CONNECTICUT SITING COUNCIL

PETITION OF NEW CINGULAR WIRELESS PCS, LLC ("AT&T") TO THE CONNECTICUT SITING COUNCIL FOR A DECLARATORY RULING THAT NO CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED IS REQUIRED TO MODIFY AN EXISTING WIRELESS TELECOMMUNICATIONS FACILITY LOCATED AT 585 SOUTH MAIN STREET, NAUGATUCK, CONNECTICUT	)	**PETITION NO. _____**

PETITION FOR DECLARATORY RULING TO MODIFY AN EXISTING WIRELESS FACILITY
585 SOUTH MAIN STREET, NAUGATUCK, CONNECTICUT

I. Introduction

New Cingular Wireless PCS, LLC ("AT&T"), the "Petitioner", hereby petitions the Connecticut Siting Council ("Council") pursuant to Sections 16-50j-38 and 16-50j-39 of the Regulations of Connecticut State Agencies ("R.C.S.A.") for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need ("Certificate") is required pursuant to Section 16-50k of the Connecticut General Statutes ("C.G.S.") to modify an existing wireless facility owned by American Tower Corporation ("ATC") located at 585 South Main Street in Naugatuck, Connecticut (the "Site"). Included in Attachment 1 is a June 21, 2017 letter from ATC authorizing AT&T to file this Petition.

II. The Premises and Existing Wireless Facility

The 1.76 acre Site is located on South Main Street (aka Rt. 63) and is improved with a commercial building and associated parking area. The surrounding area is characterized as a business district with a mix of residential, commercial, and retail uses to the north, east, and south. The Site abuts undeveloped land to the west, which is owned by the State of Connecticut. Route 8 is located to the west of the State owned land. Immediately across the street to the east of the Premises, as well as to the immediate south is vegetated undeveloped land. An aerial photo is provided in the drawings included in Attachment 3 on Sheet Number Z-2.

The existing wireless facility, owned by ATC, is comprised of a 49-foot tall monopole with 6 AT&T antennas mounted at the top and 12 Verizon Wireless antennas mounted

at a height of approximately 40', with associated equipment for both carriers located in the equipment shelters at the base of the monopole. In 2003, the Council approved Verizon's petition (Petition #623) to replace an existing 49-foot tall wooden pole, which was used by AT&T and Verizon Wireless, with a new steel monopole of the same height. Subsequently, the Council approved several exempt modifications for AT&T and Verizon Wireless for upgrades to their facilities. Included in Attachment 2 is a copy of Petition #623.

III. AT&T's Proposed Modification

AT&T is licensed by the Federal Communications Commission ("FCC") to provide wireless services in this area of the State of Connecticut. AT&T's proposed modification to the existing facility would consist of installing a 40-foot tall monopole extension to the existing monopole, increasing the overall height of the monopole to approximately 89' above grade level ("AGL"). A 9-foot tall lighting rod would be installed at the top of the monopole extension. AT&T's 6 antennas and remote radio units ("RRU") would be relocated to a new mount at the top of the monopole extension. No changes are being proposed to AT&T's existing at-grade equipment shelter. No changes are proposed to Verizon Wireless' existing facility.

AT&T's proposed modification to the existing facility is detailed in the drawings included as Attachment 3 prepared by SAI Communications, Inc., dated June 6, 2017 and last revised July 11, 2017. Also, annexed hereto as Attachment 4 is a passing structural analysis prepared by ATC dated July 21 2017, concluding that the proposed extension will be designed to support AT&T's modification and Verizon Wireless' facility.

IV. The Proposal Will Not Have a Substantial Adverse Environmental Effect

A comparison of the existing and proposed conditions reveals no substantial or significant environmental impacts associated with AT&T's proposed modification to the existing facility. The monopole extension will be consistent with the existing monopole design, color, and material. Photosimulations depicting the existing and proposed facility at six surrounding locations are included in Attachment 5. These photosimulations demonstrate that visibility of the proposed monopole extension is mostly limited to the surrounding commercial area and views from the closest residential area on South Main Street are minimal. Visibility from Route 8 will be minimally increased, however it is respectfully submitted that this change will not adversely impact motorists on the highway.

Included in Attachment 6 is a copy of the summary of ATC's NEPA review for the proposed modification to the existing facility ("NEPA checklist"). The attached NEPA checklist further supports that AT&T's proposed modification will not have a substantial adverse environmental effect. Also enclosed in Attachment 6 is confirmation that the proposed extension of the existing monopole will not require registration with the FAA.

A. Minimal Physical Impact

AT&T's proposed modifications will not result in any additional disturbance to the site as it will not be a vertical extension of the existing pole. Existing access to the site will continue to be utilized and no tree removal or ground disturbance is necessary for these modifications. The facility is unmanned and requires no water or wastewater connections and generates no waste.

B. Compliance with MPE Limits

The operation of AT&T's antennas on the proposed extension along with the operation of Verizon Wireless' antennas will not increase the total radio frequency electromagnetic power density at the site to a level at or above applicable standards. A power density report is included in Attachment 7. The total radio frequency power density will be 83.65% of the allowable FCC established general public limit at ground level and well within standards adopted by the Connecticut Department of Environmental Protection as set forth in Section 22a-162 of the Connecticut General Statutes.

V. AT&T's Need for the Proposed Modification to Provide Reliable Service

Included in Attachment 8 are AT&T radio frequency coverage maps which depict existing coverage at AT&T's current antenna height of approximately 49' and proposed coverage from the proposed modification antenna height of 90'. As shown in these maps[1], AT&T needs the proposed modification to provide reliable service within its network in this area of Naugatuck. As such, while the Council does not have to find a public need for the facility as part of a ruling on this Petition, it is respectfully submitted that the enclosed information fully demonstrates the need for the proposed modification to provide reliable wireless services to the public.

VI. Notice of Petition Filing

Pursuant to R.C.S.A. Section 16-50j-40(a), notice of AT&T's intent to file this Petition was sent to each person appearing of record as an owner of property that abuts the site, as well as the appropriate municipal officials and government agencies as listed in Section 16-50e of the C.G.S. Certification of such notice, a copy of the notice and the list of property owners is included in Attachment 9 along with the map from the Borough's GIS website used to identify abutting property owners. Attachment 9 includes a certification of service to municipal officials and government agencies to whom notice was sent.

[1] AT&T's coverage maps are shown in "RSRP" or Referenced Signal Received Power, which is the metric used to evaluate LTE service.

VII. Conclusion

As set forth herein, AT&T's proposed modifications to the existing wireless facility are wholly consistent with legislative findings outlined in C.G.S. Sections 16-50g and 16-50aa that seek to avoid the unnecessary proliferation of towers in the State. It is respectfully submitted that AT&T's facility does not present any significant adverse environmental effects as listed in Section 16-50p of the General Statutes. Therefore and for all the foregoing reasons, AT&T petitions the Connecticut Siting Council for a determination that the proposed wireless telecommunications facility does not require a Certificate of Environmental Compatibility and Public Need and that the Council issue an order approving same.

Respectfully Submitted,

Lucia Chiocchio, Esq.
On behalf of the Petitioner, AT&T
Cuddy & Feder, LLP
445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
(914) 761-1300

1

AMERICAN TOWER®
CORPORATION

LETTER OF AUTHORIZATION

ATC SITE # / NAME: 302526 /Naugatuck (Telephone Pole)
SITE ADDRESS: 585 South Main St, Naugatuck Connecticut
LICENSEE: New Cingular Wireless d/b/a AT&T Mobility

I, Margaret Robinson, Senior Counsel for American Tower*, owner of the tower facility located at the address identified above (the "Tower Facility"), do hereby authorize **New Cingular Wireless d/b/a AT&T Mobility**, its successors and assigns, and/or its agent, (collectively, the "Licensee") to act as American Tower's non-exclusive agent for the sole purpose of filing and consummating any land-use or building permit application(s) as may be required by the applicable permitting authorities for Licensee's telecommunications' installation.

We understand that this application may be denied, modified or approved with conditions. The above authorization is limited to the acceptance by Licensee only of conditions related to Licensee's installation and any such conditions of approval or modifications will be Licensee's sole responsibility.

Signature:

Print Name: Margaret Robinson
Senior Counsel
American Tower*

NOTARY BLOCK

Commonwealth of MASSACHUSETTS
County of Middlesex

This instrument was acknowledged before me by Margaret Robinson, Senior Counsel for American Tower*, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

WITNESS my hand and official seal, this 21st day of June, 2017.

NOTARY SEAL

GENYS E. PEREZ
Notary Public
Commonwealth of Massachusetts
My Commission Expires
July 1, 2022

Notary Public
My Commission Expires: July 01 2022

*American Tower includes all affiliates and subsidiaries of American Tower Corporation.

2

Staff Report:
Petition 623
Verizon
585 New Haven Road (Route 63), Naugatuck
May 6, 2003

On Monday, May 05, 2003, Council member Gerry Heffernan and staff member David Martin met with Verizon representatives Ken Baldwin and Sandy Carter at 585 New Haven Road, Naugatuck. At this location, there is a 49-foot tall wooden pole on which Cingular currently has a set of wireless antennas. The pole is at the edge of the parking lot behind a café. From the parking lot, the land slopes very steeply down to Route 8. Verizon is seeking to replace the wooden pole with a steel monopole of the same height. Cingular's antennas would be placed on the top of the new pole; Verizon would install 12 antennas ten feet below at about 40 feet AGL. The new pole would be located approximately 15 feet northeast of the existing pole. Verizon would add a 12' x 30' equipment shelter just north of the replacement pole.

The area surrounding the petition property is primarily commercial. The low height of the existing tower and its location behind the café minimize its visual impact from Route 63. The tower does have some visibility from Route 8, but at 50 feet, it is not much higher than the surrounding trees and it's at a much higher elevation than the highway making it less likely to be noticed by passing drivers.

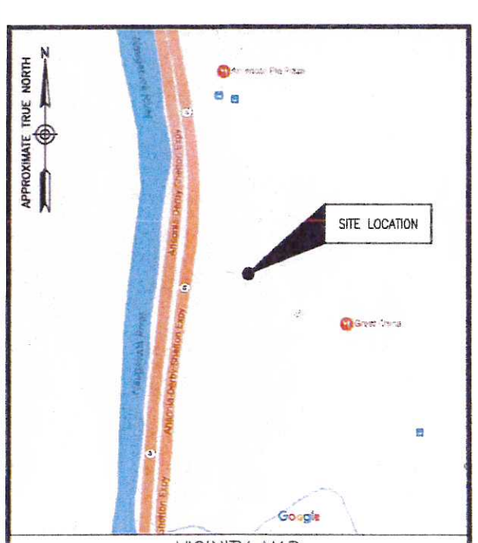
According to calculations submitted by Verizon, at the point where the power density generated by the replacement facility would be the highest, it would represent approximately 2.55 % of the regulatory limit.

Based on the evidence presented in the petition and the field review, it is unlikely that this proposed tower replacement would create any significant adverse environmental impacts.

3

CONNECTICUT SITING COUNCIL

SITE NAME: NAUGATUCK SOUTH MAIN
SITE NUMBER: CT2166
585 SOUTH MAIN STREET
NAUGATUCK, CT 06770



VICINITY MAP N.T.S.

DIRECTIONS FROM 500 ENTERPRISE DRIVE, ROCKY HILL, CT:

HEAD NORTHEAST ON ENTERPRISE DR TOWARD CAPITAL BLVD. TURN LEFT ONTO CAPITAL BLVD. USE THE LEFT 2 LANES TO TURN LEFT ONTO STATE HWY 411. TURN LEFT TO MERGE ONTO I-91 S. MERGE ONTO I-91 S. TAKE EXIT 18 FOR I-691 W TOWARD MERIDEN/WATERBURY. CONTINUE ONTO I-691 W. USE THE LEFT 2 LANES TO TAKE EXIT 1 FOR I-84 W TOWARD WATERBURY/DANBURY. MERGE ONTO I-84. TAKE EXIT 26 FOR CT-70 TOWARD CHESHIRE/PROSPECT. USE ANY LANE TO TURN RIGHT ONTO STATE HWY 801. USE THE MIDDLE LANE TO TURN LEFT ONTO AUSTIN RD. TURN RIGHT ONTO THE ROUTE 84 W RAMP TO WATERBURY. MERGE ONTO I-84. USE THE LEFT LANE TO TAKE EXIT 19 TO MERGE ONTO CT-8 S TOWARD NAUGATUCK/BRIDGEPORT. TAKE EXIT 26 FOR CT-63 TOWARD S MAIN ST/BETHANY. TURN LEFT ONTO CT-63 S. SITE WILL BE ON THE RIGHT.

SITE COORDINATES:
LATITUDE: 41°-28'-42.376" N (NAD83)
LONGITUDE: 73°-02'-54.549" W (NAD83)
(PER FAA 1-A SURVEY)

ELEVATION DATA:
GRADE ELEVATION AT TOWER = 262'± A.M.S.L.
(PER FAA 1-A SURVEY)

MONOPOLE ELEVATION (TO TOP OF EXTENSION):
ELEVATION = 89'-0"± A.G.L.

ANTENNA ELEVATION (TO TOP OF ANTENNA):
ELEVATION = 93'-0"± A.G.L.

ELEVATION (TO TOP OF LIGHTNING ROD):
ELEVATION = 98'-0"± A.G.L.

SITE INFORMATION

THE PROJECT CONSISTS OF THE INSTALLATION OF A PROPOSED 40'-0"± TALL MONOPOLE EXTENSION ON AN EXISTING 49'-0"± TALL MONOPOLE FOR A TOTAL HEIGHT OF 89'-0"± A.G.L., ALONG WITH THE RELOCATION OF (2) SECTORS OF (3) PANEL ANTENNAS PER SECTOR MOUNTED ON THE MONOPOLE FROM AN EXISTING CENTERLINE OF 42'-0"± A.G.L. TO A PROPOSED CENTERLINE OF 90'-0"± A.G.L.

THE PROPOSED USE DOES NOT REQUIRE FULL-TIME OR PART-TIME EMPLOYEES AT THE SITE. IT WILL BE TYPICALLY VISITED ONCE OR TWICE PER MONTH FOR MAINTENANCE. THE FACILITY IS NOT EXPECTED TO GENERATE ADDITIONAL NOISE, FUMES OR VIBRATIONS. POWER & TELCO SERVICES WILL BE TAKEN FROM THE EXISTING BUILDING. NO WATER OR SEWER SERVICES ARE NEEDED.

PROJECT DESCRIPTION

SITE NAME:
NAUGATUCK SOUTH MAIN

SITE NUMBER:
CT2166

LOCATION:
585 SOUTH MAIN STREET
NAUGATUCK, CT 06770

TAX MAP DESIGNATION:
MBL: 26-35E23 ACCOUNT: 011-8400

PROPERTY OWNER:
THE OFFICE LLC
585 SOUTH MAIN STREET
NAUGATUCK, CT 06770

OWNER CONTACT PERSON:
CELL TOWER ACQUISITION LLC
PHONE #: (951) 444-8555

APPLICANT/LESSEE:
AT&T MOBILITY
500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

PROJECT INFORMATION

THIS DOCUMENT WAS DEVELOPED TO REFLECT A SPECIFIC SITE AND ITS SITE CONDITIONS AND IS NOT TO BE USED FOR ANOTHER SITE OR WHEN OTHER CONDITIONS PERTAIN. REUSE OF THIS DOCUMENT IS AT THE SOLE RISK OF THE USER.

A.D.A. COMPLIANCE:
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.

SHEET NUMBER	DESCRIPTION
T-1	TITLE SHEET
Z-1	PERIMETER PLAN & ABUTTERS LIST
Z-2	AERIAL PLAN
Z-3	COMPOUND PLAN & EAST ELEVATION
Z-4	CONSTRUCTION DETAILS

SHEET INDEX

at&t
500 ENTERPRISE DRIVE SUITE 3A
ROCKY HILL, CT 06067

SAI
27 NORTHWESTERN DRIVE
SALEM, NH 03079

CT2166
NAUGATUCK SOUTH MAIN

CERTIFICATE DRAWINGS

0	07/11/17	ISSUED FOR FILING
B	06/27/17	REVISED PER COMMENTS
A	06/06/17	PRELIMINARY SUBMISSION

Dewberry
Dewberry Engineers Inc.
600 PARSIPPANY ROAD
SUITE 301
PARSIPPANY, NJ 07054
PHONE: 973.739.9400
FAX: 973.739.9710

STATE OF CONNECTICUT
JIANG YU
NO. 0023222
LICENSED PROFESSIONAL ENGINEER

CT LICENSE NO: 0023222

DRAWN BY:	JC
REVIEWED BY:	BSH
CHECKED BY:	GHN
PROJECT NUMBER:	50055106
JOB NUMBER:	50065690
SITE ADDRESS:	

585 SOUTH MAIN STREET
NAUGATUCK, CT 06770
NEW HAVEN COUNTY

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1

NOTES:

1. ABUTTERS LIST CONSISTS OF PARCELS PHYSICALLY TOUCHING THE SUBJECT PROPERTY OR ABUT ACROSS THE STREET FROM THE SUBJECT PROPERTY.
2. PERIMETER PLAN DATA & ABUTTERS INFORMATION WAS COMPILED FROM INFORMATION OBTAINED FROM THE BOROUGH OF NAUGATUCK'S GIS WEBSITE.

PERIMETER PLAN (1)
SCALE: 1"=100' FOR 11"x17"
1"=50' FOR 22"x34"

0' 50' 100'

ABUTTERS LIST

MBL	ACCOUNT	PROPERTY LOCATION	OWNER	MAILING ADDRESS
0-15E1	075-0190	0 RIVERSIDE DRIVE	GROVE CEMETARY ASSOC	PO BOX 824, NAUGATUCK, CT 06770
26-35E39	074-9590	0 RIVERSIDE DRIVE	STATE OF CONNECTICUT	C/O LAND ACQUISITION DIVISION, HARTFORD, CT 06106
26-35E37	066-7210	575 SOUTH MAIN STREET	FRITCH SETH D	1 GLENWOOD AVENUE, NAUGATUCK, CT 06770
26-5E1	016-9651	0 SOUTH MAIN STREET	NOCERINO FAMILY LP	628 NEW HAVEN ROAD, STE B, NAUGATUCK, CT 06770

GENERAL NOTES

1. SUBJECT PROPERTY KNOWN AS MBL 26-35E23 & ACCOUNT 011-8400 AS SHOWN ON THE BOROUGH OF NAUGATUCK'S GIS WEBSITE.
2. APPLICANT: AT&T MOBILITY
500 ENTERPRISE DRIVE SUITE 3A
ROCKY HILL, CT 06067
3. PROPERTY OWNER: THE OFFICE LLC
585 SOUTH MAIN STREET
NAUGATUCK, CT 06770
4. PERIMETER PLAN DATA & ABUTTERS INFORMATION WAS COMPILED FROM INFORMATION OBTAINED FROM THE BOROUGH OF NAUGATUCK'S GIS WEBSITE.
5. PARCEL AREA = 1.76± ACRES BASED ON INFORMATION OBTAINED FROM THE BOROUGH OF NAUGATUCK'S GIS WEBSITE.
6. ACCORDING TO THE FLOOD INSURANCE RATE MAP, THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS ZONE X - "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN," PER MAP NUMBER 09009C0256H, PANEL 256 OF 635, NEW HAVEN COUNTY, CONNECTICUT (ALL JURISDICTIONS), EFFECTIVE DATE: DECEMBER 17, 2010.
7. BASED ON THE U.S. FISH & WILDLIFE SERVICE, NATIONAL WETALNDS INVENTORY, WETLANDS MAPPER, THE CLOSEST WETLAND TO THE EXISTING TOWER LOCATION IS 295'±.
8. BASED ON THE BOROUGH OF NAUGATUCK'S GIS WEBSITE, THERE ARE 23 HOMES WITHIN 1,000' OF THE EXISTING TOWER AND THE CLOSEST RESIDENCE IS 160'±.
9. BASED ON THE BOROUGH OF NAUGATUCK'S GIS WEBSITE, THE DISTANCE FROM THE EXISTING TOWER TO THE NEAREST PROPERTY LINE IS 17'±.
10. BASED ON THE BOROUGH OF NAUGATUCK'S GIS WEBSITE, THE DISTANCE FROM THE EXISTING TOWER TO THE TOWN OF BEACON FALLS IS 3,507'±.
11. BASED ON THE BOROUGH OF NAUGATUCK'S GIS WEBSITE, THERE ARE NO SCHOOLS OR CHILD DAY CARE CENTERS WITHIN 1,000' OF THE EXISTING TOWER LOCATION. THE NEAREST SCHOOL IS CROSS STREET INTERMEDIATE SCHOOL WHICH IS 2,650'± FROM THE EXISTING TOWER LOCATION.
12. NO TREES WILL BE REMOVED DUE TO THE PROPOSED INSTALLATION.
13. THE PROPOSED USE IS FOR TELECOMMUNICATIONS AND IS NOT INTENDED FOR PERMANENT EMPLOYEE OCCUPANCY. THEREFORE, POTABLE WATER, SANITARY SEWER AND ADDITIONAL ON-SITE PARKING ARE NOT REQUIRED.
14. FACILITY SHALL BE VISITED ON THE AVERAGE OF ONCE A MONTH FOR MAINTENANCE AND SHALL BE CONTINUOUSLY MONITORED FROM A REMOTE FACILITY.
15. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH AT&T MOBILITY SPECIFICATIONS.
16. CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" (1-800-922-4455) FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
17. NO LIGHTING AT THE TOWER IS PROPOSED OR REQUIRED BY THE FCC OR FAA.
18. THERE WILL NOT BE ANY SIGNS OR ADVERTISING ON THE ANTENNAS OR EQUIPMENT.

at&t
500 ENTERPRISE DRIVE SUITE 3A
ROCKY HILL, CT 06067
SAI
27 NORTHWESTERN DRIVE
SALEM, NH 03079

CT2166
NAUGATUCK SOUTH MAIN

CERTIFICATE DRAWINGS

0	07/11/17	ISSUED FOR FILING
B	06/27/17	REVISED PER COMMENTS
A	06/06/17	PRELIMINARY SUBMISSION

Dewberry®
Dewberry Engineers Inc.
600 PARSIPPANY ROAD
SUITE 301
PARSIPPANY, NJ 07054
PHONE: 973.739.9400
FAX: 973.739.9710

STATE OF CONNECTICUT
JIANG YU
No. 23222
LICENSED PROFESSIONAL ENGINEER

JIANG YU, P.E.
CT LICENSE NO. 0023222

DRAWN BY:	JC
REVIEWED BY:	BSH
CHECKED BY:	GHN
PROJECT NUMBER:	50055106
JOB NUMBER:	50065690
SITE ADDRESS:	

585 SOUTH MAIN STREET
NAUGATUCK, CT 06770
NEW HAVEN COUNTY

SHEET TITLE

PERIMETER PLAN
& ABUTTERS LIST

SHEET NUMBER

Z-1

APPROXIMATE TRUE NORTH

NOTE:

1. AERIAL PLAN BASED ON GOOGLE MAPS.

AERIAL PLAN (1)

SCALE: 1"=100' FOR 11"x17"
1"=50' FOR 22"x34"

0' 50' 100'

at&t

500 ENTERPRISE DRIVE SUITE 3A
ROCKY HILL, CT 06067

SAI

27 NORTHWESTERN DRIVE
SALEM, NH 03079

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STATE OF CONNECTICUT
JIANG YU
23222
LICENSED PROFESSIONAL ENGINEER
CT LICENSE NO. 0023222

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

DRAWN BY:	JC
REVIEWED BY:	BSH
CHECKED BY:	GHN
PROJECT NUMBER:	50055106
JOB NUMBER:	50065690
SITE ADDRESS:	

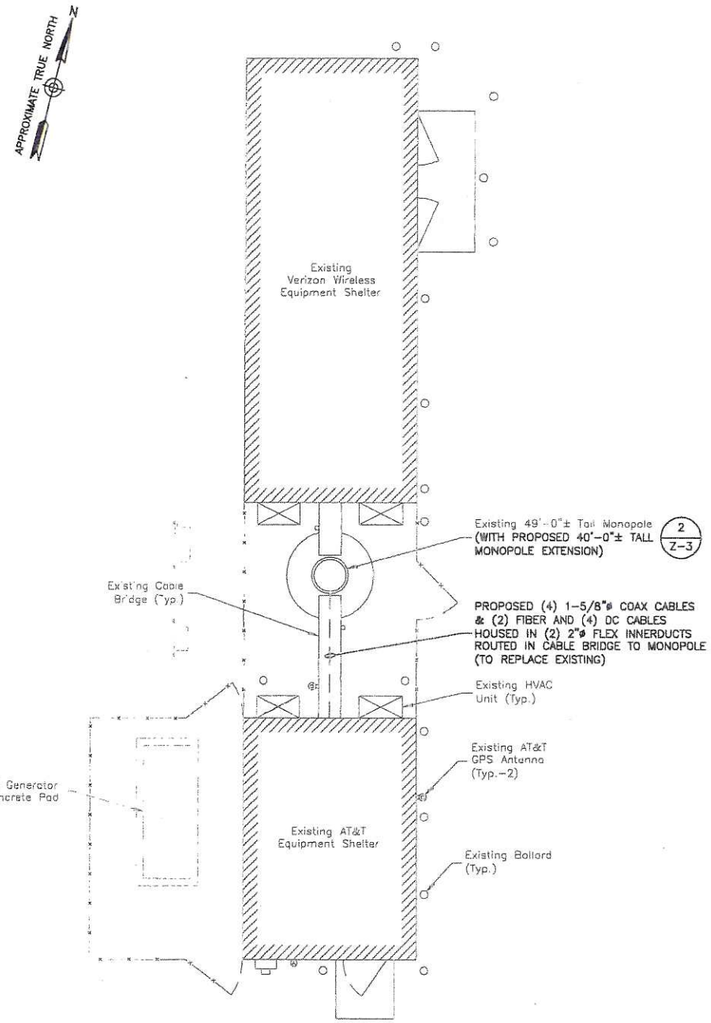
585 SOUTH MAIN STREET
NAUGATUCK, CT 06770
NEW HAVEN COUNTY

SHEET TITLE

AERIAL PLAN

SHEET NUMBER

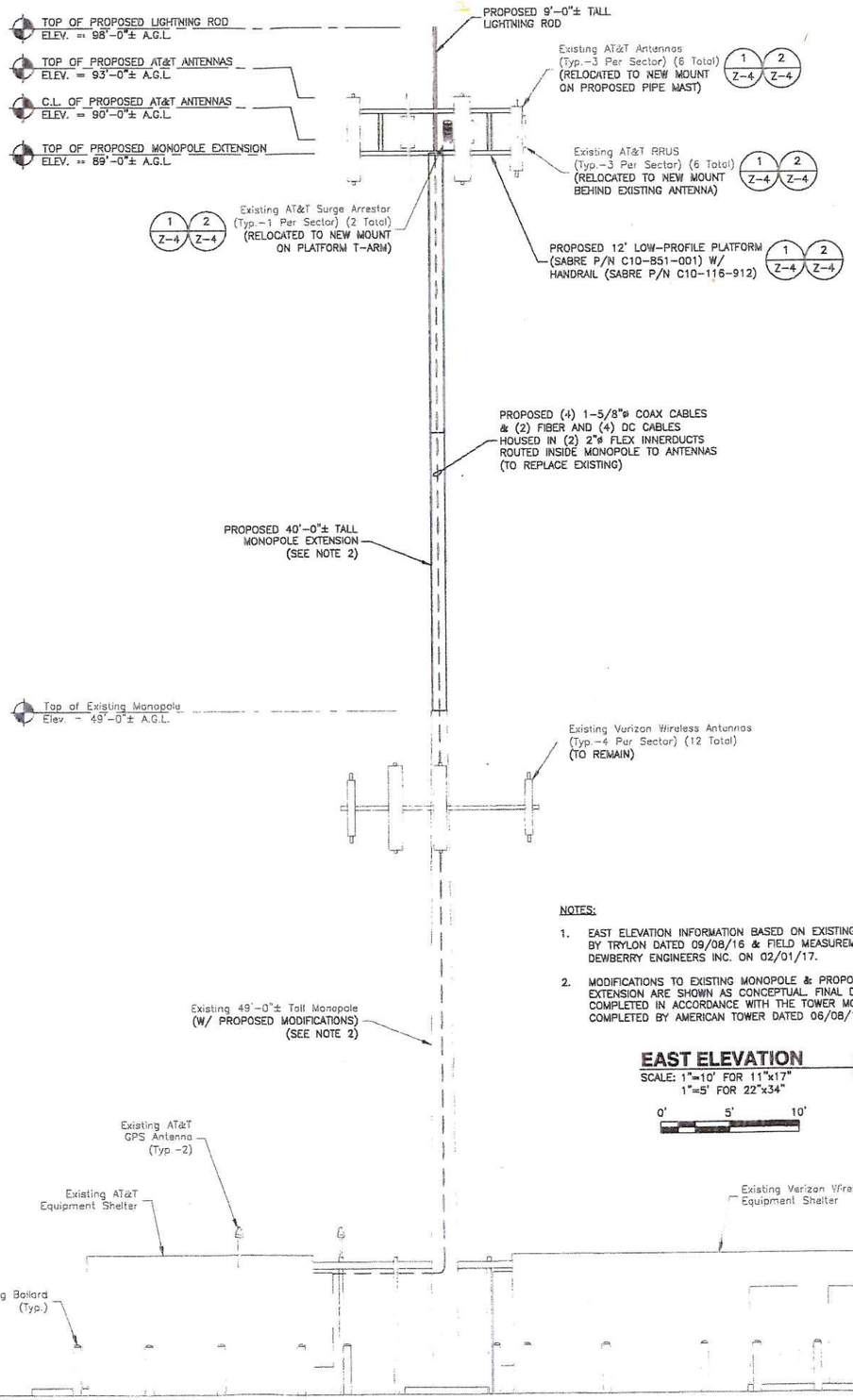
Z-2



NOTES:

1. NORTH SHOWN AS APPROXIMATE.
2. NOT ALL INFORMATION IS SHOWN FOR CLARITY.
3. COMPOUND PLAN INFORMATION BASED ON EXISTING PLANS PREPARED BY TRYLON DATED 09/08/16 & FIELD MEASUREMENTS TAKEN BY DEWBERRY ENGINEERS INC. ON 02/01/17.
4. MODIFICATIONS TO EXISTING MONOPOLE & PROPOSED MONOPOLE EXTENSIONS ARE SHOWN AS CONCEPTUAL. FINAL DESIGN SHALL BE COMPLETED IN ACCORDANCE WITH THE TOWER MODIFICATION DRAWINGS COMPLETED BY AMERICAN TOWER DATED 06/08/17.

COMPOUND PLAN (1)
SCALE: 1"=10' FOR 11"x17"
1"=5' FOR 22"x34"
0' 5' 10'



NOTES:

1. EAST ELEVATION INFORMATION BASED ON EXISTING PLANS PREPARED BY TRYLON DATED 09/08/16 & FIELD MEASUREMENTS TAKEN BY DEWBERRY ENGINEERS INC. ON 02/01/17.
2. MODIFICATIONS TO EXISTING MONOPOLE & PROPOSED MONOPOLE EXTENSION ARE SHOWN AS CONCEPTUAL. FINAL DESIGN SHALL BE COMPLETED IN ACCORDANCE WITH THE TOWER MODIFICATION DRAWINGS COMPLETED BY AMERICAN TOWER DATED 06/08/17.

EAST ELEVATION (2)
SCALE: 1"=10' FOR 11"x17"
1"=5' FOR 22"x34"
0' 5' 10'

at&t
500 ENTERPRISE DRIVE SUITE 3A
ROCKY HILL, CT 06067
SAI
27 NORTHWESTERN DRIVE
SALEM, NH 03079

CT2166
NAUGATUCK SOUTH MAIN

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Dewberry Engineers Inc.
600 PARSIPPANY ROAD
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STATE OF CONNECTICUT
JIANG YU
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LICENSED PROFESSIONAL ENGINEER

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DRAWN BY:	JC
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SITE ADDRESS:	

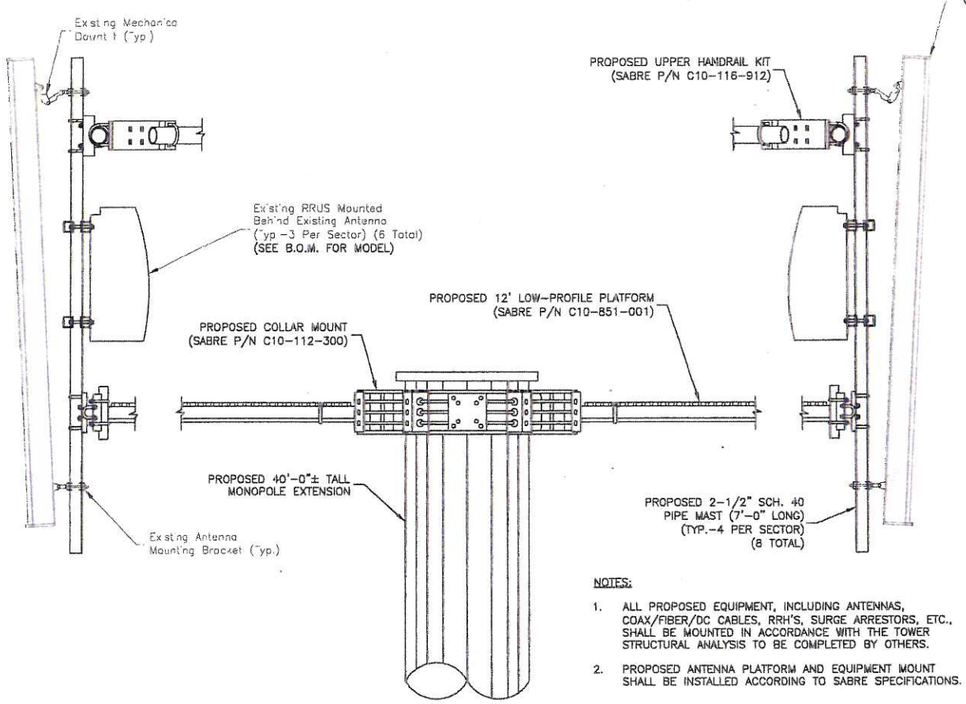
585 SOUTH MAIN STREET
NAUGATUCK, CT 06770
NEW HAVEN COUNTY

SHEET TITLE

COMPOUND PLAN &
EAST ELEVATION

SHEET NUMBER

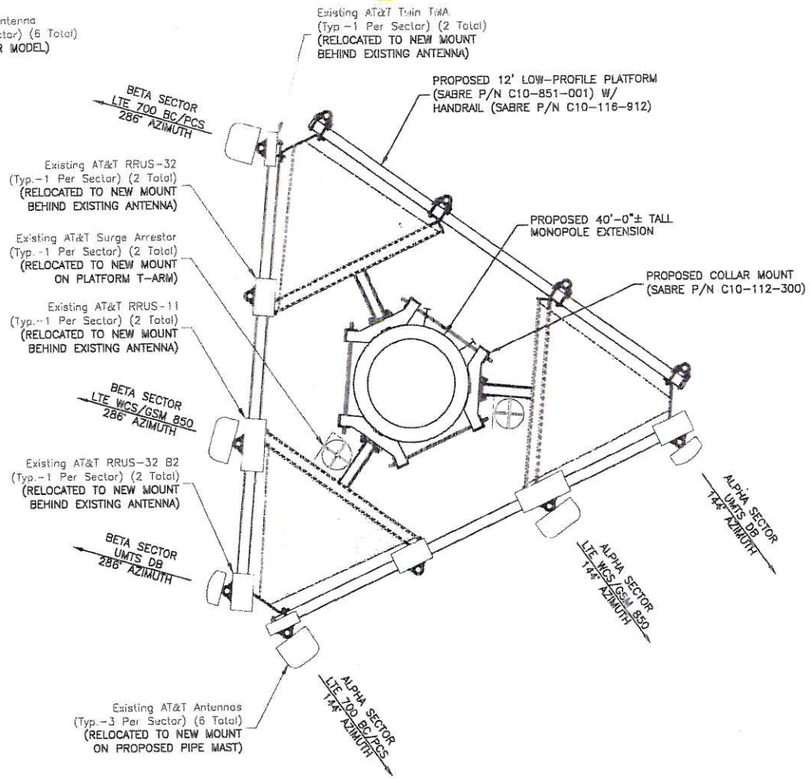
Z-3



NOTES:

1. ALL PROPOSED EQUIPMENT, INCLUDING ANTENNAS, COAX/FIBER/DC CABLES, RRH'S, SURGE ARRESTORS, ETC., SHALL BE MOUNTED IN ACCORDANCE WITH THE TOWER STRUCTURAL ANALYSIS TO BE COMPLETED BY OTHERS.
2. PROPOSED ANTENNA PLATFORM AND EQUIPMENT MOUNT SHALL BE INSTALLED ACCORDING TO SABRE SPECIFICATIONS.

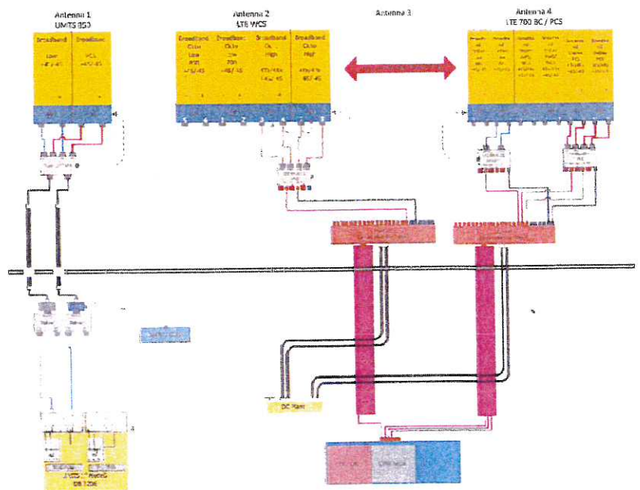
ANTENNA MOUNTING DETAIL 1
SCALE: N.T.S.



PROPOSED ANTENNA LAYOUT 2
SCALE: N.T.S.

ANTENNA B.O.M.

