Robinson+Cole

KENNETH C. BALDWIN

280 Trumbull Street Hartford, CT 06103-3597 Main (860) 275-8200 Fax (860) 275-8299 kbaldwin@rc.com Direct (860) 275-8345

Also admitted in Massachusetts and New York

October 25, 2021

Via Electronic Mail

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

Re: Notice of Exempt Modification – Facility Modification 100 Great Meadow Road, Wethersfield, Connecticut

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains an existing wireless telecommunications facility at the above-referenced property address (the "Property"). The facility consists of antennas, remote radio heads and an equipment shelter on the roof of the building at the Property. Cellco's existing wireless facility was approved by the Council in September of 1991 (Docket No. 139). A copy of the Docket No. 139 Decision and Order is included in Attachment 1.

Cellco now intends to modify its facility by removing six (6) antennas and installing three (3) Samsung MT6407-77A, three (3) Samsung CBRS antennas, and three (3) LNX-6513DS-A1M antennas in the same locations on the building. A set of project plans showing Cellco's proposed facility modifications and specification for Cellco's new antennas are included in Attachment 2.

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

Melanie A. Bachman, Esq. October 25, 2021 Page 2

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

- 1. The proposed modifications will not result in an increase in the height of the existing facility. Cellco's replacement antennas and RRHs will be installed on Cellco's existing and new pipe masts at the same height and location on the roof.
- 2. The proposed modifications will not involve any change to ground-mounted equipment and, therefore, will not require the extension of the site boundary.
- 3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
- 4. The installation of Cellco's new antennas and RRHs will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. A cumulative general Power Density Calculations table for the modified facility is included in <u>Attachment 3</u>. The modified facility will be capable of providing Cellco's 5G wireless service.
- 5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
- 6. According to the attached Structural Analysis Report ("SA") and Mount Analysis Report ("MA"), the existing building and antenna mounting system, with certain modifications, can support Cellco's proposed modifications. Copies of the SA and MA are included in Attachment 4.

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

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

Melanie A. Bachman, Esq. October 25, 2021 Page 3

Sincerely,

Kenneth C. Baldwin

Kunig mu

Enclosures Copy to:

Bonnie Therrien, Wethersfield Interim Town Manager Peter Gillespie, Director of Planning and Economic Development 100 Great Meadow Road Associates LLC Aleksey Tyurin

ATTACHMENT 1

DOCKET NO. 139 - An application of Metro Mobile CTS of Hartford, Inc., for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of cellular facilities in the Towns of Enfield, East Hartford, and Wethersfield, Connecticut.

: Connecticut

:

:

Siting

Council

September 18, 1991

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a cellular telecommunications towers and equipment buildings at the proposed Enfield, Connecticut, alternate site and the proposed East Hartford, Connecticut, prime site including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application and therefore directs that a Certificate of Environmental Compatibility and Public Need as provided by section 16-50k of the Connecticut General Statutes (CGS), be issued to Metro Mobile CTS of Hartford, Inc., for the construction, operation, and maintenance of a cellular telecommunications tower, associated equipment, and building at the proposed alternate site in Enfield, Connecticut, and the proposed prime site in East Hartford, Connecticut.

The facilities shall be constructed, operated, and maintained substantially as specified in the Council's record in this matter and subject to the following conditions:

- 1. The self-supporting monopole towers shall be no taller than necessary to provide the proposed communication service and in no event shall the towers exceed a total height of 163 feet above ground level (AGL) at the proposed Enfield alternate site and 123 feet AGL at the proposed East Hartford prime site, with antennas and appurtenances.
- 2. The Certificate holder shall prepare a Development and Management (D&M) Plan, for approval by the Council, for these sites in compliance with sections 16-50j-75 through 16-50j-77 of the Regulations of State Agencies. This D&M plan

Docket No. 139
Decision and Order
Page 2

shall include detailed plans of the towers, tower foundations, soil boring reports, equipment buildings, access roads, security fences, landscaping plans, detailed erosion and sedimentation control plans, and a final schedule. In addition, the D&M plan shall include for Council consideration, detailed plans and itemized costs for the placement of service utilities underground in order to further mitigate the visual effect of the facilities.

- 3. The Certificate holder shall comply with any existing and future radio frequency (RF) standards promulgated by State or federal regulatory agencies. Upon the establishment of any new governmental RF standards, the facilities granted herein shall be brought into compliance with such standards.
- 4. The Certificate holder shall provide the Council with a recalculated report of electromagnetic radio frequency power density if and when circumstances in operation cause a change in power density above the levels originally calculated and provided in the application.
- 5. The Certificate holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
- 6. If the facility does not initially provide or permanently ceases to provide cellular service following completion of construction, this Decision and Order shall be void, and the tower and all associated equipment shall be dismantled and removed or reapplication for any new use shall be made to the Council as soon as practicable before any such new use is made.
- 7. Unless otherwise approved by the Council, this Decision and Order shall be void if all construction authorized herein is not completed within three years of the effective date of this Decision and Order or within three years after all appeals to this Decision and Order have been resolved.

Pursuant to CGS section 16-50p, we hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of this issuance shall be published in the Hartford Courant and the Journal Inquirer.

Docket No. 139 Decision and Order Page 3

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with section 16-50j-17 of the Regulations of State Agencies.

The parties to this proceeding are:

PARTIES

Metro Mobile CTS of Hartford, Inc. 20 Alexander Drive P.O. Box 5029 Wallingford, CT 06492 Attn: Gary Schulman

The Town of East Hartford

The Town of Enfield

ITS REPRESENTATIVE

Robinson and Cole One Commercial Plaza Hartford, CT 06103-3597 Attn: Earl Phillips, Jr. (203) 275-8200

G. Barry Goodberg Assistant Corporation Counsel Town of East Hartford 740 Main Street East Hartford, CT 06108 (203) 289-2781

Christopher W. Bromson Enfield Town Attorney 47 No. Main Street Enfield, CT 06082 (203) 745-0371 Ext. 290

SMH: bw

5534E

CERTIFICATION

The undersigned members of the Connecticut Siting Council hereby certify that they have heard this case in DOCKET NO. 139 - An application of Metro Mobile CTS of Hartford, Inc., for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of cellular facilities in the Towns of Enfield, East Hartford, and Wethersfield, Connecticut, or read the record thereof, and that we voted as follows:

Dated at New Britain, Connecticut the 18th day of September, 1991.

Council Members	<u>Vote Cast</u>
Mortimer A. Gelston Chairman	YES
Commissioner Clifton A. Leonhardt Designee:	ABSTAIN
Commissioner Richard G. Patterson	
Commissioner Timothy R.E. Keeney Designee: Brian Emerick	ABSENT
Harry E. Covey	NO
Daniel P. Lynch, Jr.	NO
Gloria Dibble Pond	YES
Paulann W. Sheets	YES
William H. Smith	YES
Colin C. Tait	YES

ATTACHMENT 2



WIRELESS COMMUNICATIONS FACILITY

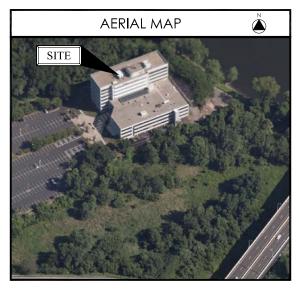
SITE NAME: WETHERSFIELD CT

PUTNAM PARK 100 GREAT MEADOW RD. WETHERSFIELD, CT 06109

ANTENNA MODIFICATION

NOTE: REFER TO STRUCTURAL MOUNT MODIFICATION DRAWINGS DATED 4-29-21, UNDER SEPARATE COVER, FOR ADDITIONAL INFORMATION AND REQUIRED REINFORCEMENTS.

PROJECT SUMMARY	
SITE NAME:	WETHERSFIELD CT
SITE ADDRESS:	100 GREAT MEADOW RD. WETHERSFIELD, CT 06109
PROPERTY OWNER:	100 GREAT MEADOW ROAD ASSOC. LLC 100 GREAT MEADOW RD. WETHERSFIELD, CT 06109
PARCEL ID:	286-001
COORDINATES:	41° 42' 50.65" N 72° 38' 37.50" W
VERIZON CONSTRUCTION:	WALTER CHARCZYNSKI (860) 306-1806
VERIZON REAL ESTATE:	ALEX TYURIN (860) 550-3195

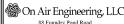


SHEET INDEX		
DE-1	TITLE SHEET	
DE-2	ROOF PLANS	
DE-3	SOUTH ELEVATION	
DE - 4	ALPHA/BETA SECTOR ELEVATIONS	
DE-5	GAMMA SECTOR ELEVATION	
DE-6	ANTENNA CONFIGURATION ALPHA SECTOR	
DE-7	ANTENNA CONFIGURATION BETA SECTOR	
DE-8	ANTENNA CONFIGURATION GAMMA SECTOR	
DE-9	RF PLUMBING DIAGRAM & B.O.M	
DE-10	GENERAL CONSTRUCTION NOTES	



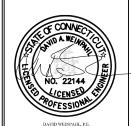
WIRELESS COMMUNICATIONS FACILITY

20 ALEXANDER DRIVE



88 Foundry Pond Road Cold Spring, NY 10516 201-456-4624 onair@optonline.net

LICENSURE



	CT LIC NO. 22144		
	SUBMITTALS		
D	12.12.20	REVIEW	
1	05.07.21 PERMITTING/CONSTRUCTION		

D DATE DESCRIPTION

DRAWN BY: MF
CHECKED BY: DW
PROJECT NAME:

ANTMO VZS01-CBRS DESIGN EXHIBITS

CITE NAME

WETHERSFIELD CT

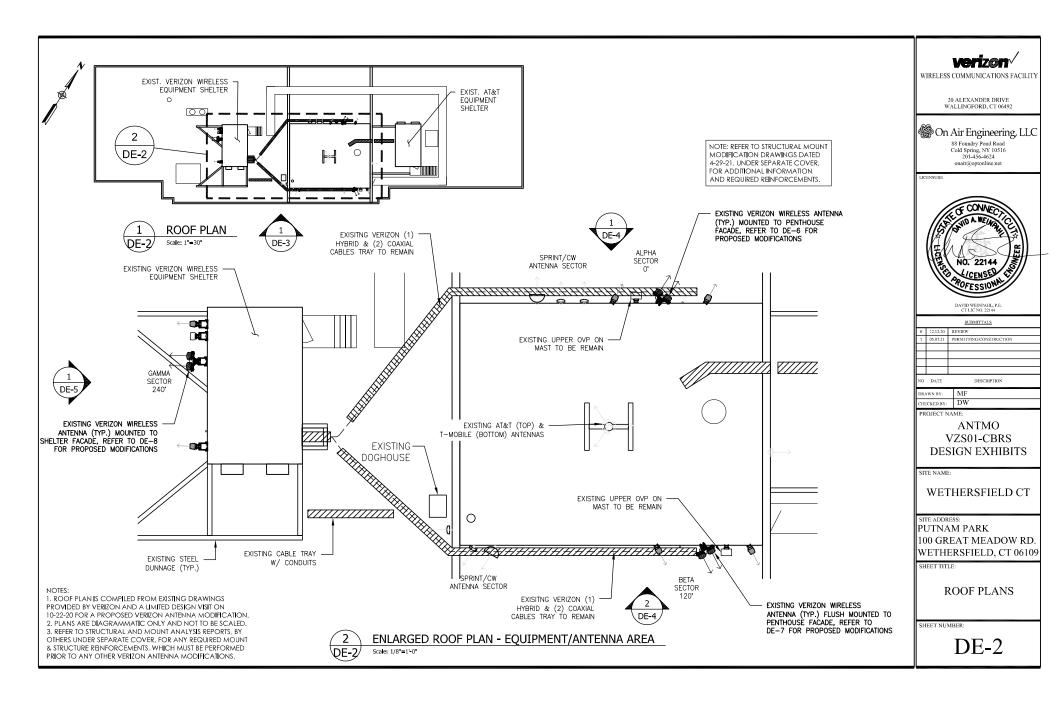
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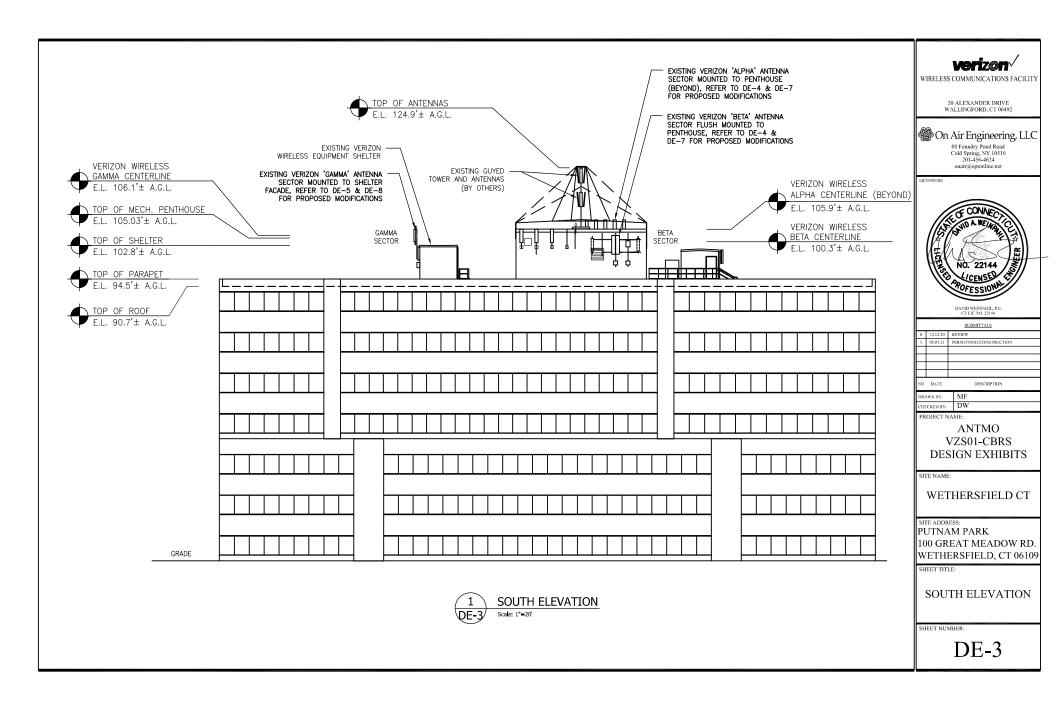
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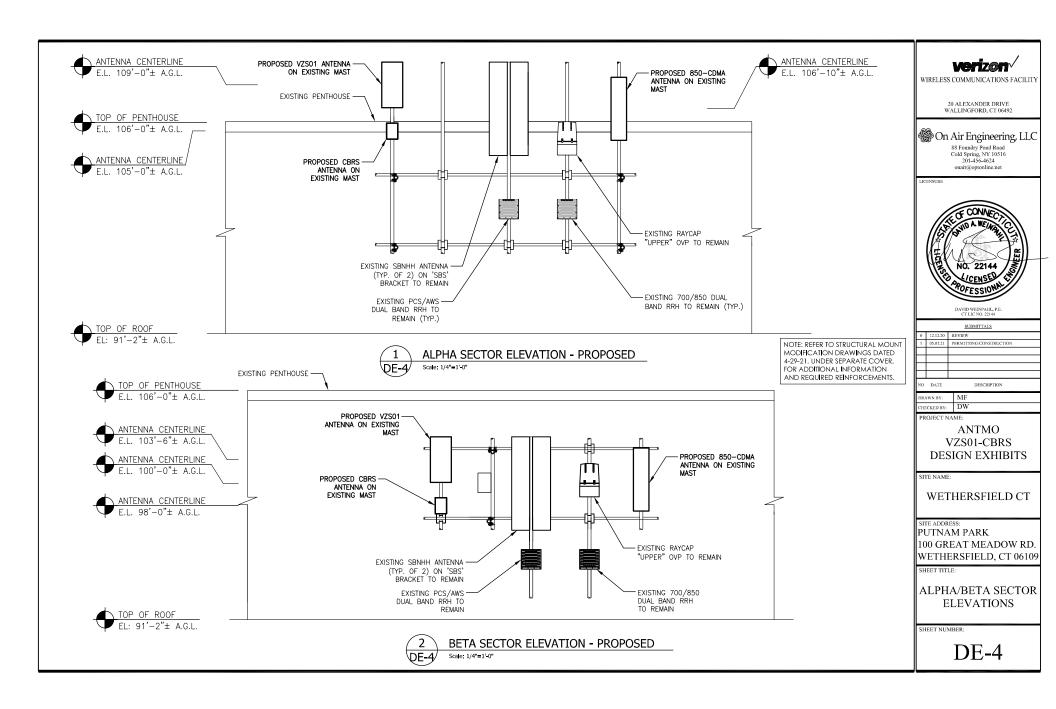
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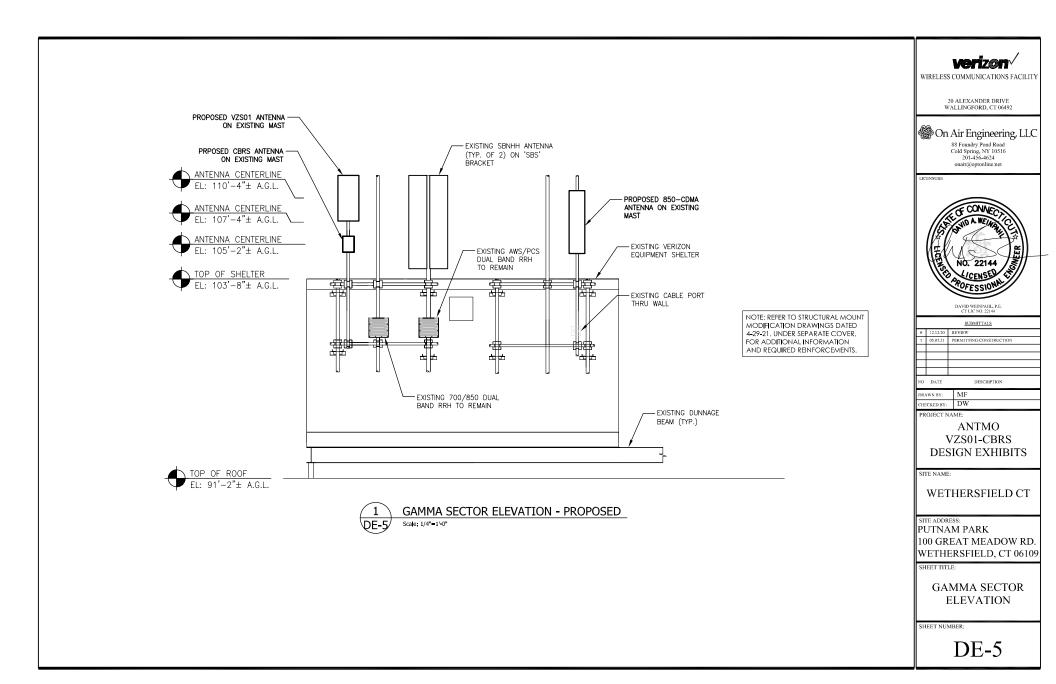
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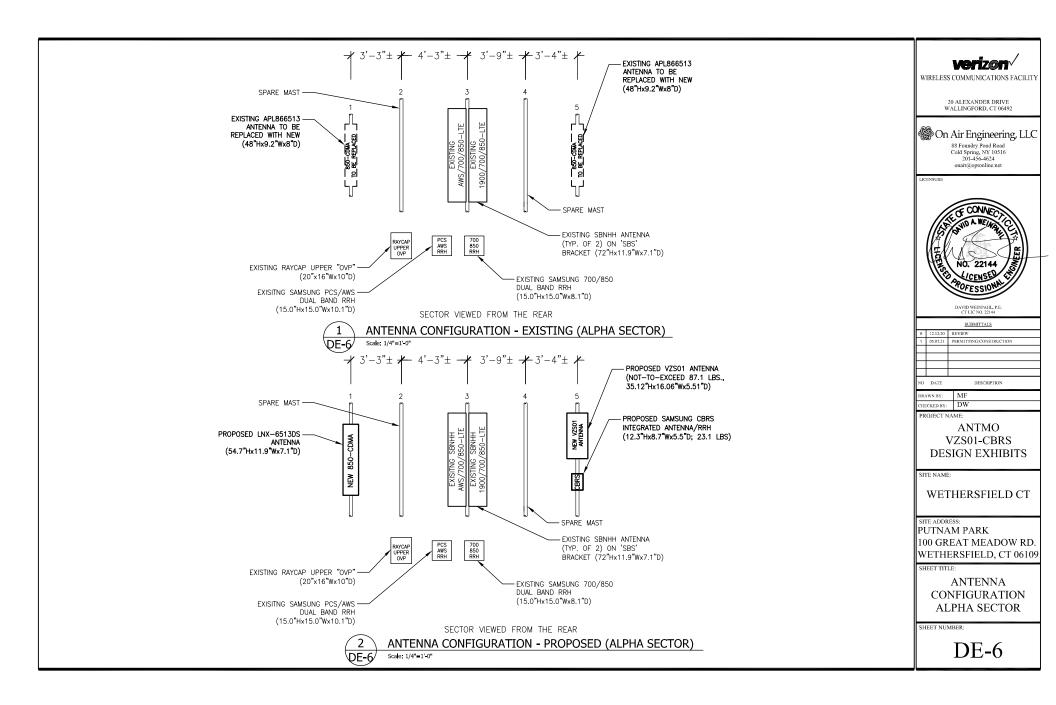
DE-1

