissions of Sprint, Mr. Sieber opined that when existing coverage is factored in the proposed 150-tower "covers very little new area" than would be covered by a 120-foot tower. CompComm found no significant difference in coverage within Hebron with a 120-foot tower than with a 150-foot tower.

55. Based on our own review of the propagation studies, the Commission is convinced that a tower of 150 feet at the proposed site would provide no greater coverage on Rt. 66 than would a tower of 120 feet at that same location. The only effect that the placement of a 120-foot tower at the site rather than a 150-foot tower would have on Rt. 85 would be to slightly increase the size of one of the gaps that would exist even with the 150-foot tower.

56. The applicant stated that three candidate sites were evaluated for this tower application. The applicant stated that the other sites were north and south of the selected site on Buck Road. Applicant stated that it chose the Ellis site because it was a large parcel. Applicant did not provide propagation maps for the two sites not selected.

57. On their own initiative, the applicant did not provide the Commission with any alternatives to the proposed site at Buck Road. Only one propagation map with a lower height on the proposed site was provided.

58. From the very first hearing the commission made it clear that it wanted to explore the possibility of obtaining coverage in town through the use of smaller, more numerous towers. On several occasions, including the October 12, 1999 and November 9, 1999 hearings, the Commission asked that Applicant provide propagation maps for two specifically-named alternative sites (Lions' Park and Main Street Firehouse), as well as other potential sites which in combination might provide similar coverage with multiple, shorter towers.

59. Throughout the course of the hearings sprint demonstrated an unwillingness to consider alternative sites involving varying heights of towers at two or more locations on the same site.

60. The applicant ultimately provided the commission with a few maps, namely existing coverage with other proposed towers; coverage from the proposed site with 150', 120' and 100' towers; coverage from the Main St. Firehouse (150') and Lions' Park (150'). When the Commission finally received maps of combined multiple sites, the applicant used only the two alternative sites specifically referenced by the Commission (Lions Park and fire station) and simply used 80' at all three sites.

61. The Commission did not receive propagation maps as requested for multiple sites with varying combinations of heights to determine if alternatives were feasible, nor were any other alternative combination of sites provided by the applicant. In other words, propagation maps requested to determine the applicant's compliance with Section 8.23.8.20 of the regulations were not provided.

62. In response to a request for alternative site propagation studies made at the November 9, 1999, sprint stated that "at some point when you start requiring us to put multiple towers on a site, it becomes economically prohibitive for us to fill the cell." No cost data was ever submitted as evidence to back up this claim of "economic prohibitiveness".

63. When pressed on the issue of the economic factors Sprint responded, "I think at this point, our position is we're prepared to put one tower in this cell."

64. Sprint's representative also stated: "(W)e have submitted to you what we feel we're capable of putting in this area to fill this cell. If the Commission feels that we've not proven the necessity of the tower, then they have the ability to deny the application and we have the ability to pursue whatever remedies are available to us."

65. Accurate propagation maps are critical to determine compliance with the regulations.

66. The map of coverage dated November 4, 1999 produced by applicant to show the extent of coverage from the proposed site with only a 100-foot tower, actually shows results that are virtually identical as those produced by applicant on the same date but designed to reflect coverage from the site with a 120-foot tower. Comparing the 100-foot study and the 120-foot study, it is clear that coverage in the vicinity of Rt. 66 and Rt. 85 is virtually unchanged and coverage in the outlying areas is also quite similar.

67. On 11/9/99 the applicant's representative stated that a 150-foot tower would provide 27.2 sq. mi. of coverage, a 120-foot tower would provide only 9 sq. mi. coverage, and a 100-foot tower would provide a meager 3.5 sq. miles of coverage. Based on our review of the propagation studies we find that this assertion is simply not credible.

68. CompComm analyzed a number of alternative antenna arrangements. CompComm identified two locations, which in combination would allow Sprint to provide the requisite coverage on both Rt. 66 and Rt. 85 with lower towers than that proposed for the Buck Road site.

69. CompComm, in its report dated 12/3/99, stated that coverage similar to what Sprint seeks at 150 feet can likely be achieved with multiple, lower towers and the studies provided by Sprint do not demonstrate the necessity of a 150' tower. The report states, "*The propagation studies submitted by Sprint do not demonstrate the need for the taller structure.*"

70. The CompComm report went on to also make note of the questionable assertion about the amount of decreased coverage that would result for a shorter tower. Specifically, CompComm stated, "*These studies show a major decrease in coverage area when the antenna height is decreased by only 30 feet - from 150' to 120', which is still well above the tree line and most of the surrounding terrain. This difference should not cause a coverage difference this extreme.*"

71. The CompComm report went on to state, "*The studies show that coverage on Route 66 and Route 85 in Hebron are similar with the proposed antenna at 150 feet and 120 feet... When the antenna is lowered to 100 feet, the signal along Route 66 is similar and the signal along Route 85 decreases further. From the simulations, CompComm recommends a maximum height of 120 feet at this location to reduce visual impact.*"

72. CompComm undertook an independent analysis of alternative sites in town. Based on their review, CompComm stated, "*Our conclusion is that coverage of the areas of concern could likely be achieved through a combination of smaller towers on certain alternative sites.*" "*The best single site alternative is Site V on the map.*" (a site southeast of the proposed site, south of Route 66 and west of Route 85). *Another approach would be to allow two sites to provide the same coverage. The best combination of sites in this case is Site III and Site VII. These would provide the required coverage to both Route 66 and Route 85 with lower towers than the single site solution demonstrated in the application.*"

73. Putting aside momentarily the question of coverage on Rt. 66 and Rt. 85, most of the additional coverage gained by building a 150-foot tower over a 120-foot tower would be in largely uninhabited, sparsely populated and heavily wooded portions of town, most of which fall within wetlands.

74. Sprint conducted a Visual Resource Evaluation study within a two-mile radius of the site. The evaluation was conducted three separate times, September 24, October 2, and October 30, 1999. Between the first and last study deciduous trees had lost some but not all foliage cover. Because not all foliage had dropped by October 30, 1999 visual impact may be greater than estimated, or in places not anticipated, since Sprint could not predictively "remove" leaves in its predictive model."

75. Likewise, Visual Resource Evaluation may be slightly skewed since conflicting testimony was given as to the intensity of the wind. The wind may have lowered the balloon so it did not fly at 150 feet. Therefore, visual simulations may be lower than actual 150 feet.

76. Based on the evidence presented at the hearings, and the statements and testimony of the applicant's representatives, along with a detailed review of the propagation studies and the supporting opinions of the expert retained by the Commission, we find:

a. That the proposed facility is not within a historic district and the provisions of Section 8.23.9.1 are inapplicable.

~~b. That, while the site chosen by the Applicant is not an inappropriate site for some type of telecommunications tower facility, the Applicant has failed to show that it has made diligent efforts to minimize the proximity of the facility to, and its visibility from, residential properties.~~

c. That the proposed location is not a preference 1 through 2 location, but that the applicant has adequately described the efforts and measure taken to pursue those preferences and why a higher preference location was not technologically, legally or economically feasible.

d. That the applicant has failed to demonstrate to the Commission's satisfaction, the necessity of the height of the proposed telecommunications tower.

e. That the proposed tower of 150 feet exceeds the minimum height necessary to carry out the function of the facility.

f. That the function of the facility, and the coverage goals stated by the applicant, could be carried out and satisfied at the proposed location with a 100 foot tower, and that 100 feet is the minimum antenna height needed to carry out the function of the facility.

g. That the nature of the area and neighborhood is such that any tower at the proposed site, if higher than the tree canopy, could be camouflaged and that camouflage is reasonable and necessary to protect the well being and property values of the neighborhood.

h. That the applicant has failed to provide an abandonment plan.

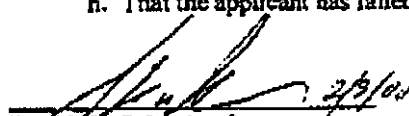

David W. Schoolcraft
Chairman, Hebron Planning and
Zoning Commission

Exhibit B

Property Card

The Assessor's office is responsible for the maintenance of records on the ownership of properties. Assessments are computed at 70% of the estimated market value of real property at the time of the last revaluation which was 2016.



Information on the Property Records for the Municipality of Hebron was last updated on 4/12/2021.

Parcel Information

Location:	107 BUCK RD	Property Use:	Vacant Land	Primary Use:	Commercial Vacant Land
Unique ID:	4018	Map Block Lot:	42-3X.A	Acres:	1.04
490 Acres:	0.00	Zone:	R-1	Volume / Page:	0568/0605
Developers Map / Lot:		Census:	5261		

Value Information

	Appraised Value	Assessed Value
Land	165,000	115,500
Buildings	0	0
Detached Outbuildings	0	0
Total	165,000	115,500

Owner's Information

Owner's Data

MAPLELEAF FARM LAND TRUST LLC
(CT33XC560)
C/O GLOBAL SIGNAL ACQ II
PMB 331 4017 WASHINGTON RD
MCMURRAY PA 15317

Detached Outbuildings

Type:	Year Built:	Length:	Width:	Area:
Cell Tower	2000	0.00	0.00	1

Owner History - Sales

Owner Name	Volume	Page	Sale Date	Deed Type	Valid Sale	Sale Price
MAPLELEAF FARM LAND TRUST LLC	0568	0605	05/18/2020		No	\$0
ELLIS EDWARD A & RENEE	0435	0526	04/29/2008		No	\$0
ELLIS EDWARD A&RENEE(CT33XC560	0134	0493	09/29/1988		No	\$0

Building Permits

Permit Number	Permit Type	Date Opened	Date Closed	Permit Status	Reason
27235	Comm Renovations	09/18/2018		Closed	SPRINT TO REPLACE 6 ANTENNAS W/ 9 REMOTE RADIO HEADS
14-188B	Other	01/27/2014		Closed	
2012-21150	Mechanical	01/16/2013		Closed	
2011-20817	Mechanical	12/13/2011		Closed	CHANGE 12 ANTENNAS
11528B	Outbuilding/Yard Item	06/28/2004		Closed	

Permit Number	Permit Type	Date Opened	Date Closed	Permit Status	Reason
11780	Mechanical	08/07/2002		Closed	

Information Published With Permission From The Assessor

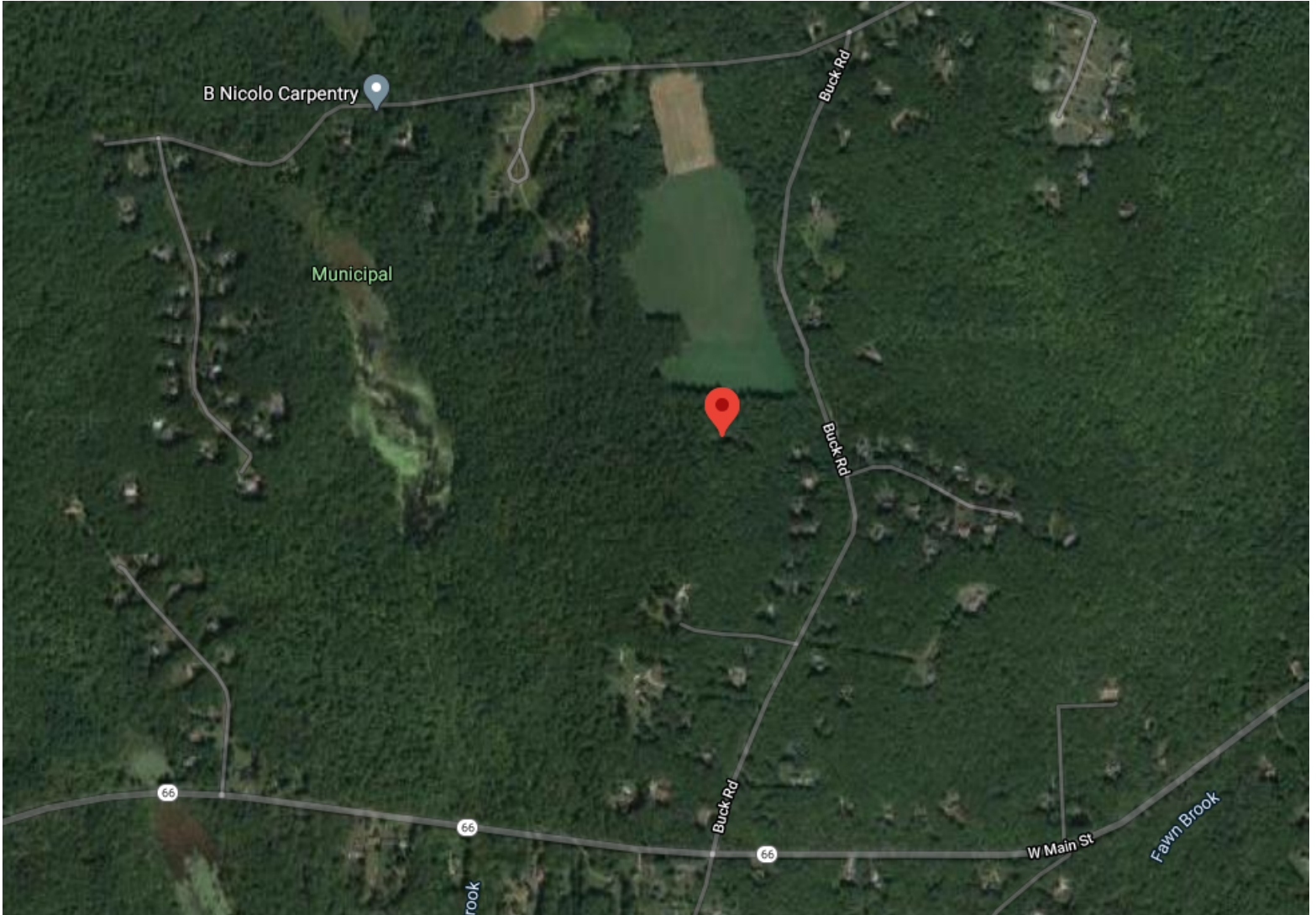


Exhibit C

Construction Drawings



VERIZON SITE NUMBER: 674942
VERIZON SITE NAME: HEBRON WEST CT
SITE TYPE: MONOPOLE
TOWER HEIGHT: 119'-6"

BUSINESS UNIT #: 876387
SITE ADDRESS: 107 BUCK ROAD
 HEBRON, CT 06248
COUNTY: TOLLAND
JURISDICTION: CONNECTICUT SITING COUNCIL

VERIZON 16272175

verizon
 180 WASHINGTON VALLEY ROAD
 BEDMINSTER, NJ 07921

CROWN CASTLE
 1200 MACARTHUR BLVD, SUITE 200
 MAHWAH, NJ 07430

ETS
 ENGINEERED TOWER SOLUTIONS, PLLC
 3227 WELLINGTON COURT
 RALEIGH, NC 27615

VERIZON SITE NUMBER: 674942
BU #: 876387
SOUTH HEBRON - NED ELLIS PROP
 107 BUCK ROAD
 HEBRON, CT 06248

EXISTING 119'-6" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/29/2021	AM	PRELIMINARY	DG

SITE INFORMATION

CROWN CASTLE USA INC. SOUTH HEBRON - NED ELLIS PROP
 SITE NAME:
 SITE ADDRESS: 107 BUCK ROAD
 HEBRON, CT 06248
 COUNTY: TOLLAND
 MAP/PARCEL #: 42-3XA
 AREA OF CONSTRUCTION: EXISTING
 LATITUDE: 41° 39' 16.02"
 LONGITUDE: -72° 24' 39.11"
 LAT/LONG TYPE: NAD83
 GROUND ELEVATION: 545.0 FT
 CURRENT ZONING: ---
 JURISDICTION: CONNECTICUT SITING COUNCIL
 OCCUPANCY CLASSIFICATION: U
 TYPE OF CONSTRUCTION: IIB
 A.D.A. COMPLIANCE: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
 PROPERTY OWNER: MAPLELEAF FARM LAND TRUST LLC
 C/O GLOBAL SIGNAL ACQ 4017
 WASHINGTON ROAD
 MCMURRAY, PA 15317
 TOWER OWNER: CROWN CASTLE
 2000 CORPORATE DRIVE
 CANONSBURG, PA 15317
 CARRIER/APPLICANT: VERIZON WIRELESS
 180 WASHINGTON VALLEY ROAD
 BEDMINSTER, NJ 07921
 ELECTRIC PROVIDER: NORTHEAST UTILITIES
 TELCO PROVIDER: LIGHTTOWER

DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1	SITE PLAN
C-2	TOWER ELEVATION & ANTENNA PLANS
C-3	EQUIPMENT SCHEDULES
C-4	EQUIPMENT DETAILS
C-5	EQUIPMENT DETAILS
C-6	PLUMBING DIAGRAM
G-1	GROUNDING DETAILS
G-2	GROUNDING DETAILS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11X17. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

APPROVALS

SIGNATURE	DATE
_____	_____
_____	_____
_____	_____
_____	_____

CONTRACTOR PMI REQUIREMENTS

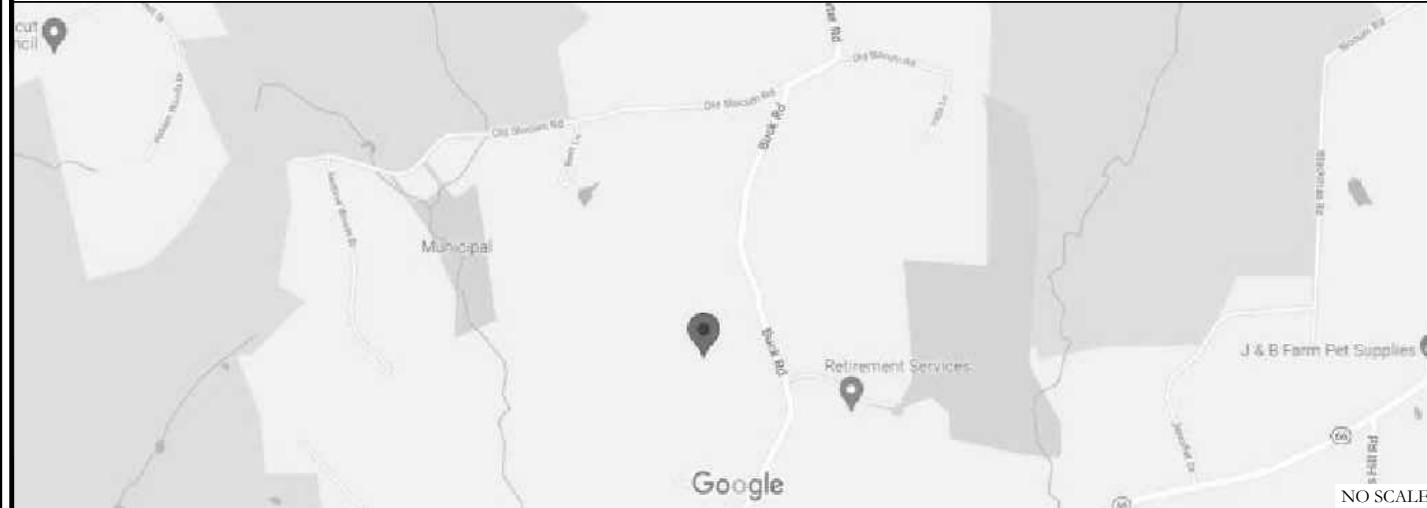
PMI ACCESSED AT <https://pmi.vxwsmart.com>
 SMART TOOL VENDOR
 PROJECT NUMBER 16272175
 VzW LOCATION CODE (PSLC) 467919
 *** PMI AND REQUIREMENTS ALSO EMBEDDED IN MOUNT ANALYSIS REPORT

MOUNT MODIFICATION REQUIRED N

VzW APPROVED SMART KIT VENDORS

REFER TO MOUNT MODIFICATION DRAWINGS PAGE FOR VzW SMART KIT APPROVED VENDORS

LOCATION MAP



DRIVING DIRECTIONS FROM VERIZON LOCAL OFFICE (180 WASHINGTON VALLEY RD, BEDMINSTER, NJ 07921, START OUT GOING WEST, THEN 0.17 MILES TURN SLIGHT RIGHT ONTO US HIGHWAY 202 206/US-202 N/US-206 N, THEN 0.96 MILES TURN RIGHT ONTO SCHLEY MOUNTAIN ROAD, THEN 0.37 MILES MERGE ONTO I-287 N, THEN 45.18 MILES MERGE ONTO I-287 E TOWARD TAPPAN ZEE BR/NEW YORK CITY, THEN 26.25 MILES TAKE EXIT 95-N TOWARD MERRITT PKWY/HUTCHINSON PKWY/WHITESTONE BRG, THEN 0.23 MILES MERGE ONTO WESTCHESTER AVE/NY-119/COUNTY HWY-62 VIA EXIT 9N ON THE LEFT TOWARD HUTCHINSON PKWY N/MERRITT PKWY, THEN 0.34 MILES TAKE THE HUTCHINSON PKWY N EXIT, EXIT 9N, TOWARD MERRITT PKWY, THEN 0.24 MILES MERGE ONTO HUTCHINSON RIVER PKWY, THEN 0.29 MILES KEEP RIGHT TO TAKE HUTCHINSON RIVER PKWY TOWARD MERRITT PKWY, THEN 2.80 MILES HUTCHINSON RIVER PKWY BECOMES CT-15 N, THEN 64.61 MILES MERGE ONTO I-91 N VIA EXIT 68N-E TOWARD HARTFORD/MIDDLETOWN/CT-66 E, THEN 13.95 MILES MERGE ONTO CT-3 N VIA EXIT 25 TOWARD GLASTONBURY, MERGE ONTO CT-2 E TOWARD NORWICH, THEN 10.96 MILES TAKE THE CT-66 EXIT, EXIT 13, TOWARD WILLIMANTIC/MARLBOROUGH, THEN 0.24 MILES KEEP LEFT TO TAKE THE RAMP TOWARD WILLIMANTIC/HEBRON, THEN 0.04 MILES TURN LEFT ONTO HEBRON RD/CT-66. CONTINUE TO FOLLOW CT-66, THEN 2.82 MILES TURN LEFT ONTO BUCK ROAD, THEN 0.52 MILES 107 BUCK RD, HEBRON, CT 06231, 107 BUCK RD IS ON THE LEFT.)

APPLICABLE CODES/REFERENCE DOCUMENTS

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

CODE TYPE	CODE
BUILDING	2015 IBC
MECHANICAL	2015 IMC
ELECTRICAL	2017 NEC

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS: GPD ENGINEERING & ARCHITECTURE PROFESSIONAL CORPORATION
 DATED: 09/29/2021
 MOUNT ANALYSIS: BY OTHERS
 DATED:
 RFDS REVISION: ---
 DATED: 08/26/2021
 ORDER ID: 586423
 REVISION: 0

PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE WIRELESS FACILITY.

- TOWER SCOPE OF WORK:**
- REMOVE (6) ANTENNAS
 - REMOVE (2) COAX
 - INSTALL (3) DUAL ANTENNA MOUNTS
 - INSTALL (9) ANTENNAS
 - INSTALL (6) RRHs
 - INSTALL (1) OVP
 - INSTALL (1) HYBRID CABLE

- GROUND SCOPE OF WORK:**
- REMOVE (3) RRHs

NOTE:
 PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER

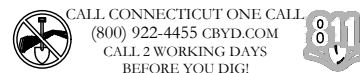
PROJECT TEAM

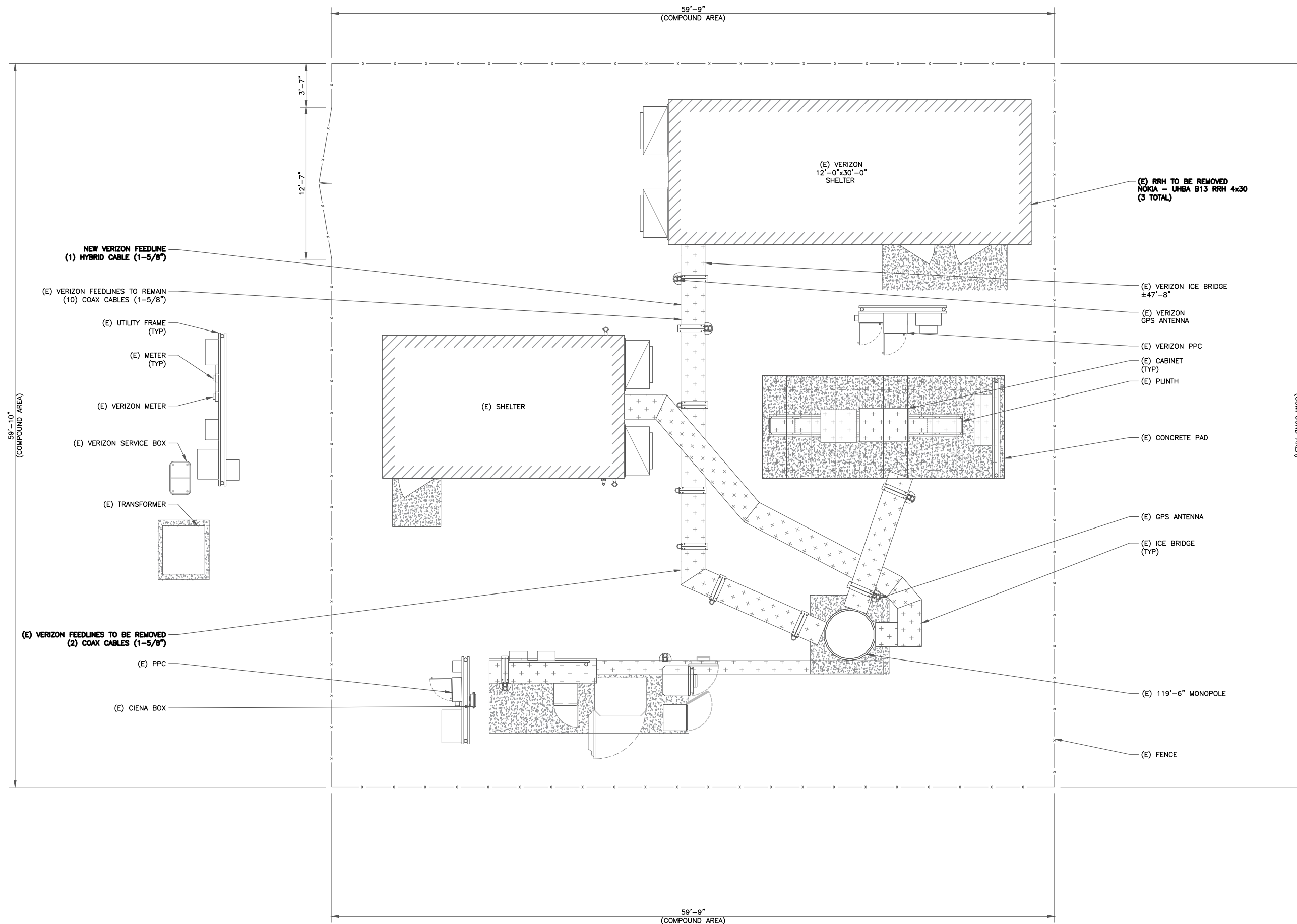
A&E FIRM: ENGINEERED TOWER SOLUTIONS, PLLC
 3227 WELLINGTON COURT
 RALEIGH, NC 27615
 CROWNAESERVICES@ETS-PLL.C.COM
 CROWN CASTLE USA INC. DISTRICT CONTACTS:
 1200 MACARTHUR BLVD, SUITE 200
 MAHWAH, NJ 07430
 PAUL MALEK - PROJECT MANAGER
 PAUL.MALEK@CROWNCastle.COM
 VERIZON CONTACT: ANDREW LEONE
 ALEONE@STRUCTURECONSULTING.NET



10/29/2021
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SHEET NUMBER: T-1
REVISION: 0





verizon
 180 WASHINGTON VALLEY ROAD
 BEDMINSTER, NJ 07921

CROWN CASTLE
 1200 MACARTHUR BLVD, SUITE 200
 MAHWAH, NJ 07430

ETS
 ENGINEERED TOWER SOLUTIONS, PLLC
 3227 WELLINGTON COURT
 RALEIGH, NC 27615

VERIZON SITE NUMBER:
674942

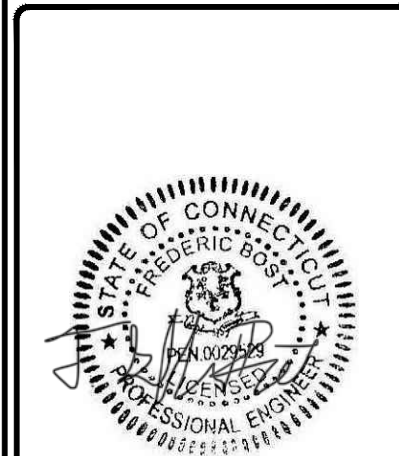
BU #: **876387**
SOUTH HEBRON - NED ELLIS PROP

107 BUCK ROAD
 HEBRON, CT 06248

EXISTING 119'-6" MONOPOLE

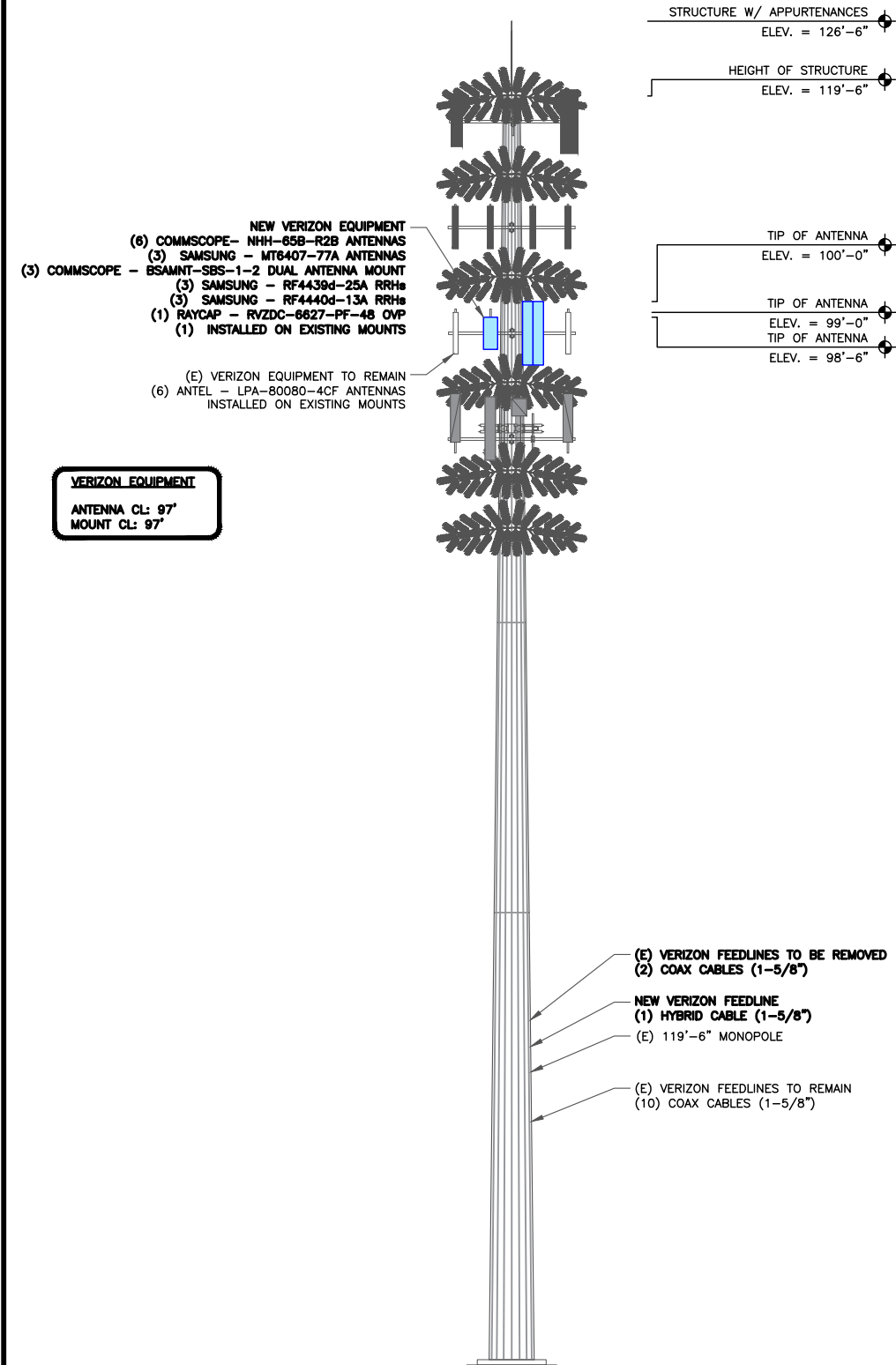
ISSUED FOR:

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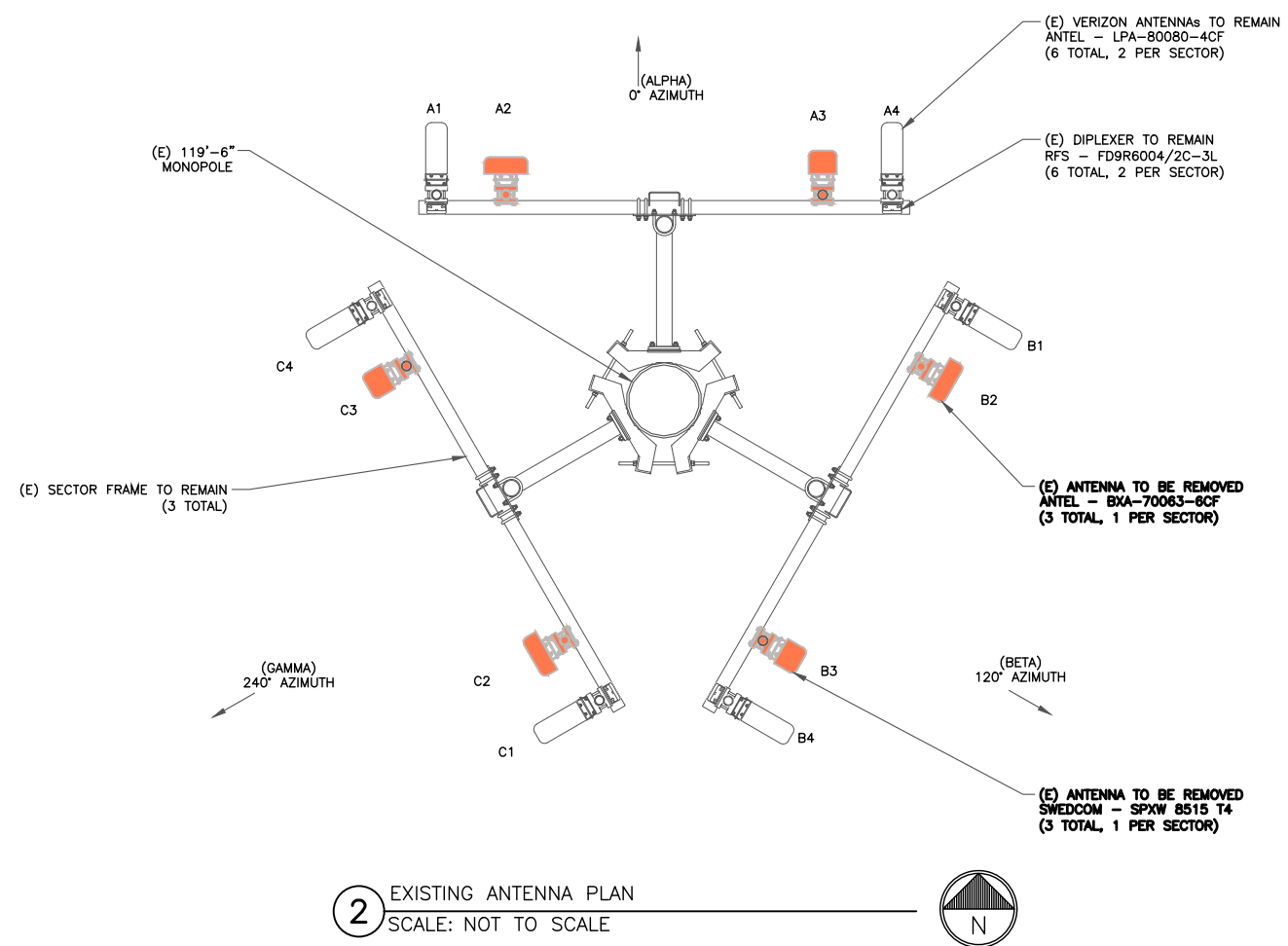
10/29/2021
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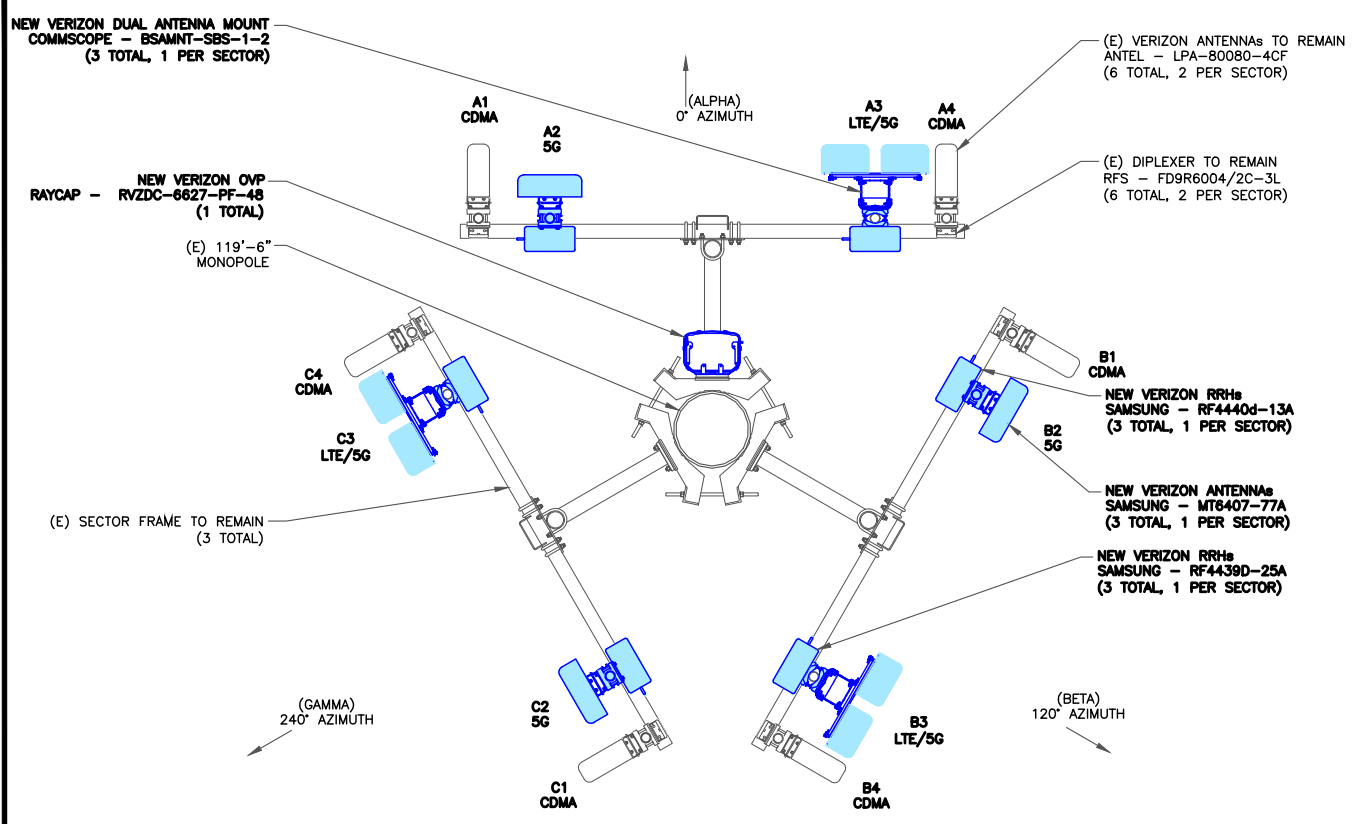


1 TOWER ELEVATION
SCALE: NOT TO SCALE

VERIZON EQUIPMENT
ANTENNA CL: 97"
MOUNT CL: 97"



2 EXISTING ANTENNA PLAN
SCALE: NOT TO SCALE



3 NEW ANTENNA PLAN
SCALE: NOT TO SCALE

verizon
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

CROWN CASTLE
1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

ETS
ENGINEERED TOWER SOLUTIONS, PLLC
3227 WELLINGTON COURT
RALEIGH, NC 27615

VERIZON SITE NUMBER:
674942

BU #: 876387
SOUTH HEBRON - NED
ELLIS PROP

107 BUCK ROAD
HEBRON, CT 06248

EXISTING 119'-6" MONOPOLE

ISSUED FOR:

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TO ALTER THIS DOCUMENT.