	#	ANTENNA MODEL	ANTENNA SIZE (HxWxD, WEIGHT)	TECHNOLOGY	ANTENNA AZIMUTH	MECHANICAL DOWNTILT	CABLES	RRH'S/TMA'S	OVP BOXES
ALPHA	A1	POWERWAVE 7770.00	55.0"x11.0"x5.0", 35 LBS	UMTS DB	144°	0°	(4) 1-5/8"ø COAX CABLES (2) FIBER CABLES & (4) DC CABLES HOUSED IN (2) 2"ø FLEX INNERDUCTS	(2) ERICSSON RRUS-11 (19.7"x17.0"x7.2", 55.0 LBS) (2) ERICSSON RRUS-32 (27.2"x12.1"x7.0", 53.0 LBS) (2) ERICSSON RRUS-32 B2 (27.2"x12.1"x7.0", 53.0 LBS) (2) CCI DTMABP7819VG12A (10.63"x11.02"x3.78", 19.18 LBS)	(2) RAYCAP DC6-48-60-18-8F (23.5"x9.7"ø, 20.0 LBS)
	A2	CCI OPA-65R-LCUU-H6	72.3"x14.4"x7.3", 73 LBS	LTE WCS	144°	0°			
	A3	-	-	-	-	-			
	A4	QUINTEL QS66512-2	72.0"x12.0"x9.6", 111 LBS	LTE 700 BC/PCS	144°	0°			
BETA	B1	POWERWAVE 7770.00	55.0"x11.0"x5.0", 35 LBS	UMTS DB	286°	0°			
	B2	CCI OPA-65R-LCUU-H6	72.3"x14.4"x7.3", 73 LBS	LTE WCS	286°	0°			
	B3	-	-	-	-	-			
	B4	QUINTEL QS66512-2	72.0"x12.0"x9.6", 111 LBS	LTE 700 BC/PCS	286°	0°			



PROPOSED PLUMBING DIAGRAM 3
SCALE: N.T.S.

at&t
500 ENTERPRISE DRIVE SUITE 3A
ROCKY HILL, CT 06067
SAI
27 NORTHWESTERN DRIVE
SALEM, NH 03079

CT2166
NAUGATUCK SOUTH MAIN

CERTIFICATE DRAWINGS

0	07/11/17	ISSUED FOR FILING
B	06/27/17	REVISED PER COMMENTS
A	06/06/17	PRELIMINARY SUBMISSION

Dewberry
Dewberry Engineers Inc.
600 PARSIPPANY ROAD
SUITE 301
PARSIPPANY, NJ 07054
PHONE: 973.739.9400
FAX: 973.739.9710

STATE OF CONNECTICUT
JIANG YU
No. 23222
LICENSED PROFESSIONAL ENGINEER
JIANG YU, P.E.
CT LICENSE NO. 0023222

DRAWN BY:	JC
REVIEWED BY:	BSH
CHECKED BY:	GHN
PROJECT NUMBER:	50055106
JOB NUMBER:	50065690

SITE ADDRESS:

585 SOUTH MAIN STREET
NAUGATUCK, CT 06770
NEW HAVEN COUNTY

SHEET TITLE

CONSTRUCTION DETAILS

SHEET NUMBER

Z-4

4

AMERICAN TOWER®
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Post-Modification Structural Analysis Report

Structure	:	**49 ft Monopole w/ Proposed 40 ft Extension**
ATC Site Name	:	**Naugatuck (Telephone Pole), CT**
ATC Site Number	:	**302526**
Engineering Number	:	**OAA698250_C4_04**
Proposed Carrier	:	**AT&T Mobility**
Carrier Site Name	:	**Naugatuck South Main**
Carrier Site Number	:	**CT2166**
Site Location	:	**585 South Main St. (soc. Club)** **Naugatuck, CT 06770-4725** **41.478400,-73.048500**
County	:	**New Haven**
Date	:	**July 19, 2017**
Max Usage	:	**82%**
Result	:	**Pass***

Prepared By:
Travis J. Gatling
Structural Engineer I

Travis J. Gatling

Reviewed By:

STATE OF CONNECTICUT
SCOTT A. WIRGAU
30575
LICENSED
PROFESSIONAL ENGINEER

Jul 21 2017 2:06 PM cosign

COA: PEC.0001553

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Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 49 ft Monopole w/ Proposed 40 ft Extension to reflect the change in loading by AT&T Mobility.

Supporting Documents

Tower Drawings	EEI Job #11696, dated January 22, 2001
Foundation Drawing	EEI Job #11696, dated June 5, 2003
Geotechnical Report	CET Project #07729-76, dated March 28, 2003
Modifications	ATC Project #OAA698250_C6_03, dated June 8, 2017*

***The modifications by ATC Project #OAA698250_C6_03 are scheduled to be installed by March 25, 2018.**

Analysis

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

Basic Wind Speed:	97 mph (3-Second Gust V_{ASD}) / 125 mph (3-Second Gust V_{ULT})
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 3/4" radial ice concurrent
Code:	ANSI/TIA-222-G / 2012 IBC / 2016 Connecticut State Building Code
Structure Class:	II
Exposure Category:	B
Topographic Category:	1
Crest Height:	0 ft
Spectral Response:	Ss = 0.19, S_1 = 0.06
Site Class:	D - Stiff Soil

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report. If the pending modifications cited in the Supporting Documents table are not completed by the forecast date above, the results of this analysis are no longer valid, and AT&T Mobility should contact American Tower's Site Manager for further direction on how to proceed.

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

Existing and Reserved Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
42.0	42.0	6	RFS FD9R6004/1C-3L	Low Profile Platform	(12) 7/8" Coax (2) 1 5/8" Hybriflex	Verizon
		3	Alcatel-Lucent RRH2X60-1900			
		3	Alcatel-Lucent RRH2X60-AWS			
		3	Alcatel-Lucent RRH2x60 700			
		6	Decibel DB844H80E-XY			
		2	RFS DB-T1-6Z-8AB-0Z			
		6	Commscope SBNHH-1D65B			

Equipment to be Removed

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
52.0	52.0	2	Powerwave 7770.00	Platform w/ Handrails	(8) 1 5/8" Coax (4) 0.78" 8 AWG 6 (2) 0.39" Fiber Trunk (2) 2" conduit (1) 0.51" Hybrid	AT&T Mobility
		2	CCI OPA-65R-LCUU-H6			
		2	Quintel QS66512-2			
		4	Powerwave CM1007-DBPXBC-003			
		4	CCI DTMABP7819VG12A			
		2	Raycap DC6-48-60-18-8F			
		2	Ericsson RRUS-32			
		2	Ericsson RRUS 32 B2			
		2	Ericsson RRUS 11 (Band 12) (55 lb)			

Proposed Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
89.0	90.0	4	Powerwave CM1007-DBPXBC-003	Sabre 12' V-Boom C10857011	(8) 1 5/8" Coax (2) 2" conduit (4) 0.78" 8 AWG 6 (2) 0.39" Fiber Trunk (1) 0.51" Hybrid	AT&T Mobility
		4	CCI DTMABP7819VG12A			
		2	Raycap DC6-48-60-18-8F ("Squid")			
		2	Ericsson RRUS 11 (Band 12) (55 lb)			
		2	Ericsson RRUS 32 (50.8 lbs)			
		2	Ericsson RRUS 32 B2			
		2	Powerwave 7770.00			
		2	Quintel QS66512-2			
		2	CCI OPA-65R-LCUU-H6			

[1]Mount elevation is defined as height above bottom of steel structure to the bottom of mount, RAD elevation is defined as center of antenna above ground level (AGL).

Install proposed coax inside the pole shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	19%	Pass
Shaft	66%	Pass
Base Plate	31%	Pass
Flanges	27%	Pass
Reinforcement	50%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	509.8	82%
Axial (Kips)	16.4	81%
Shear (Kips)	9.5	31%

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

Deflection and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
89.0	Powerwave Allgon CM1007-DBPXBC-003	AT&T Mobility	0.535	0.708
	CCI DTMABP7819VG12A			
	Raycap DC6-48-60-18-8F ("Squid")			
	Raycap DC6-48-60-18-8F ("Squid")			
	Ericsson RRUS 11 (Band 12) (55 lb)			
	Ericsson RRUS 32 (50.8 lbs)			
	Ericsson RRUS 32 B2			
	Powerwave Allgon 7770.00			
	Quintel QS66512-2			
	CCI OPA-65R-LCUU-H6			

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

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Standard Conditions

All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

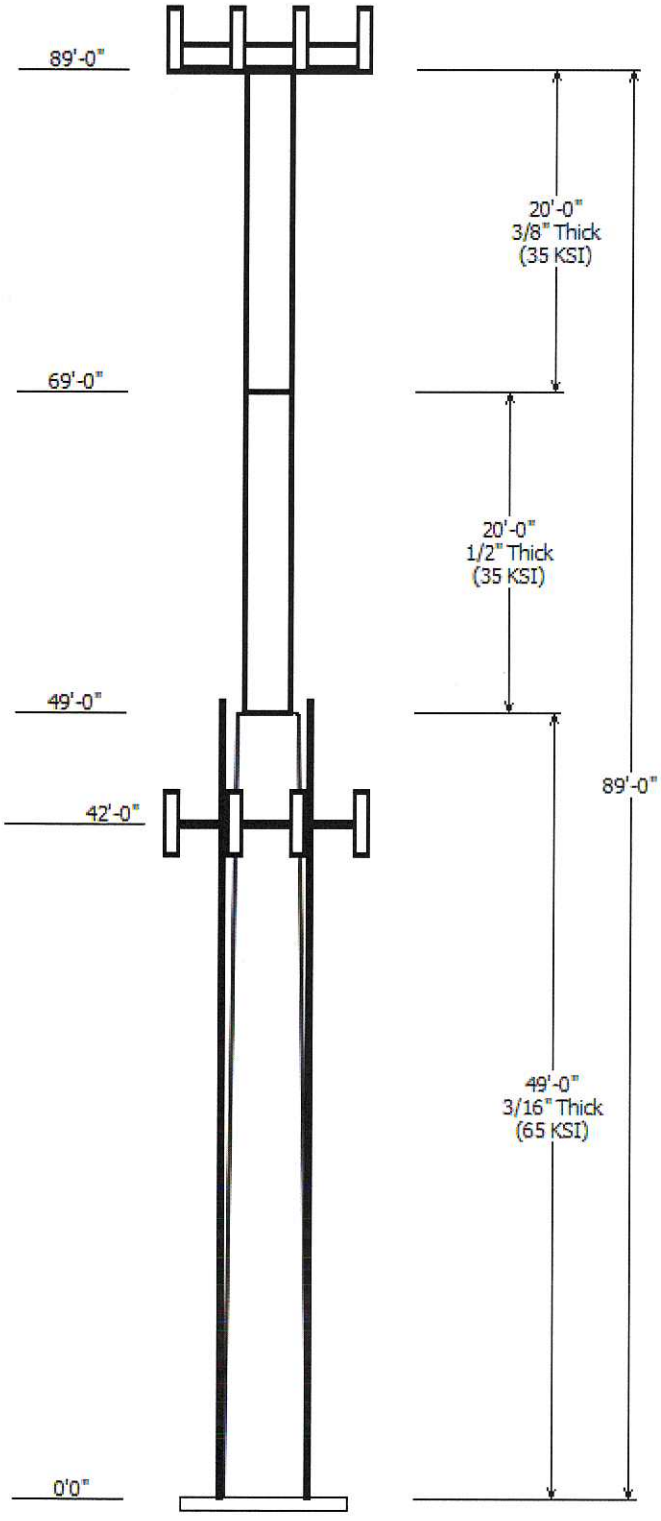
-- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.

-- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and that their capacity has not significantly changed from the "as new" condition.

Unless explicitly agreed by both the client and American Tower Corporation, all services will be performed in accordance with the current revision of ANSI/TIA -222. The design basic wind speed will be determined based on the minimum basic wind speed as prescribed in ANSI/TIA-222. Although every effort is taken to ensure that the loading considered is adequate to meet the requirements of all applicable regulatory entities, we can provide no assurance to meet any other local and state codes or requirements. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement.

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



Job Information

Pole :	302526
Code:	ANSI/TIA-222-G
Description :	49' EEI Monopole w/ Proposed 40 ft extension
Client :	AT&T MOBILITY
Struct Class :	II
Location :	Naugatuck (telephone Pole), CT
Shape :	18 Sides
Exposure :	B
Height :	89.00 (ft)
Topo :	1
Base Elev (ft):	0.00
Taper:	0.183673 (in/ft)

Sections Properties

Shaft Section	Length (ft)	Diameter (in) Accross Flats Top	Bottom	Thick (in)	Joint Type	Overlap Length (in)	Taper (in/ft)	Steel Grade (ksi)
1	49.000	14.00	23.00	0.188		0.000	0.183700	65
2	20.000	12.75	12.75	0.500	Butt Joint	0.000	0.000000	35
3	20.000	12.75	12.75	0.375	Butt Joint	0.000	0.000000	35

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
89.000	89.000	1	Round Platform w/ Handrails
89.000	90.000	2	Ericsson RRUS 11 (Band 12) (55
89.000	90.000	1	Raycap DC6-48-60-18-8F
89.000	90.000	4	CCI DTMABP7819VG12A
89.000	90.000	4	Powerwave Allgon CM1007-
89.000	90.000	2	Quintel QS66512-2
89.000	90.000	2	CCI OPA-65R-LCUU-H6
89.000	90.000	2	Powerwave Allgon 7770.00
89.000	90.000	2	Ericsson RRUS 32 B2
89.000	90.000	2	Ericsson RRUS 32 (50.8 lbs)
89.000	90.000	1	Raycap DC6-48-60-18-8F
42.000	42.000	1	Flat Low Profile Platform
42.000	42.000	6	Commscope SBNHH-1D65B
42.000	42.000	2	RFS DB-T1-6Z-8AB-0Z
42.000	42.000	6	Decibel DB844H80E-XY
42.000	42.000	3	Alcatel-Lucent RRH2x60 700
42.000	42.000	3	Alcatel-Lucent RRH2X60-1900
42.000	42.000	3	Alcatel-Lucent RRH2X60-AWS
42.000	42.000	6	RFS FD9R6004/1C-3L

Linear Appurtenance

Elev (ft) From	To	Description	Exposed To Wind
49.000	89.000	2" conduit	Yes
0.000	42.000	1 5/8" Hybriflex	No
0.000	42.000	7/8" Coax	No
0.000	49.000	2" conduit	No
0.000	53.500	#20 Threaded Bar	Yes
0.000	89.000	0.39" (10mm)	No
0.000	89.000	0.51" (13mm)	No
0.000	89.000	0.78" (19.7mm) 8	No
0.000	89.000	1 5/8" Coax	Yes

Load Cases

1.2D + 1.6W	97 mph with No Ice
0.9D + 1.6W	97 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 0.75 in Radial Ice
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Lateral

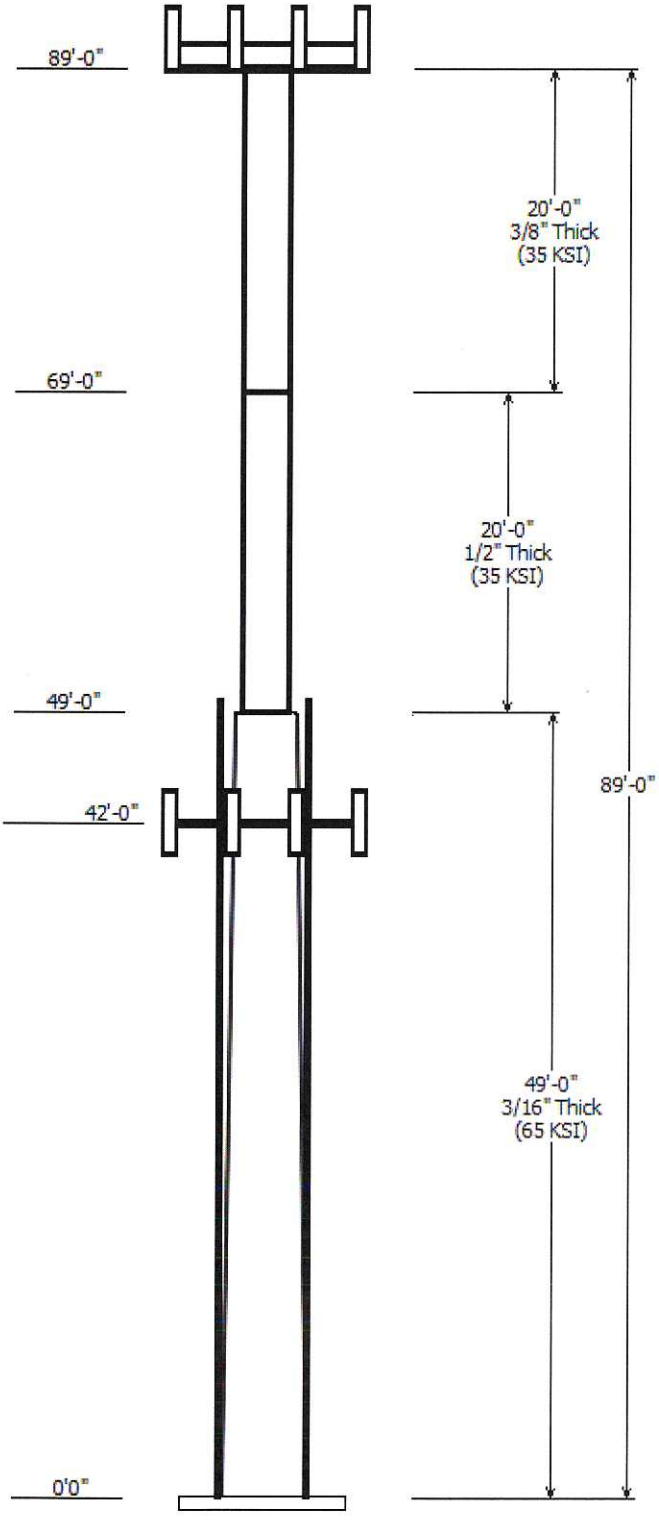
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Modal
1.0D + 1.0W	Serviceability 60 mph

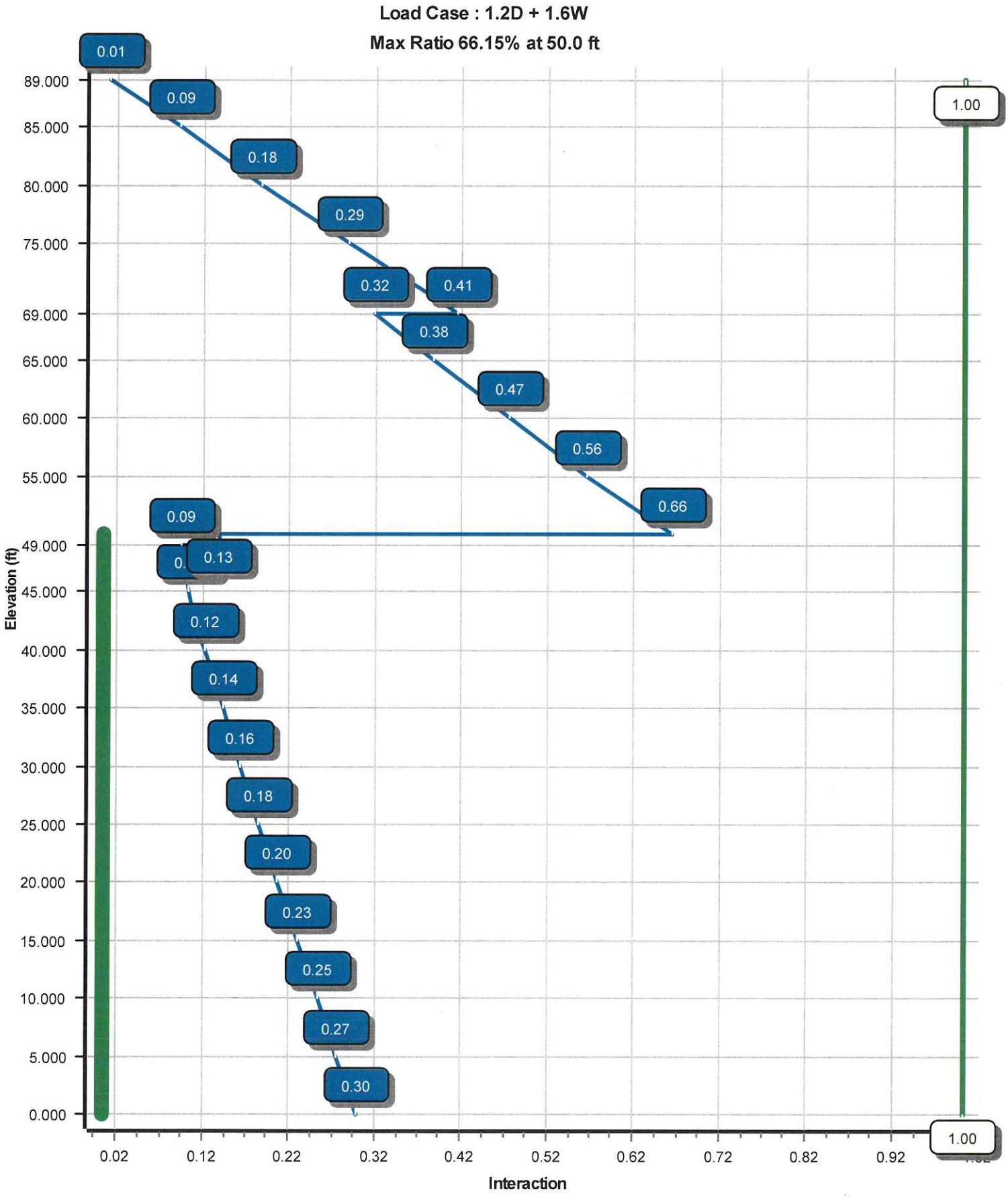
Reactions

Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.6W	509.75	9.47	16.44
0.9D + 1.6W	490.07	9.25	12.33
1.2D + 1.0Di + 1.0Wi	132.21	2.28	28.11
(1.2 + 0.2Sds) * DL + E ELFM	51.22	0.70	16.28
(1.2 + 0.2Sds) * DL + E EMAM	114.63	1.41	16.28
(0.9 - 0.2Sds) * DL + E ELFM	50.60	0.70	11.27
(0.9 - 0.2Sds) * DL + E EMAM	113.11	1.41	11.27
1.0D + 1.0W	119.97	2.28	13.71

Dish Deflections

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
	0.00	0.000	0.000




Load Case : 1.2D + 1.6W
Max Ratio 66.15% at 50.0 ft
0.01
0.09
0.18
0.29
0.32
0.41
0.38
0.47
0.56
0.66
0.09
0.13
0.12
0.14
0.16
0.18
0.20
0.23
0.25
0.27
0.30
1.00
1.00
89.000
85.000
80.000
75.000
69.000
65.000
60.000
55.000
49.000
45.000
40.000
35.000
30.000
25.000
20.000
15.000
10.000
5.000
0.000
Elevation (ft)
0.02
0.12
0.22
0.32
0.42
0.52
0.62
0.72
0.82
0.92
Interaction

Site Number: 302526 Code: ANSI/TIA-222-G

Site Name: Naugatuck (telephone Pole), CT Engineering Number:OAA698250_C4_04 7/21/2017 12:04:45 PM

Customer: AT&T MOBILITY

Analysis Parameters

Location:	NEW HAVEN County, CT	Height (ft):	89
Code:	ANSI/TIA-222-G	Base Diameter (in):	23.00
Shape:	18 Sides. Sect 2: Round. Sect 3: Round	Top Diameter (in):	12.75
Pole Type:	Custom	Taper (in/ft) :	0.184
Pole Manfacturer:	EEI	Rotation (deg) :	0.00

Ice & Wind Parameters

Structure Class:	II	Design Wind Speed Without Ice:	97 mph
Exposure Category:	B	Design Wind Speed With Ice:	50 mph
Topographic Category:	1	Operational Wind Speed:	60 mph
Crest Height:	0.0 ft	Design Ice Thickness:	0.75 in

Seismic Parameters

Analysis Method:	Equivalent Modal Analysis & Equivalent Lateral Force Methods				
Site Class:	D - Stiff Soil				
Period Based on Rayleigh Method (sec):	1.75				
T_L (sec):	6	p:	1.3	C_s:	0.039
S_s:	0.191	S_1:	0.064	C_s Max:	0.039
F_a:	1.600	F_v:	2.400	C_s Min:	0.030
S_{ds}:	0.204	S_{d1}:	0.102		

Load Cases

1.2D + 1.6W	97 mph with No Ice
0.9D + 1.6W	97 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 0.75 in Radial Ice
(1.2 + 0.2Sds) * DL + E ELFM	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E EMAM	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E ELFM	Seismic (Reduced DL) Equivalent Lateral Forces Method
(0.9 - 0.2Sds) * DL + E EMAM	Seismic (Reduced DL) Equivalent Modal Analysis Method
1.0D + 1.0W	Serviceability 60 mph

Site Number: 302526 Code: ANSI/TIA-222-G

Site Name: Naugatuck (telephone Pole), CT Engineering Number:OAA698250_C4_04 7/21/2017 12:04:45 PM

Customer: AT&T MOBILITY

Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom Dia (in)	Bottom Elev (ft)	Bottom Area (in²)	Bottom Ix (in⁴)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (ft)	Top Area (in²)	Top Ix (in⁴)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1-18	49.000	0.1875	65		0.00	1,817	23.00	0.00	13.58	892.6	20.22	122.67	14.00	49.00	8.22	198.1	11.76	74.67	0.183673
2-R	20.000	0.5000	35	Butt	0.00	1,310	12.75	49.00	19.24	361.2	0.00	25.50	12.75	69.00	19.24	361.2	0.00	25.50	0.000000
3-R	20.000	0.3750	35	Butt	0.00	992	12.75	69.00	14.58	279.3	0.00	34.00	12.75	89.00	14.58	279.3	0.00	34.00	0.000000
				Shaft Weight		4,119													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice EPAa (sf)	No Ice Orientation Factor	Ice Weight (lb)	Ice EPAa (sf)	Ice Orientation Factor	Distance From Face (ft)	Vert Ecc (ft)
89.00	CCI DTMABP7819VG12A	4	19.20	0.970	0.50	50.57	1.367	0.50	0.000	1.000
89.00	CCI OPA-65R-LCUU-H6	2	73.00	9.660	0.66	290.47	10.950	0.66	0.000	1.000
89.00	Ericsson RRUS 11 (Band 12)	2	55.00	2.520	0.67	130.18	3.128	0.67	0.000	1.000
89.00	Ericsson RRUS 32 (50.8 lbs)	2	50.80	2.690	0.67	130.68	3.376	0.67	0.000	1.000
89.00	Ericsson RRUS 32 B2	2	53.00	2.740	0.67	135.38	3.432	0.67	0.000	1.000
89.00	Powerwave Allgon 7770.00	2	35.00	5.510	0.65	161.46	6.505	0.65	0.000	1.000
89.00	Powerwave Allgon CM1007-	4	6.50	0.430	0.50	23.25	0.637	0.50	0.000	1.000
89.00	Quintel QS66512-2	2	111.00	8.130	0.74	324.24	9.356	0.74	0.000	1.000
89.00	Raycap DC6-48-60-18-8F	1	31.80	1.280	1.00	118.78	2.816	1.00	0.000	1.000
89.00	Raycap DC6-48-60-18-8F	1	31.80	1.280	1.00	118.78	2.816	1.00	0.000	1.000
89.00	Round Platform w/ Handrails	1	2000.00	27.200	1.00	3,229.60	50.396	1.00	0.000	0.000
42.00	Alcatel-Lucent RRH2x60 700	3	56.70	2.150	0.67	126.12	2.693	0.67	0.000	0.000
42.00	Alcatel-Lucent RRH2X60-	3	43.00	1.880	0.50	100.55	2.395	0.50	0.000	0.000
42.00	Alcatel-Lucent RRH2X60-	3	44.00	1.880	0.50	102.92	2.395	0.50	0.000	0.000
42.00	Commscope SBNHH-1D65B	6	50.70	8.170	0.69	225.24	9.309	0.69	0.000	0.000
42.00	Decibel DB844H80E-XY	6	14.00	3.610	0.74	108.29	4.390	0.74	0.000	0.000
42.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	2,070.24	42.904	1.00	0.000	0.000
42.00	RFS DB-T1-6Z-8AB-0Z	2	44.00	4.800	0.67	167.52	5.561	0.67	0.000	0.000
42.00	RFS FD9R6004/1C-3L	6	3.10	0.370	0.50	13.81	0.543	0.50	0.000	0.000
	Totals	53	5347.90		11,585.38			Number of Loadings :		19

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Diameter (in)	Coax Weight (lb/ft)	Flat	Projected Width (in)	Exposed To Wind	Carrier
0.00	89.00	2	0.39" (10mm) Fiber	0.39	0.06	N	0.00	N	AT&T Mobility
0.00	89.00	1	0.51" (13mm) Hybrid	0.51	0.14	N	0.00	N	AT&T Mobility
0.00	89.00	4	0.78" (19.7mm) 8	0.78	0.59	N	0.00	N	AT&T Mobility
0.00	89.00	8	1 5/8" Coax	1.98	0.82	N	0.00	Y	AT&T Mobility
49.00	89.00	2	2" conduit	2.38	3.65	N	2.38	Y	AT&T Mobility
0.00	53.50	3	#20 Threaded Bar	2.50	0.00	N	6.00	Y	
0.00	49.00	2	2" conduit	2.38	3.65	N	0.00	N	AT&T Mobility
0.00	42.00	2	1 5/8" Hybriflex	1.98	1.30	N	0.00	N	Verizon
0.00	42.00	12	7/8" Coax	1.09	0.33	N	0.00	N	Verizon

Additional Steel

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Offset (in)	Intermediate Connections Description	Spacing (in)	Len (in)	Connectors	Continuation?
0.00	50.00	3	SOL #20 All Thread	80	6.25	6" Angle Bracket	30.0	3.31	5/8" A36 U-Bolt	No

Segment Properties (Max Len : 5.ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in^3)	Z (in^3)	Weight (lb)	Additional Reinforcing Area (in^2)	Additional Reinforcing Ix (in^4)	Additional Reinforcing Weight (lb)
0.00		0.1875	23.000	13.576	892.6	20.22	122.67	77.6	76.4	0.0	0.0	14.73	2,652	0.0
5.00		0.1875	22.082	13.029	789.1	19.36	117.77	78.6	70.4	0.0	226.3	14.73	2,523	250.5
10.00		0.1875	21.163	12.483	693.9	18.49	112.87	79.7	64.6	0.0	217.0	14.73	2,398	250.5
15.00		0.1875	20.245	11.936	606.7	17.63	107.97	80.7	59.0	0.0	207.7	14.73	2,276	250.5
20.00		0.1875	19.327	11.390	527.1	16.76	103.07	81.7	53.7	0.0	198.4	14.73	2,157	250.5
25.00		0.1875	18.408	10.843	454.8	15.90	98.18	82.6	48.7	0.0	189.1	14.73	2,041	250.5
30.00		0.1875	17.490	10.297	389.5	15.04	93.28	82.6	43.9	0.0	179.8	14.73	1,928	250.5
35.00		0.1875	16.571	9.750	330.7	14.17	88.38	82.6	39.3	0.0	170.5	14.73	1,819	250.5
40.00		0.1875	15.653	9.204	278.1	13.31	83.48	82.6	35.0	0.0	161.2	14.73	1,713	250.5
42.00		0.1875	15.286	8.985	258.8	12.96	81.52	82.6	33.3	0.0	61.9	14.73	1,671	100.2
45.00		0.1875	14.735	8.657	231.5	12.45	78.59	82.6	30.9	0.0	90.0	14.73	1,610	150.3
49.00	Top - Section 1	0.1875	14.000	8.220	198.1	11.76	74.67	82.6	27.9	0.0	114.9	14.73	1,530	200.4
49.00	Bot - Section 2	0.5000	12.750	19.242	361.2	0.00	25.50	35.0	56.7	75.1		14.73	1,530	
50.00	Reinf. Top	0.5000	12.750	19.242	361.2	0.00	25.50	35.0	56.7	75.1	65.5	14.73	1,423	50.1
55.00		0.5000	12.750	19.242	361.2	0.00	25.50	35.0	56.7	75.1	327.4			
60.00		0.5000	12.750	19.242	361.2	0.00	25.50	35.0	56.7	75.1	327.4			
65.00		0.5000	12.750	19.242	361.2	0.00	25.50	35.0	56.7	75.1	327.4			
69.00	Top - Section 2	0.5000	12.750	19.242	361.2	0.00	25.50	35.0	56.7	75.1	261.9			
69.00	Bot - Section 3	0.3750	12.750	14.579	279.3	0.00	34.00	35.0	43.8	57.4				
70.00		0.3750	12.750	14.579	279.3	0.00	34.00	35.0	43.8	57.4	49.6			
75.00		0.3750	12.750	14.579	279.3	0.00	34.00	35.0	43.8	57.4	248.0			
80.00		0.3750	12.750	14.579	279.3	0.00	34.00	35.0	43.8	57.4	248.0			
85.00		0.3750	12.750	14.579	279.3	0.00	34.00	35.0	43.8	57.4	248.0			
89.00		0.3750	12.750	14.579	279.3	0.00	34.00	35.0	43.8	57.4	198.4			
											4,118.8			2,505.0

Site Number: 302526 Code: ANSI/TIA-222-G

Site Name: Naugatuck (telephone Pole), CT Engineering Number:OAA698250_C4_04 7/21/2017 12:04:45 PM

Customer: AT&T MOBILITY

Load Case: 1.2D + 1.6W 97 mph with No Ice 21 Iterations

Gust Response Factor :1.10 Wind Importance Factor :1.00

Dead Load Factor :1.20

Wind Load Factor :1.60

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces Wind FX (lb)	Shaft Forces Dead Load (lb)	Discrete Forces Wind FX (lb)	Discrete Forces Torsion MY (lb-ft)	Discrete Forces Moment MZ (lb-ft)	Discrete Forces Dead Load (lb)	Linear Forces Wind FX (lb)	Linear Forces Dead Load (lb)	Sum of Forces Wind FX (lb)	Sum of Forces Dead Load (lb)	Sum of Forces Torsion MY (lb-ft)	Sum of Forces Moment MZ (lb)
0.00		161.3	0.0					0.0	0.0	161.3	0.0	0.0	0.0
5.00		316.1	271.6					66.7	438.8	382.8	710.4	0.0	0.0
10.00		302.9	260.4					66.7	438.8	369.6	699.3	0.0	0.0
15.00		289.8	249.3					66.7	438.8	356.5	688.1	0.0	0.0
20.00		276.6	238.1					66.7	438.8	343.3	677.0	0.0	0.0
25.00		263.5	227.0					66.7	438.8	330.2	665.8	0.0	0.0
30.00		253.3	215.8					66.7	438.8	320.0	654.6	0.0	0.0
35.00		247.8	204.6					67.5	438.8	315.3	643.5	0.0	0.0
40.00		171.5	193.5					68.9	438.8	240.3	632.3	0.0	0.0
42.00	Appertunance(s)	120.2	74.3	2,484.5	0.0	0.0	2,911.1	27.9	175.5	2,632.6	3,160.9	0.0	0.0
45.00		165.3	108.1					42.2	239.7	207.5	347.7	0.0	0.0
49.00	Top - Section 1	114.3	137.8					56.9	319.6	171.3	457.4	0.0	0.0
50.00	Reinf. Top	126.3	78.6					22.1	79.9	148.4	158.5	0.0	0.0
55.00		173.8	392.9					90.0	98.9	263.8	491.7	0.0	0.0
60.00		138.1	392.9					0.0	98.9	138.1	491.7	0.0	0.0
65.00		126.9	392.9					0.0	98.9	126.9	491.7	0.0	0.0
69.00	Top - Section 2	71.4	314.3					0.0	79.1	71.4	393.4	0.0	0.0
70.00		87.3	59.5					0.0	19.8	87.3	79.3	0.0	0.0
75.00		147.2	297.7					0.0	98.9	147.2	396.5	0.0	0.0
80.00		150.0	297.7					0.0	98.9	150.0	396.5	0.0	0.0
85.00		137.1	297.7					0.0	98.9	137.1	396.5	0.0	0.0
89.00	Appertunance(s)	61.4	238.1	2,436.2	0.0	1,389.1	3,506.4	0.0	79.1	2,497.7	3,823.6	0.0	0.0
								Totals:		9,598.47	16,456.6	0.00	0.00

Site Number: 302526 Code: ANSI/TIA-222-G

Site Name: Naugatuck (telephone Pole), CT Engineering Number:OAA698250_C4_04 7/21/2017 12:04:46 PM