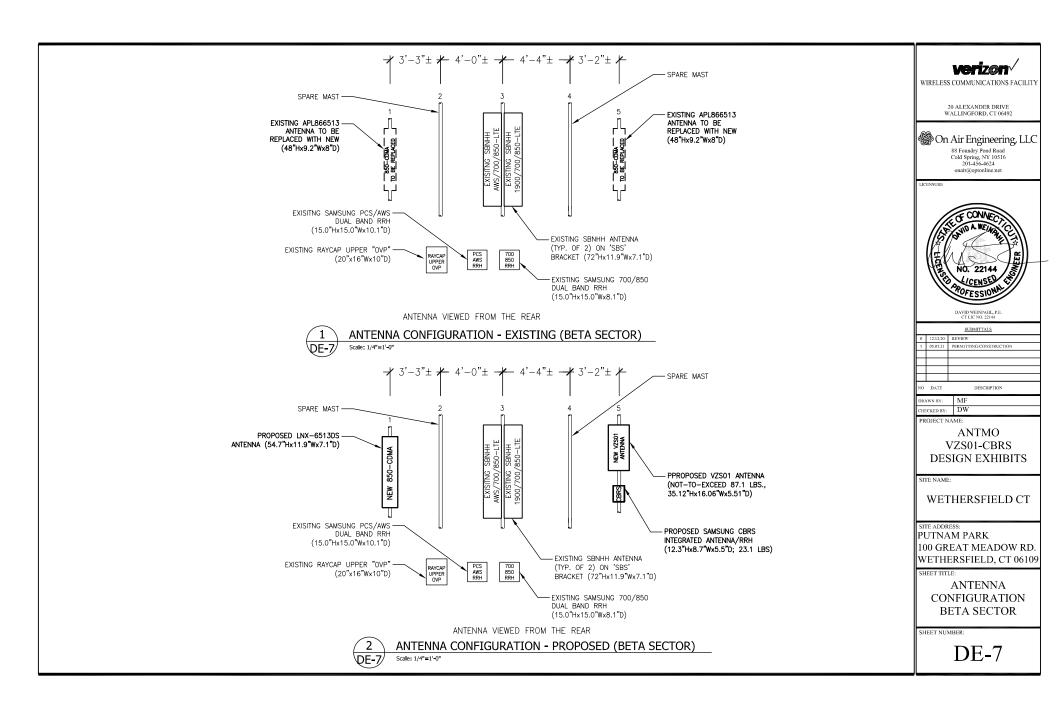


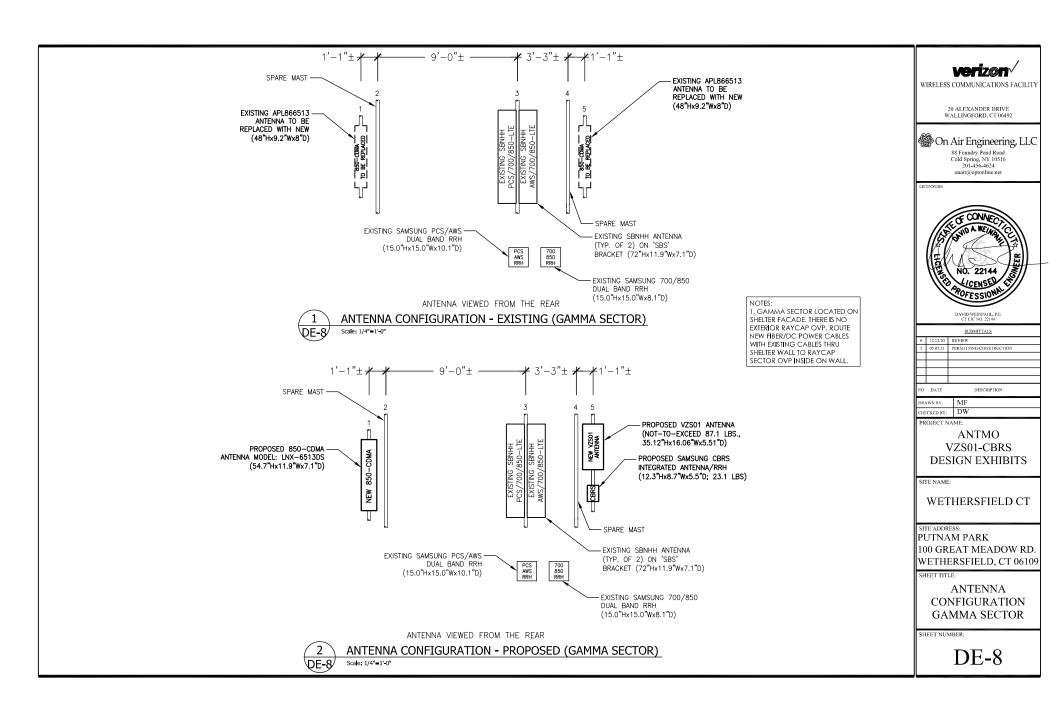


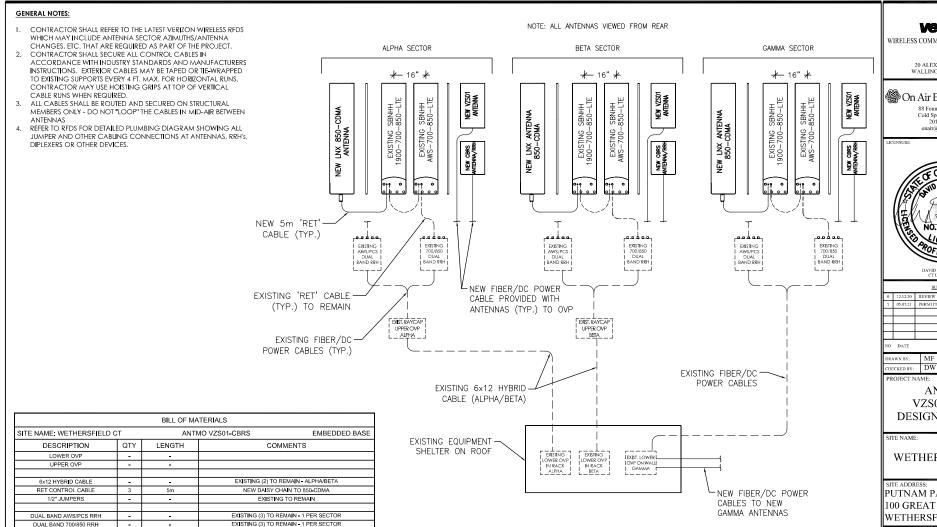












RF PLUMBING DIAGRAM

VZS01 ANTENNA

CBRS ANTENNA

SBNHH ANTENNA AWS-700-850-LTE

SBNHH ANTENNA PCS-700-850-LTE

SIDE-BY-SIDE MTG, BRACKET

850-CDMA ANTENNA

1. ITEMS SHOWN ARE FOR MAJOR DESIGN ELEMENTS ONLY. REFER TO VERIZON WIRELESS RFDS FOR ALL MANUFACTURER PART NUMBERS AND ACCESSORY ITEMS REQUIRED FOR A COMPLETE INSTALLATION. 2. RE-USE EXISTING 850-CDMA JUMPERS OR PROVIDE NEW AS REQUIRED; PROVIDE TERMINATION CAPS ON

SAMSUNG INTEGRATED - REFER TO RFDS

SAMSUNG INTEGRATED - REFER TO RFDS

EXISTING (3) TO REMAIN - 1 PER SECTOR

EXISTING (3) TO REMAIN - 1 PER SECTOR

EXISTING (3) TO REMAIN - 1 PER SECTOR NEW (3) TO REPLACE EXISTING (6)

verizon

WIRELESS COMMUNICATIONS FACILITY

20 ALEXANDER DRIVE WALLINGFORD, CT 06492

🌑 On Air Engineering, LLC 88 Foundry Pond Road

Cold Spring, NY 10516 201-456-4624 onair@optonline.net



SUBMITTALS 0 12.12.20 REVIEW 05.07.21 PERMITTING/CONSTRUCTION

O DATE DESCRIPTION DRAWN BY:

PROJECT NAME:

ANTMO VZS01-CBRS **DESIGN EXHIBITS**

SITE NAME:

WETHERSFIELD CT

PUTNAM PARK 100 GREAT MEADOW RD. WETHERSFIELD, CT 06109

SHEET TITLE:

RF PLUMBING DIAGRAM & B.O.M.

SHEET NUMBER:

DE-9

GENERAL CONSTRUCTION NOTES:

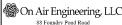
- 1. CONTRACTOR SHALL NOT COMMENCE ANY WORK UNTIL HE OBTAINS, AT HIS OWN EXPENSE, ALL INSURANCE REQUIRED BY CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS, THE PROPERTY OWNER AND/OR PROPERTY MANAGEMENT COMPANY.
- 2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS, AND ALL LOCAL LAWS AND REGULATIONS, CURRENT EDITIONS.
- 3. CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND MAKE PROVISIONS AS TO THE COST THEREOF. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONTRAMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
- 4. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES AND EXISTING CONDITIONS AT THE SITE PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA AND SUBMIT TO THE ENGINEER ANY DISCREPANCIES FROM THE DRAWNIGS.
- 5. CONTRACTOR IS TO REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUB-CONTRACTORS AND ALL RELATED PARTIES. THE SUB-CONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND SPECIFICATIONS FOR THE INFORMATION THAT AFFECTS THEIR WORK.
- 6. CONTRACTOR SHALL PROVIDE A COMPLETE BUILD-OUT WITH ALL FINISHES, STRUCTURAL, MECHANICAL AND ELECTRICAL COMPONENTS AND PROVIDE ALL ITEMS AS SHOWN OR INDICATED ON DRAWINGS OR WRITTEN IN SPECIFICATIONS.
- 7. CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FURNISH A COMPLETED JOB IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION OVER THE WORK.
- 8. CONTRACTOR SHALL OBTAIN AT HIS OWN EXPENSE ALL PERMITS AND ALL INSPECTIONS REQUIRED FROM FEDERAL AND STATE GOVERNMENTS, COUNTIES, MUNICIPALITIES AND OTHER REGULATORY AGENCIES WHICH MAY BE REQUIRED FOR THE POPLIFET
- 10. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
- 11. ALL MATERIAL PROVIDED BY CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS IS TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUB-CONTRACTOR PRIOR TO INSTALLATION. ANY DEFICIENCIES TO PROVIDED MATERIALS SHALL BE BROUGHT TO THE CONSTRUCTION MANAGERS ATTENTION IMMEDIATELY.
- 12. THE MATERIALS INSTALLED IN THE WORK SHALL MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. NO SUBSTITUTIONS ARE ALLOWED.
- 13. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION, FOR SEQUENCES AND PROCEDURES TO BE USED, AND TO ENSURE THE SAFETY OF THE EXISTING BUILDING AND ITS COMPONENT DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY.
- 14. CONTRACTOR SHALL COORDINATE ALL CIVIL, STRUCTURAL AND ELECTRICAL DRAWINGS FOR THE LOCATION OF ALL OPENINGS, RECESSES, BUILT-IN WORK, ETC.
- 1.5. CONTRACTOR SHALL RECEIVE CLARIFICATION IN WRITING AND SHALL RECEIVE IN WRITING AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEMS NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
- 16. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER OF ALL PRODUCTS OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT FOUND TO BE IN THE FIELD.

- 17. ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMEN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST-ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.
- 18. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE WORK AREA, ADJACENT AREAS, AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFORM TO ALL O.S. H. A. REGUIREASENTS
- 19. CONTRACTOR SHALL COORDINATE HIS WORK AND SCHEDULE HIS ACTIVITIES AND WORKING HOURS IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROPERTY OWNER AND/OR PROPERTY MANAGEMENT COMPANY.
- 20. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH THE WORK OF CTHER'S AS IT MAY RELATE TO RADIO EQUIPMENT, ANTENNAS AND ANY OTHER PORTIONS OF THE WORK.
- 21. CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OR WHERE LOCAL CODES OR REGULATIONS MAY TAKE PRECEDENCE.
- 22. CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING SURFACES, EQUIPMENT, IMPROVEMENTS, PIPING, ANTENNA AND ANTENNA CABLES AND REPAIR ANY DAMAGE THAT OCCURS DURING CONSTRUCTION.
- 23. CONTRACTOR SHALL REPAIR ALL EXISTING SURFACES DAMAGED DURING CONSTRUCTION SUCH THAT THEY MATCH AND BLEND WITH ADJACENT SUBFACES
- 24. CONTRACTOR SHALL KEEP CONTRACT AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DEBRIS AND RUBBISH. EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY OF THE OWNER SHALL BE REMOVED. LEAVE PREMISES IN CLEAN CONDITIONS AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL ITEMS UNTIL COMPLETION OF CONSTRUCTION.
- 25. BEFORE FINAL ACCEPTANCE OF THE WORK, CONTRACTOR SHALL REMOVE ALL EQUIPMENT, TEMPORARY WORKS, UNUSED AND USELESS MATERIALS, RUBBISH AND TEMPORARY STRUCTURES.



WIRELESS COMMUNICATIONS FACILITY

20 ALEXANDER DRIVE WALLINGFORD, CT 06492



88 Foundry Pond Road Cold Spring, NY 10516 201-456-4624 onair@optonline.net

LICENSURE



DAVID WEINPAHL, P.E.

SUBMITTALS			
0	12.12.20	REVIEW	
1	05.07.21	PERMITTING/CONSTRUCTION	

DATE DESCRIPTION

- 1		
١	DRAWN BY:	MF
- 1	CHECKED BY:	DW

PROJECT NAME:

ANTMO VZS01-CBRS DESIGN EXHIBITS

SITE NAME:

WETHERSFIELD CT

SITE ADDRESS:

PUTNAM PARK 100 GREAT MEADOW RD. WETHERSFIELD, CT 06109

SHEET TITLE:

GENERAL CONSTRUCTION NOTES

SHEET NUMBER:

DE-10

LNX-6513DS-A1M



2-port sector antenna, 2x 698–896 MHz, 65° HPBW, factory attached actuator

- Extended tilt range offers better coverage
- Great solution to maximize network coverage and capacity
- Excellent gain, VSWR, front-to-back ratio, and PIM specifications for robust network performance
- Fully compatible with Andrew remote electrical tilt system for greater OpEx savings
- The RF connectors are designed for IP67 rating and the radome for IP56 rating

General Specifications

Antenna Type Sector

Band Single band
Color Light gray

Grounding Type RF connector inner conductor and body grounded to reflector and mounting bracket

Performance Note Outdoor usage | Wind loading figures are validated by wind tunnel measurements

described in white paper WP-112534-EN

Radome Material Fiberglass, UV resistant

Radiator Material Aluminum

RF Connector Interface 7-16 DIN Female

RF Connector Location Bottom

RF Connector Quantity, low band 2
RF Connector Quantity, total 2

Dimensions

 Width
 301 mm | 11.85 in

 Length
 1390 mm | 54.724 in

 Length, with installed actuator
 1553 mm | 61.142 in

 Depth
 181 mm | 7.126 in

Electrical Specifications

Impedance 50 ohm

Operating Frequency Band 698 – 896 MHz

Polarization ±45°



LNX-6513DS-A1M

Electrical Specifications

Frequency Band, MHz	698–806	806–896
Gain, dBi	14.6	15.1
Beamwidth, Horizontal, degrees	65	65
Beamwidth, Vertical, degrees	16	14.5
Beam Tilt, degrees	0–10	0–10
USLS, typical, dB	20	20
Front-to-Back Ratio at 180°, dB	30	30
CPR at Boresight, dB	12	12
CPR at Sector, dB	10	10
Isolation, Cross Polarization, dB	30	30
VSWR Return loss, dB	1.4 15.6	1.4 15.6
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150
Input Power per Port, maximum, watts	400	400

Electrical Specifications, BASTA

Frequency Band, MHz	698–806	806–896
Beamwidth, Horizontal Tolerance, degrees	±3	±3

Mechanical Specifications

Wind Loading at Velocity, frontal	202.0 N @ 150 km/h 46.1 lbf @ 150 km/h
Wind Loading at Velocity, lateral	166.0 N @ 150 km/h 37.3 lbf @ 150 km/h
Wind Loading at Velocity, maximum	390.0 N @ 150 km/h 87.7 lbf @ 150 km/h
Wind Speed, maximum	241 km/h 149.75 mph

Packaging and Weights

Width, packed	411 mm 16.181 in
Depth, packed	284 mm 11.181 in
Length, packed	1706 mm 67.165 in
Net Weight, without mounting kit	14.8 kg 32.628 lb
Weight, gross	30.9 kg 68.123 lb

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

Page 2 of 3



LNX-6513DS-A1M

ROHS

Compliant





Included Products

BSAMNT- ___ Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

* Footnotes

Performance Note Severe environmental conditions may degrade optimum performance



[CBRS] Clip-on Antenna Specifications

VzW accepted IP45 in FLD, but IP55 is Samsung Spec.

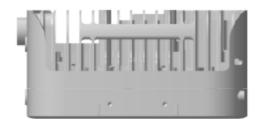


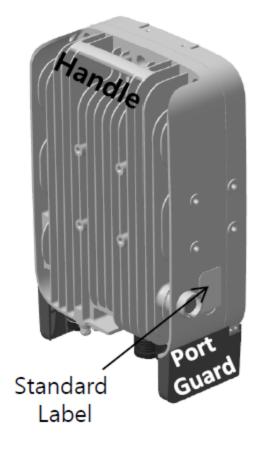
Items	Clip-on Antenna, BASTA**
Antenna Gain	12.5 ± 0.5 dBi (Max 13 dBi)
Horizontal BW (-3dB)	65° ± 5°
Vertical BW (-3dB)	17° ±3°
Electrical Tilt	8° (fixed) $\pm 2^{\circ}$
Front-to-Back Ratio	> 25 dB
Port-to-Port Tracking	< 3 dB
VSWR	< 1.5
Isolation	> 25 dB
Ingress Protection	IP55
Size	220(W)×313(H)×34.3(D) mm (*) (8.7 x 12.3 x 1.4 inch.)
Weight	< 2.0 kg [Typ. 1.3 kg]
It is required that the radio should be weatherproofed properly with JMA WPS Boot with external antenna or with Weatherproof Boot for clip-on antennas.	

Antenna includes integrated cable with connector * Design is subject to minor change

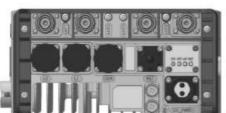
^{**} Ant. spec. follows NGMN recommendations on Base Station Antenna Standards (BASTA). For example, 'mean ± tolerance of 86.6%' is applied to double-sided specification of statistical RF parameters.

[CBRS RRH] Spec.









