

May 27, 2022

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

**Regarding: Notice of Exempt Modification – AT&T Site CT1855 / FA# 10128094**  
**Address: 320 Old Stagecoach Rd, Ridgefield, CT 06877**

Dear Ms. Bachman:

New Cingular Wireless, PCS, LLC (“AT&T”) currently maintains a wireless telecommunications facility on an existing +/- 151’ monopole at the above-referenced address, latitude 41.3303080, longitude -73.5168190. Said monopole is operated by American Tower Corporation.

AT&T desires to modify its existing telecommunications facility by swapping twelve (12) antennas, swapping three (3) Remote Radio Units (RRUS), and removing six (6) Remote Radio Units (RRUS) as more particularly detailed and described on the enclosed Construction Drawings prepared by Hudson Design Group, LLC, last revised May 26, 2022. The centerline height of the existing antennas is and will remain at 146 feet. This modification may include B2, B5, B17, B14, B29, B30, B66, & n77 hardware that is 4G(LTE) and/or 5GNR capable through remote software configuration and either or both services may be turned off at various times.

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 the following individuals: The Honorable Rudy Marconi, First Selectman of the Town of Ridgefield, as elected official, Brian Miller, Zoning Enforcement Officer of the Town of Ridgefield, Alice Dew, Director of Planning of the Town of Ridgefield, American Tower Corporation, as tower operator, and InSite Towers Development, LLC., as property owner.

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

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require an extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.

4. The operation of the modified facility will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard. *Please see the RF emissions calculation for AT&T's modified facility enclosed herewith.*

5. The proposed modifications will not cause an ineligible change or alteration in the physical or environmental characteristics of the site.

6. The existing structure and its foundation can support the proposed loading. *Please see the structural analysis dated April 18, 2022, and prepared by American Tower Corporation, enclosed herewith.*

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

Sincerely,

*Evan Renwick*

Evan Renwick  
Site Acquisition Specialist  
Centerline Communications, LLC  
750 West Center Street, Suite 301  
West Bridgewater, MA 02379  
erenwick@clinellc.com

Enclosures:   Exhibit 1 – Construction Drawings  
                  Exhibit 2 – Property Card and GIS  
                  Exhibit 3 – Structural Analysis  
                  Exhibit 4 – Mount Analysis  
                  Exhibit 5 – RF Emissions Analysis Report Evaluation  
                  Exhibit 6 – Original Tower Approval  
                  Exhibit 7 – Notice Delivery Confirmations

cc:     The Honorable Rudy Marconi, First Selectman of the Town of Ridgefield elected official  
       Brian Miller, Zoning Enforcement Officer, Town of Ridgefield  
       Alice Dew, Director of Planning, Town of Ridgefield  
       American Tower Corporation, as tower operator  
       InSite Towers Development, LLC, property owner

# EXHIBIT 1

PROJECT INFORMATION	
SCOPE OF WORK:	<p><u>ITEMS TO BE MOUNTED ON THE EXISTING MONOPOLE:</u></p> <ul style="list-style-type: none"> <li>• NEW AT&amp;T ANTENNAS: QD8616-7 (TYP. OF 1 PER SECTOR, TOTAL OF 3).</li> <li>• NEW AT&amp;T ANTENNAS: AIR6419 B77G (TYP. OF 1 PER SECTOR, TOTAL OF 3)(TOP).</li> <li>• NEW AT&amp;T ANTENNAS: AIR6449 B77D (TYP. OF 1 PER SECTOR, TOTAL OF 3)(BOTTOM).</li> <li>• NEW AT&amp;T ANTENNAS: DMP65R-BU8DA (TYP. OF 1 PER SECTOR, TOTAL OF 3).</li> <li>• NEW AT&amp;T RRUS-4449 B5/B12 (850/700) (TYP. OF 1 PER SECTOR, TOTAL OF 3).</li> <li>• NEW AT&amp;T (6) Y-CABLES</li> <li>• RELOCATED EXISTING RRUS 4478 B14 (700) @ POS. 2 (TYP. OF 1 PER SECTOR, TOTAL OF 3).</li> <li>• RELOCATED EXISTING RRUS 8843 (PCS/AWS) @ POS. 2 (TYP. OF 1 PER SECTOR, TOTAL OF 3).</li> <li>• RELOCATED EXISTING RRUS-32 B30 (WCS) @ POS. 4 (TYP. OF 1 PER SECTOR, TOTAL OF 3).</li> <li>• INSTALL (2) #6 AWG DC TRUNKS</li> </ul> <p><u>ITEMS TO BE MOUNTED IN EQUIPMENT LOCATION:</u></p> <ul style="list-style-type: none"> <li>• INSTALL (1) NEW 6648 + XCEDE IDLE CABLE FINAL-1x6601/1x5216/1xXMU03  xxxxx/1x6630Mixed-Mode/xxxxx+//1x6648+IDLE XCEDE</li> <li>• INSTALL (3) NEW -48V RECTIFIERS FOR A TOTAL OF (9) -48V RECTIFIERS</li> </ul> <p><u>ITEMS TO BE REMOVED:</u></p> <ul style="list-style-type: none"> <li>• EXISTING AT&amp;T ANTENNA: HPA-65R-BUU-H8 (TYP. OF 4 PER SECTOR, TOTAL OF 12).</li> <li>• EXISTING AT&amp;T RRUS: RRUS-11 B5 (850) (TYP. OF 1 PER SECTOR, TOTAL OF 3).</li> <li>• EXISTING AT&amp;T RRUS: 4478 B5 (850) (TYP. OF 1 PER SECTOR, TOTAL OF 3).</li> <li>• EXISTING AT&amp;T RRUS: RRUS-11 B12 (TYP. OF 1 PER SECTOR, TOTAL OF 3)</li> <li>• EXISTING AT&amp;T DIPLEXERS: DBCT108F1V92-1 (TYP. OF 1 PER SECTOR, TOTAL OF 3).</li> <li>• EXISTING AT&amp;T (2) #8 AWG DC TRUNKS</li> </ul> <p><u>ITEMS TO REMAIN:</u></p> <ul style="list-style-type: none"> <li>• (12) RRU'S, (4) SURGE ARRESTOR, (6) DC POWER &amp; (3) 18 PAIR FIBER.</li> </ul>
SITE ADDRESS:	320 OLD STAGECOACH ROAD RIDGEFIELD, CT 06877
LATITUDE:	41.3303055° N, 41° 19' 49.1" N
LONGITUDE:	73.5168333° W, 73° 31' 00.6" W
TYPE OF SITE:	MONOPOLE / INDOOR EQUIPMENT
STRUCTURE HEIGHT:	151'-0"±
RAD CENTER:	146'-0"±
CURRENT USE:	TELECOMMUNICATIONS FACILITY
PROPOSED USE:	TELECOMMUNICATIONS FACILITY

SHEET NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	1
GN-1	GENERAL NOTES	1
A-1	COMPOUND & EQUIPMENT PLANS	1
A-2	ANTENNA LAYOUTS & ELEVATION	1
A-3	DETAILS	1
G-1	GROUNDING DETAILS	1
RF-1	RF PLUMBING DIAGRAM	1




500 ENTERPRISE DRIVE, SUITE 3A  
ROCKY HILL, CT 06067

[illegible]

1. THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF AT&T. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.
2. THE FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND THEREFORE DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.
3. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE AT&T MOBILITY REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.
4. CONSTRUCTION DRAWINGS ARE VALID FOR SIX MONTHS AFTER ENGINEER OF RECORD'S STAMPED AND SIGNED SUBMITTAL DATE LISTED HEREIN.

**UNDERGROUND SERVICE ALERT**

1	05/26/22	ISSUED FOR PERMITTING	SE	AT	DPH		AT&T		
0	04/25/22	ISSUED FOR REVIEW	MB	AT	DPH		TITLE SHEET		
A	02/25/22	ISSUED FOR REVIEW	VS	MKT	DPH		4TXRX ANTENNA RETROFIT, 5G NR RADIO II		
							5G NR 1SR CBAND 2022 UPGRADE		
NO.	DATE	REVISIONS		BY	CHK	APP'D	SITE NUMBER	DRAWING NUMBER	REV
SCALE: AS SHOWN		DESIGNED BY: AT		DRAWN BY: VS			CT1855	T-1	1



1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81 STANDARDS) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
4. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS AND #2 AWG STRANDED COPPER FOR OUTDOOR BTS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/2 IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50

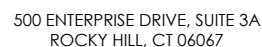
1. FOR THE PURPOSE OF THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
2. 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.
3. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
4. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
5. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY THE SUBCONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
6. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
7. 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.
8. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
9. 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.
10. 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.
11. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
12. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.






- 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.

ABBREVIATIONS					
AGL	ABOVE GRADE LEVEL	EQ	EQUAL	REQ	REQUIRED
AWG	AMERICAN WIRE GAUGE	GC	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
BBU	BATTERY BACKUP UNIT	GRC	GALVANIZED RIGID CONDUIT	TBD	TO BE DETERMINED
BTCW	BARE TINNED SOLID COPPER WIRE	MGB	MASTER GROUND BAR	TBR	TO BE REMOVED
BGR	BURIED GROUND RING	MIN	MINIMUM	TBRR	TO BE REMOVED AND REPLACED
BTS	BASE TRANSCEIVER STATION	P	PROPOSED	TYP	TYPICAL
E	EXISTING	NTS	NOT TO SCALE	UG	UNDER GROUND
EGB	EQUIPMENT GROUND BAR	RAD	RADIATION CENTER LINE	VIF	VERIFY IN FIELD
EGR	EQUIPMENT GROUND RING	REF	REFERENCE		



320 OLD STAGECOACH ROAD  
RIDGEFIELD, CT 06877  
FAIRFIELD COUNTY



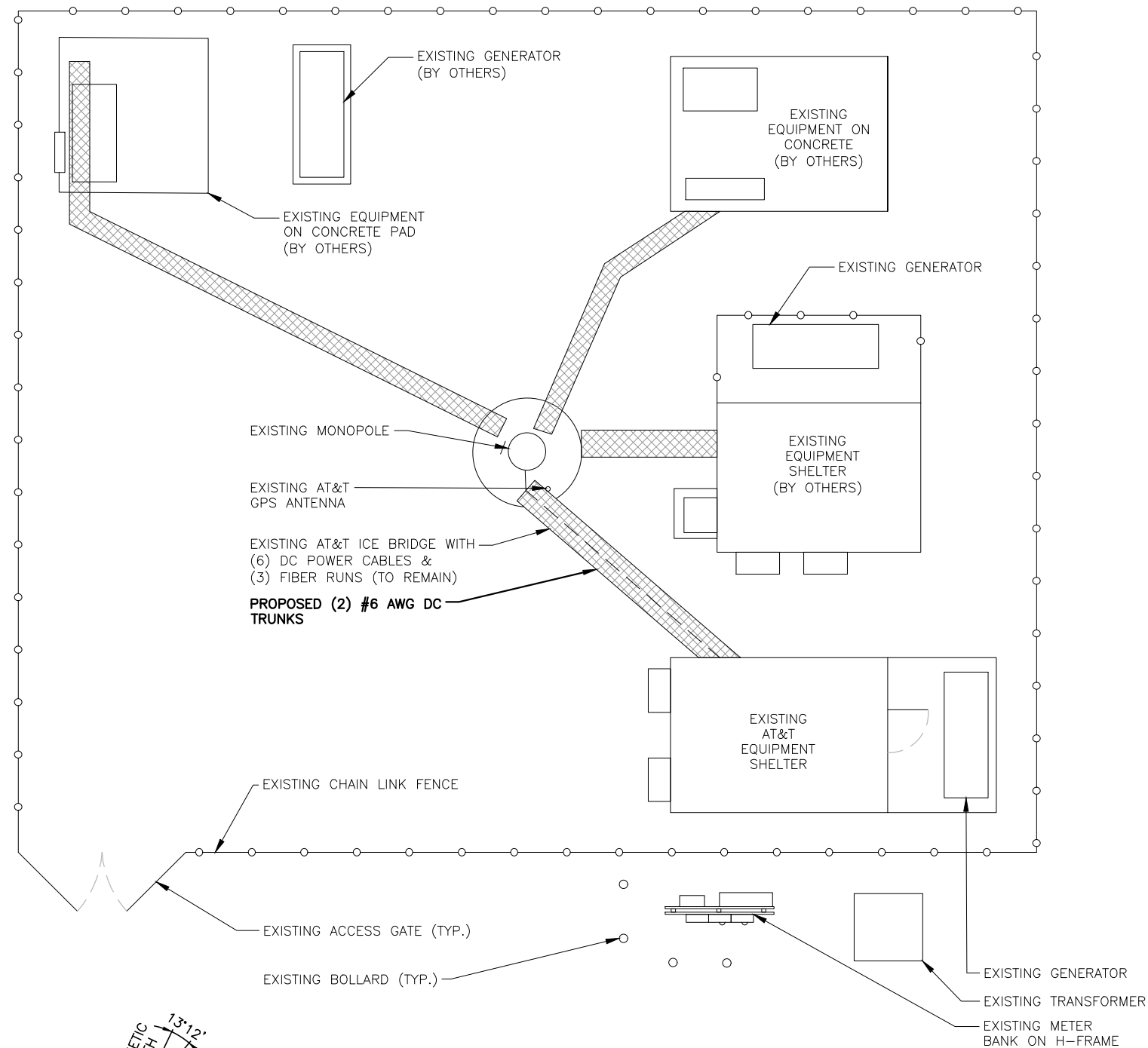
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0		04/25/22	ISSUED FOR REVIEW	ME	AT	PH					GENERAL NOTES	
A		02/25/22	ISSUED FOR REVIEW	VS	MKT	DP					4TXRX ANTENNA RETROFIT, 5G NR RADIO II 5G NR 1SR CBAND 2022 UPGRADE	
NO.		DATE		REVISIONS		BY	CHK	APP'D	SITE NUMBER		DRAWING NUMBER	
		SCALE: AS SHOWN		DESIGNED BY: AT		DRAWN BY: VS			CT1855		GN-1	

NOTE:

REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:

AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.

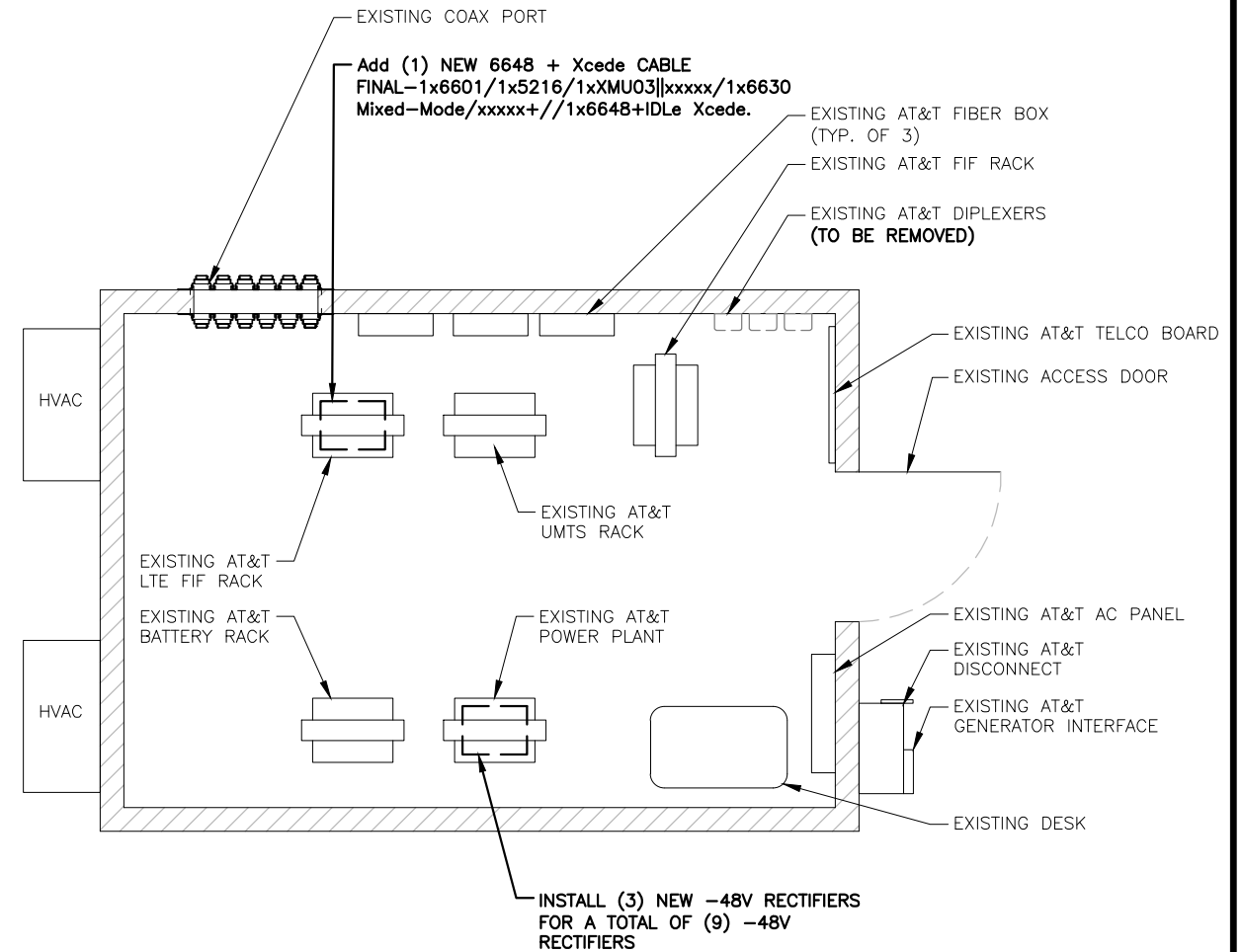


#### COMPOUND PLAN

22x34 SCALE: 3/16"=1'-0"  
11x17 SCALE: 3/32"=1'-0"

1  
A-1

0 2'-8" 5'-4" 10'-8" 16'-0"



#### EQUIPMENT PLAN

22x34 SCALE: 1/2"=1'-0"  
11x17 SCALE: 1/4"=1'-0"

2  
A-1

0 4'-0" 6'-0"



45 BEECHWOOD DRIVE  
NORTH ANDOVER, MA 01845  
TEL: (978) 557-5553  
FAX: (978) 336-5586



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

SITE NUMBER: CT1855  
SITE NAME: RIDGEFIELD OLD STAGECOACH ROAD

320 OLD STAGECOACH ROAD  
RIDGEFIELD, CT 06877  
FAIRFIELD COUNTY

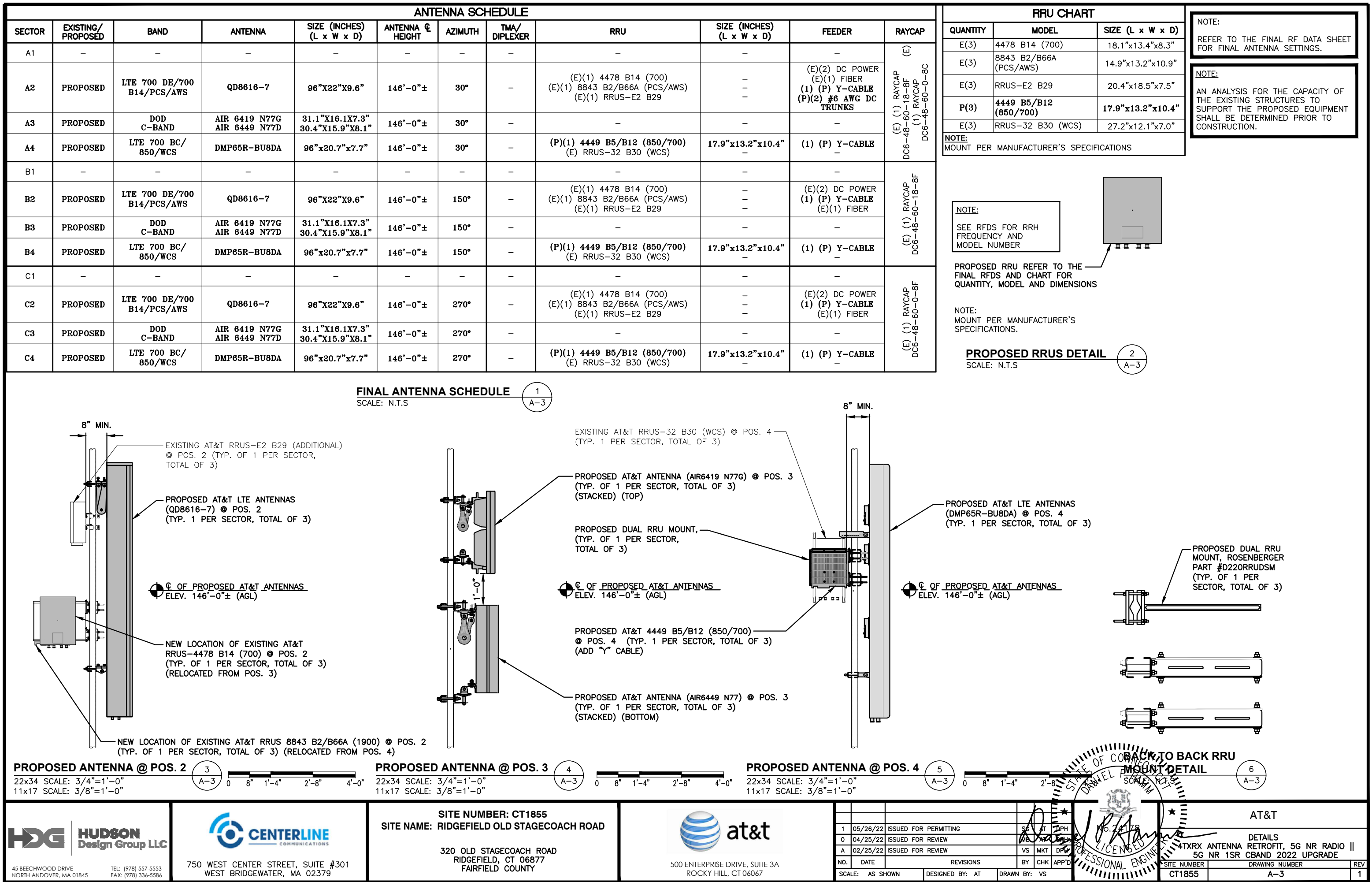


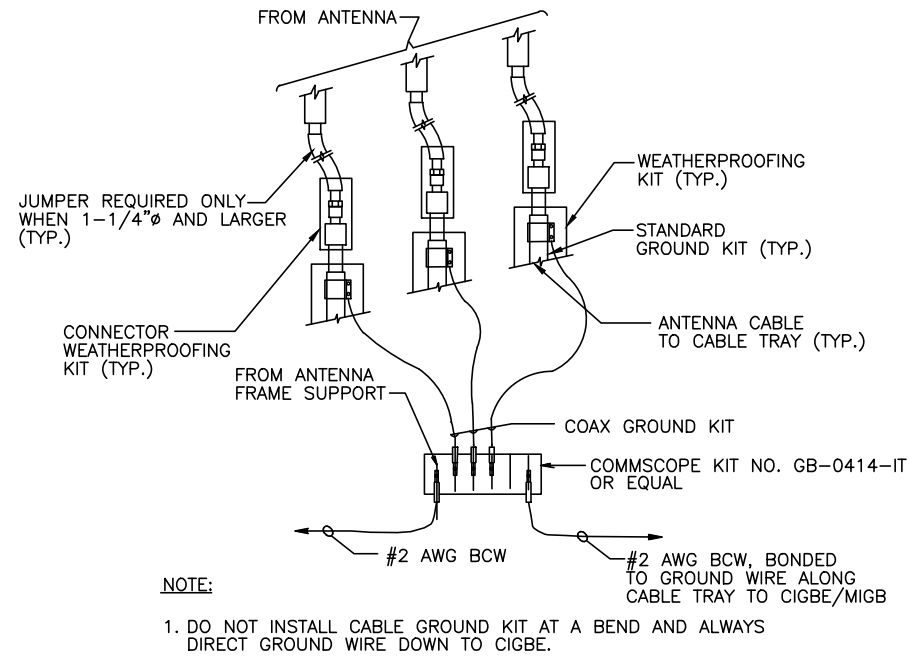
500 ENTERPRISE DRIVE, SUITE 3A  
ROCKY HILL, CT 06067

REVISIONS						AT&T		
1	05/26/22	ISSUED FOR PERMITTING	SE	AT	DPH	COMPOUND & EQUIPMENT PLANS 4TXRX ANTENNA RETROFIT, 5G NR RADIO II 5G NR 1SR CBAND 2022 UPGRADE		
0	04/25/22	ISSUED FOR REVIEW	VS	MKT	DPH			
A	02/25/22	ISSUED FOR REVIEW	VS	MKT	DPH			
NO.	DATE	REVISIONS	BY	CHK	APP'D			
SCALE: AS SHOWN			DESIGNED BY: AT		DRAWN BY: VS		SITE NUMBER CT1855	REV 1
							DRAWING NUMBER A-1	

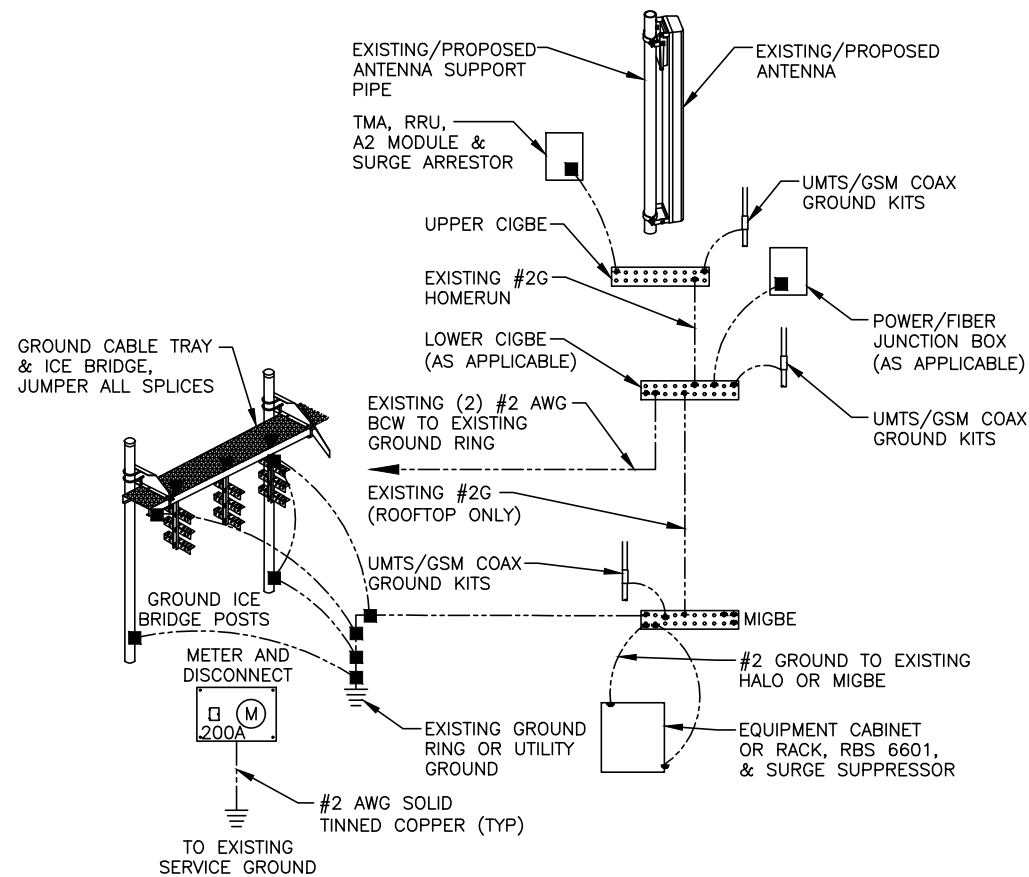




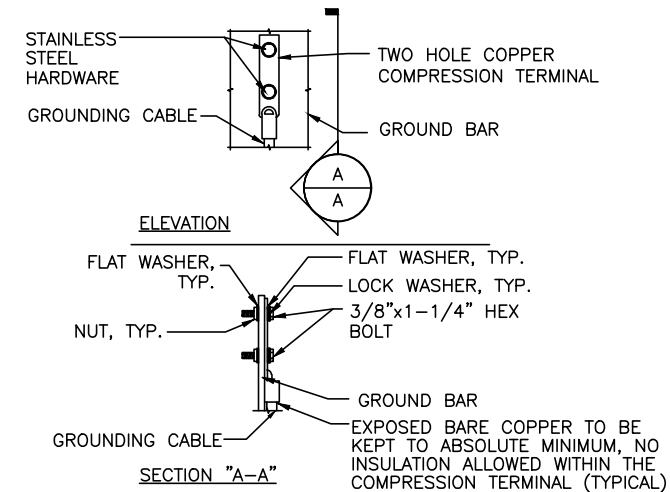




**GROUND WIRE TO GROUND BAR CONNECTION DETAIL** 1  
SCALE: N.T.S. G-1



**GROUNDING RISER DIAGRAM** 2  
SCALE: N.T.S. G-1



- NOTES:
- "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
  - OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATION.
  - CADWELD DOWNLEADS FROM UPPER EGB, LOWER EGB, AND MGB

**TYPICAL GROUND BAR CONNECTION DETAIL** 3  
SCALE: N.T.S. G-1

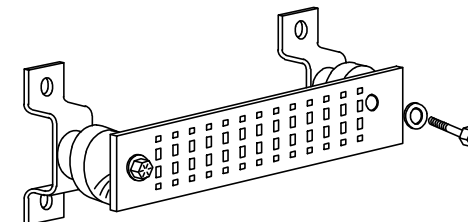
EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

#### SECTION "P" - SURGE PRODUCERS

CABLE ENTRY PORTS (HATCH PLATES) (#2 AWG)  
GENERATOR FRAMEWORK (IF AVAILABLE) (#2 AWG)  
TELCO GROUND BAR  
COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND (#2 AWG)  
+24V POWER SUPPLY RETURN BAR (#2 AWG)  
-48V POWER SUPPLY RETURN BAR (#2 AWG)  
RECTIFIER FRAMES.

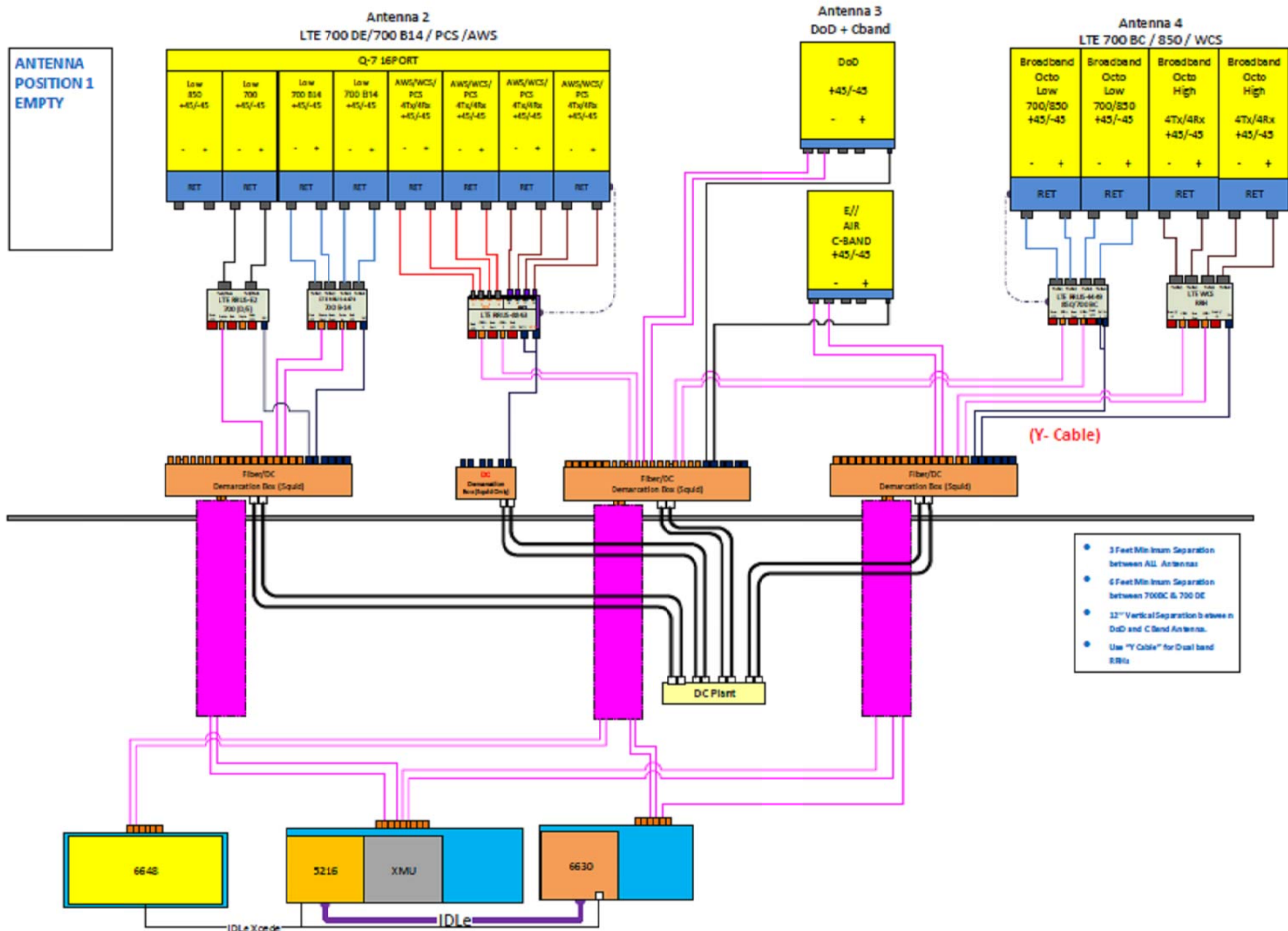
#### SECTION "A" - SURGE ABSORBERS

INTERIOR GROUND RING (#2 AWG)  
EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (#2 AWG)  
METALLIC COLD WATER PIPE (IF AVAILABLE) (#2 AWG)  
BUILDING STEEL (IF AVAILABLE) (#2 AWG)



**GROUND BAR - DETAIL (AS REQUIRED)**  
SCALE: N.T.S.





**RF PLUMBING DIAGRAM** 1  
SCALE: N.T.S. RF-1

**NOTE:**

- CONTRACTOR TO CONFIRM ALL PARTS.
- INSTALL ALL EQUIPMENT TO MANUFACTURER'S RECOMMENDATIONS

**NOTE:**

REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

# EXHIBIT 2

RIDGEFIELD

Card No 1 of 1

MAP/LOT D08-0124

LOCATION:		320 OLD STAGECOACH RD				ZONING		RAAA			Last Update:		02/17/2021	
OWNER OF RECORD						VOLUME / PAGE		DATE		SALES TYPE			SELLING PRICE	
INSITE TOWERS DEVELOPMENT LLC						0993 0673		Nov/14/2013		Warranty Deed			10	
1199 N FAIRFAX ST STE 700		ALEXANDRIA VA		22314										
PRIOR OWNER HISTORY														
INSITE TOWERS LLC						0981 0949		May/07/2013		Quit Claim			265,000	
WILTON BANK THE						890 1029		May/04/2009		Foreclosure			0	
PELLICIONE VINCENT		STEVENS RICHARD B												
										</				

[illegible]



**Summary** ✕

LEDGES RD  
**PELLICCIONE, VINCENT**  
Parcel ID: D08-0124 [View Details](#)

The Ledges



# EXHIBIT 3



**AMERICAN TOWER®**  
CORPORATION

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## Structural Analysis Report

**Structure** : 149 ft Monopole  
**ATC Site Name** : Ridgefield 2,CT  
**ATC Site Number** : 209115  
**Engineering Number** : OAA775851\_C3\_01  
**Proposed Carrier** : AT&T MOBILITY  
**Carrier Site Name** : Ridgefield Old Stagecoach Rd  
**Carrier Site Number** : CT1855  
**Site Location** : 320 Old Stagecoach Road  
Ridgefield, CT 06877  
41.3303, -73.5168  
**County** : Fairfield  
**Date** : April 15, 2022  
**Max Usage** : 51%  
**Result** : Pass

Prepared By:

Sarah Kramer  
Structural Engineer

*Sarah D. Kramer*

Reviewed By:



**COA : PEC.0001553**

## **Table of Contents**

Introduction.....	3
Supporting Documents .....	3
Analysis .....	3
Conclusion .....	3
Existing and Reserved Equipment.....	4
Equipment to be Removed .....	4
Proposed Equipment .....	5
Structure Usages.....	6
Foundations .....	6
Deflection and Sway* .....	6
Standard Conditions .....	7
Calculations .....	Attached

## **Introduction**

The purpose of this report is to summarize results of a structural analysis performed on the 149 ft Monopole to reflect the change in loading by AT&T MOBILITY.