SHEET NUMBER: **C-2** REVISION: **0**

VERIZON SITE NUMBER:
674942

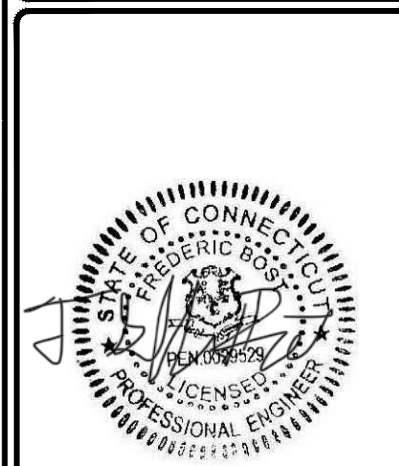
BU #: **876387**
SOUTH HEBRON - NED ELLIS PROP

107 BUCK ROAD
 HEBRON, CT 06248

EXISTING 119'-6" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
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SHEET NUMBER: **C-3** REVISION: **0**

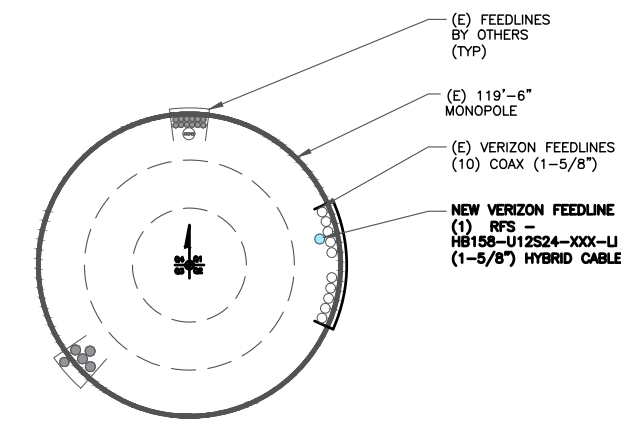
ANTENNA/RRH SCHEDULE

SECTOR	STATUS	ANTENNA MANUFACTURER	ANTENNA MODEL	ANTENNA CENTERLINE	AZMUTH	MECHANICAL DOWNTILTS	ELECTRICAL DOWNTILTS	TOWER EQUIPMENT MANUFACTURER	TOWER EQUIPMENT QTY/MODEL
A1	EXISTING	ANTEL	LPA-80080-4CF	97'	0°	0°	0°	-	-
A2	NEW	SAMSUNG	MT6407-77A	97'	0°	0°	6°/6°/6°	SAMSUNG	(1) RF4440D-13A
A3	NEW	COMMSCOPE	NHH-65B-R2B	97'	0°	0°	2°/2°/2°	SAMSUNG	(1) RF4439D-25A
		COMMSCOPE	NHH-65B-R2B				2°/2°/2°		
A4	EXISTING	ANTEL	LPA-80080-4CF	97'	0°	0°	0°	-	-
B1	EXISTING	ANTEL	LPA-80080-4CF	97'	120°	0°	0°	-	-
B2	NEW	SAMSUNG	MT6407-77A	97'	120°	0°	6°/6°/6°	SAMSUNG	(1) RF4440D-13A
B3	NEW	COMMSCOPE	NHH-65B-R2B	97'	120°	0°	2°/2°/2°	SAMSUNG	(1) RF4439D-25A
		COMMSCOPE	NHH-65B-R2B				2°/2°/2°		
B4	EXISTING	ANTEL	LPA-80080-4CF	97'	120°	0°	0°	RAYCAP	(1) RVZDC-6627-PF-48
C1	EXISTING	ANTEL	LPA-80080-4CF	97'	240°	0°	0°	-	-
C2	NEW	SAMSUNG	MT6407-77A	97'	240°	0°	6°/6°/6°	SAMSUNG	(1) RF4440D-13A
C3	NEW	COMMSCOPE	NHH-65B-R2B	97'	240°	0°	2°/2°/2°	SAMSUNG	(1) RF4439D-25A
		COMMSCOPE	NHH-65B-R2B				2°/2°/2°		
C4	EXISTING	ANTEL	LPA-80080-4CF	97'	240°	0°	0°	-	-

1 VERIZON TOWER EQUIPMENT SCHEDULE
 SCALE: NOT TO SCALE

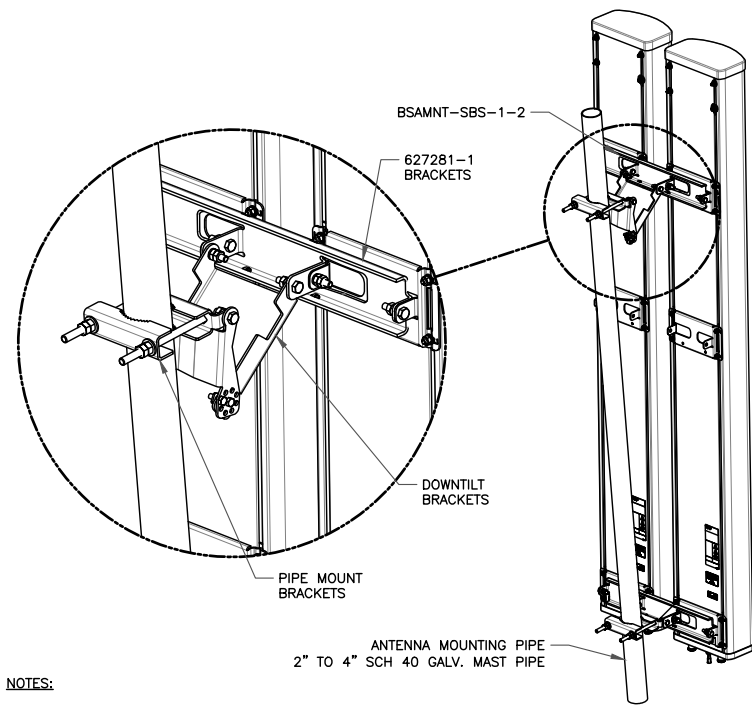
CABLE SCHEDULE

STATUS	CABLE TYPE	SIZE	LENGTH	QTY
EXISTING	COAX	1-5/8"	147'-0"±	10
NEW	HYBRID	1-5/8"	147'-0"±	1
TOTAL CABLE QTY:				11



2 BASE LEVEL DETAIL
 SCALE: NOT TO SCALE



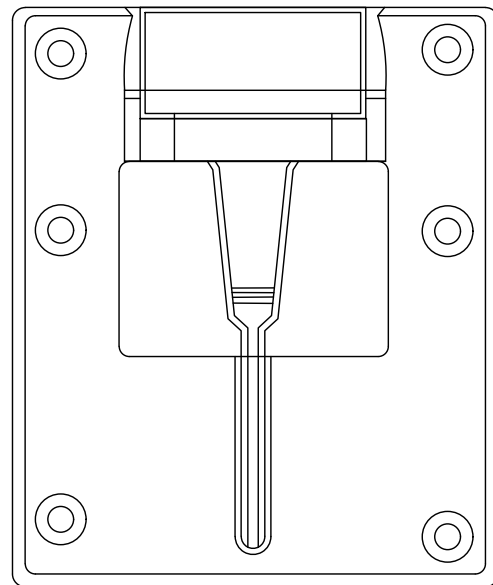


NOTES:

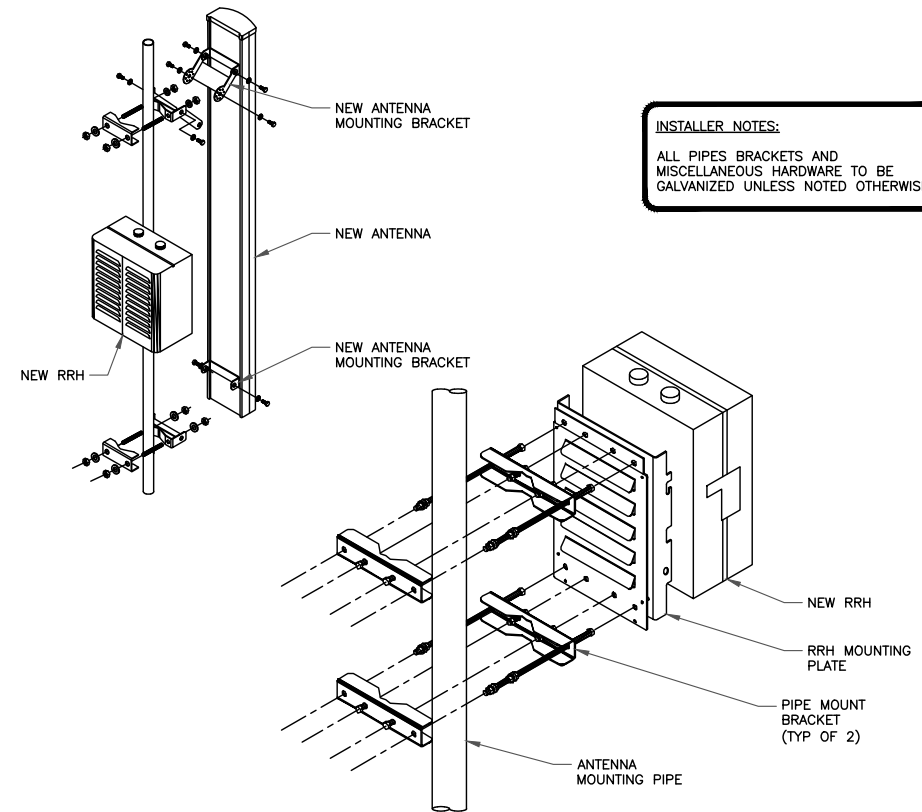
- BSAMNT-SBS-1-2 KIT CONTAINS (2) 627281 MOUNTING BRACKETS.
- TORQUE THE M10 BOLT ASSEMBLY TO 37 N.m. PER MANUFACTURE'S RECOMMENDATIONS.

1 COMMSCOPE - BSAMNT-SBS-1-2
SCALE: NOT TO SCALE

2 NOT USED
SCALE: NOT TO SCALE



3 SAMSUNG - EP97-01585A BRACKET DETAIL
SCALE: NOT TO SCALE



INSTALLER NOTES:

ALL PIPES BRACKETS AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.

4 ANTENNA & RRH MOUNTING DETAIL
SCALE: NOT TO SCALE

verizon^v
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

CROWN CASTLE
1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

ETS
ENGINEERED TOWER SOLUTIONS, PLLC
3227 WELLINGTON COURT
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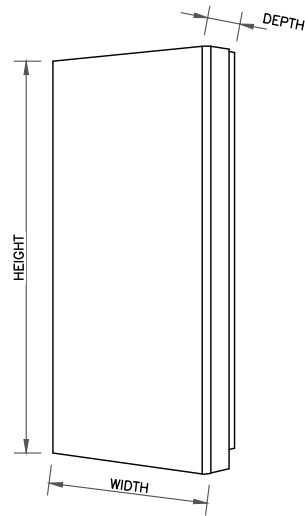


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SHEET NUMBER:
C-4

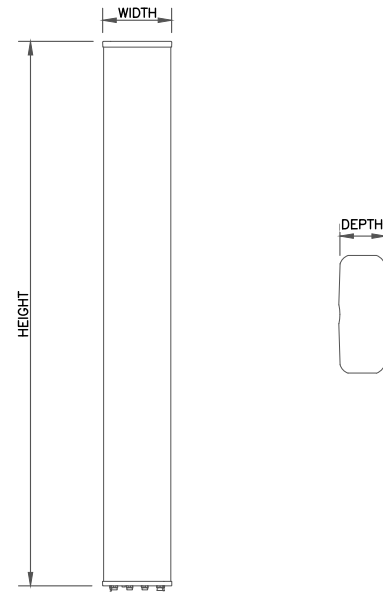
REVISION:
0

HEIGHT	WIDTH	DEPTH	WEIGHT
35.06"	16.06"	5.51"	81.57 LBS



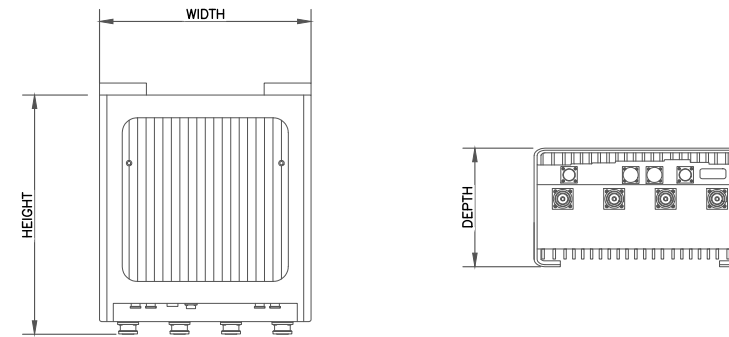
1 SAMSUNG – MT6407-77A
SCALE: NOT TO SCALE

HEIGHT	WIDTH	DEPTH	WEIGHT
72.00"	11.90"	7.10"	43.70 LBS



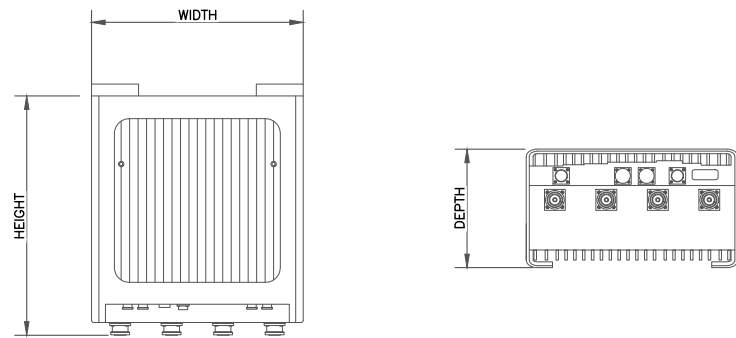
2 COMMSCOPE – NHH-65B-R2B
SCALE: NOT TO SCALE

HEIGHT	WIDTH	DEPTH	WEIGHT
14.96"	14.96"	10.04"	74.70 LBS



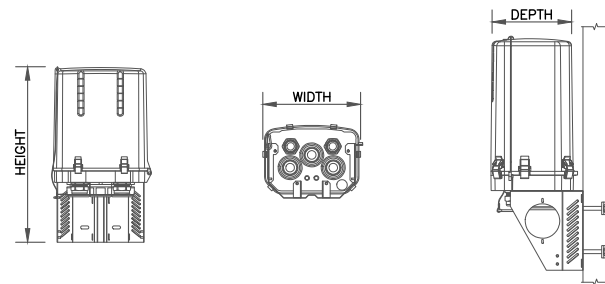
3 SAMSUNG – RF4439D-25A
SCALE: NOT TO SCALE

HEIGHT	WIDTH	DEPTH	WEIGHT
14.96"	14.96"	09.06"	72.50 LBS



4 SAMSUNG – RF4440D-13A
SCALE: NOT TO SCALE

HEIGHT	WIDTH	DEPTH	WEIGHT
28.93"	15.73"	10.31"	32.00 LBS



5 RAYCAP – RVZDC-6627-PF-48
SCALE: NOT TO SCALE

FIBER NAMING CONVENTION	
Technology	(Equipment-Sector-OPTI #)
DUPLIX FIBER RUN	
5GmmW L0	5GmmW-A-0
SIMPLEX FIBER RUN	
CBRS L0	CBRS-A-0
CBRS L1	CBRS-A-1
LAA L0	LAA-A-0
High Band Dual Band L0	HB-A-0
High Band Dual Band L1	HB-A-1
Low Band Dual Band L0	LB-A-0
FDMIMO AWS L0	FDM-AWS-A-0
FDMIMO AWS L1	FDM-AWS-A-1
FDMIMO PCS L0	FDM-PCS-A-0
FDMIMO PCS L1	FDM-PCS-A-1

Rev. 2/23/2021

6 FIBER NAMING CONVENTION
SCALE: NOT TO SCALE

verizon
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

CROWN CASTLE
1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

ETS
ENGINEERED TOWER SOLUTIONS, PLLC
3227 WELLINGTON COURT
RALEIGH, NC 27615

VERIZON SITE NUMBER:
674942

BU #: 876387
SOUTH HEBRON - NED ELLIS PROP

107 BUCK ROAD
HEBRON, CT 06248

EXISTING 119'-6" MONOPOLE

ISSUED FOR:				
REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/29/2021	AM	PRELIMINARY	DG

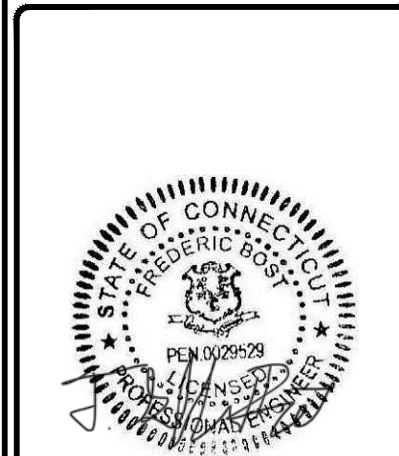
10/29/2021

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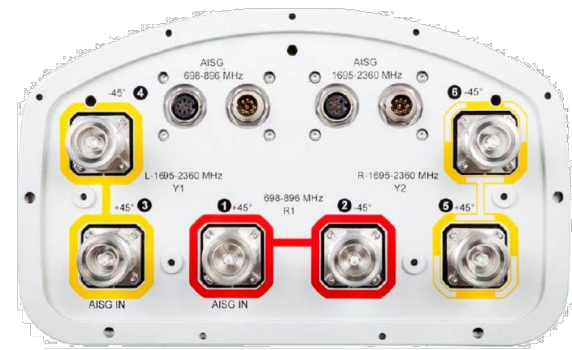
SHEET NUMBER: C-5	REVISION: 0
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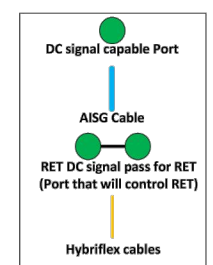
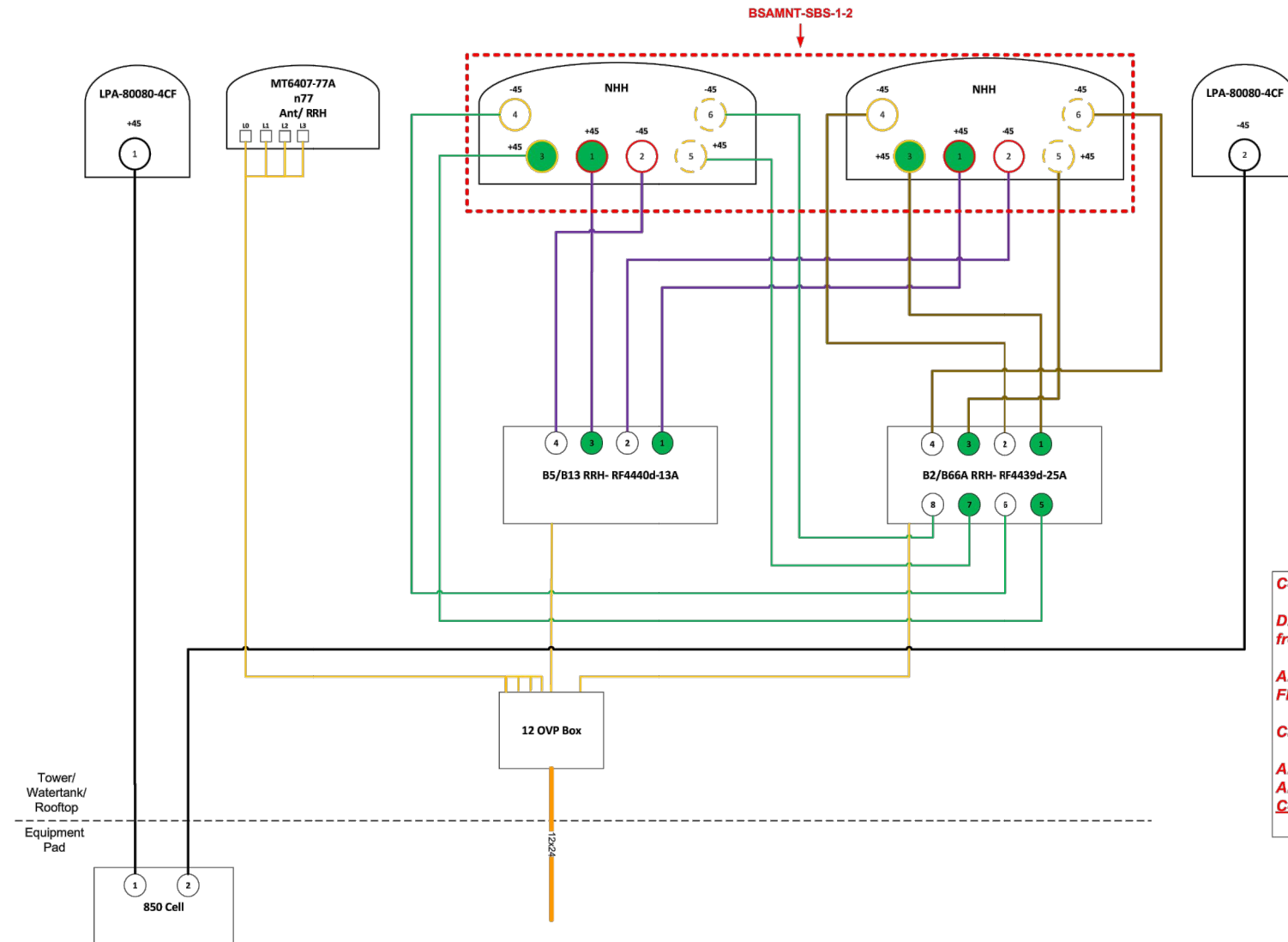
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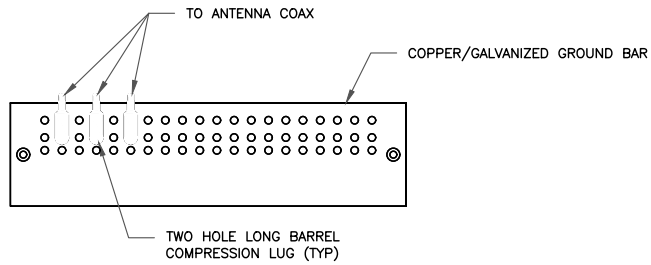
10/29/2021
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- Port 1 & 2 are for low band (698-896 MHz).
- Port 3,4,5, & 6 are for high band (1695-2360 MHz).
- Smart Bias Tee (SBT) is through port 1 & 3 for low band and port 1 for high band.
- AISG cable is only needed when drawn in the diagrams below, if it is not drawn then SBT is enough to control all RET motors.
- Not all SBT ports are needed to control RET, only green port connection to green port will control RET.



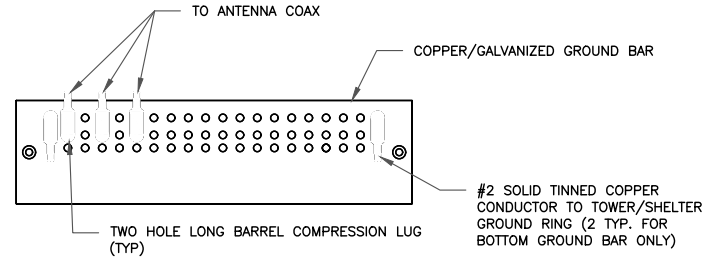
Comments:
 Diagram shows antenna port configuration as viewed from below antennas.
 Antenna positions are indicated as viewed from IN FRONT of antennas.
 Cap and weatherproof unused antenna ports.
 All plumbing diagram colors are irrelevant except for AISG & Hybriflex cable. (For the coax colors follow Coax Colors guide above)



NOTES:

- DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
- EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
- GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO ANTENNA MOUNT STEEL.

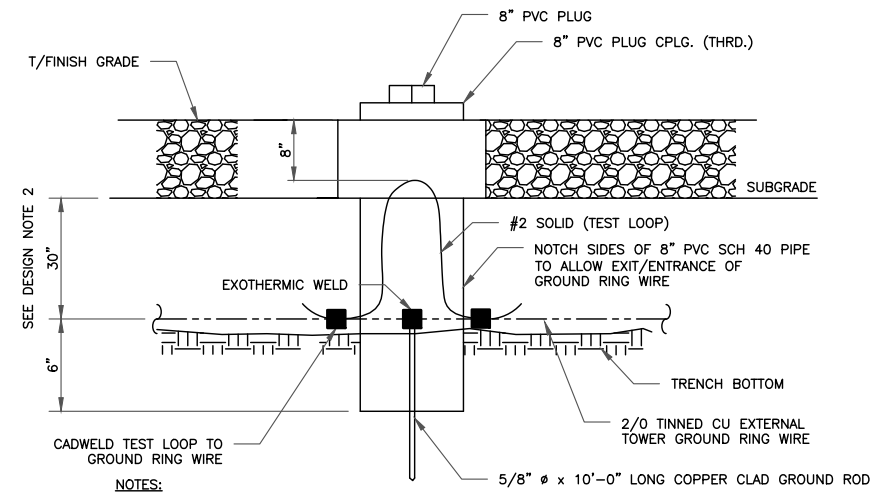
1 ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE



NOTES:

- EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
- GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
- GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

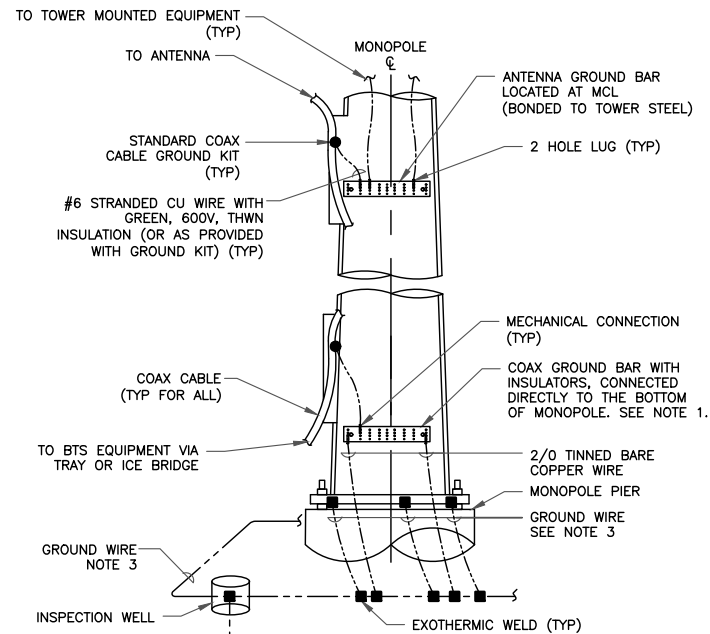
2 TOWER/SHELTER GROUND BAR DETAIL
SCALE: NOT TO SCALE



NOTES:

- GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL.
- GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

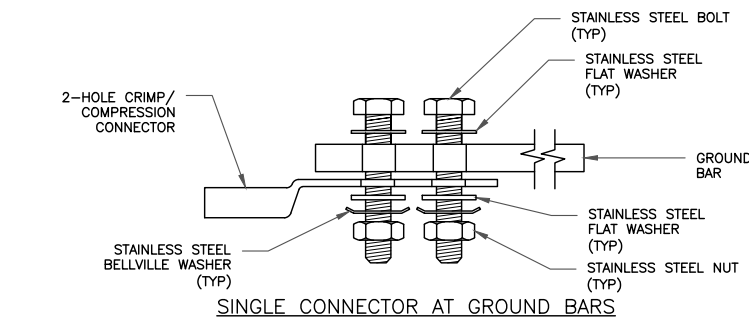
3 INSPECTION WELL DETAIL
SCALE: NOT TO SCALE



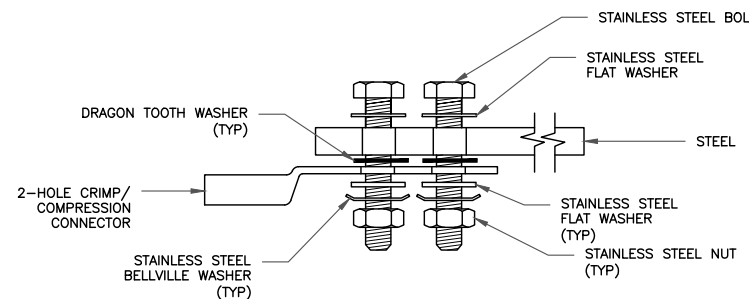
NOTES:

- NUMBER OF GROUNDING BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATIONS AND CONNECTION ORIENTATION. COAXIAL CABLES EXCEEDING 200 FEET ON THE TOWER SHALL HAVE GROUND KITS AT THE MIDPOINT. PROVIDE AS REQUIRED.
- ONLY MECHANICAL CONNECTIONS ARE ALLOWED TO BE MADE TO CROWN CASTLE USA INC. TOWERS. ALL MECHANICAL CONNECTIONS SHALL BE TREATED WITH AN ANTI-OXIDANT COATING.
- ALL TOWER GROUNDING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF THE RECOGNIZED EDITION OF ANSI/TIA 222 AND NFPA 780.

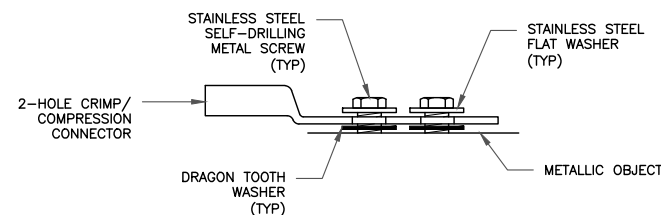
4 TYPICAL ANTENNA CABLE GROUNDING
SCALE: NOT TO SCALE



SINGLE CONNECTOR AT GROUND BARS

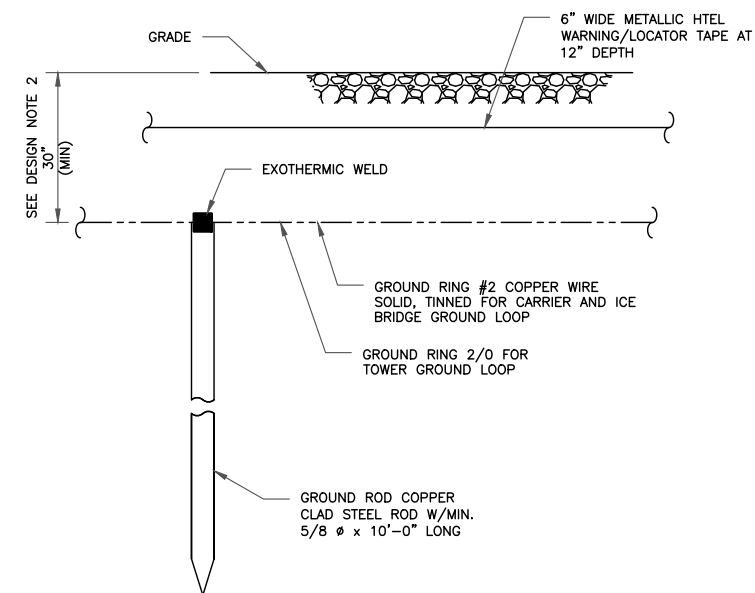


SINGLE CONNECTOR AT STEEL OBJECTS



SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

5 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



NOTES:

- GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL.
- GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

6 GROUND ROD DETAIL
SCALE: NOT TO SCALE

verizon
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

CROWN CASTLE
1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

ETS
ENGINEERED TOWER SOLUTIONS, PLLC
3227 WELLINGTON COURT
RALEIGH, NC 27615

VERIZON SITE NUMBER:
674942

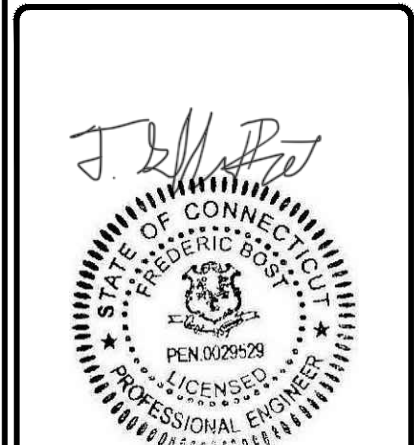
BU #: 876387
SOUTH HEBRON - NED ELLIS PROP

107 BUCK ROAD
HEBRON, CT 06248

EXISTING 119'-6" MONOPOLE

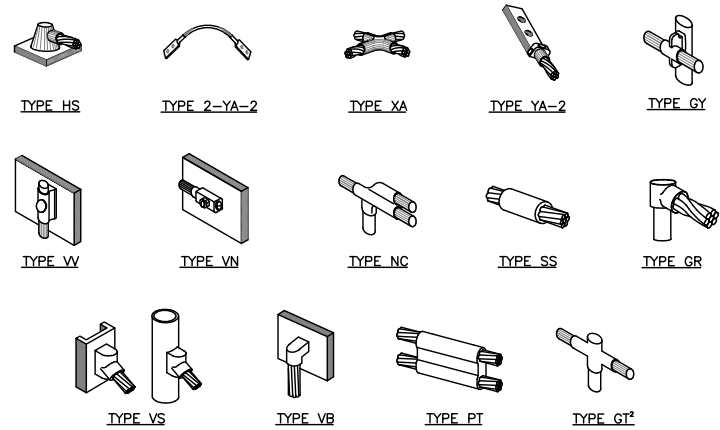
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/29/2021	AM	PRELIMINARY	DG



10/29/2021
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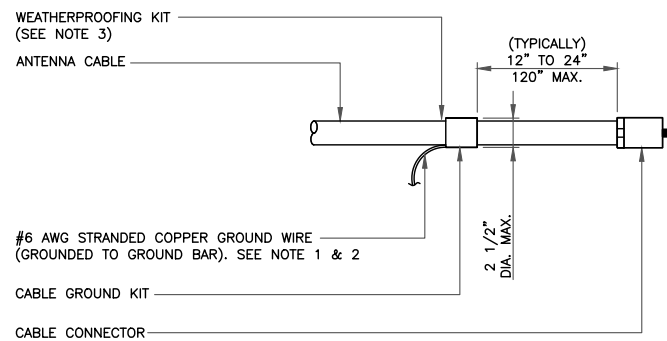
SHEET NUMBER: **G-1** REVISION: **0**



NOTE:

1. ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.
2. MOLD TYPE ONLY TO BE USED BELOW GRADE WHEN CONNECTING GROUND RING TO GROUND ROD.

