

July 31, 2023

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

Re: **Notice of Exempt Modification – Facility Modification
1300 Hall Boulevard, Bloomfield, Connecticut**

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless (“Cellco”) currently maintains a wireless telecommunications facility at the above-referenced address (the “Property”). Cellco’s facility consists of antennas and remote radio heads attached to a rooftop tower. Equipment associated with the facility is located on the roof of the building. The existing facility was approved by the Siting Council (“Council”) in August of 2022 (Petition No. 1526). A copy of the Council’s Petition No. 1526 approval letter is included in Attachment 1.

Cellco’s proposed modification involves the installation of two (2) interference mitigation filters (“filters”) on the existing rooftop tower. The specification sheet for the filters is included in Attachment 2.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Bloomfield’s Chief Elected Official and Land Use Officer.

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

1. The proposed modifications will not result in an increase in the height of the existing rooftop tower. The filters will be installed on Cellco’s existing steel mounting pipes.

Melanie A. Bachman, Esq.

July 31, 2023

Page 2

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 installation of Cellco's new filters will not result any change to radio frequency (RF) emissions from the facility. Therefore, no new RF emissions information is included in this filing.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. According to the attached Structural Analysis Report ("SA") and Antenna Mount Analysis Report ("MA"), the existing building roof, rooftop tower and antenna support structure can support Cellco's proposed modifications. A copy of the SA and MA are included in Attachment 3.

A copy of the parcel map and Property owner information is included in Attachment 4. A Certificate of Mailing verifying that this filing was sent to municipal officials and the property owner is included in Attachment 5.

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

Sincerely,



Kenneth C. Baldwin

Enclosures

Copy to:

Philip Schenck, Acting Town Manager
Justin LaFountain, Director of Land Use
The Atrium CT LLC, Property Owner
Alex Tyurin, Verizon Wireless

ATTACHMENT 1



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

Web Site: portal.ct.gov/csc

**VIA ELECTRONIC & CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

August 19, 2022

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

RE: **PETITION NO. 1526** – Cellco Partnership d/b/a Verizon Wireless petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed installation of a wireless telecommunications facility and associated equipment on the roof of an existing commercial building located at 1300 Hall Boulevard, Bloomfield, Connecticut.

Dear Attorney Baldwin:

At a public meeting held on August 18, 2022, the Connecticut Siting Council (Council) considered and ruled that the above-referenced proposal would not have a substantial adverse environmental effect, and pursuant to Connecticut General Statutes § 16-50k, would not require a Certificate of Environmental Compatibility and Public Need with the following conditions:

1. Approval of any project changes be delegated to Council staff;
2. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed within three years from the date of the mailing of the Council's decision, this decision shall be void, and the facility owner/operator shall dismantle the facility and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's decision shall not be counted in calculating this deadline. Authority to monitor and modify this schedule, as necessary, is delegated to the Executive Director. The facility owner/operator shall provide written notice to the Executive Director of any schedule changes as soon as is practicable;
3. Any request for extension of the time period to fully construct the facility shall be filed with the Council not later than 60 days prior to the expiration date of this decision and shall be served on all parties and intervenors, if applicable, and the Town of Bloomfield;
4. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
5. 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;
6. The facility owner/operator shall remit timely payments associated with annual assessments and invoices submitted by the Council for expenses attributable to the facility under Conn. Gen. Stat. §16-50v;

7. If the facility ceases to provide wireless services for a period of one year the Petitioner shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council within 90 days from the one year period of cessation of service. The Petitioner may submit a written request to the Council for an extension of the 90 day period not later than 60 days prior to the expiration of the 90 day period; and
8. This Declaratory Ruling may be transferred or partially transferred, provided both the facility owner/operator/transferor and the transferee are current with payments to the Council for their respective annual assessments and invoices under Conn. Gen. Stat. §16-50v. The Council shall be notified of such sale and/or transfer and of any change in contact information for the individual or representative responsible for management and operations of the facility within 30 days of the sale and/or transfer. Both the facility owner/operator/transferor and the transferee shall provide the Council with a written agreement as to the entity responsible for any quarterly assessment charges under Conn. Gen. Stat. §16-50v(b)(2) that may be associated with this facility.

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 petition dated June 29, 2022 and additional information received on August 3, 2022.

Enclosed for your information is a copy of the staff report on this project.

Sincerely,



Melanie A. Bachman
Executive Director

MAB/RDM/lm

Enclosure: Staff Report dated August 18, 2022

c: The Honorable Danielle Wong, Mayor, Town of Bloomfield (dwong@bloomfieldct.org)
The Honorable Shari Cantor, Mayor, Town of West Hartford (mayor@westhartfordct.org)

ATTACHMENT 2

BSF0020F3V1-1

TWIN BANDSTOP 900MHZ INTERFERENCE MITIGATION FILTER

The BSF0020 is ideal for co-located 700, 850 and 900 networks. Utilising a 2.6MHz guardband the BSF0020 provides rejection of the 900 UL band while passing 700/850 UL and DL bands. Capable of being used in an outdoor environment the BSF0020 contains two identical bandstop filters, suitable for 2x2 MIMO configuration, offering excellent insertion loss, group delay and rejection.



FEATURES

- Passes full 700 and 850 bands
- Low insertion loss
- Rejection of 900MHz uplink
- DC/AISG pass
- Twin unit
- Dual twin mounting available

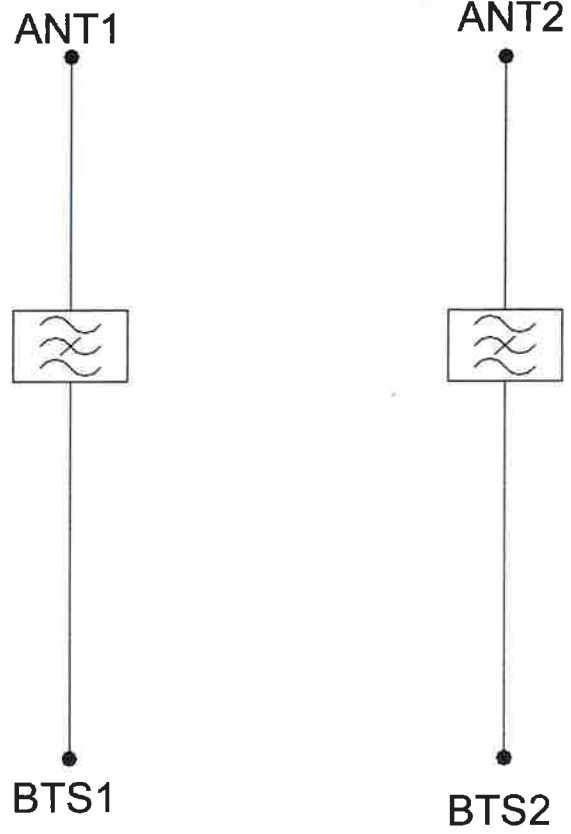
TECHNICAL SPECIFICATIONS

BAND NAME	700 PATH / 850 UPLINK PATH	850 DOWNLINK PATH
Passband	698 - 849MHz	869 - 891.5MHz
Insertion loss	0,1dB typical / 0,3dB maximum	0,5dB typical, 1,45dB maximum
Return loss	24dB typical, 18dB minimum	
Maximum input power (Per Port)	100W average	200W average and 66W per 5MHz
Rejection	53dB minimum @ 894,1 - 896,5MHz	
ELECTRICAL		
Impedance	50Ohms	
Intermodulation products	-160dBc maximum in UL Band (assuming 20MHz Signal), with 2 x 43dBm carriers -153dBc maximum with 2 x 43dBm	
DC / AISG		
Passband	0 - 13MHz	
Insertion loss	0,3dB maximum	
Return loss	15dB minimum	
Input voltage range	± 33V	
DC current rating	2A continuous, 4A peak	
Compliance	3GPP TS 25.461	
ENVIRONMENTAL		
For further details of environmental compliance, please contact Kaelus.		
Temperature range	-20°C to +60°C -4°F to +140°F	
Ingress protection	IP67	
Altitude	2600m 8530ft	
Lightning protection	RF port: ±5kA maximum (8/20us), IEC 61000-4-5 – Unit must be terminated with some lightning protection circuits.	
MTBF	>1,000,000 hours	
Compliance	ETSI EN 300 019 class 4.1H, RoHS, NEBS GR-487-CORE	
MECHANICAL		
Dimensions H x D x W	269 x 277 x 80mm 10,60 x 10,90 x 3,15in (Excluding brackets and connectors)	
Weight	8,0 kg 17,6 lbs (no bracket)	
Finish	Powder coated, light grey (RAL7035)	
Connectors	RF: 4.3-10 (F) x 4	
Mounting	Optional pole/wall bracket supplied with two metal clamps 45-178mm diameter poles or custom bracket. See ordering information.	

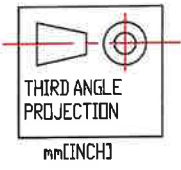
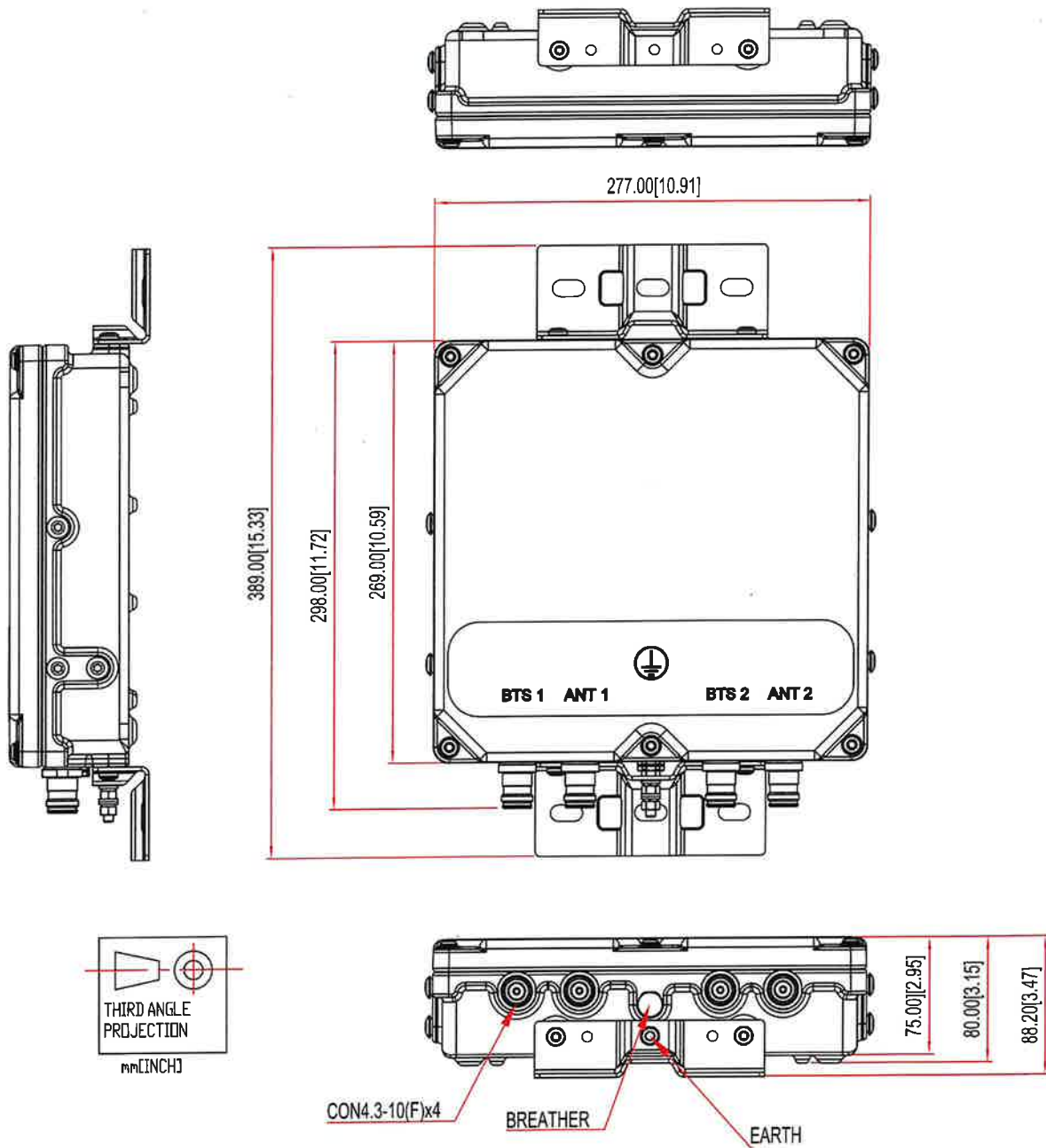
ORDERING INFORMATION

PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS
BSF0020F3V1	TWIN, 2 in / 2 out	DC/AISG PASS NO BRACKET	4.3-10 (F)
BSF0020F3V1-1	TWIN, 2 in / 2 out	DC/AISG PASS	4.3-10 (F)
BSF0020F3V1-2	QUAD, 4 in / 4 out	DC/AISG PASS	4.3-10 (F)

ELECTRICAL BLOCK DIAGRAM



MECHANICAL BLOCK DIAGRAM



ATTACHMENT 3

verizon^v

20 Alexander Drive, 2nd Floor
Wallingford, CT 06492

STRUCTURAL ANALYSIS
BLOOMFIELD 4 CT



Address:

1300 HALL BOULEVARD
BLOOMFIELD, CT 06002

MDG LOCATION ID: 5000160079

Date:

JULY 27, 2023 (REVISION 2)



R.K. Executive Centre ■ 201 Boston Post Road West ■ Suite 101 ■ Marlborough, MA 01752

t. 508.481.7400 ■ www.chappellengineering.com ■ f. 508.481.7406

July 27, 2023

verizon
20 Alexander Drive, 2nd Floor
Wallingford, CT 06492

RE:

Support Structure Structural Analysis

Verizon Site Name: Bloomfield 4 CT (MDG Location ID: 5000160079)

Site Address: 1300 Hall Boulevard; Bloomfield, CT 06002

CEA Job Number: 1508.208

To whom it may concern:

Chappell Engineering Associates, LLC has performed a structural analysis of the existing triangular roof-mounted antenna frame at the above-referenced location. Verizon proposes to upgrade/re-configure the existing antenna arrangement and install two radio filters to service the existing Alpha sector antennas. The proposed radio filters will be secured to the existing antenna frame currently supporting the in-service antennas and radio equipment. Our analysis has been performed in accordance with the 2022 Connecticut State Building Code (2021 International Building Code) with Connecticut Amendments.

The existing roof framing under the existing roof-mounted antenna frame consists of transverse roof beams spaced at approximately 9ft on-center. 3in composite roof decking is laid over the main roof beams. The existing transverse roof beams span approximately 26ft. A rubber membrane roof is laid over the roof deck. We have modeled the existing roof deck under the existing antenna frame to determine the suitability of the existing roof framing to support the proposed equipment.

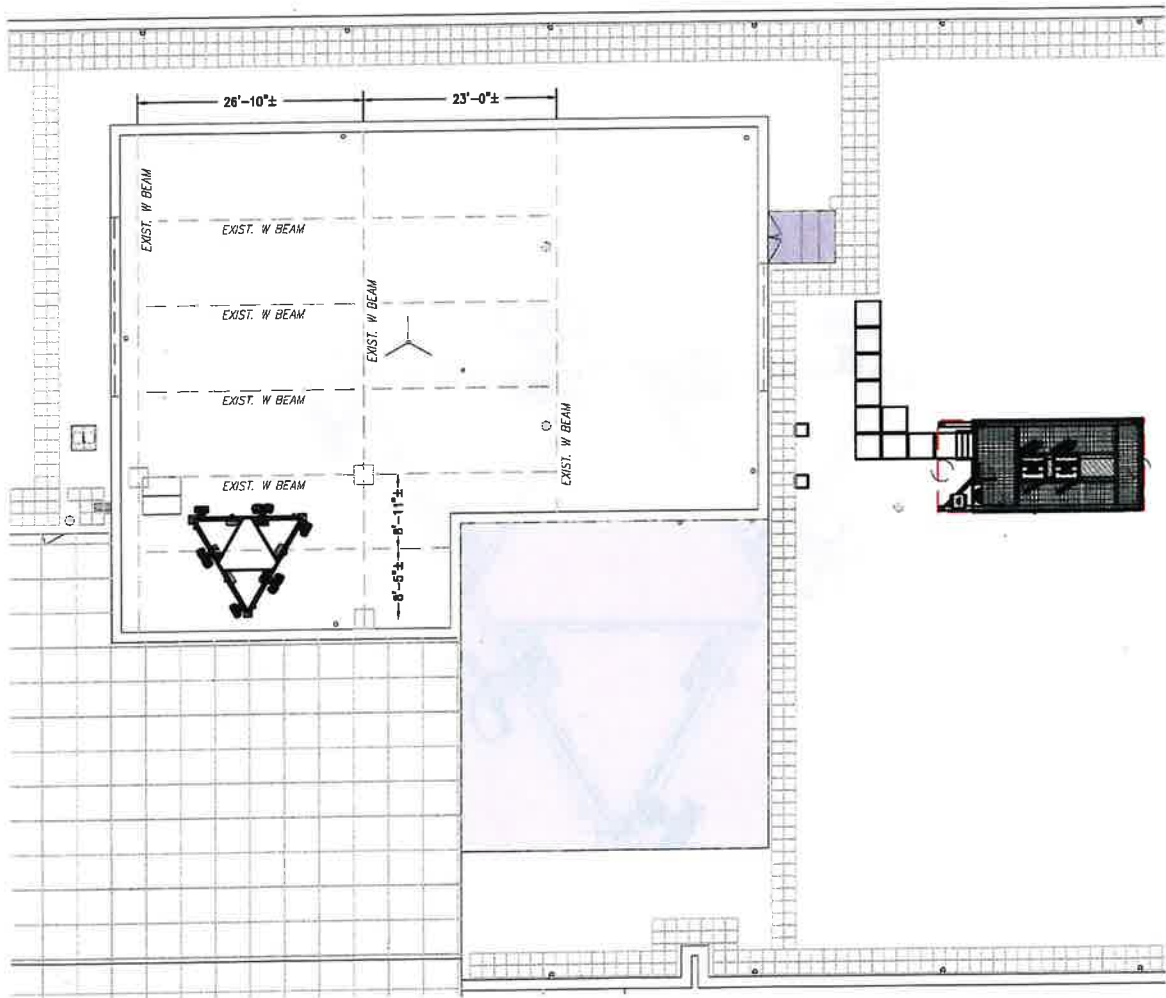
CEA conducted a site visit on 5/3/23 to investigate the subject antenna mounts and to gather pertinent data and information as it relates to both the existing and proposed antenna and ancillary equipment configurations on the steel mounting frame. Based upon the information obtained during our site visit, our investigation of the existing roof support beams, our consideration of the proposed loads, and our analysis of the existing roof deck, Chappell Engineering Associates, LLC has determined that the existing roof deck steel **has adequate capacity** to support the proposed Verizon antenna upgrade/re-configuration as shown on the attached drawings. As currently configured, the existing decking is rated at approximately 49% capacity.

If you have any questions regarding this matter, please do not hesitate to call.

