John Coleman, Project Manager
c/o Cellco Partnership d/b/a Verizon Wireless
Centerline Communications, LLC
750 West Center Street, Floor 3
West Bridgewater, MA 02379
Mobile: (240) 615 -7389
JColeman@clinellc.com

October 20, 2021

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

RE: Notice of Exempt Modification // Site: MANKES SILO (ATC: 370624)
1338 HIGHLAND AVE., CHESHIRE, CT 06410
N 41.53694444 // W -72.89333333

Dear Ms. Bachman,

Cellco Partnership d/b/a Verizon Wireless currently maintains twelve (12) antenna at the 70-ft level on the existing 78ft Silo, located at 1338 Highland Ave., Cheshire, CT. The Silo is owned by American Tower. The property is also owned by MUDDDM LLC. The Council approved Verizon Wireless use of the existing Silo on July 5, 2016. Verizon Wireless now intends to remove nine (9) antenna and one (1) OVP and install nine (9) new antenna for the LTE (3700 MHz) replacements for its 5G upgrade. Additionally, Verizon Wireless intends to install three (3) new diplexers; altogether updating leased equipment rights, as reflected by the final configuration outlined in the structural analysis and proposed hereby).

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §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 Sean M. Kimball, Town Manager, its Acting Building Official, Conrad Cyr, Jr., American Tower, the tower owner, and the property owner, MUDDDM LLC.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2). Enclosed to accommodate this filing are construction drawings dated September 28, 2021, by CLS Engineering PLLC, a structural analysis dated August 19, 2021, by American Tower Corporation and radio frequency (RF) analysis table showing worst-case RF emission calculation by Verizon Wireless RF Design Engineering.

1. The proposed modifications will not result in an increase in the height of the existing structure.

2. The proposed modifications will not require the extension of the site boundary.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.

4. The operation of the new antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.

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

6. The existing structure and its foundation can support the proposed loading, as shown in the attached structural analysis by American Tower Corporation, dated August 19, 2021, pursuant to certain conditions defined therein. Design and engineering are fully illustrated within final construction drawings, signed and stamped dated September 28, 2021.

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

Sincerely,

John Coleman

_____

John Coleman, Project Manager
c/o Cellco Partnership d/b/a Verizon Wireless
Centerline Communications, LLC
750 West Center Street, Floor 3
West Bridgewater, MA 02379
Mobile: (240) 615 -7389
JColeman@clinellc.com

Attachments
cc: Sean M. Kimball – Town Manager – Chief Elected Official
Conrad Cyr, Jr., Acting Building Official - as P&Z official
American Tower Corporation - as tower owner
MUDDDM LLC – as ground owner

UPS CampusShip: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   Customers with a Daily Pickup
   Your driver will pickup your shipment(s) as usual.

   Customers without a Daily Pickup
   Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.
   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
   Hand the package to any UPS driver in your area.

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WEST BRIDGEWATER ,MA 02379

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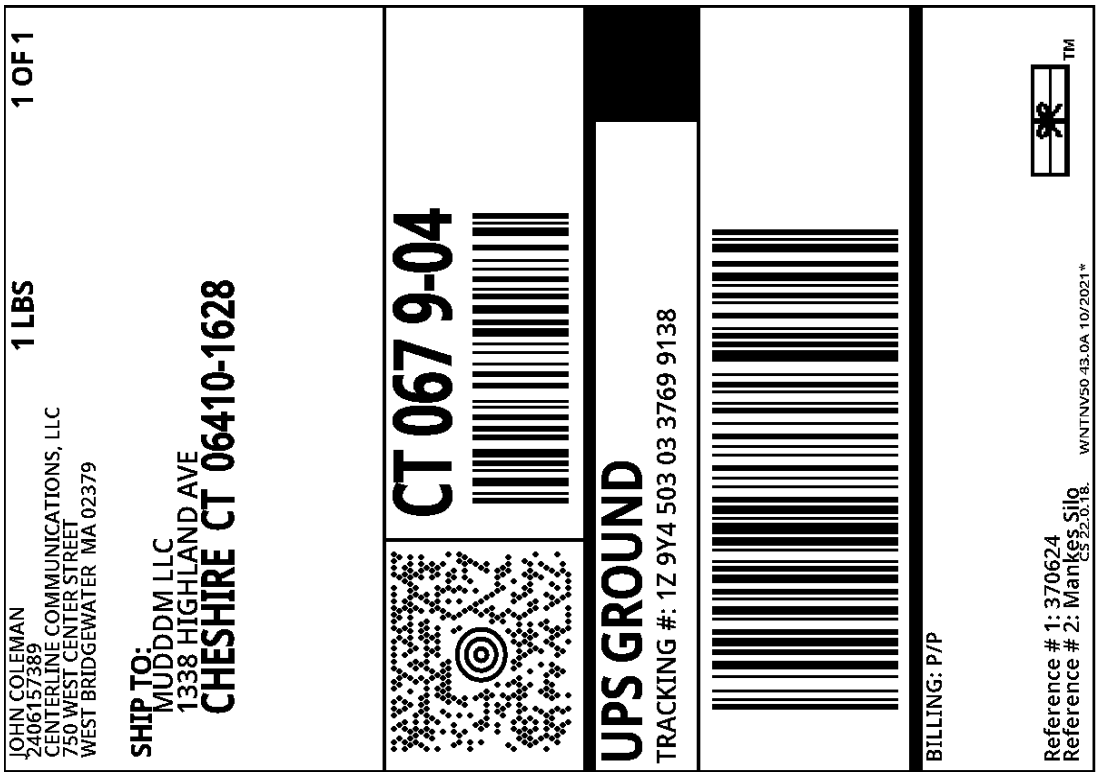

From: UPS
To: John Coleman
Subject: UPS Delivery Notification, Tracking Number 1Z9Y45030337699138
Date: Monday, October 25, 2021 10:13:32 AM

Hello, your package has been delivered.

Delivery Date: Monday, 10/25/2021
Delivery Time: 10:11 AM
Left At: RECEIVER
Signed by: MANKE

CENTERLINE SITE ACQUISITION

Tracking Number:	1Z9Y45030337699138
Ship To:	MUDDDM LLC 1338 HIGHLAND AVE CHESHIRE, CT 064101628 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	0.5 LBS
Reference Number:	370624
Reference Number:	MANKES SILO

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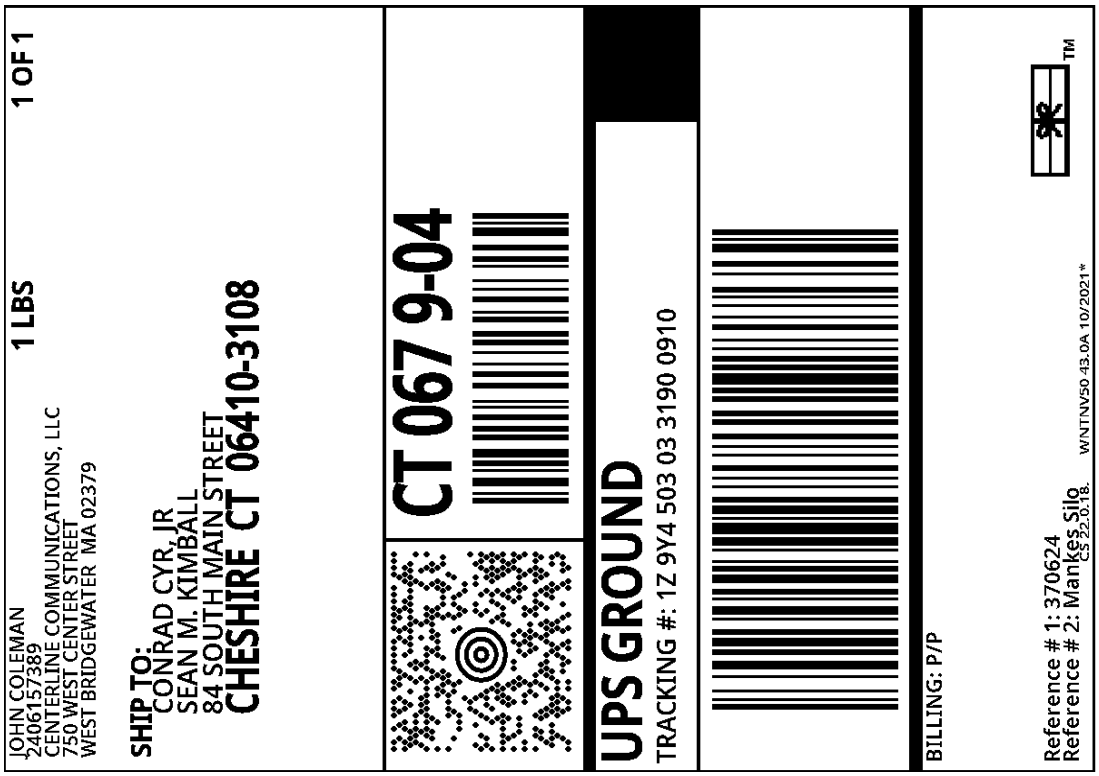

From: UPS
To: John Coleman
Subject: UPS Delivery Notification, Tracking Number 1Z9Y45030331900910
Date: Monday, October 25, 2021 9:52:14 AM

Hello, your package has been delivered.

Delivery Date: Monday, 10/25/2021
Delivery Time: 9:50 AM
Left At: OTHER-RELEAS
Signed by: AMY

CENTERLINE SITE ACQUISITION

Tracking Number:	1Z9Y45030331900910
Ship To:	SEAN M. KIMBALL 84 SOUTH MAIN STREET CHESHIRE, CT 064103108 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	0.5 LBS
Reference Number:	370624
Reference Number:	MANKES SILO

Download the UPS mobile app

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

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

E-Mail: siting.council@ct.gov

www.ct.gov/csc

July 5, 2016

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

RE: **PE1133-VER-20160606** – Cellco Partnership d/b/a Verizon Wireless sub-petition for a declaratory ruling for approval of an eligible facility request for modifications to an existing telecommunications facility located at 1338 Highland Avenue, Cheshire, Connecticut.

Dear Attorney Baldwin:

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

1. Verizon shall restore and secure any RF transparent screening panels that are temporarily moved during its equipment installation;
2. Verizon shall coordinate installation and construction activities with the underlying property owner;
3. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
4. Any nonfunctioning antenna and associated antenna mounting equipment on this facility owned and operated by the Petitioner shall be removed within 60 days of the date the antenna ceased to function;
5. The validity of this action shall expire one year from the date of this letter; and
6. The Petitioner may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

This decision is under the exclusive jurisdiction of the Council and is not applicable to any other modification or construction. All work is to be implemented as specified in the EFR dated June 3, 2016.

Thank you for your attention and cooperation.

Very truly yours,

Melanie Bachman
Acting Executive Director

MB/CW

c: Honorable Robert Oris, Jr., Town Council Chairman, Town of Cheshire
Michael A. Milone, Town Manager, Town of Cheshire
William S. Voelker, AICP, Town Planner, Town of Cheshire

S:\PETITIONS\1101-1200\1133\3_Subpetitions_ByTown\Cheshire\PE1133-VER-20160606-dcltr-highlandave-Cheshire.docx

TOWN OF CHESHIRE

Planning & Zoning Commission
84 South Main Street
Cheshire, Connecticut 06410
203-271-6670 • Fax 203-271-6664

CERTIFIED MAIL

December 3, 1999

Springwich Cellular Limited Partnership
c/o Keith Coppins
500 Enterprise Drive -Suite 3A
Rocky Hill, CT 06067

RE: Site Plan Application MAD 12/28/99
Springwich Cellular Limited Partnership
1338 Highland Avenue
To Install a cellular antennae and placement of an Equipment cabinet

Dear Mr. Coppins:

At the regular meeting of the Planning and Zoning Commission held on November 22, 1999, the following motion was unanimously approved:

MOTION: That the Zoning Committee recommends that the Planning and Zoning Commission approve the site plan application of Springwich Cellular Limited Partnership for a cellular antennae and equipment cabinet for property located at 1338 Highland Avenue, in an I-2 zone, as shown on the current Assessor's Map No. 28, Lot No. 15, and shown on the following plans entitled:

SNET Mobility Inc., 1338 Highland Avenue
Cheshire, CT., Springwich Cellular Site, Cheshire-
Tower Farms, October 15, 1999 sheets T-1, C-1, and C-2

With the following stipulation:

1. The applicant shall comply with comments in a memo from the Police Department dated November 4, 1999 and attached hereto.

Moved by Mrs. Mouris, seconded by Mr. Gaudio and unanimously approved.

Very truly yours,

William C. Freitag

William C. Freitag, Secretary
Cheshire Planning and Zoning Commission

AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	**78 ft Concealed Silo Tower**
ATC Site Name	:	**Mankes Silo, CT**
ATC Asset Number	:	**370624**
Engineering Number	:	**13669390_C3_01**
Proposed Carrier	:	**Verizon Wireless**
Carrier Site Name	:	**Cheshire No CT**
Carrier Site Number	:	**467326**
Site Location	:	**1338 Highland Ave** **Cheshire, CT 06410-0000** **41.536900,-72.893300**
County	:	**New Haven**
Date	:	**August 19, 2021**
Max Usage	:	**45%**
Result	:	**Pass**

Prepared By:
Robert D. Barrett, E.I.
Structural Engineer II

Robert D. Barrett

Reviewed By:

COA: PEC.0001553

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CORPORATION

Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 78 ft concealed silo tower to reflect the change in loading by Verizon Wireless.

Supporting Documents

Tower Drawings	Mapping by Structural Components Job #140862, dated October 17, 2014
Foundation Drawing	Mapping by Structural Components Job #140862, dated October 17, 2014

Analysis

The tower was analyzed using RISA-3D analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	118 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1" radial ice concurrent
Code:	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1

Conclusion

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

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

Existing and Reserved Equipment

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
70.0	3	Commscope SBNHH-1D65B (40.6 lbs)	Sector Frames	(1) 1 5/8" Hybriflex	Verizon Wireless
	3	Samsung B5/B13 RRH-BR04C			
	3	Samsung B2/B66A RRH-BR049			
57.0	3	RFS APXVAALL24 43-U-NA20	Sector Frames	(3) 1 5/8" Hybriflex (3) 7/8" Fiber	T-Mobile
	6	Ericsson AIR 21, 1.3 M, B2A B4P			
	3	Ericsson Radio 4449 B71 B85A			
54.0	3	Ericsson RRUS 4449 B5, B12	Sector Frames	(2) 0.39" Fiber Trunk (4) 0.78" 8 AWG 6 (12) 1 5/8" Coax (6) 1/2" Coax (1) 3" Conduit (1) 3/8" RET Control Cable	AT&T Mobility
	3	Ericsson RRUS 12 w/ RRUS A2			
	3	KMW AM-X-CD-16-65-00T-RET			
	2	CCI HPA-65R-BUU-H6			
	1	CCI HPA-65R-BUU-H8			
	1	Kathrein Scala 80010965			
	3	Ericsson Radio 4415 B30			
	2	Raycap DC6-48-60-18-8F ("Squid")			
	2	Kathrein Scala 80010966			
	3	CCI DTMABP7819VG12A			
	6	Powerwave Allgon LGP21901			
	6	Kathrein Scala 860 10025			
	6	Powerwave Allgon LGP21401			

Equipment to be Removed

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
70.0	9	Commscope SBNHH-1D65B (40.6 lbs)	-	-	Verizon Wireless
	1	RFS DB-T1-6Z-8AB-0Z			

Proposed Equipment

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
70.0	3	Commscope CBC78T-DS-43-2X	Sector Frames	(1) 1 5/8" Hybriflex	Verizon Wireless
	2	Raycap RRFDC-3315-PF-48 (32lbs)			
	3	Samsung MT6407-77A			
	6	Commscope JAHH-65B-R3B			

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

Install proposed coax inside the silo shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	4%	Pass
Diagonals	13%	Pass
Horizontals	19%	Pass
Concrete	18%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	1,394.2	31%
Axial (Kips)	493.9	45%
Shear (Kips)	34.2	25%

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.