Customer: AT&T MOBILITY

Load Case: 1.2D + 1.6W 97 mph with No Ice 21 Iterations

Gust Response Factor :1.10 Wind Importance Factor :1.00

Dead Load Factor :1.20

Wind Load Factor :1.60

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-16.44	-9.47	0.00	-509.75	0.00	509.75	948.37	474.19	888.66	444.99	0.00	0.00	0.297
5.00	-15.70	-9.13	0.00	-462.42	0.00	462.42	922.11	461.05	828.98	415.11	0.11	-0.20	0.274
10.00	-14.97	-8.81	0.00	-416.75	0.00	416.75	894.84	447.42	770.44	385.79	0.41	-0.38	0.250
15.00	-14.26	-8.49	0.00	-372.70	0.00	372.70	866.57	433.29	713.14	357.10	0.92	-0.57	0.227
20.00	-13.57	-8.18	0.00	-330.24	0.00	330.24	837.31	418.65	657.22	329.10	1.60	-0.74	0.204
25.00	-12.88	-7.88	0.00	-289.34	0.00	289.34	805.59	402.80	601.69	301.29	2.47	-0.90	0.182
30.00	-12.21	-7.58	0.00	-249.96	0.00	249.96	764.99	382.50	542.27	271.54	3.50	-1.06	0.162
35.00	-11.56	-7.28	0.00	-212.07	0.00	212.07	724.39	362.19	485.94	243.33	4.68	-1.20	0.141
40.00	-10.92	-7.04	0.00	-175.69	0.00	175.69	683.78	341.89	432.70	216.67	6.01	-1.33	0.120
42.00	-7.82	-4.34	0.00	-161.61	0.00	161.61	667.54	333.77	412.27	206.44	6.58	-1.37	0.110
45.00	-7.47	-4.13	0.00	-148.59	0.00	148.59	643.18	321.59	382.55	191.56	7.47	-1.44	0.102
49.00	-7.02	-3.96	0.00	-132.05	0.00	132.05	610.70	305.35	344.65	172.58	8.71	-1.53	0.092
49.00	-7.02	-3.96	0.00	-132.05	0.00	132.05	606.13	303.07	297.07	197.07	8.71	-1.53	0.135
50.00	-6.86	-3.81	0.00	-128.10	0.00	128.10	606.13	303.07	297.07	197.07	9.04	-1.55	0.138
50.00	-6.86	-3.81	0.00	-128.10	0.00	128.10	606.13	303.07	297.07	197.07	9.04	-1.55	0.661
55.00	-6.36	-3.56	0.00	-109.04	0.00	109.04	606.13	303.07	297.07	197.07	10.71	-1.65	0.564
60.00	-5.85	-3.45	0.00	-91.22	0.00	91.22	606.13	303.07	297.07	197.07	12.65	-2.04	0.473
65.00	-5.35	-3.32	0.00	-74.00	0.00	74.00	606.13	303.07	297.07	197.07	14.96	-2.37	0.384
69.00	-4.95	-3.25	0.00	-60.70	0.00	60.70	606.13	303.07	297.07	197.07	17.04	-2.58	0.316
69.00	-4.95	-3.25	0.00	-60.70	0.00	60.70	459.24	229.62	229.69	150.79	17.04	-2.58	0.414
70.00	-4.87	-3.17	0.00	-57.45	0.00	57.45	459.24	229.62	229.69	150.79	17.58	-2.62	0.392
75.00	-4.47	-3.02	0.00	-41.61	0.00	41.61	459.24	229.62	229.69	150.79	20.47	-2.88	0.286
80.00	-4.07	-2.86	0.00	-26.51	0.00	26.51	459.24	229.62	229.69	150.79	23.58	-3.05	0.185
85.00	-3.68	-2.71	0.00	-12.21	0.00	12.21	459.24	229.62	229.69	150.79	26.83	-3.15	0.089
89.00	0.00	-2.50	0.00	-1.39	0.00	1.39	459.24	229.62	229.69	150.79	29.48	-3.18	0.009

Load Case: 0.9D + 1.6W — 97 mph with No Ice (Reduced DL) — 21 Iterations

Gust Response Factor :1.10
Dead Load Factor :0.90
Wind Load Factor :1.60

Wind Importance Factor :1.00

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces Wind FX (lb)	Shaft Forces Dead Load (lb)	Discrete Forces Wind FX (lb)	Discrete Forces Torsion MY (lb-ft)	Discrete Forces Moment MZ (lb-ft)	Discrete Forces Dead Load (lb)	Linear Forces Wind FX (lb)	Linear Forces Dead Load (lb)	Sum of Forces Wind FX (lb)	Sum of Forces Dead Load (lb)	Sum of Forces Torsion MY (lb-ft)	Sum of Forces Moment MZ (lb)
0.00		161.3	0.0					0.0	0.0	161.3	0.0	0.0	0.0
5.00		316.1	203.7					66.7	329.1	382.8	532.8	0.0	0.0
10.00		302.9	195.3					66.7	329.1	369.6	524.5	0.0	0.0
15.00		289.8	187.0					66.7	329.1	356.5	516.1	0.0	0.0
20.00		276.6	178.6					66.7	329.1	343.3	507.7	0.0	0.0
25.00		263.5	170.2					66.7	329.1	330.2	499.3	0.0	0.0
30.00		253.3	161.9					66.7	329.1	320.0	491.0	0.0	0.0
35.00		247.8	153.5					67.5	329.1	315.3	482.6	0.0	0.0
40.00		171.5	145.1					68.9	329.1	240.3	474.2	0.0	0.0
42.00	Appertunance(s)	120.2	55.7	2,484.5	0.0	0.0	2,183.3	27.9	131.7	2,632.6	2,370.7	0.0	0.0
45.00		165.3	81.0					42.2	179.8	207.5	260.8	0.0	0.0
49.00	Top - Section 1	114.3	103.4					56.9	239.7	171.3	343.1	0.0	0.0
50.00	Reinf. Top	126.3	58.9					22.1	59.9	148.4	118.9	0.0	0.0
55.00		159.7	294.6					90.0	74.2	249.7	368.8	0.0	0.0
60.00		109.6	294.6					0.0	74.2	109.6	368.8	0.0	0.0
65.00		100.7	294.6					0.0	74.2	100.7	368.8	0.0	0.0
69.00	Top - Section 2	56.7	235.7					0.0	59.3	56.7	295.0	0.0	0.0
70.00		69.3	44.6					0.0	14.8	69.3	59.5	0.0	0.0
75.00		116.8	223.2					0.0	74.2	116.8	297.4	0.0	0.0
80.00		119.0	223.2					0.0	74.2	119.0	297.4	0.0	0.0
85.00		108.8	223.2					0.0	74.2	108.8	297.4	0.0	0.0
89.00	Appertunance(s)	48.8	178.6	2,436.2	0.0	1,389.1	2,629.8	0.0	59.3	2,485.0	2,867.7	0.0	0.0
								Totals:		9,394.66	12,342.5	0.00	0.00

Site Number: 302526 Code: ANSI/TIA-222-G

Site Name: Naugatuck (telephone Pole), CT Engineering Number:OAA698250_C4_04 7/21/2017 12:04:47 PM

Customer: AT&T MOBILITY

Load Case: 0.9D + 1.6W 97 mph with No Ice (Reduced DL) 21 Iterations

Gust Response Factor :1.10 Wind Importance Factor :1.00

Dead Load Factor :0.90

Wind Load Factor :1.60

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-12.33	-9.25	0.00	-490.07	0.00	490.07	948.37	474.19	888.66	444.99	0.00	0.00	0.284
5.00	-11.77	-8.91	0.00	-443.80	0.00	443.80	922.11	461.05	828.98	415.11	0.10	-0.19	0.261
10.00	-11.22	-8.57	0.00	-399.26	0.00	399.26	894.84	447.42	770.44	385.79	0.40	-0.37	0.238
15.00	-10.68	-8.24	0.00	-356.41	0.00	356.41	866.57	433.29	713.14	357.10	0.88	-0.54	0.216
20.00	-10.15	-7.92	0.00	-315.20	0.00	315.20	837.31	418.65	657.22	329.10	1.54	-0.71	0.194
25.00	-9.64	-7.61	0.00	-275.59	0.00	275.59	805.59	402.80	601.69	301.29	2.37	-0.86	0.172
30.00	-9.13	-7.30	0.00	-237.54	0.00	237.54	764.99	382.50	542.27	271.54	3.35	-1.01	0.152
35.00	-8.64	-7.00	0.00	-201.02	0.00	201.02	724.39	362.19	485.94	243.33	4.49	-1.15	0.132
40.00	-8.16	-6.76	0.00	-166.02	0.00	166.02	683.78	341.89	432.70	216.67	5.75	-1.27	0.112
42.00	-5.85	-4.08	0.00	-152.50	0.00	152.50	667.54	333.77	412.27	206.44	6.30	-1.31	0.102
45.00	-5.59	-3.87	0.00	-140.26	0.00	140.26	643.18	321.59	382.55	191.56	7.14	-1.38	0.095
49.00	-5.25	-3.70	0.00	-124.76	0.00	124.76	610.70	305.35	344.65	172.58	8.33	-1.46	0.086
49.00	-5.25	-3.70	0.00	-124.76	0.00	124.76	606.13	303.07	297.07	197.07	8.33	-1.46	0.126
50.00	-5.13	-3.55	0.00	-121.06	0.00	121.06	606.13	303.07	297.07	197.07	8.64	-1.48	0.129
50.00	-5.13	-3.55	0.00	-121.06	0.00	121.06	606.13	303.07	297.07	197.07	8.64	-1.48	0.623
55.00	-4.75	-3.31	0.00	-103.29	0.00	103.29	606.13	303.07	297.07	197.07	10.24	-1.57	0.532
60.00	-4.37	-3.22	0.00	-86.73	0.00	86.73	606.13	303.07	297.07	197.07	12.08	-1.94	0.447
65.00	-3.99	-3.12	0.00	-70.63	0.00	70.63	606.13	303.07	297.07	197.07	14.28	-2.25	0.365
69.00	-3.69	-3.06	0.00	-58.15	0.00	58.15	606.13	303.07	297.07	197.07	16.26	-2.46	0.301
69.00	-3.69	-3.06	0.00	-58.15	0.00	58.15	459.24	229.62	229.69	150.79	16.26	-2.46	0.394
70.00	-3.63	-3.00	0.00	-55.09	0.00	55.09	459.24	229.62	229.69	150.79	16.78	-2.50	0.373
75.00	-3.32	-2.88	0.00	-40.09	0.00	40.09	459.24	229.62	229.69	150.79	19.53	-2.74	0.273
80.00	-3.03	-2.75	0.00	-25.69	0.00	25.69	459.24	229.62	229.69	150.79	22.49	-2.91	0.177
85.00	-2.73	-2.63	0.00	-11.92	0.00	11.92	459.24	229.62	229.69	150.79	25.59	-3.01	0.085
89.00	0.00	-2.48	0.00	-1.39	0.00	1.39	459.24	229.62	229.69	150.79	28.13	-3.03	0.009

Site Number: 302526 Code: ANSI/TIA-222-G

Site Name: Naugatuck (telephone Pole), CT Engineering Number:OAA698250_C4_04 7/21/2017 12:04:47 PM

Customer: AT&T MOBILITY

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph with 0.75 in Radial Ice 20 Iterations

Gust Response Factor :1.10 Ice Dead Load Factor :1.00 Wind Importance Factor :1.00

Dead Load Factor :1.20 Ice Importance Factor :1.00

Wind Load Factor :1.00

Applied Segment Forces Summary

		Shaft Forces		Discrete Forces				Linear Forces		Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		29.5	0.0					0.0	0.0	29.5	0.0	0.0	0.0
5.00		58.2	440.2					19.5	581.3	77.7	1,021.6	0.0	0.0
10.00		56.5	442.3					20.1	597.6	76.6	1,039.9	0.0	0.0
15.00		54.6	433.4					20.4	605.9	75.0	1,039.3	0.0	0.0
20.00		52.6	420.9					20.6	611.7	73.2	1,032.6	0.0	0.0
25.00		50.6	406.4					20.8	616.2	71.4	1,022.6	0.0	0.0
30.00		49.1	390.6					20.9	619.9	70.0	1,010.6	0.0	0.0
35.00		48.5	374.0					21.6	623.1	70.1	997.1	0.0	0.0
40.00		33.8	356.8					22.6	625.9	56.4	982.6	0.0	0.0
42.00	Appertunance(s)	23.9	138.8	550.2	0.0	0.0	5,763.3	9.3	251.0	583.5	6,153.1	0.0	0.0
45.00		33.2	202.3					14.2	353.6	47.4	555.9	0.0	0.0
49.00	Top - Section 1	23.1	258.8					19.4	472.8	42.6	731.6	0.0	0.0
50.00	Reinf. Top	26.1	105.9					7.9	128.1	34.0	234.0	0.0	0.0
55.00		44.3	530.3					32.8	320.9	77.1	851.1	0.0	0.0
60.00		45.5	531.6					0.0	274.4	45.5	806.1	0.0	0.0
65.00		41.9	532.9					0.0	276.0	41.9	809.0	0.0	0.0
69.00	Top - Section 2	23.6	427.2					0.0	221.9	23.6	649.1	0.0	0.0
70.00		28.9	87.9					0.0	55.6	28.9	143.5	0.0	0.0
75.00		48.7	440.1					0.0	278.9	48.7	718.9	0.0	0.0
80.00		49.7	441.1					0.0	280.2	49.7	721.3	0.0	0.0
85.00		45.5	442.1					0.0	281.4	45.5	723.5	0.0	0.0
89.00	Appertunance(s)	20.4	354.4	609.4	0.0	287.2	6,291.7	0.0	226.0	629.8	6,872.0	0.0	0.0
									Totals:	2,298.02	28,115.5	0.00	0.00

Site Number: 302526 Code: ANSI/TIA-222-G

Site Name: Naugatuck (telephone Pole), CT Engineering Number:OAA698250_C4_04 7/21/2017 12:04:48 PM

Customer: AT&T MOBILITY

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph with 0.75 in Radial Ice 20 Iterations

Gust Response Factor :1.10 Ice Dead Load Factor :1.00 Wind Importance Factor :1.00

Dead Load Factor :1.20 Ice Importance Factor :1.00

Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-28.11	-2.28	0.00	-132.21	0.00	132.21	948.37	474.19	888.66	444.99	0.00	0.00	0.089
5.00	-27.09	-2.23	0.00	-120.80	0.00	120.80	922.11	461.05	828.98	415.11	0.03	-0.05	0.083
10.00	-26.05	-2.17	0.00	-109.67	0.00	109.67	894.84	447.42	770.44	385.79	0.11	-0.10	0.077
15.00	-25.01	-2.11	0.00	-98.82	0.00	98.82	866.57	433.29	713.14	357.10	0.24	-0.15	0.071
20.00	-23.97	-2.06	0.00	-88.25	0.00	88.25	837.31	418.65	657.22	329.10	0.42	-0.19	0.065
25.00	-22.95	-2.00	0.00	-77.97	0.00	77.97	805.59	402.80	601.69	301.29	0.65	-0.24	0.059
30.00	-21.94	-1.94	0.00	-67.97	0.00	67.97	764.99	382.50	542.27	271.54	0.92	-0.28	0.054
35.00	-20.94	-1.88	0.00	-58.28	0.00	58.28	724.39	362.19	485.94	243.33	1.23	-0.32	0.048
40.00	-19.96	-1.82	0.00	-48.89	0.00	48.89	683.78	341.89	432.70	216.67	1.59	-0.35	0.043
42.00	-13.81	-1.21	0.00	-45.25	0.00	45.25	667.54	333.77	412.27	206.44	1.74	-0.37	0.037
45.00	-13.25	-1.16	0.00	-41.63	0.00	41.63	643.18	321.59	382.55	191.56	1.98	-0.39	0.035
49.00	-12.52	-1.11	0.00	-37.00	0.00	37.00	610.70	305.35	344.65	172.58	2.31	-0.41	0.032
49.00	-12.52	-1.11	0.00	-37.00	0.00	37.00	606.13	303.07	297.07	197.07	2.31	-0.41	0.048
50.00	-12.29	-1.08	0.00	-35.88	0.00	35.88	606.13	303.07	297.07	197.07	2.40	-0.42	0.048
50.00	-12.29	-1.08	0.00	-35.88	0.00	35.88	606.13	303.07	297.07	197.07	2.40	-0.42	0.202
55.00	-11.44	-1.01	0.00	-30.47	0.00	30.47	606.13	303.07	297.07	197.07	2.85	-0.44	0.173
60.00	-10.63	-0.98	0.00	-25.40	0.00	25.40	606.13	303.07	297.07	197.07	3.37	-0.55	0.146
65.00	-9.82	-0.94	0.00	-20.51	0.00	20.51	606.13	303.07	297.07	197.07	4.00	-0.64	0.120
69.00	-9.17	-0.92	0.00	-16.74	0.00	16.74	606.13	303.07	297.07	197.07	4.57	-0.70	0.100
69.00	-9.17	-0.92	0.00	-16.74	0.00	16.74	459.24	229.62	229.69	150.79	4.57	-0.70	0.131
70.00	-9.02	-0.89	0.00	-15.83	0.00	15.83	459.24	229.62	229.69	150.79	4.72	-0.72	0.125
75.00	-8.31	-0.84	0.00	-11.37	0.00	11.37	459.24	229.62	229.69	150.79	5.50	-0.78	0.093
80.00	-7.58	-0.79	0.00	-7.16	0.00	7.16	459.24	229.62	229.69	150.79	6.35	-0.83	0.064
85.00	-6.86	-0.73	0.00	-3.22	0.00	3.22	459.24	229.62	229.69	150.79	7.24	-0.86	0.036
89.00	0.00	-0.63	0.00	-0.29	0.00	0.29	459.24	229.62	229.69	150.79	7.96	-0.87	0.002

Load Case: 1.0D + 1.0W Serviceability 60 mph 20 Iterations

Gust Response Factor :1.10 Wind Importance Factor :1.00
Dead Load Factor :1.00
Wind Load Factor :1.00

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces Wind FX (lb)	Shaft Forces Dead Load (lb)	Discrete Forces Wind FX (lb)	Discrete Forces Torsion MY (lb-ft)	Discrete Forces Moment MZ (lb-ft)	Discrete Forces Dead Load (lb)	Linear Forces Wind FX (lb)	Linear Forces Dead Load (lb)	Sum of Forces Wind FX (lb)	Sum of Forces Dead Load (lb)	Sum of Forces Torsion MY (lb-ft)	Sum of Forces Moment MZ (lb)
0.00		38.6	0.0					0.0	0.0	38.6	0.0	0.0	0.0
5.00		75.6	226.3					20.2	365.7	95.8	592.0	0.0	0.0
10.00		72.4	217.0					20.2	365.7	92.7	582.7	0.0	0.0
15.00		69.3	207.7					20.2	365.7	89.5	573.4	0.0	0.0
20.00		66.1	198.4					20.2	365.7	86.4	564.1	0.0	0.0
25.00		63.0	189.1					20.2	365.7	83.2	554.8	0.0	0.0
30.00		60.6	179.8					20.2	365.7	80.8	545.5	0.0	0.0
35.00		59.3	170.5					20.7	365.7	80.0	536.2	0.0	0.0
40.00		41.0	161.2					21.6	365.7	62.6	526.9	0.0	0.0
42.00	Appertunance(s)	28.7	61.9	594.1	0.0	0.0	2,425.9	8.9	146.3	631.7	2,634.1	0.0	0.0
45.00		39.5	90.0					13.5	199.7	53.0	289.8	0.0	0.0
49.00	Top - Section 1	27.3	114.9					18.4	266.3	45.8	381.2	0.0	0.0
50.00	Reinf. Top	30.2	65.5					6.5	66.6	36.7	132.1	0.0	0.0
55.00		39.4	327.4					26.0	82.4	65.4	409.8	0.0	0.0
60.00		28.5	327.4					0.0	82.4	28.5	409.8	0.0	0.0
65.00		25.9	327.4					0.0	82.4	25.9	409.8	0.0	0.0
69.00	Top - Section 2	14.5	261.9					0.0	65.9	14.5	327.8	0.0	0.0
70.00		17.5	49.6					0.0	16.5	17.5	66.1	0.0	0.0
75.00		29.4	248.0					0.0	82.4	29.4	330.4	0.0	0.0
80.00		29.7	248.0					0.0	82.4	29.7	330.4	0.0	0.0
85.00		26.9	248.0					0.0	82.4	26.9	330.4	0.0	0.0
89.00	Appertunance(s)	12.0	198.4	582.6	0.0	332.2	2,922.0	0.0	65.9	594.6	3,186.4	0.0	0.0
								Totals:		2,309.15	13,713.9	0.00	0.00

Load Case: 1.0D + 1.0W Serviceability 60 mph 20 Iterations

Gust Response Factor :1.10 Wind Importance Factor :1.00
Dead Load Factor :1.00
Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-13.71	-2.28	0.00	-119.97	0.00	119.97	948.37	474.19	888.66	444.99	0.00	0.00	0.075
5.00	-13.12	-2.19	0.00	-108.59	0.00	108.59	922.11	461.05	828.98	415.11	0.03	-0.05	0.069
10.00	-12.54	-2.11	0.00	-97.64	0.00	97.64	894.84	447.42	770.44	385.79	0.10	-0.09	0.063
15.00	-11.96	-2.02	0.00	-87.11	0.00	87.11	866.57	433.29	713.14	357.10	0.22	-0.13	0.058
20.00	-11.40	-1.94	0.00	-76.99	0.00	76.99	837.31	418.65	657.22	329.10	0.38	-0.17	0.052
25.00	-10.84	-1.87	0.00	-67.27	0.00	67.27	805.59	402.80	601.69	301.29	0.58	-0.21	0.046
30.00	-10.29	-1.79	0.00	-57.94	0.00	57.94	764.99	382.50	542.27	271.54	0.82	-0.25	0.041
35.00	-9.76	-1.71	0.00	-48.99	0.00	48.99	724.39	362.19	485.94	243.33	1.10	-0.28	0.036
40.00	-9.23	-1.65	0.00	-40.43	0.00	40.43	683.78	341.89	432.70	216.67	1.41	-0.31	0.031
42.00	-6.60	-1.01	0.00	-37.13	0.00	37.13	667.54	333.77	412.27	206.44	1.54	-0.32	0.028
45.00	-6.31	-0.95	0.00	-34.11	0.00	34.11	643.18	321.59	382.55	191.56	1.75	-0.34	0.026
49.00	-5.93	-0.91	0.00	-30.30	0.00	30.30	610.70	305.35	344.65	172.58	2.04	-0.36	0.024
49.00	-5.93	-0.91	0.00	-30.30	0.00	30.30	606.13	303.07	297.07	197.07	2.04	-0.36	0.035
50.00	-5.80	-0.87	0.00	-29.39	0.00	29.39	606.13	303.07	297.07	197.07	2.11	-0.36	0.036
50.00	-5.80	-0.87	0.00	-29.39	0.00	29.39	606.13	303.07	297.07	197.07	2.11	-0.36	0.159
55.00	-5.39	-0.81	0.00	-25.05	0.00	25.05	606.13	303.07	297.07	197.07	2.50	-0.38	0.136
60.00	-4.97	-0.78	0.00	-21.01	0.00	21.01	606.13	303.07	297.07	197.07	2.95	-0.47	0.115
65.00	-4.56	-0.76	0.00	-17.10	0.00	17.10	606.13	303.07	297.07	197.07	3.49	-0.55	0.094
69.00	-4.24	-0.74	0.00	-14.06	0.00	14.06	606.13	303.07	297.07	197.07	3.97	-0.60	0.078
69.00	-4.24	-0.74	0.00	-14.06	0.00	14.06	459.24	229.62	229.69	150.79	3.97	-0.60	0.103
70.00	-4.17	-0.73	0.00	-13.32	0.00	13.32	459.24	229.62	229.69	150.79	4.09	-0.61	0.097
75.00	-3.84	-0.70	0.00	-9.69	0.00	9.69	459.24	229.62	229.69	150.79	4.76	-0.67	0.073
80.00	-3.51	-0.67	0.00	-6.20	0.00	6.20	459.24	229.62	229.69	150.79	5.49	-0.71	0.049
85.00	-3.18	-0.64	0.00	-2.87	0.00	2.87	459.24	229.62	229.69	150.79	6.24	-0.73	0.026
89.00	0.00	-0.59	0.00	-0.33	0.00	0.33	459.24	229.62	229.69	150.79	6.86	-0.74	0.002

Equivalent Lateral Forces Method Analysis

(Based on ASCE7-10 Chapters 11, 12, 15)

Spectral Response Acceleration for Short Period (S_s):	0.19
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.06
Long-Period Transition Period (T_L):	6
Importance Factor (I_E):	1.00
Site Coefficient F_a:	1.60
Site Coeffiecient F_v:	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.20
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.10
Seismic Response Coefficient (C_s):	0.04
Upper Limit C_s	0.04
Lower Limit C_s	0.03
Period based on Rayleigh Method (sec):	1.75
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.62
Total Unfactored Dead Load:	13.71 k
Seismic Base Shear (E):	0.70 k

Load Case (1.2 + 0.2Sds) * DL + E ELFM Seismic Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
21	87.00	264	373	0.040	28	328
20	82.50	330	427	0.046	32	410
19	77.50	330	386	0.042	29	410
18	72.50	330	346	0.037	26	410
17	69.50	66	65	0.007	5	82
16	67.00	328	302	0.033	23	407
15	62.50	410	338	0.036	25	508
14	57.50	410	295	0.032	22	508
13	52.50	410	254	0.027	19	508
12	49.50	132	75	0.008	6	164
11	47.00	381	198	0.021	15	473
10	43.50	290	133	0.014	10	360
9	41.00	208	87	0.009	7	258
8	37.50	527	189	0.020	14	654
7	32.50	536	153	0.017	11	665
6	27.50	546	119	0.013	9	677
5	22.50	555	87	0.009	7	688
4	17.50	564	59	0.006	4	700
3	12.50	573	35	0.004	3	711
2	7.50	583	15	0.002	1	723
1	2.50	592	3	0.000	0	735
Powerwave Allgon CM1	89.00	26	38	0.004	3	32
CCI DTMABP7819VG12A	89.00	77	112	0.012	8	95

Raycap DC6-48-60-18-	89.00	32	47	0.005	3	39
Raycap DC6-48-60-18-	89.00	32	47	0.005	3	39
Ericsson RRUS 11 (Ba	89.00	110	161	0.017	12	136
Ericsson RRUS 32 (50	89.00	102	149	0.016	11	126
Ericsson RRUS 32 B2	89.00	106	155	0.017	12	132
Powerwave Allgon 777	89.00	70	102	0.011	8	87
Quintel QS66512-2	89.00	222	325	0.035	24	275
CCI OPA-65R-LCUU-H6	89.00	146	214	0.023	16	181
Round Platform w/ Ha	89.00	2,000	2,925	0.316	220	2,481
RFS FD9R6004/1C-3L	42.00	19	8	0.001	1	23
Alcatel-Lucent RRH2X	42.00	132	57	0.006	4	164
Alcatel-Lucent RRH2X	42.00	129	56	0.006	4	160
Alcatel-Lucent RRH2x	42.00	170	74	0.008	6	211
Decibel DB844H80E-XY	42.00	84	36	0.004	3	104
RFS DB-T1-6Z-8AB-0Z	42.00	88	38	0.004	3	109
Commscope SBNHH-1D65	42.00	304	131	0.014	10	377
Flat Low Profile Pla	42.00	1,500	648	0.070	49	1,861
		13,714	9,259	1.000	697	17,015

Load Case (0.9 - 0.2Sds) * DL + E ELFM Seismic (Reduced DL) Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
21	87.00	264	373	0.040	28	227
20	82.50	330	427	0.046	32	284
19	77.50	330	386	0.042	29	284
18	72.50	330	346	0.037	26	284
17	69.50	66	65	0.007	5	57
16	67.00	328	302	0.033	23	282
15	62.50	410	338	0.036	25	352
14	57.50	410	295	0.032	22	352
13	52.50	410	254	0.027	19	352
12	49.50	132	75	0.008	6	113
11	47.00	381	198	0.021	15	328
10	43.50	290	133	0.014	10	249
9	41.00	208	87	0.009	7	179
8	37.50	527	189	0.020	14	453
7	32.50	536	153	0.017	11	461
6	27.50	546	119	0.013	9	469
5	22.50	555	87	0.009	7	477
4	17.50	564	59	0.006	4	485
3	12.50	573	35	0.004	3	493
2	7.50	583	15	0.002	1	501
1	2.50	592	3	0.000	0	509
Powerwave Allgon CM1	89.00	26	38	0.004	3	22
CCI DTMABP7819VG12A	89.00	77	112	0.012	8	66
Raycap DC6-48-60-18-	89.00	32	47	0.005	3	27
Raycap DC6-48-60-18-	89.00	32	47	0.005	3	27
Ericsson RRUS 11 (Ba	89.00	110	161	0.017	12	95
Ericsson RRUS 32 (50	89.00	102	149	0.016	11	87
Ericsson RRUS 32 B2	89.00	106	155	0.017	12	91
Powerwave Allgon 777	89.00	70	102	0.011	8	60
Quintel QS66512-2	89.00	222	325	0.035	24	191
CCI OPA-65R-LCUU-H6	89.00	146	214	0.023	16	125
Round Platform w/ Ha	89.00	2,000	2,925	0.316	220	1,719
RFS FD9R6004/1C-3L	42.00	19	8	0.001	1	16
Alcatel-Lucent RRH2X	42.00	132	57	0.006	4	113
Alcatel-Lucent RRH2X	42.00	129	56	0.006	4	111
Alcatel-Lucent RRH2x	42.00	170	74	0.008	6	146
Decibel DB844H80E-XY	42.00	84	36	0.004	3	72

RFS DB-T1-6Z-8AB-0Z	42.00	88	38	0.004	3	76
Commscope SBNHH-1D65	42.00	304	131	0.014	10	261
Flat Low Profile Pla	42.00	1,500	648	0.070	49	1,289
		13,714	9,259	1.000	697	11,784

Site Number: 302526 Code: ANSI/TIA-222-G

Site Name: Naugatuck (telephone Pole), CT Engineering Number:OAA698250_C4_04 7/21/2017 12:04:49 PM

Customer: AT&T MOBILITY

Load Case (1.2 + 0.2Sds) * DL + E ELFM Seismic Equivalent Lateral Forces Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-16.28	-0.70	0.00	-51.22	0.00	51.22	948.37	474.19	888.66	444.99	0.00	0.00	0.037
5.00	-15.56	-0.70	0.00	-47.73	0.00	47.73	922.11	461.05	828.98	415.11	0.01	-0.02	0.035
10.00	-14.85	-0.70	0.00	-44.21	0.00	44.21	894.84	447.42	770.44	385.79	0.04	-0.04	0.033
15.00	-14.15	-0.70	0.00	-40.69	0.00	40.69	866.57	433.29	713.14	357.10	0.09	-0.06	0.031
20.00	-13.46	-0.70	0.00	-37.17	0.00	37.17	837.31	418.65	657.22	329.10	0.17	-0.08	0.029
25.00	-12.78	-0.70	0.00	-33.66	0.00	33.66	805.59	402.80	601.69	301.29	0.26	-0.10	0.027
30.00	-12.11	-0.69	0.00	-30.18	0.00	30.18	764.99	382.50	542.27	271.54	0.37	-0.12	0.025
35.00	-11.46	-0.67	0.00	-26.75	0.00	26.75	724.39	362.19	485.94	243.33	0.50	-0.13	0.023
40.00	-11.20	-0.67	0.00	-23.38	0.00	23.38	683.78	341.89	432.70	216.67	0.65	-0.15	0.021
42.00	-7.83	-0.57	0.00	-22.04	0.00	22.04	667.54	333.77	412.27	206.44	0.71	-0.16	0.019
45.00	-7.36	-0.56	0.00	-20.32	0.00	20.32	643.18	321.59	382.55	191.56	0.81	-0.17	0.018
49.00	-7.20	-0.55	0.00	-18.09	0.00	18.09	610.70	305.35	344.65	172.58	0.96	-0.18	0.016
49.00	-7.20	-0.55	0.00	-18.09	0.00	18.09	606.13	303.07	297.07	197.07	0.96	-0.18	0.024
50.00	-6.69	-0.53	0.00	-17.53	0.00	17.53	606.13	303.07	297.07	197.07	1.00	-0.18	0.024
50.00	-6.69	-0.53	0.00	-17.53	0.00	17.53	606.13	303.07	297.07	197.07	1.00	-0.18	0.100
55.00	-6.18	-0.51	0.00	-14.87	0.00	14.87	606.13	303.07	297.07	197.07	1.19	-0.19	0.086
60.00	-5.67	-0.49	0.00	-12.30	0.00	12.30	606.13	303.07	297.07	197.07	1.42	-0.25	0.072
65.00	-5.26	-0.47	0.00	-9.85	0.00	9.85	606.13	303.07	297.07	197.07	1.70	-0.29	0.059
69.00	-5.18	-0.47	0.00	-7.97	0.00	7.97	606.13	303.07	297.07	197.07	1.96	-0.32	0.049
69.00	-5.18	-0.47	0.00	-7.97	0.00	7.97	459.24	229.62	229.69	150.79	1.96	-0.32	0.064
70.00	-4.77	-0.44	0.00	-7.51	0.00	7.51	459.24	229.62	229.69	150.79	2.03	-0.32	0.060
75.00	-4.36	-0.41	0.00	-5.31	0.00	5.31	459.24	229.62	229.69	150.79	2.38	-0.36	0.045
80.00	-3.95	-0.38	0.00	-3.26	0.00	3.26	459.24	229.62	229.69	150.79	2.77	-0.38	0.030
85.00	-3.62	-0.35	0.00	-1.38	0.00	1.38	459.24	229.62	229.69	150.79	3.17	-0.39	0.017
89.00	0.00	-0.32	0.00	0.00	0.00	0.00	459.24	229.62	229.69	150.79	3.50	-0.39	0.000

Load Case (0.9 - 0.2Sds) * DL + E ELFM Seismic (Reduced DL) Equivalent Lateral Forces Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-11.27	-0.70	0.00	-50.60	0.00	50.60	948.37	474.19	888.66	444.99	0.00	0.00	0.034
5.00	-10.77	-0.70	0.00	-47.11	0.00	47.11	922.11	461.05	828.98	415.11	0.01	-0.02	0.033
10.00	-10.28	-0.70	0.00	-43.61	0.00	43.61	894.84	447.42	770.44	385.79	0.04	-0.04	0.031
15.00	-9.80	-0.70	0.00	-40.11	0.00	40.11	866.57	433.29	713.14	357.10	0.09	-0.06	0.029
20.00	-9.32	-0.70	0.00	-36.61	0.00	36.61	837.31	418.65	657.22	329.10	0.16	-0.08	0.027
25.00	-8.85	-0.69	0.00	-33.14	0.00	33.14	805.59	402.80	601.69	301.29	0.26	-0.10	0.025
30.00	-8.39	-0.68	0.00	-29.70	0.00	29.70	764.99	382.50	542.27	271.54	0.37	-0.11	0.023
35.00	-7.94	-0.67	0.00	-26.31	0.00	26.31	724.39	362.19	485.94	243.33	0.49	-0.13	0.021
40.00	-7.76	-0.66	0.00	-22.98	0.00	22.98	683.78	341.89	432.70	216.67	0.64	-0.15	0.019
42.00	-5.42	-0.57	0.00	-21.66	0.00	21.66	667.54	333.77	412.27	206.44	0.70	-0.15	0.017
45.00	-5.10	-0.55	0.00	-19.96	0.00	19.96	643.18	321.59	382.55	191.56	0.80	-0.16	0.016
49.00	-4.98	-0.55	0.00	-17.75	0.00	17.75	610.70	305.35	344.65	172.58	0.94	-0.17	0.015
49.00	-4.98	-0.55	0.00	-17.75	0.00	17.75	606.13	303.07	297.07	197.07	0.94	-0.17	0.022
50.00	-4.63	-0.53	0.00	-17.21	0.00	17.21	606.13	303.07	297.07	197.07	0.98	-0.18	0.022
50.00	-4.63	-0.53	0.00	-17.21	0.00	17.21	606.13	303.07	297.07	197.07	0.98	-0.18	0.095
55.00	-4.28	-0.51	0.00	-14.58	0.00	14.58	606.13	303.07	297.07	197.07	1.17	-0.19	0.081
60.00	-3.93	-0.48	0.00	-12.05	0.00	12.05	606.13	303.07	297.07	197.07	1.40	-0.24	0.068
65.00	-3.64	-0.46	0.00	-9.64	0.00	9.64	606.13	303.07	297.07	197.07	1.68	-0.29	0.055
69.00	-3.59	-0.46	0.00	-7.80	0.00	7.80	606.13	303.07	297.07	197.07	1.93	-0.31	0.045
69.00	-3.59	-0.46	0.00	-7.80	0.00	7.80	459.24	229.62	229.69	150.79	1.93	-0.31	0.060
70.00	-3.30	-0.43	0.00	-7.34	0.00	7.34	459.24	229.62	229.69	150.79	1.99	-0.32	0.056
75.00	-3.02	-0.40	0.00	-5.19	0.00	5.19	459.24	229.62	229.69	150.79	2.35	-0.35	0.041
80.00	-2.74	-0.37	0.00	-3.19	0.00	3.19	459.24	229.62	229.69	150.79	2.73	-0.37	0.027
85.00	-2.51	-0.34	0.00	-1.35	0.00	1.35	459.24	229.62	229.69	150.79	3.12	-0.38	0.014
89.00	0.00	-0.32	0.00	0.00	0.00	0.00	459.24	229.62	229.69	150.79	3.44	-0.39	0.000

Equivalent Modal Forces Analysis

(Based on ASCE7-10 Chapters 11, 12 & 15 and ANSI/TIA-G, section 2.7)

Spectral Response Acceleration for Short Period (S_s):	0.19
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.06
Importance Factor (I_E):	1.00
Site Coefficient F_a:	1.60
Site Coefficient F_v	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.20
Desing Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.10
Period Based on Rayleigh Method (sec):	1.75
Redundancy Factor (p):	1.30

Load Case (1.2 + 0.2Sds) * DL + E EMAM **Seismic Equivalent Modal Analysis Method**