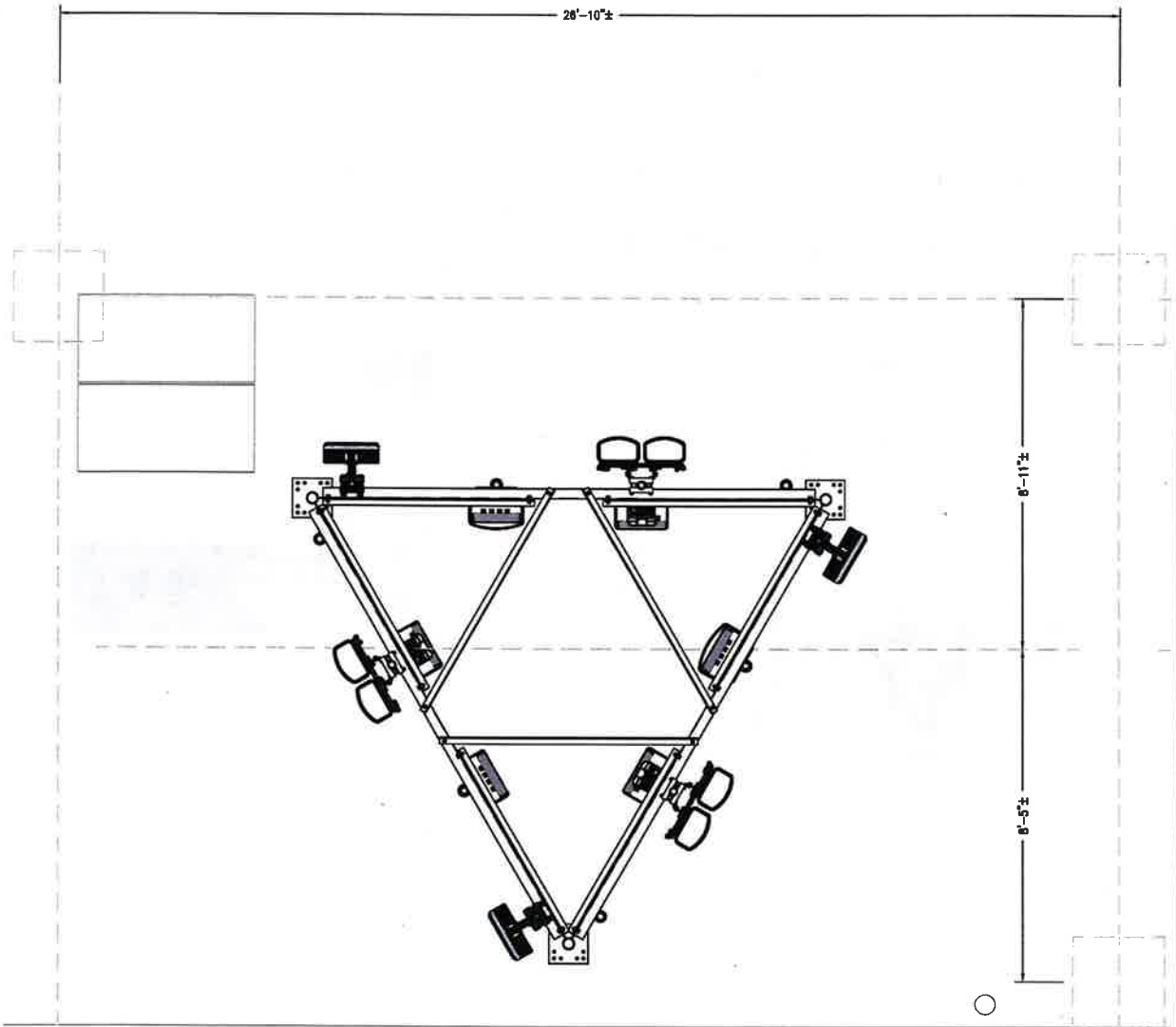
Very truly yours,



Clement J. Salek, P.E.
Chappell Engineering Associates, LLC
CJS/cjs

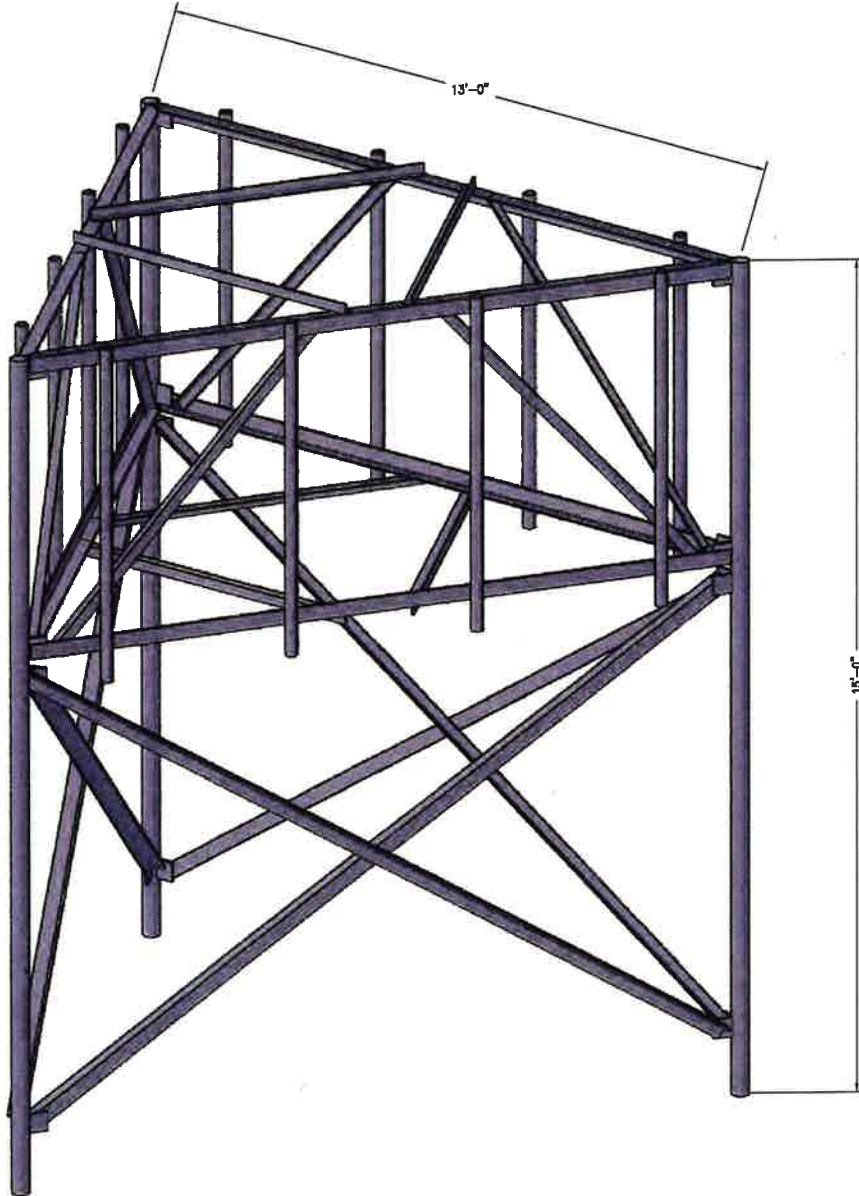


PARTIAL ROOF PLAN 1
SCALE: 1"=20' **SDC**



ANTENNA FRAME LOCATION
SCALE: 1/8"=1'-0"

2
SDC



ANTENNA FRAME ISOMETRIC
SCALE: N.T.S.





Appendix A – Construction Drawings

SUPPORTING DOCUMENTS

RADIO FREQUENCY (RF) DESIGN DATE: N/A
 ANTENNA MOUNT STRUCTURAL ANALYSIS DATE: 7/17/23
 ANTENNA SUPPORT STRUCTURE (4-STORY BUILDING) STRUCTURAL ANALYSIS DATE: 7/27/23



20 ALEXANDER DRIVE, 2nd FLOOR, WALLINGFORD, CT 06492
BLOOMFIELD 4 CT
 1300 HALL BOULEVARD
 BLOOMFIELD, CT 06002

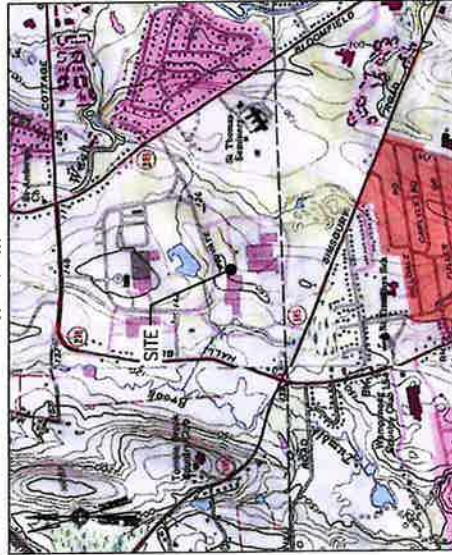
**PROJECT TYPE: UPGRADE TO EXISTING WIRELESS TELECOMMUNICATIONS
 INSTALLATION ON EXISTING (4)-STORY STEEL FRAMED BUILDING**

SITE INFORMATION:

PROPERTY OWNER: THE ATRIUM CT LLC
 NEW YORK, NY 10149
 APPLICANT: CELCO PARTNERSHIP
 (DBA VERIZON WIRELESS)
 20 ALEXANDER DRIVE, 2ND FLOOR
 WALLINGFORD, CT 06492
 SITE ADDRESS: 1300 HALL BOULEVARD
 BLOOMFIELD, CT 06002
 COUNTY: HARTFORD COUNTY, CT
 SITE CONTROL POINT:
 N 41°46'30.47" (11.508467) (RAD 93)
 W 72°44'30.97" (12.315497) (RAD 52)

VICINITY MAP

SCALE: 1"=1000'



DRIVING DIRECTIONS

FROM WALLINGFORD, TAKE I-94 NORTH, TAKE THE 07418 EXIT TOWARD
 WASHINGTON AVENUE AND TURN LEFT
 ONTO CT-186 SOUTH, TURN RIGHT THEN RIGHT AGAIN, THE SITE IS LOCATED STRAIGHT AHEAD.

GENERAL NOTES

- CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON JOB SITE. CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FAILURE TO NOTIFY THE ARCHITECT/ENGINEER PLACES THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.
- NEW CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE ORDOS AND ORDINANCES:
 - ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE
 - STRUCTURAL CODE: TBMSA-224-H STRUCTURAL STANDARDS FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.

DO NOT SCALE DRAWINGS

ALL PLANS, EXCEPT DIMENSIONS AND CONDITIONS AT THE PROJECTOR, WHO SET DATE SHALL BE REFERRED IN THE FIELD DURING THE CONSTRUCTION PHASE. THE PROJECT OWNER'S REPRESENTATIVE SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES IMMEDIATELY PRIOR TO PROCEEDING WITH THE PROJECT. SUCH NOTIFICATION SHALL BE THE SOLE RESPONSIBILITY OF THE PREVAILING CONTRACTOR RESPONSIBLE FOR CONSTRUCTION.

PROJECT DESCRIPTION

- THIS IS AN UNLICENSED AND UNREGISTERED ELECTRICAL WORK AND SHALL BE USED FOR THE TRANSMISSION OF RADIO SIGNAL FOR THE PURPOSE OF PROVIDING PUBLIC WIRELESS TELECOMMUNICATIONS SERVICE.
- NO PORTABLE WATER SUPPLY IS ON WILL BE PROVIDED AT THIS LOCATION.
- NO PORTABLE WATER SUPPLY IS ON WILL BE PROVIDED AT THIS LOCATION.
- NO WASTE WATER IS OR WILL BE GENERATED AT THIS LOCATION.
- NO SOIL WASTE IS OR WILL BE GENERATED AT THIS LOCATION.

CHAPPELL ENGINEERING ASSOCIATES, LLC P.L.C. EXECUTIVE CENTRE 201 BOSTON POST ROAD WEST WASHINGTON, MA 01723 (508) 481-7400 www.chappellengineering.com		ENGINEER/AND SURVEYOR: _____ DATE: _____ DRAWING SCALE: _____ DESIGNER: _____ CHECKER: _____ DATE: _____ SEAL: _____										
PROJECT NAME: BLOOMFIELD 4 CT 1300 HALL BOULEVARD BLOOMFIELD, CT 06002		DRAWING TITLE: TITLE SHEET										
REVISIONS: <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>ISSUED FOR PERMIT</td> <td>7/17/23</td> </tr> <tr> <td>1</td> <td>REV. TRACT. ATTACHED DATES</td> <td>7/27/23</td> </tr> </tbody> </table>		NO.	DESCRIPTION	DATE	0	ISSUED FOR PERMIT	7/17/23	1	REV. TRACT. ATTACHED DATES	7/27/23	DRAWING NO.: _____ SHEET NO.: _____ OF _____	
NO.	DESCRIPTION	DATE										
0	ISSUED FOR PERMIT	7/17/23										
1	REV. TRACT. ATTACHED DATES	7/27/23										



211 EXETER DRIVE
201 BOXTON POST ROAD WEST
MILFORD, MA 01752
PHONE: (508) 481-7440
WWW.CHAPPELL-ENGINEERING.COM

ENGINEER/ARCHITECT	DATE

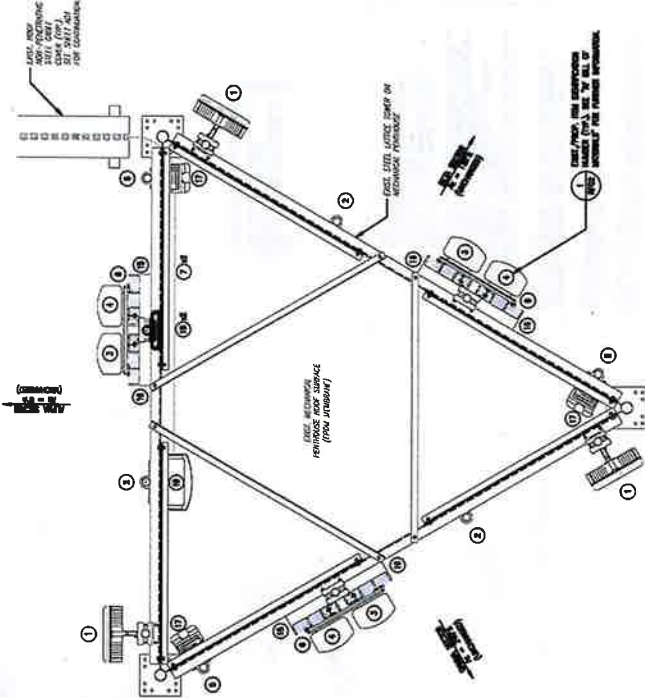
NO.	DESCRIPTION	DATE
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1	REV. STRUCT. REFERENCE DATES	7/1/23

PROJECT NAME:
BLOOMFIELD 4 CT
1900 HALL BOULEVARD
BLOOMFIELD, CT 06002

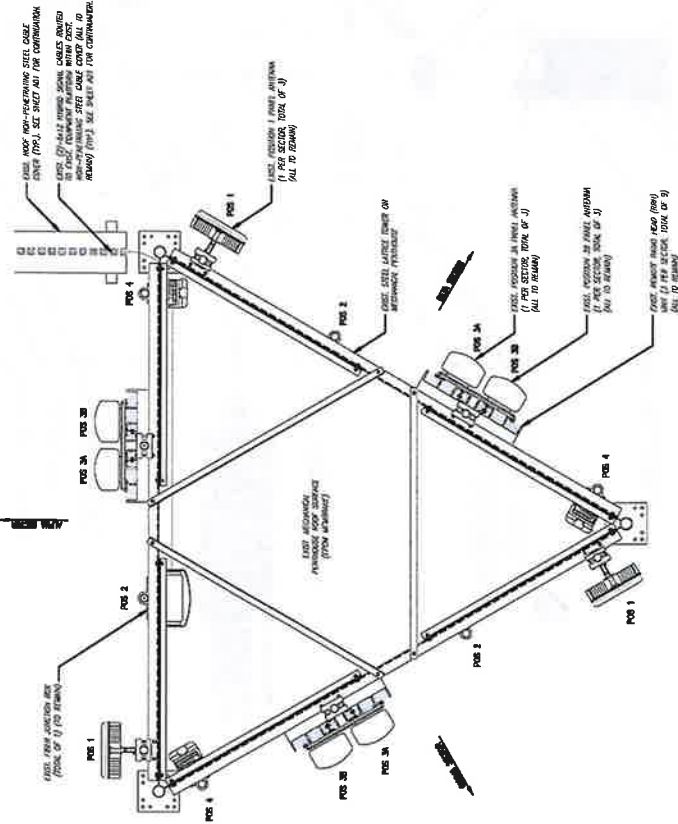
PROJECT TITLE:
ANTENNA ORIENTATION PLANS

REVISIONS:
A02

REV.	DATE	DESCRIPTION



(ANTENNA SECTOR PLAN VIEW AT ROOF LEVEL)
PROP. ANTENNA ORIENTATION PLAN
SCALE: 3/4" = 1'-0"



(ANTENNA SECTOR PLAN VIEW AT ROOF LEVEL)
EXIST. ANTENNA ORIENTATION PLAN
SCALE: 3/4" = 1'-0"



CHAPPELL ENGINEERING ASSOCIATES, LLC
 R.F. EXECUTIVE CENTRE
 201 BOSTON POST ROAD WEST
 WILMINGTON, MA 01702
 (508) 461-7400
 www.chappellengineering.com

ENGINEER/LAND SURVEYOR	DATE

NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	7/17/23
1	REV. STUDY, REFERENCE DATES	7/27/23

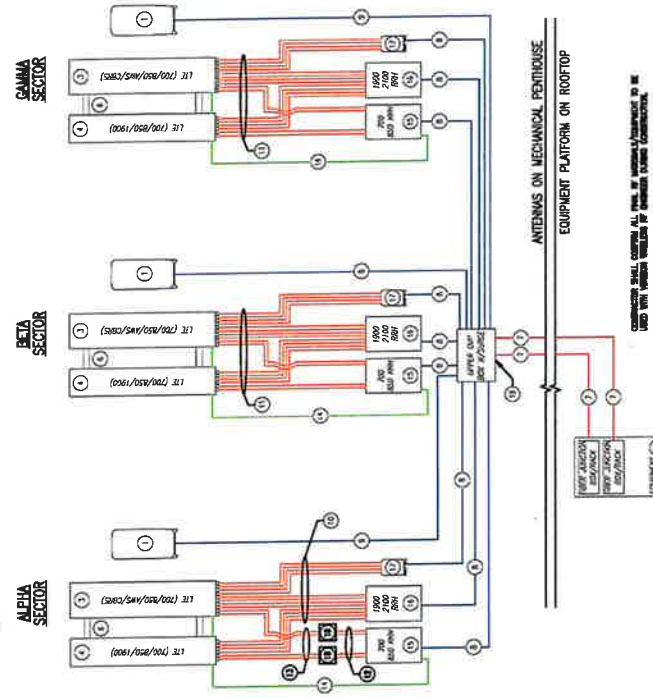
PROJECT NAME:
 BLOOMFIELD 4 CT
 1300 HALL BOULEVARD
 BLOOMFIELD, CT 06002

DRAWING TITLE:
 RF BILL OF MATERIALS
 AND RF CABLE
 PLUMBING DIAGRAM

RF02

DATE	BY	CHK	APP	REV.
7/17/23				

NOTE: BILL OF MATERIALS AND PLUMBING DIAGRAM SHALL BE USED IN CONJUNCTION WITH THE RF BILL OF MATERIALS AND PLUMBING DIAGRAM FOR ALL OTHER SECTORS. THE CONTRACTOR SHALL VERIFY THE ACCURACY OF ALL INFORMATION PROVIDED AND SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES.



RF CABLE PLUMBING DIAGRAM (FINAL CONFIGURATION)
 SCALE: 1/8" = 1'-0"

LEGEND

RED	HYBRID CABLE (BOTH LINE)
PURPLE	COAXIAL CABLE (BOTH LINE)
BLUE	1/4" HYBRID CABLE (AMP/RY)
ORANGE	1/2" COAXIAL CABLE (AMP/RY)
GREEN	NET CONTROL CABLE (AMP/RY)

RF BILL OF MATERIALS (PROP. (FINAL CONFIGURATION))
 SITE NAME: BLOOMFIELD 4 CT
 A = ALPHA SECTOR B = BETA SECTOR C = GAMMA SECTOR

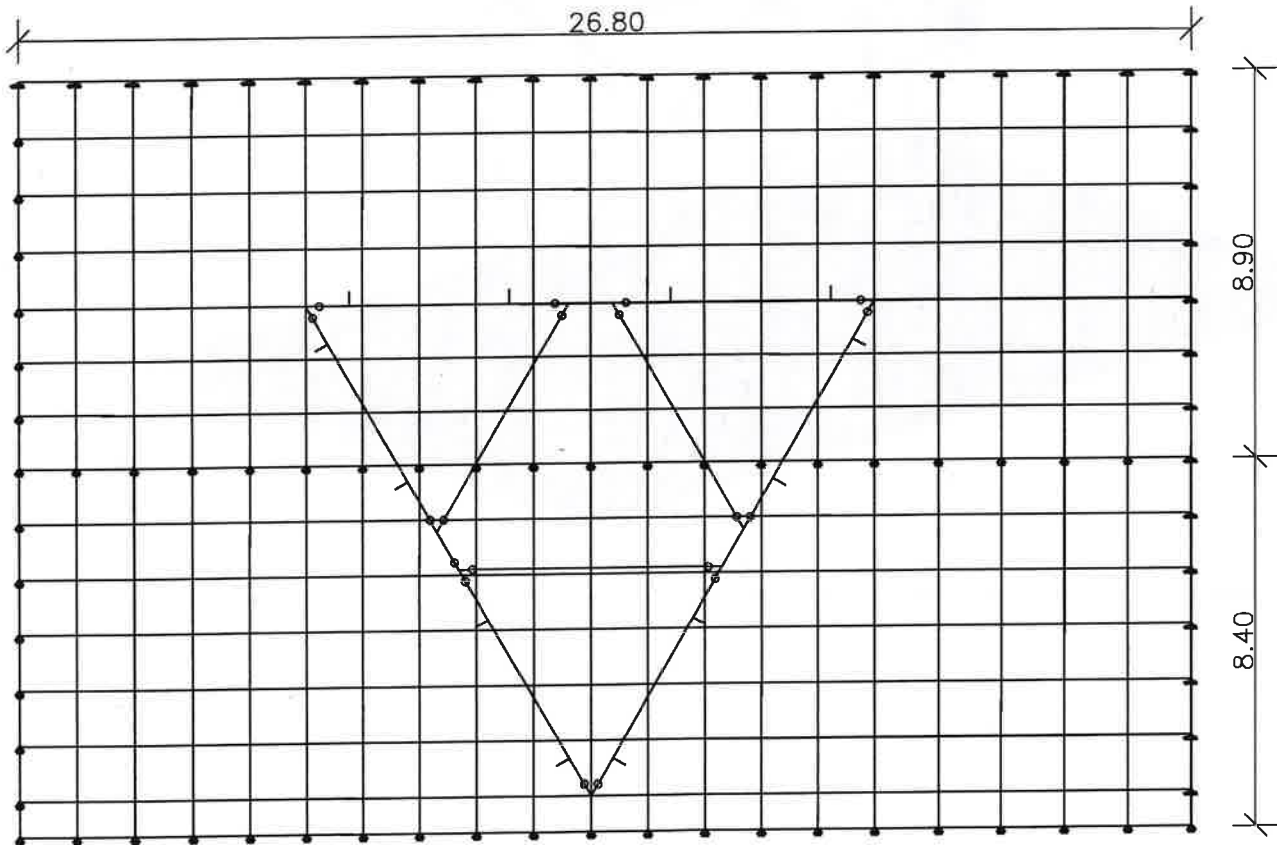
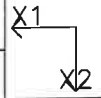
ITEM #	DESCRIPTION	BAND	QTY	STATUS	CABLE LENGTH/UNIT SIZE	COMMENTS
1	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
2	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
3	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
4	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
5	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
6	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
7	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
8	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
9	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
10	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
11	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
12	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
13	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
14	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
15	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
16	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
17	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
18	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
19	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
20	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
21	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
22	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
23	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
24	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
25	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
26	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
27	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
28	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
29	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST
30	1/2" FIBER OPTIC CABLE (AMP/RY)	700/850/1900	3 TOTAL (A/B/C)	EXIST.	30.75' x 16.75' x 1.57" (16.75' ea. unit)	INSTALLED TO EXIST. POC. MAST

RF BILL OF MATERIALS (FINAL CONFIGURATION)
 SCALE: 1/8" = 1'-0"

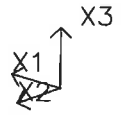
NOTE: CONTRACTOR SHALL VERIFY THE ACCURACY OF ALL INFORMATION PROVIDED AND SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES.



