

KENNETH C. BALDWIN

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Also admitted in Massachusetts
and New York

August 4, 2021

Via Electronic Mail

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

Re: **Notice of Exempt Modification – Facility Modification
63 Industrial Park Road, Putnam, Connecticut**

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless (“Cellco”) currently maintains an existing wireless telecommunications facility at the above-referenced property address (the “Property”). The facility consists of antennas and remote radio heads attached to a tower and related equipment on the ground, near the base of the tower. The tower was approved the Town of Putnam (“Town”) in May of 2002. Cellco’s use of the tower was approved the Council in June of 2015 (PE1133-VER-20150617). A copy of the Town’s original tower approval and Cellco’s shared-use approval are included in Attachment 1.

Cellco now intends to modify its facility by replacing three (3) existing antennas with three (3) Samsung MT6407-77A antennas on its existing antenna mounts. Cellco will also remove nine (9) remote radio heads (“RRHs”) and install six (6) new RRHs behind its antennas. A set of project plans showing Cellco’s proposed facility modifications and the new antennas and RRH specifications are included in Attachment 2.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-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. § 16-50j-73, a copy of this letter is being sent to Putnam’s Chief Elected Official and Land Use Officer.

Melanie A. Bachman, Esq.
August 4, 2021
Page 2

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 tower. Cellco's replacement antennas and RRHs will be installed on Cellco's existing antenna platform.
2. The proposed modifications will not involve any change to ground-mounted equipment and, therefore, 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 installation of Cellco's new antennas will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. A cumulative general power density calculations table for Cellco's modified facility is included in Attachment 3. The modified facility will be capable of providing Cellco's 5G wireless service.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. According to the attached Structural Analysis ("SA") and Mount Analysis ("MA"), the existing tower, tower foundation and antenna mounts with certain modifications can support Cellco's proposed modifications. Copies of the SA and MA are included in Attachment 4.

A copy of the parcel map and Property owner information is included in Attachment 5. A Certificate of Mailing verifying that this filing was sent to municipal officials and the property owner is included in Attachment 6.

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

Melanie A. Bachman, Esq.
August 4, 2021
Page 3

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth C. Baldwin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kenneth C. Baldwin

Enclosures

Copy to:

Barney Seney, Putnam Mayor
Bruce Fitzback, Putnam Land Use Agent
DMW Putnam LLC, Property Owner
Aleksey Tyurin

ATTACHMENT 1

DATE:

5/16/2002

TOWN OF PUTNAM
126 CHURCH STREET • PUTNAM, CT 06260
DEPARTMENT OF BUILDING INSPECTION
APPLICATION FOR BUILDING PERMIT AND PLAN EXAMINATION

6262

BP

Acres 18

Zone I

1. Location of building 603 INDUSTRIAL PK RD Map 113 Lot 73

2. Owner SBA Phone No. 860-659-9101

Address 80 EASTERN BLVD. GLASTONBURY, CT

3. Applicant AT-T WIRELESS Phone No. P.P.

Address 12 OMEGA DRIVE STAMFORD, CT

4. Electrical Contractor _____ Lic. # _____

5. Plumbing Contractor N/A _____ Lic. # _____

6. Sprinkler Contractor N/A _____ Lic. # _____

7. Heating/Cooling Contractor N/A _____ Lic. # _____

8. Arch./Engineer NATCOMM LLC # 203-488-0580

9. Home Improvement/General Contractor SBA _____ Lic. # _____

OFFICE USE:A Certificate of Zoning Compliance shall be required prior to any of the following:
CHECK ONE:

- ☐ a. Use and occupancy of any building or other structure hereafter erected or altered.
☐ b. Change in use of any building or structure.
☐ c. Use of land or change in the use thereof except cultivation of vacant land.
☐ d. Change in use or extension of a nonconforming use.

10. Type of Improvement CONSTRUCTION OF A 7'X16' LEASE AREA W/AT-T RADIO CABINETS ON A CONCRETE PAD W/ICE BRIDGE POSTS DIRECTIONAL PANEL ANTENNAS ON AN EXISTING MONOBILE

11. Proposed Use WIRELESS COMMUNICATION FACILITY

Two or more family—number of units N/A

Floor area 1st floor _____ 2nd floor _____ Total _____

Type of heat: Hot Water ☐ Hot Air ☐ Steam ☐ Electric ☐ Wood ☐Type of work: Original ☐ Alteration ☐ Addition ☐ Repair ☐ Demolish ☐Approvals: Septic Perc ☐ Wetlands ☐ Driveway ☐ Fire Marshal ☐ Planning ☐

12. Type of Sewage: Private _____ Public _____ Number of Bedrooms _____

13. Type of Water Supply: Private _____ Public _____

14. Principal Type of Frame: Wood _____ Concrete _____ Steel _____ Other _____

OFFICE USE:**Inspections:**

Excavation _____ Elec. Service _____ Heating _____

Foundation _____ Chimney _____ Insulation _____

Framing, Plumbing, Electric _____ Final _____

Comments: _____

OFFICE USE:ZONING COMPLIANCE: *Handwritten signature*

Approved

Date

FEES:

Zoning: \$ _____

State \$ _____

Building sq. ft. _____ x _____ cost

30,000 x .0075 = _____ fee

Minimum Permit Fee \$10.00 229.80 TOTAL DUE

The owner of this building and the undersigned agree to conform to the State of Connecticut Basic Building Code and the laws of this jurisdiction and to notify the Building Official of any changes in plans for which this permit is requested.

Signature of Applicant

Date

RECEIVED

JUN 18 2002

ASSESSOR'S OFFICE
TOWN OF PUTNAM, CTPD
CK#
784



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

August 5, 2015

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

RE: **PE1133-VER-20150618** – Cellco Partnership d/b/a Verizon Wireless sub-petition for a declaratory ruling for approval of an eligible facility request for modifications to an existing telecommunications facility located at 63 Industrial Park Road, Putnam, Connecticut.

Dear Attorney Baldwin:

The Connecticut Siting Council (Council) hereby approves your Eligible Facilities Request (EFR) to install antennas and associated equipment at the above-referenced facility pursuant to the Federal Communications Commission Wireless Infrastructure Report and Order, with the following conditions:

- The proposed coax lines and remote radio heads shall be installed in accordance with the structural analysis report performed by FDH Engineering, Inc. dated September 24, 2014 and stamped by Dennis Abel;
- Within 45 days following completion of the equipment installation, Cellco shall provide documentation that its installation complied with the recommendations of the structural analysis;
- Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- Any nonfunctioning antenna and associated antenna mounting equipment on this facility owned and operated by the Petitioner shall be removed within 60 days of the date the antenna ceased to function;
- The validity of this action shall expire one year from the date of this letter; and
- The petitioner may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

This decision is under the exclusive jurisdiction of the Council and is not applicable to any other modification or construction. All work is to be implemented as specified in the EFR received on June 18, 2015.

Thank you for your attention and cooperation.

Very truly yours,

Melanie Bachman
Acting Executive Director

MB/MP

c: Honorable Anthony Falzarano, Mayor, Town of Putnam
Douglas Cutler, Town Administrator, Town of Putnam
Gerard Cotnoir, Sr., Planning Chairman, Town of Putnam

ATTACHMENT 2

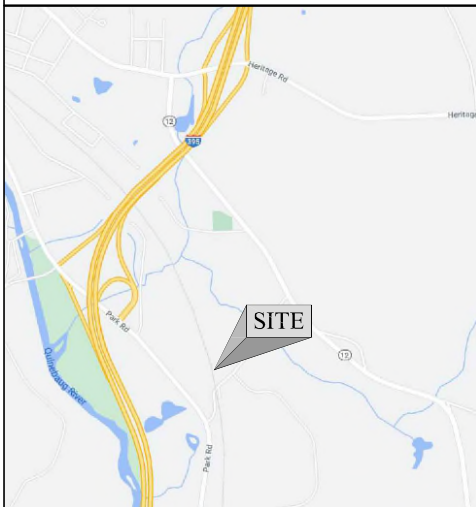
DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE PROJECT OWNERS REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SHEET INDEX

SHEET NUMBER	SHEET DESCRIPTION
T-1	TITLE SHEET
A-1	COMPOUND PLAN & STRUCTURE ELEVATION
A-2	ANTENNA PLAN, DETAILS & NOTES
A-3	ANTENNA SECTOR CONFIGURATIONS, DETAILS & NOTES
A-4	RET SYSTEM WIRING SCHEMATIC

VICINITY MAP



APPLICANT:
CELLCO PARTNERSHIP d/b/a
VERIZON WIRELESS

SCOPE OF WORK:
PROPOSED EQUIPMENT & ANTENNA MODIFICATIONS
TO AN EXISTING VERIZON WIRELESS INSTALLATION
AT A 196'-0"± SELF-SUPPORT TOWER

Digitally signed by Jiazhu Hu, Ph.D., P.E.
DN: cn=Jiazhu Hu, Ph.D., P.E., o=Nexius,
ou=Engineering, email=Jiazhu.Hu@Nexius.com, c=US
Date: 2021.05.13 17:39:21 -04'00'

SITE NAME
PUTNAM SOUTH CT

LOCATION CODE
469277

SITE OWNER
SBA

SITE NUMBER
CT00802

ADDRESS
63 INDUSTRIAL DRIVE
PUTNAM, CT 06260

COORDINATES
41° 53' 49.70" N
71° 53' 32.10" W

NOTES

GENERAL NOTES:

- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
- THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.
- THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
- SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
- ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.
- ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.

- ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A55 (Fy = 50 ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.
- SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
- SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
- APPLICABLE BUILDING CODES:
SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.
BUILDING CODE: 2018 CONNECTICUT STATE BUILDING CODE (IBC 2015)
ELECTRICAL CODE: REFER TO ELECTRICAL DRAWINGS
LIGHTNING CODE: REFER TO ELECTRICAL DRAWINGS
SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:
ACI 318-14: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.
AISC 360-10: SPECIFICATIONS STEEL FOR STRUCTURAL STEEL BUILDINGS.
ANSI/TIA-222-G WITH ADDENDUMS, STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN, WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

ELECTRICAL & GROUNDING NOTES

- ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
- ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
- THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
- GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
- ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
- GROUNDING SHALL COMPLY WITH NEC ART. 250.
- GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
- USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
- ALL GROUND CONNECTIONS TO BE BURIED HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
- ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 7 FEET OF PROPOSED EQUIPMENT OR CABINET TO MASTER GROUND BAR.
- CONNECTIONS TO MGB SHALL BE ARRANGED IN THREE MAIN GROUPS: SURGE PRODUCERS (COAXIAL CABLE GROUND KITS, TELCO AND POWER PANEL GROUND); (GROUNDING ELECTRODE RING OR BUILDING STEEL); NON-SURGING OBJECTS (EOB GROUND IN BITS UNIT).
- CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
- APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
- BOND ANTENNA MOUNTING BRACKETS, COAXIAL CABLE GROUND KITS, AND ALNA TO EOB PLACED NEAR THE ANTENNA LOCATION.
- BOND ANTENNA EOB'S AND MGB TO WATER MAIN.
- TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION.
- BOND ANY METAL OBJECTS WITHIN 7 FEET OF PROPOSED EQUIPMENT OR CABINET TO MASTER GROUND BAR.

PREPARED BY:

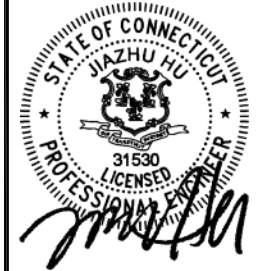
nexius
TRANSFORM YOUR BUSINESS...THROUGH WIRELESS

A&E OFFICE:
300 APOLLO DRIVE, SUITE 7
CHELMSFORD, MA 01824
1 (978) 923-7965

APPLICANT:
CELLCO PARTNERSHIP d/b/a

verizon
20 ALEXANDER DRIVE, 2ND FLOOR
WALLINGFORD, CT 06492

PROFESSIONAL STAMP:



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SUBMITTALS			
REV	DATE	DESCRIPTION	BY
0	03/11/21	PER CONSTRUCTION	MLB
1	05/13/21	PER MOUNT MODIFICATION	MLB

SITE INFORMATION:

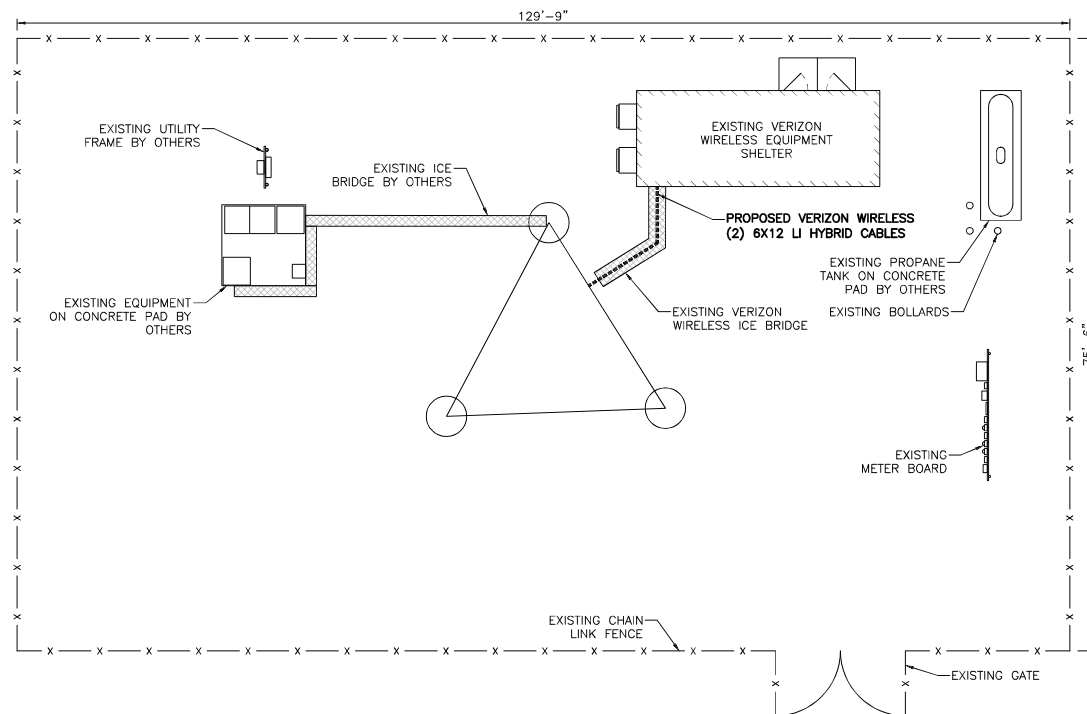
SITE NAME:
PUTNAM SOUTH CT
LOCATION CODE:
469277
SITE ADDRESS:
**63 INDUSTRIAL DRIVE
PUTNAM, CT 06260**

DRAWN BY:	DATE:
MLB	03/11/21
CHECKED BY:	DATE:
KB	03/11/21
NEXIUS PROJECT NO.:	VZ11509
SHEET TITLE:	TITLE SHEET
SHEET NUMBER:	

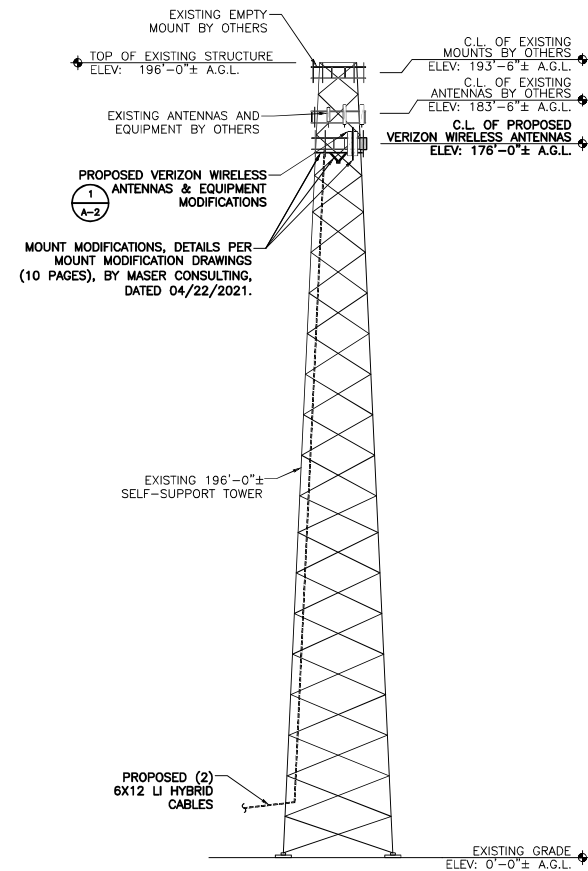
T-1

NOTE:
PROJECT OWNER IS RESPONSIBLE FOR PROVIDING A TOWER STRUCTURAL ANALYSIS FOR THE TOWER STRUCTURE TO DETERMINE CAPACITY AND SUITABILITY OF THE TOWER STRUCTURE TO ADEQUATELY CARRY ALL LOADS IMPOSED BY BOTH EXISTING AND PROPOSED EQUIPMENT AS SHOWN HEREIN.

MOUNT STRUCTURAL ANALYSIS PREPARED BY MASER CONSULTING
MOUNT STRUCTURAL MODIFICATION DESIGN AND ANALYSIS PREPARED BY MASER CONSULTING, ENTITLED POST-MOD ANTENNA MOUNT ANALYSIS REPORT AND PMI REQUIREMENTS, DATED APRIL 22, 2021, STATES THAT THE EXISTING MOUNTS ARE ADEQUATE FOR THE EXISTING AND PROPOSED LOADING AFTER INSTALLING THE PROPOSED MODIFICATIONS.



1 COMPOUND PLAN
SCALE: 1/8" = 1'-0"



2 STRUCTURE ELEVATION
SCALE: 1/16" = 1'-0"



PREPARED BY:

nexus
TRANSFORM YOUR BUSINESS...THROUGH WIRELESS

A&E OFFICE:
300 APOLLO DRIVE, SUITE 7
CHELMSFORD, MA 01824
1 (978) 923-7965

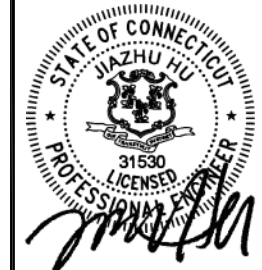
APPLICANT:

CELLCO PARTNERSHIP d/b/a

verizon

20 ALEXANDER DRIVE, 2ND FLOOR
WALLINGFORD, CT 06492

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SUBMITTALS			
REV	DATE	DESCRIPTION	BY
0	03/11/21	PER CONSTRUCTION	MLB
1	05/13/21	PER MOUNT MODIFICATION	MLB

SITE INFORMATION:

SITE NAME:
PUTNAM SOUTH CT
LOCATION CODE:
469277
SITE ADDRESS:
**63 INDUSTRIAL DRIVE
PUTNAM, CT 06260**

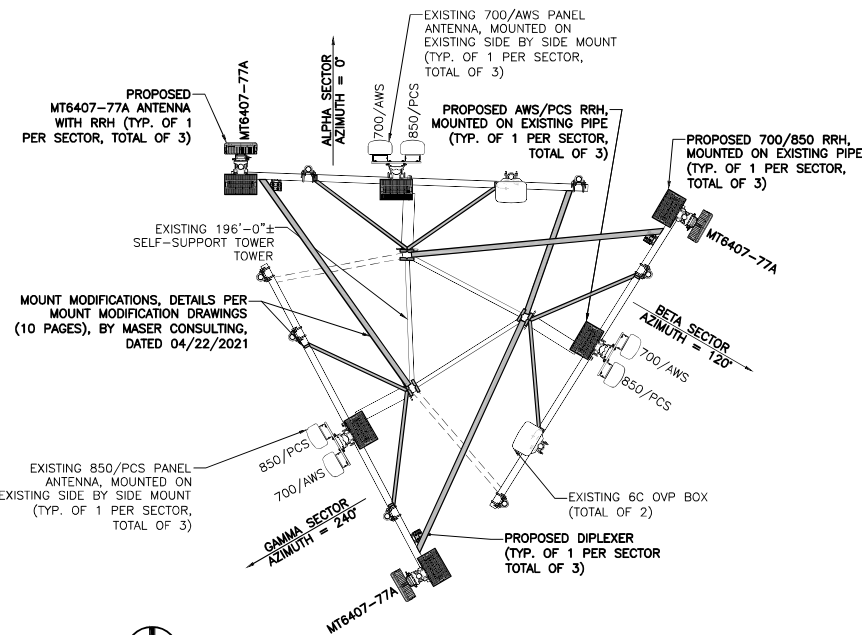
DRAWN BY:	DATE:
MLB	03/11/21
CHECKED BY:	DATE:
KB	03/11/21

NEXIUS PROJECT NO.: VZ11509

SHEET TITLE:
**COMPOUND PLAN &
STRUCTURE ELEVATION**

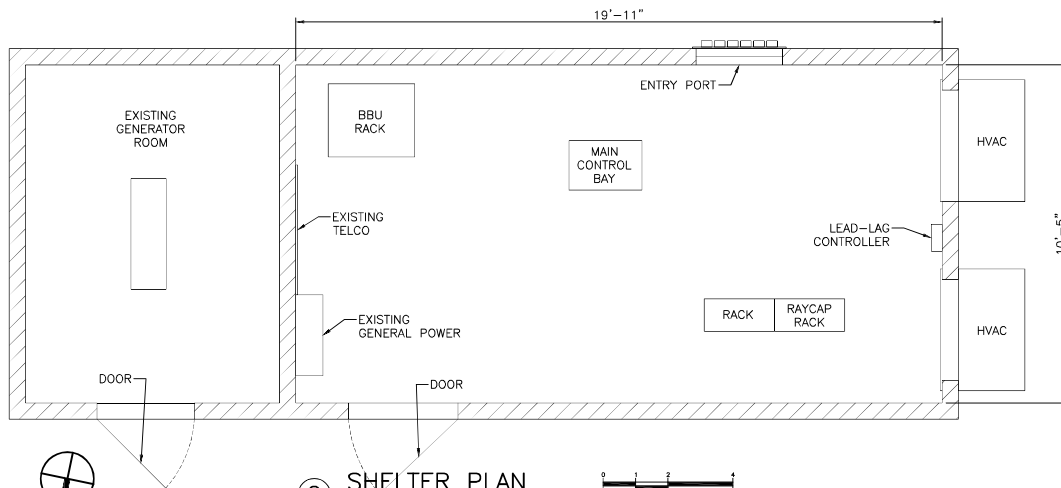
SHEET NUMBER:

A-1



① **ANTENNA PLAN**
SCALE: 3/8" = 1'-0"

GRAPHIC SCALE: 3/8" = 1'-0"



② **SHELTER PLAN**
SCALE: 1/2" = 1'-0"

GRAPHIC SCALE: 1/2" = 1'-0"

APPROX. NORTH

SCOPE OF WORK:

INSTALL MOUNT MODIFICATIONS FOR ALL SECTORS.

ALPHA SECTOR:

- REMOVE (1) EXISTING SPARE ANTENNA.
- INSTALL (1) NEW MT6407-77A ANTENNA W/ RRH AS SHOWN ON PLANS.
- REMOVE (3) EXISTING RRHS (700, 850 & AWS).
- INSTALL (1) NEW COMMScope CBC78T-DS-43-2X 700/850 DIPLEXER
- INSTALL (1) NEW BR04C B5/B13 700/850 RRH AT ANTENNAS, AS SHOWN ON PLANS.
- INSTALL (1) NEW BR049 B2/B66A AWS/PCS RRH AT ANTENNAS, AS SHOWN ON PLANS.
- INSTALL (1) NEW SAMSUNG JUMPER FROM OVP BOX TO 700/850 RRH.
- INSTALL (1) NEW POWER CABLE FROM OVP BOX TO 700/850 RRH.
- INSTALL (1) NEW SAMSUNG JUMPER FROM OVP BOX TO AWS/PCS RRH.
- INSTALL (1) NEW POWER CABLE FROM OVP BOX TO AWS/PCS RRH.
- INSTALL (1) NEW 1x2 HYBRID CABLE FROM OVP BOX TO MT6407-77A ANTENNA W/ RRH.
- INSTALL 1/2" ANTENNA JUMPERS, AS REQUIRED.

BETA SECTOR:

- REMOVE (1) EXISTING SPARE ANTENNA.
- INSTALL (1) NEW MT6407-77A ANTENNA W/ RRH AS SHOWN ON PLANS.
- REMOVE (3) EXISTING RRHS (700, 850 & AWS).
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- INSTALL (1) NEW 1x2 HYBRID CABLE FROM OVP BOX TO MT6407-77A ANTENNA W/ RRH.
- INSTALL 1/2" ANTENNA JUMPERS, AS REQUIRED.

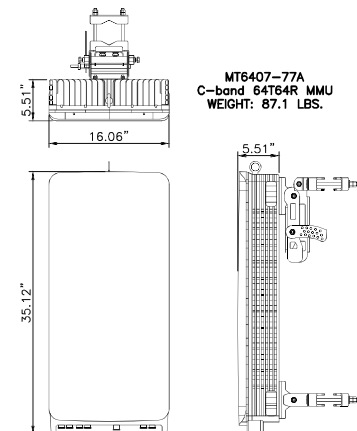
GAMMA SECTOR:

- REMOVE (1) EXISTING SPARE ANTENNA.
- INSTALL (1) NEW MT6407-77A ANTENNA W/ RRH AS SHOWN ON PLANS.
- REMOVE (3) EXISTING RRHS (700, 850 & AWS).
- INSTALL (1) NEW COMMScope CBC78T-DS-43-2X 700/850 DIPLEXER
- INSTALL (1) NEW BR04C B5/B13 700/850 RRH AT ANTENNAS, AS SHOWN ON PLANS.
- INSTALL (1) NEW BR049 B2/B66A AWS/PCS RRH AT ANTENNAS, AS SHOWN ON PLANS.
- INSTALL (1) NEW SAMSUNG JUMPER FROM OVP BOX TO 700/850 RRH.
- INSTALL (1) NEW POWER CABLE FROM OVP BOX TO 700/850 RRH.
- INSTALL (1) NEW SAMSUNG JUMPER FROM OVP BOX TO AWS/PCS RRH.
- INSTALL (1) NEW POWER CABLE FROM OVP BOX TO AWS/PCS RRH.
- INSTALL (1) NEW 1x2 HYBRID CABLE FROM OVP BOX TO MT6407-77A ANTENNA W/ RRH.
- INSTALL 1/2" ANTENNA JUMPERS, AS REQUIRED.

TOWER:

- REMOVE (2) EXISTING HYBRID CABLES.
- INSTALL (2) NEW 6X12 LI HYBRID CABLES.

DESIGN SHOWN HEREIN IS BASED OFF A RFDS PROVIDED BY VERIZON WIRELESS DATED 02/24/21.



③ **ANTENNA SPEC. (NOT TO EXCEED)**
SCALE: N.T.S.

PREPARED BY:

nexus
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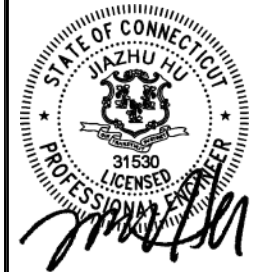
A&E OFFICE:
300 APOLLO DRIVE, SUITE 7
CHELMSFORD, MA 01824
1 (978) 923-7965

APPLICANT:
CELLCO PARTNERSHIP d/b/a

verizon

20 ALEXANDER DRIVE, 2ND FLOOR
WALLINGFORD, CT 06492

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SUBMITTALS			
REV	DATE	DESCRIPTION	BY
0	03/11/21	PER CONSTRUCTION	MLB
1	05/13/21	PER MOUNT MODIFICATION	MLB

SITE INFORMATION:

SITE NAME:
PUTNAM SOUTH CT
LOCATION CODE:
469277
SITE ADDRESS:
**63 INDUSTRIAL DRIVE
PUTNAM, CT 06260**

DRAWN BY:	DATE:
MLB	03/11/21
CHECKED BY:	DATE:
KB	03/11/21

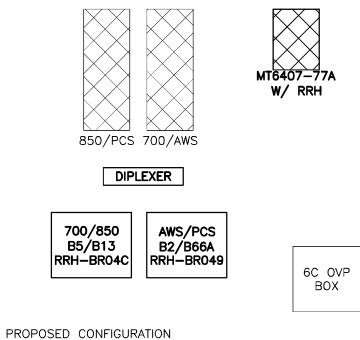
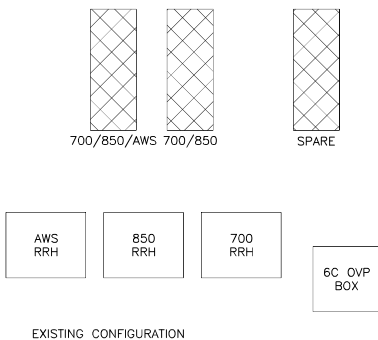
NEXUS PROJECT NO.:
VZ11509

SHEET TITLE:
**ANTENNA PLAN,
DETAILS & NOTES**

SHEET NUMBER:

A-2

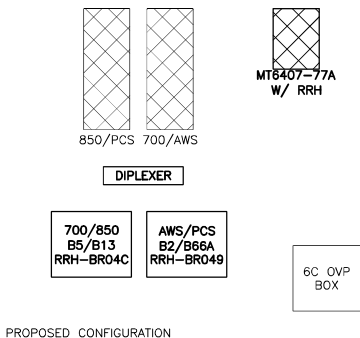
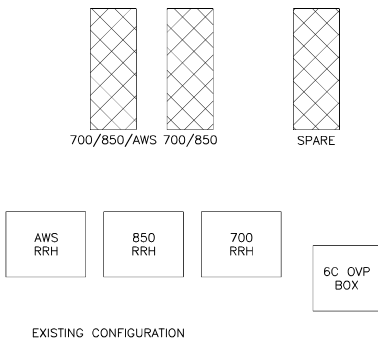
NOTE: ALL ANTENNAS ARE VIEWED FROM IN FRONT



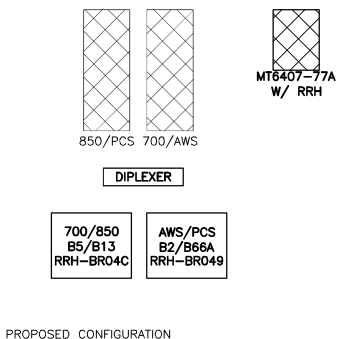
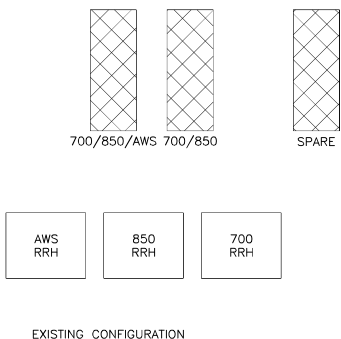
GENERAL NOTES:

1. INSTALL ALL EQUIPMENT, MOUNTING BRACKETS, AND HARDWARE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. GROUND DISTRIBUTION BOXES, MOUNTING PIPES, AND RRH'S IN ACCORDANCE WITH THE NEC ARTICLE 250 & THE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
3. INSTALLED EQUIPMENT AND MOUNTING BRACKETS SHALL NOT INTERFERE WITH CLIMBING ACCESS NOR ANY INSTALLED SAFETY DEVICES.

ALPHA SECTOR ANTENNA CONFIGURATION



BETA SECTOR ANTENNA CONFIGURATION



GAMMA SECTOR ANTENNA CONFIGURATION

PREPARED BY:

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300 APOLLO DRIVE, SUITE 7
CHELMSFORD, MA 01824
1 (978) 923-7965

APPLICANT:

CELLCO PARTNERSHIP d/b/a

verizon

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WALLINGFORD, CT 06492

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SUBMITTALS			
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1	05/13/21	PER MOUNT MODIFICATION	MLB

SITE INFORMATION:

SITE NAME:
PUTNAM SOUTH CT
LOCATION CODE:
469277
SITE ADDRESS:
**63 INDUSTRIAL DRIVE
PUTNAM, CT 06260**

DRAWN BY:	DATE:
MLB	03/11/21
CHECKED BY:	DATE:
KB	03/11/21

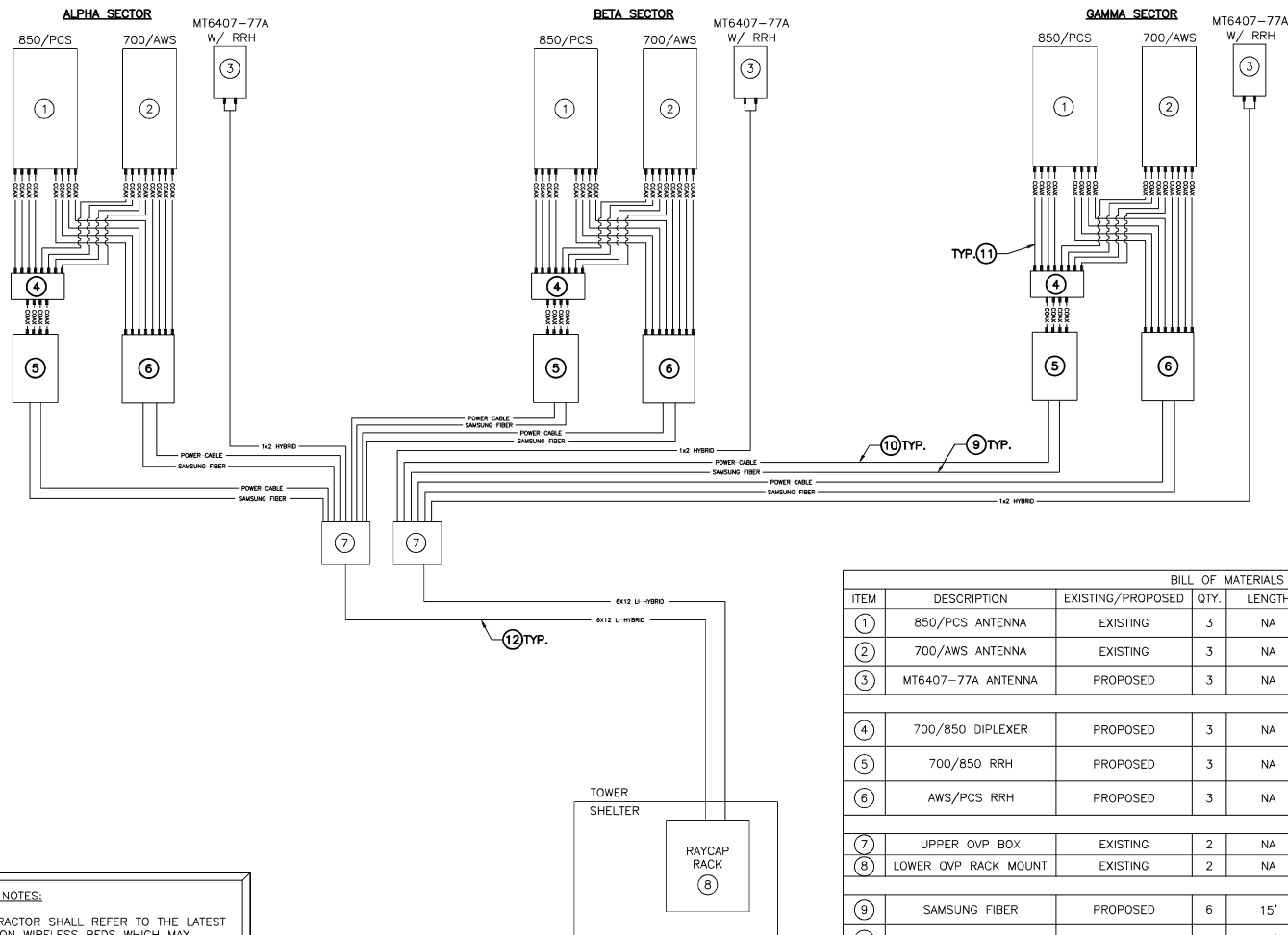
NEXUS PROJECT NO.: VZ11509

SHEET TITLE:
**ANTENNA SECTOR
CONFIGURATIONS, DETAILS
& NOTES**

SHEET NUMBER:

A-3

NOTE: ALL ANTENNAS ARE VIEWED FROM IN FRONT



GENERAL NOTES:

1. CONTRACTOR SHALL REFER TO THE LATEST VERIZON WIRELESS RFDS WHICH MAY INCLUDE ANTENNA SECTOR AZIMUTHS/ANTENNA CHANGES, ETC. THAT ARE REQUIRED AS PART OF THE PROJECT.
2. CONTRACTOR SHALL SECURE ALL CONTROL CABLES IN ACCORDANCE WITH INDUSTRY STANDARDS & MANUFACTURERS INSTRUCTIONS. EXTERIOR CONTROL CABLES MAY BE TAPED OR TIE-WRAPPED TO EXISTING COAXIAL CABLES EVERY 4' MAX. FOR HORIZONTAL RUNS. CONTRACTOR MAY USE HOISTING GRIPS AT TOP OF VERTICAL CABLE RUNS IN CERTAIN APPLICATIONS.
3. RET CABLES SHALL BE ROUTED & SECURED ON STRUCTURAL MEMBERS ONLY. DO NOT LOOP THE CABLES IN MID-AIR BETWEEN ANTENNAS.
4. CONTRACTOR SHALL VERIFY ALL CABLE LENGTHS PRIOR TO CONSTRUCTION.

BILL OF MATERIALS						
ITEM	DESCRIPTION	EXISTING/PROPOSED	QTY.	LENGTH	COMMENTS	
①	850/PCS ANTENNA	EXISTING	3	NA	RETAIN EXISTING PANEL ANTENNA.	
②	700/AWS ANTENNA	EXISTING	3	NA	RETAIN EXISTING PANEL ANTENNA.	
③	MT6407-77A ANTENNA	PROPOSED	3	NA	INSTALL NEW MT6407-77A ANTENNA W/ RRH	
④	700/850 DIPLEXER	PROPOSED	3	NA	INSTALL NEW 700/850 DIPLEXER: COMMSCOPE CBC78T-DS-43-2X	
⑤	700/850 RRH	PROPOSED	3	NA	INSTALL NEW RRH: 700/850 SAMSUNG B5/B13 RRH BRO4C AT ANTENNAS	
⑥	AWS/PCS RRH	PROPOSED	3	NA	INSTALL NEW RRH: AWS/PCS SAMSUNG B2/B66A RRH BRO49 AT ANTENNAS	
⑦	UPPER OVP BOX	EXISTING	2	NA	RETAIN EXISTING 6C OVP BOX AT ANTENNAS	
⑧	LOWER OVP RACK MOUNT	EXISTING	2	NA	RETAIN EXISTING RAYCAP WITHIN SHELTER	
⑨	SAMSUNG FIBER	PROPOSED	6	15'	INSTALL NEW AT 700/850 & AWS/PCS RRH	
⑩	POWER CABLES	PROPOSED	6	15'	INSTALL NEW AT 700/850 & AWS/PCS RRH	
⑪	1/2" COAX CABLES	PROPOSED	60	15' EA	ROUTED AS SHOWN ON SCHEMATIC	
⑫	6X12 LI HYBRID	PROPOSED	2	200'	INSTALL NEW FROM SHELTER TO TOWER	
1. ITEMS SHOWN ARE FOR MAJOR DESIGN ELEMENTS ONLY, REFER TO VERIZON WIRELESS' B.O.M. FOR ALL MANUFACTURERS PART NUMBERS & ACCESSORY ITEMS REQUIRED FOR A COMPLETE INSTALLATION.						
2. CONTRACTOR SHALL REFER TO THE LATEST VERIZON WIRELESS RFDS WHICH MAY INCLUDE ANTENNA SECTOR AZIMUTHS/ANTENNA CHANGES, ETC. THAT ARE REQUIRED AS PART OF THE PROJECT.						
* SIGNIFIES LEASE ONLY.						

PREPARED BY:

nexus
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A&E OFFICE:
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CHELMSFORD, MA 01824
1 (978) 923-7965

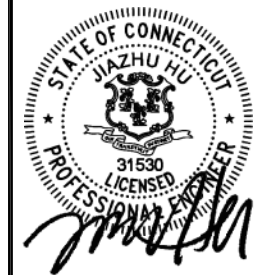
APPLICANT:

CELICO PARTNERSHIP d/b/a

verizon

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WALLINGFORD, CT 06492

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SUBMITTALS			
REV	DATE	DESCRIPTION	BY
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LOCATION CODE:
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PUTNAM, CT 06260**

DRAWN BY:	DATE:
MLB	03/11/21
CHECKED BY:	DATE:
KB	03/11/21

NEXIUS PROJECT NO.: VZ11509

SHEET TITLE:
**RET SYSTEM WIRING
SCHEMATIC**

SHEET NUMBER:

A-4

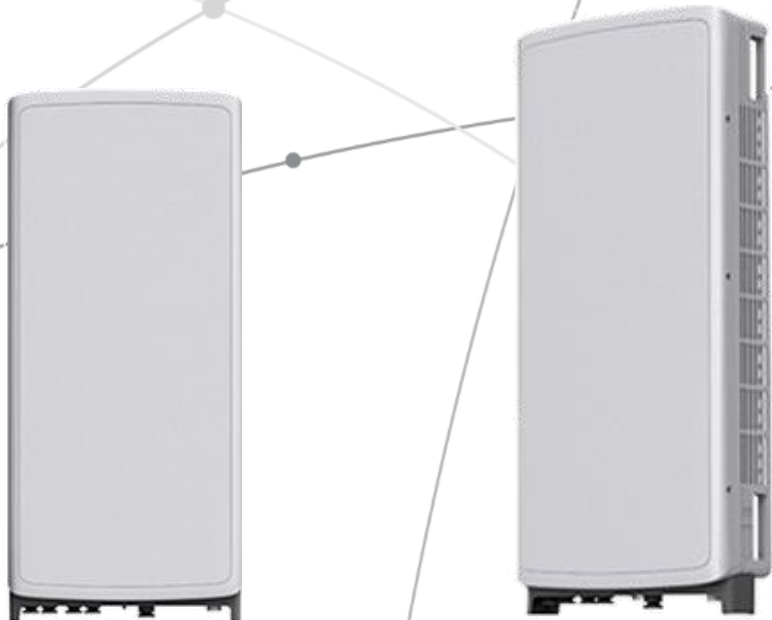
SAMSUNG

SAMSUNG C-Band 64T64R Massive MIMO Radio

for High Capacity and Wide Coverage

Samsung C-Band 64T64R Massive MIMO Radio enables mobile operators to increase coverage range, boost data speeds and ultimately offer enriched 5G experiences to users in the U.S..

Model Code : MT6407-77A



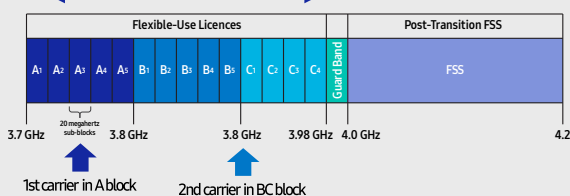
Points of Differentiation

Wide Bandwidth

With capability to support up to 2 CC carrier configuration, Samsung C-Band massive MIMO Radio supports 200 MHz bandwidth in the C-Band spectrum.