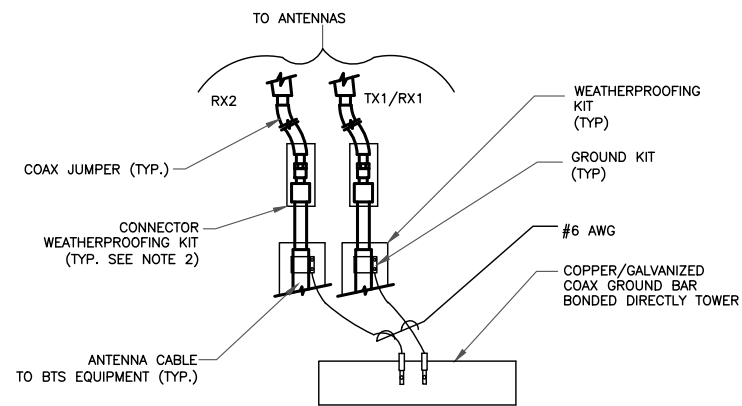
1 CADWELD GROUNDING CONNECTIONS
SCALE: NOT TO SCALE



NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

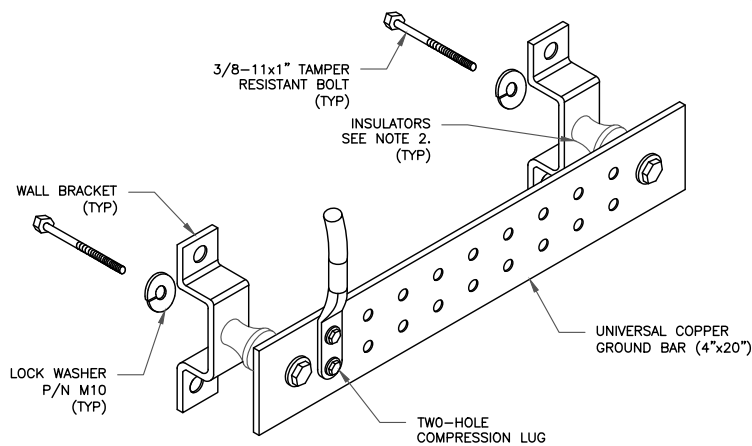
3 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

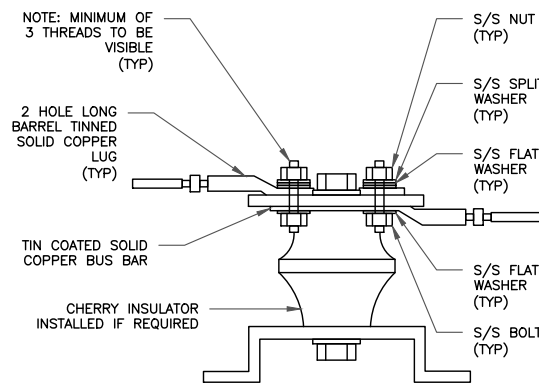
4 GROUND CABLE CONNECTION
SCALE: NOT TO SCALE



NOTES:

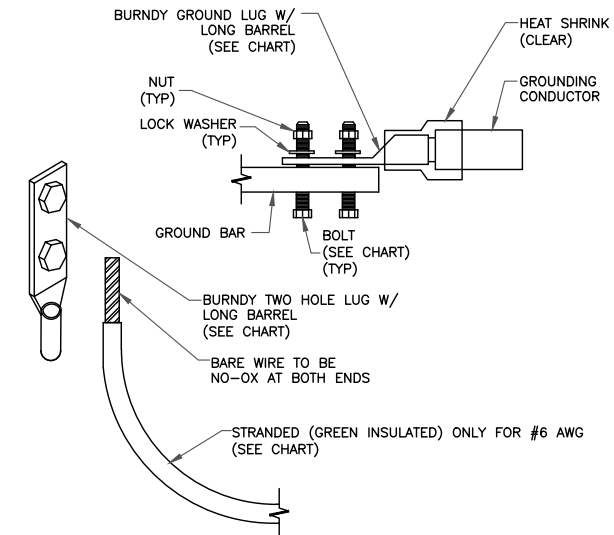
1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY GAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION. CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL. USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

6 GROUND BAR DETAIL
SCALE: NOT TO SCALE



7 LUG DETAIL
SCALE: NOT TO SCALE

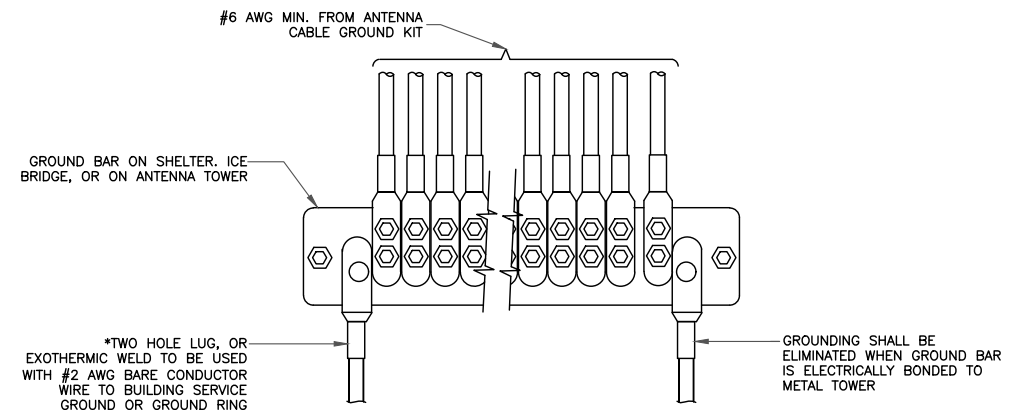
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT



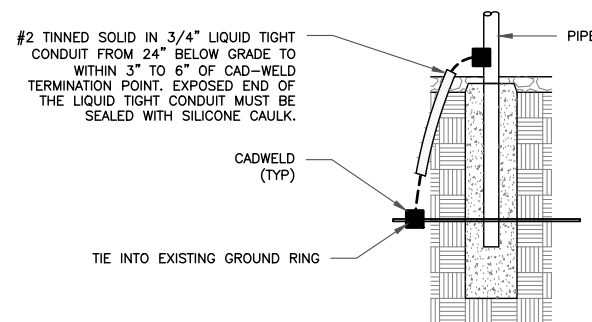
NOTES:

1. ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

2 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



5 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



8 TRANSITIONING GROUND DETAIL
SCALE: NOT TO SCALE



VERIZON SITE NUMBER:
674942

BU #: 876387
SOUTH HEBRON - NED
ELLIS PROP

107 BUCK ROAD
HEBRON, CT 06248

EXISTING 119'-6" MONOPOLE

ISSUED FOR:				
REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/29/2021	AM	PRELIMINARY	DG



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SHEET NUMBER: **G-2** REVISION: **0**

Exhibit D

Structural Analysis Report

Date: **September 29, 2021**



GPD Engineering and Architecture
Professional Corporation

520 South Main Street Suite 2531
Akron, Ohio 44311
(216) 927-8663

Subject: **Structural Analysis Report**

Carrier Designation: **Verizon Wireless Co-Locate**
Site Number: 467919
Site Name: HEBRON WEST CT

Crown Castle Designation: **BU Number:** 876387
Site Name: SOUTH HEBRON / NED ELLIS PROP.
JDE Job Number: 686354
Work Order Number: 2020118
Order Number: 586423 Rev. 0

Engineering Firm Designation: **GPD Project Number:** 2021777.876387.06

Site Data: **107 Buck Rd., Hebron, CT 06248, Tolland County**
Latitude 41° 39' 16.02", Longitude -72° 24' 39.11"
119.5 Foot – Modified EEI Monopine Tower

We are pleased to submit this "**Structural Analysis Report**" to determine the structural integrity of the above mentioned tower.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC7: Proposed Equipment Configuration **Sufficient Capacity – 83.8%**

This analysis utilizes an ultimate 3-second gust wind speed of 120 mph as required by the 2018 Connecticut Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Matt Steward

Respectfully submitted by:

Christopher J. Scheks, P.E.
Connecticut #: 0030026



9/29/2021

TABLE OF CONTENTS

1) INTRODUCTION

2) ANALYSIS CRITERIA

Table 1 - Proposed Equipment Configuration
Table 2 – Other Considered Equipment

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Table 3 - Documents Provided
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3.2) Assumptions

4) ANALYSIS RESULTS

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Table 5 - Tower Components vs. Capacity
4.1) Recommendations

5) APPENDIX A

tnxTower Output

6) APPENDIX B

Base Level Drawing

7) APPENDIX C

Additional Calculations

1) INTRODUCTION

This tower is a 119.5 ft monopine tower designed by Engineered Endeavors, Inc. in October of 2000.

Modifications in the form of base plate stiffeners designed by GPD (Job #: 2008282.56, dated 12/02/08) have been considered in the analysis.

2) ANALYSIS CRITERIA

TIA-222 Revision: TIA-222-H
Risk Category: II
Wind Speed: 120 mph
Exposure Category: C
Topographic Factor: 1
Ice Thickness: 1 in
Wind Speed with Ice: 50 mph
Service Wind Speed: 60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
97.0	97.0	6	Antel	LPA-80080-4CF-EDIN-0	11	1-5/8
		6	Commscope	NHH-65B-R2B		
		3	Samsung Telecommunications	MT6407-77A		
		1	Raycap	RVZDC-6627-PF-48		
		3	Samsung Telecommunications	RF4439D-25A		
		3	Samsung Telecommunications	RF4440D-13A		
		1		T-Arm Mount [TA 602-3]		

Table 2 – Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
117.0	117.0	3	Ericsson	AIR6449 B41_T-Mobile	4	1-5/8
		3	RFS/Celwave	APXVAALL24_43-U-NA20_TMO		
		3	RFS/Celwave	APX16DWV-16DWV-S-E-A20		
		3	Ericsson	RADIO 4449 B71 B85A_T-MOBILE		
		3	Ericsson	RADIO 4424 B25_TMO		
		3	Ericsson	RADIO 4415 B66A		
		3	Site Pro 1	VFA10-SD-S		
		1	Site Pro 1	MSFAA Collar Mount		
107.0	107.0	3	JMA Wireless	MX08FRO665-21	1	1-1/2
		3	Fujitsu	TA08025-B605		
		3	Fujitsu	TA08025-B604		
		1	Raycap	RDIDC-9181-PF-48		
		3	Commscope	MC-K6MHDX-9-96		
88.0	90.0	3	Ericsson	TME-RRUS-11		
		1	Raycap	DC6-48-60-18-8F		
	88.0	1		Pipe Mount [SO 102-3]		
87.0	89.0	6	Powerwave Technologies	7770.00	12 2 1	7/8 7/16 3/8
		6	Powerwave Technologies	LGP21401		
		6	Powerwave Technologies	LGP21901		
	88.0	3	KMW Communications	AM-X-CD-16-65-00T-RET		
	87.0	1		T-Arm Mount [TA 602-3]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
Geotechnical Report	2157932	CCISITES
Post Modification Inspection	2431180	CCISITES
Foundation Drawings	1630217	CCISITES
Tower Drawings	1613574	CCISITES
Tower Modifications	2374441	CCISITES

3.1) Analysis Method

tnxTower (version 8.1.1.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A. When applicable, Crown Caste has calculated and provided the effective area for panel antennas using approved methods following the intent of the of the TIA-222 standard.

3.2) Assumptions

- 1) The tower and structures were maintained in accordance with the TIA-222 standard.
- 2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.

This analysis may be affected if any assumptions or items in Table 3 are not valid or have been made in error. GPD should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L1	119.5 - 69.67	Pole	TP33.02x19x0.3125	1	-22.46	1912.86	61.0	Pass
L2	69.67 - 42.25	Pole	TP39.99x31.0839x0.375	2	-29.30	2784.66	72.1	Pass
L3	42.25 - 0	Pole	TP51x37.7131x0.4375	3	-45.21	4312.79	72.7	Pass
						Summary	ELC:	Load Case 7
						Pole (L3)	72.7	Pass
						Rating =	72.7	Pass

Table 5 - Tower Component Stresses vs. Capacity – LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Anchor Rods	0	74.3	Pass
1,2	Base Plate	0	72.4	Pass
1,2	Base Foundation Structure	0	83.8	Pass
1,2	Base Foundation Soil Interaction	0	61.5	Pass

Structure Rating (max from all components) =	83.8%
---	--------------

Notes:

- 1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.
- 2) Rating per TIA-22-H Section 15.5

4.1) Recommendations

The tower and foundations have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

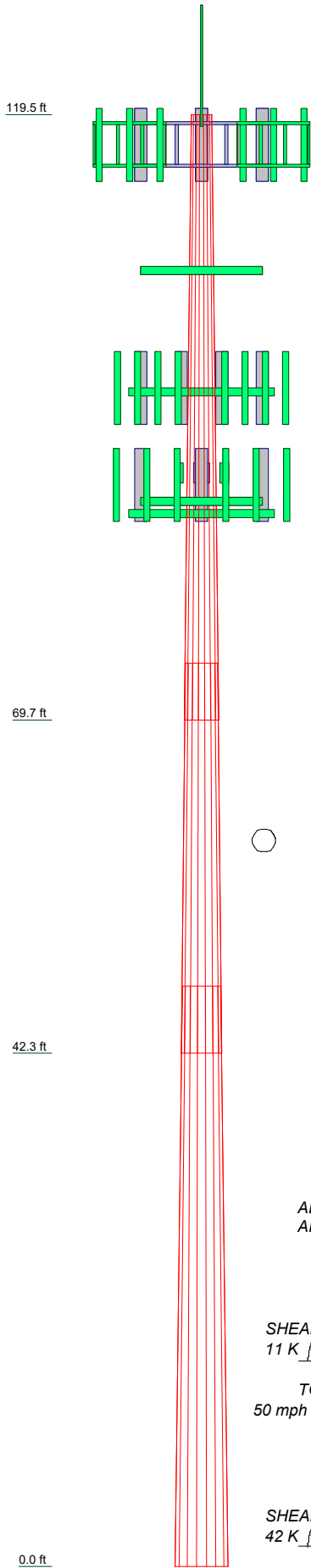
APPENDIX A
TNXTOWER OUTPUT

MATERIAL STRENGTH

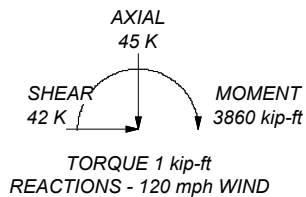
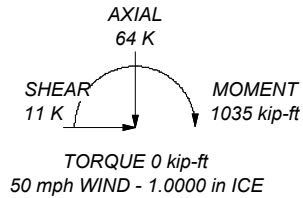
GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

1. Tower is located in Tolland County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 120 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 72.7%



ALL REACTIONS ARE FACTORED



Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	49.83	18	0.3125	4.66	19.0000	33.0200	A572-65	4.3
2	32.08	18	0.3750	5.50	31.0839	39.9900	A572-65	4.6
3	47.75	18	0.4375	37.7131	51.0000			9.9
								18.8

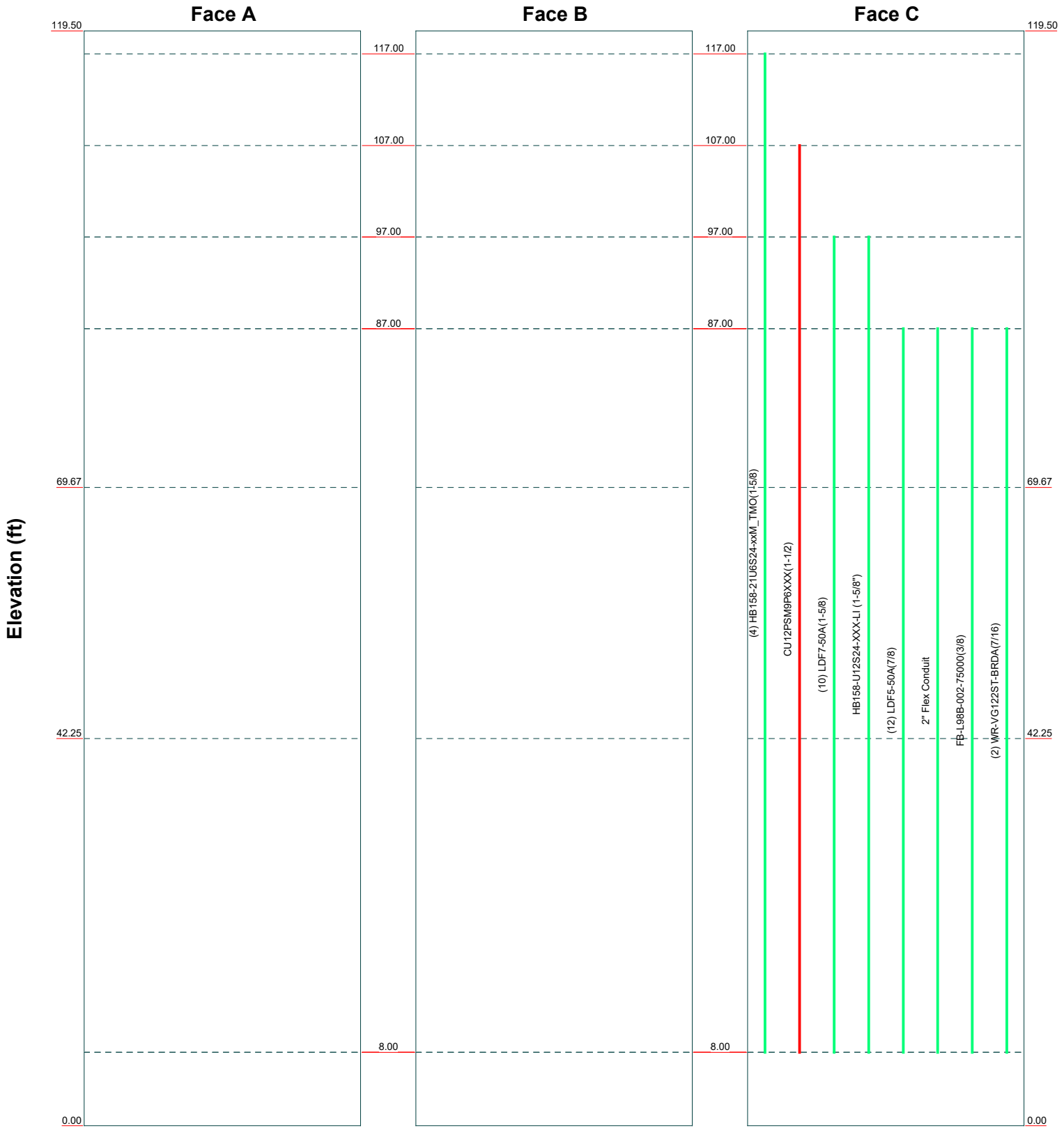
GPD
 520 South Main Street Suite 2531
 Akron, Ohio 44311
 Phone: (330) 572-2100
 FAX: (330) 572-2101

Job: SOUTH HEBRON / NED ELLIS PROP. / BU#: 87638		
Project: 2021777.876387.06		
Client: Crown Castle USA, Inc.	Drawn by: msteward	App'd:
Code: TIA-222-H	Date: 09/29/21	Scale: NTS
Path: T:\Crown\876387\06\5_Structural\00_Structure\00_Rev 0\03_Modeling\876387.eri	Dwg No: E-1	

Feed Line Distribution Chart

0' - 119'6"

— Round
 — Flat
 — App In Face
 — App Out Face
 — Truss Leg



GPD
 520 South Main Street Suite 2531
 Akron, Ohio 44311
 Phone: (330) 572-2100
 FAX: (330) 572-2101

Job: SOUTH HEBRON / NED ELLIS PROP. / BU#: 87638		
Project: 2021777.876387.06		
Client: Crown Castle USA, Inc.	Drawn by: msteward	App'd:
Code: TIA-222-H	Date: 09/29/21	Scale: NTS
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tnxTower GPD 520 South Main Street Suite 2531 Akron, Ohio 44311 Phone: (330) 572-2100 FAX: (330) 572-2101	Job SOUTH HEBRON / NED ELLIS PROP. / BU#: 876387	Page 1 of 10
	Project 2021777.876387.06	Date 11:24:35 09/29/21
	Client Crown Castle USA, Inc.	Designed by msteward

Tower Input Data

The tower is a monopole.

This tower is designed using the TIA-222-H standard.

The following design criteria apply:

Tower is located in Tolland County, Connecticut.

Tower base elevation above sea level: 545.00 ft.

Basic wind speed of 120 mph.

Risk Category II.

Exposure Category C.

Simplified Topographic Factor Procedure for wind speed-up calculations is used.

Topographic Category: 1.

Crest Height: 0.00 ft.

Nominal ice thickness of 1.0000 in.

Ice thickness is considered to increase with height.

Ice density of 56 pcf.

A wind speed of 50 mph is used in combination with ice.

Temperature drop of 50 °F.

Deflections calculated using a wind speed of 60 mph.

A non-linear (P-delta) analysis was used.

Pressures are calculated at each section.

Stress ratio used in pole design is 1.

Tower analysis based on target reliabilities in accordance with Annex S.

Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.

Maximum demand-capacity ratio is: 1.05.

Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

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

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	119.50-69.67	49.83	4.66	18	19.0000	33.0200	0.3125	1.2500	A572-65 (65 ksi)
L2	69.67-42.25	32.08	5.50	18	31.0839	39.9900	0.3750	1.5000	A572-65 (65 ksi)
L3	42.25-0.00	47.75		18	37.7131	51.0000	0.4375	1.7500	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	It/Q in ²	w in	w/t
L1	19.2449	18.5357	817.8017	6.6341	9.6520	84.7287	1636.6795	9.2696	2.7940	8.941
	33.4812	32.4418	4384.6653	11.6112	16.7742	261.3940	8775.1000	16.2240	5.2615	16.837
L2	32.8192	36.5512	4354.7927	10.9017	15.7906	275.7837	8715.3156	18.2791	4.8108	12.829
	40.5491	47.1518	9348.7731	14.0633	20.3149	460.1925	18709.8476	23.5804	6.3782	17.009
L3	39.7814	51.7618	9086.4782	13.2328	19.1582	474.2856	18184.9126	25.8858	5.8675	13.411
	51.7193	70.2124	22678.1721	17.9497	25.9080	875.3347	45386.1847	35.1128	8.2060	18.757

Tower Elevation ft	Gusset Area (per face) ft ²	Gusset Thickness in	Gusset Grade	Adjust. Factor A _f	Adjust. Factor A _r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 119.50-69.67				1	1	1			
L2 69.67-42.25				1	1	1			
L3 42.25-0.00				1	1	1			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
CU12PSM9P6XXX(1-1/2)	C	No	Surface Ar (CaAa)	107.00 - 8.00	1	1	0.150 0.150	1.6000		2.35

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	C _A A _A ft ² /ft	Weight plf
HB158-21U6S24-xx M_TMO(1-5/8)	C	No	No	Inside Pole	117.00 - 8.00	4	No Ice	2.50
							1/2" Ice	2.50
							1" Ice	2.50
LDF7-50A(1-5/8)	C	No	No	Inside Pole	97.00 - 8.00	10	No Ice	0.82
							1/2" Ice	0.82

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Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C _{AA} ft ² /ft	Weight plf
HB158-U12S24-XX X-LI (1-5/8")	C	No	No	Inside Pole	97.00 - 8.00	1	1" Ice	0.00	0.82
							No Ice	0.00	3.20
							1/2" Ice	0.00	3.20
							1" Ice	0.00	3.20
LDF5-50A(7/8)	C	No	No	Inside Pole	87.00 - 8.00	12	No Ice	0.00	0.33
							1/2" Ice	0.00	0.33
							1" Ice	0.00	0.33
							No Ice	0.00	0.32
2" Flex Conduit	C	No	No	Inside Pole	87.00 - 8.00	1	1/2" Ice	0.00	0.32
							1" Ice	0.00	0.32
							No Ice	0.00	0.06
							1/2" Ice	0.00	0.06
FB-L98B-002-75000 (3/8)	C	No	No	Inside Pole	87.00 - 8.00	1	1" Ice	0.00	0.06
							No Ice	0.00	0.06
							1/2" Ice	0.00	0.06
							1" Ice	0.00	0.06
WR-VG122ST-BRD A(7/16)	C	No	No	Inside Pole	87.00 - 8.00	2	No Ice	0.00	0.14
							1/2" Ice	0.00	0.14
							1" Ice	0.00	0.14
							No Ice	0.00	0.14

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K	
Lighting Rod 3/4" x 7'	C	None			0.0000	123.50	No Ice	0.53	0.53	0.03
							1/2" Ice	1.24	1.24	0.04
							1" Ice	1.97	1.97	0.05
AIR6449 B41_T-MOBILE w/ Mount Pipe	A	From Leg	4.00	0.0000	117.00	No Ice	5.19	2.71	0.13	
			0.00			1/2" Ice	5.59	3.04	0.17	
			0.00			1" Ice	6.02	3.38	0.23	
AIR6449 B41_T-MOBILE w/ Mount Pipe	B	From Leg	4.00	0.0000	117.00	No Ice	5.19	2.71	0.13	
			0.00			1/2" Ice	5.59	3.04	0.17	
			0.00			1" Ice	6.02	3.38	0.23	
AIR6449 B41_T-MOBILE w/ Mount Pipe	C	From Leg	4.00	0.0000	117.00	No Ice	5.19	2.71	0.13	
			0.00			1/2" Ice	5.59	3.04	0.17	
			0.00			1" Ice	6.02	3.38	0.23	
APXVAALL24_43-U-NA20 _TMO w/ Mount Pipe	A	From Leg	4.00	0.0000	117.00	No Ice	14.69	6.87	0.18	
			0.00			1/2" Ice	15.46	7.55	0.31	
			0.00			1" Ice	16.23	8.25	0.45	
APXVAALL24_43-U-NA20 _TMO w/ Mount Pipe	B	From Leg	4.00	0.0000	117.00	No Ice	14.69	6.87	0.18	
			0.00			1/2" Ice	15.46	7.55	0.31	
			0.00			1" Ice	16.23	8.25	0.45	
APXVAALL24_43-U-NA20 _TMO w/ Mount Pipe	C	From Leg	4.00	0.0000	117.00	No Ice	14.69	6.87	0.18	
			0.00			1/2" Ice	15.46	7.55	0.31	
			0.00			1" Ice	16.23	8.25	0.45	
APX16DWV-16DWV-S-E-A 20 w/ Mount Pipe	A	From Leg	4.00	0.0000	117.00	No Ice	6.29	2.76	0.06	
			0.00			1/2" Ice	6.86	3.27	0.11	
			0.00			1" Ice	7.45	3.79	0.16	
APX16DWV-16DWV-S-E-A 20 w/ Mount Pipe	B	From Leg	4.00	0.0000	117.00	No Ice	6.29	2.76	0.06	
			0.00			1/2" Ice	6.86	3.27	0.11	
			0.00			1" Ice	7.45	3.79	0.16	
APX16DWV-16DWV-S-E-A 20 w/ Mount Pipe	C	From Leg	4.00	0.0000	117.00	No Ice	6.29	2.76	0.06	
			0.00			1/2" Ice	6.86	3.27	0.11	
			0.00			1" Ice	7.45	3.79	0.16	
RADIO 4449 B71	A	From Leg	4.00	0.0000	117.00	No Ice	1.97	1.59	0.07	

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _A A ₁ Front	C _A A ₁ Side	Weight	
			Horz	Vert						
			ft	ft	°	ft	ft ²	ft ²	K	
B85A_T-MOBILE			0.00			1/2" Ice	2.15	1.75	0.09	
			0.00			1" Ice	2.33	1.92	0.12	
RADIO 4449 B71	B	From Leg	4.00		0.0000	117.00	No Ice	1.97	1.59	0.07
B85A_T-MOBILE			0.00			1/2" Ice	2.15	1.75	0.09	
			0.00			1" Ice	2.33	1.92	0.12	
RADIO 4449 B71	C	From Leg	4.00		0.0000	117.00	No Ice	1.97	1.59	0.07
B85A_T-MOBILE			0.00			1/2" Ice	2.15	1.75	0.09	
			0.00			1" Ice	2.33	1.92	0.12	
RADIO 4424 B25_TMO	A	From Leg	4.00		0.0000	117.00	No Ice	2.05	1.61	0.09
			0.00			1/2" Ice	2.23	1.77	0.11	
			0.00			1" Ice	2.42	1.94	0.13	
RADIO 4424 B25_TMO	B	From Leg	4.00		0.0000	117.00	No Ice	2.05	1.61	0.09
			0.00			1/2" Ice	2.23	1.77	0.11	
			0.00			1" Ice	2.42	1.94	0.13	
RADIO 4424 B25_TMO	C	From Leg	4.00		0.0000	117.00	No Ice	2.05	1.61	0.09
			0.00			1/2" Ice	2.23	1.77	0.11	
			0.00			1" Ice	2.42	1.94	0.13	
RADIO 4415 B66A	A	From Leg	4.00		0.0000	117.00	No Ice	1.86	0.87	0.05
			0.00			1/2" Ice	2.03	1.00	0.06	
			0.00			1" Ice	2.20	1.13	0.08	
RADIO 4415 B66A	B	From Leg	4.00		0.0000	117.00	No Ice	1.86	0.87	0.05
			0.00			1/2" Ice	2.03	1.00	0.06	
			0.00			1" Ice	2.20	1.13	0.08	
RADIO 4415 B66A	C	From Leg	4.00		0.0000	117.00	No Ice	1.86	0.87	0.05
			0.00			1/2" Ice	2.03	1.00	0.06	
			0.00			1" Ice	2.20	1.13	0.08	
VFA10-SD-S	A	From Leg	2.00		0.0000	117.00	No Ice	9.80	6.40	0.42
			0.00			1/2" Ice	14.90	10.00	0.50	
			0.00			1" Ice	19.60	13.50	0.63	
VFA10-SD-S	B	From Leg	2.00		0.0000	117.00	No Ice	9.80	6.40	0.42
			0.00			1/2" Ice	14.90	10.00	0.50	
			0.00			1" Ice	19.60	13.50	0.63	
VFA10-SD-S	C	From Leg	2.00		0.0000	117.00	No Ice	9.80	6.40	0.42
			0.00			1/2" Ice	14.90	10.00	0.50	
			0.00			1" Ice	19.60	13.50	0.63	
MSFAA Colar Mount	C	None			0.0000	117.00	No Ice	3.17	3.17	0.20
						1/2" Ice	3.79	3.79	0.23	
						1" Ice	4.42	4.42	0.28	
MX08FRO665-21 w/ Mount Pipe	A	From Leg	4.00		0.0000	107.00	No Ice	8.01	4.23	0.11
			0.00			1/2" Ice	8.52	4.69	0.19	
			0.00			1" Ice	9.04	5.16	0.29	
MX08FRO665-21 w/ Mount Pipe	B	From Leg	4.00		0.0000	107.00	No Ice	8.01	4.23	0.11
			0.00			1/2" Ice	8.52	4.69	0.19	
			0.00			1" Ice	9.04	5.16	0.29	
MX08FRO665-21 w/ Mount Pipe	C	From Leg	4.00		0.0000	107.00	No Ice	8.01	4.23	0.11
			0.00			1/2" Ice	8.52	4.69	0.19	
			0.00			1" Ice	9.04	5.16	0.29	
TA08025-B605	A	From Leg	4.00		0.0000	107.00	No Ice	1.96	1.13	0.08
			0.00			1/2" Ice	2.14	1.27	0.09	
			0.00			1" Ice	2.32	1.41	0.11	
TA08025-B605	B	From Leg	4.00		0.0000	107.00	No Ice	1.96	1.13	0.08
			0.00			1/2" Ice	2.14	1.27	0.09	
			0.00			1" Ice	2.32	1.41	0.11	
TA08025-B605	C	From Leg	4.00		0.0000	107.00	No Ice	1.96	1.13	0.08
			0.00			1/2" Ice	2.14	1.27	0.09	
			0.00			1" Ice	2.32	1.41	0.11	
TA08025-B604	A	From Leg	4.00		0.0000	107.00	No Ice	1.96	0.98	0.06

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _A A ₁ Front	C _A A ₁ Side	Weight
			Horz	Vert					
			ft	ft	°	ft	ft ²	ft ²	K
			0.00			1/2" Ice	2.14	1.11	0.08
			0.00			1" Ice	2.32	1.25	0.10
TA08025-B604	B	From Leg	4.00		0.0000	No Ice	1.96	0.98	0.06
			0.00			1/2" Ice	2.14	1.11	0.08
			0.00			1" Ice	2.32	1.25	0.10
TA08025-B604	C	From Leg	4.00		0.0000	No Ice	1.96	0.98	0.06
			0.00			1/2" Ice	2.14	1.11	0.08
			0.00			1" Ice	2.32	1.25	0.10
RDIDC-9181-PF-48	A	From Leg	4.00		0.0000	No Ice	2.56	1.34	0.02
			0.00			1/2" Ice	2.76	1.49	0.04
			0.00			1" Ice	2.97	1.66	0.07
8' x 2" Mount Pipe	A	From Leg	4.00		0.0000	No Ice	1.90	1.90	0.03
			0.00			1/2" Ice	2.73	2.73	0.04
			0.00			1" Ice	3.40	3.40	0.06
8' x 2" Mount Pipe	B	From Leg	4.00		0.0000	No Ice	1.90	1.90	0.03
			0.00			1/2" Ice	2.73	2.73	0.04
			0.00			1" Ice	3.40	3.40	0.06
8' x 2" Mount Pipe	C	From Leg	4.00		0.0000	No Ice	1.90	1.90	0.03
			0.00			1/2" Ice	2.73	2.73	0.04
			0.00			1" Ice	3.40	3.40	0.06
(3) MC-K6MHDX-9-96	C	None			0.0000	No Ice	15.30	15.30	1.19
						1/2" Ice	20.48	20.48	1.71
						1" Ice	25.66	25.66	2.22
(2) LPA-80080-4CF-EDIN-0 w/ Mount Pipe	A	From Leg	4.00		0.0000	No Ice	2.86	6.57	0.03
			0.00			1/2" Ice	3.22	7.19	0.08
			0.00			1" Ice	3.59	7.84	0.13
(2) LPA-80080-4CF-EDIN-0 w/ Mount Pipe	B	From Leg	4.00		0.0000	No Ice	2.86	6.57	0.03
			0.00			1/2" Ice	3.22	7.19	0.08
			0.00			1" Ice	3.59	7.84	0.13
(2) LPA-80080-4CF-EDIN-0 w/ Mount Pipe	C	From Leg	4.00		0.0000	No Ice	2.86	6.57	0.03
			0.00			1/2" Ice	3.22	7.19	0.08
			0.00			1" Ice	3.59	7.84	0.13
(2) NHH-65B-R2B w/ Mount Pipe	A	From Leg	4.00		0.0000	No Ice	4.09	3.29	0.07
			0.00			1/2" Ice	4.48	3.67	0.13
			0.00			1" Ice	4.88	4.06	0.21
(2) NHH-65B-R2B w/ Mount Pipe	B	From Leg	4.00		0.0000	No Ice	4.09	3.29	0.07
			0.00			1/2" Ice	4.48	3.67	0.13
			0.00			1" Ice	4.88	4.06	0.21
(2) NHH-65B-R2B w/ Mount Pipe	C	From Leg	4.00		0.0000	No Ice	4.09	3.29	0.07
			0.00			1/2" Ice	4.48	3.67	0.13
			0.00			1" Ice	4.88	4.06	0.21
MT6407-77A w/ Mount Pipe	A	From Leg	4.00		0.0000	No Ice	4.91	2.68	0.10
			0.00			1/2" Ice	5.26	3.14	0.14
			0.00			1" Ice	5.61	3.62	0.18
MT6407-77A w/ Mount Pipe	B	From Leg	4.00		0.0000	No Ice	4.91	2.68	0.10
			0.00			1/2" Ice	5.26	3.14	0.14
			0.00			1" Ice	5.61	3.62	0.18
MT6407-77A w/ Mount Pipe	C	From Leg	4.00		0.0000	No Ice	4.91	2.68	0.10
			0.00			1/2" Ice	5.26	3.14	0.14
			0.00			1" Ice	5.61	3.62	0.18
RVZDC-6627-PF-48	A	From Leg	4.00		0.0000	No Ice	3.79	2.51	0.03
			0.00			1/2" Ice	4.04	2.73	0.06
			0.00			1" Ice	4.30	2.95	0.10
RF4439D-25A	A	From Leg	4.00		0.0000	No Ice	1.87	1.25	0.07
			0.00			1/2" Ice	2.03	1.39	0.09
			0.00			1" Ice	2.21	1.54	0.11
RF4439D-25A	B	From Leg	4.00		0.0000	No Ice	1.87	1.25	0.07

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _A A ₁ Front	C _A A ₁ Side	Weight
			Horz	Vert					
			ft	ft	°	ft	ft ²	ft ²	K
			0.00			1/2" Ice	2.03	1.39	0.09
			0.00			1" Ice	2.21	1.54	0.11
RF4439D-25A	C	From Leg	4.00	0.0000	97.00	No Ice	1.87	1.25	0.07
			0.00			1/2" Ice	2.03	1.39	0.09
			0.00			1" Ice	2.21	1.54	0.11
RF4440D-13A	A	From Leg	4.00	0.0000	97.00	No Ice	1.87	1.13	0.07
			0.00			1/2" Ice	2.03	1.27	0.09
			0.00			1" Ice	2.21	1.41	0.11
RF4440D-13A	B	From Leg	4.00	0.0000	97.00	No Ice	1.87	1.13	0.07
			0.00			1/2" Ice	2.03	1.27	0.09
			0.00			1" Ice	2.21	1.41	0.11
RF4440D-13A	C	From Leg	4.00	0.0000	97.00	No Ice	1.87	1.13	0.07
			0.00			1/2" Ice	2.03	1.27	0.09
			0.00			1" Ice	2.21	1.41	0.11
T-Arm Mount [TA 602-3]	A	None		0.0000	97.00	No Ice	13.40	13.40	0.77
						1/2" Ice	16.44	16.44	1.00
						1" Ice	19.70	19.70	1.29
Mount Reinforcement Specifications	C	None		0.0000	97.00	No Ice	28.63	28.63	0.28
						1/2" Ice	37.31	37.31	0.67
						1" Ice	45.80	45.80	0.94
TME-RRUS-11	A	From Leg	1.00	0.0000	88.00	No Ice	2.78	1.19	0.05
			0.00			1/2" Ice	2.99	1.33	0.07
			2.00			1" Ice	3.21	1.49	0.09
TME-RRUS-11	B	From Leg	1.00	0.0000	88.00	No Ice	2.78	1.19	0.05
			0.00			1/2" Ice	2.99	1.33	0.07
			2.00			1" Ice	3.21	1.49	0.09
TME-RRUS-11	C	From Leg	1.00	0.0000	88.00	No Ice	2.78	1.19	0.05
			0.00			1/2" Ice	2.99	1.33	0.07
			2.00			1" Ice	3.21	1.49	0.09
DC6-48-60-18-8F Surge Suppression Unit	A	From Leg	1.00	0.0000	88.00	No Ice	0.92	0.92	0.02
			0.00			1/2" Ice	1.46	1.46	0.04
			2.00			1" Ice	1.64	1.64	0.06
Pipe Mount 6'x2.375"	A	From Leg	1.00	0.0000	88.00	No Ice	1.43	1.43	0.03
			0.00			1/2" Ice	1.92	1.92	0.04
			2.00			1" Ice	2.29	2.29	0.05
Pipe Mount 6'x2.375"	B	From Leg	1.00	0.0000	88.00	No Ice	1.43	1.43	0.03
			0.00			1/2" Ice	1.92	1.92	0.04
			2.00			1" Ice	2.29	2.29	0.05
Pipe Mount 6'x2.375"	C	From Leg	1.00	0.0000	88.00	No Ice	1.43	1.43	0.03
			0.00			1/2" Ice	1.92	1.92	0.04
			2.00			1" Ice	2.29	2.29	0.05
Side Arm Mount [SO 102-3]	C	None		0.0000	88.00	No Ice	3.60	3.60	0.07
						1/2" Ice	4.18	4.18	0.11
						1" Ice	4.75	4.75	0.14
(2) 7770.00 w/ Mount Pipe	A	From Leg	4.00	0.0000	87.00	No Ice	5.84	4.35	0.06
			0.00			1/2" Ice	6.32	5.20	0.11
			2.00			1" Ice	6.77	5.92	0.16
(2) 7770.00 w/ Mount Pipe	B	From Leg	4.00	0.0000	87.00	No Ice	5.84	4.35	0.06
			0.00			1/2" Ice	6.32	5.20	0.11
			2.00			1" Ice	6.77	5.92	0.16
(2) 7770.00 w/ Mount Pipe	C	From Leg	4.00	0.0000	87.00	No Ice	5.84	4.35	0.06
			0.00			1/2" Ice	6.32	5.20	0.11
			2.00			1" Ice	6.77	5.92	0.16
AM-X-CD-16-65-00T-RET w/ Mount Pipe	A	From Leg	4.00	0.0000	87.00	No Ice	8.26	6.30	0.07
			0.00			1/2" Ice	8.82	7.48	0.14
			1.00			1" Ice	9.35	8.37	0.21
AM-X-CD-16-65-00T-RET	B	From Leg	4.00	0.0000	87.00	No Ice	8.26	6.30	0.07