Current Size: 216 x 307 x 105.5 mm (6.99L) (8.5 x 12.1 x 4.1 inch., excluding Port Guard)

Design is subject to minor change

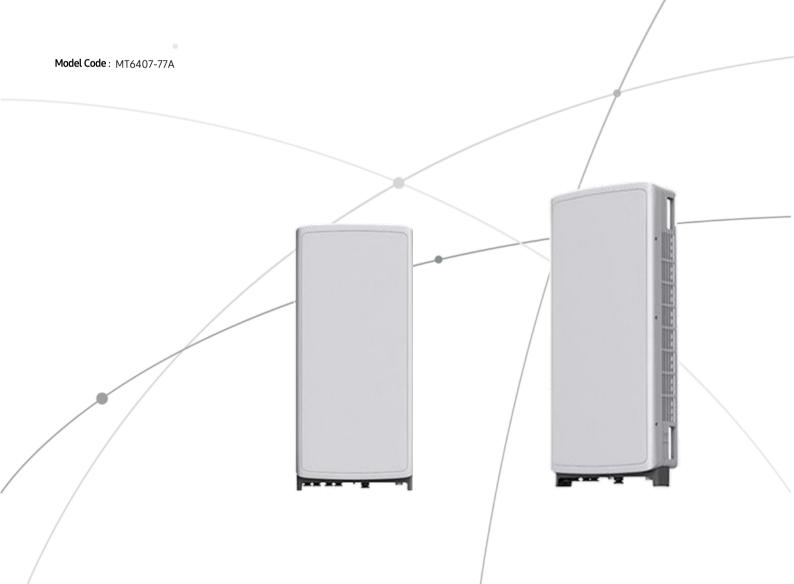
Item	Specification							
Band	Band 48 (3.5 GHz)							
Frequency	3550~3700 MHz							
IBW	150 MHz							
OBW	80 MHz							
# of Carriers	5/10/15/20 MHz x 4 carriers							
RF Chain	4TX / 4RX							
RF Output Power	4 path x 5 W (Total: 20 W = 43 dBm)							
& EIRP	(EIRP: 47 dBm / 10 MHz)							
RX Sensitivity	Typical: -101.5 dBm @ 1 Rx (3GPP 36.104, Wide Area)							
Modulation	256-QAM support (1024-QAM with 1~2dB power back-off)							
	-48 VDC (-38 to -57 VDC, 1 SKU),							
Input Power	with clip-on AC-DC converter (Option)							
Power Consumption	About 160 Watt @ 100% RF load, typical conditions							
Volume	Under 7L (w/o Antenna), Under 9.6L (with antenna)							
Weight	Under 8.0 kg (18.64 lb) (w/o Antenna), Under 10.5 Kg (with ant.)							
Operating Temperature	-40°C (-40°F) ~ 55°C (131°F) (W/o solar load)							
Cooling	Natural convection							
Universal Engineers	3GPP 36.104 Category A							
Unwanted Emission	[B48] : FCC 47 CFR 96.41 e)							
Optic Interface	20km, 2 ports (9.8Gbps x 2), SFP, single mode, duplex or Bi-Di							
CPRI Cascade	Not supported							
# of Antenna Port	4							
External Alarm (UDA)	4							
RET	AISG 2.2							
TMA & built-in Bias-T I//F and PIM cancellation	Not supported							
	Pole, wall, tower, back to back, side by side (for external ant),							
Mounting Options	3 RRH with Clip-on Antenna on the pole							
Antonna Tyna	Integrated (Clip-on) antenna (Option),							
Antenna Type	External antenna (Option)							
NB-IoT	Not Supported (HW Resource reserved							
NBIOI	for 1 Guard Band NB-IoT per LTE carrier)							
Spectrum Analyzer	TX/RX Support							
External Alarm (UDA)	4							
5G NR	Support with S/W upgrade							
XRAN	Support with S/W upgrade							

SAMSUNG

SAMSUNG C-Band 64T64R Massive MIMO Radio

for High Capacity and Wide Coverage

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



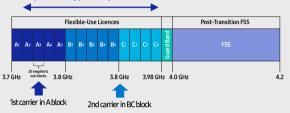
Points of Differentiation

Wide Bandwidth

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

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

C-Band spectrum supported by Massive MIMO Radio



Enhanced Performance

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

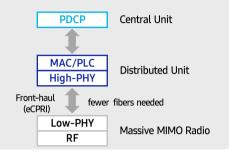
This helps operators reduce their CAPEX as they now need less products to cover the same area than before.

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



Future Proof Product

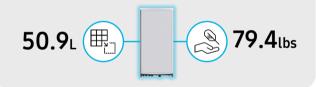
Samsung C-Band 64T64R Massive MIMO radio supports not only CPRI but also eCPRI as front-haul interface. It enables operators can cut down on OPEX/CAPEX by reducing front-haul bandwidth through low layer split and using ethernet based higher efficient line.



Well Matched Design

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

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





Technical Specifications

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



About Samsung Electronics Co., Ltd.

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

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

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ATTACHMENT 3

	General	Power	Density					
Site Name: Wethersfield								
Tower Height: Verizon @ 98ft,	100ft, and 101.5ft							
CARRIER	# OF CHAN.	WATTS ERP	HEIGHT	FREQ.	CALC. POWER DENS	MAX. PERMISS. EXP.	FRACTION MPE	Total
*T-Mobile	2	12	114	1950	0.0007	1.0000	0.01%	
T-Mobile	4	12	114	2100	0.0015	1.0000	0.01%	
VZW 700	4	684	100	751	0.0098	0.5007	1.96%	
VZW CDMA	2	386	100	877.26	0.0028	0.5848	0.48%	
VZW Cellular	4	825	100	874	0.0119	0.5827	2.04%	
VZW PCS	4	1395	100	1975	0.0201	1.0000	2.01%	
VZW AWS	4	1478	100	2120	0.0213	1.0000	2.13%	
VZW CBRS	4	11	98	3625	0.0002	1.0000	0.02%	
VZW CBAND	4	6531	101.5	3730.005	0.0912	1.0000	9.12%	
								17.78%
* Source: Siting Council								

ATTACHMENT 4

STRUCTURAL ANALYSIS REPORT FOR

SITE NAME: WETHERSFIELD CT **PUTNAM PARK** 100 GREAT MEADOW RD WETHERSFIELD, CT 06109



PREPARED FOR:

verizon/

WIRELESS COMMUNICATIONS FACILITY 20 ALEXANDER DRIVE WALLINGFORD, CT 06492

On Air Engineering, LLC

88 FOUNDRY POND ROAD **COLD SPRING, NY 10516** ONAIR@OPTONLINE.NET 201-456-4624



12 KULICK ROAD FAIRFIELD, NEW JERSEY 07004-3363

PHONE: (973) 276-1700 FAX: (973) 276-9766

PROJECT NO. N-522 DATE: 10/12/2021

Il. But

Paul C. Beck, P.E. Connecticut Professional Engineer License No: 12949

CONTENTS

- 1. -PURPOSE
- 2. -REFERENCES
- 3. -BUILDING CODES
- 4. EXISTING STRUCTURE & FIELD OBSERVATIONS
- 5. -PROPOSED VERIZON ANTENNA/EQUIPMENT CONFIGURATION
- 6. -RESULTS
- 7. -CONCLUSION
- 8. -APPENDIX A (CALCULATIONS)

1. PURPOSE

The purpose of this analysis is to determine whether the existing penthouse framing, building structure and Verizon equipment shelter located at 100 Great Meadow Rd, Wethersfield, Ct 06109 are adequate to support the proposed modifications to Verizon's antennas.

2. REFERENCES

- 1. Verizon CD's by On Air Engineering, LLC, dated: May 7, 2021.
- 2. Photographs and antenna frame supports.
- 3. ANTMO structural modifications by On Air Engineering, LLC, dated: April 29, 2021.
- 4. Structural/Mount Assessment Letter by On Air Engineering, LLC, dated: April 23, 2020.
- 5. Shelter DWGs by United Structures INC., dated: March 26, 2001.

3. BUILDING CODES

- 1. 2018 Connecticut State Building Code.
- 2. 2015 International Building Code.
- 3. ASCE/SEI 7-16 (Minimum Design Loads for Buildings and Other Structures).

4. EXISTING STRUCTURE & FIELD OBSERVATIONS

Verizon has a 3-sector antenna configuration located on the roof with 2-sectors (Alpha & Beta) on the rooftop penthouse façade and a third sector (Gamma) mounted to their metal framed equipment shelter façade. The Alpha/Beta antennas and accessory equipment are mounted to steel pipe masts which are supported on rooftop penthouse C6x8.2 channel steel columns. Verizon proposes to replace several existing antennas with new antennas. There are no proposed changes to Verizon's accessory equipment.

5. PROPOSED VERIZON ANTENNA/EQUIPMENT CONFIGURATION (TYP. EA. SECTOR)

- a. (1) LNX 850-CDMA Antenna.
- b. (2) SBNHH Antenna on 'SBS' brackets.
- c. (1) CBRS Antenna/RRH.
- d. (1) MT6407-77A Antenna/RRH.
- e. (1) AWS/PCS Dual-Band RRH.
- f. (1) 700/850 Dual-Band RRH.
- g. (1) Raycap OVP (none used at Gamma sector).

6. RESULTS

A structural analysis was completed on the penthouse C6x8.2 steel coulmn against the wind lateral and the gravity loads caused by the proposed equipment. The C6x8.2 coulmn is found

to be at 83% capacity, which is structurally adequate to support the proposed antennas/equipment.

7. CONCLUSION

The rooftop penthouse framing, building structure and the shelter are capable of supporting the existing and proposed Verizon equipment.

This analysis is based on the information provided to our office and is assumed to correctly depict the existing condition. The existing roof and foundation are assumed to be installed properly and in a professional manner.

If you have any questions concerning the items contained within this report, please do not hesitate to contact our office.

Sincerely,

PBA ENGINEERING, P.C.

Paul C. Beck, P.E.

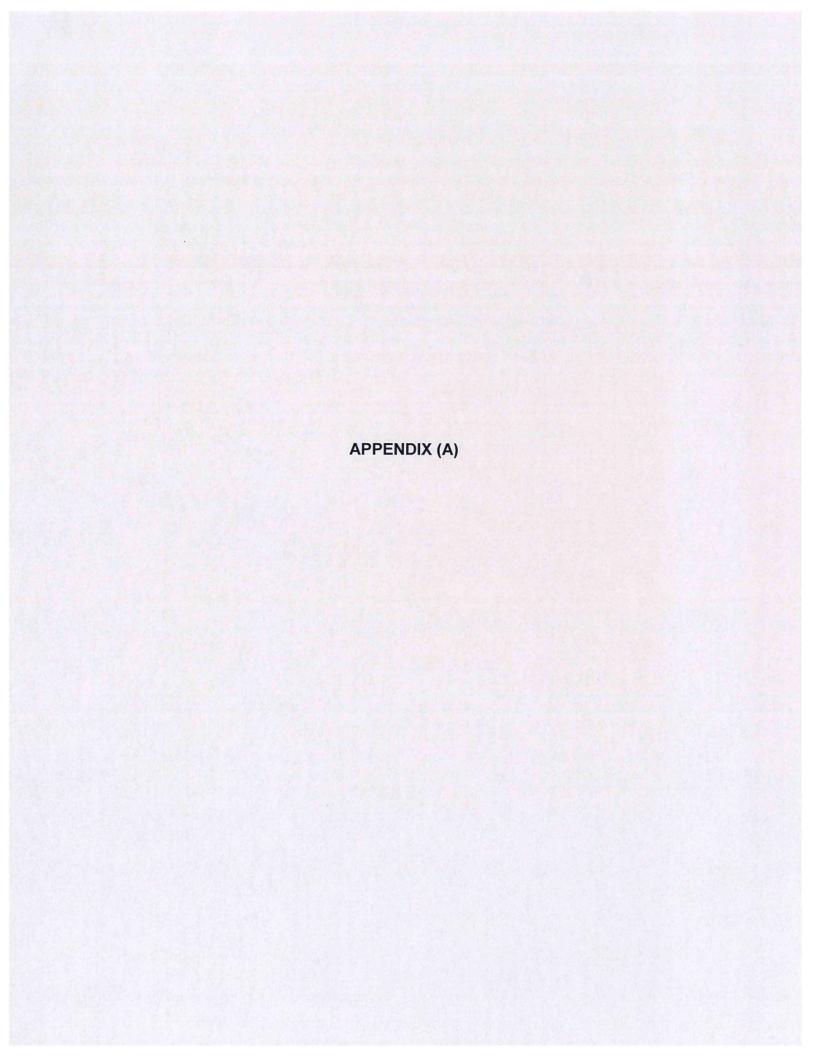
Connecticut Professional Engineer

License No: 12949

PCB/mf

L:\WP61\LTR\CELLULAR JOBS\N-522 Structural Report, Verizon - 100 Great Meadow Rd., Wethersfield, CT.docx

1. Bal



	(APPE	NDIX N	MUNI	CIPALI	TY - SP	ECIFIC S	TRUCT	URAL D	ESIGN	PARAME	TERS	rica desas
Municipality Ground Spout Load	Snow Load (psf)	MCE Spectral Acceleration s (%g)			Ultimate Design Wind Speeds, Vult (mph)			Wind Design Parame Nominal Design Wind Speeds, Vasd (mph)			Wind-Borne Debris Regions ¹	
	Ground S	Ss	S ₁	Risk Cat.I		Risk Cat III-IV	Risk Cat.			Sat.	Risk Cat III Occup I-2 & Risk Cat. IV	Hurricane-Prone Regions
Simsbury	35	0.179	0.064	110	120	130	85	93	101			Yes
Somers	35	0.174	0.064	115	125	135	89	97	105	CALLED THE STREET	er describer describ	Yes
Southbury	35	0.198	0.065	110	120	130	85	93	101			Yes
Southington	30	0.185	0.064		125	135	89	97	105		a and and an and a	Yes
South	30	0 470	0.004		G 55 10 15 15 15 15 15 15 15 15 15 15 15 15 15	新斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯	III HERBER	OF THE PERSON NAMED IN	a Shiring			The second
Windsor	30	0.178	0.064	115	125	135	89	97	105			Yes
Sprague	30	0.171	0.061	120	130	140	93	101	108		Type A	Yes
Stafford	35	0.173	0.064	115	125	135	89	97	105			Yes
Stamford	30	0,249	0.069	110	120	130	85	93	101	and the second second	pharmal median	Yes
Sterling	35	0.170	0.061	125	135	145	97	105	112	100000000000000000000000000000000000000	Type A	Yes
Stonington	30	0.159	0.058	125	140	150	97	108	116	Type B	Type A	Yes
Stratford	30	0.201	0.064	115	125	135	89	97	105	Туре Б		Yes
Suffield	35	0.176	0.065	110	120	130	85	93	101		Type B	Yes
Thomaston	35	0.186	0.064	110	120	130	85	93	101		Olessas Singaria	
Thompson	40	0.172	0.063	120	130	140	93	101	108			Yes
Tolland	35	0.175	0.064	115	125	135	89	97		Alectromacionists	Control of Control	Yes
Torrington	40	0.182	0.065	110	120	125	85	93	105			Yes
Trumbull		0.207	0.065	115	125	135	89	97	97	NASSESSESSESSESSES	VENUE NAME PAR	Yes
Union		0.172	0.064	115	125	135	89	97	105			Yes
Vernon		0.177	0.064	115	125	135			105	SACRETORINATE WHITE	4.000 1981 1538	Yes
Voluntown		0.168	0.060	125	135	145	89 97	97	105		11. 14. 15.00	Yes
Wallingford		0.183	0.063	115	125	135	89	105	112	assessed in the same of	Type A	Yes
Warren		0.186	0.065	105	115			97	105			Yes
Washington		0.192				125	81	89	97	KINALI SAMANASA	Administration of the last	Terral and the law is
Waterbury		0.189	0.065	105	120	125	81	93	97			Yes
Waterford			0.064	110	125	130	85	97	101	VC - Screen - Sur	Man Work I had a worked	Yes
		0.161	0.058	125	135	145	97	105	112	Type B	Type A	Yes
Watertown			0.064	110	120	130	85	93	101	All Annual Control of the later		Yes
Westbrook West	30	0.167	0.059	120	135	145	93	105	112	Type B	Type A	Yes
Hartford	30	0.181	0.064	115	125	135	89	97	105	1-1-1	10	Yes
West Haven	20	0 400	0.000	SANT.	40E					Service of the servic	- Marie Con - Son In	
the region of the same of the same of		0.188	0.062	115	125	135	89	97	105		Type B	Yes
Weston		0.224	0.067	110	120	130	85	93	101	Service Mentions and the service and the servi		Yes
Westport		0.226	0.067	110	120	130	85	93	101		Type B	Yes
Wethersfield		0.181	0.064	115	125	135	89	97	105	Ac-James Calculation	The State of the S	Yes
Willington			0.063	115	125	135	89	97	105			Yes
Wilton			0.068	110	120	130	85	93	101	muetama et metama		Yes
Winchester			0.065	105	120	125	81	93	97			Yes
Windham			0.062	120	130	140	93	101	108			Yes
Windsor	35	0.179	0.064	115	125	135	89	97	105			Yes
Windsor Locks			0.064	110	125	130	85	97	101			Yes
Wolcott			0.064	110	125	130	85	97	101			Yes
Noodbridge		0.191	0.063	115	125	135	89	97	105		Arrango G	Yes
Noodbury	35 (0.194	0.065	110	120	130	85	93	101	TVIS TO THE		Yes
Voodstock			0.063	120	130	140	93	101	108	E Company	A CONTRACTOR OF THE PARTY OF TH	Yes

MecaWind v2362

Software Developer: Meca Enterprises Inc., www.meca.biz, Copyright @ 2020

```
Calculations Prepared by:
                                            Calculations Prepared For:
Client: On Air Engineering
Date: Jan 07, 2021
                                             Project #:
                                                               N-522
Designer: WJZ
Description:
Wethersfield, CT
File Location : U:\Bill\N-522 Putnam Park, Wethersfield, CT\N-522 Revised.wnd
Basic Wind Parameters
Wind Load Standard = ASCE 7-16 Exposure Category = C
Wind Design Speed = 125.0 mph Risk Category = II
Structure Type = Other Other Structure Type = Solid Sign
General Wind Settings
          = ASCE 7-16 Wind Parameters
         = Include ASD Load Factor of 0.6 in Pressures
                                                                          = False
        = Dynamic Type of Structure
DynType
                                                                           = Rigid
         = Natural Frequency of Structure (Mode 1)
NF
                                                                           = 1.000 Hz
         = Altitude (Ground Elevation) above Sea Level
                                                                           = 20.000 ft
Zq
Bdist
         = Base Elevation of Structure
                                                                           = 91.167 ft
GenElev = Specify the Elevations For Wind Pressures
                                                                           = Mean Roof Ht
         = Show the Base Reactions in the output
Reacs
                                                                           = False
MWFRSType = MWFRS Method Selected
                                                                           = Ch 27 Pt 1
Topographic Factor per Fig 26.8-1
Topo = Topographic Feature
                                                                           = None
          = Topographic Factor
                                                                           = 1.000
Solid Sign Inputs
: Solid Sign = h : Height to Top of Sign = 19.167 ft

B : Horizontal Width of Sign= 1.000 ft
s : Vertical Height of Sign = 6.000 ft
e : Solidity Ratio = 1.000
                            = False
Att: Attached to Wall
Exposure Constants per Table 26.11-1:
Gust Factor Calculation:
Gust Factor Category I Rigid Structures - Simplified Method
G1
     = For Rigid Structures (Nat. Freq.>1 Hz) use 0.85
                                                                           = 0.85
Gust Factor Category II Rigid Structures - Complete Analysis
Zm = 0.6 * Ht
                                                                           = 15.000 ft
         = Cc * (33 / Zm) ^ 0.167
Izm
                                                                           = 0.228
         = L * (Zm / 33) ^ Epsilon
Lzm ,
                                                                           = 427.057
         = (1 / (1 + 0.63 * ((B + Ht) / Lzm)^0.63))^0.5
                                                                           = 0.957
      = 0.925*((1+1.7*1zm*3.4*Q)/(1+1.7*3.4*1zm))
                                                                          = 0.902
Gust Factor Used in Analysis
         = Lessor Of G1 Or G2
Main Wind Force Resisting System (MWFRS) Calculations for Solid Sign per Ch 29:
LF
         = Load Factor based upon STRENGTH Design
          = Overall height of structure
                                                                           = 19.167 ft
hs
          = Mean Roof Height above grade
                                                                           = 110.334 ft
         = 15 ft [4.572 \text{ m}] < Z < Zg --> (2.01*(Z/zg)^(2/Alpha) {Table 26.10-1} = 1.292
Kzt
         = Topographic Factor is 1 since no Topographic feature specified = 1.000
Kd
         = Wind Directionality Factor per Table 26.6-1
      = (0.00256 * Kh * Kzt * Kd * Ke * V^2) * LF
                                                                           = 43.90 psf
MWFRS Pressures on Solid Sign per Fig 29.3-1:
     = Reduction factor to account for openings: (1-(1-e)^1.5)
                                                                           = 1.000
         = Reduction factor for Case C not applicable since s/h <= 0.8
                                                                          = 1.000
         = Gross Area of Sign: B * s
                                                                           = 6.00 \text{ sq ft}
         = Aspect Ratio: B / s
B/s
                                                                           = 0.167
B/s
s/h
         = Clearance Ratio: s / h
                                                                          = 0.313
         = Net Force Coefficient for Case A and B per Fig 29.3-1
                                                                           = 1.860
```