## **Supporting Documents**

<b>Tower Drawings</b>	Valmont Project #273806, dated November 11, 2014
<b>Foundation Drawing</b>	Valmont Drawing #B-140570, dated November 19, 2014
<b>Geotechnical Report</b>	Terracon Project #J2145173, dated October 7, 2014

## **Analysis**

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

<b>Basic Wind Speed:</b>	115 mph (3-second gust)
<b>Basic Wind Speed w/ Ice:</b>	50 mph (3-second gust) w/ 1.00" radial ice concurrent
<b>Code:</b>	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
<b>Exposure Category:</b>	C
<b>Risk Category:</b>	II
<b>Topographic Factor Procedure:</b>	Method 1
<b>Topographic Category:</b>	1
<b>Crest Height (H):</b>	0 ft
<b>Spectral Response:</b>	$S_s = 0.24$ , $S_i = 0.06$
<b>Site Class:</b>	D - Stiff Soil - Default

## **Conclusion**

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

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

### Existing and Reserved Equipment

Elev. <sup>1</sup> (ft)	Qty	Equipment	Mount Type	Lines	Carrier
157.3	1	RFI Antennas BA40-41	Stand-Off	(1) 7/8" Coax	TOWN OF RIDGEFIELD, CT
146.0	3	Ericsson RRUS E2	Triangular Platform with Handrails and Reinforcement	(2) 0.51" (13mm) Hybrid (8) 0.63" (15.9mm) Cable (3) 3/8" (0.38"-9.5mm) RET Control Cable	AT&T MOBILITY
	3	Ericsson RRUS 4478 B14			
	3	Ericsson RRUS 4478 B5			
	3	Raycap DC6-48-60-18-8F(32.8 lbs)			
	3	Ericsson RRUS A2 Module			
	3	Ericsson RRUS 8843 B2, B66A			
	3	Ericsson RRUS 32 (50.8 lbs)			
136.0	1	Kaelus DBCT108F1V92-1	Triangular Platform with Handrails and Reinforcement	(1) 1 5/8" Hybriflex	VERIZON WIRELESS
	9	RFS DB-C1-12C-24AB-0Z			
	3	Commscope JAHH-65B-R3B (63.3 lb)			
	3	Samsung MT6407-77A			
	3	Samsung B5/B13 RRH-BR04C			
	3	Samsung B2/B66A RRH-BR049			
126.0	3	Commscope CBC78T-DS-43-2X	T-Arm with Reinforcement	(4) 1 5/8" Hybriflex	T-MOBILE
	3	Ericsson Radio 4415 B2,B66A			
	1				
	3	RFS APXVAARR24_43-U-NA20			
	3	RFS APX16DWV-16DWVS-E-A20			
	3	Ericsson AIR 6449 B41			
	3	Commscope SDX1926Q-43			
	3	Ericsson Radio 4424 B25			
	3	Ericsson Radio 4449 B71+B85			
	3	Ericsson RRUS 11 B4			
113.0	3	Fujitsu TA08025-B605	Triangular Platform with Handrails	(1) 1.75" (44.5mm) Hybrid	DISH WIRELESS L.L.C.
	3	JMA Wireless MX08FRO665-21			
	3	Fujitsu TA08025-B604			
	1	Commscope RDIDC-9181-PF-48			
70.0	1	Commscope VHLP3-11W-6GR	Stand-Off	(1) EW90	TOWN OF RIDGEFIELD, CT
	1	Generic 4' Grid Dish			
66.0	1	Sinclair SD210R-SF2P90LDF(S)	Stand-Off	(1) 7/8" Coax	

### Equipment to be Removed

Elev. <sup>1</sup> (ft)	Qty	Equipment	Mount Type	Lines	Carrier
146.0	1	Raycap DC6-48-60-18-8F(32.8 lbs)	-	-	AT&T MOBILITY
	6	Ericsson RRUS-11			
	12	CCI HPA-65R-BUU-H8			



### **Proposed Equipment**

Elev. <sup>1</sup> (ft)	Qty	Equipment	Mount Type	Lines	Carrier
146.0	1	Raycap DC6-48-60-0-8F	Triangular Platform with Handrails	(1) 0.51" (13mm) Hybrid	AT&T MOBILITY
	3	Ericsson RRUS 4449 B5, B12			
	3	Ericsson AIR 6419 B77G			
	3	Ericsson Air 6449 B77D			
	3	CCI DMP65R-BU8D			
	3	Quintel QD8616-7			

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

Install proposed lines inside the pole shaft.

### **Structure Usages**

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	43%	Pass
Shaft	51%	Pass
Base Plate	12%	Pass

### **Foundations**

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	3452.5	43%
Axial (Kips)	54.7	25%
Shear (Kips)	31.7	18%

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

### **Deflection and Sway\***

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
146.0	Raycap DC6-48-60-0-8F	AT&T MOBILITY	1.454	1.130
	Ericsson RRUS 4449 B5, B12			
	Ericsson AIR 6419 B77G			
	Ericsson Air 6449 B77D			
	Quintel QD8616-7			
	CCI DMP65R-BU8D			
70.0	Commscope VHLP3-11W-6GR	TOWN OF RIDGEFIELD, CT	0.303	0.530
69.6	Generic 4' Grid Dish		0.300	0.520

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

## **Standard Conditions**

All engineering services performed by A.T. Engineering Service, PLLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

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

Unless explicitly agreed by both the client and A.T. Engineering Service, PLLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

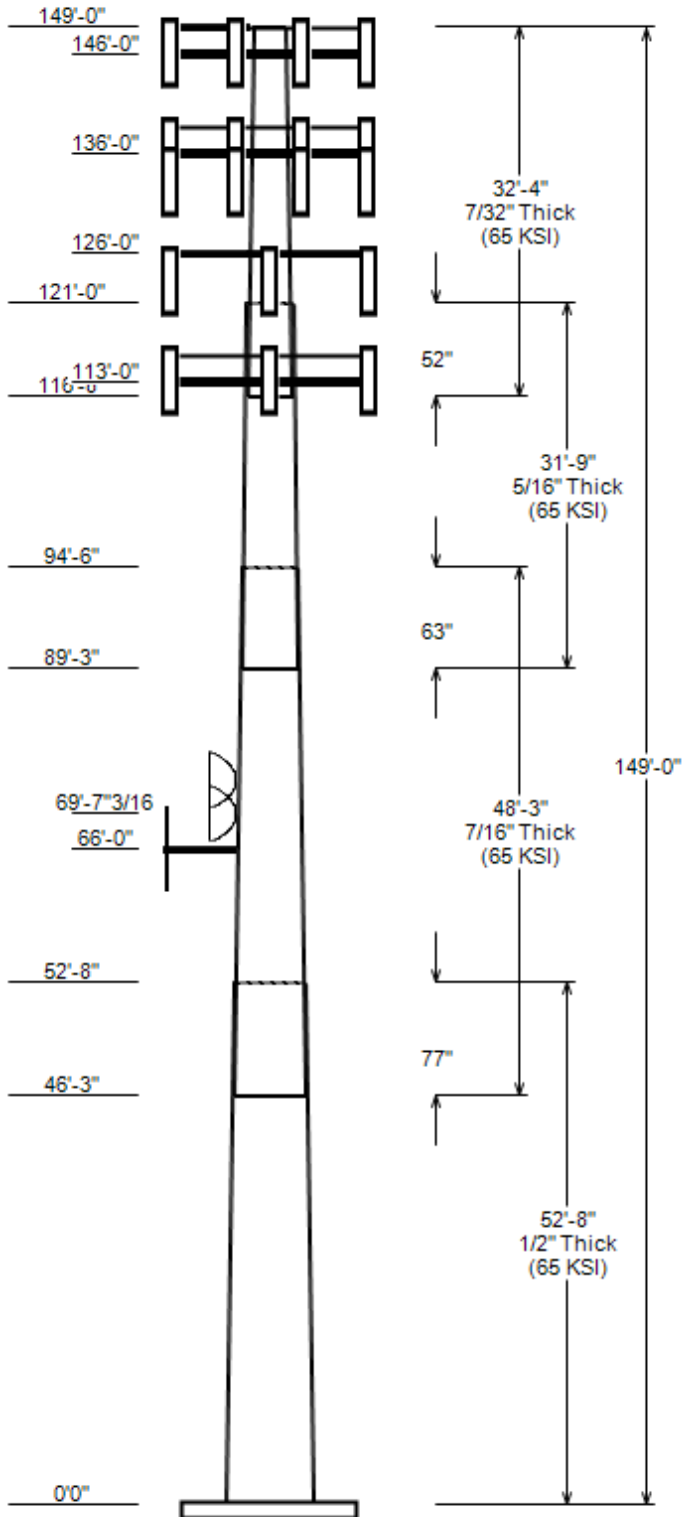
All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Service, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

# JOB INFORMATION

Asset : 209115, Ridgefield 2  
Client : AT&T MOBILITY  
Code : ANSI/TIA-222-H

Height : 149 ft  
Base Width : 56.88  
Shape : 18 Sides

15'-3 5/8"



## SITE PARAMETERS

Nominal Wind: 115 mph wind with no ice      Topo Category: 1  
Ice Wind: 50 mph wind with 1" radial      Topo Method: Method 1  
Base Elev (ft): 0.00      Taper : 0.25700 (in/ft)      Topo Feature:  
Structure Class: II      Exposure : C      S<sub>s</sub> : 0.241      S<sub>i</sub> : 0.057

## SECTION PROPERTIES

Shaft Section	Length (ft)	Diameter (in)		Thick (in)	Joint Type	Overlap Length (in)	Shape	Steel Grade (ksi)
		Top	Bottom					
1	52.667	43.34	56.88	0.500		0.000	18 Sides	65
2	48.250	33.45	45.86	0.438	Slip Joint	77.000	18 Sides	65
3	31.750	27.26	35.43	0.312	Slip Joint	63.000	18 Sides	65
4	32.333	20.50	28.81	0.219	Slip Joint	52.000	18 Sides	65

## DISCRETE APPURTENANCE

Attach Elev (ft)	Force Elev (ft)	Qty	Description
157.3	157.3	1	RFI Antennas BA40-41
149.0	149.0	1	Generic Flat Stand-Off
146.0	146.0	3	Kaelus DBCT108F1V92-1
146.0	146.0	1	Raycap DC6-48-60-0-8F
146.0	145.6	3	Raycap DC6-48-60-18-8F(32.8 lb
146.0	146.0	3	Ericsson RRUS A2 Module
146.0	145.1	3	Ericsson RRUS 8843 B2, B66A
146.0	145.3	3	Ericsson RRUS 4478 B5
146.0	146.0	3	Ericsson RRUS 4449 B5, B12
146.0	145.3	3	Ericsson RRUS 4478 B14
146.0	146.0	3	Ericsson RRUS E2
146.0	145.1	3	Ericsson RRUS 32 (50.8 lbs)
146.0	146.0	3	Ericsson AIR 6419 B77G
146.0	146.0	3	Ericsson Air 6449 B77D
146.0	146.0	1	Generic Mount Reinforcement
146.0	146.0	3	CCI DMP65R-BU8D
146.0	146.0	3	Quintel QD8616-7
146.0	146.0	1	Generic Round Platform with Ha
136.0	135.3	3	Commscope CBC78T-DS-43-2X
136.0	135.6	3	Samsung B5/B13 RRH-BR04C
136.0	135.6	3	Samsung B2/B66A RRH-BR049
136.0	136.0	1	RFS DB-C1-12C-24AB-0Z
136.0	136.0	3	Samsung MT6407-77A
136.0	136.0	1	Generic Mount Reinforcement
136.0	135.9	9	Commscope JAHH-65B-R3B (63.3 l
136.0	136.0	1	Generic Round Platform with Ha
126.0	123.2	3	Commscope SDX1926Q-43
126.0	125.0	3	Ericsson Radio 4424 B25
126.0	126.0	3	Ericsson Radio 4449 B71+B85
126.0	126.0	3	Ericsson Radio 4415 B2,B66A
126.0	125.1	3	Ericsson RRUS 11 B4
126.0	125.9	3	Ericsson AIR 6449 B41
126.0	124.6	3	RFS APX16DWV-16DWVS-E-A20
126.0	126.0	1	Generic Mount Reinforcement
126.0	126.0	3	Generic Round T-Arm
126.0	123.1	3	RFS APXVAARR24_43-U-NA20
113.0	113.0	1	Commscope RDIDC-9181-PF-48
113.0	113.0	3	Fujitsu TA08025-B605
113.0	113.0	3	Fujitsu TA08025-B604
113.0	113.0	3	JMA Wireless MX08FRO665-21
113.0	113.0	1	Generic Flat Platform with Han
70.0	70.8	1	Commscope VHLP3-11W-6GR
69.6	69.6	1	Generic 4' Grid Dish

# JOB INFORMATION

Asset : 209115, Ridgefield 2  
 Client : AT&T MOBILITY  
 Code : ANSI/TIA-222-H

Height : 149 ft  
 Base Width : 56.88  
 Shape : 18 Sides

## DISCRETE APPURTENANCE

Attach Elev (ft)	Force Elev (ft)	Qty	Description
66.0	66.0	1	Sinclair SD210R-SF2P90LDF(S)
66.0	66.0	1	Generic Flat Stand-Off

## LINEAR APPURTENANCE

Elev From (ft)	Elev To (ft)	Description	Exp To Wind
0.0	157.4	7/8" Coax	No
0.0	146.0	3/8" (0.38"- 9.5mm) RET Control Cable	No
0.0	146.0	0.63" (15.9mm) Cable	No
0.0	146.0	0.51" (13mm) Hybrid	No
0.0	146.0	0.51" (13mm) Hybrid	No
0.0	136.0	1 5/8" Hybriflex	No
0.0	126.0	1 5/8" Hybriflex	No
0.0	113.0	1.75" (44.5mm) Hybrid	No
0.0	70.0	EW90	No
0.0	66.0	7/8" Coax	No

## LOAD CASES

1.2D + 1.0W Normal	115 mph wind with no ice
0.9D + 1.0W Normal	115 mph wind with no ice
1.2D + 1.0Di + 1.0Wi Nor	50 mph wind with 1" radial ice
1.2D + 1.0Ev + 1.0Eh Nor	Seismic
0.9D - 1.0Ev + 1.0Eh Nor	Seismic (Reduced DL)
1.0D + 1.0W Service Norm	60 mph Wind with No Ice

## REACTIONS

Load Case	Moment (kip-ft)	Shear (Kip)	Axial (Kip)
1.2D + 1.0W Normal	3452.47	31.71	54.67
0.9D + 1.0W Normal	3416.60	31.69	40.99
1.2D + 1.0Di + 1.0Wi Normal	977.21	9.21	71.65
1.2D + 1.0Ev + 1.0Eh Normal	171.87	1.37	55.08
0.9D - 1.0Ev + 1.0Eh Normal	169.34	1.37	37.35
1.0D + 1.0W Service Normal	835.66	7.72	45.59

## DISH DEFLECTIONS

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W Service Normal	69.60	3.598	0.522
1.0D + 1.0W Service Normal	70.00	3.642	0.525



ASSET: 209115, Ridgefield 2  
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H  
ENG NO: OAA775851\_C3\_01

#### ANALYSIS PARAMETERS

<b>Location:</b>	Fairfield County,CT	<b>Height:</b>	149 ft
<b>Type and Shape:</b>	Taper, 18 Sides	<b>Base Diameter:</b>	56.88 in
<b>Manufacturer:</b>	Valmont	<b>Top Diameter:</b>	20.50 in
<b>K<sub>d</sub> (non-service):</b>	0.95	<b>Taper:</b>	0.2570 in/ft
<b>K<sub>e</sub>:</b>	0.97	<b>Rotation:</b>	0.000°

#### ICE & WIND PARAMETERS

<b>Exposure Category:</b>	C	<b>Design Wind Speed w/o Ice:</b>	115 mph
<b>Risk Category:</b>	II	<b>Design Wind Speed w/Ice:</b>	50 mph
<b>Topo Factor Procedure:</b>	Method 1	<b>Operational Wind Speed:</b>	60 mph
<b>Topographic Category:</b>	1	<b>Design Ice Thickness:</b>	1.00 in
<b>Crest Height:</b>	0 ft	<b>HMSL:</b>	807.00 ft

#### SEISMIC PARAMETERS

<b>Analysis Method:</b>	Equivalent Lateral Force Method		
<b>Site Class:</b>	D - Stiff Soil	<b>Period Based on Rayleigh Method (sec):</b>	2.28
<b>T<sub>L</sub> (sec):</b>	6	<b>P:</b>	1
<b>S<sub>s</sub>:</b>	0.241	<b>S<sub>1</sub>:</b>	0.057
<b>F<sub>a</sub>:</b>	1.600	<b>F<sub>v</sub>:</b>	2.400
<b>S<sub>ds</sub>:</b>	0.257	<b>S<sub>d1</sub>:</b>	0.091
		<b>C<sub>s</sub>:</b>	0.030
		<b>C<sub>s</sub> Max:</b>	0.030
		<b>C<sub>s</sub> Min:</b>	0.030

#### LOAD CASES

1.2D + 1.0W Normal	115 mph wind with no ice
0.9D + 1.0W Normal	115 mph wind with no ice
1.2D + 1.0Di + 1.0Wi Normal	50 mph wind with 1" radial ice
1.2D + 1.0Ev + 1.0Eh Normal	Seismic
0.9D - 1.0Ev + 1.0Eh Normal	Seismic (Reduced DL)
1.0D + 1.0W Service Normal	60 mph Wind with No Ice

ASSET: 209115, Ridgefield 2  
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H  
ENG NO: OAA775851\_C3\_01

### SHAFT SECTION PROPERTIES

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint len (in)	Weight (lb)	Bottom						Top						Taper (in/ft)
							Dia (in)	Elev (ft)	Area (in <sup>2</sup> )	Ix (in <sup>4</sup> )	W/t Ratio	D/t Ratio	Dia (in)	Elev (in)	Area (in <sup>2</sup> )	Ix (in <sup>4</sup> )	W/t Ratio	D/t Ratio	
1-18	52.67	0.5000	65		0.00	14,109	56.88	0.003	89.47	35,932.7	18.30	113.76	43.34	52.67	67.98	15,758.4	13.52	86.67	0.2572
2-18	48.25	0.4375	65	Slip	77.00	8,941	45.86	46.250	63.07	16,441.6	16.72	104.82	33.45	94.50	45.84	6,312.6	11.72	76.46	0.2572
3-18	31.75	0.3125	65	Slip	63.00	3,325	35.43	89.250	34.83	5,425.4	18.23	113.37	27.26	121.00	26.73	2,452.4	13.62	87.24	0.2572
								116.66								731.7			
4-18	32.33	0.2188	65	Slip	52.00	1,867	28.81	7	19.86	2,051.3	21.46	131.69	20.50	149.00	14.08		14.76	93.68	0.2572
Shaft Weight							28,242												

### DISCRETE APPURTENANCE PROPERTIES

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	No Ice			Ice		
					Weight (lb)	EPAA (sf)	Orientation Factor	Weight (lb)	EPAA (sf)	Orientation Factor
157.30	RFI Antennas BA40-41	1	1.00	0.000	32.00	4.590	1.00	106.89	7.352	1.00
149.00	Generic Flat Stand-Off	1	1.00	0.000	187.50	6.300	1.00	276.36	8.378	1.00
146.00	Ericsson RRUS A2 Module	3	0.75	0.000	21.20	1.600	0.50	45.20	2.157	0.50
146.00	Ericsson RRUS 8843 B2, B66A	3	0.75	-0.900	72.00	1.639	0.50	112.82	2.202	0.50
146.00	Ericsson RRUS 4478 B5	3	0.75	-0.700	59.90	1.842	0.50	96.72	2.439	0.50
146.00	Ericsson RRUS 4449 B5, B12	3	0.75	0.000	71.00	1.969	0.50	113.92	2.590	0.50
146.00	Ericsson RRUS 4478 B14	3	0.75	-0.700	59.40	2.021	0.67	100.27	2.649	0.67
146.00	Ericsson RRUS E2	3	0.75	0.000	52.90	2.475	0.67	94.58	3.162	0.67
146.00	Ericsson RRUS 32 (50.8 lbs)	3	0.75	-0.900	50.80	2.692	0.67	98.43	3.461	0.67
146.00	Ericsson AIR 6419 B77G	3	0.75	0.000	66.10	3.797	0.65	130.72	4.674	0.65
146.00	Ericsson Air 6449 B77D	3	0.75	0.000	81.60	4.028	0.65	150.09	4.944	0.65
146.00	Generic Mount Reinforcement	1	1.00	0.000	200.00	7.500	1.00	328.89	12.487	1.00
146.00	CCI DMP65R-BU8D	3	0.75	0.000	95.70	17.871	0.63	322.06	20.325	0.63
146.00	Quintel QD8616-7	3	0.75	0.000	150.00	18.815	0.65	403.61	21.277	0.65
146.00	Generic Round Platform with Ha	1	1.00	0.000	2500.00	27.200	1.00	3578.74	43.480	1.00
146.00	Raycap DC6-48-60-18-8F(32.8 lb	3	0.75	-0.400	32.80	1.470	1.00	73.89	1.935	1.00
146.00	Kaelus DBCT108F1V92-1	3	0.75	0.000	13.90	0.633	0.50	30.66	0.996	0.50
146.00	Raycap DC6-48-60-0-8F	1	0.75	0.000	32.80	1.360	1.00	71.52	1.802	1.00
136.00	Commscope JAHH-65B-R3B (63.3 l	9	0.75	-0.100	63.30	9.113	0.69	197.09	10.948	0.69
136.00	Generic Round Platform with Ha	1	1.00	0.000	2500.00	27.200	1.00	3571.09	43.364	1.00
136.00	Generic Mount Reinforcement	1	1.00	0.000	200.00	7.500	1.00	327.98	12.451	1.00
136.00	Samsung MT6407-77A	3	0.75	0.000	81.60	4.709	0.61	149.00	5.713	0.61
136.00	RFS DB-C1-12C-24AB-0Z	1	0.75	0.000	32.00	4.056	1.00	116.04	4.959	1.00
136.00	Samsung B5/B13 RRH-BR04C	3	0.75	-0.400	70.30	1.875	0.50	108.13	2.472	0.50
136.00	Samsung B2/B66A RRH-BR049	3	0.75	-0.400	84.40	1.875	0.50	126.59	2.472	0.50
136.00	Commscope CBC78T-DS-43-2X	3	0.75	-0.700	20.70	0.552	0.50	35.31	0.888	0.50
126.00	Commscope SDX1926Q-43	3	0.80	-2.800	6.20	0.242	0.50	11.84	0.473	0.50
126.00	RFS APXVAARR24_43-U-NA20	3	0.80	-2.900	127.90	20.243	0.63	385.53	22.677	0.63
126.00	Generic Round T-Arm	3	0.75	0.000	312.50	9.700	0.67	483.94	15.110	0.67
126.00	Generic Mount Reinforcement	1	1.00	0.000	200.00	7.500	1.00	327.00	12.413	1.00
126.00	RFS APX16DWV-16DWVS-E-A20	3	0.80	-1.400	40.70	6.586	0.60	117.36	8.007	0.60
126.00	Ericsson AIR 6449 B41	3	0.80	-0.100	101.60	5.500	0.63	188.50	6.528	0.63
126.00	Ericsson RRUS 11 B4	3	0.80	-0.900	50.70	2.791	0.67	98.22	3.511	0.67
126.00	Ericsson Radio 4415 B2,B66A	3	0.80	0.000	47.40	1.856	0.50	80.66	2.447	0.50
126.00	Ericsson Radio 4449 B71+B85	3	0.80	0.000	75.00	1.650	0.50	114.33	2.206	0.50
126.00	Ericsson Radio 4424 B25	3	0.80	-1.000	46.30	1.639	0.50	78.17	1.977	0.50
113.00	JMA Wireless MX08FRO665-21	3	0.75	0.000	64.50	12.489	0.64	231.18	14.311	0.64
113.00	Generic Flat Platform with Han	1	1.00	0.000	2500.00	42.400	1.00	3652.06	56.001	1.00
113.00	Fujitsu TA08025-B604	3	0.75	0.000	63.90	1.962	0.50	101.72	2.559	0.50
113.00	Fujitsu TA08025-B605	3	0.75	0.000	75.00	1.962	0.50	115.63	2.559	0.50
113.00	Commscope RDIDC-9181-PF-48	1	0.75	0.000	21.90	1.867	1.00	58.81	2.451	1.00
70.00	Commscope VHLP3-11W-6GR	1	1.00	0.800	53.00	10.680	1.00	187.33	11.863	1.00
69.60	Generic 4' Grid Dish	1	1.00	0.000	51.00	7.460	1.00	195.50	38.255	1.00
66.00	Generic Flat Stand-Off	1	1.00	0.000	187.50	6.300	1.00	269.43	8.216	1.00
66.00	Sinclair SD210R-SF2P90LDF(S)	1	1.00	0.000	37.00	3.750	1.00	111.80	11.450	1.00
Totals	Num Loadings: 45	111			15,592.40			27,550.49		

### LINEAR APPURTENANCE PROPERTIES

Load Case Azimuth (deg) : 0.00\_

ASSET: 209115, Ridgefield 2  
 CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H  
 ENG NO: OAA775851\_C3\_01

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Flat	Max Coax/ Row	Dist Between Rows(in)	Dist Between Cols(in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind	Carrier
0.00	157.40	1	7/8" Coax	1.09	0.33	N	0	0	0	0	0	N	TOWN OF RIDGE
0.00	146.00	8	0.63" (15.9mm) Cable	0.63	0.31	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	146.00	3	3/8" (0.38"- 9.5mm) R	0.38	0.23	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	146.00	2	0.51" (13mm) Hybrid	0.51	0.14	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	146.00	1	0.51" (13mm) Hybrid	0.51	0.14	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	136.00	1	1 5/8" Hybriflex	1.98	1.3	N	0	0	0	0	0	N	VERIZON WIREL
0.00	126.00	4	1 5/8" Hybriflex	1.98	1.3	N	0	0	0	0	0	N	T-MOBILE
0.00	113.00	1	1.75" (44.5mm) Hybrid	1.75	2.72	N	0	0	0	0	0	N	DISH WIRELESS
0.00	70.00	1	EW90	1.32	0.32	N	0	0	0	0	0	N	TOWN OF RIDGE
0.00	66.00	1	7/8" Coax	1.09	0.33	N	0	0	0	0	0	N	TOWN OF RIDGE

ASSET: 209115, Ridgefield 2  
 CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H  
 ENG NO: OAA775851\_C3\_01

# SEGMENT PROPERTIES

(Max Len: 5.ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in <sup>2</sup> )	Ix (in <sup>4</sup> )	W/t Ratio	D/t Ratio	F'y (ksi)	S (in <sup>3</sup> )	Z (in <sup>3</sup> )	Weight (lb)
0.00		0.5000	56.880	89.472	35,932.70	18.30	113.76	79.9	1244.3	0.0	0.0
5.00		0.5000	55.594	87.431	33,529.70	17.84	111.19	80.4	1187.9	0.0	1,504.9
10.00		0.5000	54.308	85.391	31,236.30	17.39	108.62	80.9	1132.9	0.0	1,470.2
15.00		0.5000	53.022	83.350	29,049.90	16.94	106.04	81.5	1079.1	0.0	1,435.5
20.00		0.5000	51.736	81.309	26,968.10	16.48	103.47	82	1026.7	0.0	1,400.7
25.00		0.5000	50.450	79.269	24,988.10	16.03	100.90	82.6	975.5	0.0	1,366.0
30.00		0.5000	49.165	77.228	23,107.50	15.57	98.33	82.6	925.7	0.0	1,331.3
35.00		0.5000	47.879	75.187	21,323.70	15.12	95.76	82.6	877.2	0.0	1,296.6
40.00		0.5000	46.593	73.147	19,634.20	14.67	93.19	82.6	830.0	0.0	1,261.9
45.00		0.5000	45.307	71.106	18,036.30	14.21	90.61	82.6	784.1	0.0	1,227.1
46.25	Bot - Section 2	0.5000	44.985	70.596	17,650.80	14.10	89.97	82.6	772.8	0.0	301.4
50.00		0.5000	44.021	69.065	16,527.60	13.76	88.04	82.6	739.5	0.0	1,687.2
52.67	Top - Section 1	0.4375	44.210	60.781	14,713.90	16.05	101.05	82.5	655.5	0.0	1,177.8
55.00		0.4375	43.610	59.948	14,117.10	15.81	99.68	82.6	637.6	0.0	479.2
60.00		0.4375	42.324	58.163	12,892.80	15.29	96.74	82.6	600.0	0.0	1,004.8
65.00		0.4375	41.038	56.377	11,741.50	14.78	93.80	82.6	563.5	0.0	974.4
66.00		0.4375	40.781	56.020	11,519.80	14.67	93.21	82.6	556.4	0.0	191.2
69.60		0.4375	39.855	54.734	10,744.70	14.30	91.10	82.6	531.0	0.0	678.4
70.00		0.4375	39.752	54.592	10,660.80	14.26	90.86	82.6	528.2	0.0	74.4
75.00		0.4375	38.466	52.806	9,648.60	13.74	87.92	82.6	494.0	0.0	913.6
80.00		0.4375	37.181	51.020	8,702.50	13.22	84.98	82.6	461.0	0.0	883.2
85.00		0.4375	35.895	49.235	7,820.50	12.70	82.04	82.6	429.1	0.0	852.9
89.25	Bot - Section 3	0.4375	34.801	47.717	7,119.20	12.26	79.55	82.6	402.9	0.0	701.1
90.00		0.4375	34.609	47.449	7,000.10	12.19	79.11	82.6	398.4	0.0	210.0
94.50	Top - Section 2	0.3125	34.076	33.488	4,823.30	17.46	109.04	80.9	278.8	0.0	1,235.9
95.00		0.3125	33.948	33.361	4,768.50	17.39	108.63	80.9	276.7	0.0	56.8
100.00		0.3125	32.662	32.085	4,242.20	16.67	104.52	81.8	255.8	0.0	556.7
105.00		0.3125	31.376	30.810	3,756.20	15.94	100.40	82.6	235.8	0.0	535.0
110.00		0.3125	30.090	29.535	3,308.70	15.21	96.29	82.6	216.6	0.0	513.3
113.00		0.3125	29.319	28.769	3,058.20	14.78	93.82	82.6	205.4	0.0	297.6
115.00		0.3125	28.804	28.259	2,898.30	14.49	92.17	82.6	198.2	0.0	194.1
116.67	Bot - Section 4	0.3125	28.375	27.834	2,769.50	14.25	90.80	82.6	192.2	0.0	159.1
120.00		0.3125	27.518	26.984	2,523.30	13.76	88.06	82.6	180.6	0.0	532.7
121.00	Top - Section 3	0.2188	27.699	19.083	1,820.70	20.56	126.59	77.2	129.5	0.0	156.7
125.00		0.2188	26.670	18.369	1,623.80	19.73	121.89	78.2	119.9	0.0	254.9
126.00		0.2188	26.413	18.190	1,576.90	19.52	120.72	78.4	117.6	0.0	62.2
130.00		0.2188	25.384	17.476	1,398.30	18.69	116.01	79.4	108.5	0.0	242.7
135.00		0.2188	24.098	16.583	1,194.70	17.66	110.14	80.6	97.6	0.0	289.7
136.00		0.2188	23.841	16.404	1,156.50	17.45	108.96	80.9	95.5	0.0	56.1
140.00		0.2188	22.812	15.690	1,011.90	16.62	104.26	81.9	87.4	0.0	218.4
145.00		0.2188	21.526	14.797	848.80	15.58	98.38	82.6	77.7	0.0	259.3
146.00		0.2188	21.269	14.618	818.40	15.38	97.21	82.6	75.8	0.0	50.0
149.00		0.2188	20.498	14.083	731.70	14.76	93.68	82.6	70.3	0.0	146.5
Totals:										28,241.5	

ASSET: 209115, Ridgefield 2  
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H  
ENG NO: OAA775851\_C3\_01

Load Case: 1.2D + 1.0W Normal	115 mph wind with no ice	23 Iterations
Gust Response Factor: 1.10		
Dead load Factor: 1.20		
Wind Load Factor: 1.00		

#### CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-54.67	-31.71	0.00	-3,452.5	0.00	3,452.47	6,432.44	1,570.23	7,996.47	7,454.51	0	0	0.472
5.00	-52.71	-31.33	0.00	-3,293.9	0.00	3,293.92	6,327.70	1,534.42	7,635.91	7,164.41	0.07	-0.13	0.469
10.00	-50.79	-30.96	0.00	-3,137.3	0.00	3,137.27	6,221.00	1,498.60	7,283.67	6,877.72	0.29	-0.27	0.465
15.00	-48.91	-30.58	0.00	-2,982.5	0.00	2,982.49	6,112.34	1,462.79	6,939.75	6,594.61	0.64	-0.41	0.461
20.00	-47.08	-30.19	0.00	-2,829.6	0.00	2,829.59	6,001.72	1,426.98	6,604.15	6,315.24	1.15	-0.55	0.456
25.00	-45.29	-29.78	0.00	-2,678.6	0.00	2,678.64	5,889.26	1,391.16	6,276.86	6,039.87	1.8	-0.7	0.452
30.00	-43.54	-29.36	0.00	-2,529.7	0.00	2,529.73	5,737.65	1,355.35	5,957.89	5,731.40	2.61	-0.85	0.449
35.00	-41.83	-28.93	0.00	-2,382.9	0.00	2,382.93	5,586.03	1,319.54	5,647.24	5,431.01	3.58	-1	0.447
40.00	-40.16	-28.49	0.00	-2,238.3	0.00	2,238.28	5,434.42	1,283.72	5,344.90	5,138.71	4.71	-1.15	0.443
45.00	-38.57	-28.21	0.00	-2,095.8	0.00	2,095.81	5,282.81	1,247.91	5,050.88	4,854.49	6	-1.31	0.440
46.25	-38.15	-27.99	0.00	-2,060.5	0.00	2,060.54	5,244.90	1,238.95	4,978.66	4,784.68	6.34	-1.35	0.438
50.00	-36.02	-27.67	0.00	-1,955.6	0.00	1,955.59	5,131.20	1,212.09	4,765.18	4,578.36	7.45	-1.47	0.435
52.67	-34.53	-27.42	0.00	-1,881.8	0.00	1,881.79	4,513.96	1,066.71	4,217.69	4,056.89	8.3	-1.56	0.472
55.00	-33.87	-27.10	0.00	-1,817.8	0.00	1,817.82	4,453.86	1,052.09	4,102.87	3,947.47	9.08	-1.64	0.469
60.00	-32.51	-26.66	0.00	-1,682.3	0.00	1,682.30	4,321.20	1,020.76	3,862.14	3,714.67	10.89	-1.81	0.461
65.00	-31.22	-26.37	0.00	-1,549.0	0.00	1,549.02	4,188.54	989.42	3,628.68	3,488.95	12.88	-1.99	0.452
66.00	-30.69	-25.77	0.00	-1,522.6	0.00	1,522.65	4,162.01	983.15	3,582.86	3,444.66	13.3	-2.03	0.450
69.60	-29.75	-25.27	0.00	-1,429.9	0.00	1,429.90	4,066.49	960.59	3,420.33	3,287.54	14.88	-2.16	0.443
70.00	-29.57	-24.62	0.00	-1,419.4	0.00	1,419.44	4,055.88	958.08	3,402.50	3,270.31	15.06	-2.17	0.442
75.00	-28.34	-24.18	0.00	-1,296.4	0.00	1,296.35	3,923.22	926.75	3,183.60	3,058.74	17.44	-2.36	0.432
80.00	-27.15	-23.74	0.00	-1,175.5	0.00	1,175.47	3,790.56	895.41	2,971.98	2,854.24	20	-2.54	0.420
85.00	-26.00	-23.33	0.00	-1,056.8	0.00	1,056.78	3,657.90	864.07	2,767.63	2,656.82	22.76	-2.72	0.406
89.25	-25.06	-23.10	0.00	-957.6	0.00	957.61	3,545.13	837.43	2,599.65	2,494.57	25.25	-2.88	0.392
90.00	-24.77	-22.89	0.00	-940.3	0.00	940.29	3,525.24	832.73	2,570.56	2,466.48	25.7	-2.9	0.389
94.50	-23.20	-22.61	0.00	-837.3	0.00	837.30	2,437.06	587.72	1,792.40	1,690.71	28.52	-3.07	0.506
95.00	-23.09	-22.42	0.00	-826.0	0.00	826.00	2,430.35	585.48	1,778.79	1,679.58	28.84	-3.09	0.503
100.00	-22.28	-22.02	0.00	-713.9	0.00	713.92	2,362.08	563.10	1,645.40	1,569.41	32.2	-3.32	0.466
105.00	-21.50	-21.64	0.00	-603.8	0.00	603.80	2,289.03	540.71	1,517.20	1,459.85	35.79	-3.54	0.425
110.00	-20.77	-21.32	0.00	-495.6	0.00	495.62	2,194.27	518.33	1,394.21	1,340.91	39.6	-3.74	0.381
113.00	-16.80	-17.92	0.00	-431.7	0.00	431.66	2,137.42	504.90	1,322.91	1,271.97	41.99	-3.86	0.348
115.00	-16.53	-17.78	0.00	-395.8	0.00	395.82	2,099.51	495.95	1,276.41	1,227.02	43.63	-3.94	0.332
116.67	-16.30	-17.59	0.00	-366.2	0.00	366.18	2,067.92	488.49	1,238.30	1,190.18	45.02	-4	0.317
120.00	-15.61	-17.39	0.00	-307.5	0.00	307.54	2,004.76	473.56	1,163.82	1,118.19	47.85	-4.12	0.284
121.00	-15.40	-17.21	0.00	-290.1	0.00	290.14	1,326.25	334.91	831.27	749.80	48.72	-4.15	0.401
125.00	-15.04	-17.02	0.00	-221.3	0.00	221.31	1,292.72	322.37	770.21	703.28	52.25	-4.27	0.329
126.00	-12.08	-12.91	0.00	-204.3	0.00	204.29	1,284.14	319.24	755.30	691.76	53.14	-4.31	0.306
130.00	-11.77	-12.59	0.00	-152.7	0.00	152.67	1,249.05	306.70	697.15	646.21	56.81	-4.44	0.247
135.00	-11.39	-12.36	0.00	-89.7	0.00	89.74	1,203.41	291.03	627.73	590.51	61.52	-4.56	0.163
136.00	-6.79	-7.57	0.00	-77.4	0.00	77.38	1,194.05	287.90	614.28	579.55	62.48	-4.58	0.140
140.00	-6.53	-7.26	0.00	-47.1	0.00	47.10	1,155.82	275.36	561.95	536.34	66.34	-4.64	0.094
145.00	-6.21	-7.04	0.00	-10.8	0.00	10.80	1,099.34	259.69	499.82	480.82	71.22	-4.68	0.029
146.00	-0.39	-0.64	0.00	-3.8	0.00	3.75	1,086.07	256.55	487.82	469.22	72.2	-4.68	0.008
149.00	0.00	-0.61	0.00	-1.8	0.00	1.82	1,046.26	247.15	452.73	435.29	75.15	-4.69	0.004

ASSET: 209115, Ridgefield 2  
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H  
ENG NO: OAA775851\_C3\_01

Load Case: 0.9D + 1.0W Normal	115 mph wind with no ice	23 Iterations
Gust Response Factor: 1.10		
Dead load Factor: 0.90		
Wind Load Factor: 1.00		

#### CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-40.99	-31.69	0.00	-3,416.6	0.00	3,416.60	6,432.44	1,570.23	7,996.47	7,454.51	0	0	0.465
5.00	-39.51	-31.28	0.00	-3,258.1	0.00	3,258.13	6,327.70	1,534.42	7,635.91	7,164.41	0.07	-0.13	0.461
10.00	-38.05	-30.88	0.00	-3,101.7	0.00	3,101.72	6,221.00	1,498.60	7,283.67	6,877.72	0.28	-0.27	0.458
15.00	-36.62	-30.47	0.00	-2,947.3	0.00	2,947.33	6,112.34	1,462.79	6,939.75	6,594.61	0.64	-0.4	0.453
20.00	-35.23	-30.06	0.00	-2,795.0	0.00	2,794.96	6,001.72	1,426.98	6,604.15	6,315.24	1.14	-0.55	0.449
25.00	-33.87	-29.62	0.00	-2,644.7	0.00	2,644.68	5,889.26	1,391.16	6,276.86	6,039.87	1.78	-0.69	0.444
30.00	-32.54	-29.18	0.00	-2,496.6	0.00	2,496.57	5,737.65	1,355.35	5,957.89	5,731.40	2.58	-0.84	0.442
35.00	-31.25	-28.73	0.00	-2,350.7	0.00	2,350.69	5,586.03	1,319.54	5,647.24	5,431.01	3.54	-0.98	0.439
40.00	-29.98	-28.27	0.00	-2,207.1	0.00	2,207.06	5,434.42	1,283.72	5,344.90	5,138.71	4.65	-1.14	0.435
45.00	-28.78	-27.97	0.00	-2,065.7	0.00	2,065.73	5,282.81	1,247.91	5,050.88	4,854.49	5.93	-1.29	0.431
46.25	-28.46	-27.74	0.00	-2,030.8	0.00	2,030.76	5,244.90	1,238.95	4,978.66	4,784.68	6.27	-1.33	0.430
50.00	-26.85	-27.42	0.00	-1,926.7	0.00	1,926.73	5,131.20	1,212.09	4,765.18	4,578.36	7.36	-1.45	0.427
52.67	-25.73	-27.17	0.00	-1,853.6	0.00	1,853.61	4,513.96	1,066.71	4,217.69	4,056.89	8.2	-1.54	0.463
55.00	-25.22	-26.83	0.00	-1,790.2	0.00	1,790.22	4,453.86	1,052.09	4,102.87	3,947.47	8.97	-1.61	0.460
60.00	-24.19	-26.37	0.00	-1,656.1	0.00	1,656.06	4,321.20	1,020.76	3,862.14	3,714.67	10.75	-1.79	0.452
65.00	-23.21	-26.08	0.00	-1,524.2	0.00	1,524.22	4,188.54	989.42	3,628.68	3,488.95	12.72	-1.96	0.443
66.00	-22.81	-25.47	0.00	-1,498.2	0.00	1,498.15	4,162.01	983.15	3,582.86	3,444.66	13.14	-2	0.441
69.60	-22.10	-24.97	0.00	-1,406.5	0.00	1,406.47	4,066.49	960.59	3,420.33	3,287.54	14.7	-2.13	0.434
70.00	-21.96	-24.30	0.00	-1,396.1	0.00	1,396.14	4,055.88	958.08	3,402.50	3,270.31	14.88	-2.14	0.433
75.00	-21.02	-23.85	0.00	-1,274.6	0.00	1,274.62	3,923.22	926.75	3,183.60	3,058.74	17.22	-2.32	0.423
80.00	-20.12	-23.40	0.00	-1,155.4	0.00	1,155.37	3,790.56	895.41	2,971.98	2,854.24	19.75	-2.5	0.411
85.00	-19.25	-22.99	0.00	-1,038.4	0.00	1,038.36	3,657.90	864.07	2,767.63	2,656.82	22.46	-2.68	0.397
89.25	-18.54	-22.75	0.00	-940.6	0.00	940.65	3,545.13	837.43	2,599.65	2,494.57	24.92	-2.83	0.383
90.00	-18.32	-22.53	0.00	-923.6	0.00	923.59	3,525.24	832.73	2,570.56	2,466.48	25.37	-2.86	0.380
94.50	-17.13	-22.27	0.00	-822.2	0.00	822.18	2,437.06	587.72	1,792.40	1,690.71	28.14	-3.02	0.495
95.00	-17.04	-22.06	0.00	-811.0	0.00	811.05	2,430.35	585.48	1,778.79	1,679.58	28.46	-3.04	0.491
100.00	-16.42	-21.66	0.00	-700.7	0.00	700.74	2,362.08	563.10	1,645.40	1,569.41	31.76	-3.27	0.455
105.00	-15.83	-21.26	0.00	-592.5	0.00	592.46	2,289.03	540.71	1,517.20	1,459.85	35.3	-3.48	0.414
110.00	-15.27	-20.94	0.00	-486.2	0.00	486.17	2,194.27	518.33	1,394.21	1,340.91	39.06	-3.69	0.371
113.00	-12.33	-17.60	0.00	-423.4	0.00	423.36	2,137.42	504.90	1,322.91	1,271.97	41.41	-3.8	0.340
115.00	-12.13	-17.46	0.00	-388.2	0.00	388.15	2,099.51	495.95	1,276.41	1,227.02	43.02	-3.88	0.323
116.67	-11.96	-17.27	0.00	-359.0	0.00	359.05	2,067.92	488.49	1,238.30	1,190.18	44.38	-3.94	0.309
120.00	-11.44	-17.08	0.00	-301.5	0.00	301.49	2,004.76	473.56	1,163.82	1,118.19	47.18	-4.05	0.277
121.00	-11.28	-16.89	0.00	-284.4	0.00	284.41	1,326.25	334.91	831.27	749.80	48.03	-4.09	0.390
125.00	-11.00	-16.70	0.00	-216.8	0.00	216.85	1,292.72	322.37	770.21	703.28	51.5	-4.2	0.320
126.00	-8.85	-12.65	0.00	-200.2	0.00	200.15	1,284.14	319.24	755.30	691.76	52.39	-4.24	0.298
130.00	-8.61	-12.33	0.00	-149.6	0.00	149.56	1,249.05	306.70	697.15	646.21	55.99	-4.37	0.240
135.00	-8.33	-12.10	0.00	-87.9	0.00	87.94	1,203.41	291.03	627.73	590.51	60.63	-4.49	0.158
136.00	-4.96	-7.42	0.00	-75.8	0.00	75.83	1,194.05	287.90	614.28	579.55	61.57	-4.51	0.136
140.00	-4.77	-7.11	0.00	-46.2	0.00	46.17	1,155.82	275.36	561.95	536.34	65.37	-4.57	0.091
145.00	-4.53	-6.90	0.00	-10.6	0.00	10.62	1,099.34	259.69	499.82	480.82	70.17	-4.61	0.027
146.00	-0.28	-0.63	0.00	-3.7	0.00	3.72	1,086.07	256.55	487.82	469.22	71.14	-4.61	0.008
149.00	0.00	-0.61	0.00	-1.8	0.00	1.82	1,046.26	247.15	452.73	435.29	74.03	-4.61	0.004

ASSET: 209115, Ridgefield 2  
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H  
ENG NO: OAA775851\_C3\_01

Load Case: 1.2D + 1.0Di + 1.0Wi Normal				50 mph wind with 1" radial ice				22 Iterations			
Gust Response Factor: 1.10		Ice Dead Load Factor 1.00									
Dead load Factor: 1.20								Ice Importance Factor		1.00	
Wind Load Factor: 1.00											

# CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-71.65	-9.21	0.00	-977.2	0.00	977.21	6,432.44	1,570.23	7,996.47	7,454.51	0	0	0.142
5.00	-69.48	-9.10	0.00	-931.2	0.00	931.15	6,327.70	1,534.42	7,635.91	7,164.41	0.02	-0.04	0.141
10.00	-67.33	-8.98	0.00	-885.7	0.00	885.67	6,221.00	1,498.60	7,283.67	6,877.72	0.08	-0.08	0.140
15.00	-65.21	-8.87	0.00	-840.8	0.00	840.75	6,112.34	1,462.79	6,939.75	6,594.61	0.18	-0.12	0.138
20.00	-63.13	-8.75	0.00	-796.4	0.00	796.40	6,001.72	1,426.98	6,604.15	6,315.24	0.32	-0.16	0.137
25.00	-61.09	-8.62	0.00	-752.6	0.00	752.65	5,889.26	1,391.16	6,276.86	6,039.87	0.51	-0.2	0.135
30.00	-59.10	-8.49	0.00	-709.5	0.00	709.53	5,737.65	1,355.35	5,957.89	5,731.40	0.74	-0.24	0.134
35.00	-57.15	-8.36	0.00	-667.1	0.00	667.06	5,586.03	1,319.54	5,647.24	5,431.01	1.01	-0.28	0.133
40.00	-55.25	-8.23	0.00	-625.2	0.00	625.25	5,434.42	1,283.72	5,344.90	5,138.71	1.33	-0.32	0.132
45.00	-53.39	-8.14	0.00	-584.1	0.00	584.12	5,282.81	1,247.91	5,050.88	4,854.49	1.69	-0.37	0.130
46.25	-52.93	-8.07	0.00	-573.9	0.00	573.94	5,244.90	1,238.95	4,978.66	4,784.68	1.79	-0.38	0.130
50.00	-50.62	-7.97	0.00	-543.7	0.00	543.68	5,131.20	1,212.09	4,765.18	4,578.36	2.1	-0.41	0.129
52.67	-49.00	-7.89	0.00	-522.4	0.00	522.43	4,513.96	1,066.71	4,217.69	4,056.89	2.34	-0.44	0.140
55.00	-48.24	-7.80	0.00	-504.0	0.00	504.01	4,453.86	1,052.09	4,102.87	3,947.47	2.56	-0.46	0.139
60.00	-46.66	-7.66	0.00	-465.0	0.00	465.03	4,321.20	1,020.76	3,862.14	3,714.67	3.06	-0.51	0.136
65.00	-45.13	-7.57	0.00	-426.8	0.00	426.76	4,188.54	989.42	3,628.68	3,488.95	3.62	-0.56	0.133
66.00	-44.43	-7.35	0.00	-419.2	0.00	419.19	4,162.01	983.15	3,582.86	3,444.66	3.74	-0.57	0.132
69.60	-43.19	-7.00	0.00	-392.7	0.00	392.72	4,066.49	960.59	3,420.33	3,287.54	4.18	-0.6	0.130
70.00	-42.91	-6.84	0.00	-389.8	0.00	389.85	4,055.88	958.08	3,402.50	3,270.31	4.23	-0.61	0.130
75.00	-41.46	-6.70	0.00	-355.6	0.00	355.65	3,923.22	926.75	3,183.60	3,058.74	4.89	-0.66	0.127
80.00	-40.06	-6.56	0.00	-322.2	0.00	322.15	3,790.56	895.41	2,971.98	2,854.24	5.61	-0.71	0.123
85.00	-38.70	-6.43	0.00	-289.4	0.00	289.35	3,657.90	864.07	2,767.63	2,656.82	6.38	-0.76	0.120
89.25	-37.58	-6.36	0.00	-262.0	0.00	262.01	3,545.13	837.43	2,599.65	2,494.57	7.07	-0.8	0.116
90.00	-37.27	-6.29	0.00	-257.2	0.00	257.24	3,525.24	832.73	2,570.56	2,466.48	7.2	-0.81	0.115
94.50	-35.50	-6.21	0.00	-228.9	0.00	228.93	2,437.06	587.72	1,792.40	1,690.71	7.98	-0.85	0.150
95.00	-35.39	-6.14	0.00	-225.8	0.00	225.82	2,430.35	585.48	1,778.79	1,679.58	8.07	-0.86	0.149
100.00	-34.41	-6.02	0.00	-195.1	0.00	195.10	2,362.08	563.10	1,645.40	1,569.41	9	-0.92	0.139
105.00	-33.46	-5.90	0.00	-165.0	0.00	165.00	2,289.03	540.71	1,517.20	1,459.85	10	-0.98	0.128
110.00	-32.54	-5.80	0.00	-135.5	0.00	135.51	2,194.27	518.33	1,394.21	1,340.91	11.05	-1.04	0.116
113.00	-26.76	-4.92	0.00	-118.1	0.00	118.12	2,137.42	504.90	1,322.91	1,271.97	11.72	-1.07	0.105
115.00	-26.42	-4.88	0.00	-108.3	0.00	108.28	2,099.51	495.95	1,276.41	1,227.02	12.17	-1.09	0.101
116.67	-26.14	-4.82	0.00	-100.2	0.00	100.15	2,067.92	488.49	1,238.30	1,190.18	12.55	-1.11	0.097
120.00	-25.32	-4.75	0.00	-84.1	0.00	84.09	2,004.76	473.56	1,163.82	1,118.19	13.34	-1.14	0.088
121.00	-25.07	-4.69	0.00	-79.3	0.00	79.34	1,326.25	334.91	831.27	749.80	13.58	-1.15	0.125
125.00	-24.56	-4.63	0.00	-60.6	0.00	60.57	1,292.72	322.37	770.21	703.28	14.56	-1.18	0.105
126.00	-19.42	-3.56	0.00	-55.9	0.00	55.94	1,284.14	319.24	755.30	691.76	14.8	-1.19	0.096
130.00	-18.96	-3.45	0.00	-41.7	0.00	41.69	1,249.05	306.70	697.15	646.21	15.82	-1.23	0.080
135.00	-18.40	-3.38	0.00	-24.4	0.00	24.42	1,203.41	291.03	627.73	590.51	17.12	-1.26	0.057
136.00	-11.10	-2.06	0.00	-21.0	0.00	21.04	1,194.05	287.90	614.28	579.55	17.39	-1.27	0.046
140.00	-10.68	-1.96	0.00	-12.8	0.00	12.78	1,155.82	275.36	561.95	536.34	18.45	-1.28	0.033
145.00	-10.18	-1.88	0.00	-3.0	0.00	3.00	1,099.34	259.69	499.82	480.82	19.8	-1.29	0.016
146.00	-0.66	-0.19	0.00	-1.1	0.00	1.12	1,086.07	256.55	487.82	469.22	20.08	-1.29	0.003
149.00	0.00	-0.17	0.00	-0.6	0.00	0.55	1,046.26	247.15	452.73	435.29	20.89	-1.29	0.001

ASSET: 209115, Ridgefield 2  
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H  
ENG NO: OAA775851\_C3\_01

Load Case: 1.0D + 1.0W Service Normal	60 mph Wind with No Ice	22 Iterations
Gust Response Factor: 1.10		
Dead load Factor: 1.00		
Wind Load Factor: 1.00		

#### CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-45.59	-7.72	0.00	-835.7	0.00	835.66	6,432.44	1,570.23	7,996.47	7,454.51	0	0	0.119
5.00	-44.01	-7.62	0.00	-797.1	0.00	797.06	6,327.70	1,534.42	7,635.91	7,164.41	0.02	-0.03	0.118
10.00	-42.47	-7.53	0.00	-759.0	0.00	758.95	6,221.00	1,498.60	7,283.67	6,877.72	0.07	-0.07	0.117
15.00	-40.96	-7.43	0.00	-721.3	0.00	721.31	6,112.34	1,462.79	6,939.75	6,594.61	0.16	-0.1	0.116
20.00	-39.48	-7.33	0.00	-684.2	0.00	684.16	6,001.72	1,426.98	6,604.15	6,315.24	0.28	-0.13	0.115
25.00	-38.05	-7.23	0.00	-647.5	0.00	647.50	5,889.26	1,391.16	6,276.86	6,039.87	0.44	-0.17	0.114
30.00	-36.64	-7.12	0.00	-611.4	0.00	611.36	5,737.65	1,355.35	5,957.89	5,731.40	0.63	-0.2	0.113
35.00	-35.27	-7.01	0.00	-575.8	0.00	575.76	5,586.03	1,319.54	5,647.24	5,431.01	0.87	-0.24	0.112
40.00	-33.94	-6.90	0.00	-540.7	0.00	540.69	5,434.42	1,283.72	5,344.90	5,138.71	1.14	-0.28	0.111
45.00	-32.64	-6.83	0.00	-506.2	0.00	506.17	5,282.81	1,247.91	5,050.88	4,854.49	1.45	-0.32	0.110
46.25	-32.32	-6.78	0.00	-497.6	0.00	497.62	5,244.90	1,238.95	4,978.66	4,784.68	1.53	-0.33	0.110
50.00	-30.58	-6.70	0.00	-472.2	0.00	472.21	5,131.20	1,212.09	4,765.18	4,578.36	1.8	-0.36	0.109
52.67	-29.36	-6.64	0.00	-454.3	0.00	454.34	4,513.96	1,066.71	4,217.69	4,056.89	2.01	-0.38	0.119
55.00	-28.85	-6.56	0.00	-438.8	0.00	438.85	4,453.86	1,052.09	4,102.87	3,947.47	2.2	-0.4	0.118
60.00	-27.77	-6.45	0.00	-406.0	0.00	406.05	4,321.20	1,020.76	3,862.14	3,714.67	2.63	-0.44	0.116
65.00	-26.72	-6.38	0.00	-373.8	0.00	373.81	4,188.54	989.42	3,628.68	3,488.95	3.11	-0.48	0.114
66.00	-26.29	-6.23	0.00	-367.4	0.00	367.43	4,162.01	983.15	3,582.86	3,444.66	3.22	-0.49	0.113
69.60	-25.51	-6.11	0.00	-345.0	0.00	345.00	4,066.49	960.59	3,420.33	3,287.54	3.6	-0.52	0.111
70.00	-25.38	-5.95	0.00	-342.5	0.00	342.47	4,055.88	958.08	3,402.50	3,270.31	3.64	-0.53	0.111
75.00	-24.40	-5.84	0.00	-312.7	0.00	312.73	3,923.22	926.75	3,183.60	3,058.74	4.22	-0.57	0.108
80.00	-23.45	-5.73	0.00	-283.5	0.00	283.53	3,790.56	895.41	2,971.98	2,854.24	4.84	-0.61	0.106
85.00	-22.52	-5.63	0.00	-254.9	0.00	254.87	3,657.90	864.07	2,767.63	2,656.82	5.5	-0.66	0.102
89.25	-21.77	-5.58	0.00	-230.9	0.00	230.93	3,545.13	837.43	2,599.65	2,494.57	6.1	-0.69	0.099
90.00	-21.54	-5.52	0.00	-226.8	0.00	226.75	3,525.24	832.73	2,570.56	2,466.48	6.21	-0.7	0.098
94.50	-20.25	-5.46	0.00	-201.9	0.00	201.89	2,437.06	587.72	1,792.40	1,690.71	6.89	-0.74	0.128
95.00	-20.18	-5.41	0.00	-199.2	0.00	199.16	2,430.35	585.48	1,778.79	1,679.58	6.97	-0.75	0.127
100.00	-19.56	-5.31	0.00	-172.1	0.00	172.12	2,362.08	563.10	1,645.40	1,569.41	7.78	-0.8	0.118
105.00	-18.95	-5.22	0.00	-145.6	0.00	145.55	2,289.03	540.71	1,517.20	1,459.85	8.65	-0.85	0.108
110.00	-18.37	-5.14	0.00	-119.5	0.00	119.46	2,194.27	518.33	1,394.21	1,340.91	9.57	-0.9	0.098
113.00	-14.91	-4.32	0.00	-104.0	0.00	104.04	2,137.42	504.90	1,322.91	1,271.97	10.15	-0.93	0.089
115.00	-14.70	-4.29	0.00	-95.4	0.00	95.40	2,099.51	495.95	1,276.41	1,227.02	10.54	-0.95	0.085
116.67	-14.52	-4.24	0.00	-88.2	0.00	88.25	2,067.92	488.49	1,238.30	1,190.18	10.88	-0.97	0.081
120.00	-13.95	-4.19	0.00	-74.1	0.00	74.11	2,004.76	473.56	1,163.82	1,118.19	11.56	-0.99	0.073
121.00	-13.78	-4.15	0.00	-69.9	0.00	69.92	1,326.25	334.91	831.27	749.80	11.77	-1	0.104
125.00	-13.49	-4.10	0.00	-53.3	0.00	53.32	1,292.72	322.37	770.21	703.28	12.63	-1.03	0.086
126.00	-10.81	-3.11	0.00	-49.2	0.00	49.22	1,284.14	319.24	755.30	691.76	12.84	-1.04	0.080
130.00	-10.54	-3.03	0.00	-36.8	0.00	36.78	1,249.05	306.70	697.15	646.21	13.73	-1.07	0.065
135.00	-10.23	-2.98	0.00	-21.6	0.00	21.63	1,203.41	291.03	627.73	590.51	14.87	-1.1	0.045
136.00	-6.11	-1.82	0.00	-18.6	0.00	18.65	1,194.05	287.90	614.28	579.55	15.1	-1.11	0.037
140.00	-5.88	-1.75	0.00	-11.4	0.00	11.35	1,155.82	275.36	561.95	536.34	16.03	-1.12	0.026
145.00	-5.60	-1.70	0.00	-2.6	0.00	2.61	1,099.34	259.69	499.82	480.82	17.21	-1.13	0.011
146.00	-0.36	-0.16	0.00	-0.9	0.00	0.91	1,086.07	256.55	487.82	469.22	17.45	-1.13	0.002
149.00	0.00	-0.15	0.00	-0.4	0.00	0.44	1,046.26	247.15	452.73	435.29	18.16	-1.13	0.001



## EQUIVALENT LATERAL FORCES METHOD ANALYSIS

(Based on ASCE7-16 Chapters 11, 12 and 15)

Spectral Response Acceleration for Short Period ( $S_S$ ):	0.241
Spectral Response Acceleration at 1.0 Second Period ( $S_1$ ):	0.057
Long-Period Transition Period ( $T_L$ – Seconds):	6
Importance Factor ( $I_a$ ):	1.000
Site Coefficient $F_a$ :	1.600
Site Coefficient $F_v$ :	2.400
Response Modification Coefficient (R):	1.500
Design Spectral Response Acceleration at Short Period ( $S_{ds}$ ):	0.257
Design Spectral Response Acceleration at 1.0 Second Period ( $S_{d1}$ ):	0.091
Seismic Response Coefficient ( $C_s$ ):	0.030
Upper Limit $C_s$ :	0.030
Lower Limit $C_s$ :	0.030
Period based on Rayleigh Method (sec):	2.280
Redundancy Factor (p):	1.000
Seismic Force Distribution Exponent (k):	1.890
Total Unfactored Dead Load:	45.590 k
Seismic Base Shear (E):	1.370 k

### 1.2D + 1.0Ev + 1.0Eh Normal

### Seismic

Segment	Height Above Base (ft)	Weight (lb)	$W_z$ (lb-ft)	$C_{vx}$	Horizontal Force (lb)	Vertical Force (lb)
42	147.5	147	1,844	0.008	10	185
41	145.5	54	657	0.003	4	68
40	142.5	279	3,267	0.014	18	349
39	138	234	2,581	0.011	15	293
38	135.5	61	653	0.003	4	77
37	132.5	316	3,224	0.013	18	395
36	128	264	2,521	0.010	14	330
35	125.5	73	669	0.003	4	91
34	123.0002	297	2,630	0.011	15	371
33	120.5002	167	1,426	0.006	8	209
32	118.3335	567	4,678	0.019	26	710
31	115.8335	176	1,397	0.006	8	221
30	114	215	1,651	0.007	9	269
29	111.5	337	2,483	0.010	14	422
28	107.5	579	3,982	0.016	23	725
27	102.5	601	3,776	0.016	21	752
26	97.5	622	3,560	0.015	20	779
25	94.7502	63	343	0.001	2	79
24	92.2502	1,295	6,671	0.028	38	1,621
23	89.6252	220	1,072	0.004	6	275
22	87.1252	757	3,500	0.014	20	947
21	82.5	919	3,831	0.016	22	1,150
20	77.5	949	3,517	0.014	20	1,188
19	72.5	979	3,200	0.013	18	1,226
18	69.8	80	243	0.001	1	100
17	67.8	727	2,093	0.009	12	910
16	65.5	205	553	0.002	3	257
15	62.5	1,043	2,576	0.011	15	1,306
14	57.5	1,074	2,264	0.009	13	1,344
13	53.8335	511	952	0.004	5	640
12	51.3335	1,215	2,067	0.008	12	1,520
11	48.1252	1,739	2,620	0.011	15	2,176
10	45.6252	319	434	0.002	2	399
9	42.5	1,296	1,544	0.006	9	1,622

ASSET: 209115, Ridgefield 2  
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H  
ENG NO: OAA775851\_C3\_01

Segment	Height Above Base (ft)	Weight (lb)	W <sub>z</sub> (lb-ft)	C <sub>vx</sub>	Horizontal Force (lb)	Vertical Force (lb)
8	37.5	1,331	1,252	0.005	7	1,665
7	32.5	1,366	980	0.004	6	1,709
6	27.5	1,400	733	0.003	4	1,752
5	22.5	1,435	514	0.002	3	1,796
4	17.5	1,470	328	0.001	2	1,839
3	12.5	1,504	178	0.001	1	1,883
2	7.5	1,539	69	0.000	0	1,926
1	2.5	1,574	9	0.000	0	1,970
RFI Antennas BA40-41	149	32	408	0.002	2	40
Generic Flat Stand-Off	149	188	2,389	0.010	14	235
Generic Flat Stand-Off	66	188	513	0.002	3	235
Kaelus DBCT108F1V92-1	146	42	511	0.002	3	52
Raycap DC6-48-60-0-8F	146	33	402	0.002	2	41
Raycap DC6-48-60-18-8F(32.8 lbs)	146	98	1,207	0.005	7	123
Ericsson RRUS A2 Module	146	64	780	0.003	4	80
Ericsson RRUS 8843 B2, B66A	146	216	2,648	0.011	15	270
Ericsson RRUS 4478 B5	146	180	2,203	0.009	12	225
Ericsson RRUS 4449 B5, B12	146	213	2,612	0.011	15	267
Ericsson RRUS 4478 B14	146	178	2,185	0.009	12	223
Ericsson RRUS E2	146	159	1,946	0.008	11	199
Ericsson RRUS 32 (50.8 lbs)	146	152	1,869	0.008	11	191
Ericsson AIR 6419 B77G	146	198	2,431	0.010	14	248
Ericsson Air 6449 B77D	146	245	3,002	0.012	17	306
Generic Mount Reinforcement	146	200	2,452	0.010	14	250
Generic Mount Reinforcement	136	200	2,145	0.009	12	250
Generic Mount Reinforcement	126	200	1,857	0.008	10	250
CCI DMP65R-BU8D	146	287	3,520	0.015	20	359
Quintel QD8616-7	146	450	5,518	0.023	31	563
Generic Round Platform with Handrails	146	2,500	30,654	0.127	173	3,129
Generic Round Platform with Handrails	136	2,500	26,809	0.111	152	3,129
Commscope CBC78T-DS-43-2X	136	62	666	0.003	4	78
Samsung B2/B66A RRH-BR049	136	253	2,715	0.011	15	317
Samsung B5/B13 RRH-BR04C	136	211	2,262	0.009	13	264
RFS DB-C1-12C-24AB-0Z	136	32	343	0.001	2	40
Samsung MT6407-77A	136	245	2,625	0.011	15	306
Commscope JAHH-65B-R3B (63.3 lb)	136	570	6,109	0.025	35	713
Commscope SDX1926Q-43	126	19	173	0.001	1	23
Ericsson Radio 4424 B25	126	139	1,289	0.005	7	174
Ericsson Radio 4449 B71+B85	126	225	2,089	0.009	12	282
Ericsson Radio 4415 B2,B66A	126	142	1,320	0.006	7	178
Ericsson RRUS 11 B4	126	152	1,412	0.006	8	190
Ericsson AIR 6449 B41	126	305	2,829	0.012	16	381
RFS APX16DWV-16DWVS-E-A20	126	122	1,133	0.005	6	153
Generic Round T-Arm	126	938	8,703	0.036	49	1,173
RFS APXVAARR24_43-U-NA20	126	384	3,562	0.015	20	480
Commscope RDIDC-9181-PF-48	113	22	165	0.001	1	27
Fujitsu TA08025-B605	113	225	1,700	0.007	10	282
Fujitsu TA08025-B604	113	192	1,449	0.006	8	240
JMA Wireless MX08FRO665-21	113	194	1,462	0.006	8	242
Generic Flat Platform with Handrails	113	2,500	18,892	0.078	107	3,129
Commscope VHLP3-11W-6GR	70	53	162	0.001	1	66
Generic 4' Grid Dish	69.6	51	154	0.001	1	64
Sinclair SD210R-SF2P90LDF(S)	66	37	101	0.000	1	46
		45,591	241,920	1.000	1,368	57,053