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	Client Crown Castle USA, Inc.	Designed by msteward

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _A A ₁ Front	C _A A ₁ Side	Weight
			Horz Lateral	Vert					
w/ Mount Pipe			0.00			1/2" Ice	8.82	7.48	0.14
			1.00			1" Ice	9.35	8.37	0.21
AM-X-CD-16-65-00T-RET	C	From Leg	4.00	0.0000	87.00	No Ice	8.26	6.30	0.07
w/ Mount Pipe			0.00			1/2" Ice	8.82	7.48	0.14
			1.00			1" Ice	9.35	8.37	0.21
(2) LGP21401	A	From Leg	4.00	0.0000	87.00	No Ice	1.10	0.35	0.01
			0.00			1/2" Ice	1.24	0.44	0.02
			2.00			1" Ice	1.38	0.54	0.03
(2) LGP21401	B	From Leg	4.00	0.0000	87.00	No Ice	1.10	0.35	0.01
			0.00			1/2" Ice	1.24	0.44	0.02
			2.00			1" Ice	1.38	0.54	0.03
(2) LGP21401	C	From Leg	4.00	0.0000	87.00	No Ice	1.10	0.35	0.01
			0.00			1/2" Ice	1.24	0.44	0.02
			2.00			1" Ice	1.38	0.54	0.03
(2) LGP21901	A	From Leg	4.00	0.0000	87.00	No Ice	0.23	0.16	0.01
			0.00			1/2" Ice	0.29	0.21	0.01
			2.00			1" Ice	0.36	0.28	0.01
(2) LGP21901	B	From Leg	4.00	0.0000	87.00	No Ice	0.23	0.16	0.01
			0.00			1/2" Ice	0.29	0.21	0.01
			2.00			1" Ice	0.36	0.28	0.01
(2) LGP21901	C	From Leg	4.00	0.0000	87.00	No Ice	0.23	0.16	0.01
			0.00			1/2" Ice	0.29	0.21	0.01
			2.00			1" Ice	0.36	0.28	0.01
T-Arm Mount [TA 602-3]	A	None		0.0000	87.00	No Ice	13.40	13.40	0.77
						1/2" Ice	16.44	16.44	1.00
						1" Ice	19.70	19.70	1.29
EEI Branches (Large)	C	None		0.0000	114.00	No Ice	90.00	90.00	1.50
						1/2" Ice	120.00	120.00	1.90
						1" Ice	144.00	144.00	2.47
EEI Branches (Large)	C	None		0.0000	104.00	No Ice	90.00	90.00	1.50
						1/2" Ice	120.00	120.00	1.90
						1" Ice	144.00	144.00	2.47
EEI Branches (Large)	C	None		0.0000	94.00	No Ice	90.00	90.00	1.50
						1/2" Ice	120.00	120.00	1.90
						1" Ice	144.00	144.00	2.47
EEI Branches (Large)	C	None		0.0000	84.00	No Ice	90.00	90.00	1.50
						1/2" Ice	120.00	120.00	1.90
						1" Ice	144.00	144.00	2.47
EEI Branches (Small)	C	None		0.0000	77.00	No Ice	45.00	45.00	0.75
						1/2" Ice	60.00	60.00	0.85
						1" Ice	72.00	72.00	0.95

Maximum Tower Deflections - Service Wind

Section No.	Elevation	Horz. Deflection	Gov. Load Comb.	Tilt	Twist
	ft	in		°	°
L1	119.5 - 69.67	18.527	39	1.3040	0.0011
L2	74.33 - 42.25	7.261	39	0.9476	0.0005
L3	47.75 - 0	2.931	39	0.5761	0.0002

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	Client Crown Castle USA, Inc.	Designed by msteward

Critical Deflections and Radius of Curvature - Service Wind

<i>Elevation</i>	<i>Appurtenance</i>	<i>Gov. Load Comb.</i>	<i>Deflection</i>	<i>Tilt</i>	<i>Twist</i>	<i>Radius of Curvature</i>
<i>ft</i>			<i>in</i>	<i>°</i>	<i>°</i>	<i>ft</i>
123.50	Lighting Rod 3/4" x 7'	39	18.527	1.3040	0.0011	36680
117.00	AIR6449 B41_T-MOBILE w/ Mount Pipe	39	17.848	1.2895	0.0011	36680
114.00	EEI Branches (Large)	39	17.035	1.2719	0.0010	33346
107.00	MX08FRO665-21 w/ Mount Pipe	39	15.153	1.2295	0.0009	14672
104.00	EEI Branches (Large)	39	14.357	1.2103	0.0009	11832
97.00	(2) LPA-80080-4CF-EDIN-0 w/ Mount Pipe	39	12.539	1.1619	0.0008	8150
94.00	EEI Branches (Large)	39	11.780	1.1392	0.0007	7191
88.00	TME-RRUS-11	39	10.310	1.0893	0.0006	5821
87.00	(2) 7770.00 w/ Mount Pipe	39	10.072	1.0804	0.0006	5642
84.00	EEI Branches (Large)	39	9.370	1.0523	0.0006	5165
77.00	EEI Branches (Small)	39	7.818	0.9789	0.0005	4320

Maximum Tower Deflections - Design Wind

<i>Section No.</i>	<i>Elevation</i>	<i>Horz. Deflection</i>	<i>Gov. Load Comb.</i>	<i>Tilt</i>	<i>Twist</i>
	<i>ft</i>	<i>in</i>		<i>°</i>	<i>°</i>
L1	119.5 - 69.67	79.061	2	5.5710	0.0047
L2	74.33 - 42.25	30.993	2	4.0475	0.0020
L3	47.75 - 0	12.513	2	2.4600	0.0009

Critical Deflections and Radius of Curvature - Design Wind

<i>Elevation</i>	<i>Appurtenance</i>	<i>Gov. Load Comb.</i>	<i>Deflection</i>	<i>Tilt</i>	<i>Twist</i>	<i>Radius of Curvature</i>
<i>ft</i>			<i>in</i>	<i>°</i>	<i>°</i>	<i>ft</i>
123.50	Lighting Rod 3/4" x 7'	2	79.061	5.5710	0.0047	8722
117.00	AIR6449 B41_T-MOBILE w/ Mount Pipe	2	76.164	5.5090	0.0045	8722
114.00	EEI Branches (Large)	2	72.694	5.4339	0.0043	7929
107.00	MX08FRO665-21 w/ Mount Pipe	2	64.664	5.2526	0.0039	3487
104.00	EEI Branches (Large)	2	61.269	5.1705	0.0037	2812
97.00	(2) LPA-80080-4CF-EDIN-0 w/ Mount Pipe	2	53.513	4.9634	0.0032	1935
94.00	EEI Branches (Large)	2	50.277	4.8663	0.0031	1707
88.00	TME-RRUS-11	2	44.005	4.6533	0.0027	1380
87.00	(2) 7770.00 w/ Mount Pipe	2	42.989	4.6150	0.0026	1338
84.00	EEI Branches (Large)	2	39.996	4.4951	0.0025	1224
77.00	EEI Branches (Small)	2	33.372	4.1812	0.0021	1022

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Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
L1	119.5 - 69.67 (1)	TP33.02x19x0.3125	49.83	0.00	0.0	31.1413	-22.46	1821.77	0.012
L2	69.67 - 42.25 (2)	TP39.99x31.0839x0.375	32.08	0.00	0.0	45.3343	-29.30	2652.06	0.011
L3	42.25 - 0 (3)	TP51x37.7131x0.4375	47.75	0.00	0.0	70.2123	-45.21	4107.42	0.011

Pole Bending Design Data

Section No.	Elevation ft	Size	M _{ux} kip-ft	φM _{ux} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{ux}}$	M _{uy} kip-ft	φM _{uy} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{uy}}$
L1	119.5 - 69.67 (1)	TP33.02x19x0.3125	916.48	1470.41	0.623	0.00	1470.41	0.000
L2	69.67 - 42.25 (2)	TP39.99x31.0839x0.375	1924.49	2589.82	0.743	0.00	2589.82	0.000
L3	42.25 - 0 (3)	TP51x37.7131x0.4375	3860.06	5140.70	0.751	0.00	5140.70	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V _u K	φV _n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T _u kip-ft	φT _n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	119.5 - 69.67 (1)	TP33.02x19x0.3125	36.95	546.53	0.068	0.00	1502.70	0.000
L2	69.67 - 42.25 (2)	TP39.99x31.0839x0.375	38.87	795.62	0.049	0.00	2653.83	0.000
L3	42.25 - 0 (3)	TP51x37.7131x0.4375	42.00	1232.23	0.034	0.00	5456.31	0.000

Pole Interaction Design Data

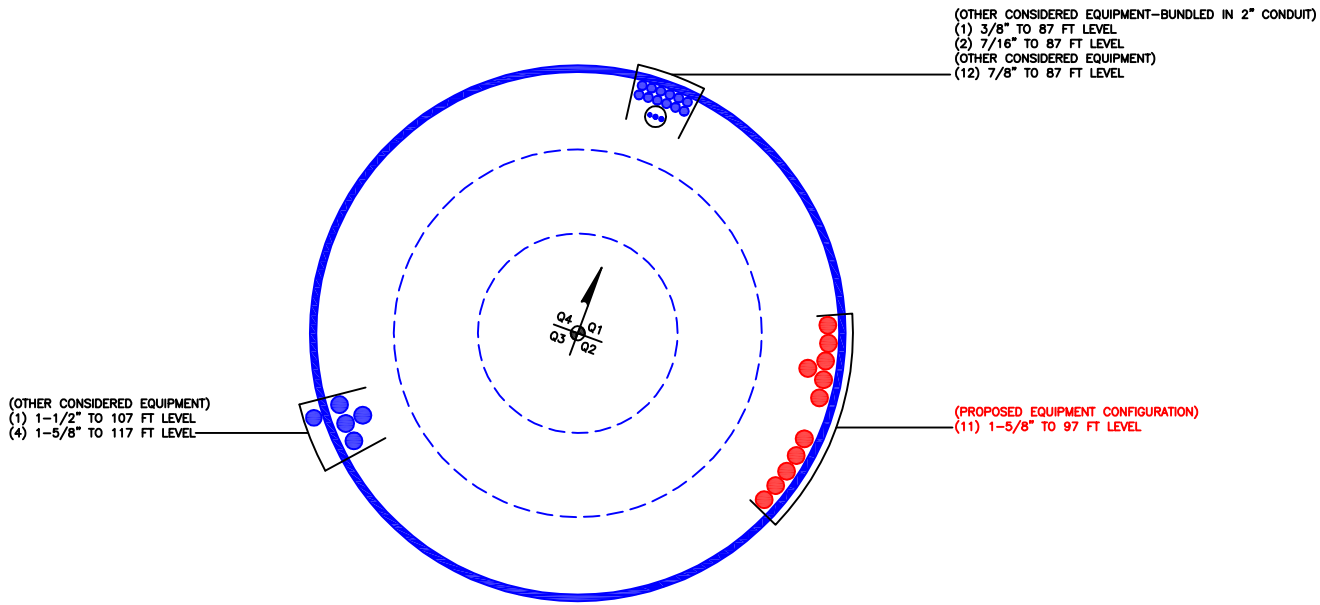
Section No.	Elevation ft	Ratio P _u φP _n	Ratio M _{ux} φM _{ux}	Ratio M _{uy} φM _{uy}	Ratio V _u φV _n	Ratio T _u φT _n	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	119.5 - 69.67 (1)	0.012	0.623	0.000	0.068	0.000	0.640	1.050	4.8.2
L2	69.67 - 42.25 (2)	0.011	0.743	0.000	0.049	0.000	0.757	1.050	4.8.2
L3	42.25 - 0 (3)	0.011	0.751	0.000	0.034	0.000	0.763	1.050	4.8.2

tnxTower GPD 520 South Main Street Suite 2531 Akron, Ohio 44311 Phone: (330) 572-2100 FAX: (330) 572-2101	Job SOUTH HEBRON / NED ELLIS PROP. / BU#: 876387	Page 10 of 10
	Project 2021777.876387.06	Date 11:24:35 09/29/21
	Client Crown Castle USA, Inc.	Designed by msteward

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	119.5 - 69.67	Pole	TP33.02x19x0.3125	1	-22.46	1912.86	61.0	Pass
L2	69.67 - 42.25	Pole	TP39.99x31.0839x0.375	2	-29.30	2784.66	72.1	Pass
L3	42.25 - 0	Pole	TP51x37.7131x0.4375	3	-45.21	4312.79	72.7	Pass
Summary							ELC:	Load Case 7
Pole (L3)							72.7	Pass
Rating =							72.7	Pass

APPENDIX B
BASE LEVEL DRAWING



CROWN REGION ADDRESS
USA

AGE	CR	SLS	SA	SA	IK	LF	SA	DNA
27/7/2015	UPDATED PER WORK ORDER 1063309							
28/11/17	UPDATED PER WORK ORDER 1468301							
19/09/18	UPDATED PER WORK ORDER 1537970							
21/11/19	UPDATED PER WORK ORDER 1810070							
30/07/21	UPDATED PER WORK ORDER 1919189							
11/02/21	UPDATED PER WORK ORDER 1869007							
30/04/21	UPDATED PER WORK ORDER 1969803							
03/02/21	UPDATED PER WORK ORDER 1968286							
08/02/21	UPDATED PER WORK ORDER 2020115							

DRAWN BY: KEYSTONE/TF
CHECKED BY: JM
DRAWING DATE: 3/12/07

SITE NUMBER:

SITE NAME:

SOUTH HEBRON / NED ELLIS PROP.

BUSINESS UNIT NUMBER:

875387

SITE ADDRESS:

107 Buck Rd.
HEBRON, CT 06248
TOLLAND COUNTY
USA

SHEET TITLE:

BASE LEVEL:

SHEET NUMBER:

APPENDIX C
ADDITIONAL CALCULATIONS

Monopole Base Plate Connection

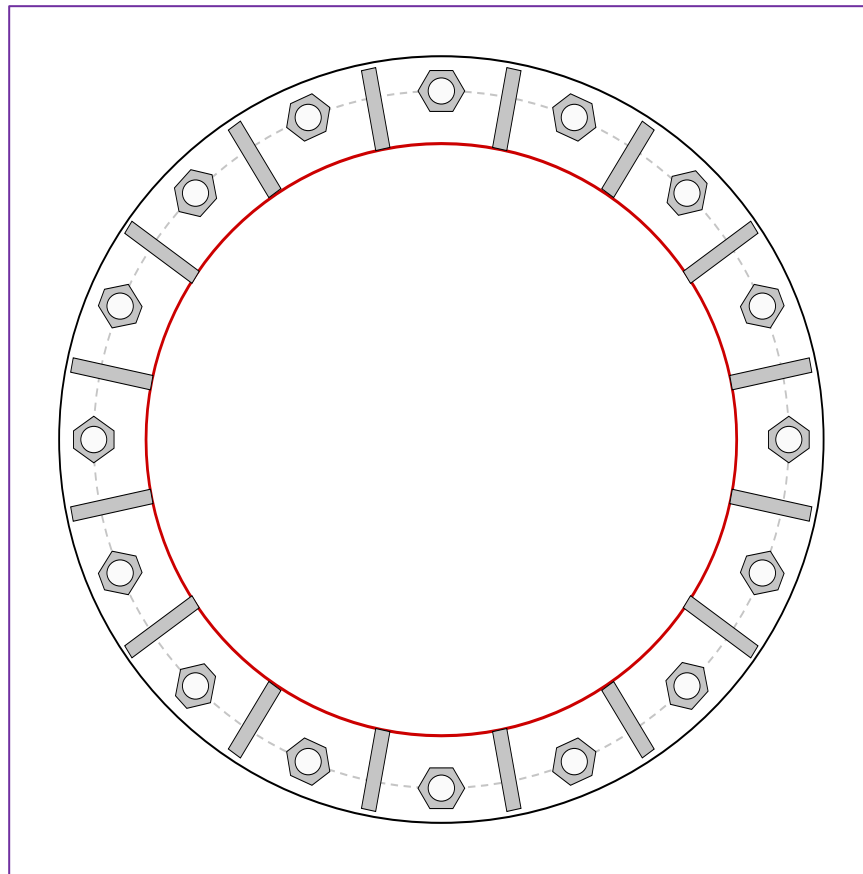


Site Info	
BU #	876387
Site Name	HEBRON / NED ELLIS
Order #	586423 Rev 0

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
l_{ar} (in)	0.875

Applied Loads	
Moment (kip-ft)	3860.06
Axial Force (kips)	45.21
Shear Force (kips)	42.00

*TIA-222-H Section 15.5 Applied



Connection Properties	Analysis Results	
Anchor Rod Data	Anchor Rod Summary <i>(units of kips, kip-in)</i>	
(16) 2-1/4" ϕ bolts (A615-75 N; $F_y=75$ ksi, $F_u=100$ ksi) on 60" BC	$Pu_t = 190.07$	$\phi Pn_t = 243.75$ Stress Rating
Base Plate Data	$Vu = 2.63$	$\phi Vn = 149.1$ 74.3%
66" OD x 2" Plate (A871; $F_y=60$ ksi, $F_u=75$ ksi)	$Mu = n/a$	$\phi Mn = n/a$ Pass
Stiffener Data	Base Plate Summary	
(16) 21"H x 7"W x 1.25"T, Notch: 1" plate: $F_y= 50$ ksi ; weld: $F_y= 70$ ksi horiz. weld: 0.5625" groove, 45° dbl bevel, 0.3125" fillet vert. weld: 0.3125" fillet	Max Stress (ksi): 33.68	(Roark's Flexural)
Pole Data	Allowable Stress (ksi): 54	
51" x 0.4375" 18-sided pole (A572-65; $F_y=65$ ksi, $F_u=80$ ksi)	Stress Rating: 59.4%	Pass
	Stiffener Summary	
	Horizontal Weld: 72.4%	Pass
	Vertical Weld: 53.9%	Pass
	Plate Flexure+Shear: 9.6%	Pass
	Plate Tension+Shear: 41.9%	Pass
	Plate Compression: 42.4%	Pass
	Pole Summary	
	Punching Shear: 10.5%	Pass

Pier and Pad Foundation



BU #: 876387
 Site Name: SOUTH BEBRON /
 App. Number: 586423 Rev 0

TIA-222 Revision: H
 Tower Type: Monopole

Top & Bot. Pad Rein. Different?:
 Block Foundation?:
 Rectangular Pad?:

Superstructure Analysis Reactions		
Compression, P_{comp} :	45	kips
Base Shear, Vu_{comp} :	42	kips
Moment, M_u :	3860	ft-kips
Tower Height, H :	119.5	ft
BP Dist. Above Fdn, bp_{dist} :	3.25	in

Foundation Analysis Checks				
	Capacity	Demand	Rating*	Check
<i>Lateral (Sliding) (kips)</i>	129.73	42.00	30.8%	Pass
<i>Bearing Pressure (ksf)</i>	18.00	2.77	15.4%	Pass
<i>Overturning (kip*ft)</i>	6708.75	4123.38	61.5%	Pass
<i>Pier Flexure (Comp.) (kip*ft)</i>	4529.45	3986.00	83.8%	Pass
<i>Pier Compression (kip)</i>	26891.28	67.82	0.2%	Pass
<i>Pad Flexure (kip*ft)</i>	6039.74	1705.71	26.9%	Pass
<i>Pad Shear - 1-way (kips)</i>	1004.09	226.87	21.5%	Pass
<i>Pad Shear - 2-way (Comp) (ksi)</i>	0.190	0.041	20.6%	Pass
<i>Flexural 2-way (Comp) (kip*ft)</i>	5153.35	2391.60	44.2%	Pass

Pier Properties		
Pier Shape:	Square	
Pier Diameter, $dpier$:	6.5	ft
Ext. Above Grade, E :	1	ft
Pier Rebar Size, Sc :	8	
Pier Rebar Quantity, mc :	38	
Pier Tie/Spiral Size, St :	4	
Pier Tie/Spiral Quantity, mt :	4	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier} :	3	in

*Rating per TIA-222-H Section 15.5

Structural Rating*:	83.8%
Soil Rating*:	61.5%

Pad Properties		
Depth, D :	5	ft
Pad Width, W_1 :	28	ft
Pad Thickness, T :	3	ft
Pad Rebar Size (Top dir.2), Sp_{top2} :	8	
Pad Rebar Quantity (Top dir. 2), mp_{top2} :	30	
Pad Rebar Size (Bottom dir. 2), Sp_2 :	8	
Pad Rebar Quantity (Bottom dir. 2), mp_2 :	56	
Pad Clear Cover, cc_{pad} :	3	in

Material Properties		
Rebar Grade, F_y :	60	ksi
Concrete Compressive Strength, F'_c :	4	ksi
Dry Concrete Density, δ_c :	150	pcf

Soil Properties		
Total Soil Unit Weight, γ :	100	pcf
Ultimate Gross Bearing, Q_{ult} :	24.000	ksf
Cohesion, C_u :		ksf
Friction Angle, ϕ :		degrees
SPT Blow Count, N_{blows} :	49	
Base Friction, μ :	0.3	
Neglected Depth, N :	3.00	ft
Foundation Bearing on Rock?	Yes	
Groundwater Depth, gw :	8	ft

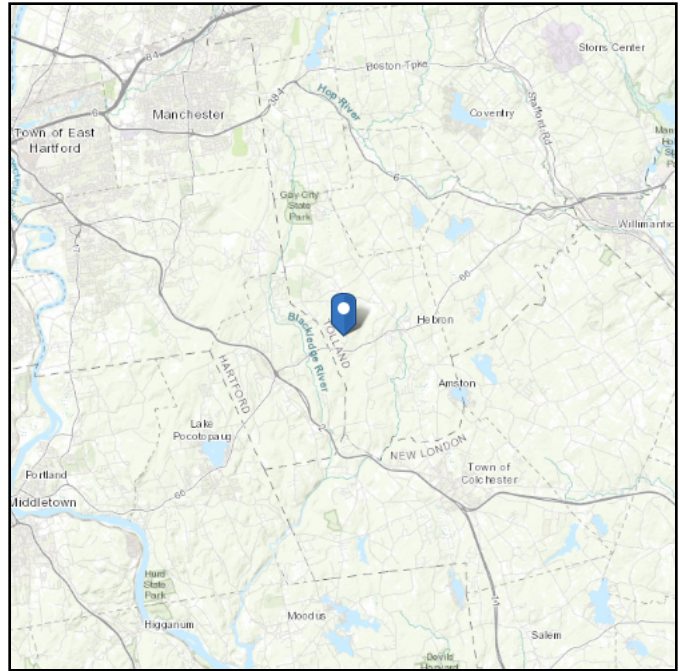
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ASCE 7 Hazards Report

Address:
No Address at This
Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Default (see
Section 11.4.3)

Elevation: 544.53 ft (NAVD 88)
Latitude: 41.65445
Longitude: -72.410864



Wind

Results:

Wind Speed:	120 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	92 Vmph
100-year MRI	99 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Tue Sep 28 2021

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

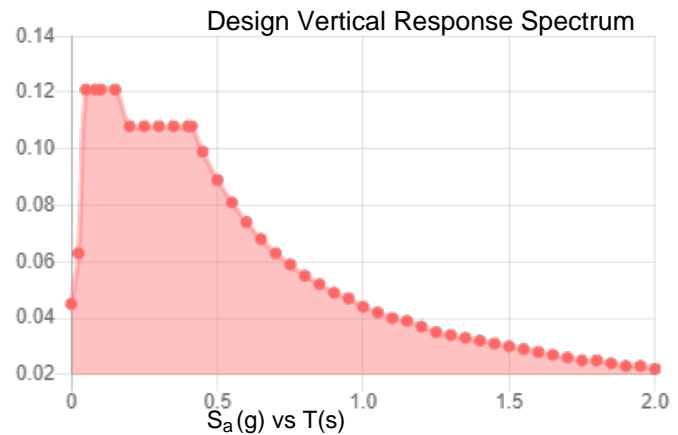
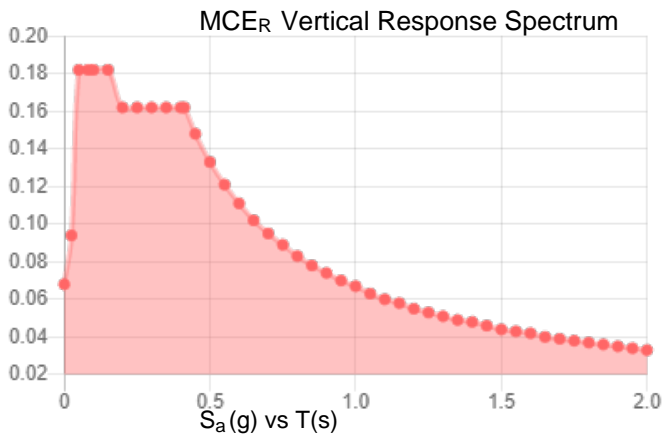
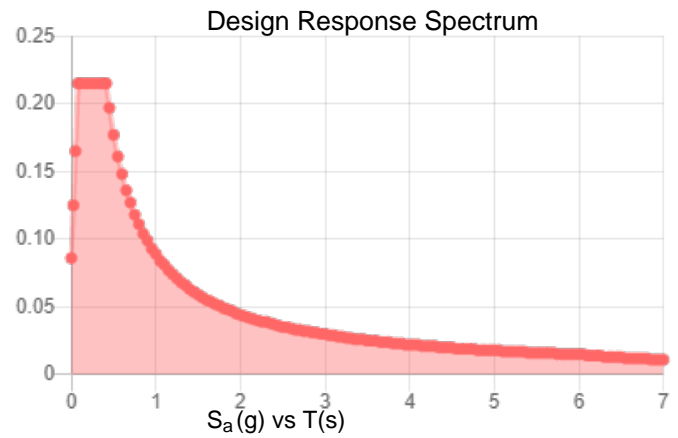
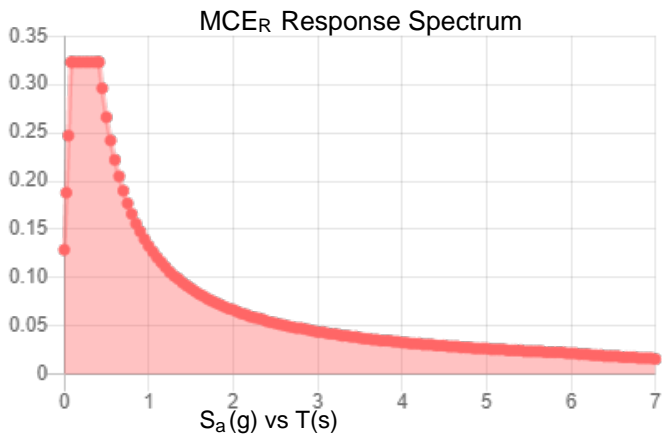
Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

Site Soil Class: D - Default (see Section 11.4.3)

Results:

S_s :	0.202	S_{D1} :	0.089
S_1 :	0.055	T_L :	6
F_a :	1.6	PGA :	0.111
F_v :	2.4	PGA _M :	0.175
S_{MS} :	0.323	F_{PGA} :	1.578
S_{M1} :	0.133	I_e :	1
S_{DS} :	0.215	C_v :	0.704

Seismic Design Category B



Data Accessed:

Tue Sep 28 2021

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness: 1.00 in.
Concurrent Temperature: 15 F
Gust Speed: 50 mph

Data Source: Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

Date Accessed: Tue Sep 28 2021

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

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided “as is” and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE 7 standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE 7 Hazard Tool.

Exhibit E

Mount Analysis



Maser Consulting Connecticut
2000 Midlantic Drive Suite 100
Mt. Laurel, NJ 08054
856.797.0412
peter.albano@colliersengineering.com

Antenna Mount Analysis Report and PMI Requirements

Mount Analysis

SMART Tool Project #: 10046609
Maser Consulting Connecticut Project #: 21777324A

September 1, 2021

Site Information

Site ID: 467919-VZW / HEBRON WEST CT
Site Name: HEBRON WEST CT
Carrier Name: Verizon Wireless
Address: 107 Buck Road
Hebron, Connecticut 06248
Tolland County
Latitude: 41.654444°
Longitude: -72.410833°

Structure Information

Tower Type: Monopole
Mount Type: 13.50-Ft T-Arm

FUZE ID # 16272175

Analysis Results

T-Arm: 95.5% Pass

***Contractor PMI Requirements:

Included at the end of this MA report

Available & Submitted via portal at <https://pmi.vzwsmart.com>

Contractor - Please Review Specific Site PMI Requirements Upon Award
Requirements may also be Noted on A & E drawings

Report Prepared By: Dave Boddie



Digitally signed by Eric Anderson
Date: 2021.09.02 15:16:33-04'00'

Executive Summary:

The objective of this report is to determine the capacity of the antenna support mount at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

This analysis is inclusive of the mount structure only and does not address the structural capacity of the supporting structure. This mounting frame was not analyzed as an anchor attachment point for fall protection. All climbing activities are required to have a fall protection plan completed by a competent person.

Sources of Information:

Document Type	Remarks
<i>Radio Frequency Data Sheet (RFDS)</i>	<i>Verizon RFDS, Site ID: 674942, dated August 26, 2021</i>
<i>Mount Mapping Report</i>	<i>Roaming Networks Inc., Site ID: 467919, dated May 10, 2021</i>

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT} : 120 mph Ice Wind Speed (3-sec. Gust): 50 mph Design Ice Thickness: 1.00 in Risk Category: II Exposure Category: C Topographic Category: 1 Topographic Feature Considered: N/A Topographic Method: N/A Ground Elevation Factor, K_e : 0.980
Seismic Parameters:	S_s : 0.202 S_1 : 0.055
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph Maintenance Live Load, L_v : 250 lbs. Maintenance Live Load, L_m : 500 lbs.
Analysis Software:	RISA-3D (V17)

Final Loading Configuration:

The following equipment has been considered for the analysis of the mounts:

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
96.50	97.00	6	Commscope	NHH-65B-R2B	Added
		3	Samsung	MT6407-77A	
		1	Raycap	RVZDC-6627-PF-48	
		3	Samsung	RF4439d-25A	
		3	Samsung	RF4440d-13A	
		6	Antel	LPA-80080-4CF	Retained

The recent mount mapping did not report existing OVP units. However, it is acceptable to install up to any three (3) of the OVP model numbers listed below as required at any location other than the mount face without affecting the structural capacity of the mount. If OVP units are installed on the mount face, a mount re-analysis may be required.

Model Number	Ports	AKA
DB-B1-6C-12AB-0Z	6	OVP-6
RVZDC-6627-PF-48	12	OVP-12

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to Maser Consulting Connecticut and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Maser Consulting Connecticut to verify deviation will not adversely impact the analysis.
2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping and reported in the Mount Mapping Report are assumed to be corrected and documented as part of the PMI process and are not considered in the mount analysis.

The mount analysis and the mount mapping are not a condition assessment of the mount. Proper maintenance and condition assessments are still required post analysis.

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped by Maser Consulting Connecticut, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.
4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.
6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Maser Consulting Connecticut is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.

7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
- Channel, Solid Round, Angle, Plate ASTM A36 (Gr. 36)
 - HSS (Rectangular) ASTM 500 (Gr. B-46)
 - Pipe ASTM A53 (Gr. B-35)
 - Threaded Rod F1554 (Gr. 36)
 - Bolts ASTM A325

Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by Maser Consulting Connecticut.

Analysis Results:

Component	Utilization %	Pass/Fail
Standoff	94.8%	Pass
Face Horizontal	91.7%	Pass
Antenna Pipe	49.5%	Pass
Tower Connection	95.5%	Pass

Structure Rating – (Controlling Utilization of all Components)	95.5%
---	--------------

The mount has been found structurally adequate for all steel and external connection capacities. Serviceability in accordance with TIA-222-H Section 4.9.11.3 has not been considered.

Recommendation:

The existing mounts are **SUFFICIENT** for the final loading configuration and do not require modifications.

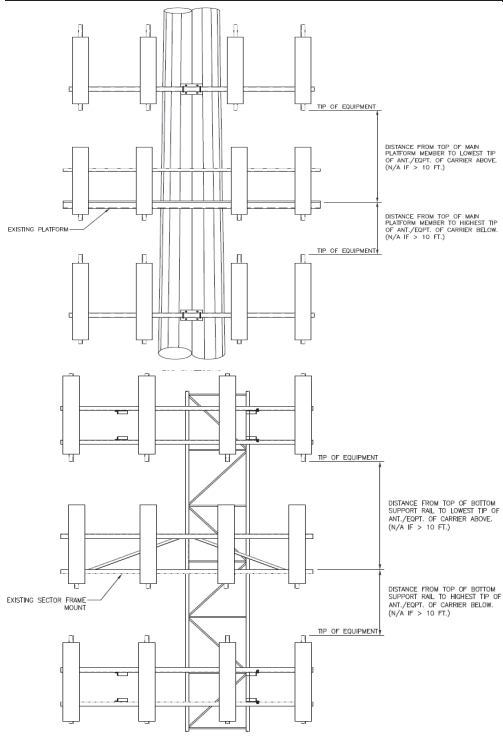
ANSI/ASSP rigging plan review services compliant with the requirements of ANSI/TIA 322 are available for a Construction Class IV site or other, if required. Separate review fees will apply.