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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:

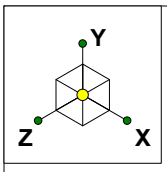
- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

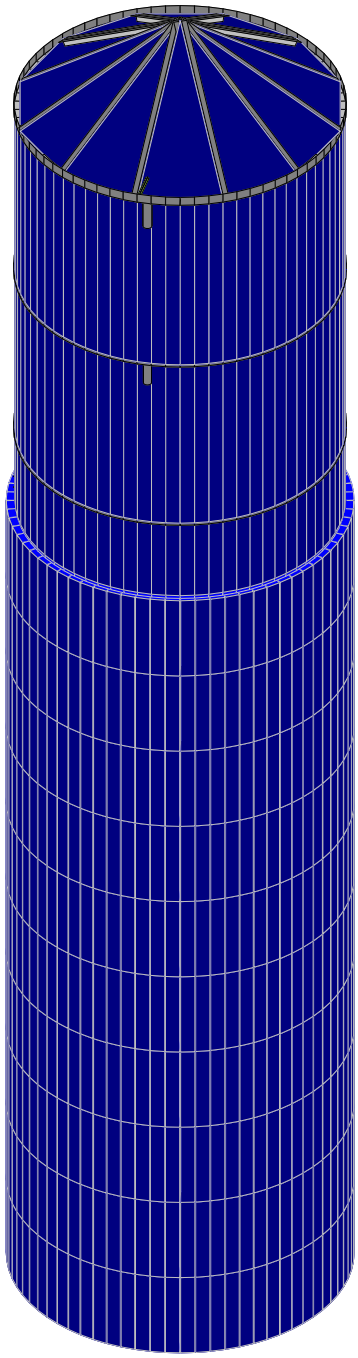
It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

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.





ATC	370624 - Mankes Silo, CT	SK - 1
RDB		Aug 19, 2021 at 11:16 PM
13669390_C3_01		Mankes Silo, 370624-WT1 (13669...

(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 (ft/sec^2)	32.2
Wall Mesh Size (in)	12
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?	No
RISAConnection Code	AISC 15th(360-16): LRFD
Cold Formed Steel Code	AISI S100-16: LRFD
Wood Code	AWC NDS-18: ASD
Wood Temperature	< 100F
Concrete Code	ACI 318-14
Masonry Code	TMS 402-16: Strength
Aluminum Code	AA ADM1-15: LRFD - Building
Stainless Steel Code	AISC 14th(360-10): LRFD
Adjust Stiffness?	Yes(Iterative)

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	Exact Integration
Parme 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

(Global) Model Settings, Continued

Seismic Code	ASCE 7-16
Seismic Base Elevation (ft)	Not Entered
Add Base Weight?	Yes
Ct X	.02
Ct Z	.02
T X (sec)	.1
T Z (sec)	.1
R X	3
R Z	3
Ct Exp. X	.75
Ct Exp. Z	.75
SD1	.101
SDS	.198
S1	.063
TL (sec)	6
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 Section Sets

	Label	Shape	Type	Design List	Material	Design Rul...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	H1	W8X18	Beam	Wide Flange	A992	Typical	5.26	7.97	61.9	.172
2	H2	L3X3X4	Beam	Single Angle	A36 Gr.36	Typical	1.44	1.23	1.23	.031
3	H3	L4X3X4	Beam	Single Angle	A36 Gr.36	Typical	1.69	1.33	2.75	.039
4	H4	LL4x4x4x3	Beam	Double An...	A36 Gr.36	Typical	3.86	12.2	6	.088
5	H5	L4X4X4	Beam	Single Angle	A36 Gr.36	Typical	1.93	3	3	.044
6	H6	L6X6X5	Beam	Single Angle	A36 Gr.36	Typical	3.67	13	13	.129
7	Column1	HSS5x0.500	Beam	HSS Pipe	A36 Gr.36	Typical	6.62	17.2	17.2	34.4
8	Column2	HSS5.563...	Beam	HSS Pipe	A36 Gr.36	Typical	5.72	19.5	19.5	39
9	V1	L3X3X4	Beam	Single Angle	A36 Gr.36	Typical	1.44	1.23	1.23	.031

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
1	Dead	DL		-1		16				
2	Wind Load Z	WLZ				8				
3	Wind Load X	WLX				8				
4	Partial Z Wind Load 1	WLZP1				8				
5	Partial Z Wind Load 2	WLZP2				8				
6	Partial X Wind Load 1	WLXP1				8				
7	Partial X Wind Load 2	WLXP2				8				
8	Earthquake Load Z	ELZ				8				
9	Earthquake Load X	ELX				8				
10	Earthquake Load Z Pl...	ELZ+X				8				
11	Earthquake Load Z M...	ELZ-X				8				
12	Earthquake Load X Pl...	ELX+Z				8				
13	Earthquake Load X M...	ELX-Z				8				
14	DA Weight	DL				9				
15	LA Weight	DL						4		

Load Combinations

	Description	So...	PDelta	S...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...
1	1.0D		Y		DL	1																		
2	1.4D	Yes	Y		DL	1.4																		
3	1.2D + 1.0W AZI 0...	Yes	Y		DL	1.2	W...	1																
4	1.2D + 1.0W AZI 0...	Yes	Y		DL	1.2	WLZ	1																
5	IBC 16-5 (a)	Yes	Y		DL	1.2	Sd...	.2	R...	1	LL	.5	LLS	1										
6	IBC 16-5 (b)	Yes	Y		DL	1.2	Sd...	.2	R...	1	LL	.5	LLS	1										
7	IBC 16-5 (c)	Yes	Y		DL	1.2	Sd...	.2	R...	1	LL	.5	LLS	1										
8	IBC 16-5 (d)	Yes	Y		DL	1.2	Sd...	.2	R...	1	LL	.5	LLS	1										
9	IBC 16-5 (e)	Yes	Y		DL	1.2	Sd...	.2	R...	1	LL	.5	LLS	1										
10	IBC 16-5 (f)	Yes	Y		DL	1.2	Sd...	.2	R...	1	LL	.5	LLS	1										
11	IBC 16-7 (a)	Yes	Y		DL	.9	Sd...	-.2	R...	1														
12	IBC 16-7 (b)	Yes	Y		DL	.9	Sd...	-.2	R...	1														
13	IBC 16-7 (c)	Yes	Y		DL	.9	Sd...	-.2	R...	1														
14	IBC 16-7 (d)	Yes	Y		DL	.9	Sd...	-.2	R...	1														
15	IBC 16-7 (e)	Yes	Y		DL	.9	Sd...	-.2	R...	1														
16	IBC 16-7 (f)	Yes	Y		DL	.9	Sd...	-.2	R...	1														
17	DEFL		Y		DL	1.2	W...	.352																

Joint Loads and Enforced Displacements (BLC 1 : Dead)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft, k*s^2*ft)]
1	N1485	L	Y	-.233
2	N1486	L	Y	-.233
3	N1487	L	Y	-.233
4	N1488	L	Y	-.233
5	N1489	L	Y	-.233
6	N1490	L	Y	-.233
7	N1491	L	Y	-.233
8	N1492	L	Y	-.233
9	N1493	L	Y	-.233
10	N1656	L	Y	-.168
11	N1658	L	Y	-.168
12	N1659	L	Y	-.168
13	N1661	L	Y	-.168
14	N1662	L	Y	-.168
15	N1664	L	Y	-.168
16	N1642	L	Y	-2.117

Joint Loads and Enforced Displacements (BLC 2 : Wind Load Z)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft, k*s^2*ft)]
1	N1665	L	Z	2.91
2	N1775	L	Z	5.607
3	N1740	L	Z	3.924
4	N1261	L	Z	3.732
5	N1741	L	Z	4.854
6	N1742	L	Z	4.636
7	N1743	L	Z	4.356
8	N1744	L	Z	4.206

Joint Loads and Enforced Displacements (BLC 3 : Wind Load X)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft, k*s^2*ft)]
1	N1665	L	X	2.91
2	N1775	L	X	5.607
3	N1740	L	X	3.924

Joint Loads and Enforced Displacements (BLC 3 : Wind Load X) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft, k*s^2*ft)]
4	N1261	L	X	3.732
5	N1741	L	X	4.854
6	N1742	L	X	4.636
7	N1743	L	X	4.356
8	N1744	L	X	4.206

Joint Loads and Enforced Displacements (BLC 4 : Partial Z Wind Load 1)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft, k*s^2*ft)]
1	N1776	L	Z	2.183
2	N1777A	L	Z	4.205
3	N1778A	L	Z	2.943
4	N1779A	L	Z	2.799
5	N1780A	L	Z	3.641
6	N1781A	L	Z	3.477
7	N1782A	L	Z	3.267
8	N1783A	L	Z	3.154

Joint Loads and Enforced Displacements (BLC 5 : Partial Z Wind Load 2)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft, k*s^2*ft)]
1	N1784A	L	Z	2.183
2	N1785A	L	Z	4.205
3	N1786A	L	Z	2.943
4	N1787A	L	Z	2.799
5	N1788A	L	Z	3.641
6	N1789A	L	Z	3.477
7	N1790A	L	Z	3.267
8	N1791A	L	Z	3.154

Joint Loads and Enforced Displacements (BLC 6 : Partial X Wind Load 1)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft, k*s^2*ft)]
1	N1792A	L	X	2.183
2	N1793A	L	X	4.205
3	N1794A	L	X	2.943
4	N1795A	L	X	2.799
5	N1796A	L	X	3.641
6	N1797A	L	X	3.477
7	N1798A	L	X	3.267
8	N1799A	L	X	3.154

Joint Loads and Enforced Displacements (BLC 7 : Partial X Wind Load 2)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft, k*s^2*ft)]
1	N1800A	L	X	2.183
2	N1801A	L	X	4.205
3	N1802A	L	X	2.943
4	N1803A	L	X	2.799
5	N1804A	L	X	3.641
6	N1805A	L	X	3.477
7	N1806A	L	X	3.267
8	N1807A	L	X	3.154

Joint Loads and Enforced Displacements (BLC 8 : Earthquake Load Z)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft, k*s^2*ft)]
1	N1778	L	Z	1.846
2	N1779	L	Z	1.147

Joint Loads and Enforced Displacements (BLC 8 : Earthquake Load Z) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft, k*s^2*ft)]
3	N1740	L	Z	.631
4	N1261	L	Z	6.085
5	N1741	L	Z	6.87
6	N1742	L	Z	5.153
7	N1743	L	Z	3.435
8	N1744	L	Z	1.718

Joint Loads and Enforced Displacements (BLC 9 : Earthquake Load X)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft, k*s^2*ft)]
1	N1778	L	X	1.846
2	N1779	L	X	1.147
3	N1740	L	X	.631
4	N1261	L	X	6.085
5	N1741	L	X	6.87
6	N1742	L	X	5.153
7	N1743	L	X	3.435
8	N1744	L	X	1.718

Joint Loads and Enforced Displacements (BLC 10 : Earthquake Load Z Plus X Eccentr)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft, k*s^2*ft)]
1	N1780	L	Z	1.846
2	N1781	L	Z	1.147
3	N1782	L	Z	.631
4	N1090	L	Z	6.085
5	N1783	L	Z	6.87
6	N1784	L	Z	5.153
7	N1785	L	Z	3.435
8	N1786	L	Z	1.718

Joint Loads and Enforced Displacements (BLC 11 : Earthquake Load Z Minus X Eccent)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft, k*s^2*ft)]
1	N1787	L	Z	1.846
2	N1788	L	Z	1.147
3	N1789	L	Z	.631
4	N1432	L	Z	6.085
5	N1790	L	Z	6.87
6	N1791	L	Z	5.153
7	N1792	L	Z	3.435
8	N1793	L	Z	1.718

Joint Loads and Enforced Displacements (BLC 12 : Earthquake Load X Plus Z Eccentr)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft, k*s^2*ft)]
1	N1794	L	X	1.846
2	N1795	L	X	1.147
3	N1796	L	X	.631
4	N1270	L	X	6.085
5	N1797	L	X	6.87
6	N1798	L	X	5.153
7	N1799	L	X	3.435
8	N1800	L	X	1.718

Joint Loads and Enforced Displacements (BLC 13 : Earthquake Load X Minus Z Eccent)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft, k*s^2*ft)]
1	N1801	L	X	1.846

Joint Loads and Enforced Displacements (BLC 13 : Earthquake Load X Minus Z Eccent) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft, k*s^2*ft)]
2	N1802	L	X	1.147
3	N1803	L	X	.631
4	N1252	L	X	6.085
5	N1804	L	X	6.87
6	N1805	L	X	5.153
7	N1806	L	X	3.435
8	N1807	L	X	1.718

Joint Loads and Enforced Displacements (BLC 14 : DA Weight)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft, k*s^2*ft)]
1	N1641	L	Y	-.44
2	N1642	L	Y	-.44
3	N1643	L	Y	-.44
4	N1469	L	Y	-.364
5	N1470	L	Y	-.364
6	N1471	L	Y	-.364
7	N1466	L	Y	-.482
8	N1467	L	Y	-.482
9	N1468	L	Y	-.482

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

	Member	Shape	Code...	Loc.....		Shea...	Loc.....	...	...	phi*Pn...	phi*Pn...	phi*Mn y-y [k-ft]	phi*Mn.....		Eqn
1	M7	W8X18	.023	5.464	2	.009	0	y	2	103.24	236.7	17.475	63.75	...	H1-1b
2	M8	W8X18	.022	0	2	.009	5.464	y	2	103.24	236.7	17.475	63.75	...	H1-1b
3	M9	W8X18	.032	5.464	2	.012	0	y	2	103.24	236.7	17.475	63.75	...	H1-1b
4	M10	W8X18	.031	0	2	.012	5.464	y	2	103.24	236.7	17.475	63.75	...	H1-1b
5	M11	W8X18	.024	5.464	4	.009	0	y	4	103.24	236.7	17.475	63.75	...	H1-1b
6	M12	W8X18	.025	0	4	.009	5.464	y	4	103.24	236.7	17.475	63.75	...	H1-1b
7	M13	HSS5x0....	.002	.802	2	.001	0		2	214.086	214.488	25.92	25.92	...	H1-1b
8	M14	HSS5x0....	.008	0	4	.001	0		4	214.447	214.488	25.92	25.92	...	H1-1b
9	M15	HSS5x0....	.002	.802	2	.001	0		2	214.086	214.488	25.92	25.92	...	H1-1b
10	M16	HSS5x0....	.007	0	3	.000	0		2	214.447	214.488	25.92	25.92	...	H1-1b
11	M17	HSS5x0....	.002	.802	4	.001	0		4	214.086	214.488	25.92	25.92	...	H1-1b
12	M18	HSS5x0....	.008	0	3	.001	.191		3	214.447	214.488	25.92	25.92	...	H1-1b
13	M19	HSS5x0....	.009	3.792	4	.001	0		4	205.677	214.488	25.92	25.92	...	H1-1b
14	M20	HSS5x0....	.007	0	3	.001	0		3	205.677	214.488	25.92	25.92	...	H1-1b
15	M21	HSS5x0....	.008	2.313	4	.002	0		4	211.167	214.488	25.92	25.92	...	H1-1b
16	M22	HSS5x0....	.012	5	2	.001	0		4	199.4	214.488	25.92	25.92	...	H1-1b
17	M23	HSS5x0....	.033	2.719	2	.005	0		2	209.912	214.488	25.92	25.92	...	H1-1b
18	M24	HSS5x0....	.013	3.792	2	.002	0		2	205.677	214.488	25.92	25.92	...	H1-1b
19	M25	HSS5x0....	.006	0	3	.000	0		2	205.677	214.488	25.92	25.92	...	H1-1b
20	M26	HSS5x0....	.007	2.313	3	.001	0		3	211.167	214.488	25.92	25.92	...	H1-1b
21	M27	HSS5x0....	.009	5	2	.001	0		3	199.4	214.488	25.92	25.92	...	H1-1b
22	M28	HSS5x0....	.039	2.719	2	.006	0		2	209.912	214.488	25.92	25.92	...	H1-1b
23	M29	HSS5x0....	.008	0	4	.001	0		4	205.677	214.488	25.92	25.92	...	H1-1b
24	M30	HSS5x0....	.005	2.313	2	.001	0		2	211.167	214.488	25.92	25.92	...	H1-1b
25	M31	HSS5x0....	.010	5	2	.001	0		2	199.4	214.488	25.92	25.92	...	H1-1b
26	M32	HSS5x0....	.032	2.719	2	.005	0		2	209.912	214.488	25.92	25.92	...	H1-1b
27	M33	HSS5x0....	.008	3.792	2	.001	0		2	205.677	214.488	25.92	25.92	...	H1-1b
28	M34	L3X3X4	.128	6.835	2	.003	13.67	y	2	4.137	46.656	1.688	2.354	...	H2-1
29	M35	L3X3X4	.124	6.835	2	.003	0	y	2	9.792	46.656	1.688	2.354	...	H2-1
30	M36	L3X3X4	.124	6.835	2	.003	0	y	2	9.792	46.656	1.688	2.354	...	H2-1
31	M37	L3X3X4	.115	6.835	2	.003	13.67	y	2	4.137	46.656	1.688	2.354	...	H2-1
32	M38	L3X3X4	.115	6.835	2	.003	0	y	2	5.108	46.656	1.688	2.354	...	H2-1
33	M39	L3X3X4	.115	6.835	2	.003	0	y	2	4.137	46.656	1.688	2.354	...	H2-1