Samsung C-Band massive MIMO Radio covers the entire C-Band 280 MHz spectrum, so it can meet the operator's needs in current A block and future B/C blocks

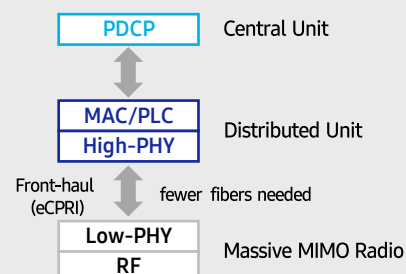
C-Band spectrum supported by Massive MIMO Radio



Future Proof Product

Samsung C-Band 64T64R Massive MIMO radio supports not only CPRI but also eCPRI as front-haul interface.

It enables operators can cut down on OPEX/CAPEX by reducing front-haul bandwidth through low layer split and using ethernet based higher efficient line.



Enhanced Performance

C-Band massive MIMO Radio creates sharp beams and extends networks' coverage on the critical mid-band spectrum using a large number of antenna elements and high output power to boost data speeds.

This helps operators reduce their CAPEX as they now need less products to cover the same area than before.

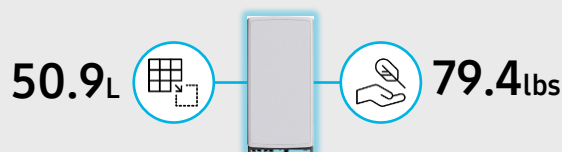
Furthermore, as C-Band massive MIMO Radio supports MU-MIMO (Multi-user MIMO), it enables to increase user throughput by minimizing interference.



Well Matched Design

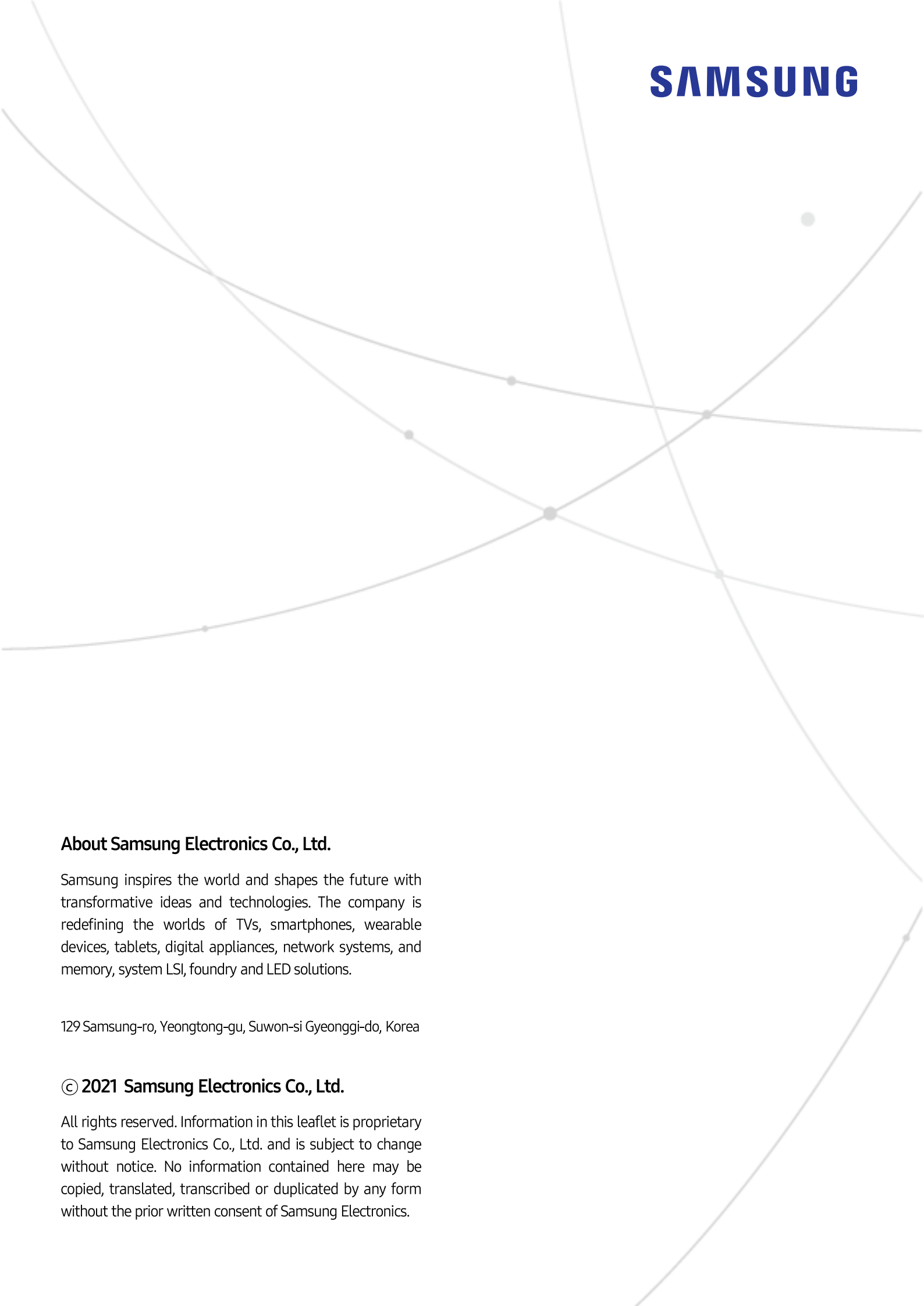
Samsung C-Band Massive MIMO radio utilizes 64 antennas, supports up to 280MHz bandwidth, and delivers a 200W output power. Despite the above advanced performance, the Radio has a compact size of 50.9L and 79.4lbs. This makes it easy to install the Radio.

It is designed to look solid and compact, with a low profile appearance so that, when installed, harmonizes well with the surrounding environment.



Technical Specifications

Item	Specification
Tech	NR
Band	n77
Frequency Band	3700 - 3980 MHz
EIRP	78.5dBm (53.0 dBm+25.5 dBi)
IBW/OBW	280 MHz / 200 MHz
Installation	Pole/Wall
Size/ Weight	16.06 x 35.06 x 5.51 inch (50.86L)/ 79.4 lbs



SAMSUNG

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Samsung inspires the world and shapes the future with transformative ideas and technologies. The company is redefining the worlds of TVs, smartphones, wearable devices, tablets, digital appliances, network systems, and memory, system LSI, foundry and LED solutions.

129 Samsung-ro, Yeongtong-gu, Suwon-si Gyeonggi-do, Korea

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SAMSUNG

Dual-Band Radio Unit AWS/PCS (B66/B2)

RFV01U-D1A

Samsung's RFV01U-D1A is a compact remote Radio Unit (RU) designed for deployments that require flexibility in installation and rapid onlining, without compromising on coverage, capacity or operational expenses.



The RFV01U-D1A RU targets dual-band support across Band 66 (AWS) and Band 2 (PCS), making it an ideal product for broad coverage footprints across multiple common mid-range frequencies.

The RU handles all Radio Frequency (RF) processing in a single, compact unit, and is designed to interface via CPRI with Samsung's CDU baseband offerings, in both distributed- and central-RAN configurations.

In addition to its minimal footprint and ease of installation, the RU is also designed to reduce cost of ownership through its integrated spectrum analyzer, which allows for remote RF monitoring, greatly reducing the need for on-site maintenance visits.

Features and Benefits

- Dual-band support for broad frequency coverage
- Minimal footprint reduces site costs
- Rapid, easy installation
- Flexibly deployable in any location
- Remote RF monitoring capability
- Convection cooled, silent operation
- Built-in Broadcast Auxiliary Services (BAS) filter ensures compliant AWS operation without impacting footprint

Key Technical Specifications

Duplex Type: FDD

Operating Frequencies:

B66: DL(2,110-2,180MHz)/UL(1,710-1,780MHz)

B2: DL(1,930-1,990MHz)/UL(1,850-1,910MHz)

Instantaneous Bandwidth:

70MHz(B66) + 60MHz(B2)

RF Chain: 4T4R/2T4R/2T2R

Output Power: Total 320W

DU-RU Interface: CPRI (10Gbps)

Dimensions: 380 x 380 x 255mm (36.8L)

Weight: 38.3kg

Input Power: -48V DC

Operating Temp.: -40 - 55°(w/o solar load)

Cooling: Natural convection

SAMSUNG

Dual-Band Radio Unit 700/850MHz (B13/B5) RFV01U-D2A

Samsung's RFV01U-D2A is a compact remote Radio Unit (RU) designed for deployments that require flexibility in installation and rapid onlining, without compromising on coverage, capacity or operational expenses.



The RFV01U-D2A RU targets dual-band support across Band 13 (700MHz) and Band 5 (850MHz), making it an ideal product for broad coverage footprints across multiple common low-end, long-range frequencies.

The RU handles all Radio Frequency (RF) processing in a single, compact unit, and is designed to interface via CPRI with Samsung's CDU baseband offerings, in both distributed- and central-RAN configurations.

In addition to its minimal footprint and ease of installation, the RU is also designed to reduce cost of ownership through its integrated spectrum analyzer, which allows for remote RF monitoring, greatly reducing the need for on-site maintenance visits.

Features and Benefits

- Dual-band support for broad frequency coverage
- Minimal footprint reduces site costs
- Rapid, easy installation
- Flexibly deployable in any location
- Remote RF monitoring capability
- Convection cooled, silent operation

Key Technical Specifications

Duplex Type: FDD
Operating Frequencies:
 B13: DL(746-756MHz)/UL(777-787MHz)
 B5: DL(869-894MHz)/UL(824-849MHz)
Instantaneous Bandwidth: 10MHz(B13) + 25MHz(B5)
RF Chain: 4T4R/2T4R/2T2R
Output Power: Total 320W
DU-RU Interface: CPRI (10Gbps)
Dimensions: 380 x 380 x 207mm (29.9L)
Weight: 31.9kg
Input Power: -48V DC
Operating Temp.: -40 - 55°(w/o solar load)
Cooling: Natural convection

ATTACHMENT 3

General	Power	Density					
# OF CHAN.	WATTS ERP	HEIGHT	CALC. POWER DENS	FREQ.	MAX. PERMISS. EXP.	FRACTION MPE	Total
1	262	186	850	0.0029	0.5667	0.05%	
1	1476	186	700	0.0164	0.4667	0.35%	
1	1000	186	850	0.0111	0.5667	0.20%	
1	1000	186	850	0.0111	0.5667	0.20%	
2	3664	186	1900	0.0813	1.0000	0.81%	
1	1285	186	2300	0.0143	1.0000	0.14%	
4	628	176	0.0029	751	0.5007	0.58%	
4	725	176	0.0034	874	0.5827	0.58%	
4	1550	176	0.0072	1977.5	1.0000	0.72%	
4	1530	176	0.0071	2120	1.0000	0.71%	
4	6531	176	0.0303	3730.08	1.0000	3.00%	
							7.34%

ATTACHMENT 4



Tower Engineering Solutions

Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

Structural Analysis Report

Existing 196 ft Sabre Self Supporting Tower

Customer Name: SBA Communications Corp

Customer Site Number: CT00802-S

Customer Site Name: Putnam Freight

Carrier Name: Verizon (App#: 160239-1)

Carrier Site ID / Name: 178196 / PUTNAM_SOUTH_CT

Site Location: 63 Industrial Park Road

Putnam, Connecticut

Windham County

Latitude: 41.897141

Longitude: -71.892247

Exp.10/31/2021

Analysis Result:

Max Structural Usage: 92.0% [Pass]

Max Foundation Usage: 39.0% [Pass]

Additional Usage Caused by Mount Modification:



07/21/2021

Report Prepared By: Tawfeeq Alajaj

Introduction

The purpose of this report is to summarize the analysis results on the 196 ft Sabre Self Supporting Tower to support the proposed antennas and transmission lines in addition to those currently installed. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

Sources of Information

Tower Drawings	Sabre Communications Corporation, Job No. 99-04060. dated 04/19/1999.
Foundation Drawing	Sabre Communications Corporation, Job No. 99-04060. dated 04/19/1999.
Geotechnical Report	Jaworski Geotech, Inc. Project No. C98364G. dated 12/18/1998.
Modification Drawings	
Mount Analysis	Verizon mount mods by Maser Consulting 20777647A. Dated 04/23/2021.

Analysis Criteria

The rigorous analysis was performed in accordance with the requirements and stipulations of the TIA-

In accordance with this standard, the structure was analyzed using **TESTowers**, a proprietary analysis software. The program considers the structure as an elastic 3-D model with second-order effects and temperature effects incorporated in the analysis. The analysis was performed using multiple wind directions.

Wind Speed Used in the Analysis:	Ultimate Design Wind Speed $V_{ult} = 117.0$ mph (3-Sec. Gust)/ Nominal Design Wind Speed $V_{asd} = 101.0$ mph (3-Sec. Gust)
Wind Speed with Ice:	50 mph (3-Sec. Gust) with 1" radial ice concurrent
Operational Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	TIA-222-G-2 / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	
Structure Class:	
Topographic Category:	
Crest Height:	0 ft
Seismic Parameters:	

This structural analysis is based upon the tower being classified as a Structure Class II; however, if a different classification is required subsequent to the date hereof, the tower classification will be changed to meet such requirement and a new structural analysis will be run.

Existing Antennas, Mounts and Transmission Lines

The table below summarizes the antennas, mounts and transmission lines that were considered in the analysis as existing on the tower.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
				(3) T Frame		
			Powerwave - 7770 - Panel	(3) Frames with modifications Pipe Mast, (6) Diagonal Angles and (3) Pipe Brace	(1) 3" Conduit (2) 5/8" Fiber	
			Kathrein - 800-10966 - Panel			
			CCI - OPA-65R-LCUU-H8 - Panel			
			Powerwave LGP21401 TMA			
			Powerwave 21401TMA			
			Ericsson RRUS-11 (19)			
			Ericsson RRUS 4415 B30			
			Ericsson RRUS 12			
			Ericsson RRUS E2			
			Ericsson RRUS 4449 B5, B12			
			Ericsson RRUS A2			
			Raycap DC6-48-60-18-8F			
			CommScope JAHH-65B-R3B - Panel	(3) T Frame	Hybrid	Verizon
			Andrew LNX-6514DS-AIM - Panel			
			ALU RRH2x90AWS -			
			ALU RRH 4x40 850 -			
			ALU RRH2x60 700 -			

Proposed Carrier's Final Configuration of Antennas, Mounts and Transmission Lines

Information pertaining to the proposed carrier's final configuration of antennas and transmission lines was provided by SBA Communications Corp. The proposed antennas and lines are listed below.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
			CommScope - JAHH-65B-R3B - Panel	(3) Modified Sector Frame and (3) CommScope BSAMNT-	Hybrid	Verizon
			Samsung - MT6407-77A - Panel			
			CommScope CBC78T-DS-43-2X			
			Samsung B2/B66A			
			Samsung B5/B13			

See the attached coax layout for the line placement considered in the analysis.

Analysis Results

The results of the structural analysis, performed for the wind and ice loading and antenna equipment as defined above, are summarized as the following:

Tower Component	Legs	Diagonals	Horizontals
Max. Usage:			
Pass/Fail	Pass	Pass	Pass

Foundations

	Compression (Kips)	Uplift (Kips)	Shear (Kips)
Analysis Reactions			

The foundation has been investigated using the supplied documents and soils report and was found adequate. Therefore, no modification to the foundation will be required.

Operational Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by TIA-222 for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 0.1180 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

Based on the analysis results, the existing structure and its foundation were found to be adequate to safely support the existing and proposed equipment and meet the minimum requirements per the TIA-222 Standard under the design basic wind speed as specified in the Analysis Criteria.

Standard Conditions

This analysis was performed based on the information supplied to **Tower Engineering Solutions,** Verification of the information provided was not included in the Scope of Work for . The accuracy of the analysis is dependent on the accuracy of the information provided.

The structural analysis was performance based upon the evidence available at the time of this report. All information provided by the client is considered to be accurate.

The analyses will be performed based on the codes as specified by the client or based on the best knowledge of the engineering staff of . In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/TIA-222. If wind speed and/or ice loads are different from the minimum values recommended by the ANSI/TIA-222 standard or other codes, should be notified in writing and the applicable minimum values provided by the client.

The configuration of the existing mounts, antennas, coax and other appurtenances were supplied by the customer for the current structural analysis. has not visited the tower site to verify the adequacy of the information provided. If there is any discrepancy found in the report regarding the existing conditions, should be notified immediately to evaluate the effect of the discrepancy on the analysis results.

The client will assume responsibility for rework associated with the differences in initially provided information, including tower and foundation information, existing and/or proposed equipment and transmission lines.

If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.

Structure: CT00802-S-SBA

Site Name: Putnam Freight

Code: EIA/TIA-222-G

7/21/2021

Type: Self Support

Base Shape: Triangle

Basic WS: 101.00

Height: 196.00 (ft)

Base Width: 27.00

Basic Ice WS: 50.00

Base Elev: 0.00 (ft)

Top Width: 7.40

Operational WS: 60.00

Page: 1



Section Properties

Sect	Leg Members	Diagonal Members	Horizontal Members
1-2	PST 10" DIA PIPE	SAE 3.5X3.5X0.375	SAE 4X4X0.375
3-4	PX 8" DIA PIPE	SAE 3.5X3.5X0.375	SAE 4X4X0.375
5	PX 8" DIA PIPE	SAE 4X4X0.375	
6	PX 8" DIA PIPE	SAE 3.5X3.5X0.375	
7	PST 8" DIA PIPE	SAE 3.5X3.5X0.25	
8-9	PX 6" DIA PIPE	SAE 3.5X3.5X0.25	
10	PX 5" DIA PIPE	SAE 2.5X2.5X0.25	
11	PSP 4.5 x 0.438	SAE 2.5X2.5X0.1875	
12	PX 3-1/2" DIA PIPE	SAE 2X2X0.1875	SAE 2X2X0.1875

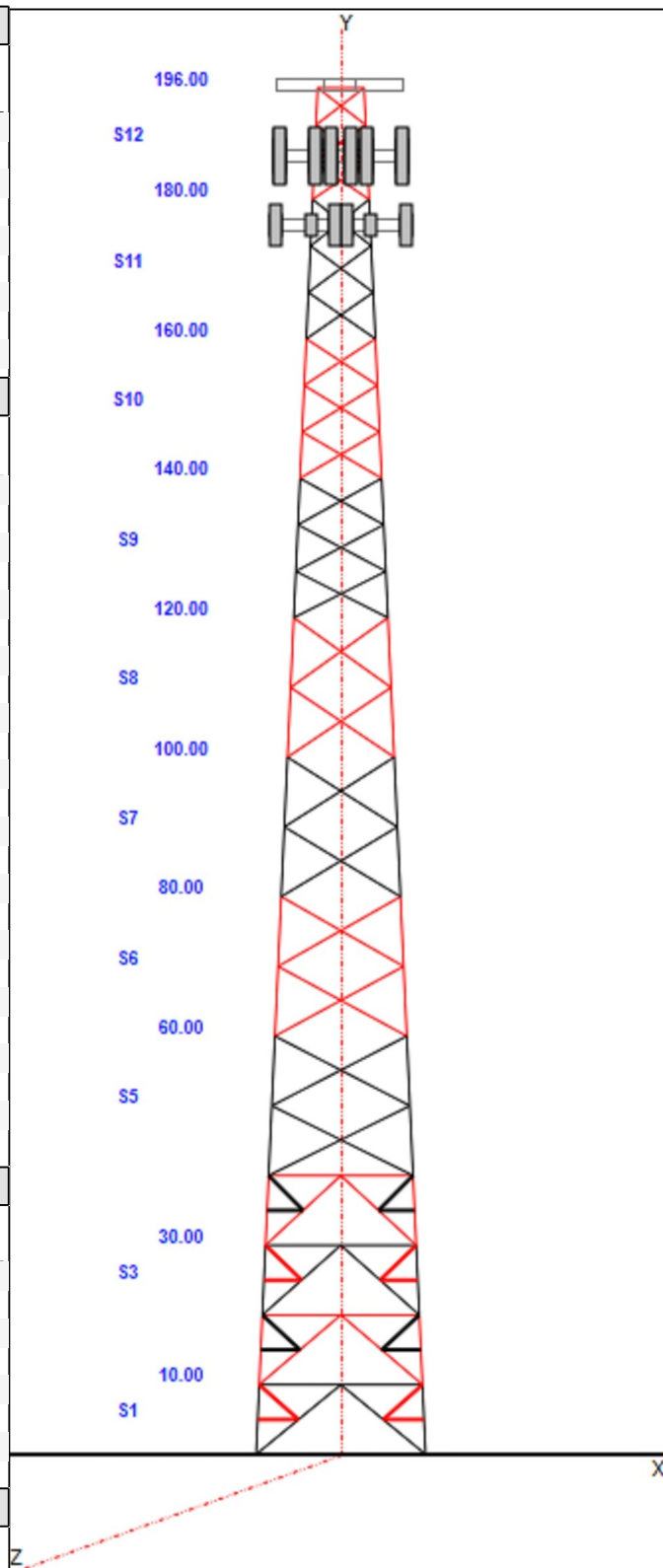
Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description
196.00	196.00	3	Sector Frame
186.00	186.00	3	7770
186.00	186.00	3	800-10966
186.00	186.00	3	OPA-65R-LCUU-H8
186.00	186.00	6	Powerwave LGP21401 TMA
186.00	186.00	6	Powerwave 21401TMA
186.00	186.00	3	Ericsson RRUS-11 (19)
186.00	186.00	3	Ericsson RRUS 4415 B30
186.00	186.00	3	Ericsson RRUS 12
186.00	186.00	3	Ericsson RRUS E2
186.00	186.00	3	Ericsson RRUS 4449 B5, B12
186.00	186.00	3	Ericsson RRUS A2
186.00	186.00	2	Raycap DC6-48-60-18-8F
186.00	186.00	3	Sector Frame
186.00	186.00	1	Reinforcing Kit
176.00	176.00	3	Sector Frame
176.00	176.00	6	JAHH-65B-R3B
176.00	176.00	3	MT6407-77A
176.00	176.00	3	Commscope CBC78T-DS-43-2X
176.00	176.00	3	Samsung B2/B66A
176.00	176.00	3	Samsung B5/B13
176.00	176.00	2	RFS DB-T1-6Z-8AB-0Z
176.00	176.00	1	Mount Mods1
176.00	176.00	1	Mount Mods2

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Qty	Description
0.00	196.00	1	W/G Ladder
0.00	196.00	1	W/G Ladder
0.00	186.00	12	1 5/8" Coax
0.00	186.00	1	3" Conduit
0.00	186.00	6	3/4" DC
0.00	186.00	2	5/8" Fiber
0.00	176.00	10	1 5/8" Coax
0.00	176.00	2	1 5/8" Hybrid

Base Reactions



Structure: CT00802-S-SBA

Site Name:	Putnam Freight	Code:	EIA/TIA-222-G	7/21/2021
Type:	Self Support	Base Shape:	Triangle	Basic WS: 101.00
Height:	196.00 (ft)	Base Width:	27.00	Basic Ice WS: 50.00
Base Elev:	0.00 (ft)	Top Width:	7.40	Operational WS: 60.00

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Leg

Overturning

Max Uplift:	-297.22 (kips)	Moment:	7794.15 (ft-kips)
Max Down:	355.46 (kips)	Total Down:	66.40 (kips)
Max Shear:	41.01 (kips)	Total Shear:	69.96 (kips)

Structure: CT00802-S-SBA

Site Name: Putnam Freight

Type: Self Support

Height: 196.00 (ft)

Base Elev: 0.00 (ft)

Base Shape: Triangle

Base Width: 27.00

Top Width: 7.40

Code: EIA/TIA-222-G

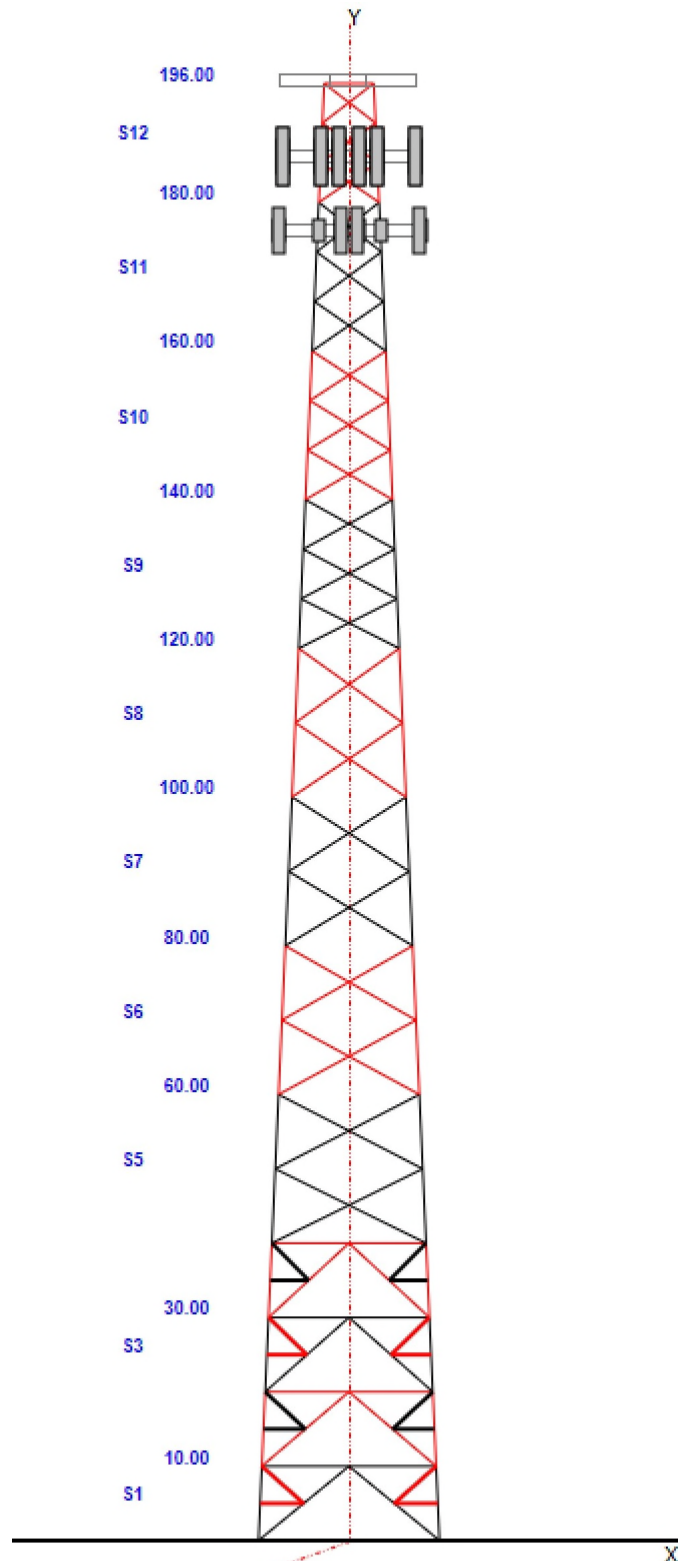
Basic WS: 101.00

Basic Ice WS: 50.00

Operational WS: 60.00

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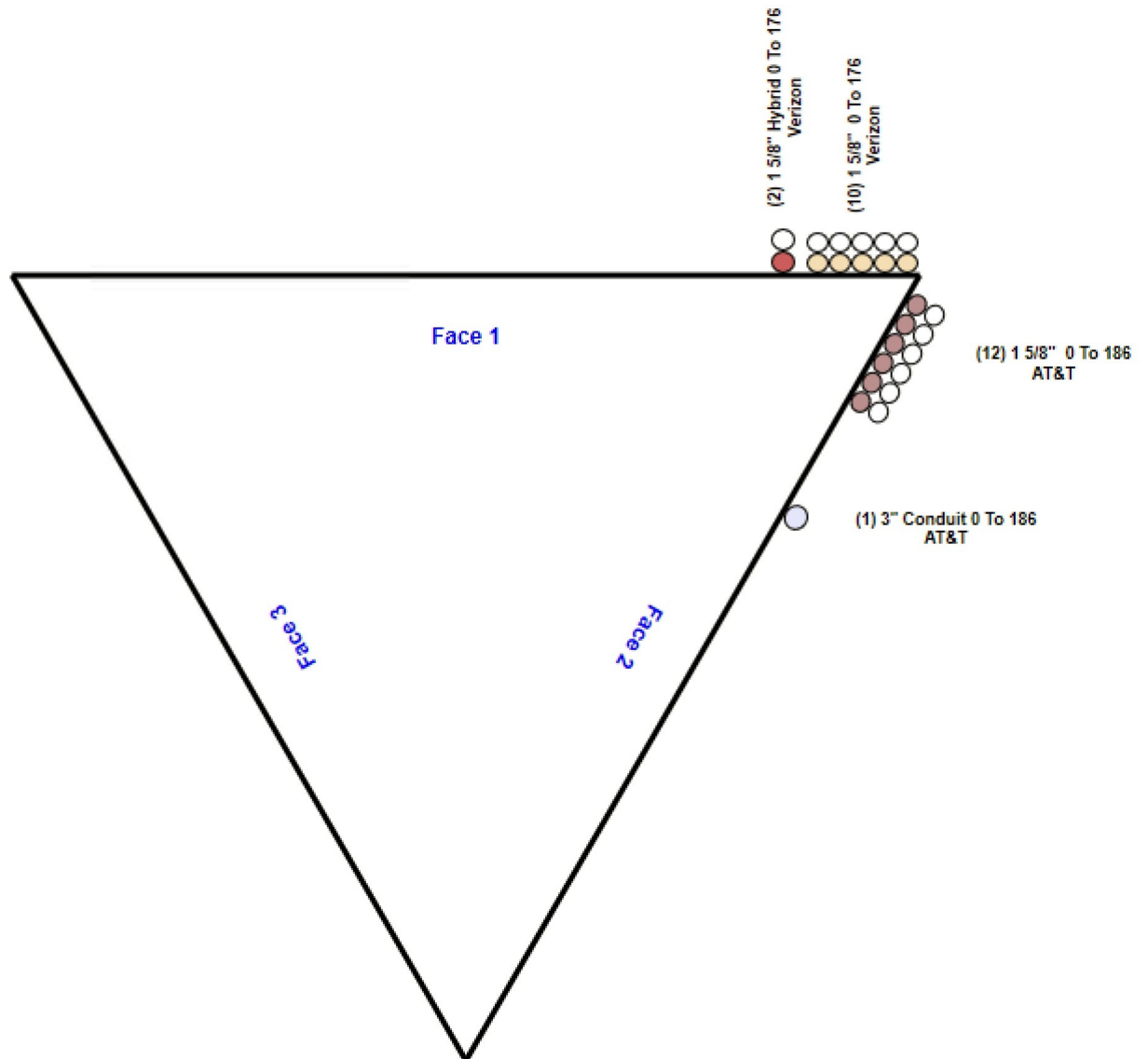


Structure: CT00802-S-SBA - Coax Line Placement

Type: Self Support
Site Name: Putnam Freight
Height: 196.00 (ft)

7/21/2021

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Loading Summary

Structure: CT00802-S-SBA	Code: EIA/TIA-222-G	7/21/2021	
Site Name: Putnam Freight	Exposure: C		
Height: 196.00 (ft)	Crest Height: 0.00		
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil		
Gh: 0.85	Topography: 1	Struct Class: II	Page: 5



Discrete Appurtenances Properties

Attach Elev (ft)	Description	Qty	No Ice		Ice		Len (in)	Width (in)	Depth (in)	Ka	Orientation Factor	Vert Ecc (ft)
			Weight (lb)	CaAa (sf)	Weight (lb)	CaAa (sf)						
196.00	Sector Frame	3	450.00	14.000	929.83	23.596	0.000	0.000	0.000	0.75	0.75	0.000
186.00	7770	3	35.00	5.500	234.87	6.987	55.000	11.000	5.000	0.80	0.73	0.000
186.00	800-10966	3	125.70	17.360	639.11	19.864	96.000	20.000	6.900	0.80	0.72	0.000
186.00	OPA-65R-LCUU-H8	3	88.00	12.980	508.99	15.231	92.400	14.800	7.400	0.80	0.91	0.000
186.00	Powerwave LGP21401 TMA	6	14.10	1.290	48.20	2.430	14.400	9.200	2.600	0.80	1.00	0.000
186.00	Powerwave 21401TMA	6	14.10	1.290	48.20	2.430	14.400	9.200	2.600	0.80	1.00	0.000
186.00	Ericsson RRUS-11 (19)	3	50.70	2.520	182.58	3.437	17.000	17.800	9.200	0.80	0.67	0.000
186.00	Ericsson RRUS 4415 B30	3	46.00	1.640	102.06	2.343	15.000	13.200	5.400	0.80	0.67	0.000
186.00	Ericsson RRUS 12	3	58.00	3.150	198.80	4.155	20.400	18.500	7.500	0.80	0.67	0.000
186.00	Ericsson RRUS E2	3	59.40	3.150	147.62	4.110	20.400	18.500	7.500	0.80	0.67	0.000
186.00	Ericsson RRUS 4449 B5, B12	3	71.00	1.970	143.80	2.716	17.900	13.200	9.400	0.80	0.67	0.000
186.00	Ericsson RRUS A2	3	21.20	1.860	70.45	3.188	12.800	15.000	3.400	0.80	0.67	0.000
186.00	Raycap DC6-48-60-18-8F	2	31.80	0.920	116.12	1.517	24.000	11.000	11.000	0.80	1.00	0.000
186.00	Sector Frame	3	500.00	17.500	1452.04	36.493	0.000	0.000	0.000	0.75	0.75	0.000
186.00	Reinforcing Kit	1	650.00	15.500	1763.88	37.635	0.000	0.000	0.000	1.00	1.00	0.000
176.00	Sector Frame	3	500.00	17.500	1442.50	36.303	0.000	0.000	0.000	0.75	0.75	0.000
176.00	JAHH-65B-R3B	6	63.30	9.110	393.53	10.966	72.000	13.800	8.200	0.80	0.83	0.000
176.00	MT6407-77A	3	79.40	4.690	252.91	5.990	35.100	16.100	5.500	0.80	0.70	0.000
176.00	Commscope CBC78T-DS-43-2X	3	10.40	0.370	43.31	0.781	6.400	6.900	4.800	0.80	0.85	0.000
176.00	Samsung B2/B66A	3	84.40	1.880	153.61	2.624	15.000	15.000	10.000	0.80	0.67	0.000
176.00	Samsung B5/B13	3	70.30	1.880	135.96	2.624	15.000	15.000	8.100	0.80	0.67	0.000
176.00	RFS DB-T1-6Z-8AB-0Z	2	18.90	4.800	182.37	6.157	24.000	24.000	10.000	0.80	0.71	0.000
176.00	Mount Mods1	1	650.00	15.500	1752.73	37.413	0.000	0.000	0.000	0.75	1.00	0.000
176.00	Mount Mods2	1	140.00	3.700	377.51	8.931	0.000	0.000	0.000	0.75	1.00	0.000
Totals:		73	8,838.90		27,345.93					Number of Appurtenances : 24		

Loading Summary

Structure: CT00802-S-SBA	Code: EIA/TIA-222-G	7/21/2021
Site Name: Putnam Freight	Exposure: C	
Height: 196.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 0.85	Topography: 1	Struct Class: II



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Linear Appurtenances Properties

Elev. From (ft)	Elev. To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Block	Spread On Faces	Bundling Arrangement	Cluster Dia (in)	Out of Zone	Spacing (in)	Orientation Factor	Ka Override
0.00	196.00	W/G Ladder	1	2.00	6.00	100.00	1	Individual NR		N	1.00	1.00	
0.00	196.00	W/G Ladder	1	2.00	6.00	100.00	2	Individual NR		N	1.00	1.00	
0.00	186.00	1 5/8" Coax	12	1.98	1.04	50.00	2	Block		N	1.00	1.00	
0.00	186.00	3" Conduit	1	3.00	1.61	100.00	2	Individual NR		N	1.00	1.00	
0.00	186.00	3/4" DC	6	0.75	0.40	100.00	2	Individual NR		N	1.00	1.00	
0.00	186.00	5/8" Fiber	2	0.87	0.15	100.00	2	Individual NR		N	1.00	1.00	
0.00	176.00	1 5/8" Coax	10	1.98	1.04	50.00	1	Block		N	1.00	1.00	
0.00	176.00	1 5/8" Hybrid	2	2.00	1.10	50.00	1	Block		N	1.00	1.00	

Section Forces

Structure: CT00802-S-SBA

Code: EIA/TIA-222-G

7/21/2021

Site Name: Putnam Freight

Exposure: C

Height: 196.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 0.85

Topography: 1

Struct Class: II

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Load Case: 1.2D + 1.6W Normal Wind

1.2D + 1.6W 101 mph Wind at Normal To Face

Wind Load Factor: 1.60

Wind Importance Factor: 1.00

Dead Load Factor: 1.20

Ice Dead Load Factor: 0.00

Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	5.0	18.87	24.312	17.95	0.00	0.15	2.76	1.00	1.00	0.00	31.86	38.35	0.00	4,711.2	0.0	2253.39	875.76	3,129.15
2	15.0	18.87	23.540	17.95	0.00	0.16	2.75	1.00	1.00	0.00	31.12	38.35	0.00	4,622.9	0.0	2192.24	875.76	3,068.00
3	25.0	20.98	22.832	14.40	0.00	0.15	2.78	1.00	1.00	0.00	28.84	38.35	0.00	4,641.4	0.0	2288.34	973.91	3,262.25
4	35.0	22.52	22.121	14.40	0.00	0.15	2.77	1.00	1.00	0.00	28.16	38.35	0.00	4,554.0	0.0	2387.73	1045.40	3,433.13
5	50.0	24.28	31.267	28.80	0.00	0.13	2.84	1.00	1.00	0.00	43.07	76.70	0.00	7,536.2	0.0	4036.19	2253.84	6,290.03
6	70.0	26.06	25.252	28.80	0.00	0.13	2.84	1.00	1.00	0.00	37.03	76.70	0.00	6,862.8	0.0	3733.80	2419.28	6,153.08
7	90.0	27.48	23.189	28.80	0.00	0.14	2.81	1.00	1.00	0.00	35.09	76.70	0.00	4,772.5	0.0	3688.04	2550.73	6,238.77
8	110.0	28.66	21.325	22.12	0.00	0.13	2.84	1.00	1.00	0.00	30.45	76.70	0.00	4,630.0	0.0	3373.07	2660.79	6,033.86
9	130.0	29.69	26.175	22.12	0.00	0.17	2.71	1.00	1.00	0.00	35.62	76.70	0.00	4,996.8	0.0	3902.88	2756.04	6,658.92
10	150.0	30.60	16.566	18.57	0.00	0.14	2.80	1.00	1.00	0.00	25.06	76.70	0.00	3,708.1	0.0	2924.83	2840.33	5,765.16
11	170.0	31.41	14.543	15.02	0.00	0.14	2.80	1.00	1.00	0.00	22.13	71.40	0.00	3,100.5	0.0	2646.36	2712.38	5,358.74
12	188.0	32.09	10.623	10.68	0.00	0.16	2.75	1.00	1.00	0.00	16.28	18.39	0.00	1,653.2	0.0	1953.15	755.91	2,709.06
														55,789.7	0.0			58,100.15

Load Case: 1.2D + 1.6W 60° Wind

1.2D + 1.6W 101 mph Wind at 60° From Face

Wind Load Factor: 1.60

Wind Importance Factor: 1.00

Dead Load Factor: 1.20

Ice Dead Load Factor: 0.00

Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	5.0	18.87	24.312	17.95	0.00	0.15	2.76	0.80	1.00	0.00	27.00	38.35	0.00	4,711.2	0.0	1909.54	875.76	2,785.30
2	15.0	18.87	23.540	17.95	0.00	0.16	2.75	0.80	1.00	0.00	26.41	38.35	0.00	4,622.9	0.0	1860.59	875.76	2,736.35
3	25.0	20.98	22.832	14.40	0.00	0.15	2.78	0.80	1.00	0.00	24.28	38.35	0.00	4,641.4	0.0	1926.06	973.91	2,899.97
4	35.0	22.52	22.121	14.40	0.00	0.15	2.77	0.80	1.00	0.00	23.73	38.35	0.00	4,554.0	0.0	2012.54	1045.40	3,057.94
5	50.0	24.28	31.267	28.80	0.00	0.13	2.84	0.80	1.00	0.00	36.82	76.70	0.00	7,536.2	0.0	3450.18	2253.84	5,704.01
6	70.0	26.06	25.252	28.80	0.00	0.13	2.84	0.80	1.00	0.00	31.98	76.70	0.00	6,862.8	0.0	3224.57	2419.28	5,643.85
7	90.0	27.48	23.189	28.80	0.00	0.14	2.81	0.80	1.00	0.00	30.45	76.70	0.00	4,772.5	0.0	3200.54	2550.73	5,751.27
8	110.0	28.66	21.325	22.12	0.00	0.13	2.84	0.80	1.00	0.00	26.18	76.70	0.00	4,630.0	0.0	2900.62	2660.79	5,561.41
9	130.0	29.69	26.175	22.12	0.00	0.17	2.71	0.80	1.00	0.00	30.38	76.70	0.00	4,996.8	0.0	3329.28	2756.04	6,085.32
10	150.0	30.60	16.566	18.57	0.00	0.14	2.80	0.80	1.00	0.00	21.75	76.70	0.00	3,708.1	0.0	2538.11	2840.33	5,378.44
11	170.0	31.41	14.543	15.02	0.00	0.14	2.80	0.80	1.00	0.00	19.22	71.40	0.00	3,100.5	0.0	2298.52	2712.38	5,010.90
12	188.0	32.09	10.623	10.68	0.00	0.16	2.75	0.80	1.00	0.00	14.16	18.39	0.00	1,653.2	0.0	1698.24	755.91	2,454.15
														55,789.7	0.0			53,068.90

Section Forces

Structure: CT00802-S-SBA

Code: EIA/TIA-222-G

7/21/2021

Site Name: Putnam Freight

Exposure: C

Height: 196.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 0.85

Topography: 1

Struct Class: II

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Load Case: 1.2D + 1.6W 90° Wind