0.9D - 1.0Ev + 1.0Eh Normal

Seismic (Reduced DL)

Segment	Height Above Base (ft)	Weight (lb)	W <sub>z</sub> (lb-ft)	C <sub>vx</sub>	Horizontal Force (lb)	Vertical Force (lb)
42	147.5	147	1,844	0.008	10	125
41	145.5	54	657	0.003	4	46
40	142.5	279	3,267	0.014	18	237
39	138	234	2,581	0.011	15	199

ASSET: 209115, Ridgefield 2  
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H  
ENG NO: OAA775851\_C3\_01

Segment	Height Above Base (ft)	Weight (lb)	W <sub>z</sub> (lb-ft)	C <sub>vx</sub>	Horizontal Force (lb)	Vertical Force (lb)
38	135.5	61	653	0.003	4	52
37	132.5	316	3,224	0.013	18	268
36	128	264	2,521	0.010	14	224
35	125.5	73	669	0.003	4	62
34	123.0002	297	2,630	0.011	15	252
33	120.5002	167	1,426	0.006	8	142
32	118.3335	567	4,678	0.019	26	482
31	115.8335	176	1,397	0.006	8	150
30	114	215	1,651	0.007	9	182
29	111.5	337	2,483	0.010	14	286
28	107.5	579	3,982	0.016	23	491
27	102.5	601	3,776	0.016	21	510
26	97.5	622	3,560	0.015	20	528
25	94.7502	63	343	0.001	2	54
24	92.2502	1,295	6,671	0.028	38	1,099
23	89.6252	220	1,072	0.004	6	187
22	87.1252	757	3,500	0.014	20	642
21	82.5	919	3,831	0.016	22	779
20	77.5	949	3,517	0.014	20	805
19	72.5	979	3,200	0.013	18	831
18	69.8	80	243	0.001	1	68
17	67.8	727	2,093	0.009	12	617
16	65.5	205	553	0.002	3	174
15	62.5	1,043	2,576	0.011	15	885
14	57.5	1,074	2,264	0.009	13	911
13	53.8335	511	952	0.004	5	434
12	51.3335	1,215	2,067	0.008	12	1,031
11	48.1252	1,739	2,620	0.011	15	1,476
10	45.6252	319	434	0.002	2	270
9	42.5	1,296	1,544	0.006	9	1,100
8	37.5	1,331	1,252	0.005	7	1,129
7	32.5	1,366	980	0.004	6	1,159
6	27.5	1,400	733	0.003	4	1,188
5	22.5	1,435	514	0.002	3	1,218
4	17.5	1,470	328	0.001	2	1,247
3	12.5	1,504	178	0.001	1	1,277
2	7.5	1,539	69	0.000	0	1,306
1	2.5	1,574	9	0.000	0	1,336
RFI Antennas BA40-41	149	32	408	0.002	2	27
Generic Flat Stand-Off	149	188	2,389	0.010	14	159
Generic Flat Stand-Off	66	188	513	0.002	3	159
Kaelus DBCT108F1V92-1	146	42	511	0.002	3	35
Raycap DC6-48-60-0-8F	146	33	402	0.002	2	28
Raycap DC6-48-60-18-8F(32.8 lbs)	146	98	1,207	0.005	7	84
Ericsson RRUS A2 Module	146	64	780	0.003	4	54
Ericsson RRUS 8843 B2, B66A	146	216	2,648	0.011	15	183
Ericsson RRUS 4478 B5	146	180	2,203	0.009	12	152
Ericsson RRUS 4449 B5, B12	146	213	2,612	0.011	15	181
Ericsson RRUS 4478 B14	146	178	2,185	0.009	12	151
Ericsson RRUS E2	146	159	1,946	0.008	11	135
Ericsson RRUS 32 (50.8 lbs)	146	152	1,869	0.008	11	129
Ericsson AIR 6419 B77G	146	198	2,431	0.010	14	168
Ericsson Air 6449 B77D	146	245	3,002	0.012	17	208
Generic Mount Reinforcement	146	200	2,452	0.010	14	170
Generic Mount Reinforcement	136	200	2,145	0.009	12	170
Generic Mount Reinforcement	126	200	1,857	0.008	10	170
CCI DMP65R-BU8D	146	287	3,520	0.015	20	244
Quintel QD8616-7	146	450	5,518	0.023	31	382
Generic Round Platform with Handrails	146	2,500	30,654	0.127	173	2,121
Generic Round Platform with Handrails	136	2,500	26,809	0.111	152	2,121
Commscope CBC78T-DS-43-2X	136	62	666	0.003	4	53
Samsung B2/B66A RRH-BR049	136	253	2,715	0.011	15	215
Samsung B5/B13 RRH-BR04C	136	211	2,262	0.009	13	179
RFS DB-C1-12C-24AB-0Z	136	32	343	0.001	2	27
Samsung MT6407-77A	136	245	2,625	0.011	15	208
Commscope JAHH-65B-R3B (63.3 lb)	136	570	6,109	0.025	35	483
Commscope SDX1926Q-43	126	19	173	0.001	1	16
Ericsson Radio 4424 B25	126	139	1,289	0.005	7	118
Ericsson Radio 4449 B71+B85	126	225	2,089	0.009	12	191
Ericsson Radio 4415 B2,B66A	126	142	1,320	0.006	7	121

ASSET: 209115, Ridgefield 2  
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H  
ENG NO: OAA775851\_C3\_01

Segment	Height Above Base (ft)	Weight (lb)	W <sub>z</sub> (lb-ft)	C <sub>vx</sub>	Horizontal Force (lb)	Vertical Force (lb)
Ericsson RRUS 11 B4	126	152	1,412	0.006	8	129
Ericsson AIR 6449 B41	126	305	2,829	0.012	16	259
RFS APX16DWV-16DWVS-E-A20	126	122	1,133	0.005	6	104
Generic Round T-Arm	126	938	8,703	0.036	49	796
RFS APXVAARR24_43-U-NA20	126	384	3,562	0.015	20	326
Commscope RDIDC-9181-PF-48	113	22	165	0.001	1	19
Fujitsu TA08025-B605	113	225	1,700	0.007	10	191
Fujitsu TA08025-B604	113	192	1,449	0.006	8	163
JMA Wireless MX08FRO665-21	113	194	1,462	0.006	8	164
Generic Flat Platform with Handrails	113	2,500	18,892	0.078	107	2,121
Commscope VHLP3-11W-6GR	70	53	162	0.001	1	45
Generic 4' Grid Dish	69.6	51	154	0.001	1	43
Sinclair SD210R-SF2P90LDF(S)	66	37	101	0.000	1	31
		45,591	241,920	1.000	1,368	38,688

1.2D + 1.0Ev + 1.0Eh Normal Seismic

### CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-55.08	-1.37	0.00	-171.87	0.00	171.87	6,432.44	1,570.23	7,996	7,454.51	0.00	0.00	0.03
5.00	-53.16	-1.38	0.00	-165.01	0.00	165.01	6,327.70	1,534.42	7,636	7,164.41	0.00	-0.01	0.03
10.00	-51.27	-1.38	0.00	-158.13	0.00	158.13	6,221.00	1,498.60	7,284	6,877.72	0.01	-0.01	0.03
15.00	-49.44	-1.38	0.00	-151.23	0.00	151.23	6,112.34	1,462.79	6,940	6,594.61	0.03	-0.02	0.03
20.00	-47.64	-1.39	0.00	-144.30	0.00	144.30	6,001.72	1,426.98	6,604	6,315.24	0.06	-0.03	0.03
25.00	-45.89	-1.39	0.00	-137.37	0.00	137.37	5,889.26	1,391.16	6,277	6,039.87	0.09	-0.04	0.03
30.00	-44.18	-1.39	0.00	-130.43	0.00	130.43	5,737.65	1,355.35	5,958	5,731.40	0.13	-0.04	0.03
35.00	-42.51	-1.38	0.00	-123.49	0.00	123.49	5,586.03	1,319.54	5,647	5,431.01	0.18	-0.05	0.03
40.00	-40.89	-1.38	0.00	-116.56	0.00	116.56	5,434.42	1,283.72	5,345	5,138.71	0.24	-0.06	0.03
45.00	-40.49	-1.38	0.00	-109.66	0.00	109.66	5,282.81	1,247.91	5,051	4,854.49	0.30	-0.07	0.03
46.25	-38.31	-1.37	0.00	-107.93	0.00	107.93	5,244.90	1,238.95	4,979	4,784.68	0.32	-0.07	0.03
50.00	-36.79	-1.36	0.00	-102.81	0.00	102.81	5,131.20	1,212.09	4,765	4,578.36	0.38	-0.08	0.03
52.67	-36.15	-1.35	0.00	-99.19	0.00	99.19	4,513.96	1,066.71	4,218	4,056.89	0.42	-0.08	0.03
55.00	-34.81	-1.34	0.00	-96.04	0.00	96.04	4,453.86	1,052.09	4,103	3,947.47	0.46	-0.08	0.03
60.00	-33.51	-1.33	0.00	-89.32	0.00	89.32	4,321.20	1,020.76	3,862	3,714.67	0.56	-0.09	0.03
65.00	-33.25	-1.33	0.00	-82.67	0.00	82.67	4,188.54	989.42	3,629	3,488.95	0.66	-0.10	0.03
66.00	-32.06	-1.32	0.00	-81.33	0.00	81.33	4,162.01	983.15	3,583	3,444.66	0.68	-0.10	0.03
69.60	-31.89	-1.32	0.00	-76.60	0.00	76.60	4,066.49	960.59	3,420	3,287.54	0.76	-0.11	0.03
70.00	-30.60	-1.30	0.00	-76.07	0.00	76.07	4,055.88	958.08	3,402	3,270.31	0.77	-0.11	0.03
75.00	-29.41	-1.28	0.00	-69.58	0.00	69.58	3,923.22	926.75	3,184	3,058.74	0.89	-0.12	0.03
80.00	-28.26	-1.26	0.00	-63.19	0.00	63.19	3,790.56	895.41	2,972	2,854.24	1.03	-0.13	0.03
85.00	-27.32	-1.24	0.00	-56.88	0.00	56.88	3,657.90	864.07	2,768	2,656.82	1.17	-0.14	0.03
89.25	-27.04	-1.24	0.00	-51.60	0.00	51.60	3,545.13	837.43	2,600	2,494.57	1.30	-0.15	0.03
90.00	-25.42	-1.20	0.00	-50.67	0.00	50.67	3,525.24	832.73	2,571	2,466.48	1.33	-0.15	0.03
94.50	-25.34	-1.20	0.00	-45.28	0.00	45.28	2,437.06	587.72	1,792	1,690.71	1.47	-0.16	0.04
95.00	-24.56	-1.18	0.00	-44.68	0.00	44.68	2,430.35	585.48	1,779	1,679.58	1.49	-0.16	0.04
100.00	-23.81	-1.16	0.00	-38.78	0.00	38.78	2,362.08	563.10	1,645	1,569.41	1.67	-0.17	0.04
105.00	-23.09	-1.14	0.00	-32.98	0.00	32.98	2,289.03	540.71	1,517	1,459.85	1.86	-0.19	0.03
110.00	-22.66	-1.13	0.00	-27.28	0.00	27.28	2,194.27	518.33	1,394	1,340.91	2.06	-0.20	0.03
113.00	-18.48	-0.97	0.00	-23.89	0.00	23.89	2,137.42	504.90	1,323	1,271.97	2.18	-0.20	0.03
115.00	-18.26	-0.97	0.00	-21.94	0.00	21.94	2,099.51	495.95	1,276	1,227.02	2.27	-0.21	0.03
116.67	-17.55	-0.94	0.00	-20.33	0.00	20.33	2,067.92	488.49	1,238	1,190.18	2.34	-0.21	0.03
120.00	-17.34	-0.93	0.00	-17.21	0.00	17.21	2,004.76	473.56	1,164	1,118.19	2.49	-0.22	0.02
121.00	-16.97	-0.92	0.00	-16.28	0.00	16.28	1,326.25	334.91	831	749.80	2.54	-0.22	0.04
125.00	-16.87	-0.91	0.00	-12.62	0.00	12.62	1,292.72	322.37	770	703.28	2.73	-0.23	0.03
126.00	-13.26	-0.75	0.00	-11.71	0.00	11.71	1,284.14	319.24	755	691.76	2.78	-0.23	0.03
130.00	-12.87	-0.73	0.00	-8.72	0.00	8.72	1,249.05	306.70	697	646.21	2.97	-0.24	0.02
135.00	-12.79	-0.73	0.00	-5.07	0.00	5.07	1,203.41	291.03	628	590.51	3.22	-0.24	0.02
136.00	-7.40	-0.44	0.00	-4.35	0.00	4.35	1,194.05	287.90	614	579.55	3.27	-0.24	0.01
140.00	-7.05	-0.42	0.00	-2.58	0.00	2.58	1,155.82	275.36	562	536.34	3.48	-0.25	0.01
145.00	-6.98	-0.42	0.00	-0.47	0.00	0.47	1,099.34	259.69	500	480.82	3.74	-0.25	0.01
146.00	-0.27	-0.02	0.00	-0.05	0.00	0.05	1,086.07	256.55	488	469.22	3.79	-0.25	0.00
149.00	0.00	-0.02	0.00	0.00	0.00	0.00	1,046.26	247.15	453	435.29	3.95	-0.25	0.00

ASSET: 209115, Ridgefield 2  
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H  
ENG NO: OAA775851\_C3\_01

0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-37.35	-1.37	0.00	-169.34	0.00	169.34	6,432.44	1,570.23	7,996	7,454.51	0.00	0.00	0.03
5.00	-36.05	-1.37	0.00	-162.49	0.00	162.49	6,327.70	1,534.42	7,636	7,164.41	0.00	-0.01	0.03
10.00	-34.77	-1.38	0.00	-155.63	0.00	155.63	6,221.00	1,498.60	7,284	6,877.72	0.01	-0.01	0.03
15.00	-33.52	-1.38	0.00	-148.76	0.00	148.76	6,112.34	1,462.79	6,940	6,594.61	0.03	-0.02	0.03
20.00	-32.30	-1.38	0.00	-141.87	0.00	141.87	6,001.72	1,426.98	6,604	6,315.24	0.06	-0.03	0.03
25.00	-31.12	-1.38	0.00	-134.98	0.00	134.98	5,889.26	1,391.16	6,277	6,039.87	0.09	-0.03	0.03
30.00	-29.96	-1.37	0.00	-128.10	0.00	128.10	5,737.65	1,355.35	5,958	5,731.40	0.13	-0.04	0.03
35.00	-28.83	-1.37	0.00	-121.22	0.00	121.22	5,586.03	1,319.54	5,647	5,431.01	0.18	-0.05	0.03
40.00	-27.73	-1.36	0.00	-114.37	0.00	114.37	5,434.42	1,283.72	5,345	5,138.71	0.23	-0.06	0.03
45.00	-27.46	-1.36	0.00	-107.55	0.00	107.55	5,282.81	1,247.91	5,051	4,854.49	0.30	-0.07	0.03
46.25	-25.98	-1.35	0.00	-105.84	0.00	105.84	5,244.90	1,238.95	4,979	4,784.68	0.32	-0.07	0.03
50.00	-24.95	-1.34	0.00	-100.78	0.00	100.78	5,131.20	1,212.09	4,765	4,578.36	0.37	-0.07	0.03
52.67	-24.52	-1.33	0.00	-97.21	0.00	97.21	4,513.96	1,066.71	4,218	4,056.89	0.42	-0.08	0.03
55.00	-23.60	-1.32	0.00	-94.10	0.00	94.10	4,453.86	1,052.09	4,103	3,947.47	0.45	-0.08	0.03
60.00	-22.72	-1.31	0.00	-87.48	0.00	87.48	4,321.20	1,020.76	3,862	3,714.67	0.55	-0.09	0.03
65.00	-22.55	-1.31	0.00	-80.92	0.00	80.92	4,188.54	989.42	3,629	3,488.95	0.65	-0.10	0.03
66.00	-21.74	-1.30	0.00	-79.61	0.00	79.61	4,162.01	983.15	3,583	3,444.66	0.67	-0.10	0.03
69.60	-21.63	-1.29	0.00	-74.95	0.00	74.95	4,066.49	960.59	3,420	3,287.54	0.75	-0.11	0.03
70.00	-20.75	-1.28	0.00	-74.43	0.00	74.43	4,055.88	958.08	3,402	3,270.31	0.76	-0.11	0.03
75.00	-19.95	-1.26	0.00	-68.05	0.00	68.05	3,923.22	926.75	3,184	3,058.74	0.88	-0.12	0.03
80.00	-19.17	-1.24	0.00	-61.77	0.00	61.77	3,790.56	895.41	2,972	2,854.24	1.01	-0.13	0.03
85.00	-18.52	-1.22	0.00	-55.58	0.00	55.58	3,657.90	864.07	2,768	2,656.82	1.15	-0.14	0.03
89.25	-18.34	-1.21	0.00	-50.40	0.00	50.40	3,545.13	837.43	2,600	2,494.57	1.28	-0.15	0.03
90.00	-17.24	-1.17	0.00	-49.49	0.00	49.49	3,525.24	832.73	2,571	2,466.48	1.30	-0.15	0.03
94.50	-17.18	-1.17	0.00	-44.21	0.00	44.21	2,437.06	587.72	1,792	1,690.71	1.45	-0.16	0.03
95.00	-16.66	-1.15	0.00	-43.62	0.00	43.62	2,430.35	585.48	1,779	1,679.58	1.46	-0.16	0.03
100.00	-16.15	-1.14	0.00	-37.85	0.00	37.85	2,362.08	563.10	1,645	1,569.41	1.64	-0.17	0.03
105.00	-15.65	-1.11	0.00	-32.18	0.00	32.18	2,289.03	540.71	1,517	1,459.85	1.82	-0.18	0.03
110.00	-15.37	-1.10	0.00	-26.60	0.00	26.60	2,194.27	518.33	1,394	1,340.91	2.02	-0.19	0.03
113.00	-12.53	-0.95	0.00	-23.30	0.00	23.30	2,137.42	504.90	1,323	1,271.97	2.14	-0.20	0.02
115.00	-12.38	-0.94	0.00	-21.40	0.00	21.40	2,099.51	495.95	1,276	1,227.02	2.23	-0.20	0.02
116.67	-11.90	-0.92	0.00	-19.83	0.00	19.83	2,067.92	488.49	1,238	1,190.18	2.30	-0.21	0.02
120.00	-11.75	-0.91	0.00	-16.78	0.00	16.78	2,004.76	473.56	1,164	1,118.19	2.45	-0.21	0.02
121.00	-11.50	-0.89	0.00	-15.87	0.00	15.87	1,326.25	334.91	831	749.80	2.49	-0.22	0.03
125.00	-11.44	-0.89	0.00	-12.30	0.00	12.30	1,292.72	322.37	770	703.28	2.68	-0.22	0.03
126.00	-8.99	-0.73	0.00	-11.41	0.00	11.41	1,284.14	319.24	755	691.76	2.72	-0.22	0.02
130.00	-8.72	-0.71	0.00	-8.50	0.00	8.50	1,249.05	306.70	697	646.21	2.91	-0.23	0.02
135.00	-8.67	-0.71	0.00	-4.95	0.00	4.95	1,203.41	291.03	628	590.51	3.16	-0.24	0.02
136.00	-5.02	-0.43	0.00	-4.24	0.00	4.24	1,194.05	287.90	614	579.55	3.21	-0.24	0.01
140.00	-4.78	-0.41	0.00	-2.52	0.00	2.52	1,155.82	275.36	562	536.34	3.41	-0.24	0.01
145.00	-4.73	-0.41	0.00	-0.46	0.00	0.46	1,099.34	259.69	500	480.82	3.67	-0.24	0.01
146.00	-0.19	-0.02	0.00	-0.05	0.00	0.05	1,086.07	256.55	488	469.22	3.72	-0.24	0.00
149.00	0.00	-0.02	0.00	0.00	0.00	0.00	1,046.26	247.15	453	435.29	3.87	-0.24	0.00

ANALYSIS SUMMARY

Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.0W Normal	31.71	0.00	54.67	0.00	0.00	3452.47	94.50	0.51
0.9D + 1.0W Normal	31.69	0.00	40.99	0.00	0.00	3416.60	94.50	0.49
1.2D + 1.0Di + 1.0Wi Normal	9.21	0.00	71.65	0.00	0.00	977.21	94.50	0.15
1.2D + 1.0Ev + 1.0Eh Normal	1.39	0.00	55.08	0.00	0.00	171.87	94.50	0.04
0.9D - 1.0Ev + 1.0Eh Normal	1.38	0.00	37.35	0.00	0.00	169.34	94.50	0.03
1.0D + 1.0W Service Normal	7.72	0.00	45.59	0.00	0.00	835.66	94.50	0.13

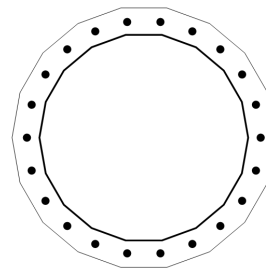
ASSET: 209115, Ridgefield 2  
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H  
ENG NO: 13741746

## BASE PLATE ANALYSIS @ 0 FT

### PLATE PARAMETERS (ID# 788)

Diameter: 71.33 in  
Shape: 18  
Thickness: 3.5 in  
Grade: A572-50  
Yield Strength: 50 ksi  
Tensile Strength: 65 ksi  
Rod Detail Type: d  
Clear Distance: 3 in  
Base Weld Size: 0.125 in  
Orientation Offset: - °  
Analysis Type: Plastic  
Neutral Axis: 90 °



### ANCHOR ROD PARAMETERS

Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	Fy (ksi)	Fu (ksi)	Spacing (in)	Offset (°)
Original [ID# 972]	Radial	22	2.25	64.25	A615-75	75	100	-	-

### ANCHOR ROD GEOMETRY AND APPLIED LOADS --- ORIGINAL (22) 2.25"Ø [ID 972]

Position	Radians	X (in)	Y (in)	Moment Arm (in)	Inertia (in <sup>4</sup> )	Axial Load (k)	Shear Load (k)
1	0.286	30.82	9.05	-29.564	2839.491	-90.71	0.64
2	0.571	27.02	17.37	-25.921	2182.976	-90.71	1.22
3	0.857	21.04	24.28	-20.178	1323.128	-90.71	1.70
4	1.142	13.34	29.22	-12.800	532.939	-90.71	2.05
5	1.428	4.57	31.80	-4.385	63.289	-90.71	2.23
6	1.714	-4.57	31.80	4.385	63.289	100.65	2.23
7	1.999	-13.34	29.22	12.800	532.938	100.65	2.05
8	2.285	-21.04	24.28	20.178	1323.129	100.65	1.70
9	2.570	-27.02	17.37	25.921	2182.977	100.65	1.22
10	2.856	-30.82	9.05	29.564	2839.490	100.65	0.64
11	3.142	-32.12	0.00	30.813	3084.229	100.65	0.00
12	3.427	-30.82	-9.05	29.564	2839.490	100.65	0.64
13	3.713	-27.02	-17.37	25.921	2182.978	100.65	1.22
14	3.998	-21.04	-24.28	20.178	1323.127	100.65	1.70
15	4.284	-13.34	-29.22	12.800	532.939	100.65	2.05
16	4.570	-4.57	-31.80	4.385	63.289	100.65	2.23
17	4.855	4.57	-31.80	-4.385	63.289	-90.71	2.23
18	5.141	13.34	-29.22	-12.800	532.939	-90.71	2.05
19	5.426	21.04	-24.28	-20.178	1323.127	-90.71	1.70
20	5.712	27.02	-17.37	-25.921	2182.978	-90.71	1.22
21	5.998	30.82	-9.05	-29.564	2839.490	-90.71	0.64
22	6.283	32.12	0.00	-30.813	3084.229	-90.71	0.00

ASSET: 209115, Ridgefield 2  
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H  
ENG NO: 13741746

#### REACTION DISTRIBUTION

Component	ID	Moment Mu (k-ft)	Axial Load Pu (k)	Shear Vu (k)	Moment Factor
Pole	56.88"ø x 0.5" (18 Sides)	3452.5	54.67	31.71	1.000
Bolt Group	Original (22) 2.25"ø	3452.5	-	31.71	1.000
<b>TOTALS</b>		<b>3452.47</b>	<b>54.67</b>	<b>31.71</b>	

#### COMPONENT PROPERTIES

Component	ID	Gross Area (in <sup>2</sup> )	Net Area (in <sup>2</sup> )	Individual Inertia (in <sup>4</sup> )	Moment of Inertia (in <sup>4</sup> )	Threads/in
Pole	56.88"ø x 0.5" (18 Sides)	88.1126	-	-	35017.85	-
Bolt Group	Original (22) 2.25"ø	3.9761	3.2477	0.8393	33935.75	4.5

#### EXTERNAL BASE PLATE BEND LINE ANALYSIS @ 0 FT

##### POLE PROPERTIES

Flat-to-Flat Diameter: 57.00 in  
Point-to-Point Diameter: 57.88 in  
Flat Width: 10.052 in  
Flat Radians: 0.349 rad

##### PLATE PROPERTIES

Neutral Axis: 90 °  
Bend Line Lower Limit: 2.701 rad  
Bend Line Upper Limit: 3.582 rad

Bend Line	Chord Length (in)	Additional Length (in)	Section Modulus (in <sup>3</sup> )	Applied Moment Mu (k-in)	Moment Capacity φMn (k-in)	Ratio
Flat	36.409	0.00	111.502	542.2	5017.6	0.108
Corner	34.994	0.00	107.169	382.1	4822.6	0.079
Circumferential	40.609	0.00	124.364	680.9	5596.4	0.122

#### PLASTIC ANCHOR ROD ANALYSIS

Class	Group Quantity	Rod Diameter (in)	Applied Axial Load Pu (k)	Applied Shear Load Vu (k)	Compressive Capacity φPn (k)	Ratio
Original	22	2.25	100.6	2.2	243.6	0.432



## Monolithic Mat Foundation Analysis (ANSI/TIA-222-H)

### Foundation & Tower Parameters

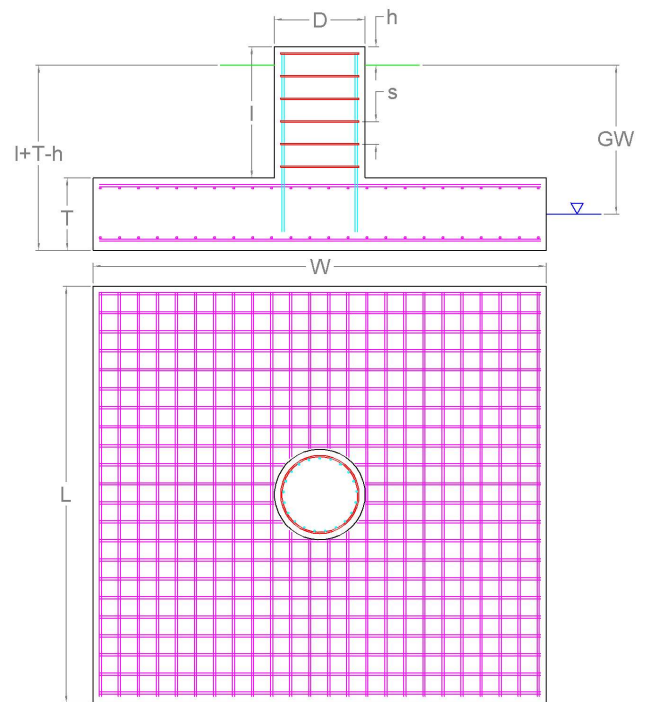
Ignore Mat Rebar?		N	
Ignore Pier Rebar?		N	
Foundation has Pier(s)?		Y	
Pier Shape		Round	
Pier Diameter	$D$	8	ft
Pier Height Above Ground	$h$	0.5	ft
Pier Length	$l$	4.25	ft
Mat Base Depth	$l+T-h$	6.5	ft
Mat Length	$L$	27.5	ft
Mat Width	$W$	27.5	ft
Mat Thickness	$T$	2.75	ft
Unit Weight of Concrete		150	pcf
Tower Eccentricity	ecc	0	ft
Tower Face Width	FW	4.74	ft
Tower Leg Count		1	

### Reactions

Moment, $M_u$	3,452.47	k-ft
Shear, $V_u$	31.71	k
Axial, $P_u$	54.67	k
Uplift, $T_u$	0	k
Tower Weight	54.67	k
Tower Dead Load Factor	0.9	

### Soil Parameters

Water Table Depth [BGL]	GW	-	ft
Unit Weight of Soil		100	pcf
Unit Weight of Soil [Submerged]		37.6	pcf
Shear Friction Coefficient		0.5	
Ultimate Bearing Pressure		16,000	psf
Bearing Pressure Type		Net	
Conical Failure Angle		30	°
Capacity Increase (Transient Loads)		1.00	
Soil Strength Reduction Factor, $\phi_s$		0.75	
Dead Load Factor		1.2	



### Soil Capacities

Design Moment, $M_u$	3,674.44	k-ft
Nominal Moment Capacity, $\phi_m M_n$	8,464.76	k-ft
$M_u / \phi_s M_n$	43.4%	
Net Bearing Pressure	1,436	k
Nominal Bearing Capacity, $\phi_b P_n$	12,488	k
Bearing Pressure Controlling Load Direction	Diagonal to Pad Edge	
$P_u / \phi_s P_n$	11.5%	
Ultimate Friction Resistance	327.15	k
Ultimate Passive Pressure Resistance	38.76	k
Nominal Shear Capacity, $\phi_s V_n$	274.43	k
$V_u / \phi_s V_n$	12.0%	



Mat Reinforcement Parameters		
Concrete Compressive Strength, $f'_c$	3,000	psi
Mat Rebar Quantity [Lower]	35	
Mat Rebar Size # [Lower]	9	
Mat Single Rebar Area [Lower]	1	in <sup>2</sup>
Mat Rebar Quantity [Upper]	28	
Mat Rebar Size # [Upper]	7	
Mat Single Rebar Area [Upper]	0.6	in <sup>2</sup>
Mat Rebar Yield Strength, $F_y$	60	ksi
Mat Clear Cover	3	in
Bending Reduction Factor, $\phi_B$	0.9	
Shear Reduction Factor, $\phi_V$	0.75	
Compression Reduction Factor, $\phi_C$	0.65	
Steel Elastic Modulus	29,000	ksi

Mat Reinforcement Capacities		
Compression Zone Factor, $\beta_1$	0.85	
Lower Reinforcement Spacing	9.51	in
Upper Reinforcement Spacing	11.98	in
One Way Design Shear, $V_u$	133.68	k
One Way Shear Capacity, $\phi V_c$	742.4	k
One Way Shear Controlling Load Direction	Diagonal to Pad Edge	
$V_u / \phi V_c$	18.0%	
Punching Design Shear Stress, $v_u$	41.35	psi
Punching Shear Capacity, $\phi_c V_n$	164.32	psi
$v_u / \phi_c V_n$	25.2%	
Moment Transfer Effective Flexural Width, $\ell$	16.25	in
Neutral Axis Depth	2.59	In
Moment Transfer Flexural Capacity, $\phi M_{sc,f}$	32,241.71	k-in
$\gamma_f M_{sc} / \phi M_{sc,f}$	0.0%	
Flexure Due to Soil Pressure, $M_u$	1,291.6	k-ft
Lower Steel Mat Moment Capacity, $\phi M_n$	4,380.77	k-ft
Flexural Steel Controlling Load Direction	Parallel to Pad Edge	
$M_u / \phi M_n$	29.5%	
Flexure Due to Uplift, $M_u$	1,029.35	k-ft
Upper Steel Mat Moment Capacity, $\phi M_n$	2,144.46	k-ft
$M_u / \phi M_n$	48.0%	

Pier Reinforcement Parameters		
Concrete Compressive Strength ( $f'_c$ )	3,000	psi
Pier Rebar Quantity	57	
Pier Rebar Size #	11	
Pier Single Rebar Area	1.56	in <sup>2</sup>
Pier Rebar Yield Strength ( $F_y$ )	60	ksi
Tie Rebar Size #	4	
Tie Rebar Area (Single)	0.2	in <sup>2</sup>
Tie Rebar Spacing	12	in
Tie Rebar Yield Strength ( $F_y$ )	60	ksi
Rebar Cage Diameter	87.62	in

Pier Reinforcement Capacities		
Design Moment ( $M_u$ )	3,587.24	k-ft
Nominal Moment Capacity ( $\phi_B M_n$ )	16,532.65	k-ft
$M_u / \phi_B M_n$	21.7%	
Design Shear ( $V_u$ )	31.71	k
Nominal Shear Capacity ( $\phi_V V_n$ )	712.13	k
$V_u / \phi_V V_n$	4.5%	
Design Compression ( $P_u$ )	54.67	k
Nominal Compression Capacity ( $\phi_P P_n$ )	9,528.66	k
$P_u / \phi_P P_n$	0.6%	
Pier Reinforcement Ratio	0	-
$M_u / \phi_B M_n + T_u / \phi_T T_n$	21.7%	



# EXHIBIT 4

March 25, 2022



Centerline Communications  
750 West Center Street, Suite #301  
West Bridgewater, MA 02379

RE:      Site Number:                    CT1855  
            FA Number:                    10128094  
            PACE Number:                   MRCTB062631  
            PT Number:                    2051A149W8  
            Site Name:                    Ridgefield Old Stagecoach Road  
            Site Address:                  320 Old Stagecoach Road  
   Ridgefield, CT 06877

To Whom It May Concern:

Hudson Design Group LLC (HDG) has been authorized by Centerline Communications to perform a mount analysis on the existing AT&T antenna/RRH mounts to determine their capability of supporting the following additional loading:

- (3) 4478 B14 RRH's (18.1"x13.4"x8.3" – Wt. = 59.lbs. /each)
- (3) 8843 B2/B66A RRH's (14.9"x13.2"x10.9" – Wt. = 72 lbs. /each)
- (3) RRUS-E2 B29 RRH's (20.4"x18.5"x7.5" – Wt. = 60 lbs. /each)
- (3) RRUS-32 B30 RRH's (27.2"x12.1"x7.0" – Wt. = 60lbs. /each)
- (4) DC6-48-60-18-8F Surge Arrestor (24.0"x9.7"Φ – Wt. = 33 lbs. /each)
- **(3) QD8616-7 Antennas (96.0"x22"x9.6" – Wt. =69 lbs. /each)**
- **(3) AIR 6449 Antennas (30.6"x15.9"x10.6" – Wt. =83 lbs. /each)**
- **(3) AIR 6419 Antennas (31.1"x16.1"x7.3" – Wt. =55 lbs. /each)**
- **(3) DMP65R-BU8DA Antennas (96.0"x20.7"x7.7" – Wt. =119 lbs. /each)**
- **(3) 4449 B5/B12 RRH's (17.9"x13.2"x9.4" – Wt. = 73 lbs. /each)**

*\*Proposed equipment shown in bold*

Mount fabrication drawings prepared by CommScope, P/N MTC3607, dated September 24, 2013, were used to perform this analysis. HDG conducted a ground audit of the existing AT&T antenna mounts on November 6, 2021.