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

	Member	Shape	Code...	Loc.....		Shea...	Loc.....	...	...	phi*Pn...	phi*Pn...	phi*Mn y-y [k-ft]	phi*Mn.....		Eqn
34	M40	L4X3X4	.070	5.639	2	.002	0	y	2	10.508	54.756	1.795	3.141	...	H2-1
35	M41	L4X3X4	.070	5.639	2	.002	0	y	2	8.511	54.756	1.795	3.141	...	H2-1
36	M42	L4X3X4	.070	5.639	2	.002	0	y	2	8.511	54.756	1.795	3.141	...	H2-1
37	M43	L4X3X4	.070	5.639	2	.002	11....	y	2	8.511	54.756	1.795	3.141	...	H2-1
38	M44	L4X3X4	.070	5.639	2	.002	0	y	2	8.511	54.756	1.795	3.141	...	H2-1
39	M45	L4X3X4	.070	5.639	2	.002	11....	y	2	8.511	54.756	1.795	3.141	...	H2-1
40	M46	L4X3X4	.178	1	2	.021	0	y	2	49.986	54.756	1.795	4.805	...	H2-1
41	M47	L4X3X4	.182	1	2	.021	0	y	2	49.986	54.756	1.795	4.805	...	H2-1
42	M48	L4X3X4	.175	1	2	.020	0	y	2	49.986	54.756	1.795	4.805	...	H2-1
43	M49	L4X3X4	.188	1	2	.022	0	y	2	49.986	54.756	1.795	4.805	...	H2-1
44	M50	L4X3X4	.194	1	2	.022	0	y	2	49.986	54.756	1.795	4.805	...	H2-1
45	M51	L4X3X4	.186	1	2	.021	0	y	2	49.986	54.756	1.795	4.805	...	H2-1
46	M52	L4X3X4	.181	0	2	.008	4.5	y	2	37.163	54.756	1.795	4.682	...	H2-1
47	M53	L4X3X4	.158	4.5	2	.007	0	y	2	37.163	54.756	1.795	4.683	...	H2-1
48	M54	L4X3X4	.157	0	2	.015	1.278	y	2	49.506	54.756	1.795	4.805	...	H2-1
49	M55	L4X3X4	.185	0	2	.008	4.5	y	2	37.163	54.756	1.795	4.682	...	H2-1
50	M56	L4X3X4	.154	4.5	2	.007	0	y	2	37.163	54.756	1.795	4.683	...	H2-1
51	M57	L4X3X4	.153	0	2	.014	1.278	y	2	49.506	54.756	1.795	4.805	...	H2-1
52	M58	L4X3X4	.178	0	2	.008	4.5	y	2	37.163	54.756	1.795	4.682	...	H2-1
53	M59	L4X3X4	.162	4.5	2	.008	0	y	2	37.163	54.756	1.795	4.683	...	H2-1
54	M60	L4X3X4	.160	0	2	.015	1.278	y	2	49.506	54.756	1.795	4.805	...	H2-1
55	M61	L4X3X4	.193	0	2	.008	4.5	y	2	37.163	54.756	1.795	4.683	...	H2-1
56	M62	L4X3X4	.169	4.5	2	.007	0	y	2	37.163	54.756	1.795	4.683	...	H2-1
57	M63	L4X3X4	.160	0	2	.015	1.278	y	2	49.506	54.756	1.795	4.805	...	H2-1
58	M64	L4X3X4	.194	0	2	.008	4.5	y	2	37.163	54.756	1.795	4.682	...	H2-1
59	M65	L4X3X4	.162	4.5	2	.007	0	y	2	37.163	54.756	1.795	4.683	...	H2-1
60	M66	L4X3X4	.157	0	2	.014	1.278	y	2	49.506	54.756	1.795	4.805	...	H2-1
61	M67	L4X3X4	.187	0	2	.008	4.5	y	2	37.163	54.756	1.795	4.683	...	H2-1
62	M68	L4X3X4	.171	4.5	2	.007	0	y	2	37.163	54.756	1.795	4.683	...	H2-1
63	M69	L4X3X4	.166	0	2	.015	1.278	y	2	49.506	54.756	1.795	4.805	...	H2-1
64	M70	L3X3X4	.018	0	2	.000	0	y	2	26.816	46.656	1.688	3.226	1	H2-1
65	M71	L3X3X4	.024	0	2	.000	0	y	2	26.816	46.656	1.688	3.226	1	H2-1
66	M72	L3X3X4	.014	0	2	.000	0	y	2	26.816	46.656	1.688	3.226	1	H2-1
67	M73	L3X3X4	.019	0	2	.000	0	y	2	26.816	46.656	1.688	3.226	1	H2-1
68	M74	L3X3X4	.024	0	2	.000	0	y	2	26.816	46.656	1.688	3.226	1	H2-1
69	M75	L3X3X4	.013	0	2	.000	0	y	9	26.816	46.656	1.688	3.226	1	H2-1
70	M76	L3X3X4	.018	0	2	.000	0	y	2	26.816	46.656	1.688	3.226	1	H2-1
71	M77	L3X3X4	.024	0	2	.000	0	y	2	26.816	46.656	1.688	3.226	1	H2-1
72	M78	L3X3X4	.014	0	2	.000	0	y	7	26.816	46.656	1.688	3.226	1	H2-1
73	M79	L3X3X4	.035	3.293	2	.002	0	y	2	17.086	46.656	1.688	3.086	...	H2-1
74	M80	L3X3X4	.027	3.433	2	.002	0	y	2	17.086	46.656	1.688	3.086	...	H2-1
75	M81	L3X3X4	.035	3.293	2	.002	0	y	2	17.086	46.656	1.688	3.086	...	H2-1
76	M82	L3X3X4	.026	3.433	2	.002	6.727	y	2	17.086	46.656	1.688	3.086	...	H2-1
77	M83	L3X3X4	.034	3.293	2	.002	0	y	2	17.086	46.656	1.688	3.086	...	H2-1
78	M84	L3X3X4	.028	3.433	2	.002	0	y	2	17.086	46.656	1.688	3.086	...	H2-1
79	M85	L4X4X4	.059	0	2	.004	0	y	2	8.564	62.532	3.138	5.558	...	H2-1
80	M86	L4X4X4	.058	0	2	.003	0	y	2	8.564	62.532	3.138	5.471	...	H2-1
81	M87	L4X4X4	.059	14....	2	.004	14....	y	2	8.564	62.532	3.138	5.558	...	H2-1
82	M88	L6X6X5	.004	.742	4	.001	.742	z	4	25.726	118.908	9.302	16.791	1	H2-1
83	M89	L6X6X5	.004	.742	4	.000	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
84	M90	L6X6X5	.004	0	4	.000	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
85	M91	L6X6X5	.004	0	4	.000	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
86	M92	L6X6X5	.004	0	4	.001	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
87	M93	L6X6X5	.006	.742	3	.002	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
88	M94	L6X6X5	.005	0	4	.002	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
89	M95	L6X6X5	.004	0	4	.001	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
90	M96	L6X6X5	.003	0	4	.000	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1

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

	Member	Shape	Code	Loc		Shea	Loc			phi*Pn	phi*Pn	phi*Mn y-y [k-ft]	phi*Mn		Eqn
91	M97	L6X6X5	.003	.742	3	.000	0	z	4	25.726	118.908	9.302	16.791	1	H2-1
92	M98	L6X6X5	.003	.742	3	.000	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
93	M99	L6X6X5	.003	0	3	.001	0	z	4	25.726	118.908	9.302	16.791	1	H2-1
94	M100	L6X6X5	.004	.742	3	.001	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
95	M101	L6X6X5	.004	.742	3	.000	0	z	4	25.726	118.908	9.302	16.791	1	H2-1
96	M102	L6X6X5	.004	.742	3	.000	0	z	4	25.726	118.908	9.302	16.791	1	H2-1
97	M103	L6X6X5	.004	.742	3	.001	0	z	4	25.726	118.908	9.302	16.791	1	H2-1
98	M104	L6X6X5	.004	.742	3	.001	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
99	M105	L6X6X5	.004	0	3	.002	0	z	3	25.726	118.908	9.302	16.791	1	H2-1
100	M106	L6X6X5	.004	.742	3	.002	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
101	M107	L6X6X5	.004	0	3	.001	0	z	4	25.726	118.908	9.302	16.791	1	H2-1
102	M108	L6X6X5	.004	0	3	.000	0	z	4	25.726	118.908	9.302	16.791	1	H2-1
103	M109	L6X6X5	.004	0	3	.000	0	z	4	25.726	118.908	9.302	16.791	1	H2-1
104	M110	L6X6X5	.004	0	3	.000	0	z	4	25.726	118.908	9.302	16.791	1	H2-1
105	M111	L6X6X5	.004	0	3	.002	0	z	3	25.726	118.908	9.302	16.791	1	H2-1
106	M112	L6X6X5	.003	.742	3	.002	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
107	M113	L6X6X5	.003	0	3	.001	0	z	3	25.726	118.908	9.302	16.791	1	H2-1
108	M114	L6X6X5	.003	0	3	.000	0	z	4	25.726	118.908	9.302	16.791	1	H2-1
109	M115	L6X6X5	.003	0	3	.000	0	z	3	25.726	118.908	9.302	16.791	1	H2-1
110	M116	L6X6X5	.003	.742	4	.001	0	z	4	25.726	118.908	9.302	11.548	...	H2-1
111	M117	L6X6X5	.004	.525	4	.003	.742	z	2	25.726	118.908	9.302	11.226	...	H2-1
112	M118	L6X6X5	.008	0	3	.004	0	z	4	25.726	118.908	9.302	16.791	1	H2-1
113	M119	L6X6X5	.003	.742	4	.001	0	z	4	25.726	118.908	9.302	11.435	...	H2-1
114	M120	L6X6X5	.003	.502	4	.001	0	z	3	25.726	118.908	9.302	11.224	...	H2-1
115	M121	L6X6X5	.003	.409	4	.000	0	z	3	25.726	118.908	9.302	11.199	...	H2-1
116	M122	L6X6X5	.004	.479	4	.000	0	z	2	25.726	118.908	9.302	11.213	...	H2-1
117	M123	L6X6X5	.004	.742	4	.002	0	z	3	25.726	118.908	9.302	11.593	...	H2-1
118	M124	L6X6X5	.004	0	4	.002	.742	z	2	25.726	118.908	9.302	11.746	...	H2-1
119	M125	L6X6X5	.003	.193	4	.000	0	z	3	25.726	118.908	9.302	11.25	...	H2-1
120	M126	L6X6X5	.003	.378	4	.001	0	z	3	25.726	118.908	9.302	11.199	...	H2-1
121	M127	L6X6X5	.003	.278	4	.001	0	z	3	25.726	118.908	9.302	11.214	...	H2-1
122	M128	L6X6X5	.003	.317	4	.000	0	z	2	25.726	118.908	9.302	11.206	...	H2-1
123	M129	L6X6X5	.005	.742	4	.002	0	z	2	25.726	118.908	9.302	11.901	...	H2-1
124	M130	L6X6X5	.004	0	4	.002	.742	z	2	25.726	118.908	9.302	12.054	...	H2-1
125	M131	L6X6X5	.002	.147	4	.001	0	z	3	25.726	118.908	9.302	11.317	...	H2-1
126	M132	L6X6X5	.002	.139	4	.000	.742	z	4	25.726	118.908	9.302	11.339	...	H2-1
127	M133	L6X6X5	.002	.556	3	.000	.742	z	4	25.726	118.908	9.302	11.293	...	H2-1
128	M134	L6X6X5	.002	.703	3	.000	0	z	3	25.726	118.908	9.302	11.434	...	H2-1
129	M135	L6X6X5	.003	.742	3	.001	0	z	2	25.726	118.908	9.302	11.715	...	H2-1
130	M136	L6X6X5	.003	.116	3	.001	.742	z	2	25.726	118.908	9.302	11.299	...	H2-1
131	M137	L6X6X5	.003	.44	3	.000	.742	z	4	25.726	118.908	9.302	11.207	...	H2-1
132	M138	L6X6X5	.003	.494	3	.000	.742	z	4	25.726	118.908	9.302	11.223	...	H2-1
133	M139	L6X6X5	.003	.448	3	.001	.742	z	4	25.726	118.908	9.302	11.206	...	H2-1
134	M140	L6X6X5	.003	.502	3	.001	.742	z	4	25.726	118.908	9.302	11.223	...	H2-1
135	M141	L6X6X5	.005	.742	4	.003	.742	z	4	25.726	118.908	9.302	16.791	1	H2-1
136	M142	L6X6X5	.005	0	4	.002	.742	z	4	25.726	118.908	9.302	13.74	...	H2-1
137	M143	L6X6X5	.003	.263	3	.001	.742	z	4	25.726	118.908	9.302	11.214	...	H2-1
138	M144	L6X6X5	.003	.301	3	.000	.742	z	4	25.726	118.908	9.302	11.204	...	H2-1
139	M145	L6X6X5	.003	.239	3	.000	.742	z	4	25.726	118.908	9.302	11.225	...	H2-1
140	M146	L6X6X5	.003	.309	3	.000	.742	z	4	25.726	118.908	9.302	11.205	...	H2-1
141	M147	L6X6X5	.003	.247	3	.001	.742	z	3	25.726	118.908	9.302	11.226	...	H2-1
142	M148	L6X6X5	.003	.031	3	.001	.742	z	4	25.726	118.908	9.302	11.406	...	H2-1
143	M149	L6X6X5	.003	.742	4	.000	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
144	M150	L6X6X5	.003	.742	4	.000	.742	z	4	25.726	118.908	9.302	16.791	1	H2-1
145	M151	L6X6X5	.003	.742	4	.000	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
146	M152	L6X6X5	.004	.742	4	.001	.742	z	4	25.726	118.908	9.302	16.791	1	H2-1
147	M153	L6X6X5	.003	0	4	.001	0	z	4	25.726	118.908	9.302	16.791	1	H2-1