1.2D + 1.6W 101 mph Wind at 90° From Face

Wind Load Factor: 1.60

Wind Importance Factor: 1.00

Dead Load Factor: 1.20

Ice Dead Load Factor: 0.00

Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	5.0	18.87	24.312	17.95	0.00	0.15	2.76	0.85	1.00	0.00	28.22	38.35	0.00	4,711.2	0.0	1995.51	875.76	2,871.26
2	15.0	18.87	23.540	17.95	0.00	0.16	2.75	0.85	1.00	0.00	27.59	38.35	0.00	4,622.9	0.0	1943.50	875.76	2,819.26
3	25.0	20.98	22.832	14.40	0.00	0.15	2.78	0.85	1.00	0.00	25.42	38.35	0.00	4,641.4	0.0	2016.63	973.91	2,990.54
4	35.0	22.52	22.121	14.40	0.00	0.15	2.77	0.85	1.00	0.00	24.84	38.35	0.00	4,554.0	0.0	2106.34	1045.40	3,151.73
5	50.0	24.28	31.267	28.80	0.00	0.13	2.84	0.85	1.00	0.00	38.38	76.70	0.00	7,536.2	0.0	3596.68	2253.84	5,850.52
6	70.0	26.06	25.252	28.80	0.00	0.13	2.84	0.85	1.00	0.00	33.24	76.70	0.00	6,862.8	0.0	3351.88	2419.28	5,771.16
7	90.0	27.48	23.189	28.80	0.00	0.14	2.81	0.85	1.00	0.00	31.61	76.70	0.00	4,772.5	0.0	3322.42	2550.73	5,873.14
8	110.0	28.66	21.325	22.12	0.00	0.13	2.84	0.85	1.00	0.00	27.25	76.70	0.00	4,630.0	0.0	3018.73	2660.79	5,679.53
9	130.0	29.69	26.175	22.12	0.00	0.17	2.71	0.85	1.00	0.00	31.69	76.70	0.00	4,996.8	0.0	3472.68	2756.04	6,228.72
10	150.0	30.60	16.566	18.57	0.00	0.14	2.80	0.85	1.00	0.00	22.57	76.70	0.00	3,708.1	0.0	2634.79	2840.33	5,475.12
11	170.0	31.41	14.543	15.02	0.00	0.14	2.80	0.85	1.00	0.00	19.95	71.40	0.00	3,100.5	0.0	2385.48	2712.38	5,097.86
12	188.0	32.09	10.623	10.68	0.00	0.16	2.75	0.85	1.00	0.00	14.69	18.39	0.00	1,653.2	0.0	1761.97	755.91	2,517.88
														55,789.7	0.0	54,326.71		

Load Case: 0.9D + 1.6W Normal Wind

0.9D + 1.6W 101 mph Wind at Normal To Face

Wind Load Factor: 1.60

Wind Importance Factor: 1.00

Dead Load Factor: 0.90

Ice Dead Load Factor: 0.00

Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	5.0	18.87	24.312	17.95	0.00	0.15	2.76	1.00	1.00	0.00	31.86	38.35	0.00	3,533.4	0.0	2253.39	875.76	3,129.15
2	15.0	18.87	23.540	17.95	0.00	0.16	2.75	1.00	1.00	0.00	31.12	38.35	0.00	3,467.2	0.0	2192.24	875.76	3,068.00
3	25.0	20.98	22.832	14.40	0.00	0.15	2.78	1.00	1.00	0.00	28.84	38.35	0.00	3,481.1	0.0	2288.34	973.91	3,262.25
4	35.0	22.52	22.121	14.40	0.00	0.15	2.77	1.00	1.00	0.00	28.16	38.35	0.00	3,415.5	0.0	2387.73	1045.40	3,433.13
5	50.0	24.28	31.267	28.80	0.00	0.13	2.84	1.00	1.00	0.00	43.07	76.70	0.00	5,652.2	0.0	4036.19	2253.84	6,290.03
6	70.0	26.06	25.252	28.80	0.00	0.13	2.84	1.00	1.00	0.00	37.03	76.70	0.00	5,147.1	0.0	3733.80	2419.28	6,153.08
7	90.0	27.48	23.189	28.80	0.00	0.14	2.81	1.00	1.00	0.00	35.09	76.70	0.00	3,579.3	0.0	3688.04	2550.73	6,238.77
8	110.0	28.66	21.325	22.12	0.00	0.13	2.84	1.00	1.00	0.00	30.45	76.70	0.00	3,472.5	0.0	3373.07	2660.79	6,033.86
9	130.0	29.69	26.175	22.12	0.00	0.17	2.71	1.00	1.00	0.00	35.62	76.70	0.00	3,747.6	0.0	3902.88	2756.04	6,658.92
10	150.0	30.60	16.566	18.57	0.00	0.14	2.80	1.00	1.00	0.00	25.06	76.70	0.00	2,781.0	0.0	2924.83	2840.33	5,765.16
11	170.0	31.41	14.543	15.02	0.00	0.14	2.80	1.00	1.00	0.00	22.13	71.40	0.00	2,325.4	0.0	2646.36	2712.38	5,358.74
12	188.0	32.09	10.623	10.68	0.00	0.16	2.75	1.00	1.00	0.00	16.28	18.39	0.00	1,239.9	0.0	1953.15	755.91	2,709.06
														41,842.3	0.0	58,100.15		

Section Forces

Structure: CT00802-S-SBA

Code: EIA/TIA-222-G

7/21/2021

Site Name: Putnam Freight

Exposure: C

Height: 196.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 0.85

Topography: 1

Struct Class: II

Page: 9



Load Case: 0.9D + 1.6W 60° Wind

0.9D + 1.6W 101 mph Wind at 60° From Face

Wind Load Factor: 1.60

Wind Importance Factor: 1.00

Dead Load Factor: 0.90

Ice Dead Load Factor: 0.00

Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	5.0	18.87	24.312	17.95	0.00	0.15	2.76	0.80	1.00	0.00	27.00	38.35	0.00	3,533.4	0.0	1909.54	875.76	2,785.30
2	15.0	18.87	23.540	17.95	0.00	0.16	2.75	0.80	1.00	0.00	26.41	38.35	0.00	3,467.2	0.0	1860.59	875.76	2,736.35
3	25.0	20.98	22.832	14.40	0.00	0.15	2.78	0.80	1.00	0.00	24.28	38.35	0.00	3,481.1	0.0	1926.06	973.91	2,899.97
4	35.0	22.52	22.121	14.40	0.00	0.15	2.77	0.80	1.00	0.00	23.73	38.35	0.00	3,415.5	0.0	2012.54	1045.40	3,057.94
5	50.0	24.28	31.267	28.80	0.00	0.13	2.84	0.80	1.00	0.00	36.82	76.70	0.00	5,652.2	0.0	3450.18	2253.84	5,704.01
6	70.0	26.06	25.252	28.80	0.00	0.13	2.84	0.80	1.00	0.00	31.98	76.70	0.00	5,147.1	0.0	3224.57	2419.28	5,643.85
7	90.0	27.48	23.189	28.80	0.00	0.14	2.81	0.80	1.00	0.00	30.45	76.70	0.00	3,579.3	0.0	3200.54	2550.73	5,751.27
8	110.0	28.66	21.325	22.12	0.00	0.13	2.84	0.80	1.00	0.00	26.18	76.70	0.00	3,472.5	0.0	2900.62	2660.79	5,561.41
9	130.0	29.69	26.175	22.12	0.00	0.17	2.71	0.80	1.00	0.00	30.38	76.70	0.00	3,747.6	0.0	3329.28	2756.04	6,085.32
10	150.0	30.60	16.566	18.57	0.00	0.14	2.80	0.80	1.00	0.00	21.75	76.70	0.00	2,781.0	0.0	2538.11	2840.33	5,378.44
11	170.0	31.41	14.543	15.02	0.00	0.14	2.80	0.80	1.00	0.00	19.22	71.40	0.00	2,325.4	0.0	2298.52	2712.38	5,010.90
12	188.0	32.09	10.623	10.68	0.00	0.16	2.75	0.80	1.00	0.00	14.16	18.39	0.00	1,239.9	0.0	1698.24	755.91	2,454.15
														41,842.3	0.0	53,068.90		

Load Case: 0.9D + 1.6W 90° Wind

0.9D + 1.6W 101 mph Wind at 90° From Face

Wind Load Factor: 1.60

Wind Importance Factor: 1.00

Dead Load Factor: 0.90

Ice Dead Load Factor: 0.00

Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	5.0	18.87	24.312	17.95	0.00	0.15	2.76	0.85	1.00	0.00	28.22	38.35	0.00	3,533.4	0.0	1995.51	875.76	2,871.26
2	15.0	18.87	23.540	17.95	0.00	0.16	2.75	0.85	1.00	0.00	27.59	38.35	0.00	3,467.2	0.0	1943.50	875.76	2,819.26
3	25.0	20.98	22.832	14.40	0.00	0.15	2.78	0.85	1.00	0.00	25.42	38.35	0.00	3,481.1	0.0	2016.63	973.91	2,990.54
4	35.0	22.52	22.121	14.40	0.00	0.15	2.77	0.85	1.00	0.00	24.84	38.35	0.00	3,415.5	0.0	2106.34	1045.40	3,151.73
5	50.0	24.28	31.267	28.80	0.00	0.13	2.84	0.85	1.00	0.00	38.38	76.70	0.00	5,652.2	0.0	3596.68	2253.84	5,850.52
6	70.0	26.06	25.252	28.80	0.00	0.13	2.84	0.85	1.00	0.00	33.24	76.70	0.00	5,147.1	0.0	3351.88	2419.28	5,771.16
7	90.0	27.48	23.189	28.80	0.00	0.14	2.81	0.85	1.00	0.00	31.61	76.70	0.00	3,579.3	0.0	3322.42	2550.73	5,873.14
8	110.0	28.66	21.325	22.12	0.00	0.13	2.84	0.85	1.00	0.00	27.25	76.70	0.00	3,472.5	0.0	3018.73	2660.79	5,679.53
9	130.0	29.69	26.175	22.12	0.00	0.17	2.71	0.85	1.00	0.00	31.69	76.70	0.00	3,747.6	0.0	3472.68	2756.04	6,228.72
10	150.0	30.60	16.566	18.57	0.00	0.14	2.80	0.85	1.00	0.00	22.57	76.70	0.00	2,781.0	0.0	2634.79	2840.33	5,475.12
11	170.0	31.41	14.543	15.02	0.00	0.14	2.80	0.85	1.00	0.00	19.95	71.40	0.00	2,325.4	0.0	2385.48	2712.38	5,097.86
12	188.0	32.09	10.623	10.68	0.00	0.16	2.75	0.85	1.00	0.00	14.69	18.39	0.00	1,239.9	0.0	1761.97	755.91	2,517.88
														41,842.3	0.0	54,326.71		

Section Forces

Structure: CT00802-S-SBA

Code: EIA/TIA-222-G

7/21/2021

Site Name: Putnam Freight

Exposure: C

Height: 196.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 0.85

Topography: 1

Struct Class: II

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Load Case: 1.2D + 1.0Di + 1.0Wi Normal Wind

1.2D + 1.0Di + 1.0Wi 50 mph Wind at Normal From Face

Wind Load Factor: 1.00

Wind Importance Factor: 1.00

Dead Load Factor: 1.20

Ice Dead Load Factor: 1.00

Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
1	5.0	4.62	24.312	39.93	21.98	0.23	2.49	1.00	1.00	1.66	47.50	52.15	24.84	10,398.	5687.3	465.30	285.53	750.83	
2	15.0	4.62	23.540	41.93	23.98	0.25	2.45	1.00	1.00	1.85	48.02	53.75	27.73	10,984.	6361.7	462.78	300.22	763.01	
3	25.0	5.14	22.832	39.06	24.66	0.24	2.46	1.00	1.00	1.95	45.61	54.56	29.18	11,128.	6486.6	490.56	343.78	834.33	
4	35.0	5.52	22.121	39.30	24.91	0.25	2.44	1.00	1.00	2.01	45.12	55.12	30.18	11,179.	6625.7	515.85	374.25	890.10	
5	50.0	5.95	31.267	76.31	47.51	0.23	2.49	1.00	1.00	2.08	75.61	111.45	62.55	18,051.	10514.9	951.76	831.15	1,782.90	
6	70.0	6.39	25.252	75.34	46.55	0.24	2.47	1.00	1.00	2.16	69.13	112.64	64.69	17,005.	10142.6	927.69	906.60	1,834.29	
7	90.0	6.73	23.189	73.92	45.12	0.25	2.42	1.00	1.00	2.21	66.51	113.55	66.33	14,904.	10131.6	922.99	960.96	1,883.95	
8	110.0	7.02	21.325	65.57	43.45	0.26	2.42	1.00	1.00	2.26	59.79	114.30	67.68	14,354.	9724.6	863.11	1012.81	1,875.92	
9	130.0	7.28	26.175	73.01	50.89	0.33	2.21	1.00	1.00	2.29	70.68	114.93	68.82	15,805.	10808.3	967.89	1012.20	1,980.09	
10	150.0	7.50	16.566	66.07	47.49	0.32	2.24	1.00	1.00	2.33	56.60	115.48	69.81	13,099.	9391.7	808.17	1058.71	1,866.88	
11	170.0	7.70	14.543	59.09	44.07	0.34	2.19	1.00	1.00	2.36	50.77	107.53	70.69	11,765.	8665.2	727.75	1031.40	1,759.15	
12	188.0	7.86	10.623	49.63	38.94	0.42	2.02	1.00	1.00	2.38	42.68	33.47	21.42	6,184.5	4531.2	576.97	322.90	899.87	
														154,861.1	99071.4				17,121.32

Load Case: 1.2D + 1.0Di + 1.0Wi 60° Wind

1.2D + 1.0Di + 1.0Wi 50 mph Wind at 60° From Face

Wind Load Factor: 1.00

Wind Importance Factor: 1.00

Dead Load Factor: 1.20

Ice Dead Load Factor: 1.00

Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
1	5.0	4.62	24.312	39.93	21.98	0.23	2.49	0.80	1.00	1.66	42.64	52.15	24.84	10,398.	5687.3	417.67	285.53	703.20	
2	15.0	4.62	23.540	41.93	23.98	0.25	2.45	0.80	1.00	1.85	43.31	53.75	27.73	10,984.	6361.7	417.41	300.22	717.63	
3	25.0	5.14	22.832	39.06	24.66	0.24	2.46	0.80	1.00	1.95	41.04	54.56	29.18	11,128.	6486.6	441.44	343.78	785.22	
4	35.0	5.52	22.121	39.30	24.91	0.25	2.44	0.80	1.00	2.01	40.69	55.12	30.18	11,179.	6625.7	465.26	374.25	839.51	
5	50.0	5.95	31.267	76.31	47.51	0.23	2.49	0.80	1.00	2.08	69.36	111.45	62.55	18,051.	10514.9	873.04	831.15	1,704.19	
6	70.0	6.39	25.252	75.34	46.55	0.24	2.47	0.80	1.00	2.16	64.07	112.64	64.69	17,005.	10142.6	859.91	906.60	1,766.51	
7	90.0	6.73	23.189	73.92	45.12	0.25	2.42	0.80	1.00	2.21	61.87	113.55	66.33	14,904.	10131.6	858.63	960.96	1,819.60	
8	110.0	7.02	21.325	65.57	43.45	0.26	2.42	0.80	1.00	2.26	55.52	114.30	67.68	14,354.	9724.6	801.54	1012.81	1,814.35	
9	130.0	7.28	26.175	73.01	50.89	0.33	2.21	0.80	1.00	2.29	65.45	114.93	68.82	15,805.	10808.3	896.20	1012.20	1,908.40	
10	150.0	7.50	16.566	66.07	47.49	0.32	2.24	0.80	1.00	2.33	53.28	115.48	69.81	13,099.	9391.7	760.86	1058.71	1,819.57	
11	170.0	7.70	14.543	59.09	44.07	0.34	2.19	0.80	1.00	2.36	47.86	107.53	70.69	11,765.	8665.2	686.06	1031.40	1,717.46	
12	188.0	7.86	10.623	49.63	38.94	0.42	2.02	0.80	1.00	2.38	40.55	33.47	21.42	6,184.5	4531.2	548.24	322.90	871.14	
														154,861.1	99071.4				16,466.78

Section Forces

Structure: CT00802-S-SBA

Code: EIA/TIA-222-G

7/21/2021

Site Name: Putnam Freight

Exposure: C

Height: 196.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 0.85

Topography: 1

Struct Class: II



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Load Case: 1.2D + 1.0Di + 1.0Wi 90° Wind

1.2D + 1.0Di + 1.0Wi 50 mph Wind at 90° From Face

Wind Load Factor: 1.00

Wind Importance Factor: 1.00

Dead Load Factor: 1.20

Ice Dead Load Factor: 1.00

Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
1	5.0	4.62	24.312	39.93	21.98	0.23	2.49	0.85	1.00	1.66	43.86	52.15	24.84	10,398.	5687.3	429.58	285.53	715.11	
2	15.0	4.62	23.540	41.93	23.98	0.25	2.45	0.85	1.00	1.85	44.49	53.75	27.73	10,984.	6361.7	428.75	300.22	728.98	
3	25.0	5.14	22.832	39.06	24.66	0.24	2.46	0.85	1.00	1.95	42.18	54.56	29.18	11,128.	6486.6	453.72	343.78	797.50	
4	35.0	5.52	22.121	39.30	24.91	0.25	2.44	0.85	1.00	2.01	41.80	55.12	30.18	11,179.	6625.7	477.91	374.25	852.16	
5	50.0	5.95	31.267	76.31	47.51	0.23	2.49	0.85	1.00	2.08	70.92	111.45	62.55	18,051.	10514.9	892.72	831.15	1,723.87	
6	70.0	6.39	25.252	75.34	46.55	0.24	2.47	0.85	1.00	2.16	65.34	112.64	64.69	17,005.	10142.6	876.86	906.60	1,783.46	
7	90.0	6.73	23.189	73.92	45.12	0.25	2.42	0.85	1.00	2.21	63.03	113.55	66.33	14,904.	10131.6	874.72	960.96	1,835.68	
8	110.0	7.02	21.325	65.57	43.45	0.26	2.42	0.85	1.00	2.26	56.59	114.30	67.68	14,354.	9724.6	816.93	1012.81	1,829.74	
9	130.0	7.28	26.175	73.01	50.89	0.33	2.21	0.85	1.00	2.29	66.76	114.93	68.82	15,805.	10808.3	914.12	1012.20	1,926.32	
10	150.0	7.50	16.566	66.07	47.49	0.32	2.24	0.85	1.00	2.33	54.11	115.48	69.81	13,099.	9391.7	772.68	1058.71	1,831.40	
11	170.0	7.70	14.543	59.09	44.07	0.34	2.19	0.85	1.00	2.36	48.59	107.53	70.69	11,765.	8665.2	696.48	1031.40	1,727.88	
12	188.0	7.86	10.623	49.63	38.94	0.42	2.02	0.85	1.00	2.38	41.08	33.47	21.42	6,184.5	4531.2	555.43	322.90	878.33	
														154,861.1	99071.4				16,630.42

Load Case: 1.0D + 1.0W Normal Wind

1.0D + 1.0W 60 mph Wind at Normal To Face

Wind Load Factor: 1.00

Wind Importance Factor: 1.00

Dead Load Factor: 1.00

Ice Dead Load Factor: 0.00

Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	5.0	6.66	24.312	17.95	0.00	0.15	2.76	1.00	1.00	0.00	33.06	38.35	0.00	3,926.0	0.0	515.61	193.16	708.78
2	15.0	6.66	23.540	17.95	0.00	0.16	2.75	1.00	1.00	0.00	32.30	38.35	0.00	3,852.4	0.0	501.90	193.16	695.07
3	25.0	7.40	22.832	14.40	0.00	0.15	2.78	1.00	1.00	0.00	30.33	38.35	0.00	3,867.8	0.0	530.77	214.81	745.58
4	35.0	7.95	22.121	14.40	0.00	0.15	2.77	1.00	1.00	0.00	29.53	38.35	0.00	3,795.0	0.0	552.36	230.58	782.93
5	50.0	8.57	31.267	28.80	0.00	0.13	2.84	1.00	1.00	0.00	45.72	76.70	0.00	6,280.2	0.0	945.12	497.12	1,442.25
6	70.0	9.20	25.252	28.80	0.00	0.13	2.84	1.00	1.00	0.00	39.47	76.70	0.00	5,719.0	0.0	877.76	533.61	1,411.37
7	90.0	9.70	23.189	28.80	0.00	0.14	2.81	1.00	1.00	0.00	37.30	76.70	0.00	3,977.0	0.0	864.72	562.61	1,427.33
8	110.0	10.12	21.325	22.12	0.00	0.13	2.84	1.00	1.00	0.00	33.23	76.70	0.00	3,858.3	0.0	811.97	586.88	1,398.85
9	130.0	10.48	26.175	22.12	0.00	0.17	2.71	1.00	1.00	0.00	38.15	76.70	0.00	4,164.0	0.0	921.95	607.89	1,529.84
10	150.0	10.80	16.566	18.57	0.00	0.14	2.80	1.00	1.00	0.00	27.03	76.70	0.00	3,090.1	0.0	695.98	626.48	1,322.46
11	170.0	11.09	14.543	15.02	0.00	0.14	2.80	1.00	1.00	0.00	23.06	71.40	0.00	2,583.7	0.0	608.26	598.26	1,206.52
12	188.0	11.32	10.623	10.68	0.00	0.16	2.75	1.00	1.00	0.00	16.69	18.39	0.00	1,377.7	0.0	441.76	166.73	608.49
														46,491.4	0.0	13,279.48		

Section Forces

Structure: CT00802-S-SBA

Code: EIA/TIA-222-G

7/21/2021

Site Name: Putnam Freight

Exposure: C

Height: 196.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 0.85

Topography: 1

Struct Class: II



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Load Case: 1.0D + 1.0W 60° Wind

1.0D + 1.0W 60 mph Wind at 60° From Face

Wind Load Factor: 1.00

Wind Importance Factor: 1.00

Dead Load Factor: 1.00

Ice Dead Load Factor: 0.00

Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	5.0	6.66	24.312	17.95	0.00	0.15	2.76	0.80	1.00	0.00	28.19	38.35	0.00	3,926.0	0.0	439.77	193.16	632.93
2	15.0	6.66	23.540	17.95	0.00	0.16	2.75	0.80	1.00	0.00	27.59	38.35	0.00	3,852.4	0.0	428.75	193.16	621.91
3	25.0	7.40	22.832	14.40	0.00	0.15	2.78	0.80	1.00	0.00	25.76	38.35	0.00	3,867.8	0.0	450.86	214.81	665.67
4	35.0	7.95	22.121	14.40	0.00	0.15	2.77	0.80	1.00	0.00	25.11	38.35	0.00	3,795.0	0.0	469.60	230.58	700.18
5	50.0	8.57	31.267	28.80	0.00	0.13	2.84	0.80	1.00	0.00	39.47	76.70	0.00	6,280.2	0.0	815.87	497.12	1,312.99
6	70.0	9.20	25.252	28.80	0.00	0.13	2.84	0.80	1.00	0.00	34.42	76.70	0.00	5,719.0	0.0	765.44	533.61	1,299.06
7	90.0	9.70	23.189	28.80	0.00	0.14	2.81	0.80	1.00	0.00	32.66	76.70	0.00	3,977.0	0.0	757.20	562.61	1,319.80
8	110.0	10.12	21.325	22.12	0.00	0.13	2.84	0.80	1.00	0.00	28.97	76.70	0.00	3,858.3	0.0	707.76	586.88	1,294.65
9	130.0	10.48	26.175	22.12	0.00	0.17	2.71	0.80	1.00	0.00	32.91	76.70	0.00	4,164.0	0.0	795.44	607.89	1,403.33
10	150.0	10.80	16.566	18.57	0.00	0.14	2.80	0.80	1.00	0.00	23.72	76.70	0.00	3,090.1	0.0	610.68	626.48	1,237.16
11	170.0	11.09	14.543	15.02	0.00	0.14	2.80	0.80	1.00	0.00	20.15	71.40	0.00	2,583.7	0.0	531.54	598.26	1,129.80
12	188.0	11.32	10.623	10.68	0.00	0.16	2.75	0.80	1.00	0.00	14.57	18.39	0.00	1,377.7	0.0	385.54	166.73	552.27
														46,491.4	0.0	12,169.75		

Load Case: 1.0D + 1.0W 90° Wind

1.0D + 1.0W 60 mph Wind at 90° From Face

Wind Load Factor: 1.00

Wind Importance Factor: 1.00

Dead Load Factor: 1.00

Ice Dead Load Factor: 0.00

Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	5.0	6.66	24.312	17.95	0.00	0.15	2.76	0.85	1.00	0.00	29.41	38.35	0.00	3,926.0	0.0	458.73	193.16	651.89
2	15.0	6.66	23.540	17.95	0.00	0.16	2.75	0.85	1.00	0.00	28.77	38.35	0.00	3,852.4	0.0	447.04	193.16	640.20
3	25.0	7.40	22.832	14.40	0.00	0.15	2.78	0.85	1.00	0.00	26.91	38.35	0.00	3,867.8	0.0	470.84	214.81	685.65
4	35.0	7.95	22.121	14.40	0.00	0.15	2.77	0.85	1.00	0.00	26.21	38.35	0.00	3,795.0	0.0	490.29	230.58	720.87
5	50.0	8.57	31.267	28.80	0.00	0.13	2.84	0.85	1.00	0.00	41.03	76.70	0.00	6,280.2	0.0	848.18	497.12	1,345.30
6	70.0	9.20	25.252	28.80	0.00	0.13	2.84	0.85	1.00	0.00	35.68	76.70	0.00	5,719.0	0.0	793.52	533.61	1,327.13
7	90.0	9.70	23.189	28.80	0.00	0.14	2.81	0.85	1.00	0.00	33.82	76.70	0.00	3,977.0	0.0	784.08	562.61	1,346.69
8	110.0	10.12	21.325	22.12	0.00	0.13	2.84	0.85	1.00	0.00	30.03	76.70	0.00	3,858.3	0.0	733.82	586.88	1,320.70
9	130.0	10.48	26.175	22.12	0.00	0.17	2.71	0.85	1.00	0.00	34.22	76.70	0.00	4,164.0	0.0	827.06	607.89	1,434.95
10	150.0	10.80	16.566	18.57	0.00	0.14	2.80	0.85	1.00	0.00	24.55	76.70	0.00	3,090.1	0.0	632.01	626.48	1,258.49
11	170.0	11.09	14.543	15.02	0.00	0.14	2.80	0.85	1.00	0.00	20.88	71.40	0.00	2,583.7	0.0	550.72	598.26	1,148.98
12	188.0	11.32	10.623	10.68	0.00	0.16	2.75	0.85	1.00	0.00	15.10	18.39	0.00	1,377.7	0.0	399.60	166.73	566.32
														46,491.4	0.0	12,447.18		

Force/Stress Compression Summary

Structure: CT00802-S-SBA

Code: EIA/TIA-222-G

7/21/2021

Site Name: Putnam Freight

Exposure: C

Height: 196.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 0.85

Topography: 1

Struct Class: II

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LEG MEMBERS

Sect	Top	Member	Force (kips)	Load Case	Len (ft)	Bracing %			KL/R	Fy (ksi)	Mem Cap (kips)	Leg Use %	Controls
	Elev					X	Y	Z					
1	10	PST - 10" DIA PIPE	-337.81	1.2D + 1.6W Normal Wind	10.02	50	50	50	16.38	50.00	525.10	64.3	Member X
2	20	PST - 10" DIA PIPE	-318.12	1.2D + 1.6W Normal Wind	10.02	50	50	50	16.38	50.00	525.10	60.6	Member X
3	30	PX - 8" DIA PIPE	-298.33	1.2D + 1.6W Normal Wind	10.02	50	50	50	20.88	50.00	556.18	53.6	Member X
4	40	PX - 8" DIA PIPE	-278.44	1.2D + 1.6W Normal Wind	10.02	50	50	50	20.88	50.00	556.18	50.1	Member X
5	60	PX - 8" DIA PIPE	-268.00	1.2D + 1.6W Normal Wind	10.02	100	100	100	41.77	50.00	505.44	53.0	Member X
6	80	PX - 8" DIA PIPE	-229.37	1.2D + 1.6W Normal Wind	10.02	100	100	100	41.77	50.00	505.44	45.4	Member X
7	100	PST - 8" DIA PIPE	-190.62	1.2D + 1.6W Normal Wind	10.02	100	100	100	40.88	50.00	334.51	57.0	Member X
8	120	PX - 6" DIA PIPE	-152.68	1.2D + 1.6W Normal Wind	10.02	100	100	100	54.89	50.00	303.27	50.3	Member X
9	140	PX - 6" DIA PIPE	-117.60	1.2D + 1.6W Normal Wind	6.68	100	100	100	36.59	50.00	342.75	34.3	Member X
10	160	PX - 5" DIA PIPE	-79.84	1.2D + 1.6W Normal Wind	6.68	100	100	100	43.55	50.00	239.35	33.4	Member X
11	180	PSP - 4.5 x 0.438	-42.94	1.2D + 1.6W Normal Wind	6.68	100	100	100	55.78	50.00	200.33	21.4	Member X
12	196	PX - 3-1/2" DIA PIPE	-9.31	1.2D + 1.6W Normal Wind	5.34	100	100	100	48.94	50.00	139.00	6.7	Member X

Splices

Top Splice								Bottom Splice					
Top Sect	Elev	Load Case	Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts	Load Case	Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts
1	10	1.2D + 1.6W Normal Wind	336.64	0.00	0.0	1 3/8	6	1.2D + 1.6W Normal Wind	356.69	0.00			
2	20	1.2D + 1.6W Normal Wind	316.96	0.00	0.0	1 3/8	6	1.2D + 1.6W Normal Wind	336.64	0.00			
3	30	1.2D + 1.6W Normal Wind	297.22	0.00	0.0	1 3/8	6	1.2D + 1.6W Normal Wind	316.96	0.00		3/8 A325	6
4	40	1.2D + 1.6W Normal Wind	277.34	0.00	0.0	1 3/8	6	1.2D + 1.6W Normal Wind	297.22	0.00		3/8 A325	6
5	60	1.2D + 1.6W Normal Wind	239.11	0.00	0.0	1 3/8	6	1.2D + 1.6W Normal Wind	277.34	0.00		3/8 A325	6
6	80	1.2D + 1.6W Normal Wind	200.34	0.00	0.0	1 3/8	6	1.2D + 1.6W Normal Wind	239.11	0.00		3/8 A325	6
7	100	1.2D + 1.6W Normal Wind	162.05	0.00	0.0	1 1/4	6	1.2D + 1.6W Normal Wind	200.34	0.00		3/8 A325	6
8	120	1.2D + 1.6W Normal Wind	123.79	0.00	0.0	1 1/4	6	1.2D + 1.6W Normal Wind	162.05	0.00		1/4 A325	6
9	140	1.2D + 1.6W Normal Wind	85.89	0.00	0.0	1 1/4	4	1.2D + 1.6W Normal Wind	123.79	0.00		1/4 A325	6
10	160	1.2D + 1.6W Normal Wind	48.87	0.00	0.0	1 1/4	4	1.2D + 1.6W Normal Wind	85.89	0.00		1/4 A325	4
11	180	1.2D + 1.6W Normal Wind	13.03	0.00	0.0	1 A325	4	1.2D + 1.6W Normal Wind	48.87	0.00		1/4 A325	4
12	196	1.2D + 1.0Di + 1.0Wi 60° Wind	1.62	0.00	0.0			1.2D + 1.6W Normal Wind	13.03	0.00		1 A325	4

HORIZONTAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Len (ft)	Bracing %				KL/R	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	Use %	Controls
						X	Y	Z										
1	10	SAE - 4X4X0.375	-12.0	0.9D + 1.6W 90° Wind	13.00	100	100	100	167.95	36.00	22.91	2	1	24.86	52.20	53	Member Z	
2	20	SAE - 4X4X0.375	-12.2	0.9D + 1.6W 90° Wind	12.50	100	100	100	163.27	36.00	24.24	2	1	24.86	52.20	51	Member Z	
3	30	SAE - 4X4X0.375	-11.6	0.9D + 1.6W 90° Wind	12.00	100	100	100	158.59	36.00	25.69	2	1	24.86	52.20	47	Bolt Shear	
4	40	SAE - 4X4X0.375	-11.4	0.9D + 1.6W 90° Wind	11.50	100	100	100	153.90	36.00	27.28	2	1	24.86	52.20	46	Bolt Shear	
5	60										0.00	0	0					
6	80										0.00	0	0					
7	100										0.00	0	0					
8	120										0.00	0	0					
9	140										0.00	0	0					
10	160										0.00	0	0					
11	180										0.00	0	0					
12	196	SAE - 2X2X0.1875	-0.62	1.2D + 1.6W 60° Wind	7.40	100	100	100	225.38	36.00	3.16	1	1	12.43	9.79	20	Member Z	

DIAGONAL MEMBERS

Top Sect	Elev	Member	Force (kips)	Load Case	Len (ft)	Bracing %	X	Y	Z	KL/R	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	Use %	Controls
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Force/Stress Compression Summary

Structure: CT00802-S-SBA

Code: EIA/TIA-222-G

7/21/2021

Site Name: Putnam Freight

Exposure: C

Height: 196.00 (ft)

Crest Height: 0.00

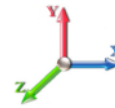
Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 0.85

Topography: 1

Struct Class: II



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DIAGONAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Len (ft)	Bracing % X Y Z	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	Use %	Controls
1	10	SAE - 3.5X3.5X0.375	-16.1	1.2D + 1.6W 90° Wind	16.80	48 96 48	157.46	22.60	2	1	24.86	52.2	71	Member Y
2	20	SAE - 3.5X3.5X0.375	-16.9	1.2D + 1.6W 90° Wind	16.40	48 96 48	154.81	23.38	2	1	24.86	52.2	73	Member Y
3	30	SAE - 3.5X3.5X0.375	-16.4	1.2D + 1.6W 90° Wind	16.01	48 96 48	152.21	24.18	2	1	24.86	50.2	68	Member Y
4	40	SAE - 3.5X3.5X0.375	-16.1	1.2D + 1.6W 90° Wind	15.62	48 96 48	149.65	25.02	2	1	24.86	50.2	65	Bolt Shear
5	60	SAE - 4X4X0.375	-12.3	1.2D + 1.6W 90° Wind	24.62	48 48 48	179.99	19.94	1	1	17.89	21.5	69	Bolt Shear
6	80	SAE - 3.5X3.5X0.375	-11.4	1.2D + 1.6W 90° Wind	22.81	50 50 50	199.22	14.12	1	1	17.89	21.5	81	Member Z
7	100	SAE - 3.5X3.5X0.25	-10.6	1.2D + 1.6W 90° Wind	21.03	50 50 50	181.83	11.55	1	1	17.89	14.3	92	Member Z
8	120	SAE - 3.5X3.5X0.25	-9.79	1.2D + 1.6W 90° Wind	19.30	50 50 50	166.82	13.72	1	1	17.89	14.3	71	Member Z
9	140	SAE - 3.5X3.5X0.25	-8.08	1.2D + 1.6W 90° Wind	16.11	50 50 50	139.30	19.68	1	1	17.89	14.3	56	Bolt Bear
10	160	SAE - 2.5X2.5X0.25	-7.11	1.2D + 1.6W 90° Wind	14.32	50 50 50	174.93	8.79	1	1	12.43	14.7	81	Member Z
11	180	SAE - 2.5X2.5X0.1875	-6.44	1.2D + 1.6W 90° Wind	12.58	50 50 50	152.49	8.76	1	1	12.43	11.0	74	Member Z
12	196	SAE - 2X2X0.1875	-3.65	1.2D + 1.6W 90° Wind	10.23	50 50 50	155.85	6.60	1	1	12.43	11.0	55	Member Z

Force/Stress Tension Summary

Structure: CT00802-S-SBA

Code: EIA/TIA-222-G

7/21/2021

Site Name: Putnam Freight

Exposure: C

Height: 196.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

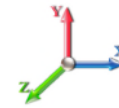
Site Class: D - Stiff Soil

Gh: 0.85

Topography: 1

Struct Class: II

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LEG MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Leg Use %	Controls
1	10	PST - 10" DIA PIPE	282.71	0.9D + 1.6W 60° Wind	50	535.50	52.8	Member
2	20	PST - 10" DIA PIPE	266.78	0.9D + 1.6W 60° Wind	50	535.50	49.8	Member
3	30	PX - 8" DIA PIPE	251.12	0.9D + 1.6W 60° Wind	50	574.20	43.7	Member
4	40	PX - 8" DIA PIPE	235.30	0.9D + 1.6W 60° Wind	50	574.20	41.0	Member
5	60	PX - 8" DIA PIPE	227.10	0.9D + 1.6W 60° Wind	50	574.20	39.6	Member
6	80	PX - 8" DIA PIPE	195.31	0.9D + 1.6W 60° Wind	50	574.20	34.0	Member
7	100	PST - 8" DIA PIPE	162.95	0.9D + 1.6W 60° Wind	50	378.00	43.1	Member
8	120	PX - 6" DIA PIPE	129.98	0.9D + 1.6W 60° Wind	50	378.00	34.4	Member
9	140	PX - 6" DIA PIPE	99.43	0.9D + 1.6W 60° Wind	50	378.00	26.3	Member
10	160	PX - 5" DIA PIPE	66.36	0.9D + 1.6W 60° Wind	50	274.95	24.1	Member
11	180	PSP - 4.5 x 0.438	32.84	0.9D + 1.6W 60° Wind	50	251.51	13.1	Member
12	196	PX - 3-1/2" DIA PIPE	4.40	0.9D + 1.6W 60° Wind	50	165.60	2.7	Member

Splices

Sect	Top Elev	Top Splice						Bottom Splice					
		Load Case	Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts	Load Case	Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts
1	10	0.9D + 1.6W 60° Wind	281.70	545.68	51.6	1 3/8	6	0.9D + 1.6W 60° Wind	299.1	0.00			
2	20	0.9D + 1.6W 60° Wind	265.77	545.68	48.7	1 3/8	6	0.9D + 1.6W 60° Wind	281.7	0.00			
3	30	0.9D + 1.6W 60° Wind	250.15	545.68	45.8	1 3/8	6	0.9D + 1.6W 60° Wind	265.7	545.68	48.7	1 3/8 A325	6
4	40	0.9D + 1.6W 60° Wind	234.29	545.68	42.9	1 3/8	6	0.9D + 1.6W 60° Wind	250.1	545.68	45.8	1 3/8 A325	6
5	60	0.9D + 1.6W 60° Wind	202.14	545.68	37.0	1 3/8	6	0.9D + 1.6W 60° Wind	234.2	545.68	42.9	1 3/8 A325	6
6	80	0.9D + 1.6W 60° Wind	169.98	545.68	31.1	1 3/8	6	0.9D + 1.6W 60° Wind	202.1	545.68	37.0	1 3/8 A325	6
7	100	0.9D + 1.6W 60° Wind	137.36	457.92	30.0	1 1/4	6	0.9D + 1.6W 60° Wind	169.9	545.68	31.1	1 3/8 A325	6
8	120	0.9D + 1.6W 60° Wind	103.96	457.92	22.7	1 1/4	6	0.9D + 1.6W 60° Wind	137.3	457.92	30.0	1 1/4 A325	6
9	140	0.9D + 1.6W 60° Wind	71.16	305.28	23.3	1 1/4	4	0.9D + 1.6W 60° Wind	103.9	457.92	22.7	1 1/4 A325	6
10	160	0.9D + 1.6W 60° Wind	37.91	305.28	12.4	1 1/4	4	0.9D + 1.6W 60° Wind	71.16	305.28	23.3	1 1/4 A325	4
11	180	0.9D + 1.6W 60° Wind	7.38	212.04	3.5	1 A325	4	0.9D + 1.6W 60° Wind	37.91	305.28	12.4	1 1/4 A325	4
12	196		0.00	0.00	0.0			0.9D + 1.6W 60° Wind	7.38	212.04	3.5	1 A325	4

HORIZONTAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	B.S. Cap (kips)	Use %	Controls
1	10	SAE - 4X4X0.375	12.58	1.2D + 1.6W 90° Wind	36	92.66	2	1	24.86	52.20	46.25	50.6	Bolt Shear
2	20	SAE - 4X4X0.375	12.78	1.2D + 1.6W 90° Wind	36	92.66	2	1	24.86	52.20	46.25	51.4	Bolt Shear
3	30	SAE - 4X4X0.375	12.18	1.2D + 1.6W 90° Wind	36	92.66	2	1	24.86	52.20	46.25	49.0	Bolt Shear
4	40	SAE - 4X4X0.375	11.48	1.2D + 1.6W 90° Wind	36	92.66	2	1	24.86	52.20	46.25	46.2	Bolt Shear
5	60	-			36	0.00	0	0					
6	80	-			36	0.00	0	0					
7	100	-			36	0.00	0	0					
8	120	-			36	0.00	0	0					
9	140	-			36	0.00	0	0					
10	160	-			36	0.00	0	0					
11	180	-			36	0.00	0	0					
12	196	SAE - 2X2X0.1875	0.57	0.9D + 1.6W Normal Wi	36	23.00	1	1	12.43	9.79	8.51	6.7	Blck Shear

DIAGONAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	B.S. Cap (kips)	Use %	Controls
1	10	SAE - 3.5X3.5X0.375	15.32	0.9D + 1.6W 90° Wind	36	71.73	2	1	24.86	52.20	38.10	61.6	Bolt Shear

Force/Stress Tension Summary

Structure: CT00802-S-SBA

Code: EIA/TIA-222-G

7/21/2021

Site Name: Putnam Freight

Exposure: C

Height: 196.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

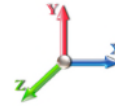
Site Class: D - Stiff Soil

Gh: 0.85

Topography: 1

Struct Class: II

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DIAGONAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	B.S. Cap (kips)	Use %	Controls
2	20	SAE - 3.5X3.5X0.375	15.84	0.9D + 1.6W 90° Wind	36	71.73	2	1	24.86	52.20	38.10	63.7	Bolt Shear
3	30	SAE - 3.5X3.5X0.375	15.39	0.9D + 1.6W 90° Wind	36	71.73	2	1	24.86	50.24	37.34	61.9	Bolt Shear
4	40	SAE - 3.5X3.5X0.375	15.14	0.9D + 1.6W 90° Wind	36	71.73	2	1	24.86	50.24	37.34	60.9	Bolt Shear
5	60	SAE - 4X4X0.375	12.10	0.9D + 1.6W 90° Wind	36	82.60	1	1	17.89	21.53	24.93	67.6	Bolt Shear
6	80	SAE - 3.5X3.5X0.375	11.26	0.9D + 1.6W 90° Wind	36	70.20	1	1	17.89	21.53	24.93	63.0	Bolt Shear
7	100	SAE - 3.5X3.5X0.25	10.44	0.9D + 1.6W 90° Wind	36	48.00	1	1	17.89	14.35	16.62	72.7	Bolt Bear
8	120	SAE - 3.5X3.5X0.25	9.71	1.2D + 1.6W 90° Wind	36	48.00	1	1	17.89	14.35	16.62	67.6	Bolt Bear
9	140	SAE - 3.5X3.5X0.25	8.07	1.2D + 1.6W 90° Wind	36	48.00	1	1	17.89	14.35	16.62	56.2	Bolt Bear
10	160	SAE - 2.5X2.5X0.25	7.03	1.2D + 1.6W 90° Wind	36	32.71	1	1	12.43	14.79	13.22	56.6	Bolt Shear
11	180	SAE - 2.5X2.5X0.1875	6.49	1.2D + 1.6W 90° Wind	36	24.84	1	1	12.43	11.09	9.91	65.4	Blck Shear
12	196	SAE - 2X2X0.1875	3.59	0.9D + 1.6W 90° Wind	36	18.58	1	1	12.43	11.09	7.88	45.6	Blck Shear

Seismic Section Forces

Structure: CT00802-S-SBA

Code: EIA/TIA-222-G

7/21/2021

Site Name: Putnam Freight

Exposure: C

Height: 196.00 (ft)

Crest Height: 0.00

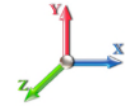
Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 0.85