Attachments:

1. Mount Photos
2. Mount Mapping Report (for reference only)
3. Analysis Calculations
- 4. Contractor Required Post Installation Inspection (PMI) Report Deliverables**
5. Antenna Placement Diagrams
6. TIA Adoption and Wind Speed Usage Letter



Mount Azimuth (Degree) for Each Sector			Tower Leg Azimuth (Degree) for Each Sector			Sector B										
Sector A:	40.00	Deg	Leg A:		Deg	Ant _{1a}	LPA-80080-4CF-EDIN	5.50	13.20	47.20		97.6667	28.00	16.00	140.00	206
Sector B:	140.00	Deg	Leg B:		Deg	Ant _{1b}										
Sector C:	280.00	Deg	Leg C:		Deg	Ant _{1c}										
Sector D:		Deg	Leg D:		Deg	Ant _{2a}	BXA-70063-6CF-EDIN	11.30	6.00	71.00		97	36.00	10.00	140.00	205
Climbing Facility Information						Ant _{2b}										
Location:		Deg				Ant _{2c}										
Climbing Facility	Corrosion Type:					Ant _{3a}	SPXW 8515T4					97	36.00	10.00	140.00	207
	Access:					Ant _{3b}										
	Condition:					Ant _{3c}										
						Ant _{4a}	LPA-80080-4CF-EDIN	5.50	13.20	47.20		97.6667	28.00	16.00	140.00	208
						Ant _{4b}										
						Ant _{4c}										
						Ant _{5a}										
						Ant _{5b}										
						Ant _{5c}										
						Ant on Standoff										
						Ant on Standoff										
						Ant on Tower										
						Ant on Tower										
						Sector C										
						Ant _{1a}	LPA-80080-4CF-EDIN	5.50	13.20	47.20		97.6667	28.00	16.00	280.00	218
						Ant _{1b}										
						Ant _{1c}										
						Ant _{2a}	BXA-70063-6CF-EDIN	11.30	6.00	71.00		97	36.00	10.00	280.00	220
						Ant _{2b}										
						Ant _{2c}										
						Ant _{3a}	SPXW 8515T4					97	36.00	10.00	280.00	219
						Ant _{3b}										
						Ant _{3c}										
						Ant _{4a}	LPA-80080-4CF-EDIN	5.50	13.20	47.20		97.6667	28.00	16.00	280.00	221
						Ant _{4b}										
						Ant _{4c}										
						Ant _{5a}										
						Ant _{5b}										
						Ant _{5c}										
						Ant on Standoff										
						Ant on Standoff										
						Ant on Tower										
						Ant on Tower										
						Sector D										
						Ant _{1a}										
						Ant _{1b}										
						Ant _{1c}										
						Ant _{2a}										
						Ant _{2b}										
						Ant _{2c}										
						Ant _{3a}										
						Ant _{3b}										
						Ant _{3c}										
						Ant _{4a}										
						Ant _{4b}										
						Ant _{4c}										
						Ant _{5a}										
						Ant _{5b}										
						Ant _{5c}										
						Ant on Standoff										
						Ant on Standoff										
						Ant on Tower										
						Ant on Tower										



Observed Safety and Structural Issues During the Mount Mapping		
Issue #	Description of Issue	Photo #

1		
2		
3		
4		
5		
6		
7		
8		

Mapping Notes		
<p>1. Please report any visible structural or safety issues observed on the antenna mounts (Damaged members, loose connections, tilting mounts, safety climb issues, etc.)</p> <p>2. If the thickness of the existing pipes or tubing can't be obtained from a general tool (such as Caliper), please use an ultrasonic measurement tool (thickness gauge) to measure the thickness.</p> <p>3. Please create all required detail sketches of the mounts and insert them into the "Sketches" tab.</p> <p>4. Please measure and enter the bolt sizes and types under the Members Box in the spreadsheet of the mount type.</p> <p>5. Take and label the photos of the tower, mounts, connections, antennas and all measurements. Minimum 50 photos are required.</p> <p>6. Please measure and report the size and length of all existing antenna mounting pipes.</p> <p>7. Please measure and report the antenna information for all sectors.</p> <p>8. Don't delete or rearrange any sheet or contents of any sheet from this mapping form.</p>		

Standard Conditions		
<p>1. Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping are to be reported in this mapping. However, this mount mapping is not a condition assessment of the mount.</p>		



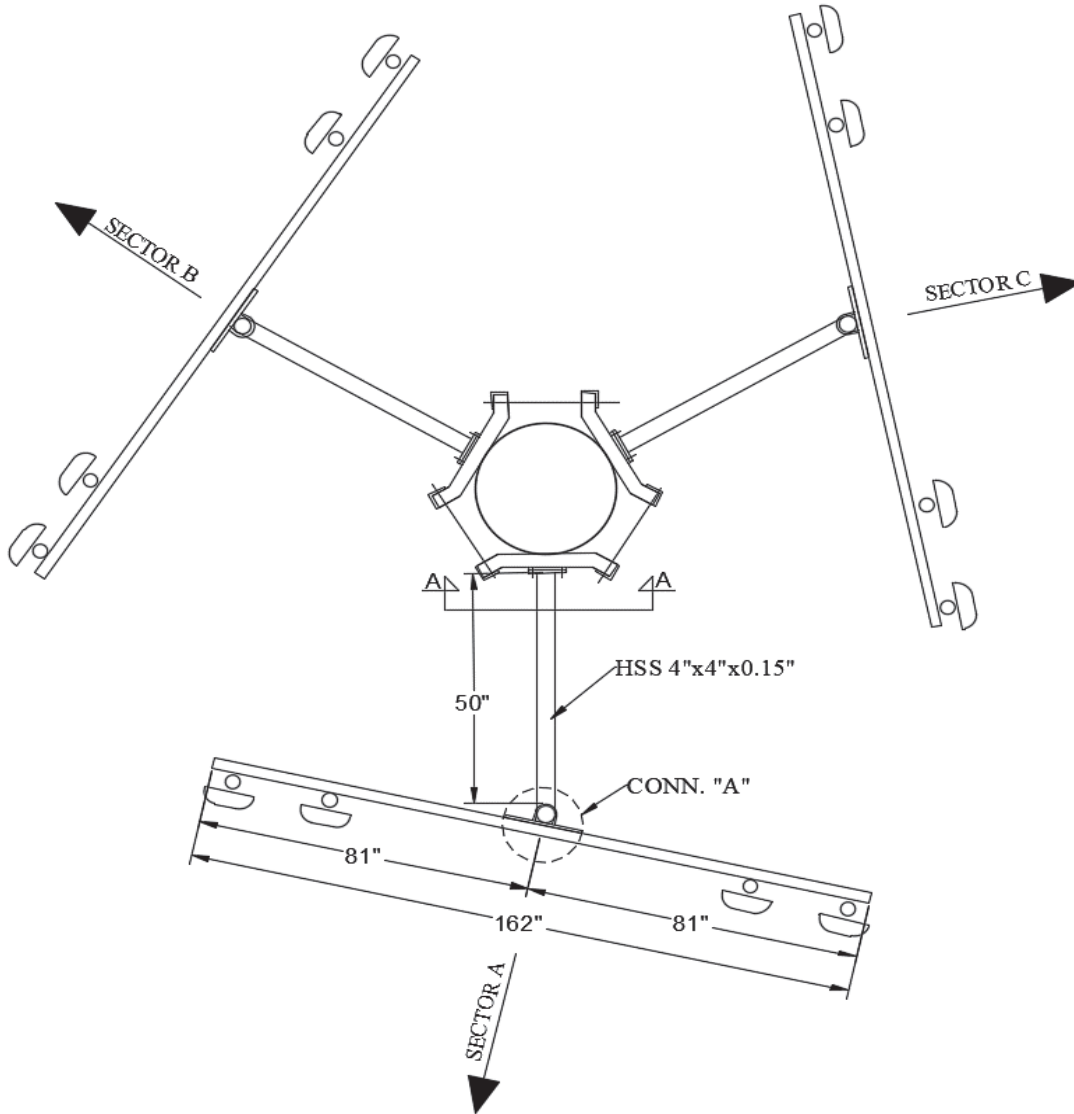
Antenna Mount Mapping Form (PATENT PENDING)

FCC #
N/A

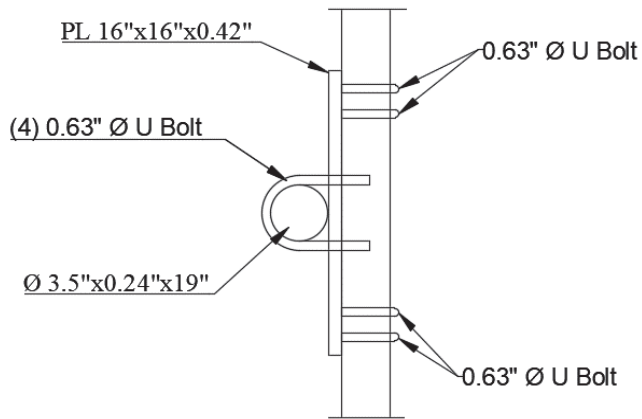
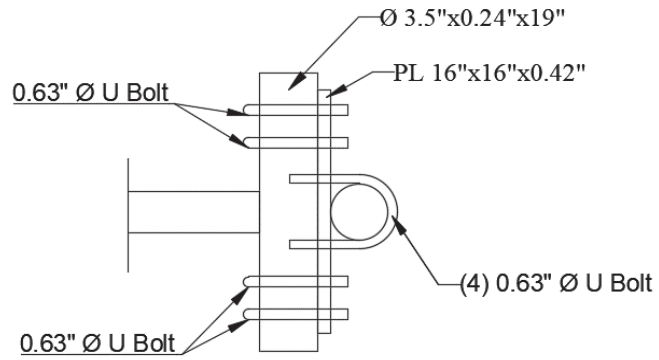
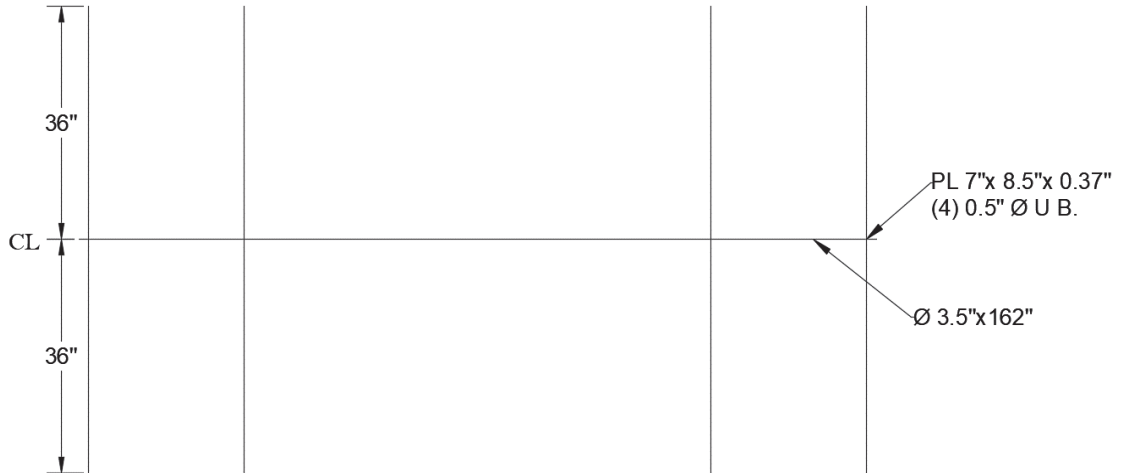
Tower Owner:	Crown Castle	Mapping Date:	5/10/2021
Site Name:	HEBRON WEST CT	Tower Type:	Monopole
Site Number or ID:	467919	Tower Height (Ft.):	N/A
Mapping Contractor:	Roaming Networks Inc.	Mount Elevation (Ft.):	97

This antenna mapping form is the property of TES and under **PATENT PENDING**. The formation contained herein is considered confidential in nature and is to be used only for the specific customer it was intended for. Reproduction, transmission, publication, modification or disclosure by any method is prohibited except by express written permission of TES. All means and methods are the responsibility of the contractor and the work shall be compliant with ANSI/ASSE A 10.48, OSHA, FCC, FAA and other safety requirements that may apply. TES is not warranting the usability of the safety climb as it must be assessed prior to each use in compliance with OSHA requirements.

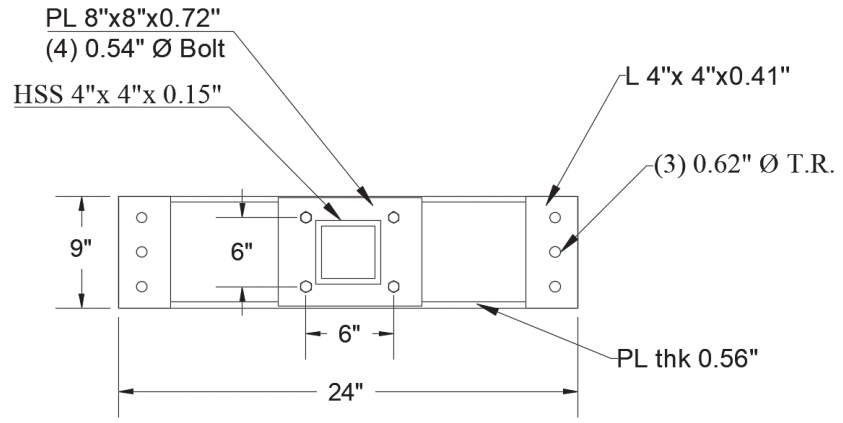
Please Insert Sketches of the Antenna Mount



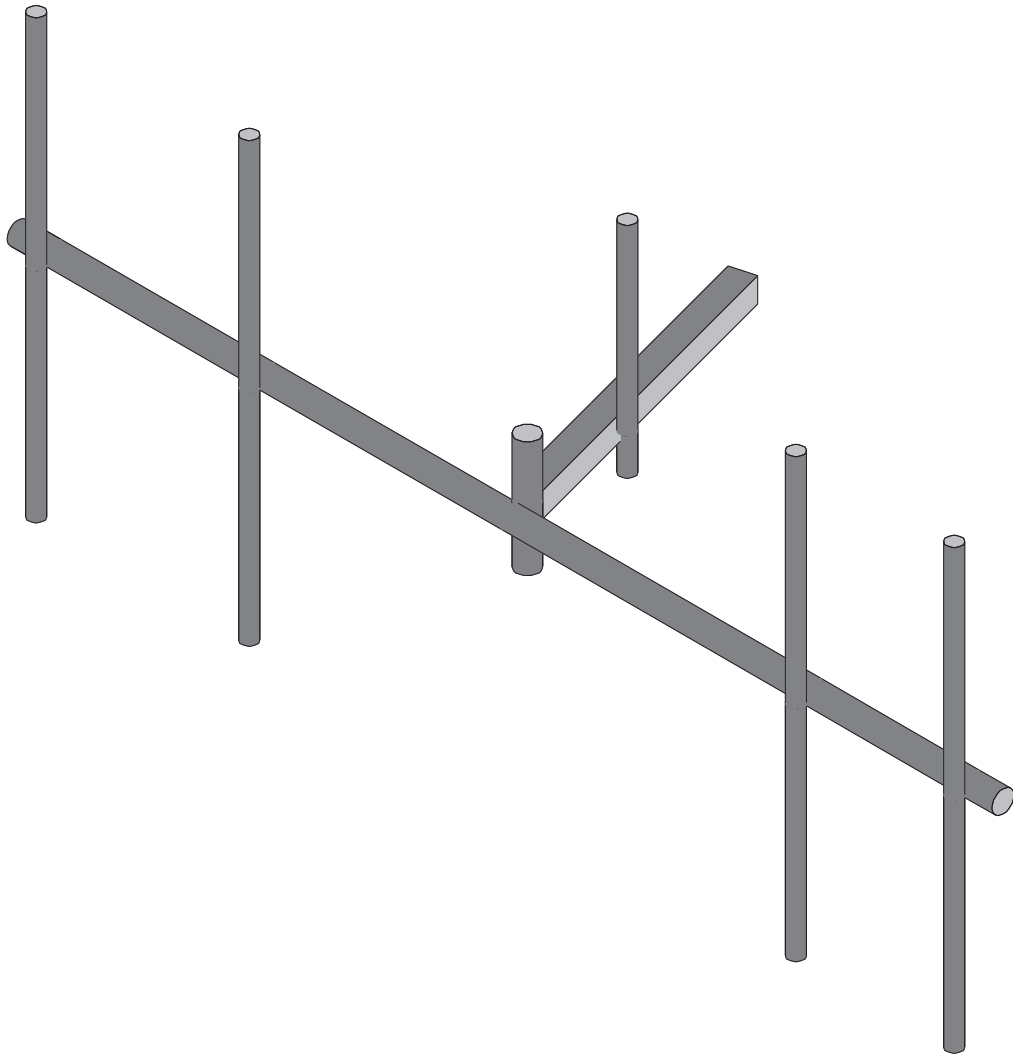
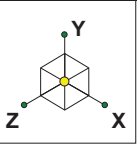
ANTENNA PLAN VIEW



CONN. "A"



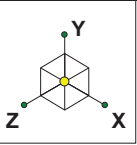
VIEW "A"



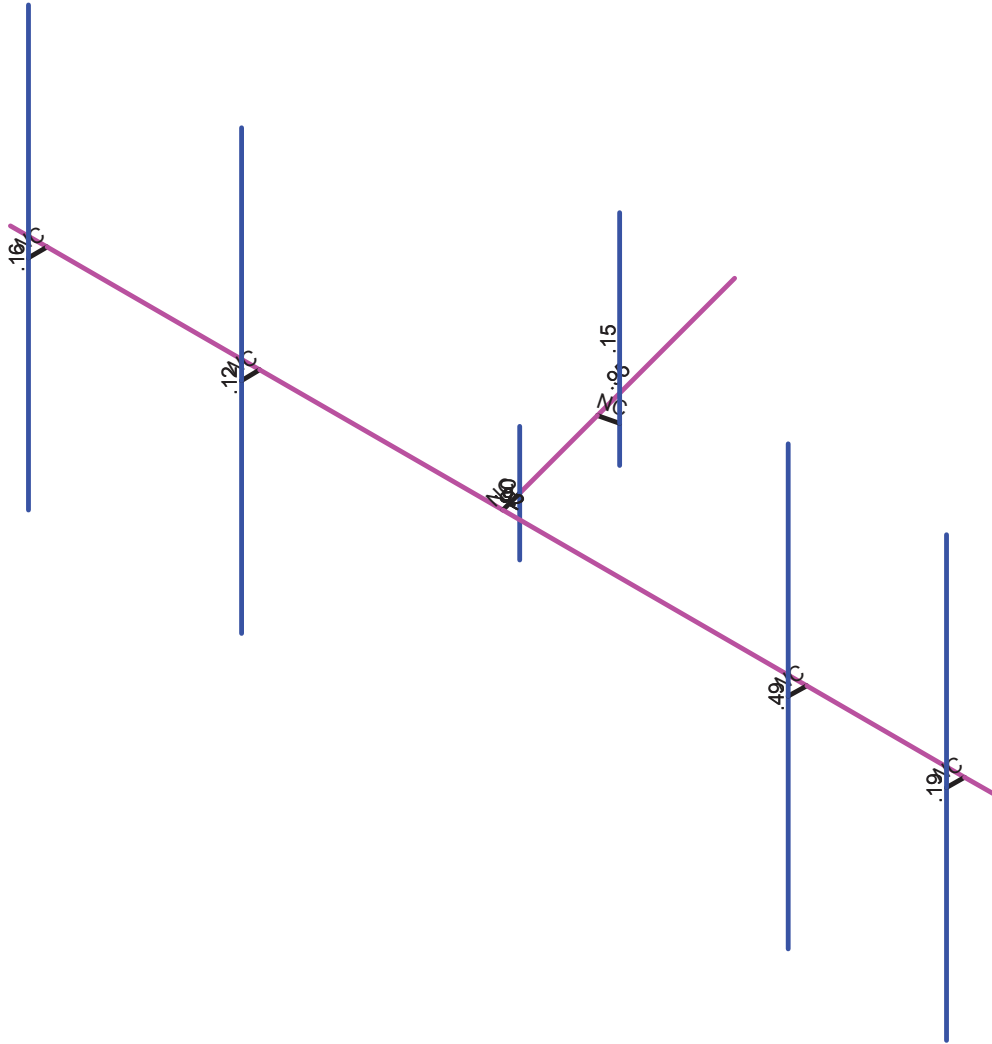
Maser Consulting
DAB
Project No. 21777324A

467919-VZW_MT_LOT_SectorA_H

SK - 1
Sept 1, 2021 at 5:44 PM
467919-VZW_MT_LOT_A_H.r3d



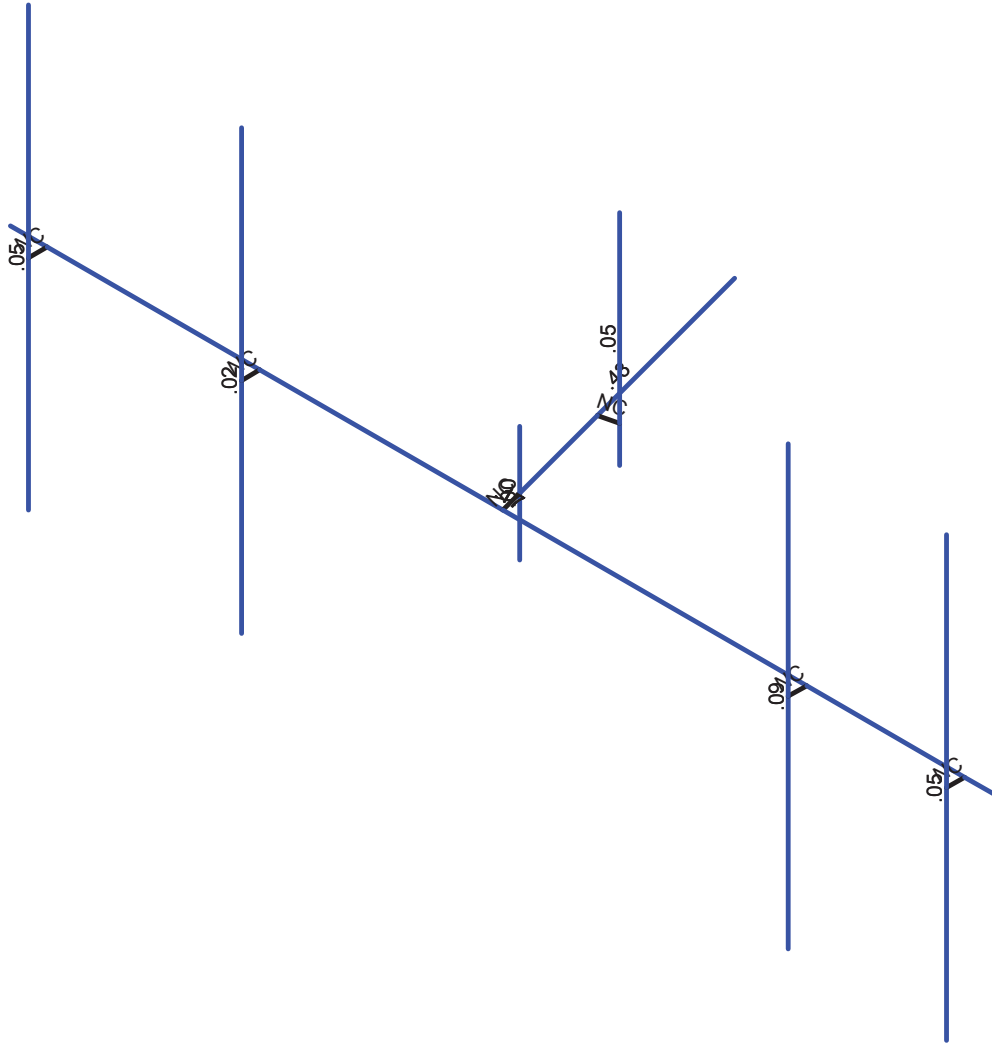
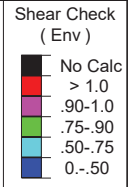
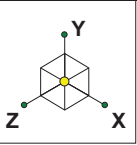
Code Check (Env)	
	No Calc
	> 1.0
	.90-1.0
	.75-.90
	.50-.75
	0-.50



Maser Consulting
 DAB
 Project No. 21777324A

467919-VZW_MT_LOT_SectorA_H

SK - 2
 Sept 1, 2021 at 5:45 PM
 467919-VZW_MT_LOT_A_H.r3d



Maser Consulting
DAB
Project No. 21777324A

467919-VZW_MT_LOT_SectorA_H

SK - 3
Sept 1, 2021 at 5:45 PM
467919-VZW_MT_LOT_A_H.r3d

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me... Surface(...
1	Antenna D	None					39	
2	Antenna Di	None					39	
3	Antenna Wo (0 Deg)	None					39	
4	Antenna Wo (30 Deg)	None					39	
5	Antenna Wo (60 Deg)	None					39	
6	Antenna Wo (90 Deg)	None					39	
7	Antenna Wo (120 Deg)	None					39	
8	Antenna Wo (150 Deg)	None					39	
9	Antenna Wo (180 Deg)	None					39	
10	Antenna Wo (210 Deg)	None					39	
11	Antenna Wo (240 Deg)	None					39	
12	Antenna Wo (270 Deg)	None					39	
13	Antenna Wo (300 Deg)	None					39	
14	Antenna Wo (330 Deg)	None					39	
15	Antenna Wi (0 Deg)	None					39	
16	Antenna Wi (30 Deg)	None					39	
17	Antenna Wi (60 Deg)	None					39	
18	Antenna Wi (90 Deg)	None					39	
19	Antenna Wi (120 Deg)	None					39	
20	Antenna Wi (150 Deg)	None					39	
21	Antenna Wi (180 Deg)	None					39	
22	Antenna Wi (210 Deg)	None					39	
23	Antenna Wi (240 Deg)	None					39	
24	Antenna Wi (270 Deg)	None					39	
25	Antenna Wi (300 Deg)	None					39	
26	Antenna Wi (330 Deg)	None					39	
27	Antenna Wm (0 Deg)	None					39	
28	Antenna Wm (30 Deg)	None					39	
29	Antenna Wm (60 Deg)	None					39	
30	Antenna Wm (90 Deg)	None					39	
31	Antenna Wm (120 Deg)	None					39	
32	Antenna Wm (150 Deg)	None					39	
33	Antenna Wm (180 Deg)	None					39	
34	Antenna Wm (210 Deg)	None					39	
35	Antenna Wm (240 Deg)	None					39	
36	Antenna Wm (270 Deg)	None					39	
37	Antenna Wm (300 Deg)	None					39	
38	Antenna Wm (330 Deg)	None					39	
39	Structure D	None		-1				
40	Structure Di	None					8	
41	Structure Wo (0 Deg)	None					16	
42	Structure Wo (30 Deg)	None					16	
43	Structure Wo (60 Deg)	None					16	
44	Structure Wo (90 Deg)	None					16	
45	Structure Wo (120 Deg)	None					16	
46	Structure Wo (150 Deg)	None					16	
47	Structure Wo (180 Deg)	None					16	
48	Structure Wo (210 Deg)	None					16	
49	Structure Wo (240 Deg)	None					16	
50	Structure Wo (270 Deg)	None					16	
51	Structure Wo (300 Deg)	None					16	
52	Structure Wo (330 Deg)	None					16	
53	Structure Wi (0 Deg)	None					16	
54	Structure Wi (30 Deg)	None					16	
55	Structure Wi (60 Deg)	None					16	
56	Structure Wi (90 Deg)	None					16	
57	Structure Wi (120 Deg)	None					16	
58	Structure Wi (150 Deg)	None					16	
59	Structure Wi (180 Deg)	None					16	
60	Structure Wi (210 Deg)	None					16	
61	Structure Wi (240 Deg)	None					16	
62	Structure Wi (270 Deg)	None					16	



Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me... Surface(...
63	Structure Wi (300 Deg)	None						16
64	Structure Wi (330 Deg)	None						16
65	Structure Wm (0 Deg)	None						16
66	Structure Wm (30 Deg)	None						16
67	Structure Wm (60 Deg)	None						16
68	Structure Wm (90 Deg)	None						16
69	Structure Wm (120 Deg)	None						16
70	Structure Wm (150 Deg)	None						16
71	Structure Wm (180 Deg)	None						16
72	Structure Wm (210 Deg)	None						16
73	Structure Wm (240 Deg)	None						16
74	Structure Wm (270 Deg)	None						16
75	Structure Wm (300 Deg)	None						16
76	Structure Wm (330 Deg)	None						16
77	Lm1	None					1	
78	Lm2	None					1	
79	Lv1	None					1	
80	Lv2	None					1	

Load Combinations

	Description	So...	PDelta	S...	B...	Fac..B...	Fac..B...	Fac..B...	Fac..B...	Fac..B...	Fac..B...	Fac..B...	Fac..B...	Fac..B...
1	1.2D+1.0Wo (0 Deg)	Yes	Y		1	1.2	39	1.2	3	1	41	1		
2	1.2D+1.0Wo (30 D...	Yes	Y		1	1.2	39	1.2	4	1	42	1		
3	1.2D+1.0Wo (60 D...	Yes	Y		1	1.2	39	1.2	5	1	43	1		
4	1.2D+1.0Wo (90 D...	Yes	Y		1	1.2	39	1.2	6	1	44	1		
5	1.2D+1.0Wo (120 ...	Yes	Y		1	1.2	39	1.2	7	1	45	1		
6	1.2D+1.0Wo (150 ...	Yes	Y		1	1.2	39	1.2	8	1	46	1		
7	1.2D+1.0Wo (180 ...	Yes	Y		1	1.2	39	1.2	9	1	47	1		
8	1.2D+1.0Wo (210 ...	Yes	Y		1	1.2	39	1.2	10	1	48	1		
9	1.2D+1.0Wo (240 ...	Yes	Y		1	1.2	39	1.2	11	1	49	1		
10	1.2D+1.0Wo (270 ...	Yes	Y		1	1.2	39	1.2	12	1	50	1		
11	1.2D+1.0Wo (300 ...	Yes	Y		1	1.2	39	1.2	13	1	51	1		
12	1.2D+1.0Wo (330 ...	Yes	Y		1	1.2	39	1.2	14	1	52	1		
13	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1
14	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1
15	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1
16	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1
17	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1
18	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1
19	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1
20	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1
21	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1
22	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1
23	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1
24	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1
25	1.2D + 1.5Lm1 + 1....	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1
26	1.2D + 1.5Lm1 + 1....	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1
27	1.2D + 1.5Lm1 + 1....	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1
28	1.2D + 1.5Lm1 + 1....	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1
29	1.2D + 1.5Lm1 + 1....	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1
30	1.2D + 1.5Lm1 + 1....	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1
31	1.2D + 1.5Lm1 + 1....	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1
32	1.2D + 1.5Lm1 + 1....	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1
33	1.2D + 1.5Lm1 + 1....	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1
34	1.2D + 1.5Lm1 + 1....	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1
35	1.2D + 1.5Lm1 + 1....	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1
36	1.2D + 1.5Lm1 + 1....	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1
37	1.2D + 1.5Lm2 + 1....	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1
38	1.2D + 1.5Lm2 + 1....	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1
39	1.2D + 1.5Lm2 + 1....	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1
40	1.2D + 1.5Lm2 + 1....	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1



Load Combinations (Continued)

	Description	So...	PDelta	S...	B...	Fac...B...	Fac...B...	Fac...B...	Fac...B...	Fac...B...	Fac...B...	Fac...B...	Fac...B...	Fac...
41	1.2D + 1.5Lm2 + 1....	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1
42	1.2D + 1.5Lm2 + 1....	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1
43	1.2D + 1.5Lm2 + 1....	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1
44	1.2D + 1.5Lm2 + 1....	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1
45	1.2D + 1.5Lm2 + 1....	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1
46	1.2D + 1.5Lm2 + 1....	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1
47	1.2D + 1.5Lm2 + 1....	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1
48	1.2D + 1.5Lm2 + 1....	Yes	Y		1	1.2	39	1.2	78	1.5	38	1	76	1
49	1.2D + 1.5Lv1	Yes	Y		1	1.2	39	1.2	79	1.5				
50	1.2D + 1.5Lv2	Yes	Y		1	1.2	39	1.2	80	1.5				
51	1.4D	Yes	Y		1	1.4	39	1.4						
52	Seismic Mass	Yes	Y		1	1	39	1						
53	1.2D + 1.0Ev + 1.0...		Y		1	1.2	39	1.2	SX		SY	1	SZ	-1
54	1.2D + 1.0Ev + 1.0...		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	-.866
55	1.2D + 1.0Ev + 1.0...		Y		1	1.2	39	1.2	SX	.866	SY	1	SZ	-.5
56	1.2D + 1.0Ev + 1.0...		Y		1	1.2	39	1.2	SX	1	SY	1	SZ	
57	1.2D + 1.0Ev + 1.0...		Y		1	1.2	39	1.2	SX	.866	SY	1	SZ	.5
58	1.2D + 1.0Ev + 1.0...		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	.866
59	1.2D + 1.0Ev + 1.0...		Y		1	1.2	39	1.2	SX		SY	1	SZ	1
60	1.2D + 1.0Ev + 1.0...		Y		1	1.2	39	1.2	SX	-.5	SY	1	SZ	.866
61	1.2D + 1.0Ev + 1.0...		Y		1	1.2	39	1.2	SX	-.866	SY	1	SZ	.5
62	1.2D + 1.0Ev + 1.0...		Y		1	1.2	39	1.2	SX	-1	SY	1	SZ	
63	1.2D + 1.0Ev + 1.0...		Y		1	1.2	39	1.2	SX	-.866	SY	1	SZ	-.5
64	1.2D + 1.0Ev + 1.0...		Y		1	1.2	39	1.2	SX	-.5	SY	1	SZ	-.866

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	-1.164686	0	-1.388333	0	
2	N2	-0.086273	0	2.636358	0	
3	N3	0	0	2.958333	0	
4	N4	-0.086273	-0.791667	2.636358	0	
5	N5	-0.086273	0.791667	2.636358	0	
6	N6	6.75	0	2.958333	0	
7	N7	-6.75	0	2.958333	0	
8	N8	-6.25	0	2.958333	0	
9	N9	6.333333	0	2.958333	0	
10	N10	-6.25	0	3.208333	0	
11	N11	6.333333	0	3.208333	0	
12	N12	-6.25	3	3.208333	0	
13	N13	6.333333	3	3.208333	0	
14	N14	-6.25	-3	3.208333	0	
15	N15	6.333333	-3	3.208333	0	
16	N16	-3.333333	0	2.958333	0	
17	N17	-3.333333	0	3.208333	0	
18	N18	-3.333333	3	3.208333	0	
19	N19	-3.333333	-3	3.208333	0	
20	N20	4.166667	0	2.958333	0	
21	N21	4.166667	0	3.208333	0	
22	N22	4.166667	3	3.208333	0	
23	N23	4.166667	-3	3.208333	0	
24	N24	-0.233106	2.5	1.122443	0	
25	N25	-0.233106	-.5	1.122443	0	
26	N26	-0.233106	0	1.122443	0	
27	N27	-0.474588	0	1.187147	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Antenna Pipe 2	PIPE_2.5	Column	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89
2	Antenna Pipe	PIPE_2.0	Column	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
3	Face Horizontal	PIPE_3.0	Beam	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69



Hot Rolled Steel Section Sets (Continued)

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
4	Vertical Pipe	PIPE_3.0	Column	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
5	Standoff	HSS4X4X3	Beam	SquareTube	A500 Gr. B 46	Typical	2.58	6.21	6.21	10

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E...Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65 .49	36	1.5	58	1.2
2	A53 Gr. B	29000	11154	.3	.65 .49	35	1.5	60	1.2
3	A572 Gr.50	29000	11154	.3	.65 .49	50	1.1	65	1.1
4	A992	29000	11154	.3	.65 .49	50	1.1	65	1.1
5	A500 Gr. B 42	29000	11154	.3	.65 .49	42	1.4	58	1.3
6	A500 Gr. B 46	29000	11154	.3	.65 .49	46	1.4	58	1.3

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotat...	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N2	N3			RIGID	None	None	RIGID	Typical
2	M3	N1	N2			Standoff	Beam	SquareTube	A500 Gr. ...	Typical
3	M4	N5	N4			Vertical Pipe	Column	Pipe	A53 Gr. B	Typical
4	M5	N7	N6			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
5	MP1A	N13	N15			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
6	MP4A	N12	N14			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
7	M9	N8	N10			RIGID	None	None	RIGID	Typical
8	M11	N9	N11			RIGID	None	None	RIGID	Typical
9	MP3A	N18	N19			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
10	M12A	N16	N17			RIGID	None	None	RIGID	Typical
11	MP2A	N22	N23			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
12	M12	N20	N21			RIGID	None	None	RIGID	Typical
13	M16	N24	N25			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
14	M14	N26	N27			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...Analysis ...	Inactive	Seismic ...
1	M1						Yes	** NA **		None
2	M3						Yes	Default		None
3	M4						Yes	** NA **		None
4	M5						Yes			None
5	MP1A						Yes	** NA **		None
6	MP4A						Yes	** NA **		None
7	M9						Yes	** NA **		None
8	M11						Yes	** NA **		None
9	MP3A						Yes	** NA **		None
10	M12A						Yes	** NA **		None
11	MP2A						Yes	** NA **		None
12	M12						Yes	** NA **		None
13	M16						Yes	** NA **		None
14	M14						Yes	** NA **		None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	Y	-21.85	.5
2	MP2A	My	-.011	.5
3	MP2A	Mz	.015	.5
4	MP2A	Y	-21.85	4.5
5	MP2A	My	-.011	4.5
6	MP2A	Mz	.015	4.5
7	MP2A	Y	-21.85	.5
8	MP2A	My	-.011	.5
9	MP2A	Mz	-.015	.5



Member Point Loads (BLC 1 : Antenna D) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
10	MP2A	Y	-21.85	4.5
11	MP2A	My	-.011	4.5
12	MP2A	Mz	-.015	4.5
13	MP3A	Y	-43.55	1.25
14	MP3A	My	-.022	1.25
15	MP3A	Mz	0	1.25
16	MP3A	Y	-43.55	3.75
17	MP3A	My	-.022	3.75
18	MP3A	Mz	0	3.75
19	M16	Y	-32	1
20	M16	My	-.016	1
21	M16	Mz	0	1
22	MP2A	Y	-74.7	2
23	MP2A	My	.037	2
24	MP2A	Mz	0	2
25	MP1A	Y	-70.3	2
26	MP1A	My	.035	2
27	MP1A	Mz	0	2
28	MP1A	Y	-6	.5
29	MP1A	My	-.003	.5
30	MP1A	Mz	0	.5
31	MP1A	Y	-6	4.5
32	MP1A	My	-.003	4.5
33	MP1A	Mz	0	4.5
34	MP4A	Y	-6	.5
35	MP4A	My	-.003	.5
36	MP4A	Mz	0	.5
37	MP4A	Y	-6	4.5
38	MP4A	My	-.003	4.5
39	MP4A	Mz	0	4.5

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	Y	-58.238	.5
2	MP2A	My	-.029	.5
3	MP2A	Mz	.039	.5
4	MP2A	Y	-58.238	4.5
5	MP2A	My	-.029	4.5
6	MP2A	Mz	.039	4.5
7	MP2A	Y	-58.238	.5
8	MP2A	My	-.029	.5
9	MP2A	Mz	-.039	.5
10	MP2A	Y	-58.238	4.5
11	MP2A	My	-.029	4.5
12	MP2A	Mz	-.039	4.5
13	MP3A	Y	-34.219	1.25
14	MP3A	My	-.017	1.25
15	MP3A	Mz	0	1.25
16	MP3A	Y	-34.219	3.75
17	MP3A	My	-.017	3.75
18	MP3A	Mz	0	3.75
19	M16	Y	-84.526	1
20	M16	My	-.042	1
21	M16	Mz	0	1
22	MP2A	Y	-43.117	2
23	MP2A	My	.022	2
24	MP2A	Mz	0	2
25	MP1A	Y	-41.055	2
26	MP1A	My	.021	2
27	MP1A	Mz	0	2
28	MP1A	Y	-38.715	.5
29	MP1A	My	-.019	.5



Member Point Loads (BLC 2 : Antenna Di) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
30	MP1A	Mz	0	.5
31	MP1A	Y	-38.715	4.5
32	MP1A	My	-.019	4.5
33	MP1A	Mz	0	4.5
34	MP4A	Y	-38.715	.5
35	MP4A	My	-.019	.5
36	MP4A	Mz	0	.5
37	MP4A	Y	-38.715	4.5
38	MP4A	My	-.019	4.5
39	MP4A	Mz	0	4.5

Member Point Loads (BLC 3 : Antenna Wo (0 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	-156.829	.5
3	MP2A	Mx	-.105	.5
4	MP2A	X	0	4.5
5	MP2A	Z	-156.829	4.5
6	MP2A	Mx	-.105	4.5
7	MP2A	X	0	.5
8	MP2A	Z	-156.829	.5
9	MP2A	Mx	.105	.5
10	MP2A	X	0	4.5
11	MP2A	Z	-156.829	4.5
12	MP2A	Mx	.105	4.5
13	MP3A	X	0	1.25
14	MP3A	Z	-91.225	1.25
15	MP3A	Mx	0	1.25
16	MP3A	X	0	3.75
17	MP3A	Z	-91.225	3.75
18	MP3A	Mx	0	3.75
19	M16	X	0	1
20	M16	Z	-157.605	1
21	M16	Mx	0	1
22	MP2A	X	0	2
23	MP2A	Z	-72.591	2
24	MP2A	Mx	0	2
25	MP1A	X	0	2
26	MP1A	Z	-72.591	2
27	MP1A	Mx	0	2
28	MP1A	X	0	.5
29	MP1A	Z	-50.659	.5
30	MP1A	Mx	0	.5
31	MP1A	X	0	4.5
32	MP1A	Z	-50.659	4.5
33	MP1A	Mx	0	4.5
34	MP4A	X	0	.5
35	MP4A	Z	-50.659	.5
36	MP4A	Mx	0	.5
37	MP4A	X	0	4.5
38	MP4A	Z	-50.659	4.5
39	MP4A	Mx	0	4.5