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
21	87.00	264	1.806	1.566	0.988	0.338	77	328
20	82.50	330	1.624	0.855	0.703	0.227	65	410
19	77.50	330	1.433	0.350	0.467	0.129	37	410
18	72.50	330	1.254	0.062	0.297	0.055	16	410
17	69.50	66	1.153	-0.035	0.221	0.022	1	82
16	67.00	328	1.071	-0.085	0.170	0.002	0	407
15	62.50	410	0.932	-0.121	0.100	-0.021	-7	508
14	57.50	410	0.789	-0.110	0.051	-0.025	-9	508
13	52.50	410	0.658	-0.073	0.022	-0.012	-4	508
12	49.50	132	0.585	-0.047	0.013	0.001	0	164
11	47.00	381	0.527	-0.026	0.008	0.012	4	473
10	43.50	290	0.452	0.001	0.006	0.026	7	360
9	41.00	208	0.401	0.018	0.007	0.035	6	258
8	37.50	527	0.336	0.037	0.010	0.043	20	654
7	32.50	536	0.252	0.055	0.017	0.049	23	665
6	27.50	546	0.180	0.065	0.026	0.049	23	677
5	22.50	555	0.121	0.070	0.034	0.048	23	688
4	17.50	564	0.073	0.072	0.040	0.045	22	700
3	12.50	573	0.037	0.070	0.041	0.042	21	711
2	7.50	583	0.013	0.059	0.034	0.036	18	723
1	2.50	592	0.001	0.028	0.016	0.019	10	735
Powerwave Allgon	89.00	26	1.890	1.980	1.140	0.394	9	32
CCI DTMABP7819VG12A	89.00	77	1.890	1.980	1.140	0.394	26	95
Raycap DC6-48-60-18-	89.00	32	1.890	1.980	1.140	0.394	11	39
Raycap DC6-48-60-18-	89.00	32	1.890	1.980	1.140	0.394	11	39
Ericsson RRUS 11 (Ba	89.00	110	1.890	1.980	1.140	0.394	38	136
Ericsson RRUS 32 (50	89.00	102	1.890	1.980	1.140	0.394	35	126
Ericsson RRUS 32 B2	89.00	106	1.890	1.980	1.140	0.394	36	132
Powerwave Allgon 777	89.00	70	1.890	1.980	1.140	0.394	24	87
Quintel QS66512-2	89.00	222	1.890	1.980	1.140	0.394	76	275
CCI OPA-65R-LCUU-H6	89.00	146	1.890	1.980	1.140	0.394	50	181
Round Platform w/ Ha	89.00	2,000	1.890	1.980	1.140	0.394	682	2,481
RFS FD9R6004/1C-3L	42.00	19	0.421	0.011	0.006	0.032	1	23
Alcatel-Lucent RRH2X	42.00	132	0.421	0.011	0.006	0.032	4	164

Alcatel-Lucent RRH2X	42.00	129	0.421	0.011	0.006	0.032	4	160
Alcatel-Lucent RRH2x	42.00	170	0.421	0.011	0.006	0.032	5	211
Decibel DB844H80E-XY	42.00	84	0.421	0.011	0.006	0.032	2	104
RFS DB-T1-6Z-8AB-0Z	42.00	88	0.421	0.011	0.006	0.032	2	109
Commscope SBNHH-	42.00	304	0.421	0.011	0.006	0.032	8	377
Flat Low Profile Pla	42.00	1,500	0.421	0.011	0.006	0.032	41	1,861
		13,714	37.855	24.680	15.859	5.702	1,416	17,015

Load Case (0.9 - 0.2Sds) * DL + E EMAM Seismic (Reduced DL) Equivalent Modal Analysis Method

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
21	87.00	264	1.806	1.566	0.988	0.338	77	227
20	82.50	330	1.624	0.855	0.703	0.227	65	284
19	77.50	330	1.433	0.350	0.467	0.129	37	284
18	72.50	330	1.254	0.062	0.297	0.055	16	284
17	69.50	66	1.153	-0.035	0.221	0.022	1	57
16	67.00	328	1.071	-0.085	0.170	0.002	0	282
15	62.50	410	0.932	-0.121	0.100	-0.021	-7	352
14	57.50	410	0.789	-0.110	0.051	-0.025	-9	352
13	52.50	410	0.658	-0.073	0.022	-0.012	-4	352
12	49.50	132	0.585	-0.047	0.013	0.001	0	113
11	47.00	381	0.527	-0.026	0.008	0.012	4	328
10	43.50	290	0.452	0.001	0.006	0.026	7	249
9	41.00	208	0.401	0.018	0.007	0.035	6	179
8	37.50	527	0.336	0.037	0.010	0.043	20	453
7	32.50	536	0.252	0.055	0.017	0.049	23	461
6	27.50	546	0.180	0.065	0.026	0.049	23	469
5	22.50	555	0.121	0.070	0.034	0.048	23	477
4	17.50	564	0.073	0.072	0.040	0.045	22	485
3	12.50	573	0.037	0.070	0.041	0.042	21	493
2	7.50	583	0.013	0.059	0.034	0.036	18	501
1	2.50	592	0.001	0.028	0.016	0.019	10	509
Powerwave Allgon	89.00	26	1.890	1.980	1.140	0.394	9	22
CCI DTMABP7819VG12A	89.00	77	1.890	1.980	1.140	0.394	26	66
Raycap DC6-48-60-18-	89.00	32	1.890	1.980	1.140	0.394	11	27
Raycap DC6-48-60-18-	89.00	32	1.890	1.980	1.140	0.394	11	27
Ericsson RRUS 11 (Ba	89.00	110	1.890	1.980	1.140	0.394	38	95
Ericsson RRUS 32 (50	89.00	102	1.890	1.980	1.140	0.394	35	87
Ericsson RRUS 32 B2	89.00	106	1.890	1.980	1.140	0.394	36	91
Powerwave Allgon 777	89.00	70	1.890	1.980	1.140	0.394	24	60
Quintel QS66512-2	89.00	222	1.890	1.980	1.140	0.394	76	191
CCI OPA-65R-LCUU-H6	89.00	146	1.890	1.980	1.140	0.394	50	125
Round Platform w/ Ha	89.00	2,000	1.890	1.980	1.140	0.394	682	1,719
RFS FD9R6004/1C-3L	42.00	19	0.421	0.011	0.006	0.032	1	16
Alcatel-Lucent RRH2X	42.00	132	0.421	0.011	0.006	0.032	4	113
Alcatel-Lucent RRH2X	42.00	129	0.421	0.011	0.006	0.032	4	111
Alcatel-Lucent RRH2x	42.00	170	0.421	0.011	0.006	0.032	5	146
Decibel DB844H80E-XY	42.00	84	0.421	0.011	0.006	0.032	2	72
RFS DB-T1-6Z-8AB-0Z	42.00	88	0.421	0.011	0.006	0.032	2	76
Commscope SBNHH-	42.00	304	0.421	0.011	0.006	0.032	8	261
Flat Low Profile Pla	42.00	1,500	0.421	0.011	0.006	0.032	41	1,289
		13,714	37.855	24.680	15.859	5.702	1,416	11,784

Load Case (1.2 + 0.2Sds) * DL + E EMAM Seismic Equivalent Modal Analysis Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-16.28	-1.41	0.00	-114.63	0.00	114.63	948.37	474.19	888.66	444.99	0.00	0.00	0.073
5.00	-15.56	-1.41	0.00	-107.57	0.00	107.57	922.11	461.05	828.98	415.11	0.02	-0.04	0.070
10.00	-14.84	-1.40	0.00	-100.54	0.00	100.54	894.84	447.42	770.44	385.79	0.09	-0.09	0.066
15.00	-14.14	-1.38	0.00	-93.56	0.00	93.56	866.57	433.29	713.14	357.10	0.21	-0.13	0.062
20.00	-13.45	-1.37	0.00	-86.64	0.00	86.64	837.31	418.65	657.22	329.10	0.38	-0.18	0.059
25.00	-12.78	-1.35	0.00	-79.80	0.00	79.80	805.59	402.80	601.69	301.29	0.59	-0.22	0.055
30.00	-12.11	-1.34	0.00	-73.03	0.00	73.03	764.99	382.50	542.27	271.54	0.84	-0.27	0.052
35.00	-11.45	-1.32	0.00	-66.35	0.00	66.35	724.39	362.19	485.94	243.33	1.15	-0.31	0.048
40.00	-11.20	-1.32	0.00	-59.74	0.00	59.74	683.78	341.89	432.70	216.67	1.49	-0.35	0.045
42.00	-7.83	-1.23	0.00	-57.10	0.00	57.10	667.54	333.77	412.27	206.44	1.64	-0.37	0.042
45.00	-7.35	-1.23	0.00	-53.41	0.00	53.41	643.18	321.59	382.55	191.56	1.88	-0.39	0.039
49.00	-7.19	-1.23	0.00	-48.51	0.00	48.51	610.70	305.35	344.65	172.58	2.22	-0.42	0.036
49.00	-7.19	-1.23	0.00	-48.51	0.00	48.51	606.13	303.07	297.07	197.07	2.22	-0.42	0.054
50.00	-6.68	-1.23	0.00	-47.29	0.00	47.29	606.13	303.07	297.07	197.07	2.31	-0.43	0.055
50.00	-6.68	-1.23	0.00	-47.29	0.00	47.29	606.13	303.07	297.07	197.07	2.31	-0.43	0.251
55.00	-6.17	-1.24	0.00	-41.14	0.00	41.14	606.13	303.07	297.07	197.07	2.78	-0.47	0.219
60.00	-5.66	-1.26	0.00	-34.92	0.00	34.92	606.13	303.07	297.07	197.07	3.35	-0.62	0.187
65.00	-5.25	-1.26	0.00	-28.62	0.00	28.62	606.13	303.07	297.07	197.07	4.07	-0.74	0.154
69.00	-5.17	-1.27	0.00	-23.56	0.00	23.56	606.13	303.07	297.07	197.07	4.72	-0.82	0.128
69.00	-5.17	-1.27	0.00	-23.56	0.00	23.56	459.24	229.62	229.69	150.79	4.72	-0.82	0.168
70.00	-4.75	-1.25	0.00	-22.29	0.00	22.29	459.24	229.62	229.69	150.79	4.90	-0.84	0.158
75.00	-4.34	-1.21	0.00	-16.04	0.00	16.04	459.24	229.62	229.69	150.79	5.83	-0.94	0.116
80.00	-3.93	-1.14	0.00	-9.97	0.00	9.97	459.24	229.62	229.69	150.79	6.85	-1.01	0.075
85.00	-3.61	-1.06	0.00	-4.25	0.00	4.25	459.24	229.62	229.69	150.79	7.93	-1.04	0.036
89.00	0.00	-1.00	0.00	0.00	0.00	0.00	459.24	229.62	229.69	150.79	8.80	-1.05	0.000

Load Case (0.9 - 0.2Sds) * DL + E EMAM Seismic (Reduced DL) Equivalent Modal Analysis Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-11.27	-1.41	0.00	-113.11	0.00	113.11	948.37	474.19	888.66	444.99	0.00	0.00	0.070
5.00	-10.77	-1.40	0.00	-106.06	0.00	106.06	922.11	461.05	828.98	415.11	0.02	-0.04	0.066
10.00	-10.28	-1.39	0.00	-99.06	0.00	99.06	894.84	447.42	770.44	385.79	0.09	-0.09	0.063
15.00	-9.79	-1.37	0.00	-92.12	0.00	92.12	866.57	433.29	713.14	357.10	0.21	-0.13	0.059
20.00	-9.32	-1.35	0.00	-85.27	0.00	85.27	837.31	418.65	657.22	329.10	0.37	-0.18	0.056
25.00	-8.85	-1.34	0.00	-78.50	0.00	78.50	805.59	402.80	601.69	301.29	0.58	-0.22	0.052
30.00	-8.38	-1.32	0.00	-71.82	0.00	71.82	764.99	382.50	542.27	271.54	0.83	-0.26	0.049
35.00	-7.93	-1.30	0.00	-65.23	0.00	65.23	724.39	362.19	485.94	243.33	1.13	-0.30	0.046
40.00	-7.75	-1.30	0.00	-58.73	0.00	58.73	683.78	341.89	432.70	216.67	1.47	-0.35	0.042
42.00	-5.42	-1.21	0.00	-56.13	0.00	56.13	667.54	333.77	412.27	206.44	1.62	-0.36	0.040
45.00	-5.09	-1.21	0.00	-52.50	0.00	52.50	643.18	321.59	382.55	191.56	1.85	-0.39	0.037
49.00	-4.98	-1.21	0.00	-47.66	0.00	47.66	610.70	305.35	344.65	172.58	2.19	-0.42	0.035
49.00	-4.98	-1.21	0.00	-47.66	0.00	47.66	606.13	303.07	297.07	197.07	2.19	-0.42	0.051
50.00	-4.62	-1.21	0.00	-46.45	0.00	46.45	606.13	303.07	297.07	197.07	2.28	-0.42	0.052
50.00	-4.62	-1.21	0.00	-46.45	0.00	46.45	606.13	303.07	297.07	197.07	2.28	-0.42	0.243
55.00	-4.27	-1.23	0.00	-40.39	0.00	40.39	606.13	303.07	297.07	197.07	2.74	-0.46	0.212
60.00	-3.91	-1.24	0.00	-34.26	0.00	34.26	606.13	303.07	297.07	197.07	3.30	-0.61	0.180
65.00	-3.63	-1.24	0.00	-28.07	0.00	28.07	606.13	303.07	297.07	197.07	4.00	-0.73	0.148
69.00	-3.57	-1.24	0.00	-23.10	0.00	23.10	606.13	303.07	297.07	197.07	4.65	-0.81	0.123
69.00	-3.57	-1.24	0.00	-23.10	0.00	23.10	459.24	229.62	229.69	150.79	4.65	-0.81	0.161
70.00	-3.29	-1.23	0.00	-21.86	0.00	21.86	459.24	229.62	229.69	150.79	4.82	-0.83	0.152
75.00	-3.00	-1.19	0.00	-15.72	0.00	15.72	459.24	229.62	229.69	150.79	5.74	-0.92	0.111
80.00	-2.72	-1.12	0.00	-9.78	0.00	9.78	459.24	229.62	229.69	150.79	6.74	-0.99	0.071
85.00	-2.49	-1.04	0.00	-4.17	0.00	4.17	459.24	229.62	229.69	150.79	7.79	-1.02	0.033
89.00	0.00	-1.00	0.00	0.00	0.00	0.00	459.24	229.62	229.69	150.79	8.66	-1.03	0.000

Analysis Summary

Load Case	Reactions Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Max Usage Elev (ft)	Interaction Ratio
1.2D + 1.6W	9.47	0.00	16.44	0.00	0.00	509.75	50.00	0.66
0.9D + 1.6W	9.25	0.00	12.33	0.00	0.00	490.07	50.00	0.62
1.2D + 1.0Di + 1.0Wi	2.28	0.00	28.11	0.00	0.00	132.21	50.00	0.20
(1.2 + 0.2Sds) * DL + E ELFM	0.70	0.00	16.28	0.00	0.00	51.22	50.00	0.10
(1.2 + 0.2Sds) * DL + E EMAM	1.41	0.00	16.28	0.00	0.00	114.63	50.00	0.25
(0.9 - 0.2Sds) * DL + E ELFM	0.70	0.00	11.27	0.00	0.00	50.60	50.00	0.09
(0.9 - 0.2Sds) * DL + E EMAM	1.41	0.00	11.27	0.00	0.00	113.11	50.00	0.24
1.0D + 1.0W	2.28	0.00	13.71	0.00	0.00	119.97	50.00	0.16

Additional Steel Summary

Elev From (ft)	Elev To (ft)	Member	Intermediate Connectors VQ/I (lb/in)	Shear Applied (kips)	Shear phiVn (kips)	Upper Termination Connectors MQ/I (kips)	phiVn (kips)	Num Reqd	Num Actual	Lower Termination Connectors MQ/I (kips)	phiVn (kips)	Num Reqd	Num Actual	Max Member Pu (kip)	phiPn (kip)	Ratio
0.00	50.0	(3) SOL-#20 All Thre	264.2	7.9	16.8	58.7	12.0	5	8	0.0	12.0	0	0	163.5	330.5	0.495

Base/Flange Plate	Plate Type	***Baseplate***	
	Pole Diameter	23	in
	Pole Thickness	0.1875	in
	Plate Diameter	37	in
	Plate Thickness	1.5	in
	Plate Fy	60	ksi
	Weld Length	0.125	in
	ϕ_s Resistance	407.74	k-in
	Applied	125.84	k-in
Stiffeners	#	***0***	

Bolts	#	***4***	
	Bolt Circle	31	in
	(R)adial / (S)quare	R	
●	Diameter	2.25	in
	Hole Diameter	2.625	in
	Type	A675	
	Fy	75	ksi
	Fu	100	ksi
	ϕ_s Resistance	259.82	k
	Applied	49.11	k
Reinforcement ●	#	***3***	
	DYW. Circle	40	in
	Offset Angle	20	°
	Type	#20	
	Diameter	2.5	in
	Fu	100	ksi
	ϕ_s Resistance	392.70	k
	Applied	154.61	k
Extra Bolts O	#	***0***	

Code Rev.	***G***	**Date**	7/21/2017
		Engineer	Travis.Gatling
		Site #	302526
Moment	509.8 k-ft	**Carrier**	AT&T MOBILITY
Axial	16.4 k		

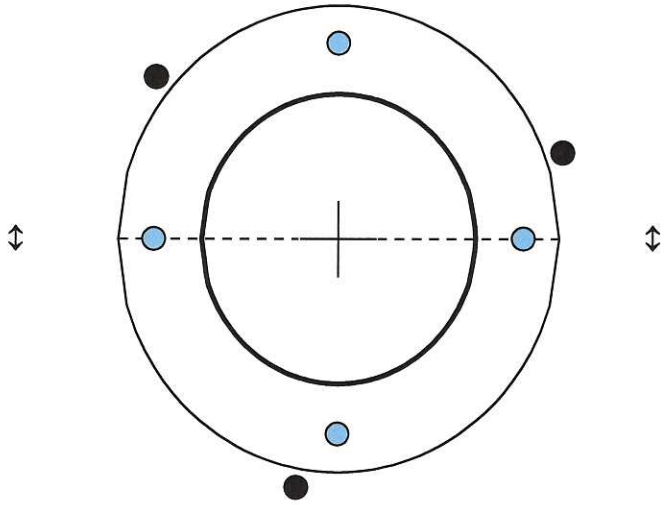


Plate Stress Ratio:
0.31 (Pass)

Bolt Stress Ratio:
0.19 (Pass)

Reinforcement Stress Ratio:
0.39 (Pass)

Base/Flange Plate	Plate Type	*Flange*	*@ 49.0 ft*
	Pole Diameter	12.75	in
	Pole Thickness	0.5	in
	Plate Diameter	28.5	in
	Plate Thickness	2	in
	Plate Fy	50	ksi
	Weld Length	0.4375	in
	ϕ_s Resistance	100.14	k-in
	Applied	10.64	k-in
Stiffeners	#	*0*	

Bolts	#	*18*	
	Bolt Circle	25.75	in
	(R)adial / (S)quare	R	
●	Diameter	1	in
	Hole Diameter	1.0625	in
	Type	A325	
	Fy	92	ksi
	Fu	120	ksi
	ϕ_s Resistance	54.52	k
	Applied	1.92	k
Reinforcement ●	#	*3*	
	DYW. Circle	31	in
	Offset Angle	20	°
	Type	#20	
	Diameter	2.5	in
	Fu	100	ksi
	ϕ_s Resistance	392.70	k
	Applied	55.58	k
Extra Bolts O	#	*0*	

Code Rev. ***G***

Moment 132.1 k-ft
Axial 7.0 k

Date	7/21/2017
Engineer	Travis.Gatling
Site #	302526
Carrier	AT&T MOBILITY

Required Flange Thickness:
0.65 in OK

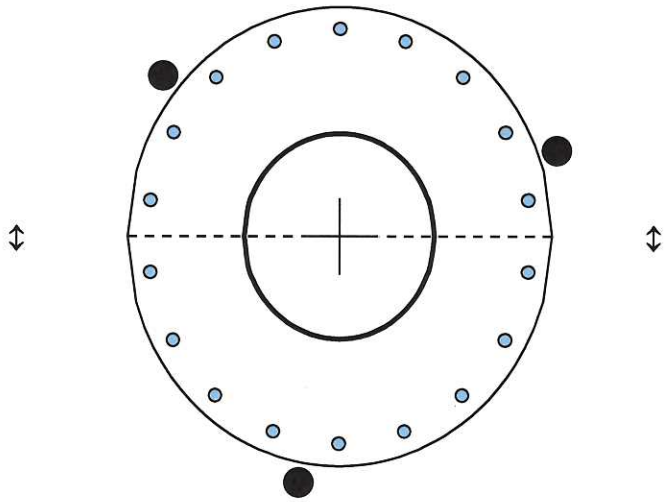


Plate Stress Ratio:
0.11 (Pass)

Bolt Stress Ratio:
0.04 (Pass)

Reinforcement Stress Ratio:
0.14 (Pass)

Base/Flange Plate	Plate Type	*Flange*	*@ 69.0 ft*
	Pole Diameter	12.75	in
	Pole Thickness	0.375	in
	Plate Diameter	20	in
	Plate Thickness	1.5	in
	Plate Fy	50	ksi
	Weld Length	0.3125	in
	ϕ_s Resistance	84.49	k-in
	Applied	11.52	k-in
Stiffeners	#	*0*	

Bolts	#	*12*	
	Bolt Circle	16	in
	(R)adial / (S)quare	R	
●	Diameter	1	in
	Hole Diameter	1.0625	in
	Type	A325	
	Fy	92	ksi
	Fu	120	ksi
	ϕ_s Resistance	54.52	k
	Applied	14.74	k
Reinforcement ●	#	*0*	
Extra Bolts O	#	*0*	

Code Rev. ***G***

Moment 60.7 k-ft
Axial 5.0 k

Date	7/21/2017
Engineer	Travis.Gatling
Site #	302526
Carrier	AT&T MOBILITY

Required Flange Thickness:
0.55 in OK

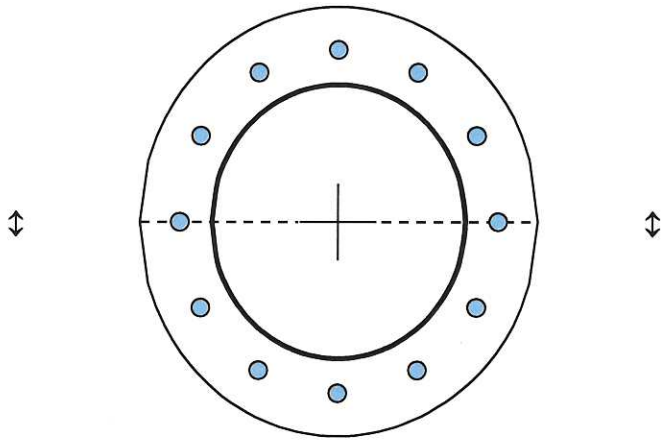
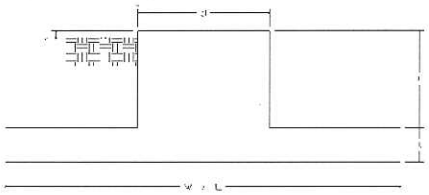


Plate Stress Ratio:
0.14 (Pass)

Bolt Stress Ratio:
0.27 (Pass)

Site Name:	Naugatuck, CT
Site Number:	302526
Engineering Number:	OAA698250
Engineer:	Travis.Gatling
Date:	07/21/17
Tower Type:	MP

Program Last Updated: *5/13/2014*



Design Loads (Factored) - Analysis per TIA-222-G Standards

Design / Analysis / Mapping:	Analysis				
Compression/Leg:	16.4	k	Concrete Strength (f'_c):	4000	psi
Uplift/Leg:	0.0	k	Pad Tension Steel Depth:	32.00	in
Total Shear:	9.5	k	ϕ_{Shear}:	0.75	
Moment:	509.8	k-ft	$\phi_{Flexure\ /\ Tension}$:	0.90	
Tower + Appurtenance Weight:	16.4	k	$\phi_{Compression:}$	0.65	
Depth to Base of Foundation (l + t - h):	5.25	ft	β:	0.85	
Diameter of Pier (d):	4.50	ft	Bottom Pad Rebar Size #:	6	
Height of Pier above Ground (h):	1.00		# of Bottom Pad Rebar:	20	
Width of Pad (W):	12.00	ft	Pad Bottom Steel Area:	8.80	in^2
Length of Pad (L):	12.00	ft	Pad Steel F_y:	60000	psi
Thickness of Pad (t):	3.00	ft	Top Pad Rebar Size #:	6	
Tower Leg Center to Center:	0.00	ft	# of Top Pad Rebar:	20	
Number of Tower Legs:	1.0	(1 if MP or GT)	Pad Top Steel Area:	8.80	in^2
Tower Center from Mat Center:	0.00	ft	Pier Rebar Size #:	6	
Depth Below Ground Surface to Water Table:	25.00	ft	Pier Steel Area (Single Bar):	0.44	in^2
Unit Weight of Concrete:	150.0	pcf	# of Pier Rebar:	24	
Unit Weight of Soil Above Water Table:	110.0	pcf	Pier Steel F_y:	60000	psi
Unit Weight of Water:	62.4	pcf	Pier Cage Diameter:	46.0	in
Unit Weight of Soil Below Water Table:	47.6	pcf	Rebar Strain Limit:	0.008	
Friction Angle of Uplift:	30.0	Degrees	Steel Elastic Modulus:	29000	ksi
Ultimate Coefficient of Shear Friction:	0.35		Tie Rebar Size #:	4	
Ultimate Compressive Bearing Pressure:	6000.0	psf	Tie Steel Area (Single Bar):	0.20	in^2
Ultimate Passive Pressure on Pad Face:	0.0	psf	Tie Spacing:	12	in
$\phi_{Soil\ and\ Concrete\ Weight}$:	0.9		Tie Steel F_y:	60000	psi
ϕ_{Soil}:	0.75				

Overturning Moment Usage

Design OTM:	568.9	k-ft
OTM Resistance:	691.7	k-ft
Design OTM / OTM Resistance:	0.82	Result: OK

Soil Bearing Pressure Usage

Net Bearing Pressure:	3650	psf
Factored Nominal Bearing Pressure:	4500	psf
Net Bearing Pressure/Factored Nominal Bearing Pressure:	0.81	Result: OK
Load Direction Controling Design Bearing Pressure:	Diagonal to Pad Edge	

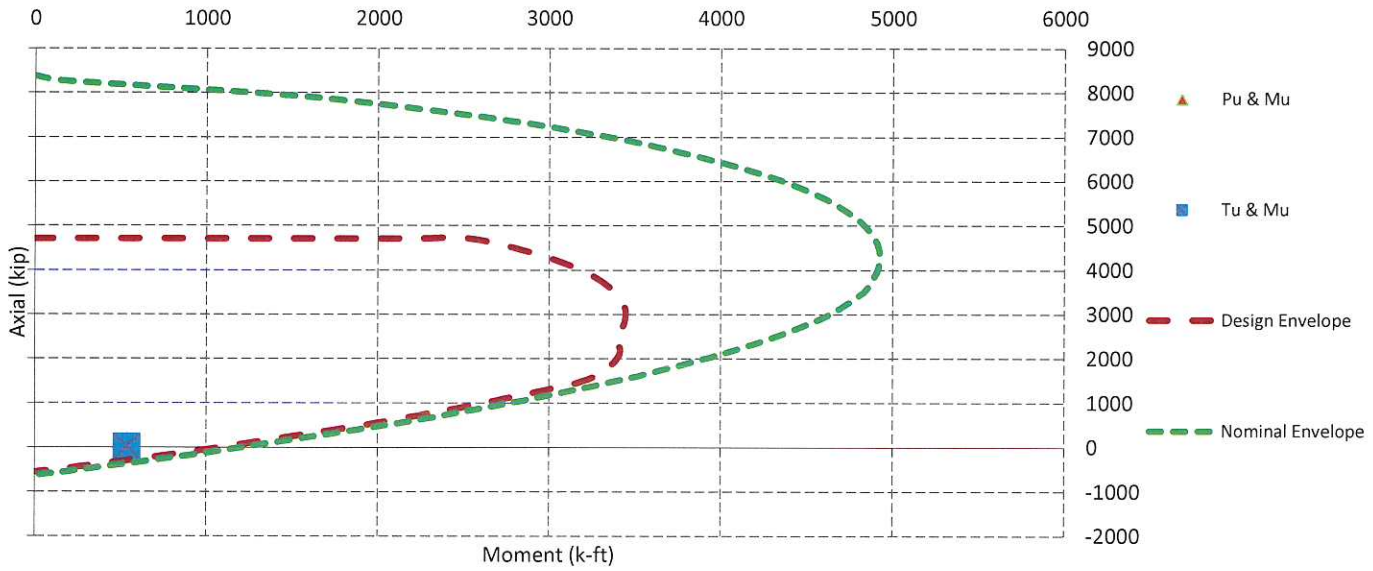
Sliding Factor of Safety

Total Factored Sliding Resistance:	31.0	k
Sliding Design / Sliding Resistance:	0.31	Result: OK

One Way Shear, Flexual Capacity, and Punching Shear

Factored One Way Shear (V_u):	34.2	k
One Way Shear Capacity (ϕV_c):	260.0	k - ACI11.3.1.1
$V_u / \phi V_c$:	0.13	Result: OK
Load Direction Controling Shear Capacity:	Diagonal to Pad Edge	
Lower Steel Pad Factored Moment (M_u):	193.2	k-ft
Lower Steel Pad Moment Capacity (ϕM_n):	1234.3	k-ft - ACI10.3
$M_u / \phi M_n$:	0.16	Result: OK
Load Direction Controling Flexural Capacity:	Diagonal to Pad Edge	
Upper Steel Pad Factored Moment (M_u):	93.8	k-ft
Upper Steel Pad Moment Capacity (ϕM_n):	1249.1	k-ft
$M_u / \phi M_n$:	0.08	Result: OK
Lower Pad Flexural Reinforcement Ratio:	0.0019	OK - Minimum Reinforcement Ratio Met - ACI10.5.1
Upper Pad Flexural Reinforcement Ratio:	0.0019	OK - Minimum Reinforcement Ratio Met - ACI10.5.1
Lower Pad Reinforcement Spacing:	7	in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4
Upper Pad Reinforcement Spacing:	7	in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4
Factored Punching Shear (V_u):	0.0	k
Nominal Punching Shear Capacity ($\phi_c V_n$):	1640.4	k - ACI11.12.2.1
$V_u / \phi V_c$:	0.00	Result: OK
Factored Moment in Pier (M_u):	540.5	k-ft
Pier Moment Capacity (ϕM_n):	1070.4	k-ft
$M_u / \phi M_n$:	0.50	Result: OK
Factored Shear in Pier (V_u):	9.5	k
Pier Shear Capacity (ϕV_n):	218.0	k
$V_u / \phi V_c$:	0.04	Result: OK
Pier Shear Reinforcement Ratio:	0.0009	No Ties Necessary for Shear - ACI11.5.6.1
Factored Tension in Pier (T_u):	0.0	k
Pier Tension Capacity (ϕT_n):	570.2	k
$T_u / \phi T_n$:	0.00	Result: OK
Factored Compression in Pier (P_u):	16.4	k
Pier Compression Capacity (ϕP_n):	4030.4	k - ACI10.3.6.2
$P_u / \phi P_n$:	0.00	Result: OK
$M_u/\phi_B M_n + T_u/\phi_T T_n$:	0.50	Result: OK

Nominal and Design Moment Capacity and Factored Design Loads



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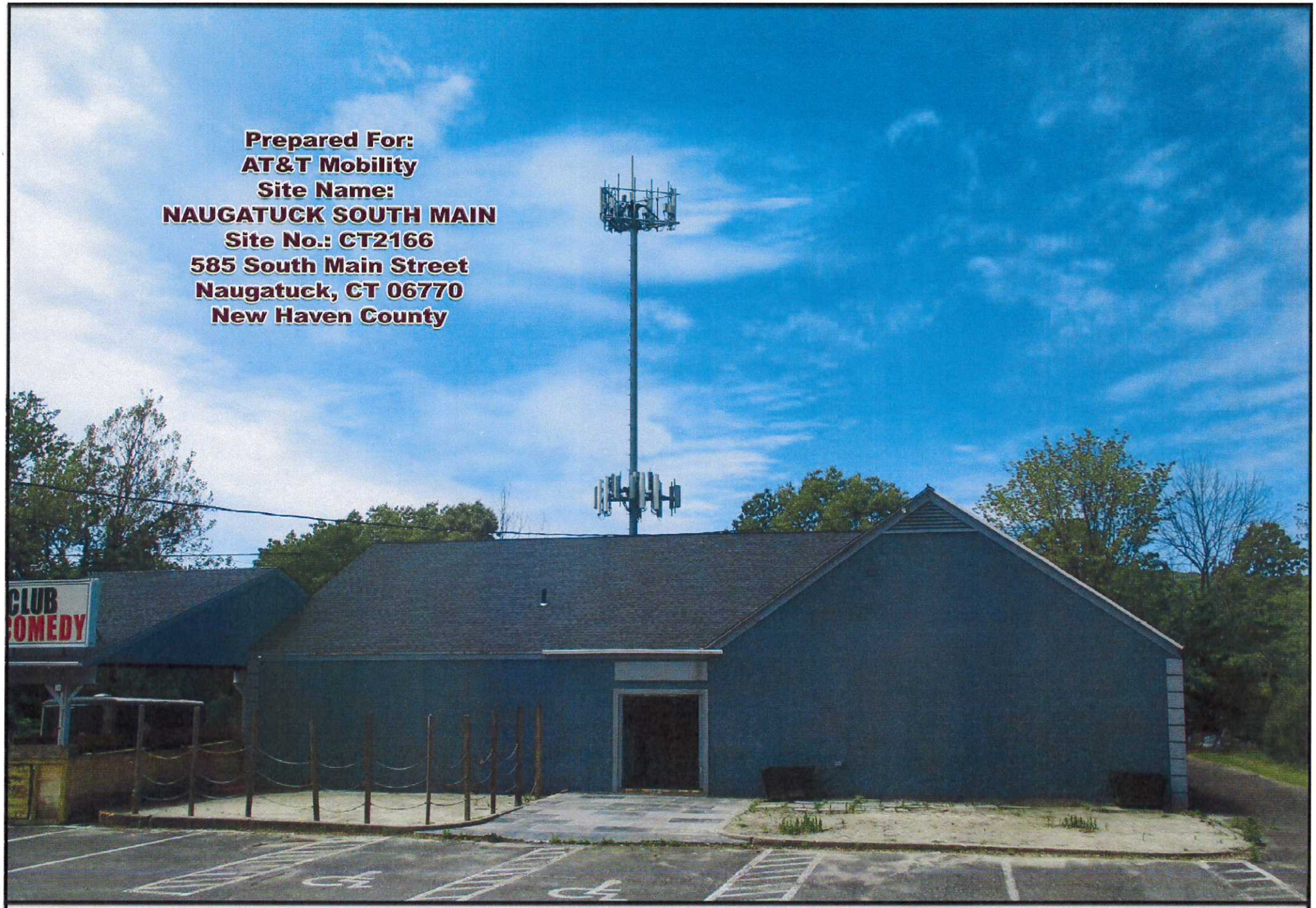


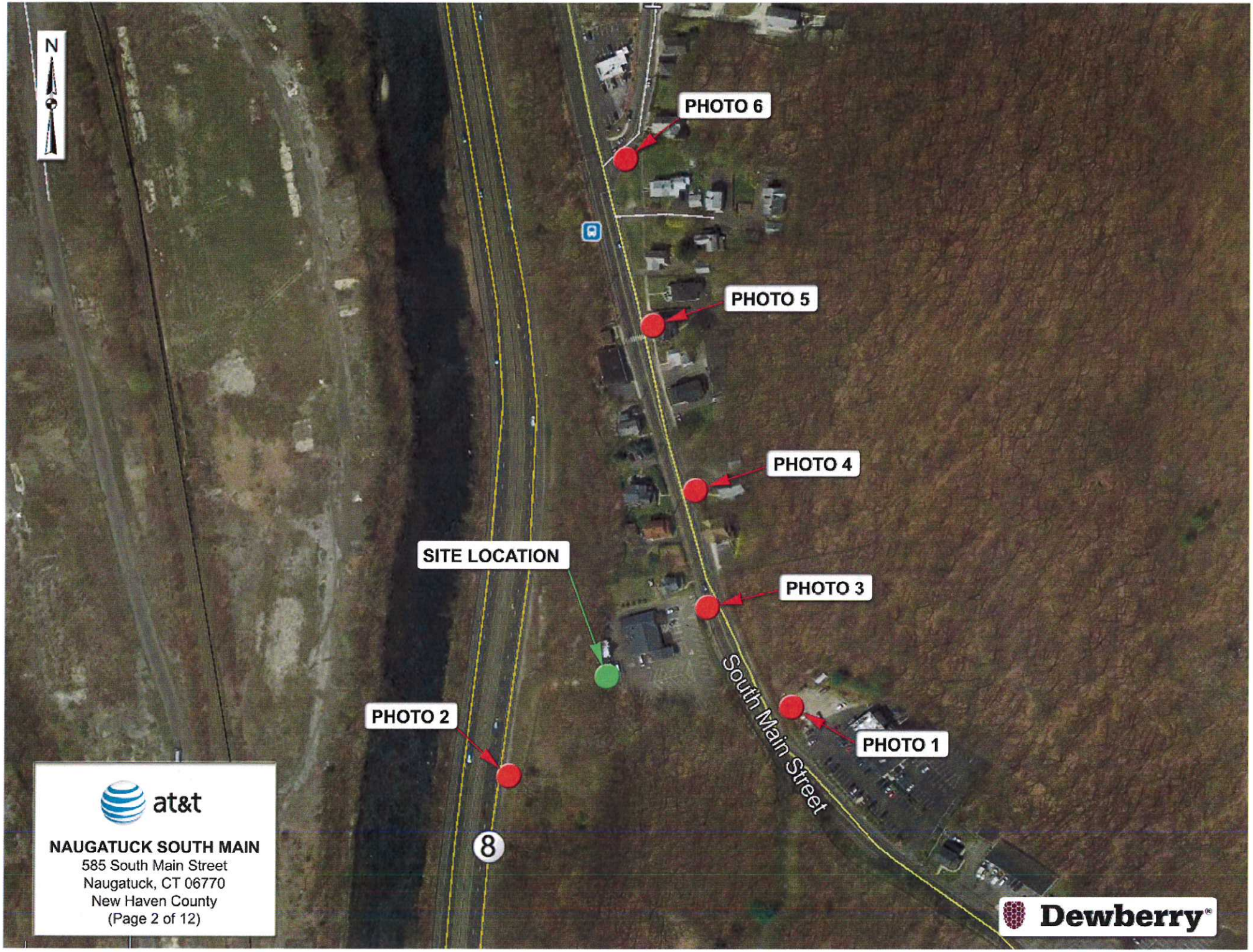
For visual reference only. Actual visibility is dependent upon weather conditions, season, sunlight, and viewer location.