Topography: 1

Struct Class: II



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Load Case: 1.2D + 1.0E

Dead Load Factor 1.20 **Sds** 0.183 **Ss** 0.1720 **Fa** 1.6000 **Ke** 0.0000

Seismic Load Factor 1.00 **Sd1** 0.100 **S1** 0.0630 **Fv** 2.4000 **Kg** 0.0000

Seismic Importance Factor 1.00 **SA** 0.183 **R** 3.0000 **Vs** 4.0625 **f1** 1.9742

Sect #	Elev (ft)	Wz (lb)	Lateral			Fsz (lb)
			a	b	c	
1	5.00	3926.0	0.00	0.03	0.01	6.56
2	15.00	3852.4	0.01	0.06	0.03	15.64
3	25.00	3867.8	0.03	0.07	0.04	22.98
4	35.00	3794.9	0.06	0.07	0.04	30.00
5	50.00	6280.1	0.12	0.07	0.03	72.85
6	70.00	5719.0	0.24	0.06	0.02	103.31
7	90.00	3977.0	0.40	0.02	0.01	101.16
8	110.00	3858.3	0.60	-0.05	0.01	127.55
9	130.00	4164.0	0.83	-0.12	0.06	176.54
10	150.00	3090.0	1.11	-0.07	0.19	180.34
11	170.00	6024.8	1.42	0.33	0.45	534.35
12	188.00	6775.5	1.74	1.28	0.88	912.35

Load Case: 0.9D + 1.0E

Dead Load Factor 0.90 **Sds** 0.183 **Ss** 0.1720 **Fa** 1.6000 **Ke** 0.0000

Seismic Load Factor 1.00 **Sd1** 0.100 **S1** 0.0630 **Fv** 2.4000 **Kg** 0.0000

Seismic Importance Factor 1.00 **SA** 0.183 **R** 3.0000 **Vs** 4.0625 **f1** 1.9742

Sect #	Elev (ft)	Wz (lb)	Lateral			Fsz (lb)
			a	b	c	
1	5.00	3926.0	0.00	0.03	0.01	6.56
2	15.00	3852.4	0.01	0.06	0.03	15.64
3	25.00	3867.8	0.03	0.07	0.04	22.98
4	35.00	3794.9	0.06	0.07	0.04	30.00
5	50.00	6280.1	0.12	0.07	0.03	72.85
6	70.00	5719.0	0.24	0.06	0.02	103.31
7	90.00	3977.0	0.40	0.02	0.01	101.16
8	110.00	3858.3	0.60	-0.05	0.01	127.55
9	130.00	4164.0	0.83	-0.12	0.06	176.54
10	150.00	3090.0	1.11	-0.07	0.19	180.34
11	170.00	6024.8	1.42	0.33	0.45	534.35
12	188.00	6775.5	1.74	1.28	0.88	912.35

Support Forces Summary

Structure: CT00802-S-SBA

Code: EIA/TIA-222-G

7/21/2021

Site Name: Putnam Freight

Exposure: C

Height: 196.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

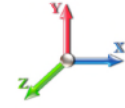
Site Class: D - Stiff Soil

Gh: 0.85

Topography: 1

Struct Class: II

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Load Case	Node	FX (kips)	FY (kips)	FZ (kips)	(-) = Uplift (+) = Down
1.2D + 1.6W Normal Wind	1	0.00	355.46	-41.01	
	1a	12.28	-144.53	-14.47	
	1b	-12.28	-144.53	-14.47	
1.2D + 1.6W 60° Wind	1	-5.69	179.17	-20.12	
	1a	-20.27	179.17	5.13	
	1b	-30.26	-291.95	-17.47	
1.2D + 1.6W 90° Wind	1	-6.82	22.13	-1.86	
	1a	-31.12	298.30	14.13	
	1b	-28.24	-254.04	-12.27	
0.9D + 1.6W Normal Wind	1	0.00	349.66	-40.54	
	1a	12.68	-149.93	-14.71	
	1b	-12.68	-149.93	-14.71	
0.9D + 1.6W 60° Wind	1	-5.70	173.51	-19.66	
	1a	-19.87	173.51	4.89	
	1b	-30.66	-297.22	-17.70	
0.9D + 1.6W 90° Wind	1	-6.83	16.60	-1.40	
	1a	-30.72	292.54	13.89	
	1b	-28.64	-259.34	-12.49	
1.2D + 1.0Di + 1.0Wi Normal Wind	1	0.00	158.36	-15.49	
	1a	0.41	11.64	-2.28	
	1b	-0.41	11.64	-2.28	
1.2D + 1.0Di + 1.0Wi 60° Wind	1	-1.68	108.24	-9.66	
	1a	-9.21	108.24	3.37	
	1b	-5.91	-34.83	-3.41	
1.2D + 1.0Di + 1.0Wi 90° Wind	1	-1.97	60.55	-4.17	
	1a	-12.39	143.68	6.03	
	1b	-5.19	-22.58	-1.85	
1.2D + 1.0E	1	0.00	37.21	-1.91	
	1a	0.02	14.59	-0.17	
	1b	-0.02	14.59	-0.17	
0.9D + 1.0E	1	0.00	31.67	-1.45	
	1a	0.42	9.07	-0.40	
	1b	-0.42	9.07	-0.40	
1.0D + 1.0W Normal Wind	1	0.00	93.74	-10.46	
	1a	1.81	-19.21	-2.71	
	1b	-1.81	-19.21	-2.71	
1.0D + 1.0W 60° Wind	1	-1.32	53.97	-5.70	
	1a	-5.60	53.97	1.71	
	1b	-5.88	-52.62	-3.40	
1.0D + 1.0W 90° Wind	1	-1.56	18.44	-1.54	
	1a	-8.07	80.90	3.77	
	1b	-5.42	-44.02	-2.22	

Max Reactions

Leg			Overturning		
Max Uplift:	-297.22	(kips)	Moment:	7794.15	(ft-kips)
Max Down:	355.46	(kips)	Total Down:	66.40	(kips)
Max Shear:	41.01	(kips)	Total Shear:	69.96	(kips)

Analysis Summary

Structure: CT00802-S-SBA
Site Name: Putnam Freight
Height: 196.00 (ft)
Base Elev: 0.000 (ft)
Gh: 0.85

Topography: 1

Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

7/21/2021

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Max Reactions

Leg	Overturning
Max Uplift: -297.22 (kips)	Moment: 7794.15 (ft-kips)
Max Down: 355.46 (kips)	Total Down: 66.40 (kips)
Max Shear: 41.01 (kips)	Total Shear: 69.96 (kips)

Anchor Bolts

Bolt Size (in.): 1.50
Yield Strength (Ksi): 50.00
Detail Type: A

Number Bolts: 8
Tensile Strength (Ksi): 65.00

Interaction Ratio: 0.59

Max Usages

Max Leg: 64.3% (1.2D + 1.6W Normal Wind - Sect 1)
Max Diag: 92.0% (1.2D + 1.6W 90° Wind - Sect 7)
Max Horiz: 52.7% (0.9D + 1.6W 90° Wind - Sect 1)

Max Deflection, Twist and Sway

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)
0.9D + 1.0E - Normal To Face	173.33	0.0487	0.0011	0.0326
	185.33	0.0556	0.0009	0.0339
	196.00	0.0616	0.0005	0.0328
0.9D + 1.6W 101 mph Wind at 60° From Face	173.33	0.8353	0.0147	0.5040
	185.33	0.9413	0.0114	0.5062
	196.00	1.0325	0.0071	0.5048
0.9D + 1.6W 101 mph Wind at 90° From Face	173.33	0.8464	-0.0174	0.5084
	185.33	0.9537	-0.0138	0.5141
	196.00	1.0454	-0.0090	0.5168
0.9D + 1.6W 101 mph Wind at Normal To Face	173.33	0.8785	-0.0160	0.5264
	185.33	0.9892	0.0129	0.5292
	196.00	1.0845	-0.0088	0.5279
1.0D + 1.0W 60 mph Wind at 60° From Face	173.33	0.1882	0.0034	0.1131
	185.33	0.2120	0.0027	0.1133
	196.00	0.2324	0.0017	0.1128
1.0D + 1.0W 60 mph Wind at 90° From Face	173.33	0.1907	-0.0040	0.1141
	185.33	0.2147	-0.0031	0.1153
	196.00	0.2353	-0.0020	0.1159
1.0D + 1.0W 60 mph Wind at Normal To Face	173.33	0.1978	-0.0036	0.1180
	185.33	0.2226	0.0028	0.1189
	196.00	0.2440	0.0019	0.1187
1.2D + 1.0Di + 1.0Wi 50 mph Wind at 60° From Face	173.33	0.2535	0.0045	0.1509
	185.33	0.2850	0.0036	0.1517
	196.00	0.3124	0.0023	0.1492

1.2D + 1.0Di + 1.0Wi 50 mph Wind at 90° From Face	173.33	0.2547	-0.0053	0.1512
	185.33	0.2864	-0.0042	0.1526
	196.00	0.3139	-0.0027	0.1528

1.2D + 1.0Di + 1.0Wi 50 mph Wind at Normal From Face	173.33	0.2585	0.0047	0.1530
	185.33	0.2907	0.0037	0.1550
	196.00	0.3185	0.0024	0.1547

1.2D + 1.0E - Normal To Face	173.33	0.0488	-0.0011	0.0327
	185.33	0.0556	-0.0009	0.0339
	196.00	0.0617	-0.0005	0.0329

1.2D + 1.6W 101 mph Wind at 60° From Face	173.33	0.8363	0.0147	0.5048
	185.33	0.9424	0.0114	0.5068
	196.00	1.0337	0.0071	0.5054

1.2D + 1.6W 101 mph Wind at 90° From Face	173.33	0.8474	-0.0174	0.5091
	185.33	0.9548	-0.0138	0.5148
	196.00	1.0467	-0.0090	0.5176

1.2D + 1.6W 101 mph Wind at Normal To Face	173.33	0.8795	0.0160	0.5271
	185.33	0.9904	0.0129	0.5301
	196.00	1.0858	0.0088	0.5287

	Pier Foundation For Self Supporting Tower			Date
				7/21/2021
	Customer Name:	SBA Communications Corp	EIA/TIA Standard:	EIA-222-G
	Site Name:		Structure Height (Ft.):	196
	Site Number:	CT00802-S-SBA	Engineer Name:	T. Alajaj
	Engr. Number:	110843	Engineer Login ID:	

Foundation Info Obtained from:

Structure Type:

Analysis or Design?

Base Reactions (Factored):

Axial Load (Kips):	355.5	Shear Force (Kips):	41.0
Uplift Force (Kips):	297.2	Moment (Kips-ft):	0.0

Foundation Geometries:

Diameter of Pier (ft.):	4.0	Depth of Base B. G. S. :	32.0 ft.
Pier Height A. G. (ft.):	0.50		

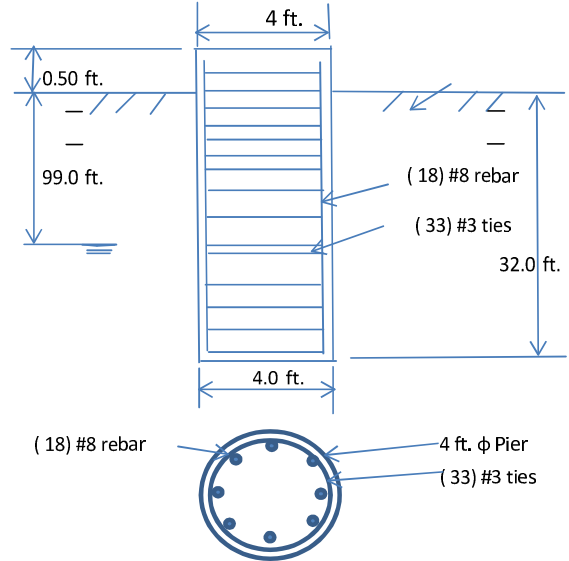
Material Properties and Rebar Info:

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000 ksi
Vertical bar yield (ksi)	60	Tie steel yield strength:	60 ksi
Vertical Rebar Size #:	8	Tie / Stirrup Size #:	3
Qty. of Vertical Rebars:	18	Tie Spacing:	12.0 in.
Concrete Cover (in.):	3	Concrete unit weight:	150.0 pcf
Consider ties in concrete shear strength?	Yes		

Soil Design Parameters:

Water Table B.G.S. (ft):	99.0	Unit weight of water:	62.4 psf
Ratio of Uplift/Axial Skin Friction:	1.00	Pullout failure Angle:	30 (°)
Skin Frictions are to be obtained from:	Soil Report		

Acceptable overstress (°) = 5.0%



SST Pier Foundation

Depth of Layers (ft)		γ_{soil}	ϕ	Cohesion	Ultimate Skin Friction (psf)	Ultimate Bearing (psf)	Soil Types						
Top	Bottom	(pcf)	(°)	(psf)									
0.0	2.0	115	0	0	0	0	Sand						
2.0	4.0	115	32	0	1500	0	Sand						
4.0	20.0	115	32	0	1500	0	Sand						
20.0	26.0	115	32	0	4000	40000	Sand						
26.0	32.0	135	36	0	4000	40000	Sand						
32.0	37.0												

Soil weight Increase Factor for bouyant soils (1.0 to 1.15):

1.1

Foundation Analysis and Design:

Uplift Strength Reduction Factor:	0.75	Soil Bearing Strength Reduction Factor:	0.75
Total Dry Soil Volume from Conical Failure (cu. Ft.):	15147	Dry Soil Weight from Conical Failure:	1556 Kips
Total Buoyant Soil Volume from Conical Failure (cu. Ft.):	0	Buoyant Soil Weight from Conical Failure (Ki	0 Kips
Total Dry Concrete Volume (cu. Ft.):	408	Total Dry Concrete Weight:	61.26 Kips
Total Buoyant Concrete Volume (cu. Ft.):	0	Total Buoyant Concrete Weight:	0.00 Kips
Total Effective Concrete Weight (Kips):	61.3	Total Effective Soil Weight:	1556 Kips
Total Effective Vertical Load on Base (Kips):	379		

Check Soil Capacities:

Calculated Foundation Allowable Axial Capacity (Kips):
Calculated Foundation Uplift Capacity (Kips):

Design Factored Axial Load (Kips):
Design Factored Uplift Load (Kips):

Usage

Check the capacities of Reinforceing Concrete:

Strength reduction factor (Flexure and axial tension):
Strength reduction factor (Axial compression):

0.90 Strength reduction factor (Shear):
0.65 Wind Load Factor on Concrete Design:

Reinforcing Concrete Pier:

Vertical Steel Rebar Area (sq. in./each):
Calculated Moment Capacity (Mn,Kips-Ft):
Calculated Shear Capacity (Kips):
Calculated Tension Capacity (Tn, Kips):
Calculated Compression Capacity (Pn, Kips):
Moment & Tension Strength Combination:
Pier Reinforcement Ratio:

Tie / Stirrup Area (sq. in./each):
> Design Factored Moment (Mu, K-Ft):
> Design Factored Shear (Kips):
> Design Factored Tension (Tu Kips):
> Design Factored Axial Load (Pu Kips):
0.28 OK! Max. Allowable Tie/Stirrup Spacing:
Reinforcement Ratio is satisfied per ACI

Usage

in.

Reinforce Pier Foundation by Adding Concrete Block (Yes/No ?)



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Mt. Laurel, NJ 08054
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greg.dulnik@colliersengineering.com

Post-Mod Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10054745
Maser Consulting Connecticut Project #: 20777647A

April 22, 2021

Site Information

Site ID: 469277-VZW / Putnam South-SBA-Putnam Freight
Site Name: Putnam South-SBA-Putnam Freight
Carrier Name: Verizon Wireless
Address: 63 Industrial Dr.
Putnam, Connecticut 06260
Windham County
Latitude: 41.897139°
Longitude: -71.892250°

Structure Information

Tower Type: 240.00-Ft Self Support
Mount Type: 12.58-Ft T-Frame

FUZE ID # 16244623

Analysis Results

T-Frame: 83.8% 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 also Noted on Mount Modification Drawings

Requirements may also be Noted on A & E drawings

Digitally signed by Taqi Khawaja-Ghulam
Date: 2021.04.23 17:04:37 -0400

Report Prepared By: Selene Chen

Executive Summary:

The objective of this report is to summarize the analysis results of the antenna support mount including the proposed modifications at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards.

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
Radio Frequency Data Sheet (RFDS)	Verizon RFDS Site ID: 2645089, dated February 24, 2021
Mount Mapping Report	Hudson Design Group LLC, Site ID: 469277, dated February 4, 2021
Mount Analysis Report	Maser Consulting Connecticut, Project #: 20777647A, dated March 16, 2021
Mount Modification Drawings	Maser Consulting Connecticut, Project #: 20777647A, dated April 22, 2021

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H	
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), Ice Wind Speed (3-sec. Gust): Design Ice Thickness: Risk Category: Exposure Category: Topographic Category: Topographic Feature Considered: Topographic Method: Ground Elevation Factor, K_e :	121 mph 50 mph 1.00 in II C 1 N/A N/A 0.991
Seismic Parameters:	S_s : S_1 :	0.184 0.055
Maintenance Parameters:	Wind Speed (3-sec. Gust): Maintenance Live Load, L_v : Maintenance Live Load, L_m :	30 mph 250 lbs. 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
			Samsung		Added
			Samsung		
			Samsung		
			Commscope		Retained
			Commscope		
			Raycap		

Any proposed antennas not currently installed should be mounted such that the centerline of the antennas does not exceed 6 inches vertically from the center of the antenna mount.

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:
- o Channel, Solid Round, Angle, Plate ASTM A36 (Gr. 36)
 - o HSS (Rectangular) ASTM 500 (Gr. B-46)
 - o Pipe ASTM A53 (Gr. B-35)
 - o Threaded Rod F1554 (Gr. 36)
 - o Bolts ASTM A325
8. Any mount modifications listed under Sources of Information are assumed to have been installed per the design specifications.

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
<i>Antenna Pipe</i>	83.7%	<i>Pass</i>
<i>Standoff Horizontal</i>	16.2%	<i>Pass</i>
<i>Stabilizer</i>	76.0%	<i>Pass</i>
<i>Standoff Diagonal</i>	5.2%	<i>Pass</i>
<i>Standoff Vertical</i>	24.4%	<i>Pass</i>
<i>End Plate</i>	27.8%	<i>Pass</i>
<i>Face Vertical</i>	50.9%	<i>Pass</i>
<i>Face Horizontal</i>	83.8%	<i>Pass</i>
<i>Kicker</i>	71.3%	<i>Pass</i>
<i>Connection Check</i>	10.5%	<i>Pass</i>

Structure Rating – (Controlling Utilization of all Components)	83.8%
---	--------------

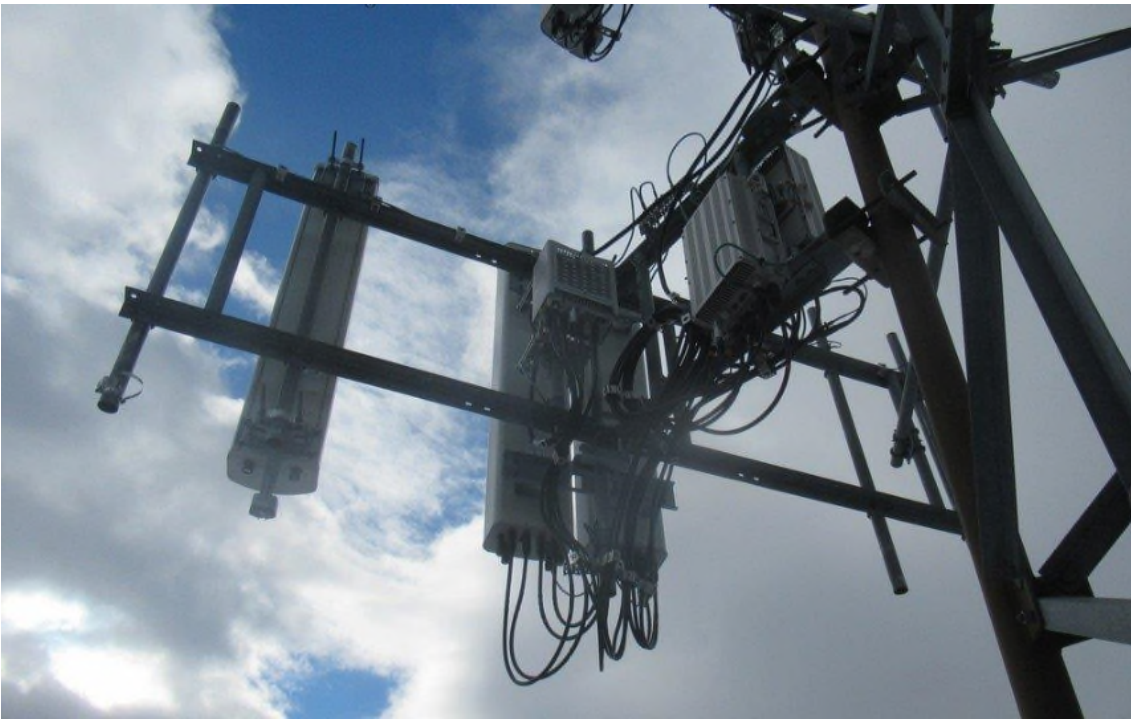
Recommendation:

The existing mounts will be **SUFFICIENT** for the final loading after the proposed modifications are successfully completed.

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:

Mount Photos
Mount Mapping Report (for reference only)
Analysis Calculations
Contractor Required PMI Report Deliverables
Antenna Placement Diagrams
TIA Adoption and Wind Speed Usage Letter





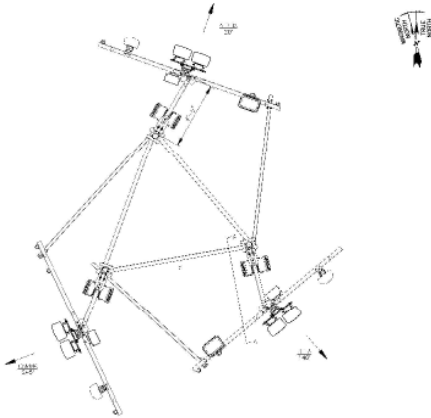
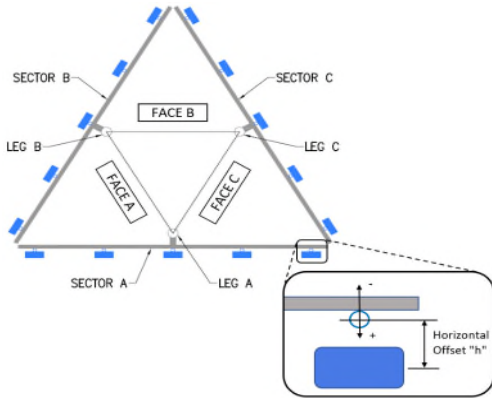
Antenna Mount Mapping Form (PATENT PENDING)

FCC #

1202920

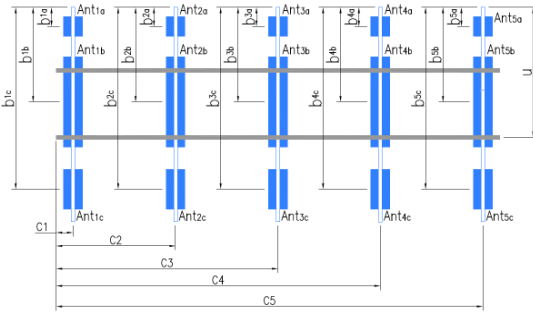
Tower Owner:	SBA	Mapping Date:	2/4/2021
Site Name:	Putnam South	Tower Type:	Self Support
Site Number or ID:	469277	Tower Height (Ft.):	240
Mapping Contractor:	Hudson Design Group LLC	Mount Elevation (Ft.):	176.5

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ANTENNA PLAN
Scale: 1/8" = 1'-0"

Mount Pipe Configuration and Geometries [Unit = Inches]							
Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "U"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "U"	Horizontal Offset "C1, C2, C3, etc."
A1	PIPE 2" STD X 6' LONG	55.00	24.00	C1	PIPE 2" STD X 6' LONG	55.00	24.00
A2	PIPE 2" STD X 6' LONG	55.00	71.50	C2	PIPE 2" STD X 6' LONG	55.00	71.50
A3	PIPE 2" STD X 6' LONG	55.00	127.00	C3	PIPE 2" STD X 6' LONG	55.00	127.00
A4	PIPE 2" STD X 6' LONG	55.00	148.00	C4	PIPE 2" STD X 6' LONG	55.00	148.00
A5				C5			
A6				C6			
B1	PIPE 2" STD X 6' LONG	55.00	24.00	D1			
B2	PIPE 2" STD X 6' LONG	55.00	71.50	D2			
B3	PIPE 2" STD X 6' LONG	55.00	127.00	D3			
B4	PIPE 2" STD X 6' LONG	55.00	148.00	D4			
B5				D5			
B6				D6			
Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :							18.00
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.):							
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.):							
Please enter additional information or comments below.							
Tower Face Width at Mount Elev. (ft.):			9.5	Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):			4.5

	Enter antenna model. If not labeled, enter "Unknown".						Mounting Locations [Units are inches and degrees]			Photos of antennas
Ants. Items	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center- line (Ft.)	Vertical Distances"b _{1a} , b _{2a} , b _{3a} , b _{1b} ..." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photo Numbers
Sector A										
Ant _{1a}										
Ant _{1b}	LNx-6514DS-A1M	11.85	7.10	73.00		176.667	35.00	8.00	20.00	130
Ant _{1c}										
Ant _{2a}										
Ant _{2b}	(2) JAHH-65B-R3B	14.00	7.50	72.00		176.75	34.00	12.50	20.00	130
Ant _{2c}	AHCA RRH 4T4R B5	12.50	7.50	14.00		180.917	-16.00	-9.00		130
Ant _{3a}	RHSDC-6627-PF-48	15.00	10.00	28.00		177.833	21.00	-5.00		130
Ant _{3b}										
Ant _{3c}										
Ant _{4a}										
Ant _{4b}										
Ant _{4c}										
Ant _{5a}										
Ant _{5b}										
Ant _{5c}										
Ant on Standoff	B66a RRH 4X45	11.50	8.00	21.00			-19.00	6.00		148
Ant on Standoff	B13 RRH4X30	12.00	7.00	25.00			-24.00	6.50		147
Ant on Tower										
Ant on Tower										



Antenna Layout (Looking Out From Tower)

Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector				Sector B																
Sector A:	20.00	Deg	Leg A:	350.00	Deg	Ant _{1a}																		
Sector B:	140.00	Deg	Leg B:	110.00	Deg	Ant _{1b}	LNX-6514DS-A1M	11.85	7.10	73.00		176.667	35.00	8.00	140.00	131								
Sector C:	245.00	Deg	Leg C:	230.00	Deg	Ant _{1c}																		
Sector D:		Deg	Leg D:		Deg	Ant _{2a}																		
Climbing Facility Information							Ant _{2b}	(2) JAHH-65B-R3B	14.00	7.50	72.00		176.75	34.00	12.50	140.00	130							
Location:	170.00	Deg	Outside Face B			Ant _{2c}	AHCA RRH 4T4R B5	12.50	7.50	14.00		180.917	-16.00	-9.00		130								
Climbing Facility	Corrosion Type:		Good condition.				Ant _{3a}	RHSDC-6627-PF-48	15.00	10.00	28.00		177.833	21.00	-5.00		130							
	Access:		Climbing path was unobstructed.				Ant _{3b}																	
	Condition:		Good condition.				Ant _{3c}																	
							Ant _{4a}																	
							Ant _{4b}																	
							Ant _{4c}																	
							Ant _{5a}																	
							Ant _{5b}																	
							Ant _{5c}																	
							Ant on Standoff	B66a RRH 4X45	11.50	8.00	21.00				-19.00	6.00		148						
							Ant on Standoff	B13 RRH4X30	12.00	7.00	25.00				-24.00	6.50		147						
							Ant on Tower																	
							Ant on Tower																	
							Sector C																	
							Ant _{1a}						Ant _{1a}											
Ant _{1b}	LNX-6514DS-A1M	11.85	7.10	73.00		Ant _{1b}						176.667	35.00	8.00	245.00	130								
Ant _{1c}						Ant _{1c}																		
Ant _{2a}						Ant _{2a}																		
Ant _{2b}	(2) JAHH-65B-R3B	14.00	7.50	72.00		Ant _{2b}						176.75	34.00	12.50	245.00	130								
Ant _{2c}	AHCA RRH 4T4R B5	12.50	7.50	14.00		Ant _{2c}						180.917	-16.00	-9.00		130								
Ant _{3a}						Ant _{3a}																		
Ant _{3b}						Ant _{3b}																		
Ant _{3c}						Ant _{3c}																		
Ant _{4a}						Ant _{4a}																		
Ant _{4b}						Ant _{4b}																		
Ant _{4c}						Ant _{4c}																		
Ant _{5a}						Ant _{5a}																		
Ant _{5b}						Ant _{5b}																		
Ant _{5c}						Ant _{5c}																		
Ant on Standoff	B66a RRH 4X45	11.50	8.00	21.00		Ant on Standoff							-19.00	6.00		148								
Ant on Standoff	B13 RRH4X30	12.00	7.00	25.00		Ant on Standoff							-24.00	6.50		147								
Ant on Tower						Ant on Tower																		
Ant on Tower						Ant on Tower																		
Sector D																								
Ant _{1a}						Ant _{1a}																		
Ant _{1b}						Ant _{1b}																		
Ant _{1c}						Ant _{1c}																		
Ant _{2a}						Ant _{2a}																		
Ant _{2b}						Ant _{2b}																		
Ant _{2c}						Ant _{2c}																		
Ant _{3a}						Ant _{3a}																		
Ant _{3b}						Ant _{3b}																		
Ant _{3c}						Ant _{3c}																		
Ant _{4a}						Ant _{4a}																		
Ant _{4b}						Ant _{4b}																		
Ant _{4c}						Ant _{4c}																		
Ant _{5a}						Ant _{5a}																		
Ant _{5b}						Ant _{5b}																		
Ant _{5c}						Ant _{5c}																		
Ant on Standoff						Ant on Standoff																		
Ant on Standoff						Ant on Standoff																		
Ant on Tower						Ant on Tower																		
Ant on Tower						Ant on Tower																		

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

1		
2	(2) 1-1/4"Ø HYBRID CABLE	167
3	TOWER TAG INFO: SABRE COMMUNICATIONS CORP. MODEL / JOB#: S3TL 99-04060, TOWER HEIGHT: 196'/240', LOCATION: PUTNAM, CT	3
4		
5		
6		
7		
8		

Mapping Notes		
1. Please report any visible structural or safety issues observed on the antenna mounts (Damaged members, loose connections, tilting mounts, safety climb issues, etc.) 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. 3. Please create all required detail sketches of the mounts and insert them into the "Sketches" tab. 4. Please measure and enter the bolt sizes and types under the Members Box in the spreadsheet of the mount type. 5. Take and label the photos of the tower, mounts, connections, antennas and all measurements. Minimum 50 photos are required. 6. Please measure and report the size and length of all existing antenna mounting pipes. 7. Please measure and report the antenna information for all sectors. 8. Don't delete or rearrange any sheet or contents of any sheet from this mapping form.		
Standard Conditions		
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.		



Antenna Mount Mapping Form (PATENT PENDING)

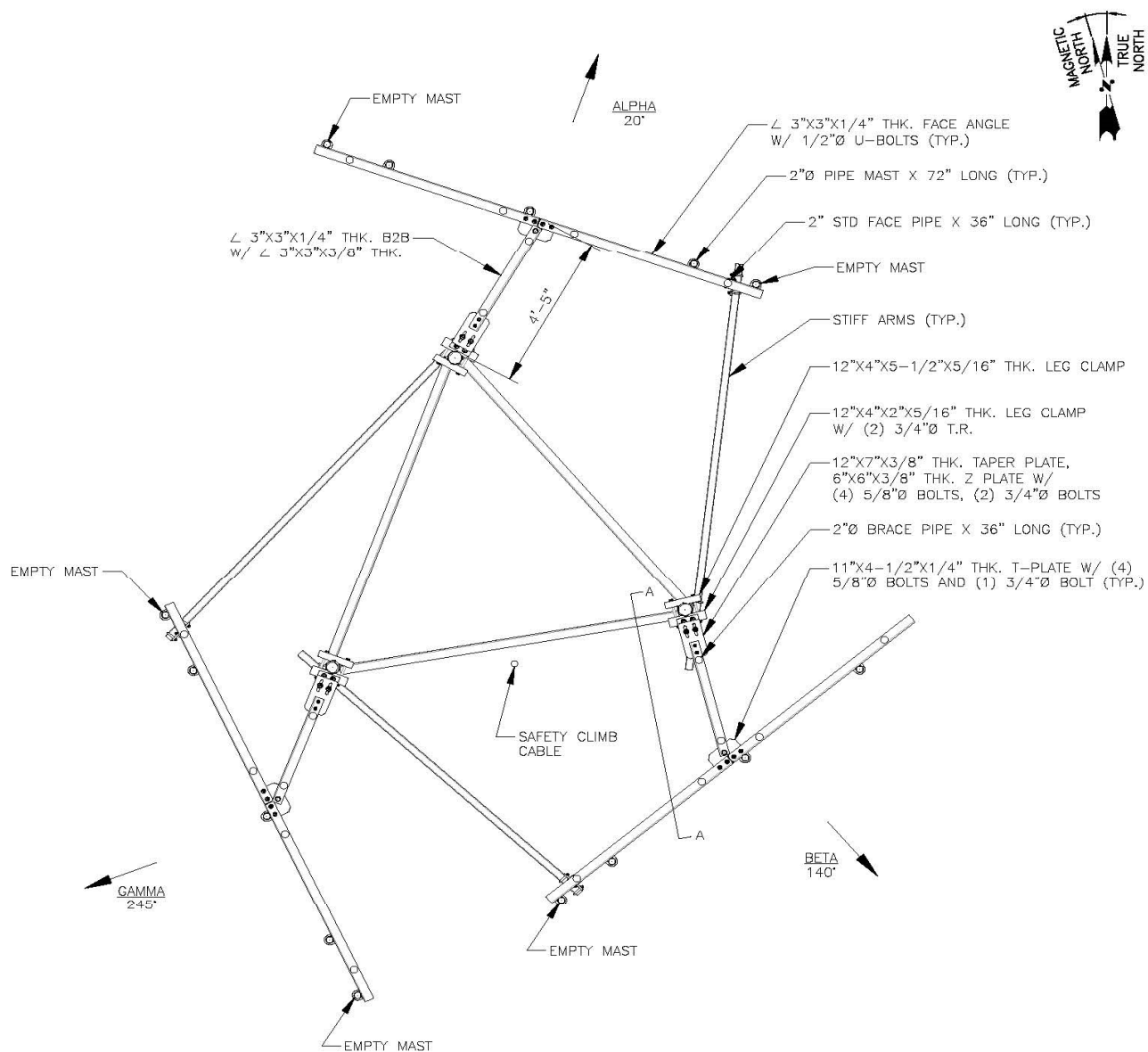
FCC #

1202920

Tower Owner:	SBA	Mapping Date:	2/4/2021
Site Name:	Putnam South	Tower Type:	Self Support
Site Number or ID:	469277	Tower Height (Ft.):	240
Mapping Contractor:	Hudson Design Group LLC	Mount Elevation (Ft.):	176.5

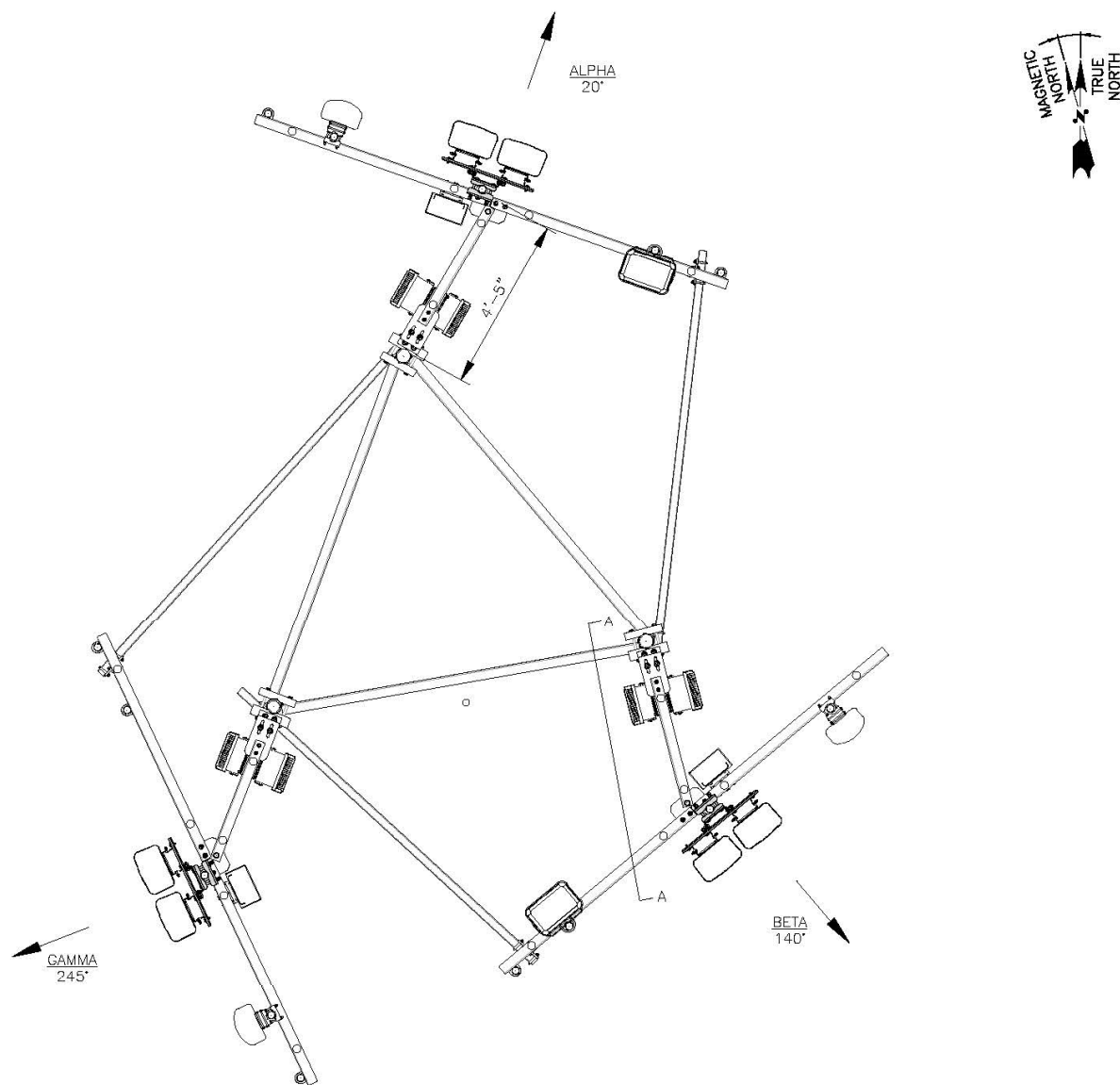
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Please Insert Sketches of the Antenna Mount



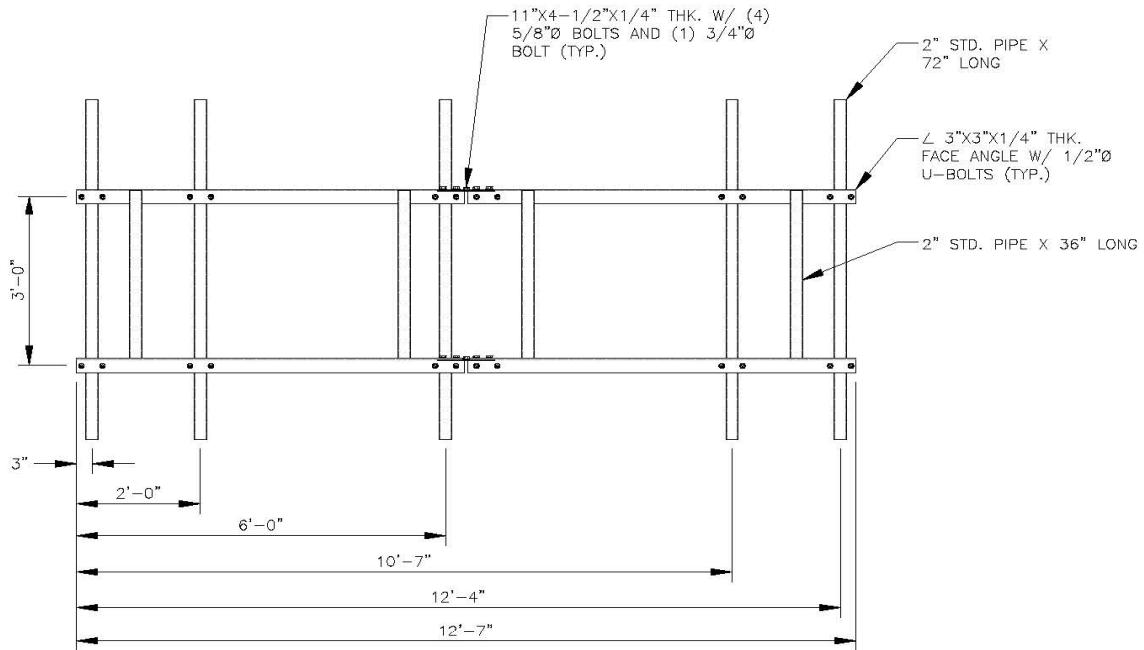
MOUNT PLAN
SCALE: N.T.S

1
SK-1



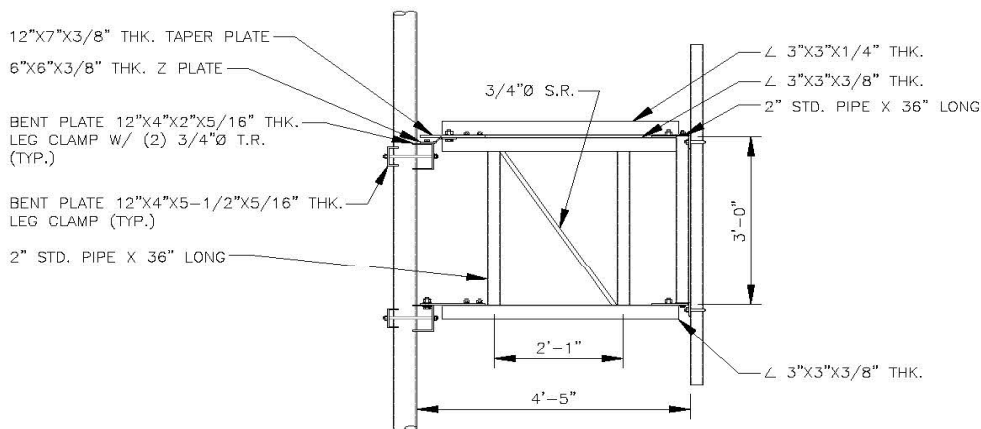
ANTENNA PLAN
SCALE: N.T.S

1
SK-2

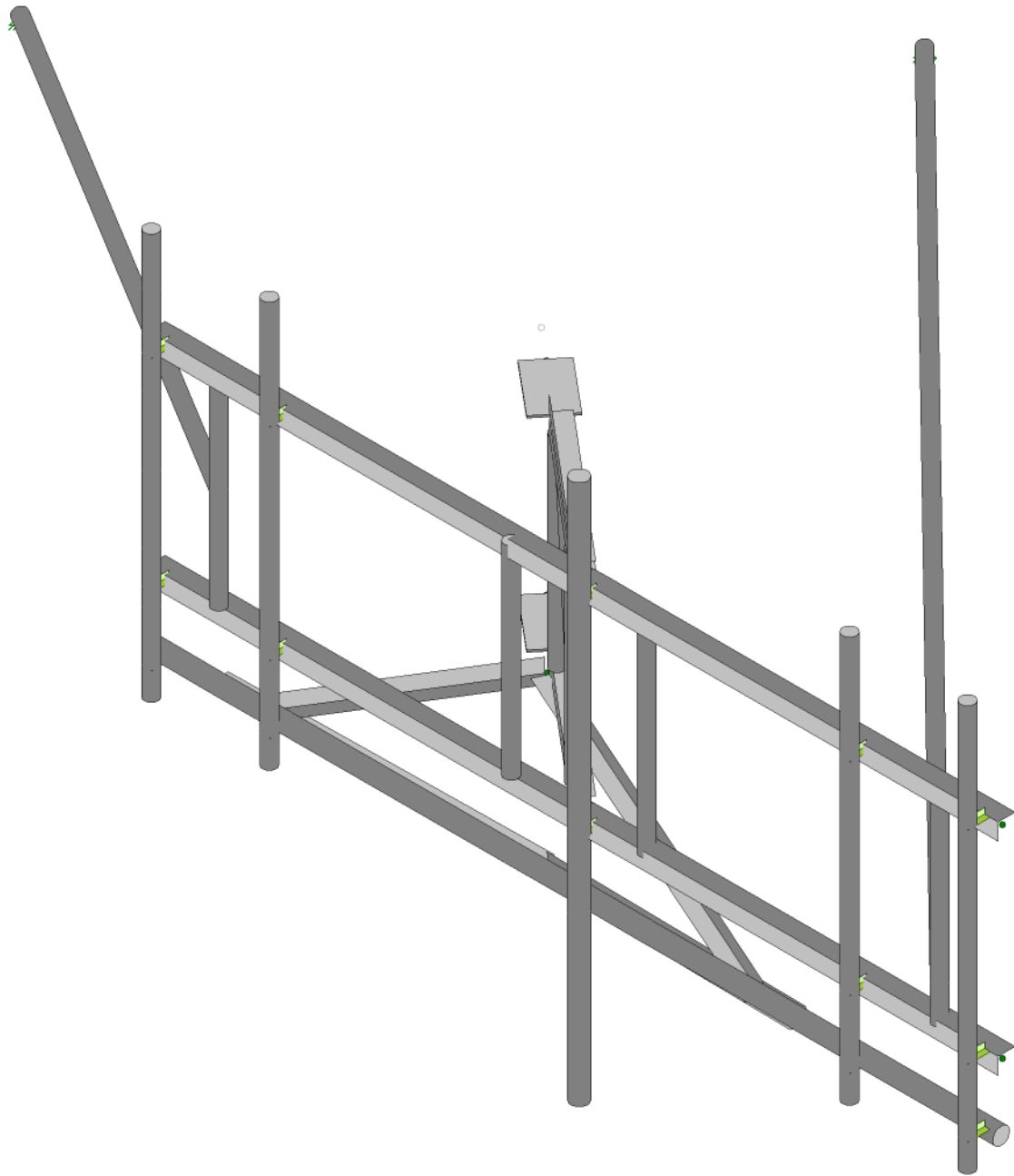
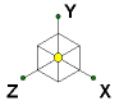


FACE DETAIL
SCALE: N.T.S.