Case A: Resultant force acts normal to face through geometric center

F = Design Wind force: qh * G * Cf * As * R = 416 lb

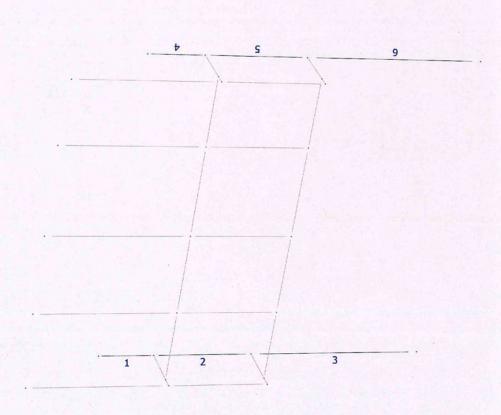
Case B: Resultant force acts normal to face at a distance from the geometric center toward the windward edge equal to 0.2 times the average width

DX = Force Offset from Center toward windward edge: 0.2 * B = 0.200 ft

E Design Wind force: qh * G * Cf * As * R = 416 lb

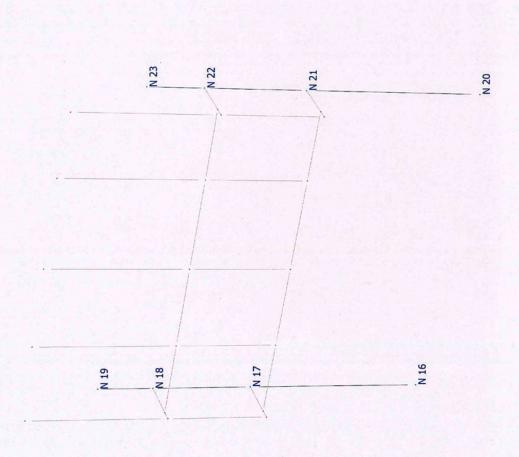
Case C: Since B/s < 2 then Case C need not be considered













Geometry data

GLOSSARY

Cb22, Cb33 : Moment gradient coefficients

Cm22, Cm33 : Coefficients applied to bending term in interaction formula d0: Tapered member section depth at J end of member DJX : Rigid end offset distance measured from J node in axis X DJY : Rigid end offset distance measured from J node in axis Y DJZ : Rigid end offset distance measured from J node in axis Z DKX : Rigid end offset distance measured from K node in axis X DKY : Rigid end offset distance measured from K node in axis Y DKZ : Rigid end offset distance measured from K node in axis Z

dL : Tapered member section depth at K end of member

Ig factor : Inertia reduction factor (Effective Inertia/Gross Inertia) for reinforced concrete members

K22 : Effective length factor about axis 2 K33 : Effective length factor about axis 3

L22 : Member length for calculation of axial capacity L33 : Member length for calculation of axial capacity

LB pos : Lateral unbraced length of the compression flange in the positive side of local axis 2 LB neg : Lateral unbraced length of the compression flange in the negative side of local axis 2

RX : Rotation about X RY : Rotation about Y RZ : Rotation about Z

TO : 1 = Tension only member 0 = Normal member

: Translation in X TX : Translation in Y TY TZ : Translation in Z

Nodes

Rigid Floor	Z	Υ	X	Node
	[ft]	[ft]	[ft]	
0	0.00	0.00	0.00	16
0	0.00	7.9167	0.00	17
0	0.00	12.4167	0.00	18
0	0.00	14.9167	0.00	19
0	0.00	0.00	14.5833	20
0	0.00	7.9167	14.5833	21
0	0.00	12.4167	14.5833	22
0	0.00	14.9167	14.5833	23

Restraints

Node	TX	TY	TZ	RX	RY	RZ
16	1	1	1	0	0	0
19	1	1	1	0	0	0
20	1	1	1	0	0	0
20 23	1	1	1	0	0	0

Members

Member	NJ	NK	Description	Section	Material	d0 [in]	dL [in]	lg factor
1	18	19		C 6X8.2	A36	0.00	0.00	0.00
2	17	18		C 6X8.2	A36	0.00	0.00	0.00
3	16	17		C 6X8.2	A36	0.00	0.00	0.00
4	22	23		C 6X8.2	A36	0.00	0.00	0.00
5	21	22		C 6X8.2	A36	0.00	0.00	0.00
6	20	21		C 6X8.2	A36	0.00	0.00	0.00

Orientation of local axes

Member	Rotation [Deg]	Axes23	NX	NY	NZ	
1	90.00	0	0.00	0.00	0.00	
2	90.00	0	0.00	0.00	0.00	
3	90.00	0	0.00	0.00	0.00	
4	90.00	0	0.00	0.00	0.00	
5	90.00	0	0.00	0.00	0.00	
6	90.00	0	0.00	0.00	0.00	



Steel Code Check

Report: Summary - Group by member

Load conditions to be included in design :

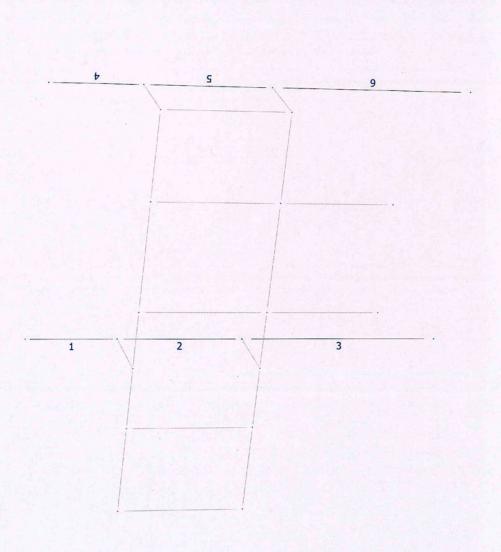
D1=1.4DL D2=1.2DL+0.5W D3=1.2DL+W D4=0.9DL+W

Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
	C 6X8.2	1	D3 at 0.00%	0.82	OK	Eq. H1-1b
		2	D4 at 100.00%	0.52	OK	Eq. H1-1b
		3	D1 at 100.00%	0.08	OK	Eq. H1-1b
		4	D3 at 0.00%	0.83	ОК	Eg. H1-1b
		5	D4 at 100.00%	0.52	OK	Eg. H1-1b
		6	D4 at 100.00%	0.09	OK	Eq. H1-1b

Fy=0.0746[Kip] Fz=-0.121[Kip] Fy=0.0999[Kip] Fz=-0.0739[Kip] Sentley Microsoft
Current Date: 12/22/2020 3:26 PM
Units system: English
File name: F-NBIINN-522NN-522 Alpha (+Z).retx
Load condition: W=Wind Load

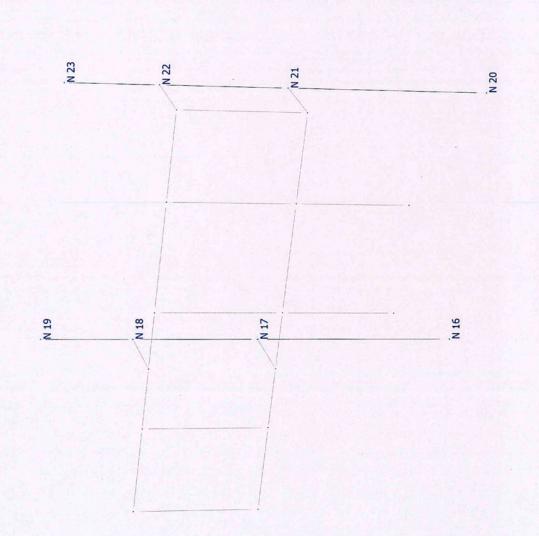














Geometry data

GLOSSARY

Cb22, Cb33 : Moment gradient coefficients

Cm22, Cm33 : Coefficients applied to bending term in interaction formula d0 : Tapered member section depth at J end of member DJX : Rigid end offset distance measured from J node in axis X DJY : Rigid end offset distance measured from J node in axis Y DJZ : Rigid end offset distance measured from J node in axis Z DKX : Rigid end offset distance measured from K node in axis X DKY : Rigid end offset distance measured from K node in axis Y DKZ : Rigid end offset distance measured from K node in axis Z dL : Tapered member section depth at K end of member

lg factor : Inertia reduction factor (Effective Inertia/Gross Inertia) for reinforced concrete members

K22 : Effective length factor about axis 2 K33 : Effective length factor about axis 3

L22 : Member length for calculation of axial capacity
L33 : Member length for calculation of axial capacity

LB pos : Lateral unbraced length of the compression flange in the positive side of local axis 2
LB neg : Lateral unbraced length of the compression flange in the negative side of local axis 2

RX : Rotation about X
RY : Rotation about Y
RZ : Rotation about Z

TO : 1 = Tension only member 0 = Normal member

TX : Translation in X
TY : Translation in Y
TZ : Translation in Z

Nodes

Rigid Floor	Z	Y	X	Node
	[ft]	[ft]	[ft]	
0	0.00	0.00	5.4167	16
0	0.00	7.1667	5.4167	17
0	0.00	11.6667	5.4167	18
0	0.00	14.9167	5.4167	19
0	0.00	0.00	14.75	20
0	0.00	7.1667	14.75	21
0	0.00	11.6667	14.75	22
0	0.00	14.9167	14.75	23

Restraints

Node	TX	TY	TZ	RX	RY	RZ
16	1	1	1	0	0	0
19	1	1	1	0	0	0
20	1	1	1	0	0	0
23	. 1	1	1	0	0	0

Members

Member	NJ	NK	Description	Section	Material	d0 [in]	dL [in]	Ig factor
1	18	19		C 6X8.2	A36	0.00	0.00	0.00
2	17	18		C 6X8.2	A36	0.00	0.00	0.00
3	16	17		C 6X8.2	A36	0.00	0.00	0.00
4	22	23		C 6X8.2	A36	0.00	0.00	0.00
5	21	22		C 6X8.2	A36	0.00	0.00	0.00
6	20	21		C 6X8.2	A36	0.00	0.00	0.00

Orientation of local axes

Member	Rotation [Deg]	Axes23	NX	NY	NZ	
1	90.00	0	0.00	0.00	0.00	
2	90.00	0	0.00	0.00	0.00	
3	90.00	0	0.00	0.00	0.00	
4	90.00	0	0.00	0.00	0.00	
5	90.00	0	0.00	0.00	0.00	
6	90.00	0	0.00	0.00	0.00	



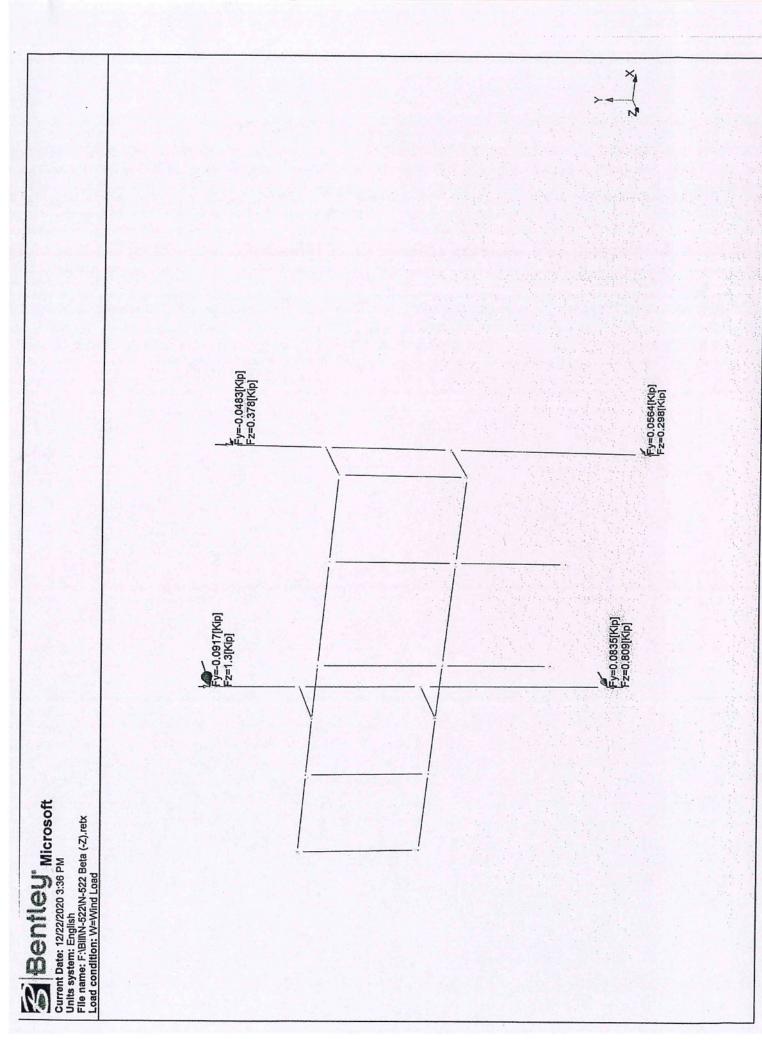
Steel Code Check

Report: Summary - Group by member

Load conditions to be included in design:

D1=1.4DL D2=1.2DL+0.5W D3=1.2DL+W D4=0.9DL+W

Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
	C 6X8.2	1	D4 at 0.00%	0.29	OK	Eq. H1-1b
		2	D3 at 0.00%	0.41	OK	Eq. H1-1b
		3	D3 at 100.00%	0.52	ОК	Eq. H1-1b
		4	D3 at 0.00%	0.12	OK	Eq. H1-1b
		5	D3 at 0.00%	0.17	OK	Eq. H1-1b
		6	D3 at 100.00%	0.23	OK	Eq. H1-1b





Tx=-0.006062[in] Ty=2.79E-05[in] Tz=-0.109056[in] Tx=0.015738[in] Ty=-6.49E-05[in] Tz=-0.17237[in] Tx=-0.004305[in] Ty=-0.000121[in] Tz=-0.520647[in] Tx=0.012312[in]
Ty=5.624E-05[in]
Tz=-0.3385[in]

Verizon

WIRELESS COMMUNICATIONS FACILITY

On Air Engineering, LLC
St Foundty Pand Road
Cold Spring, NY 10516
201-45-46.24
onair@optonline.net

VETIZOTIV
WIRELESS COMMUNICATIONS FACILITY

20 ALEXANDER DRIVE WALLINGFORD, CT 06492

SITE NAME: WETHERSFIELD CT

WETHERSFIELD, CT 06109 100 GREAT MEADOW RD. **PUTNAM PARK**

STRUCTURAL MOUNT MODIFICATIONS

PR	PROJECT SUMMARY
SITE NAME:	WETHERSFIELD CT
SITE ADDRESS:	100 GREAT MEADOW RD. WETHERSFIELD, CT 06109
PROPERTY OWNER:	100 GREAT MEADOW ROAD ASSOC. LLC 100 GREAT MEADOW RD. WETHERSFIELD, CT 06109
PARCEL ID:	286-001
COORDINATES:	41° 42' 50 65" N 72° 38' 37 50" W
VERIZON CONSTRUCTION:	WALTER CHARCZYNSKI (860) 306-1806
VERIZON REAL ESTATE:	ALEX TYURIN (860) 550-3195



SHEET INDEX	тте знеет	PARTIAL ROOF PLAN	ALPHA REINFORCEMENT DETAIL	BETA/GAMMA REINFORCEMENT DETAILS	GENERAL CONSTRUCTION NOTES			
	T-1	A-1	S-1	S-2	G - 1			

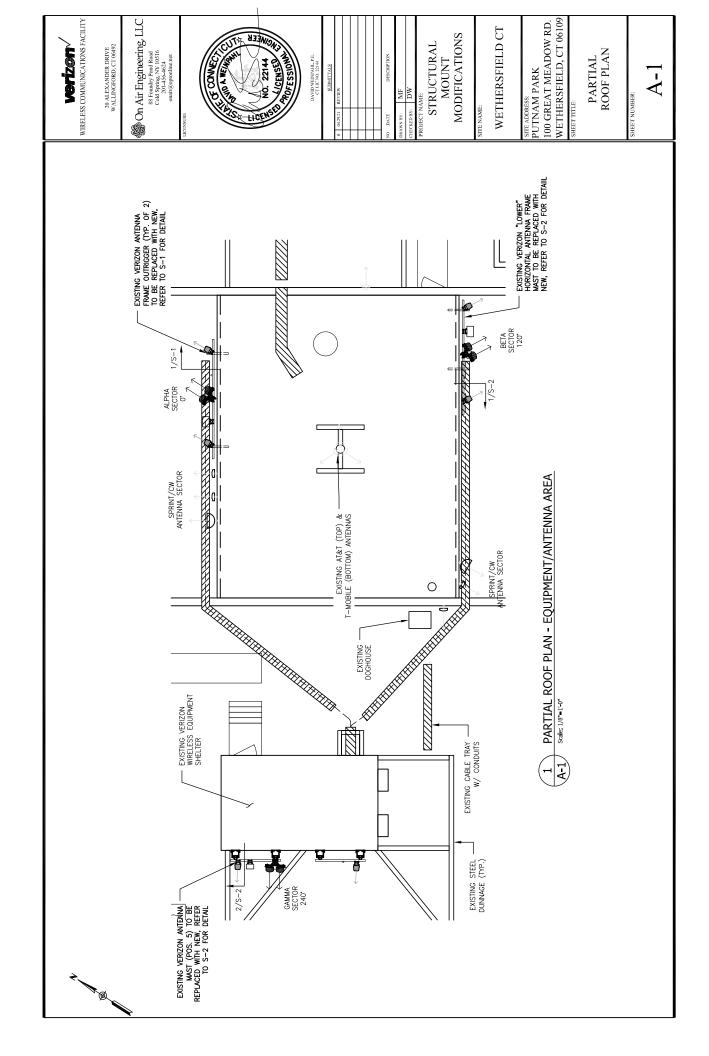
WETHERSFIELD CT

MOUNT MODIFICATIONS STRUCTURAL

STITE ADDRESSS.
PUTNAM PARK
100 GREAT MEADOW RD.
WETHERSFIELD, CT 06109
SHEET TITLE.

TITLE SHEET

T-1

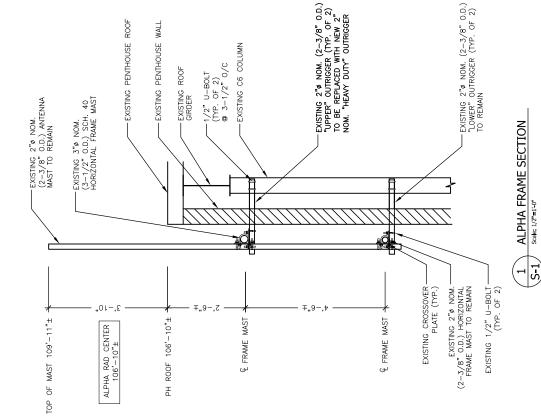


STRUCTURAL NOTES

- DESIGN REQUIREMENTS ARE PER STATE BUILDING CODE AND APPLICABLE SUPPLEMENTS, ANSI/ASCE7, TIA-222-G STRUCTURAL STANDARDS FOR STEEL ANTENNA SUPPORTING
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL, ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE CONSTRUCTION MANAGER.