Appendix B – Roof Deck Analysis

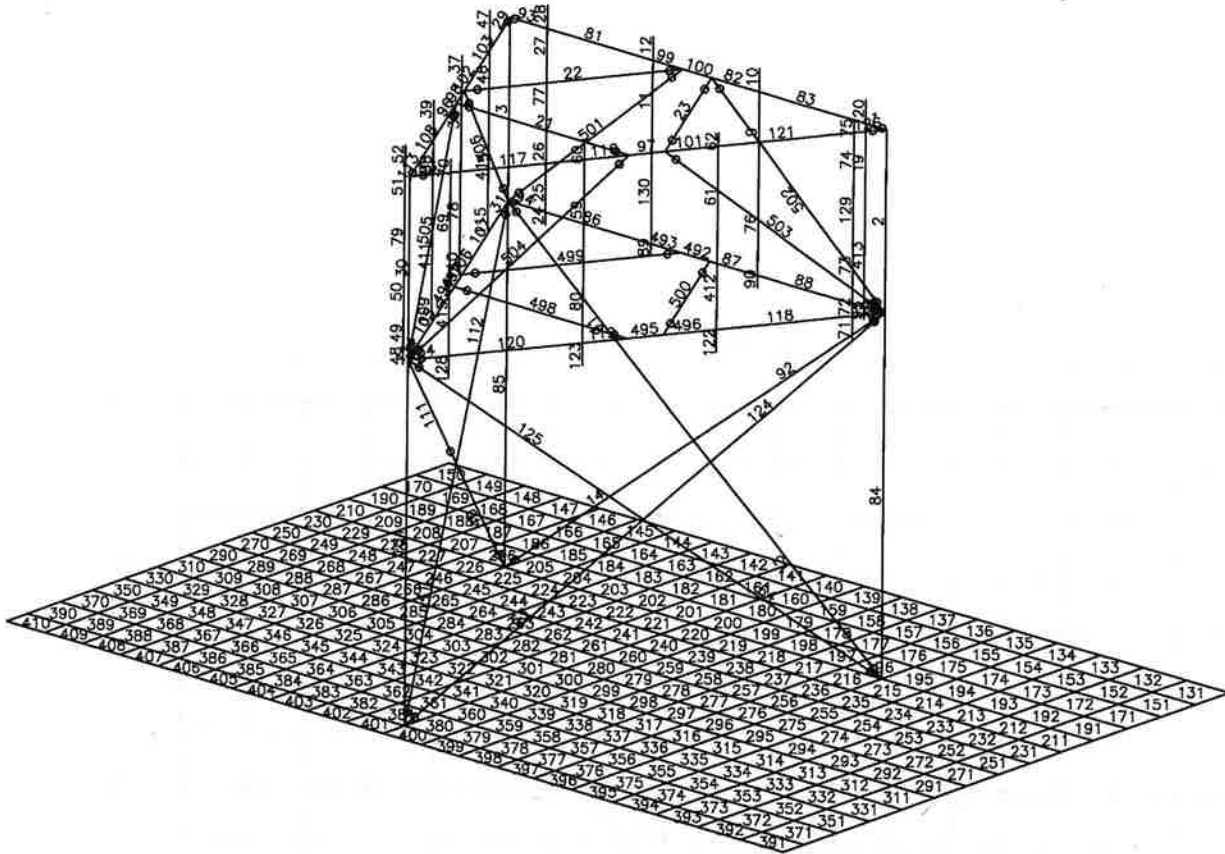


View: Roof Deck



SCALE = 1:56

DATE: 7/25/23



Verizon Bloomfield 4CT MSA 1508.208

Page: 4
 Date: 7/25/23
 17:19

Prepared by:

Load no. 1: Front No Ice (units - kips ft.)

* GROUP NONE
 / JOINT LOADS
 FX2 0.14 FX3 -0.05 N 16 15
 FX2 0.09 FX3 -0.05 N 77 76 51 50
 FX2 0.04 FX3 -0.05 N 37 36
 FX2 0.02 FX3 -0.05 N 92 91 66 65
 FX2 0.03 FX3 -0.03 N 424 421 426 425
 / JOINT LOADS
 FX2 0.06 FX3 -0.15 N 418 TO 420
 / END

FORCE SUMMATION

FX1=0 kip
 FX2=1.1 kip
 FX3=-1.17 kip

Load no. 2: Side No Ice (units - kips ft.)

* GROUP NONE
 / JOINT LOADS
 FX1 0.09 FX3 -0.05 N 16 15 77 76 51 50
 FX1 0.02 FX3 -0.05 N 37 36 92 91 65 66
 FX1 0.03 FX3 -0.02 N 424 426 425
 / JOINT LOADS
 FX1 0.06 FX3 -0.15 N 418 TO 420
 FX1 0.03 FX3 -0.03 N 421
 / END

FORCE SUMMATION

FX1=0.96 kip
 FX2=0 kip
 FX3=-1.14 kip

Load no. 3: Front Ice (units - kips ft.)

* GROUP NONE
 / JOINT LOADS
 FX2 0.04 FX3 -0.33 N 16 15 77 76 51 50
 FX2 0.01 FX3 -0.125 N 37 36 92 91 66 65
 FX2 0.02 FX3 -0.5 N 418 TO 420
 FX2 0.01 FX3 -0.2 N 424 426 425
 / JOINT LOADS
 FX2 0.03 FX3 -0.06 N 421
 / END

Verizon Bloomfield 4CT MSA 1508.208

Prepared by:**Page:** 5
Date: 7/25/23
17:19**Load no. 3: Front Ice (units - kips ft.)****FORCE SUMMATION**FX1=0 kip
FX2=0.42 kip
FX3=-4.89 kip**Load no. 4: Side Ice (units - kips ft.)**

* GROUP NONE

/ JOINT LOADS

FX1 0.03 FX3 -0.33 N 16 15 77 76 51 50

FX1 0.01 FX3 -0.125 N 37 36 92 91 66 65

FX1 0.02 FX3 -0.42 N 418 TO 420

FX1 0.01 FX3 -0.19 N 424 426 425

FX1 0.02 FX3 -0.06 N 421

/ END

FORCE SUMMATIONFX1=0.35 kip
FX2=0 kip
FX3=-4.62 kip**Load no. 5: Selfweight (units - kips ft.)**

* GROUP NONE

/ BEAM LOADS

SELF X3 -1. B 1 TO 4 9 TO 14 19 TO 31 36 TO 41 46 TO 54 59 TO 64 69 TO 130

411 TO 415 492 TO 506

/ END

FORCE SUMMATIONFX1=0 kip
FX2=0 kip
FX3=-1.8238 kip**Load no. 6: Front Frame Ice (units - kips ft.)**

* GROUP NONE

/ BEAM LOADS

DIST GL FX2 0.0015 B 1 TO 4 9 TO 14 19 TO 31 36 TO 41 46 TO 54 59 TO 64

69 TO 130 411 TO 415 492 TO 506

/ END

FORCE SUMMATIONFX1=0 kip
FX2=0.5644 kip
FX3=0 kip

Verizon Bloomfield 4CT MSA 1508.208

Prepared by:**Page:** 6
Date: 7/25/23
17:19**Load no. 7: Side Frame Ice (units - kips ft.)**

* GROUP NONE
/ BEAM LOADS
DIST GL FX1 0.0015 B 1 TO 4 9 TO 14 19 TO 31 36 TO 41 46 TO 54 59 TO 64
69 TO 130 411 TO 415 492 TO 506
/ END

FORCE SUMMATION

FX1=0.5644 kip
FX2=0 kip
FX3=0 kip

Load no. 8: Front Frame No Ice (units - kips ft.)

* GROUP NONE
/ BEAM LOADS
/ BEAM LOADS
DIST GL FX2 0.005 B 1 TO 4 9 TO 14 19 TO 31 36 TO 41 46 TO 54 59 TO 64
69 TO 130 411 TO 415 492 TO 506
/ END

FORCE SUMMATION

FX1=0 kip
FX2=1.8813 kip
FX3=0 kip

Load no. 9: Side Frame No Ice (units - kips ft.)

* GROUP NONE
/ BEAM LOADS
/ BEAM LOADS
DIST GL FX1 0.005 B 1 TO 4 9 TO 14 19 TO 31 36 TO 41 46 TO 54 59 TO 64
69 TO 130 411 TO 415 492 TO 506
/ END

FORCE SUMMATION

FX1=1.8813 kip
FX2=0 kip
FX3=0 kip

Verizon Bloomfield 4CT MSA 1508.208

Prepared by:

Page: 7
Date: 7/25/23
17:19

Load no. 10: Roof Deck DL (units - kips ft.)

* GROUP NONE
/ PRESSURE
FX3P GL -0.044 E 131 TO 410
/ END

FORCE SUMMATION

FX1=0 kip
FX2=0 kip
FX3=-20.428 kip

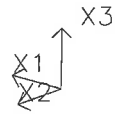
Load no. 11: Roof Deck Snow (units - kips ft.)

* GROUP NONE
/ PRESSURE
FX3P GL -0.035 E 131 TO 410
/ END STATIC

FORCE SUMMATION

FX1=0 kip
FX2=0 kip
FX3=-16.25 kip

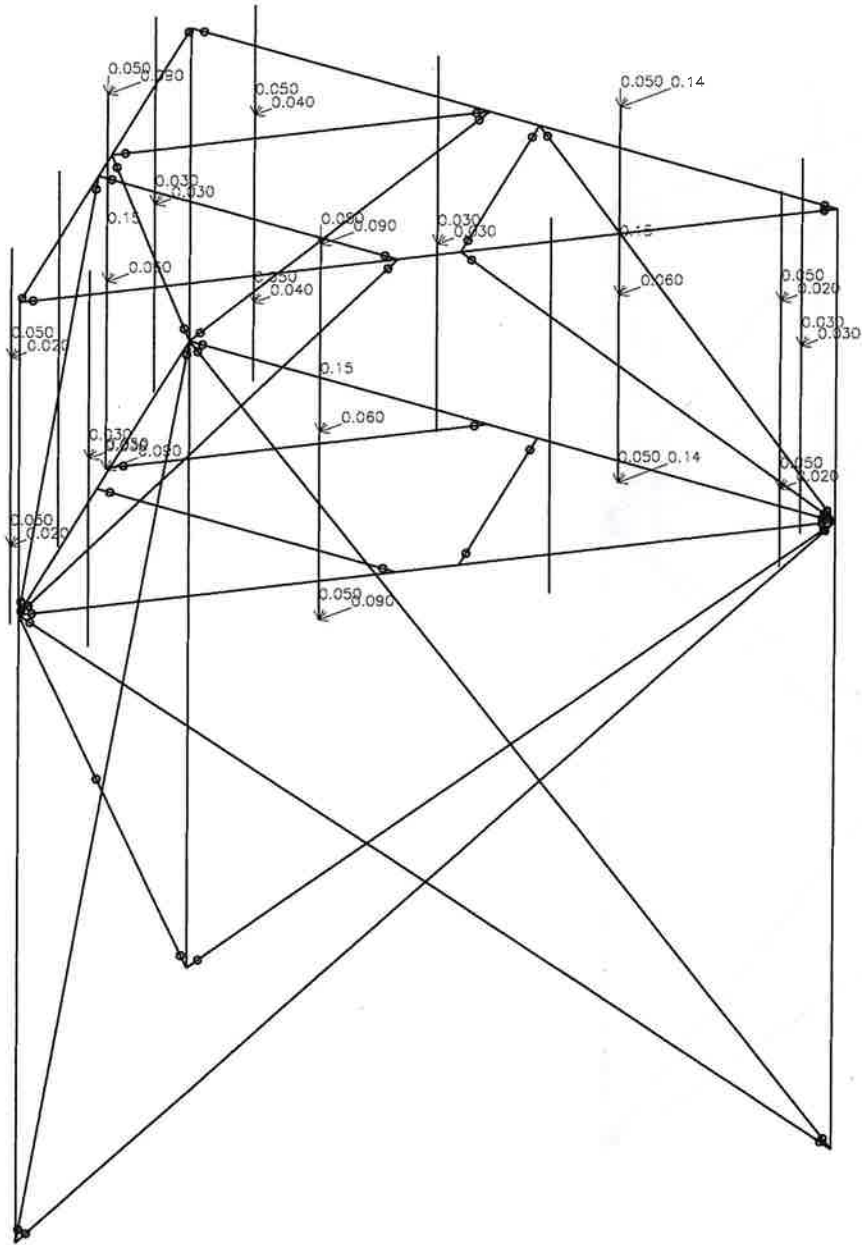
Load 1: Front No Ice



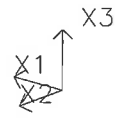
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UNITS: kip ft