Member Point Loads (BLC 4 : Antenna Wo (30 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	71.771	.5
2	MP2A	Z	-124.31	.5
3	MP2A	Mx	-.119	.5
4	MP2A	X	71.771	4.5
5	MP2A	Z	-124.31	4.5
6	MP2A	Mx	-.119	4.5
7	MP2A	X	71.771	.5



Member Point Loads (BLC 4 : Antenna Wo (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
8	MP2A	Z	-124.31	.5
9	MP2A	Mx	.047	.5
10	MP2A	X	71.771	4.5
11	MP2A	Z	-124.31	4.5
12	MP2A	Mx	.047	4.5
13	MP3A	X	38.673	1.25
14	MP3A	Z	-66.984	1.25
15	MP3A	Mx	-.019	1.25
16	MP3A	X	38.673	3.75
17	MP3A	Z	-66.984	3.75
18	MP3A	Mx	-.019	3.75
19	M16	X	74.132	1
20	M16	Z	-128.4	1
21	M16	Mx	-.037	1
22	MP2A	X	33.287	2
23	MP2A	Z	-57.655	2
24	MP2A	Mx	.017	2
25	MP1A	X	32.741	2
26	MP1A	Z	-56.71	2
27	MP1A	Mx	.016	2
28	MP1A	X	32.096	.5
29	MP1A	Z	-55.591	.5
30	MP1A	Mx	-.016	.5
31	MP1A	X	32.096	4.5
32	MP1A	Z	-55.591	4.5
33	MP1A	Mx	-.016	4.5
34	MP4A	X	32.096	.5
35	MP4A	Z	-55.591	.5
36	MP4A	Mx	-.016	.5
37	MP4A	X	32.096	4.5
38	MP4A	Z	-55.591	4.5
39	MP4A	Mx	-.016	4.5

Member Point Loads (BLC 5 : Antenna Wo (60 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	101.296	.5
2	MP2A	Z	-58.483	.5
3	MP2A	Mx	-.09	.5
4	MP2A	X	101.296	4.5
5	MP2A	Z	-58.483	4.5
6	MP2A	Mx	-.09	4.5
7	MP2A	X	101.296	.5
8	MP2A	Z	-58.483	.5
9	MP2A	Mx	-.012	.5
10	MP2A	X	101.296	4.5
11	MP2A	Z	-58.483	4.5
12	MP2A	Mx	-.012	4.5
13	MP3A	X	42.948	1.25
14	MP3A	Z	-24.796	1.25
15	MP3A	Mx	-.021	1.25
16	MP3A	X	42.948	3.75
17	MP3A	Z	-24.796	3.75
18	MP3A	Mx	-.021	3.75
19	M16	X	112.222	1
20	M16	Z	-64.791	1
21	M16	Mx	-.056	1
22	MP2A	X	47.234	2
23	MP2A	Z	-27.27	2
24	MP2A	Mx	.024	2
25	MP1A	X	44.397	2
26	MP1A	Z	-25.633	2
27	MP1A	Mx	.022	2



Member Point Loads (BLC 5 : Antenna Wo (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
28	MP1A	X	79.03	.5
29	MP1A	Z	-45.628	.5
30	MP1A	Mx	-.04	.5
31	MP1A	X	79.03	4.5
32	MP1A	Z	-45.628	4.5
33	MP1A	Mx	-.04	4.5
34	MP4A	X	79.03	.5
35	MP4A	Z	-45.628	.5
36	MP4A	Mx	-.04	.5
37	MP4A	X	79.03	4.5
38	MP4A	Z	-45.628	4.5
39	MP4A	Mx	-.04	4.5

Member Point Loads (BLC 6 : Antenna Wo (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	103.679	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	-.052	.5
4	MP2A	X	103.679	4.5
5	MP2A	Z	0	4.5
6	MP2A	Mx	-.052	4.5
7	MP2A	X	103.679	.5
8	MP2A	Z	0	.5
9	MP2A	Mx	-.052	.5
10	MP2A	X	103.679	4.5
11	MP2A	Z	0	4.5
12	MP2A	Mx	-.052	4.5
13	MP3A	X	35.714	1.25
14	MP3A	Z	0	1.25
15	MP3A	Mx	-.018	1.25
16	MP3A	X	35.714	3.75
17	MP3A	Z	0	3.75
18	MP3A	Mx	-.018	3.75
19	M16	X	120.242	1
20	M16	Z	0	1
21	M16	Mx	-.06	1
22	MP2A	X	48.524	2
23	MP2A	Z	0	2
24	MP2A	Mx	.024	2
25	MP1A	X	44.157	2
26	MP1A	Z	0	2
27	MP1A	Mx	.022	2
28	MP1A	X	104.789	.5
29	MP1A	Z	0	.5
30	MP1A	Mx	-.052	.5
31	MP1A	X	104.789	4.5
32	MP1A	Z	0	4.5
33	MP1A	Mx	-.052	4.5
34	MP4A	X	104.789	.5
35	MP4A	Z	0	.5
36	MP4A	Mx	-.052	.5
37	MP4A	X	104.789	4.5
38	MP4A	Z	0	4.5
39	MP4A	Mx	-.052	4.5

Member Point Loads (BLC 7 : Antenna Wo (120 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	101.296	.5
2	MP2A	Z	58.483	.5
3	MP2A	Mx	-.012	.5
4	MP2A	X	101.296	4.5
5	MP2A	Z	58.483	4.5



Member Point Loads (BLC 7 : Antenna Wo (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
6	MP2A	Mx	-.012	4.5
7	MP2A	X	101.296	.5
8	MP2A	Z	58.483	.5
9	MP2A	Mx	-.09	.5
10	MP2A	X	101.296	4.5
11	MP2A	Z	58.483	4.5
12	MP2A	Mx	-.09	4.5
13	MP3A	X	42.948	1.25
14	MP3A	Z	24.796	1.25
15	MP3A	Mx	-.021	1.25
16	MP3A	X	42.948	3.75
17	MP3A	Z	24.796	3.75
18	MP3A	Mx	-.021	3.75
19	M16	X	112.222	1
20	M16	Z	64.791	1
21	M16	Mx	-.056	1
22	MP2A	X	47.234	2
23	MP2A	Z	27.27	2
24	MP2A	Mx	.024	2
25	MP1A	X	44.397	2
26	MP1A	Z	25.633	2
27	MP1A	Mx	.022	2
28	MP1A	X	79.03	.5
29	MP1A	Z	45.628	.5
30	MP1A	Mx	-.04	.5
31	MP1A	X	79.03	4.5
32	MP1A	Z	45.628	4.5
33	MP1A	Mx	-.04	4.5
34	MP4A	X	79.03	.5
35	MP4A	Z	45.628	.5
36	MP4A	Mx	-.04	.5
37	MP4A	X	79.03	4.5
38	MP4A	Z	45.628	4.5
39	MP4A	Mx	-.04	4.5

Member Point Loads (BLC 8 : Antenna Wo (150 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	71.771	.5
2	MP2A	Z	124.31	.5
3	MP2A	Mx	.047	.5
4	MP2A	X	71.771	4.5
5	MP2A	Z	124.31	4.5
6	MP2A	Mx	.047	4.5
7	MP2A	X	71.771	.5
8	MP2A	Z	124.31	.5
9	MP2A	Mx	-.119	.5
10	MP2A	X	71.771	4.5
11	MP2A	Z	124.31	4.5
12	MP2A	Mx	-.119	4.5
13	MP3A	X	38.673	1.25
14	MP3A	Z	66.984	1.25
15	MP3A	Mx	-.019	1.25
16	MP3A	X	38.673	3.75
17	MP3A	Z	66.984	3.75
18	MP3A	Mx	-.019	3.75
19	M16	X	74.132	1
20	M16	Z	128.4	1
21	M16	Mx	-.037	1
22	MP2A	X	33.287	2
23	MP2A	Z	57.655	2
24	MP2A	Mx	.017	2
25	MP1A	X	32.741	2



Member Point Loads (BLC 8 : Antenna Wo (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
26	MP1A	Z	56.71	2
27	MP1A	Mx	.016	2
28	MP1A	X	32.096	.5
29	MP1A	Z	55.591	.5
30	MP1A	Mx	-.016	.5
31	MP1A	X	32.096	4.5
32	MP1A	Z	55.591	4.5
33	MP1A	Mx	-.016	4.5
34	MP4A	X	32.096	.5
35	MP4A	Z	55.591	.5
36	MP4A	Mx	-.016	.5
37	MP4A	X	32.096	4.5
38	MP4A	Z	55.591	4.5
39	MP4A	Mx	-.016	4.5

Member Point Loads (BLC 9 : Antenna Wo (180 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	156.829	.5
3	MP2A	Mx	.105	.5
4	MP2A	X	0	4.5
5	MP2A	Z	156.829	4.5
6	MP2A	Mx	.105	4.5
7	MP2A	X	0	.5
8	MP2A	Z	156.829	.5
9	MP2A	Mx	-.105	.5
10	MP2A	X	0	4.5
11	MP2A	Z	156.829	4.5
12	MP2A	Mx	-.105	4.5
13	MP3A	X	0	1.25
14	MP3A	Z	91.225	1.25
15	MP3A	Mx	0	1.25
16	MP3A	X	0	3.75
17	MP3A	Z	91.225	3.75
18	MP3A	Mx	0	3.75
19	M16	X	0	1
20	M16	Z	157.605	1
21	M16	Mx	0	1
22	MP2A	X	0	2
23	MP2A	Z	72.591	2
24	MP2A	Mx	0	2
25	MP1A	X	0	2
26	MP1A	Z	72.591	2
27	MP1A	Mx	0	2
28	MP1A	X	0	.5
29	MP1A	Z	50.659	.5
30	MP1A	Mx	0	.5
31	MP1A	X	0	4.5
32	MP1A	Z	50.659	4.5
33	MP1A	Mx	0	4.5
34	MP4A	X	0	.5
35	MP4A	Z	50.659	.5
36	MP4A	Mx	0	.5
37	MP4A	X	0	4.5
38	MP4A	Z	50.659	4.5
39	MP4A	Mx	0	4.5

Member Point Loads (BLC 10 : Antenna Wo (210 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	-71.771	.5
2	MP2A	Z	124.31	.5
3	MP2A	Mx	.119	.5



Member Point Loads (BLC 10 : Antenna Wo (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
4	MP2A	X	-71.771	4.5
5	MP2A	Z	124.31	4.5
6	MP2A	Mx	.119	4.5
7	MP2A	X	-71.771	.5
8	MP2A	Z	124.31	.5
9	MP2A	Mx	-.047	.5
10	MP2A	X	-71.771	4.5
11	MP2A	Z	124.31	4.5
12	MP2A	Mx	-.047	4.5
13	MP3A	X	-38.673	1.25
14	MP3A	Z	66.984	1.25
15	MP3A	Mx	.019	1.25
16	MP3A	X	-38.673	3.75
17	MP3A	Z	66.984	3.75
18	MP3A	Mx	.019	3.75
19	M16	X	-74.132	1
20	M16	Z	128.4	1
21	M16	Mx	.037	1
22	MP2A	X	-33.287	2
23	MP2A	Z	57.655	2
24	MP2A	Mx	-.017	2
25	MP1A	X	-32.741	2
26	MP1A	Z	56.71	2
27	MP1A	Mx	-.016	2
28	MP1A	X	-32.096	.5
29	MP1A	Z	55.591	.5
30	MP1A	Mx	.016	.5
31	MP1A	X	-32.096	4.5
32	MP1A	Z	55.591	4.5
33	MP1A	Mx	.016	4.5
34	MP4A	X	-32.096	.5
35	MP4A	Z	55.591	.5
36	MP4A	Mx	.016	.5
37	MP4A	X	-32.096	4.5
38	MP4A	Z	55.591	4.5
39	MP4A	Mx	.016	4.5

Member Point Loads (BLC 11 : Antenna Wo (240 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-101.296	.5
2	MP2A	Z	58.483	.5
3	MP2A	Mx	.09	.5
4	MP2A	X	-101.296	4.5
5	MP2A	Z	58.483	4.5
6	MP2A	Mx	.09	4.5
7	MP2A	X	-101.296	.5
8	MP2A	Z	58.483	.5
9	MP2A	Mx	.012	.5
10	MP2A	X	-101.296	4.5
11	MP2A	Z	58.483	4.5
12	MP2A	Mx	.012	4.5
13	MP3A	X	-42.948	1.25
14	MP3A	Z	24.796	1.25
15	MP3A	Mx	.021	1.25
16	MP3A	X	-42.948	3.75
17	MP3A	Z	24.796	3.75
18	MP3A	Mx	.021	3.75
19	M16	X	-112.222	1
20	M16	Z	64.791	1
21	M16	Mx	.056	1
22	MP2A	X	-47.234	2
23	MP2A	Z	27.27	2



Member Point Loads (BLC 11 : Antenna Wo (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
24	MP2A	Mx	-.024	2
25	MP1A	X	-44.397	2
26	MP1A	Z	25.633	2
27	MP1A	Mx	-.022	2
28	MP1A	X	-79.03	.5
29	MP1A	Z	45.628	.5
30	MP1A	Mx	.04	.5
31	MP1A	X	-79.03	4.5
32	MP1A	Z	45.628	4.5
33	MP1A	Mx	.04	4.5
34	MP4A	X	-79.03	.5
35	MP4A	Z	45.628	.5
36	MP4A	Mx	.04	.5
37	MP4A	X	-79.03	4.5
38	MP4A	Z	45.628	4.5
39	MP4A	Mx	.04	4.5

Member Point Loads (BLC 12 : Antenna Wo (270 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	-103.679	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	.052	.5
4	MP2A	X	-103.679	4.5
5	MP2A	Z	0	4.5
6	MP2A	Mx	.052	4.5
7	MP2A	X	-103.679	.5
8	MP2A	Z	0	.5
9	MP2A	Mx	.052	.5
10	MP2A	X	-103.679	4.5
11	MP2A	Z	0	4.5
12	MP2A	Mx	.052	4.5
13	MP3A	X	-35.714	1.25
14	MP3A	Z	0	1.25
15	MP3A	Mx	.018	1.25
16	MP3A	X	-35.714	3.75
17	MP3A	Z	0	3.75
18	MP3A	Mx	.018	3.75
19	M16	X	-120.242	1
20	M16	Z	0	1
21	M16	Mx	.06	1
22	MP2A	X	-48.524	2
23	MP2A	Z	0	2
24	MP2A	Mx	-.024	2
25	MP1A	X	-44.157	2
26	MP1A	Z	0	2
27	MP1A	Mx	-.022	2
28	MP1A	X	-104.789	.5
29	MP1A	Z	0	.5
30	MP1A	Mx	.052	.5
31	MP1A	X	-104.789	4.5
32	MP1A	Z	0	4.5
33	MP1A	Mx	.052	4.5
34	MP4A	X	-104.789	.5
35	MP4A	Z	0	.5
36	MP4A	Mx	.052	.5
37	MP4A	X	-104.789	4.5
38	MP4A	Z	0	4.5
39	MP4A	Mx	.052	4.5

Member Point Loads (BLC 13 : Antenna Wo (300 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	-101.296	.5



Member Point Loads (BLC 13 : Antenna Wo (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
2	MP2A	Z	-58.483	.5
3	MP2A	Mx	.012	.5
4	MP2A	X	-101.296	4.5
5	MP2A	Z	-58.483	4.5
6	MP2A	Mx	.012	4.5
7	MP2A	X	-101.296	.5
8	MP2A	Z	-58.483	.5
9	MP2A	Mx	.09	.5
10	MP2A	X	-101.296	4.5
11	MP2A	Z	-58.483	4.5
12	MP2A	Mx	.09	4.5
13	MP3A	X	-42.948	1.25
14	MP3A	Z	-24.796	1.25
15	MP3A	Mx	.021	1.25
16	MP3A	X	-42.948	3.75
17	MP3A	Z	-24.796	3.75
18	MP3A	Mx	.021	3.75
19	M16	X	-112.222	1
20	M16	Z	-64.791	1
21	M16	Mx	.056	1
22	MP2A	X	-47.234	2
23	MP2A	Z	-27.27	2
24	MP2A	Mx	-.024	2
25	MP1A	X	-44.397	2
26	MP1A	Z	-25.633	2
27	MP1A	Mx	-.022	2
28	MP1A	X	-79.03	.5
29	MP1A	Z	-45.628	.5
30	MP1A	Mx	.04	.5
31	MP1A	X	-79.03	4.5
32	MP1A	Z	-45.628	4.5
33	MP1A	Mx	.04	4.5
34	MP4A	X	-79.03	.5
35	MP4A	Z	-45.628	.5
36	MP4A	Mx	.04	.5
37	MP4A	X	-79.03	4.5
38	MP4A	Z	-45.628	4.5
39	MP4A	Mx	.04	4.5

Member Point Loads (BLC 14 : Antenna Wo (330 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-71.771	.5
2	MP2A	Z	-124.31	.5
3	MP2A	Mx	-.047	.5
4	MP2A	X	-71.771	4.5
5	MP2A	Z	-124.31	4.5
6	MP2A	Mx	-.047	4.5
7	MP2A	X	-71.771	.5
8	MP2A	Z	-124.31	.5
9	MP2A	Mx	.119	.5
10	MP2A	X	-71.771	4.5
11	MP2A	Z	-124.31	4.5
12	MP2A	Mx	.119	4.5
13	MP3A	X	-38.673	1.25
14	MP3A	Z	-66.984	1.25
15	MP3A	Mx	.019	1.25
16	MP3A	X	-38.673	3.75
17	MP3A	Z	-66.984	3.75
18	MP3A	Mx	.019	3.75
19	M16	X	-74.132	1
20	M16	Z	-128.4	1
21	M16	Mx	.037	1



Member Point Loads (BLC 14 : Antenna Wo (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
22	MP2A	X	-33.287	2
23	MP2A	Z	-57.655	2
24	MP2A	Mx	-.017	2
25	MP1A	X	-32.741	2
26	MP1A	Z	-56.71	2
27	MP1A	Mx	-.016	2
28	MP1A	X	-32.096	.5
29	MP1A	Z	-55.591	.5
30	MP1A	Mx	.016	.5
31	MP1A	X	-32.096	4.5
32	MP1A	Z	-55.591	4.5
33	MP1A	Mx	.016	4.5
34	MP4A	X	-32.096	.5
35	MP4A	Z	-55.591	.5
36	MP4A	Mx	.016	.5
37	MP4A	X	-32.096	4.5
38	MP4A	Z	-55.591	4.5
39	MP4A	Mx	.016	4.5

Member Point Loads (BLC 15 : Antenna Wi (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	-29.93	.5
3	MP2A	Mx	-.02	.5
4	MP2A	X	0	4.5
5	MP2A	Z	-29.93	4.5
6	MP2A	Mx	-.02	4.5
7	MP2A	X	0	.5
8	MP2A	Z	-29.93	.5
9	MP2A	Mx	.02	.5
10	MP2A	X	0	4.5
11	MP2A	Z	-29.93	4.5
12	MP2A	Mx	.02	4.5
13	MP3A	X	0	1.25
14	MP3A	Z	-17.817	1.25
15	MP3A	Mx	0	1.25
16	MP3A	X	0	3.75
17	MP3A	Z	-17.817	3.75
18	MP3A	Mx	0	3.75
19	M16	X	0	1
20	M16	Z	-30.855	1
21	M16	Mx	0	1
22	MP2A	X	0	2
23	MP2A	Z	-14.987	2
24	MP2A	Mx	0	2
25	MP1A	X	0	2
26	MP1A	Z	-14.987	2
27	MP1A	Mx	0	2
28	MP1A	X	0	.5
29	MP1A	Z	-10.593	.5
30	MP1A	Mx	0	.5
31	MP1A	X	0	4.5
32	MP1A	Z	-10.593	4.5
33	MP1A	Mx	0	4.5
34	MP4A	X	0	.5
35	MP4A	Z	-10.593	.5
36	MP4A	Mx	0	.5
37	MP4A	X	0	4.5
38	MP4A	Z	-10.593	4.5
39	MP4A	Mx	0	4.5



Member Point Loads (BLC 16 : Antenna Wi (30 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	13.8	.5
2	MP2A	Z	-23.902	.5
3	MP2A	Mx	-.023	.5
4	MP2A	X	13.8	4.5
5	MP2A	Z	-23.902	4.5
6	MP2A	Mx	-.023	4.5
7	MP2A	X	13.8	.5
8	MP2A	Z	-23.902	.5
9	MP2A	Mx	.009	.5
10	MP2A	X	13.8	4.5
11	MP2A	Z	-23.902	4.5
12	MP2A	Mx	.009	4.5
13	MP3A	X	7.627	1.25
14	MP3A	Z	-13.211	1.25
15	MP3A	Mx	-.004	1.25
16	MP3A	X	7.627	3.75
17	MP3A	Z	-13.211	3.75
18	MP3A	Mx	-.004	3.75
19	M16	X	14.584	1
20	M16	Z	-25.26	1
21	M16	Mx	-.007	1
22	MP2A	X	6.921	2
23	MP2A	Z	-11.988	2
24	MP2A	Mx	.003	2
25	MP1A	X	6.818	2
26	MP1A	Z	-11.81	2
27	MP1A	Mx	.003	2
28	MP1A	X	6.508	.5
29	MP1A	Z	-11.273	.5
30	MP1A	Mx	-.003	.5
31	MP1A	X	6.508	4.5
32	MP1A	Z	-11.273	4.5
33	MP1A	Mx	-.003	4.5
34	MP4A	X	6.508	.5
35	MP4A	Z	-11.273	.5
36	MP4A	Mx	-.003	.5
37	MP4A	X	6.508	4.5
38	MP4A	Z	-11.273	4.5
39	MP4A	Mx	-.003	4.5

Member Point Loads (BLC 17 : Antenna Wi (60 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	19.866	.5
2	MP2A	Z	-11.47	.5
3	MP2A	Mx	-.018	.5
4	MP2A	X	19.866	4.5
5	MP2A	Z	-11.47	4.5
6	MP2A	Mx	-.018	4.5
7	MP2A	X	19.866	.5
8	MP2A	Z	-11.47	.5
9	MP2A	Mx	-.002	.5
10	MP2A	X	19.866	4.5
11	MP2A	Z	-11.47	4.5
12	MP2A	Mx	-.002	4.5
13	MP3A	X	8.772	1.25
14	MP3A	Z	-5.065	1.25
15	MP3A	Mx	-.004	1.25
16	MP3A	X	8.772	3.75
17	MP3A	Z	-5.065	3.75
18	MP3A	Mx	-.004	3.75
19	M16	X	22.339	1
20	M16	Z	-12.898	1



Member Point Loads (BLC 17 : Antenna Wi (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	M16	Mx	-.011	1
22	MP2A	X	10.006	2
23	MP2A	Z	-5.777	2
24	MP2A	Mx	.005	2
25	MP1A	X	9.471	2
26	MP1A	Z	-5.468	2
27	MP1A	Mx	.005	2
28	MP1A	X	15.47	.5
29	MP1A	Z	-8.932	.5
30	MP1A	Mx	-.008	.5
31	MP1A	X	15.47	4.5
32	MP1A	Z	-8.932	4.5
33	MP1A	Mx	-.008	4.5
34	MP4A	X	15.47	.5
35	MP4A	Z	-8.932	.5
36	MP4A	Mx	-.008	.5
37	MP4A	X	15.47	4.5
38	MP4A	Z	-8.932	4.5
39	MP4A	Mx	-.008	4.5

Member Point Loads (BLC 18 : Antenna Wi (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	20.61	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	-.01	.5
4	MP2A	X	20.61	4.5
5	MP2A	Z	0	4.5
6	MP2A	Mx	-.01	4.5
7	MP2A	X	20.61	.5
8	MP2A	Z	0	.5
9	MP2A	Mx	-.01	.5
10	MP2A	X	20.61	4.5
11	MP2A	Z	0	4.5
12	MP2A	Mx	-.01	4.5
13	MP3A	X	7.567	1.25
14	MP3A	Z	0	1.25
15	MP3A	Mx	-.004	1.25
16	MP3A	X	7.567	3.75
17	MP3A	Z	0	3.75
18	MP3A	Mx	-.004	3.75
19	M16	X	24.109	1
20	M16	Z	0	1
21	M16	Mx	-.012	1
22	MP2A	X	10.41	2
23	MP2A	Z	0	2
24	MP2A	Mx	.005	2
25	MP1A	X	9.586	2
26	MP1A	Z	0	2
27	MP1A	Mx	.005	2
28	MP1A	X	20.287	.5
29	MP1A	Z	0	.5
30	MP1A	Mx	-.01	.5
31	MP1A	X	20.287	4.5
32	MP1A	Z	0	4.5
33	MP1A	Mx	-.01	4.5
34	MP4A	X	20.287	.5
35	MP4A	Z	0	.5
36	MP4A	Mx	-.01	.5
37	MP4A	X	20.287	4.5
38	MP4A	Z	0	4.5
39	MP4A	Mx	-.01	4.5



Member Point Loads (BLC 19 : Antenna Wi (120 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	19.866	.5
2	MP2A	Z	11.47	.5
3	MP2A	Mx	-.002	.5
4	MP2A	X	19.866	4.5
5	MP2A	Z	11.47	4.5
6	MP2A	Mx	-.002	4.5
7	MP2A	X	19.866	.5
8	MP2A	Z	11.47	.5
9	MP2A	Mx	-.018	.5
10	MP2A	X	19.866	4.5
11	MP2A	Z	11.47	4.5
12	MP2A	Mx	-.018	4.5
13	MP3A	X	8.772	1.25
14	MP3A	Z	5.065	1.25
15	MP3A	Mx	-.004	1.25
16	MP3A	X	8.772	3.75
17	MP3A	Z	5.065	3.75
18	MP3A	Mx	-.004	3.75
19	M16	X	22.339	1
20	M16	Z	12.898	1
21	M16	Mx	-.011	1
22	MP2A	X	10.006	2
23	MP2A	Z	5.777	2
24	MP2A	Mx	.005	2
25	MP1A	X	9.471	2
26	MP1A	Z	5.468	2
27	MP1A	Mx	.005	2
28	MP1A	X	15.47	.5
29	MP1A	Z	8.932	.5
30	MP1A	Mx	-.008	.5
31	MP1A	X	15.47	4.5
32	MP1A	Z	8.932	4.5
33	MP1A	Mx	-.008	4.5
34	MP4A	X	15.47	.5
35	MP4A	Z	8.932	.5
36	MP4A	Mx	-.008	.5
37	MP4A	X	15.47	4.5
38	MP4A	Z	8.932	4.5
39	MP4A	Mx	-.008	4.5

Member Point Loads (BLC 20 : Antenna Wi (150 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	13.8	.5
2	MP2A	Z	23.902	.5
3	MP2A	Mx	.009	.5
4	MP2A	X	13.8	4.5
5	MP2A	Z	23.902	4.5
6	MP2A	Mx	.009	4.5
7	MP2A	X	13.8	.5
8	MP2A	Z	23.902	.5
9	MP2A	Mx	-.023	.5
10	MP2A	X	13.8	4.5
11	MP2A	Z	23.902	4.5
12	MP2A	Mx	-.023	4.5
13	MP3A	X	7.627	1.25
14	MP3A	Z	13.211	1.25
15	MP3A	Mx	-.004	1.25
16	MP3A	X	7.627	3.75
17	MP3A	Z	13.211	3.75
18	MP3A	Mx	-.004	3.75
19	M16	X	14.584	1
20	M16	Z	25.26	1



Member Point Loads (BLC 20 : Antenna Wi (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	M16	Mx	-.007	1
22	MP2A	X	6.921	2
23	MP2A	Z	11.988	2
24	MP2A	Mx	.003	2
25	MP1A	X	6.818	2
26	MP1A	Z	11.81	2
27	MP1A	Mx	.003	2
28	MP1A	X	6.508	.5
29	MP1A	Z	11.273	.5
30	MP1A	Mx	-.003	.5
31	MP1A	X	6.508	4.5
32	MP1A	Z	11.273	4.5
33	MP1A	Mx	-.003	4.5
34	MP4A	X	6.508	.5
35	MP4A	Z	11.273	.5
36	MP4A	Mx	-.003	.5
37	MP4A	X	6.508	4.5
38	MP4A	Z	11.273	4.5
39	MP4A	Mx	-.003	4.5

Member Point Loads (BLC 21 : Antenna Wi (180 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	29.93	.5
3	MP2A	Mx	.02	.5
4	MP2A	X	0	4.5
5	MP2A	Z	29.93	4.5
6	MP2A	Mx	.02	4.5
7	MP2A	X	0	.5
8	MP2A	Z	29.93	.5
9	MP2A	Mx	-.02	.5
10	MP2A	X	0	4.5
11	MP2A	Z	29.93	4.5
12	MP2A	Mx	-.02	4.5
13	MP3A	X	0	1.25
14	MP3A	Z	17.817	1.25
15	MP3A	Mx	0	1.25
16	MP3A	X	0	3.75
17	MP3A	Z	17.817	3.75
18	MP3A	Mx	0	3.75
19	M16	X	0	1
20	M16	Z	30.855	1
21	M16	Mx	0	1
22	MP2A	X	0	2
23	MP2A	Z	14.987	2
24	MP2A	Mx	0	2
25	MP1A	X	0	2
26	MP1A	Z	14.987	2
27	MP1A	Mx	0	2
28	MP1A	X	0	.5
29	MP1A	Z	10.593	.5
30	MP1A	Mx	0	.5
31	MP1A	X	0	4.5
32	MP1A	Z	10.593	4.5
33	MP1A	Mx	0	4.5
34	MP4A	X	0	.5
35	MP4A	Z	10.593	.5
36	MP4A	Mx	0	.5
37	MP4A	X	0	4.5
38	MP4A	Z	10.593	4.5
39	MP4A	Mx	0	4.5



Member Point Loads (BLC 22 : Antenna Wi (210 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	-13.8	.5
2	MP2A	Z	23.902	.5
3	MP2A	Mx	.023	.5
4	MP2A	X	-13.8	4.5
5	MP2A	Z	23.902	4.5
6	MP2A	Mx	.023	4.5
7	MP2A	X	-13.8	.5
8	MP2A	Z	23.902	.5
9	MP2A	Mx	-.009	.5
10	MP2A	X	-13.8	4.5
11	MP2A	Z	23.902	4.5
12	MP2A	Mx	-.009	4.5
13	MP3A	X	-7.627	1.25
14	MP3A	Z	13.211	1.25
15	MP3A	Mx	.004	1.25
16	MP3A	X	-7.627	3.75
17	MP3A	Z	13.211	3.75
18	MP3A	Mx	.004	3.75
19	M16	X	-14.584	1
20	M16	Z	25.26	1
21	M16	Mx	.007	1
22	MP2A	X	-6.921	2
23	MP2A	Z	11.988	2
24	MP2A	Mx	-.003	2
25	MP1A	X	-6.818	2
26	MP1A	Z	11.81	2
27	MP1A	Mx	-.003	2
28	MP1A	X	-6.508	.5
29	MP1A	Z	11.273	.5
30	MP1A	Mx	.003	.5
31	MP1A	X	-6.508	4.5
32	MP1A	Z	11.273	4.5
33	MP1A	Mx	.003	4.5
34	MP4A	X	-6.508	.5
35	MP4A	Z	11.273	.5
36	MP4A	Mx	.003	.5
37	MP4A	X	-6.508	4.5
38	MP4A	Z	11.273	4.5
39	MP4A	Mx	.003	4.5

Member Point Loads (BLC 23 : Antenna Wi (240 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	-19.866	.5
2	MP2A	Z	11.47	.5
3	MP2A	Mx	.018	.5
4	MP2A	X	-19.866	4.5
5	MP2A	Z	11.47	4.5
6	MP2A	Mx	.018	4.5
7	MP2A	X	-19.866	.5
8	MP2A	Z	11.47	.5
9	MP2A	Mx	.002	.5
10	MP2A	X	-19.866	4.5
11	MP2A	Z	11.47	4.5
12	MP2A	Mx	.002	4.5
13	MP3A	X	-8.772	1.25
14	MP3A	Z	5.065	1.25
15	MP3A	Mx	.004	1.25
16	MP3A	X	-8.772	3.75
17	MP3A	Z	5.065	3.75
18	MP3A	Mx	.004	3.75
19	M16	X	-22.339	1
20	M16	Z	12.898	1



Member Point Loads (BLC 23 : Antenna Wi (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
21	M16	Mx	.011	1
22	MP2A	X	-10.006	2
23	MP2A	Z	5.777	2
24	MP2A	Mx	-.005	2
25	MP1A	X	-9.471	2
26	MP1A	Z	5.468	2
27	MP1A	Mx	-.005	2
28	MP1A	X	-15.47	.5
29	MP1A	Z	8.932	.5
30	MP1A	Mx	.008	.5
31	MP1A	X	-15.47	4.5
32	MP1A	Z	8.932	4.5
33	MP1A	Mx	.008	4.5
34	MP4A	X	-15.47	.5
35	MP4A	Z	8.932	.5
36	MP4A	Mx	.008	.5
37	MP4A	X	-15.47	4.5
38	MP4A	Z	8.932	4.5
39	MP4A	Mx	.008	4.5

Member Point Loads (BLC 24 : Antenna Wi (270 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	-20.61	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	.01	.5
4	MP2A	X	-20.61	4.5
5	MP2A	Z	0	4.5
6	MP2A	Mx	.01	4.5
7	MP2A	X	-20.61	.5
8	MP2A	Z	0	.5
9	MP2A	Mx	.01	.5
10	MP2A	X	-20.61	4.5
11	MP2A	Z	0	4.5
12	MP2A	Mx	.01	4.5
13	MP3A	X	-7.567	1.25
14	MP3A	Z	0	1.25
15	MP3A	Mx	.004	1.25
16	MP3A	X	-7.567	3.75
17	MP3A	Z	0	3.75
18	MP3A	Mx	.004	3.75
19	M16	X	-24.109	1
20	M16	Z	0	1
21	M16	Mx	.012	1
22	MP2A	X	-10.41	2
23	MP2A	Z	0	2
24	MP2A	Mx	-.005	2
25	MP1A	X	-9.586	2
26	MP1A	Z	0	2
27	MP1A	Mx	-.005	2
28	MP1A	X	-20.287	.5
29	MP1A	Z	0	.5
30	MP1A	Mx	.01	.5
31	MP1A	X	-20.287	4.5
32	MP1A	Z	0	4.5
33	MP1A	Mx	.01	4.5
34	MP4A	X	-20.287	.5
35	MP4A	Z	0	.5
36	MP4A	Mx	.01	.5
37	MP4A	X	-20.287	4.5
38	MP4A	Z	0	4.5
39	MP4A	Mx	.01	4.5



Member Point Loads (BLC 25 : Antenna Wi (300 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	-19.866	.5
2	MP2A	Z	-11.47	.5
3	MP2A	Mx	.002	.5
4	MP2A	X	-19.866	4.5
5	MP2A	Z	-11.47	4.5
6	MP2A	Mx	.002	4.5
7	MP2A	X	-19.866	.5
8	MP2A	Z	-11.47	.5
9	MP2A	Mx	.018	.5
10	MP2A	X	-19.866	4.5
11	MP2A	Z	-11.47	4.5
12	MP2A	Mx	.018	4.5
13	MP3A	X	-8.772	1.25
14	MP3A	Z	-5.065	1.25
15	MP3A	Mx	.004	1.25
16	MP3A	X	-8.772	3.75
17	MP3A	Z	-5.065	3.75
18	MP3A	Mx	.004	3.75
19	M16	X	-22.339	1
20	M16	Z	-12.898	1
21	M16	Mx	.011	1
22	MP2A	X	-10.006	2
23	MP2A	Z	-5.777	2
24	MP2A	Mx	-.005	2
25	MP1A	X	-9.471	2
26	MP1A	Z	-5.468	2
27	MP1A	Mx	-.005	2
28	MP1A	X	-15.47	.5
29	MP1A	Z	-8.932	.5
30	MP1A	Mx	.008	.5
31	MP1A	X	-15.47	4.5
32	MP1A	Z	-8.932	4.5
33	MP1A	Mx	.008	4.5
34	MP4A	X	-15.47	.5
35	MP4A	Z	-8.932	.5
36	MP4A	Mx	.008	.5
37	MP4A	X	-15.47	4.5
38	MP4A	Z	-8.932	4.5
39	MP4A	Mx	.008	4.5

Member Point Loads (BLC 26 : Antenna Wi (330 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	-13.8	.5
2	MP2A	Z	-23.902	.5
3	MP2A	Mx	-.009	.5
4	MP2A	X	-13.8	4.5
5	MP2A	Z	-23.902	4.5
6	MP2A	Mx	-.009	4.5
7	MP2A	X	-13.8	.5
8	MP2A	Z	-23.902	.5
9	MP2A	Mx	.023	.5
10	MP2A	X	-13.8	4.5
11	MP2A	Z	-23.902	4.5
12	MP2A	Mx	.023	4.5
13	MP3A	X	-7.627	1.25
14	MP3A	Z	-13.211	1.25
15	MP3A	Mx	.004	1.25
16	MP3A	X	-7.627	3.75
17	MP3A	Z	-13.211	3.75
18	MP3A	Mx	.004	3.75
19	M16	X	-14.584	1
20	M16	Z	-25.26	1