 DESIGN AND CONSTRUCTION OF STRUCTIVAL STEEL SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL SHALL CONSTRUCTION "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
- WIDE FLANGE STRUCTURAL STEEL SHALL CONFORM TO ASTM A992. MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A56. STEEL PIPE SHALL CONFORM TO ASTM A500 "COLD-FORMED WELDED & SEAMLESS CARBON STEEL STRUCTURAL TUBING." GRADE A, OR ASTM S53 PIPE STEEL BLACK AND HOT-DIPPED ZINC-COATED WILLDED AND SEAMLESS TYPE E OR S, GRADE DIAMETER IS LARGER.
 - STRUCTURAL CONNECTION BOLTS SHALL BE HIGH STRENGTH BOLTS (BEARING TYPE) AND CONFORM TO ASTM A325 "HIGH STRENGTH BOLIS FOR STRUCTURAL JOINTS, INCLUDING SUITABLE NUTS AND PLAIN HARDENED WASHERS." ALL BOLTS SHALL BE 3/4"ø (U.O.N.)
 - ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT—DIP GALVANIZED) COATINGS ON IRON AND STEEL
- PRODUCTS", UNLESS OTHERWISE NOTED.

 LE BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL
 BE CALVANIZED IN ACORDANCE WITH 45.3
 "ZINC—COATING (HOT—DIP) ON IRON AND STEEL HARDWARE", UNLESS OTHERWISE NOTED.
- FIELD WELDS, DRILL HOLES, SAW CUTS AND ALL DAMAGED GALVANIZED SUFFACES SHALL BE REPARTED WITH AN ORGANIC STUR REPAIR PAINT COMPLYING WITH RECOUREMENTS OF ATM A780. GALVANIZING REPAIR PAINT SHALL HAVE 65 PERCENT ZINC BY WEIGHT, ZIPP BY DUNGAN GALVANIZING, GALVANIZING CONTONING RECOURT PREMIUM BY CROWN OR EQUAL. THICKNESS OF APPLIED GALVANIZING REPAIR PAINT SHALL BE NOT LESS THAN A COATS (ALLOW TIME TO DRY BETWEEN COATS) WITH A RESULTING COATING THICKNESS REQUIRED BY ASTM A123 OF A153 AS APPLICABLE.
 - CONTRACTOR SHALL COMPLY WITH AWS CODE PROCEDURES, APPEARANCE AND QUALITY OF WELDS AND FOR WETHODS USED IN CORRECTING WELDING. ALL WELDERS AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS STANDARD QUALIFICATION PROCEDURES. ALL WELDING SHALL ED ONE USING ETOXX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND DILL WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J.2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION". 14TH EDITION. 10.
- INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE CONSTRUCTION MANAGER PRIOR TO REMEMBAL OR CORRECTIVE ACTION, ANY SUCH ACTION SHALL REQUIRE CONSTRUCTION MANAGER APPROVAL.





20 ALEXANDER DRIVE WALLINGFORD, CT 06492

On Air Engineering, LLC 88 Foundry Pond Road Cold Spring, NY 10516 201-456-4624

onair@optonline.net



STRUCTURAL

MODIFICATIONS MOUNT

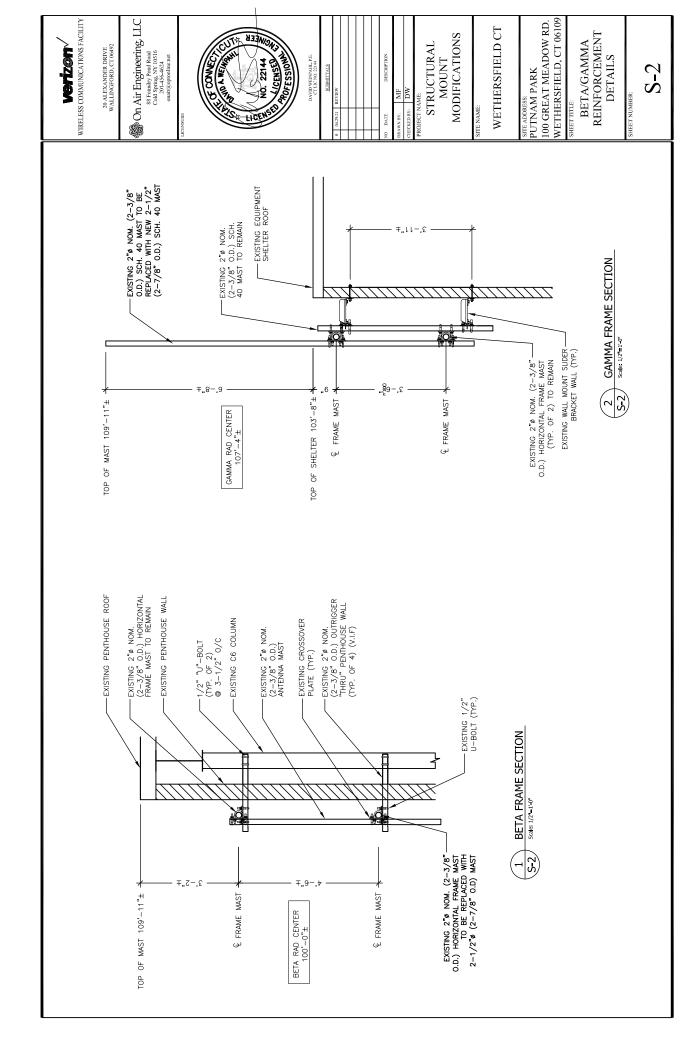
WETHERSFIELD CT

WETHERSFIELD, CT 06109 100 GREAT MEADOW RD. PUTNAM PARK

REINFORCEMENT ALPHA нвет ттге

DETAIL

S-1



GENERAL CONSTRUCTION NOTES

1. CONTRACTOR SHALL NOT COMMENCE ANY WORK UNTIL HE OBTAINS, AT HIS OWN EXPENSE, ALL INSURANCE REQUIRED BY CELLCO PARTNERSHIP d/b/o YERONESS, THE PROPERTY OWNER AND/OR PROPERTY MANAGEMENT

2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS AND ALL LOCAL LAWS AND REGULATIONS, CURRENT EDITIONS.

3. CONTRACTOR SHALL VIST THE JOB SITE AND FAMILIARIZE HINSELF WITH ALL CONDITIONS AFFECTING THE REPOPOSDA WORK AND WAKE PROVISIONS AS TO THE COST THREEOF. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HANSEL WITH ALL CONTRACT DOCUMENTS, HELD CONDITIONS AND DIMENSIONS AND CONTRAMING THAT THE WORK MAY BE ACCOMPUBLED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE MITHOUN OF THE BNINNER PRIOR TO THE ATTENTION OF THE BNINNER PRIOR TO THE CONMUNICE SHALL BE BROUGHT TO THE MITHOUN OF THE BNINNER PRIOR TO THE COMMUNICEMENT OF WORK.

4. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES AND EXISTING CONDITIONS AT THE SITE PROPE TO FARRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA AND SUBMITTO THE ENGINEER ANY DECREPANCIES FROM THE DRAWINGS.

5. CONTRACTOR IS TO REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS. CONTRACTORS SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUB-CONTRACTORS SHALL PRAWINGS TO ALL SHE-CONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND SPECIFICATIONS FOR THE INDORWATION THAT AFFECTS THER WORK.

CONTRACTOR SHALL PROVIDE A COMPLETE BUILD-OUT WITH ALL FINISHES.
STRUCTURAL, MECHANICAL AND ELECTRICAL COMPONENTS AND PROVIDE ALL TEMS AS HOWN OR NDICARED ON DRAWINGS OR WRITTEN IN SPECIFICATION.

7. CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLET FIHE WORK AND PURNISH A COMPLETED JOB IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWELL JURSDICTION OVER THE WORK.

8. CONTRACTOR SHALL OBTAIN AT HIS OWN EXPENSE ALL PERMITS AND ALL INSPECTIONS REQUIRED. FROM FEDERAL AND STATE GOVERNMENTS. COUNTES, MUNICIPALITIES AND OTHER REGULATORY AGENCIES WHICH MAY BE REQUIRED. FOR THE PROJECT.

10. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.

11. ALL MATERIAL PROWDED BY CELLCO PARTNERSHIP d/lb/o VERIZON WIRELESS IS TO BE RENIEWED BY CONTRACTOR AND HAT APPILO. RELES USB.-CONTRACTOR PROR TO INSTALLATION. ANY DEFICIENCIES TO PROWDED MATERIALS SHALL BE BROUGHT TO THE CONSTRUCTION MANAGERS ATTENTION IMMEDIATELY.

12. THE MATERIALS INSTALLED IN THE WORK SHALL MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. NO SUBSTITUTIONS ARE ALLOWED.

13. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS, AND METHODS OF CONSTRUCTION, FOR SEQUINNICES AND PROCEDURES TO BE USED, AND TO ENSURE THE SAFETY OF THE EXISTING BUILDING AND ITS COMPONENT DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACTING, UNDERPRINNING, ETC., THAT MAY BE INCESSARY.

14. CONTRACTOR SHALL COORDINATE ALL CIVIL, STRUCTURAL AND ELECTRICAL DRAWINGS FOR THE LOCATION OF ALL OPENINGS, RECESSES, BUILT-IN WORK, ETC.

15. CONTRACTOR SHALL RECEIVE CLARIFICATION IN WRITING AND SHALL RECEIVE IN WRITING ALTHORIZATION TO PROCEED BEFORE STARNIBLOW WAS ON ANY ITEMS NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.

16. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER OF ALL PRODUCTS OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT FOUND TO BE IN THE HELD.

17. ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPREINCED WORKMEN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST-ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.

18. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFEIT OF THE WORK AREA, ADJACENT RREAS, AND BULDING OCCUPANIS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFORM TO ALL OS.H.A REQUIREMENTS.

19. CONTRACTOR SHALL COORDINATE HS WORK AND SCHEDULE HIS ACTIVITIES AND WORKING HOURS IN ACCORDINATE HE REQUIREMENTS OF HE RODFREYT OWNER AND/OR PROPERTY MANAGEMENT COMMANY.

20. CONTRACTOR SHALL BE RESPONSBLE FOR COORDINATING HIS WORK WITH THE WORK OF OTHERS AS IT MAY RELATE TO RADIO EQUIPMENT, ANTENNAS AND ANY OTHER PORTIONS OF THE WORK.

21. CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECHFCALLY INDICATED OR WHERE LOCAL CODES OR REGULATIONS MAY TARE PRECEINCE.

22. CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING SURFACES, GOUTIMENT, IMPROVEDRING, PIPING, ANTENNA AND ANTENNA ACREES AND REPARK ANY DAWAGE HAI? OCCURS DURING CONSTRUCTION.

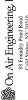
23. CONTRACTOR SHALL REPAIR ALL EXISTING SURFACES DAMAGED DURING CONSTRUCTION SUCH THAT THEY MATCH AND BLEND WITH ADJACENT MERACES. 24. CONTRACTOR SHALL KEEP CONTRACT AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DEBRAS AND RUBBARN IN NOT SPECTHED AS DEARMAING ON THE ROPERTY OF THE OWNER SHALL BE REMOVED. LEAVE PREMIES IN CLEAN CONDITIONS AND FREE ROM PAINT SPOIS, DUST, OR SANUDGES OF ANN NATURE, CONTRACTOR SHALL BE RESPONSIBLE FOR MANDAING COS OF ANN ANDIRE, CONTRACTOR SHALL BE RESPONSIBLE FOR MANDAING ALL ITEMS UNTIL COMPLETION OF CONSTRUCTION.

25. BEFORE FINAL ACCEPTANCE OF THE WORK, CONTRACTOR SHALL REMOVE ALL EGUIPMENT, TEMPORARY WORKS, INUSED AND USELESS MATERIALS, RUBSH AND TEMPORARY STRUCTURES.



WIRELESS COMMUNICATIONS FACILITY

20 ALEXANDER DRIVE WALLINGFORD, CT 06492



LLC

88 Foundry Pond Road Cold Spring, NY 10516 201-456-4624 onair@optonline.net



AVID WEINPAHL, P.B. CT LIC NO. 22144

SUBMITTALS	REVIEW			
	04.29.21			

1 885	.CT NAME:	STRUCTURAL	5	
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E NAME:

WETHERSFIELD CT

stre ADDRESS.
PUTNAM PARK.
100 GREAT MEADOW RD.
WETHERSFIELD, CT 06109

GENERAL CONSTRUCTION

NOTES

r number:

G-1

MOUNT ANALYSIS REPORT FOR

SITE NAME: WETHERSFIELD CT PUTNAM PARK 100 GREAT MEADOW RD WETHERSFIELD, CT 06109



verizon/

WIRELESS COMMUNICATIONS FACILITY 20 ALEXANDER DRIVE WALLINGFORD, CT 06492

On Air Engineering, LLC

88 FOUNDRY POND ROAD COLD SPRING, NY 10516 ONAIR@OPTONLINE.NET 201-456-4624

PBA ENGINEERING, P.C. Structural Engineers

12 KULICK ROAD FAIRFIELD, NEW JERSEY 07004-3363 PHONE: (973) 276-1700

FAX: (973) 276-9766

PROJECT NO. N-522 DATE: 05/10/2021

Tall-But

Paul C. Beck, P.E.
Connecticut Professional Engineer
License No: 12949

CONTENTS

- 1. -PURPOSE
- 2. -REFERENCES
- 3. -BUILDING CODES
- 4. EXISTING STRUCTURE & FIELD OBSERVATIONS
- 5. -PROPOSED VERIZON ANTENNA/EQUIPMENT CONFIGURATION
- 6. -RESULTS
- 7. -CONCLUSION
- 8. -APPENDIX A (CALCULATIONS)

1. PURPOSE

The purpose of this analysis is to determine whether the existing mounting frames located at 100 Great Meadow Rd, Wethersfield, Ct 06109 are adequate to support the proposed modifications to Verizon's antennas.

2. REFERENCES

- 1. Verizon CD's by On Air Engineering, LLC, dated: May 7, 2021.
- Photographs and antenna frame supports.
- 3. ANTMO structural modifications by On Air Engineering, LLC, dated: April 29, 2021.
- 4. Structural/Mount Assessment Letter by On Air Engineering, LLC, dated: April 23, 2020.
- 5. Shelter DWGs by United Structures INC., dated: March 26, 2001.

3. BUILDING CODES

- 1. 2018 Connecticut State Building Code.
- 2. 2015 International Building Code.
- 3. ASCE/SEI 7-16 (Minimum Design Loads for Buildings and Other Structures).

4. EXISTING STRUCTURE & FIELD OBSERVATIONS

Verizon has a 3-sector antenna configuration located on the roof with 2-sectors (Alpha & Beta) on the rooftop penthouse facade and a third sector (Gamma) mounted to their metal framed equipment shelter façade. The Alpha/Gamma antennas are cantilevered above the roofs and Beta antennas flush mounted. Verizon proposes to replace several existing antennas with new antennas. There are no proposed changes to Verizon's accessory equipment.

5. PROPOSED VERIZON ANTENNA/EQUIPMENT CONFIGURATION (TYP. EA. SECTOR)

- a. (1) LNX 850-CDMA Antenna.
- b. (2) SBNHH Antenna on 'SBS' brackets.
- c. (1) CBRS Antenna/RRH.
- d. (1) MT6407-77A Antenna /RRH.
- e. (1) AWS/PCS Dual-Band RRH.
- f. (1) 700/850 Dual-Band RRH.
- g. (1) Raycap OVP (none used at Gamma sector).

6. RESULTS

A mounting analysis was completed on the existing antenna support system against the wind lateral and the gravity loads caused by the proposed equipment. The antenna support system is structurally adequate with some minor structural modifications. Several pipe mast supports

must be replaced with larger masts due to the additional antenna loading proposed. Details for these structural mount modifications are included within ANTMO Structural Modifications by On Air Engineering, LLC, dated: April 29, 2021.

7. CONCLUSION

By replacing several pipe mast supports, the antenna support system is capable of supporting the existing and proposed Verizon equipment.

This analysis is based on the information provided to our office and is assumed to correctly depict the existing condition. The existing roof and foundation are assumed to be installed properly and in a professional manner.

If you have any questions concerning the items contained within this report, please do not hesitate to contact our office.

Sincerely,

PBA ENGINEERING, P.C.

Paul C. Beck, P.E.