DATE: 7/25/23



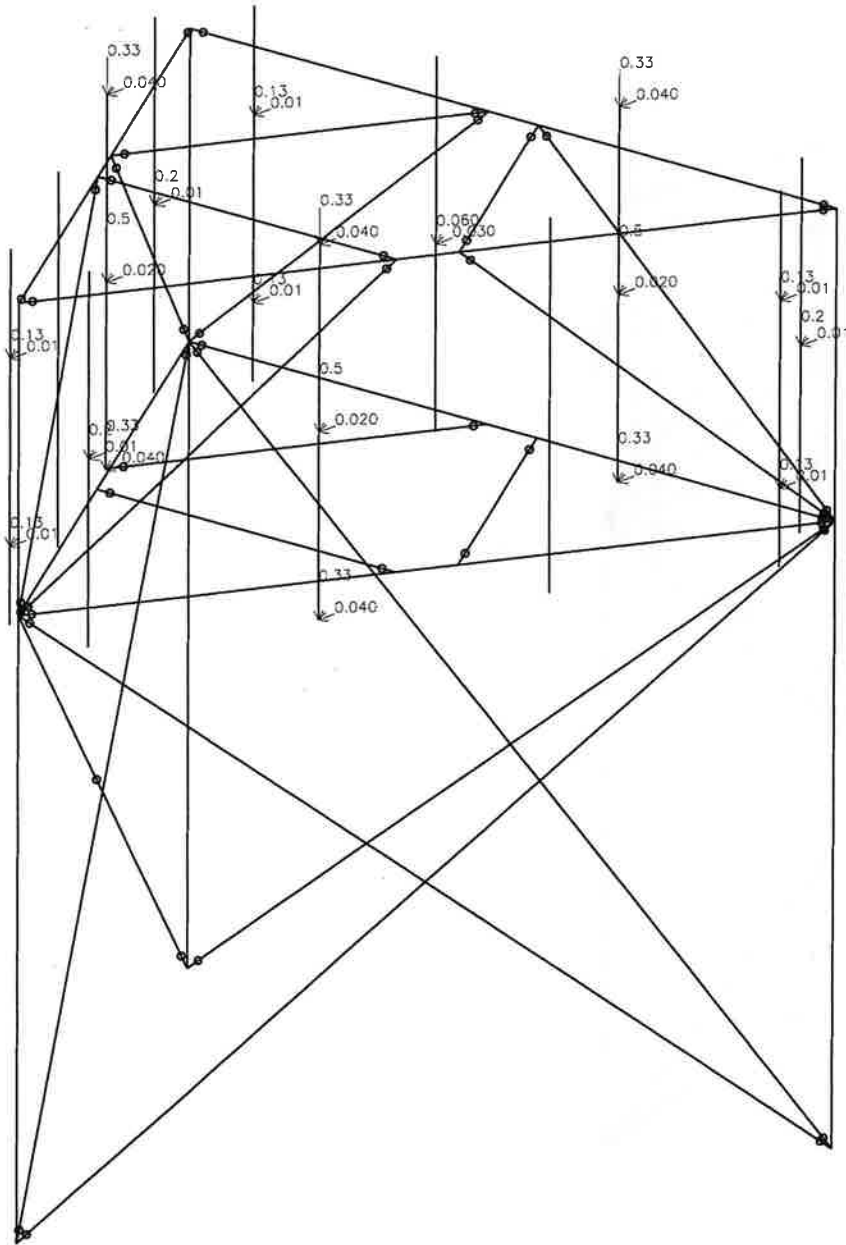
Load 3: Front Ice



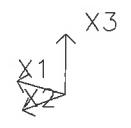
SCALE = 1:33

UNITS: kip ft

DATE: 7/25/23



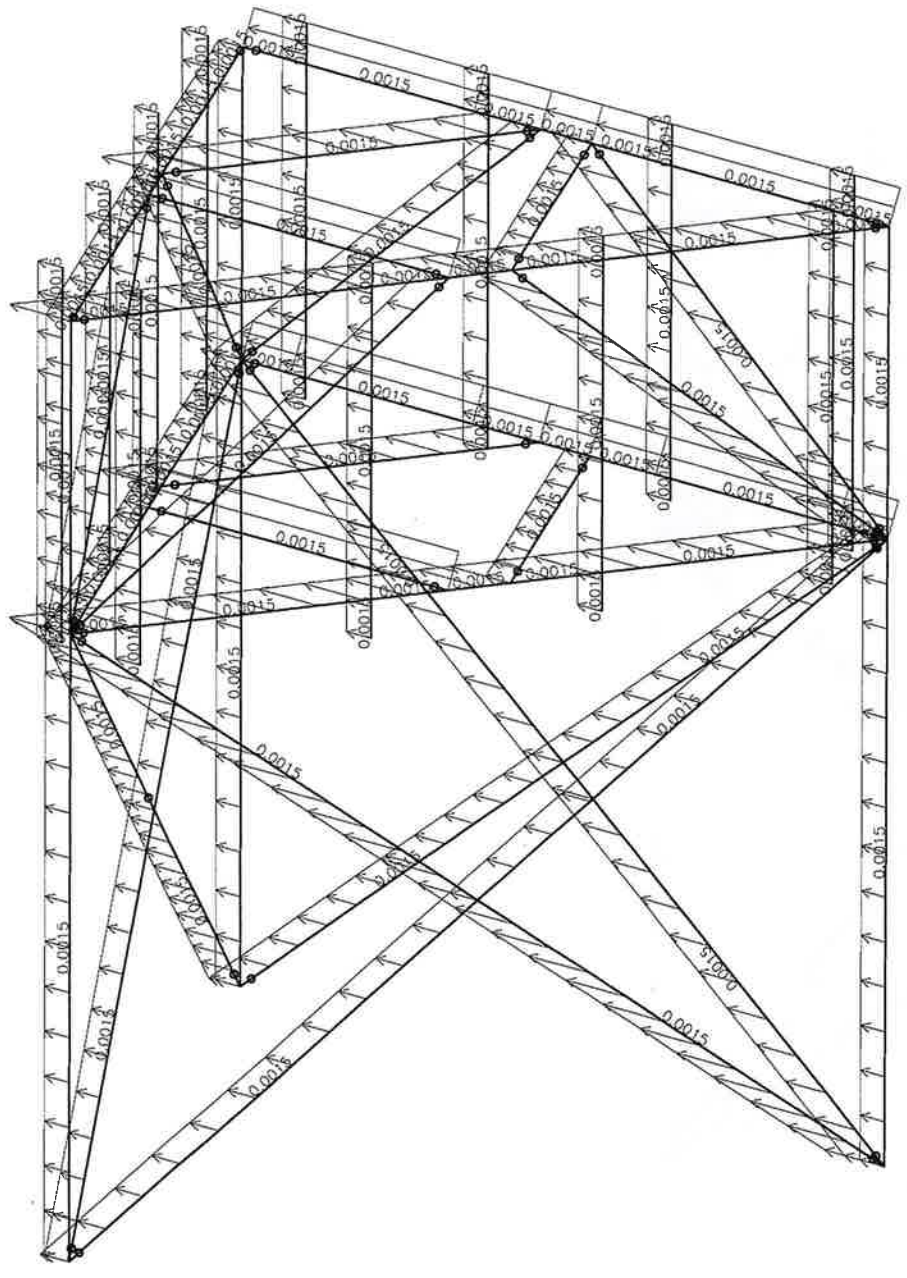
Load 7: Side Frame Ice



SCALE = 1:33

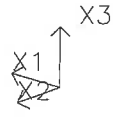
UNITS: kip ft

DATE: 7/25/23



Verizon Bloomfield 4CT MSA 1508.208

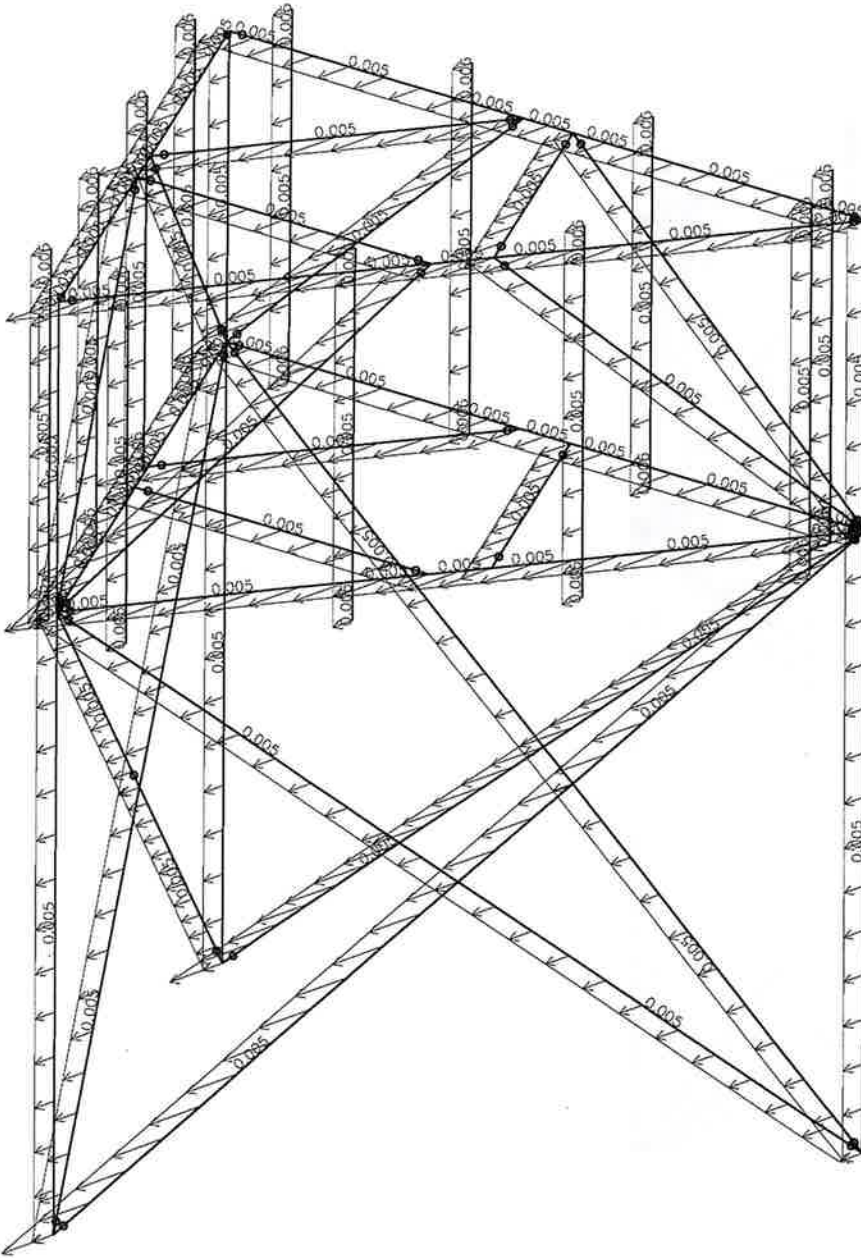
Load 8: Front Frame No Ice



SCALE = 1:33

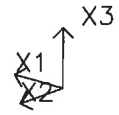
UNITS: kip ft

DATE: 7/25/23



Verizon Bloomfield 4CT MSA 1508.208

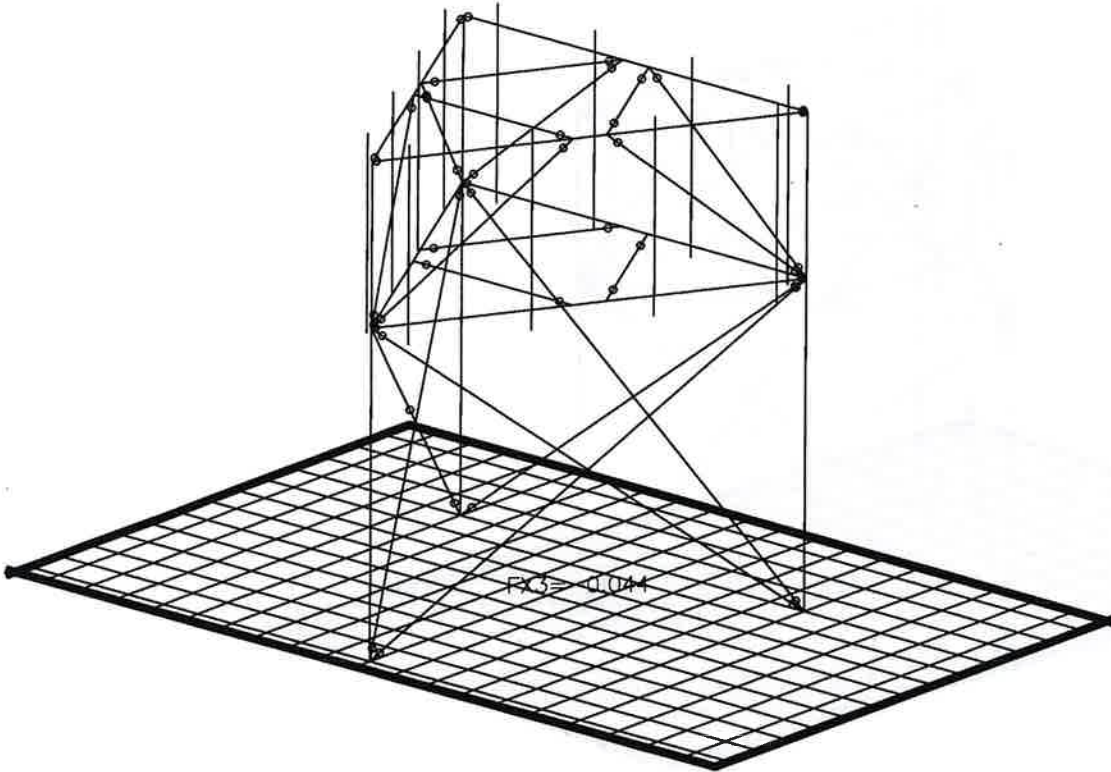
Load 10: Roof Deck DL



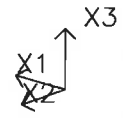
SCALE = 1:62

UNITS: kip ft

DATE: 7/25/23



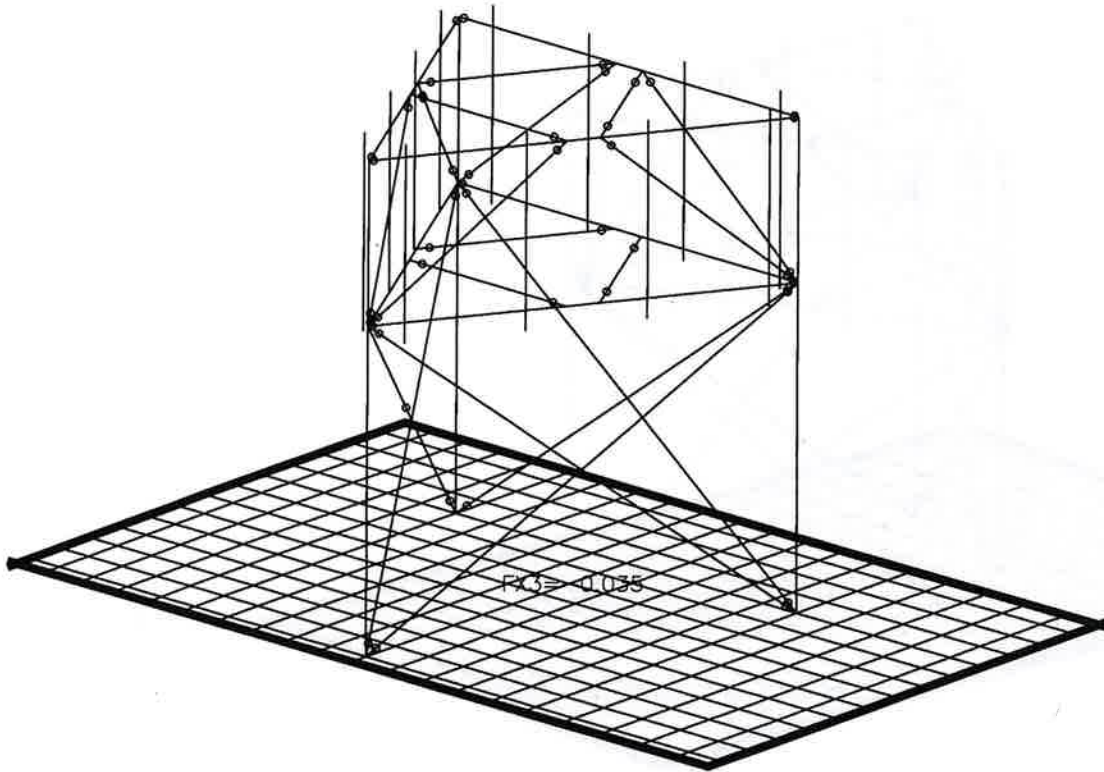
Load 11: Roof Deck Snow



SCALE = 1:62

UNITS: kip ft

DATE: 7/25/23



3VLI COMPOSITE DECK

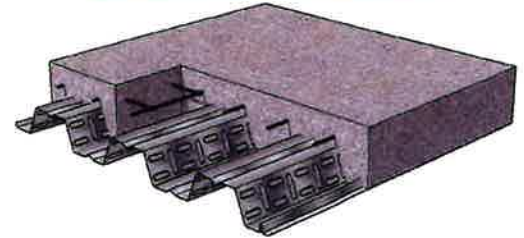
Total DL = 45psf
 Total LL = 148psf
 Total = 193psf

Corresponding Mmax for 192psf:

Mmax = (193psf x 9ft²) / (8)
 Mmax = 1954ft-lbs
 Mmax = 1.9ft-k

SECTION PROPERTIES

Deck Gauge	Design Thickness (in.)	Deck Weight (psf)	Section Properties				V _a (lbs/ft)	F _y (ksi)
			I _p (in ⁴ /ft)	S _p (in ³ /ft)	I _n (in ⁴ /ft)	S _n (in ³ /ft)		
22	0.0295	1.71	0.710	0.387	0.715	0.410	1407	50
20	0.0358	2.07	0.907	0.512	0.909	0.538	2485	50
19	0.0418	2.42	1.098	0.639	1.100	0.668	3390	50
18	0.0474	2.75	1.252	0.761	1.252	0.794	4361	50
16	0.0598	3.47	1.582	1.013	1.582	1.013	4901	40



(N = 9.35) NORMAL WEIGHT CONCRETE (145 PCF)

TOTAL SLAB DEPTH	DECK TYPE	SDI Max. Unshored Clear Span		Superimposed Live Load (PSF)																
					Clear Span (ft-in.)															
		1 SPAN	2 SPAN	3 SPAN	7'-0	7'-6	8'-0	8'-6	9'-0	9'-6	10'-0	10'-6	11'-0	11'-6	12'-0	12'-6	13'-0	13'-6	14'-0	
5.00 (t=2.00) 45 psf	3VLI22	10'-0	10'-9	11'-1	216	195	176	161	148	137	127	90	83	76	70	64	59	54	50	
	3VLI20	11'-8	12'-5	12'-10	241	216	196	178	163	150	139	129	121	113	78	72	66	61	57	
	3VLI19	12'-3	13'-11	14'-4	265	237	214	194	178	163	151	140	131	122	115	79	73	68	62	
	3VLI18	12'-7	15'-2	14'-9	289	261	238	218	201	186	173	161	151	142	134	127	92	86	80	
	3VLI16	13'-4	15'-3	15'-7	327	294	267	243	223	206	191	178	167	156	147	139	132	96	89	
5.50 (t=2.50) 51 psf	3VLI22	9'-6	9'-11	10'-7	247	222	201	184	169	156	113	103	94	87	80	73	67	62	57	
	3VLI20	11'-3	11'-11	12'-4	275	247	223	203	186	171	159	148	138	97	89	82	76	70	65	
	3VLI19	11'-10	13'-4	13'-9	302	270	244	222	203	186	172	160	149	139	98	91	84	77	71	
	3VLI18	12'-3	14'-6	14'-4	330	298	271	248	229	212	197	184	173	162	153	112	105	98	92	
	3VLI16	12'-11	14'-7	15'-1	373	335	304	277	255	235	218	203	190	178	168	159	117	109	102	
6.00 (t=3.00) 57 psf	3VLI22	9'-2	9'-2	10'-2	277	249	226	206	190	140	127	116	106	97	89	82	76	70	65	
	3VLI20	10'-9	11'-5	11'-10	309	277	250	228	209	193	178	166	119	109	100	92	85	79	73	
	3VLI19	11'-7	12'-9	13'-2	339	304	274	249	227	209	193	179	167	156	111	102	94	87	80	
	3VLI18	11'-11	13'-11	14'-0	370	334	304	279	257	238	221	207	194	182	136	126	118	110	103	
	3VLI16	12'-7	14'-0	14'-6	400	376	341	311	286	264	245	228	213	200	189	178	132	123	115	
6.50 (t=3.50) 63 psf	3VLI22	8'-9	8'-6	9'-8	307	277	251	229	171	155	141	129	118	108	99	91	84	78	72	
	3VLI20	10'-4	11'-0	11'-4	343	307	278	253	232	214	198	144	132	121	111	103	95	87	81	
	3VLI19	11'-3	12'-4	12'-9	377	337	304	276	252	232	214	199	185	134	123	113	104	96	89	
	3VLI18	11'-8	13'-5	13'-8	400	371	338	309	285	264	246	229	215	202	151	140	131	123	115	
	3VLI16	12'-4	13'-6	14'-0	400	400	378	345	317	293	272	253	237	222	209	157	146	137	128	
7.00 (t=4.00) 69 psf	3VLI22	8'-6	7'-11	9'-0	338	304	276	252	188	171	155	142	130	119	109	101	93	86	79	
	3VLI20	10'-0	10'-8	11'-0	377	338	305	278	255	235	217	159	145	133	122	113	104	96	89	
	3VLI19	11'-0	11'-11	12'-3	400	370	334	303	277	255	236	219	204	147	135	124	115	106	98	
	3VLI18	11'-5	13'-0	13'-4	400	400	371	340	313	290	270	252	236	178	166	154	144	135	126	
	3VLI16	12'-1	13'-1	13'-6	400	400	400	379	348	322	298	278	260	244	230	172	161	150	141	
7.50 (t=4.50) 75 psf	3VLI22	8'-2	7'-5	8'-6	368	331	300	228	205	186	169	154	141	130	119	110	101	93	86	
	3VLI20	9'-8	10'-3	10'-7	400	368	333	303	278	256	190	173	158	145	134	123	114	105	97	
	3VLI19	10'-8	11'-6	11'-11	400	400	364	331	302	278	257	238	175	160	147	136	125	116	107	
	3VLI18	11'-2	12'-7	13'-0	400	400	400	370	341	316	294	275	258	195	181	168	157	147	138	
	3VLI16	11'-10	12'-8	13'-1	400	400	400	400	380	351	325	303	283	266	202	188	175	164	153	

COMPOSITE

Notes:

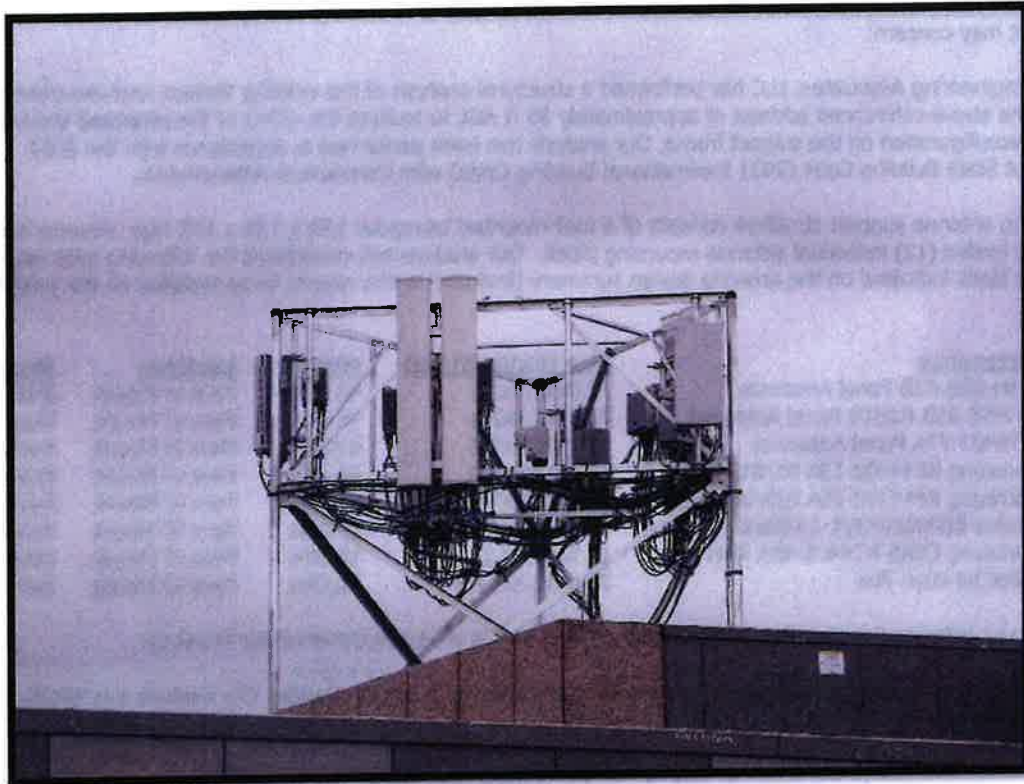
- Maximum unshored spans do not consider web crippling. Required bearing should be determined based on allowable reactions on page 43 or with the Vulcraft Unshored Span Calculator available at www.vulcraft.com/designtools. The following conditions are required to meet the maximum unshored spans shown:
 - Minimum exterior bearing length of 1.5" for 19 to 16 gage. Minimum end bearing varies from 1.5" to 3.5" for 22 and 20 gage, depending on slab thickness.
 - Minimum interior bearing length of 2" for 16 gage. Minimum interior bearing varies from 2" to 6.25" for 18 to 22 gage, depending on gage and slab thickness.
- Always contact Vulcraft when using loads in excess of 200 psf. Such loads often result from concentrated, dynamic or "long term" load cases for which reductions due to bond breakage, concrete creep etc. should be evaluated.
- All fire rated assemblies are subject to an upper live load limit of 250 psf.





20 Alexander Drive, 2nd Floor
Wallingford, CT 06492

ANTENNA MOUNT STRUCTURAL ANALYSIS
BLOOMFIELD 4 CT



Address:

1300 HALL BOULEVARD
BLOOMFIELD, CT 06002

MDG LOCATION ID: 5000160079

Date:

JULY 27, 2023 (REVISION 2)



July 27, 2023

verizon✓

20 Alexander Drive, 2nd Floor
Wallingford, CT 06492

RE:

Site Name: Bloomfield 4 CT
MDG Location ID: 5000160079
Site Address: 1300 Hall Boulevard, Bloomfield, CT 06002

To whom it may concern:

Chappell Engineering Associates, LLC has performed a structural analysis of the existing Verizon roof-mounted antenna frame at the above-referenced address at approximately 85 ft AGL to analyze the effect of the proposed Verizon antenna upgrade/reconfiguration on the subject frame. Our analysis has been performed in accordance with the 2022 Connecticut State Building Code (2021 International Building Code) with Connecticut Amendments.

The existing antenna support structure consists of a roof-mounted triangular 13ft x 13ft x 15ft high antenna frame supporting twelve (12) individual antenna mounting pipes. Our analysis has considered the following total major equipment loads indicated on the antenna design summary (included in this report) to be installed on the antenna frame.

<u>Appurtenance</u>	<u>Size (HxWxD) (in)</u>	<u>Weight</u>	<u>Location</u>	<u>Status</u>
(3) NHH-65B-R2B Panel Antennas	72.0x11.9x7.1	43.7lbs	Face of Mount	Existing
(3) NHHSS-65B-R2BT0 Panel Antennas	72.0x11.9x7.1	48.1lbs	Face of Mount	Existing
(3) MT6407-77A Panel Antennas	35.2x16.1x5.6	87lbs	Face of Mount	Existing
(3) Samsung RF4440d-13A B5/B13 RRH	15.0x15.0x9.0	70.3lbs	Face of Mount	Existing
(3) Samsung RF4439d-25A B25/B66a RRH	15.0x15.0x10.0	84.4lbs	Face of Mount	Existing
(2) Kaelus BSF0020F3V1-1 Filters	10.6x10.9x3.2	17.6lbs	Face of Mount	Proposed
(3) Samsung CBRS RT4401-48A RRH	13.9x8.6x4.2	18.6lbs	Face of Mount	Existing
(1) Fiber Junction Box	29.6x16.5x12.6	32.0lbs	Face of Mount	Existing

The proposed antennas and ancillary hardware are shown on the enclosed Construction Drawings.

We have modeled the triangular antenna frame under both wind and wind/ice loads. Our analysis and results are included in this report.

Based upon our analysis of the antenna mounts being proposed, **the existing triangular anchored antenna roof frame has adequate capacity** to support the proposed antenna configuration as shown on the construction drawings. **The maximum percentage stress capacity as determined by our analysis are the lower X-bracing L's with a capacity of 51%.** Our analysis assumes the existing mount has been installed and will be maintained according to standard industry practices.

If you have any questions regarding this matter, please do not hesitate to call.

Sincerely,
CHAPPELL ENGINEERING ASSOCIATES, LLC

Clement J Salek, P.E.
CJS/cjs



Appendix A – Construction Drawings

SUPPORTING DOCUMENTS

IMMO FREQUENCY (F7) DESIGN DATE: N/A
 ANTENNA MOUNT STRUCTURAL ANALYSIS DATE: 7/17/23
 ANTENNA SUPPORT STRUCTURE (4-4 STORY BUILDING) STRUCTURAL ANALYSIS DATE: 7/17/23



20 ALEXANDER DRIVE, 2nd FLOOR, WALLINGFORD, CT 06492
BLOOMFIELD 4 CT
 1300 HALL BOULEVARD
 BLOOMFIELD, CT 06002

**PROJECT TYPE: UPGRADE TO EXISTING WIRELESS TELECOMMUNICATIONS
 INSTALLATION ON EXISTING (4)-STORY STEEL FRAMED BUILDING**

SITE INFORMATION:

PROPERTY OWNER:
 THE STRAIN CT LLC
 3 PARK AVENUE, 17TH FLOOR
 NEW YORK, NY 10169

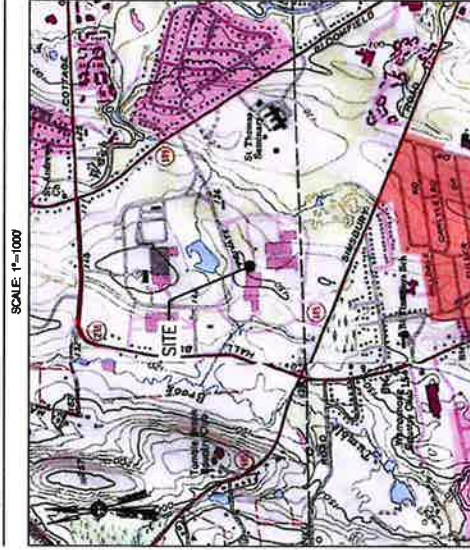
APPLICANT:
 CEGLO PARTNERSHIP
 (d/b/a VERIZON WIRELESS)
 2ND FLOOR
 WALLINGFORD, CT 06492

SITE ADDRESS:
 1300 HALL BOULEVARD
 BLOOMFIELD, CT 06002

COUNTY:
 HARTFORD COUNTY, CT

SITE CONTROL POINT:
 SOUTHEAST CORNER OF EXISTING
 MECHANICAL PENITHOUSE
 N 41°49'58.16" (11.8398667) (NAD 83)
 W 72°44'58.88" (127.7436889) (NAD 83)

VICINITY MAP



DRIVING DIRECTIONS

FROM WALLINGFORD, TAKE I-95 NORTH. TAKE EXIT 64 WEST TOWARDS
 WASHINGTON. FOLLOW I-95 WEST TO I-84. TAKE I-84 WEST TO TURN LEFT
 ONTO CT-10 SOUTH. TURN RIGHT THEN RIGHT AGAIN. THE SITE IS LOCATED STRAIGHT AHEAD.

GENERAL NOTES

- CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS ON-SITE. ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FAILURE TO NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES SHALL BE AT THE CONTRACTOR'S EXPENSE.
- NEW CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES.
 - ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE
 - STRUCTURAL CODE: TMSA-225-H STRUCTURAL STANDARDS FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.