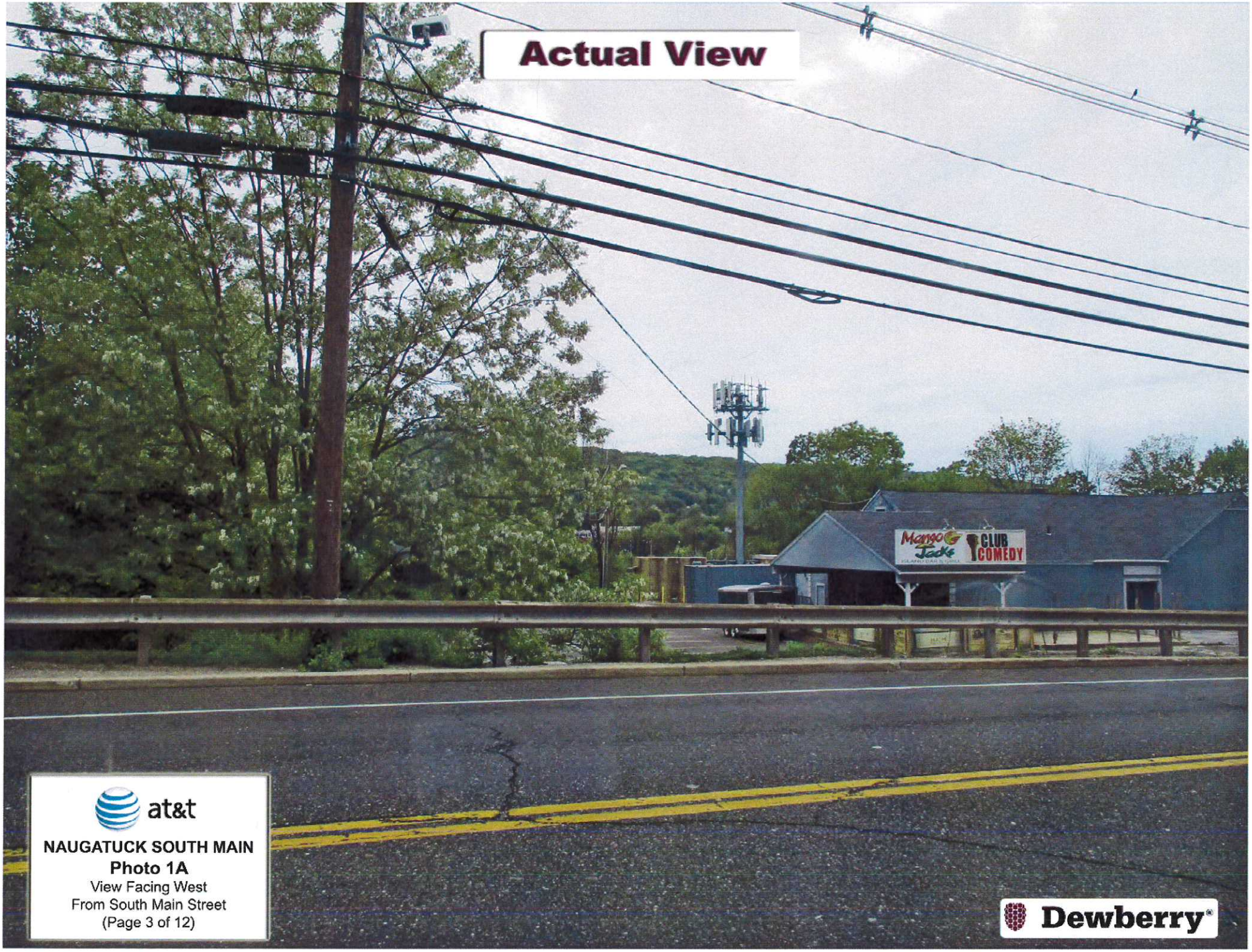
at&t
550 Enterprise Drive Suite 3A
Rocky Hill, CT 06067

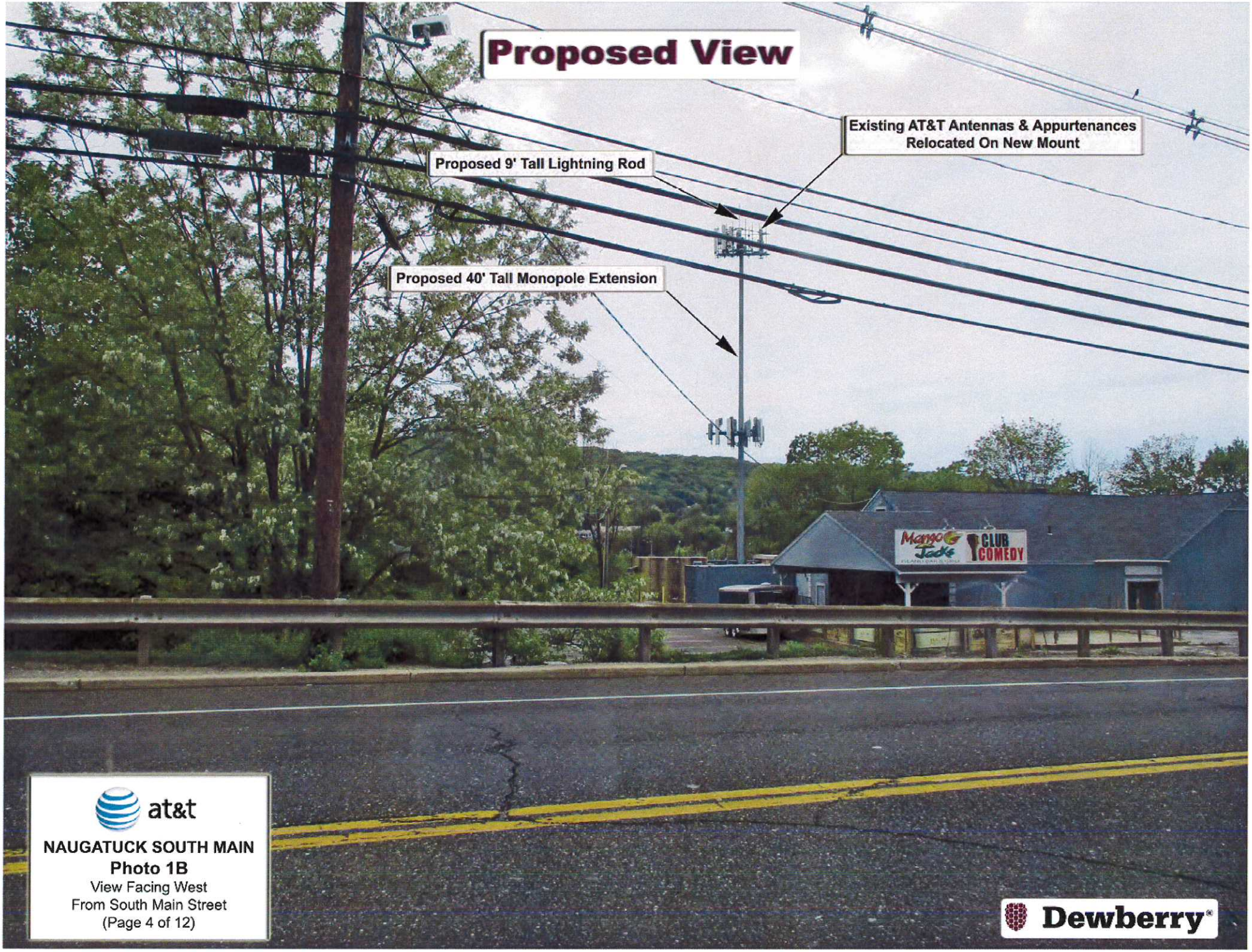
NAUGATUCK SOUTH MAIN
Site No.: CT2166
DEWBERRY NO. 50065890
(Page 1 of 12)

SAI
27 Northwestern Drive
Salem, NH 03079

Dewberry
Dewberry Engineers Inc.
600 Parsippany Road
Suite 301
Parsippany, NJ 07054


N
PHOTO 6
PHOTO 5
PHOTO 4
SITE LOCATION
PHOTO 3
PHOTO 2
PHOTO 1
South Main Street
8
at&t
NAUGATUCK SOUTH MAIN
585 South Main Street
Naugatuck, CT 06770
New Haven County
(Page 2 of 12)
Dewberry


Actual View
Mango Jacks
CLUB COMEDY
at&t
NAUGATUCK SOUTH MAIN
Photo 1A
View Facing West
From South Main Street
(Page 3 of 12)
Dewberry



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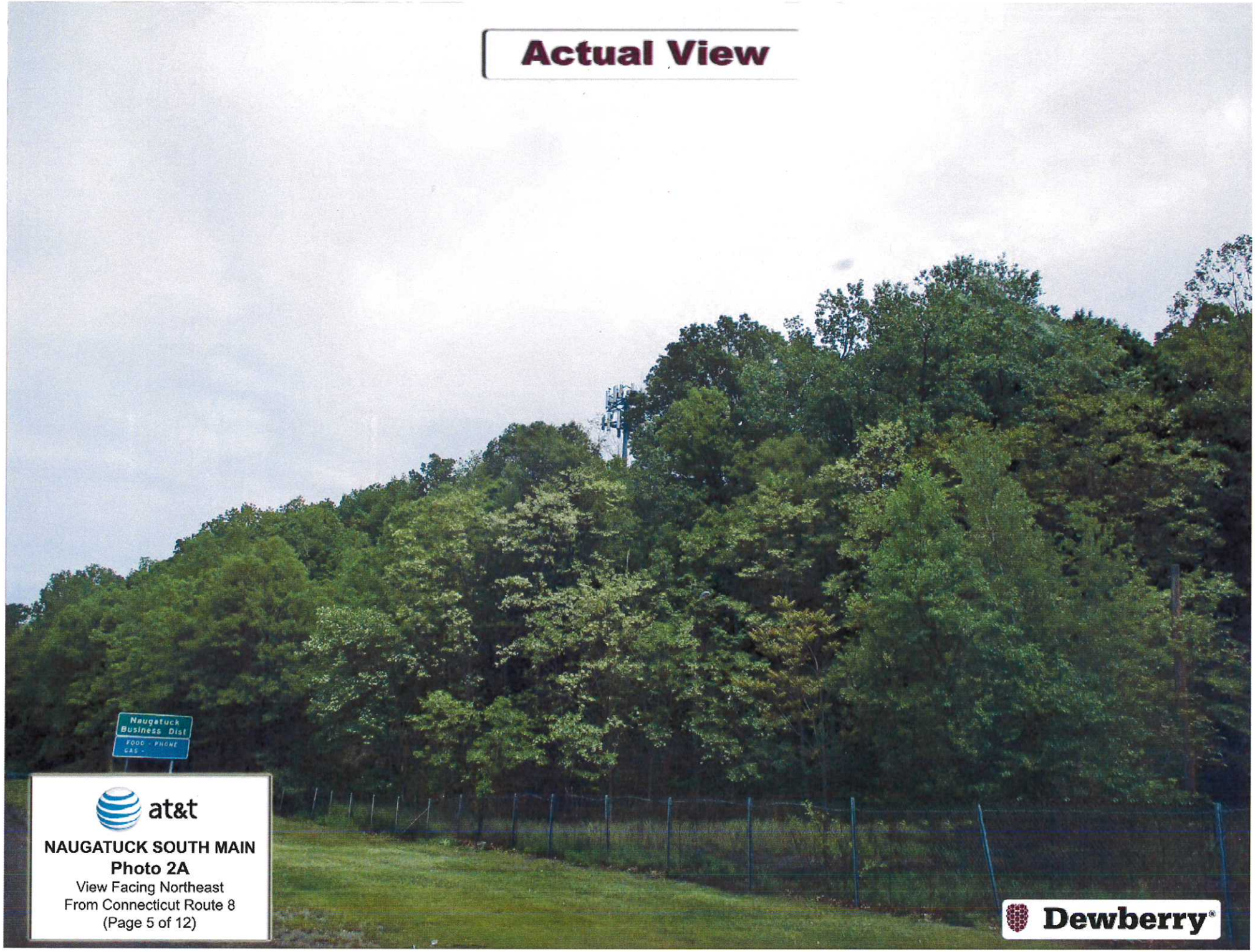
NAUGATUCK SOUTH MAIN
Photo 1B
View Facing West
From South Main Street
(Page 4 of 12)

Dewberry

Actual View



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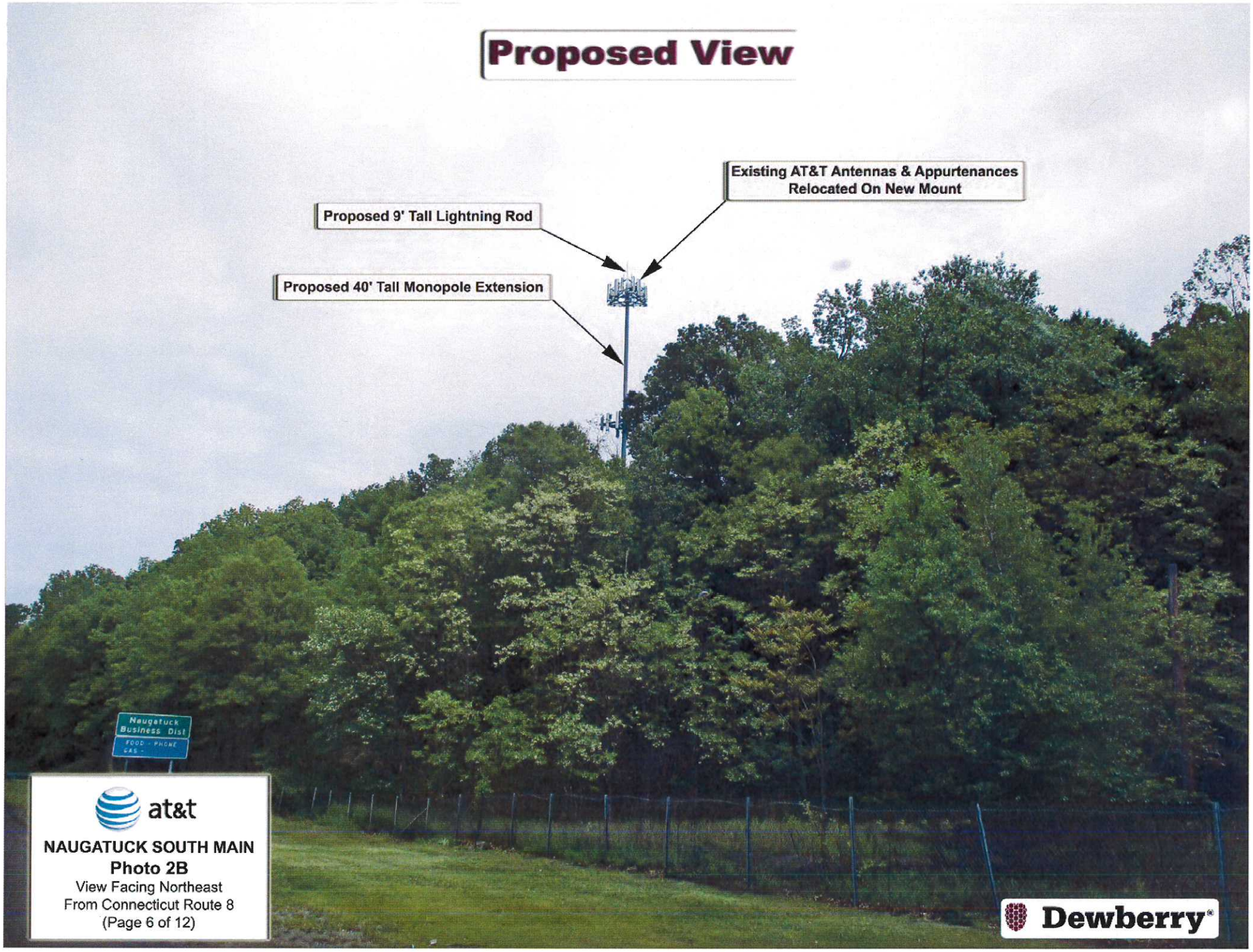
NAUGATUCK SOUTH MAIN
Photo 2A
View Facing Northeast
From Connecticut Route 8
(Page 5 of 12)

Dewberry

Proposed View



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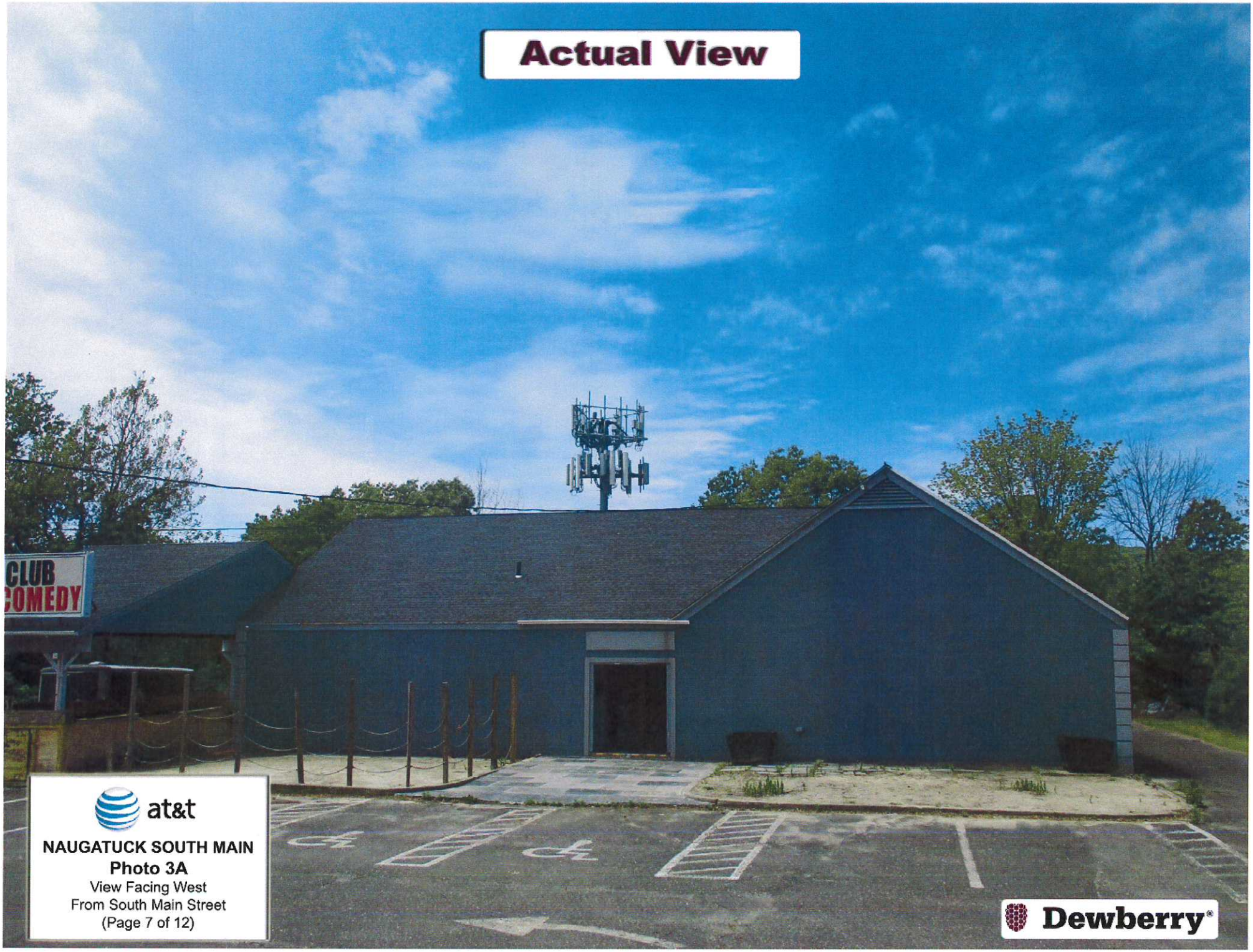
NAUGATUCK SOUTH MAIN
Photo 2B
View Facing Northeast
From Connecticut Route 8
(Page 6 of 12)

Dewberry


Actual View
CLUB
COMEDY
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NAUGATUCK SOUTH MAIN
Photo 3A
View Facing West
From South Main Street
(Page 7 of 12)
Dewberry


Proposed View
Proposed 9' Tall Lightning Rod
Existing AT&T Antennas & Appurtenances Relocated On New Mount
Proposed 40' Tall Monopole Extension
CLUB
COMEDY
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NAUGATUCK SOUTH MAIN
Photo 3B
View Facing West
From South Main Street
(Page 8 of 12)
Dewberry


Actual View
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NAUGATUCK SOUTH MAIN
Photo 3A
View Facing Southwest
From South Main Street
(Page 9 of 12)
Dewberry


Proposed View
Existing AT&T Antennas & Appurtenances Relocated On New Mount
Proposed 9' Tall Lightning Rod
Proposed 40' Tall Monopole Extension
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NAUGATUCK SOUTH MAIN
Photo 3B
View Facing Southwest
From South Main Street
(Page 10 of 12)
Dewberry

Actual View

Existing Monopole & Proposed Monopole Extension Are Not Visible From This Location

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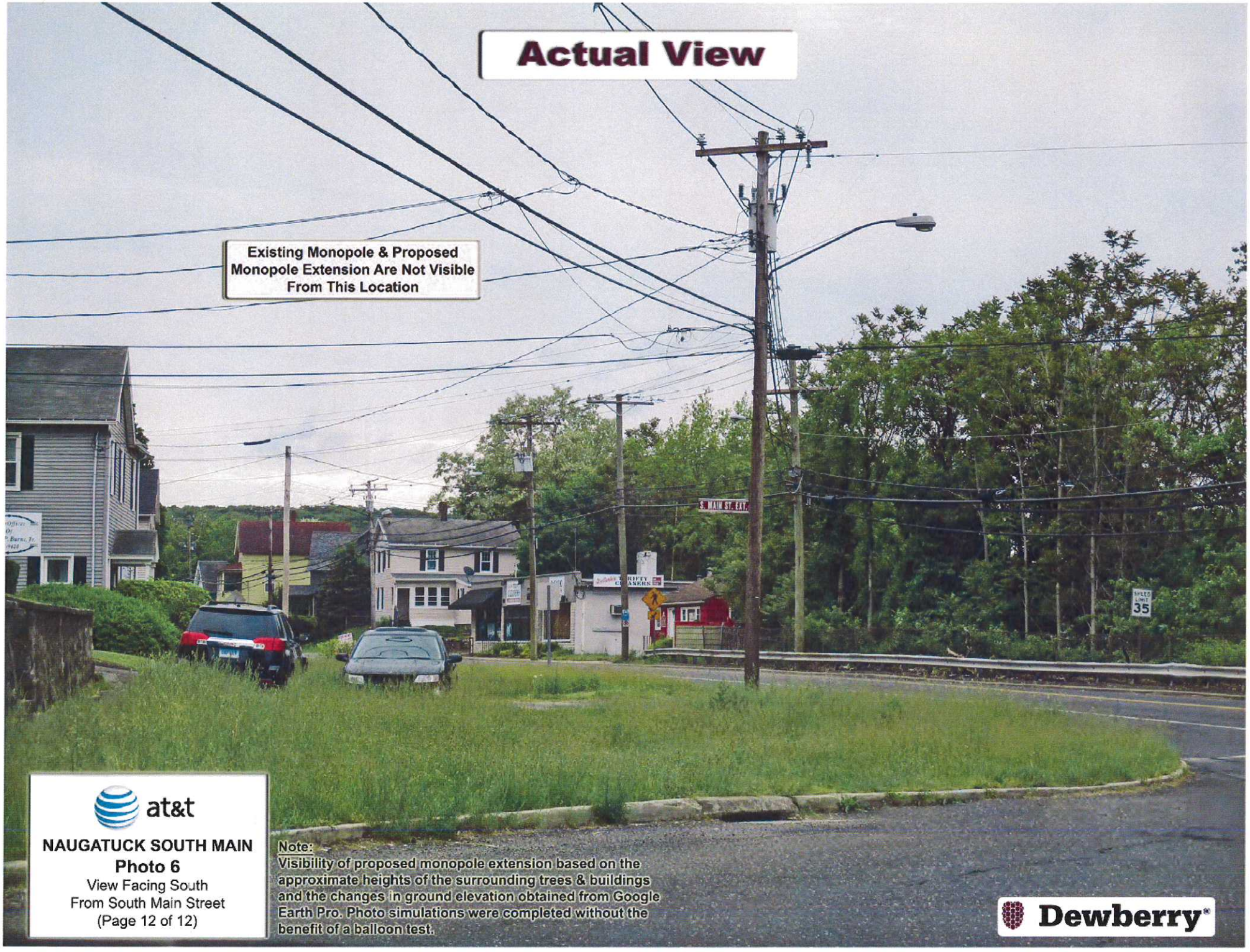
NAUGATUCK SOUTH MAIN
Photo 5
View Facing South
From South Main Street
(Page 11 of 12)

Note:
Visibility of proposed monopole extension based on the approximate heights of the surrounding trees & buildings and the changes in ground elevation obtained from Google Earth Pro. Photo simulations were completed without the benefit of a balloon test.

Dewberry



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NAUGATUCK SOUTH MAIN
Photo 6
View Facing South
From South Main Street
(Page 12 of 12)

Note:
Visibility of proposed monopole extension based on the approximate heights of the surrounding trees & buildings and the changes in ground elevation obtained from Google Earth Pro. Photo simulations were completed without the benefit of a balloon test.

Dewberry

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EBI Consulting
environmental | engineering | due diligence

21 B Street
Burlington, MA 01803
Tel: (781) 273-2500
www.ebiconsulting.com

July 28, 2017

Ms. Kristina Oakland
American Tower Corporation
10 Presidential Way
Woburn, Massachusetts 01801

Subject: Memo Regarding Review of Historic Resources
Naugatuck (Telephone Pole) / 302526
585 South Main Street, Naugatuck, CT 06770-4725
EBI Project #6117003583

Dear Ms. Oakland:

American Tower Corporation has contracted EBI Consulting (EBI) to conduct a review of Connecticut State Historic Preservation Office files of historic properties to complete research that will be utilized in the completion of a Section 106 Review.

Based on a review of files conducted on July 26, 2017 by Meghan Gross, Architectural Historian II with EBI Consulting, with computerized records provided by the Connecticut State Historic Preservation Office, zero National Register of Historic Places or Connecticut State Register-listed or eligible historic districts are located within a ½ mile radius of the Subject Property. In addition, the tower was determined to have "No Effect" on historic, architectural, or archaeological properties listed on or eligible for the National Register of Historic Places by the Connecticut Historical Commission in a letter dated March 1, 1999. Please see attached letter.

The telecommunications facility was constructed prior to March 31, 2001 according to American Tower Corporation, the tower owner. Please see attached documentation regarding the original construction date of the facility.

Please note that at this time, a review of archaeological resources has not yet been conducted, as the plans do not indicate any new ground disturbance. If any new ground disturbance is proposed, further review may be required.

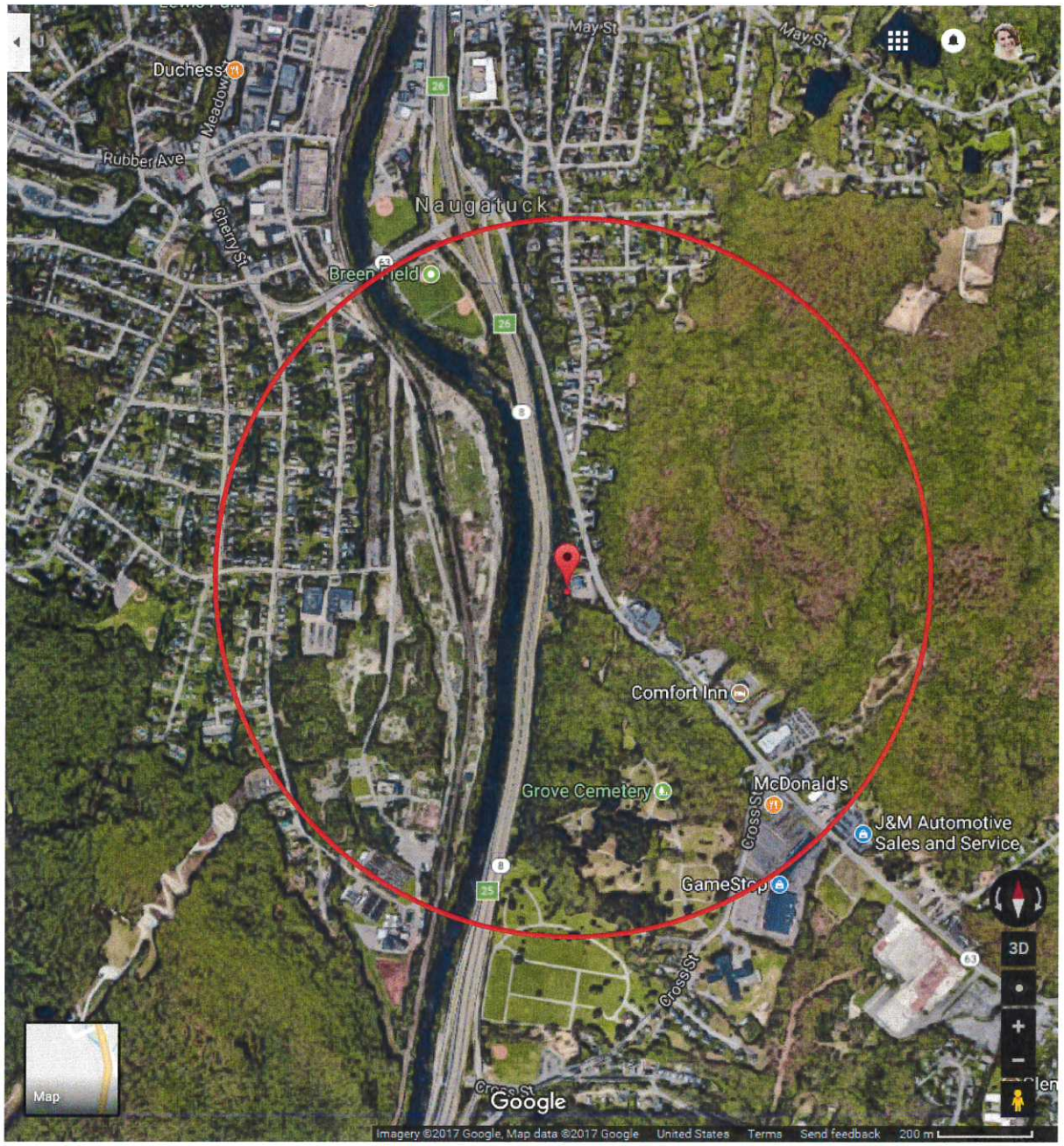
Please feel free to contact me if you have any further questions or concerns at this time.

Sincerely,

Ms. Meghan Gross
Architectural Historian II
P: 781-572-0698
F: 617-715-6526
mgross@ebiconsulting.com

Attachments: Historic Resources Map
Project Plans
Previous SHPO Documentation
American Tower PAL

6117003583 Historic Resources Map



APE-VE: ½ mile

585 South Main Street, Naugatuck, CT

No Historic Resources Present

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COA: 6260F

302526 - NAUGATUCK (TELEPHONE POLE), CONNECTICUT

49 FT MONOPOLE MODIFICATIONS W/ PROPOSED 40 FT EXTENSION

AS-BUILT SIGN-OFF		
DESCRIPTION	SIGNATURE	DATE
CONTRACTOR NAME		
CONTRACTOR REPRESENTATIVE (PRINT NAME)		
CONTRACTOR REPRESENTATIVE (SIGNATURE)		
REDEVELOPMENT P.M. (PRINT NAME)		
REDEVELOPMENT P.M. (SIGNATURE)		

PROJECT SUMMARY

ATC PROJECT NUMBER: OAA698250_C6_03

CUSTOMER: AT&T MOBILITY

CUSTOMER SITE NAME: NAUGATUCK SOUTH MAIN

CUSTOMER SITE NUMBER: CT2166

SITE ADDRESS: 585 SOUTH MAIN ST. (SOC. CLUB)
NAUGATUCK, CT 06770

DATE: 06/08/17

GEOGRAPHIC COORDINATES: 41.47844
-73.0485

PROJECT DESCRIPTION

THE MODIFICATIONS PRESENTED ON THESE DRAWINGS ARE BASED ON THE RECOMMENDATIONS OUTLINED IN THE STRUCTURAL ANALYSIS COMPLETED UNDER ENGINEERING PROJECT NUMBER OAA698250_C3_01 DATED 03/30/17. SATISFACTORY COMPLETION OF THE WORK INDICATED ON THESE DRAWINGS WILL RESULT IN THE STRUCTURE MEETING THE REQUIREMENTS OF THE SPECIFICATIONS UNDER WHICH THE STRUCTURAL WAS COMPLETED.

SHEET	SHEET TITLE	REV.
B-1	BILL OF MATERIALS	0
IGN	IBC GENERAL NOTES	0
SIC	SPECIAL INSPECTION CHECKLIST	0
A-1	MODIFICATION PROFILE	0
A-2	FOUNDATION DETAILS	0
A-3	REINFORCEMENT INSTALLATION DETAILS	0
A-3A	REINFORCEMENT INSTALLATION DETAILS (CONT'D)	0
A-4	MONOPOLE EXTENSION INSTALLATION DETAILS	0
F-1	MONOPOLE EXTENSION WELDMENT FABRICATION DETAILS	0
F-1A	MONOPOLE EXTENSION WELDMENT FABRICATION DETAILS (CONT'D)	0
F-1B	MONOPOLE EXTENSION WELDMENT FABRICATION DETAILS (CONT'D)	0
F-2	MONOPOLE EXTENSION WELDMENT FABRICATION DETAILS	0
F-3	TERMINATION BRACKET WELDMENT FABRICATION DETAILS	0
W821-20	#20 BAR BRACKET [W8X21 T-BRACKET]	0
#20SB	#20 STEP BOLT BRACKET FABRICATION AND INSTALLATION DETAILS	0
CP1575BC	CAP PLATE FABRICATION DETAILS	0

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REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	BJK	06/08/17

ATC SITE NUMBER:
302526

ATC SITE NAME:
NAUGATUCK (TELEPHONE POLE)

CONNECTICUT

SITE ADDRESS:
585 SOUTH MAIN ST. (SOC. CLUB)
NAUGATUCK, CT 06770

DRAWN BY:	BJK
APPROVED BY:	TJG/AT
DATE DRAWN:	06/08/17
ATC JOB NO:	OAA698250_C6_03

COVER

SHEET NUMBER:	REVISION:
COVER	0

BILL OF MATERIALS

QUANTITY REQUIRED	QUANTITY PROVIDED	PART NUMBER	DESCRIPTION	LENGTH	SHEET LIST	PART WEIGHT	WEIGHT (lb)	NOTES
			DYWIDAG REINFORCEMENT MATERIAL & HARDWARE					
6	6	-----	#20 DYWIDAG THREADBAR	30'-0"	A-2, A-3	501.0	3006	GALVANIZED
3	3	----	#20 COUPLER W/ (2) HEX NUTS EA.	----	----	----	----	GALVANIZED
65	65	W821-20	W8X21	1'-3"	A-2, A-3, W821-20	27.6	1794	#20 T-BRACKET
3	3	302526-3	TERMINATION BRACKET WELDMENT	2'-5 15/16"	A-3, F-3	46.7	140	
189	198	RUH4	RU-BOLT, 5/8"Ø X 3 1/8" C/C	----	BR-20C	----	----	(2) HHN-LKW / GALVANIZED
145	152	LHMB16#1-HDG	HOLLO-BOLT, 5/8"Ø (M16) LINDAPTER	----	----	----	----	HOT-DIPPED GALVANIZED
35	40	#20SB	STEP BOLT WELDMENT	0'-7 1/4"	#20SB	2.5	100	
			EXTENSION MATERIAL & HARDWARE					
1	1	302526-1	12.75" OD PIPE EXTENSION WELDMENT	20'-0"	A-4, F-1, F-1A, F-1B	1776.1	1776	
1	1	302526-2	12.75" OD PIPE EXTENSION WELDMENT	20'-0"	A-4, F-2, F-1A	1267.6	1268	
1	1	CP1575BC	PL 1/8" X 18 3/4"	1'-6 3/4"	A-4, CP1575BC	10.3	10	
2	3	----	BOLT, 1"Ø ASTM A325	3"	----	----	----	HHN-LKW-FW / GALVANIZED
30	32	----	BOLT, 1"Ø ASTM A325	4 3/4"	----	----	----	HHN / GALVANIZED
48	50	----	FLAT WASHER, 1"Ø ASTM F436	----	----	----	----	GALVANIZED
30	32	----	DTI SQUIRTER WASHER, 1"Ø (A325 RATED)	----	----	----	----	GALVANIZED
32	33	----	STEP BOLT, 5/8"Ø ASTM A449 W/ 4 1/2" MIN. UNTHREADED SHANK	8"±	----	----	----	(2) HHN-LKW / GALVANIZED
1	1	----	SAFETY CLIMB CABLE, 3/8" EHS	89'-0"	----	----	----	STAINLESS STEEL
						TOTAL WEIGHT (lb)	8,094	PAGE 1 OF 1

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BILL OF MATERIALS

SHEET NUMBER:	REVISION:
B-1	0

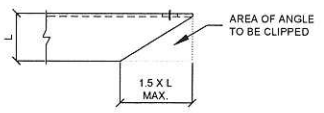
GENERAL

1. ALL WORK TO BE COMPLETED PER APPLICABLE LOCAL, STATE, FEDERAL CODES AND ORDINANCES AND COMPLY WITH ATC MASTER SPECIFICATIONS FOR WIRELESS TOWER SITES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND ABIDING BY ALL REQUIRED PERMITS.
2. ALL WORK INDICATED ON THESE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN TOWER AND FOUNDATION CONSTRUCTION.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IMMEDIATELY OF ANY INSTALLATION INTERFERENCES. ALL NEW WORK SHALL ACCOMMODATE EXISTING CONDITIONS. DETAILS NOT SPECIFICALLY SHOWN ON THE DRAWINGS SHALL FOLLOW SIMILAR DETAILS FOR THIS JOB.
4. ANY SUBSTITUTIONS SHALL CONFORM TO THE REQUIREMENTS OF THESE NOTES AND SPECIFICATIONS, AND SHOULD BE SIMILAR TO THOSE SHOWN. ALL SUBSTITUTIONS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
5. ANY MANUFACTURED DESIGN ELEMENTS SHALL CONFORM TO THE REQUIREMENTS OF THESE NOTES AND SPECIFICATIONS AND SHOULD BE SIMILAR TO THOSE SHOWN. THESE DESIGN ELEMENTS MUST BE STAMPED BY AN ENGINEER PROFESSIONALLY REGISTERED IN THE STATE OF THE PROJECT, AND SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO FABRICATION.
6. ALL WORK SHALL BE DONE IN ACCORDANCE WITH LOCAL CODES AND OSHA SAFETY REGULATIONS.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND EXECUTION OF ALL MISCELLANEOUS SHORING, BRACING, TEMPORARY SUPPORTS, ETC. NECESSARY, PER TIA-1019-A-2011, TO PROVIDE A COMPLETE AND STABLE STRUCTURE AS SHOWN ON THESE DRAWINGS.
8. CONTRACTOR'S PROPOSED INSTALLATION SHALL NOT INTERFERE, NOR DENY ACCESS TO, ANY EXISTING OPERATIONAL AND SAFETY EQUIPMENT.