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

	Member	Shape	Code	Loc		Shea	Loc			phi*Pn	phi*Pn	phi*Mn y-y [k-ft]	phi*Mn		Eqn
148	M154	L6X6X5	.004	.742	4	.002	.742	z	4	25.726	118.908	9.302	16.791	1	H2-1
149	M155	L6X6X5	.004	.742	4	.000	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
150	M156	L6X6X5	.004	.742	4	.000	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
151	M157	L6X6X5	.004	.742	4	.001	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
152	M158	L6X6X5	.004	0	4	.000	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
153	M159	L6X6X5	.004	0	4	.001	0	z	4	25.726	118.908	9.302	16.791	1	H2-1
154	M160	L3X3X4	.076	5.639	2	.003	0	y	2	6.078	46.656	1.688	2.579	...	H2-1
155	M161	L3X3X4	.076	5.639	2	.003	0	y	2	6.078	46.656	1.688	2.579	...	H2-1
156	M162	L3X3X4	.076	5.639	2	.003	0	y	2	6.078	46.656	1.688	2.579	...	H2-1
157	M163	L4X4X4	.060	14....	2	.004	14....	y	2	8.564	62.532	3.138	5.582	...	H2-1
158	M164	L4X4X4	.059	14....	2	.003	14....	y	2	8.564	62.532	3.138	5.608	...	H2-1
159	M165	L4X4X4	.060	0	2	.004	0	y	2	8.564	62.532	3.138	5.582	...	H2-1
160	M166	L6X6X5	.001	0	2	.001	0	z	4	25.726	118.908	9.302	16.791	1	H2-1
161	M167	L6X6X5	.002	.687	4	.000	0	z	4	25.726	118.908	9.302	11.482	...	H2-1
162	M168	L6X6X5	.002	.425	4	.000	0	z	2	25.726	118.908	9.302	11.218	...	H2-1
163	M169	L6X6X5	.003	.726	4	.001	0	z	2	25.726	118.908	9.302	11.451	...	H2-1
164	M170	L6X6X5	.004	.742	4	.001	0	z	2	25.726	118.908	9.302	12.065	...	H2-1
165	M171	L6X6X5	.022	.742	2	.008	0	z	2	25.726	118.908	9.302	13.178	...	H2-1
166	M172	L6X6X5	.006	0	4	.004	0	z	2	25.726	118.908	9.302	16.791	1	H2-1
167	M173	L6X6X5	.002	0	2	.002	0	z	2	25.726	118.908	9.302	16.791	1	H2-1
168	M174	L6X6X5	.002	.386	3	.000	0	z	2	25.726	118.908	9.302	11.215	...	H2-1
169	M175	L6X6X5	.002	.363	3	.000	0	z	4	25.726	118.908	9.302	11.215	...	H2-1
170	M176	L6X6X5	.002	.093	3	.001	.742	z	3	25.726	118.908	9.302	11.45	...	H2-1
171	M177	L6X6X5	.002	.742	2	.002	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
172	M178	L6X6X5	.002	0	2	.002	0	z	3	25.726	118.908	9.302	16.791	1	H2-1
173	M179	L6X6X5	.002	.687	3	.000	0	z	4	25.726	118.908	9.302	11.46	...	H2-1
174	M180	L6X6X5	.002	.371	3	.000	.742	z	4	25.726	118.908	9.302	11.207	...	H2-1
175	M181	L6X6X5	.002	.286	3	.000	.742	z	4	25.726	118.908	9.302	11.224	...	H2-1
176	M182	L6X6X5	.002	.046	3	.001	.742	z	3	25.726	118.908	9.302	11.488	...	H2-1
177	M183	L6X6X5	.002	.742	2	.002	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
178	M184	L6X6X5	.002	0	2	.003	0	z	3	25.726	118.908	9.302	16.791	1	H2-1
179	M185	L6X6X5	.002	.742	3	.001	0	z	3	25.726	118.908	9.302	11.608	...	H2-1
180	M186	L6X6X5	.002	.487	3	.000	0	z	2	25.726	118.908	9.302	11.238	...	H2-1
181	M187	L6X6X5	.002	.402	3	.000	0	z	4	25.726	118.908	9.302	11.21	...	H2-1
182	M188	L6X6X5	.002	.124	3	.000	.742	z	3	25.726	118.908	9.302	11.364	...	H2-1
183	M189	L6X6X5	.003	.742	2	.003	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
184	M190	L6X6X5	.003	0	2	.003	0	z	3	25.726	118.908	9.302	16.791	1	H2-1
185	M191	L6X6X5	.001	.742	3	.001	0	z	3	25.726	118.908	9.302	11.791	...	H2-1
186	M192	L6X6X5	.002	.433	3	.000	0	z	4	25.726	118.908	9.302	11.235	...	H2-1
187	M193	L6X6X5	.002	.742	3	.001	0	z	2	25.726	118.908	9.302	11.63	...	H2-1
188	M194	L6X6X5	.002	.742	3	.001	0	z	4	25.726	118.908	9.302	11.665	...	H2-1
189	M195	L6X6X5	.024	.742	3	.010	0	z	4	25.726	118.908	9.302	13.156	...	H2-1
190	M196	L6X6X5	.007	0	2	.006	.742	z	2	25.726	118.908	9.302	12.85	...	H2-1
191	M197	L6X6X5	.003	0	4	.002	0	z	2	25.726	118.908	9.302	16.791	1	H2-1
192	M198	L6X6X5	.001	.263	3	.001	.742	z	2	25.726	118.908	9.302	11.276	...	H2-1
193	M199	L6X6X5	.001	.378	3	.000	0	z	3	25.726	118.908	9.302	11.254	...	H2-1
194	M200	L6X6X5	.001	.742	4	.001	.742	z	2	25.726	118.908	9.302	16.791	1	H2-1
195	M201	L6X6X5	.003	.742	2	.003	.742	z	2	25.726	118.908	9.302	16.791	1	H2-1
196	M202	L6X6X5	.003	0	2	.003	0	z	2	25.726	118.908	9.302	16.791	1	H2-1
197	M203	L6X6X5	.001	.641	2	.000	0	z	2	25.726	118.908	9.302	11.627	...	H2-1
198	M204	L6X6X5	.001	.324	2	.000	.742	z	3	25.726	118.908	9.302	11.248	...	H2-1
199	M205	L6X6X5	.001	.278	2	.000	.742	z	2	25.726	118.908	9.302	11.283	...	H2-1
200	M206	L6X6X5	.001	0	2	.001	.742	z	2	25.726	118.908	9.302	12.385	...	H2-1
201	M207	L6X6X5	.002	.742	2	.002	.742	z	2	25.726	118.908	9.302	16.791	1	H2-1
202	M208	L6X6X5	.002	0	2	.002	0	z	2	25.726	118.908	9.302	16.791	1	H2-1
203	M209	L6X6X5	.001	.703	2	.000	0	z	2	25.726	118.908	9.302	12.007	...	H2-1
204	M210	L6X6X5	.001	.425	2	.000	0	z	2	25.726	118.908	9.302	11.256	...	H2-1

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

	Member	Shape	Code...	Loc.....		Shea...	Loc.....	...	...	phi*Pn...	phi*Pn...	phi*Mn y-y [k-ft]	phi*Mn.....		Eqn
205	M211	L6X6X5	.001	.378	2	.000	0	z	4	25.726	118.908	9.302	11.24	...	H2-1
206	M212	L6X6X5	.001	.054	2	.000	.742	z	2	25.726	118.908	9.302	11.785	...	H2-1
207	M213	L6X6X5	.002	.742	2	.002	.742	z	2	25.726	118.908	9.302	16.791	1	H2-1
208	M214	L6X6X5	.002	0	2	.002	0	z	2	25.726	118.908	9.302	16.791	1	H2-1
209	M215	L6X6X5	.001	.672	2	.000	0	z	2	25.726	118.908	9.302	11.842	...	H2-1
210	M216	L6X6X5	.001	.386	2	.000	0	z	2	25.726	118.908	9.302	11.254	...	H2-1
211	M217	L6X6X5	.001	.548	2	.000	0	z	2	25.726	118.908	9.302	11.367	...	H2-1
212	M218	L6X6X5	.001	.162	2	.001	.742	z	3	25.726	118.908	9.302	11.64	...	H2-1
213	M219	L6X6X5	.011	.742	2	.005	0	z	3	25.726	118.908	9.302	13.053	...	H2-1
214	M220	L6X6X5	.010	0	4	.005	.742	z	4	25.726	118.908	9.302	13.046	...	H2-1
215	M221	L6X6X5	.001	0	3	.001	0	z	3	25.726	118.908	9.302	16.791	1	H2-1
216	M222	L6X6X5	.002	.178	4	.000	.742	z	2	25.726	118.908	9.302	11.347	...	H2-1
217	M223	L6X6X5	.001	.348	4	.000	0	z	3	25.726	118.908	9.302	11.232	...	H2-1
218	M224	L6X6X5	.001	.039	4	.000	.742	z	3	25.726	118.908	9.302	11.679	...	H2-1
219	M225	L6X6X5	.001	.742	3	.001	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
220	M226	L6X6X5	.001	0	3	.001	0	z	4	25.726	118.908	9.302	16.791	1	H2-1
221	M227	L6X6X5	.002	.595	4	.000	0	z	3	25.726	118.908	9.302	11.352	...	H2-1
222	M228	L6X6X5	.002	.317	4	.000	.742	z	2	25.726	118.908	9.302	11.218	...	H2-1
223	M229	L6X6X5	.002	.324	4	.000	.742	z	3	25.726	118.908	9.302	11.217	...	H2-1
224	M230	L6X6X5	.002	.07	4	.000	.742	z	2	25.726	118.908	9.302	11.481	...	H2-1
225	M231	L6X6X5	.002	0	4	.001	.742	z	3	25.726	118.908	9.302	13.443	...	H2-1
226	M232	L6X6X5	.002	.742	4	.001	0	z	4	25.726	118.908	9.302	13.385	...	H2-1
227	M233	L6X6X5	.002	.672	4	.000	0	z	3	25.726	118.908	9.302	11.451	...	H2-1
228	M234	L6X6X5	.002	.425	4	.000	0	z	4	25.726	118.908	9.302	11.213	...	H2-1
229	M235	L6X6X5	.002	.425	4	.000	0	z	3	25.726	118.908	9.302	11.211	...	H2-1
230	M236	L6X6X5	.002	.147	4	.000	.742	z	2	25.726	118.908	9.302	11.32	...	H2-1
231	M237	L6X6X5	.002	0	4	.002	.742	z	4	25.726	118.908	9.302	15.286	...	H2-1
232	M238	HSS5.56...	.030	0	2	.006	0		2	182.685	185.328	25.65	25.65	...	H1-1b
233	M239	HSS5.56...	.012	0	2	.001	0		2	176.567	185.328	25.65	25.65	...	H1-1b
234	M240	HSS5.56...	.013	0	2	.002	0		4	181.554	185.328	25.65	25.65	...	H1-1b
235	M241	HSS5.56...	.037	0	2	.007	0		2	182.685	185.328	25.65	25.65	...	H1-1b
236	M242	HSS5.56...	.005	0	2	.001	0		3	176.567	185.328	25.65	25.65	...	H1-1b
237	M243	HSS5.56...	.025	3.042	2	.002	0		2	181.554	185.328	25.65	25.65	...	H1-1b
238	M244	HSS5.56...	.030	0	2	.006	0		2	182.685	185.328	25.65	25.65	...	H1-1b
239	M245	HSS5.56...	.010	0	2	.001	0		2	176.567	185.328	25.65	25.65	...	H1-1b
240	M246	HSS5.56...	.010	0	2	.001	0		2	181.554	185.328	25.65	25.65	...	H1-1b
241	M247	L4X3X4	.111	1	2	.013	0	y	2	49.986	54.756	1.795	4.805	...	H2-1
242	M248	L4X3X4	.115	1	2	.013	0	y	2	49.986	54.756	1.795	4.805	...	H2-1
243	M249	L4X3X4	.111	1	2	.012	0	y	2	49.986	54.756	1.795	4.805	...	H2-1
244	M250	L4X3X4	.115	1	2	.014	0	y	2	49.986	54.756	1.795	4.805	...	H2-1
245	M251	L4X3X4	.120	1	2	.014	0	y	2	49.986	54.756	1.795	4.805	...	H2-1
246	M252	L4X3X4	.113	1	2	.013	0	y	2	49.986	54.756	1.795	4.805	...	H2-1
247	M253	L4X3X4	.113	0	2	.005	4.5	y	2	37.163	54.756	1.795	4.666	...	H2-1
248	M254	L4X3X4	.097	4.5	2	.005	0	y	2	37.163	54.756	1.795	4.664	...	H2-1
249	M255	L4X3X4	.095	0	2	.009	1.278	y	2	49.506	54.756	1.795	4.805	...	H2-1
250	M256	L4X3X4	.119	0	2	.005	4.5	y	2	37.163	54.756	1.795	4.666	...	H2-1
251	M257	L4X3X4	.097	4.5	2	.005	0	y	2	37.163	54.756	1.795	4.664	...	H2-1
252	M258	L4X3X4	.095	0	2	.009	1.278	y	2	49.506	54.756	1.795	4.805	...	H2-1
253	M259	L4X3X4	.115	0	2	.005	4.5	y	2	37.163	54.756	1.795	4.666	...	H2-1
254	M260	L4X3X4	.103	4.5	2	.005	0	y	2	37.163	54.756	1.795	4.665	...	H2-1
255	M261	L4X3X4	.101	0	2	.009	1.278	y	2	49.506	54.756	1.795	4.805	...	H2-1
256	M262	L4X3X4	.121	0	2	.005	4.5	y	2	37.163	54.756	1.795	4.669	...	H2-1
257	M263	L4X3X4	.106	4.5	2	.005	0	y	2	37.163	54.756	1.795	4.667	...	H2-1
258	M264	L4X3X4	.101	0	2	.009	1.278	y	2	49.506	54.756	1.795	4.805	...	H2-1
259	M265	L4X3X4	.121	0	2	.005	4.5	y	2	37.163	54.756	1.795	4.669	...	H2-1
260	M266	L4X3X4	.100	4.5	2	.005	0	y	2	37.163	54.756	1.795	4.667	...	H2-1
261	M267	L4X3X4	.095	0	2	.009	1.278	y	2	49.506	54.756	1.795	4.805	...	H2-1