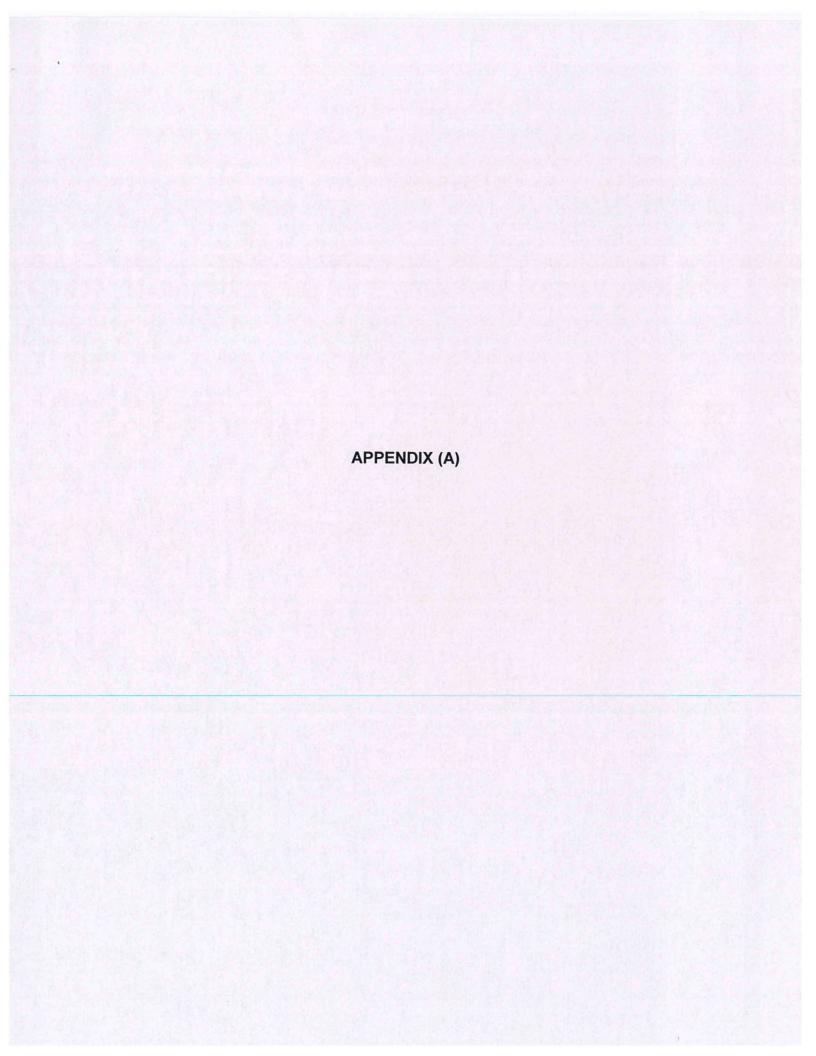
Connecticut Professional Engineer

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License No: 12949

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	(APPE								Parame	PARAME	I EKO			
Municipality	now Load	Ground Snow Load (psf)	now Load	Acce	MCE ectral leration s %g)		Itimate nd Spe (mpl	eds, Vult	No	minal D d Speed (mph)	esign ds,V _{asd}	Win	d-Borne Regions ¹	Hurricane-Prone
	Munio		S₅	S ₁	Risk Cat.I	Risk Cat.II	Risk Cat III-IV	Risk Cat. I	Risk Cat. II	Risk Cat. III-IV	Risk Cat, II & III except Occup I-2	Risk Cat III Occup I-2 & Risk Cat, IV	Hurrican	
Simsbury	35	0.179	0.064	110	120	130	85	93	101			Ye		
Somers	35	0.174	0.064	115	125	135	89	97	105		es abbusines and company	Ye		
Southbury	35	0.198	0.065	110	120	130	85	93	101			Ye		
Southington	30	0.185	0.064	115	125	135	89	97	105	MANUAL PROPERTY.		Ye		
South	30	0.470	0.004	E THE SECTION		STATE STATE	A POSSESSION	2005	O STATE OF	GARLES IN		150000		
Windsor	HETELE!	0.178	0.064	115	125	135	89	97	105			Ye		
Sprague	30	0.171	0.061	120	130	140	93	101	108	- Annahaman da ang ang ang ang ang ang ang ang ang an	Type A	Yes		
Stafford	35	0.173	0.064	115	125	135	89	97	105			Yes		
Stamford	30	0.249	0.069	110	120	130	85	93	101	THE REAL PROPERTY.	arosos nes successi	Yes		
Sterling	35	0.170	0.061	125	135	145	97	105	112	Maria de Cara	Type A	Yes		
Stonington	30	0.159	0.058	125	140	150	97	108	116	Type B	Type A	Yes		
Stratford	30	0.201	0.064	115	125	135	89	97	105	HERE WEEK	Type B	Yes		
Suffield	35	0.176	0.065	110	120	130	85	93	101	ALCOHOLD CONTRACTOR	Пурст	Yes		
Thomaston	35	0.186	0.064	110	120	130	85	93	101	BUSES IN		Yes		
Thompson	40	0.172	0.063	120	130	140	93	101	108	E012 40.52.025	E. Grewenter Dre	Yes		
Tolland	35	0.175	0.064	115	125	135	89	97	105	A TOLER BURNE		Yes		
Torrington	40	0.182	0.065	110	120	125	85	93	97	acceptance of the	CONTRACTOR S	Yes		
Trumbull		0.207	0.065	115	125	135	89	97	105	TARREST AND THE	SECTION PRODU	Yes		
Union		0.172	0.064	115	125	135	89	97	105			Yes		
Vernon		0.177	0.064	115	125	135	89	97	105			Yes		
Voluntown		0.168	0.060	125	135	145	97	105	112	Berghad Sept	Type A	Yes		
Wallingford		0.183	0.063	115	125	135	89	97	105		1 ype A	Yes		
Warren		0.186	0.065	105	115	125	81	89	97	SCASSENE AREA	Maria Calabria	1.63		
Washington		0.192	0.065	105	120	125	81	93	97	ESTERON STORY	700000000000000000000000000000000000000	Yes		
Waterbury		0.189	0.064	110	125	130	85	97	101		Eledari Ase	Yes		
Waterford		0.161	0.058	125	135	145	97	105	112	Type B	Type A	Yes		
Vatertown		0.189		110	120	130	85	93	101	туре в	Type A			
Vestbrook		0.167	0.059	120	135	145	93	105	112	Type B	AT-OSCIONATE	Yes		
Vest Hartford		0.181	0.064	115	125	135	89	97	105	јуре Б	Type A	Yes		
West Haven	30	0.188	0.062	115	125	135	89	97	105		Type B	Yes		
Veston		0.224	0.067	110	120	130	85	93	101	Hurs Thursday	турс Б	Yes		
Vestport		0.226	0.067	110	120	130	85	93	101	ない 日本を出る	Type B	Yes		
Vethersfield		0.181	0.064	115	125	135	89	97	105	STREET,	JPC D	Yes		
Villington			0.063	115	125	135	89	97	105			Yes		
Vilton		0.231	0.068	110	120	130	85	93	101	Charles and Charles and Charles	ALL REPORTS OF S	Yes		
Vinchester			0.065	105	120	125	81	93	97	南部城市		Yes		
Vindham			0.062	120	130	140	93	101	108	CONTRACTOR AND		Yes		
Vindsor			0.064	115	125	135	89	97	105			Yes		
Vindsor ocks	100		0.064	110	125	130	85	97	101	THE STATE OF THE S		Yes		
Volcott	35 (0.187	0.064	110	125	130	85	97	101			Yes		
Voodbridge			0.063	115	125	135	89	97	105	contract and social		Yes		
Voodbury			0.065	110	120	130	85	93	101			Yes		
Voodstock			0.063	120	130	140	93	101	108		MAINTENNE II	Yes		

MecaWind v2362

Software Developer: Meca Enterprises Inc., www.meca.biz, Copyright © 2020

```
Calculations Prepared by:
                                        Calculations Prepared For:
Client: On Air Engineering
Date: Jan 07, 2021
                                              Project #: N-522
Designer: WJZ
Description:
Wethersfield, CT
File Location : U:\Bill\N-522 Putnam Park, Wethersfield, CT\N-522 Revised.wnd
Basic Wind Parameters
Wind Load Standard
                                               Exposure Category
                             = ASCE 7-16
                                                                             = C
Wind Design Speed
                             = 125.0 mph Risk Category
                                               Risk Category
Other Structure Type
                                                                             = II
Structure Type
                             = Other
                                                                             = Solid Sign
General Wind Settings
         = ASCE 7-16 Wind Parameters
Incl LF
         = Include ASD Load Factor of 0.6 in Pressures
                                                                             = False
DynType = Dynamic Type of Structure
                                                                             = Rigid
NF
          = Natural Frequency of Structure (Mode 1)
                                                                             = 1.000 Hz
Zq
         = Altitude (Ground Elevation) above Sea Level
                                                                             = 20.000 ft
Bdist
          = Base Elevation of Structure
                                                                             = 91.167 ft
         = Specify the Elevations For Wind Pressures
GenElev
                                                                             = Mean Roof Ht
         = Show the Base Reactions in the output
Reacs
                                                                             = False
MWFRSType = MWFRS Method Selected
                                                                             = Ch 27 Pt 1
Topographic Factor per Fig 26.8-1
Topo = Topographic Feature
Kzt = Topographic Factor
                                                                             = None
                                                                             = 1.000
Solid Sign Inputs
  : Solid Sign = h : Height to Top of Sign = 19.167 ft
: Horizontal Width of Sign= 1.000 ft
: Vertical Height of Sign = 6.000 ft
  : Solid Sign
s : Vertical Height of Sign = 6.000 ft
                                                                       = 1.000
                                              e : Solidity Ratio
                            = False
Att: Attached to Wall
Exposure Constants per Table 26.11-1:
                                              Zg: Table 26.11-1 Const = 900.000 ft
Bt: Table 26.11-1 Const = 1.000
Alpha: Table 26.11-1 Const = 9.500
At: Table 26.11-1 Const = 0.105
      Table 26.11-1 Const = 0.154
Table 26.11-1 Const = 0.200
Am:
                                              Bm:
                                                      Table 26.11-1 Const = 0.650
                                               Eps: Table 26.11-1 Const
                                                                            = 0.200
Gust Factor Calculation:
Gust Factor Category I Rigid Structures - Simplified Method
G1
      = For Rigid Structures (Nat. Freq.>1 Hz) use 0.85
                                                                             = 0.85
Gust Factor Category II Rigid Structures - Complete Analysis
Zm = 0.6 * Ht
                                                                             = 15.000 ft
         = Cc * (33 / Zm) ^ 0.167
Izm
                                                                             = 0.228
Lzm = L * (Zm / 33) ^ Epsilon
                                                                            = 427.057
Q = (1 / (1 + 0.63 * ((B + Ht) / Lzm)^0.63))^0.5
G2 = 0.925*((1+1.7*1; m*3.4*0)/(1+1.7*2)
                                                                             = 0.957
         = 0.925*((1+1.7*1zm*3.4*Q)/(1+1.7*3.4*1zm))
                                                                             = 0.902
Gust Factor Used in Analysis
         = Lessor Of G1 Or G2
                                                                             = 0.850
Main Wind Force Resisting System (MWFRS) Calculations for Solid Sign per Ch 29:
LF
        = Load Factor based upon STRENGTH Design
                                                                             = 1.00
          = Overall height of structure
                                                                             = 19.167 ft
         = Mean Roof Height above grade
                                                                             = 110.334 ft
         = 15 ft [4.572 m] < Z <Zg --> (2.01*(Z/zg)^(2/Alpha) {Table 26.10-1} = 1.292
         = Topographic Factor is 1 since no Topographic feature specified = 1.000
Kzt
Kd
         = Wind Directionality Factor per Table 26.6-1
                                                                             = 0.85
                                                                             = 43.90 psf
          = (0.00256 * Kh * Kzt * Kd * Ke * V^2) * LF
MWFRS Pressures on Solid Sign per Fig 29.3-1:
         = Reduction factor to account for openings: (1-(1-e)^1.5)
                                                                            = 1.000
Rc
          = Reduction factor for Case C not applicable since s/h <= 0.8
                                                                            = 1.000
         = Gross Area of Sign: B * s
As
B/s
         = Aspect Ratio: B / s
                                                                            = 0.167
s/h
         = Clearance Ratio: s / h
                                                                            = 0.313
Cf
         = Net Force Coefficient for Case A and B per Fig 29.3-1
                                                                             = 1.860
```

Case A: Resultant force acts normal to face through geometric center

F = Design Wind force: qh * G * Cf * As * R = 416 lb

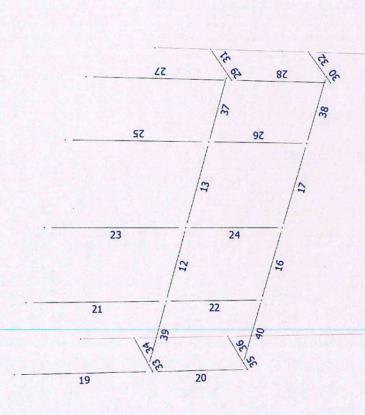
Case B: Resultant force acts normal to face at a distance from the geometric center toward the windward edge equal to 0.2 times the average width

Dx = Force Offset from Center toward windward edge: 0.2 * B = 0.200 ft

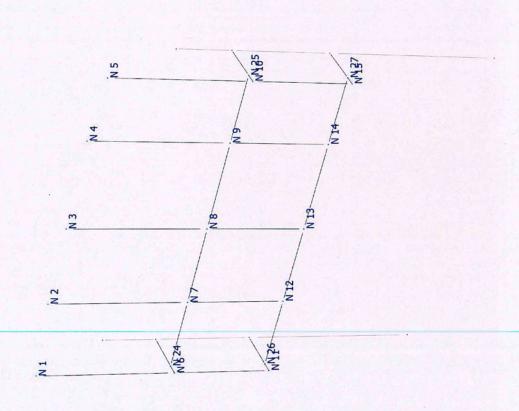
F = Design Wind force: qh * G * Cf * As * R = 416 lb

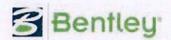
Case C: Since B/s < 2 then Case C need not be considered











Geometry data

GLOSSARY

Cb22, Cb33 : Moment gradient coefficients

Cm22, Cm33 : Coefficients applied to bending term in interaction formula d0 : Tapered member section depth at J end of member DJX : Rigid end offset distance measured from J node in axis X DJY : Rigid end offset distance measured from J node in axis Y DJZ : Rigid end offset distance measured from J node in axis Z DKX : Rigid end offset distance measured from K node in axis X DKY : Rigid end offset distance measured from K node in axis Y DKZ : Rigid end offset distance measured from K node in axis Z dL : Tapered member section depth at K end of member

Ig factor : Inertia reduction factor (Effective Inertia/Gross Inertia) for reinforced concrete members

K22 : Effective length factor about axis 2 K33 : Effective length factor about axis 3

L22 : Member length for calculation of axial capacity
L33 : Member length for calculation of axial capacity

LB pos : Lateral unbraced length of the compression flange in the positive side of local axis 2
LB neg : Lateral unbraced length of the compression flange in the negative side of local axis 2

RX : Rotation about X
RY : Rotation about Y
RZ : Rotation about Z

TO :1 = Tension only member 0 = Normal member

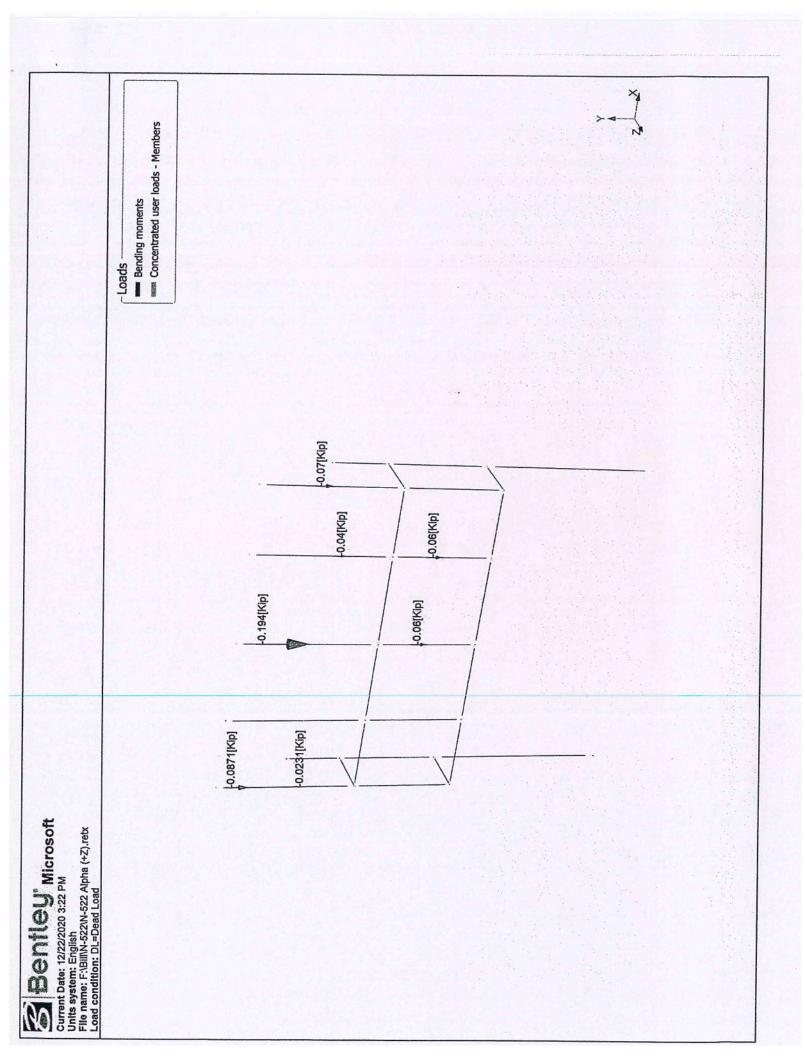
TX : Translation in X
TY : Translation in Y
TZ : Translation in Z

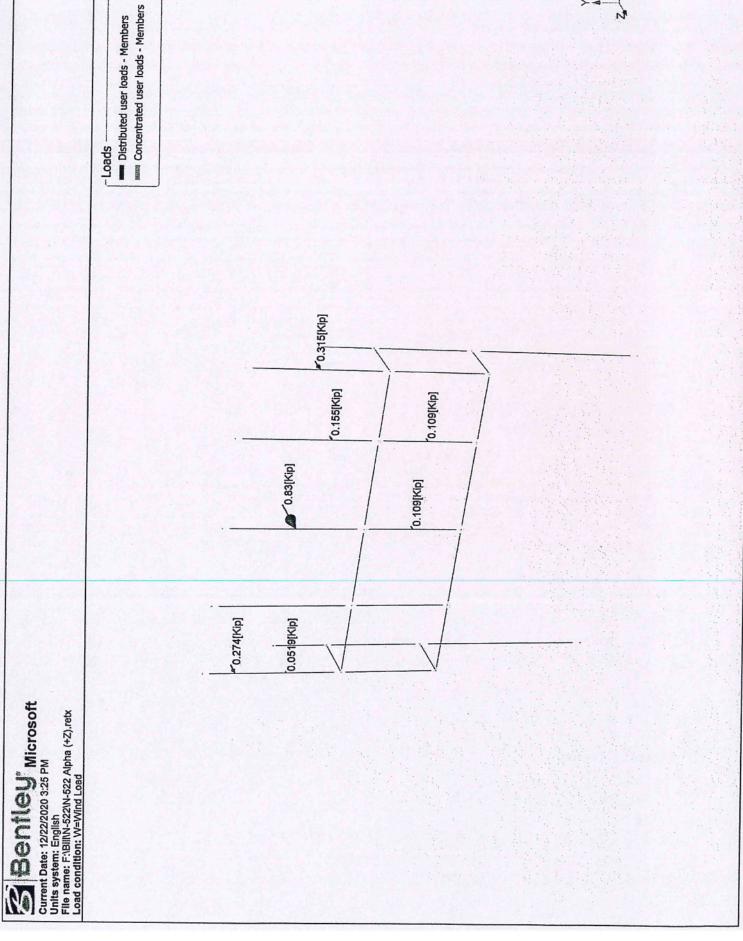
Nodes

Node	X	Y	z	Rigid Floor	
	[ft]	[ft]	[ft]		
1	0.00	18.75	2.50	0	
2	3.3333	18.75	2.00	0	
3	7.0833	18.75	2.00	0	
4	11.3333	18.75	2.00	0	
5	14.5833	18.75	2.50	0	
6	0.00	12.4167	2.50	0	
7	3.3333	12.4167	2.00	0	
8	7.0833	12.4167	2.00	0	
9	11.3333	12.4167	2.00	. 0	
10	14.5833	12.4167	2.50	0	
11	0.00	7.9167	2.50	0	
12	3.3333	7.9167	2.00	0	
13	7.0833	7.9167	2.00	0	
14	11.3333	7.9167	2.00	0	
15	14.5833	7.9167	2.50	0	
24	0.00	12.4167	2.00	0	
25	14.5833	12.4167	2.00	0	
26	0.00	7.9167	2.00	0	
27	14.5833	7.9167	2.00	0	

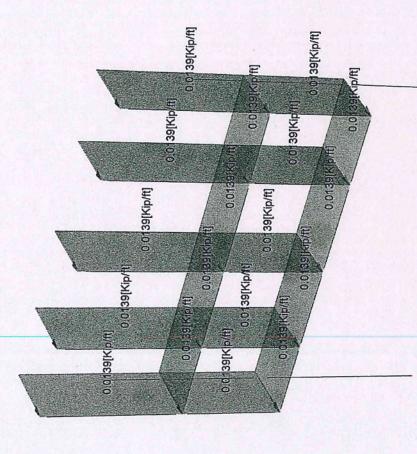
Members

Member	NJ	NK	Description	Section	Material	d0 [in]	dL [in]	lg factor
12	7	8		PIPE 3x0.216	A53 GrB	0.00	0.00	0.00
13	8	9		PIPE 3x0.216	A53 GrB	0.00	0.00	0.00
16	12	13		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
17	13	14		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
19	1	6		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
20	6	11		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
21	2	7		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
22	7	12		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
23	3	8		PIPE 3x0.216	A53 GrB	0.00	0.00	0.00
24	8	13		PIPE 3x0.216	A53 GrB	0.00	0.00	0.00
25	4	9		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
26	9	14		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
27	5	10		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
28	10	15		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
29	10	25		PIPE 2x0.218XS	A53 GrB	0.00	0.00	0.00
30	15	27		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
31	22	25		PIPE 2x0.218XS	A53 GrB	0.00	0.00	0.00
32	21	27		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
33	6	24		PIPE 2x0.218XS	A53 GrB	0.00	0.00	0.00
34	18	24		PIPE 2x0.218XS	A53 GrB	0.00	0.00	0.00
35	11	26		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
36	17	26		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
37	25	9		PIPE 3x0.216	A53 GrB	0.00	0.00	0.00
38	27	14		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
39	24	7		PIPE 3x0.216	A53 GrB	0.00	0.00	0.00
40	26	12		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00









Loads

Distributed user loads - Members





Units system: English

Steel Code Check

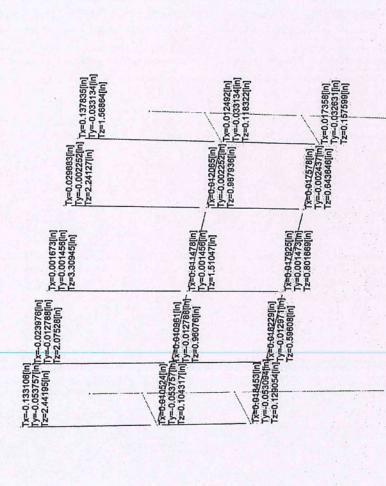
Report: Summary - Group by member

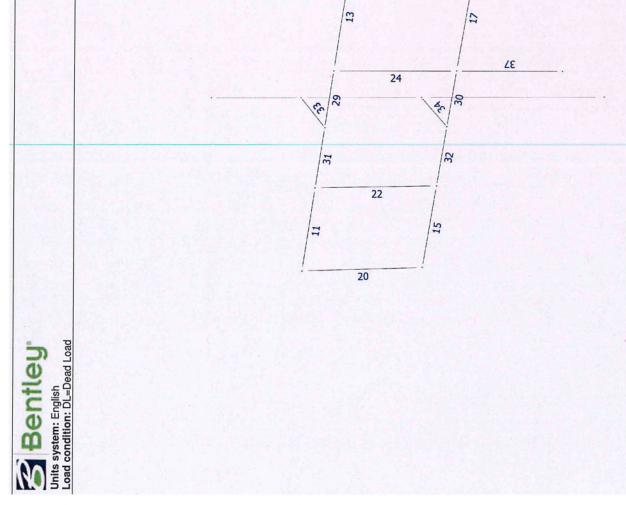
Load conditions to be included in design :