Mount Analysis Methods:

- This analysis was conducted in accordance with EIA/TIA-222-H, Structural Standards for Steel Antenna Towers and Antenna Supporting Structures, the International Building Code 2015 with 2018 Connecticut State Building Code, and AT&T Mount Technical Directive – R16.
- HDG considers this mount to be asymmetrical and has applied wind loads in 30 degree increments all around the mount. Per TIA-222-H and Appendix N of the Connecticut State Building Code, the max basic wind speed for this site is equal to 120 mph with a max basic wind speed with ice of 50 mph and a max ice thickness of 1.0 in. An escalated ice thickness of 1.35 in was used for this analysis.
- HDG considers this site to be exposure category B; tower is located in an urban/suburban or wooded area with numerous closely spaced obstructions.
- HDG considers this site to be topographic category 2; tower is located at the top or crest of an escarpment.
- HDG considers this site to have a spectral response acceleration parameter at short periods,  $S_s$ , of 0.230 and a spectral response acceleration parameter at a period of 1 second,  $S_1$ , of 0.068.
- The mount has been analyzed with load combinations consisting of 500 lbs live load using a service wind speed of 30 mph wind on the worst case antenna. Analysis performed on each antenna pipe to determine worst case location; worst case location was antenna position 3.
- The mount has been analyzed with load combinations consisting of a 250 lbs live load in a worst case location on the mount.
- The existing mounts are secured to the existing monopole with ring mounts and threaded rods. HDG considers the threaded rods to be the governing connection member.

Based on our evaluation, we have determined that the existing mounts **ARE CAPABLE** of supporting the proposed installation.

	Component	Controlling Load Case	Stress Ratio	Pass/Fail
Existing Mount Rating	16	LC5	66%	PASS

Reference Documents:

- RFDS V1.0 dated February 10, 2022.
- Fabrication drawings prepared by CommScope, P/N MTC3607, dated September 24, 2013.



This determination was based on the following limitations and assumptions:

1. HDG is not responsible for any modifications completed prior to and hereafter which HDG was not directly involved.
2. All structural members and their connections are assumed to be in good condition and are free from defects with no deterioration to its member capacities.
3. All antennas, coax cables and waveguide cables are assumed to be properly installed and supported as per the manufacturer's requirements.
4. The existing mount has been adequately secured to the tower structure per the mount manufacturer's specifications.
5. All components pertaining to AT&T's mounts must be tightened and re-plumbed prior to the installation of new appurtenances.
6. HDG performed a localized analysis on the mount itself and not on the supporting tower structure.

Please feel free to contact our office should you have any questions.

Respectfully Submitted,  
Hudson Design Group LLC

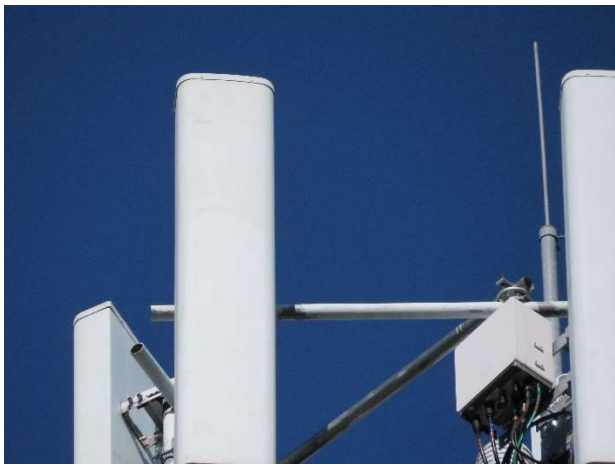
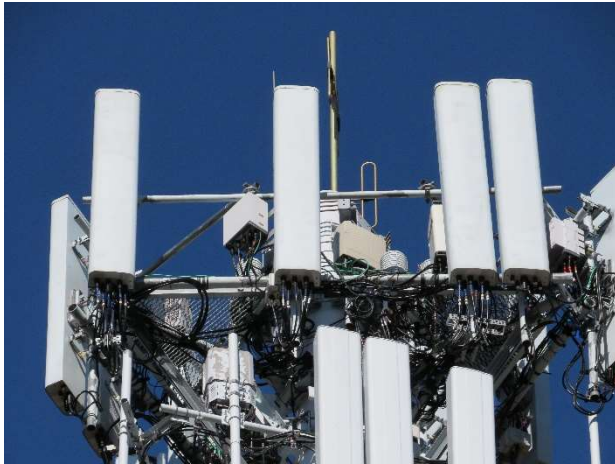


Michael Cabral  
Vice President



Daniel P. Hamm, PE  
Principal

**FIELD PHOTOS:**





**HUDSON**  
Design Group LLC

## Wind & Ice Calculations

## ANSI/TIA-222H - WIND, ICE & SEISMIC LOAD CALCULATIONS

Site Code/Name	CT1855 - Ridgefield Old Stagecoach Road		
State	Connecticut		
County	Fairfield		<i>Reference</i>
Structure Class	II		<i>Table 2-1</i>
Exposure Category	B		<i>Section 2.6.5.1.2</i>
Topographic Category	2 - Kzt = 1.551		<i>Section 2.6.6.2.1</i>
Mean Elevation of base of structure	z <sub>s</sub> 802.13	ft	<i>ASCE7-10 Hazards</i>
Height Above Ground	z 146	ft	

<b>Wind Parameters</b>			
Basic wind speed	V 120	mph	<i>Appendix N of the Connecticut State Building Code</i>
Wind direction probability factor	K <sub>d</sub> 0.95		<i>Section 16.6</i>
Gust effect factor	G <sub>h</sub> 1		<i>Section 16.6</i>
Velocity Pressure (K <sub>a</sub> = 0.9)	52.29	psf	<i>Section 2.6.11.6</i>

<b>Wind &amp; Ice Parameters</b>			
Base windspeed in conjunction with ice, V <sub>i</sub>	50	mph	<i>ASCE7-16 Hazards Tool</i>
Base Ice thickness	t <sub>i</sub> 1.00	in	<i>ASCE7-16 Hazards Tool</i>
Ice Velocity Pressure (K <sub>a</sub> = 0.9)	q <sub>ice</sub> 9.08	psf	<i>Section 2.6.11.6</i>
Design Ice Thickness	t <sub>iz</sub> 1.35	in	<i>Section 2.6.10</i>

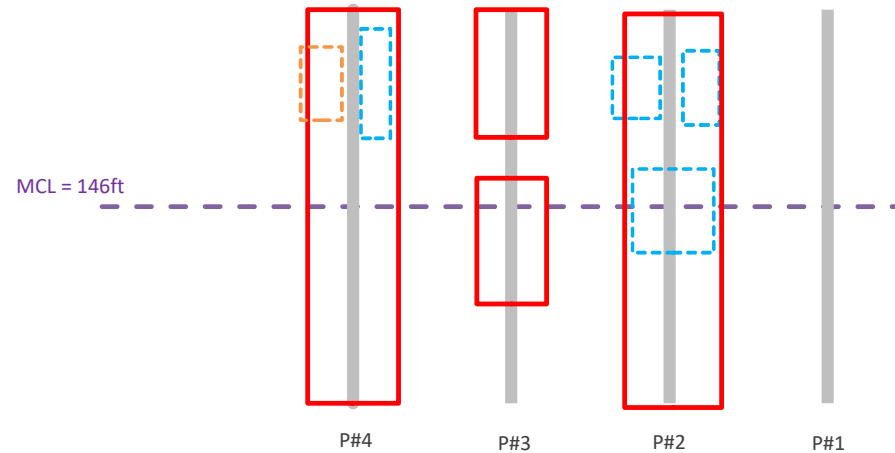
  

<b>Seismic Parameters</b>			
Site Soil Class	D - Stiff Soil		<i>Table 2-10</i>
Seismic Design Category	B		<i>ASCE7-16 Hazards Tool</i>
Spectral Response at Short Periods	S <sub>s</sub> 0.230		<i>Appendix N of the Connecticut State Building Code</i>
Spectral Response at 1sec	S <sub>1</sub> 0.068		<i>Appendix N of the Connecticut State Building Code</i>
Long Period Transition Period	T <sub>L</sub> 6		<i>ASCE7-16 Hazards Tool</i>
Seismic Importance Factor	I <sub>s</sub> 1		<i>Table 2-3</i>
Response modification coefficient	R 2		<i>Section 16.7</i>
Short-Period Site Coefficient	F <sub>a</sub> 1.6		<i>Table 2-11</i>
Design Spectral Response at Short Periods	S <sub>DS</sub> 0.245		<i>Section 2.7.5</i>
Seismic Response Coefficient	C <sub>s</sub> 0.123		<i>Section 2.7.7.1</i>

## ALPHA SECTOR

Position	Appurtenance properties						Wind		Ice	Seismic
	Manufacturer	Model	L [in]	W [in]	D [in]	Weight [lbs]	0° [lbs]	90° [lbs]	IceWeight [lbs]	E <sub>H</sub> [lbs]
2	Quintel	QD8616-7	96.0	22.0	9.6	69.0	983.8	501.9	340.0	8.5
3	Ericsson	AIR6449 N77D	30.6	15.9	10.6	83.0	212.0	143.4	90.1	10.2
3	Ericsson	AIR6419 N77G	31.1	16.1	7.3	55.0	218.2	105.4	85.1	6.7
4	CCI	DMP65R-BU8DA	96.0	20.7	7.7	119.0	934.4	424.7	314.3	14.6
2	Ericsson	4478 B14	18.1	13.4	8.3	59.4	65.5	105.7	45.9	7.3
2	Ericsson	8843 B2/B66A	14.9	13.2	10.9	72.0	70.8	85.7	41.4	8.8
2	Ericsson	RRUS-E2 B29	20.4	18.5	7.5	60.0	164.4	67.2	63.9	7.4
4	Ericsson	4449 B5/B12	17.9	13.2	9.4	73.0	73.3	103.0	46.6	9.0
4	Ericsson	RRUS-32 B30	26.7	12.1	6.7	60.0	82.2	140.8	58.7	7.4
-	Raycap	DC6-48-60-18-8F	23.5	9.7	9.7	20.0	99.3	99.3	51.6	2.5
-	Raycap	DC6-48-60-18-8F	23.5	9.7	9.7	20.0	99.3	99.3	51.6	2.5

ALPHA SECTOR LAYOUT



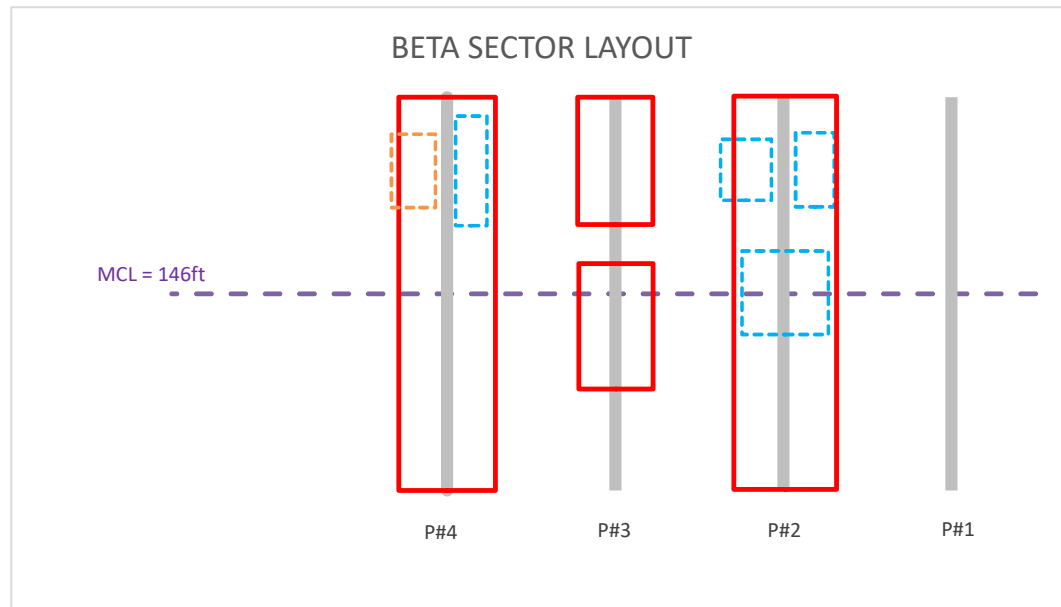
LEGEND:

<span style="color: blue;">—</span>	Existing Antennas
<span style="color: red;">—</span>	Proposed Antennas
<span style="color: blue;">---</span>	Existing Equipment
<span style="color: orange;">---</span>	Proposed Equipment

## BETA SECTOR

Position	Appurtenance properties						Wind		Ice	Seismic
	Manufacturer	Model	L [in]	W [in]	D [in]	Weight [lbs]	0° [lbs]	90° [lbs]	IceWeight [lbs]	E <sub>H</sub> [lbs]
2	Quintel	QD8616-7	96.0	22.0	9.6	69.0	622.4	863.3	340.0	8.5
3	Ericsson	AIR6449 N77D	30.6	15.9	10.6	83.0	160.5	194.8	90.1	10.2
3	Ericsson	AIR6419 N77G	31.1	16.1	7.3	55.0	133.6	190.0	85.1	6.7
4	CCI	DMP65R-BU8DA	96.0	20.7	7.7	119.0	552.1	807.0	314.3	14.6
2	Ericsson	4478 B14	18.1	13.4	8.3	59.4	95.6	75.5	45.9	7.3
2	Ericsson	8843 B2/B66A	14.9	13.2	10.9	72.0	82.0	74.5	41.4	8.8
2	Ericsson	RRUS-E2 B29	20.4	18.5	7.5	60.0	91.5	140.1	63.9	7.4
4	Ericsson	4449 B5/B12	17.9	13.2	9.4	73.0	95.5	80.7	46.6	9.0
4	Ericsson	RRUS-32 B30	26.7	12.1	6.7	60.0	126.1	96.9	58.7	7.4
-	Raycap	DC6-48-60-18-8F	23.5	9.7	9.7	20.0	99.3	99.3	51.6	2.5

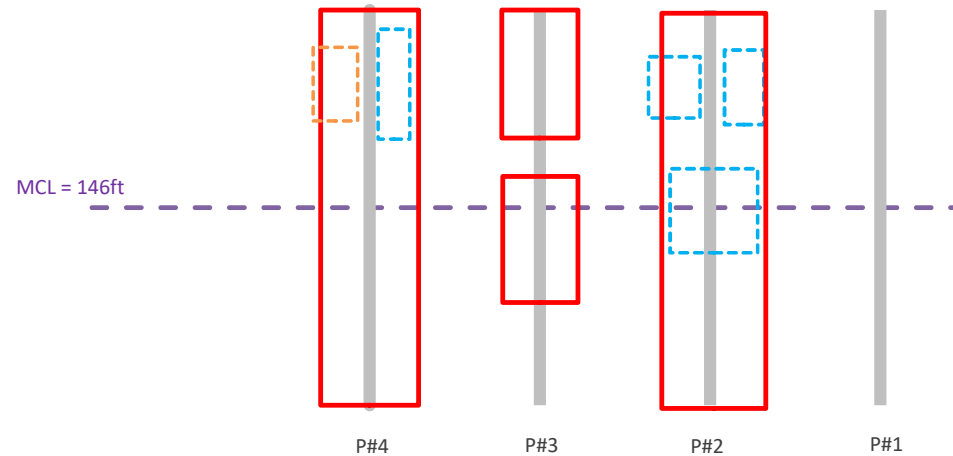
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<span style="color: red;">—</span>	Proposed Antennas
<span style="color: blue;">---</span>	Existing Equipment
<span style="color: orange;">---</span>	Proposed Equipment



## GAMMA SECTOR

Position	Appurtenance properties						Wind		Ice	Seismic
	Manufacturer	Model	L [in]	W [in]	D [in]	Weight [lbs]	0° [lbs]	90° [lbs]	IceWeight [lbs]	E <sub>H</sub> [lbs]
2	Quintel	QD8616-7	96.0	22.0	9.6	69.0	622.4	863.3	340.0	8.5
3	Ericsson	AIR6449 N77D	30.6	15.9	10.6	83.0	160.5	194.8	90.1	10.2
3	Ericsson	AIR6419 N77G	31.1	16.1	7.3	55.0	133.6	190.0	85.1	6.7
4	CCI	DMP65R-BU8DA	96.0	20.7	7.7	119.0	552.1	807.0	314.3	14.6
2	Ericsson	4478 B14	18.1	13.4	8.3	59.4	95.6	75.5	45.9	7.3
2	Ericsson	8843 B2/B66A	14.9	13.2	10.9	72.0	82.0	74.5	41.4	8.8
2	Ericsson	RRUS-E2 B29	20.4	18.5	7.5	60.0	91.5	140.1	63.9	7.4
4	Ericsson	4449 B5/B12	17.9	13.2	9.4	73.0	95.5	80.7	46.6	9.0
4	Ericsson	RRUS-32 B30	26.7	12.1	6.7	60.0	126.1	96.9	58.7	7.4
-	Raycap	DC6-48-60-18-8F	23.5	9.7	9.7	20.0	99.3	99.3	51.6	2.5

GAMMA SECTOR LAYOUT



LEGEND:

<span style="color: blue;">—</span>	Existing Antennas
<span style="color: red;">—</span>	Proposed Antennas
<span style="color: blue;">- - -</span>	Existing Equipment
<span style="color: orange;">- - -</span>	Proposed Equipment

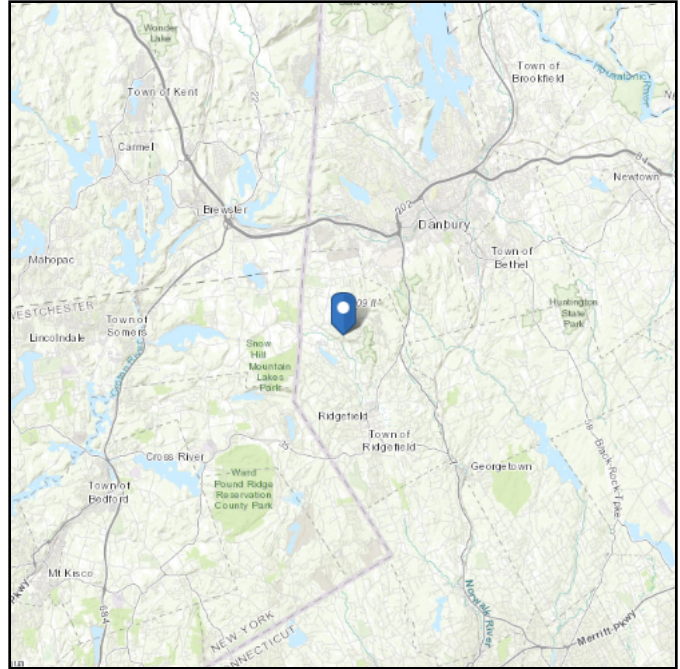
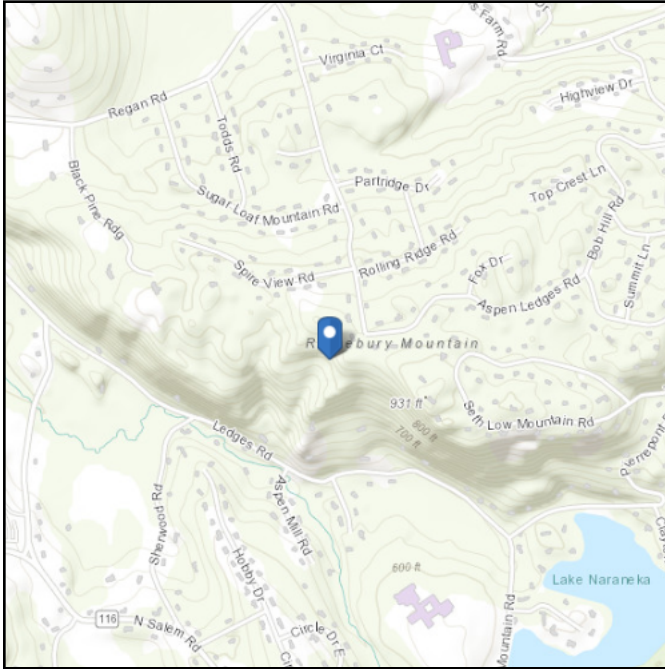


# ASCE 7 Hazards Report

**Address:**  
No Address at This  
Location

**Standard:** ASCE/SEI 7-10  
**Risk Category:** II  
**Soil Class:** D - Stiff Soil

**Elevation:** 802.13 ft (NAVD 88)  
**Latitude:** 41.330308  
**Longitude:** -73.516819



## Wind

### Results:

Per local jurisdiction

Wind Speed	120 Vmph
10-year MRI	76 Vmph
25-year MRI	85 Vmph
50-year MRI	90 Vmph
100-year MRI	96 Vmph

**Data Source:** ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1–CC-4, and Section 26.5.2, incorporating errata of March 12, 2014

**Date Accessed:** Thu Mar 24 2022

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

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



**Site Soil Class:**

D - Stiff Soil

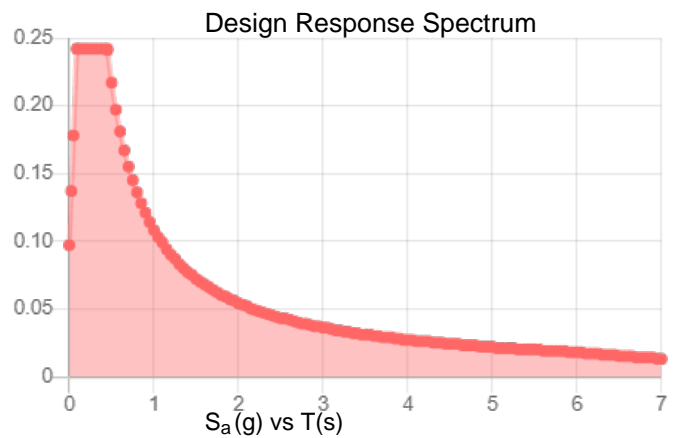
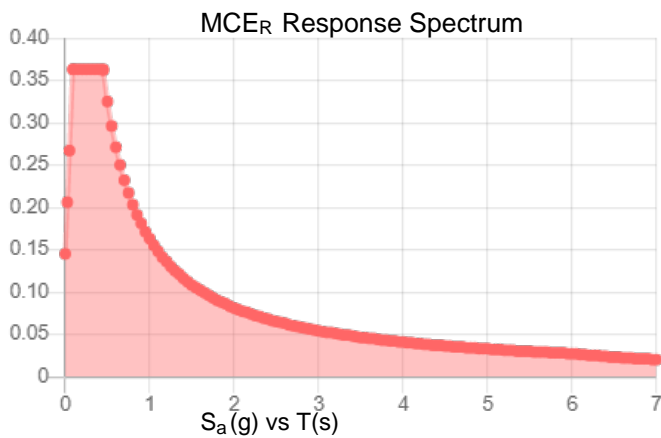
**Results:**

Per local jurisdiction

$S_s$ :	0.230	$S_{DS}$ :	0.242
$S_1$ :	0.068	$S_{D1}$ :	0.108
$F_a$ :	1.6	$T_L$ :	6
$F_v$ :	2.4	PGA :	0.126
$S_{MS}$ :	0.363	PGA <sub>M</sub> :	0.196
$S_{M1}$ :	0.163	$F_{PGA}$ :	1.547
		$I_e$ :	1

**Seismic Design Category**

B



**Data Accessed:**

Thu Mar 24 2022

**Date Source:**

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

**Results:**

Ice Thickness: 0.75 in.  
Concurrent Temperature: 15 F  
Gust Speed 50 mph

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

**Date Accessed:** Thu Mar 24 2022

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

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

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

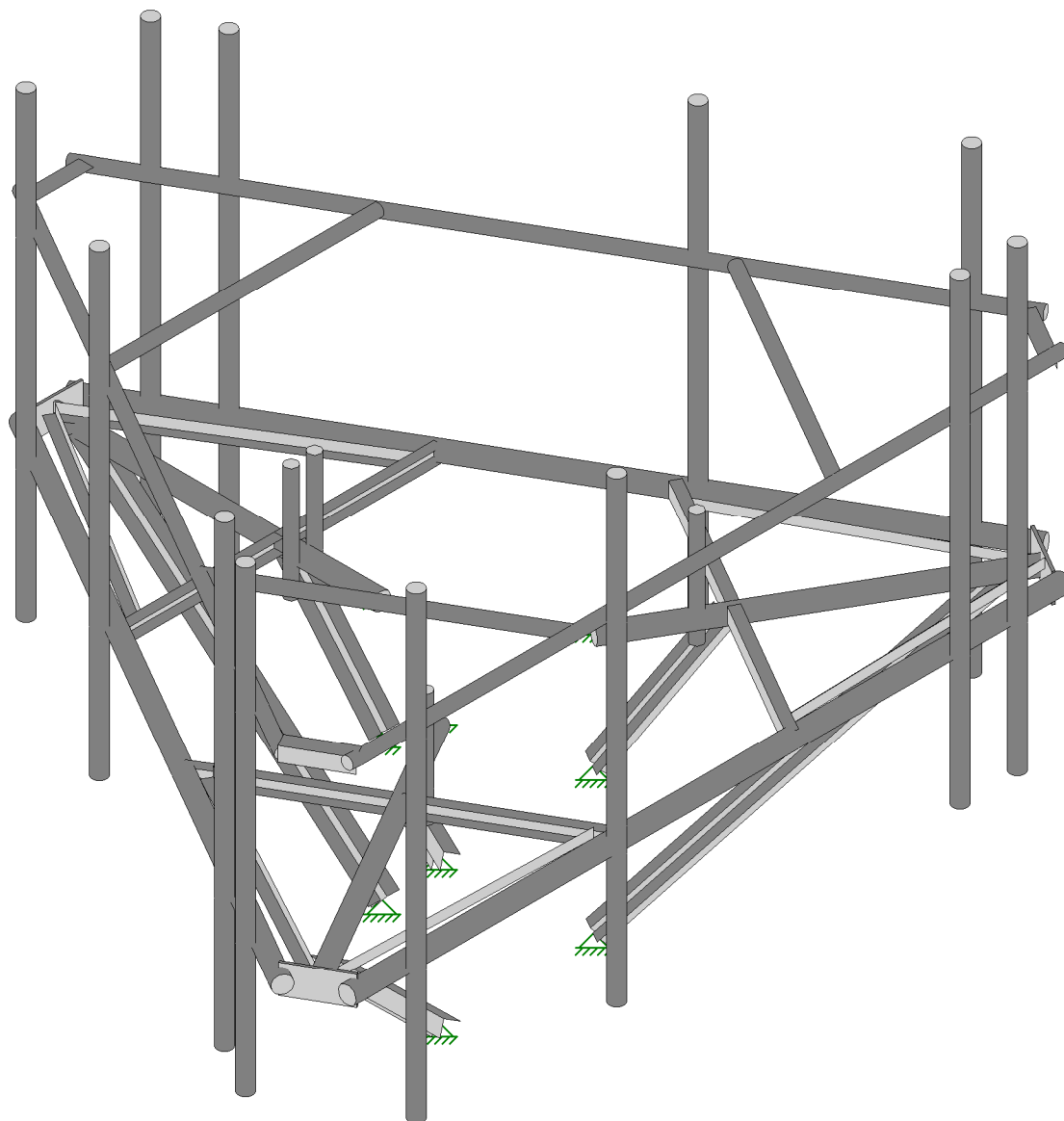
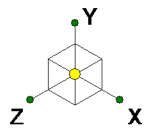
ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting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

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



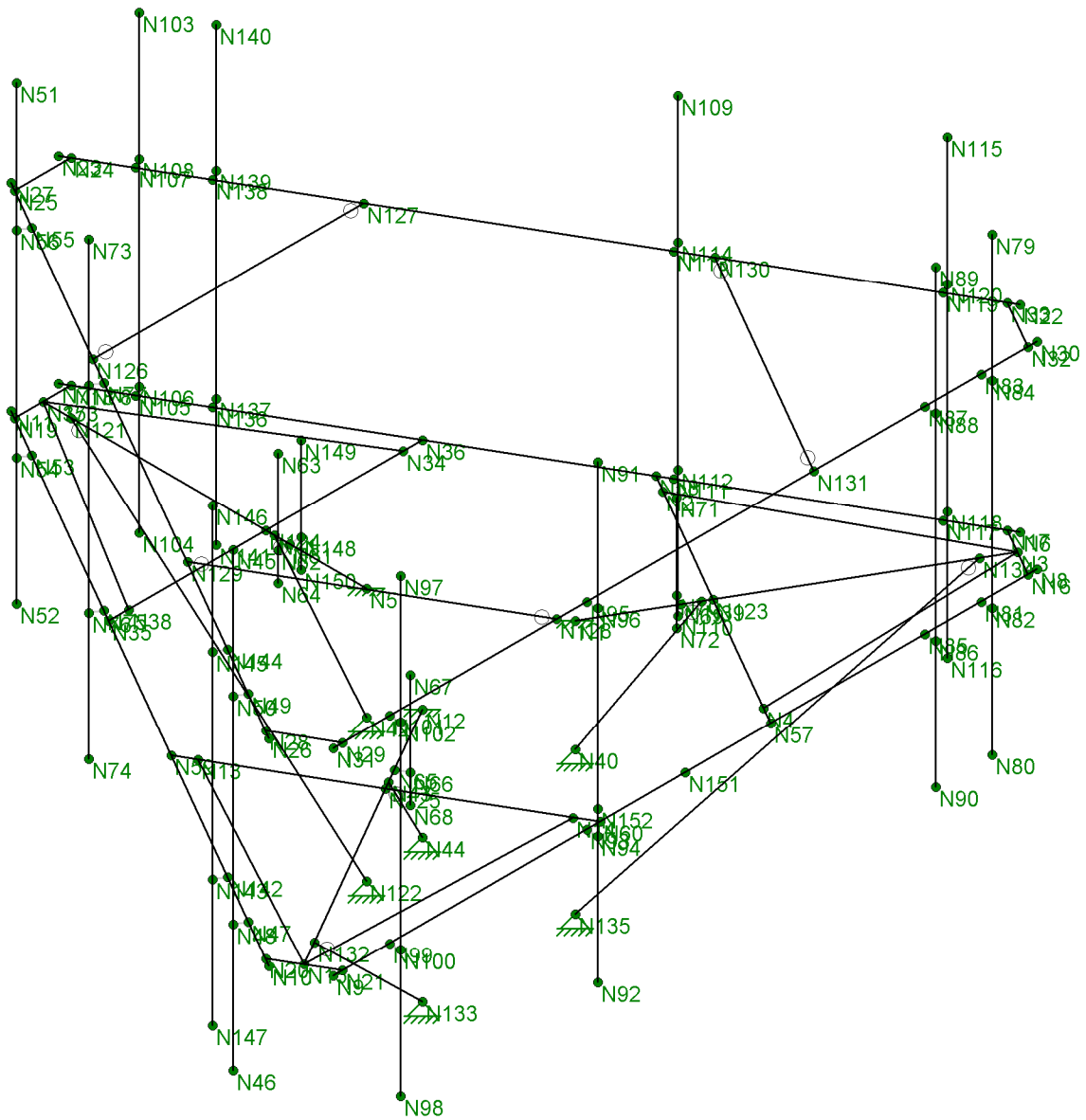
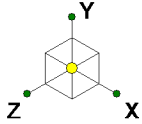
**HUDSON**  
Design Group LLC

## **Mount Calculations (Existing Conditions)**



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DP		Mar 25, 2022 at 8:04 AM
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DP

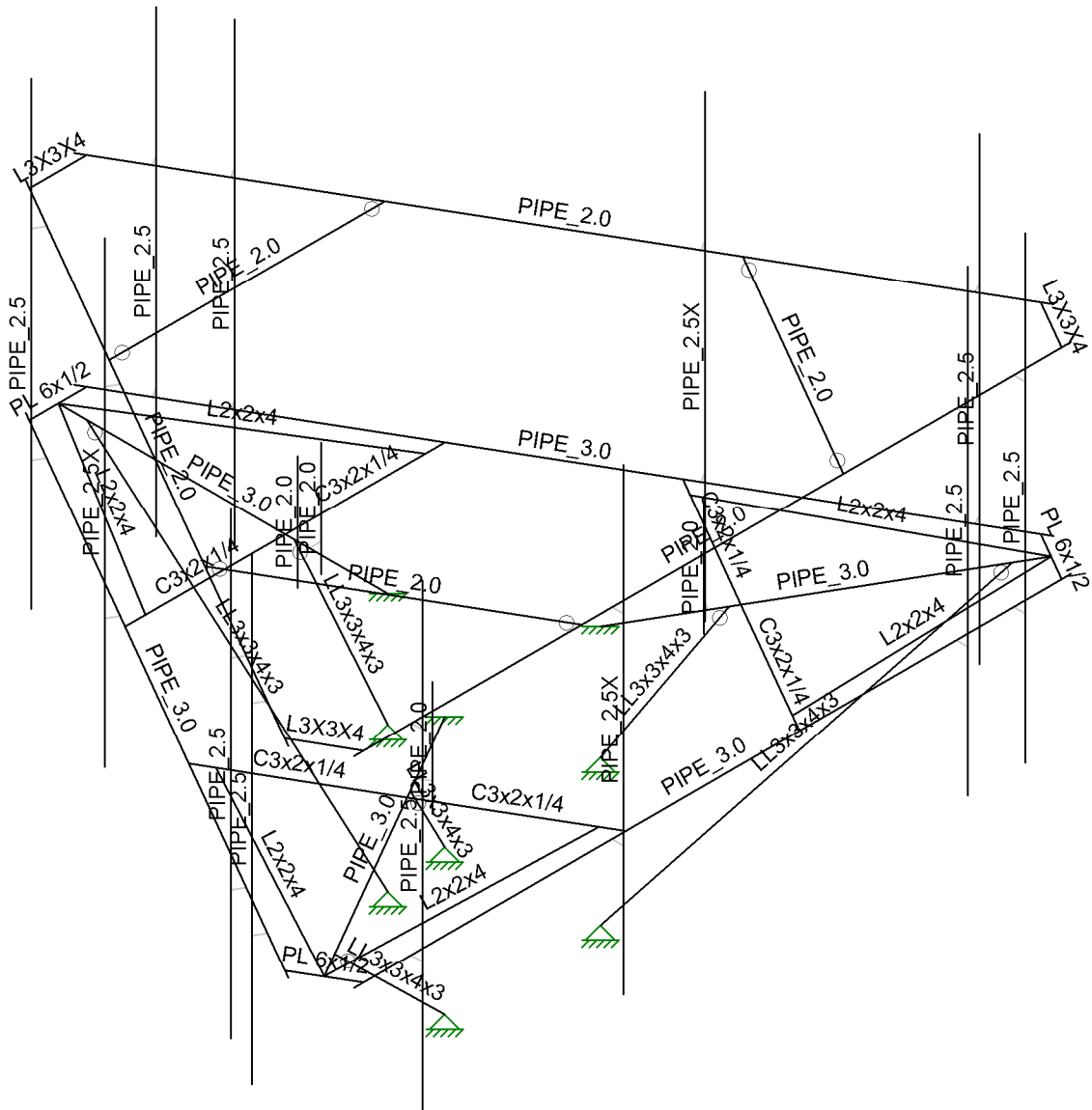
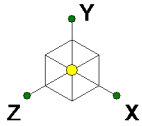
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Ridgefield Old Stagecoach Road