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

	Member	Shape	Code	Loc		Shea	Loc			phi*Pn	phi*Pn	phi*Mn y-y [k-ft]	phi*Mn		Eqn
262	M268	L4X3X4	.115	0	2	.005	4.5	y	2	37.163	54.756	1.795	4.668	...	H2-1
263	M269	L4X3X4	.107	4.5	2	.005	0	y	2	37.163	54.756	1.795	4.668	...	H2-1
264	M270	L4X3X4	.103	0	2	.010	1.278	y	2	49.506	54.756	1.795	4.805	...	H2-1
265	M271	L3X3X4	.010	0	2	.000	0	y	2	28.8	46.656	1.688	3.279	1	H2-1
266	M272	L3X3X4	.008	0	2	.000	0	y	2	28.8	46.656	1.688	3.279	1	H2-1
267	M273	L3X3X4	.007	0	2	.000	0	y	2	28.8	46.656	1.688	3.279	1	H2-1
268	M274	L3X3X4	.010	0	2	.000	0	y	2	28.8	46.656	1.688	3.279	1	H2-1
269	M275	L3X3X4	.008	0	2	.000	0	y	7	28.8	46.656	1.688	3.279	1	H2-1
270	M276	L3X3X4	.007	0	2	.000	0	y	4	28.8	46.656	1.688	3.279	1	H2-1
271	M277	L3X3X4	.010	0	2	.000	0	y	2	28.8	46.656	1.688	3.279	1	H2-1
272	M278	L3X3X4	.008	0	2	.000	0	y	2	28.8	46.656	1.688	3.279	1	H2-1
273	M279	L3X3X4	.008	0	2	.000	0	y	7	28.8	46.656	1.688	3.279	1	H2-1
274	M280	L3X3X4	.026	3.174	2	.002	6.483	y	2	18.39	46.656	1.688	3.118	...	H2-1
275	M281	L3X3X4	.021	3.309	2	.002	0	y	2	18.39	46.656	1.688	3.118	...	H2-1
276	M282	L3X3X4	.026	3.174	2	.002	6.483	y	2	18.39	46.656	1.688	3.118	...	H2-1
277	M283	L3X3X4	.020	3.309	2	.001	0	y	2	18.39	46.656	1.688	3.118	...	H2-1
278	M284	L3X3X4	.025	3.174	2	.002	6.483	y	2	18.39	46.656	1.688	3.118	...	H2-1
279	M285	L3X3X4	.021	3.309	2	.002	6.483	y	2	18.39	46.656	1.688	3.118	...	H2-1
280	M292	LL4x4x4x3	.012	0	4	.002	0	y	2	85.347	125.064	12.586	7.058	1	H1-1b
281	M293	LL4x4x4x3	.017	6.511	2	.002	6.511	y	2	85.347	125.064	12.586	7.058	1	H1-1b
282	M294	LL4x4x4x3	.011	0	2	.002	0	y	2	85.347	125.064	12.586	7.058	1	H1-1b
283	M295	L6X6X5	.017	0	2	.006	.742	z	4	25.726	118.908	9.302	13.842	...	H2-1
284	M296	L6X6X5	.004	.742	4	.001	.742	z	2	25.726	118.908	9.302	16.791	1	H2-1
285	M297	L6X6X5	.004	.742	4	.000	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
286	M298	L6X6X5	.004	0	4	.000	0	z	4	25.726	118.908	9.302	16.791	1	H2-1
287	M299	L6X6X5	.004	0	4	.001	0	z	2	25.726	118.908	9.302	16.791	1	H2-1
288	M300	L6X6X5	.013	.742	2	.005	0	z	4	25.726	118.908	9.302	14.099	...	H2-1
289	M301	L6X6X5	.016	0	2	.006	.742	z	2	25.726	118.908	9.302	13.816	...	H2-1
290	M302	L6X6X5	.004	.742	4	.001	.742	z	2	25.726	118.908	9.302	16.791	1	H2-1
291	M303	L6X6X5	.004	.742	3	.001	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
292	M304	L6X6X5	.004	0	4	.000	0	z	4	25.726	118.908	9.302	16.791	1	H2-1
293	M305	L6X6X5	.004	0	3	.001	0	z	3	25.726	118.908	9.302	16.791	1	H2-1
294	M306	L6X6X5	.010	.742	2	.005	0	z	3	25.726	118.908	9.302	14.498	...	H2-1
295	M307	L6X6X5	.010	0	2	.005	.742	z	4	25.726	118.908	9.302	14.547	...	H2-1
296	M308	L6X6X5	.005	.742	3	.001	.742	z	4	25.726	118.908	9.302	16.791	1	H2-1
297	M309	L6X6X5	.005	.742	3	.000	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
298	M310	L6X6X5	.005	0	3	.000	0	z	4	25.726	118.908	9.302	16.791	1	H2-1
299	M311	L6X6X5	.005	0	3	.001	0	z	3	25.726	118.908	9.302	16.791	1	H2-1
300	M312	L6X6X5	.008	.742	2	.005	0	z	3	25.726	118.908	9.302	14.897	...	H2-1
301	M313	L6X6X5	.013	0	2	.006	.742	z	3	25.726	118.908	9.302	14.215	...	H2-1
302	M314	L6X6X5	.005	.742	3	.001	.742	z	2	25.726	118.908	9.302	16.791	1	H2-1
303	M315	L6X6X5	.005	.742	3	.001	.742	z	2	25.726	118.908	9.302	16.791	1	H2-1
304	M316	L6X6X5	.005	.742	3	.000	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
305	M317	L6X6X5	.005	0	3	.001	0	z	3	25.726	118.908	9.302	16.791	1	H2-1
306	M318	L6X6X5	.005	0	3	.004	0	z	3	25.726	118.908	9.302	16.791	1	H2-1
307	M319	L6X6X5	.025	0	2	.010	.742	z	2	25.726	118.908	9.302	13.774	...	H2-1
308	M320	L6X6X5	.004	.742	3	.002	.742	z	2	25.726	118.908	9.302	16.791	1	H2-1
309	M321	L6X6X5	.005	.742	3	.001	.742	z	2	25.726	118.908	9.302	16.791	1	H2-1
310	M322	L6X6X5	.005	0	3	.001	0	z	3	25.726	118.908	9.302	16.791	1	H2-1
311	M323	L6X6X5	.005	0	3	.002	0	z	2	25.726	118.908	9.302	16.791	1	H2-1
312	M324	L6X6X5	.024	.742	2	.010	0	z	2	25.726	118.908	9.302	13.741	...	H2-1
313	M325	L6X6X5	.022	0	2	.009	.742	z	2	25.726	118.908	9.302	13.739	...	H2-1
314	M326	L6X6X5	.004	.742	2	.002	.742	z	2	25.726	118.908	9.302	16.791	1	H2-1
315	M327	L6X6X5	.004	.742	2	.001	.742	z	2	25.726	118.908	9.302	16.791	1	H2-1
316	M328	L6X6X5	.004	0	2	.001	0	z	3	25.726	118.908	9.302	16.791	1	H2-1
317	M329	L6X6X5	.004	0	2	.002	0	z	2	25.726	118.908	9.302	16.791	1	H2-1
318	M330	L6X6X5	.024	.742	2	.009	0	z	2	25.726	118.908	9.302	13.803	...	H2-1

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

	Member	Shape	Code...	Loc...	...	Shea...	Loc...	...	...	phi*Pn...	phi*Pn...	phi*Mn y-y [k-ft]	phi*Mn...	...	Eqn
319	M331	L6X6X5	.004	.742	2	.004	.742	z	2	25.726	118.908	9.302	16.791	1	H2-1
320	M332	L6X6X5	.004	.742	2	.001	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
321	M333	L6X6X5	.004	0	2	.000	0	z	2	25.726	118.908	9.302	16.791	1	H2-1
322	M334	L6X6X5	.004	0	2	.001	0	z	3	25.726	118.908	9.302	16.791	1	H2-1
323	M335	L6X6X5	.004	0	2	.001	0	z	2	25.726	118.908	9.302	16.791	1	H2-1
324	M336	L6X6X5	.013	.742	2	.006	0	z	2	25.726	118.908	9.302	14.227	...	H2-1
325	M337	L6X6X5	.008	0	3	.005	.742	z	2	25.726	118.908	9.302	14.11	...	H2-1
326	M338	L6X6X5	.004	.742	2	.001	.742	z	2	25.726	118.908	9.302	16.791	1	H2-1
327	M339	L6X6X5	.004	.742	2	.000	.742	z	2	25.726	118.908	9.302	16.791	1	H2-1
328	M340	L6X6X5	.004	0	2	.000	0	z	3	25.726	118.908	9.302	16.791	1	H2-1
329	M341	L6X6X5	.004	0	2	.001	0	z	2	25.726	118.908	9.302	16.791	1	H2-1
330	M342	L6X6X5	.009	.742	4	.004	0	z	2	25.726	118.908	9.302	14.02	...	H2-1
331	M343	L6X6X5	.012	0	3	.005	.742	z	2	25.726	118.908	9.302	13.661	...	H2-1
332	M344	L6X6X5	.003	.742	2	.001	.742	z	2	25.726	118.908	9.302	16.791	1	H2-1
333	M345	L6X6X5	.004	.742	2	.000	.742	z	4	25.726	118.908	9.302	16.791	1	H2-1
334	M346	L6X6X5	.004	0	2	.000	0	z	2	25.726	118.908	9.302	16.791	1	H2-1
335	M347	L6X6X5	.003	0	2	.001	0	z	2	25.726	118.908	9.302	16.791	1	H2-1
336	M348	L6X6X5	.017	.742	2	.006	0	z	2	25.726	118.908	9.302	13.816	...	H2-1
337	M349	L6X6X5	.011	0	3	.005	.742	z	2	25.726	118.908	9.302	13.502	...	H2-1
338	M350	L6X6X5	.003	.742	2	.001	.742	z	2	25.726	118.908	9.302	16.791	1	H2-1
339	M351	L6X6X5	.003	.742	2	.000	.742	z	4	25.726	118.908	9.302	16.791	1	H2-1
340	M352	L6X6X5	.003	0	2	.000	0	z	2	25.726	118.908	9.302	16.791	1	H2-1
341	M353	L6X6X5	.003	0	4	.001	0	z	4	25.726	118.908	9.302	16.791	1	H2-1
342	M354	L6X6X5	.015	.742	3	.005	0	z	3	25.726	118.908	9.302	13.485	...	H2-1
343	M355	L6X6X5	.004	.742	4	.001	.742	z	4	25.726	118.908	9.302	16.791	1	H2-1
344	M356	L6X6X5	.004	.742	4	.001	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
345	M357	L6X6X5	.004	.742	4	.000	0	z	2	25.726	118.908	9.302	16.791	1	H2-1
346	M358	L6X6X5	.004	0	4	.000	0	z	2	25.726	118.908	9.302	16.791	1	H2-1
347	M359	L6X6X5	.004	0	4	.001	0	z	2	25.726	118.908	9.302	16.791	1	H2-1
348	M360	L6X6X5	.007	.742	3	.003	0	z	4	25.726	118.908	9.302	13.963	...	H2-1
349	M361	L6X6X5	.007	0	2	.003	.742	z	4	25.726	118.908	9.302	14.75	...	H2-1
350	M362	L6X6X5	.004	.742	4	.001	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
351	M363	L6X6X5	.004	.742	4	.000	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
352	M364	L6X6X5	.005	.742	4	.000	.742	z	3	25.726	118.908	9.302	16.791	1	H2-1
353	M365	L6X6X5	.005	0	4	.000	0	z	2	25.726	118.908	9.302	16.791	1	H2-1
354	M366	L6X6X5	.005	0	4	.002	0	z	4	25.726	118.908	9.302	16.791	1	H2-1
355	M370	HSS5x0....	.007	5.455	4	.001	0		4	196.651	214.488	25.92	25.92	...	H1-1b
356	M371	LL4x4x4x3	.025	10.1	2	.002	10.1	y	2	76.046	125.064	12.586	6.849	...	H1-1b
357	M372	LL4x4x4x3	.024	10.1	2	.002	10.1	y	2	76.046	125.064	12.586	6.849	...	H1-1b
358	M373	LL4x4x4x3	.025	10.1	2	.002	10.1	y	2	76.046	125.064	12.586	6.849	...	H1-1b
359	M374	LL4x4x4x3	.024	10.1	2	.002	10.1	y	2	76.046	125.064	12.586	6.849	...	H1-1b
360	M375	LL4x4x4x3	.022	10.1	2	.002	10.1	y	2	76.046	125.064	12.586	6.849	...	H1-1b
361	M376	LL4x4x4x3	.018	10.1	2	.002	10.1	y	2	76.046	125.064	12.586	6.849	...	H1-1b
362	M377	LL4x4x4x3	.021	0	2	.002	10.1	y	2	76.046	125.064	12.586	6.849	...	H1-1b
363	M378	LL4x4x4x3	.023	10.1	2	.002	10.1	y	2	76.046	125.064	12.586	6.849	...	H1-1b
364	M379	LL4x4x4x3	.024	10.1	2	.002	10.1	y	2	76.046	125.064	12.586	6.849	...	H1-1b
365	M380	LL4x4x4x3	.023	10.1	2	.002	10.1	y	2	76.046	125.064	12.586	6.849	...	H1-1b
366	M381	LL4x4x4x3	.024	10.1	2	.002	10.1	y	2	76.046	125.064	12.586	6.849	...	H1-1b
367	M382	LL4x4x4x3	.024	10.1	2	.002	10.1	y	2	76.046	125.064	12.586	6.849	...	H1-1b

Site Name: Mankes Silo, CT
Site Number: 370624
Tower Type: MP
Design Loads (Factored) - Analysis per TIA-222-H Standards

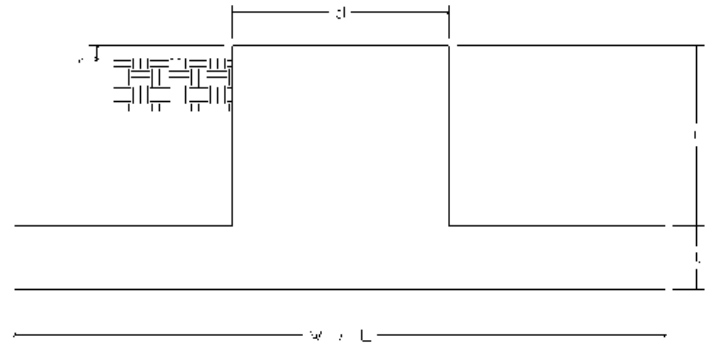
Monolithic Mat & Pier Foundation Analysis

Foundation Analysis Parameters		
Design / Analysis / Mapping:	Mapping	-
Compression/Leg:	493.9	k
Uplift/Leg:	0.0	k
Total Shear:	34.2	k
Moment:	1,394.2	k-ft
Tower + Appurtenance Weight:	493.9	k
Depth to Base of Foundation (l + t - h):	3.75	ft
Diameter Base Plate (d):	0	ft
Length of Pier (l):	0	ft
Height of Pier above Ground (h):	0	ft
Width of Pad (W):	19	ft
Length of Pad (L):	19	ft
Thickness of Pad (t):	3.75	ft
Tower Leg Center to Center:	0	ft
Number of Tower Legs:	1	-
Tower Center from Mat Center:	0	ft
Depth Below Ground Surface to Water Table:	99	ft
Unit Weight of Concrete:	150	pcf
Unit Weight of Soil Above Water Table:	100	pcf
Unit Weight of Water:	62.4	pcf
Unit Weight of Soil Below Water Table:	37.6	pcf
Friction Angle of Uplift:	15	°
Coefficient of Shear Friction:	0.3	-
Ultimate Compressive Bearing Pressure:	10,000	psf
Ultimate Passive Pressure on Pad Face:	0	psf
$f_{Soil\ and\ Concrete\ Weight}$:	0.9	-
f_{Soil}:	0.75	-

Overturning Moment Usage		
Design OTM:	1522.6	k-ft
OTM Resistance:	4955.5	k-ft
Design OTM / OTM Resistance:	31%	Pass

Soil Bearing Pressure Usage		
Net Bearing Pressure:	3385	psf
Factored Nominal Bearing Pressure:	7500	psf
Factored Nominal (Net) Bearing Pressure:	45%	Pass
Load Direction Controling Design Bearing Pressure:	*Diagonal to Pad Edge*	

Sliding Factor of Safety		
Ultimate Friction Resistance:	184.4	k
Ultimate Passive Pressure Resistance:	0.0	k
Total Factored Sliding Resistance:	138.3	k
Sliding Design / Sliding Resistance:	25%	Pass



Site Name: ***CHESHIRE NORTH CT***
Cumulative Power Density

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)
VZW 700	751	4	642	2570	70	0.0189
VZW Cellular	874	4	742	2969	70	0.0218
VZW PCS	1975	4	1439	5757	70	0.0422
VZW AWS	2120	4	1447	5790	70	0.0425
VZW CBAND	3730.08	4	6531	26125	70	0.1917

Total Percentage of Maximum Permissible Exposure

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI/
**Calculation includes a -10 dB Off Beam Antenna Pattern Adjustment pursuant to Attachments B and C of the Siting Council

MHz = Megahertz
mW/cm^2 = milliwatts per square centimeter
ERP = Effective Radiated Power

Absolute worst case maximum values used.