SHEET INDEX

DWG.	DESCRIPTION	REV.
T01	TITLE SHEET	1
D01	PROPERTY PLAN	1
A01	PERMIT DEED PLAN	1
A02	ANTENNA ORIENTATION PLANS	1
A03	NORTH BUILDING ELEVATION AND ENLARGED PART NORTH BUILDING ELEVATION	1
PR01	ANTENNA DETAILS AND AUXILIARY EQUIPMENT SPECIFICATIONS	1
PR02	RF BILL OF MATERIALS AND RF CABLE PLUMBING DIAGRAM	1

DO NOT SCALE DRAWINGS

ALL PLANE DIMENSIONS AND CONDITIONS AT THE PROPOSED PROJECT SITE SHALL BE VERIFIED IN THE FIELD DURING THE CONSTRUCTION PHASE. THE PROJECT OWNER REPRESENTATIVE SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES IMMEDIATELY UPON DISCOVERY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CORRECTION IN THE EVENT OF LACK OF SUCH NOTIFICATION. SUCH DISCREPANCIES SHALL BECOME THE RESPONSIBILITY OF THE PREVAILING CONTRACTOR RESPONSIBLE FOR CONSTRUCTION.

PROJECT DESCRIPTION

- THIS IS AN UNARMED AND RESTRICTED ACCESS GOVERNMENT INSTALLATION AND WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNAL FOR THE PURPOSE OF PROVIDING PUBLIC WIRELESS TELECOMMUNICATIONS SERVICE.
- NO PORTABLE WATER SUPPLY IS ON-SITE AND NO WATER SUPPLY IS ON-SITE.
- NO WASTE WATER IS ON-SITE AND NO WASTE WATER IS ON-SITE.
- NO HOLIDAY WATER IS ON-SITE AND NO HOLIDAY WATER IS ON-SITE.

		SEAL: _____									
		ENGINEER/LAND SURVEYOR DATE: _____									
DRAWING SCALE: NONE THIS DRAWING IS THE PROPERTY OF CHAPPELL ENGINEERING ASSOCIATES, LLC. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF CHAPPELL ENGINEERING ASSOCIATES, LLC.											
REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>ISSUED FOR PERMIT</td> <td>7/19/23</td> </tr> <tr> <td>1</td> <td>REV. STRUCT. REFERENCE AIDS</td> <td>7/17/23</td> </tr> </tbody> </table>			NO.	DESCRIPTION	DATE	0	ISSUED FOR PERMIT	7/19/23	1	REV. STRUCT. REFERENCE AIDS	7/17/23
NO.	DESCRIPTION	DATE									
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PROJECT NAME: BLOOMFIELD 4 CT 1300 HALL BOULEVARD BLOOMFIELD, CT 06002											
DRAWING TITLE: TITLE SHEET											
DRAWING NO.: T01											
PERMIT NO.: _____ PERMIT DATE: _____ PERMIT EXPIRES: _____	SHEET NO.: _____ TOTAL SHEETS: _____	DATE: 7/19/23									



CHAPPELL ASSOCIATES, LLC
 R.K. EXECUTIVE CENTRE
 201 BOSTON POST ROAD WEST
 WILMINGTON, MA 01972
 (508) 491-7400
 www.chappellassociates.com

ENGINEER/ARCHITECT
 DATE
 7/19/23

REVISIONS

NO.	DESCRIPTION	DATE
1	REV. FINISH REFERENCE INDEX	7/19/23

PROJECT NAME
 BLOOMFIELD 4 CT
 1300 HALL BOULEVARD
 BLOOMFIELD, CT 06002

DRAWING TITLE
 PART ROOF PLAN

DRAWING NO.
 A01

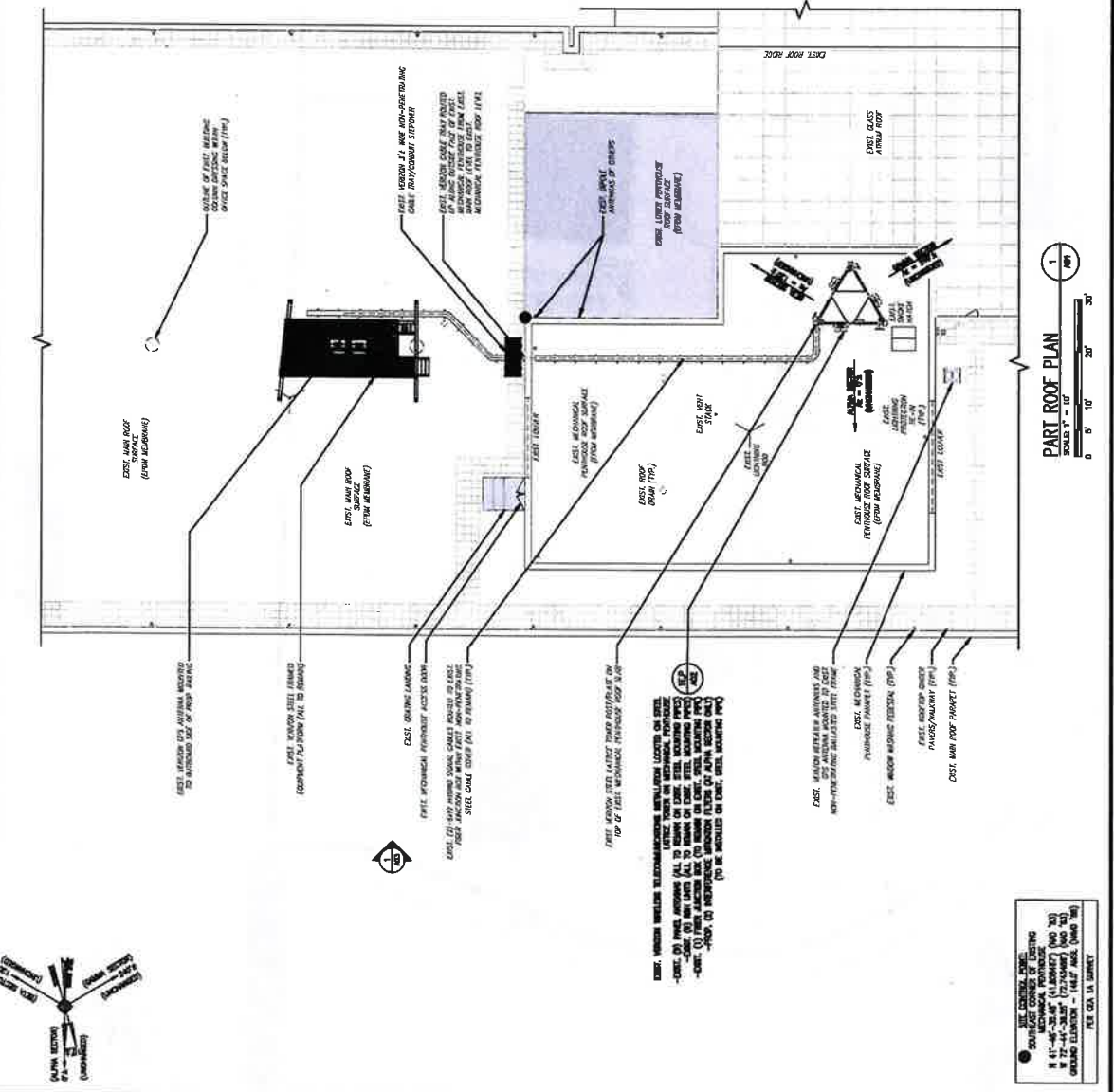
NO.	DATE	BY	CHKD.	APP.
1	7/19/23			

GENERAL NOTES

- CONTRACTOR SHALL VERIFY ALL DIMENSIONS, MATERIALS, AND METHODS OF CONSTRUCTION AGAINST THE ARCHITECT'S INTENT AND ALL OTHER INFORMATION PROVIDED TO THE CONTRACTOR.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES AND STRUCTURES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND STRUCTURES TO REMAIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING CONSTRUCTION.
- ALL WORK SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ALL APPLICABLE CODES AND REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING CONSTRUCTION.
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REVISIONS

NO.	DESCRIPTION	DATE
1	REV. FINISH REFERENCE INDEX	7/19/23



SEE GENERAL NOTES
 SEE CONSTRUCTION OF EXISTING
 MECHANICAL PENETRATION
 W/ 1" - 4" MECHANICAL PENETRATION
 W/ 2" - 4" - 3" - 2" (2) - 2" (2) - 2" (2) - 2" (2)
 GROUND ELEVATION - 144.7' A.S.L. (D.M. 78)
 PER C.A. 1A SURVEY



ARCHITECT/ENGINEER
CHAPPELL ENGINEERING ASSOCIATES, LLC
 P.O. EXECUTIVE CENTRE
 201 BOXTON POST ROAD WEST
 SUITE 101
 MARLBOROUGH, MA 01752
 (508) 481-7400
 www.chappell-engineering.com

ENGINEER/LAND SURVEYOR DATE

ISSUING SCALE NOTE

NO. DESCRIPTION DATE

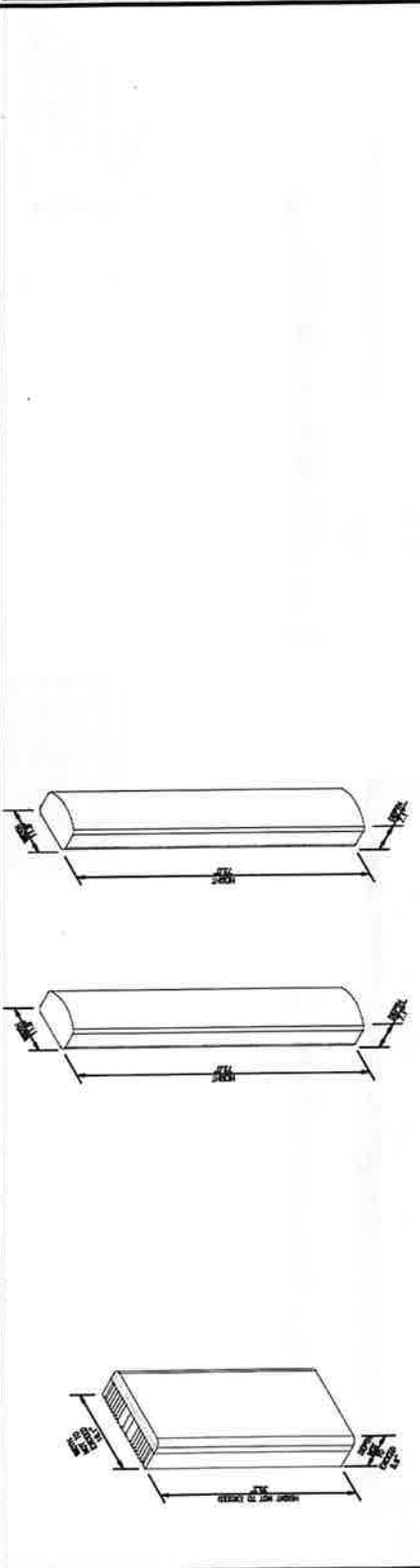
0 REVISION FOR REVISION 7/19/23

1 REV. STRUCT. REFERENCE DATES 7/27/23

PROJECT NAME
BLOOMFIELD 4 CT
 1300 HALL BOULEVARD
 BLOOMFIELD, CT 06002

DRAWING TITLE
ANTENNA DETAILS AND ANCYLLARY EQUIPMENT SPECIFICATIONS

DRAWING NO.
RF01



- ITEM 1**
 MTR407-77A ANTENNA
 DIMENSIONS: 15.2" H x 11.5" W x 8.1" D
 QUANTITY: 1 PER SECTION, TOTAL OF 3
 SCALE: AS SHOWN (SEE DRAWING)
- ITEM 2**
 VACANT PIPE MAST
 QUANTITY: 1 PER SECTION, TOTAL OF 3
 SCALE: AS SHOWN (SEE DRAWING)
- ITEM 3**
 LTE (700/850/1900 MHz) PANEL ANTENNA
 DIMENSIONS: 24.5" H x 11.5" W x 7.1" D
 QUANTITY: 1 PER SECTION, TOTAL OF 3
 SCALE: AS SHOWN (SEE DRAWING)
- ITEM 4**
 LTE (700/850/1900 MHz) PANEL ANTENNA
 DIMENSIONS: 24.5" H x 11.5" W x 7.1" D
 QUANTITY: 1 PER SECTION, TOTAL OF 3
 SCALE: AS SHOWN (SEE DRAWING)
- ITEM 5**
 VACANT PIPE MAST
 QUANTITY: 1 PER SECTION, TOTAL OF 3
 SCALE: AS SHOWN (SEE DRAWING)

PANEL ANTENNA SPECIFICATIONS (FINAL CONFIGURATION)
 SCALE: N.T.S.

- ITEM 6**
 LTE/RR (1900/2100 MHz) REMOTE RADIO HEAD UNIT
 DIMENSIONS: 15.2" H x 11.5" W x 8.1" D
 QUANTITY: 1 PER SECTION, TOTAL OF 3
 SCALE: AS SHOWN (SEE DRAWING)
- ITEM 7**
 LTE/RR (700/850 MHz) REMOTE RADIO HEAD UNIT
 DIMENSIONS: 15.2" H x 11.5" W x 8.1" D
 QUANTITY: 1 PER SECTION, TOTAL OF 3
 SCALE: AS SHOWN (SEE DRAWING)
- ITEM 8**
 TYPICAL INTERFERENCE MITIGATION FILTER DIMENSIONS
 SCALE: N.T.S.
- ITEM 9**
 TYPICAL FIBER JUNCTION BOX DIMENSIONS, SCHEMATIC AND MOUNTING PROCEDURE
 SCALE: N.T.S.

FIGURE 19
 FIBER JUNCTION BOX MOUNTING PROCEDURE

1. The fiber optic cable is secured to the mounting plate with the provided fiber optic cable tie-downs. The tie-downs are secured to the mounting plate with the provided fiber optic cable tie-down anchors.

2. The fiber optic cable is secured to the mounting plate with the provided fiber optic cable tie-downs. The tie-downs are secured to the mounting plate with the provided fiber optic cable tie-down anchors.

3. The fiber optic cable is secured to the mounting plate with the provided fiber optic cable tie-downs. The tie-downs are secured to the mounting plate with the provided fiber optic cable tie-down anchors.

4. The fiber optic cable is secured to the mounting plate with the provided fiber optic cable tie-downs. The tie-downs are secured to the mounting plate with the provided fiber optic cable tie-down anchors.

Qty	Component	Part No.	Notes
1	Mounting Plate	100-0001	100-0001
1	Mounting Plate	100-0002	100-0002
1	Mounting Plate	100-0003	100-0003
1	Mounting Plate	100-0004	100-0004
1	Mounting Plate	100-0005	100-0005

FIGURE 19
 FIBER JUNCTION BOX
 DIMENSIONS: 24.5" H x 11.5" W x 8.1" D
 QUANTITY: 1 PER SECTION, TOTAL OF 3
 SCALE: AS SHOWN (SEE DRAWING)



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ENGINEER/AND SURVEYOR DATE
 7/19/23

REVISIONS

NO.	DESCRIPTION	DATE
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1	REV. STRUCT. REFERENCE SHEET	7/27/23

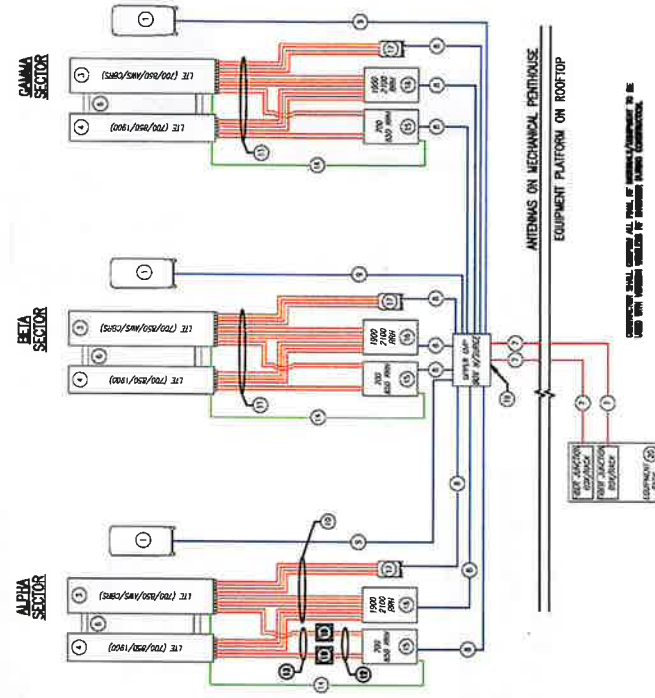
PROJECT NAME:
 BLOOMFIELD 4 CT
 1300 HALL BOULEVARD
 BLOOMFIELD, CT 06002

REVISION TITLE:
 RF BILL OF MATERIALS
 AND RF CABLE
 PLUMBING DIAGRAM

DRAWING NO.:
 RF02

DATE PLOTTED: 7/19/23	SCALE: AS SHOWN
DATE REVISION: 7/27/23	SCALE: AS SHOWN
DATE APPROVAL: 7/19/23	SCALE: AS SHOWN

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS OF ALL ANTENNAS AND CABLES TO BE INSTALLED ON THE ROOFTOP. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES.



RF CABLE PLUMBING DIAGRAM (FINAL CONFIGURATION)
 SCALE: AS SHOWN

RF BILL OF MATERIALS (PROP. (FINAL CONFIGURATION))

ITEM (SEE PLAN)	DESCRIPTION	BAND	QTY	STATUS	CABLE LENGTH/AMT SIZE	COMMENTS
1	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
2	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
3	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
4	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
5	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
6	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
7	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
8	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
9	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
10	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
11	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
12	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
13	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
14	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
15	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
16	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
17	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
18	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
19	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
20	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
21	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
22	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
23	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
24	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
25	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
26	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
27	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
28	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
29	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
30	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
31	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
32	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
33	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
34	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
35	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
36	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
37	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
38	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
39	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
40	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
41	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
42	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
43	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
44	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
45	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
46	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
47	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
48	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
49	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST
50	1x1 FIBER OPTIC CABLE (AMPER)	1920-1980	3 TOTAL (6x60)	EXIST.	14.25' x 14.25' x 5.53' (60' dia. mesh)	ADVANCED TO EXIST. RPE MUST

RF BILL OF MATERIALS (FINAL CONFIGURATION)
 SCALE: AS SHOWN

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS OF ALL ANTENNAS AND CABLES TO BE INSTALLED ON THE ROOFTOP. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES.

LEGEND

- RED = FIBER CABLE (AMPER)
- BLUE = COAXIAL CABLE (AMPER)
- GREEN = FIBER OPTIC CABLE (AMPER)
- ORANGE = 1/2" COAXIAL CABLE (AMPER)
- PINK = 1/4" COAXIAL CABLE (AMPER)