SK - 2

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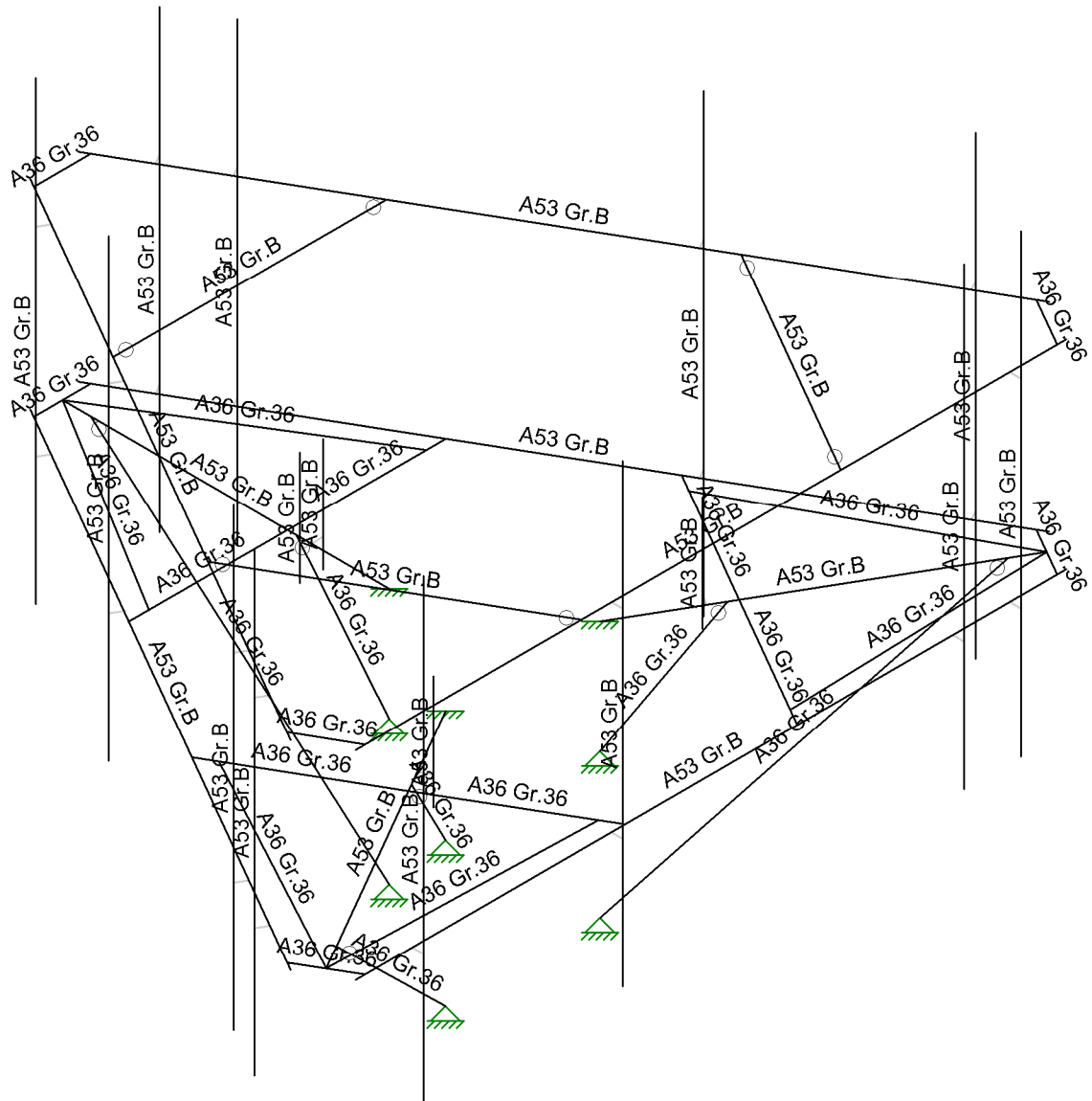
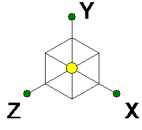
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Ridgefield Old Stagecoach Road

SK - 3

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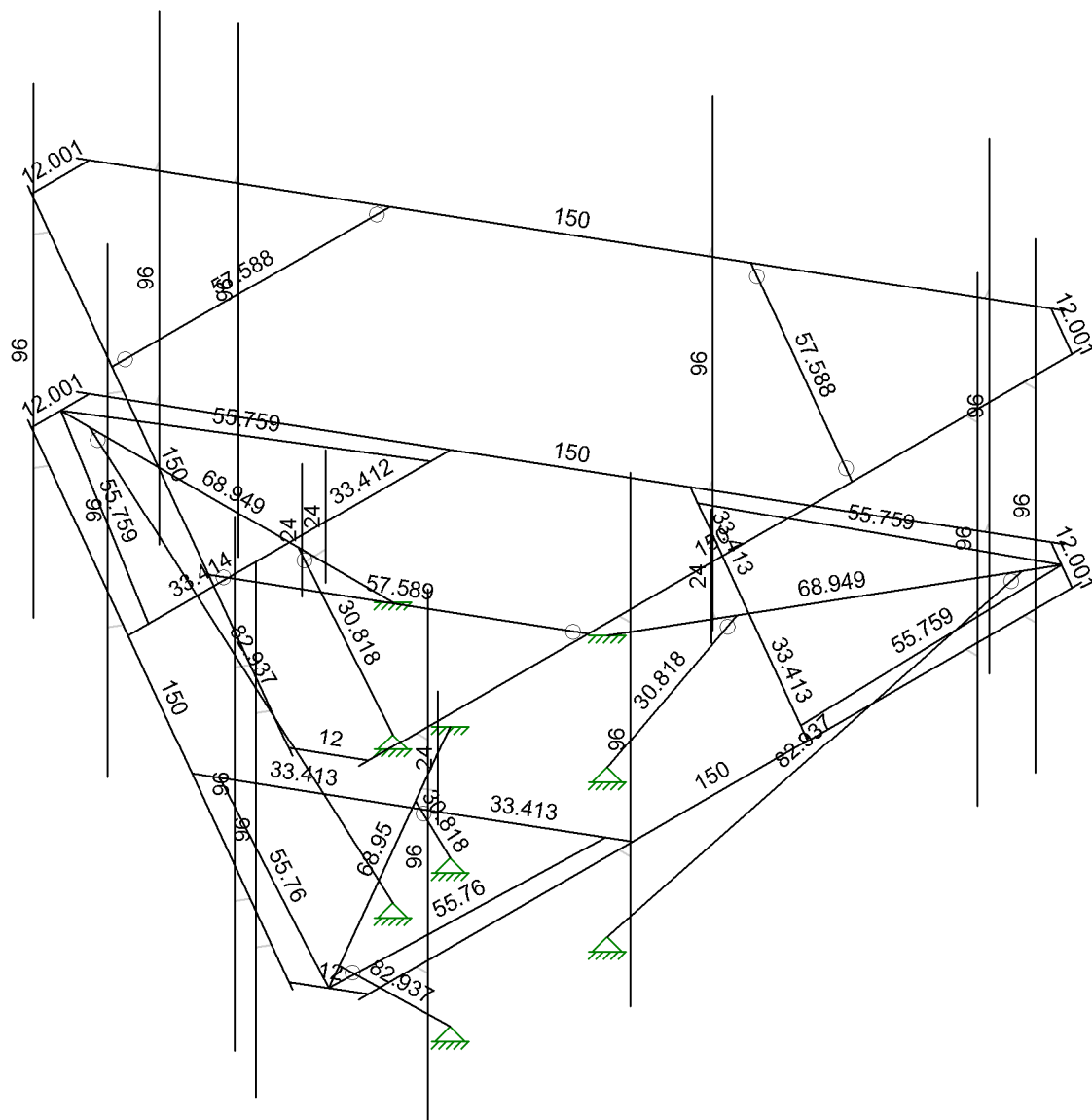
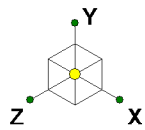
Ridgefield Old Stagecoach Road

SK - 4

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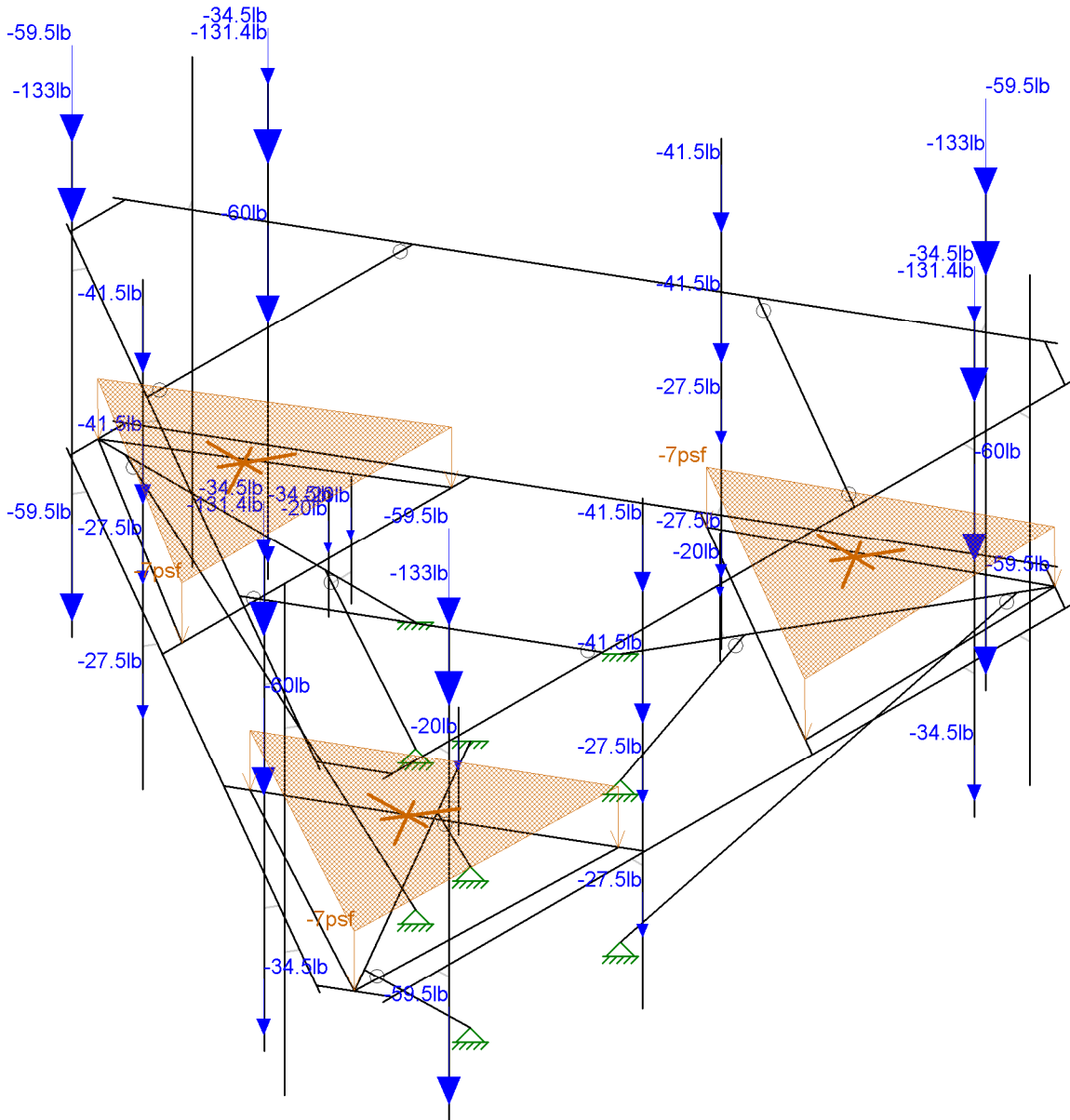
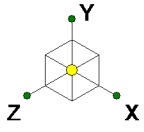
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Hudson Design Group, LLC

DP

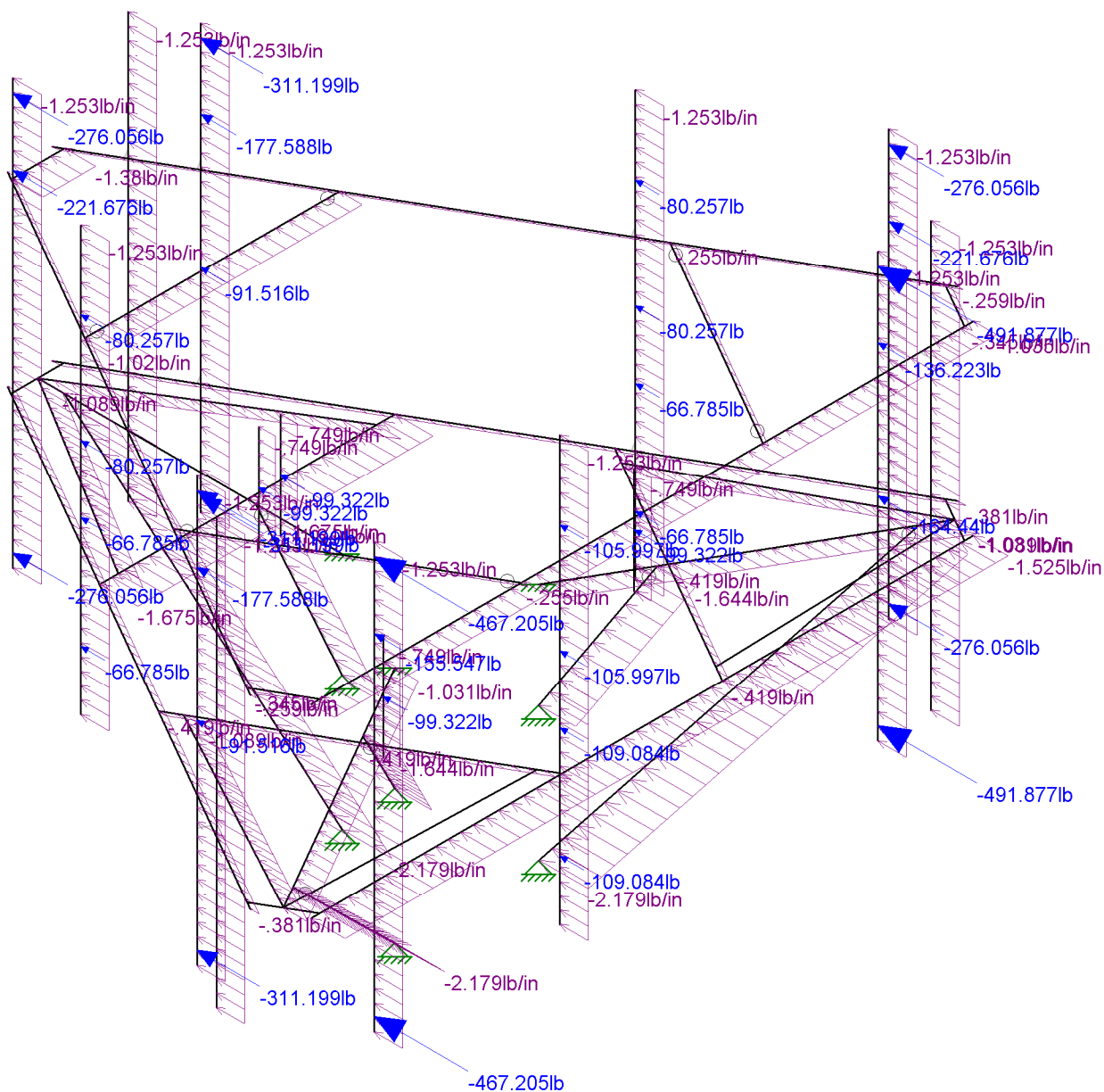
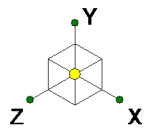
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Ridgefield Old Stagecoach Road

SK - 6

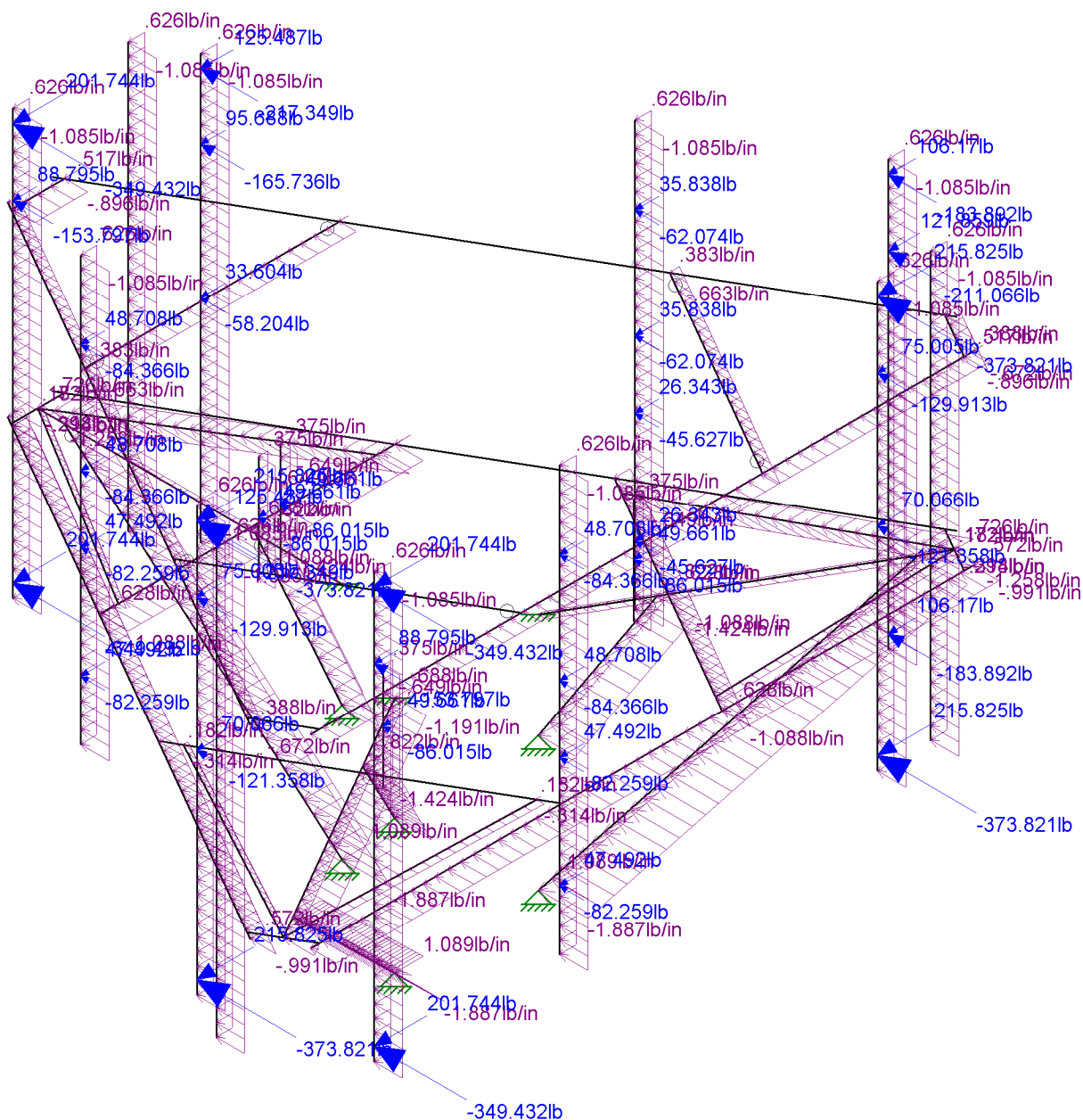
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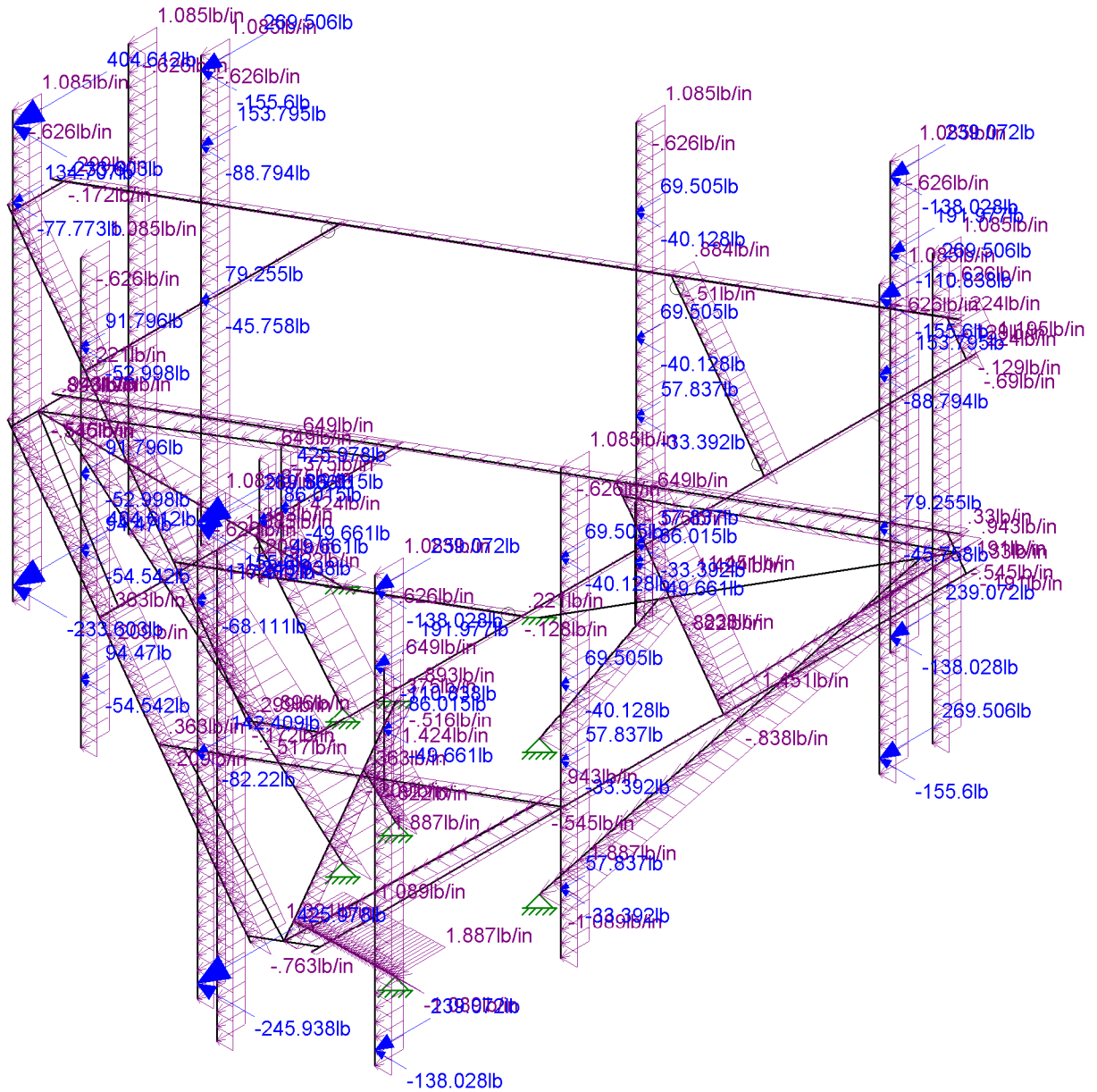
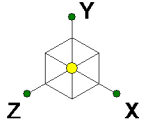


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Page 8



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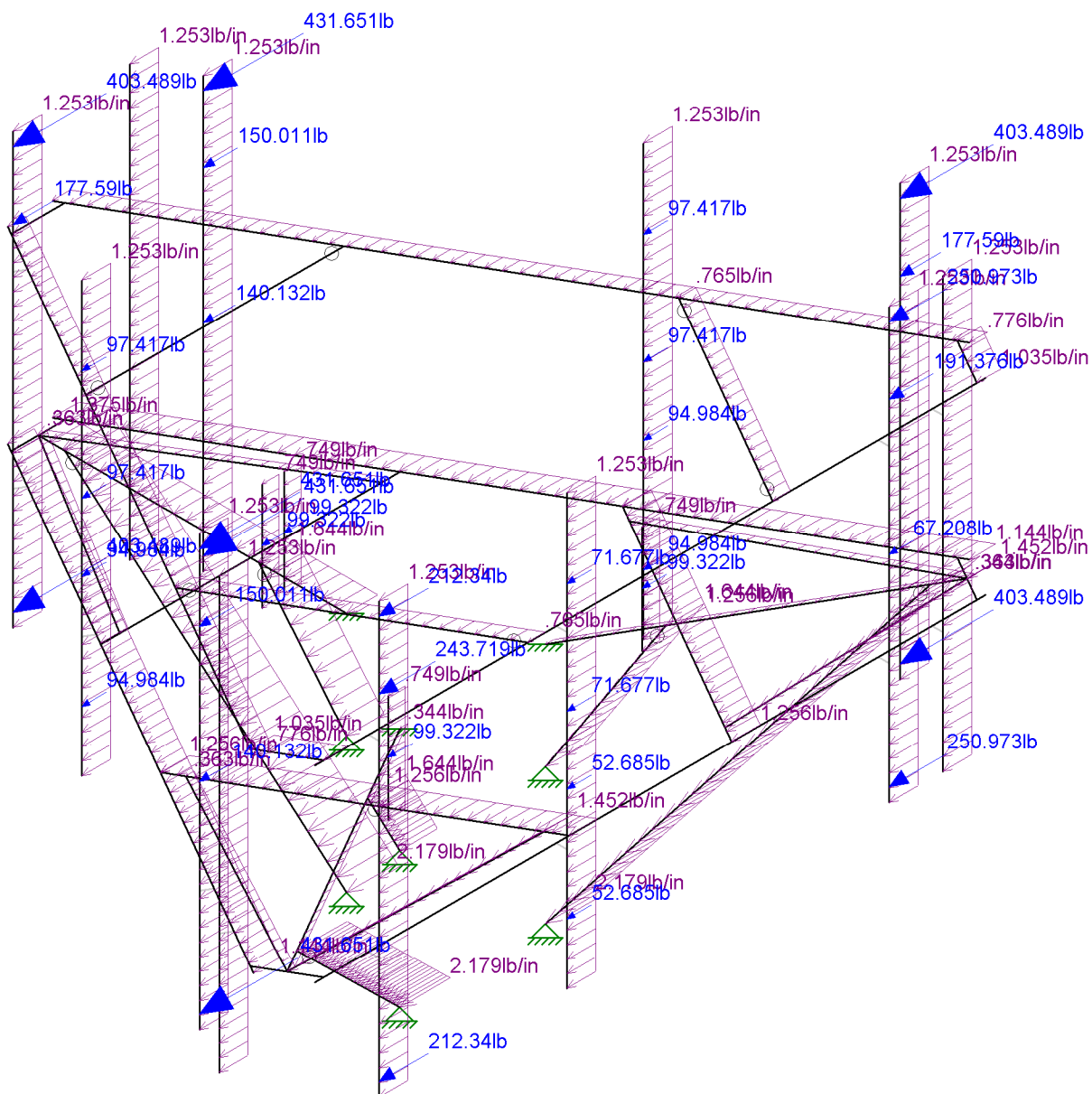
Ridgefield Old Stagecoach Road

SK - 9

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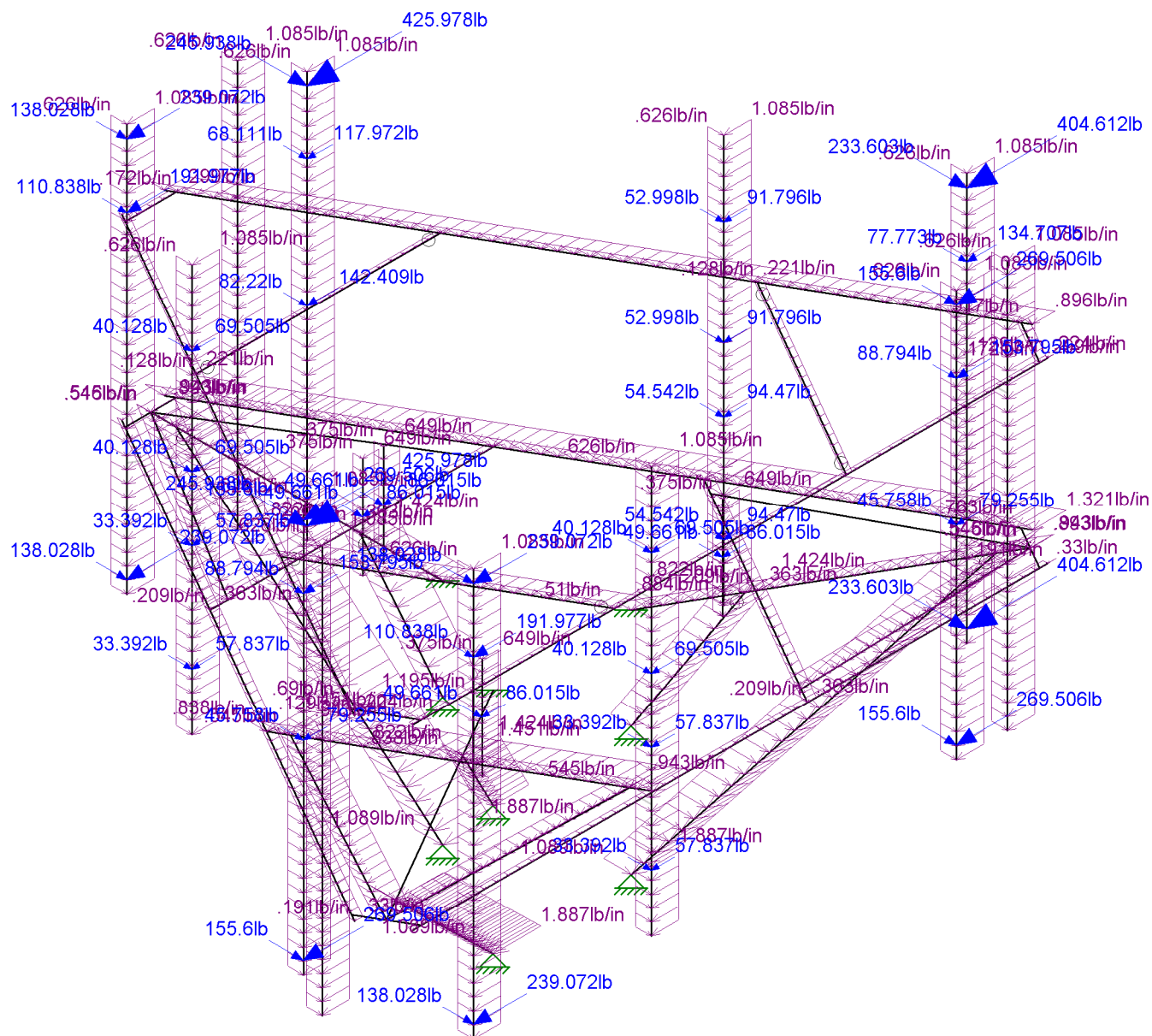