Maximum Permissible Exposure*	Fraction of MPE
(mW/cm^2)	(%)
0.5007	3.77%
0.5827	3.74%
1.0000	4.22%
1.0000	4.25%
1.0000	19.17%
	35.15%

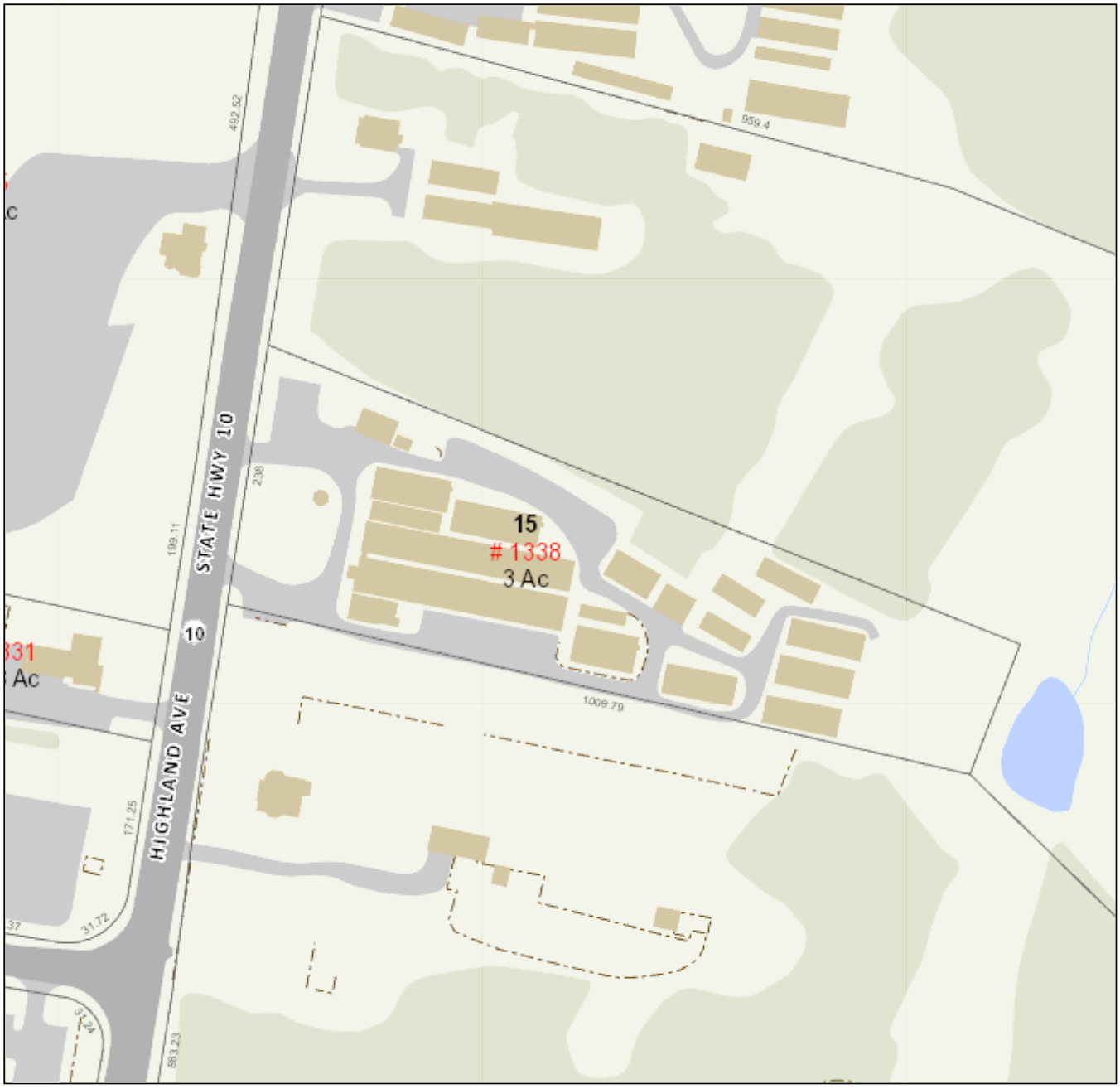
IEEE C95.1-1992

l's November 10, 2015 Memorandum for Exempt Modification filings

Town of Cheshire

Geographic Information System (GIS)

Date Printed: 10/15/2021



MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The Town of Cheshire and its mapping contractors assume no legal responsibility for the information contained herein.

Approximate Scale: 1 inch = 150 feet

0 150 Feet

N W E S

Town of Cheshire, CT

Property Listing Report

Map Block Lot	28 15	Building #	1	Unique Identifier	00158400

Property Information

Property Location	1338 HIGHLAND AVE
Mailing Address	1338 HIGHLAND AVE CHESHIRE CT 06410
Land Use	Warehouse
Zoning Code	I-2
Neighborhood	I-4D

Owner	MUDDDM LLC
Co-Owner	
Book / Page	1672/0243
Land Class	Commercial
Census Tract	3431
Acreage	3

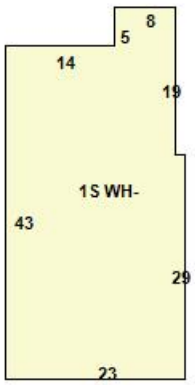
Valuation Summary

(Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	240474	168330
Outbuildings	66355	46450
Land	445500	2920
Total	752329	217700

Utility Information

Electric	No
Gas	No
Sewer	No
Public Water	No
Well	No



Primary Construction Details

Year Built	1952
Building Desc.	Commercial
Building Style	
Stories	1.00
Exterior Walls	Concrete Block
Exterior Walls 2	
Interior Walls	
Interior Walls 2	
Interior Floors 1	Concrete
Interior Floors 2	

Heating Fuel	Oil
Heating Type	FHA
AC Type	
Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Extra Fixtures	0
Total Rooms	0
Bath Style	NA
Kitchen Style	
Occupancy	0

Building Use	Warehouse
Building Condition	Average/Fair
Frame Type	Low Cost
Fireplaces	0
Bsmt Gar	0
Fin Bsmt Area	
Fin Bsmt Quality	
Building Grade	20
Roof Style	Flat
Roof Cover	Composite Built Up

Report Created On 10/15/2021

Town of Cheshire, CT

Property Listing Report | Map Block Lot 28 15 | Building # 1 | Unique Identifier 00158400

Detached Outbuildings

Type	Description	Area (sq ft)	Condition	Year Built
Greenhouse	Frame (3 Car)	6400	Average	1946
Greenhouse	Frame (3 Car)	5600	Average	1952
Garage	Frame (3 Car)	756	Average	1946
Gazebo	Frame (3 Car)	182	Average	2004
Shed	Frame (3 Car)	100	Average	1990
Shed	Frame (3 Car)	768	Average	1990
Greenhouse	Frame (3 Car)	5600	Average	1952

Attached Extra Features

Type	Description	Area (sq ft)	Condition	Year Built

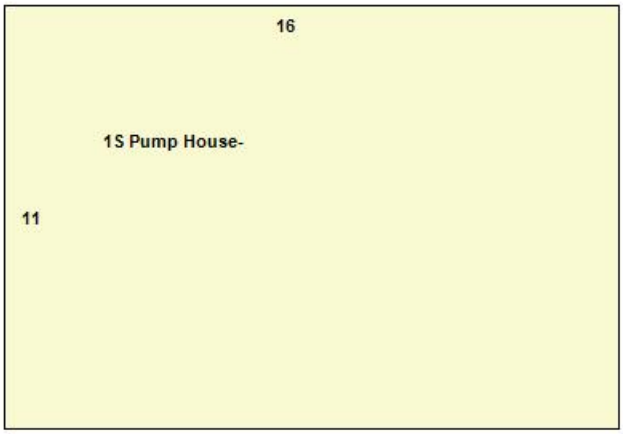
Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
MUDDDM LLC	1672_ 243	3/6/2003	0
MANKE JONATHAN D & DEBRAH P	1401_ 21	4/27/2000	320000
PAPANDREA FRANK J & NORMA S	701_ 255	12:00:00 AM	0

Report Created On 10/15/2021

Town of Cheshire, CT

Property Listing Report | Map Block Lot 28 15 | Building # 3 | Unique Identifier 00158400



Primary Construction Details

Year Built	2000
Building Desc.	Pump House
Building Style	
Stories	1.00
Exterior Walls	Pre-Cast Concrete
Exterior Walls 2	
Interior Walls	
Interior Walls 2	
Interior Floors 1	Concrete
Interior Floors 2	

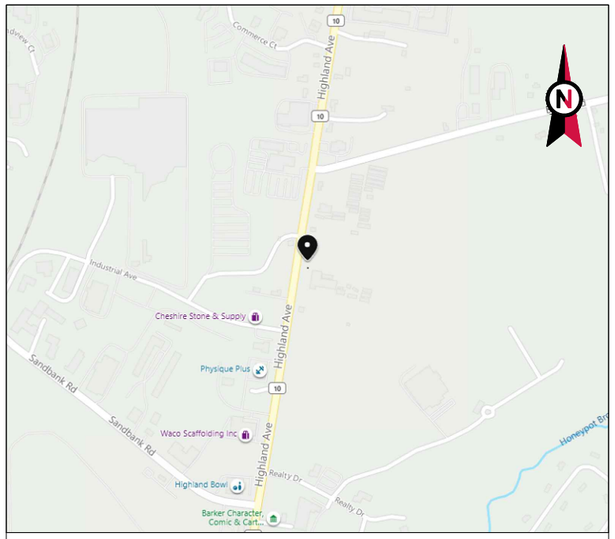
Heating Fuel	
Heating Type	
AC Type	
Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Extra Fixtures	0
Total Rooms	0
Bath Style	NA
Kitchen Style	
Occupancy	0

Building Use	Commercial
Building Condition	Average
Frame Type	Good
Fireplaces	0
Bsmt Gar	0
Fin Bsmt Area	
Fin Bsmt Quality	
Building Grade	30
Roof Style	Flat
Roof Cover	Composite Built Up

Attached Extra Features

Type	Description	Area (sq ft)	Condition	Year Built

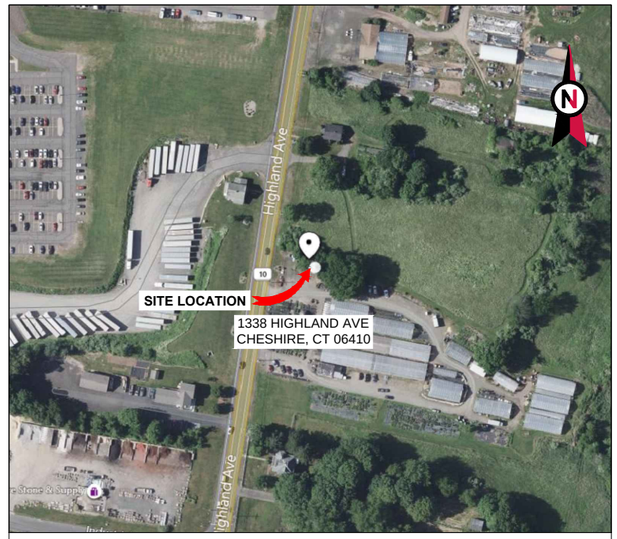
Report Created On 10/15/2021



VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: MANKES SILO
ATC SITE NUMBER: 370624
VERIZON SITE NAME: CHESHIRE NO CT
VERIZON SITE NUMBER: 467326
SITE ADDRESS: 1338 HIGHLAND AVE
CHESHIRE, CT 06410



LOCATION MAP

VERIZON
ANTENNA AMENDMENT PLAN

COMPLIANCE CODE

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

1. 2015 INTERNATIONAL BUILDING CODE (IBC)
2. 2017 NATIONAL ELECTRIC CODE (NEC)
3. 2018 CONNECTICUT STATE BUILDING CODE
4. CITY/COUNTY ORDINANCES

UTILITY COMPANIES

POWER COMPANY: PECO
PHONE: (215) 841-4141

TELEPHONE COMPANY: VERIZON LANDLINE
PHONE: (800) 483-0722

811 Know what's below. Call before you dig.

PROJECT SUMMARY

SITE ADDRESS:

1338 HIGHLAND AVE

CHESHIRE, CT 06410

COUNTY: NEW HAVEN

GEOGRAPHIC COORDINATES:

LATITUDE: 41.53694444

LONGITUDE: -72.89333333

GROUND ELEVATION: 197' AMSL

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

APPLICANT:

VERIZON

ENGINEER:

TELAMON CLS
319 CHAPANOKE RD, SUITE 118
RALEIGH, NC 27603
PH: (405)348-5460
FAX: (405)341-4625

PROPERTY OWNER:

N/A

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:

REMOVE (9) ANTENNA(s) AND (1) OVP(s)

INSTALL (9) ANTENNA(s) AND (3) DIPLEXER(s)

EXISTING (3) ANTENNA(s), AND (6) RRH(s), (2) OVP(S), AND (2) 1-1/4" HYBRID CABLE(s) TO REMAIN

THE PROPOSED PROJECT DOES NOT INCLUDE ELECTRICAL SCOPE

PROJECT NOTES

1. THE FACILITY IS UNMANNED.
2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.
3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.
4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.
5. HANDICAP ACCESS IS NOT REQUIRED.

PROJECT LOCATION DIRECTIONS

KEEP STRAIGHT TO GET ONTO I-84 W. AT EXIT 26, HEAD RIGHT ON THE RAMP FOR CT-70 TOWARD CHESHIRE. TURN LEFT ONTO CT-70 / WATERBURY RD. TURN LEFT ONTO MARION RD. TURN RIGHT ONTO JARVIS ST. TURN LEFT ONTO CT-10 / HIGHLAND AVE. DESTINATION ON THE RIGHT.

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	1	09/28/21	OBA
G-002	GENERAL NOTES	1	09/28/21	OBA
C-101	DETAILED SITE PLAN	1	09/28/21	OBA
C-201	TOWER ELEVATION	1	09/28/21	OBA
C-401	ANTENNA INFORMATION & SCHEDULE	1	09/28/21	OBA
C-501	CONSTRUCTION DETAILS	1	09/28/21	OBA
E-501	GROUNDING DETAILS	1	09/28/21	OBA
R-601	SUPPLEMENTAL			

AMERICAN TOWER®

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PH: (405)348-5460 FAX: (405)341-4625

COA# PEC.001833 EXP. 08/14/2021

REV.	DESCRIPTION	BY	DATE
A	PRELIM	BMB	05/21/21
0	FOR CONSTRUCTION	OBA	09/15/21
1	CLIENT COMMENT	OBA	09/28/21

ATC SITE NUMBER:
370624

ATC SITE NAME:
MANKES SILO

VERIZON SITE NAME:
CHESHIRE NO CT

SITE ADDRESS:
1338 HIGHLAND AVE
CHESHIRE, CT 06410

SEAL:

Tyler M. Barker
CLS Engineering PLLC
PE # 32402 Exp. 1/31/2022
COA # PEC.001833 Exp. 8/14/2022
09/28/2021

PE# 32402 EXP: 01/31/2022

verizon

DATE DRAWN:	09/28/21
ATC JOB NO:	13669390_G3
CUSTOMER ID:	CHESHIRE NO CT
CUSTOMER #:	467326

TITLE SHEET

SHEET NUMBER:	REVISION:
G-001	1

GENERAL CONSTRUCTION NOTES:

1. OWNER FURNISHED MATERIALS, VERIZON "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
   - A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
   - B. AC/TELCO INTERFACE BOX (PPC)
   - C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
   - D. TOWERS, MONOPOLES
   - E. TOWER LIGHTING
   - F. GENERATORS & LIQUID PROPANE TANK
   - G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING
   - H. ANTENNAS (INSTALLED BY OTHERS)
   - I. TRANSMISSION LINE
   - J. TRANSMISSION LINE JUMPERS
   - K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
   - L. TRANSMISSION LINE GROUND KITS
   - M. HANGERS
   - N. HOISTING GRIPS
   - O. BTS EQUIPMENT
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS, IT IS THE POSITION OF VERIZON TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE VERIZON REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE VERIZON REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE VERIZON REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE VERIZON CONSTRUCTION MANAGER.
15. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE VERIZON REP AND ENGINEER OF RECORD IMMEDIATELY.
17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20. CONTRACTOR SHALL FURNISH VERIZON AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY VERIZON MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH VERIZON SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO VERIZON FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO VERIZON SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
27. CONTRACTOR SHALL NOTIFY VERIZON REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
29. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
30. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE VERIZON REP. ANY WORK FOUND BY THE VERIZON REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
31. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.
32. VERIZON FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE VERIZON WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.
33. VERIZON OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO VERIZON OR THEIR ARCHITECT/ENGINEER.