STRUCTURAL STEEL

1. ALL DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC SPECIFICATIONS, LATEST EDITION.
2. ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B695.
3. ALL U-BOLTS SHALL BE ASTM A36 OR EQUIVALENT, WITH LOCKING DEVICE, UNLESS NOTED OTHERWISE.
4. FIELD CUT EDGES, EXCEPT DRILLED HOLES, SHALL BE GROUND SMOOTH.
5. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES & GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.
6. ALL STRUCTURAL STEEL EMBEDDED IN THE CONCRETE SHALL BE APPLIED WITH (2) BRUSHED COATS OF POLYGUARD CA-14 MASTIC OR EQUIVALENT. REFER TO THE MANUFACTURER SPECIFICATIONS FOR SURFACE PREPARATION AND APPLICATION. APPLICATION OF POLYGUARD 400 WRAP IS NOT ESSENTIAL.
7. CONTRACTOR SHALL PERFORM WORK ON ONLY ONE (1) TOWER FACE AND REPLACE/REINFORCE ONE (1) BOLT/MEMBER AT A TIME.
8. ALL FIELD DRILLED HOLES TO BE USED FOR FIELD BOLTING INSTALLATION SHALL BE STANDARD HOLES, AS DEFINED BY AISC, UNLESS NOTED OTHERWISE.

MAXIMUM ALLOWABLE ANGLE CLIP



PAINT

1. AS REQUIRED, CLEAN AND PAINT PROPOSED STEEL ACCORDING TO FAA ADVISORY CIRCULAR AC 70/7460-1K.

WELDING

1. ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.
2. ALL WELDS SHALL BE INSPECTED VISUALLY. IF DIRECTED BY ENGINEER OF RECORD, 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE (100% IF REJECTABLE DEFECTS ARE FOUND) TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.
3. INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
4. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.
5. ALL WELDING ON LATTICE TOWERS SHALL BE DONE WITH E70XX ELECTRODES. ALL WELDING ON POLE STRUCTURES SHALL BE DONE WITH E80XX ELECTRODES UNLESS NOTED OTHERWISE.
6. PRIOR TO FIELD WELDING GALVANIZED MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING 1/2" BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.

BOLT TIGHTENING PROCEDURE

1. STRUCTURAL CONNECTIONS TO BE ASSEMBLED AND INSPECTED IN ACCORDANCE WITH RCSC-2004 (SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR ASTM A490 BOLTS.)
2. FLANGE BOLTS SHALL BE INSTALLED AND TIGHTENED USING DIRECT TENSION INDICATING (DTI) SQUIRTER WASHERS. DTI SQUIRTER WASHERS ARE TO BE INSTALLED AND ORIENTED / TIGHTENED PER MANUFACTURER SPECIFICATIONS TO ACHIEVE DESIRED LEVEL OF BOLT PRE-TENSION.
3. IN LIEU OF USING DTI SQUIRTER WASHERS, FLANGE BOLTS MAY BE TIGHTENED USING AISC / RCSC "TURN-OF-THE-NUT" METHOD, PENDING APPROVAL BY THE ENGINEER OF RECORD (EOR). TIGHTEN FLANGE BOLTS USING THE CHART BELOW:

BOLT LENGTHS UP TO AND INCLUDING FOUR DIAMETERS

1/2"	BOLTS UP TO AND INCLUDING 2.0 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
5/8"	BOLTS UP TO AND INCLUDING 2.5 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
3/4"	BOLTS UP TO AND INCLUDING 3.0 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
7/8"	BOLTS UP TO AND INCLUDING 3.5 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1"	BOLTS UP TO AND INCLUDING 4.0 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1-1/8"	BOLTS UP TO AND INCLUDING 4.5 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1-1/4"	BOLTS UP TO AND INCLUDING 5.0 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1-3/8"	BOLTS UP TO AND INCLUDING 5.5 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1-1/2"	BOLTS UP TO AND INCLUDING 6.0 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT

BOLT LENGTHS OVER FOUR DIAMETERS BUT NOT EXCEEDING EIGHT DIAMETERS

1/2"	BOLTS 2.25 TO 4.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
5/8"	BOLTS 2.75 TO 5.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
3/4"	BOLTS 3.25 TO 6.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
7/8"	BOLTS 3.75 TO 7.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1"	BOLTS 4.25 TO 8.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1-1/8"	BOLTS 4.75 TO 9.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1-1/4"	BOLTS 5.25 TO 10.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1-3/8"	BOLTS 5.75 TO 11.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1-1/2"	BOLTS 6.25 TO 12.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT

4. SPLICE BOLTS SUBJECT TO DIRECT TENSION SHALL BE INSTALLED AND TIGHTENED AS PER SECTION 8.2.1 OF THE AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS", LOCATED IN THE AISC MANUAL OF STEEL CONSTRUCTION. THE INSTALLATION PROCEDURE IS PARAPHRASED AS FOLLOWS:

   FASTENERS SHALL BE INSTALLED IN PROPERLY ALIGNED HOLES AND TIGHTENED BY ONE OF THE METHODS DESCRIBED IN SUBSECTION 8.2.1 THROUGH 8.2.4.

   8.2.1 TURN-OF-NUT PRETENSIONING
   BOLTS SHALL BE INSTALLED IN ALL HOLES OF THE CONNECTION AND BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8.1, UNTIL ALL THE BOLTS ARE SIMULTANEOUSLY SNUG TIGHT AND THE CONNECTION IS FULLY COMPACTED. FOLLOWING THIS INITIAL OPERATION ALL BOLTS IN THE CONNECTION SHALL BE TIGHTENED FURTHER BY THE APPLICABLE AMOUNT OF ROTATION SPECIFIED ABOVE. DURING THE TIGHTENING OPERATION THERE SHALL BE NO ROTATION OF THE PART NOT TURNED BY THE WRENCH. TIGHTENING SHALL PROGRESS SYSTEMATICALLY.

5. ALL OTHER BOLTED CONNECTIONS SHALL BE BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8.1 OF THE SPECIFICATION.

   ALL BOLT HOLES SHALL BE ALIGNED TO PERMIT INSERTION OF THE BOLTS WITHOUT UNDUE DAMAGE TO THE THREADS. BOLTS SHALL BE PLACED IN ALL HOLES WITH WASHERS POSITIONED AS REQUIRED AND NUTS THREADED TO COMPLETE THE ASSEMBLY. COMPACTING THE JOINT TO THE SNUG-TIGHT CONDITION SHALL PROGRESS SYSTEMATICALLY FROM THE MOST RIGID PART OF THE JOINT. THE SNUG-TIGHTENED CONDITION IS THE TIGHTNESS THAT IS ATTAINED WITH A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER USING AN ORDINARY SPUD WRENCH TO BRING THE CONNECTED PLIES INTO FIRM CONTACT.

APPLICABLE CODES AND STANDARDS

1. ANSI/TIA: STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES, 222-G EDITION.
2. 2016 CONNECTICUT STATE BUILDING CODE.
3. 2012 INTERNATIONAL BUILDING CODE.
4. ACI 318: AMERICAN CONCRETE INSTITUTE, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, 318-02.
5. CRSI: CONCRETE REINFORCING STEEL INSTITUTE, MANUAL OF STANDARD PRACTICE, LATEST EDITION.
6. AISC: AMERICAN INSTITUTE OF STEEL CONSTRUCTION, MANUAL OF STEEL CONSTRUCTION, LATEST EDITION.
7. AWS: AMERICAN WELDING SOCIETY D1.1, STRUCTURAL WELDING CODE, LATEST EDITION.

SPECIAL INSPECTION

1. A QUALIFIED INDEPENDENT TESTING LABORATORY, EMPLOYED BY THE OWNER, SHALL PERFORM INSPECTION AND TESTING IN ACCORDANCE WITH IBC 2012, SECTION 1704 AS REQUIRED BY PROJECT SPECIFICATIONS FOR THE FOLLOWING CONSTRUCTION WORK:
   a) STRUCTURAL WELDING (CONTINUOUS INSPECTION OF FIELD WELD ONLY)
   b) HIGH STRENGTH BOLTS (PERIODIC INSPECTION OF A325 EXTENSION FLANGE BOLTS TO BE TIGHTENED PER "TURN-OF-THE-NUT" METHOD)
2. THE INSPECTION AGENCY SHALL SUBMIT INSPECTION AND TEST REPORTS TO THE BUILDING DEPARTMENT, THE ENGINEER OF RECORD, AND THE OWNER IN ACCORDANCE WITH IBC 2012, SECTION 1704, UNLESS THE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL TO PERFORM SUCH WORK WITHOUT THE SPECIAL INSPECTIONS.

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IBC GENERAL NOTES

SHEET NUMBER:	REVISION:
IGN	0

MODIFICATION INSPECTION NOTES

THE SPECIAL INSPECTION (SI) PROCEDURE IS INTENDED TO CONFIRM THAT CONSTRUCTION AND INSTALLATION MEETS ENGINEERING DESIGN, ATC PROCEDURES AND ATC STANDARD SPECIFICATIONS FOR WIRELESS TOWER SITES.

TO ENSURE THAT THE REQUIREMENTS OF THE SI ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR AND THE INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PO IS RECEIVED FROM AMERICAN TOWER CORPORATION (ATC). IT IS EXPECTED THAT EACH PARTY WILL PROACTIVELY REACH OUT TO THE OTHER PARTY. IF CONTACT INFORMATION IS NOT KNOWN, CONTACT YOUR AMERICAN TOWER POINT OF CONTACT.

SPECIAL INSPECTOR

THE SPECIAL INSPECTOR IS REQUIRED TO CONTACT THE GENERAL CONTRACTOR AS SOON AS RECEIVING A PO FROM ATC. UPON RECEIVING A PO FROM ATC THE SPECIAL INSPECTOR AT A MINIMUM MUST:

- REVIEW THE REQUIREMENTS OF THE SI CHECKLIST.
- WORK WITH THE GENERAL CONTRACTOR TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS.
- ANY CONCERNS WITH THE SCOPE OF WORK OR PROJECT COMMITMENT MUST BE RELAYED TO THE ATC POINT OF CONTACT IMMEDIATELY.

THE SPECIAL INSPECTOR IS RESPONSIBLE FOR COLLECTING ALL GENERAL CONTRACTOR INSPECTION AND TEST REPORTS, REVIEWING THESE DOCUMENTS FOR ADHERENCE TO CONTRACT DOCUMENTS, CONDUCTING THE IN-FIELD INSPECTIONS, AND SUBMITTING THE SI REPORT TO AMERICAN TOWER CORPORATION.

GENERAL CONTRACTOR

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

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

THE GENERAL CONTRACTOR SHALL PERFORM AND RECORD THE TEST AND INSPECTION RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE SI CHECKLIST.

SPECIAL INSPECTION CHECKLIST

INSPECTION DOCUMENT	DESCRIPTION	INSPECTION TESTING REQUIRED	RESPONSIBILITY	SI REVIEW REQUIRED			INSPECTION FREQUENCY	
				PRE CX	DURING CX	POST CX	PERIODIC	CONTINUOUS
SPECIAL INSPECTION FIELD WORK & REPORT	DOCUMENTATION AND SITE VISIT CONDUCTED BY AN ATC APPROVED SPECIAL INSPECTOR AS REQUIRED BY ATC AND OTHER AUTHORITIES HAVING JURISDICTION. INSPECTION PARAMETERS TO FOLLOW ATC'S STANDARD SPECIFICATION FOR WIRELESS TOWER SITES.	✔	SI			✔		
ENGINEERING ASSEMBLY DRAWINGS	GC SHALL SUBMIT DRAWINGS TO SI FOR INCLUSION IN SI REPORT	✔	GC	✔				
FABRICATED MATERIAL VERIFICATION & INSPECTION	MTR AND OR MILL CERTIFICATIONS FOR SUPPLIED MATERIALS GC SHALL SUPPLY SI WITH REPORTS TO BE INCLUDED IN SI REPORT WHEN REQUIRED BY ATC	✔	SI	✔				
CERTIFIED WELD INSPECTION	INSPECTION AND REPORT OF STRUCTURAL WELDING PERFORMED DURING PROJECT COMPLETED BY A CWI AND INCLUDED WITHIN SI REPORT	✔	GC / TA			✔	✔	
FOUNDATION INSPECTION & VERIFICATION	VISUAL OBSERVATION AND APPROVAL OF FOUNDATION EXCAVATION, REBAR PLACEMENT, CASING/SHORING/FORMING PLACEMENT, AND ANCHOR TEMPLATE AND ANCHOR PLACEMENT - TO BE SI APPROVED PRIOR TO CONCRETE POUR AND DOCUMENTED IN THE SI REPORT		SI					
ANCHOR, ROCK ANCHOR OR HELICAL PULL-OUT TEST	PULL TESTING OF INSTALLED ANCHORS TO BE COMPLETED AND DOCUMENTED IN SI REPORT		GC / TA					
CONCRETE INSPECTION & VERIFICATION	CONCRETE MIX DESIGN, SLUMP TEST, COMPRESSIVE TESTING, AND SAMPLE GATHERING TECHNIQUES ARE TO BE PROVIDED FOR INCLUSION IN THE SI REPORT. SI SHALL VERIFY CONCRETE PLACEMENT AS REQUIRED BY THE DESIGN DOCUMENTS (INSPECTION FREQUENCY IS MARKED CONTINUOUS)		GC / TA					
DYWIDAG PLACEMENT/ANCHOR BOLT EMBEDMENT - EPOXY/GROUT INSTALL	ANCHOR/BAR EMBEDMENT, HOLE SIZE, EPOXY/GROUT TYPE, INSTALLATION TEMPERATURE AND INSTALLATION SHALL BE VERIFIED BY THE SI AND INCLUDED IN THE SI REPORT	✔	GC / SI		✔			✔
BASE PLATE GROUT INSPECTION & VERIFICATION	BASE PLATE GROUTING TYPE AND PLACEMENT SHALL BE CONFIRMED BY THE SI AND INCLUDED IN THE SI REPORT		GC / SI					
EARTHWORK INSPECTION & VERIFICATION	EXCAVATION, FILL, SLOPE, GRADE AND OTHER EARTHWORK REQUIREMENTS PER PLANS SHALL BE VERIFIED BY THE SI AND INCLUDED IN THE SI REPORT		GC / TA					
COMPACTION VERIFICATION	CONTRACTOR SHALL PROVIDE AN INDEPENDENT THIRD PARTY CERTIFIED INSPECTION WHICH PROVIDES TEST RESULTS FOR COMPACTION TEST OF SOILS IN PLACE TO ASTM STANDARDS.		GC / TA					
GROUND TESTING & VERIFICATION	GC SHALL PROVIDE DOCUMENTATION SHOWING THAT THE GROUNDING SYSTEM SHALL HAVE A MEASURED RESISTANCE TO THE GROUND OF NOT MORE THAN THE RECOMMENDED 10 OHMS, PER THE ATC CONSTRUCTION SPECIFICATION UNDER SECTION 2.15 THIS DOCUMENTATION MUST BE AN INDEPENDENT CERTIFICATION.		GC					
STEEL CONSTRUCTION INSPECTION & VERIFICATION	VISUAL OBSERVATION AND APPROVAL OF STEEL CONSTRUCTION TO BE PERFORMED BY THE SI. INSPECTION TO INCLUDE VERIFICATION OF NEW CONSTRUCTION OR MODIFICATION OF EXISTING CONSTRUCTION PER ENGINEERED PLANS. DETAILED VERIFICATION SHALL BE INCLUDED IN SI REPORT.	✔	SI			✔	✔	
ON-SITE COLD GALVANIZING VERIFICATION	SI SHALL VERIFY WITH GC ALL COLD GALVANIZATION TYPE AND APPLICATION AND INCLUDE SUMMARY IN SI REPORT	✔	GC			✔	✔	
GUY WIRE TENSIONING & TOWER ALIGNMENT REPORT	GC SHALL PROVIDE SI EVIDENCE OF PROPER GUY TENSIONING AND TOWER PLUMB PER PLANS. SI SHALL VERIFY AND INCLUDE PLUMB AND TENSION REPORTING IN SI REPORT.		GC					
GC AS-BUILT DRAWINGS WITH CONSTRUCTION RED-LINES	GC SHALL SUBMIT "AS-BUILT" DRAWINGS INDICATING ANY APPROVED CHANGES TO ENGINEERED PLANS TO SI FOR APPROVAL/REVIEW AND INCLUSION IN SI REPORT	✔	GC			✔		
SI AS-BUILT DRAWINGS WITH INSPECTION RED-LINES (AS REQUIRED)	SI SHALL SUBMIT "AS-BUILT" DRAWINGS INDICATING ANY APPROVED CHANGES TO ENGINEERED PLANS WITHIN SI REPORT	✔	SI			✔		
TIA INSPECTION	SI SHALL COMPLETE TIA INSPECTION AND PROVIDE SEPARATE TIA INSPECTION DOCUMENTATION TO ATC CM		SI					
PHOTOGRAPHS	PHOTOGRAPHIC EVIDENCE OF SPECIAL INSPECTION, ON SITE REMEDIATION, AND ITEMS FAILING INSPECTION & REQUIRING FOLLOW UP TO BE INCLUDED WITHIN THE SI REPORT. COMPLETE PHOTO LOG IS TO BE SUBMITTED WITHIN SI REPORT.	✔	GC / SI			✔		

NOTE: SPECIAL INSPECTIONS ARE INTENDED TO BE A COLLABORATIVE EFFORT BETWEEN GC AND SI. WHENEVER POSSIBLE GC IS TO PROVIDE SI WITH PHOTOGRAPHIC OR OTHER ACCEPTABLE EVIDENCE OF PROPER INSTALLATION IF PERIODIC INSPECTION FREQUENCY IS ACCEPTABLE. THE GC AND SI SHALL WORK TO COMPILE EVIDENCE OF PROPER CONSTRUCTION AND LIMIT THE NUMBER OF SI SITE VISITS REQUIRED.

TABLE KEY:
SI - ATC APPROVED SPECIAL INSPECTOR
GC - GENERAL CONTRACTOR
TA - 3RD PARTY TESTING AGENCY
CX - CONSTRUCTION
CM - CONSTRUCTION MANAGER
ATC - AMERICAN TOWER CORPORATION

AMERICAN TOWER®
ATC TOWER SERVICES
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: 6260F

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	BJK	06/08/17

ATC SITE NUMBER:
302526

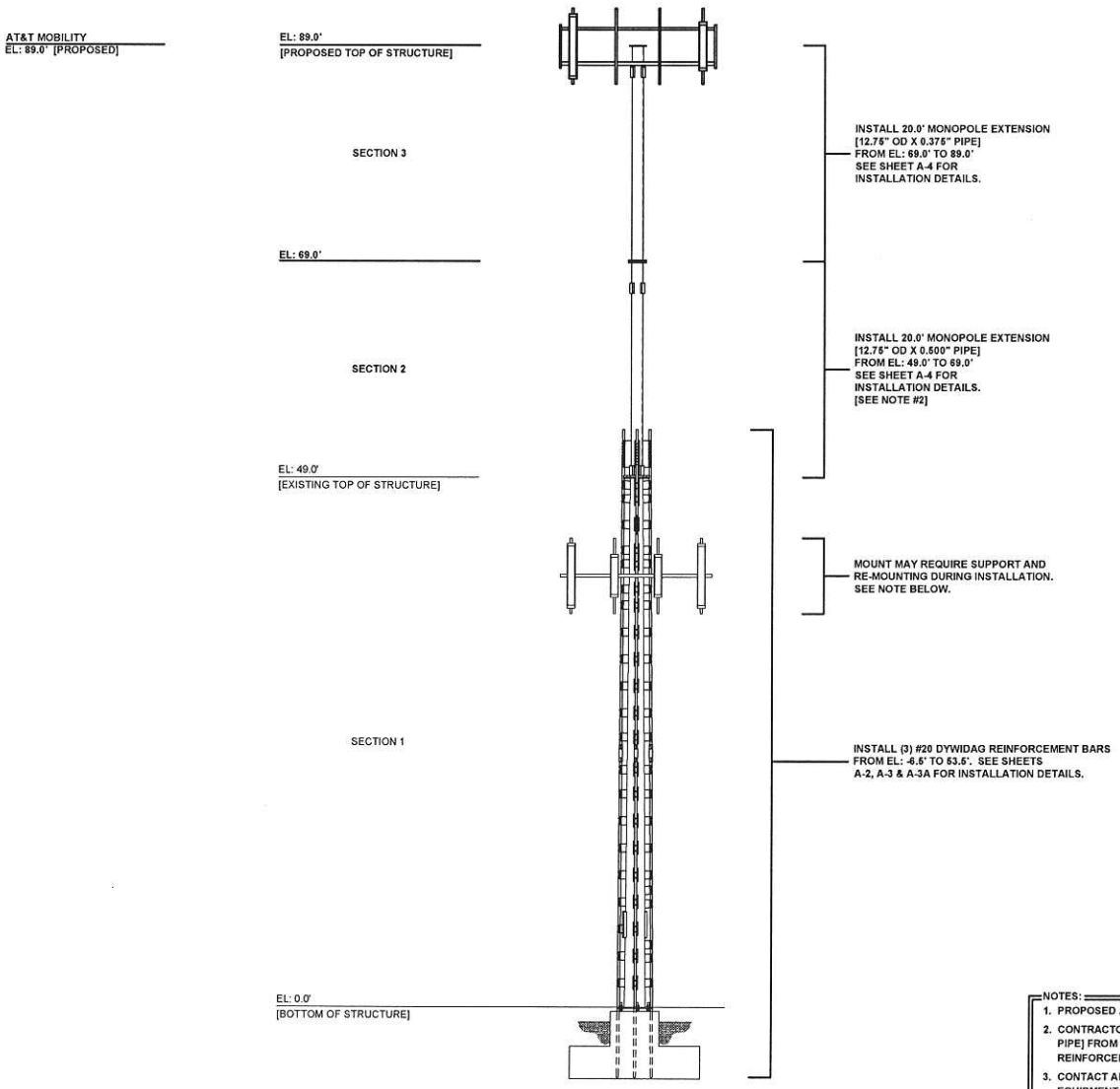
ATC SITE NAME:
NAUGATUCK (TELEPHONE POLE)
CONNECTICUT

SITE ADDRESS:
585 SOUTH MAIN ST. (SOC. CLUB)
NAUGATUCK, CT 06770

DRAWN BY:	BJK
APPROVED BY:	TJG/AT
DATE DRAWN:	06/08/17
ATC JOB NO:	OAA698250_C6_03

SPECIAL INSPECTION CHECKLIST

SHEET NUMBER:	REVISION:
SIC	0



TOWER ELEVATION VIEW

NOTES:
1. PROPOSED AT&T MOBILITY COAX TO BE INSTALLED INSIDE MONOPOLE.
2. CONTRACTOR TO INSTALL 20.0' MONOPOLE EXTENSION [12.75" OD X 0.500" PIPE] FROM EL: 49.0' TO 69.0' PRIOR TO INSTALL OF (3) #20 DYWIDAG REINFORCEMENT BARS.
3. CONTACT AMERICAN TOWER FIELD OPERATIONS WHEN EXISTING EQUIPMENT INTERFERES WITH INSTALLATION OF MODIFICATIONS. ONCE APPROVED, EXISTING EQUIPMENT MAY BE TEMPORARILY MOVED DURING INSTALLATION & REINSTALLED TO THE ORIGINAL HEIGHT & LOCATION BY CONTRACTOR POST COMPLETION OF MODIFICATIONS.

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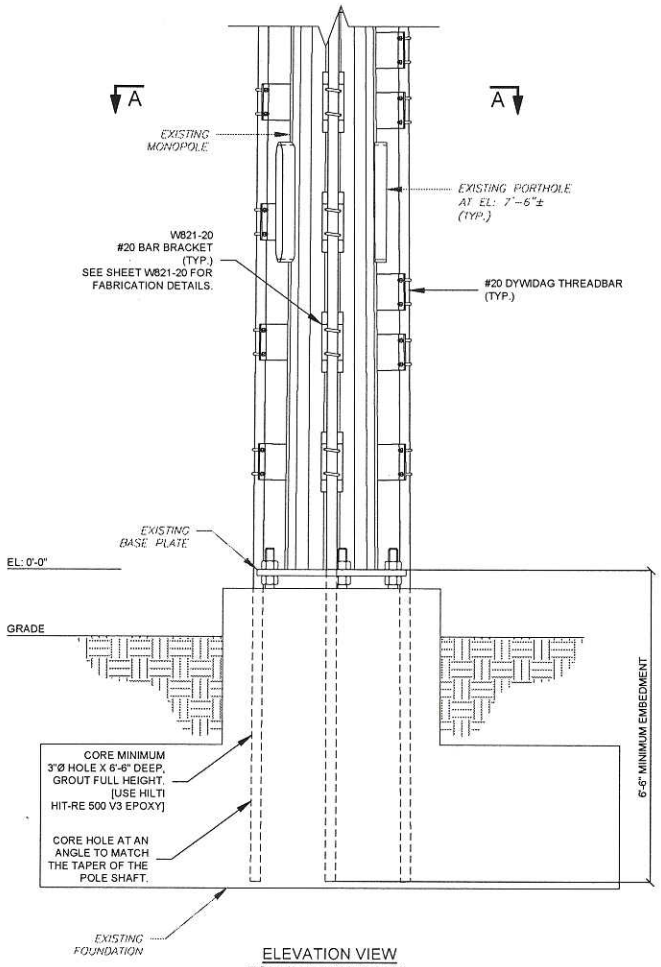
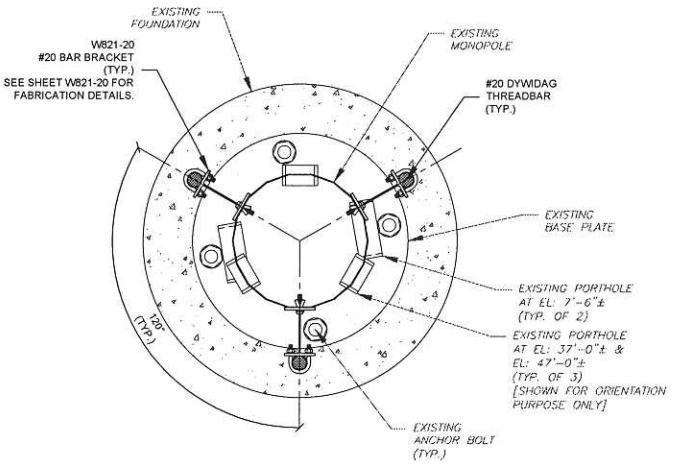
MODIFICATION PROFILE

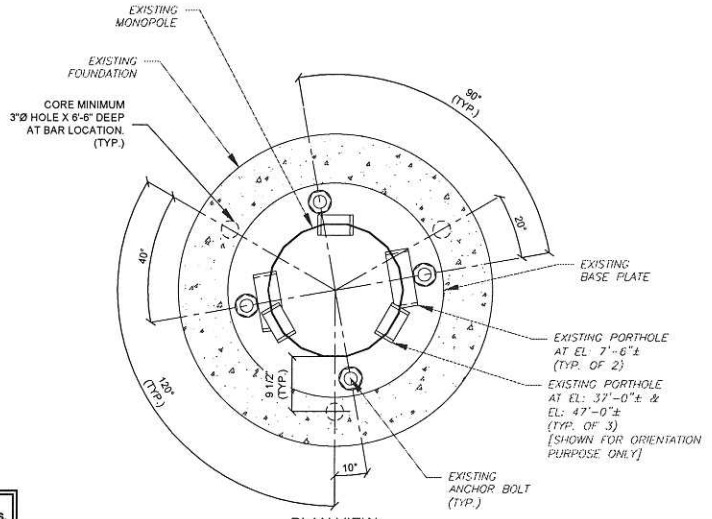
SHEET NUMBER:	REVISION:
A-1	0



ELEVATION VIEW
FOUNDATION DETAIL



PLAN VIEW
SECTION "A-A"



PLAN VIEW
HOLE DRILL DETAIL

NOTES:
1. UNLESS SPECIFIED OTHERWISE, CONTRACTOR IS TO REMOVE ALL GROUT BELOW BASE PLATE AND VERIFY / TIGHTEN ALL LEVELING NUTS.
2. CONTRACTOR TO CONTACT ENGINEER OF RECORD IF EXISTING REBAR IS ENCOUNTERED DURING CORING.

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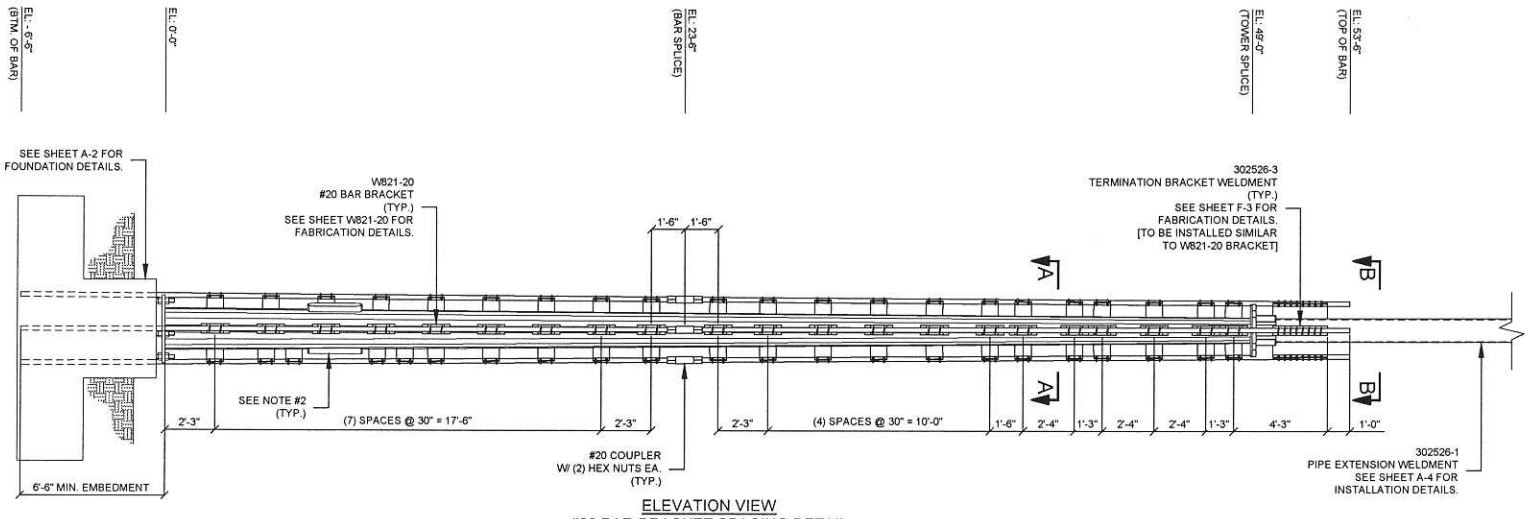
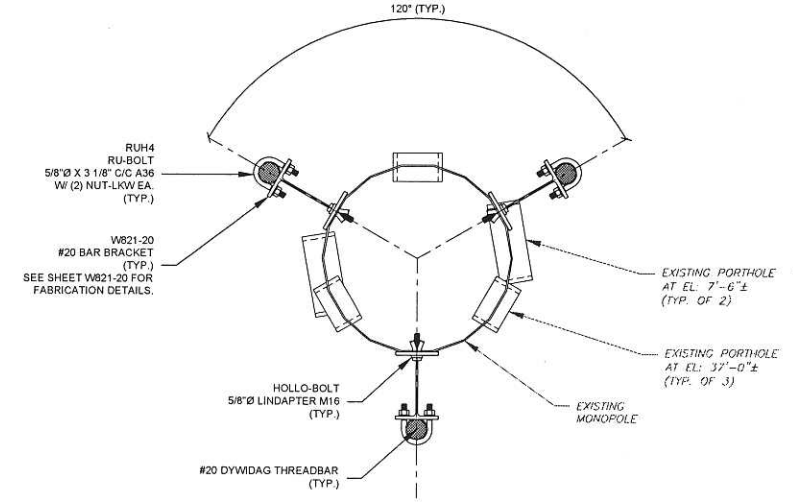
FOUNDATION DETAILS

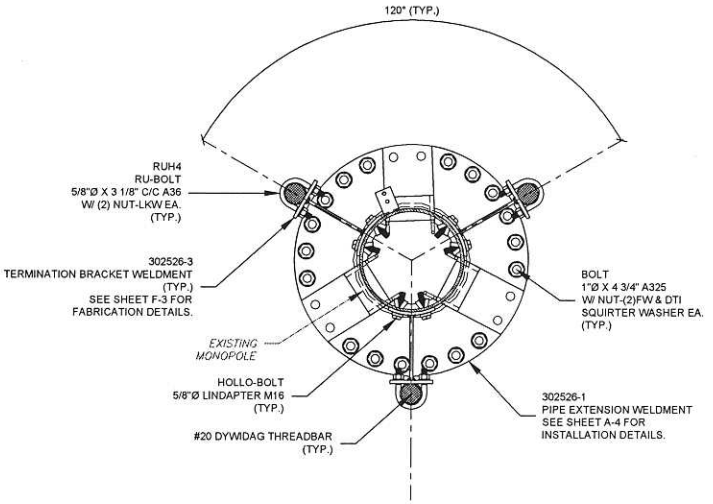
SHEET NUMBER:	REVISION:
A-2	0



ELEVATION VIEW
#20 BAR BRACKET SPACING DETAIL



SECTION "A-A"
TYPICAL DETAIL



SECTION "B-B"
TYPICAL DETAIL

NOTES:
1. REPLACE ANY EXISTING STEP BOLTS THAT INTERFERE WITH NEW REINFORCING BARS. THE NEW STEP SHALL BE ATTACHED TO THE REINFORCING BARS IN THE SAME APPROXIMATE LOCATION. SEE SHEET #20SB FOR INSTALLATION DETAILS.
2. PLACE A BRACKET (W821-20) DIRECTLY ABOVE AND BELOW ANY EXISTING PORTHOLE AS REQUIRED.
3. SEE SHEET A-3A FOR #20 BAR BRACKET INSTALLATION DETAILS.