1
SK-3

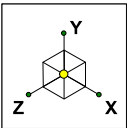


DETAIL A-A



Envelope Only Solution

Maser Consulting	469277-VZW_MT_LOT_SectorA_H	SK - 1
AE		Apr 20, 2021 at 9:41 AM
Project No. 10032626		469277-VZW_MT_LOT_A_H_Load...



Code Check
(Env)

No Calc

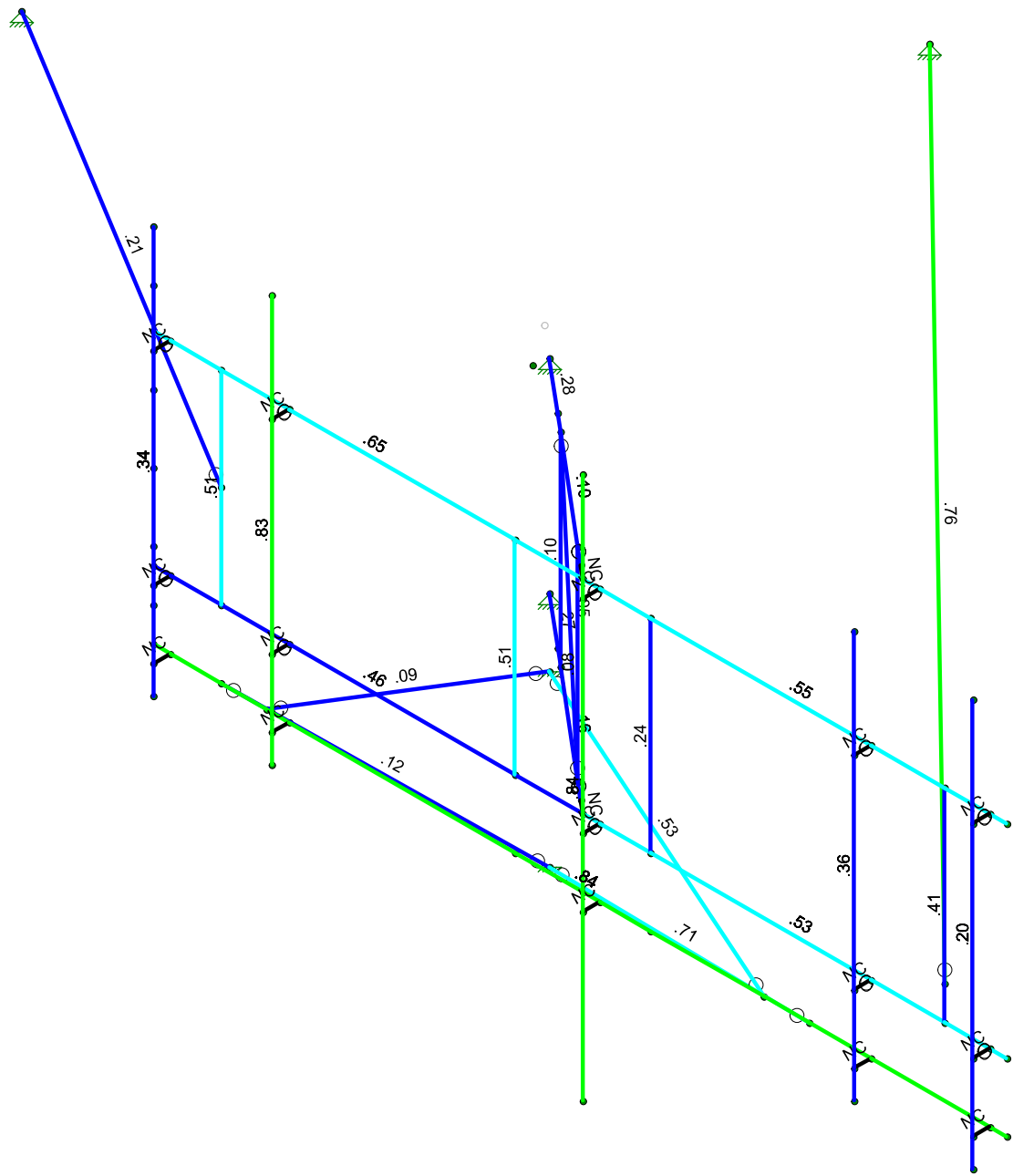
> 1.0

.90-1.0

.75-.90

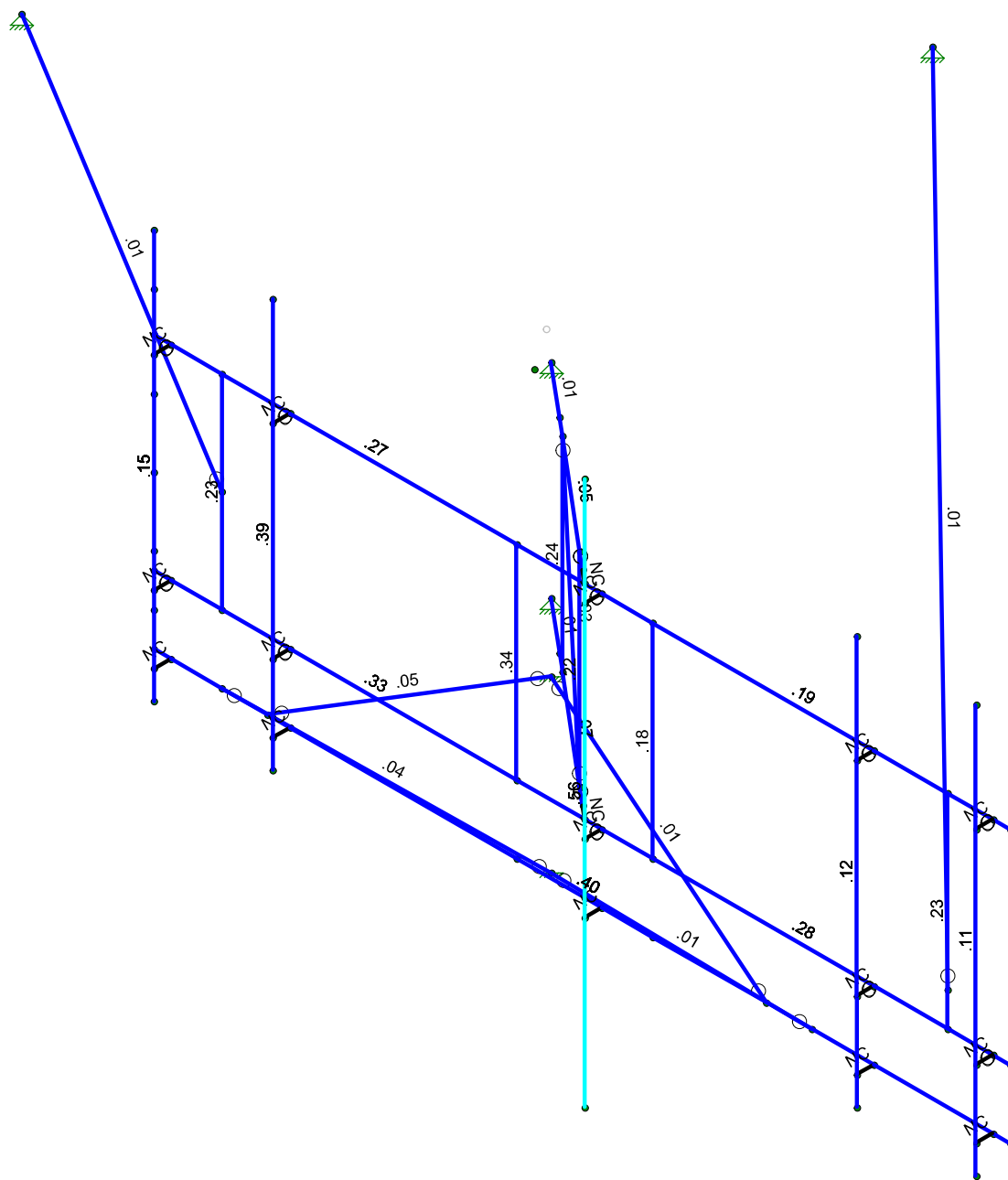
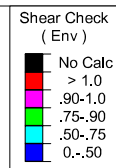
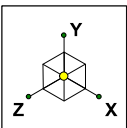
.50-.75

0.-.50



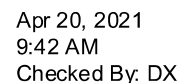
Member Code Checks Displayed (Enveloped)
Envelope Only Solution

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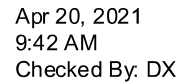


Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

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Project No. 10032626		469277-VZW_MT_LOT_A_H_Load...

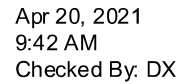


BLC Description		Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
1	Antenna D	None					30			
2	Antenna Di	None					30			
3	Antenna Wo (0 Deg)	None					30			
4	Antenna Wo (30 Deg)	None					30			
5	Antenna Wo (60 Deg)	None					30			
6	Antenna Wo (90 Deg)	None					30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

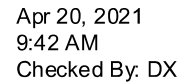


	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(P...
52	Structure Wo (330 De...	None						54	
53	Structure Wi (0 Deg)	None						54	
54	Structure Wi (30 Deg)	None						54	
55	Structure Wi (60 Deg)	None						54	
56	Structure Wi (90 Deg)	None						54	
57	Structure Wi (120 De...	None						54	
58	Structure Wi (150 De...	None						54	
59	Structure Wi (180 De...	None						54	
60	Structure Wi (210 De...	None						54	
61	Structure Wi (240 De...	None						54	
62	Structure Wi (270 De...	None						54	
63	Structure Wi (300 De...	None						54	
64	Structure Wi (330 De...	None						54	
65	Structure Wm (0 Deg)	None						54	
66	Structure Wm (30 D...	None						54	
67	Structure Wm (60 D...	None						54	
68	Structure Wm (90 D...	None						54	
69	Structure Wm (120 ...	None						54	
70	Structure Wm (150 ...	None						54	
71	Structure Wm (180 ...	None						54	
72	Structure Wm (210 ...	None						54	
73	Structure Wm (240 ...	None						54	
74	Structure Wm (270 ...	None						54	
75	Structure Wm (300 ...	None						54	
76	Structure Wm (330 ...	None						54	
77	Lm1	None					1		
78	Lm2	None					1		
79	Lv1	None					1		
80	Lv2	None					1		

	Description	Solve	PDelta	S...	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..
1	1.2D+1.0Wo (0...	Yes	Y		1	1.2	39	1.2	3	1	41	1								
2	1.2D+1.0Wo (3...	Yes	Y		1	1.2	39	1.2	4	1	42	1								
3	1.2D+1.0Wo (6...	Yes	Y		1	1.2	39	1.2	5	1	43	1								
4	1.2D+1.0Wo (9...	Yes	Y		1	1.2	39	1.2	6	1	44	1								
5	1.2D+1.0Wo (1...	Yes	Y		1	1.2	39	1.2	7	1	45	1								
6	1.2D+1.0Wo (1...	Yes	Y		1	1.2	39	1.2	8	1	46	1								
7	1.2D+1.0Wo (1...	Yes	Y		1	1.2	39	1.2	9	1	47	1								
8	1.2D+1.0Wo (2...	Yes	Y		1	1.2	39	1.2	10	1	48	1								
9	1.2D+1.0Wo (2...	Yes	Y		1	1.2	39	1.2	11	1	49	1								
10	1.2D+1.0Wo (2...	Yes	Y		1	1.2	39	1.2	12	1	50	1								
11	1.2D+1.0Wo (3...	Yes	Y		1	1.2	39	1.2	13	1	51	1								
12	1.2D+1.0Wo (3...	Yes	Y		1	1.2	39	1.2	14	1	52	1								
13	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1				
14	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1				
15	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1				
16	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1				
17	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1				
18	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1				



	Description	Solve	PDelta	S...	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..
19	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1							
20	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1							
21	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1							
22	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1							
23	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1							
24	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1							
25	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1									
26	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1									
27	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1									
28	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1									
29	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1									
30	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1									
31	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1									
32	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1									
33	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1									
34	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1									
35	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1									
36	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1									
37	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1									
38	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1									
39	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1									
40	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1									
41	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1									
42	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1									
43	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1									
44	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1					</				



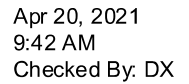
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Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
53	N55	-10.083333	3	4	0	
54	N56	-10.083333	3	4.25	0	
55	N57	-10.083333	4.583333	4.25	0	
56	N58	-10.083333	-1.416667	4.25	0	
57	N59	-7.526988	3	1.040488	0	
58	N60	-16.882661	1.5	-0.60917	0	
59	N61	-10.776179	.5	-7.886592	0	
60	N62	-10.083333	1.5	4.25	0	
61	N63	-10.083333	3.25	4.25	0	
62	N64	-10.083333	-.25	4.25	0	
63	N65	-10.083333	2.5	4.25	0	
64	N66	-10.083333	.5	4.25	0	
65	N67	-10.083333	3.833333	4.25	0	
66	N66A	-4	-1	4	0	
67	N67A	-10.333333	-1	4	0	
68	N68	2.25	-1	4	0	
69	N69	-0.666667	-1	4	0	
70	N70	-3	-1	4	0	
71	N71	-5	-1	4	0	
72	N72	-9.333333	-1	4	0	
73	N73	2	-1	4	0	
74	N74	2	-1	4.25	0	
75	N75	.25	-1	4	0	
76	N76	.25	-1	4.25	0	
77	N77	-3.75	-1	4	0	
78	N78	-3.75	-1	4.25	0	
79	N79	-8.333333	-1	4	0	
80	N80	-8.333333	-1	4.25	0	
81	N81	-10.083333	-1	4	0	
82	N82	-10.083333	-1	4.25	0	
83	N83	-7.064169	-3.5	1.428839	0	
84	N85	1.333333	.5	4	0	
85	N85A	-7.064169	-1	1.428839	0	
86	N86	-8.666667	-1	4	0	
87	N87	-1.333333	-1	4	0	

Hot Rolled Steel Section Sets

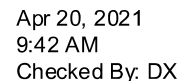
	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Antenna Pipe	PIPE 2.0	None	None	A53 Gr. B	Typical	1.02	.627	.627	1.25
2	Mod Face Horizontal	PIPE 2.5	None	None	A53 Gr. B	Typical	1.61	1.45	1.45	2.89
3	Horizontal Face	L3X3X4	None	None	A36 Gr.36	Typical	1.44	1.23	1.23	.031
4	Mod V-kit	L2.5x2.5x4	None	None	A36 Gr.36	Typical	1.19	.692	.692	.026
5	Face Vertical	PIPE 2.0	None	None	A53 Gr. B	Typical	1.02	.627	.627	1.25
6	TES Standoff Horizo...	L3X3X6	None	None	A36 Gr.36	Typical	2.11	1.75	1.75	.101
7	Standoff Horizontal D	LL3x3x4x3	None	None	A36 Gr.36	Typical	2.88	5.48	2.46	.063
8	Standoff Vertical	PIPE 2.0	None	None	A53 Gr. B	Typical	1.02	.627	.627	1.25
9	Standoff Diagonal	SR 0.75	None	None	A36 Gr.36	Typical	.442	.016	.016	.031
10	Stabilizer	PIPE 2.0	None	None	A53 Gr. B	Typical	1.02	.627	.627	1.25
11	Mod Mount Pipe	PIPE 2.5	None	None	A53 Gr. B	Typical	1.61	1.45	1.45	2.89
12	End Plate	PL3/8x7_H...	None	None	A36 Gr.36	Typical	2.625	.031	10.719	.119



	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	lyy [in4]	lzz [in4]	J [in4]
13	TES End Plate	PL3/8x7_H...	None	None	A36 Gr.36	Typical	2.625	.031	10.719	.119

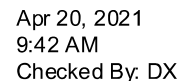
	Label	E [ksi]	G [ksi]	Nu	Therm (/1E...Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt	
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A53 Gr. B	29000	11154	.3	.65	.49	35	1.5	60	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
5	A500 Gr. B 42	29000	11154	.3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

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N2	N1		180	Horizontal Face	None	None	A36 Gr.36	Typical
2	M2	N1	N3		180	Horizontal Face	None	None	A36 Gr.36	Typical
3	M6	N12A	N15			RIGID	None	None	RIGID	Typical
4	M7A	N17	N16		180	Horizontal Face	None	None	A36 Gr.36	Typical
5	M8	N16	N18		180	Horizontal Face	None	None	A36 Gr.36	Typical
6	M12	N27	N30			RIGID	None	None	RIGID	Typical
7	M13	N7	N22			Face Vertical	None	None	A53 Gr. B	Typical
8	M14	N6	N21			Face Vertical	None	None	A53 Gr. B	Typical
9	M15	N5	N20			Face Vertical	None	None	A53 Gr. B	Typical
10	M16	N4	N19			Face Vertical	None	None	A53 Gr. B	Typical
11	M17	N16	N32			RIGID	None	None	RIGID	Typical
12	M18	N1	N31			RIGID	None	None	RIGID	Typical
13	M19	N32	N36		270	Standoff Horiz...	None	None	A36 Gr.36	Typical
14	M20	N31	N35		90	TES Standoff ...	None	None	A36 Gr.36	Typical
15	M25	N36	N34		90	End Plate	None	None	A36 Gr.36	Typical
16	M26	N35	N33		90	End Plate	None	None	A36 Gr.36	Typical
17	M27	N50	N49			Standoff Vertical	None	None	A53 Gr. B	Typical
18	M28	N48	N47			Standoff Vertical	None	None	A53 Gr. B	Typical
19	M29	N49	N48			Standoff Diago...	None	None	A36 Gr.36	Typical
20	MP1A	N40	N44			Antenna Pipe	None	None	A53 Gr. B	Typical
21	M30	N50A	N60			Stabilizer	None	None	A53 Gr. B	Typical
22	M25A	N35A	N36A			RIGID	None	None	RIGID	Typical
23	M26A	N37	N38			RIGID	None	None	RIGID	Typical
24	MP2A	N39	N40A			Antenna Pipe	None	None	A53 Gr. B	Typical
25	M28A	N41	N42			RIGID	None	None	RIGID	Typical
26	M29A	N43	N44A			RIGID	None	None	RIGID	Typical
27	MP3A	N45	N46			Mod Mount Pipe	None	None	A53 Gr. B	Typical
28	M31A	N47A	N48A			RIGID	None	None	RIGID	Typical
29	M32A	N49A	N50B			RIGID	None	None	RIGID	Typical
30	MP4A	N51A	N52B			Antenna Pipe	None	None	A53 Gr. B	Typical
31	M34	N53	N54			RIGID	None	None	RIGID	Typical
32	M35	N55	N56			RIGID	None	None	RIGID	Typical
33	MP5A	N57	N58			Antenna Pipe	None	None	A53 Gr. B	Typical
34	M35A	N67A	N68		180	Mod Face Hori...	None	None	A53 Gr. B	Typical
35	M36	N73	N74			RIGID	None	None	RIGID	Typical
36	M37	N75	N76			RIGID	None	None	RIGID	Typical

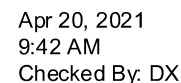


	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
37	M38	N77	N78			RIGID	None	None	RIGID	Typical
38	M39	N79	N80			RIGID	None	None	RIGID	Typical
39	M40	N81	N82			RIGID	None	None	RIGID	Typical
40	M40A	N72	N83			Mod V-kit	None	None	A36 Gr.36	Typical
41	M41	N69	N83		270	Mod V-kit	None	None	A36 Gr.36	Typical
42	M42	N85	N61			Stabilizer	None	None	A53 Gr. B	Typical
43	M43	N86	N85A			Mod V-kit	None	None	A36 Gr.36	Typical
44	M44	N87	N85A		270	Mod V-kit	None	None	A36 Gr.36	Typical

	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	M2						Yes	** NA **			None
3	M6		OOOXOO				Yes	** NA **			None
4	M7A						Yes	** NA **			None
5	M8						Yes	** NA **			None
6	M12		OOOXOO				Yes	** NA **			None
7	M13						Yes	** NA **			None
8	M14						Yes	** NA **			None
9	M15						Yes	** NA **			None
10	M16						Yes	** NA **			None
11	M17						Yes	** NA **			None
12	M18						Yes	** NA **			None
13	M19	BenPIN					Yes	** NA **			None
14	M20	BenPIN					Yes	** NA **			None
15	M25						Yes	** NA **			None
16	M26						Yes	** NA **			None
17	M27						Yes	** NA **			None
18	M28						Yes	** NA **			None
19	M29	BenPIN	BenPIN				Yes	** NA **			None
20	MP1A						Yes	** NA **			None
21	M30	OOOOXO					Yes	** NA **			None
22	M25A		OOOXOO				Yes	** NA **			None
23	M26A		OOOXOO				Yes	** NA **			None
24	MP2A						Yes	** NA **			None
25	M28A		OOOXOO				Yes	** NA **			None
26	M29A		OOOXOO				Yes	** NA **			None
27	MP3A						Yes	** NA **			None
28	M31A		OOOXOO				Yes	** NA **			None
29	M32A		OOOXOO				Yes	** NA **			None
30	MP4A						Yes	** NA **			None
31	M34		OOOXOO				Yes	** NA **			None
32	M35		OOOXOO				Yes	** NA **			None
33	MP5A						Yes	** NA **			None
34	M35A						Yes	** NA **			None
35	M36						Yes	** NA **			None
36	M37						Yes	** NA **			None
37	M38						Yes	** NA **			None
38	M39						Yes	** NA **			None
39	M40						Yes	** NA **			None



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

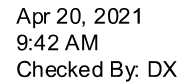
	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
28	M28	X	0	1.5
29	M28	Z	-16.746	1.5
30	M28	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	45.09	2.08
2	MP1A	Z	-78.098	2.08
3	MP1A	Mx	-.023	2.08
4	MP1A	X	45.09	4.08
5	MP1A	Z	-78.098	4.08
6	MP1A	Mx	-.023	4.08
7	MP3A	X	94.234	1.33
8	MP3A	Z	-163.218	1.33
9	MP3A	Mx	-.221	1.33
10	MP3A	X	94.234	4.83
11	MP3A	Z	-163.218	4.83
12	MP3A	Mx	-.221	4.83
13	MP3A	X	94.234	1.33
14	MP3A	Z	-163.218	1.33
15	MP3A	Mx	.024	1.33
16	MP3A	X	94.234	4.83
17	MP3A	Z	-163.218	4.83
18	MP3A	Mx	.024	4.83
19	MP2A	X	38.81	.75
20	MP2A	Z	-67.221	.75
21	MP2A	Mx	.019	.75
22	MP3A	X	37.466	.75
23	MP3A	Z	-64.894	.75
24	MP3A	Mx	.019	.75
25	MP4A	X	86.432	.75
26	MP4A	Z	-149.704	.75
27	MP4A	Mx	.036	.75
28	M28	X	7.728	1.5
29	M28	Z	-13.385	1.5
30	M28	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	50.073	2.08
2	MP1A	Z	-28.91	2.08
3	MP1A	Mx	-.025	2.08
4	MP1A	X	50.073	4.08
5	MP1A	Z	-28.91	4.08
6	MP1A	Mx	-.025	4.08
7	MP3A	X	132.58	1.33
8	MP3A	Z	-76.545	1.33
9	MP3A	Mx	-.196	1.33
10	MP3A	X	132.58	4.83
11	MP3A	Z	-76.545	4.83
12	MP3A	Mx	-.196	4.83



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	50.073	2.08
2	MP1A	Z	28.91	2.08
3	MP1A	Mx	-.025	2.08
4	MP1A	X	50.073	4.08
5	MP1A	Z	28.91	4.08
6	MP1A	Mx	-.025	4.08
7	MP3A	X	132.58	1.33
8	MP3A	Z	76.545	1.33
9	MP3A	Mx	-.081	1.33
10	MP3A	X	132.58	4.83
11	MP3A	Z	76.545	4.83
12	MP3A	Mx	-.081	4.83
13	MP3A	X	132.58	1.33
14	MP3A	Z	76.545	1.33
15	MP3A	Mx	-.196	1.33
16	MP3A	X	132.58	4.83
17	MP3A	Z	76.545	4.83
18	MP3A	Mx	-.196	4.83
19	MP2A	X	55.07	.75
20	MP2A	Z	31.795	.75
21	MP2A	Mx	.028	.75
22	MP3A	X	48.088	.75
23	MP3A	Z	27.764	.75
24	MP3A	Mx	.024	.75
25	MP4A	X	130.841	.75
26	MP4A	Z	75.541	.75
27	MP4A	Mx	.055	.75
28	M28	X	11.151	1.5
29	M28	Z	6.438	1.5
30	M28	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	45.09	2.08
2	MP1A	Z	78.098	2.08
3	MP1A	Mx	-.023	2.08
4	MP1A	X	45.09	4.08
5	MP1A	Z	78.098	4.08
6	MP1A	Mx	-.023	4.08
7	MP3A	X	94.234	1.33
8	MP3A	Z	163.218	1.33
9	MP3A	Mx	.024	1.33
10	MP3A	X	94.234	4.83
11	MP3A	Z	163.218	4.83
12	MP3A	Mx	.024	4.83
13	MP3A	X	94.234	1.33
14	MP3A	Z	163.218	1.33
15	MP3A	Mx	-.221	1.33
16	MP3A	X	94.234	4.83
17	MP3A	Z	163.218	4.83
18	MP3A	Mx	-.221	4.83

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

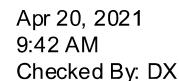
	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
19	MP2A	X	38.81	.75
20	MP2A	Z	67.221	.75
21	MP2A	Mx	.019	.75
22	MP3A	X	37.466	.75
23	MP3A	Z	64.894	.75
24	MP3A	Mx	.019	.75
25	MP4A	X	86.432	.75
26	MP4A	Z	149.704	.75
27	MP4A	Mx	.036	.75
28	M28	X	7.728	1.5
29	M28	Z	13.385	1.5
30	M28	Mx	0	1.5

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

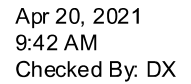
	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	2.08
2	MP1A	Z	106.36	2.08
3	MP1A	Mx	0	2.08
4	MP1A	X	0	4.08
5	MP1A	Z	106.36	4.08
6	MP1A	Mx	0	4.08
7	MP3A	X	0	1.33
8	MP3A	Z	206.157	1.33
9	MP3A	Mx	.155	1.33
10	MP3A	X	0	4.83
11	MP3A	Z	206.157	4.83
12	MP3A	Mx	.155	4.83
13	MP3A	X	0	1.33
14	MP3A	Z	206.157	1.33
15	MP3A	Mx	-.155	1.33
16	MP3A	X	0	4.83
17	MP3A	Z	206.157	4.83
18	MP3A	Mx	-.155	4.83
19	MP2A	X	0	.75
20	MP2A	Z	84.635	.75
21	MP2A	Mx	0	.75
22	MP3A	X	0	.75
23	MP3A	Z	84.635	.75
24	MP3A	Mx	0	.75
25	MP4A	X	0	.75
26	MP4A	Z	183.754	.75
27	MP4A	Mx	0	.75
28	M28	X	0	1.5
29	M28	Z	16.746	1.5
30	M28	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-45.09	2.08
2	MP1A	Z	78.098	2.08
3	MP1A	Mx	.023	2.08



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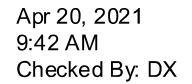
[illegible]

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

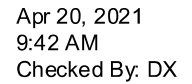
	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft, %]
7	MP3A	X	-132.58	1.33
8	MP3A	Z	-76.545	1.33
9	MP3A	Mx	.081	1.33
10	MP3A	X	-132.58	4.83
11	MP3A	Z	-76.545	4.83
12	MP3A	Mx	.081	4.83
13	MP3A	X	-132.58	1.33
14	MP3A	Z	-76.545	1.33
15	MP3A	Mx	.196	1.33
16	MP3A	X	-132.58	4.83
17	MP3A	Z	-76.545	4.83
18	MP3A	Mx	.196	4.83
19	MP2A	X	-55.07	.75
20	MP2A	Z	-31.795	.75
21	MP2A	Mx	-.028	.75
22	MP3A	X	-48.088	.75
23	MP3A	Z	-27.764	.75
24	MP3A	Mx	-.024	.75
25	MP4A	X	-130.841	.75
26	MP4A	Z	-75.541	.75
27	MP4A	Mx	-.055	.75
28	M28	X	-11.151	1.5
29	M28	Z	-6.438	1.5
30	M28	Mx	0	1.5

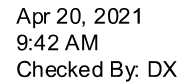
Member Point Loads (BLC 14 : Antenna Wo (330 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft, %]
1	MP1A	X	-45.09	2.08
2	MP1A	Z	-78.098	2.08
3	MP1A	Mx	.023	2.08
4	MP1A	X	-45.09	4.08
5	MP1A	Z	-78.098	4.08
6	MP1A	Mx	.023	4.08
7	MP3A	X	-94.234	1.33
8	MP3A	Z	-163.218	1.33
9	MP3A	Mx	-.024	1.33
10	MP3A	X	-94.234	4.83
11	MP3A	Z	-163.218	4.83
12	MP3A	Mx	-.024	4.83
13	MP3A	X	-94.234	1.33
14	MP3A	Z	-163.218	1.33
15	MP3A	Mx	.221	1.33
16	MP3A	X	-94.234	4.83
17	MP3A	Z	-163.218	4.83
18	MP3A	Mx	.221	4.83
19	MP2A	X	-38.81	.75
20	MP2A	Z	-67.221	.75
21	MP2A	Mx	-.019	.75
22	MP3A	X	-37.466	.75
23	MP3A	Z	-64.894	.75
24	MP3A	Mx	-.019	.75



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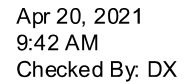
[illegible]

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

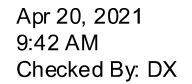
	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft, %]
13	MP3A	X	25.515	1.33
14	MP3A	Z	14.731	1.33
15	MP3A	Mx	-.038	1.33
16	MP3A	X	25.515	4.83
17	MP3A	Z	14.731	4.83
18	MP3A	Mx	-.038	4.83
19	MP2A	X	11.613	.75
20	MP2A	Z	6.705	.75
21	MP2A	Mx	.006	.75
22	MP3A	X	10.311	.75
23	MP3A	Z	5.953	.75
24	MP3A	Mx	.005	.75
25	MP4A	X	25.831	.75
26	MP4A	Z	14.913	.75
27	MP4A	Mx	.011	.75
28	M28	X	2.985	1.5
29	M28	Z	1.723	1.5
30	M28	Mx	0	1.5

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

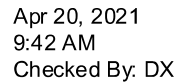
	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	8.814	2.08
2	MP1A	Z	15.266	2.08
3	MP1A	Mx	-.004	2.08
4	MP1A	X	8.814	4.08
5	MP1A	Z	15.266	4.08
6	MP1A	Mx	-.004	4.08
7	MP3A	X	17.797	1.33
8	MP3A	Z	30.826	1.33
9	MP3A	Mx	.005	1.33
10	MP3A	X	17.797	4.83
11	MP3A	Z	30.826	4.83
12	MP3A	Mx	.005	4.83
13	MP3A	X	17.797	1.33
14	MP3A	Z	30.826	1.33
15	MP3A	Mx	-.042	1.33
16	MP3A	X	17.797	4.83
17	MP3A	Z	30.826	4.83
18	MP3A	Mx	-.042	4.83
19	MP2A	X	8.023	.75
20	MP2A	Z	13.897	.75
21	MP2A	Mx	.004	.75
22	MP3A	X	7.773	.75
23	MP3A	Z	13.463	.75
24	MP3A	Mx	.004	.75
25	MP4A	X	16.852	.75
26	MP4A	Z	29.189	.75
27	MP4A	Mx	.007	.75
28	M28	X	1.986	1.5
29	M28	Z	3.44	1.5
30	M28	Mx	0	1.5



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft, %]
22	MP3A	X	-10.311	.75
23	MP3A	Z	-5.953	.75
24	MP3A	Mx	-.005	.75
25	MP4A	X	-25.831	.75
26	MP4A	Z	-14.913	.75
27	MP4A	Mx	-.011	.75
28	M28	X	-2.985	1.5
29	M28	Z	-1.723	1.5
30	M28	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft, %]
1	MP1A	X	-8.814	2.08
2	MP1A	Z	-15.266	2.08
3	MP1A	Mx	.004	2.08
4	MP1A	X	-8.814	4.08
5	MP1A	Z	-15.266	4.08
6	MP1A	Mx	.004	4.08
7	MP3A	X	-17.797	1.33
8	MP3A	Z	-30.826	1.33
9	MP3A	Mx	-.005	1.33
10	MP3A	X	-17.797	4.83
11	MP3A	Z	-30.826	4.83
12	MP3A	Mx	-.005	4.83
13	MP3A	X	-17.797	1.33
14	MP3A	Z	-30.826	1.33
15	MP3A	Mx	.042	1.33
16	MP3A	X	-17.797	4.83
17	MP3A	Z	-30.826	4.83
18	MP3A	Mx	.042	4.83
19	MP2A	X	-8.023	.75
20	MP2A	Z	-13.897	.75
21	MP2A	Mx	-.004	.75
22	MP3A	X	-7.773	.75
23	MP3A	Z	-13.463	.75
24	MP3A	Mx	-.004	.75
25	MP4A	X	-16.852	.75
26	MP4A	Z	-29.189	.75
27	MP4A	Mx	-.007	.75
28	M28	X	-1.986	1.5
29	M28	Z	-3.44	1.5
30	M28	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	2.08
2	MP1A	Z	-6.538	2.08
3	MP1A	Mx	0	2.08
4	MP1A	X	0	4.08
5	MP1A	Z	-6.538	4.08
6	MP1A	Mx	0	4.08

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
7	MP3A	X	0	1.33
8	MP3A	Z	-12.673	1.33
9	MP3A	Mx	-.01	1.33
10	MP3A	X	0	4.83
11	MP3A	Z	-12.673	4.83
12	MP3A	Mx	-.01	4.83
13	MP3A	X	0	1.33
14	MP3A	Z	-12.673	1.33
15	MP3A	Mx	.01	1.33
16	MP3A	X	0	4.83
17	MP3A	Z	-12.673	4.83
18	MP3A	Mx	.01	4.83
19	MP2A	X	0	.75
20	MP2A	Z	-5.203	.75
21	MP2A	Mx	0	.75
22	MP3A	X	0	.75
23	MP3A	Z	-5.203	.75
24	MP3A	Mx	0	.75
25	MP4A	X	0	.75
26	MP4A	Z	-11.296	.75
27	MP4A	Mx	0	.75
28	M28	X	0	1.5
29	M28	Z	-1.029	1.5
30	M28	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	2.772	2.08
2	MP1A	Z	-4.801	2.08
3	MP1A	Mx	-.001	2.08
4	MP1A	X	2.772	4.08
5	MP1A	Z	-4.801	4.08
6	MP1A	Mx	-.001	4.08
7	MP3A	X	5.793	1.33
8	MP3A	Z	-10.033	1.33
9	MP3A	Mx	-.014	1.33
10	MP3A	X	5.793	4.83
11	MP3A	Z	-10.033	4.83
12	MP3A	Mx	-.014	4.83
13	MP3A	X	5.793	1.33
14	MP3A	Z	-10.033	1.33
15	MP3A	Mx	.001	1.33
16	MP3A	X	5.793	4.83
17	MP3A	Z	-10.033	4.83
18	MP3A	Mx	.001	4.83
19	MP2A	X	2.386	.75
20	MP2A	Z	-4.132	.75
21	MP2A	Mx	.001	.75
22	MP3A	X	2.303	.75
23	MP3A	Z	-3.989	.75
24	MP3A	Mx	.001	.75

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

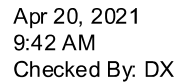
	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft, %]
25	MP4A	X	5.313	.75
26	MP4A	Z	-9.202	.75
27	MP4A	Mx	.002	.75
28	M28	X	.475	1.5
29	M28	Z	-.823	1.5
30	M28	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft, %]
1	MP1A	X	3.078	2.08
2	MP1A	Z	-1.777	2.08
3	MP1A	Mx	-.002	2.08
4	MP1A	X	3.078	4.08
5	MP1A	Z	-1.777	4.08
6	MP1A	Mx	-.002	4.08
7	MP3A	X	8.15	1.33
8	MP3A	Z	-4.705	1.33
9	MP3A	Mx	-.012	1.33
10	MP3A	X	8.15	4.83
11	MP3A	Z	-4.705	4.83
12	MP3A	Mx	-.012	4.83
13	MP3A	X	8.15	1.33
14	MP3A	Z	-4.705	1.33
15	MP3A	Mx	-.005	1.33
16	MP3A	X	8.15	4.83
17	MP3A	Z	-4.705	4.83
18	MP3A	Mx	-.005	4.83
19	MP2A	X	3.385	.75
20	MP2A	Z	-1.954	.75
21	MP2A	Mx	.002	.75
22	MP3A	X	2.956	.75
23	MP3A	Z	-1.707	.75
24	MP3A	Mx	.001	.75
25	MP4A	X	8.043	.75
26	MP4A	Z	-4.644	.75
27	MP4A	Mx	.003	.75
28	M28	X	.685	1.5
29	M28	Z	-.396	1.5
30	M28	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft, %]
1	MP1A	X	2.56	2.08
2	MP1A	Z	0	2.08
3	MP1A	Mx	-.001	2.08
4	MP1A	X	2.56	4.08
5	MP1A	Z	0	4.08
6	MP1A	Mx	-.001	4.08
7	MP3A	X	8.323	1.33
8	MP3A	Z	0	1.33
9	MP3A	Mx	-.009	1.33



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

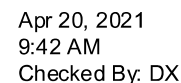
	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
28	M28	X	.685	1.5
29	M28	Z	.396	1.5
30	M28	Mx	0	1.5

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

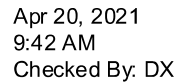
	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft, %]
1	MP1A	X	2.772	2.08
2	MP1A	Z	4.801	2.08
3	MP1A	Mx	-.001	2.08
4	MP1A	X	2.772	4.08
5	MP1A	Z	4.801	4.08
6	MP1A	Mx	-.001	4.08
7	MP3A	X	5.793	1.33
8	MP3A	Z	10.033	1.33
9	MP3A	Mx	.001	1.33
10	MP3A	X	5.793	4.83
11	MP3A	Z	10.033	4.83
12	MP3A	Mx	.001	4.83
13	MP3A	X	5.793	1.33
14	MP3A	Z	10.033	1.33
15	MP3A	Mx	-.014	1.33
16	MP3A	X	5.793	4.83
17	MP3A	Z	10.033	4.83
18	MP3A	Mx	-.014	4.83
19	MP2A	X	2.386	.75
20	MP2A	Z	4.132	.75
21	MP2A	Mx	.001	.75
22	MP3A	X	2.303	.75
23	MP3A	Z	3.989	.75
24	MP3A	Mx	.001	.75
25	MP4A	X	5.313	.75
26	MP4A	Z	9.202	.75
27	MP4A	Mx	.002	.75
28	M28	X	.475	1.5
29	M28	Z	.823	1.5
30	M28	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft, %]
1	MP1A	X	0	2.08
2	MP1A	Z	6.538	2.08
3	MP1A	Mx	0	2.08
4	MP1A	X	0	4.08
5	MP1A	Z	6.538	4.08
6	MP1A	Mx	0	4.08
7	MP3A	X	0	1.33
8	MP3A	Z	12.673	1.33
9	MP3A	Mx	.01	1.33
10	MP3A	X	0	4.83
11	MP3A	Z	12.673	4.83
12	MP3A	Mx	.01	4.83



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[illegible]