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CT1855

Ridgefield Old Stagecoach Road

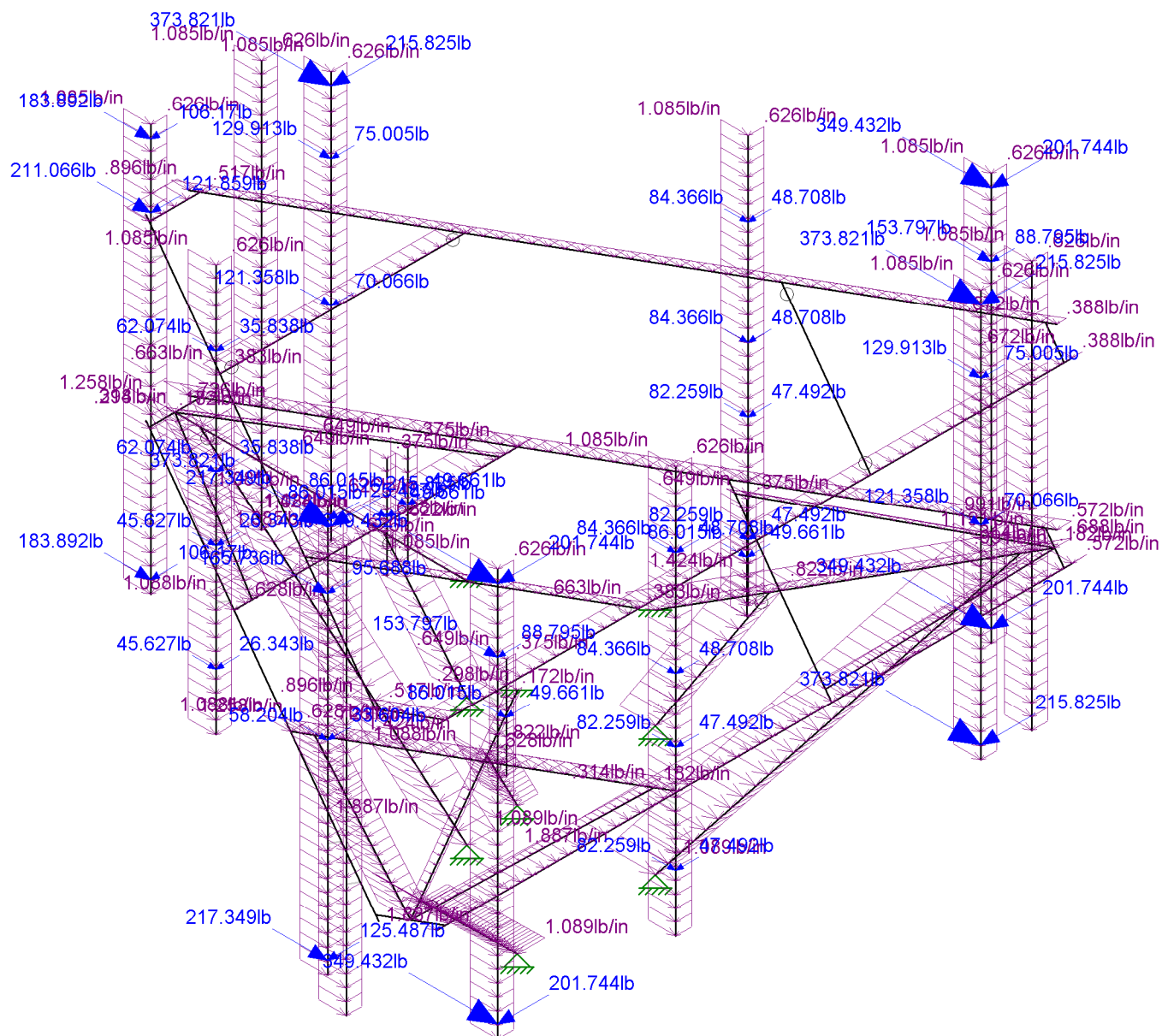
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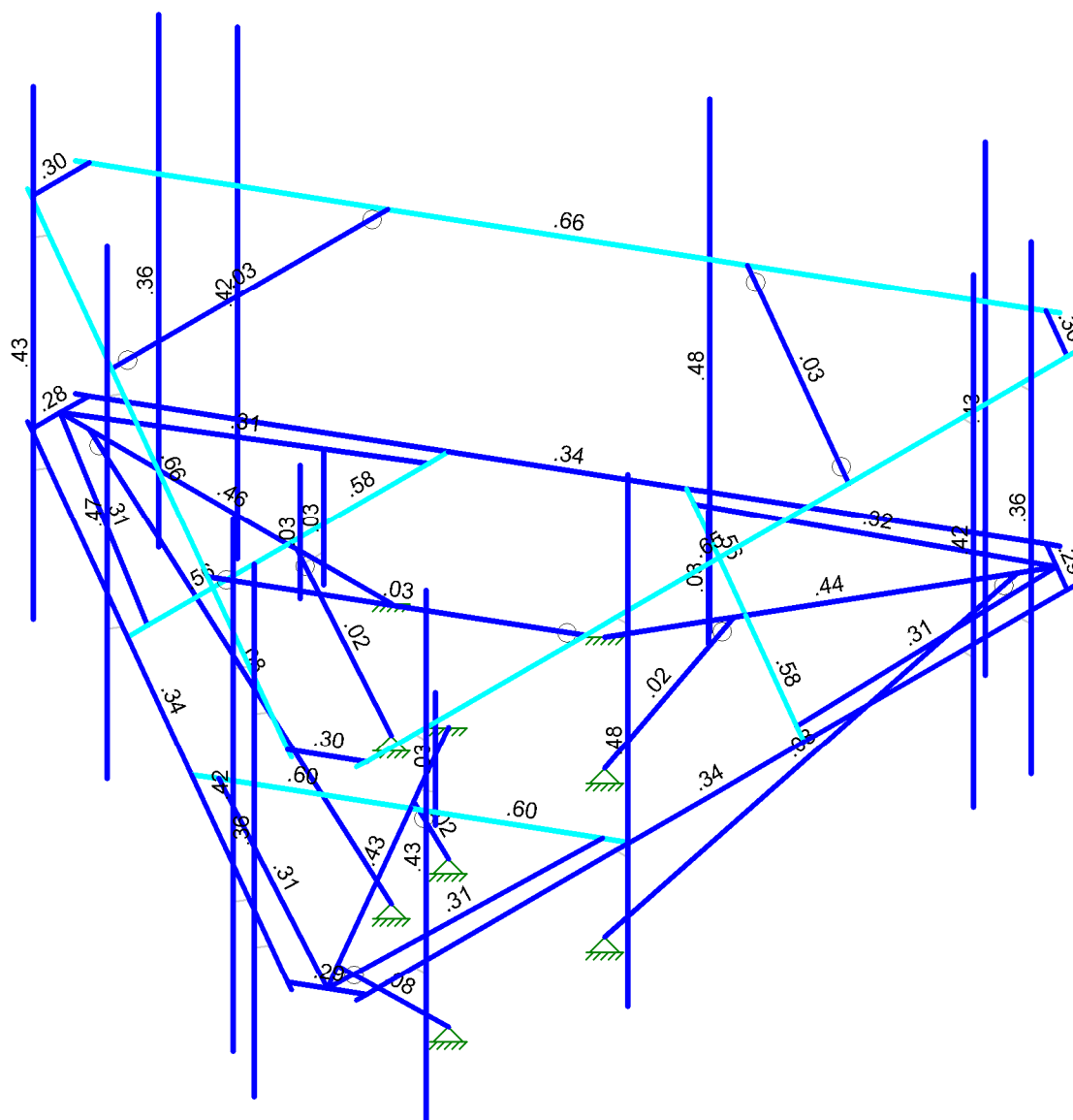
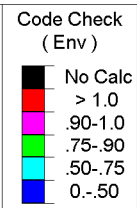
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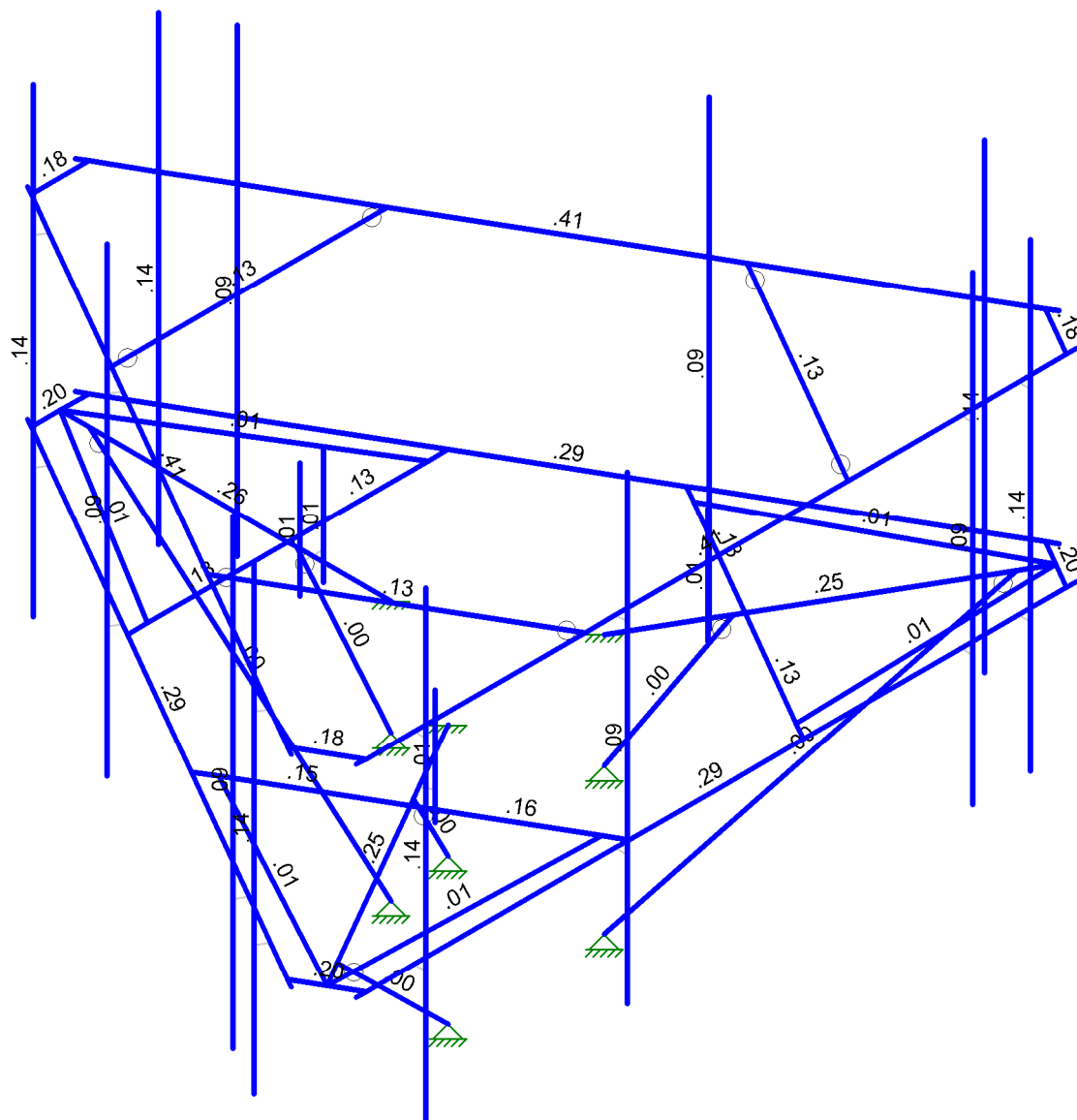
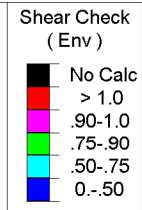
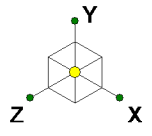




Page 12



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Member Shear Checks Displayed (Enveloped)  
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Company : Hudson Design Group, LLC  
 Designer : DP  
 Job Number : CT1855  
 Model Name : Ridgefield Old Stagecoach Road

Mar 25, 2022  
 8:06 AM  
 Checked By: SC

### **(Global) Model Settings**

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation?	Yes
Increase Nailing Capacity for Wind?	Yes
Include Warping?	Yes
Trans Load Btwn Intersecting Wood Wall?	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	.12
P-Delta Analysis Tolerance	0.50%
Include P-Delta for Walls?	Yes
Automatically Iterate Stiffness for Walls?	Yes
Max Iterations for Wall Stiffness	3
Gravity Acceleration (in/sec^2)	386.4
Wall Mesh Size (in)	24
Eigensolution Convergence Tol. (1.E-)	4
Vertical Axis	Y
Global Member Orientation Plane	XZ
Static Solver	Sparse Accelerated
Dynamic Solver	Accelerated Solver
Hot Rolled Steel Code	AISC 15th(360-16): LRFD
Adjust Stiffness?	Yes(Iterative)
RISAConnection Code	AISC 14th(360-10): LRFD
Cold Formed Steel Code	AISI S100-16: LRFD
Wood Code	None
Wood Temperature	< 100F
Concrete Code	None
Masonry Code	None
Aluminum Code	None - Building
Stainless Steel Code	None

### (Global) Model Settings, Continued

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	Exact Integration
Parame Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections?	Yes
Use Cracked Sections Slab?	No
Bad Framing Warnings?	No
Unused Force Warnings?	Yes
Min 1 Bar Diam. Spacing?	No
Concrete Rebar Set	REBAR SET ASTMA615
Min % Steel for Column	1
Max % Steel for Column	8

Seismic Code	ASCE 7-16
Seismic Base Elevation (in)	Not Entered
Add Base Weight?	Yes
Ct X	.02
Ct Z	.02
T X (sec)	Not Entered
T Z (sec)	Not Entered
R X	3
R Z	3
Ct Exp. X	.75
Ct Exp. Z	.75
SD1	1
SDS	1
S1	1
TL (sec)	5
Risk Cat	I or II
Drift Cat	Other
Om Z	1
Om X	1
Cd Z	4
Cd X	4
Rho Z	1
Rho X	1

### Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B RECT	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A500 Gr.C RND	29000	11154	.3	.65	.527	46	1.4	62	1.3
7	A500 Gr.C RECT	29000	11154	.3	.65	.527	50	1.4	62	1.3
8	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
9	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3
10	A913 Gr.65	29000	11154	.3	.65	.49	65	1.1	80	1.1

### Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Ru...	A [in <sup>2</sup> ]	I <sub>yy</sub> [in <sup>4</sup> ]	I <sub>zz</sub> [in <sup>4</sup> ]	J [in <sup>4</sup> ]
1	PIPE 2.0	PIPE 2.0	None	None	A53 Gr.B	Typical	1.02	.627	.627	1.25
2	PIPE 2.5	PIPE 2.5	None	None	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
3	L3X3X4	L3X3X4	None	None	A36 Gr.36	Typical	1.44	1.23	1.23	.031
4	L2x2x4	L2x2x4	None	None	A36 Gr.36	Typical	.944	.346	.346	.021
5	PL 6x1/2	PL 6x1/2	None	None	A36 Gr.36	Typical	3	.063	9	.237
6	PIPE 2.5X	PIPE 2.5X	None	None	A53 Gr.B	Typical	2.1	1.83	1.83	3.66
7	PIPE 3.0	PIPE 3.0	None	None	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
8	C3x2x1/4	C3x2x1/4	None	None	A36 Gr.36	Typical	1.625	.631	2.221	.031
9	LL3x3x4x3	LL3x3x4x3	None	None	A36 Gr.36	Typical	2.88	5.48	2.46	.063

### Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	N122	Reaction	Reaction	Reaction			
2	N42	Reaction	Reaction	Reaction			
3	N5	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
4	N12	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
5	N1	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
6	N133	Reaction	Reaction	Reaction			
7	N135	Reaction	Reaction	Reaction			
8	N44	Reaction	Reaction	Reaction			
9	N40	Reaction	Reaction	Reaction			

### Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N3	N1			PIPE 3.0	None	None	A53 Gr.B	Typical
2	M2	N3	N2			L2x2x4	None	None	A36 Gr.36	Typical
3	M3	N3	N4			L2x2x4	None	None	A36 Gr.36	Typical
4	M4	N37	N5			PIPE 3.0	None	None	A53 Gr.B	Typical
5	M5	N6	N7			PIPE 3.0	None	None	A53 Gr.B	Typical
6	M6	N8	N9			PIPE 3.0	None	None	A53 Gr.B	Typical
7	M7	N10	N11			PIPE 3.0	None	None	A53 Gr.B	Typical
8	M8	N12	N15			PIPE 3.0	None	None	A53 Gr.B	Typical
9	M9	N13	N15			L2x2x4	None	None	A36 Gr.36	Typical
10	M10	N14	N15			L2x2x4	None	None	A36 Gr.36	Typical
11	M11	N16	N17			PL 6x1/2	None	None	A36 Gr.36	Typical
12	M12	N18	N19			PL 6x1/2	None	None	A36 Gr.36	Typical
13	M13	N20	N21			PL 6x1/2	None	None	A36 Gr.36	Typical
14	M14	N22	N23			PIPE 2.0	None	None	A53 Gr.B	Typical
15	M15	N24	N25		180	L3X3X4	None	None	A36 Gr.36	Typical
16	M16	N26	N27			PIPE 2.0	None	None	A53 Gr.B	Typical
17	M17	N28	N29		180	L3X3X4	None	None	A36 Gr.36	Typical
18	M18	N30	N31			PIPE 2.0	None	None	A53 Gr.B	Typical
19	M19	N32	N33		180	L3X3X4	None	None	A36 Gr.36	Typical
20	M20	N37	N34			L2x2x4	None	None	A36 Gr.36	Typical
21	M21	N35	N124			C3x2x1/4	None	None	A36 Gr.36	Typical
22	M22	N37	N38			L2x2x4	None	None	A36 Gr.36	Typical
23	M23	N39	N40			LL3x3x4x3	None	None	A36 Gr.36	Typical
24	M24	N41	N42			LL3x3x4x3	None	None	A36 Gr.36	Typical
25	M25	N43	N44			LL3x3x4x3	None	None	A36 Gr.36	Typical
26	M26	N45	N46			PIPE 2.5	None	None	A53 Gr.B	Typical
27	M27	N47	N48			RIGID	None	None	RIGID	Typical
28	M28	N49	N50			RIGID	None	None	RIGID	Typical
29	M29	N51	N52			PIPE 2.5	None	None	A53 Gr.B	Typical
30	M30	N53	N54			RIGID	None	None	RIGID	Typical

### Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
31	M31	N55	N56			RIGID	None	None	RIGID	Typical
32	M32	N57	N123			C3x2x1/4	None	None	A36 Gr.36	Typical
33	M33	N59	N125			C3x2x1/4	None	None	A36 Gr.36	Typical
34	M34	N61	N62			RIGID	None	None	RIGID	Typical
35	M35	N63	N64			PIPE 2.0	None	None	A53 Gr.B	Typical
36	M36	N65	N66			RIGID	None	None	RIGID	Typical
37	M37	N67	N68			PIPE 2.0	None	None	A53 Gr.B	Typical
38	M38	N69	N70			RIGID	None	None	RIGID	Typical
39	M39	N71	N72			PIPE 2.0	None	None	A53 Gr.B	Typical
40	M40	N73	N74			PIPE 2.5X	None	None	A53 Gr.B	Typical
41	M41	N75	N76			RIGID	None	None	RIGID	Typical
42	M42	N77	N78			RIGID	None	None	RIGID	Typical
43	M43	N79	N80			PIPE 2.5	None	None	A53 Gr.B	Typical
44	M44	N81	N82			RIGID	None	None	RIGID	Typical
45	M45	N83	N84			RIGID	None	None	RIGID	Typical
46	M46	N85	N86			RIGID	None	None	RIGID	Typical
47	M47	N87	N88			RIGID	None	None	RIGID	Typical
48	M48	N89	N90			PIPE 2.5	None	None	A53 Gr.B	Typical
49	M49	N91	N92			PIPE 2.5X	None	None	A53 Gr.B	Typical
50	M50	N93	N94			RIGID	None	None	RIGID	Typical
51	M51	N95	N96			RIGID	None	None	RIGID	Typical
52	M52	N97	N98			PIPE 2.5	None	None	A53 Gr.B	Typical
53	M53	N99	N100			RIGID	None	None	RIGID	Typical
54	M54	N101	N102			RIGID	None	None	RIGID	Typical
55	M55	N103	N104			PIPE 2.5	None	None	A53 Gr.B	Typical
56	M56	N105	N106			RIGID	None	None	RIGID	Typical
57	M57	N107	N108			RIGID	None	None	RIGID	Typical
58	M58	N109	N110			PIPE 2.5X	None	None	A53 Gr.B	Typical
59	M59	N111	N112			RIGID	None	None	RIGID	Typical
60	M60	N113	N114			RIGID	None	None	RIGID	Typical
61	M61	N115	N116			PIPE 2.5	None	None	A53 Gr.B	Typical
62	M62	N117	N118			RIGID	None	None	RIGID	Typical
63	M63	N119	N120			RIGID	None	None	RIGID	Typical
64	M64	N122	N121			LL3x3x4x3	None	None	A36 Gr.36	Typical
65	M65	N126	N127			PIPE 2.0	None	None	A53 Gr.B	Typical
66	M66	N128	N129			PIPE 2.0	None	None	A53 Gr.B	Typical
67	M67	N130	N131			PIPE 2.0	None	None	A53 Gr.B	Typical
68	M68	N133	N132			LL3x3x4x3	None	None	A36 Gr.36	Typical
69	M69	N135	N134			LL3x3x4x3	None	None	A36 Gr.36	Typical
70	M70	N123	N58			C3x2x1/4	None	None	A36 Gr.36	Typical
71	M71	N124	N36			C3x2x1/4	None	None	A36 Gr.36	Typical
72	M72	N125	N60			C3x2x1/4	None	None	A36 Gr.36	Typical
73	M73	N136	N137			RIGID	None	None	RIGID	Typical
74	M74	N138	N139			RIGID	None	None	RIGID	Typical
75	M75	N140	N141			PIPE 2.5	None	None	A53 Gr.B	Typical
76	M76	N142	N143			RIGID	None	None	RIGID	Typical
77	M77	N144	N145			RIGID	None	None	RIGID	Typical
78	M78	N146	N147			PIPE 2.5	None	None	A53 Gr.B	Typical
79	M79	N61	N148			RIGID	None	None	RIGID	Typical
80	M80	N149	N150			PIPE 2.0	None	None	A53 Gr.B	Typical

### Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M1						Yes	** NA **			None
2	M2						Yes	** NA **			None



### Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
3	M3						Yes	** NA **			None
4	M4						Yes	** NA **			None
5	M5						Yes	** NA **			None
6	M6						Yes	** NA **			None
7	M7						Yes	** NA **			None
8	M8						Yes	** NA **			None
9	M9						Yes	** NA **			None
10	M10						Yes	** NA **			None
11	M11						Yes	** NA **			None
12	M12						Yes	** NA **			None
13	M13						Yes	** NA **			None
14	M14						Yes	** NA **			None
15	M15						Yes	** NA **			None
16	M16						Yes	** NA **			None
17	M17						Yes	** NA **			None
18	M18						Yes	** NA **			None
19	M19						Yes	** NA **			None
20	M20						Yes	** NA **			None
21	M21						Yes	** NA **			None
22	M22						Yes	** NA **			None
23	M23	BenPIN					Yes	** NA **			None
24	M24	BenPIN					Yes	** NA **			None
25	M25	BenPIN					Yes	** NA **			None
26	M26						Yes	** NA **			None
27	M27						Yes	** NA **			None
28	M28						Yes	** NA **			None
29	M29						Yes	** NA **			None
30	M30						Yes	** NA **			None
31	M31						Yes	** NA **			None
32	M32						Yes	** NA **			None
33	M33						Yes	** NA **			None
34	M34						Yes	** NA **			None
35	M35						Yes	** NA **			None
36	M36						Yes	** NA **			None
37	M37						Yes	** NA **			None
38	M38						Yes	** NA **			None
39	M39						Yes	** NA **			None
40	M40						Yes	** NA **			None
41	M41						Yes	** NA **			None
42	M42						Yes	** NA **			None
43	M43						Yes	** NA **			None
44	M44						Yes	** NA **			None
45	M45						Yes	** NA **			None
46	M46						Yes	** NA **			None
47	M47						Yes	** NA **			None
48	M48						Yes	** NA **			None
49	M49						Yes	** NA **			None
50	M50						Yes	** NA **			None
51	M51						Yes	** NA **			None
52	M52						Yes	** NA **			None
53	M53						Yes	** NA **			None
54	M54						Yes	** NA **			None
55	M55						Yes	** NA **			None
56	M56						Yes	** NA **			None
57	M57						Yes	** NA **			None
58	M58						Yes	** NA **			None
59	M59						Yes	** NA **			None

### Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
60	M60						Yes	** NA **			None
61	M61						Yes	** NA **			None
62	M62						Yes	** NA **			None
63	M63						Yes	** NA **			None
64	M64		BenPIN				Yes	** NA **			None
65	M65	BenPIN	BenPIN				Yes	** NA **			None
66	M66	BenPIN	BenPIN				Yes	** NA **			None
67	M67	BenPIN	BenPIN				Yes	** NA **			None
68	M68		BenPIN				Yes	** NA **			None
69	M69		BenPIN				Yes	** NA **			None
70	M70						Yes	** NA **			None
71	M71						Yes	** NA **			None
72	M72						Yes	** NA **			None
73	M73						Yes	** NA **			None
74	M74						Yes	** NA **			None
75	M75						Yes	** NA **			None
76	M76						Yes	** NA **			None
77	M77						Yes	** NA **			None
78	M78						Yes	** NA **			None
79	M79						Yes	** NA **			None
80	M80						Yes	** NA **			None

### Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torqu...	Kyy	Kzz	Cb	Function
1	M1	PIPE 3.0	68.949			Lbyy						Lateral
2	M2	L2x2x4	55.759			Lbyy						Lateral
3	M3	L2x2x4	55.759			Lbyy						Lateral
4	M4	PIPE 3.0	68.949			Lbyy						Lateral
5	M5	PIPE 3.0	150			Lbyy						Lateral
6	M6	PIPE 3.0	150			Lbyy						Lateral
7	M7	PIPE 3.0	150			Lbyy						Lateral
8	M8	PIPE 3.0	68.95			Lbyy						Lateral
9	M9	L2x2x4	55.76			Lbyy						Lateral
10	M10	L2x2x4	55.76			Lbyy						Lateral
11	M11	PL 6x1/2	12.001			Lbyy						Lateral
12	M12	PL 6x1/2	12.001			Lbyy						Lateral
13	M13	PL 6x1/2	12			Lbyy						Lateral
14	M14	PIPE 2.0	150			Lbyy						Lateral
15	M15	L3X3X4	12.001			Lbyy						Lateral
16	M16	PIPE 2.0	150			Lbyy						Lateral
17	M17	L3X3X4	12			Lbyy						Lateral
18	M18	PIPE 2.0	150			Lbyy						Lateral
19	M19	L3X3X4	12.001			Lbyy						Lateral
20	M20	L2x2x4	55.759			Lbyy						Lateral
21	M21	C3x2x1/4	33.414			Lbyy						Lateral
22	M22	L2x2x4	55.759			Lbyy						Lateral
23	M23	LL3x3x4x3	30.818			Lbyy						Lateral
24	M24	LL3x3x4x3	30.818			Lbyy						Lateral
25	M25	LL3x3x4x3	30.818			Lbyy						Lateral
26	M26	PIPE 2.5	96			Lbyy						Lateral
27	M29	PIPE 2.5	96			Lbyy						Lateral
28	M32	C3x2x1/4	33.413			Lbyy						Lateral
29	M33	C3x2x1/4	33.413			Lbyy						Lateral
30	M35	PIPE 2.0	24			Lbyy						Lateral
31	M37	PIPE 2.0	24			Lbyy						Lateral

### Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torqu...	Kyy	Kzz	Cb	Function
32	M39	PIPE 2.0	24			Lbyy						Lateral
33	M40	PIPE 2.5X	96			Lbyy						Lateral
34	M43	PIPE 2.5	96			Lbyy						Lateral
35	M48	PIPE 2.5	96			Lbyy						Lateral
36	M49	PIPE 2.5X	96			Lbyy						Lateral
37	M52	PIPE 2.5	96			Lbyy						Lateral
38	M55	PIPE 2.5	96			Lbyy						Lateral
39	M58	PIPE 2.5X	96			Lbyy						Lateral
40	M61	PIPE 2.5	96			Lbyy						Lateral
41	M64	LL3x3x4x3	82.937									Lateral
42	M65	PIPE 2.0	57.588			Lbyy						Lateral
43	M66	PIPE 2.0	57.589			Lbyy						Lateral
44	M67	PIPE 2.0	57.588			Lbyy						Lateral
45	M68	LL3x3x4x3	82.937									Lateral
46	M69	LL3x3x4x3	82.937									Lateral
47	M70	C3x2x1/4	33.413									Lateral
48	M71	C3x2x1/4	33.412									Lateral
49	M72	C3x2x1/4	33.413									Lateral
50	M75	PIPE 2.5	96			Lbyy						Lateral
51	M78	PIPE 2.5	96			Lbyy						Lateral
52	M80	PIPE 2.0	24			Lbyy						Lateral

### Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
1	Self We	DL		-1.1						
2	We	DL					43		3	
3	Ice We	DL					43	49	3	
4	W0	WL					43	49		
5	W30	WL					86	98		
6	W60	WL					86	98		
7	W90	WL					43	49		
8	W120	WL					86	98		
9	W150	WL					86	98		
10	W0 + Ice	WL					43	49		
11	W30 + Ice	WL					86	98		
12	W60 + Ice	WL					86	98		
13	W90 + Ice	WL					43	49		
14	W120 + Ice	WL					86	98		
15	W150 + Ice	WL					86	98		
16	500lbs LM 1	LL				1				
17	500lbs LM 2	LL				1				
18	500lbs LM 3	LL				1				
19	500lbs LM 4	LL								
20	250lbs LV 5	LL				1				
21	250lbs LV 6	LL				1				
22	E0	EL	-1.12				43			
23	E90	EL		.12			43			
24	BLC 2 Transient Area...	None						21		
25	BLC 3 Transient Area...	None						21		

## Load Combinations

	Description	Solve	PD...	S...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...
1	Dead	Yes	Y		1	1.4	2	1.4	0	0										
2	Dead + Wi...	Yes	Y		1	1.2	2	1.2	4	1	0									
3	Dead + Wi...	Yes	Y		1	1.2	2	1.2	5	1	0									
4	Dead + Wi...	Yes	Y		1	1.2	2	1.2	6	1	0									
5	Dead + Wi...	Yes	Y		1	1.2	2	1.2	7	1	0									
6	Dead + Wi...	Yes	Y		1	1.2	2	1.2	8	1	0									
7	Dead + Wi...	Yes	Y		1	1.2	2	1.2	9	1	0									
8	Dead + Wi...	Yes	Y		1	1.2	2	1.2	4	-1	0									
9	Dead + Wi...	Yes	Y		1	1.2	2	1.2	5	-1	0									
10	Dead + Wi...	Yes	Y		1	1.2	2	1.2	6	-1	0									
11	Dead + Wi...	Yes	Y		1	1.2	2	1.2	7	-1	0									
12	Dead + Wi...	Yes	Y		1	1.2	2	1.2	8	-1	0									
13	Dead + Wi...	Yes	Y		1	1.2	2	1.2	9	-1	0									
14	Dead + Ic...	Yes	Y		1	1.2	2	1.2	10	1	3	1								
15	Dead + Ic...	Yes	Y		1	1.2	2	1.2	11	1	3	1								
16	Dead + Ic...	Yes	Y		1	1.2	2	1.2	12	1	3	1								
17	Dead + Ic...	Yes	Y		1	1.2	2	1.2	13	1	3	1								
18	Dead + Ic...	Yes	Y		1	1.2	2	1.2	14	1	3	1								
19	Dead + Ic...	Yes	Y		1	1.2	2	1.2	15	1	3	1								
20	Dead + Ic...	Yes	Y		1	1.2	2	1.2	10	-1	3	1								
21	Dead + Ic...	Yes	Y		1	1.2	2	1.2	11	-1	3	1								
22	Dead + Ic...	Yes	Y		1	1.2	2	1.2	12	-1	3	1								
23	Dead + Ic...	Yes	Y		1	1.2	2	1.2	13	-1	3	1								
24	Dead + Ic...	Yes	Y		1	1.2	2	1.2	14	-1	3	1								
25	Dead + Ic...	Yes	Y		1	1.2	2	1.2	15	-1	3	1								
26	Dead + L...	Yes	Y		1	1.2	2	1.2	16	1.5	4	.063								
27	Dead + L...	Yes	Y		1	1.2	2	1.2	16	1.5	5	.063								
28	Dead + L...	Yes	Y		1	1.2	2	1.2	16	1.5	6	.063								
29	Dead + L...	Yes	Y		1	1.2	2	1.2	16	1.5	7	.063								
30	Dead + L...	Yes	Y		1	1.2	2	1.2	16	1.5	8	.063								
31	Dead + L...	Yes	Y		1	1.2	2	1.2	16	1.5	9	.063								
32	Dead + L...	Yes	Y		1	1.2	2	1.2	16	1.5	4	-.063								
33	Dead + L...	Yes	Y		1	1.2	2	1.2	16	1.5	5	-.063								
34	Dead + L...	Yes	Y		1	1.2	2	1.2	16	1.5	6	-.063								
35	Dead + L...	Yes	Y		1	1.2	2	1.2	16	1.5	7	-.063								
36	Dead + L...	Yes	Y		1	1.2	2	1.2	16	1.5	8	-.063								
37	Dead + L...	Yes	Y		1	1.2	2	1.2	16	1.5	9	-.063								
38	Dead + L...	Yes	Y		1	1.2	2	1.2	17	1.5	4	.063								
39	Dead + L...	Yes	Y		1	1.2	2	1.2	17	1.5	5	.063								
40	Dead + L...	Yes	Y		1	1.2	2	1.2	17	1.5	6	.063								
41	Dead + L...	Yes	Y		1	1.2	2	1.2	17	1.5	7	.063								
42	Dead + L...	Yes	Y		1	1.2	2	1.2	17	1.5	8	.063								
43	Dead + L...	Yes	Y		1	1.2	2	1.2	17	1.5	9	.063								
44	Dead + L...	Yes	Y		1	1.2	2	1.2	17	1.5	4	-.063								
45	Dead + L...	Yes	Y		1	1.2	2	1.2	17	1.5	5	-.063								
46	Dead + L...	Yes	Y		1	1.2	2	1.2	17	1.5	6	-.063								
47	Dead + L...	Yes	Y		1	1.2	2	1.2	17	1.5	7	-.063								
48	Dead + L...	Yes	Y		1	1.2	2	1.2	17	1.5	8	-.063								
49	Dead + L...	Yes	Y		1	1.2	2	1.2	17	1.5	9	-.063								
50	Dead + L...	Yes	Y		1	1.2	2	1.2	18	1.5	4	.063								
51	Dead + L...	Yes	Y		1	1.2	2	1.2	18	1.5	5	.063								
52	Dead + L...	Yes	Y		1	1.2	2	1.2	18	1.5	6	.063								
53	Dead + L...	Yes	Y		1	1.2	2	1.2	18	1.5	7	.063								
54	Dead + L...	Yes	Y		1	1.2	2	1.2	18	1.5	8	.063								
55	Dead + L...	Yes	Y		1	1.2	2	1.2	18	1.5	9	.063								
56	Dead + L...	Yes	Y		1	1.2	2	1.2	18	1.5	4	-.063								
57	Dead + L...	Yes	Y		1	1.2	2	1.2	18	1.5	5	-.063								