D1=1.4DL D2=1.2DL+0.5W D3=1.2DL+W D4=0.9DL+W

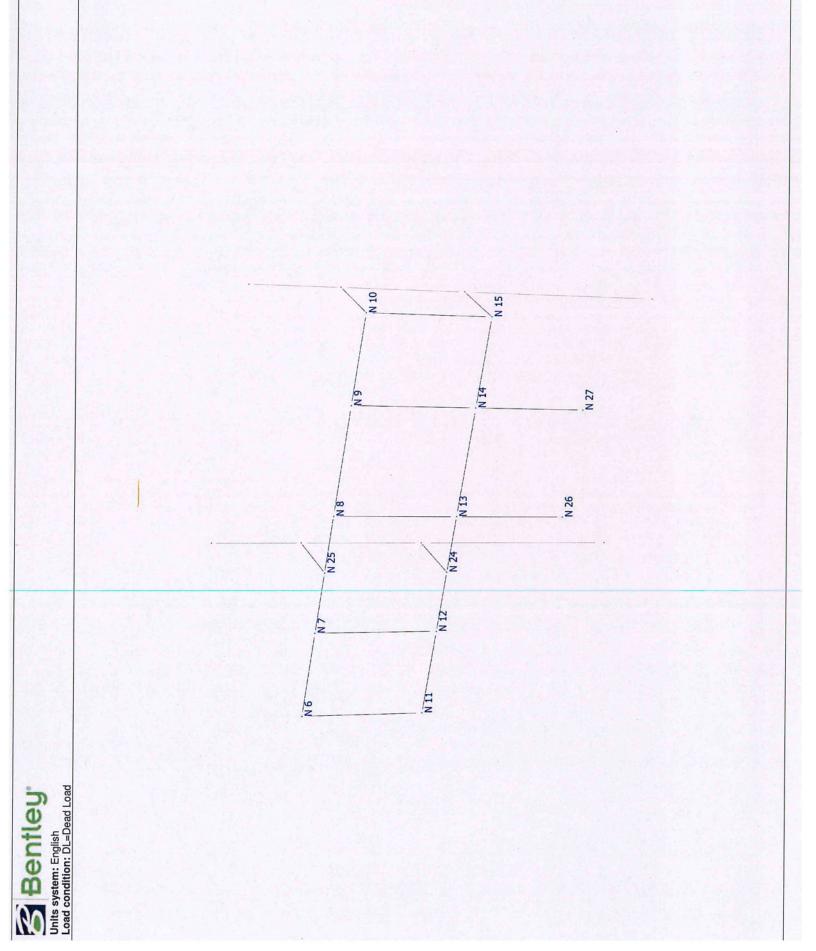
Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
	PIPE 2x0.154	16	D3 at 0.00%	0.28	OK	Eq. H1-1b
		17	D3 at 100.00%	0.31	OK	Eq. H1-1b
		19	D3 at 100.00%	0.95	OK	Eq. H1-1b
		20	D3 at 0.00%	0.75	OK	Eq. H1-1b
		21	D3 at 100.00%	0.15	OK	Eq. H1-1b
		22	D3 at 0.00%	0.40	OK	Eq. H1-1b
		25	D3 at 100.00%	0.33	OK	Eq. H1-1b
		26	D3 at 0.00%	0.48	OK	Eq. H1-1b
		27	D3 at 100.00%	0.68	OK	Eq. H1-1b
		28	D3 at 0.00%	0.66	OK	Eq. H1-1b
		30	D3 at 0.00%	0.40	OK	Eq. H1-1b
		32	D3 at 0.00%	0.37	OK	Eq. H1-1b
		35	D3 at 0.00%	0.46	OK	Eq. H1-1b
		36	D3 at 0.00%	0.45	OK	Eq. H1-1b
		38	D3 at 0.00%	0.27	OK	Eq. H1-1b
		40	D3 at 0.00%	0.26	OK	Eq. H1-1b
	PIPE 2x0.218XS	29	D4 at 0.00%	0.15	OK	Eq. H1-1b
		31	D4 at 100.00%	0.85	OK	Eq. H1-1b
		33	D4 at 0.00%	0.28	OK	Eq. H1-1b
		34	D4 at 100.00%	0.91	OK	Eq. H1-1b
	PIPE 3x0.216	12	D3 at 100.00%	0.87	ок	Eq. H1-1b
		13	D3 at 0.00%	0.86	OK	Eq. H1-1b
		23	D3 at 100.00%	0.50	OK	Eq. H1-1b
		24	D3 at 0.00%	0.26	OK	Eq. H1-1b
		37	D3 at 100.00%	0.44	OK	Eq. H1-1b
		39	D3 at 100.00%	0.39	OK	Eq. H1-1b

Current Date: 12/22/2020 3:31 PM
Current Date: 12/22/2020 3:31 PM
Units system: English
File name: F:\Bill\N-522\N-522 Alpha (+Z).retx
Load condition: W=Wind Load











Units system: English

Geometry data

GLOSSARY

Cb22, Cb33 : Moment gradient coefficients

Cm22, Cm33 : Coefficients applied to bending term in interaction formula d0 : Tapered member section depth at J end of member DJX : Rigid end offset distance measured from J node in axis X DJY : Rigid end offset distance measured from J node in axis Y DJZ : Rigid end offset distance measured from J node in axis Z DKX : Rigid end offset distance measured from K node in axis X DKY : Rigid end offset distance measured from K node in axis Y DKZ : Rigid end offset distance measured from K node in axis Z dL : Tapered member section depth at K end of member

Ig factor : Inertia reduction factor (Effective Inertia/Gross Inertia) for reinforced concrete members

K22 : Effective length factor about axis 2
K33 : Effective length factor about axis 3

L22 : Member length for calculation of axial capacity
L33 : Member length for calculation of axial capacity

LB pos : Lateral unbraced length of the compression flange in the positive side of local axis 2
LB neg : Lateral unbraced length of the compression flange in the negative side of local axis 2

RX : Rotation about X
RY : Rotation about Y
RZ : Rotation about Z

TO : 1 = Tension only member 0 = Normal member

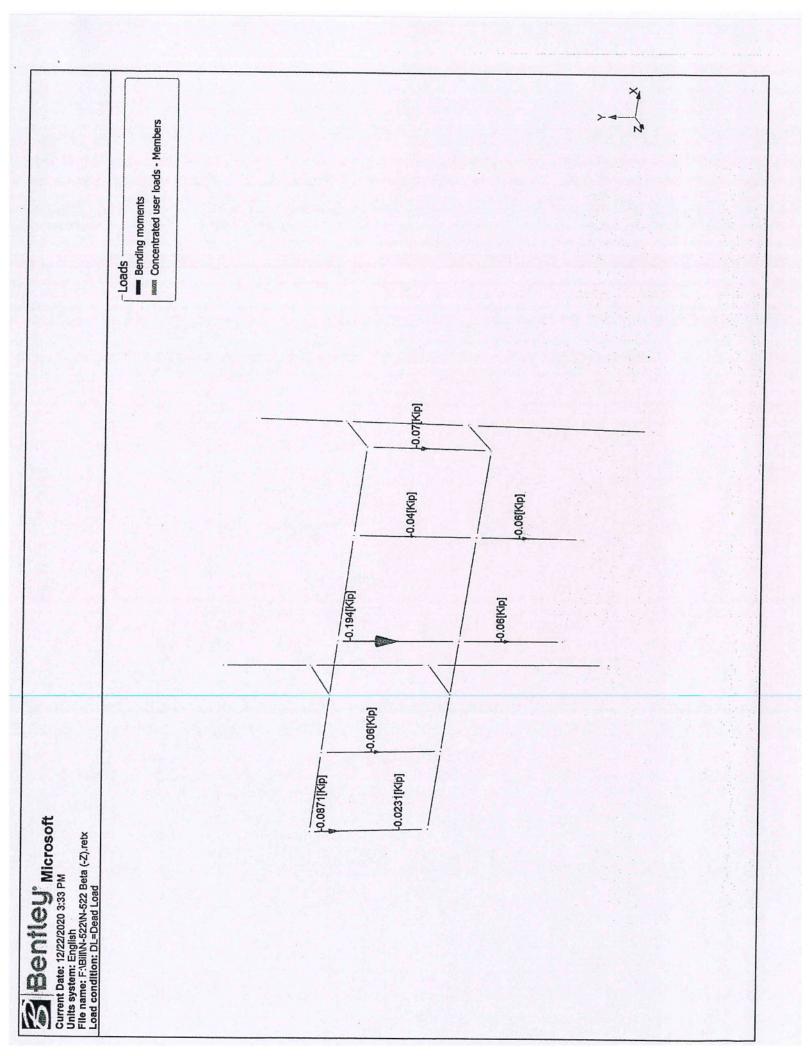
TX : Translation in X
TY : Translation in Y
TZ : Translation in Z

Nodes

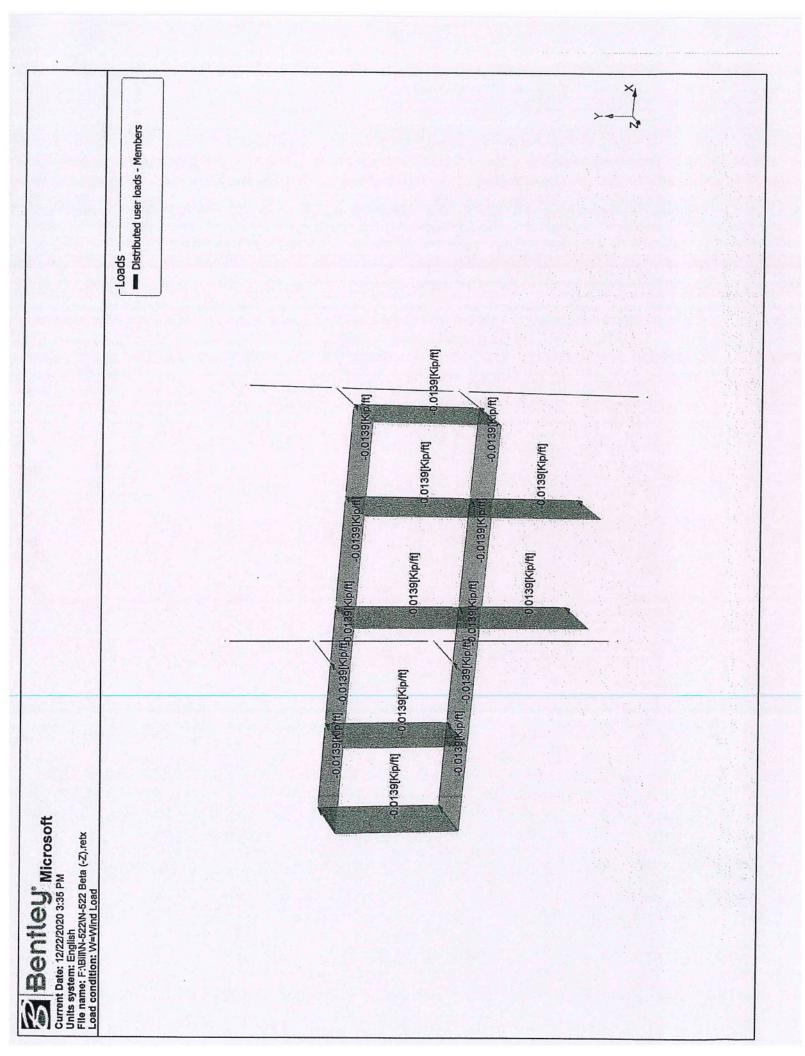
Node	x	Y	z	Rigid Floor		
	[ft]	[ft]	[ft]			
6	0.00	11.6667	2.50	0		
7	3.1667	11.6667	2.50	0		
8	7.50	11.6667	2.50	0		
9	11.50	11.6667	2.50	0		
10	14.75	11.6667	2.50	0		
11	0.00	7.1667	2.50	0		
12	3.1667	7.1667	2.50	0		
13	7.50	7.1667	2.50	0		
14	11.50	7.1667	2.50	0		
15	14.75	7.1667	2.50	0		
24	5.4167	7.1667	2.50	0		
25	5.4167	11.6667	2.50	0		
26	7.50	3.1667	2.50	0		
27	11.50	3.1667	2.50	0		

Members

Member	NJ	NK	Description	Section	Material	d0 [in]	dL [in]	lg factor	
11	6	7		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00	
13	8	9		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00	
14	9	10		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00	
15	11	12		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00	
17	13	14		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00	
18	14	15		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00	
20	6	11		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00	
22	7	12		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00	
24	8	13		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00	
26	9	14		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00	
28	10	15		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00	
29	8	25		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00	
30	13	24		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00	
31	7	25		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00	
32	12	24		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00	
33	18	25		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00	
34	17	24		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00	
35	10	22		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00	
36	15	21		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00	
37	13	26		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00	
38	14	27		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00	



MONEY Concentrated user loads - Members Distributed user loads - Members -Loads -d.315[Kip] -0.155[Kip] -0.109[Kip] -0.109[Kip] -0.83[Kip] -b.109[Kip] 0.0519[Kip] -0,274[Kip] Editor Date: 12/22/2020 3:34 PM
Current Date: 12/22/2020 3:34 PM
Units system: English
File name: F:\Bill\n-522\n-522\Beta (-Z).retx
Load condition: W=\Vind Load





Units system: English

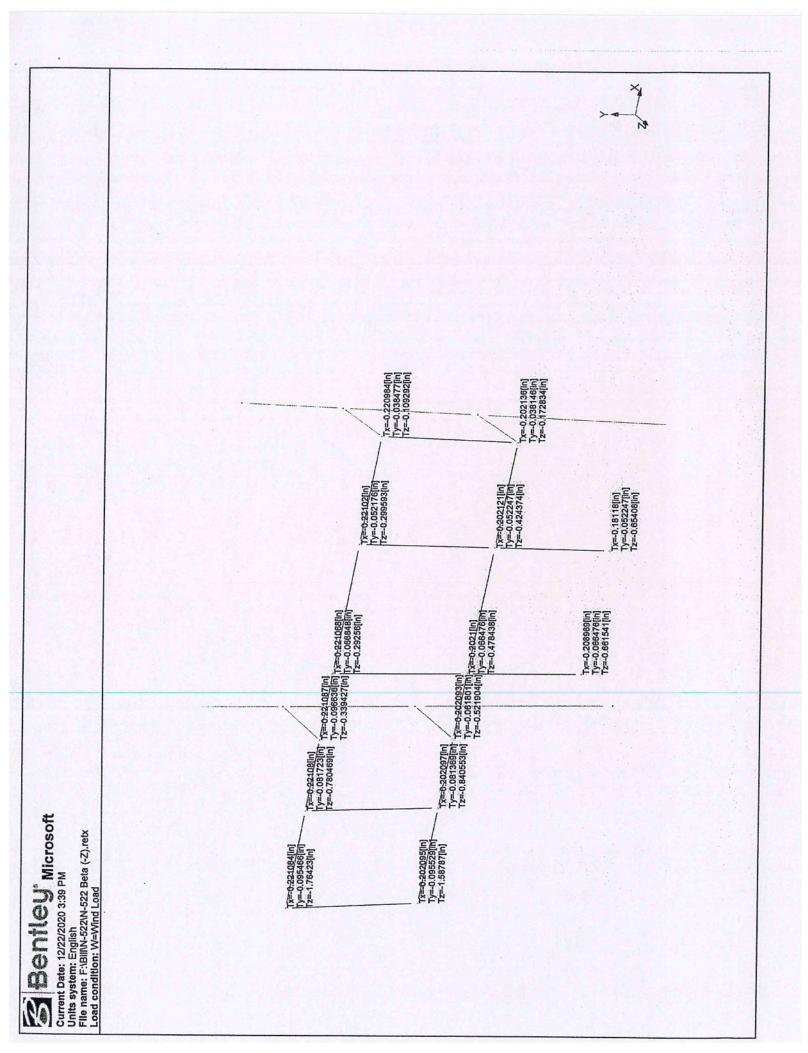
Steel Code Check

Report: Summary - Group by member

Load conditions to be included in design :

D1=1.4DL D2=1.2DL+0.5W D3=1.2DL+W D4=0.9DL+W

Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
	PIPE 2-1_2x0.203	15	D3 at 100.00%	0.25	OK	Eq. H1-1b
		17	D3 at 100.00%	0.22	OK	Eq. H1-1b
		18	D3 at 0.00%	0.22	OK	Eq. H1-1b
		30	D3 at 100.00%	0.68	OK	Eq. H1-1b
		32	D3 at 100.00%	0.69	ОК	Eq. H1-1b
	PIPE 2x0.154	11	D3 at 100.00%	0.38	OK	Eq. H1-1b
		13	D3 at 100.00%	0.19	OK	Eq. H1-1b
		14	D3 at 0.00%	0.15	OK	Eq. H1-1b
		20	D3 at 100.00%	0.21	OK	Eq. H1-1b
		22	D1 at 100.00%	0.19	OK	Eq. H1-1b
		24	D3 at 100.00%	0.44	OK	Eq. H1-1b
		26	D3 at 100.00%	0.13	OK	Eq. H1-1b
		28	D3 at 100.00%	0.21	OK	Eq. H1-1b
		29	D4 at 100.00%	0.60	OK	Eq. H1-1b
		31	D4 at 100.00%	0.60	OK	Eq. H1-1b
		33	D1 at 0.00%	0.37	OK	Eq. H1-1b
		34	D3 at 0.00%	0.70	ОК	Eq. H1-1b
		35	D4 at 0.00%	0.12	OK	Eq. H1-1b
		36	D3 at 100.00%	0.27	OK	Eq. H1-1b
		37	D3 at 0.00%	0.18	OK	Eq. H1-1b
		38	D3 at 0.00%	0.18	OK	Eq. H1-1b



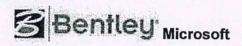


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**SECTION CONTINUES OF THE CONTINUES OF

**LUTE TO THE CONTROL OF THE CONTROL OF THE SYSTEM: UNBINN-522 Putnam Park, Wethersfield, CTLRFDIN-522 Gamma (+Z).etz).oad condition: W=Wind Load

.Z	N 36 N 36 N 30	N 36 N 29 N 29
86 .Z	33 X	
N	N 18 N 25 S S S S S S S S S S S S S S S S S S	N 24 32 N 26 N



Current Date: 12/22/2020 4:00 PM

Units system: English

File name: F:\Bill\N-522\N-522 Gamma (+Z).retx

Geometry data

GLOSSARY	
Cb22, Cb33	: Moment gradient coefficients
Cm22, Cm33	: Coefficients applied to bending term in interaction formula
d0	: Tapered member section depth at J end of member
DJX	: Rigid end offset distance measured from J node in axis X
DJY	: Rigid end offset distance measured from J node in axis X
DJZ	
DKX	: Rigid end offset distance measured from J node in axis Z
	: Rigid end offset distance measured from K node in axis X
DKY	: Rigid end offset distance measured from K node in axis Y
DKZ	: Rigid end offset distance measured from K node in axis Z
dL	: Tapered member section depth at K end of member
Ig factor	: Inertia reduction factor (Effective Inertia/Gross Inertia) for reinforced concrete members
K22	: Effective length factor about axis 2
K33	: Effective length factor about axis 3
L22	: Member length for calculation of axial capacity
L33	: Member length for calculation of axial capacity
LB pos	: Lateral unbraced length of the compression flange in the positive side of local axis 2
LB neg	: Lateral unbraced length of the compression flange in the negative side of local axis 2
RX	: Rotation about X
RY	: Rotation about Y
RZ	: Rotation about Z
TO	: 1 = Tension only member 0 = Normal member
TX	: Translation in X
TY	: Translation in Y
TZ	: Translation in Z