SPECIAL CONSTRUCTION ANTENNA INSTALLATION NOTES:

1. WORK INCLUDED:
   - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY VERIZON UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OD COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL AND
   - B. INSTALL ANTENNA AS INDICATE ON DRAWINGS AND VERIZON SPECIFICATIONS.
   - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS
   - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.
   - E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.
   - F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
   - G. ANTENNA AND COAXIAL CABLE GROUNDING:
2. ALL EXTERIOR #6 GREED GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR EQUAL.
3. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)

ALL DISCREPANCIES FROM WHAT IS SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL BE COMMUNICATED TO ATC ENGINEERING IMMEDIATELY FOR CORRECTION OR RE-DESIGN. FAILURE TO COMMUNICATE DIRECTLY WITH ATC ENGINEERING OR ANY CHANGES FROM THE DESIGN CONDUCTED WITHOUT PRIOR APPROVAL FROM ATC ENGINEERING SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

AMERICAN TOWER®

CLS ENGINEERING PLLC
319 CHAPANOKE ROAD, SUITE 118, RALEIGH, NC 27603
PH: (405)348-5460 FAX: (405)341-4625

COA# PEC.001833 EXP. 08/14/2021

REV.	DESCRIPTION	BY	DATE
A	PRELIM	BMB	05/21/21
0	FOR CONSTRUCTION	OBA	09/15/21
1	CLIENT COMMENT	OBA	09/28/21

ATC SITE NUMBER:
370624

ATC SITE NAME:
MANKES SILO

VERIZON SITE NAME:
CHESHIRE NO CT

SITE ADDRESS:
1338 HIGHLAND AVE
CHESHIRE, CT 06410

SEAL:

STATE OF CONNECTICUT · TYLER M BARKER · No. 32402 · LICENSED PROFESSIONAL ENGINEER

Tyler M. Barker
CLS Engineering PLLC
PE # 32402 Exp. 1/31/2022
COA # PEC.001833 Exp. 8/14/2022
09/28/2021

PE# 32402 EXP: 01/31/2022

verizon

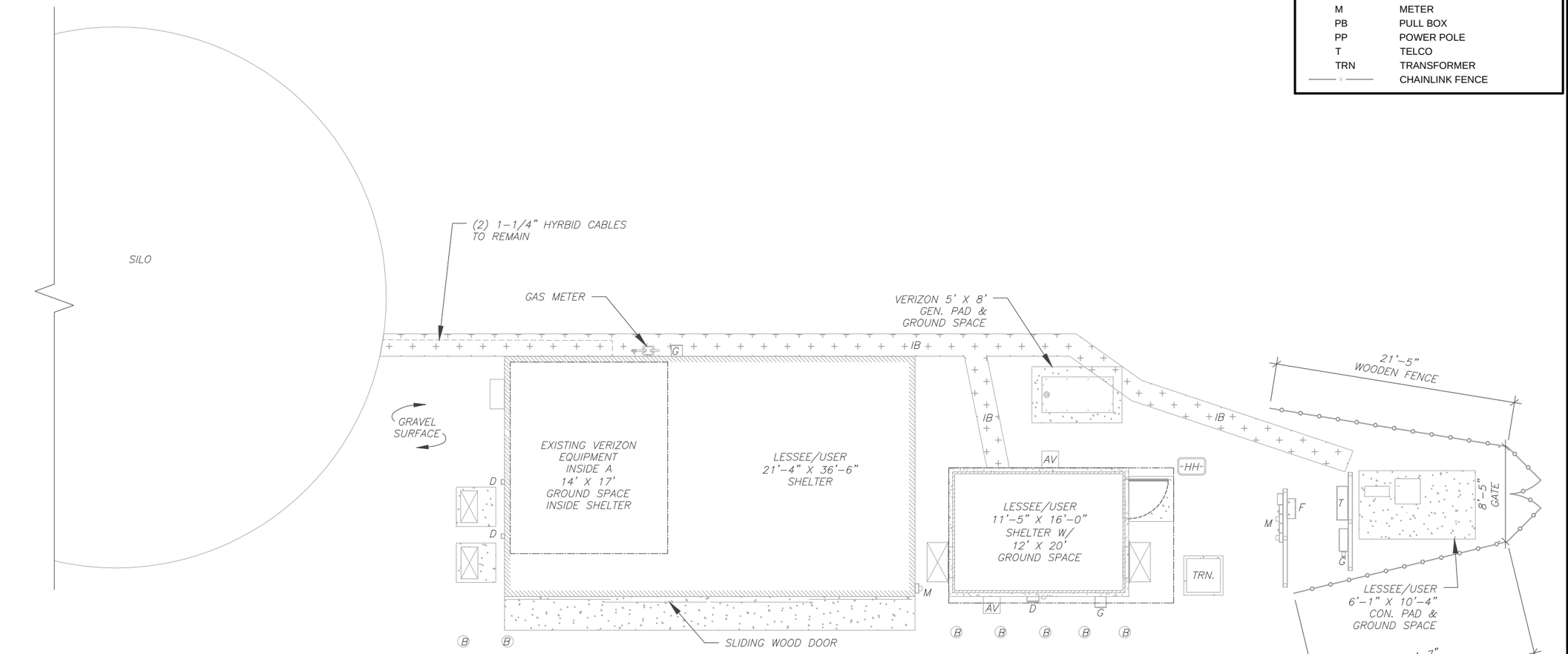
DATE DRAWN:	09/28/21
ATC JOB NO:	13669390_G3
CUSTOMER ID:	CHESHIRE NO CT
CUSTOMER #:	467326

GENERAL NOTES

SHEET NUMBER:	REVISION:
G-002	1

SITE PLAN NOTES:

1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.
3. THIS PROJECT INCLUDES NO INSTALL OR MODIFICATION AT GRADE.



PROPOSED CABLE LENGTH:

1. ESTIMATED LENGTH OF PROPOSED CABLE IS **104'**. ESTIMATED LENGTH OF CABLE WAS PROVIDED BY CUSTOMER OR CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES), CDS DEFER TO GREATEST CABLE LENGTH.
2. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.

1 DETAILED SITE PLAN

GRAPHIC SCALE

10 0 5 10

(IN FEET)
1 UNIT = 10 FEET

LEGEND

⊗	GROUNDING TEST WELL
ATS	AUTOMATIC TRANSFER SWITCH
B	BOLLARD
CSC	CELL SITE CABINET
D	DISCONNECT
E	ELECTRICAL
F	FIBER
GEN	GENERATOR
G	GENERATOR RECEPTACAL
HH, V	HAND HOLE, VAULT
IB	ICE BRIDGE
K	KENTROX BOX
LC	LIGHTING CONTROL
M	METER
PB	PULL BOX
PP	POWER POLE
T	TELCO
TRN	TRANSFORMER
——x——	CHAINLINK FENCE

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REV.	DESCRIPTION	BY	DATE
A	PRELIM	BMB	05/21/21
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ATC SITE NUMBER:
370624

ATC SITE NAME:
MANKES SILO

VERIZON SITE NAME:
CHESHIRE NO CT

SITE ADDRESS:
1338 HIGHLAND AVE
CHESHIRE, CT 06410

SEAL:

STATE OF CONNECTICUT
TYLER M BARKER
No. 32402
LICENSED
PROFESSIONAL ENGINEER

Tyler M. Barker
CLS Engineering PLLC
PE # 32402 Exp. 1/31/2022
COA # PEC.001833 Exp. 8/14/2022
09/28/2021

PE# 32402 EXP: 01/31/2022

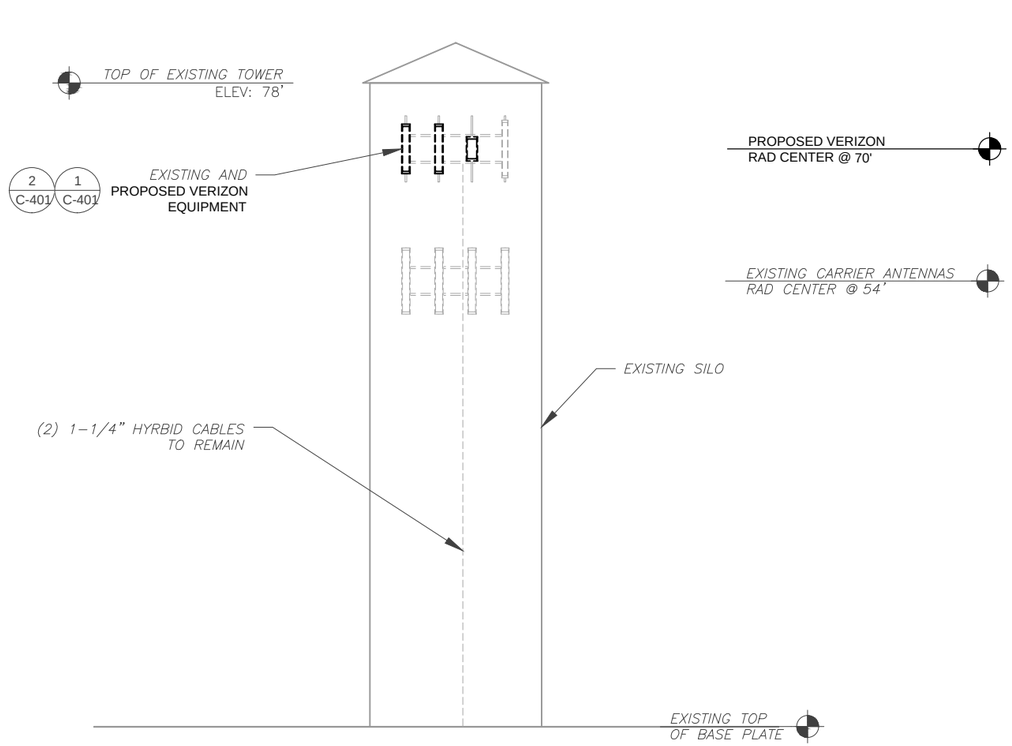
verizon

DATE DRAWN:	09/28/21
ATC JOB NO:	13669390_G3
CUSTOMER ID:	CHESHIRE NO CT
CUSTOMER #:	467326

DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	1

ATC IS ANALYZING THE ANTENNA MOUNT UNDER A SEPARATE PROJECT. CONSTRUCTION IS NOT TO PROCEED UNTIL THE MOUNT ANALYSIS IS COMPLETE AND INDICATES THE ADDITIONAL LOADING DOES NOT OVERSTRESS THE MOUNT



1 TOWER ELEVATION
SCALE: N.T.S.

TOWER NOTE:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE PROJECT MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
2. WHERE APPLICABLE, ALL NEW ANTENNAS, EQUIPMENT, MOUNTS, CABLING, ETC. SHALL BE PAINTED/SOCKED TO MATCH EXISTING EQUIPMENT IN ACCORDANCE WITH FAA, JURISDICTION, AND/OR OTHER LOCAL REQUIREMENTS.
3. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.
4. TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)

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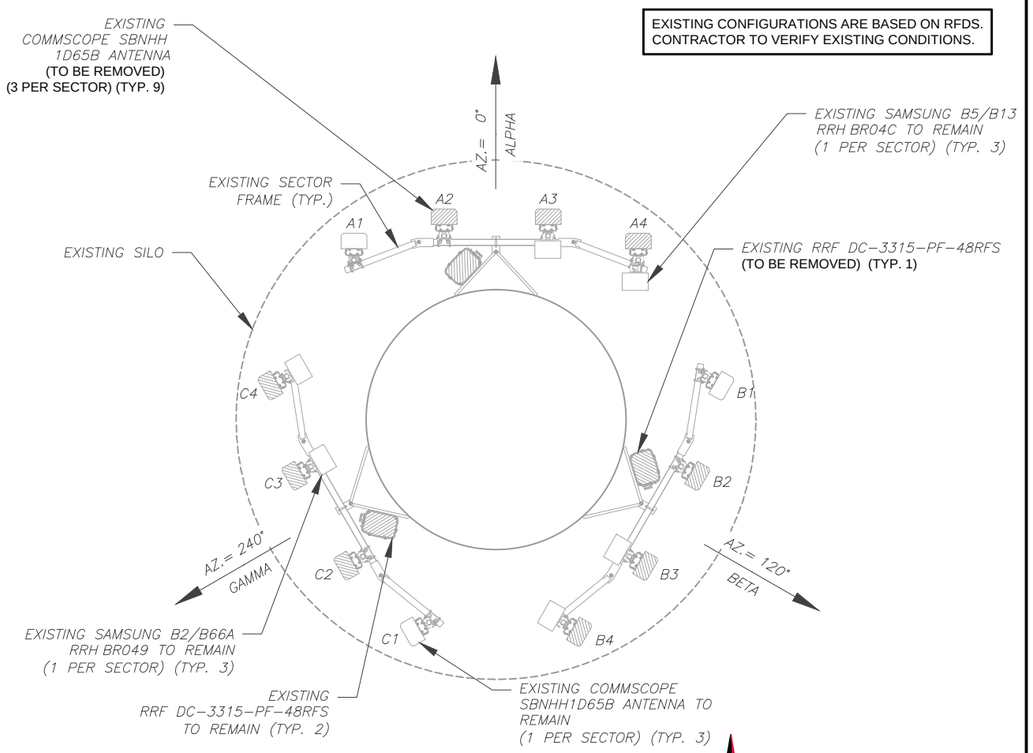
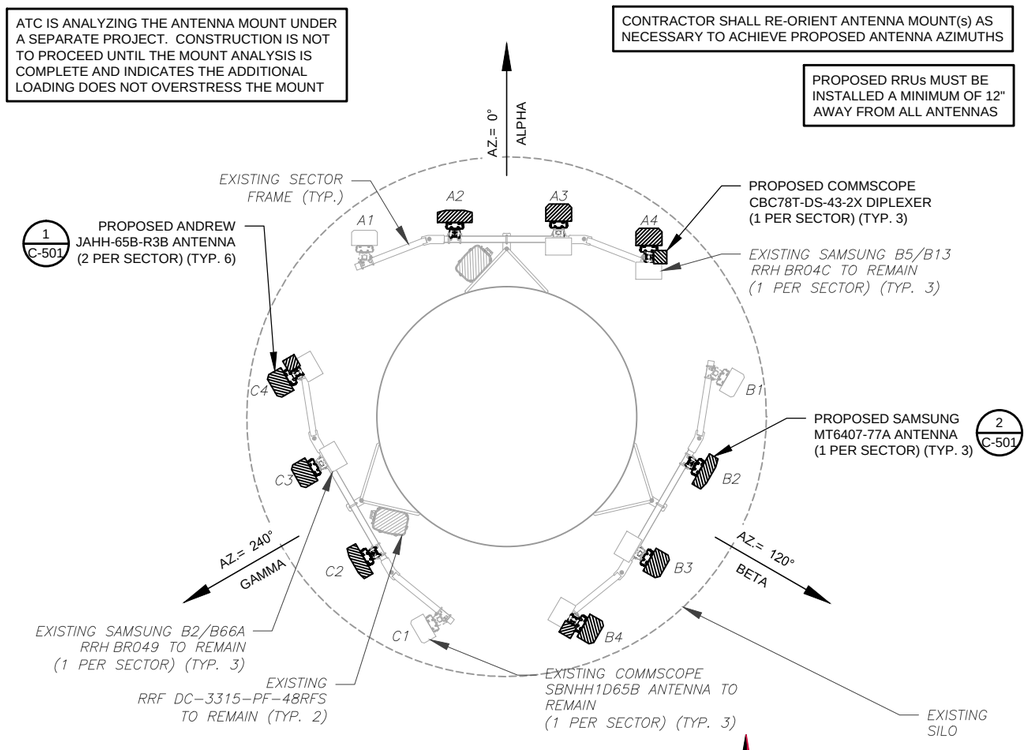
CUSTOMER #:	467326

TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-201	1



1 EXISTING ANTENNA PLAN
SCALE: N.T.S.



2 FINAL ANTENNA PLAN
SCALE: N.T.S.

EXISTING ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY					NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	70'	0°	A1	COMMSCOPE SBNHH-1D65B	LTE 700	0/0	RMN	–	–
			A2	COMMSCOPE SBNHH-1D65B	LTE 850	0/0	RMV	SAMSUNG B2/B66A RRH BR049	RMN
			A3	COMMSCOPE SBNHH-1D65B	LTE AWS	0/0	RMV	SAMSUNG B5/B13 RRH BR04C	RMN
			A4	COMMSCOPE SBNHH-1D65B	LTE PCS	0/0	RMV	–	–
BETA	70'	120°	B1	COMMSCOPE SBNHH-1D65B	LTE 700	0/0	RMN	–	–
			B2	COMMSCOPE SBNHH-1D65B	LTE 850	0/0	RMV	SAMSUNG B2/B66A RRH BR049	–
			B3	COMMSCOPE SBNHH-1D65B	LTE AWS	0/0	RMV	SAMSUNG B5/B13 RRH BR04C	RMN
			B4	COMMSCOPE SBNHH-1D65B	LTE PCS	0/0	RMV	–	RMN
GAMMA	70'	240°	C1	COMMSCOPE SBNHH-1D65B	LTE 700	0/0	RMN	–	–
			C2	COMMSCOPE SBNHH-1D65B	LTE 850	0/0	RMV	SAMSUNG B2/B66A RRH BR049	–
			C3	COMMSCOPE SBNHH-1D65B	LTE AWS	0/0	RMV	SAMSUNG B5/B13 RRH BR04C	RMN
			C4	COMMSCOPE SBNHH-1D65B	LTE PCS	0/0	RMV	–	RMN

NOTES

1. CONFIRM WITH VERIZON REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
2. CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.