Member Point Loads (BLC 26 : Antenna Wi (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
21	M16	Mx	.007	1
22	MP2A	X	-6.921	2
23	MP2A	Z	-11.988	2
24	MP2A	Mx	-.003	2
25	MP1A	X	-6.818	2
26	MP1A	Z	-11.81	2
27	MP1A	Mx	-.003	2
28	MP1A	X	-6.508	.5
29	MP1A	Z	-11.273	.5
30	MP1A	Mx	.003	.5
31	MP1A	X	-6.508	4.5
32	MP1A	Z	-11.273	4.5
33	MP1A	Mx	.003	4.5
34	MP4A	X	-6.508	.5
35	MP4A	Z	-11.273	.5
36	MP4A	Mx	.003	.5
37	MP4A	X	-6.508	4.5
38	MP4A	Z	-11.273	4.5
39	MP4A	Mx	.003	4.5

Member Point Loads (BLC 27 : Antenna Wm (0 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	-9.802	.5
3	MP2A	Mx	-.007	.5
4	MP2A	X	0	4.5
5	MP2A	Z	-9.802	4.5
6	MP2A	Mx	-.007	4.5
7	MP2A	X	0	.5
8	MP2A	Z	-9.802	.5
9	MP2A	Mx	.007	.5
10	MP2A	X	0	4.5
11	MP2A	Z	-9.802	4.5
12	MP2A	Mx	.007	4.5
13	MP3A	X	0	1.25
14	MP3A	Z	-5.702	1.25
15	MP3A	Mx	0	1.25
16	MP3A	X	0	3.75
17	MP3A	Z	-5.702	3.75
18	MP3A	Mx	0	3.75
19	M16	X	0	1
20	M16	Z	-9.85	1
21	M16	Mx	0	1
22	MP2A	X	0	2
23	MP2A	Z	-4.537	2
24	MP2A	Mx	0	2
25	MP1A	X	0	2
26	MP1A	Z	-4.537	2
27	MP1A	Mx	0	2
28	MP1A	X	0	.5
29	MP1A	Z	-3.166	.5
30	MP1A	Mx	0	.5
31	MP1A	X	0	4.5
32	MP1A	Z	-3.166	4.5
33	MP1A	Mx	0	4.5
34	MP4A	X	0	.5
35	MP4A	Z	-3.166	.5
36	MP4A	Mx	0	.5
37	MP4A	X	0	4.5
38	MP4A	Z	-3.166	4.5
39	MP4A	Mx	0	4.5



Member Point Loads (BLC 28 : Antenna Wm (30 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	4.486	.5
2	MP2A	Z	-7.769	.5
3	MP2A	Mx	-.007	.5
4	MP2A	X	4.486	4.5
5	MP2A	Z	-7.769	4.5
6	MP2A	Mx	-.007	4.5
7	MP2A	X	4.486	.5
8	MP2A	Z	-7.769	.5
9	MP2A	Mx	.003	.5
10	MP2A	X	4.486	4.5
11	MP2A	Z	-7.769	4.5
12	MP2A	Mx	.003	4.5
13	MP3A	X	2.417	1.25
14	MP3A	Z	-4.187	1.25
15	MP3A	Mx	-.001	1.25
16	MP3A	X	2.417	3.75
17	MP3A	Z	-4.187	3.75
18	MP3A	Mx	-.001	3.75
19	M16	X	4.633	1
20	M16	Z	-8.025	1
21	M16	Mx	-.002	1
22	MP2A	X	2.08	2
23	MP2A	Z	-3.603	2
24	MP2A	Mx	.001	2
25	MP1A	X	2.046	2
26	MP1A	Z	-3.544	2
27	MP1A	Mx	.001	2
28	MP1A	X	2.006	.5
29	MP1A	Z	-3.474	.5
30	MP1A	Mx	-.001	.5
31	MP1A	X	2.006	4.5
32	MP1A	Z	-3.474	4.5
33	MP1A	Mx	-.001	4.5
34	MP4A	X	2.006	.5
35	MP4A	Z	-3.474	.5
36	MP4A	Mx	-.001	.5
37	MP4A	X	2.006	4.5
38	MP4A	Z	-3.474	4.5
39	MP4A	Mx	-.001	4.5

Member Point Loads (BLC 29 : Antenna Wm (60 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	6.331	.5
2	MP2A	Z	-3.655	.5
3	MP2A	Mx	-.006	.5
4	MP2A	X	6.331	4.5
5	MP2A	Z	-3.655	4.5
6	MP2A	Mx	-.006	4.5
7	MP2A	X	6.331	.5
8	MP2A	Z	-3.655	.5
9	MP2A	Mx	-.000729	.5
10	MP2A	X	6.331	4.5
11	MP2A	Z	-3.655	4.5
12	MP2A	Mx	-.000729	4.5
13	MP3A	X	2.684	1.25
14	MP3A	Z	-1.55	1.25
15	MP3A	Mx	-.001	1.25
16	MP3A	X	2.684	3.75
17	MP3A	Z	-1.55	3.75
18	MP3A	Mx	-.001	3.75
19	M16	X	7.014	1
20	M16	Z	-4.049	1



Member Point Loads (BLC 29 : Antenna Wm (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
21	M16	Mx	-.004	1
22	MP2A	X	2.952	2
23	MP2A	Z	-1.704	2
24	MP2A	Mx	.001	2
25	MP1A	X	2.775	2
26	MP1A	Z	-1.602	2
27	MP1A	Mx	.001	2
28	MP1A	X	4.939	.5
29	MP1A	Z	-2.852	.5
30	MP1A	Mx	-.002	.5
31	MP1A	X	4.939	4.5
32	MP1A	Z	-2.852	4.5
33	MP1A	Mx	-.002	4.5
34	MP4A	X	4.939	.5
35	MP4A	Z	-2.852	.5
36	MP4A	Mx	-.002	.5
37	MP4A	X	4.939	4.5
38	MP4A	Z	-2.852	4.5
39	MP4A	Mx	-.002	4.5

Member Point Loads (BLC 30 : Antenna Wm (90 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	6.48	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	-.003	.5
4	MP2A	X	6.48	4.5
5	MP2A	Z	0	4.5
6	MP2A	Mx	-.003	4.5
7	MP2A	X	6.48	.5
8	MP2A	Z	0	.5
9	MP2A	Mx	-.003	.5
10	MP2A	X	6.48	4.5
11	MP2A	Z	0	4.5
12	MP2A	Mx	-.003	4.5
13	MP3A	X	2.232	1.25
14	MP3A	Z	0	1.25
15	MP3A	Mx	-.001	1.25
16	MP3A	X	2.232	3.75
17	MP3A	Z	0	3.75
18	MP3A	Mx	-.001	3.75
19	M16	X	7.515	1
20	M16	Z	0	1
21	M16	Mx	-.004	1
22	MP2A	X	3.033	2
23	MP2A	Z	0	2
24	MP2A	Mx	.002	2
25	MP1A	X	2.76	2
26	MP1A	Z	0	2
27	MP1A	Mx	.001	2
28	MP1A	X	6.549	.5
29	MP1A	Z	0	.5
30	MP1A	Mx	-.003	.5
31	MP1A	X	6.549	4.5
32	MP1A	Z	0	4.5
33	MP1A	Mx	-.003	4.5
34	MP4A	X	6.549	.5
35	MP4A	Z	0	.5
36	MP4A	Mx	-.003	.5
37	MP4A	X	6.549	4.5
38	MP4A	Z	0	4.5
39	MP4A	Mx	-.003	4.5



Member Point Loads (BLC 31 : Antenna Wm (120 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	6.331	.5
2	MP2A	Z	3.655	.5
3	MP2A	Mx	-.000729	.5
4	MP2A	X	6.331	4.5
5	MP2A	Z	3.655	4.5
6	MP2A	Mx	-.000729	4.5
7	MP2A	X	6.331	.5
8	MP2A	Z	3.655	.5
9	MP2A	Mx	-.006	.5
10	MP2A	X	6.331	4.5
11	MP2A	Z	3.655	4.5
12	MP2A	Mx	-.006	4.5
13	MP3A	X	2.684	1.25
14	MP3A	Z	1.55	1.25
15	MP3A	Mx	-.001	1.25
16	MP3A	X	2.684	3.75
17	MP3A	Z	1.55	3.75
18	MP3A	Mx	-.001	3.75
19	M16	X	7.014	1
20	M16	Z	4.049	1
21	M16	Mx	-.004	1
22	MP2A	X	2.952	2
23	MP2A	Z	1.704	2
24	MP2A	Mx	.001	2
25	MP1A	X	2.775	2
26	MP1A	Z	1.602	2
27	MP1A	Mx	.001	2
28	MP1A	X	4.939	.5
29	MP1A	Z	2.852	.5
30	MP1A	Mx	-.002	.5
31	MP1A	X	4.939	4.5
32	MP1A	Z	2.852	4.5
33	MP1A	Mx	-.002	4.5
34	MP4A	X	4.939	.5
35	MP4A	Z	2.852	.5
36	MP4A	Mx	-.002	.5
37	MP4A	X	4.939	4.5
38	MP4A	Z	2.852	4.5
39	MP4A	Mx	-.002	4.5

Member Point Loads (BLC 32 : Antenna Wm (150 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	4.486	.5
2	MP2A	Z	7.769	.5
3	MP2A	Mx	.003	.5
4	MP2A	X	4.486	4.5
5	MP2A	Z	7.769	4.5
6	MP2A	Mx	.003	4.5
7	MP2A	X	4.486	.5
8	MP2A	Z	7.769	.5
9	MP2A	Mx	-.007	.5
10	MP2A	X	4.486	4.5
11	MP2A	Z	7.769	4.5
12	MP2A	Mx	-.007	4.5
13	MP3A	X	2.417	1.25
14	MP3A	Z	4.187	1.25
15	MP3A	Mx	-.001	1.25
16	MP3A	X	2.417	3.75
17	MP3A	Z	4.187	3.75
18	MP3A	Mx	-.001	3.75
19	M16	X	4.633	1
20	M16	Z	8.025	1



Member Point Loads (BLC 32 : Antenna Wm (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
21	M16	Mx	-.002	1
22	MP2A	X	2.08	2
23	MP2A	Z	3.603	2
24	MP2A	Mx	.001	2
25	MP1A	X	2.046	2
26	MP1A	Z	3.544	2
27	MP1A	Mx	.001	2
28	MP1A	X	2.006	.5
29	MP1A	Z	3.474	.5
30	MP1A	Mx	-.001	.5
31	MP1A	X	2.006	4.5
32	MP1A	Z	3.474	4.5
33	MP1A	Mx	-.001	4.5
34	MP4A	X	2.006	.5
35	MP4A	Z	3.474	.5
36	MP4A	Mx	-.001	.5
37	MP4A	X	2.006	4.5
38	MP4A	Z	3.474	4.5
39	MP4A	Mx	-.001	4.5

Member Point Loads (BLC 33 : Antenna Wm (180 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	9.802	.5
3	MP2A	Mx	.007	.5
4	MP2A	X	0	4.5
5	MP2A	Z	9.802	4.5
6	MP2A	Mx	.007	4.5
7	MP2A	X	0	.5
8	MP2A	Z	9.802	.5
9	MP2A	Mx	-.007	.5
10	MP2A	X	0	4.5
11	MP2A	Z	9.802	4.5
12	MP2A	Mx	-.007	4.5
13	MP3A	X	0	1.25
14	MP3A	Z	5.702	1.25
15	MP3A	Mx	0	1.25
16	MP3A	X	0	3.75
17	MP3A	Z	5.702	3.75
18	MP3A	Mx	0	3.75
19	M16	X	0	1
20	M16	Z	9.85	1
21	M16	Mx	0	1
22	MP2A	X	0	2
23	MP2A	Z	4.537	2
24	MP2A	Mx	0	2
25	MP1A	X	0	2
26	MP1A	Z	4.537	2
27	MP1A	Mx	0	2
28	MP1A	X	0	.5
29	MP1A	Z	3.166	.5
30	MP1A	Mx	0	.5
31	MP1A	X	0	4.5
32	MP1A	Z	3.166	4.5
33	MP1A	Mx	0	4.5
34	MP4A	X	0	.5
35	MP4A	Z	3.166	.5
36	MP4A	Mx	0	.5
37	MP4A	X	0	4.5
38	MP4A	Z	3.166	4.5
39	MP4A	Mx	0	4.5



Member Point Loads (BLC 34 : Antenna Wm (210 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	-4.486	.5
2	MP2A	Z	7.769	.5
3	MP2A	Mx	.007	.5
4	MP2A	X	-4.486	4.5
5	MP2A	Z	7.769	4.5
6	MP2A	Mx	.007	4.5
7	MP2A	X	-4.486	.5
8	MP2A	Z	7.769	.5
9	MP2A	Mx	-.003	.5
10	MP2A	X	-4.486	4.5
11	MP2A	Z	7.769	4.5
12	MP2A	Mx	-.003	4.5
13	MP3A	X	-2.417	1.25
14	MP3A	Z	4.187	1.25
15	MP3A	Mx	.001	1.25
16	MP3A	X	-2.417	3.75
17	MP3A	Z	4.187	3.75
18	MP3A	Mx	.001	3.75
19	M16	X	-4.633	1
20	M16	Z	8.025	1
21	M16	Mx	.002	1
22	MP2A	X	-2.08	2
23	MP2A	Z	3.603	2
24	MP2A	Mx	-.001	2
25	MP1A	X	-2.046	2
26	MP1A	Z	3.544	2
27	MP1A	Mx	-.001	2
28	MP1A	X	-2.006	.5
29	MP1A	Z	3.474	.5
30	MP1A	Mx	.001	.5
31	MP1A	X	-2.006	4.5
32	MP1A	Z	3.474	4.5
33	MP1A	Mx	.001	4.5
34	MP4A	X	-2.006	.5
35	MP4A	Z	3.474	.5
36	MP4A	Mx	.001	.5
37	MP4A	X	-2.006	4.5
38	MP4A	Z	3.474	4.5
39	MP4A	Mx	.001	4.5

Member Point Loads (BLC 35 : Antenna Wm (240 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	-6.331	.5
2	MP2A	Z	3.655	.5
3	MP2A	Mx	.006	.5
4	MP2A	X	-6.331	4.5
5	MP2A	Z	3.655	4.5
6	MP2A	Mx	.006	4.5
7	MP2A	X	-6.331	.5
8	MP2A	Z	3.655	.5
9	MP2A	Mx	.000729	.5
10	MP2A	X	-6.331	4.5
11	MP2A	Z	3.655	4.5
12	MP2A	Mx	.000729	4.5
13	MP3A	X	-2.684	1.25
14	MP3A	Z	1.55	1.25
15	MP3A	Mx	.001	1.25
16	MP3A	X	-2.684	3.75
17	MP3A	Z	1.55	3.75
18	MP3A	Mx	.001	3.75
19	M16	X	-7.014	1
20	M16	Z	4.049	1



Member Point Loads (BLC 35 : Antenna Wm (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
21	M16	Mx	.004	1
22	MP2A	X	-2.952	2
23	MP2A	Z	1.704	2
24	MP2A	Mx	-.001	2
25	MP1A	X	-2.775	2
26	MP1A	Z	1.602	2
27	MP1A	Mx	-.001	2
28	MP1A	X	-4.939	.5
29	MP1A	Z	2.852	.5
30	MP1A	Mx	.002	.5
31	MP1A	X	-4.939	4.5
32	MP1A	Z	2.852	4.5
33	MP1A	Mx	.002	4.5
34	MP4A	X	-4.939	.5
35	MP4A	Z	2.852	.5
36	MP4A	Mx	.002	.5
37	MP4A	X	-4.939	4.5
38	MP4A	Z	2.852	4.5
39	MP4A	Mx	.002	4.5

Member Point Loads (BLC 36 : Antenna Wm (270 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	-6.48	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	.003	.5
4	MP2A	X	-6.48	4.5
5	MP2A	Z	0	4.5
6	MP2A	Mx	.003	4.5
7	MP2A	X	-6.48	.5
8	MP2A	Z	0	.5
9	MP2A	Mx	.003	.5
10	MP2A	X	-6.48	4.5
11	MP2A	Z	0	4.5
12	MP2A	Mx	.003	4.5
13	MP3A	X	-2.232	1.25
14	MP3A	Z	0	1.25
15	MP3A	Mx	.001	1.25
16	MP3A	X	-2.232	3.75
17	MP3A	Z	0	3.75
18	MP3A	Mx	.001	3.75
19	M16	X	-7.515	1
20	M16	Z	0	1
21	M16	Mx	.004	1
22	MP2A	X	-3.033	2
23	MP2A	Z	0	2
24	MP2A	Mx	-.002	2
25	MP1A	X	-2.76	2
26	MP1A	Z	0	2
27	MP1A	Mx	-.001	2
28	MP1A	X	-6.549	.5
29	MP1A	Z	0	.5
30	MP1A	Mx	.003	.5
31	MP1A	X	-6.549	4.5
32	MP1A	Z	0	4.5
33	MP1A	Mx	.003	4.5
34	MP4A	X	-6.549	.5
35	MP4A	Z	0	.5
36	MP4A	Mx	.003	.5
37	MP4A	X	-6.549	4.5
38	MP4A	Z	0	4.5
39	MP4A	Mx	.003	4.5



Member Point Loads (BLC 37 : Antenna Wm (300 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	-6.331	.5
2	MP2A	Z	-3.655	.5
3	MP2A	Mx	.000729	.5
4	MP2A	X	-6.331	4.5
5	MP2A	Z	-3.655	4.5
6	MP2A	Mx	.000729	4.5
7	MP2A	X	-6.331	.5
8	MP2A	Z	-3.655	.5
9	MP2A	Mx	.006	.5
10	MP2A	X	-6.331	4.5
11	MP2A	Z	-3.655	4.5
12	MP2A	Mx	.006	4.5
13	MP3A	X	-2.684	1.25
14	MP3A	Z	-1.55	1.25
15	MP3A	Mx	.001	1.25
16	MP3A	X	-2.684	3.75
17	MP3A	Z	-1.55	3.75
18	MP3A	Mx	.001	3.75
19	M16	X	-7.014	1
20	M16	Z	-4.049	1
21	M16	Mx	.004	1
22	MP2A	X	-2.952	2
23	MP2A	Z	-1.704	2
24	MP2A	Mx	-.001	2
25	MP1A	X	-2.775	2
26	MP1A	Z	-1.602	2
27	MP1A	Mx	-.001	2
28	MP1A	X	-4.939	.5
29	MP1A	Z	-2.852	.5
30	MP1A	Mx	.002	.5
31	MP1A	X	-4.939	4.5
32	MP1A	Z	-2.852	4.5
33	MP1A	Mx	.002	4.5
34	MP4A	X	-4.939	.5
35	MP4A	Z	-2.852	.5
36	MP4A	Mx	.002	.5
37	MP4A	X	-4.939	4.5
38	MP4A	Z	-2.852	4.5
39	MP4A	Mx	.002	4.5

Member Point Loads (BLC 38 : Antenna Wm (330 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	-4.486	.5
2	MP2A	Z	-7.769	.5
3	MP2A	Mx	-.003	.5
4	MP2A	X	-4.486	4.5
5	MP2A	Z	-7.769	4.5
6	MP2A	Mx	-.003	4.5
7	MP2A	X	-4.486	.5
8	MP2A	Z	-7.769	.5
9	MP2A	Mx	.007	.5
10	MP2A	X	-4.486	4.5
11	MP2A	Z	-7.769	4.5
12	MP2A	Mx	.007	4.5
13	MP3A	X	-2.417	1.25
14	MP3A	Z	-4.187	1.25
15	MP3A	Mx	.001	1.25
16	MP3A	X	-2.417	3.75
17	MP3A	Z	-4.187	3.75
18	MP3A	Mx	.001	3.75
19	M16	X	-4.633	1
20	M16	Z	-8.025	1

Member Point Loads (BLC 38 : Antenna Wm (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	M16	Mx	.002	1
22	MP2A	X	-2.08	2
23	MP2A	Z	-3.603	2
24	MP2A	Mx	-.001	2
25	MP1A	X	-2.046	2
26	MP1A	Z	-3.544	2
27	MP1A	Mx	-.001	2
28	MP1A	X	-2.006	.5
29	MP1A	Z	-3.474	.5
30	MP1A	Mx	.001	.5
31	MP1A	X	-2.006	4.5
32	MP1A	Z	-3.474	4.5
33	MP1A	Mx	.001	4.5
34	MP4A	X	-2.006	.5
35	MP4A	Z	-3.474	.5
36	MP4A	Mx	.001	.5
37	MP4A	X	-2.006	4.5
38	MP4A	Z	-3.474	4.5
39	MP4A	Mx	.001	4.5

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M5	Y	-500	%25

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M5	Y	-500	%81

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M5	Y	-250	%50

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M5	Y	-250	0

Member Distributed Loads (BLC 40 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft,...]	End Magnitude[lb/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	M3	Y	-9.208	-9.208	0	%100
2	M4	Y	-6.275	-6.275	0	%100
3	M5	Y	-6.275	-6.275	0	%100
4	MP1A	Y	-4.744	-4.744	0	%100
5	MP4A	Y	-4.744	-4.744	0	%100
6	MP3A	Y	-4.744	-4.744	0	%100
7	MP2A	Y	-4.744	-4.744	0	%100
8	M16	Y	-4.744	-4.744	0	%100

Member Distributed Loads (BLC 41 : Structure Wo (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...]	End Magnitude[lb/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	M3	X	0	0	0	%100
2	M3	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	-8.662	-8.662	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	-13.587	-13.587	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-9.219	-9.219	0	%100
9	MP4A	X	0	0	0	%100
10	MP4A	Z	-9.219	-9.219	0	%100



Member Distributed Loads (BLC 41 : Structure Wo (0 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
11	MP3A	X	0	0	0	%100
12	MP3A	Z	-9.219	-9.219	0	%100
13	MP2A	X	0	0	0	%100
14	MP2A	Z	-9.219	-9.219	0	%100
15	M16	X	0	0	0	%100
16	M16	Z	-7.539	-7.539	0	%100

Member Distributed Loads (BLC 42 : Structure Wo (30 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	1.774	1.774	0	%100
2	M3	Z	-3.073	-3.073	0	%100
3	M4	X	4.331	4.331	0	%100
4	M4	Z	-7.502	-7.502	0	%100
5	M5	X	5.095	5.095	0	%100
6	M5	Z	-8.825	-8.825	0	%100
7	MP1A	X	4.61	4.61	0	%100
8	MP1A	Z	-7.984	-7.984	0	%100
9	MP4A	X	4.61	4.61	0	%100
10	MP4A	Z	-7.984	-7.984	0	%100
11	MP3A	X	4.61	4.61	0	%100
12	MP3A	Z	-7.984	-7.984	0	%100
13	MP2A	X	4.61	4.61	0	%100
14	MP2A	Z	-7.984	-7.984	0	%100
15	M16	X	3.77	3.77	0	%100
16	M16	Z	-6.529	-6.529	0	%100

Member Distributed Loads (BLC 43 : Structure Wo (60 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	9.22	9.22	0	%100
2	M3	Z	-5.323	-5.323	0	%100
3	M4	X	7.502	7.502	0	%100
4	M4	Z	-4.331	-4.331	0	%100
5	M5	X	2.942	2.942	0	%100
6	M5	Z	-1.698	-1.698	0	%100
7	MP1A	X	7.984	7.984	0	%100
8	MP1A	Z	-4.61	-4.61	0	%100
9	MP4A	X	7.984	7.984	0	%100
10	MP4A	Z	-4.61	-4.61	0	%100
11	MP3A	X	7.984	7.984	0	%100
12	MP3A	Z	-4.61	-4.61	0	%100
13	MP2A	X	7.984	7.984	0	%100
14	MP2A	Z	-4.61	-4.61	0	%100
15	M16	X	6.529	6.529	0	%100
16	M16	Z	-3.77	-3.77	0	%100

Member Distributed Loads (BLC 44 : Structure Wo (90 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	14.195	14.195	0	%100
2	M3	Z	0	0	0	%100
3	M4	X	8.662	8.662	0	%100
4	M4	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100
7	MP1A	X	9.219	9.219	0	%100
8	MP1A	Z	0	0	0	%100
9	MP4A	X	9.219	9.219	0	%100
10	MP4A	Z	0	0	0	%100
11	MP3A	X	9.219	9.219	0	%100
12	MP3A	Z	0	0	0	%100
13	MP2A	X	9.219	9.219	0	%100
14	MP2A	Z	0	0	0	%100



Member Distributed Loads (BLC 44 : Structure Wo (90 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
15	M16	X	7.539	7.539	0	%100
16	M16	Z	0	0	0	%100

Member Distributed Loads (BLC 45 : Structure Wo (120 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M3	X	9.22	9.22	0	%100
2	M3	Z	5.323	5.323	0	%100
3	M4	X	7.502	7.502	0	%100
4	M4	Z	4.331	4.331	0	%100
5	M5	X	2.942	2.942	0	%100
6	M5	Z	1.698	1.698	0	%100
7	MP1A	X	7.984	7.984	0	%100
8	MP1A	Z	4.61	4.61	0	%100
9	MP4A	X	7.984	7.984	0	%100
10	MP4A	Z	4.61	4.61	0	%100
11	MP3A	X	7.984	7.984	0	%100
12	MP3A	Z	4.61	4.61	0	%100
13	MP2A	X	7.984	7.984	0	%100
14	MP2A	Z	4.61	4.61	0	%100
15	M16	X	6.529	6.529	0	%100
16	M16	Z	3.77	3.77	0	%100

Member Distributed Loads (BLC 46 : Structure Wo (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M3	X	1.774	1.774	0	%100
2	M3	Z	3.073	3.073	0	%100
3	M4	X	4.331	4.331	0	%100
4	M4	Z	7.502	7.502	0	%100
5	M5	X	5.095	5.095	0	%100
6	M5	Z	8.825	8.825	0	%100
7	MP1A	X	4.61	4.61	0	%100
8	MP1A	Z	7.984	7.984	0	%100
9	MP4A	X	4.61	4.61	0	%100
10	MP4A	Z	7.984	7.984	0	%100
11	MP3A	X	4.61	4.61	0	%100
12	MP3A	Z	7.984	7.984	0	%100
13	MP2A	X	4.61	4.61	0	%100
14	MP2A	Z	7.984	7.984	0	%100
15	M16	X	3.77	3.77	0	%100
16	M16	Z	6.529	6.529	0	%100

Member Distributed Loads (BLC 47 : Structure Wo (180 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M3	X	0	0	0	%100
2	M3	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	8.662	8.662	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	13.587	13.587	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	9.219	9.219	0	%100
9	MP4A	X	0	0	0	%100
10	MP4A	Z	9.219	9.219	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	9.219	9.219	0	%100
13	MP2A	X	0	0	0	%100
14	MP2A	Z	9.219	9.219	0	%100
15	M16	X	0	0	0	%100
16	M16	Z	7.539	7.539	0	%100



Member Distributed Loads (BLC 48 : Structure Wo (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	-1.774	-1.774	0	%100
2	M3	Z	3.073	3.073	0	%100
3	M4	X	-4.331	-4.331	0	%100
4	M4	Z	7.502	7.502	0	%100
5	M5	X	-5.095	-5.095	0	%100
6	M5	Z	8.825	8.825	0	%100
7	MP1A	X	-4.61	-4.61	0	%100
8	MP1A	Z	7.984	7.984	0	%100
9	MP4A	X	-4.61	-4.61	0	%100
10	MP4A	Z	7.984	7.984	0	%100
11	MP3A	X	-4.61	-4.61	0	%100
12	MP3A	Z	7.984	7.984	0	%100
13	MP2A	X	-4.61	-4.61	0	%100
14	MP2A	Z	7.984	7.984	0	%100
15	M16	X	-3.77	-3.77	0	%100
16	M16	Z	6.529	6.529	0	%100

Member Distributed Loads (BLC 49 : Structure Wo (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	-9.22	-9.22	0	%100
2	M3	Z	5.323	5.323	0	%100
3	M4	X	-7.502	-7.502	0	%100
4	M4	Z	4.331	4.331	0	%100
5	M5	X	-2.942	-2.942	0	%100
6	M5	Z	1.698	1.698	0	%100
7	MP1A	X	-7.984	-7.984	0	%100
8	MP1A	Z	4.61	4.61	0	%100
9	MP4A	X	-7.984	-7.984	0	%100
10	MP4A	Z	4.61	4.61	0	%100
11	MP3A	X	-7.984	-7.984	0	%100
12	MP3A	Z	4.61	4.61	0	%100
13	MP2A	X	-7.984	-7.984	0	%100
14	MP2A	Z	4.61	4.61	0	%100
15	M16	X	-6.529	-6.529	0	%100
16	M16	Z	3.77	3.77	0	%100

Member Distributed Loads (BLC 50 : Structure Wo (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	-14.195	-14.195	0	%100
2	M3	Z	0	0	0	%100
3	M4	X	-8.662	-8.662	0	%100
4	M4	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100
7	MP1A	X	-9.219	-9.219	0	%100
8	MP1A	Z	0	0	0	%100
9	MP4A	X	-9.219	-9.219	0	%100
10	MP4A	Z	0	0	0	%100
11	MP3A	X	-9.219	-9.219	0	%100
12	MP3A	Z	0	0	0	%100
13	MP2A	X	-9.219	-9.219	0	%100
14	MP2A	Z	0	0	0	%100
15	M16	X	-7.539	-7.539	0	%100
16	M16	Z	0	0	0	%100

Member Distributed Loads (BLC 51 : Structure Wo (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	-9.22	-9.22	0	%100
2	M3	Z	-5.323	-5.323	0	%100
3	M4	X	-7.502	-7.502	0	%100
4	M4	Z	-4.331	-4.331	0	%100

Member Distributed Loads (BLC 51 : Structure Wo (300 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
5	M5	X	-2.942	-2.942	0	%100
6	M5	Z	-1.698	-1.698	0	%100
7	MP1A	X	-7.984	-7.984	0	%100
8	MP1A	Z	-4.61	-4.61	0	%100
9	MP4A	X	-7.984	-7.984	0	%100
10	MP4A	Z	-4.61	-4.61	0	%100
11	MP3A	X	-7.984	-7.984	0	%100
12	MP3A	Z	-4.61	-4.61	0	%100
13	MP2A	X	-7.984	-7.984	0	%100
14	MP2A	Z	-4.61	-4.61	0	%100
15	M16	X	-6.529	-6.529	0	%100
16	M16	Z	-3.77	-3.77	0	%100

Member Distributed Loads (BLC 52 : Structure Wo (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	-1.774	-1.774	0	%100
2	M3	Z	-3.073	-3.073	0	%100
3	M4	X	-4.331	-4.331	0	%100
4	M4	Z	-7.502	-7.502	0	%100
5	M5	X	-5.095	-5.095	0	%100
6	M5	Z	-8.825	-8.825	0	%100
7	MP1A	X	-4.61	-4.61	0	%100
8	MP1A	Z	-7.984	-7.984	0	%100
9	MP4A	X	-4.61	-4.61	0	%100
10	MP4A	Z	-7.984	-7.984	0	%100
11	MP3A	X	-4.61	-4.61	0	%100
12	MP3A	Z	-7.984	-7.984	0	%100
13	MP2A	X	-4.61	-4.61	0	%100
14	MP2A	Z	-7.984	-7.984	0	%100
15	M16	X	-3.77	-3.77	0	%100
16	M16	Z	-6.529	-6.529	0	%100

Member Distributed Loads (BLC 53 : Structure Wi (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	0	0	0	%100
2	M3	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	-2.547	-2.547	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	-3.859	-3.859	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-3.101	-3.101	0	%100
9	MP4A	X	0	0	0	%100
10	MP4A	Z	-3.101	-3.101	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	-3.101	-3.101	0	%100
13	MP2A	X	0	0	0	%100
14	MP2A	Z	-3.101	-3.101	0	%100
15	M16	X	0	0	0	%100
16	M16	Z	-2.564	-2.564	0	%100

Member Distributed Loads (BLC 54 : Structure Wi (30 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	.487	.487	0	%100
2	M3	Z	-.843	-.843	0	%100
3	M4	X	1.273	1.273	0	%100
4	M4	Z	-2.206	-2.206	0	%100
5	M5	X	1.447	1.447	0	%100
6	M5	Z	-2.507	-2.507	0	%100
7	MP1A	X	1.551	1.551	0	%100
8	MP1A	Z	-2.686	-2.686	0	%100



Member Distributed Loads (BLC 54 : Structure Wi (30 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
9	MP4A	X	1.551	1.551	0	%100
10	MP4A	Z	-2.686	-2.686	0	%100
11	MP3A	X	1.551	1.551	0	%100
12	MP3A	Z	-2.686	-2.686	0	%100
13	MP2A	X	1.551	1.551	0	%100
14	MP2A	Z	-2.686	-2.686	0	%100
15	M16	X	1.282	1.282	0	%100
16	M16	Z	-2.221	-2.221	0	%100

Member Distributed Loads (BLC 55 : Structure Wi (60 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M3	X	2.529	2.529	0	%100
2	M3	Z	-1.46	-1.46	0	%100
3	M4	X	2.206	2.206	0	%100
4	M4	Z	-1.273	-1.273	0	%100
5	M5	X	.836	.836	0	%100
6	M5	Z	-.482	-.482	0	%100
7	MP1A	X	2.686	2.686	0	%100
8	MP1A	Z	-1.551	-1.551	0	%100
9	MP4A	X	2.686	2.686	0	%100
10	MP4A	Z	-1.551	-1.551	0	%100
11	MP3A	X	2.686	2.686	0	%100
12	MP3A	Z	-1.551	-1.551	0	%100
13	MP2A	X	2.686	2.686	0	%100
14	MP2A	Z	-1.551	-1.551	0	%100
15	M16	X	2.221	2.221	0	%100
16	M16	Z	-1.282	-1.282	0	%100

Member Distributed Loads (BLC 56 : Structure Wi (90 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M3	X	3.894	3.894	0	%100
2	M3	Z	0	0	0	%100
3	M4	X	2.547	2.547	0	%100
4	M4	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100
7	MP1A	X	3.101	3.101	0	%100
8	MP1A	Z	0	0	0	%100
9	MP4A	X	3.101	3.101	0	%100
10	MP4A	Z	0	0	0	%100
11	MP3A	X	3.101	3.101	0	%100
12	MP3A	Z	0	0	0	%100
13	MP2A	X	3.101	3.101	0	%100
14	MP2A	Z	0	0	0	%100
15	M16	X	2.564	2.564	0	%100
16	M16	Z	0	0	0	%100

Member Distributed Loads (BLC 57 : Structure Wi (120 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M3	X	2.529	2.529	0	%100
2	M3	Z	1.46	1.46	0	%100
3	M4	X	2.206	2.206	0	%100
4	M4	Z	1.273	1.273	0	%100
5	M5	X	.836	.836	0	%100
6	M5	Z	.482	.482	0	%100
7	MP1A	X	2.686	2.686	0	%100
8	MP1A	Z	1.551	1.551	0	%100
9	MP4A	X	2.686	2.686	0	%100
10	MP4A	Z	1.551	1.551	0	%100
11	MP3A	X	2.686	2.686	0	%100
12	MP3A	Z	1.551	1.551	0	%100



Member Distributed Loads (BLC 57 : Structure Wi (120 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
13	MP2A	X	2.686	2.686	0	%100
14	MP2A	Z	1.551	1.551	0	%100
15	M16	X	2.221	2.221	0	%100
16	M16	Z	1.282	1.282	0	%100

Member Distributed Loads (BLC 58 : Structure Wi (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	.487	.487	0	%100
2	M3	Z	.843	.843	0	%100
3	M4	X	1.273	1.273	0	%100
4	M4	Z	2.206	2.206	0	%100
5	M5	X	1.447	1.447	0	%100
6	M5	Z	2.507	2.507	0	%100
7	MP1A	X	1.551	1.551	0	%100
8	MP1A	Z	2.686	2.686	0	%100
9	MP4A	X	1.551	1.551	0	%100
10	MP4A	Z	2.686	2.686	0	%100
11	MP3A	X	1.551	1.551	0	%100
12	MP3A	Z	2.686	2.686	0	%100
13	MP2A	X	1.551	1.551	0	%100
14	MP2A	Z	2.686	2.686	0	%100
15	M16	X	1.282	1.282	0	%100
16	M16	Z	2.221	2.221	0	%100

Member Distributed Loads (BLC 59 : Structure Wi (180 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	0	0	0	%100
2	M3	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	2.547	2.547	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	3.859	3.859	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	3.101	3.101	0	%100
9	MP4A	X	0	0	0	%100
10	MP4A	Z	3.101	3.101	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	3.101	3.101	0	%100
13	MP2A	X	0	0	0	%100
14	MP2A	Z	3.101	3.101	0	%100
15	M16	X	0	0	0	%100
16	M16	Z	2.564	2.564	0	%100

Member Distributed Loads (BLC 60 : Structure Wi (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	-.487	-.487	0	%100
2	M3	Z	.843	.843	0	%100
3	M4	X	-1.273	-1.273	0	%100
4	M4	Z	2.206	2.206	0	%100
5	M5	X	-1.447	-1.447	0	%100
6	M5	Z	2.507	2.507	0	%100
7	MP1A	X	-1.551	-1.551	0	%100
8	MP1A	Z	2.686	2.686	0	%100
9	MP4A	X	-1.551	-1.551	0	%100
10	MP4A	Z	2.686	2.686	0	%100
11	MP3A	X	-1.551	-1.551	0	%100
12	MP3A	Z	2.686	2.686	0	%100
13	MP2A	X	-1.551	-1.551	0	%100
14	MP2A	Z	2.686	2.686	0	%100
15	M16	X	-1.282	-1.282	0	%100
16	M16	Z	2.221	2.221	0	%100



Member Distributed Loads (BLC 61 : Structure Wi (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	-2.529	-2.529	0	%100
2	M3	Z	1.46	1.46	0	%100
3	M4	X	-2.206	-2.206	0	%100
4	M4	Z	1.273	1.273	0	%100
5	M5	X	-836	-836	0	%100
6	M5	Z	.482	.482	0	%100
7	MP1A	X	-2.686	-2.686	0	%100
8	MP1A	Z	1.551	1.551	0	%100
9	MP4A	X	-2.686	-2.686	0	%100
10	MP4A	Z	1.551	1.551	0	%100
11	MP3A	X	-2.686	-2.686	0	%100
12	MP3A	Z	1.551	1.551	0	%100
13	MP2A	X	-2.686	-2.686	0	%100
14	MP2A	Z	1.551	1.551	0	%100
15	M16	X	-2.221	-2.221	0	%100
16	M16	Z	1.282	1.282	0	%100