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
4	MP1A	X	-2.772	4.08
5	MP1A	Z	-4.801	4.08
6	MP1A	Mx	.001	4.08
7	MP3A	X	-5.793	1.33
8	MP3A	Z	-10.033	1.33
9	MP3A	Mx	-.001	1.33
10	MP3A	X	-5.793	4.83
11	MP3A	Z	-10.033	4.83
12	MP3A	Mx	-.001	4.83
13	MP3A	X	-5.793	1.33
14	MP3A	Z	-10.033	1.33
15	MP3A	Mx	.014	1.33
16	MP3A	X	-5.793	4.83
17	MP3A	Z	-10.033	4.83
18	MP3A	Mx	.014	4.83
19	MP2A	X	-2.386	.75
20	MP2A	Z	-4.132	.75
21	MP2A	Mx	-.001	.75
22	MP3A	X	-2.303	.75
23	MP3A	Z	-3.989	.75
24	MP3A	Mx	-.001	.75
25	MP4A	X	-5.313	.75
26	MP4A	Z	-9.202	.75
27	MP4A	Mx	-.002	.75
28	M28	X	-.475	1.5
29	M28	Z	-.823	1.5
30	M28	Mx	0	1.5

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M2	Y	-500	%4

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M2	Y	-500	%68

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M2	Y	-250	0

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M2	Y	-250	%100

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	M1	Y	-7.835	-7.835	0	%100
2	M2	Y	-7.835	-7.835	0	%100

Member Distributed Loads (BLC 40 : Structure Di) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
3	M7A	Y	-7.835	-7.835	0	%100
4	M8	Y	-7.835	-7.835	0	%100
5	M13	Y	-5.138	-5.138	0	%100
6	M14	Y	-5.138	-5.138	0	%100
7	M15	Y	-5.138	-5.138	0	%100
8	M16	Y	-5.138	-5.138	0	%100
9	M19	Y	-7.835	-7.835	0	%100
10	M20	Y	-7.835	-7.835	0	%100
11	M25	Y	-11.833	-11.833	0	%100
12	M26	Y	-11.833	-11.833	0	%100
13	M27	Y	-5.138	-5.138	0	%100
14	M28	Y	-5.138	-5.138	0	%100
15	M29	Y	-2.791	-2.791	0	%100
16	MP1A	Y	-5.138	-5.138	0	%100
17	M30	Y	-5.138	-5.138	0	%100
18	MP2A	Y	-5.138	-5.138	0	%100
19	MP3A	Y	-5.138	-5.138	0	%100
20	MP4A	Y	-5.138	-5.138	0	%100
21	MP5A	Y	-5.138	-5.138	0	%100
22	M35A	Y	-5.86	-5.86	0	%100
23	M40A	Y	-6.814	-6.814	0	%100
24	M41	Y	-6.814	-6.814	0	%100
25	M42	Y	-5.138	-5.138	0	%100
26	M43	Y	-6.814	-6.814	0	%100
27	M44	Y	-6.814	-6.814	0	%100

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

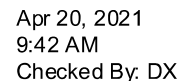
	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-22.63	-22.63	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-22.63	-22.63	0	%100
5	M7A	X	0	0	0	%100
6	M7A	Z	-22.63	-22.63	0	%100
7	M8	X	0	0	0	%100
8	M8	Z	-22.63	-22.63	0	%100
9	M13	X	0	0	0	%100
10	M13	Z	-8.79	-8.79	0	%100
11	M14	X	0	0	0	%100
12	M14	Z	-8.79	-8.79	0	%100
13	M15	X	0	0	0	%100
14	M15	Z	-8.79	-8.79	0	%100
15	M16	X	0	0	0	%100
16	M16	Z	-8.79	-8.79	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	-10.181	-10.181	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	-10.181	-10.181	0	%100
21	M25	X	0	0	0	%100
22	M25	Z	-.996	-.996	0	%100
23	M26	X	0	0	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, %]
24	M26	Z	- .996	- .996	0	%100
25	M27	X	0	0	0	%100
26	M27	Z	-8.79	-8.79	0	%100
27	M28	X	0	0	0	%100
28	M28	Z	-8.79	-8.79	0	%100
29	M29	X	0	0	0	%100
30	M29	Z	-2.938	-2.938	0	%100
31	MP1A	X	0	0	0	%100
32	MP1A	Z	-10.749	-10.749	0	%100
33	M30	X	0	0	0	%100
34	M30	Z	-7.83	-7.83	0	%100
35	MP2A	X	0	0	0	%100
36	MP2A	Z	-10.749	-10.749	0	%100
37	MP3A	X	0	0	0	%100
38	MP3A	Z	-10.749	-10.749	0	%100
39	MP4A	X	0	0	0	%100
40	MP4A	Z	-10.749	-10.749	0	%100
41	MP5A	X	0	0	0	%100
42	MP5A	Z	-10.749	-10.749	0	%100
43	M35A	X	0	0	0	%100
44	M35A	Z	-13.012	-13.012	0	%100
45	M40A	X	0	0	0	%100
46	M40A	Z	-11.015	-11.015	0	%100
47	M41	X	0	0	0	%100
48	M41	Z	-16.54	-16.54	0	%100
49	M42	X	0	0	0	%100
50	M42	Z	-5.474	-5.474	0	%100
51	M43	X	0	0	0	%100
52	M43	Z	-4.356	-4.356	0	%100
53	M44	X	0	0	0	%100
54	M44	Z	-15.698	-15.698	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	M1	X	8.486	8.486	0	%100
2	M1	Z	-14.698	-14.698	0	%100
3	M2	X	8.486	8.486	0	%100
4	M2	Z	-14.698	-14.698	0	%100
5	M7A	X	8.486	8.486	0	%100
6	M7A	Z	-14.698	-14.698	0	%100
7	M8	X	8.486	8.486	0	%100
8	M8	Z	-14.698	-14.698	0	%100
9	M13	X	4.395	4.395	0	%100
10	M13	Z	-7.612	-7.612	0	%100
11	M14	X	4.395	4.395	0	%100
12	M14	Z	-7.612	-7.612	0	%100
13	M15	X	4.395	4.395	0	%100
14	M15	Z	-7.612	-7.612	0	%100
15	M16	X	4.395	4.395	0	%100
16	M16	Z	-7.612	-7.612	0	%100
17	M19	X	8.413	8.413	0	%100

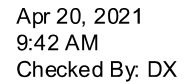


Member Distributed Loads (BLC 43 : Structure Wo (60 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
12	M14	Z	-4.395	-4.395	0	%100
13	M15	X	7.612	7.612	0	%100
14	M15	Z	-4.395	-4.395	0	%100
15	M16	X	7.612	7.612	0	%100
16	M16	Z	-4.395	-4.395	0	%100
17	M19	X	13.268	13.268	0	%100
18	M19	Z	-7.66	-7.66	0	%100
19	M20	X	13.268	13.268	0	%100
20	M20	Z	-7.66	-7.66	0	%100
21	M25	X	1.298	1.298	0	%100
22	M25	Z	-.749	-.749	0	%100
23	M26	X	1.298	1.298	0	%100
24	M26	Z	-.749	-.749	0	%100
25	M27	X	7.612	7.612	0	%100
26	M27	Z	-4.395	-4.395	0	%100
27	M28	X	7.612	7.612	0	%100
28	M28	Z	-4.395	-4.395	0	%100
29	M29	X	2.828	2.828	0	%100
30	M29	Z	-1.633	-1.633	0	%100
31	MP1A	X	9.309	9.309	0	%100
32	MP1A	Z	-5.375	-5.375	0	%100
33	M30	X	7.177	7.177	0	%100
34	M30	Z	-4.143	-4.143	0	%100
35	MP2A	X	9.309	9.309	0	%100
36	MP2A	Z	-5.375	-5.375	0	%100
37	MP3A	X	9.309	9.309	0	%100
38	MP3A	Z	-5.375	-5.375	0	%100
39	MP4A	X	9.309	9.309	0	%100
40	MP4A	Z	-5.375	-5.375	0	%100
41	MP5A	X	9.309	9.309	0	%100
42	MP5A	Z	-5.375	-5.375	0	%100
43	M35A	X	2.817	2.817	0	%100
44	M35A	Z	-1.627	-1.627	0	%100
45	M40A	X	6.228	6.228	0	%100
46	M40A	Z	-3.596	-3.596	0	%100
47	M41	X	10.835	10.835	0	%100
48	M41	Z	-6.256	-6.256	0	%100
49	M42	X	8.642	8.642	0	%100
50	M42	Z	-4.989	-4.989	0	%100
51	M43	X	2.985	2.985	0	%100
52	M43	Z	-1.723	-1.723	0	%100
53	M44	X	10.733	10.733	0	%100
54	M44	Z	-6.197	-6.197	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	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M7A	X	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	4.899	4.899	0	%100
2	M1	Z	2.829	2.829	0	%100
3	M2	X	4.899	4.899	0	%100
4	M2	Z	2.829	2.829	0	%100
5	M7A	X	4.899	4.899	0	%100
6	M7A	Z	2.829	2.829	0	%100
7	M8	X	4.899	4.899	0	%100
8	M8	Z	2.829	2.829	0	%100
9	M13	X	7.612	7.612	0	%100
10	M13	Z	4.395	4.395	0	%100
11	M14	X	7.612	7.612	0	%100
12	M14	Z	4.395	4.395	0	%100
13	M15	X	7.612	7.612	0	%100
14	M15	Z	4.395	4.395	0	%100
15	M16	X	7.612	7.612	0	%100
16	M16	Z	4.395	4.395	0	%100
17	M19	X	.453	.453	0	%100
18	M19	Z	.262	.262	0	%100
19	M20	X	.453	.453	0	%100
20	M20	Z	.262	.262	0	%100
21	M25	X	.044	.044	0	%100
22	M25	Z	.026	.026	0	%100
23	M26	X	.044	.044	0	%100
24	M26	Z	.026	.026	0	%100
25	M27	X	7.612	7.612	0	%100
26	M27	Z	4.395	4.395	0	%100
27	M28	X	7.612	7.612	0	%100
28	M28	Z	4.395	4.395	0	%100
29	M29	X	2.012	2.012	0	%100
30	M29	Z	1.162	1.162	0	%100
31	MP1A	X	9.309	9.309	0	%100
32	MP1A	Z	5.375	5.375	0	%100
33	M30	X	.006	.006	0	%100
34	M30	Z	.003	.003	0	%100
35	MP2A	X	9.309	9.309	0	%100
36	MP2A	Z	5.375	5.375	0	%100
37	MP3A	X	9.309	9.309	0	%100
38	MP3A	Z	5.375	5.375	0	%100
39	MP4A	X	9.309	9.309	0	%100
40	MP4A	Z	5.375	5.375	0	%100
41	MP5A	X	9.309	9.309	0	%100
42	MP5A	Z	5.375	5.375	0	%100
43	M35A	X	2.817	2.817	0	%100
44	M35A	Z	1.627	1.627	0	%100
45	M40A	X	14.685	14.685	0	%100
46	M40A	Z	8.478	8.478	0	%100
47	M41	X	2.185	2.185	0	%100
48	M41	Z	1.261	1.261	0	%100
49	M42	X	.581	.581	0	%100
50	M42	Z	.335	.335	0	%100
51	M43	X	13.47	13.47	0	%100
52	M43	Z	7.777	7.777	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
53	M44	X	.169	.169	0	%100
54	M44	Z	.098	.098	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	M1	X	8.486	8.486	0	%100
2	M1	Z	14.698	14.698	0	%100
3	M2	X	8.486	8.486	0	%100
4	M2	Z	14.698	14.698	0	%100
5	M7A	X	8.486	8.486	0	%100
6	M7A	Z	14.698	14.698	0	%100
7	M8	X	8.486	8.486	0	%100
8	M8	Z	14.698	14.698	0	%100
9	M13	X	4.395	4.395	0	%100
10	M13	Z	7.612	7.612	0	%100
11	M14	X	4.395	4.395	0	%100
12	M14	Z	7.612	7.612	0	%100
13	M15	X	4.395	4.395	0	%100
14	M15	Z	7.612	7.612	0	%100
15	M16	X	4.395	4.395	0	%100
16	M16	Z	7.612	7.612	0	%100
17	M19	X	1.015	1.015	0	%100
18	M19	Z	1.758	1.758	0	%100
19	M20	X	1.015	1.015	0	%100
20	M20	Z	1.758	1.758	0	%100
21	M25	X	.099	.099	0	%100
22	M25	Z	.172	.172	0	%100
23	M26	X	.099	.099	0	%100
24	M26	Z	.172	.172	0	%100
25	M27	X	4.395	4.395	0	%100
26	M27	Z	7.612	7.612	0	%100
27	M28	X	4.395	4.395	0	%100
28	M28	Z	7.612	7.612	0	%100
29	M29	X	1.21	1.21	0	%100
30	M29	Z	2.095	2.095	0	%100
31	MP1A	X	5.375	5.375	0	%100
32	MP1A	Z	9.309	9.309	0	%100
33	M30	X	1.231	1.231	0	%100
34	M30	Z	2.132	2.132	0	%100
35	MP2A	X	5.375	5.375	0	%100
36	MP2A	Z	9.309	9.309	0	%100
37	MP3A	X	5.375	5.375	0	%100
38	MP3A	Z	9.309	9.309	0	%100
39	MP4A	X	5.375	5.375	0	%100
40	MP4A	Z	9.309	9.309	0	%100
41	MP5A	X	5.375	5.375	0	%100
42	MP5A	Z	9.309	9.309	0	%100
43	M35A	X	4.88	4.88	0	%100
44	M35A	Z	8.452	8.452	0	%100
45	M40A	X	8.125	8.125	0	%100
46	M40A	Z	14.073	14.073	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
47	M41	X	4.269	4.269	0	%100
48	M41	Z	7.394	7.394	0	%100
49	M42	X	.385	.385	0	%100
50	M42	Z	.668	.668	0	%100
51	M43	X	6.062	6.062	0	%100
52	M43	Z	10.5	10.5	0	%100
53	M44	X	3.232	3.232	0	%100
54	M44	Z	5.598	5.598	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	M1	X	0	0	0	%100
2	M1	Z	22.63	22.63	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	22.63	22.63	0	%100
5	M7A	X	0	0	0	%100
6	M7A	Z	22.63	22.63	0	%100
7	M8	X	0	0	0	%100
8	M8	Z	22.63	22.63	0	%100
9	M13	X	0	0	0	%100
10	M13	Z	8.79	8.79	0	%100
11	M14	X	0	0	0	%100
12	M14	Z	8.79	8.79	0	%100
13	M15	X	0	0	0	%100
14	M15	Z	8.79	8.79	0	%100
15	M16	X	0	0	0	%100
16	M16	Z	8.79	8.79	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	10.181	10.181	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	10.181	10.181	0	%100
21	M25	X	0	0	0	%100
22	M25	Z	.996	.996	0	%100
23	M26	X	0	0	0	%100
24	M26	Z	.996	.996	0	%100
25	M27	X	0	0	0	%100
26	M27	Z	8.79	8.79	0	%100
27	M28	X	0	0	0	%100
28	M28	Z	8.79	8.79	0	%100
29	M29	X	0	0	0	%100
30	M29	Z	2.938	2.938	0	%100
31	MP1A	X	0	0	0	%100
32	MP1A	Z	10.749	10.749	0	%100
33	M30	X	0	0	0	%100
34	M30	Z	7.83	7.83	0	%100
35	MP2A	X	0	0	0	%100
36	MP2A	Z	10.749	10.749	0	%100
37	MP3A	X	0	0	0	%100
38	MP3A	Z	10.749	10.749	0	%100
39	MP4A	X	0	0	0	%100
40	MP4A	Z	10.749	10.749	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
35	MP2A	X	-5.375	-5.375	0	%100
36	MP2A	Z	9.309	9.309	0	%100
37	MP3A	X	-5.375	-5.375	0	%100
38	MP3A	Z	9.309	9.309	0	%100
39	MP4A	X	-5.375	-5.375	0	%100
40	MP4A	Z	9.309	9.309	0	%100
41	MP5A	X	-5.375	-5.375	0	%100
42	MP5A	Z	9.309	9.309	0	%100
43	M35A	X	-4.88	-4.88	0	%100
44	M35A	Z	8.452	8.452	0	%100
45	M40A	X	-3.243	-3.243	0	%100
46	M40A	Z	5.617	5.617	0	%100
47	M41	X	-9.263	-9.263	0	%100
48	M41	Z	16.045	16.045	0	%100
49	M42	X	-5.039	-5.039	0	%100
50	M42	Z	8.728	8.728	0	%100
51	M43	X	-.009	-.009	0	%100
52	M43	Z	.015	.015	0	%100
53	M44	X	-9.332	-9.332	0	%100
54	M44	Z	16.163	16.163	0	%100

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

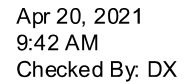
	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-4.899	-4.899	0	%100
2	M1	Z	2.829	2.829	0	%100
3	M2	X	-4.899	-4.899	0	%100
4	M2	Z	2.829	2.829	0	%100
5	M7A	X	-4.899	-4.899	0	%100
6	M7A	Z	2.829	2.829	0	%100
7	M8	X	-4.899	-4.899	0	%100
8	M8	Z	2.829	2.829	0	%100
9	M13	X	-7.612	-7.612	0	%100
10	M13	Z	4.395	4.395	0	%100
11	M14	X	-7.612	-7.612	0	%100
12	M14	Z	4.395	4.395	0	%100
13	M15	X	-7.612	-7.612	0	%100
14	M15	Z	4.395	4.395	0	%100
15	M16	X	-7.612	-7.612	0	%100
16	M16	Z	4.395	4.395	0	%100
17	M19	X	-13.268	-13.268	0	%100
18	M19	Z	7.66	7.66	0	%100
19	M20	X	-13.268	-13.268	0	%100
20	M20	Z	7.66	7.66	0	%100
21	M25	X	-1.298	-1.298	0	%100
22	M25	Z	.749	.749	0	%100
23	M26	X	-1.298	-1.298	0	%100
24	M26	Z	.749	.749	0	%100
25	M27	X	-7.612	-7.612	0	%100
26	M27	Z	4.395	4.395	0	%100
27	M28	X	-7.612	-7.612	0	%100
28	M28	Z	4.395	4.395	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
23	M26	X	-7.701	-7.701	0	%100
24	M26	Z	0	0	0	%100
25	M27	X	-8.79	-8.79	0	%100
26	M27	Z	0	0	0	%100
27	M28	X	-8.79	-8.79	0	%100
28	M28	Z	0	0	0	%100
29	M29	X	-2.746	-2.746	0	%100
30	M29	Z	0	0	0	%100
31	MP1A	X	-10.749	-10.749	0	%100
32	MP1A	Z	0	0	0	%100
33	M30	X	-2.919	-2.919	0	%100
34	M30	Z	0	0	0	%100
35	MP2A	X	-10.749	-10.749	0	%100
36	MP2A	Z	0	0	0	%100
37	MP3A	X	-10.749	-10.749	0	%100
38	MP3A	Z	0	0	0	%100
39	MP4A	X	-10.749	-10.749	0	%100
40	MP4A	Z	0	0	0	%100
41	MP5A	X	-10.749	-10.749	0	%100
42	MP5A	Z	0	0	0	%100
43	M35A	X	0	0	0	%100
44	M35A	Z	0	0	0	%100
45	M40A	X	-12.427	-12.427	0	%100
46	M40A	Z	0	0	0	%100
47	M41	X	-4.509	-4.509	0	%100
48	M41	Z	0	0	0	%100
49	M42	X	-5.275	-5.275	0	%100
50	M42	Z	0	0	0	%100
51	M43	X	-11.215	-11.215	0	%100
52	M43	Z	0	0	0	%100
53	M44	X	-3.16	-3.16	0	%100
54	M44	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	M1	X	-4.899	-4.899	0	%100
2	M1	Z	-2.829	-2.829	0	%100
3	M2	X	-4.899	-4.899	0	%100
4	M2	Z	-2.829	-2.829	0	%100
5	M7A	X	-4.899	-4.899	0	%100
6	M7A	Z	-2.829	-2.829	0	%100
7	M8	X	-4.899	-4.899	0	%100
8	M8	Z	-2.829	-2.829	0	%100
9	M13	X	-7.612	-7.612	0	%100
10	M13	Z	-4.395	-4.395	0	%100
11	M14	X	-7.612	-7.612	0	%100
12	M14	Z	-4.395	-4.395	0	%100
13	M15	X	-7.612	-7.612	0	%100
14	M15	Z	-4.395	-4.395	0	%100
15	M16	X	-7.612	-7.612	0	%100
16	M16	Z	-4.395	-4.395	0	%100

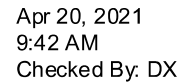
[illegible]

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
11	M14	X	-4.395	-4.395	0	%100
12	M14	Z	-7.612	-7.612	0	%100
13	M15	X	-4.395	-4.395	0	%100
14	M15	Z	-7.612	-7.612	0	%100
15	M16	X	-4.395	-4.395	0	%100
16	M16	Z	-7.612	-7.612	0	%100
17	M19	X	-1.015	-1.015	0	%100
18	M19	Z	-1.758	-1.758	0	%100
19	M20	X	-1.015	-1.015	0	%100
20	M20	Z	-1.758	-1.758	0	%100
21	M25	X	-.099	-.099	0	%100
22	M25	Z	-.172	-.172	0	%100
23	M26	X	-.099	-.099	0	%100
24	M26	Z	-.172	-.172	0	%100
25	M27	X	-4.395	-4.395	0	%100
26	M27	Z	-7.612	-7.612	0	%100
27	M28	X	-4.395	-4.395	0	%100
28	M28	Z	-7.612	-7.612	0	%100
29	M29	X	-1.21	-1.21	0	%100
30	M29	Z	-2.095	-2.095	0	%100
31	MP1A	X	-5.375	-5.375	0	%100
32	MP1A	Z	-9.309	-9.309	0	%100
33	M30	X	-1.231	-1.231	0	%100
34	M30	Z	-2.132	-2.132	0	%100
35	MP2A	X	-5.375	-5.375	0	%100
36	MP2A	Z	-9.309	-9.309	0	%100
37	MP3A	X	-5.375	-5.375	0	%100
38	MP3A	Z	-9.309	-9.309	0	%100
39	MP4A	X	-5.375	-5.375	0	%100
40	MP4A	Z	-9.309	-9.309	0	%100
41	MP5A	X	-5.375	-5.375	0	%100
42	MP5A	Z	-9.309	-9.309	0	%100
43	M35A	X	-4.88	-4.88	0	%100
44	M35A	Z	-8.452	-8.452	0	%100
45	M40A	X	-8.125	-8.125	0	%100
46	M40A	Z	-14.073	-14.073	0	%100
47	M41	X	-4.269	-4.269	0	%100
48	M41	Z	-7.394	-7.394	0	%100
49	M42	X	-.385	-.385	0	%100
50	M42	Z	-.668	-.668	0	%100
51	M43	X	-6.062	-6.062	0	%100
52	M43	Z	-10.5	-10.5	0	%100
53	M44	X	-3.232	-3.232	0	%100
54	M44	Z	-5.598	-5.598	0	%100

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

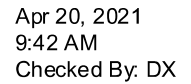
	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	0	0	0	%100
2	M1	Z	-5.691	-5.691	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-5.691	-5.691	0	%100



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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	M1	X	2.134	2.134	0	%100
2	M1	Z	-3.697	-3.697	0	%100
3	M2	X	2.134	2.134	0	%100
4	M2	Z	-3.697	-3.697	0	%100
5	M7A	X	2.134	2.134	0	%100
6	M7A	Z	-3.697	-3.697	0	%100
7	M8	X	2.134	2.134	0	%100
8	M8	Z	-3.697	-3.697	0	%100
9	M13	X	1.499	1.499	0	%100
10	M13	Z	-2.596	-2.596	0	%100
11	M14	X	1.499	1.499	0	%100
12	M14	Z	-2.596	-2.596	0	%100
13	M15	X	1.499	1.499	0	%100
14	M15	Z	-2.596	-2.596	0	%100
15	M16	X	1.499	1.499	0	%100
16	M16	Z	-2.596	-2.596	0	%100
17	M19	X	2.141	2.141	0	%100
18	M19	Z	-3.709	-3.709	0	%100
19	M20	X	2.141	2.141	0	%100
20	M20	Z	-3.709	-3.709	0	%100
21	M25	X	.7	.7	0	%100
22	M25	Z	-1.212	-1.212	0	%100
23	M26	X	.7	.7	0	%100
24	M26	Z	-1.212	-1.212	0	%100
25	M27	X	1.499	1.499	0	%100
26	M27	Z	-2.596	-2.596	0	%100
27	M28	X	1.499	1.499	0	%100
28	M28	Z	-2.596	-2.596	0	%100
29	M29	X	1.083	1.083	0	%100
30	M29	Z	-1.876	-1.876	0	%100
31	MP1A	X	1.831	1.831	0	%100
32	MP1A	Z	-3.172	-3.172	0	%100
33	M30	X	1.83	1.83	0	%100
34	M30	Z	-3.17	-3.17	0	%100
35	MP2A	X	1.831	1.831	0	%100
36	MP2A	Z	-3.172	-3.172	0	%100
37	MP3A	X	1.831	1.831	0	%100
38	MP3A	Z	-3.172	-3.172	0	%100
39	MP4A	X	1.831	1.831	0	%100
40	MP4A	Z	-3.172	-3.172	0	%100
41	MP5A	X	1.831	1.831	0	%100
42	MP5A	Z	-3.172	-3.172	0	%100
43	M35A	X	1.518	1.518	0	%100
44	M35A	Z	-2.63	-2.63	0	%100
45	M40A	X	.872	.872	0	%100
46	M40A	Z	-1.511	-1.511	0	%100
47	M41	X	2.479	2.479	0	%100
48	M41	Z	-4.294	-4.294	0	%100
49	M42	X	1.717	1.717	0	%100
50	M42	Z	-2.974	-2.974	0	%100
51	M43	X	.002	.002	0	%100
52	M43	Z	-.004	-.004	0	%100

[illegible]

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
47	M41	X	2.9	2.9	0	%100
48	M41	Z	-1.674	-1.674	0	%100
49	M42	X	2.945	2.945	0	%100
50	M42	Z	-1.7	-1.7	0	%100
51	M43	X	.798	.798	0	%100
52	M43	Z	-.46	-.46	0	%100
53	M44	X	2.873	2.873	0	%100
54	M44	Z	-1.659	-1.659	0	%100

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

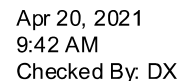
	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M7A	X	0	0	0	%100
6	M7A	Z	0	0	0	%100
7	M8	X	0	0	0	%100
8	M8	Z	0	0	0	%100
9	M13	X	2.997	2.997	0	%100
10	M13	Z	0	0	0	%100
11	M14	X	2.997	2.997	0	%100
12	M14	Z	0	0	0	%100
13	M15	X	2.997	2.997	0	%100
14	M15	Z	0	0	0	%100
15	M16	X	2.997	2.997	0	%100
16	M16	Z	0	0	0	%100
17	M19	X	1.825	1.825	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	1.825	1.825	0	%100
20	M20	Z	0	0	0	%100
21	M25	X	.596	.596	0	%100
22	M25	Z	0	0	0	%100
23	M26	X	.596	.596	0	%100
24	M26	Z	0	0	0	%100
25	M27	X	2.997	2.997	0	%100
26	M27	Z	0	0	0	%100
27	M28	X	2.997	2.997	0	%100
28	M28	Z	0	0	0	%100
29	M29	X	1.77	1.77	0	%100
30	M29	Z	0	0	0	%100
31	MP1A	X	3.663	3.663	0	%100
32	MP1A	Z	0	0	0	%100
33	M30	X	.995	.995	0	%100
34	M30	Z	0	0	0	%100
35	MP2A	X	3.663	3.663	0	%100
36	MP2A	Z	0	0	0	%100
37	MP3A	X	3.663	3.663	0	%100
38	MP3A	Z	0	0	0	%100
39	MP4A	X	3.663	3.663	0	%100
40	MP4A	Z	0	0	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,%]
35	MP2A	X	3.172	3.172	0	%100
36	MP2A	Z	1.831	1.831	0	%100
37	MP3A	X	3.172	3.172	0	%100
38	MP3A	Z	1.831	1.831	0	%100
39	MP4A	X	3.172	3.172	0	%100
40	MP4A	Z	1.831	1.831	0	%100
41	MP5A	X	3.172	3.172	0	%100
42	MP5A	Z	1.831	1.831	0	%100
43	M35A	X	.877	.877	0	%100
44	M35A	Z	.506	.506	0	%100
45	M40A	X	3.951	3.951	0	%100
46	M40A	Z	2.281	2.281	0	%100
47	M41	X	.585	.585	0	%100
48	M41	Z	.338	.338	0	%100
49	M42	X	.198	.198	0	%100
50	M42	Z	.114	.114	0	%100
51	M43	X	3.599	3.599	0	%100
52	M43	Z	2.078	2.078	0	%100
53	M44	X	.045	.045	0	%100
54	M44	Z	.026	.026	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	M1	X	2.134	2.134	0	%100
2	M1	Z	3.697	3.697	0	%100
3	M2	X	2.134	2.134	0	%100
4	M2	Z	3.697	3.697	0	%100
5	M7A	X	2.134	2.134	0	%100
6	M7A	Z	3.697	3.697	0	%100
7	M8	X	2.134	2.134	0	%100
8	M8	Z	3.697	3.697	0	%100
9	M13	X	1.499	1.499	0	%100
10	M13	Z	2.596	2.596	0	%100
11	M14	X	1.499	1.499	0	%100
12	M14	Z	2.596	2.596	0	%100
13	M15	X	1.499	1.499	0	%100
14	M15	Z	2.596	2.596	0	%100
15	M16	X	1.499	1.499	0	%100
16	M16	Z	2.596	2.596	0	%100
17	M19	X	.258	.258	0	%100
18	M19	Z	.447	.447	0	%100
19	M20	X	.258	.258	0	%100
20	M20	Z	.447	.447	0	%100
21	M25	X	.084	.084	0	%100
22	M25	Z	.146	.146	0	%100
23	M26	X	.084	.084	0	%100
24	M26	Z	.146	.146	0	%100
25	M27	X	1.499	1.499	0	%100
26	M27	Z	2.596	2.596	0	%100
27	M28	X	1.499	1.499	0	%100
28	M28	Z	2.596	2.596	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
23	M26	X	0	0	0	%100
24	M26	Z	.847	.847	0	%100
25	M27	X	0	0	0	%100
26	M27	Z	2.997	2.997	0	%100
27	M28	X	0	0	0	%100
28	M28	Z	2.997	2.997	0	%100
29	M29	X	0	0	0	%100
30	M29	Z	1.894	1.894	0	%100
31	MP1A	X	0	0	0	%100
32	MP1A	Z	3.663	3.663	0	%100
33	M30	X	0	0	0	%100
34	M30	Z	2.668	2.668	0	%100
35	MP2A	X	0	0	0	%100
36	MP2A	Z	3.663	3.663	0	%100
37	MP3A	X	0	0	0	%100
38	MP3A	Z	3.663	3.663	0	%100
39	MP4A	X	0	0	0	%100
40	MP4A	Z	3.663	3.663	0	%100
41	MP5A	X	0	0	0	%100
42	MP5A	Z	3.663	3.663	0	%100
43	M35A	X	0	0	0	%100
44	M35A	Z	4.049	4.049	0	%100
45	M40A	X	0	0	0	%100
46	M40A	Z	2.963	2.963	0	%100
47	M41	X	0	0	0	%100
48	M41	Z	4.427	4.427	0	%100
49	M42	X	0	0	0	%100
50	M42	Z	1.865	1.865	0	%100
51	M43	X	0	0	0	%100
52	M43	Z	1.164	1.164	0	%100
53	M44	X	0	0	0	%100
54	M44	Z	4.202	4.202	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	M1	X	-2.134	-2.134	0	%100
2	M1	Z	3.697	3.697	0	%100
3	M2	X	-2.134	-2.134	0	%100
4	M2	Z	3.697	3.697	0	%100
5	M7A	X	-2.134	-2.134	0	%100
6	M7A	Z	3.697	3.697	0	%100
7	M8	X	-2.134	-2.134	0	%100
8	M8	Z	3.697	3.697	0	%100
9	M13	X	-1.499	-1.499	0	%100
10	M13	Z	2.596	2.596	0	%100
11	M14	X	-1.499	-1.499	0	%100
12	M14	Z	2.596	2.596	0	%100
13	M15	X	-1.499	-1.499	0	%100
14	M15	Z	2.596	2.596	0	%100
15	M16	X	-1.499	-1.499	0	%100
16	M16	Z	2.596	2.596	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
17	M19	X	-2.141	-2.141	0	%100
18	M19	Z	3.709	3.709	0	%100
19	M20	X	-2.141	-2.141	0	%100
20	M20	Z	3.709	3.709	0	%100
21	M25	X	-.7	-.7	0	%100
22	M25	Z	1.212	1.212	0	%100
23	M26	X	-.7	-.7	0	%100
24	M26	Z	1.212	1.212	0	%100
25	M27	X	-1.499	-1.499	0	%100
26	M27	Z	2.596	2.596	0	%100
27	M28	X	-1.499	-1.499	0	%100
28	M28	Z	2.596	2.596	0	%100
29	M29	X	-1.083	-1.083	0	%100
30	M29	Z	1.876	1.876	0	%100
31	MP1A	X	-1.831	-1.831	0	%100
32	MP1A	Z	3.172	3.172	0	%100
33	M30	X	-1.83	-1.83	0	%100
34	M30	Z	3.17	3.17	0	%100
35	MP2A	X	-1.831	-1.831	0	%100
36	MP2A	Z	3.172	3.172	0	%100
37	MP3A	X	-1.831	-1.831	0	%100
38	MP3A	Z	3.172	3.172	0	%100
39	MP4A	X	-1.831	-1.831	0	%100
40	MP4A	Z	3.172	3.172	0	%100
41	MP5A	X	-1.831	-1.831	0	%100
42	MP5A	Z	3.172	3.172	0	%100
43	M35A	X	-1.518	-1.518	0	%100
44	M35A	Z	2.63	2.63	0	%100
45	M40A	X	-.872	-.872	0	%100
46	M40A	Z	1.511	1.511	0	%100
47	M41	X	-2.479	-2.479	0	%100
48	M41	Z	4.294	4.294	0	%100
49	M42	X	-1.717	-1.717	0	%100
50	M42	Z	2.974	2.974	0	%100
51	M43	X	-.002	-.002	0	%100
52	M43	Z	.004	.004	0	%100
53	M44	X	-2.498	-2.498	0	%100
54	M44	Z	4.326	4.326	0	%100

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

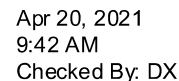
	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.232	-1.232	0	%100
2	M1	Z	.711	.711	0	%100
3	M2	X	-1.232	-1.232	0	%100
4	M2	Z	.711	.711	0	%100
5	M7A	X	-1.232	-1.232	0	%100
6	M7A	Z	.711	.711	0	%100
7	M8	X	-1.232	-1.232	0	%100
8	M8	Z	.711	.711	0	%100
9	M13	X	-2.596	-2.596	0	%100
10	M13	Z	1.499	1.499	0	%100

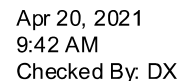
Member Distributed Loads (BLC 61 : Structure Wi (240 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
11	M14	X	-2.596	-2.596	0	%100
12	M14	Z	1.499	1.499	0	%100
13	M15	X	-2.596	-2.596	0	%100
14	M15	Z	1.499	1.499	0	%100
15	M16	X	-2.596	-2.596	0	%100
16	M16	Z	1.499	1.499	0	%100
17	M19	X	-3.377	-3.377	0	%100
18	M19	Z	1.95	1.95	0	%100
19	M20	X	-3.377	-3.377	0	%100
20	M20	Z	1.95	1.95	0	%100
21	M25	X	-1.103	-1.103	0	%100
22	M25	Z	.637	.637	0	%100
23	M26	X	-1.103	-1.103	0	%100
24	M26	Z	.637	.637	0	%100
25	M27	X	-2.596	-2.596	0	%100
26	M27	Z	1.499	1.499	0	%100
27	M28	X	-2.596	-2.596	0	%100
28	M28	Z	1.499	1.499	0	%100
29	M29	X	-1.823	-1.823	0	%100
30	M29	Z	1.052	1.052	0	%100
31	MP1A	X	-3.172	-3.172	0	%100
32	MP1A	Z	1.831	1.831	0	%100
33	M30	X	-2.445	-2.445	0	%100
34	M30	Z	1.412	1.412	0	%100
35	MP2A	X	-3.172	-3.172	0	%100
36	MP2A	Z	1.831	1.831	0	%100
37	MP3A	X	-3.172	-3.172	0	%100
38	MP3A	Z	1.831	1.831	0	%100
39	MP4A	X	-3.172	-3.172	0	%100
40	MP4A	Z	1.831	1.831	0	%100
41	MP5A	X	-3.172	-3.172	0	%100
42	MP5A	Z	1.831	1.831	0	%100
43	M35A	X	-.877	-.877	0	%100
44	M35A	Z	.506	.506	0	%100
45	M40A	X	-1.676	-1.676	0	%100
46	M40A	Z	.967	.967	0	%100
47	M41	X	-2.9	-2.9	0	%100
48	M41	Z	1.674	1.674	0	%100
49	M42	X	-2.945	-2.945	0	%100
50	M42	Z	1.7	1.7	0	%100
51	M43	X	-.798	-.798	0	%100
52	M43	Z	.46	.46	0	%100
53	M44	X	-2.873	-2.873	0	%100
54	M44	Z	1.659	1.659	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	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
53	M44	X	-0.045	-0.045	0	%100
54	M44	Z	-0.026	-0.026	0	%100

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

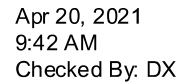
	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-2.134	-2.134	0	%100
2	M1	Z	-3.697	-3.697	0	%100
3	M2	X	-2.134	-2.134	0	%100
4	M2	Z	-3.697	-3.697	0	%100
5	M7A	X	-2.134	-2.134	0	%100
6	M7A	Z	-3.697	-3.697	0	%100
7	M8	X	-2.134	-2.134	0	%100
8	M8	Z	-3.697	-3.697	0	%100
9	M13	X	-1.499	-1.499	0	%100
10	M13	Z	-2.596	-2.596	0	%100
11	M14	X	-1.499	-1.499	0	%100
12	M14	Z	-2.596	-2.596	0	%100
13	M15	X	-1.499	-1.499	0	%100
14	M15	Z	-2.596	-2.596	0	%100
15	M16	X	-1.499	-1.499	0	%100
16	M16	Z	-2.596	-2.596	0	%100
17	M19	X	-.258	-.258	0	%100
18	M19	Z	-.447	-.447	0	%100
19	M20	X	-.258	-.258	0	%100
20	M20	Z	-.447	-.447	0	%100
21	M25	X	-.084	-.084	0	%100
22	M25	Z	-.146	-.146	0	%100
23	M26	X	-.084	-.084	0	%100
24	M26	Z	-.146	-.146	0	%100
25	M27	X	-1.499	-1.499	0	%100
26	M27	Z	-2.596	-2.596	0	%100
27	M28	X	-1.499	-1.499	0	%100
28	M28	Z	-2.596	-2.596	0	%100
29	M29	X	-.78	-.78	0	%100
30	M29	Z	-1.351	-1.351	0	%100
31	MP1A	X	-1.831	-1.831	0	%100
32	MP1A	Z	-3.172	-3.172	0	%100
33	M30	X	-.419	-.419	0	%100
34	M30	Z	-.727	-.727	0	%100
35	MP2A	X	-1.831	-1.831	0	%100
36	MP2A	Z	-3.172	-3.172	0	%100
37	MP3A	X	-1.831	-1.831	0	%100
38	MP3A	Z	-3.172	-3.172	0	%100
39	MP4A	X	-1.831	-1.831	0	%100
40	MP4A	Z	-3.172	-3.172	0	%100
41	MP5A	X	-1.831	-1.831	0	%100
42	MP5A	Z	-3.172	-3.172	0	%100
43	M35A	X	-1.518	-1.518	0	%100
44	M35A	Z	-2.63	-2.63	0	%100
45	M40A	X	-2.186	-2.186	0	%100
46	M40A	Z	-3.786	-3.786	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,%]
47	M41	X	-1.143	-1.143	0	%100
48	M41	Z	-1.979	-1.979	0	%100
49	M42	X	-.131	-.131	0	%100
50	M42	Z	-.227	-.227	0	%100
51	M43	X	-1.62	-1.62	0	%100
52	M43	Z	-2.805	-2.805	0	%100
53	M44	X	-.865	-.865	0	%100
54	M44	Z	-1.498	-1.498	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	M1	X	0	0	0	%100
2	M1	Z	-1.391	-1.391	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-1.391	-1.391	0	%100
5	M7A	X	0	0	0	%100
6	M7A	Z	-1.391	-1.391	0	%100
7	M8	X	0	0	0	%100
8	M8	Z	-1.391	-1.391	0	%100
9	M13	X	0	0	0	%100
10	M13	Z	-.54	-.54	0	%100
11	M14	X	0	0	0	%100
12	M14	Z	-.54	-.54	0	%100
13	M15	X	0	0	0	%100
14	M15	Z	-.54	-.54	0	%100
15	M16	X	0	0	0	%100
16	M16	Z	-.54	-.54	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	-.626	-.626	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	-.626	-.626	0	%100
21	M25	X	0	0	0	%100
22	M25	Z	-.061	-.061	0	%100
23	M26	X	0	0	0	%100
24	M26	Z	-.061	-.061	0	%100
25	M27	X	0	0	0	%100
26	M27	Z	-.54	-.54	0	%100
27	M28	X	0	0	0	%100
28	M28	Z	-.54	-.54	0	%100
29	M29	X	0	0	0	%100
30	M29	Z	-.181	-.181	0	%100
31	MP1A	X	0	0	0	%100
32	MP1A	Z	-.661	-.661	0	%100
33	M30	X	0	0	0	%100
34	M30	Z	-.481	-.481	0	%100
35	MP2A	X	0	0	0	%100
36	MP2A	Z	-.661	-.661	0	%100
37	MP3A	X	0	0	0	%100
38	MP3A	Z	-.661	-.661	0	%100
39	MP4A	X	0	0	0	%100
40	MP4A	Z	-.661	-.661	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
35	MP2A	X	.33	.33	0	%100
36	MP2A	Z	-.572	-.572	0	%100
37	MP3A	X	.33	.33	0	%100
38	MP3A	Z	-.572	-.572	0	%100
39	MP4A	X	.33	.33	0	%100
40	MP4A	Z	-.572	-.572	0	%100
41	MP5A	X	.33	.33	0	%100
42	MP5A	Z	-.572	-.572	0	%100
43	M35A	X	.3	.3	0	%100
44	M35A	Z	-.52	-.52	0	%100
45	M40A	X	.199	.199	0	%100
46	M40A	Z	-.345	-.345	0	%100
47	M41	X	.569	.569	0	%100
48	M41	Z	-.986	-.986	0	%100
49	M42	X	.31	.31	0	%100
50	M42	Z	-.537	-.537	0	%100
51	M43	X	.000545	.000545	0	%100
52	M43	Z	-.000944	-.000944	0	%100
53	M44	X	.574	.574	0	%100
54	M44	Z	-.994	-.994	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	M1	X	.301	.301	0	%100
2	M1	Z	-.174	-.174	0	%100
3	M2	X	.301	.301	0	%100
4	M2	Z	-.174	-.174	0	%100
5	M7A	X	.301	.301	0	%100
6	M7A	Z	-.174	-.174	0	%100
7	M8	X	.301	.301	0	%100
8	M8	Z	-.174	-.174	0	%100
9	M13	X	.468	.468	0	%100
10	M13	Z	-.27	-.27	0	%100
11	M14	X	.468	.468	0	%100
12	M14	Z	-.27	-.27	0	%100
13	M15	X	.468	.468	0	%100
14	M15	Z	-.27	-.27	0	%100
15	M16	X	.468	.468	0	%100
16	M16	Z	-.27	-.27	0	%100
17	M19	X	.816	.816	0	%100
18	M19	Z	-.471	-.471	0	%100
19	M20	X	.816	.816	0	%100
20	M20	Z	-.471	-.471	0	%100
21	M25	X	.08	.08	0	%100
22	M25	Z	-.046	-.046	0	%100
23	M26	X	.08	.08	0	%100
24	M26	Z	-.046	-.046	0	%100
25	M27	X	.468	.468	0	%100
26	M27	Z	-.27	-.27	0	%100
27	M28	X	.468	.468	0	%100
28	M28	Z	-.27	-.27	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
23	M26	X	.043	.043	0	%100
24	M26	Z	0	0	0	%100
25	M27	X	.54	.54	0	%100
26	M27	Z	0	0	0	%100
27	M28	X	.54	.54	0	%100
28	M28	Z	0	0	0	%100
29	M29	X	.169	.169	0	%100
30	M29	Z	0	0	0	%100
31	MP1A	X	.661	.661	0	%100
32	MP1A	Z	0	0	0	%100
33	M30	X	.179	.179	0	%100
34	M30	Z	0	0	0	%100
35	MP2A	X	.661	.661	0	%100
36	MP2A	Z	0	0	0	%100
37	MP3A	X	.661	.661	0	%100
38	MP3A	Z	0	0	0	%100
39	MP4A	X	.661	.661	0	%100
40	MP4A	Z	0	0	0	%100
41	MP5A	X	.661	.661	0	%100
42	MP5A	Z	0	0	0	%100
43	M35A	X	0	0	0	%100
44	M35A	Z	0	0	0	%100
45	M40A	X	.764	.764	0	%100
46	M40A	Z	0	0	0	%100
47	M41	X	.277	.277	0	%100
48	M41	Z	0	0	0	%100
49	M42	X	.324	.324	0	%100
50	M42	Z	0	0	0	%100
51	M43	X	.689	.689	0	%100
52	M43	Z	0	0	0	%100
53	M44	X	.194	.194	0	%100
54	M44	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	M1	X	.301	.301	0	%100
2	M1	Z	.174	.174	0	%100
3	M2	X	.301	.301	0	%100
4	M2	Z	.174	.174	0	%100
5	M7A	X	.301	.301	0	%100
6	M7A	Z	.174	.174	0	%100
7	M8	X	.301	.301	0	%100
8	M8	Z	.174	.174	0	%100
9	M13	X	.468	.468	0	%100
10	M13	Z	.27	.27	0	%100
11	M14	X	.468	.468	0	%100
12	M14	Z	.27	.27	0	%100
13	M15	X	.468	.468	0	%100
14	M15	Z	.27	.27	0	%100
15	M16	X	.468	.468	0	%100
16	M16	Z	.27	.27	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
17	M19	X	.028	.028	0	%100
18	M19	Z	.016	.016	0	%100
19	M20	X	.028	.028	0	%100
20	M20	Z	.016	.016	0	%100
21	M25	X	.003	.003	0	%100
22	M25	Z	.002	.002	0	%100
23	M26	X	.003	.003	0	%100
24	M26	Z	.002	.002	0	%100
25	M27	X	.468	.468	0	%100
26	M27	Z	.27	.27	0	%100
27	M28	X	.468	.468	0	%100
28	M28	Z	.27	.27	0	%100
29	M29	X	.124	.124	0	%100
30	M29	Z	.071	.071	0	%100
31	MP1A	X	.572	.572	0	%100
32	MP1A	Z	.33	.33	0	%100
33	M30	X	.000344	.000344	0	%100
34	M30	Z	.000199	.000199	0	%100
35	MP2A	X	.572	.572	0	%100
36	MP2A	Z	.33	.33	0	%100
37	MP3A	X	.572	.572	0	%100
38	MP3A	Z	.33	.33	0	%100
39	MP4A	X	.572	.572	0	%100
40	MP4A	Z	.33	.33	0	%100
41	MP5A	X	.572	.572	0	%100
42	MP5A	Z	.33	.33	0	%100
43	M35A	X	.173	.173	0	%100
44	M35A	Z	.1	.1	0	%100
45	M40A	X	.903	.903	0	%100
46	M40A	Z	.521	.521	0	%100
47	M41	X	.134	.134	0	%100
48	M41	Z	.078	.078	0	%100
49	M42	X	.036	.036	0	%100
50	M42	Z	.021	.021	0	%100
51	M43	X	.828	.828	0	%100
52	M43	Z	.478	.478	0	%100
53	M44	X	.01	.01	0	%100
54	M44	Z	.006	.006	0	%100