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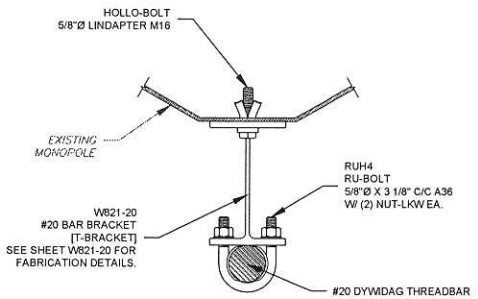
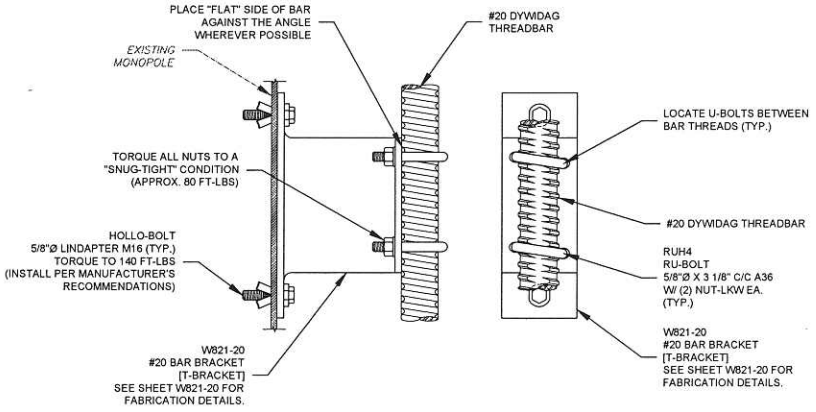
REINFORCEMENT INSTALLATION DETAILS

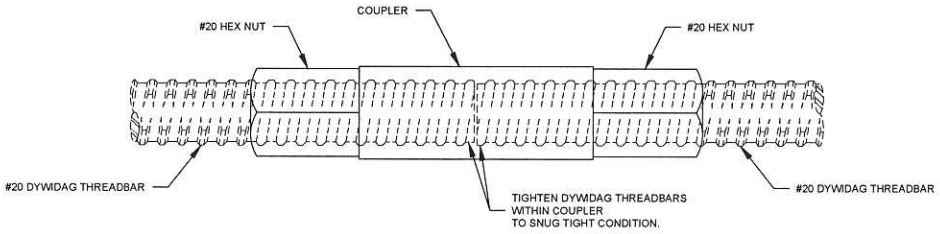
SHEET NUMBER:	REVISION:
A-3	0



PLAN VIEW
#20 BAR BRACKET ORIENTATION
[W8X21 T-BRACKET]



ELEVATION VIEW
#20 BAR BRACKET ORIENTATION
[W8X21 T-BRACKET]



COUPLER DETAIL
TYPICAL DETAIL

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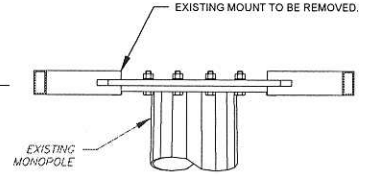
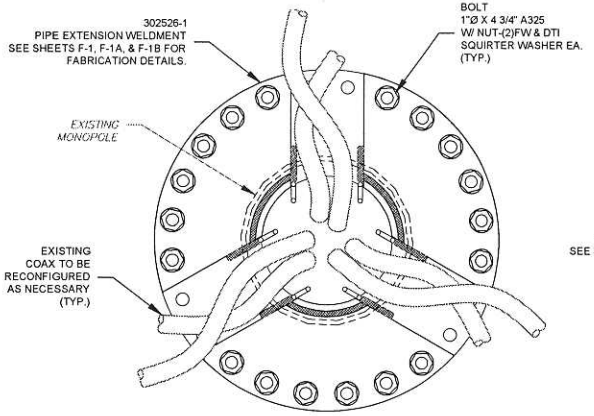
REINFORCEMENT
INSTALLATION DETAILS
(CONT'D)

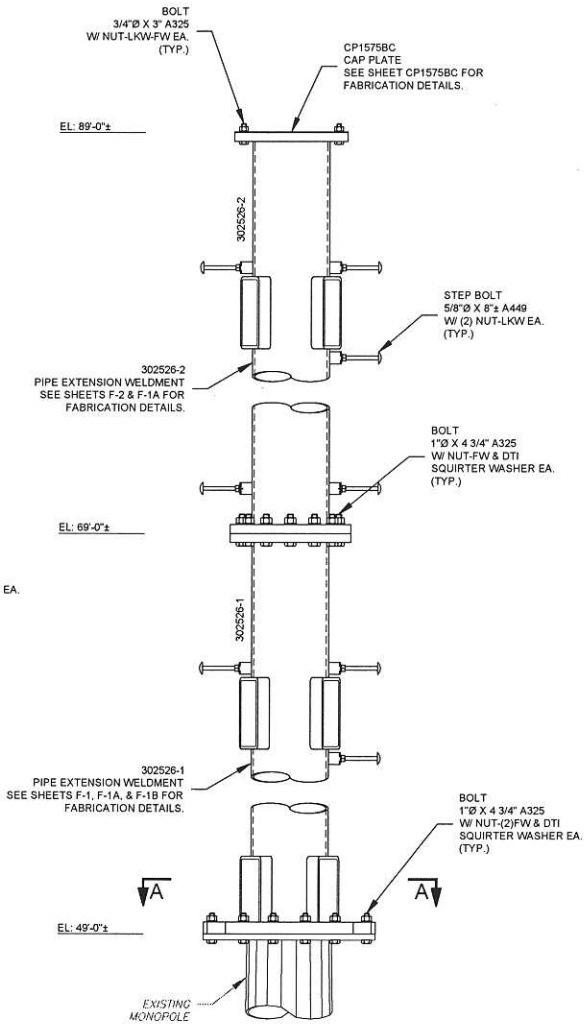
SHEET NUMBER:	REVISION:
A-3A	0



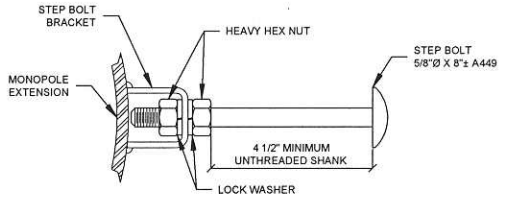
ELEVATION VIEW
EXISTING CONDITION



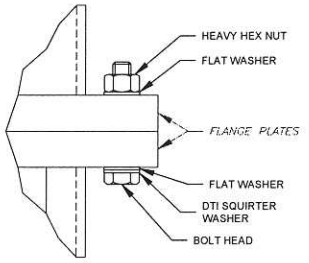
SECTION "A-A"



ELEVATION VIEW
EXTENSION INSTALLATION



STEP BOLT INSTALLATION
TYPICAL DETAIL



FLANGE BOLT INSTALLATION
TYPICAL DETAIL

NOTES:
1. **ALL FLANGE BOLTS SHALL BE TIGHTENED USING DTI SQUIRTER WASHERS FOR TENSION VERIFICATION. SEE SHEET IGN FOR DETAILS.**
2. **PROPER TORQUE GENERATING EQUIPMENT, WHICH MAY INCLUDE IMPACT WRENCHES, IS REQUIRED IN ORDER TO ACHIEVE DTI COMPRESSION WITH SQUIRT INDICATION. MANUFACTURER GUIDLINES FOR DTI INSTALLATION ARE TO BE FOLLOWED.**

NOTE:
ALIGN SAFETY CLIMB BRACKETS TO MATCH EXISTING SAFETY CLIMB.

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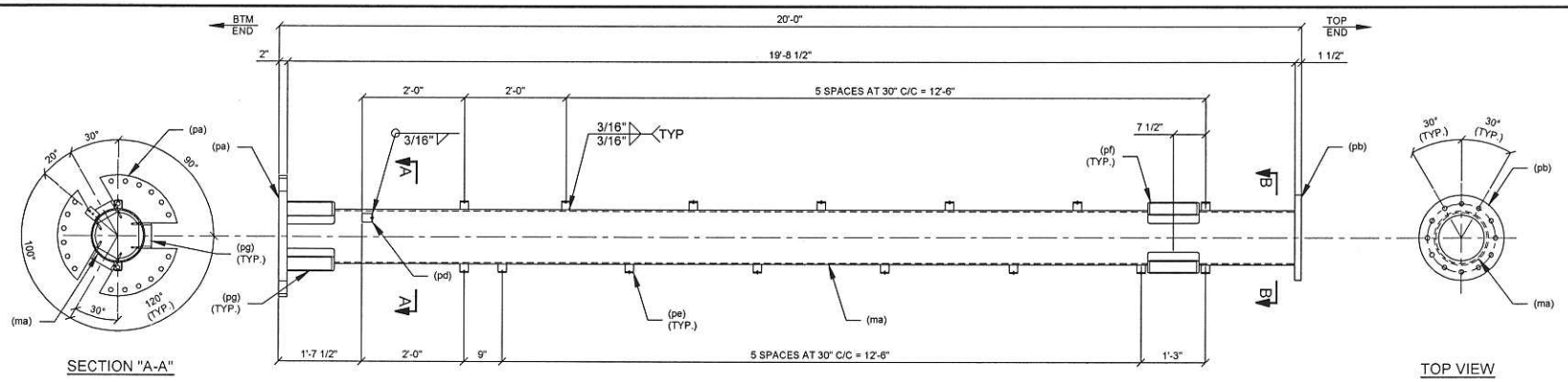
MONOPOLE EXTENSION
INSTALLATION DETAILS

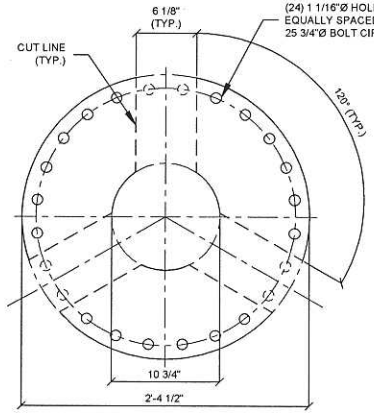
SHEET NUMBER:	REVISION:
A-4	0



SECTION "A-A"

TOP VIEW

302526-1
12.75" OD PIPE EXTENSION WELDMENT



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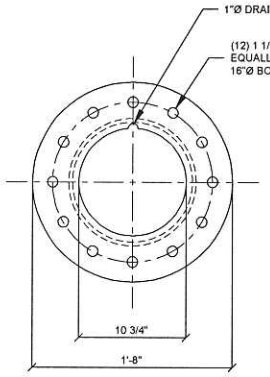

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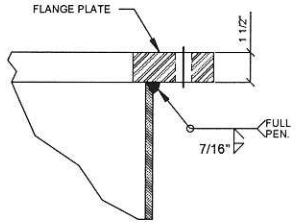
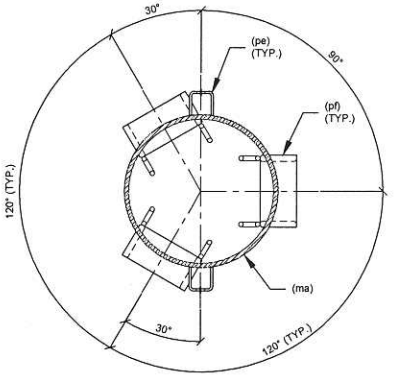
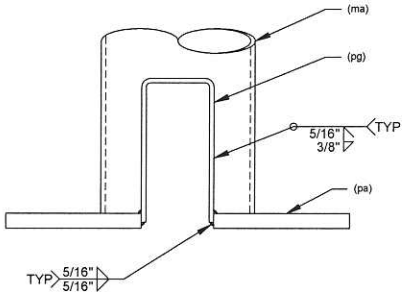


FLANGE PLATE WELD DETAIL
TYPICAL DETAIL



SECTION "B-B"



MOUSE HOLE
ELEVATION VIEW

(pg)	3	MOUSEHOLE WELDMENT	0'-3"		F-1B	37.2#
(pf)	3	PORT HOLE WELDMENT	0'-3"		F-1A	42.6#
(pe)	15	STEP BOLT BRACKET	0'-2"		F-1A	9.0#
(pd)	1	L 3" X 2 1/2" X 1/4"	0'-2"		F-1A	0.8#
(pb)	1	PL 1 1/2" X 20"	1'-8"	A572 GR. 50 / ROUND	F-1	94.9#
(pa)	1	PL 2" X 28 1/4""	2'-4 1/2"	A572 GR. 50 / ROUND	F-1	217.8#
(ma)	1	12.75" OD X 0.500" PIPE	19'-8 1/2"	A53 GR. B / SC2E	F-1	1289.3#
302526-1	1	12.75" OD PIPE EXTENSION WELDMENT	20'-0"		F-1	1691.6#
PART NO.	**QTY**	**DESCRIPTION**	**LENGTH**	**NOTES**	**SHEET**	**BLK WT**
MATERIAL: A36 U.N.O.		**FINISH:** GALVANIZED	**HOLES:** AS NOTED		**GALV WT:**	1776.1#

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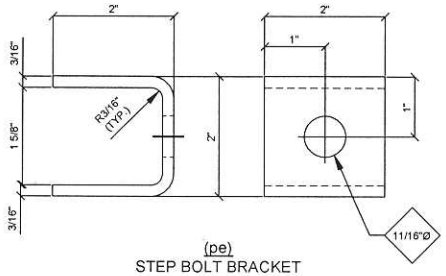
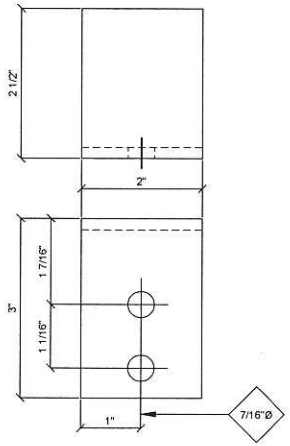
MONOPOLE EXTENSION
WELDMENT
FABRICATION DETAILS

SHEET NUMBER:	REVISION:
F-1	0



(pe)
STEP BOLT BRACKET



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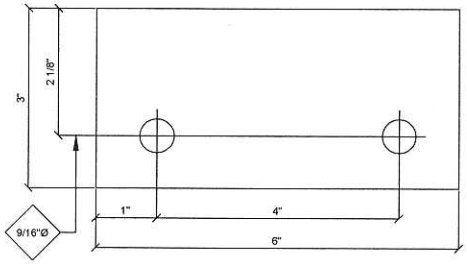
SAFETY CLIMB STANDOFF BRACKET



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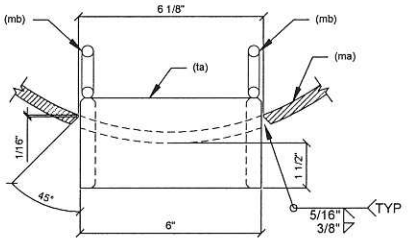
SAFETY CLIMB TOP BRACKET



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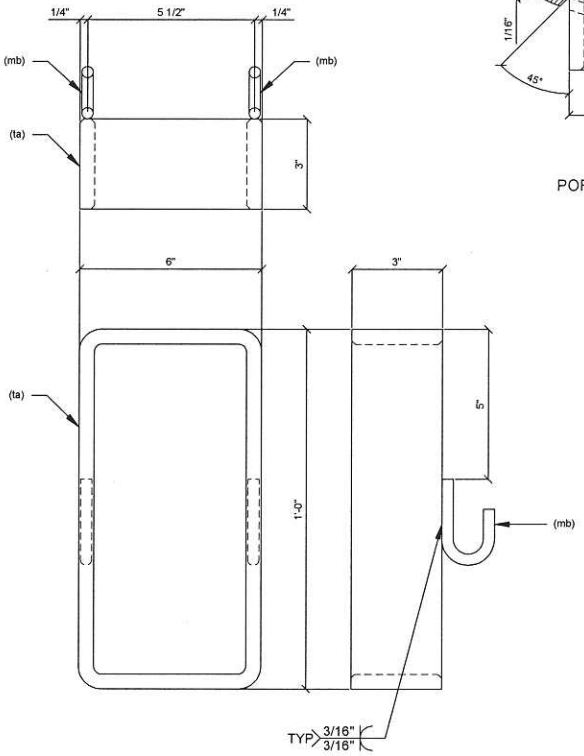
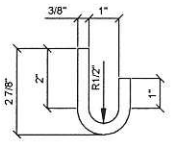
PORTHOLE INSTALLATION
WELDING DETAIL



(pf)
PORTHOLE DETAIL
NOTE: CHAMFER ALL
INSIDE EDGES 1/8" (TYP.)



(mb)
KELLUM HOOK

(mb)	2	3/8"Ø SR	0'-5 1/16"		0.3#
(ta)	1	HSS 12" X 6" X 0.500"	0'-3"	A500 GR. B	13.9#
(pf)	1	PORTHOLE WELDMENT	0'-3"		14.2#
PART NO.	**QTY**	**DESCRIPTION**	**LENGTH**	**NOTES**	**BLK WT**
MATERIAL: A36 U.N.O.		**FINISH:** GALVANIZED	**HOLES:** N/A	**GALV WT:**	N/A

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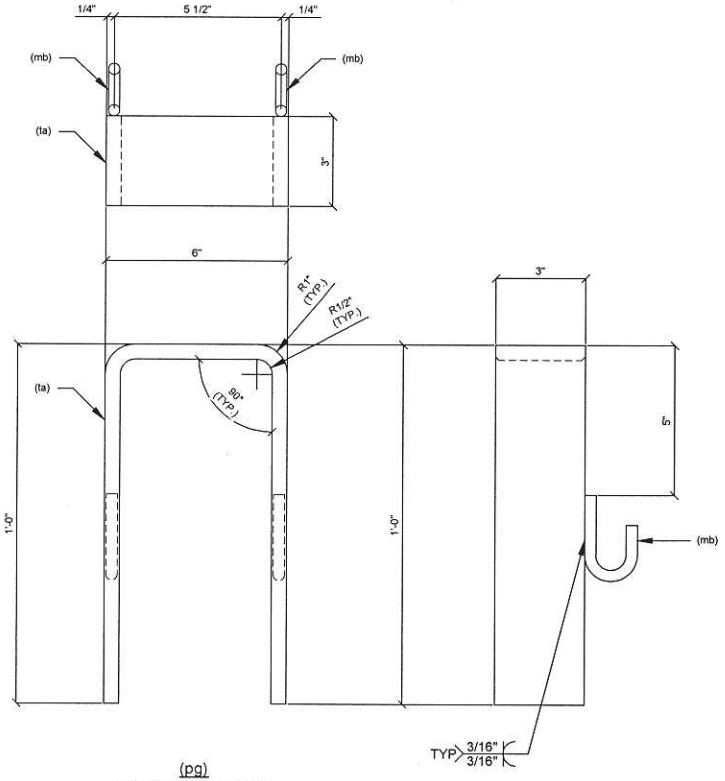
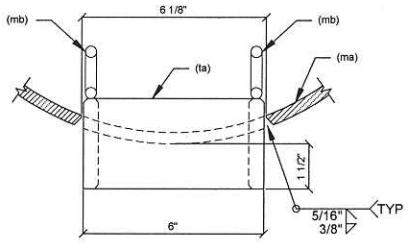
MONOPOLE EXTENSION
WELDMENT FABRICATION
DETAILS (CONT'D)

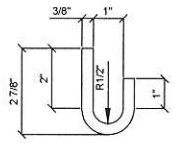
SHEET NUMBER:	REVISION:
F-1A	0



(pg)
MOUSEHOLE DETAIL
NOTE: CHAMFER ALL
INSIDE EDGES 1/8" (TYP.)



(pg)
MOUSEHOLE INSTALLATION
WELDING DETAIL



(mb)
KELLUM HOOK

PART NO.	QTY	DESCRIPTION	LENGTH	NOTES	BLK WT
(mb)	2	3/8"Ø SR	0'-5 1/16"		0.3#
(ta)	1	PL 1/2" X 3"	2'-4 3/8"		12.1#
(pg)	1	MOUSEHOLE WELDMENT	0'-3"		12.4#
MATERIAL: A36		FINISH: GALVANIZED	HOLES: N/A	GALV WT: N/A	

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ATC TOWER SERVICES
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SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: 6260F

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	BJK	06/08/17

ATC SITE NUMBER:
302526

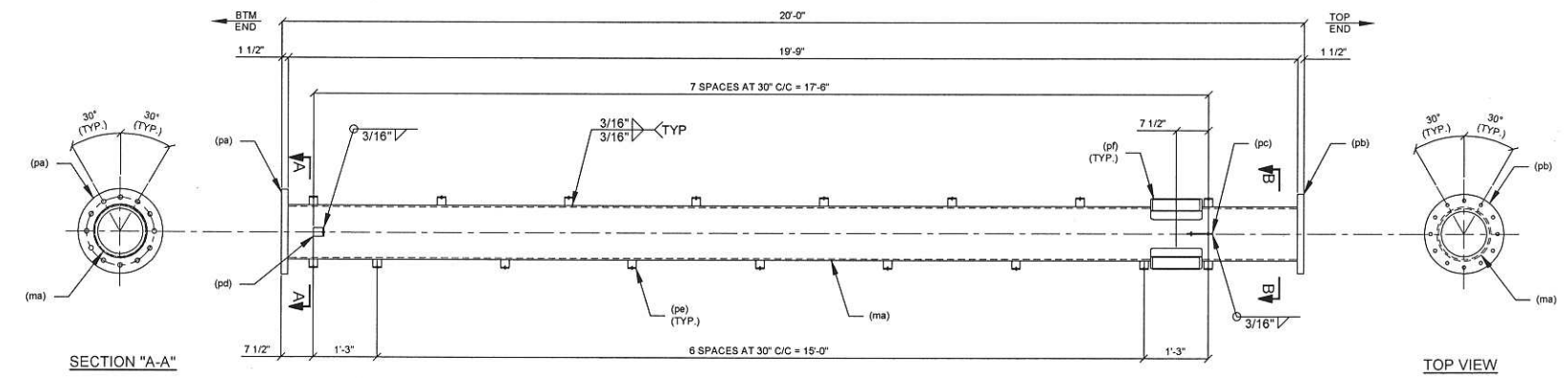
ATC SITE NAME:
NAUGATUCK (TELEPHONE POLE)
CONNECTICUT

SITE ADDRESS:
585 SOUTH MAIN ST. (SOC. CLUB)
NAUGATUCK, CT 06770

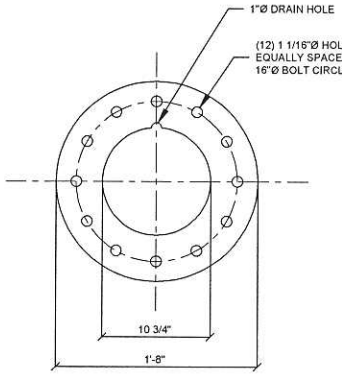
DRAWN BY:	BJK
APPROVED BY:	TJG/AT
DATE DRAWN:	06/08/17
ATC JOB NO:	OAA698250_C6_03

MONOPOLE EXTENSION
WELDMENT FABRICATION
DETAILS (CONT'D)

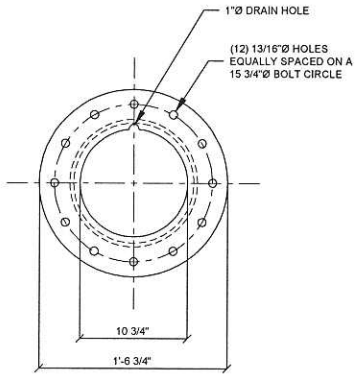
SHEET NUMBER:	REVISION:
F-1B	0



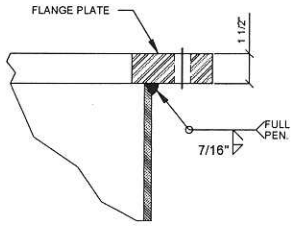
302526-2
12.75" OD PIPE EXTENSION WELDMENT



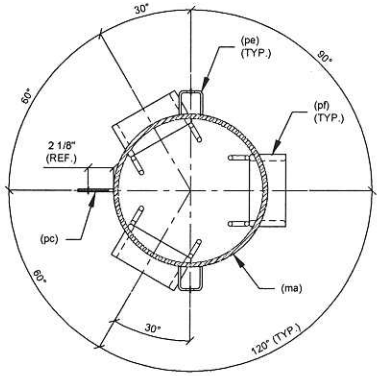
(pa)



(pb)



FLANGE PLATE WELD DETAIL
TYPICAL DETAIL



SECTION "B-B"

PART NO.	QTY	DESCRIPTION	LENGTH	NOTES	SHEET	BLK WT
(pf)	3	PORT HOLE WELDMENT	0'-3"		F-1A	42.6#
(pe)	17	STEP BOLT BRACKET	0'-2"		F-1A	10.2#
(pd)	1	L 3" X 2 1/2" X 1/4"	0'-2"		F-1A	0.8#
(pc)	1	PL 1/4" X 3"	0'-6"		F-1A	1.3#
(pb)	1	PL 1 1/2" X 18 3/4"	1'-6 3/4"	A 572 GR. 50 / ROUND	F-2	78.7#
(pa)	1	PL 1 1/2" X 20"	1'-8"	A 572 GR. 50 / ROUND	F-2	94.9#
(ma)	1	12.75" OD X 0.375" PIPE	19'-9"	A53 GR. B / SC2E	F-2	978.8#
302526-2	1	12.75" OD PIPE EXTENSION WELDMENT	20'-0"		F-2	1207.2#
MATERIAL: A36 U.N.O.		**FINISH:** GALVANIZED	**HOLES:** AS NOTED		**GALV WT:**	1267.6#

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CONNECTICUT

SITE ADDRESS:
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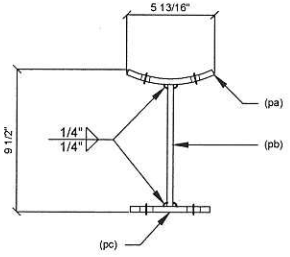
NAUGATUCK, CT 06770

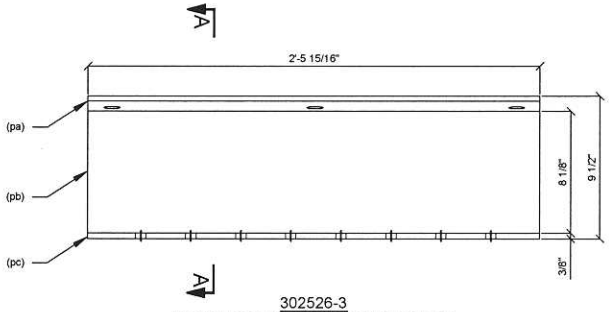
DRAWN BY:	BJK
APPROVED BY:	TJG/AT
DATE DRAWN:	06/08/17
ATC JOB NO:	OAA698250_C6_03

MONOPOLE EXTENSION WELDMENT FABRICATION DETAILS

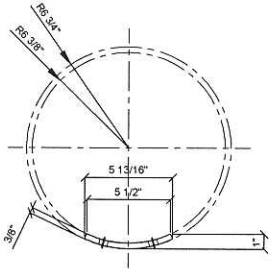
SHEET NUMBER:	REVISION:
F-2	0



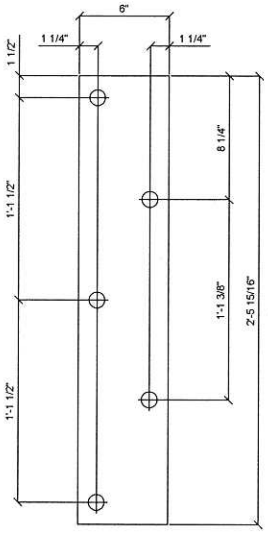
SECTION "A-A"
TYPICAL DETAIL



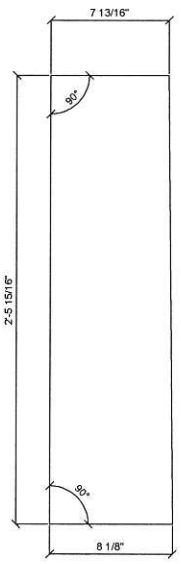
302526-3
TERMINATION BRACKET WELDMENT



(pa)
INNER FLANGE VIEW
[ROLLED VIEW]



(pa)
INNER FLANGE VIEW
[FLAT PLAN VIEW]



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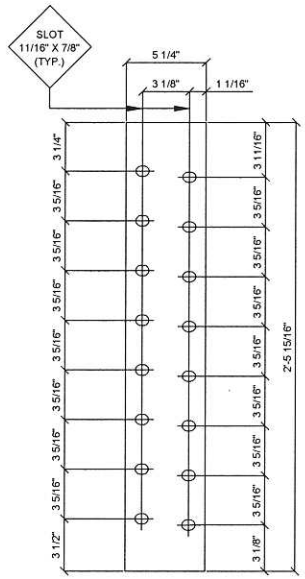

(pc)
OUTER FLANGE VIEW

(pc)	1	PL 3/8" X 5 1/4"	2'-5 15/16"		16.7#
(pb)	1	PL 3/8" X 8 1/8""	2'-5 15/16"	SHAPE	25.4#
(pa)	1	PL 3/8" X 6"	2'-5 15/16"		19.1#
302526-3	1	TERMINATION BRACKET WELDMENT	2'-5 15/16"		44.5#
PART NO.	**QTY**	**DESCRIPTION**	**LENGTH**	**NOTES**	**BLK WT**
MATERIAL: A36		**FINISH:** GALVANIZED	**HOLES:** 1 1/16"Ø U.N.O.	**GALV WT:**	46.7#

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0	FIRST ISSUE	BJK	06/08/17

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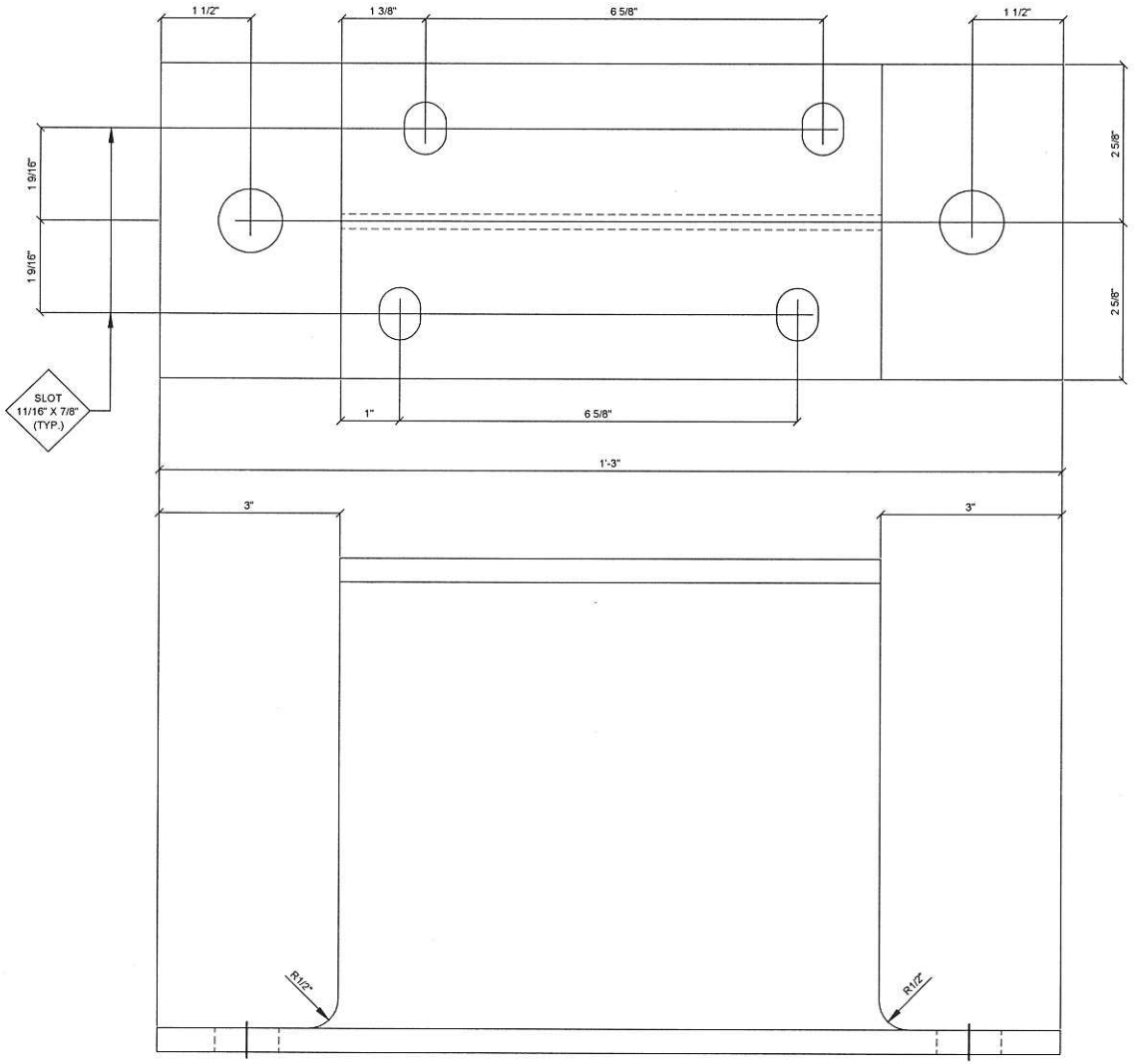
DRAWN BY:	BJK
APPROVED BY:	TJG/AT
DATE DRAWN:	06/08/17
ATC JOB NO:	OAA698250_C6_03

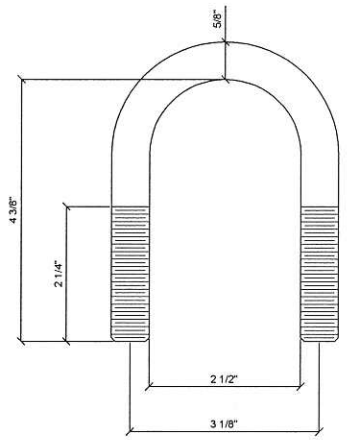
TERMINATION BRACKET WELDMENT FABRICATION DETAILS

SHEET NUMBER:	REVISION:
F-3	0



W821-20
#20 BAR BRACKET
[T-BRACKET]

W821-20	W8X21	1'-3"		26.3#	27.6#
PART NO.	DESCRIPTION	LENGTH	NOTES	BLK WT	GALV WT
MATERIAL: A36		FINISH: GALVANIZED		HOLES: 1 1/16"Ø U.N.O.	



RUH4
RU-BOLT 5/8"Ø X 3 1/8" C/C

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NAUGATUCK, CT 06770

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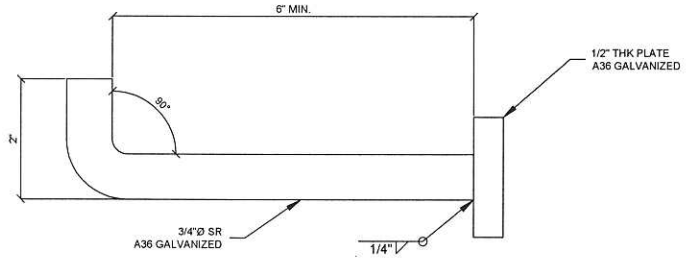
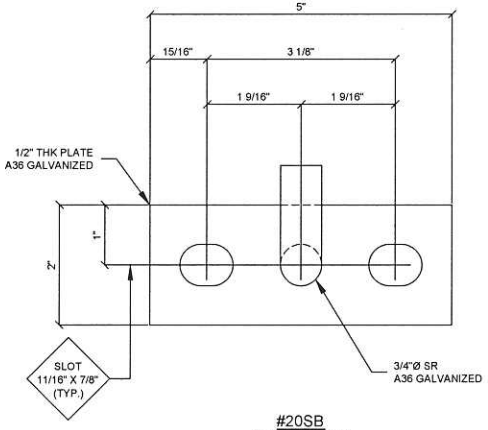
APPROVED BY:	TJG/AT
DATE DRAWN:	06/08/17
ATC JOB NO:	OAA698250_C6_03

#20 BAR BRACKET
[W8X21 T-BRACKET]

SHEET NUMBER:	REVISION:
W821-20	0

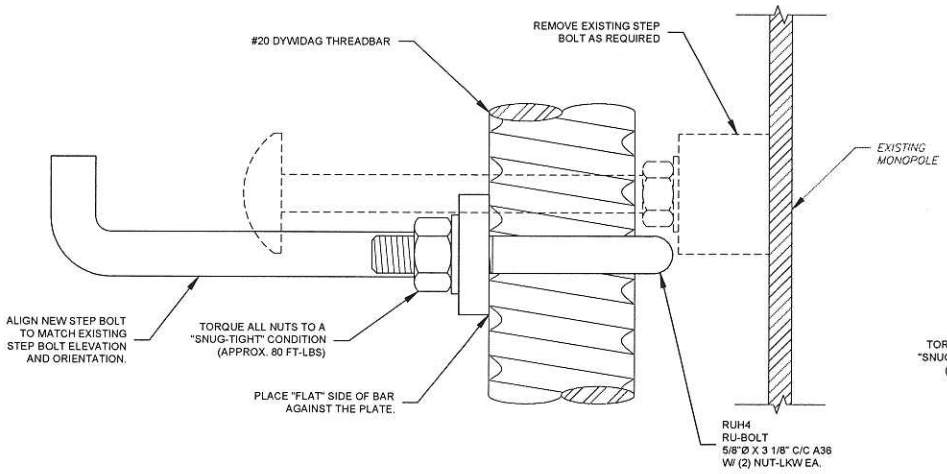


#20SB
SIDE VIEW

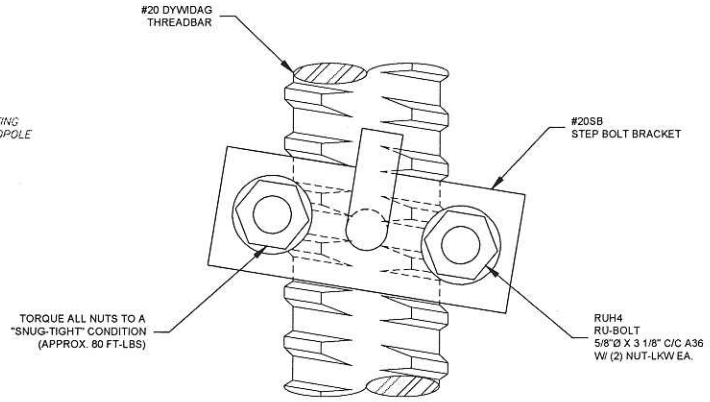


#20SB
FRONT VIEW

NOTE
STEP PEG SPACING IS NOT TO EXCEED 15" MAX. STAGGERED OR 30" MAX. ON ANY SINGLE SIDE OF THE DYWIDAG BAR.