Member Distributed Loads (BLC 62 : Structure Wi (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	-3.894	-3.894	0	%100
2	M3	Z	0	0	0	%100
3	M4	X	-2.547	-2.547	0	%100
4	M4	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100
7	MP1A	X	-3.101	-3.101	0	%100
8	MP1A	Z	0	0	0	%100
9	MP4A	X	-3.101	-3.101	0	%100
10	MP4A	Z	0	0	0	%100
11	MP3A	X	-3.101	-3.101	0	%100
12	MP3A	Z	0	0	0	%100
13	MP2A	X	-3.101	-3.101	0	%100
14	MP2A	Z	0	0	0	%100
15	M16	X	-2.564	-2.564	0	%100
16	M16	Z	0	0	0	%100

Member Distributed Loads (BLC 63 : Structure Wi (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	-2.529	-2.529	0	%100
2	M3	Z	-1.46	-1.46	0	%100
3	M4	X	-2.206	-2.206	0	%100
4	M4	Z	-1.273	-1.273	0	%100
5	M5	X	-836	-836	0	%100
6	M5	Z	-.482	-.482	0	%100
7	MP1A	X	-2.686	-2.686	0	%100
8	MP1A	Z	-1.551	-1.551	0	%100
9	MP4A	X	-2.686	-2.686	0	%100
10	MP4A	Z	-1.551	-1.551	0	%100
11	MP3A	X	-2.686	-2.686	0	%100
12	MP3A	Z	-1.551	-1.551	0	%100
13	MP2A	X	-2.686	-2.686	0	%100
14	MP2A	Z	-1.551	-1.551	0	%100
15	M16	X	-2.221	-2.221	0	%100
16	M16	Z	-1.282	-1.282	0	%100

Member Distributed Loads (BLC 64 : Structure Wi (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	-.487	-.487	0	%100
2	M3	Z	-.843	-.843	0	%100
3	M4	X	-1.273	-1.273	0	%100
4	M4	Z	-2.206	-2.206	0	%100

Member Distributed Loads (BLC 64 : Structure Wi (330 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
5	M5	X	-1.447	-1.447	0	%100
6	M5	Z	-2.507	-2.507	0	%100
7	MP1A	X	-1.551	-1.551	0	%100
8	MP1A	Z	-2.686	-2.686	0	%100
9	MP4A	X	-1.551	-1.551	0	%100
10	MP4A	Z	-2.686	-2.686	0	%100
11	MP3A	X	-1.551	-1.551	0	%100
12	MP3A	Z	-2.686	-2.686	0	%100
13	MP2A	X	-1.551	-1.551	0	%100
14	MP2A	Z	-2.686	-2.686	0	%100
15	M16	X	-1.282	-1.282	0	%100
16	M16	Z	-2.221	-2.221	0	%100

Member Distributed Loads (BLC 65 : Structure Wm (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	0	0	0	%100
2	M3	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	-.541	-.541	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	-.849	-.849	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-.576	-.576	0	%100
9	MP4A	X	0	0	0	%100
10	MP4A	Z	-.576	-.576	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	-.576	-.576	0	%100
13	MP2A	X	0	0	0	%100
14	MP2A	Z	-.576	-.576	0	%100
15	M16	X	0	0	0	%100
16	M16	Z	-.471	-.471	0	%100

Member Distributed Loads (BLC 66 : Structure Wm (30 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	.111	.111	0	%100
2	M3	Z	-.192	-.192	0	%100
3	M4	X	.271	.271	0	%100
4	M4	Z	-.469	-.469	0	%100
5	M5	X	.318	.318	0	%100
6	M5	Z	-.552	-.552	0	%100
7	MP1A	X	.288	.288	0	%100
8	MP1A	Z	-.499	-.499	0	%100
9	MP4A	X	.288	.288	0	%100
10	MP4A	Z	-.499	-.499	0	%100
11	MP3A	X	.288	.288	0	%100
12	MP3A	Z	-.499	-.499	0	%100
13	MP2A	X	.288	.288	0	%100
14	MP2A	Z	-.499	-.499	0	%100
15	M16	X	.236	.236	0	%100
16	M16	Z	-.408	-.408	0	%100

Member Distributed Loads (BLC 67 : Structure Wm (60 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	.576	.576	0	%100
2	M3	Z	-.333	-.333	0	%100
3	M4	X	.469	.469	0	%100
4	M4	Z	-.271	-.271	0	%100
5	M5	X	.184	.184	0	%100
6	M5	Z	-.106	-.106	0	%100
7	MP1A	X	.499	.499	0	%100
8	MP1A	Z	-.288	-.288	0	%100



Member Distributed Loads (BLC 67 : Structure Wm (60 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
9	MP4A	X	.499	.499	0	%100
10	MP4A	Z	-.288	-.288	0	%100
11	MP3A	X	.499	.499	0	%100
12	MP3A	Z	-.288	-.288	0	%100
13	MP2A	X	.499	.499	0	%100
14	MP2A	Z	-.288	-.288	0	%100
15	M16	X	.408	.408	0	%100
16	M16	Z	-.236	-.236	0	%100

Member Distributed Loads (BLC 68 : Structure Wm (90 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	.887	.887	0	%100
2	M3	Z	0	0	0	%100
3	M4	X	.541	.541	0	%100
4	M4	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100
7	MP1A	X	.576	.576	0	%100
8	MP1A	Z	0	0	0	%100
9	MP4A	X	.576	.576	0	%100
10	MP4A	Z	0	0	0	%100
11	MP3A	X	.576	.576	0	%100
12	MP3A	Z	0	0	0	%100
13	MP2A	X	.576	.576	0	%100
14	MP2A	Z	0	0	0	%100
15	M16	X	.471	.471	0	%100
16	M16	Z	0	0	0	%100

Member Distributed Loads (BLC 69 : Structure Wm (120 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	.576	.576	0	%100
2	M3	Z	.333	.333	0	%100
3	M4	X	.469	.469	0	%100
4	M4	Z	.271	.271	0	%100
5	M5	X	.184	.184	0	%100
6	M5	Z	.106	.106	0	%100
7	MP1A	X	.499	.499	0	%100
8	MP1A	Z	.288	.288	0	%100
9	MP4A	X	.499	.499	0	%100
10	MP4A	Z	.288	.288	0	%100
11	MP3A	X	.499	.499	0	%100
12	MP3A	Z	.288	.288	0	%100
13	MP2A	X	.499	.499	0	%100
14	MP2A	Z	.288	.288	0	%100
15	M16	X	.408	.408	0	%100
16	M16	Z	.236	.236	0	%100

Member Distributed Loads (BLC 70 : Structure Wm (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	.111	.111	0	%100
2	M3	Z	.192	.192	0	%100
3	M4	X	.271	.271	0	%100
4	M4	Z	.469	.469	0	%100
5	M5	X	.318	.318	0	%100
6	M5	Z	.552	.552	0	%100
7	MP1A	X	.288	.288	0	%100
8	MP1A	Z	.499	.499	0	%100
9	MP4A	X	.288	.288	0	%100
10	MP4A	Z	.499	.499	0	%100
11	MP3A	X	.288	.288	0	%100
12	MP3A	Z	.499	.499	0	%100



Member Distributed Loads (BLC 70 : Structure Wm (150 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
13	MP2A	X	.288	.288	0	%100
14	MP2A	Z	.499	.499	0	%100
15	M16	X	.236	.236	0	%100
16	M16	Z	.408	.408	0	%100

Member Distributed Loads (BLC 71 : Structure Wm (180 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	0	0	0	%100
2	M3	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	.541	.541	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	.849	.849	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	.576	.576	0	%100
9	MP4A	X	0	0	0	%100
10	MP4A	Z	.576	.576	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	.576	.576	0	%100
13	MP2A	X	0	0	0	%100
14	MP2A	Z	.576	.576	0	%100
15	M16	X	0	0	0	%100
16	M16	Z	.471	.471	0	%100

Member Distributed Loads (BLC 72 : Structure Wm (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	-.111	-.111	0	%100
2	M3	Z	.192	.192	0	%100
3	M4	X	-.271	-.271	0	%100
4	M4	Z	.469	.469	0	%100
5	M5	X	-.318	-.318	0	%100
6	M5	Z	.552	.552	0	%100
7	MP1A	X	-.288	-.288	0	%100
8	MP1A	Z	.499	.499	0	%100
9	MP4A	X	-.288	-.288	0	%100
10	MP4A	Z	.499	.499	0	%100
11	MP3A	X	-.288	-.288	0	%100
12	MP3A	Z	.499	.499	0	%100
13	MP2A	X	-.288	-.288	0	%100
14	MP2A	Z	.499	.499	0	%100
15	M16	X	-.236	-.236	0	%100
16	M16	Z	.408	.408	0	%100

Member Distributed Loads (BLC 73 : Structure Wm (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	-.576	-.576	0	%100
2	M3	Z	.333	.333	0	%100
3	M4	X	-.469	-.469	0	%100
4	M4	Z	.271	.271	0	%100
5	M5	X	-.184	-.184	0	%100
6	M5	Z	.106	.106	0	%100
7	MP1A	X	-.499	-.499	0	%100
8	MP1A	Z	.288	.288	0	%100
9	MP4A	X	-.499	-.499	0	%100
10	MP4A	Z	.288	.288	0	%100
11	MP3A	X	-.499	-.499	0	%100
12	MP3A	Z	.288	.288	0	%100
13	MP2A	X	-.499	-.499	0	%100
14	MP2A	Z	.288	.288	0	%100
15	M16	X	-.408	-.408	0	%100
16	M16	Z	.236	.236	0	%100



Member Distributed Loads (BLC 74 : Structure Wm (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	-887	-887	0	%100
2	M3	Z	0	0	0	%100
3	M4	X	-541	-541	0	%100
4	M4	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100
7	MP1A	X	-576	-576	0	%100
8	MP1A	Z	0	0	0	%100
9	MP4A	X	-576	-576	0	%100
10	MP4A	Z	0	0	0	%100
11	MP3A	X	-576	-576	0	%100
12	MP3A	Z	0	0	0	%100
13	MP2A	X	-576	-576	0	%100
14	MP2A	Z	0	0	0	%100
15	M16	X	-471	-471	0	%100
16	M16	Z	0	0	0	%100

Member Distributed Loads (BLC 75 : Structure Wm (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	-576	-576	0	%100
2	M3	Z	-333	-333	0	%100
3	M4	X	-469	-469	0	%100
4	M4	Z	-271	-271	0	%100
5	M5	X	-184	-184	0	%100
6	M5	Z	-106	-106	0	%100
7	MP1A	X	-499	-499	0	%100
8	MP1A	Z	-288	-288	0	%100
9	MP4A	X	-499	-499	0	%100
10	MP4A	Z	-288	-288	0	%100
11	MP3A	X	-499	-499	0	%100
12	MP3A	Z	-288	-288	0	%100
13	MP2A	X	-499	-499	0	%100
14	MP2A	Z	-288	-288	0	%100
15	M16	X	-408	-408	0	%100
16	M16	Z	-236	-236	0	%100

Member Distributed Loads (BLC 76 : Structure Wm (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M3	X	-111	-111	0	%100
2	M3	Z	-192	-192	0	%100
3	M4	X	-271	-271	0	%100
4	M4	Z	-469	-469	0	%100
5	M5	X	-318	-318	0	%100
6	M5	Z	-552	-552	0	%100
7	MP1A	X	-288	-288	0	%100
8	MP1A	Z	-499	-499	0	%100
9	MP4A	X	-288	-288	0	%100
10	MP4A	Z	-499	-499	0	%100
11	MP3A	X	-288	-288	0	%100
12	MP3A	Z	-499	-499	0	%100
13	MP2A	X	-288	-288	0	%100
14	MP2A	Z	-499	-499	0	%100
15	M16	X	-236	-236	0	%100
16	M16	Z	-408	-408	0	%100

Member Area Loads

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
No Data to Print ...						



Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N1	max	1434.977	10	1620.46	13	1756.24	1	-2.284	1	8.083	9	5.9	40
2		min	-1434.976	4	612.021	52	-1756.24	7	-7.313	19	-7.969	3	-.258	50
3	Totals:	max	1434.977	10	1620.46	13	1756.24	1						
4		min	-1434.976	4	612.021	52	-1756.24	7						

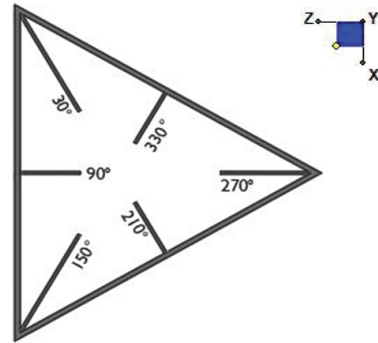
Envelope AISC 15th(360-16): LRFD Steel Code Checks

Member	Shape	Code Check	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc ...	phi*Pnt [...]	phi*Mn ...	phi*Mn ...	Cb	Eqn
1	M3	HSS4X4X3	.948	0	.432	0	y	39	99604.0...	106812	12.662	12.662	1...	H1-1b
2	M5	PIPE 3.0	.917	6.75	.170	6.75	7	24533.2...	65205	5.749	5.749	1...	H1-1b	
3	MP2A	PIPE 2.0	.495	3	.094	3	5	20866.7...	32130	1.872	1.872	1...	H1-1b	
4	MP1A	PIPE 2.0	.192	3	.050	3	4	20866.7...	32130	1.872	1.872	1...	H1-1b	
5	MP4A	PIPE 2.0	.163	3	.045	3	4	20866.7...	32130	1.872	1.872	1...	H1-1b	
6	M16	PIPE 2.0	.150	2.5	.051	2.5	4	28843.4...	32130	1.872	1.872	1...	H1-1b	
7	MP3A	PIPE 2.0	.124	3	.023	3	6	20866.7...	32130	1.872	1.872	1...	H1-1b	
8	M4	PIPE 3.0	.001	.792	.000	.792	5	64335.7...	65205	5.749	5.749	1...	H1-1b	

I. Mount-to-Tower Connection Check

RISA Model Data

Nodes (labeled per RISA)	Orientation (per graphic of typical platform)
N1	150

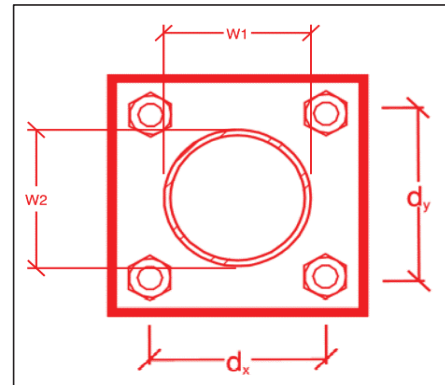


TYPICAL PLATFORM

Tower Connection Bolt Checks

Any moment resistance?:
 Bolt Quantity per Reaction:
 d_x (in) (Delta X of typ. bolt config. sketch) :
 d_y (in) (Delta Y of typ. bolt config. sketch) :
 Bolt Type:
 Bolt Diameter (in):
 Required Tensile Strength (kips):
 Required Shear Strength (kips):
 Tensile Strength / bolt (kips):
 Shear Strength / bolt (kips):
 Tensile Capacity Overall:
 Shear Capacity Overall:

yes
4
6
6
A325N
0.5
35.6
23.6
9.3
8.0
95.5%*
74.3%



*Note: Tension reduction not required if tension or shear capacity < 30%

Tower Connection Plate and Weld Check

Connecting Standoff Member Shape:
 Plate Width (in):
 Plate Height (in):
 W1 (in):
 W2 (in):
 Fy (ksi, plate):
 t_{plate} (in):
 Weld Size (1/16 in):
 Phi*Rn (kip/in):
 Required Weld Strength (kip/in):
 Plate Bending Capacity:
 Weld Capacity:

Rect
8
8
4
4
36
0.75
4
5.57
4.98
64.2%
89.5%

Max Plate Bending Strengths

Mu_{xx} (kip-in) :	7.2
Phi*Mn _{xx} (kip-in) :	36.5
Mu_{yy} (kip-in) :	16.2
Phi*Mn _{yy} (kip-in) :	36.5

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – **Passing Mount Analysis**

Purpose – to provide Maser Consulting Connecticut the proper documentation in order to complete the required Mount Desktop review of the Post Modification Inspection Report.

- Contractor is responsible for making certain the photos provided as noted below provide confirmation that the installation was completed in accordance with this Passing Mount Analysis.
- Contractor shall relay any data that can impact the performance of the mount, this includes safety issues.

Base Requirements:

- Any special photos outside of the standard requirements will be indicated on the passing MA
- Verification that loading is as communicated in the Passing Mount Analysis. NOTE If loading is different than what is conveyed contact Maser Consulting Connecticut immediately.
- Each photo should be time and date stamped
- Photos should be high resolution and submitted in a Zip File and should be organized in the file structure as depicted in Schedule A attached.
- Contractor shall ensure that the safety climb wire rope is supported and not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope.
- The photos in the file structure should be uploaded to <https://pmi.vzwsmart.com> as depicted on the drawings

Photo Requirements:

- Base and “During Installation Photos”
 - Base pictures include
 - Photo of Gate Signs showing the tower owner, site name, and number
 - Photo of carrier shelter showing the carrier site name and number if available
 - Photos of the galvanizing compound and/or paint used (if applicable), clearly showing the label and name
 - “During Installation Photos if provided - must be placed only in this folder
- Photos taken at ground level
 - Overall tower structure before and after installation of the equipment modifications
 - Photos of the appropriate mount before and after installation of the modifications; if the mounts are at different rad elevations, pictures must be provided for all elevations that the modifications were installed
- Photos taken at Mount Elevation
 - Photos showing each individual sector before and also after installation of equipment.

- These photos should also certify that the placement and geometry of the equipment on the mount is as depicted on the sketch and table in the mount analysis
- Photos showing the safety climb wire rope above and below the mount prior to modification.
- Photos showing the climbing facility and safety climb if present.

Antenna & equipment placement and Geometry Confirmation:

- The contractor must certify that the antenna & equipment placement and geometry is in accordance with the antenna placement diagrams as included in this mount analysis.
- The contractor certifies that the photos support and the equipment on the mount is as depicted on the antenna placement diagrams as included in this mount analysis.
- The contractor notes that the equipment on the mount is not in accordance with the antenna placement diagrams and has accordingly marked up the diagrams or provided a diagram outlining the differences.


















Certifying Individual:	Company	_____
	Name	_____
	Signature	_____

Special Instructions / Validation as required from the MA or any other information the contractor deems necessary to share that was identified:

Issue:

Response:

Schedule A – Photo & Document File Structure

-  VZW Site Number / Name
 -  Base & “During Installation” Photos
 -  Pre-Installation Photos
 -  Alpha
 -  Beta
 -  Gamma
 -  Ground Level
 -  Tape Drop
 -  Post-Installation Photos
 -  Alpha
 -  Beta
 -  Gamma
 -  Ground Level
 -  Tape Drop
 -  Photos of climbing facility and safety climb – If Present
-  Certifications – Submission of this document including certifications
-  Specific Required Additional Photos

Sector: **A**
 Structure Type: Monopole
 Mount Elev: 96.50

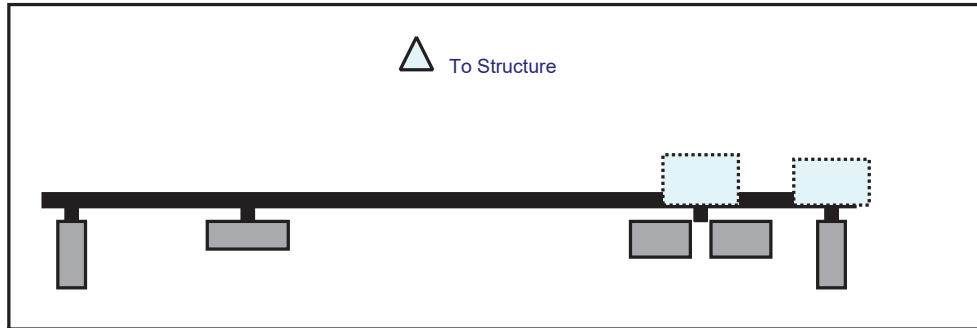
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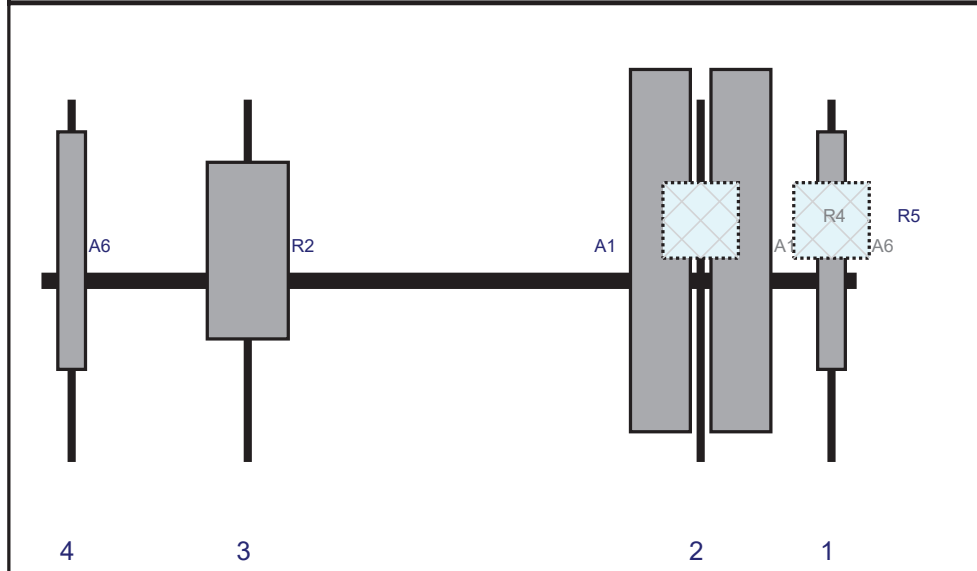
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Plan View



Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A6	LPA-80080-4CF	47.2	5.5	157	1	a	Front	30	0	Retained	05/10/2021
R5	RF4440d-13A	15	15	157	1	a	Behind	24	0	Added	
A1	NHH-65B-R2B	72	11.9	131	2	a	Front	30	8	Added	
A1	NHH-65B-R2B	72	11.9	131	2	b	Front	30	-8	Added	
R4	RF4439d-25A	15	15	131	2	a	Behind	24	0	Added	
A6	LPA-80080-4CF	47.2	5.5	6	4	a	Front	30	0	Retained	05/10/2021
R2	MT6407-77A	35.1	16.1	41	3	a	Front	30	0	Added	

Sector: **B**
 Structure Type: Monopole
 Mount Elev: 96.50

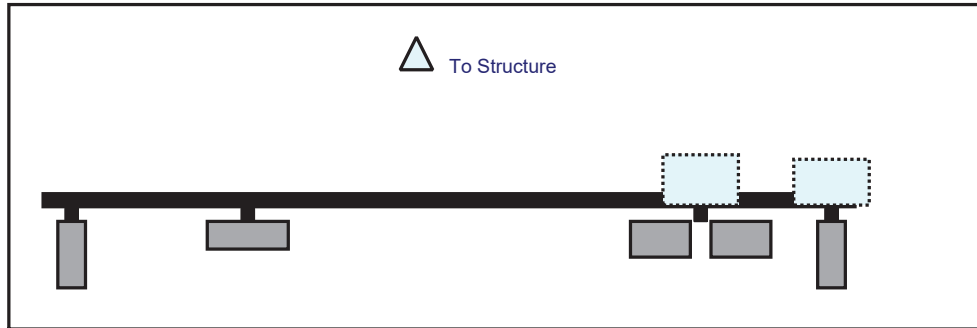
10046609

9/1/2021

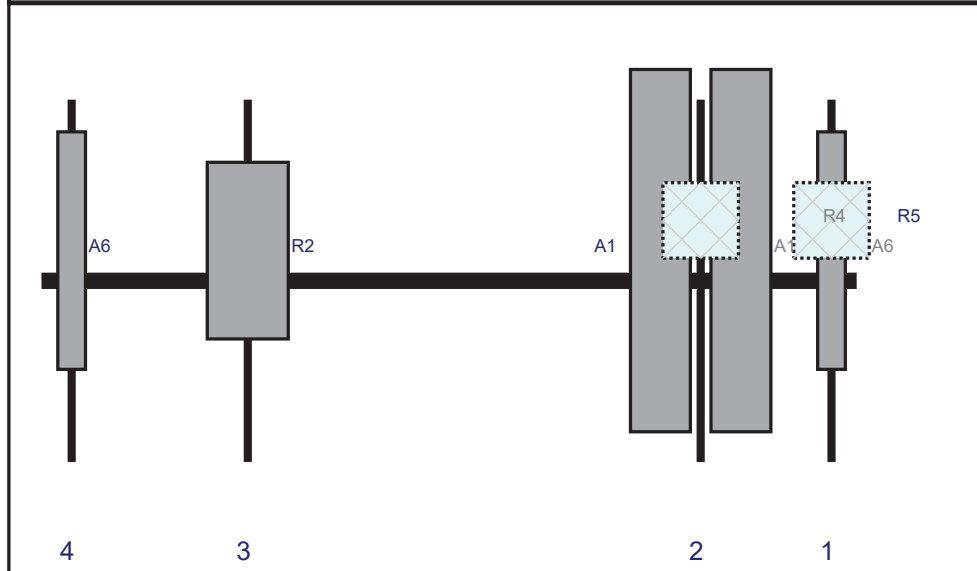
Page: 2



Plan View



Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A6	LPA-80080-4CF	47.2	5.5	157	1	a	Front	30	0	Retained	05/10/2021
R5	RF4440d-13A	15	15	157	1	a	Behind	24	0	Added	
A1	NHH-65B-R2B	72	11.9	131	2	a	Front	30	8	Added	
A1	NHH-65B-R2B	72	11.9	131	2	b	Front	30	-8	Added	
R4	RF4439d-25A	15	15	131	2	a	Behind	24	0	Added	
R2	MT6407-77A	35.1	16.1	41	3	a	Front	30	0	Added	
A6	LPA-80080-4CF	47.2	5.5	6	4	a	Front	30	0	Retained	05/10/2021

Sector: C
 Structure Type: Monopole
 Mount Elev: 96.50

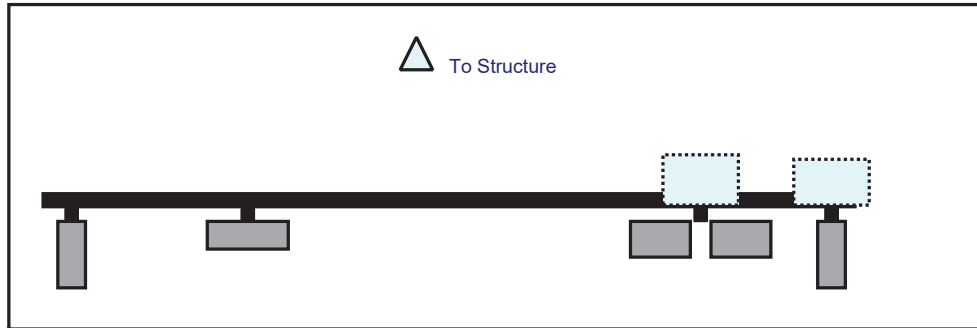
10046609

9/1/2021

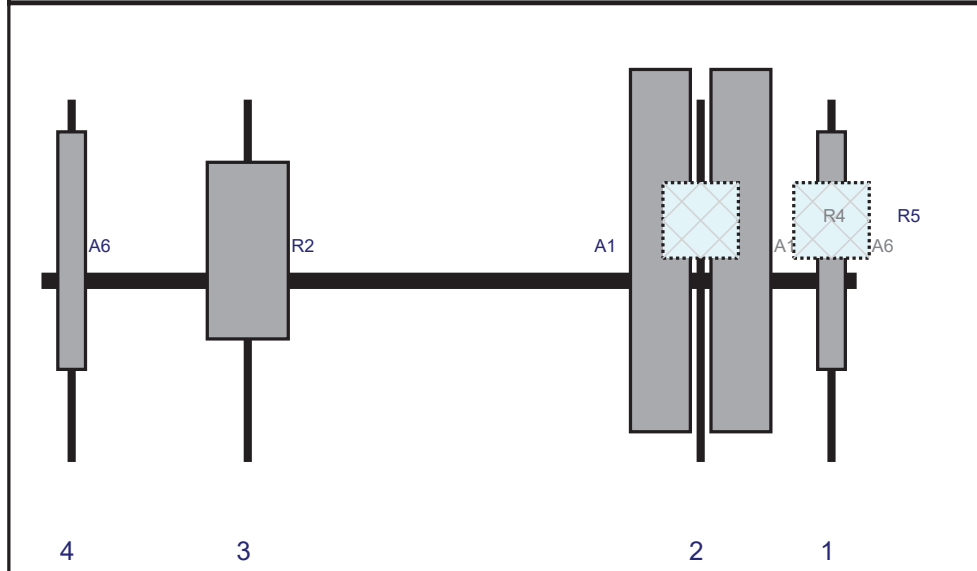
Page: 3



Plan View



Front View
 Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A6	LPA-80080-4CF	47.2	5.5	157	1	a	Front	30	0	Retained	05/10/2021
R5	RF4440d-13A	15	15	157	1	a	Behind	24	0	Added	
A1	NHH-65B-R2B	72	11.9	131	2	a	Front	30	8	Added	
A1	NHH-65B-R2B	72	11.9	131	2	b	Front	30	-8	Added	
R4	RF4439d-25A	15	15	131	2	a	Behind	24	0	Added	
R2	MT6407-77A	35.1	16.1	41	3	a	Front	30	0	Added	
A6	LPA-80080-4CF	47.2	5.5	6	4	a	Front	30	0	Retained	05/10/2021

Site Information

Site ID: 467919-VZW / HEBRON WEST CT
Site Name: HEBRON WEST CT
Carrier Name: Verizon Wireless
Address: 107 Buck Road
Hebron, Connecticut 06248
Tolland County
Latitude: 41.654444°
Longitude: -72.410833°

Structure Information

Tower Type: Monopole
Mount Type: 13.50-Ft T-Arm

To Whom It May Concern,

We respectfully submit the above referenced Antenna Mount Structural Analysis report in conformance with ANSI/TIA-222-H, Structural Standard for Antenna Supporting Structures and Antennas and Small Wind Turbine Support Structures.

The 2015 International Building Code states that, in Section 3108, telecommunication towers shall be designed and constructed in accordance with the provisions of TIA-222. The TIA-222-H is the latest revision of the TIA-222 Standard, effective as of January 01, 2018.

As with all ANSI standards and engineering best practice is to apply the most current revision of the standard. This ensures the engineer is applying all updates. As an example, the TIA-222-H standard includes updates to bring it in line with the latest AISC and ACI standards and it also incorporates the latest wind speed map by ASCE 7 based on updated studies of the wind data.

The TIA-222-H standard clarifies these specific requirements for the antenna mount analysis such as modeling method, seismic analysis, 30-degree increment wind direction and maintenance loading. Therefore, it is our opinion that TIA-222-H is the most appropriate standard for antenna mount structural analysis and is acceptable for use at this site to ensure the engineer is taking into account the most current engineering standard available.

Sincerely,



Eric Anderson, PE
Technical Specialist

Exhibit F

Power Density/RF Emissions Report

Site Name: **HEBRON WEST CT**
 Cumulative Power Density

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissible Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm ²)	(mW/cm ²)	(%)
VZW 700	751	4	689	2756	97	0.0105	0.5007	2.10%
VZW CDMA	869	2	405	810	97	0.0031	0.5793	0.53%
VZW Cellular	869	4	700	2800	97	0.0107	0.5793	1.85%
VZW PCS	1980	4	1500	6000	97	0.0229	1.0000	2.29%
VZW AWS	2125	4	1672	6688	97	0.0256	1.0000	2.56%
VZW CBAND	3730	4	6531	26124	97	0.0998	1.0000	9.98%

Total Percentage of Maximum Permissible Exposure 19.32%

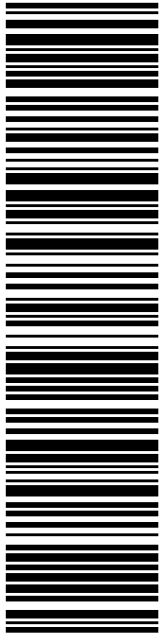
*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992
 **Calculation includes a -10 dB Off Beam Antenna Pattern Adjustment pursuant to Attachments B and C of the Siting Council's November 10, 2015 Memorandum for Exempt Modification filings

MHz = Megahertz
 mW/cm² = milliwatts per square centimeter
 ERP = Effective Radiated Power

Absolute worst case maximum values used.

Exhibit F

Recipient Mailings



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WESTBOROUGH MA 01581-3926

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Ref#: CR-876387
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C006



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From: DEBORAH CHASE
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STURBRIDGE MA 01566-1359


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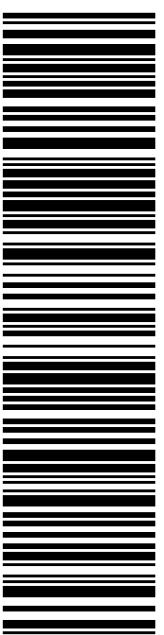
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Ship Date: 11/30/2021	
Expected Delivery Date: 12/04/2021	

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 STE 1
 STURBRIDGE MA 01566-1359


Ref#: CR-876387

To: DANIEL LARSON
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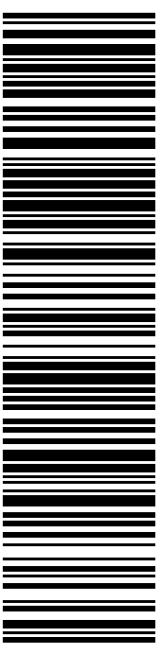
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TOWN MANAGER
15 GILEAD ST
HEBRON CT 06248-1501

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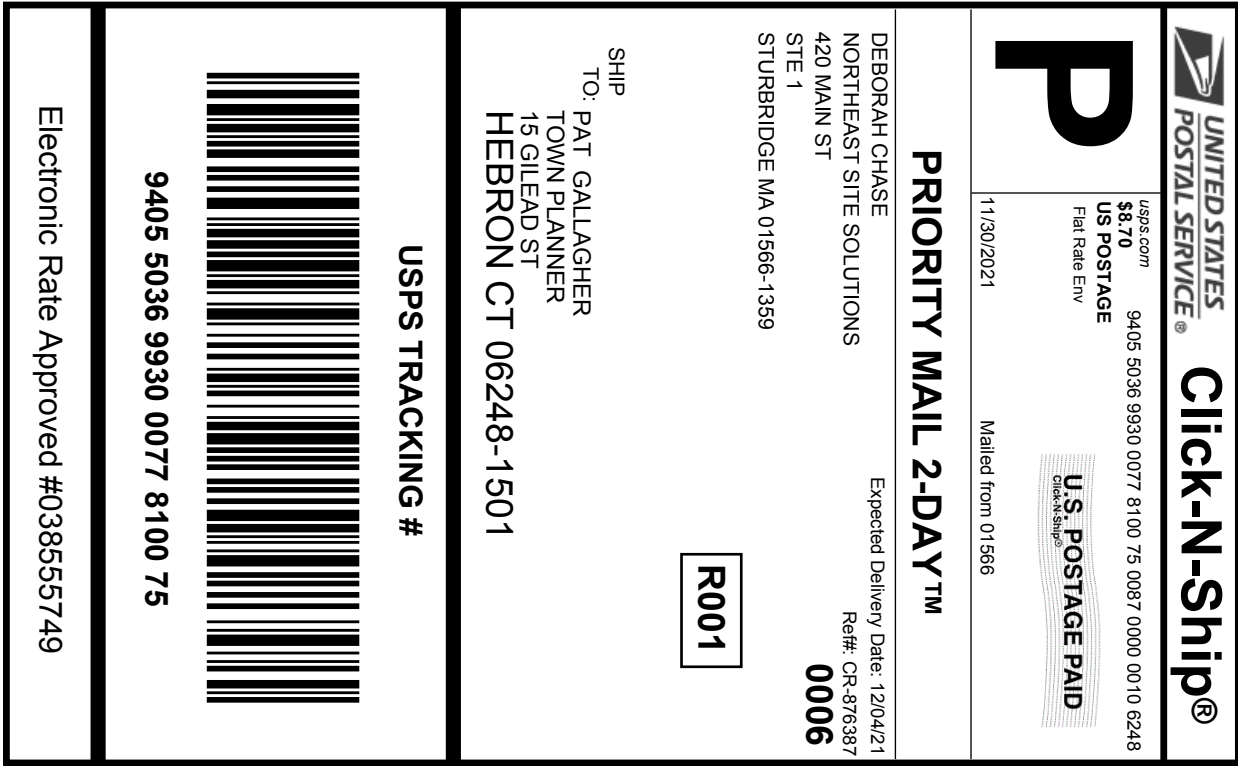
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TOWN MANAGER
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HEBRON CT 06248-1501

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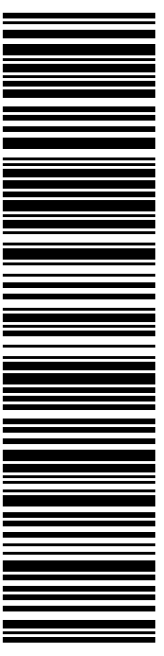
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Delivery Date:	12/04/2021
Priority Mail® Postage:	\$8.70
Total:	\$8.70
From:	DEBORAH CHASE NORTHEAST SITE SOLUTIONS 420 MAIN ST STE 1 STURBRIDGE MA 01566-1359
	Ref#: CR-876387
To:	PAT GALLAGHER TOWN PLANNER 15 GILEAD ST HEBRON CT 06248-1501
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Acceptance Date:			
Wed 12/01/2021			
Tracking #:			
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Prepaid Mail	1		\$0.00
Hebron, CT 06248			
Weight: 0 lb 7.50 oz			
Acceptance Date:			
Wed 12/01/2021			
Tracking #:			
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Prepaid Mail	1		\$0.00
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Acceptance Date:			
Wed 12/01/2021			
Tracking #:			
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