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

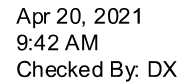
	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.522	.522	0	%100
2	M1	Z	.904	.904	0	%100
3	M2	X	.522	.522	0	%100
4	M2	Z	.904	.904	0	%100
5	M7A	X	.522	.522	0	%100
6	M7A	Z	.904	.904	0	%100
7	M8	X	.522	.522	0	%100
8	M8	Z	.904	.904	0	%100
9	M13	X	.27	.27	0	%100
10	M13	Z	.468	.468	0	%100

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

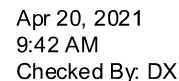
	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
11	M14	X	.27	.27	0	%100
12	M14	Z	.468	.468	0	%100
13	M15	X	.27	.27	0	%100
14	M15	Z	.468	.468	0	%100
15	M16	X	.27	.27	0	%100
16	M16	Z	.468	.468	0	%100
17	M19	X	.062	.062	0	%100
18	M19	Z	.108	.108	0	%100
19	M20	X	.062	.062	0	%100
20	M20	Z	.108	.108	0	%100
21	M25	X	.006	.006	0	%100
22	M25	Z	.011	.011	0	%100
23	M26	X	.006	.006	0	%100
24	M26	Z	.011	.011	0	%100
25	M27	X	.27	.27	0	%100
26	M27	Z	.468	.468	0	%100
27	M28	X	.27	.27	0	%100
28	M28	Z	.468	.468	0	%100
29	M29	X	.074	.074	0	%100
30	M29	Z	.129	.129	0	%100
31	MP1A	X	.33	.33	0	%100
32	MP1A	Z	.572	.572	0	%100
33	M30	X	.076	.076	0	%100
34	M30	Z	.131	.131	0	%100
35	MP2A	X	.33	.33	0	%100
36	MP2A	Z	.572	.572	0	%100
37	MP3A	X	.33	.33	0	%100
38	MP3A	Z	.572	.572	0	%100
39	MP4A	X	.33	.33	0	%100
40	MP4A	Z	.572	.572	0	%100
41	MP5A	X	.33	.33	0	%100
42	MP5A	Z	.572	.572	0	%100
43	M35A	X	.3	.3	0	%100
44	M35A	Z	.52	.52	0	%100
45	M40A	X	.499	.499	0	%100
46	M40A	Z	.865	.865	0	%100
47	M41	X	.262	.262	0	%100
48	M41	Z	.455	.455	0	%100
49	M42	X	.024	.024	0	%100
50	M42	Z	.041	.041	0	%100
51	M43	X	.373	.373	0	%100
52	M43	Z	.645	.645	0	%100
53	M44	X	.199	.199	0	%100
54	M44	Z	.344	.344	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	M1	X	0	0	0	%100
2	M1	Z	1.391	1.391	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	1.391	1.391	0	%100



	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
5	M7A	X	0	0	0	%100
6	M7A	Z	1.391	1.391	0	%100
7	M8	X	0	0	0	%100
8	M8	Z	1.391	1.391	0	%100
9	M13	X	0	0	0	%100
10	M13	Z	.54	.54	0	%100
11	M14	X	0	0	0	%100
12	M14	Z	.54	.54	0	%100
13	M15	X	0	0	0	%100
14	M15	Z	.54	.54	0	%100
15	M16	X	0	0	0	%100
16	M16	Z	.54	.54	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	.626	.626	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	.626	.626	0	%100
21	M25	X	0	0	0	%100
22	M25	Z	.061	.061	0	%100
23	M26	X	0	0	0	%100
24	M26	Z	.061	.061	0	%100
25	M27	X	0	0	0	%100
26	M27	Z	.54	.54	0	%100
27	M28	X	0	0	0	%100
28	M28	Z	.54	.54	0	%100
29	M29	X	0	0	0	%100
30	M29	Z	.181	.181	0	%100
31	MP1A	X	0	0	0	%100
32	MP1A	Z	.661	.661	0	%100
33	M30	X	0	0	0	%100
34	M30	Z	.481	.481	0	%100
35	MP2A	X	0	0	0	%100
36	MP2A	Z	.661	.661	0	%100
37	MP3A	X	0	0	0	%100
38	MP3A	Z	.661	.661	0	%100
39	MP4A	X	0	0	0	%100
40	MP4A	Z	.661	.661	0	%100
41	MP5A	X	0	0	0	%100
42	MP5A	Z	.661	.661	0	%100
43	M35A	X	0	0	0	%100
44	M35A	Z	.8	.8	0	%100
45	M40A	X	0	0	0	%100
46	M40A	Z	.677	.677	0	%100
47	M41	X	0	0	0	%100
48	M41	Z	1.017	1.017	0	%100
49	M42	X	0	0	0	%100
50	M42	Z	.337	.337	0	%100
51	M43	X	0	0	0	%100
52	M43	Z	.268	.268	0	%100
53	M44	X	0	0	0	%100
54	M44	Z	.965	.965	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
47	M41	X	-.666	-.666	0	%100
48	M41	Z	.385	.385	0	%100
49	M42	X	-.531	-.531	0	%100
50	M42	Z	.307	.307	0	%100
51	M43	X	-.183	-.183	0	%100
52	M43	Z	.106	.106	0	%100
53	M44	X	-.66	-.66	0	%100
54	M44	Z	.381	.381	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	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M7A	X	0	0	0	%100
6	M7A	Z	0	0	0	%100
7	M8	X	0	0	0	%100
8	M8	Z	0	0	0	%100
9	M13	X	-.54	-.54	0	%100
10	M13	Z	0	0	0	%100
11	M14	X	-.54	-.54	0	%100
12	M14	Z	0	0	0	%100
13	M15	X	-.54	-.54	0	%100
14	M15	Z	0	0	0	%100
15	M16	X	-.54	-.54	0	%100
16	M16	Z	0	0	0	%100
17	M19	X	-.441	-.441	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	-.441	-.441	0	%100
20	M20	Z	0	0	0	%100
21	M25	X	-.043	-.043	0	%100
22	M25	Z	0	0	0	%100
23	M26	X	-.043	-.043	0	%100
24	M26	Z	0	0	0	%100
25	M27	X	-.54	-.54	0	%100
26	M27	Z	0	0	0	%100
27	M28	X	-.54	-.54	0	%100
28	M28	Z	0	0	0	%100
29	M29	X	-.169	-.169	0	%100
30	M29	Z	0	0	0	%100
31	MP1A	X	-.661	-.661	0	%100
32	MP1A	Z	0	0	0	%100
33	M30	X	-.179	-.179	0	%100
34	M30	Z	0	0	0	%100
35	MP2A	X	-.661	-.661	0	%100
36	MP2A	Z	0	0	0	%100
37	MP3A	X	-.661	-.661	0	%100
38	MP3A	Z	0	0	0	%100
39	MP4A	X	-.661	-.661	0	%100
40	MP4A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
41	MP5A	X	-.661	-.661	0	%100
42	MP5A	Z	0	0	0	%100
43	M35A	X	0	0	0	%100
44	M35A	Z	0	0	0	%100
45	M40A	X	-.764	-.764	0	%100
46	M40A	Z	0	0	0	%100
47	M41	X	-.277	-.277	0	%100
48	M41	Z	0	0	0	%100
49	M42	X	-.324	-.324	0	%100
50	M42	Z	0	0	0	%100
51	M43	X	-.689	-.689	0	%100
52	M43	Z	0	0	0	%100
53	M44	X	-.194	-.194	0	%100
54	M44	Z	0	0	0	%100

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

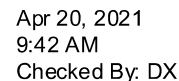
	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-.301	-.301	0	%100
2	M1	Z	-.174	-.174	0	%100
3	M2	X	-.301	-.301	0	%100
4	M2	Z	-.174	-.174	0	%100
5	M7A	X	-.301	-.301	0	%100
6	M7A	Z	-.174	-.174	0	%100
7	M8	X	-.301	-.301	0	%100
8	M8	Z	-.174	-.174	0	%100
9	M13	X	-.468	-.468	0	%100
10	M13	Z	-.27	-.27	0	%100
11	M14	X	-.468	-.468	0	%100
12	M14	Z	-.27	-.27	0	%100
13	M15	X	-.468	-.468	0	%100
14	M15	Z	-.27	-.27	0	%100
15	M16	X	-.468	-.468	0	%100
16	M16	Z	-.27	-.27	0	%100
17	M19	X	-.028	-.028	0	%100
18	M19	Z	-.016	-.016	0	%100
19	M20	X	-.028	-.028	0	%100
20	M20	Z	-.016	-.016	0	%100
21	M25	X	-.003	-.003	0	%100
22	M25	Z	-.002	-.002	0	%100
23	M26	X	-.003	-.003	0	%100
24	M26	Z	-.002	-.002	0	%100
25	M27	X	-.468	-.468	0	%100
26	M27	Z	-.27	-.27	0	%100
27	M28	X	-.468	-.468	0	%100
28	M28	Z	-.27	-.27	0	%100
29	M29	X	-.124	-.124	0	%100
30	M29	Z	-.071	-.071	0	%100
31	MP1A	X	-.572	-.572	0	%100
32	MP1A	Z	-.33	-.33	0	%100
33	M30	X	-.000344	-.000344	0	%100
34	M30	Z	-.000199	-.000199	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
35	MP2A	X	-.572	-.572	0	%100
36	MP2A	Z	-.33	-.33	0	%100
37	MP3A	X	-.572	-.572	0	%100
38	MP3A	Z	-.33	-.33	0	%100
39	MP4A	X	-.572	-.572	0	%100
40	MP4A	Z	-.33	-.33	0	%100
41	MP5A	X	-.572	-.572	0	%100
42	MP5A	Z	-.33	-.33	0	%100
43	M35A	X	-.173	-.173	0	%100
44	M35A	Z	-.1	-.1	0	%100
45	M40A	X	-.903	-.903	0	%100
46	M40A	Z	-.521	-.521	0	%100
47	M41	X	-.134	-.134	0	%100
48	M41	Z	-.078	-.078	0	%100
49	M42	X	-.036	-.036	0	%100
50	M42	Z	-.021	-.021	0	%100
51	M43	X	-.828	-.828	0	%100
52	M43	Z	-.478	-.478	0	%100
53	M44	X	-.01	-.01	0	%100
54	M44	Z	-.006	-.006	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	M1	X	-.522	-.522	0	%100
2	M1	Z	-.904	-.904	0	%100
3	M2	X	-.522	-.522	0	%100
4	M2	Z	-.904	-.904	0	%100
5	M7A	X	-.522	-.522	0	%100
6	M7A	Z	-.904	-.904	0	%100
7	M8	X	-.522	-.522	0	%100
8	M8	Z	-.904	-.904	0	%100
9	M13	X	-.27	-.27	0	%100
10	M13	Z	-.468	-.468	0	%100
11	M14	X	-.27	-.27	0	%100
12	M14	Z	-.468	-.468	0	%100
13	M15	X	-.27	-.27	0	%100
14	M15	Z	-.468	-.468	0	%100
15	M16	X	-.27	-.27	0	%100
16	M16	Z	-.468	-.468	0	%100
17	M19	X	-.062	-.062	0	%100
18	M19	Z	-.108	-.108	0	%100
19	M20	X	-.062	-.062	0	%100
20	M20	Z	-.108	-.108	0	%100
21	M25	X	-.006	-.006	0	%100
22	M25	Z	-.011	-.011	0	%100
23	M26	X	-.006	-.006	0	%100
24	M26	Z	-.011	-.011	0	%100
25	M27	X	-.27	-.27	0	%100
26	M27	Z	-.468	-.468	0	%100
27	M28	X	-.27	-.27	0	%100
28	M28	Z	-.468	-.468	0	%100



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

	Member	Shape	Code C...	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-...	phi*Mn z-...	Cb	Eqn
1	M35A	PIPE 2.5	.838	8.913	2	.404	2.097		2	14366.598	50715	3.596	3.596	1....	H1-1a
2	MP3A	PIPE 2.5	.837	5.583	2	.555	4.75		2	30038.461	50715	3.596	3.596	4....	H3-6
3	MP4A	PIPE 2.0	.826	5.563	8	.394	5.563		8	20866.733	32130	1.872	1.872	4....	H3-6
4	M42	PIPE 2.0	.760	8.838	2	.010	0		14	3416.299	32130	1.872	1.872	2....	H1-1a
5	M41	L2.5x2.5x4	.713	3.667	2	.013	7.334	y	2	8063.539	38556	1.114	2.038	1....	H2-1
6	M7A	L3X3X4	.645	5.278	2	.265	.264	y	8	19187.904	46656	1.688	3.756	3.1	H2-1
7	M8	L3X3X4	.550	0	2	.188	4.297	y	38	19638.824	46656	1.688	3.746	2....	H2-1
8	M44	L2.5x2.5x4	.528	3.141	8	.012	6.281	y	2	10993.464	38556	1.114	2.129	1....	H2-1
9	M2	L3X3X4	.526	5.273	8	.279	5.273	z	2	19638.824	46656	1.688	3.34	1....	H2-1
10	M13	PIPE 2.0	.509	1.5	2	.234	1.5		2	28843.414	32130	1.872	1.872	1....	H1-1b
11	M14	PIPE 2.0	.506	3	8	.338	0		2	28843.414	32130	1.872	1.872	2....	H3-6
12	M1	L3X3X4	.457	5.278	8	.333	1.979	z	8	19187.904	46656	1.688	3.402	1....	H2-1
13	M16	PIPE 2.0	.408	0	8	.232	.5		8	28843.414	32130	1.872	1.872	2....	H1-1b
14	MP2A	PIPE 2.0	.356	5.563	8	.119	4.625		8	20866.733	32130	1.872	1.872	3....	H1-1b
15	MP5A	PIPE 2.0	.340	5.563	2	.149	5.563		2	20866.733	32130	1.872	1.872	4....	H1-1b
16	M25	PL3/8x7_HRA	.278	0	14	.007	1	y	2	59107.687	85050	.664	11.308	1	H1-1b
17	M26	PL3/8x7_HRA	.271	0	14	.005	0	y	2	59107.687	85050	.664	11.308	1	H1-1b
18	M15	PIPE 2.0	.242	0	2	.176	0		8	28843.414	32130	1.872	1.872	2....	H1-1b
19	M30	PIPE 2.0	.212	0	8	.008	0		8	12575.419	32130	1.872	1.872	1....	H1-1b
20	MP1A	PIPE 2.0	.197	5.563	44	.111	4.625		2	20866.733	32130	1.872	1.872	4....	H1-1b
21	M20	L3X3X6	.162	.344	2	.069	.344	y	2	57685.799	68364	2.307	5.322	2....	H2-1
22	M40A	L2.5x2.5x4	.120	2.122	8	.042	0	z	2	21422.484	38556	1.114	2.328	1....	H2-1
23	M27	PIPE 2.0	.104	0	2	.244	3		2	28843.414	32130	1.872	1.872	2....	H3-6
24	M19	LL3x3x4x3	.102	2.435	2	.048	2.406	y	2	75720.255	93312	7.427	4.415	1....	H1-1b
25	M43	L2.5x2.5x4	.088	1.515	2	.048	0	y	8	28577.012	38556	1.114	2.471	1....	H2-1
26	M28	PIPE 2.0	.082	0	2	.223	0		2	28843.414	32130	1.872	1.872	1....	H3-6
27	M29	SR 0.75	.052	1.826	13	.025	0		2	3727.724	14313.866	.179	.179	1....	H1-1b



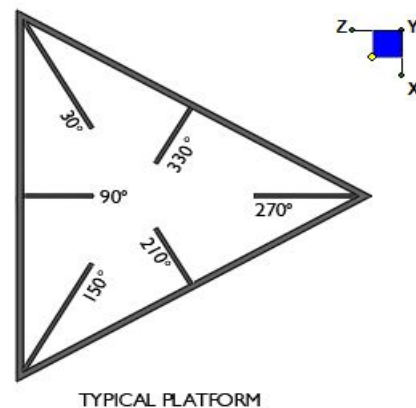
Client:	Verizon Wireless	Date:	4/20/2021
Site Name:	Putnam South		
Project No.	20777647A		
Title:	Antenna Mount Analysis	Page:	1

Version 3.1

I. Mount-to-Tower Connection Check

RISA Model Data

Nodes (labeled per RISA)	Orientation (per graphic of typical platform)
n34	90
n33	90



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):

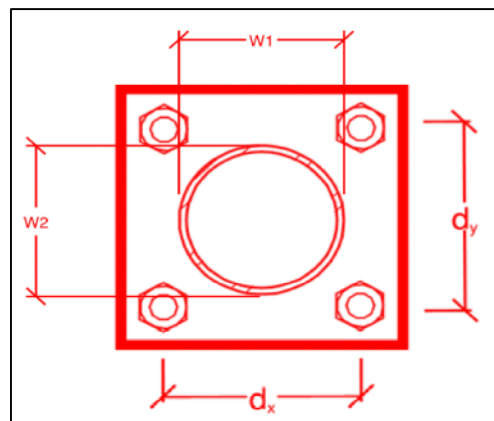
Tensile Strength / bolt (kips):

Shear Strength / bolt (kips):

Tensile Capacity Overall:

Shear Capacity Overall:

no
2
A307
0.75
1.2
1.8
14.4
8.6
4.3%*
10.5%



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

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Mount Modification

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 modification was completed in accordance with the modification drawings.
- Contractor shall relay any data that can impact the performance of the mount or the mount modification, this includes safety issues.

Base Requirements:

- Any special photos outside of the standard requirements will be indicated on the drawings
- Provide “as built drawings” showing contractor’s name, preparer’s signature, and date. Any deviations from the drawings (proposed modification) must be shown.
- Notation that all hardware was properly installed, and the existing hardware was inspected for any issues.
- Verification that loading is as communicated in the modification drawings. NOTE If loading is different than what is conveyed in the modification drawing 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 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 modifications. Each entire sector must be in one photo to show in the inter-connection of members.
 - 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
 - Close-up photos of each installed modification per the modification drawings; pictures should also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
 - Photos showing the measurements of the installed modification member sizes (i.e. lengths, widths, depths, diameters, thicknesses)
 - Photos showing the elevation or distances of the installed modifications from the appropriate reference locations shown in the modification drawings
 - Photos showing the installed modifications onto the tower with tape drop measurements (if applicable) (i.e. ring/collar mounts, tie-backs, V-bracing kits, etc.); if the existing mount elevation needs to be changed according to the modification drawings, a tape drop measurement shall be provided before the elevation change
 - 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.

Material Certification:

- Materials utilized must be as per specification on the drawings or the equivalent as validated by Maser Consulting Connecticut.
 - If the drawings are as specified on the drawings
 - The contractor should provide the packing list or the materials utilized to perform the mount modification
 - If an equivalent is utilized
 - It is required that the Maser Consulting Connecticut certification of such is included in the contractor submission package. There may be an additional charge for this certification if the equivalent submission doesn't meet specifications as prescribed in the drawings.
- The contractor must certify that the materials meet these specifications by one of these methods.

☐ The Material utilized was as specified on the Maser Consulting Connecticut Mount Modification Drawings and included in the Material certification folder is a packing list or invoice for these materials

☐ The material utilized was an "equivalent" and included as part of the contractor submission is the Maser Consulting Connecticut certification, invoices, or specifications validating accepted status

Certifying Individual: Company _____

Name _____

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:

Special Instructions / Validation as required from the MA or Mod Drawings:

Issue:

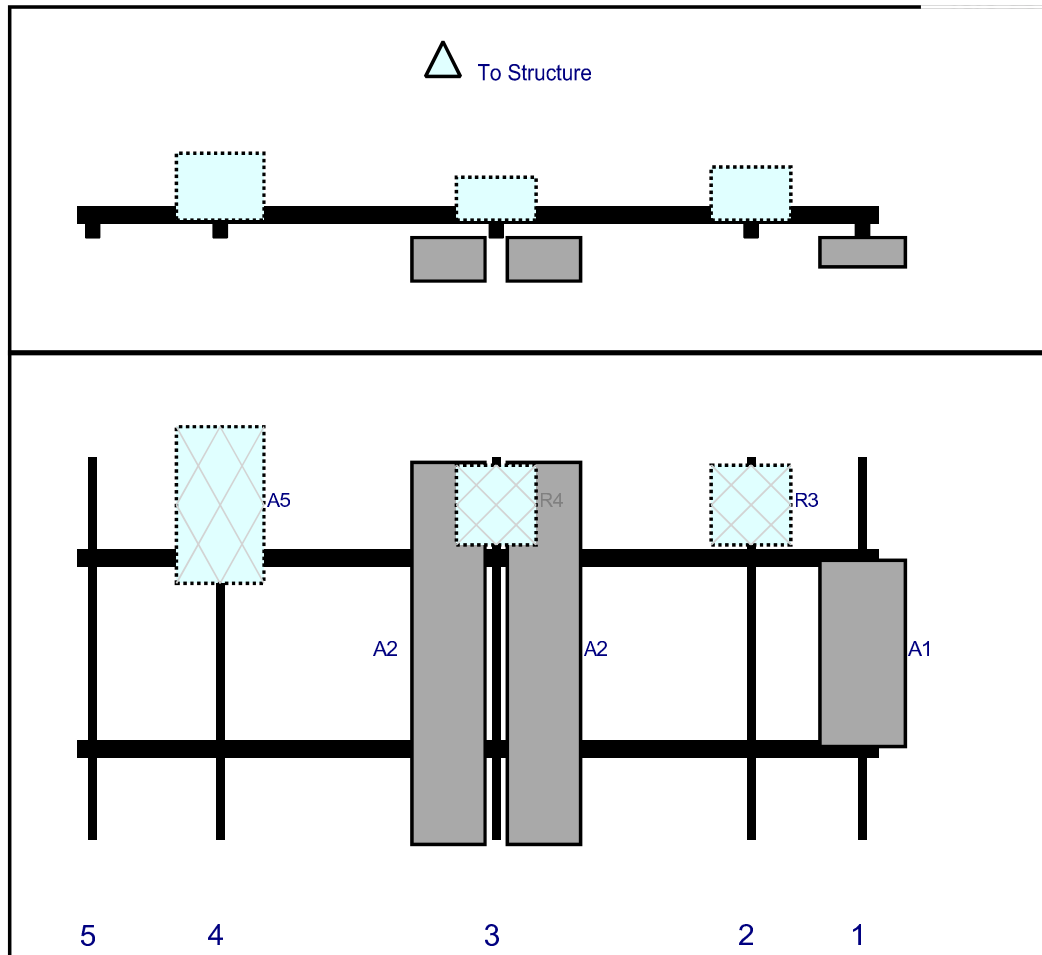
Contractor shall install proposed CBC78T-DS-43-2X 18" down from top of front vertical standoff bracing (1 per sector).

Response:

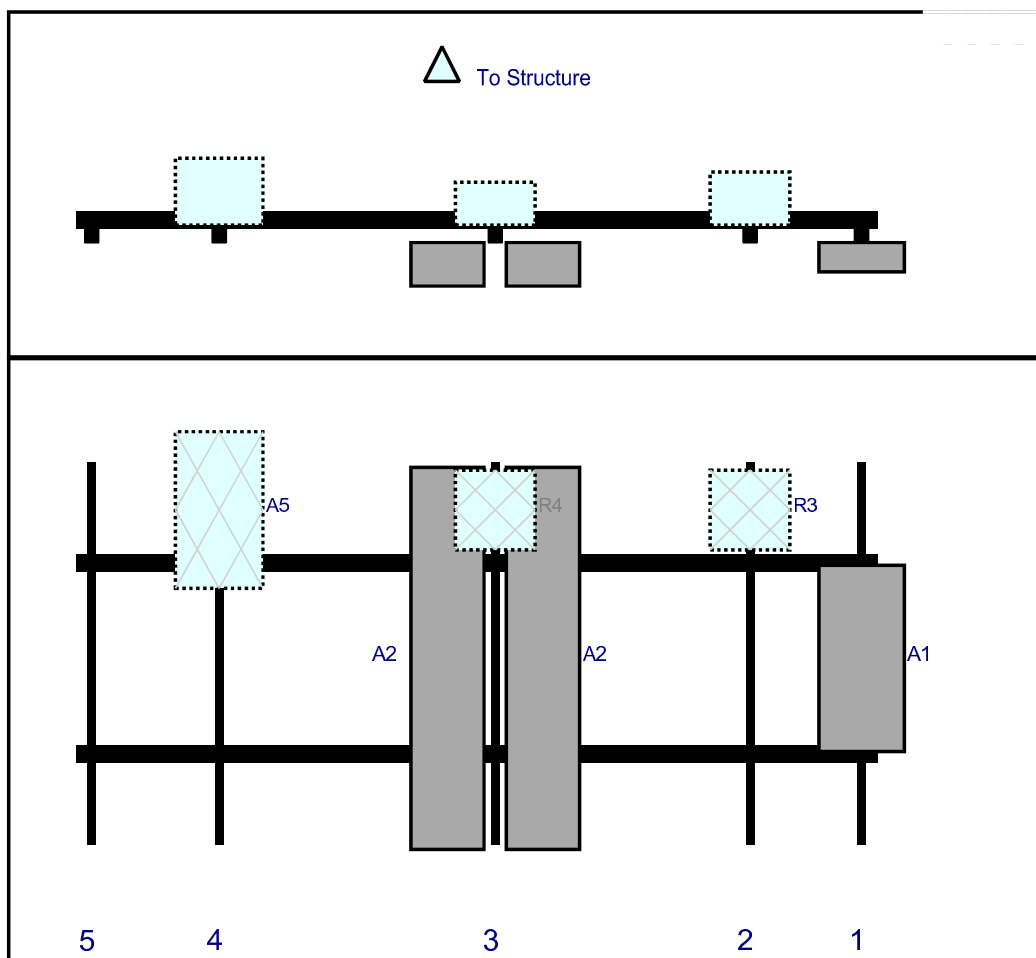
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Schedule A – Photo & Document File Structure

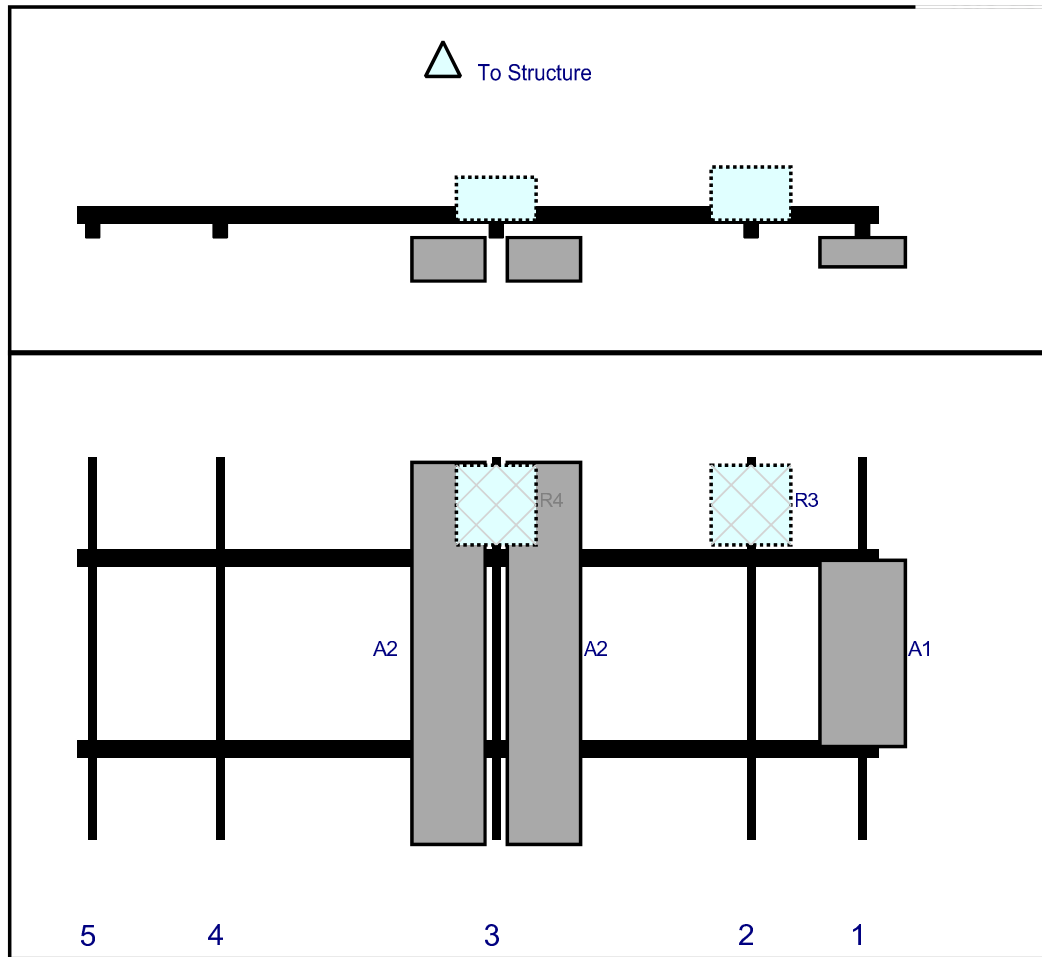
-  VzW Site Number / Name
 -  Base & “During Installation” Photos
 -  Pre-Installation Photos
 -  Alpha
 -  Beta
 -  Gamma
 -  Ground Level
 -  Tape Drop
 -  Post-Installation Photos
 -  Alpha
 -  Beta
 -  Gamma
 -  Ground Level
 -  Tape Drop
 -  Photos of climbing facility and safety climb – If Present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

Plan View

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
A1	MT6407-77A	35.1	16.1	148	1	a	Front	36.96	0	Added	
R3	B2/B66A RRH-BR049	15	15	127	2	a	Behind	9	0	Added	
A2	JAHH-65B-R3B	72	13.8	79	3	a	Front	36.96	9	Retained	02/04/2021
A2	JAHH-65B-R3B	72	13.8	79	3	b	Front	36.96	-9	Retained	02/04/2021
R4	B5/B13 RRH-BR04C	15	15	79	3	a	Behind	9	0	Added	
A5	RHSDC-6627-PF-48	29.5	16.5	27	4	a	Behind	9	0	Retained	02/04/2021

Plan View

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
A1	MT6407-77A	35.1	16.1	148	1	a	Front	36.96	0	Added	
R3	B2/B66A RRH-BR049	15	15	127	2	a	Behind	9	0	Added	
A2	JAHH-65B-R3B	72	13.8	79	3	a	Front	36.96	9	Retained	02/04/2021
A2	JAHH-65B-R3B	72	13.8	79	3	b	Front	36.96	-9	Retained	02/04/2021
R4	B5/B13 RRH-BR04C	15	15	79	3	a	Behind	9	0	Added	
A5	RHSDC-6627-PF-48	29.5	16.5	27	4	a	Behind	9	0	Retained	02/04/2021

Plan View

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
A1	MT6407-77A	35.1	16.1	148	1	a	Front	36.96	0	Added	
R3	B2/B66A RRH-BR049	15	15	127	2	a	Behind	9	0	Added	
A2	JAHH-65B-R3B	72	13.8	79	3	a	Front	36.96	9	Retained	02/04/2021
A2	JAHH-65B-R3B	72	13.8	79	3	b	Front	36.96	-9	Retained	02/04/2021
R4	B5/B13 RRH-BR04C	15	15	79	3	a	Behind	9	0	Added	

Subject

TIA-222-H Usage

Site Information

Site ID:	469277-VZW / Putnam South-SBA-Putnam Freight
Site Name:	Putnam South-SBA-Putnam Freight
Carrier Name:	Verizon Wireless
Address:	63 Industrial Dr. Putnam, Connecticut 06260 Windham County
Latitude:	
Longitude:	

Structure Information

Tower Type:	240.00-Ft Self Support
Mount Type:	12.58-Ft T-Frame

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,

Taqi Khawaja, PE
Technical Manager

BILL OF MATERIALS

[illegible]

OTHER REQUIRED PARTS				
QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES
3	-	-	151" LONG, P2.5 STD	GALVANIZED
3	-	-	96" LONG, P2.5 STD	GALVANIZED
6	-	-	1/2" DIA. U-BOLT	GALVANIZED
3	-	-	216" LONG, P2.0 STD PIPE	GALVANIZED, CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE STRUCTURAL STEEL NOTES ON SHEET S-2

NOTE: ALL MATERIALS REQUIRED FOR THE DESIGNED MODIFICATIONS BUT NOT LISTED IN THIS SHEET ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR

VZWSMART KITS - APPROVED VENDORS	
	COMMSCOPE
CONTACT	SALVADOR ANGUIANO
PHONE	(817) 304-7492
EMAIL	SALVADOR.ANGUIANO@COMMSCOPE.COM
WEBSITE	WWW.COMMSCOPE.COM
	METROSITE FABRICATORS, LLC
CONTACT	KENT RAMEY
PHONE	(706) 335-7045 (O), (706) 982-9788 (M)
EMAIL	KENT@METROSITELLC.COM
WEBSITE	METROSITEFABRICATORS.COM
	PERFECTVISION
CONTACT	WIRELESS SALES
PHONE	(844) 887-4773
EMAIL	WWW.PERFECT-VISION.COM
WEBSITE	WIRELESS@PERFECT-VISION.COM
	SABRE INDUSTRIES, INC.
CONTACT	ANGIE WELCH
PHONE	(866) 438-6937
EMAIL	AKWELCH@SABREINDUSTRIES.COM
WEBSITE	WWW.SABRESOLUTIONS.COM
	SITE PRO 1
CONTACT	PAULA BOSWELL
PHONE	(972) 236-9843
EMAIL	PAULA.BOSWELL@VALMONT.COM
WEBSITE	WWW.SITEPRO1.COM

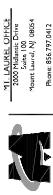
NOTE: WHEN SPECIFIED, VZSMART KITS SHALL BE REQUIRED AND WILL BE VERIFIED DURING THE DESKTOP PMI

[illegible]

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF THE RESPONSIBLE LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SITE NAME:
PUTNAM SOUTH-SBA-PUTNAM
FREIGHT
469277

63 INDUSTRIAL DR.
PUTNAM, CT 06260
WINDHAM COUNTY



TEST TIME: _____

BILL OF MATERIALS

TEST NUMBER: 5-1

GENERAL NOTES

1. THESE MODIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE TELECOMMUNICATIONS INDUSTRY STANDARD TIA-222-H MATERIALS AND SERVICES PROVIDED BY THE CONTRACTOR SHALL CONFORM TO THE ABOVE MENTIONED CODES.
2. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE TO EXISTING STRUCTURES, ANY DAMAGE TO EXISTING STRUCTURES AS A RESULT OF THE CONTRACTOR'S WORK OR FROM DAMAGE DUE TO OTHER CAUSES BEING REPAIRED BY THE CONTRACTOR'S DESIRE TO THE SATISFACTION OF THE OWNER.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE BEGINNING WORK, ORDERING MATERIAL, AND PREPARING OF SHOP DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER. IF THE CONTRACTOR DISCOVERS ANY EXISTING CONDITIONS THAT ARE NOT REPRESENTED ON THESE DRAWINGS, OR ANY CONDITIONS THAT WOULD INTERFERE WITH THE INSTALLATION OF THE MODIFICATIONS, NOTIFY THE ENGINEER IMMEDIATELY.
4. IT IS ASSUMED THAT ANY STRUCTURAL MODIFICATION WORK SPECIFIED ON THESE PLANS WILL BE ACCOMPLISHED BY KNOWLEDGEABLE WORKMEN WITH TOWER CONSTRUCTION EXPERIENCE.
5. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES, AND PROCEDURES.
6. ALL CONSTRUCTION MEANS AND METHODS, INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN AND SHALL MEET ANS/ITIA-322 (LATEST EDITION), OSHA, AND GENERAL INDUSTRY STANDARDS. ALL RIGGING PLANS SHALL ADHERE TO ANS/ITIA-322 (LATEST EDITION) INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION.
7. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PROGRAMS IN ACCORDANCE WITH APPLICABLE SAFETY CODES.
8. WORK SHALL ONLY BE PERFORMED DURING CALM DRY DAYS (WINDS LESS THAN 30 MPH). THE STRUCTURE SHOWN ON THE DRAWINGS IS STRUCTURALLY SOUND ONLY IN THE COMPLETED FORM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING ERECTION. CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT, SHORING, BRACING AND ANY OTHER STRUCTURAL HANDLING AND ERECTION UNTIL THE STRUCTURE IS FULLY COMPLETED. TEMPORARY SUPPORTS, BRACING AND OTHER STRUCTURAL SYSTEMS REQUIRED DURING CONSTRUCTION SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER THEIR USE.
9. ALL INSTALLATIONS PERFORMED ON THIS STRUCTURE SHALL BE COMPLETED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE STANDARD FOR INSTALLATION, ALTERATION AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS, ANS/ITIA-322.
10. CONTRACTOR SHALL SECURE SITE BACK TO EXISTING CONDITION UNDER SUPERVISION OF OWNER. ALL FENCE, STONE, GEOGRAPHIC, GROUNDING, AND SURROUNDING GRADE SHALL BE REPLACED AND REPAIRED AS REQUIRED TO ACHIEVE OWNER APPROVAL. POSITIVE DRAINAGE AWAY FROM TOWER SITE SHALL BE MAINTAINED.
11. CONNECTIONS BETWEEN ITEMS SUPPORTED BY THE STRUCTURE AND THE STRUCTURE NOT SPECIFICALLY DETAILED IN THE CONTRACT DOCUMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR. SUCH CONNECTIONS SHALL BE DESIGNED, COORDINATED AND INSPECTED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF THE PROJECT. SUBMIT SIGNED AND SEALED CALCULATIONS DURING SHOP DRAWING REVIEW.
12. DO NOT SCALE DRAWINGS.
13. DO NOT USE THESE DRAWINGS FOR ANY OTHER SITE.
14. ALL MATERIAL UTILIZED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO ALTERED SIZE AND/OR STRENGTH MUST BE APPROVED BY THE OWNER AND ENGINEER IN WRITING.
15. THE POINT UNDER NO CIRCUMSTANCES SHOULD BE USED AS A TIE OFF POINT.