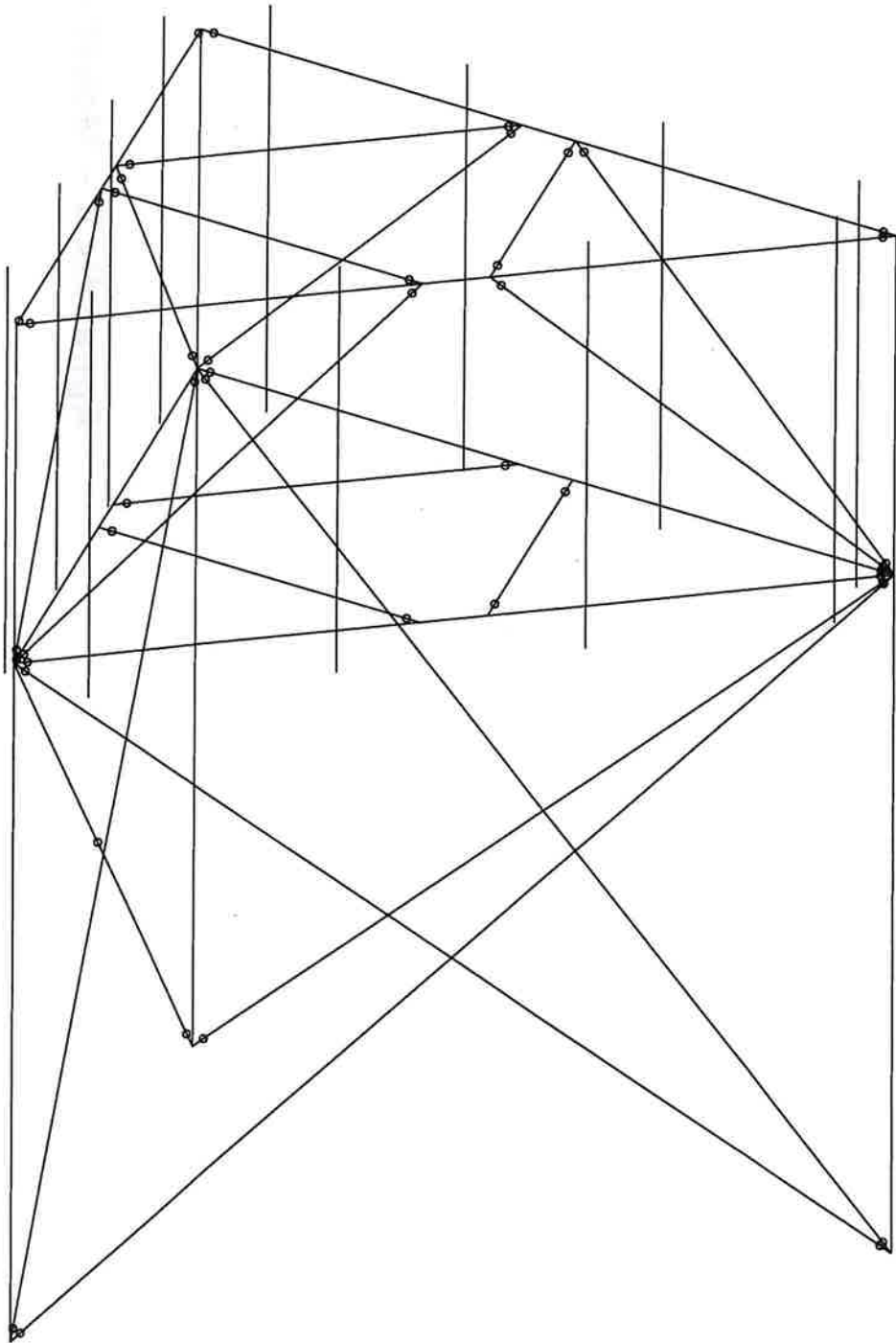
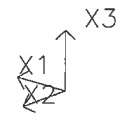
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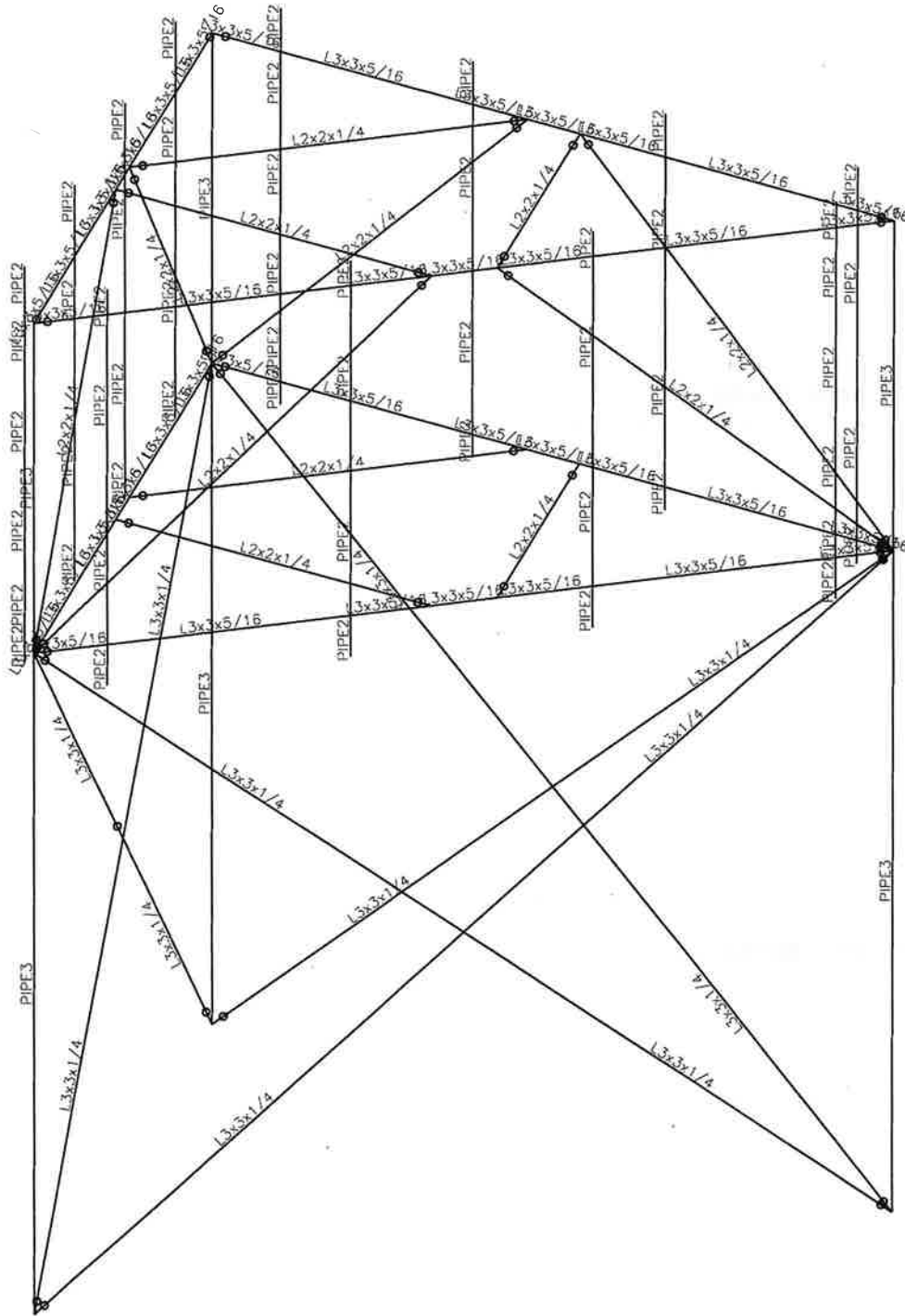
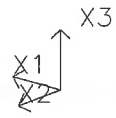
Verizon Bloomfield 4CT MSA 1508.208

View: Full Steel Frame

SCALE = 1:29

DATE: 7/25/23





Verizon Bloomfield 4CT MSA 1508.208

Prepared by:**Page: 1**
Date: 7/25/23
15:27**Load no. 1: Front No Ice (units - kips ft.)**

* GROUP NONE

/ JOINT LOADS

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FX2 0.04 FX3 -0.05 N 37 36

FX2 0.02 FX3 -0.05 N 92 91 66 65

FX2 0.03 FX3 -0.03 N 424 421 426 425

/ JOINT LOADS

FX2 0.06 FX3 -0.15 N 418 TO 420

/ END

FORCE SUMMATION

FX1=0 kip

FX2=1.1 kip

FX3=-1.17 kip

Load no. 2: Side No Ice (units - kips ft.)

* GROUP NONE

/ JOINT LOADS

FX1 0.09 FX3 -0.05 N 16 15 77 76 51 50

FX1 0.02 FX3 -0.05 N 37 36 92 91 65 66

FX1 0.03 FX3 -0.02 N 424 426 425

/ JOINT LOADS

FX1 0.06 FX3 -0.15 N 418 TO 420

FX1 0.03 FX3 -0.03 N 421

/ END

FORCE SUMMATION

FX1=0.96 kip

FX2=0 kip

FX3=-1.14 kip

Load no. 3: Front Ice (units - kips ft.)

* GROUP NONE

/ JOINT LOADS

FX2 0.04 FX3 -0.33 N 16 15 77 76 51 50

FX2 0.01 FX3 -0.125 N 37 36 92 91 66 65

FX2 0.02 FX3 -0.5 N 418 TO 420

FX2 0.01 FX3 -0.2 N 424 426 425

/ JOINT LOADS

FX2 0.03 FX3 -0.06 N 421

/ END

FORCE SUMMATION

FX1=0 kip

FX2=0.42 kip

FX3=-4.89 kip

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Prepared by:**Load no. 4: Side Ice (units - kips ft.)**

* GROUP NONE

/ JOINT LOADS

FX1 0.03 FX3 -0.33 N 16 15 77 76 51 50

FX1 0.01 FX3 -0.125 N 37 36 92 91 66 65

FX1 0.02 FX3 -0.42 N 418 TO 420

FX1 0.01 FX3 -0.19 N 424 426 425

FX1 0.02 FX3 -0.06 N 421

/ END

FORCE SUMMATION

FX1=0.35 kip

FX2=0 kip

FX3=-4.62 kip

Load no. 5: Selfweight (units - kips ft.)

* GROUP NONE

/ BEAM LOADS

SELF X3 -1. B 1 TO 4 9 TO 14 19 TO 31 36 TO 41 46 TO 54 59 TO 64 69 TO 130

411 TO 415 492 TO 506

/ END

FORCE SUMMATION

FX1=0 kip

FX2=0 kip

FX3=-1.8238 kip

Load no. 6: Front Frame Ice (units - kips ft.)

* GROUP NONE

/ BEAM LOADS

DIST GL FX2 0.0015 B 1 TO 4 9 TO 14 19 TO 31 36 TO 41 46 TO 54 59 TO 64

69 TO 130 411 TO 415 492 TO 506

/ END

FORCE SUMMATION

FX1=0 kip

FX2=0.5644 kip

FX3=0 kip

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Prepared by:**Page: 3**
Date: 7/25/23
15:27**Load no. 7: Side Frame Ice (units - kips ft.)**

* GROUP NONE
 / BEAM LOADS
 DIST GL FX1 0.0015 B 1 TO 4 9 TO 14 19 TO 31 36 TO 41 46 TO 54 59 TO 64
 69 TO 130 411 TO 415 492 TO 506
 / END

FORCE SUMMATION

FX1=0.5644 kip
 FX2=0 kip
 FX3=0 kip

Load no. 8: Front Frame No Ice (units - kips ft.)

* GROUP NONE
 / BEAM LOADS
 / BEAM LOADS
 DIST GL FX2 0.005 B 1 TO 4 9 TO 14 19 TO 31 36 TO 41 46 TO 54 59 TO 64
 69 TO 130 411 TO 415 492 TO 506
 / END

FORCE SUMMATION

FX1=0 kip
 FX2=1.8813 kip
 FX3=0 kip

Load no. 9: Side Frame No Ice (units - kips ft.)

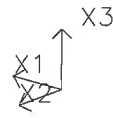
* GROUP NONE
 / BEAM LOADS
 / BEAM LOADS
 DIST GL FX1 0.005 B 1 TO 4 9 TO 14 19 TO 31 36 TO 41 46 TO 54 59 TO 64
 69 TO 130 411 TO 415 492 TO 506
 / END

FORCE SUMMATION

FX1=1.8813 kip
 FX2=0 kip
 FX3=0 kip

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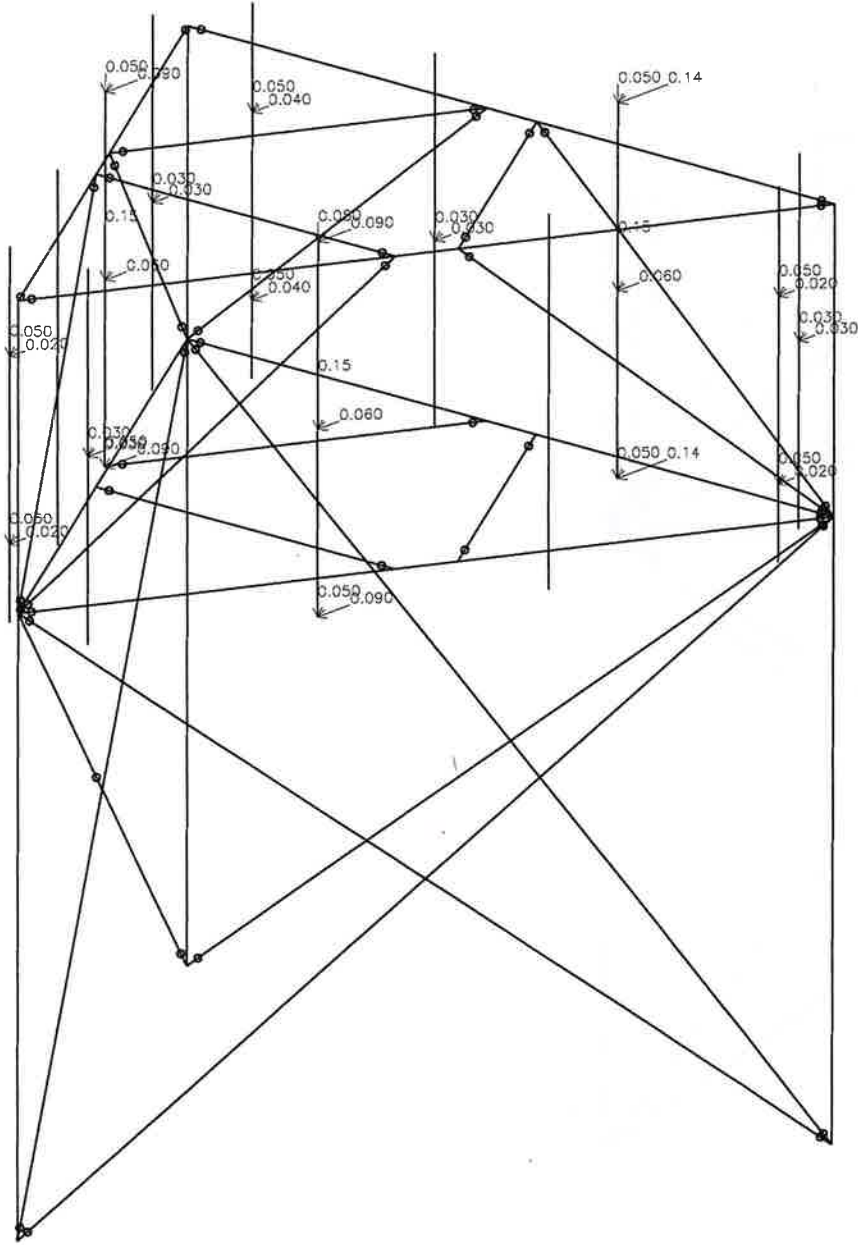
Load 1: Front No Ice



SCALE = 1:33

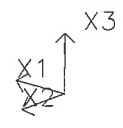
UNITS: kip ft

DATE: 7/25/23



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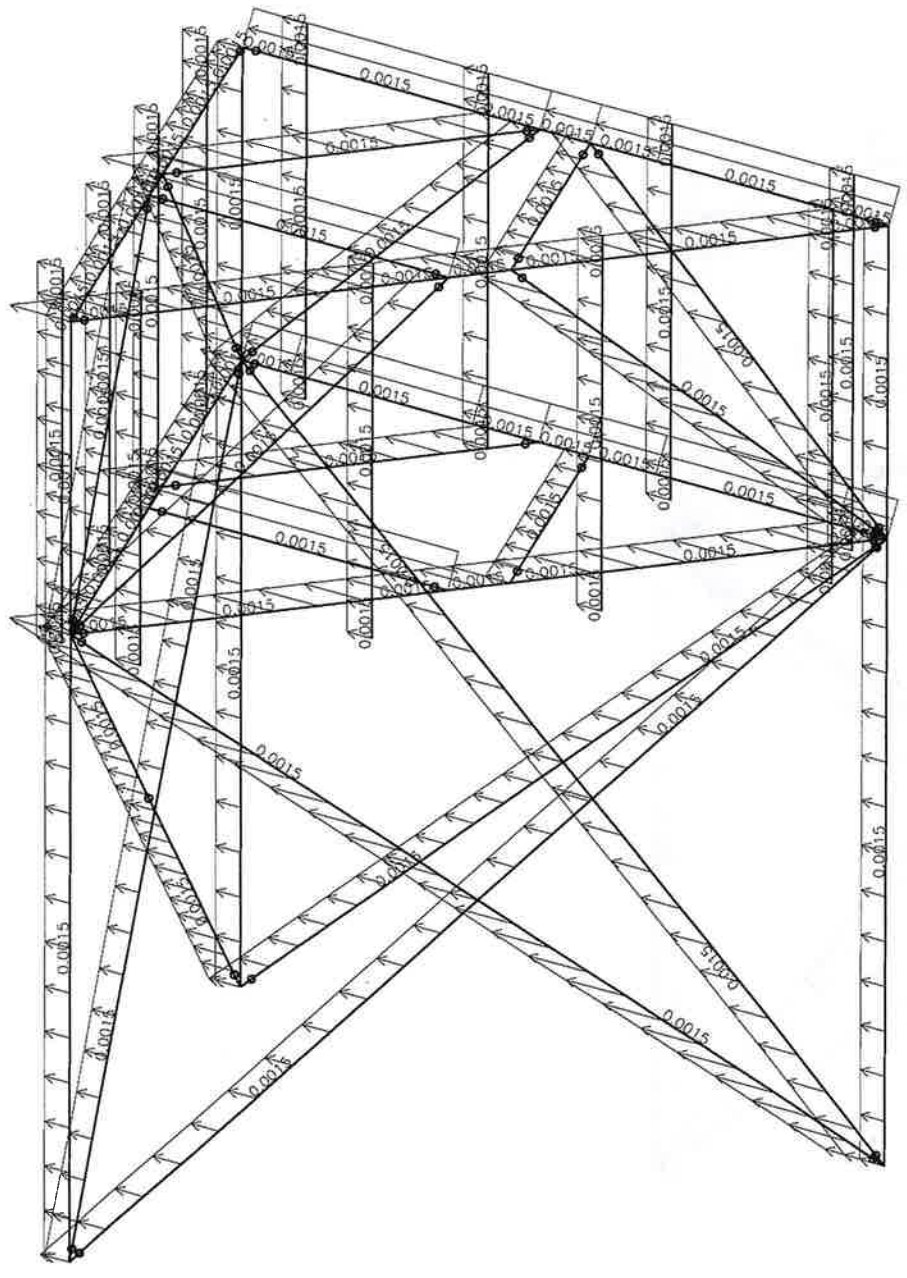
Load 7: Side Frame Ice



SCALE = 1:33

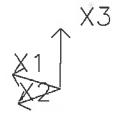
UNITS: kip ft

DATE: 7/25/23



Verizon Bloomfield 4CT MSA 1508.208

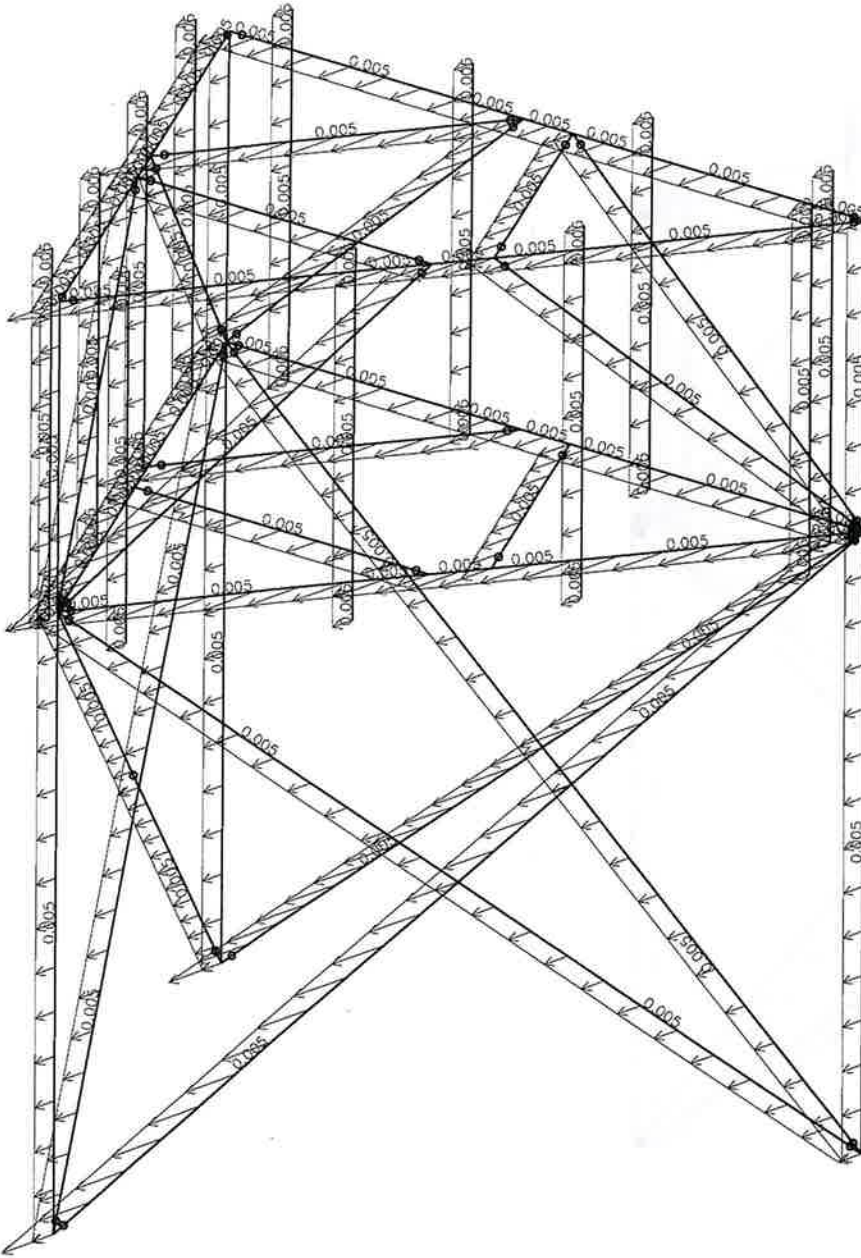
Load 8: Front Frame No Ice



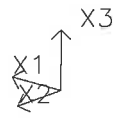
SCALE = 1:33

UNITS: kip ft

DATE: 7/25/23



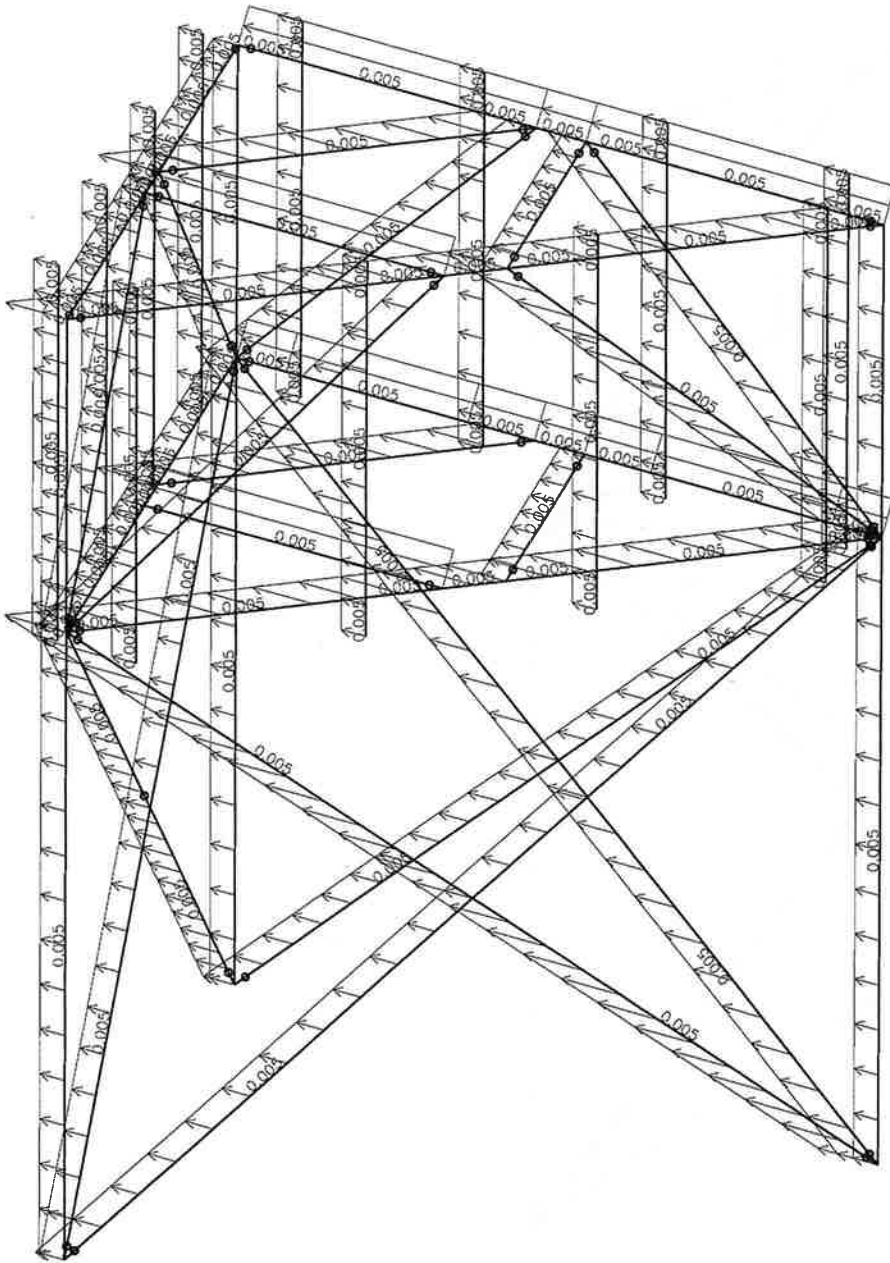
Load 9: Side Frame No Ice



SCALE = 1:33

UNITS: kip ft

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Prepared by:

Results Summary Table

Beam	Section	Com	Defl L	Slen	CAPACITY					Combined Axial+Mom	
					Axial	Dir Shear	Mom	LTB			
2	PIPE 3	6	9999	155	-0.07	MJ 0.00	0.02	0.02	0.02	0.05	
						MI 0.00	0.01	0.00			
3	PIPE 3	7	7491	155	-0.10	MJ 0.00	0.02	0.02	0.02	0.10	
						MI 0.00	0.03	0.00			
10	PIPE 2	6	1396	91	0.02	MJ 0.01	0.08	0.08	0.08	0.23	
						MI 0.01	0.15	0.00			
12	PIPE 2	6	1295	91	0.01	MJ 0.00	0.05	0.05	0.05	0.13	
						MI 0.00	0.08	0.00			
13	L 3x3x1/4	1	484	332	-0.05	MJ 0.00	0.04	0.05	0.05	0.13	***
						MI 0.00	0.10	0.00			
14	L 3x3x1/4	1	485	332	-0.40	MJ 0.00	0.05	0.07	0.07	0.40	***
						MI 0.00	0.08	0.00			
20	PIPE 2	3	6517	91	-0.01	MJ 0.01	0.10	0.10	0.10	0.13	
						MI 0.00	0.02	0.00			
21	L 2x2x1/4	2	4409	184	0.01	MJ 0.00	0.02	0.02	0.02	0.03	
						MI 0.00	0.02	0.00			
22	L 2x2x1/4	1	2554	184	-0.03	MJ 0.00	0.02	0.02	0.02	0.04	
						MI 0.00	0.03	0.00			
23	L 2x2x1/4	2	1932	184	-0.04	MJ 0.00	0.01	0.01	0.01	0.06	
						MI 0.00	0.04	0.00			
28	PIPE 2	4	5601	91	-0.01	MJ 0.00	0.02	0.02	0.02	0.05	
						MI 0.01	0.02	0.00			
30	PIPE 3	6	6608	155	-0.10	MJ 0.00	0.02	0.02	0.02	0.12	
						MI 0.00	0.05	0.00			
37	PIPE 2	3	1692	91	0.02	MJ 0.01	0.16	0.16	0.16	0.19	
						MI 0.01	0.03	0.00			
39	PIPE 2	6	1664	91	0.01	MJ 0.00	0.06	0.06	0.06	0.12	
						MI 0.00	0.06	0.00			
40	L 3x3x1/4	2	314	332	-0.26	MJ 0.00	0.01	0.02	0.02	0.29	***
						MI 0.00	0.03	0.00			
41	L 3x3x1/4	2	314	332	-0.40	MJ 0.00	0.06	0.09	0.09	0.51	***
						MI 0.00	0.17	0.00			
47	PIPE 2	6	3255	91	-0.01	MJ 0.00	0.04	0.04	0.04	0.13	
						MI 0.01	0.08	0.00			
52	PIPE 2	6	9250	91	-0.01	MJ 0.00	0.03	0.03	0.03	0.04	
						MI 0.00	0.01	0.00			
53	L 3x3x5/16	3	1198	265	-0.03	MJ 0.05	0.12	0.14	0.14	0.45	***
						MI 0.01	0.32	0.00			
54	L 3x3x5/16	3	1214	265	0.02	MJ 0.01	0.09	0.11	0.11	0.24	
						MI 0.01	0.14	0.00			
60	PIPE 2	6	1422	91	0.02	MJ 0.01	0.10	0.10	0.10	0.26	
						MI 0.01	0.15	0.00			
62	PIPE 2	3	1679	91	0.01	MJ 0.00	0.06	0.06	0.06	0.11	
						MI 0.00	0.04	0.00			
63	L 3x3x1/4	1	560	332	-0.39	MJ 0.00	0.03	0.05	0.05	0.47	***
						MI 0.00	0.08	0.00			
64	L 3x3x1/4	2	561	332	-0.03	MJ 0.00	0.04	0.06	0.06	0.13	***
						MI 0.00	0.07	0.00			
70	PIPE 2	3	5374	91	-0.01	MJ 0.00	0.07	0.07	0.07	0.15	
						MI 0.01	0.08	0.00			
75	PIPE 2	6	9999	91	-0.01	MJ 0.00	0.02	0.02	0.02	0.05	
						MI 0.00	0.03	0.00			
93	L 3x3x5/16	3	1197	265	-0.03	MJ 0.05	0.13	0.15	0.15	0.46	***
						MI 0.01	0.32	0.00			
94	L 3x3x5/16	4	1227	265	0.02	MJ 0.02	0.10	0.11	0.11	0.23	
						MI 0.01	0.14	0.00			
113	L 3x3x5/16	6	1168	265	-0.03	MJ 0.05	0.11	0.13	0.13	0.45	***
						MI 0.01	0.33	0.00			
114	L 3x3x5/16	3	1246	265	0.02	MJ 0.03	0.09	0.10	0.10	0.26	
						MI 0.01	0.17	0.00			
498	L 2x2x1/4	2	4409	184	-0.01	MJ 0.00	0.02	0.02	0.02	0.03	
						MI 0.00	0.02	0.00			
499	L 2x2x1/4	1	2554	184	-0.03	MJ 0.00	0.02	0.02	0.02	0.04	

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Results Summary Table

Beam	Section	Com	Defl L/	Slen	CAPACITY				Combined Axial+Mom	
					Axial	Dir Shear	Mom	LTB		
500	L 2x2x1/4	2	1932	184	-0.04	MJ 0.00 MI 0.00	0.03 0.01	0.00 0.01	0.06	
501	L 2x2x1/4	4	882	240	-0.31	MJ 0.00 MI 0.00	0.01 0.07	0.01 0.00	0.34	***
502	L 2x2x1/4	6	1129	240	-0.28	MJ 0.00 MI 0.00	0.03 0.05	0.04 0.00	0.32	***
503	L 2x2x1/4	2	787	240	-0.24	MJ 0.00 MI 0.00	0.03 0.08	0.04 0.00	0.29	***
504	L 2x2x1/4	6	1772	240	-0.31	MJ 0.00	0.02	0.02	0.35	***
505	L 2x2x1/4	6	2297	240	-0.31	MJ 0.00 MI 0.00	0.03 0.03	0.04 0.00	0.33	***
506	L 2x2x1/4	4	850	240	-0.26	MJ 0.00 MI 0.00	0.01 0.07	0.02 0.00	0.29	***

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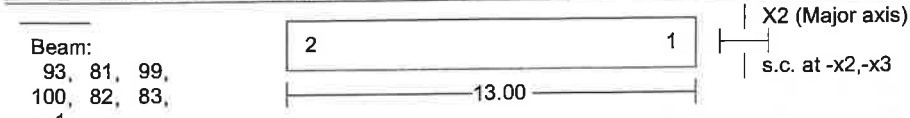
Date: 7/25/23

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Prepared by:

Detailed Results Table for Beam 93 - 1

Moments: kips*foot, Forces: kips, Stresses: ksi, Section prop.: inch



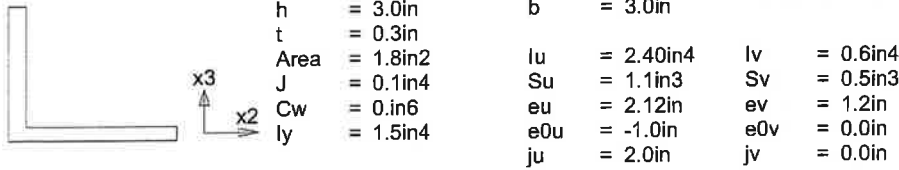
CONSTRAINTS

- Sections : Check
- Steel Grade: A36

DESIGN DATA

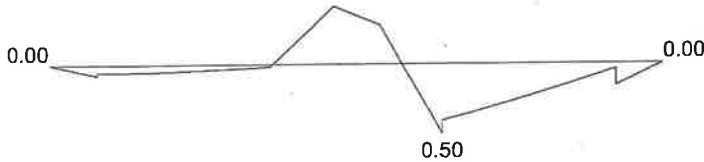
- Kx = 1.00 - Ky = 1.00
- Allow. Slend. : 200 (compr.) 300 (tens.)
- Allowable Deflection : 1/240
- Tension Area Reduction Factor : 1.00
- Building type : Unbraced

Section: L 3x3x5/16

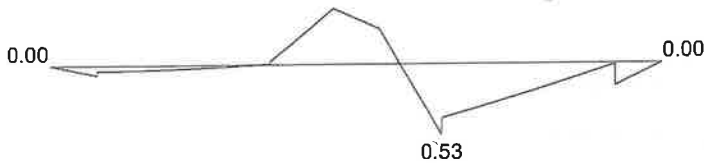


DESIGN COMBINATION = 3

Mu (M2) Moment Diagram



Max. AXIAL Force = 0.05 (tens.), -0.80 (compr.) Max. SHEAR Force = 0.84
Mv (M3) Moment Diagram



Max. AXIAL Force = 0.05 (tens.), -0.80 (compr.) Max. SHEAR Force = 0.02

SECTION CLASSIFICATION: *** COMPACT ***

Limiting Ratios: Compact Non-Compact
d/t= 9.65 < 12.8 12.8 (Fy= 36.0)
b/t= 9.65 < 15.3

DESIGN	EQUATION	FACTORS	VALUES	RESULT
M3 Moment (A-F1-1) without LTB	$\frac{M}{0.9Mn} < 1.00$	Z = 0.51	M = 0.53 Mn = 1.89	0.31
V3 Shear (F2-1)	$\frac{Vu}{.9*Vn} < 1.00$ $Vn = 0.6*Fy*Av$	Av = 0.84	Vu = 0.84 Vn = 18.14	0.05

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Prepared by:

Detailed Results Table for Beam 93 - 1

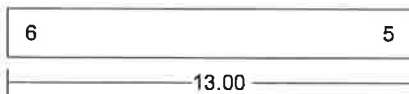
Moments: kips*foot , Forces: kips , Stresses: ksi , Section prop.: inch

DESIGN	EQUATION	FACTORS	VALUES	RESULT
M2 Moment (A-F1-1) without LTB	$\frac{M}{0.9Mn} < 1.00$	Z = 1.13	M = 0.50 Mn = 4.25	0.13
Deflection	$\frac{\text{defl.}}{L / 240} < 1.00$		defl = 0.11890	0.18
Axial Force (4-1),(4-2)	$\frac{Pu}{0.90AgFcr} < 1.00$	(kL/r) _x = 72 (kL/r) _y = 112 $\lambda_c = 1.26$	Pu = 0.80 Ag = 1.78 Fcr = 18.57	0.03
Lateral Torsional Buckling (5-6)	$\frac{M}{0.9Mn} < 1.00$ Critical Segment from 0.00 to 13.00 at: Long leg tip Segment End Moments: 0.00 and 0.00	Lb = 13.00 Cb = 1.50	M = 0.50 Mn = 3.59 My = 3.40 Mob = 8.55	0.15
Combined Forces (compress.) (H1-1b)	$\frac{Pu}{2\phi Pn} + \frac{Mux}{\phi Mn_x} + \frac{Muy}{\phi Mn_y} < 1.00$ Critical Segment from 0.00 to 13.00 at: Long leg tip	Cmx = 1.00 Cmy = 0.85 Pex = 99.07 Pey = 40.51 Mnx = 3.59 (0.01 + 0.15 + 0.29)	Mux = 0.50 Muy = 0.53 B1x = 1.01 B1y = 1.00 Mny = 2.07	0.46

Detailed Results Table for Beam 94 - 4

Moments: kips*foot , Forces: kips , Stresses: ksi , Section prop.: inch

Beam:
94, 86, 493,
492, 87, 88,
4



X2 (Major axis)
s.c. at -x2,-x3

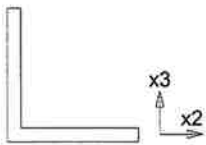
CONSTRAINTS

- Sections : Check
- Steel Grade: A36

DESIGN DATA

- Kx = 1.00 - Ky = 1.00
- Allow. Slend. : 200 (compr.) 300 (tens.)
- Allowable Deflection : 1/240
- Tension Area Reduction Factor : 1.00
- Building type : Unbraced

Section: L 3x3x5/16



h = 3.0in	b = 3.0in		
t = 0.3in			
Area = 1.8in ²	Iu = 2.40in ⁴	Iv = 0.6in ⁴	
J = 0.1in ⁴	Su = 1.1in ³	Sv = 0.5in ³	
Cw = 0.in ⁶	eu = 2.12in	ev = 1.2in	
ly = 1.5in ⁴	e0u = -1.0in	e0v = 0.0in	
	ju = 2.0in	jv = 0.0in	

DESIGN COMBINATION = 4

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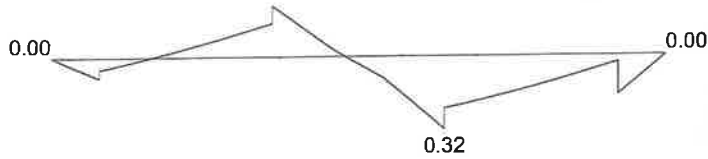
15:36

Prepared by:

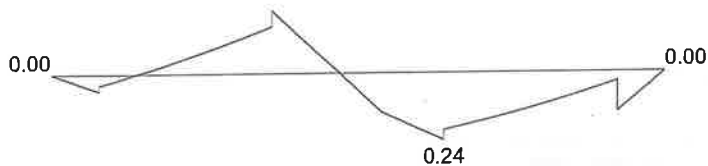
Detailed Results Table for Beam 94 - 4

Moments: kips*foot, Forces: kips, Stresses: ksi, Section prop.: inch

Mu (M2) Moment Diagram



Max. AXIAL Force = 1.04 (tens.) Max. SHEAR Force = 0.23
Mv (M3) Moment Diagram



Max. AXIAL Force = 1.04 (tens.) Max. SHEAR Force = 0.07

SECTION CLASSIFICATION: *** COMPACT ***

Limiting Ratios: Compact Non-Compact
 d/t= 9.65 < 12.8 12.8 (Fy= 36.0)
 b/t= 9.65 < 15.3

DESIGN	EQUATION	FACTORS	VALUES	RESULT
M3 Moment (A-F1-1) without LTB	$\frac{M}{0.9Mn} < 1.00$	Z = 0.51	M = 0.24 Mn = 1.89	0.14
V3 Shear (F2-1)	$\frac{Vu}{Vn} < 1.00$ Vn=0.6*Fy*Av	Av = 0.84	Vu = 0.23 Vn = 18.14	0.01
M2 Moment (A-F1-1) without LTB	$\frac{M}{0.9Mn} < 1.00$	Z = 1.13	M = 0.32 Mn = 4.25	0.08
Deflection	$\frac{\text{defl.}}{L / 240} < 1.00$		defl = 0.12715	0.20
Axial Force (D1-1)	$\frac{Pu}{0.90AgFy} < 1.00$	(kL/r)x =169 (kL/r)y =265	Pu = 1.04 Ag = 1.78 Fy = 36.00	0.02
Lateral Torsional Buckling (5-6)	$\frac{M}{0.9Mn} < 1.00$ Critical Segment from 0.00 to 13.00 at: Long leg tip Segment End Moments: 0.00 and 0.00	Lb = 13.00 Cb = 1.50	M = 0.32 Mn = 3.59 My = 3.40 Mob = 8.55	0.10

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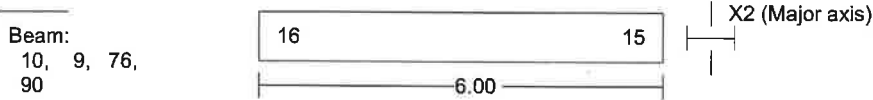
Detailed Results Table for Beam 94 - 4

Moments: kips*foot , Forces: kips , Stresses: ksi , Section prop.: inch

DESIGN	EQUATION	FACTORS	VALUES	RESULT
Combined Forces (compress.) (H1-1b)	$\frac{P_u}{2\phi P_n} + \frac{M_{ux}}{\phi M_{nx}} + \frac{M_{uy}}{\phi M_{ny}} < 1.00$	Cmx = 1.00	Mux = 0.32	0.23
		Cmy = 0.85	Muy = 0.24	
		Pex = 17.76	B1x = 1.00	
		Pey = 7.26	B1y = 1.00	
		Mnx = 3.59	Mny = 2.07	
		(0.00 + 0.10 + 0.13)		
	Critical Segment from at: Long leg tip	0.00 to 13.00		

Detailed Results Table for Beam 10 - 90

Moments: kips*foot , Forces: kips , Stresses: ksi , Section prop.: inch



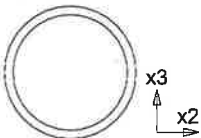
CONSTRAINTS

- Sections : Check
- Steel Grade: A53

DESIGN DATA

- Kx = 1.00 - Ky = 1.00
- Allow. Slend. : 200 (compr.) 300 (tens.)
- Allowable Deflection : 1/240
- Tension Area Reduction Factor : 1.00
- Building type : Unbraced

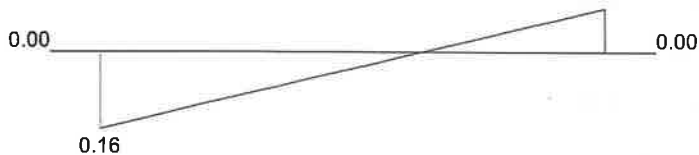
Section: PIPE 2



D = 2.37in
t = 0.2in
Area = 1.1in² I2 = 0.7in⁴ I3 = 0.7in⁴
J = 1.3in⁴ Z2 = 0.8in³ Z3 = 0.8in³
Cw = 0.in⁶ e3 = 1.2in e2 = 1.2in

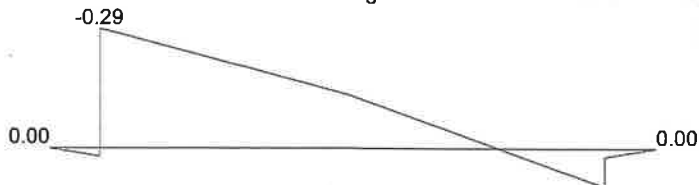
DESIGN COMBINATION = 6

M2 Moment Diagram



Max. AXIAL Force = 0.63 (tens.), -0.33 (compr.) Max. SHEAR Force = 0.05

M3 Moment Diagram



Max. AXIAL Force = 0.63 (tens.), -0.33 (compr.) Max. SHEAR Force = 0.09

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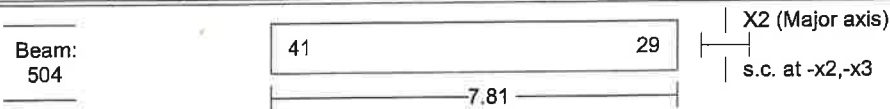
Prepared by:

Detailed Results Table for Beam 10 - 90*Moments: kips*foot, Forces: kips, Stresses: ksi, Section prop.: inch*

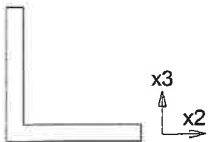
SECTION CLASSIFICATION: *** COMPACT ***

Limiting Ratios: Compact Non-Compact
d/t= 15.46 < 59.1 94.3 (Fy= 35.0 R = -0.017)

DESIGN	EQUATION	FACTORS	VALUES	RESULT
V2 Shear (F2-1)	$V_u / (.9 * V_n) < 1.00$ $V_n = 0.6 * F_y * A_v$	$A_v = 0.64$	$V_u = 0.09$ $V_n = 13.53$	0.01
M3 Moment (A-F1-1) without LTB	$\frac{M}{0.9M_n} < 1.00$	$Z = 0.76$	$M = 0.29$ $M_n = 2.22$	0.15
M2 Moment (A-F1-1) without LTB	$\frac{M}{0.9M_n} < 1.00$	$Z = 0.76$	$M = 0.16$ $M_n = 2.22$	0.08
Deflection	$\frac{\text{defl.}}{L / 240} < 1.00$		defl = 0.05157	0.17
Axial Force (D1-1)	$\frac{P_u}{0.90A_g F_y} < 1.00$	$(kL/r)_x = 15$ $(kL/r)_y = 15$	$P_u = 0.63$ $A_g = 1.07$ $F_y = 35.00$	0.02
Combined Forces (tension) (H1-1b)	$\frac{P_u}{2\phi P_n} + \frac{M_{ux}}{\phi M_{nx}} + \frac{M_{uy}}{\phi M_{ny}} < 1.00$		$M_{ux} = 0.16$ $M_{uy} = 0.29$	0.23

Detailed Results Table for Beam 504*Moments: kips*foot, Forces: kips, Stresses: ksi, Section prop.: inch***CONSTRAINTS**- Sections : Check
- Steel Grade: A36**DESIGN DATA**- Kx = 1.00 - Ky = 1.00
- Allow. Slend. : 200 (compr.) 300 (tens.)
- Allowable Deflection : 1/240
- Tension Area Reduction Factor : 1.00
- Building type : Unbraced

Section: L 2x2x1/4



h	= 2.0in	b	= 2.0in
t	= 0.2in		
Area	= 0.9in ²	I _u	= 0.6in ⁴
J	= 0.0in ⁴	S _u	= 0.4in ³
C _w	= 0.1in ⁶	e _u	= 1.4in
I _y	= 0.3in ⁴	e _{0u}	= -0.7in
		j _u	= 1.3in
		I _v	= 0.1in ⁴
		S _v	= 0.2in ³
		e _v	= 0.8in
		e _{0v}	= 0.0in
		j _v	= 0.0in