Nodes

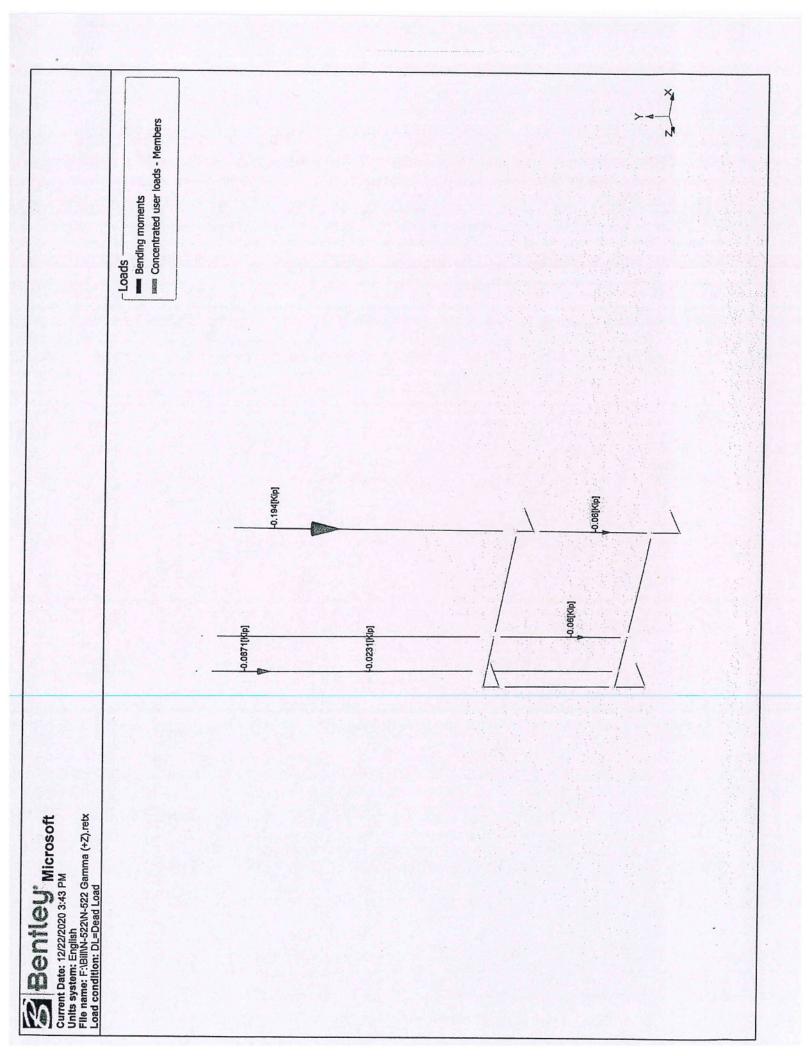
Node	X	Y	Z	Rigid Floor
	[ft]	[ft]	[ft]	
16	0.00	0.00	0.00	0
18	0.00	3.9167	0.00	0
19	0.00	4.3333	1.00	0
24	0.00	0.8333	1.00	0
25	0.00	3.9167	1.00	0
26	0.00	0.00	1.00	0
27	4.8333	0.00	0.00	0
28	4.8333	3.9167	0.00	0
29	4.8333	0.00	1.00	. 0
30	4.8333	3.9167	1.00	0
31	0.50	4.3333	1.00	0
32	0.50	0.8333	1.00	0
33	1.5833	4.3333	1.00	0
34	1.5833	0.8333	1.00	0
35	4.8333	4.3333	1.00	0
36	4.8333	0.8333	1.00	0
37	0.50	11.75	1.00	0
38	1.5833	11.75	1.00	0
39	4.8333	11.75	1.00	0

Restraints

Node	TX	TY	TZ	RX	RY	RZ
16	1	1	1	0	0	0
18	1	1	1	0	0	0
27	1	1	1	. 0	0	0
28	1	1	1	0	0	0

Members

Member	NJ	NK	Description	Section	Material	d0 [in]	dL [in]	lg factor
29	18	25		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
30	16	26		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
31	24	26		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
32	24	25		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
33	19	25		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
34	28	30		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
35	27	29		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
36	33	35		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
37	31	33		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
38	19	31		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
39	24	32		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
40	32	34		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
41	34	36		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
42	31	32		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00
43	33	34		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
44	29	36		PIPE 3x0.216	A53 GrB	0.00	0.00	0.00
45	30	36		PIPE 3x0.216	A53 GrB	0.00	0.00	0.00
46	30	35		PIPE 3x0.216	A53 GrB	0.00	0.00	0.00
47	31	37		PIPE 2-1 2x0.203	A53 GrB	0.00	0.00	0.00
48	33	38		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
19	35	39		PIPE 3x0,216	A53 GrB	0.00	0.00	0.00



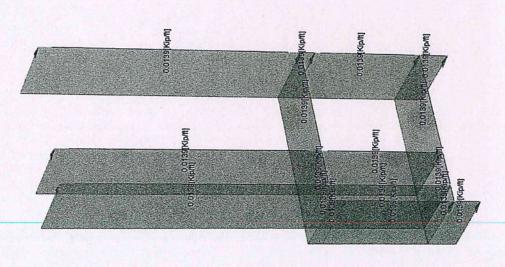
sesson Concentrated user loads - Members Distributed user loads - Members Loads 0.83[Kip] 0.109[Kip] 0.109[Kip] 0.274[Kip] 0.0519[Klp] Current Date: 12/22/2020 3:44 PM
Current Date: 12/22/2020 3:44 PM
Units system: English
File name: F:NBIINN-522NN-522 Gamma (+Z).retx
Load condition: W=Wind Load

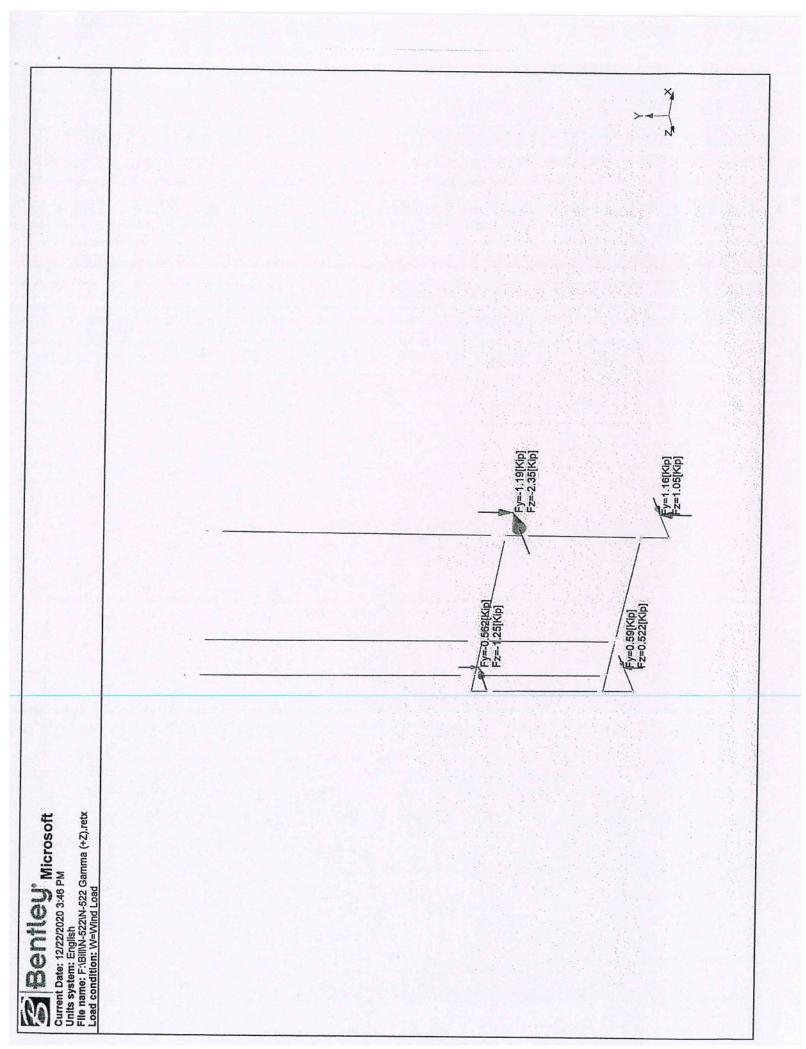


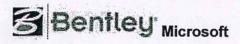
**Seption: Wethersfield, CTLRFD\N-522 Gamma (+Z).etz\ oad condition: W=Wind Load

Loads

Distributed user loads - Members







Current Date: 12/22/2020 3:47 PM

Units system: English

File name: F:\Bill\N-522\N-522 Gamma (+Z).retx

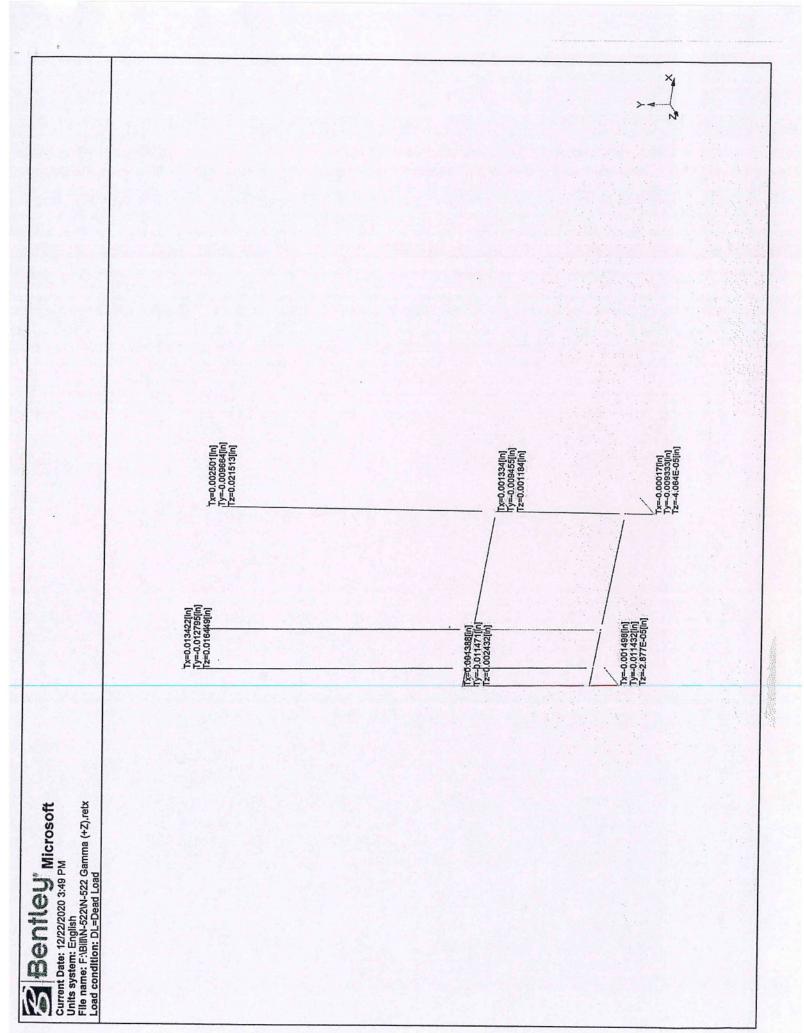
Steel Code Check

Report: Summary - Group by member

Load conditions to be included in design:

D1=1.4DL D2=1.2DL+0.5W D3=1.2DL+W D4=0.9DL+W

Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference	
	PIPE 2-1_2x0.203	42	D3 at 0.00%	0.49	OK	Eq. H1-1b	
		47	D3 at 0.00%	0.58	ОК	Eq. H1-1b	
	PIPE 2x0.154	29	D4 at 100.00%	0.34	ОК	Eq. H1-1b	
		30	D3 at 100.00%	0.38	OK	Eq. H1-1b	
		31	D3 at 100.00%	0.36	OK	Eq. H1-1b	
		32	D3 at 100.00%	0.32	OK	Eg. H1-1b	
		33	D4 at 100.00%	0.47	OK	Eq. H1-1b	
		34	D4 at 100.00%	0.68	OK	Eq. H1-1b	
		35	D3 at 100.00%	0.78	OK	Eq. H1-1b	
		36	D4 at 0.00%	0.15	OK	Eq. H1-1b	
		37	D3 at 100.00%	0.18	OK	Eq. H1-1b	
		38	D4 at 0.00%	0.20	ОК	Eq. H3-1	
		39	D3 at 100.00%	0.12	OK	Eq. H1-1b	
		40	D3 at 0.00%	0.04	OK	Eq. H3-1	
		41	D1 at 100.00%	0.03	OK	Eq. H1-1b	
		43	D3 at 0.00%	0.31	OK	Eq. H1-1b	
		48	D3 at 0.00%	0.21	OK	Eq. H1-1b	
	PIPE 3x0.216	44	D3 at 0.00%	0.25	OK	Eq. H1-1b	
		45	D3 at 0.00%	0.63	ОК	Eq. H1-1b	
		46	D3 at 0.00%	0.79	ОК	Eq. H1-1b	
		49	D3 at 0.00%	0.71	OK	Eq. H1-1b	

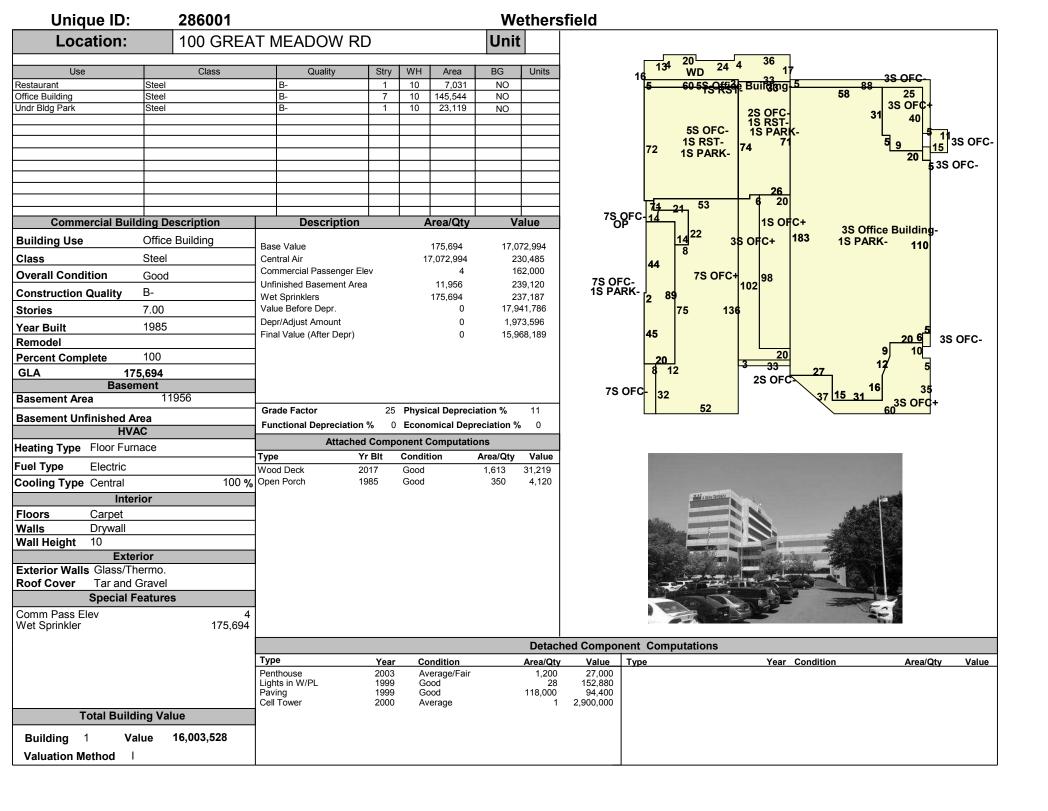


ATTACHMENT 5



Unique ID:	28600	1							Wether	sfiel	d				Card N	lo:	1of 1	
Location:	100 GRE	AT MEAD	OW RI	D				M	ap/Lot:	286	001		Zo	ne:	BP	Date	Printed:	01-20-21
911 Address:								Ex	cempt				Nb	hd:	C30	Last	t Update:	12-29-20
		Ow	ner Of F	Record					Volume	/Page	Date	е		Sales	Туре		Valid	Sale Price
100 GREAT MEA	DOW ROAD	ASSOCIAT	ES LLC						1103 /0	136	10-06	6-03					NO	0
100 GREAT MEA	DOW RD	WETHER	RSFIELD	O, CT	06109													
Additional Owners	:																	
								Owner His									No.	
PUTNAM PARK AS	SOCIATES			% P CH	RISTOPHE	R HENNE	Y CO		0333 /03	388	03-2	1-83					NO	300,000
									1 1									
									1									
									1									
Permit Number	Date	Cost	New Hou		Status	% Comp	Est Complet							Permit				
E-21-0011	01-11-21	9,970	Yes		ted Rec	0	01-01-0		g of infrared									
E-21-0013 P-20-0182	01-11-21 10-21-20	1,800 50,000	Yes No	Close	ted Rec	<u>0</u> 100	01-01-0 10-01-2		I 3 cat 6 drop ALLATION C							NECK		
B-20-0529	09-22-20	25,000	No	Close		100	10-01-2		ALLATION C ANT FIT-OUT						E DIMING L	JECK		
B-20-0365	08-14-20	20,000	No	Close		100	10-14-2		ROOM REP		011111 20	OTT (I OTTI	<u> </u>	(())				
E-20-0305	07-31-20	12,500	No	Close		100	10-01-2	0 Repla	ace existing o		lighting w	ith LED ligh	nting . A	All fixture				
	4004						State Iter				1				Ap	praise	ed Value	
Census/Tract	4921	David at	0055	Code		Quantity	Value	Code		Qı	uantity	Value	4	Total	Land Valu	ie	1	,421,525
Dev Map	10045	Dev Lot		21- Con 22-Com	nm Land	9.03 1.00	995,070 9,732,930							Total	Building \	/alue	13	,904,195
Date 06/24/	2015	03/24/2014			m Outbldg	4.00	2,222,000								•			
Inspector CR				20-00111	III Outblug	4.00	2,222,000							ı otai	l Outbuildii	ig vai	iue 3	,174,280
Action 44	В	AA Hearing-N	IC IC											Total	Market Va	lue	18,	500,000
				Acr										Influer	ass Esster	-		
Land Toma	A = = = =	400				1 1	.fl	Tatal	Walna	1	Influence Factors and Type Influence Reason Comment							
Land Type Primary Site	1.84	490 0.00	216,		Adj	l in	400		0,000	Land							Comment	
Comm Excess	7.19	0.00	1	000	0.95		400	,	1,525		ry Site	40		ntensive				
2,0000		0.00	'''		0.00			٠.	.,020	Comn	nercial Ex	cess 40	0 1	ntensive	e Use			
Total	9.03							1,42	21,525									
					Prior Years						.		A 1		Appraised	Totals		l Value
	Curi	rent	2	2019	 2	018	201	7	2016	-	Туре		Acres	Value	e Type		Acres	Value
Land		95,070		95,070	1	5,060	928,4		928,40									
Building		32,930		32,930	10,86		8,471,6		10,643,10									
Outbuilding Total		22,000 60,000		22,000 50,000	14,080	2,000	1,450,0 10,850,0		1,450,00 13,021,5 0	- 1								
Total	12,95	00,000	12,5	50,000	14,000	J, 130	10,050,0	00	13,021,50	,,					Totals			
							Co	omments	3						· Ottaio			
ATRIUM CAFE,O'S				IEADOW	V,VHB,YELL	OW PAGE				VIES,C	T BUSIN	IESS,HAKS	,NCS F	PEARSC	N,SENIORI	INK,N	MODIS	
2018GL-STIPULATE				/F EVE		0.407												
2500 A MONTH, 4 (AKKIEKS(250	UX12=30,000	IX5 VACX	S EXPX	8 CAP =33	o,43/												
350 FPM ELEC 3 OTIS ELEV 2500 (^AD																	
1 2 0 119 ELEV 2000 (

OFFICE BLDG/BAA#109;COURT STIP 2013-2017



ATTACHMENT 6



Name and Address of Sender	TOTAL NO. of Pieces Listed by Sender	TOTAL NO. of Pieces Received at Post Office™	Affix Stamp Here			
Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103	Postmaster, per (name of receiving e	employee)	7 25 2021 E	opost/II /25/2021 POSTAGE	\$002.990 ZIP 06103 041L12203537	
USPS® Tracking Number Firm-specific Identifier	(Name, Street, City, S	dress State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1. 2. 3.	Bonnie Therrien, Interior Town of Wethersfield 505 Silas Deane Highw Wethersfield, CT 0610	m Town Manager vay 09 or of Planning and Econor vay 09 ad Associates LLC ad	mic Development			
4.						
5.	ne-		-			
6.			-			