### Load Combinations (Continued)

	Description	Solve	PD...	S...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...
58	Dead + L...	Yes	Y		1	1.2	2	1.2	18	1.5	6	-.063						
59	Dead + L...	Yes	Y		1	1.2	2	1.2	18	1.5	7	-.063						
60	Dead + L...	Yes	Y		1	1.2	2	1.2	18	1.5	8	-.063						
61	Dead + L...	Yes	Y		1	1.2	2	1.2	18	1.5	9	-.063						
62	Dead + L...	Yes	Y		1	1.2	2	1.2	19	1.5	4	.063						
63	Dead + L...	Yes	Y		1	1.2	2	1.2	19	1.5	5	.063						
64	Dead + L...	Yes	Y		1	1.2	2	1.2	19	1.5	6	.063						
65	Dead + L...	Yes	Y		1	1.2	2	1.2	19	1.5	7	.063						
66	Dead + L...	Yes	Y		1	1.2	2	1.2	19	1.5	8	.063						
67	Dead + L...	Yes	Y		1	1.2	2	1.2	19	1.5	9	.063						
68	Dead + L...	Yes	Y		1	1.2	2	1.2	19	1.5	4	-.063						
69	Dead + L...	Yes	Y		1	1.2	2	1.2	19	1.5	5	-.063						
70	Dead + L...	Yes	Y		1	1.2	2	1.2	19	1.5	6	-.063						
71	Dead + L...	Yes	Y		1	1.2	2	1.2	19	1.5	7	-.063						
72	Dead + L...	Yes	Y		1	1.2	2	1.2	19	1.5	8	-.063						
73	Dead + L...	Yes	Y		1	1.2	2	1.2	19	1.5	9	-.063						
74	Dead + LV...	Yes	Y		1	1.2	2	1.2	20	1.5	0							
75	Dead + LV...	Yes	Y		1	1.2	2	1.2	21	1.5	0							
76	Service 60...	Yes	Y		1	1	2	1	4	.25	0							
77	(1.2 + 0.2...	Yes	Y		1	1.249	2	1.249	22	1	23							
78	(1.2 + 0.2...	Yes	Y		1	1.249	2	1.249	22	.866	23	.5						
79	(1.2 + 0.2...	Yes	Y		1	1.249	2	1.249	22	.5	23	.866						
80	(1.2 + 0.2...	Yes	Y		1	1.249	2	1.249	22		23	1						
81	(1.2 + 0.2...	Yes	Y		1	1.249	2	1.249	22	-.5	23	.866						
82	(1.2 + 0.2...	Yes	Y		1	1.249	2	1.249	22	-.866	23	.5						
83	(1.2 + 0.2...	Yes	Y		1	1.249	2	1.249	22	-1	23							
84	(1.2 + 0.2...	Yes	Y		1	1.249	2	1.249	22	-.866	23	-.5						
85	(1.2 + 0.2...	Yes	Y		1	1.249	2	1.249	22	-.5	23	-.866						
86	(1.2 + 0.2...	Yes	Y		1	1.249	2	1.249	22		23	-1						
87	(1.2 + 0.2...	Yes	Y		1	1.249	2	1.249	22	.5	23	-.866						
88	(1.2 + 0.2...	Yes	Y		1	1.249	2	1.249	22	.866	23	-.5						

### Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-in]	LC	MY [k-in]	LC	MZ [k-in]	LC
1	N122	max	970.802	8	3167.74	2	88.497	11	0	88	0	88	0	88
2		min	-3552.302	2	-865.916	8	-88.327	5	0	1	0	1	0	1
3	N42	max	303.895	2	1190.718	8	24.271	11	0	88	0	88	0	88
4		min	-1001.097	8	-318.43	2	-24.515	5	0	1	0	1	0	1
5	N5	max	8150.177	2	221.05	2	2159.329	11	8.521	11	30.704	11	1.019	8
6		min	-5759.952	8	-100.985	8	-2146.68	5	-9.228	5	-30.814	5	-2.2	2
7	N12	max	2847.888	12	253.201	6	4909.435	12	4.335	10	29.342	3	8.004	9
8		min	-4018.803	6	-148.925	12	-6936.592	6	-4.848	4	-29.358	9	-6.775	3
9	N1	max	2843.258	4	253.319	10	6926.363	10	4.957	13	29.368	7	7.316	7
10		min	-4021.317	10	-149.176	4	-4910.811	4	-3.633	7	-29.487	13	-7.462	13
11	N133	max	1775.644	6	3166.979	6	3075.661	6	0	88	0	88	0	88
12		min	-485.031	12	-865.213	12	-840.01	12	0	1	0	1	0	1
13	N135	max	1775.934	10	3167.219	10	839.78	4	0	88	0	88	0	88
14		min	-484.728	4	-864.92	4	-3075.781	10	0	1	0	1	0	1
15	N44	max	505.18	12	1201.808	12	874.963	12	0	88	0	88	0	88
16		min	-177.739	6	-380.477	6	-307.863	6	0	1	0	1	0	1
17	N40	max	505.333	4	1202.363	4	307.439	10	0	88	0	88	0	88
18		min	-177.508	10	-379.903	10	-875.391	4	0	1	0	1	0	1
19	Totals:	max	10571.722	2	10816.23	14	10571.743	11						
20		min	-10571.724	8	4065.539	76	-10571.743	5						

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

	Member	Shape	Code C...	Loc[in]	LC	Shear ...	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y...	phi*Mn z...	Cb	Eqn
1	M16	PIPE 2.0	.656	12.5	5	.408	12.5		5	6295.438	32130	22.459	22.459	2...	H3-6
2	M14	PIPE 2.0	.655	137.5	13	.408	137.5		13	6295.422	32130	22.459	22.459	2...	H3-6
3	M18	PIPE 2.0	.655	12.5	9	.408	12.5		9	6295.438	32130	22.459	22.459	2...	H3-6
4	M33	C3x2x1/4	.602	0	11	.150	4.177	z	11	43746.886	52650	24.477	57.206	2...	H1-1b
5	M72	C3x2x1/4	.597	33.413	13	.156	29.236	z	13	43746.869	52650	24.477	57.206	2...	H1-1b
6	M71	C3x2x1/4	.579	33.412	7	.129	29.236	z	7	43747.018	52650	24.477	57.206	2...	H1-1b
7	M32	C3x2x1/4	.577	0	3	.129	4.177	z	3	43746.844	52650	24.477	57.206	2...	H1-1b
8	M21	C3x2x1/4	.564	0	9	.133	4.177	z	9	43746.771	52650	24.477	57.206	2...	H1-1b
9	M70	C3x2x1/4	.562	33.413	5	.133	29.236	z	5	43746.936	52650	24.477	57.206	2...	H1-1b
10	M49	PIPE 2.5X	.476	69	5	.092	69		5	38499.165	66150	55.755	55.755	3...	H1-1b
11	M58	PIPE 2.5X	.476	69	9	.092	69		9	38499.165	66150	55.755	55.755	3...	H1-1b
12	M40	PIPE 2.5X	.475	69	13	.092	69		13	38499.165	66150	55.755	55.755	4...	H1-1b
13	M4	PIPE 3.0	.456	68.949	5	.260	68.949		5	54642.545	65205	68.985	68.985	2...	H1-1b
14	M1	PIPE 3.0	.436	68.949	13	.250	68.949		13	54642.524	65205	68.985	68.985	2...	H1-1b
15	M8	PIPE 3.0	.435	0	9	.250	0		9	54642.259	65205	68.985	68.985	2...	H1-1b
16	M61	PIPE 2.5	.428	69	10	.141	27		13	30038.461	50715	43.155	43.155	2...	H1-1b
17	M29	PIPE 2.5	.428	69	2	.141	27		5	30038.461	50715	43.155	43.155	1...	H1-1b
18	M52	PIPE 2.5	.428	69	6	.141	27		9	30038.461	50715	43.155	43.155	1...	H1-1b
19	M48	PIPE 2.5	.425	69	10	.093	27		2	30038.461	50715	43.155	43.155	1...	H1-1b
20	M78	PIPE 2.5	.417	69	6	.093	27		10	30038.461	50715	43.155	43.155	3...	H1-1b
21	M75	PIPE 2.5	.416	69	2	.093	27		6	30038.461	50715	43.155	43.155	2...	H1-1b
22	M26	PIPE 2.5	.357	69	6	.136	69		9	30038.461	50715	43.155	43.155	3...	H1-1b
23	M43	PIPE 2.5	.357	69	10	.136	69		13	30038.461	50715	43.155	43.155	3...	H1-1b
24	M55	PIPE 2.5	.357	69	2	.136	69		5	30038.461	50715	43.155	43.155	3...	H1-1b
25	M7	PIPE 3.0	.343	95.312	12	.294	93.75		11	28250.611	65205	68.985	68.985	2...	H3-6
26	M5	PIPE 3.0	.342	54.687	8	.294	56.25		7	28250.554	65205	68.985	68.985	2...	H3-6
27	M6	PIPE 3.0	.342	95.312	4	.295	93.75		3	28250.611	65205	68.985	68.985	2...	H3-6
28	M2	L2x2x4	.315	0	10	.011	0	y	20	10273.098	30585.6	8.291	18.918	2...	H2-1
29	M22	L2x2x4	.313	0	2	.011	0	y	24	10273.03	30585.6	8.291	18.919	2...	H2-1
30	M10	L2x2x4	.313	55.76	6	.011	55.76	y	16	10272.928	30585.6	8.291	18.922	2.2	H2-1
31	M9	L2x2x4	.312	55.76	6	.011	55.76	y	21	10272.926	30585.6	8.291	18.335	1...	H2-1
32	M3	L2x2x4	.308	0	10	.011	0	y	25	10273.007	30585.6	8.291	18.765	1...	H2-1
33	M20	L2x2x4	.307	0	2	.011	0	y	17	10273.117	30585.6	8.291	18.756	1...	H2-1
34	M15	L3X3X4	.298	12.001	5	.179	0	z	5	45633.713	46656	20.258	45.069	1...	H2-1
35	M19	L3X3X4	.298	12.001	13	.179	1.75	z	13	45633.728	46656	20.258	45.069	1...	H2-1
36	M17	L3X3X4	.298	12	9	.179	0	z	9	45633.794	46656	20.258	45.069	1...	H2-1
37	M13	PL 6x1/2	.294	6	6	.199	6	y	17	67549.993	97200	12.15	145.8	1...	H1-1b
38	M11	PL 6x1/2	.286	6	10	.199	6	y	21	67548.38	97200	12.15	145.8	1...	H1-1b
39	M12	PL 6x1/2	.276	5.875	2	.195	12.001	y	25	67548.027	97200	12.15	145.8	1...	H1-1b
40	M64	LL3x3x4x3	.079	82.937	2	.003	0	y	2	61069.196	93312	89.124	58.545	1	H1-1b*
41	M69	LL3x3x4x3	.079	82.937	10	.003	82.937	y	10	61069.368	93312	89.124	58.545	1	H1-1b*
42	M68	LL3x3x4x3	.079	82.937	6	.003	0	y	6	61069.108	93312	89.124	58.545	1	H1-1b*
43	M35	PIPE 2.0	.032	18	5	.012	18		5	30625.434	32130	22.459	22.459	1	H1-1b
44	M80	PIPE 2.0	.032	18	5	.012	18		5	30625.434	32130	22.459	22.459	1	H1-1b
45	M37	PIPE 2.0	.032	18	9	.012	18		9	30625.434	32130	22.459	22.459	2...	H1-1b
46	M39	PIPE 2.0	.032	18	13	.012	18		13	30625.434	32130	22.459	22.459	2...	H1-1b
47	M67	PIPE 2.0	.028	28.794	4	.134	0		13	24377.386	32130	22.459	22.459	1...	H1-1b
48	M66	PIPE 2.0	.028	28.794	12	.134	0		9	24377.301	32130	22.459	22.459	1...	H1-1b
49	M65	PIPE 2.0	.028	28.794	8	.134	0		5	24377.395	32130	22.459	22.459	1...	H1-1b
50	M23	LL3x3x4x3	.021	30.818	4	.001	0	y	10	75777.493	93312	89.124	53.046	1	H1-1b*
51	M25	LL3x3x4x3	.021	30.818	12	.001	0	y	6	75777.489	93312	89.124	53.046	1	H1-1b*
52	M24	LL3x3x4x3	.021	30.818	8	.001	30.818	y	2	75777.493	93312	89.124	53.046	1	H1-1b*



**HUDSON**  
Design Group LLC

## Connection Check

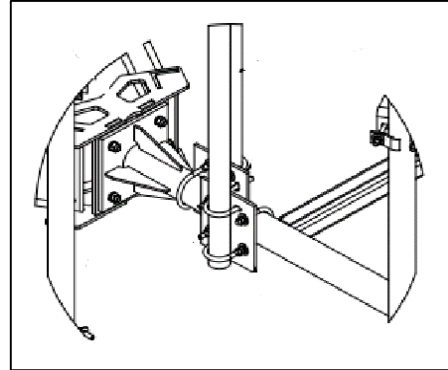


**SITE DETAILS**

Site Name/Code CT1855 - Ridgefield Old Stagecoach Road  
 Date 3/25/2022  
 Engineer DP

**CONNECTION PARAMETERS**

Number of bolts 4  
 b - width of member 3 in  
 d - height of member 3 in  
 B - horizontal bolt spacing 6 in  
 D - vertical bolt spacing 6 in  
 Bolt Diameter 5/8 in  
 Section Shape Pipe  
 Weld Thickness 3/16 in  
 Tensile Area  $A_b$  0.31 in<sup>2</sup>  
 Tensile Area  $A_n$  0.23 in<sup>2</sup>  
 Grade A325  
 Bolt Ultimate Strength  $F_{ub}$  120 ksi  
 Connection length reduction factor  $R_b$  1



Connection Sketch/Photo

**FLANGE LOADS**

Loadcase # 5  
 Bending Moment  $M_{zz}$  0.62 kips-in  
 Bending Moment  $M_{yy}$  30.81 kips-in  
 Torsional Moment  $M_{xx}$  9.23 kips-in  
 Shear Force  $V_y$  0.07 kips  
 Shear Force  $V_z$  2.14 kips  
 Axial Force  $P_x$  1.21 kips

**BOLT CHECK****Bolt Tension Capacity**

$$\phi R_{nt} = 0.75 \cdot F_{ub} \cdot A_n$$

$\phi R_{nt} = 20.3$  kips

**Bolt Shear Capacity**

$$\phi R_{nv} = 0.75 \cdot 0.625 \cdot 0.8 \cdot F_{ub} \cdot A_b \cdot R_b$$

$\phi R_{nv} = 13.8$  kips

**Maximum Bolt Tension**

$$T_{ub} = F_{Mxx} + F_{Mzz} + T_v/4$$

$T_{ub} = 2.92$  kips

**Maximum Bolt Shear**

$$V_{ub} = \sqrt{(V_x/4)^2 + (V_y/4)^2} + F_{Myy}$$

$V_{ub} = 1.08$  kips

**Tension Ratio:**

14.4% %

PASS

**Shear Ratio:**

7.8% %

PASS

$$(T_{ub} / \phi R_{nt})^2 + (V_{ub} / \phi R_{nv})^2 < 1.0$$

OK

Ratio

2.7% PASS

**WELD CHECK**

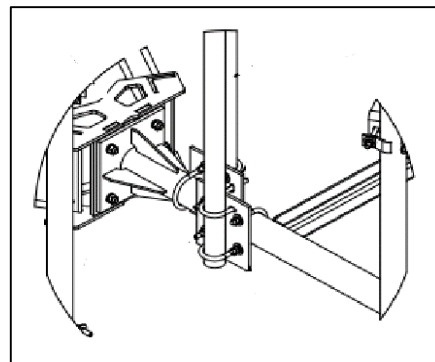
Filler Metal  $F_{EXX}$  70 ksi  
 Weld Thk. 0.1875 in  
 Base metal  $F_u$  58 ksi  
 Type of section Pipe  
 Length of Section [b] 3.0 in  
 Length of Section [d] 3.0 in  
 $I_{total}$  33.42 in<sup>4</sup>  
 $I_p$  21.21 in<sup>3</sup>  
 $S_z$  39.55 in<sup>2</sup>  
 $S_y$  39.55 in<sup>2</sup>  
 $R_{ux}$  0.83 kips/in  
 $R_{uy}$  0.65 kips/in  
 $R_{uz}$  0.72 kips/in  
 $R_u$  1.28 kips/in  
 Allowable Weld Stress 4.18 kips/in

Are stiffeners present?

Yes

Length of stiffener

3 in



30.6% PASS

Connection Sketch

# EXHIBIT 5



# Radio Frequency Exposure Analysis Report

April 18, 2022

Centerline on behalf of AT&T  
Centerline Communications Project Number: 566705

AT&T Site Name: RIDGEFIELD OLD STAGECOACH ROAD  
Site Number: CT1855  
FA#: 10128094  
USID: 138326

Site Address: 320 OLD STAGECOACH ROAD, RIDGEFIELD, CT 06877

## Site Compliance Summary

AT&T Compliance Status:	Compliant
Cumulative Calculated Power Density (Ground Level):	21.71151 $\mu\text{W}/\text{cm}^2$
Cumulative General Population % MPE (Ground Level):	2.1711800000000001%



April 18, 2022

Centerline  
Attn: Jennifer Iliades, Project Manager  
750 W Center St, Suite 301  
West Bridgewater, MA 02379

RF Exposure Analysis for Site: **RIDGEFIELD OLD STAGECOACH ROAD**

Centerline Communications, LLC ("Centerline") was contracted to analyze the proposed AT&T facility at **320 OLD STAGECOACH ROAD, RIDGEFIELD, CT 06877** for the purpose of determining whether the predictive exposure from the proposed facility is within specified federal limits.

All information used in this report was analyzed as a percentage of the Maximum Permissible Exposure (% MPE) limits as detailed in 47 CFR § 1.1310 as well as Federal Communications Commission (FCC) OET Bulletin 65 Edition 97-01. The FCC MPE limits are typically expressed in units of milliwatts per square centimeter ( $\text{mW}/\text{cm}^2$ ) or microwatts per square centimeter ( $\mu\text{W}/\text{cm}^2$ ). The exposure limits vary depending upon the frequencies being utilized. The General Population/Uncontrolled MPE limit (in  $\text{mW}/\text{cm}^2$ ) for frequencies between 300 and 1500 is defined as frequency (in MHz) divided by 1500 ( $f_{\text{MHz}}/1500$ ). Frequencies between 1500 and 100,000 MHz have a General Population/Uncontrolled MPE limit of  $1 \text{ mW}/\text{cm}^2$  ( $1000 \mu\text{W}/\text{cm}^2$ ). The calculated power density at each sample point divided by the limit at each calculated frequency provides a result in % MPE. Summing the calculated % MPE from all contributors provides a cumulative % MPE at a particular sample point. Wireless carriers use different frequency bands with varying MPE limits; therefore, it is useful to report results in terms of % MPE as opposed to power density.

All results were compared to the FCC radio frequency exposure rules as detailed in 47 CFR § 1.1307(b) to determine compliance with the MPE limits for General Population/Uncontrolled environments as defined below.

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

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits, as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means. Additional details can be found in FCC OET 65.



## **Calculation Methodology**

Centerline Communications, LLC has performed theoretical modeling of the site using a software tool, RoofMaster®, which incorporates calculation methodologies detailed in FCC OET 65. RoofMaster® uses a cylindrical model for conservative power density predictions within the near field of the antenna where the antenna pattern has not truly formed yet. Within this area power density values tend to decrease based upon an inverse distance function. At the point where it is appropriate for modeling to change from near-field calculations to far-field calculations, the power decreases inversely with the square of the distance. The modeling is based on worst-case assumptions in terms of transmitter power and duty cycle. No losses were included in the power calculations unless they were specifically provided for the project.

In OET 65, a far field model is presented to calculate the spatial peak power density. The RoofMaster® implementation of this model incorporates antenna manufacturer's horizontal and vertical pattern data to determine the power density in all directions. This model yields the power density at a single point in space. In order to determine the spatial power density for comparison to the FCC limits, the average of several points calculated within the human profile (0-6') must be conducted. RoofMaster® calculates seven power density values between 0-6' above the specified study plane and performs a linear spatial average.



## **Data & Results**

The following table details the antennas and operating parameters for the AT&T antenna system as well as any other antenna systems at the site. This is based on antenna information provided by the client and data compiled from other sources where necessary. The data below was input into Roofmaster® to perform the theoretical exposure calculations at the ground level.

The theoretical calculations performed in Roofmaster® determine the cumulative exposure at all sample points at ground level (0-6' spatial average). The results from highest cumulative sample point at ground level surrounding the site are displayed in the table below. The contribution from directional antennas to the maximum cumulative totals varies greatly depending on location; therefore, the contribution from one antenna sector at the highest calculated exposure point may be greater or less than other sectors since sectorized directional antennas are pointed in different directions and there is not much overlapping exposure.

The contribution to the cumulative power density and % MPE for each antenna/frequency band is listed in the table. The cumulative power density and cumulative % MPE are displayed at the bottom of the table.



**Maximum Calculated Cumulative Power Density (Location: approximately 420' northwest of site)**

Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/ Channel (watts)	ERP (watts)	Calculated Power Density ( $\mu\text{W}/\text{cm}^2$ )	General Population MPE Limit ( $\mu\text{W}/\text{cm}^2$ )	General Population % MPE
AT&T A 1	QUINTEL QD8616-7 V1	700	13.04	146.00	4.00	40.00	3219.44	0.00001	466.67	0.00000
AT&T A 1	QUINTEL QD8616-7 V1	1900	15.27	146.00	4.00	40.00	5389.64	0.00002	1000.00	0.00000
AT&T A 1	QUINTEL QD8616-7 V1	2100	15.56	146.00	4.00	40.00	5762.22	0.00001	1000.00	0.00000
AT&T A 1	QUINTEL QD8616-7 V1	700	13.04	146.00	2.00	40.00	1609.72	0.00001	466.67	0.00000
AT&T A 2	ERICSSON AIR6449	3700	23.55	144.00	1.00	108.40	24548.74	0.00024	1000.00	0.00002
AT&T A 3	ERICSSON AIR6419	3450	22.85	148.00	1.00	54.20	10447.19	5.42449	1000.00	0.54245
AT&T A 3	ERICSSON AIR6419	3450	22.85	148.00	1.00	54.20	10447.19	5.42449	1000.00	0.54245
AT&T A 4	CCI DMP65R-BU8D	700	12.25	146.00	4.00	40.00	2686.09	0.00004	466.67	0.00001
AT&T A 4	CCI DMP65R-BU8D	850	12.55	146.00	4.00	40.00	2878.19	0.00001	566.67	0.00000
AT&T A 4	CCI DMP65R-BU8D	2300	14.95	146.00	4.00	25.00	3126.08	0.00001	1000.00	0.00000
AT&T B 5	QUINTEL QD8616-7 V1	700	13.04	146.00	4.00	40.00	3219.44	0.00000	466.67	0.00000
AT&T B 5	QUINTEL QD8616-7 V1	1900	15.27	146.00	4.00	40.00	5389.64	0.00000	1000.00	0.00000
AT&T B 5	QUINTEL QD8616-7 V1	2100	15.56	146.00	4.00	40.00	5762.22	0.00000	1000.00	0.00000
AT&T B 5	QUINTEL QD8616-7 V1	700	13.04	146.00	2.00	40.00	1609.72	0.00000	466.67	0.00000
AT&T B 6	ERICSSON AIR6449	3700	23.55	144.00	1.00	108.40	24548.74	0.00000	1000.00	0.00000
AT&T B 7	ERICSSON AIR6419	3450	22.85	148.00	1.00	54.20	10447.19	0.00634	1000.00	0.00063
AT&T B 7	ERICSSON AIR6419	3450	22.85	148.00	1.00	54.20	10447.19	0.00634	1000.00	0.00063
AT&T B 8	CCI DMP65R-BU8D	700	12.25	146.00	4.00	40.00	2686.09	0.00000	466.67	0.00000
AT&T B 8	CCI DMP65R-BU8D	850	12.55	146.00	4.00	40.00	2878.19	0.00000	566.67	0.00000
AT&T B 8	CCI DMP65R-BU8D	2300	14.95	146.00	4.00	25.00	3126.08	0.00000	1000.00	0.00000
AT&T C 9	QUINTEL QD8616-7 V1	700	13.04	146.00	4.00	40.00	3219.44	0.00002	466.67	0.00000
AT&T C 9	QUINTEL QD8616-7 V1	1900	15.27	146.00	4.00	40.00	5389.64	0.00001	1000.00	0.00000
AT&T C 9	QUINTEL QD8616-7 V1	2100	15.56	146.00	4.00	40.00	5762.22	0.00001	1000.00	0.00000
AT&T C 9	QUINTEL QD8616-7 V1	700	13.04	146.00	2.00	40.00	1609.72	0.00001	466.67	0.00000
AT&T C 10	ERICSSON AIR6449	3700	23.55	144.00	1.00	108.40	24548.74	0.00024	1000.00	0.00002
AT&T C 11	ERICSSON AIR6419	3450	22.85	148.00	1.00	54.20	10447.19	5.42449	1000.00	0.54245
AT&T C 11	ERICSSON AIR6419	3450	22.85	148.00	1.00	54.20	10447.19	5.42449	1000.00	0.54245
AT&T C 12	CCI DMP65R-BU8D	700	12.25	146.00	4.00	40.00	2686.09	0.00003	466.67	0.00001
AT&T C 12	CCI DMP65R-BU8D	850	12.55	146.00	4.00	40.00	2878.19	0.00001	566.67	0.00000
AT&T C 12	CCI DMP65R-BU8D	2300	14.95	146.00	4.00	25.00	3126.08	0.00001	1000.00	0.00000
Unknown A 13	GENERIC OMNI 6FT	850	5.96	154.00	1.00	25.00	98.61	0.00000	566.67	0.00000
T-Mobile A 14	GENERIC PANEL 6FT	1900	15.84	136.00	2.00	60.00	4604.49	0.00001	1000.00	0.00000
T-Mobile A 15	GENERIC PANEL 6FT	600	12.33	136.00	2.00	60.00	2052.02	0.00001	400.00	0.00000
T-Mobile A 15	GENERIC PANEL 6FT	700	12.33	136.00	2.00	60.00	2052.02	0.00001	466.67	0.00000
T-Mobile A 16	GENERIC PANEL 6FT	2100	16.39	136.00	2.00	60.00	5226.14	0.00001	1000.00	0.00000





Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/ Channel (watts)	ERP (watts)	Calculated Power Density ( $\mu\text{W}/\text{cm}^2$ )	General Population MPE Limit ( $\mu\text{W}/\text{cm}^2$ )	General Population % MPE
T-Mobile B 17	GENERIC PANEL 6FT	1900	15.84	136.00	2.00	60.00	4604.49	0.00000	1000.00	0.00000
T-Mobile B 18	GENERIC PANEL 6FT	600	12.33	136.00	2.00	60.00	2052.02	0.00000	400.00	0.00000
T-Mobile B 18	GENERIC PANEL 6FT	700	12.33	136.00	2.00	60.00	2052.02	0.00000	466.67	0.00000
T-Mobile B 19	GENERIC PANEL 6FT	2100	16.39	136.00	2.00	60.00	5226.14	0.00000	1000.00	0.00000
T-Mobile C 20	GENERIC PANEL 6FT	1900	15.84	136.00	2.00	60.00	4604.49	0.00001	1000.00	0.00000
T-Mobile C 21	GENERIC PANEL 6FT	600	12.33	136.00	2.00	60.00	2052.02	0.00001	400.00	0.00000
T-Mobile C 21	GENERIC PANEL 6FT	700	12.33	136.00	2.00	60.00	2052.02	0.00001	466.67	0.00000
T-Mobile C 22	GENERIC PANEL 6FT	2100	16.39	136.00	2.00	60.00	5226.14	0.00001	1000.00	0.00000
Verizon A 23	GENERIC PANEL 6FT	850	12.62	126.00	4.00	40.00	2924.96	0.00001	566.67	0.00000
Verizon A 23	GENERIC PANEL 6FT	1900	15.84	126.00	4.00	40.00	6139.32	0.00001	1000.00	0.00000
Verizon A 24	GENERIC PANEL 6FT	2100	16.39	126.00	4.00	40.00	6968.19	0.00001	1000.00	0.00000
Verizon A 24	GENERIC PANEL 6FT	700	12.33	126.00	4.00	40.00	2736.02	0.00002	466.67	0.00000
Verizon B 25	GENERIC PANEL 6FT	850	12.62	126.00	4.00	40.00	2924.96	0.00000	566.67	0.00000
Verizon B 25	GENERIC PANEL 6FT	1900	15.84	126.00	4.00	40.00	6139.32	0.00000	1000.00	0.00000
Verizon B 26	GENERIC PANEL 6FT	2100	16.39	126.00	4.00	40.00	6968.19	0.00000	1000.00	0.00000
Verizon B 26	GENERIC PANEL 6FT	700	12.33	126.00	4.00	40.00	2736.02	0.00000	466.67	0.00000
Verizon C 27	GENERIC PANEL 6FT	850	12.62	126.00	4.00	40.00	2924.96	0.00002	566.67	0.00000
Verizon C 27	GENERIC PANEL 6FT	1900	15.84	126.00	4.00	40.00	6139.32	0.00001	1000.00	0.00000
Verizon C 28	GENERIC PANEL 6FT	2100	16.39	126.00	4.00	40.00	6968.19	0.00001	1000.00	0.00000
Verizon C 28	GENERIC PANEL 6FT	700	12.33	126.00	4.00	40.00	2736.02	0.00002	466.67	0.00000
							<b>Cumulative Power Density:</b>	<b>21.71151 <math>\mu\text{W}/\text{cm}^2</math></b>	<b>Cumulative % MPE:</b>	<b>2.17118%</b>



## Summary

The theoretical calculations performed for this analysis yielded cumulative power density totals in all areas at ground level that are within the allowable federal limits for public exposure to RF energy. Therefore, the site is **Compliant** with FCC rules and regulations.

Katrina Styx  
RF EME Technical Writer  
Centerline Communications, LLC

A handwritten signature in black ink, appearing to read "Katrina Styx", with a stylized flourish at the end.

# EXHIBIT 6



# Town of Ridgefield

Building Department

400 Main Street  
Tel. 203-431-2700



Permit No. **B-2015-0047**

Parent PIN

This certifies that **INSITE TOWERS LLC**

has permission to erect, alter, or demolish a building on: **320 OLD STAGECOACH RD**

as follows: **cell tower and equipment**

**Installation of a telecommunications facility consisting of a 150 ft monopole and 4650 sq equipment compound along with utilities.**

provided that the person accepting this permit shall in every respect conform to the terms of the application therefore on file in this office, and to the provisions of regulations or ordinances relating to the Location, Inspection, Alteration and Construction of Buildings in the of Ridgefield.

NOTE: The recipient of this permit accepts this permit on the condition that, as owner or as agent of the owner, he/she agrees to comply with all Building & Zoning Regulations of the Town of Ridgefield & the State Statutes of the State of Connecticut regarding the use, occupancy & type of building or structure to be constructed, added to, demolished, or altered. The recipient also agrees that this building is to be located the proper distance from all street lines, all property yard lines & required distances from all other zones & is located in a zone in which the building & its use is allowed or has been approved. Additional conditions listed below:-

## Comments:

Current Use Group:

Proposed Use Group:

Construction Type:

Occupant Load:

Contractor Name: **HPC WIRELESS SERVICES LLC**

Phone: **203-797-1112**

Owner Name: **INSITE TOWERS LLC**

Phone:

Address: **22 SHELTER ROCK LN. BLDG C DANBURY**

**CT 06810**

Address: **1199 N. FAIRFAX ST, Su700**

**ALEXANDRA VA 22314**

All permits approved are subject to inspections performed by a representative of this office. Requests for inspections must be made at least 48 hours in advance, call 203-431-2700.

A handwritten signature in blue ink.

Building Official

3/9/2015

**All Other Work and MEPs Require Seperate Permits**

# EXHIBIT 7

# Proof of Delivery

Dear Customer,

This notice serves as proof of delivery for the shipment listed below.

**Tracking Number**

1Z9Y45030336309364

**Weight**

1.00 LBS

**Service**

UPS Ground

**Shipped / Billed On**

04/19/2022

**Delivered On**

05/31/2022 12:29 P.M.

**Delivered To**

400 MAIN ST  
RIDGEFIELD, CT, 06877, US

**Received By**

SHEAREN

**Reference Number(s)**

CT1855-CSC FIRST SELECTMAN

Thank you for giving us this opportunity to serve you. Details are only available for shipments delivered within the last 120 days. Please print for your records if you require this information after 120 days.

Sincerely,

UPS

Tracking results provided by UPS: 05/31/2022 6:19 P.M. EST

# Proof of Delivery

Dear Customer,

This notice serves as proof of delivery for the shipment listed below.

**Tracking Number**

1Z9Y45030338496971

**Weight**

1.00 LBS

**Service**

UPS Ground

**Shipped / Billed On**

04/19/2022

**Delivered On**

05/31/2022 12:29 P.M.

**Delivered To**

400 MAIN ST  
RIDGEFIELD, CT, 06877, US

**Received By**

SHEAREN

**Reference Number(s)**

CT1855-CSC ZEO

Thank you for giving us this opportunity to serve you. Details are only available for shipments delivered within the last 120 days. Please print for your records if you require this information after 120 days.

Sincerely,

UPS

Tracking results provided by UPS: 05/31/2022 6:21 P.M. EST



# Proof of Delivery

Dear Customer,

This notice serves as proof of delivery for the shipment listed below.

**Tracking Number**

1Z9Y45030324577589

**Weight**

1.00 LBS

**Service**

UPS Ground

**Shipped / Billed On**

04/19/2022

**Delivered On**

05/31/2022 12:29 P.M.

**Delivered To**

400 MAIN ST  
RIDGEFIELD, CT, 06877, US

**Received By**

SHEAREN

**Reference Number(s)**

CT1855-CSC DIRECTOR OF PLANNING

Thank you for giving us this opportunity to serve you. Details are only available for shipments delivered within the last 120 days. Please print for your records if you require this information after 120 days.

Sincerely,

UPS

Tracking results provided by UPS: 05/31/2022 6:22 P.M. EST

# Proof of Delivery

Dear Customer,

This notice serves as proof of delivery for the shipment listed below.

**Tracking Number**

1Z9Y45030331857521

**Weight**

1.00 LBS

**Service**

UPS Ground

**Shipped / Billed On**

05/27/2022

**Delivered On**

05/31/2022 11:44 A.M.

**Delivered To**

10 PRESIDENTIAL WAY  
WOBURN, MA, 01801, US

**Received By**

ANCRI

**Left At**

Front Desk

**Reference Number(s)**

CT1855-CSC AMERICAN TOWER

Thank you for giving us this opportunity to serve you. Details are only available for shipments delivered within the last 120 days. Please print for your records if you require this information after 120 days.

Sincerely,

UPS

Tracking results provided by UPS: 05/31/2022 12:02 P.M. EST



Your shipment from  
**CENTERLINE SITE ACQUISITION**

Estimated delivery  
The delivery date will be provided as soon as possible.



Label Created



On the Way  
 Delay: Attention Needed

Out for Delivery

Delivery

**Ship To**  
INSITE TOWERS DEVELOPMENT, LLC  
ATTN: LEGAL DEPARTMENT  
1199 NORTH FAIRFAX STREET  
SUITE 700  
ALEXANDRIA, VA 223141437 US

Get Updates >

Change My Delivery

[View Details](#)

Track Another Package

Ask UPS

A blue-outlined rounded rectangular button with the word "Track" centered inside in a dark blue font.

UPS Freight Less-than-Truckload ("LTL") transportation services are offered by TFI International Inc., its affiliates or divisions (including without limitation TForce Freight), which are not affiliated with United Parcel Service, Inc. or any of its affiliates, subsidiaries or related entities ("UPS"). UPS assumes no liability in connection with UPS Freight LTL transportation services or any other services offered or provided by TFI International Inc. or its affiliates, divisions, subsidiaries or related entities.

**Legal**

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**Ask UPS**