DESIGN COMBINATION = 6

Verizon Bloomfield 4CT MSA 1508.208

Code: AISC-LRFD

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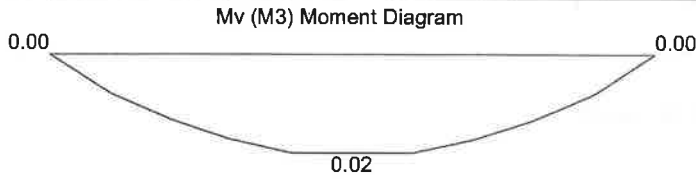
Date: 7/25/23

15:36

Prepared by:

Detailed Results Table for Beam 504

Moments: kips*foot , Forces: kips , Stresses: ksi , Section prop.: inch



Max. AXIAL Force = -1.16 (compr.) Max. SHEAR Force = 0.00

SECTION CLASSIFICATION: *** COMPACT ***

Limiting Ratios: Compact Non-Compact
 d/t= 8.06 < 12.8 12.8 (Fy= 36.0)
 b/t= 8.06 < 15.3

DESIGN	EQUATION	FACTORS	VALUES	RESULT
M3 Moment (A-F1-1) without LTB	$\frac{M}{0.9M_n} < 1.00$	Z = 0.17	M = 0.02 Mn = 0.65	0.03
M2 Moment (A-F1-1) without LTB	$\frac{M}{0.9M_n} < 1.00$	Z = 0.39	M = 0.01 Mn = 1.48	0.01
Deflection	$\frac{\text{defl.}}{L / 240} < 1.00$		defl = 0.03387	0.09
Axial Force (4-1),(4-2)	$\frac{P_u}{0.90A_g F_{cr}} < 1.00$	(kL/r)x =154 (kL/r)y =240 $\lambda_c = 2.69$	Pu = 1.16 Ag = 0.94 Fcr = 4.37	0.31
Lateral Torsional Buckling (5-6)	$\frac{M}{0.9M_n} < 1.00$ Critical Segment from 0.00 to 7.81 at: Long leg tip Segment End Moments: 0.00 and 0.00	Lb = 7.81 Cb = 1.14	M = 0.01 Mn = 1.25 My = 1.18 Mob = 3.03	0.01
Combined Forces (compress.) (H1-1a)	$\frac{P_u}{\phi P_n} + \frac{8M_{ux}}{9\phi M_{nx}} + \frac{8M_{uy}}{9\phi M_{ny}} < 1.00$	Cmx = 1.00 Cmy = 0.85 Pex = 11.40 Pey = 4.68 Mnx = 1.25 (0.31 + 0.01 + 0.02)	Mux = 0.01 Muy = 0.02 B1x = 1.11 B1y = 1.13 Mny = 0.70	0.35

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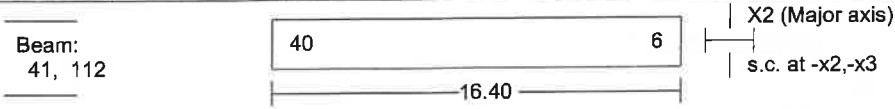
Date: 7/25/23

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Prepared by:

Detailed Results Table for Beam 41 - 112

Moments: kips*foot, Forces: kips, Stresses: ksi, Section prop.: inch



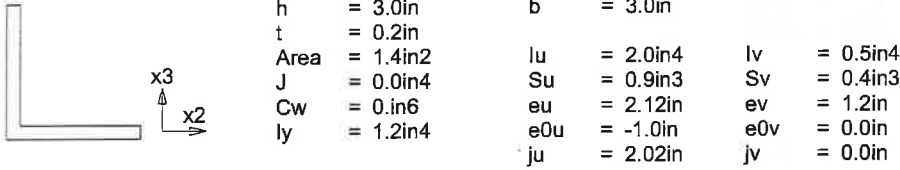
CONSTRAINTS

- Sections : Check
- Steel Grade: A36

DESIGN DATA

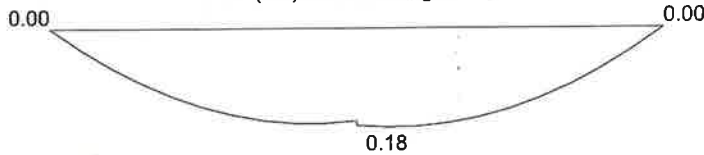
- Kx = 1.00 - Ky = 1.00
- Allow. Slend. : 200 (compr.) 300 (tens.)
- Allowable Deflection : 1/240
- Tension Area Reduction Factor : 1.00
- Building type : Unbraced

Section: L 3x3x1/4



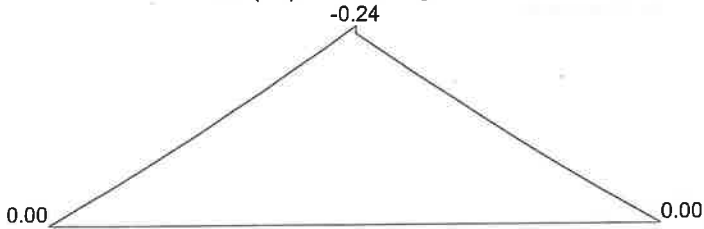
DESIGN COMBINATION = 2

Mu (M2) Moment Diagram



Max. AXIAL Force = 0.28 (tens.) Max. SHEAR Force = 0.03

Mv (M3) Moment Diagram



Max. AXIAL Force = 0.28 (tens.) Max. SHEAR Force = 0.05

SECTION CLASSIFICATION: *** COMPACT ***

Limiting Ratios: Compact Non-Compact
d/t= 12.10 < 12.8 12.8 (Fy= 36.0)
b/t= 12.10 < 15.3

DESIGN	EQUATION	FACTORS	VALUES	RESULT
M3 Moment (A-F1-1) without LTB	$\frac{M}{0.9M_n} < 1.00$	Z = 0.42	M = 0.24 Mn = 1.57	0.17
M2 Moment (A-F1-1) without LTB	$\frac{M}{0.9M_n} < 1.00$	Z = 0.93	M = 0.18 Mn = 3.49	0.06

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Prepared by:

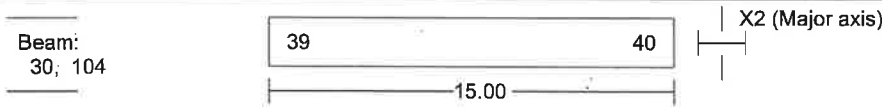
Detailed Results Table for Beam 41 - 112

Moments: kips*foot , Forces: kips , Stresses: ksi , Section prop.: inch

DESIGN	EQUATION	FACTORS	VALUES	RESULT
Deflection	$\frac{\text{defl.}}{L / 240} < 1.00$		defl = 0.62662	0.76
Axial Force (D1-1)	$\frac{P_u}{0.90A_g F_y} < 1.00$	(kL/r) _x = 212 (kL/r) _y = 332	P _u = 0.28 A _g = 1.44 F _y = 36.00	0.01
Lateral Torsional Buckling (5-6)	$\frac{M}{0.9M_n} < 1.00$	L _b = 16.40 C _b = 1.11	M = 0.18 M _n = 2.27 M _y = 2.79 M _o b = 3.25	0.09
Critical Segment from 0.00 to 16.40 at: Long leg tip Segment End Moments: 0.00 and 0.00				
Combined Forces (compress.) (H1-1b)	$\frac{P_u}{2\phi P_n} + \frac{M_{ux}}{\phi M_{nx}} + \frac{M_{uy}}{\phi M_{ny}} < 1.00$	C _m x = 1.00 C _m y = 0.85 P _{ex} = 9.16 P _{ey} = 3.73 M _{nx} = 3.49 (0.00 + -0.06 + -0.15)	M _{ux} = 0.18 M _{uy} = 0.24 B ₁ x = 1.00 B ₁ y = 1.00 M _{ny} = 1.73	0.21
Critical Segment from 0.00 to 16.40 at: Short leg tip				

Detailed Results Table for Beam 30 - 104

Moments: kips*foot , Forces: kips , Stresses: ksi , Section prop.: inch



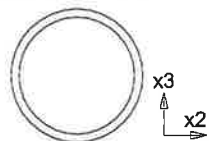
CONSTRAINTS

- Sections : Check
- Steel Grade: A53

DESIGN DATA

- K_x = 1.00 - K_y = 1.00
- Allow. Slend. : 200 (compr.) 300 (tens.)
- Allowable Deflection : 1/240
- Tension Area Reduction Factor : 1.00
- Building type : Unbraced

Section: PIPE 3



D	=	3.50in			
t	=	0.2in			
Area	=	2.23in ²	I ₂	=	3.02in ⁴
J	=	6.03in ⁴	I ₃	=	3.02in ⁴
C _w	=	0.in ⁶	Z ₂	=	2.33in ³
			Z ₃	=	2.33in ³
			e ₃	=	1.8in
			e ₂	=	1.8in

DESIGN COMBINATION = 6

Verizon Bloomfield 4CT MSA 1508.208

Code: AISC-LRFD

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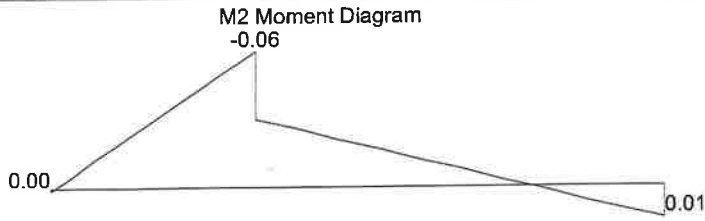
Date: 7/25/23

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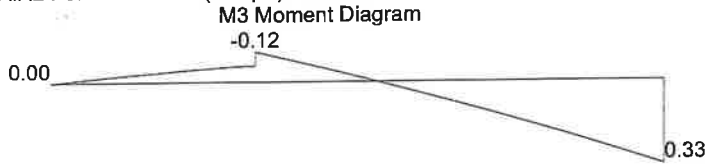
Prepared by:

Detailed Results Table for Beam 30 - 104

Moments: kips*foot, Forces: kips, Stresses: ksi, Section prop.: inch



Max. AXIAL Force = -2.47 (compr.) Max. SHEAR Force = 0.01



Max. AXIAL Force = -2.47 (compr.) Max. SHEAR Force = 0.05

SECTION CLASSIFICATION: *** COMPACT ***

Limiting Ratios: Compact Non-Compact
d/t= 16.16 < 59.1 94.3 (Fy= 35.0 R = 0.032)

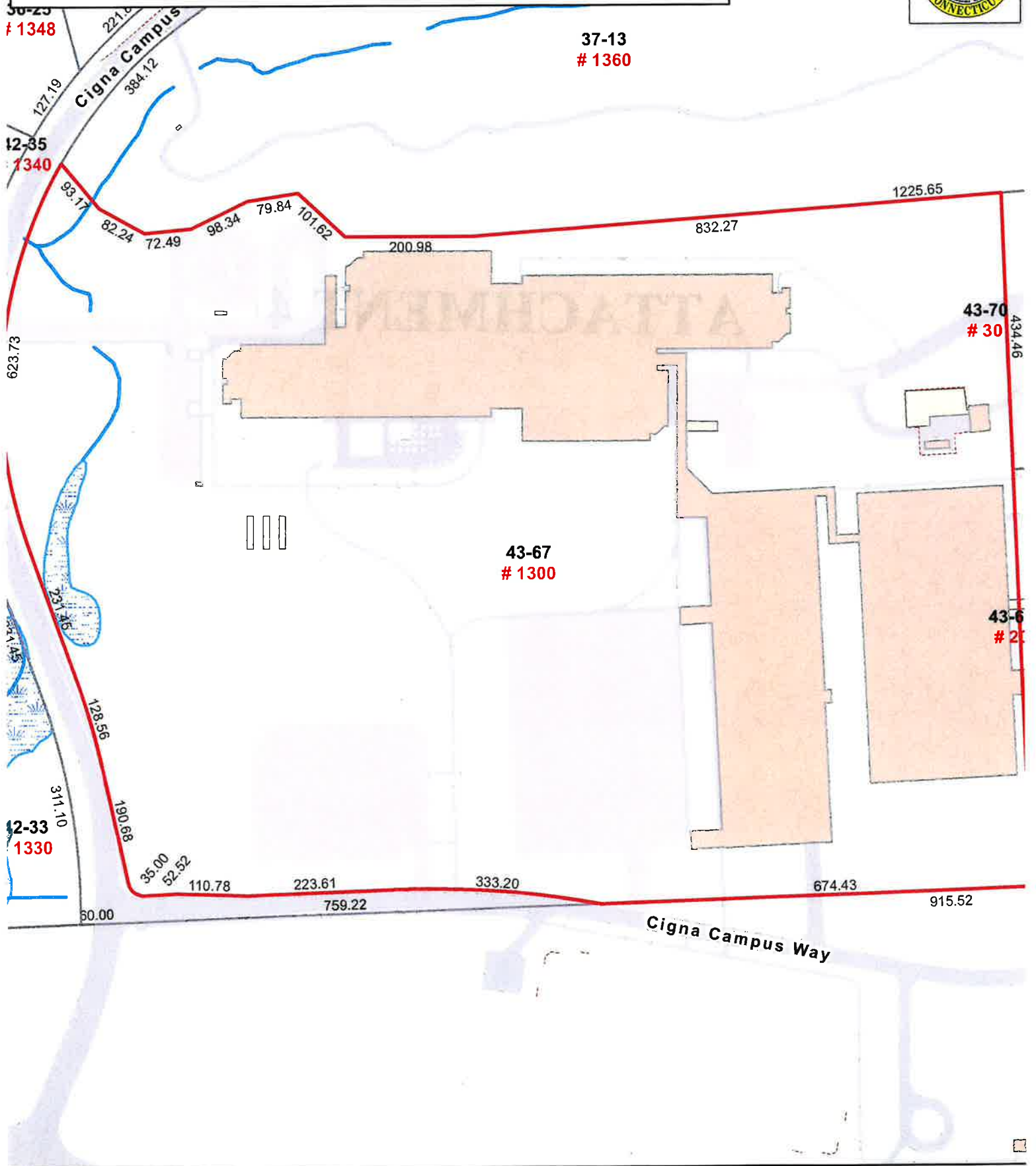
DESIGN	EQUATION	FACTORS	VALUES	RESULT
M3 Moment (A-F1-1) without LTB	$\frac{M}{0.9M_n} < 1.00$	Z = 2.33	M = 0.33 Mn = 6.80	0.05
M2 Moment (A-F1-1) without LTB	$\frac{M}{0.9M_n} < 1.00$	Z = 2.33	M = 0.06 Mn = 6.80	0.01
Deflection	$\frac{\text{defl.}}{L / 240} < 1.00$		defl = 0.02724	0.04
Axial Force (E2-1)	$\frac{P_u}{0.85A_g F_{cr}} < 1.00$	(kL/r)x = 141 (kL/r)y = 141 $\lambda_c = 1.56$	Pu = 2.47 Ag = 2.23 Fcr = 12.56	0.10
Combined Forces (compress.) (H1-1b)	$\frac{P_u}{2\phi P_n} + \frac{M_{ux}}{\phi M_{nx}} + \frac{M_{uy}}{\phi M_{ny}} < 1.00$	Cmx = 1.00 Cmy = 0.85 Pex = 31.93 Pey = 31.93	Mux = 0.06 Muy = 0.33 B1x = 1.08 B1y = 1.00	0.12

ATTACHMENT 4

Town of Bloomfield, Connecticut - Assessment Parcel Map

MBL: 43-67

Address: 1300 HALL BLVD



Approximate Scale:

1 inch = 200 feet

Disclaimer:
This map is for informational purposes only.
All information is subject to verification by any user.
The Town of Bloomfield and its mapping contractors
assume no legal responsibility for the information contained herein.

Map Produced December 20:



Property Information

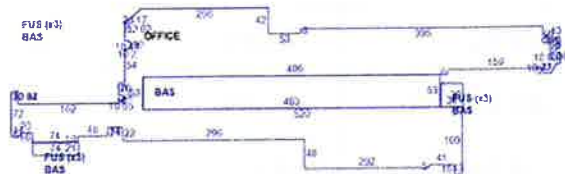
Property Location	1300 HALL BLVD
Owner	THE ATRIUM CT LLC
Co-Owner	
Mailing Address	2 PARK AVE 17TH FLOOR NEW YORK NY 10166
Land Use	200 Commercial
Land Class	C
Zoning Code	DDZ
Census Tract	4713

Site Index	C
Acreage	37.14
Utilities	
Lot Setting/Desc	
Fire District	C
Book / Page	2115/0265

Photo



Sketch



Primary Construction Details

Year Built	1983
Building Desc.	Commercial
Building Style	Office Bldg
Building Grade	B
Stories	4
Occupancy	6.00
Exterior Walls	Stone/Masonry
Exterior Walls 2	Glass/Thermo.
Roof Style	Flat
Roof Cover	Rolled Compos
Interior Walls	Drywall
Interior Walls 2	Minimum
Interior Floors 1	Ceram Clay Til
Interior Floors 2	Carpet

Heating Fuel	Gas
Heating Type	Forced Air
AC Type	100
Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Extra Fixtures	0
Total Rooms	0
Bath Style	NA
Kitchen Style	NA
Bsmt Fin Area	0
Rec Rm Area	0
Bsmt Gar	0
Fireplaces	0

(*Industrial / Commercial Details)

Building Use	Commercial
Building Condition	G
Sprinkler %	100
Heat / AC	Heat/AC Pkg
Frame Type	Fireprf Steel
Baths / Plumbing	Average
Ceiling / Wall	Ceil & Wall
Rooms / Prtns	Average
Wall Height	16.00
First Floor Use	
Foundation	NA

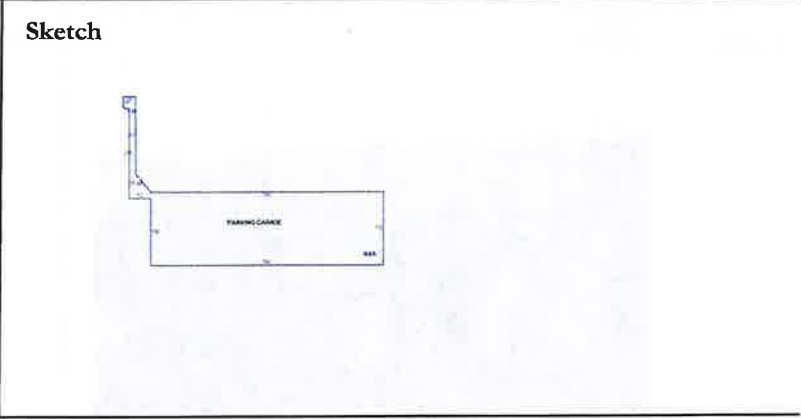


Town of Bloomfield, CT

Property Listing Report

Map Block Lot **43-67**

Building # **3** PID **1422** Account



Primary Construction Details

Year Built	1983
Building Desc.	Commercial
Building Style	Parking Garage
Building Grade	C
Stories	1
Occupancy	1.00
Exterior Walls	Pre-cast Concr
Exterior Walls 2	NA
Roof Style	Flat
Roof Cover	Rolled Compos
Interior Walls	Minimum
Interior Walls 2	Drywall
Interior Floors 1	Concrete
Interior Floors 2	Carpet

Heating Fuel	Typical
Heating Type	Typical
AC Type	25
Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Extra Fixtures	0
Total Rooms	0
Bath Style	NA
Kitchen Style	NA
Bsmt Fin Area	0
Rec Room Area	0
Bsmt Gar	0
Fireplaces	0

(*Industrial / Commercial Details)

Building Use	Commercial
Building Condition	A
Sprinkler %	0
Heat / AC	Heat/AC Pkg
Frame Type	Reinforced Cnc
Baths / Plumbing	None
Ceiling / Wall	Susp Ceil Only
Rooms / Prtns	Average
Wall Height	10.00
First Floor Use	
Foundation	NA

Sub Areas

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
First Floor	101107	101107
Covered Loading Platform	2092	0
Finished Open Porch	1698	0
Finished Upper Story	98439	98439

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
Total Area	203336	199546



Town of Bloomfield, CT

Property Listing Report

Map Block Lot **43-67**

Building # **4** PID **1422** Account

Photo



Sketch



Primary Construction Details

Year Built	2003
Building Desc.	Commercial
Building Style	Service Shop
Building Grade	C
Stories	1
Occupancy	1.00
Exterior Walls	Pre-finsh Metl
Exterior Walls 2	NA
Roof Style	Flat
Roof Cover	Enam Mtl Shing
Interior Walls	Minimum
Interior Walls 2	
Interior Floors 1	Concrete
Interior Floors 2	

Heating Fuel	None
Heating Type	None
AC Type	0
Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Extra Fixtures	0
Total Rooms	0
Bath Style	NA
Kitchen Style	NA
Bsmt Fin Area	0
Rec Room Area	0
Bsmt Gar	0
Fireplaces	0

(*Industrial / Commercial Details)

Building Use	Commercial
Building Condition	A
Sprinkler %	0
Heat / AC	None
Frame Type	Steel
Baths / Plumbing	None
Ceiling / Wall	None
Rooms / Prtns	Average
Wall Height	19.00
First Floor Use	
Foundation	NA

Sub Areas

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
First Floor	1200	1200

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
Total Area	1200	1200

ATTACHMENT 5

Certificate of Mailing — Firm



Name and Address of Sender Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103	TOTAL NO. of Pieces Listed by Sender <div style="font-size: 2em; text-align: center;">3</div>	TOTAL NO. of Pieces Received at Post Office™ <div style="font-size: 2em; text-align: center;">3</div>	Affix Stamp Here <i>Postmark with Date of Receipt.</i> <div style="text-align: right;"> neopostSM 07/31/2023 US POSTAGE \$003.19⁰ ZIP 06103 041L12203937 </div> <div style="text-align: center; margin-top: 20px;"> </div>
Postmaster, per (name of receiving employee) 			

USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Philip Schenck, Acting Town Manager Town of Bloomfield 800 Bloomfield Avenue Bloomfield, CT 06002				
2.	Justin LaFountain, Director of Land Use Town of Bloomfield 800 Bloomfield Avenue Bloomfield, CT 06002				
3.	The Atrium CT LLC 2 Park Avenue, 17 th Floor New York, NY 10166				
4.					
5.					
6.					