STATUS ABBREVIATIONS

RMV: TO BE REMOVED
RMN: TO REMAIN
REL: TO BE RELOCATED
ADD: TO BE ADDED

CABLE LENGTHS FOR JUMPERS

JUNCTION BOX TO RRU: 15'
RRU TO COMBINER: 10'
COMBINER TO ANTENNA: 10'

FINAL ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY					NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	70'	0°	A1	COMMSCOPE SBNHH-1D65B	LTE 700/ LTE 850/ LTE 1900/ LTE AWS	0/0	RMN	-	-
			A2	SAMSUNG MT6407-77A	5G L-SUB6	0/6	ADD	-	-
			A3	COMMSCOPE JAHH-65B-R3B	LTE 700/ LTE 850/ LTE 1900/ LTE AWS	0/0	ADD	SAMSUNG B2/B66A RRH BR049	RMN
			A4	COMMSCOPE JAHH-65B-R3B	LTE 700/ LTE 850/ LTE 1900/ LTE AWS	0/0	ADD	SAMSUNG B5/B13 RRH BR04C COMMSCOPE CBC78T-DS-43-2X DIPLEXER	RMN RMV
BETA	70'	120°	B1	COMMSCOPE SBNHH-1D65B	LTE 700/ LTE 850/ LTE 1900/ LTE AWS	0/0	RMN	-	-
			B2	SAMSUNG MT6407-77A	5G L-SUB6	0/6	ADD	-	-
			B3	COMMSCOPE JAHH-65B-R3B	LTE 700/ LTE 850/ LTE 1900/ LTE AWS	0/0	ADD	SAMSUNG B2/B66A RRH BR049	RMN
			B4	COMMSCOPE JAHH-65B-R3B	LTE 700/ LTE 850/ LTE 1900/ LTE AWS	0/0	ADD	SAMSUNG B5/B13 RRH BR04C COMMSCOPE CBC78T-DS-43-2X DIPLEXER	RMN RMV
GAMMA	70'	240°	C1	COMMSCOPE SBNHH-1D65B	LTE 700/ LTE 850/ LTE 1900/ LTE AWS	0/0	RMN	-	-
			C2	SAMSUNG MT6407-77A	5G L-SUB6	0/6	ADD	-	-
			C3	COMMSCOPE JAHH-65B-R3B	LTE 700/ LTE 850/ LTE 1900/ LTE AWS	0/0	ADD	SAMSUNG B2/B66A RRH BR049	RMN
			C4	COMMSCOPE JAHH-65B-R3B	LTE 700/ LTE 850/ LTE 1900/ LTE AWS	0/0	ADD	SAMSUNG B5/B13 RRH BR04C COMMSCOPE CBC78T-DS-43-2X DIPLEXER	RMN RMV

EXISTING FIBER DISTRIBUTION/OVP BOX		EXISTING CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
(1) RRF DC-3315-PF-48RFS	RMV	–	(2) 1-1/4"	RMN
(2) RRF DC-3315-PF-48RFS	RMN	–	–	–

FINAL FIBER DISTRIBUTION / OVP BOX		FINAL CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
(2) RRF DC-3315-PF-48RFS	RMN	-	(2) 1-1/4"	RMN
-	-	-	-	-

3 EQUIPMENT SCHEDULES

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verizon

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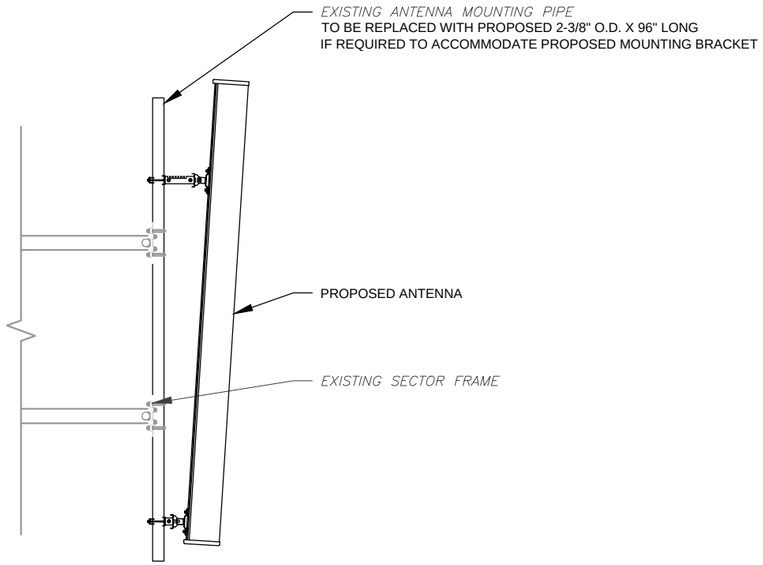
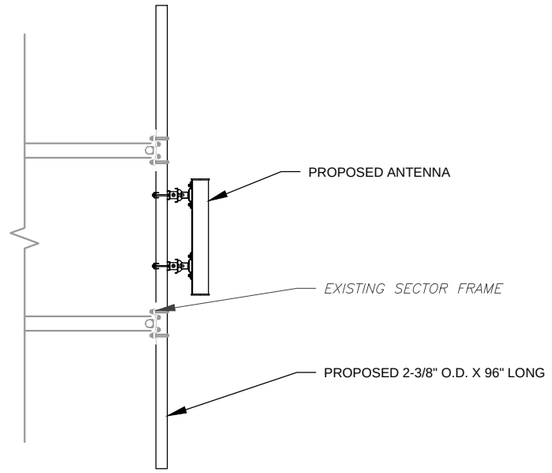
CUSTOMER ID:	CHESHIRE NO CT
CUSTOMER #:	467326

ANTENNA INFORMATION & SCHEDULE

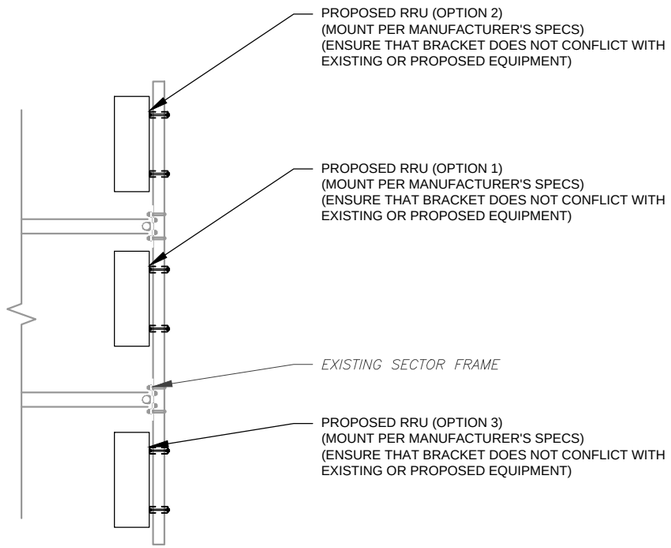
SHEET NUMBER:	REVISION:
C-401	1



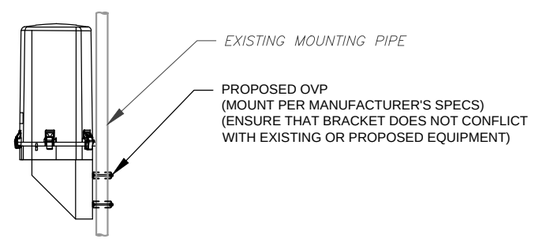
1 PROPOSED ANTENNA MOUNTING DETAIL - TYPICAL
SCALE: N.T.S.



2 PROPOSED 5G ANTENNA MOUNTING DETAIL - TYPICAL
SCALE: N.T.S.



3 PROPOSED RRU MOUNTING DETAIL - TYPICAL
SCALE: N.T.S.



4 PROPOSED OVP MOUNTING
SCALE: N.T.S.

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TYLER M BARKER
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verizon

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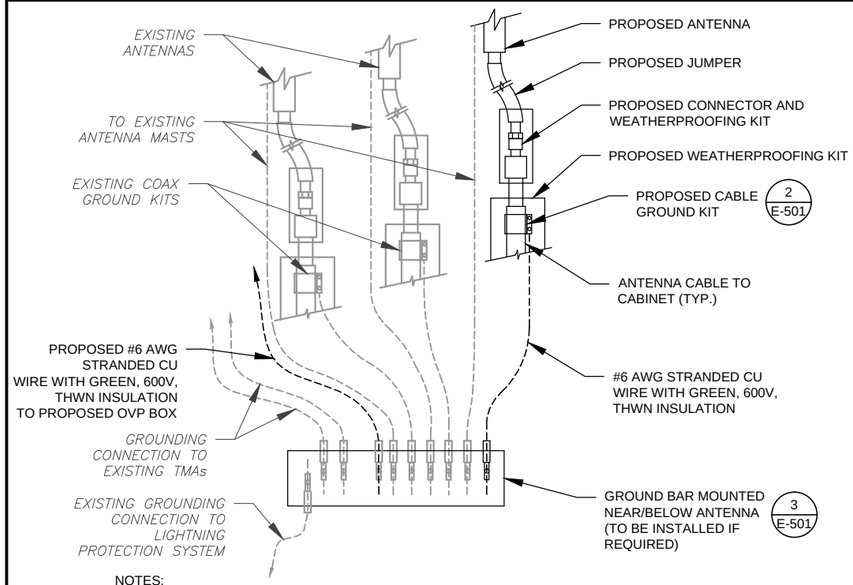
CUSTOMER ID:	CHESHIRE NO CT
CUSTOMER #:	467326

CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-501	1

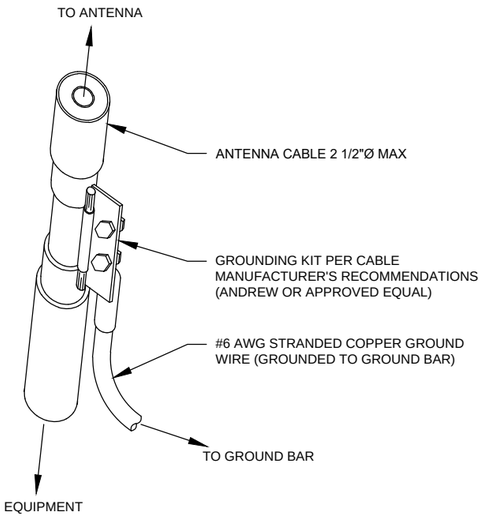


NOTES:

1. THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
2. SITE GROUNDING SHALL COMPLY WITH VERIZON GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH VERIZON GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN.

1 TYPICAL ANTENNA GROUNDING DIAGRAM

SCALE: N.T.S.

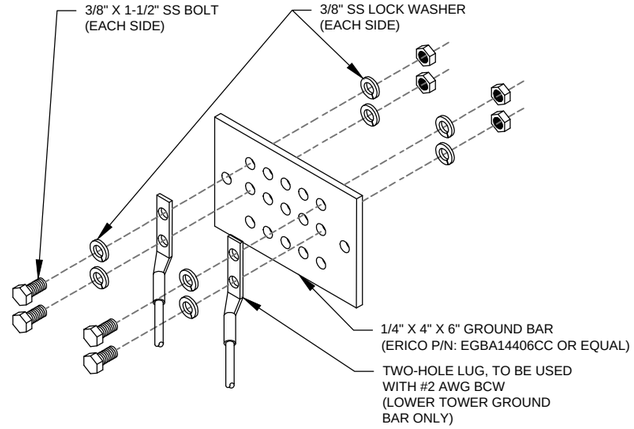


GROUND KIT NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. CONTRACTOR SHALL PROVIDE WEATHERPROOFING KIT (ANDREW PART NUMBER 221213) AND INSTALL/TAPE PER MANUFACTURER'S SPECIFICATIONS.

2 CABLE GROUND KIT CONNECTION DETAIL

SCALE: N.T.S.



GROUND BAR NOTES:

1. GROUND BAR KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR TO BE BONDED DIRECTLY TO TOWER.

3 TOWER GROUND BAR DETAIL

SCALE: N.T.S.

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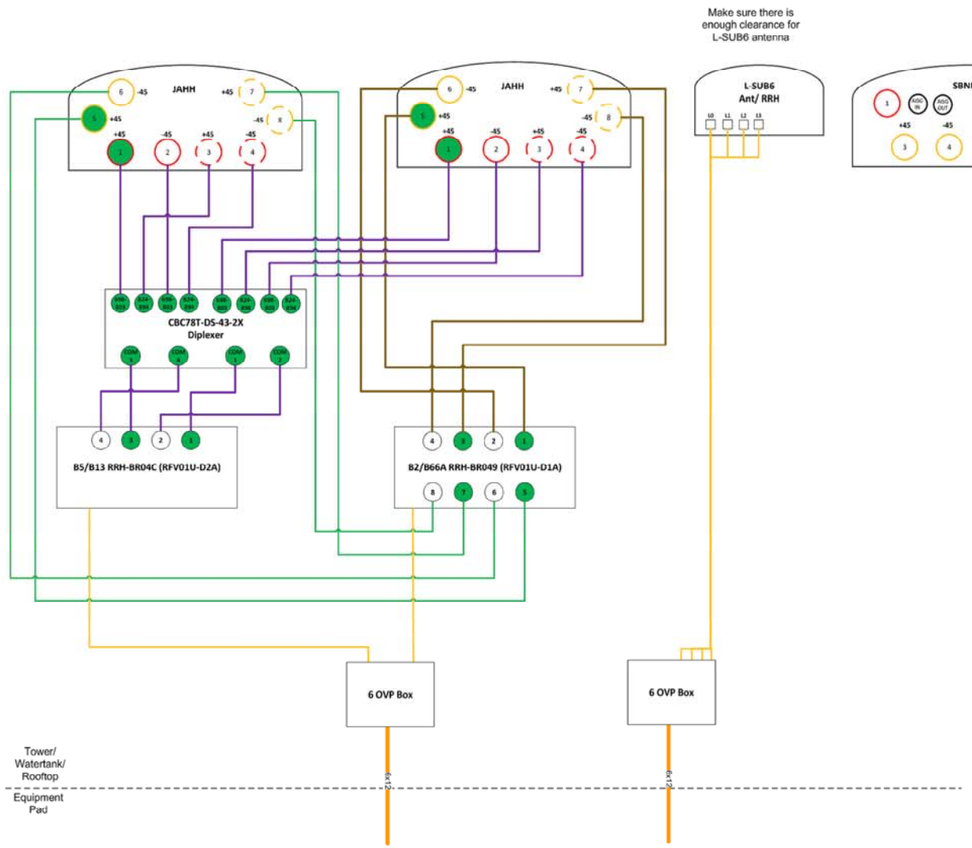
CUSTOMER #:	467326

GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	1



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

RET DC signal pass for RET
(Port that will control RET)

DC signal capable Port

AISG Cable

RET DC signal pass for RET
(Port that will control RET)

Hybriflex cables

Comments:

Diagram shows antenna port configuration as viewed from below antennas.

Antenna positions are indicated as viewed from IN FRONT of antennas.

Cap and weatherproof unused antenna ports.

All plumbing diagram colors are irrelevant except for AISG & Hybriflex cable. (For the coax colors follow Coax Colors guide above)

1 ANTENNA CONFIGURATION
SCALE: NOT TO SCALE

NOTE: THIS SHEET CREATED BY OTHERS AND PROVIDED BY REQUEST OF CUSTOMER WITHOUT EDIT.

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-601	