DESIGN LOADS

- WIND LOADS
- a. BASIC WIND SPEED (3 SECOND GUST), $V = 121$ MPH
- b. EXPOSURE CATEGORY C
- c. TOPOGRAPHIC CATEGORY 1
- d. MEAN BASE ELEVATION (AMS) = 538.06'
- ICE LOADS
- a. ICE WIND SPEED (3 SECOND GUST), $V = 50$ MPH
- b. ICE THICKNESS = 1.00 IN
- SEISMIC LOADS
- a. SEISMIC DESIGN CATEGORY 'B'
- b. SHORT TERM MCEER GROUND MOTION, $S_S = 1.184$
- c. LONG TERM MCEER GROUND MOTION, $S = .055$

STRUCTURAL STEEL

1. DESIGN, DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING PUBLICATIONS EXCEPT AS SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS.
- a. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION (15TH EDITION)
- b. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS
- c. AISC CODE OF STANDARD PRACTICE
2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING UNLESS OTHERWISE SHOWN:
- CHANNELS, ANGLES, PLATES, ETC. ASTM A36 (GR 36)
- STEEL PIPE ASTM A53 (GR 35)
- BOLTS ASTM A325
- LOCK WASHERS ASTM A307
- LOCK STRUCTURAL GRADE
3. ALL SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE APPROVED IN WRITING BY THE ENGINEER. CONTRACTOR SHALL PROVIDE DOCUMENTATION TO ENGINEER FOR VERIFYING THE SUBSTITUTE S SUITABLE FOR USE AND MEETS ORIGINAL DESIGN CRITERIA. DIFFERENCES FROM THE ORIGINAL DESIGN, INCLUDING MAINTENANCE, REPAIR AND REINFORCEMENT, SHALL BE NOTED BY THE CONTRACTOR. COSTS ASSOCIATED WITH THE SUBSTITUTIONS SHALL BE PROVIDED TO THE ENGINEER. CONTRACTOR SHALL PROVIDE ADDITIONAL DOCUMENTATION AND/OR SPECIFICATIONS TO THE ENGINEER AS REQUESTED.
4. PROVIDE STRUCTURAL STEEL SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
- a. SUBMIT SHOP DRAWINGS TO GREG DUNN@COLLIERENGINEERING.COM
- b. PROVIDE MASER CONSULTING PROJECT # AND MASER CONSULTING PROJECT ENGINEER CONTACT IN THE BODY OF THE EMAIL.
5. DRILL NO HOLES IN ANY NEW OR EXISTING STRUCTURAL STEEL MEMBERS OTHER THAN THOSE SHOWN ON STRUCTURAL DRAWINGS WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD.
6. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
7. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. IN ADDITION ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING STEEL. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
8. ALL BOLT ASSEMBLIES FOR STRUCTURAL MEMBERS REPRESENTED IN THIS DRAWING REQUIRE LOCKING DEVICES TO BE INSTALLED IN ACCORDANCE WITH TIA-222-H SECTION 4.9.2 REQUIREMENTS.
9. WHERE CONNECTIONS ARE NOT FULLY DETAILED ON THESE DRAWINGS, FABRICATOR SHALL DESIGN CONNECTIONS TO RESIST LOADS AND FORCES WHERE SHOWN ON DRAWINGS AND AS OUTLINED IN SPECIFICATIONS.
10. FOR MEMBERS BEING REPLACED, PROVIDE NEW BOLTS AND MATCH EXISTING SIZE AND GRADE. MAINTAIN AS REQUIREMENTS FOR MINIMUM BOLT DISTANCE AND SPACING.
11. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH TO EXTEND BEYOND THE BOLT LINE WITH THE FACE OF THE BOLT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THE NUT AFTER TIGHTENING IS COMPLETED.
12. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
13. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO

PROTECT STEEL BY ANY OTHER MEANS.

14. ALL EXISTING PAINTED GALVANIZED SURFACES DAMAGED DURING REHAB INCLUDING AREAS UNDER STIFFENER PLATES SHALL BE WIRE BRUSHED CLEAN, REPAIRED BY COLD GALVANIZING (ZINGA OR ZINC COTE), AND REPAINTED TO MATCH THE EXISTING FINISH (IF APPLICABLE).
15. ALL HOLES IN STEEL MEMBERS SHALL BE SIZED 1/16" LARGER THAN THE BOLT DIAMETER. STANDARD HOLES SHALL BE USED UNLESS NOTED OTHERWISE.



AS SHOWN		REVISIONS	
NO.	DATE	DESCRIPTION	BY
0	4/27/191	ISSUED FOR CONSTRUCTION	TK
1			
2			
3			
4			
5			
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8			
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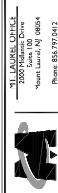


Date: 2023.10.25 10:25:05-0400
Tami Krawiec
CT C.O.A.# PC200291

IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THEY ARE ACTING UNDER THE DIRECTION OF AN ENGINEER TO SIGN THIS DOCUMENT. ENGINEER TO SIGN THIS DOCUMENT.

SITE NAME:
PUTNAM SOUTH SBA PUTNAM
FREIGHT
469277

63 INDUSTRIAL DR.
PUTNAM, CT 06340
WINDHAM COUNTY



MODIFICATION NOTES

5-2

MODIFICATION INSPECTION NOTES

MI CHECKLIST		REPORT ITEM
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY EOR)		
PRE-CONSTRUCTION		
	X	MI CHECKLIST DRAWING
	X	EOB APPROVED SHOP DRAWINGS
	NA	FABRICATION INSPECTION
	NA	FABRICATOR CERTIFIED WELD INSPECTION
	X	MATERIAL TEST REPORT (MTR)
	NA	FABRICATOR NDE INSPECTION
	X	PACKING SLIPS
ADDITIONAL TESTING AND INSPECTIONS:		
CONSTRUCTION		
	X	CONSTRUCTION INSPECTIONS
	NA	CONTRACTOR'S CERTIFIED WELD INSPECTION AND NDE REPORTS
	X	ON SITE COLD GALVANIZING VERIFICATION
	X	GC AS-BUILT DOCUMENTS
ADDITIONAL TESTING AND INSPECTIONS:		
POST-CONSTRUCTION		
	X	MI INSPECTOR REDLINE OR RECORD DRAWING(S)
	X	VZW PMI DOCUMENTS
	X	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:		

NOTE: X DENOTES A DOCUMENT REQUIRED FOR THE MI REPORT
NA DENOTES A DOCUMENT THAT IS NOT REQUIRED FOR THE MI REPORT

THE MODIFICATION INSPECTION (MI) IS A VISUAL INSPECTION OF MODIFICATIONS AND A REVIEW OF CONSTRUCTION INSPECTIONS AND OTHER REPORTS TO ENSURE THE INSTALLATION WAS COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MODIFICATION DRAWINGS, AS DESIGNED BY THE ENGINEER OF RECORD (EOR).

THE MI IS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF. NOR DOES THE MI INSPECTOR TAKE RESPONSIBILITY FOR THE DESIGN OF THE MODIFICATION. THE MI INSPECTOR SHALL BE PROACTIVE IN REACHING OUT TO THE OTHER PARTY.

TO ENSURE THAT THE REQUIREMENTS OF THE MI ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR (GC) AND THE MI INSPECTOR COMMUNICATE AND COORDINATE AS SOON AS A PURCHASE ORDER (PO) IS RECEIVED. IT IS EXPECTED THAT EACH PARTY WILL BE PROACTIVE IN REACHING OUT TO THE OTHER PARTY.

MI INSPECTOR

THE MI INSPECTOR IS REQUIRED TO CONTACT THE GC AS SOON AS RECEIVING A PO FOR THE MI TO, AT A MINIMUM:

- REVIEW THE REQUIREMENTS OF THE MI CHECKLIST
- WORK WITH THE GC TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS

THE MI INSPECTOR IS RESPONSIBLE FOR COLLECTING ALL GC INSPECTION AND TEST REPORTS, REVIEWING THE DOCUMENTS FOR ADHERENCE TO THE CONTRACT DOCUMENTS, CONDUCTING THE IN-FIELD INSPECTIONS, AND SUBMITTING THE MI REPORT TO EOR.

GENERAL CONTRACTOR

THE GC IS REQUIRED TO CONTACT THE MI INSPECTOR AS SOON AS RECEIVING A PO FOR THE MODIFICATION INSTALLATION OR TURNKEY PROJECT TO, AT A MINIMUM:

- REVIEW THE REQUIREMENTS OF THE MI CHECKLIST
- WORK WITH THE MI INSPECTOR TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE MI INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS
- BETTER UNDERSTAND ALL INSPECTION AND TESTING REQUIREMENTS

THE GC SHALL PERFORM AND RECORD THE TEST AND INSPECTION RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE MI CHECKLIST.

RECOMMENDATIONS

THE FOLLOWING RECOMMENDATIONS AND SUGGESTIONS ARE OFFERED TO ENHANCE THE EFFICIENCY AND EFFECTIVENESS OF DELIVERING AN MI REPORT:

- IT IS SUGGESTED THAT THE GC PROVIDE A MINIMUM OF 5 BUSINESS DAYS NOTICE, PREFERABLY 10, TO THE MI INSPECTOR AS TO WHEN THE SITE WILL BE READY FOR THE MI TO BE CONDUCTED. THE MI INSPECTOR COORDINATE CLOSELY THROUGHOUT THE ENTIRE PROJECT.
- WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE SIMULTANEOUSLY FOR ANY GUY WIRE TENSIONING OR RE-TENSIONING OPERATIONS. IT MAY BE BENEFICIAL TO INSTALL ALL MODIFICATIONS PRIOR TO CONDUCTING THE INSPECTIONS. THE MI INSPECTOR SHALL ALLOW THE FOUNDATION AND MI INSPECTIONS TO COMMENCE WITH ON-SITE VISIT.
- WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE DURING THE MI TO HAVE ANY DEFICIENCIES CORRECTED DURING THE INITIAL MI. THEREFORE, THE GC MAY CHOOSE TO COORDINATE THE MI CAREFULLY TO ENSURE ALL CONSTRUCTION FACILITIES ARE AT THEIR DISPOSAL WHEN THE MI INSPECTION IS ON-SITE.

CORRECTION OF FAILING MIs

IF THE MODIFICATION INSTALLATION WOULD FAIL THE MI ("FAILED MI"), THE GC SHALL WORK WITH THE OWNER TO COORDINATE A REMEDIATION PLAN.

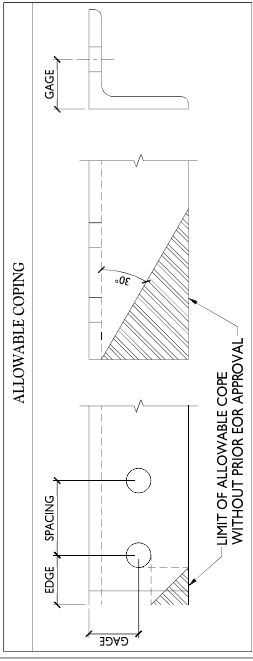
- CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL CONTRACT DOCUMENTS AND COORDINATE A SUPPLEMENT MI.

REQUIRED PHOTOS

BETWEEN THE GC AND THE MI INSPECTOR THE FOLLOWING PHOTOGRAPHS, AT A MINIMUM, ARE TO BE TAKEN AND INCLUDED IN THE MI REPORT:

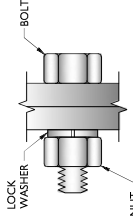
- PRE-CONSTRUCTION GENERAL SITE CONDITION
- PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION/ERECTION
 - RAW MATERIALS
 - PHOTOS OF ALL CRITICAL DETAILS
 - FOUNDATION MODIFICATIONS
 - FOUNDATION ANCHORS
 - BOLT INSTALLATION
 - FINAL INSTALLED CONDITION
 - SURFACE COATING REPAIR
- POST CONSTRUCTION PHOTOGRAPHS
- FINAL IN-FIELD CONDITION

PHOTOS OF ELEVATED MODIFICATIONS TAKEN ONLY FROM THE GROUND SHALL BE CONSIDERED INADEQUATE.



BOLT SCHEDULE (IN.)				
BOLT DIAMETER	STANDARD HOLE	SHORT SLOT	MIN. EDGE DISTANCE	SPACING
1/2	9/16	9/16 x 1 1/16	7/8	1 1/2
5/8	1 1/16	1 1/16 x 7/8	1 1/8	1 7/8
3/4	1 3/16	1 3/16 x 1	1 1/4	2 1/4
7/8	1 5/16	1 5/16 x 1 1/8	1 1/2	2 5/8
1	1 1/16	1 1/16 x 1 5/16	1 3/4	3

WORKABLE GAGES (IN.)				
LEG	GAGE			
4	2 1/2			
3 1/2	2			
3	1 3/4			
2 1/2	1 3/8			
2	1 1/8			



TYP. BOLT ASSEMBLY

NOTES

- ALL DIMENSIONS REPRESENTED IN THE ABOVE TABLES ARE ASC MINIMUM REQUIREMENTS. CONTRACTOR SHALL VERIFY DIMENSIONS AND LOCATIONS AND NOTIFY ENGINEER IF DISTANCES ARE LESS THAN THOSE PROVIDED.
- THE DIMENSIONS PROVIDED ARE MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS OF PROPOSED MEMBERS WITHIN THESE DRAWINGS MAY VARY FROM THE ASC MINIMUM REQUIREMENTS.
- SHORT SLOT HOLES SHALL ONLY BE USED WHEN DEPICTED IN THE DRAWINGS
- MATCH EXISTING GAGES WHEN APPLICABLE, UNLESS MINIMUM EDGE DISTANCES ARE COMPROMISED.



SITE NAME:
PUTNAM SOUTHSEA-PUTNAM FREIGHT
469277
63 INDUSTRIAL DR.
PUTNAM, CT 06340
WINDHAM COUNTY



MODIFICATION NOTES
S-3

EXISTING T-FRAME ISOMETRIC VIEW (TYP. ALL SECTORS)
SCALE: N.T.S.

PROPOSED T-FRAME ISOMETRIC VIEW (TYP. ALL SECTORS)
SCALE: N.T.S.

MODIFICATION NOTES:

1. MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
2. CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET S-2.
3. RADIO AND/OR THE POSITIONS SHALL BE ADJUSTED VERTICALLY AS NEEDED IN ORDER TO ACHIEVE INSTALLATION OF HORIZONTAL AS SHOWN. EOR SHALL BE NOTIFIED IF EQUIPMENT NEEDS TO BE RELOCATED TO ANOTHER MOUNT PIPE.
4. CONNECT NEW HORIZONTAL TO ALL EXISTING VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK1).
5. CONNECT NEW MOUNT PIPE TO EXISTING FACE HORIZONTALS WITH (1) 1/2" DIA. U-BOLTS AT EACH CONNECTION.
6. CONNECT NEW TIE BACK TO VERTICAL PIPE WITH CROSSOVER PLATES (PART #: VZWSMART-MSK1). CONNECT OTHER END TO ADJACENT TOWER LEG.

STRUCTURAL NOTES:

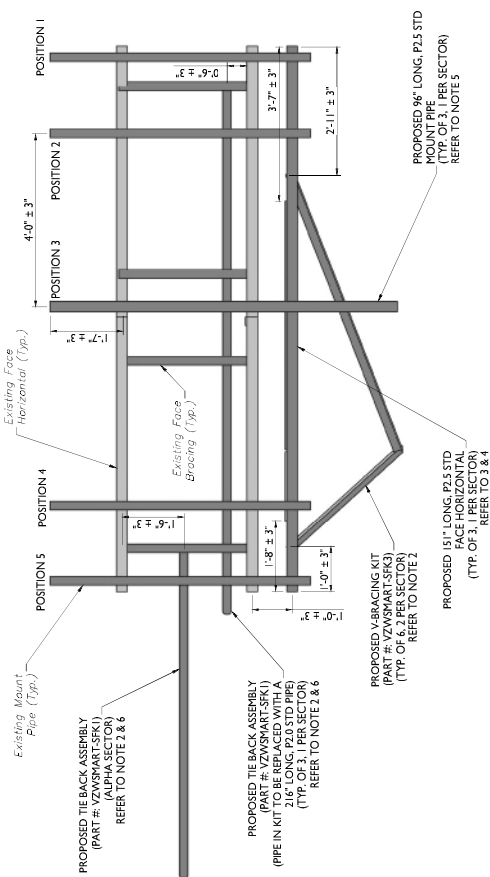
1. PER THE MOUNT MAPPING COMPLETED BY HUDSON DESIGN GROUP, LLC ON 2/4/2021, THE SAFETY CLIMB AND CLIMBING FACILITIES UP TO THE VERIZON MOUNT ELEVATION (176'-0") ARE IN GOOD CONDITION. MASER DOES NOT WARRANT THIS INFORMATION.
2. INSTALL SHALL NOT CAUSE HARM TO THE STRUCTURE, CLIMBING FACILITY, SAFETY CLIMB, OR ANY SYSTEM INSTALLED ON THE STRUCTURE. TIMELY NOTICE AND DOCUMENTATION SHALL BE PROVIDED BY CONTRACTORS TO THE EOR (OF STRUCTURAL DESIGN) IF AN OBSTRUCTION WAS REQUIRED TO MEET THE RF SYSTEM DESIGN REQUIREMENTS AND PERFORMANCES.

PROPOSED FRONT ELEVATION (TYP. ALL SECTORS)
SCALE: N.T.S.

PROPOSED SIDE ELEVATION (TYP. ALL SECTORS)
SCALE: N.T.S.

MODIFICATION NOTES:

1. MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
2. CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET S-2.
3. RADIO AND/OR THE POSITIONS SHALL BE ADJUSTED VERTICALLY AS NEEDED IN ORDER TO ACHIEVE INSTALLATION OF HORIZONTAL AS SHOWN. EOR SHALL BE NOTIFIED IF EQUIPMENT NEEDS TO BE RELOCATED TO ANOTHER MOUNT PIPE.
4. CONNECT NEW HORIZONTAL TO ALL EXISTING VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZW5SMART-MSK1).
5. CONNECT NEW MOUNT PIPE TO EXISTING FACE HORIZONTALS WITH (1) 1/2" DIA. U-BOLTS AT EACH CONNECTION.
6. CONNECT NEW TIE BACK TO VERTICAL PIPE WITH CROSSOVER PLATES (PART #: VZW5SMART-MSK1). CONNECT OTHER END TO ADJACENT TOWER LEG.



2 PROPOSED SIDE ELEVATION (TYP. ALL SECTORS)

1. MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
2. CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE STRUCTURAL STEEL NOTES ON SHEET S-2.
3. RADIO AND/OR THE POSITIONS SHALL BE ADJUSTED VERTICALLY AS NEEDED IN ORDER TO ACHIEVE INSTALLATION OF HORIZONTAL AS SHOWN. EOR SHALL BE NOTIFIED IF EQUIPMENT NEEDS TO BE RELOCATED TO ANOTHER MOUNT PIPE.
4. CONNECT NEW HORIZONTAL TO ALL EXISTING VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK1).
5. CONNECT NEW MOUNT PIPE TO EXISTING FACE HORIZONTALS WITH (1) 1/2" DIA. U-BOLTS AT EACH CONNECTION.
6. CONNECT NEW TIE BACK TO VERTICAL PIPE WITH CROSSOVER PLATES (PART #: VZWSMART-MSK1). CONNECT OTHER END TO ADJACENT TOWER LEG.



MOUNT PHOTO 1



MOUNT PHOTO 2

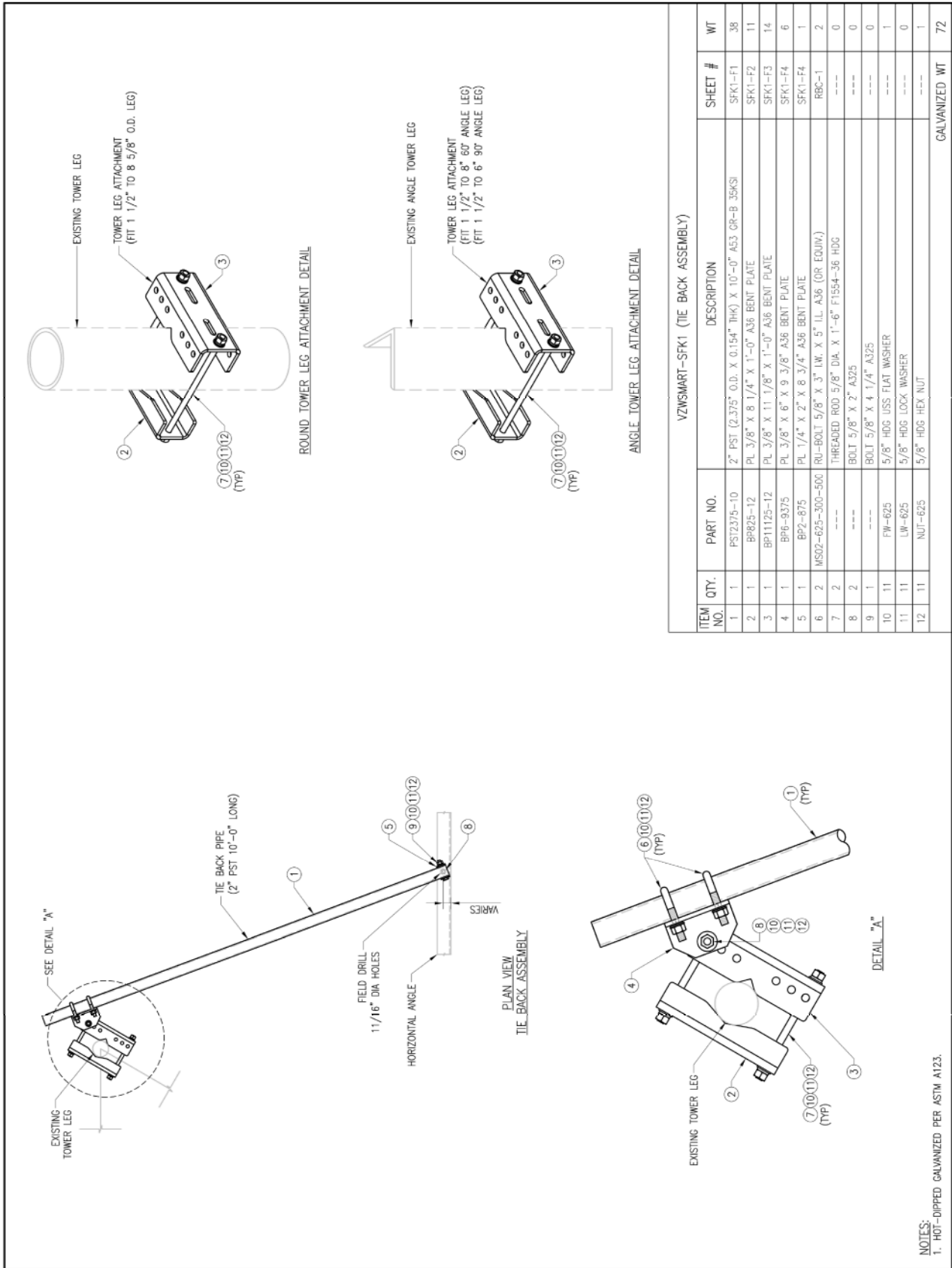


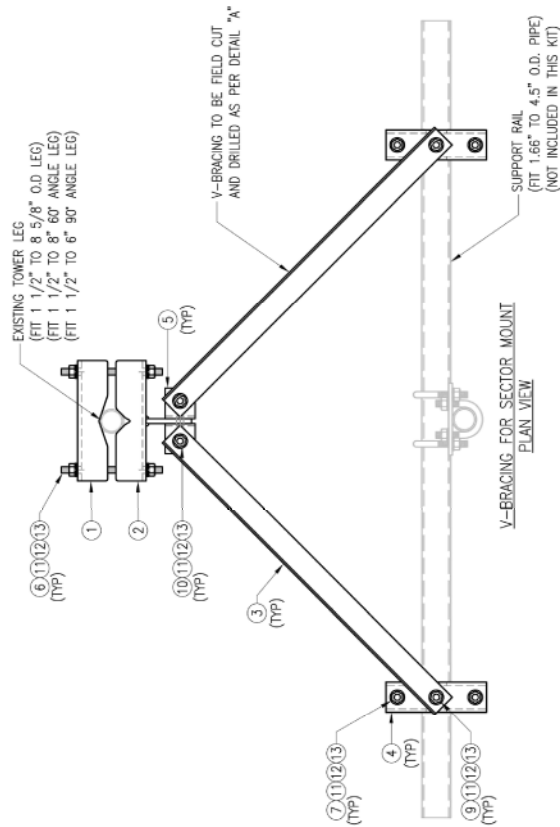
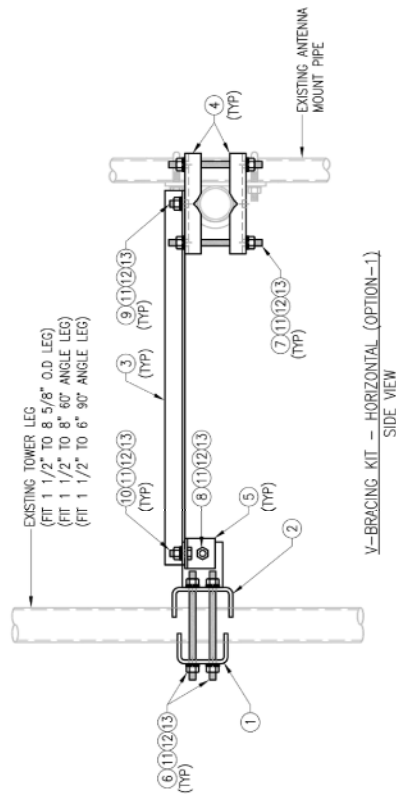
MOUNT PHOTO 3



MOUNT PHOTO 4

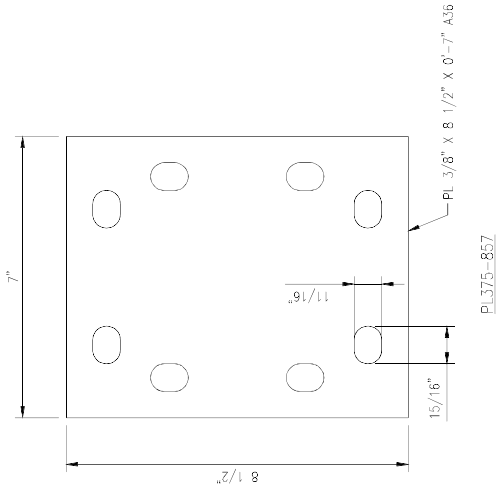
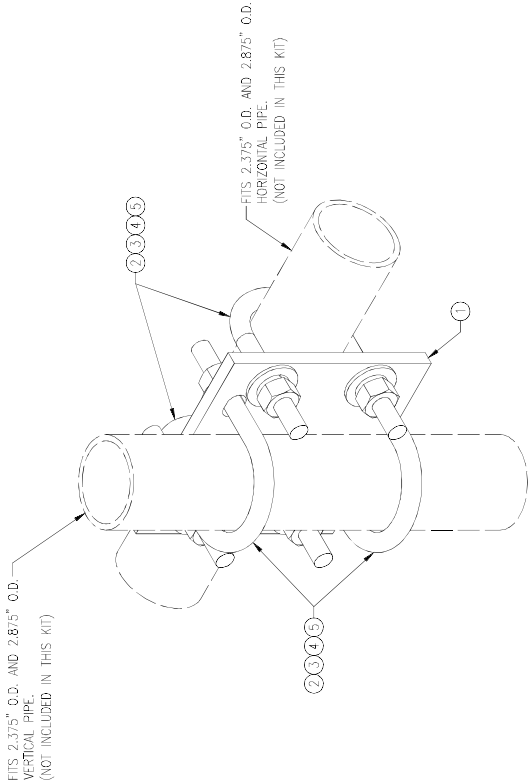
 MASER CONSULTING CORP. Customer Loyalty through Client Satisfaction www.maserconsulting.com 1-800-441-1111 NEW JERSEY NEW YORK NEW MEXICO PENNSYLVANIA FLORIDA NORTH CAROLINA NORTH DAKOTA SOUTH DAKOTA COLORADO			PROTECT YOURSELF ALL YOU NEED IS A COPY OF THIS DOCUMENT TO PROTECT YOURSELF FROM SUITORS AND OTHER UNLAWFUL ACTS. Call 800-441-1111 www.maserconsulting.com	<table border="1"> <tr> <th>AS SHOWN</th> <th>DATE</th> <th>DESCRIPTION</th> <th>REVISIONS</th> </tr> <tr> <td>1</td> <td>01/01/01</td> <td>1.000000</td> <td>1.000000</td> </tr> </table>	AS SHOWN	DATE	DESCRIPTION	REVISIONS	1	01/01/01	1.000000	1.000000	Digitally signed by Terri K. Krawiec-Quillen Date: 2021.04.23 10:46:04 -0400 CT COA # PC00021	THE SIGNATURE OF ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF AN AUTHORIZED PERSON, DOES NOT BIND THE COMPANY.	SITE NAME: PUTNAM SOUTHSEA-PUTNAM FREIGHT 469277 63 INDUSTRIAL DR. PUTNAM, CT 06360 WINDHAM COUNTY		MOUNT PHOTOS S-6
AS SHOWN	DATE	DESCRIPTION	REVISIONS														
1	01/01/01	1.000000	1.000000														





ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	BP6625-12	PL 3/6" X 9 5/8" X 1'-0" A36 BENT PLATE	WSM-F1	12
2	1	BWK-WBSM	WELDMENT BRACKET	WSM-F3	16
3	2	1252925-8	L 2 1/2" X 2 1/2" X 1/4" X 8'-0" A36	WSM-F5	67
4	4	BP6875-10	PL 3/6" X 6 7/8" X 10" A36 BENT PLATE	WSM-F2	20
5	2	AL-333	L 3" X 3" X 1/4" X 3' A36	WSM-F2	3
6	4	---	THREADED ROD 5/8" DIA. X 1'-6" F1554-36 HDG	---	---
7	4	---	THREADED ROD 5/8" DIA. X 10" F1554-36 HDG	---	---
8	1	---	BOLT 5/8" X 2 1/4" A325	---	---
9	2	---	BOLT 5/8" X 2" A325	---	---
10	2	---	BOLT 5/8" X 1 3/4" A325	---	---
11	21	FW-625	5/8" HDG USS FLAT WASHER	---	2
12	21	LW-625	5/8" HDG LOCK WASHER	---	0
13	21	NUT-625	5/8" HDG HEX NUT	---	2
GALVANIZED WT					122

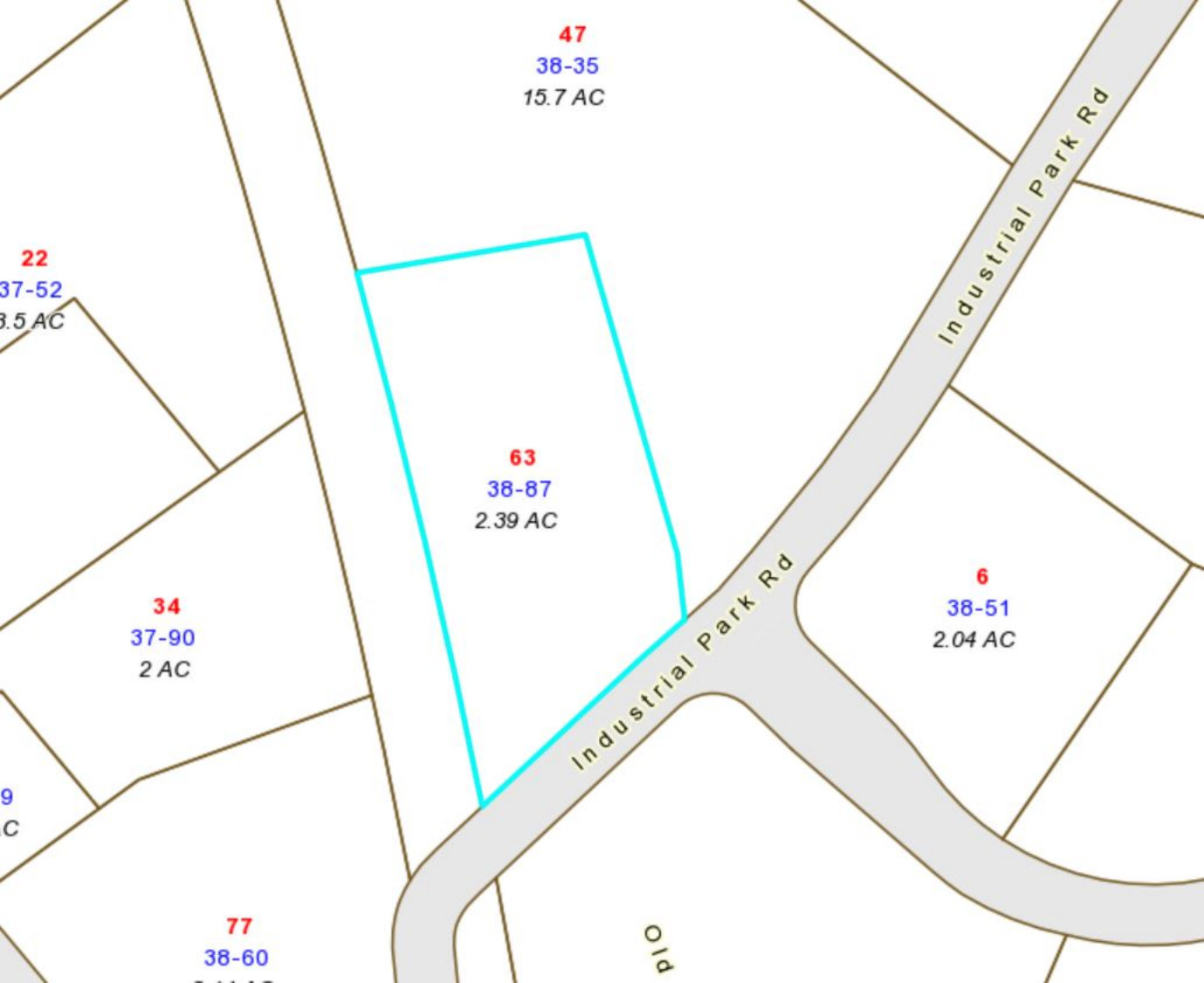
NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.



VZWSMART-MSK1 (CROSSOVER PLATE)				
ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #
1	1	PL375-857	PL 3/8" X 8 1/2" X 0'-7" A36	MSK1-F1
2	4	MSD2-625-300-500	RL-BOLT 5/8" X 3" LW X 5" LL A36 (OR EQUIV.)	RBC-I
3	8	FW-625	5/8" HDG USS FLAT WASHER	---
4	8	LW-625	5/8" HDG LOCK WASHER	---
5	8	NUT-625	5/8" HDG HEX NUT	---
GALVANIZED WT				14

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

ATTACHMENT 5



Property Location: 63 INDUSTRIAL PARK RD
Vision ID: 3164

Account #000013

Bldg #: 1 of 1

Sec #: 1 of 1

Card 1 of 1

State Use: 3-1
Print Date: 12/05/2019 11:55

CURRENT OWNER

DMW PUTNAM LLC

643 MANLEY STREET

WEST BRIDGEWATER, MA 02379

Additional Owners:

TOPO.

UTILITIES

STRT./ROAD

LOCATION

CURRENT ASSESSMENT

Description

Code

Appraised Value

Assessed Value

IND.

300

198,000

138,600

IND.

300

121,000

84,700

IND.

300

145,700

102,000

Total

464,700

325,300

6116
PUTNAM, CT

VISION

RECORD OF OWNERSHIP

BK-VOL/PAGE

SALE DATE

q/u

v/i

SALE PRICE

V.C.

DMW PUTNAM LLC

791/ 090

10/19/2016

U

1

200,000

14

PUTNAM FINANCIAL ASSOCIATES LLC

738/ 012

04/09/2014

U

1

0

11

PUTNAM PARK ASSOCIATES LLC

0310/0159

07/17/1997

U

1

170,000

PREVIOUS ASSESSMENTS (HISTORY)

Yr.

Code

Assessed Value

Yr.

Code

Assessed Value

Yr.

Code

Assessed Value

2019

300

138,600

2018

300

97,600

2017

300

97,600

2019

300

84,700

2018

300

117,600

2017

300

117,600

2019

300

102,000

2018

300

100,200

2017

300

100,200

Total:

325,300

Total:

315,400

Total:

315,400

EXEMPTIONS

Year

Type

Description

Amount

Code

Description

Number

Amount

Comm. Int.

Total:

OTHER ASSESSMENTS

NBHD/ SUB

NBHD Name

Street Index Name

Tracing

Batch

0001/A

2014

DM3

NOTES

M&M TRUCKING

SBA CELL TOWER LOCATED

ON PROPERTY

BP11212 VERIZON CELL TOWER REPLACEMENTS

AQUIFER PROTECTION AREA REG # 2012-01

'16BP10375 ELEC. WORK

BP10228 ELECTRICAL

BP11568 ELECTRICAL WORK

BP11900 MODIFY EXISTING ATT FACILITY

APPRAISED VALUE SUMMARY

Appraised Bldg. Value (Card)

Appraised XF (B) Value (Bldg)

Appraised OB (L) Value (Bldg)

Appraised Land Value (Bldg)

Special Land Value

Total Appraised Parcel Value

Valuation Method:

Adjustment:

Net Total Appraised Parcel Value

324,300

3,400

145,700

121,000

0

464,700

1

0

464,700

BUILDING PERMIT RECORD

Permit ID

Issue Date

Type

Description

Amount

Insp. Date

% Comp.

Date Comp.

Comments

10178

CM

Commercial

70,000

100

WIRELESS ANTENNAS

10424

06/07/2016

CM

Commercial

128,000

100

DEMO EXIST. WALL, N

10016

06/25/2015

CM

Commercial

25,000

100

ADD ANTENNAS & SIT

9200

11/07/2012

CM

Commercial

25,000

100

SITE MODIFICATIONS

8147

10/10/2008

CM

Commercial

0

10/08/2009

100

10/08/2009

FRAME GARAGE DOOR

7026

03/16/2005

CM

Commercial

0

11/15/2005

100

09/22/2006

Interior demolition. perm

2002-20

07/15/2002

4

0

100

CO

VISIT/CHANGE HISTORY

Date

Type

IS

ID

Cd.

Purpose/Result

01/11/2017

AS

57

HOUSE PERMIT

12/09/2014

GG

41

Hearing Change

07/11/2013

DB

02

2nd List Attempt

06/19/2013

DB

99

VACANT

09/17/2008

SS

57

HOUSE PERMIT

LAND LINE VALUATION SECTION

B #

Use Code

Use Description

Zone

D

Front

Depth

Units

Unit Price

I. Factor

S.A.

Acre Disc

C. Factor

ST. Idx

Adj.

Notes- Adj

Special Pricing

S Adj Fact

Adj. Unit Price

Land Value

1

3-1

Industrial

I

2.39

AC

75,000.00

1.0000

5

1.0000

0.75

2

0.90

SHAPE/SIZE

1.00

50,625.00

121,000

Total Card Land Units:

2.39

AC

Parcel Total Land Area:

2.39

AC

Total Land Value:

121,000

CONSTRUCTION DETAIL				CONSTRUCTION DETAIL (CONTINUED)			
Element	Cd.	Ch.	Description	Element	Cd.	Ch.	Description
Style	48		Warehouse				
Model	96		Ind/Comm				
Grade	11		C				
Stories	1						
Occupancy	1			MIXED USE			
Exterior Wall 1	27		Pre-finsh Metl	Code	Description		Percentage
Exterior Wall 2				3-1	Industrial		100
Roof Structure	03		Gable				
Roof Cover	09		Enamel Metal				
Interior Wall 1	01		Minim/Masonry				
Interior Wall 2				COST/MARKET VALUATION			
Interior Floor 1	03		Concrete	Adj. Base Rate:			43.30
Interior Floor 2							438,196
Heating Fuel	03		Gas	Net Other Adj:			0.00
Heating Type	04		Forced Air-Duc	Replace Cost			438,196
AC Type	01		None	AYB			1956
				EYB			1993
				Dep Code			A
Bldg Use	3-1		Industrial	Remodel Rating			
Total Rooms				Year Remodeled			
Total Bedrms	00			Dep %			26
Total Baths	2			Functional Obslnc			0
Extra Fixtur				External Obslnc			0
				Cost Trend Factor			1
Heat/AC	02		Heat/AC Split	Condition			
Frame Type	05		Steel	% Complete			
Baths/Plumbing	02		Average	Overall % Cond			74
Ceiling/Wall	03		Susp-Ceil/Mn W	Apprais Val			324,300
Rooms/Prtns	02		Average	Dep % Ovr			0
Wall Height	14			Dep Ovr Comment			
% Comn Wall				Misc Imp Ovr			0
				Misc Imp Ovr Comment			
				Cost to Cure Ovr			0
				Cost to Cure Ovr Comment			

OB-OUTBUILDING & YARD ITEMS(L) / XF-BUILDING EXTRA FEATURES(B)												
Code	Description	Sub	Sub Descript	L/B	Units	Unit Price	Yr	Gde	Dp Rt	Cnd	%Cnd	Apr Value
PAV2	Paving Cement			L	10,000	4.50	1999	C		E	90	40,500
TWR1	Cell Tower			L	1	200,000.00	1999	C		A	50	100,000
FN4	Fence 8'			L	360	29.00	1999	C		A	50	5,200
OVD	Overhead Door			B	456	10.00	1993		1		100	3,400

BUILDING SUB-AREA SUMMARY SECTION						
<i>Code</i>	<i>Description</i>	<i>Living Area</i>	<i>Gross Area</i>	<i>Eff. Area</i>	<i>Unit Cost</i>	<i>Undeprec. Value</i>
BAS CLP	First Floor Loading Platform Covered	9,904 0	9,904 720		43.30 12.99	428,843 9,353
Ttl. Gross Liv/Lease Area:		9,904	10,624			438,196

```

graph TD
    BAS182[BAS 182] --> CLP80[CLP 80]
    BAS182 --> BAS72[BAS 72]
    CLP80 --> BAS15[BAS 15]
    CLP80 --> BAS14_1[BAS 14]
    BAS15 --> BAS14_2[BAS 14]
    BAS15 --> BAS25_1[BAS 25]
    BAS14_1 --> BAS25_2[BAS 25]
    BAS14_1 --> BAS88[BAS 88]
  
```



ATTACHMENT 6



PUTNAM SOUTH
Certificate of Mailing — Firm

Name and Address of Sender Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103	TOTAL NO. of Pieces Listed by Sender 3	TOTAL NO. of Pieces Received at Post Office™ 3	Affix Stamp Here Postmark with Date of Receipt. neopost TM 08/04/2021 US POSTAGE \$002.89 ⁰  ZIP 06103 041L12203937			
	Postmaster, per (name of receiving employee) JP					
USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)		Postage	Fee	Special Handling	Parcel Airlift
1.	Barney Seney, Mayor Town of Putnam 165 Church Street Putnam, CT 06260					
2.	Bruce Fitzback, Land Use Agent Town of Putnam 165 Church Street Putnam, CT 06260					
3.	DMW Putnam LLC 643 Manley Street West Bridgewater, MA 02379					
4.						
5.						
6.						