#20SB INSTALLATION DETAILS
SIDE VIEW



#20SB INSTALLATION DETAILS
FRONT VIEW

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SUITE 100
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REV.	DESCRIPTION	BY	DATE
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CONNECTICUT

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DRAWN BY:	BJK
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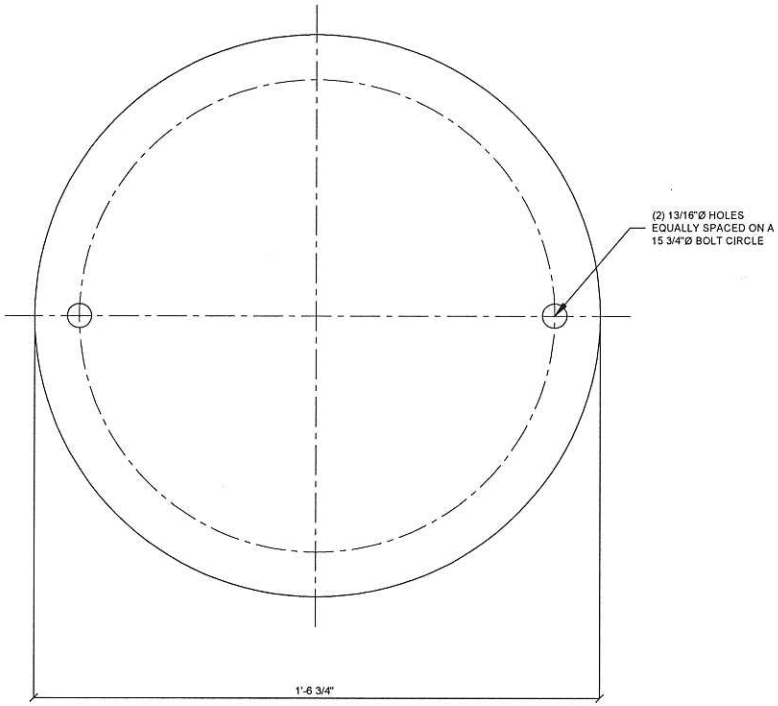
DATE DRAWN:	06/08/17
ATC JOB NO:	OAA698250_C6_03

#20 STEP BOLT BRACKET
FABRICATION AND
INSTALLATION DETAILS

SHEET NUMBER:	REVISION:
#20SB	0



CP1575BC
CAP PLATE

CP1575BC	PL 1/8" X 18 3/4"	1'-6 3/4"	ROUND	9.8#	10.3#
PART NO.	DESCRIPTION	LENGTH	NOTES	BLK WT	GALV WT
MATERIAL: A36		FINISH: GALVANIZED		HOLES: AS NOTED	

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SUITE 100
CARY, NC 27518
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DRAWN BY:	BJK
APPROVED BY:	TJG/AT
DATE DRAWN:	06/08/17
ATC JOB NO:	OAA698250_C6_03

CAP PLATE
FABRICATION DETAILS

SHEET NUMBER:	REVISION:
CP1575BC	0

STATE OF CONNECTICUT

CONNECTICUT HISTORICAL COMMISSION

March 1, 1999

Ms. Lina I. Tonkunas
EnviroBusiness Inc.
701 Concord Avenue
Cambridge, MA 02138

Subject: SNET Cellular Sites
State of Connecticut

Dear Ms. Tonkunas:

The State Historic Preservation Office has reviewed the above-named projects. This office expects that the proposed undertakings will have no effect on historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places. This comment includes the following SNET facilities:

Site No.	Town	Street Address
101	Greenwich	1081 North Street
104	Darien	50 Ledge Road
105	Fairfield	281 Woodhouse Road
106	Bridgeport	2 Kaechele Place
107	Westport	180A Bayberry Lane
108	Norwalk	613 Connecticut Avenue
109	Stamford	1590 Newfield Avenue
110	New Canaan	135 Main Street
112	Stratford	623 Honeyspot Road
116	Trumbull	Hawley Lane
120	Fairfield	55 Walls Drive
123	Ridgefield	10 Catoonah Street
124	Danbury	39 West Street
125	Newtown	6 Fairfield Drive
127	Newtown	Route 34
130	Greenwich	363 Riversville Road
131	Greenwich	411 West Putnam Avenue
135	Stamford	Catoonah Lane
142	Wilton	128 Mathers Street
143	Wilton	46 Fenwood Lane
151	Norwalk	177 West Rocks Road
152	Redding	Old Redding Road
157	Danbury	50 Newtown Road
176	Bridgeport	430 John Street
115	Bridgeport	25 Van Zant Street

TEL: (860) 566-3005 e-mail: cthist@neca.com *FAX: (860) 566-5078*
59 SOUTH PROSPECT ST. - HARTFORD, CONN 06106 - 1901

Site No.	Town	Street Address
117	Bridgeport	914 Artic Street
134	Fairfield	81 Black Rock
122	Norwalk	50 Rockland Road
136	Fairfield	2150 Black Rock Turnpike
137	Fairfield	2150 Post Road
6	Norfolk	452 Loon Meadow Road
7	Salisbury	497 Lime Rock Road Race Track
25	Cornwall	36 Mohawk Mountain
57	Harwinton	159 Weingart Road
71	Winchester	15 Oakdale Avenue
155	New Milford	4 Elkington Farm Road
128	Waterbury	Robbins Street
159	Orange	Ogg Meadow Road
174	Orange	525 Orange Center Road
5	Waterbury	Farmdale Drive
10	Woodbridge	77 Pease Road
12	North Haven	12 Dwight Street
15	Branford	405 Brushy Plain Road
17	Guilford	119 Tanner Marsh Road
18	Guilford	500 Cooks Lane
30	Guilford	154 Manor Road
33	Madison	864 Opening Hill Road
35	Hamden	975 Mix Avenue
60	Wolcott	347 East Street
64	West Haven	1 Burwell Street
111	Milford	438 Bridgeport Avenue
114	Oxford	59 Shelton Road
126	Southbury	Horse Fence Hill Road
156	Milford	423A Oronoque Road
160	Hamden	New Road-Quinnipiac College
161	Beacon Falls	664 Rimmon Hill Road
162	Bethany	719 Amity Road
166	Naugatuck	585 South Main Street
168	Wallingford	23 Wayne Road
169	Milford	203 Research Drive (Woodmont)
170	Branford	1 Quarry Road
172	New Haven	159 Middletown Avenue
175	Branford	4 Beaver Road

Site No.	Town	Street Address
178	Madison	8 Old Route 79
171	Montville	57 Cook Road (Uncasville)
22	East Lyme	2 Scott Road
23	Waterford	15 Miner Lane
27	North Stonington	2 Wintechog Hill Road
28	Norwich	225 Rogers Road
54	Stonington	40 Taugwank Road
65	Lebanon	244 Gates Road
167	North Stonington	273 Boom Bridge Road
177	Stonington	7 Broadway Avenue Extension (Mystic)
197	Old Lyme	132A Whippoorwill Road
51	Plainfield	45 Spaulding Road
75	Brooklyn	Tatnic Hill Road
139	Brooklyn	50 Tiffany Road

This office appreciates the opportunity to have reviewed and commented upon the proposed undertakings.

We recommend that the responsible agency provide concerned citizens with the opportunity to review and comment upon the proposed undertakings in accordance with the National Historic Preservation Act of 1966 and the Connecticut Environmental Policy Act.

For further information please contact Dr. David A. Poirier, Staff Archaeologist.

Sincerely,

Dawn Maddox
Deputy State Historic
Preservation Officer

AMERICAN TOWER™
CORPORATION

Compliance Statement:
Nationwide Programmatic Agreement for the Collocation of Wireless Antennas and Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communication Commission

May 14, 2012

AT&T Mobility

Attn: **AT&T Mobility**

[DETERMINATION: TOWERS CONSTRUCTED BEFORE 3/16/01]

Re: Proposed collocation or modification of telecommunications equipment by **AT&T Mobility**, or its agents or designees ("Customer") on the certain towers, known as:

Site #	Site Name	Build date
305017	Westfield MA	9/24/1993
305018	Amherst - Ma	8/13/1998
9242	East Chicopee	4/20/1998
302467	Bilkays Express	3/22/1999
9238	Warren MA	7/24/1997
91888	Peterson Road	3/3/1998
15782	Granby MA	3/6/2001
9229	Ludlow MA	2/15/2000
10344	East Longmeadow	12/1/1999
302473	E H F R - Prestige Park	4/20/1983
302475	Sttn - Southington	10/20/1999
302476	Wtbr - Waterbury	11/7/1994
302479	Rkhl - Rocky Hill	11/12/1991
302483	Brln - Berlin	6/1/1984
302485	Mdfd - Middlefield	10/28/1983
302489	Enfd - Enfield	4/27/1999
302495	Tolland CT	3/2/1998
302509	Mdtw - Middletown Barn (tel Pole)	1/22/1999
302480	Woodbridge CT 1	7/1/1982
302482	North Haven CT 1	5/28/1984

302484	Branford CT 6	9/1/1984
302505	Wshn - West Haven	8/14/1981
302519	Southbury	3/12/1999
302526	Naugatuck (telephone Pole)	8/21/1995
10252	Charlton MA	12/27/2000
305010	Attleboro MA	6/7/2000
9241	Northampton	12/22/1997
9236	Hatfield South	1/1/1997
91554	Baker Tractor	2/4/1998
308761	Smithfield RI 6	6/16/1992
308763	Cranston North	12/30/1993
308768	East Providence	12/31/1997
6360	Pawtucket	5/1/1995
302474	South Windsor	2/29/1984
302500	Brst - Bristol	12/29/1993

Dear **AT&T Mobility:**

To facilitate Customer's collocation or modification of its telecommunications equipment on the above referenced Towers in compliance with both the Nationwide Programmatic Agreement for the Collocation of Wireless Antennas (the "Collocation Programmatic Agreement") and the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communication Commission ("the Nationwide Programmatic Agreement") executed by the Federal Communication Commission ("FCC"), the National Conference of State Historic Preservation Officers and the Advisory Council On Historic Preservation ("ACHP"), American Tower Corporation ("ATC"), makes the following certifications:

1. The Towers are structures built for the primary purpose of supporting FCC-licensed antennas and their associated facilities.

2. Tower construction was completed on or before March 16, 2001, **OR**, if construction was not completed by that date, consultation with a SHPO/THPO has been completed pursuant to Section 106 of the National Historic Preservation Act ("NHPA"), and the SHPO/THPO has concurred that the undertaking will have "no effect" or "no adverse effect" to historic properties, **OR**, the towers were categorically exempt from SHPO review based on 47 CFR § 1.1306 Note 3 or one of the exemptions outlined in Section III of the Nationwide Programmatic Agreement.

3. There has been no "substantial increase in the size of the tower" since March 16, 2001, OR if there has been a "substantial increase", consultation with a SHPO/THPO has been completed pursuant to Section 106 of the NHPA and the Programmatic Agreements, and the SHPO/THPO has concurred that the undertaking will have "no effect" or "no adverse effect" to historic properties.

4. There has been no "enhancement of the tower" since March 7, 2005, OR if there has been an "enhancement", consultation with a SHPO/THPO has been completed pursuant to Section 106 of the NHPA and the Programmatic Agreements, and the SHPO/THPO has concurred that the undertaking will have "no effect" or "no adverse effect" to historic properties.

5. Based solely on ATC's review of the plans provided by Customer and statements made by Customer to ATC, the proposed collocations or modifications do not require a "substantial increase in the size of

the tower," as that phrase is defined in Stipulation I.C. of the Collocation Programmatic Agreement, nor do they require "enhancement of the tower" as that phrase is defined in Stipulation III.A. of the Nationwide Programmatic Agreement; **OR**, if the proposed collocations or modifications do require a "substantial increase" or "enhancement," ATC has completed consultation with a SHPO/THPO pursuant to Section 106 of the NHPA and the Programmatic Agreements. ATC has confirmed the SHPO/THPO has concurred that the undertaking will have "no effect" or "no adverse effect" to historic properties.

6. ATC has no knowledge that the FCC has determined that the Towers have an effect on one or more historic properties, or if such an effect has been found, that such effect has been found to be not adverse through a no adverse effect finding, or that an adverse or potentially adverse effect has not been resolved through a conditional no adverse effect determination, a Memorandum of Agreement, a programmatic agreement, or that the Towers are not otherwise in compliance with Section 106 and Subpart B of 36 CFR Part 800.

7. ATC has no knowledge that the Towers are the subject of a pending environmental review or related proceeding before the FCC involving compliance with Section 106 of the NHPA.

8. ATC has no knowledge of having received any written or electronic notification that the FCC is in receipt of a complaint from a member of the public, a SHPO, or the ACHP that the collocation has or will have an adverse effect on one or more historic properties.

Based on the above certifications, the installation of the equipment on the Towers would not require review under the consultation process set forth under Subpart B of 36 CFR Part 800.

Please contact ATC's Environmental Compliance Team at [colo.enviro@americantower.com] with any questions regarding this certification.

AMERICAN TOWER CORPORATION
10 Presidential Way
Woburn, MA 01801

By: Melanie Bender

Signed: Melanie Bender

Title: Environmental Compliance Coordinator

****
* Federal Airways & Airspace *
* Summary Report: Existing Structure *
* Antenna Structure *
****

Airspace User: Not Identified

File: 302526

Location: Naugatuck, CT

Latitude: 41°-28'-42.39" Longitude: 73°-2'-54.6"

SITE ELEVATION AMSL.....262 ft.
STRUCTURE HEIGHT.....98 ft.
OVERALL HEIGHT AMSL.....360 ft.

NOTICE CRITERIA
FAR 77.9(a): NNR (DNE 200 ft AGL)
FAR 77.9(b): NNR (DNE Notice Slope)
FAR 77.9(c): NNR (Not a Traverse Way)
FAR 77.9: NNR FAR 77.9 IFR Straight-In Notice Criteria for OXC
FAR 77.9: NNR FAR 77.9 IFR Straight-In Notice Criteria for N41
FAR 77.9(d): NNR (Off Airport Construction)

NR = Notice Required
NNR = Notice Not Required
PNR = Possible Notice Required (depends upon actual IFR procedure)
For new construction review Air Navigation Facilities at bottom of this report.

The location and analysis were based upon an existing structure. However, no existing aeronautical study number was identified. If the 'existing' structure penetrates an obstruction surface defined by CFR 77.17, 77.19, 77.21 or 77.23 (see below) it is strongly recommended the FAA be notified of the 'existing' structure to determine obstruction marking or lighting requirements. It is not uncommon for the FAA to issue a Determination of No Hazard (DNH) for an existing structure and modify the airspace to accommodate the structure, should that be required. If the FAA issues a DNH enter the aeronautical study number (ASN) in the space provided on the Airspace Analysis Window Form and re-run Airspace.

The below analysis reflects the aeronautical conditions that exist as of the date stamped on this analysis.

Notice to the FAA is not required at the analyzed location and height for slope, height or Straight-In procedures. Please review the 'Air Navigation' section for notice requirements for offset IFR procedures and EMI.

OBSTRUCTION STANDARDS
FAR 77.17(a)(1): DNE 499 ft AGL

FAR 77.17(a)(2): DNE - Airport Surface
FAR 77.19(a): DNE - Horizontal Surface
FAR 77.19(b): DNE - Conical Surface
FAR 77.19(c): DNE - Primary Surface
FAR 77.19(d): DNE - Approach Surface
FAR 77.19(e): DNE - Transitional Surface

VFR TRAFFIC PATTERN AIRSPACE FOR: OXC: WATERBURY-OXFORD
Type: A RD: 23474.26 RE: 679.2
FAR 77.17(a)(1): DNE
FAR 77.17(a)(2): DNE - Height No Greater Than 200 feet AGL.
VFR Horizontal Surface: DNE
VFR Conical Surface: DNE
VFR Approach Slope: DNE
VFR Transitional Slope: DNE

VFR TRAFFIC PATTERN AIRSPACE FOR: N41: WATERBURY
Type: A RD: 55343.8 RE: 852
FAR 77.17(a)(1): DNE
FAR 77.17(a)(2): Does Not Apply.
VFR Horizontal Surface: DNE
VFR Conical Surface: DNE
VFR Approach Slope: DNE
VFR Transitional Slope: DNE

TERPS DEPARTURE PROCEDURE (FAA Order 8260.3, Volume 4)
FAR 77.17(a)(3) Departure Surface Criteria (40:1)
DNE Departure Surface

MINIMUM OBSTACLE CLEARANCE ALTITUDE (MOCA)
FAR 77.17(a)(4) MOCA Altitude Enroute Criteria
The Maximum Height Permitted is 1100 ft AMSL

PRIVATE LANDING FACILITIES

FACIL IDENT	TYP	NAME	BEARING To FACIL	RANGE IN NM	DELTA ELEVATION	ARP FAA IFR
5CT1	HEL	RONDO	15.83	1.86	-170	

No Impact to Private Landing Facility
Structure 0 ft below heliport.

1CT3	HEL	ST MARY'S	6.14	4.52	+60	

No Impact to Private Landing Facility
Structure is beyond notice limit by 22464 feet.

CT25	HEL	MIRY DAM	324.7	5.79	-368	

No Impact to Private Landing Facility
Structure 3 ft below heliport.

AIR NAVIGATION ELECTRONIC FACILITIES

FAC IDNT	ST TYPE	AT	FREQ	DIST VECTOR	DELTA (ft)	GRND ELEVA	ST	APCH LOCATION	ANGLE	BEAR
OXC	LOCALIZER	I	109.5	278.09	24561 -358		CT	RWY 36 WATERBURY-	-.84	5

OXC	ATCT	Y	A/G	271.25	24691	-392	CT OXFORD ATCT	-.91
JWE	NDB	I	36	206.6	39158	-211	CT CLERA	-.31
HVN	VOR/DME	R	109.8	150.4	90620	+354	CT NEW HAVEN	.22
MAD	VOR/DME	R	110.4	121.64	114702	+140	CT MADISON	.07
BDR	VOR/DME	R	108.8	190.19	117651	+351	CT BRIDGEPORT	.17
HFD	VOR/DME	R	114.9	66.46	149399	-489	CT HARTFORD	-.19
CMK	VOR/DME	I	116.6	243.52	163115	-334	NY CARMEL	-.12
PWL	VOR/DME	I	114.3	305.3	184523	-890	NY PAWLING	-.28
BDL	RADAR	ON		30.68	195191	+124	CT BRADLEY INTL	.04
CCC	VOR/DME	R	117.2	161.12	211443	+275	NY CALVERTON	.07
KOKX	RADAR WXL	Y		167.24	229019	+165	NY NEW YORK	.04
HPN	RADAR	ON	2735.	230.9	235484	-150	NY WESTCHESTER COUNT	-.04
QVH	RADAR ARSR	Y	1326.9	155.65	240086	+9	NY RIVERHEAD	0.00

CFR Title 47, §1.30000-§1.30004
AM STUDY NOT REQUIRED: Structure is not near a FCC licensed AM station.
Movement Method Proof as specified in §73.151(c) is not required.
Please review 'AM Station Report' for details.

Nearest AM Station: WFNW @ 3601 meters.

Airspace® Summary Version 17.1.429

03-06-2017
08:59:37

7

Sanket Joshi
SAI Communications
27 Northwestern Drive, Second Floor
Salem, NH 03079
Sanket.Joshi@sai-comm.com

July 20, 2017

Connecticut Siting Council

Subject: AT&T Wireless, CT2166 – Naugatuck, CT

Dear Connecticut Siting Council:

At the request of AT&T Wireless, SAI Comunications has performed an assessment of the RF Power Density at the proposed site located at 585 South Main Street, Naugatuck, CT.
Calculations were done in compliance with FCC OET Bulletin 65. This report provides an FCC compliance assessment based on a "worst-case" analysis that all transmitters are simultaneously operating at full power and pointing directly at the ground.

FCC OET Bulletin 65 formula:

$$S = \frac{2.56 * 1.64 * ERP}{4 * \pi * R^2}$$

Transmission Mode	Antenna Centerline AGL (ft)	Frequency (MHz)	Number of Channels	Effective Radiated Power per Channel (Watts)	Power Density (mW/cm^2)	Standard Limits (mW/cm^2)	% MPE (Uncontrolled/ General Public)
AT&T UMTS	90	850	1	819	0.0364	0.5667	6.42%
AT&T LTE	90	700	1	1,109	0.0492	0.4667	10.55%
AT&T LTE	90	1900	1	2,904	0.1289	1	12.89%
AT&T LTE	90	2300	1	2,661	0.1181	1	11.81%
Other carriers per CSC records							41.98%
Total							**83.65%**

Conclusion: AT&T's proposed antenna installation along with other carriers is calculated to be within 83.65% of FCC Standard for General Public/Uncontrolled Maximum Permissible Exposure (MPE).

Sincerely,

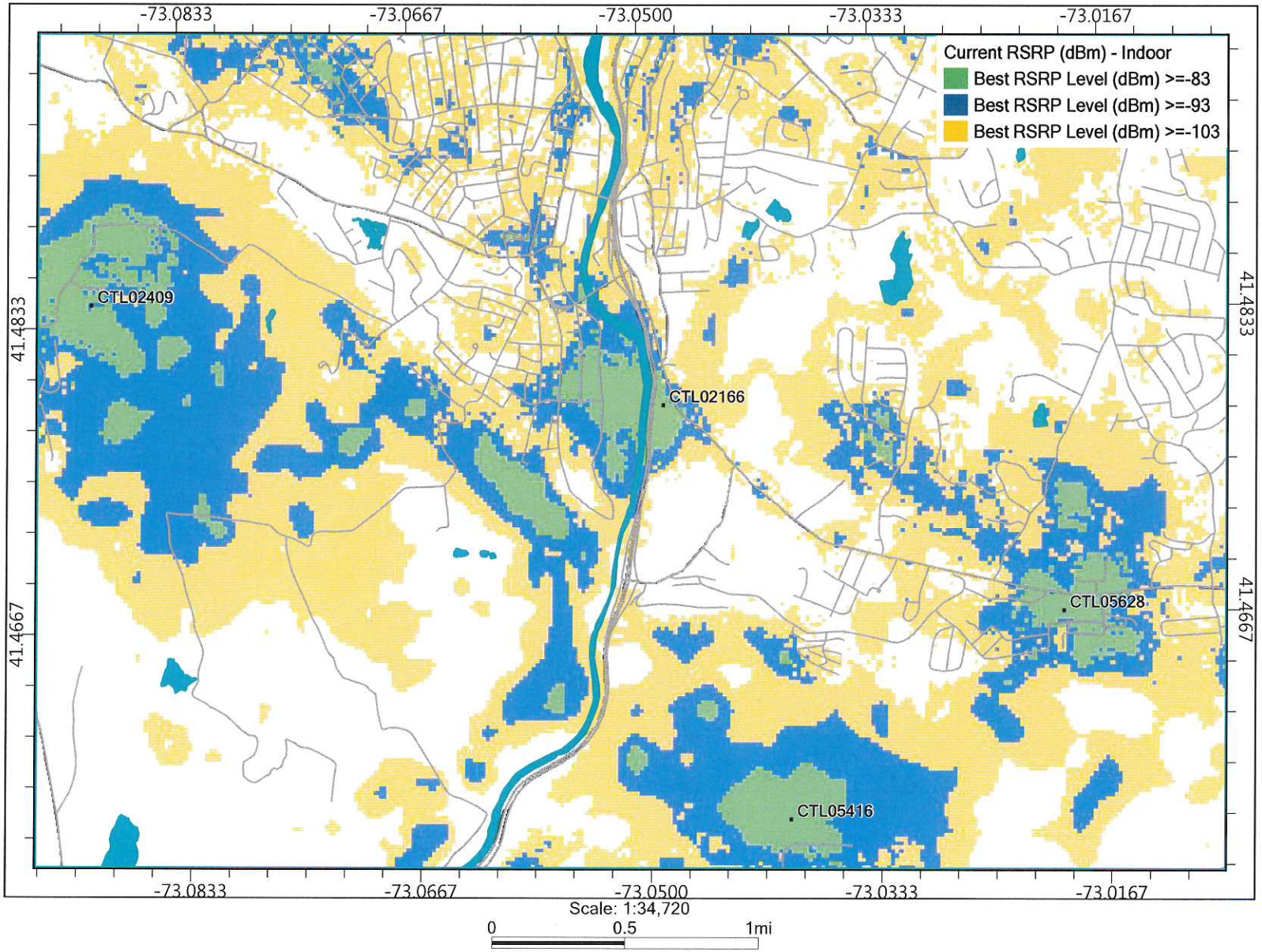
Sanket Y Joshi
SAI Communications

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
42.0	42.0	6	RFS FD9R6004/1C-3L	Low Profile Platform	(12) 7/8" Coax (2) 1 5/8" Hybriflex Cable	Verizon
		3	Alcatel-Lucent RRH2X60-1900			
		3	Alcatel-Lucent RRH2X60-AWS			
		3	Alcatel-Lucent RRH2x60 700			
		6	Decibel DB844H80E-XY			
		2	RFS DB-T1-6Z-8AB-0Z			
		6	Commscope SBNHH-1D65B			

8

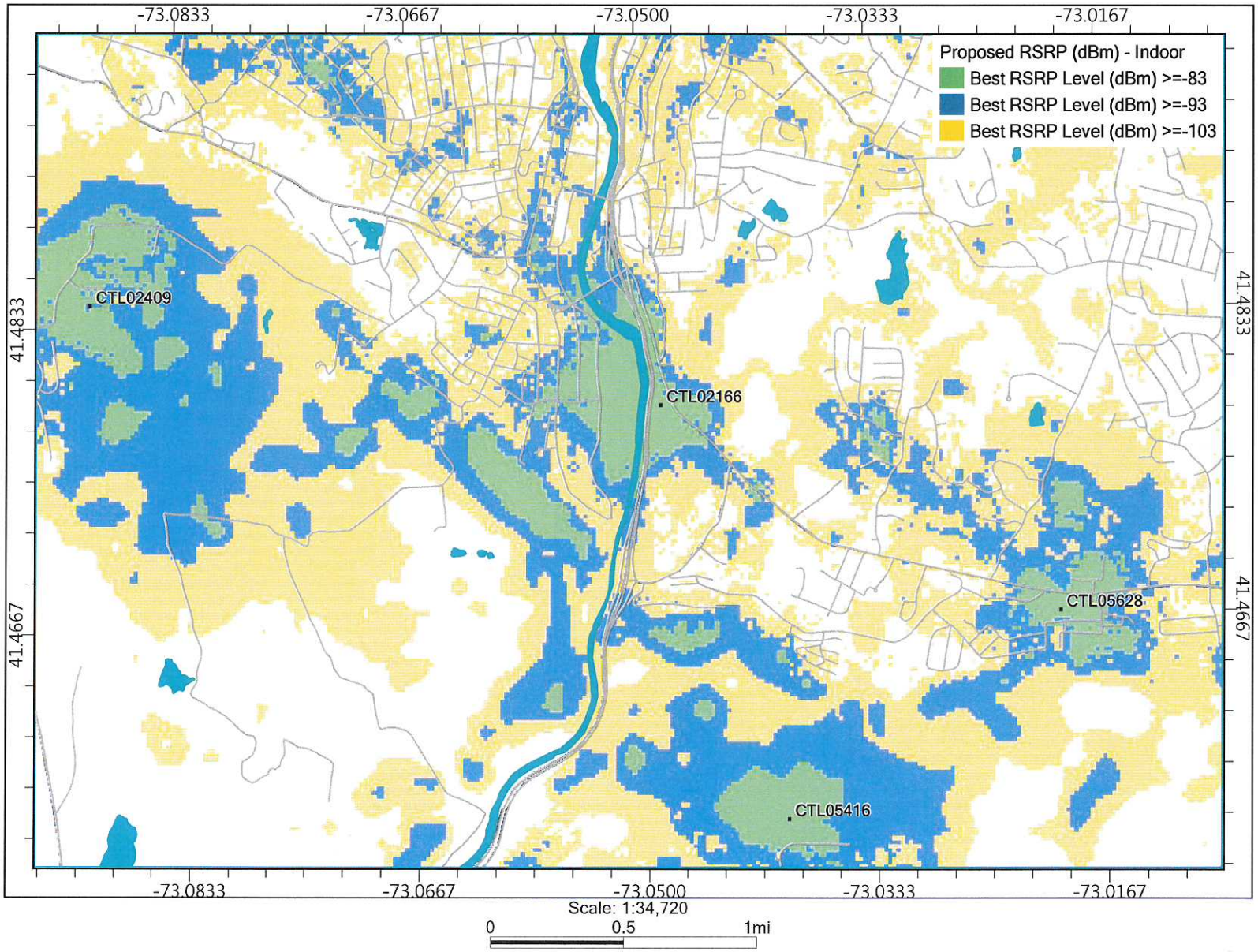
at&t

Current LTE Coverage



at&t

Proposed LTE Coverage



CERTIFICATION OF SERVICE

I hereby certify that on the 7th day of August 2017, a copy of the foregoing notice of the intended filing of a Petition with the Connecticut Siting Council for a declaratory ruling was sent by certified mail, return receipt requested, to the list below:

Dated: 8/7/17

Lucia Chiocchio

Cuddy & Feder LLP
45 Hamilton Avenue, 14th Floor
White Plains, New York 10601
Attorneys for:
New Cingular Wireless PCS, LLC (AT&T)

State and Regional

The Honorable George Jepsen Attorney General Office of the Attorney General 55 Elm Street Hartford, CT 06106	Department of Economic and Community Development Catherine Smith, Commissioner 505 Hudson Street Hartford, CT 06106
Department of Public Health Dr. Raul Pino, Commissioner 410 Capitol Avenue P.O. Box 340308 Hartford, CT 06134	Department of Energy and Environmental Protection Public Utilities Regulatory Authority Chair Katie Dykes Ten Franklin Square New Britain, CT 06051
Council on Environmental Quality Karl J. Wagener, Executive Director 79 Elm Street Hartford, CT 06106	Department of Transportation James P. Redeker, Commissioner 2800 Berlin Turnpike Newington, CT 06111

Department of Energy & Environmental Protection Rob Klee, Commissioner 79 Elm Street Hartford, CT 06106	Department of Agriculture Steven K. Reviczky, Commissioner 450 Columbus Boulevard, Suite 701 Hartford, CT 06103
Office of Policy and Management Benjamin Barnes, Secretary 450 Capitol Avenue Hartford, CT 06106	State House Representative-District 131 David K. Labriola Legislative Office Building 300 Capitol Avenue Room 4084 Hartford, CT 06106
Department of Emergency Services & Public Protection Division of Emergency Management and Homeland Security William J. Hackett, Deputy Commissioner 25 Sigourney Street, 6th Floor Hartford, CT 06106-5042	State Senator -17th District George S. Logan Legislative Office Building 300 Capitol Avenue Room 3400 Hartford, CT 06106
Department of Economic and Community Development-Offices of Culture and Tourism Todd Levine, State Historic Preservation Officer, Historian/Environmental Reviewer One Constitution Plaza, 2nd Floor Hartford, CT 06103	Naugatuck Valley Council of Governments Rick Dunne, Executive Director 49 Leavenworth Street, Suite 303 Waterbury, CT 06702

Federal

Federal Communications Commission 445 12th Street SW Washington, D.C. 20554	Federal Aviation Administration 800 Independence Avenue, SW Washington, DC 20591
U.S. Congresswoman Rosa L. DeLauro 59 Elm Street New Haven, CT 06510	U.S. Senator Richard Blumenthal 90 State House Square, 10th Floor Hartford, CT 06103
U.S. Senator Christopher Murphy Colt Gateway 120 Huyshope Avenue Suite 401 Hartford, CT 06106	

Borough of Naugatuck

N. Warren "Pete" Hess III, Mayor Town Hall 229 Church Street Naugatuck, CT 06770	Planning Commission Town Hall 229 Church Street Naugatuck, CT 06770
Zoning Commission Town Hall 229 Church Street Naugatuck, CT 06770	Inland Wetlands Commission Town Hall 229 Church Street Naugatuck, CT 06770
Sue Goggin - Town Planner/ ZEO/ WEO Town Hall 229 Church Street Naugatuck, CT 06770	Conservation Commission Town Hall 229 Church Street Naugatuck, CT 06770

NOTICE

Notice is hereby given, pursuant to Section 16-50j-40(a) of the Regulations of Connecticut State Agencies of a Petition being filed with the Connecticut Siting Council ("Siting Council") on or after August 9, 2017 by New Cingular Wireless PCS, LLC ("AT&T"). AT&T seeks a declaratory ruling that modification of an existing wireless facility does not have significant adverse environmental effects that might otherwise require a certificate of environmental compatibility and public need ("Certificate").

AT&T currently operates a wireless facility on an existing 49-foot tall monopole located at 585 South Main Street in Naugatuck that is owned by American Tower Corporation. AT&T's facility includes six AT&T antennas on the monopole with associated equipment used to operate the antennas at the base of the monopole. In order to upgrade its existing facility, AT&T proposes to add a 40-foot tall monopole extension to the top of the existing monopole, increasing the height to a total of 89 feet. AT&T proposes to relocate its existing 6 antennas to the top of the proposed monopole extension.

The Petition will provide additional details of the proposal and explain why AT&T submits that this modification presents no significant adverse environmental effects. The location, height and other features of the facility are subject to review and potential change under provisions Connecticut General Statutes Sections 16-50g et. seq.

Copies of the Petition will be available for review during normal business hours on or after August 9, 2017 at the following:

Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Borough Clerk of Naugatuck
Nancy K. DiMeo
229 Church Street
Naugatuck, CT 06770

or the offices of the undersigned. All inquiries should be addressed to the Connecticut Siting Council or to the undersigned.

Lucia Chiocchio, Esq.
Cuddy & Feder LLP
445 Hamilton Ave, 14th Floor
White Plains, New York 10601
(914) 761-1300
Attorneys for the Petitioner

CERTIFICATION OF SERVICE

I hereby certify that on the 7th day of August 2017, a copy of the following letter and notice of the intended filing of a Petition with the Connecticut Siting Council for a declaratory ruling was sent by certified mail, return receipt requested, to the attached list of abutting property owners:

Dated: 8/7/17

Lucia Chiocchio

Cuddy & Feder LLP
45 Hamilton Avenue, 14th Floor
White Plains, New York 10601
Attorneys for:
New Cingular Wireless PCS, LLC (AT&T)

August 7, 2017

VIA CERTIFIED MAIL/
RETURN RECEIPT REQUESTED

Re: New Cingular Wireless PCS, LLC ("AT&T")
Modifications to an Existing Wireless Facility
585 South Main Street, Naugatuck, Connecticut

Dear Sir or Madam:

We are writing to you on behalf of our client New Cingular Wireless PCS, LLC ("AT&T") with respect to the above referenced matter and our client's intent to file a petition for a declaratory ruling with the State of Connecticut Siting Council for approval of a modification to the existing wireless communications tower facility (the "Facility") owned by American Tower Corporation on the above-captioned property.

State law requires that record owners of property abutting a parcel on which a facility is proposed be sent notice of an applicant's intent to file a petition with the Siting Council.

Included with this letter please find a Notice of this submission with information about the proposal. Of note, the location, height and other features of the Facility are subject to review and potential change by the Connecticut Siting Council under the provisions of Connecticut General Statutes §16-50g et seq.

If you have any questions concerning this petition, please contact the Connecticut Siting Council or the undersigned after August 9, 2017, the date that the petition is expected to be on file.

Very truly yours,

Lucia Chiocchio
Enclosure

NOTICE

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Lucia Chiocchio, Esq.
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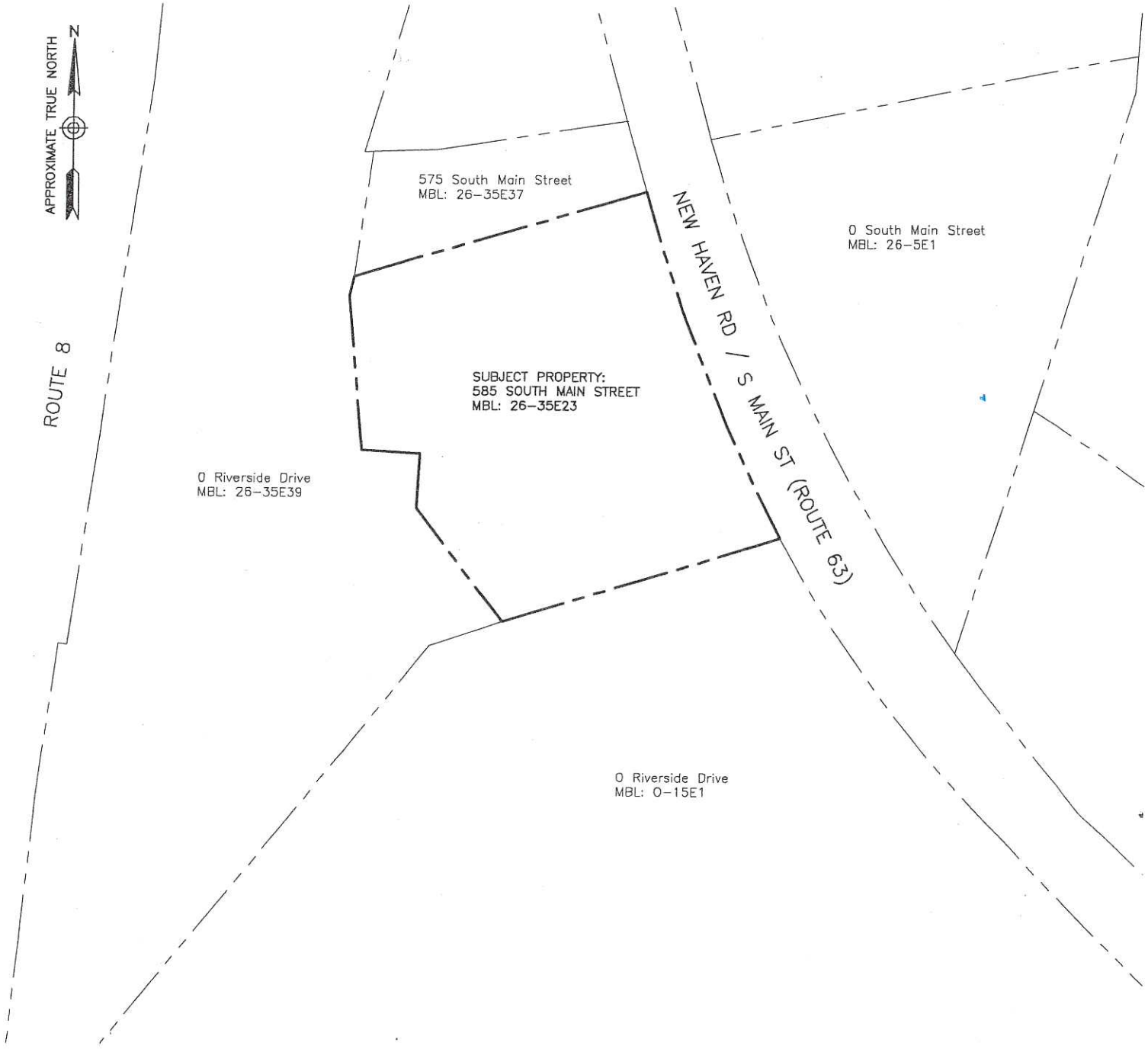
445 Hamilton Ave, 14th Floor
White Plains, New York 10601
(914) 761-1300
Attorneys for the Petitioner



NOTES:

1. ABUTTERS LIST CONSISTS OF PARCELS PHYSICALLY TOUCHING THE SUBJECT PROPERTY OR ABUT ACROSS THE STREET FROM THE SUBJECT PROPERTY.
2. PERIMETER PLAN DATA & ABUTTERS INFORMATION WAS COMPILED FROM INFORMATION OBTAINED FROM THE BOROUGH OF NAUGATUCK'S GIS WEBSITE.

PERIMETER PLAN 1

SCALE: 1"=100' FOR 11"x17"
1"=50' FOR 22"x34"

0' 50' 100'

ABUTTERS LIST

MBL	ACCOUNT	PROPERTY LOCATION	OWNER	MAILING ADDRESS
0-15E1	075-0190	0 RIVERSIDE DRIVE	GROVE CEMETARY ASSOC	PO BOX 824, NAUGATUCK, CT 06770
26-35E39	074-9590	0 RIVERSIDE DRIVE	STATE OF CONNECTICUT	C/O LAND ACQUISITION DIVISION, HARTFORD, CT 06106
26-35E37	066-7210	575 SOUTH MAIN STREET	FRITCH SETH D	1 GLENWOOD AVENUE, NAUGATUCK, CT 06770
26-5E1	016-9651	0 SOUTH MAIN STREET	NOCERINO FAMILY LP	628 NEW HAVEN ROAD, STE 8, NAUGATUCK, CT 06770