Centek Engineering, Inc.
3-2 North Branford Road
Branford, Connecticut 06405
Phone: (203) 488-0580
Fax: (203) 488-8587

Steven L. Levine
Real Estate Consultant

HAND DELIVERED

February 2, 2017

Attorney Melanie Bachman
Acting Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Notice of Exempt Modification: Existing Telecommunications Facility at 111 Second Hill Road, Bridgewater

Dear Ms. Bachman:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System ("UMTS") and/or Long Term Evolution ("LTE") capabilities, and enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("AT&T") plans to modify the equipment configurations at many of its existing cell sites. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, copies of this letter are being sent to the chief elected official and the Planning & Zoning Department of the municipality in which the affected cell site is located, the property owner of record, and the tower owner or operator.

UMTS technology offers services to mobile computer and phone users anywhere in the world. Based on the Global System for Mobile ("GSM") communication standard, UMTS is the planned worldwide standard for mobile users. UMTS, fully implemented, gives computer and phone users high-speed access to the Internet as they travel. They have the same capabilities even when they roam, through both terrestrial wireless and satellite transmissions.

LTE is a high-performance air interface for cellular mobile communications. It is designed to increase the capacity and speed of mobile telephone networks.

Attached is a summary of the planned modifications, including power density calculations reflecting the change in AT&T's operations at the site. Also included is documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration.

The changes to the facility do not constitute modifications as defined in Connecticut General Statutes ("C.G.S.") Section 16-50i(d) because the general physical and environmental characteristics of the site will not be significantly changed or altered. Rather, the planned changes to the facility fall squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b)(2).

1. The height of the overall structure will not increase.

2. The proposed changes will not extend the site boundaries.

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

4. The changes will not add radio frequency sending or receiving capability which increases the total radio frequency electromagnetic radiation power density measured at the site boundary to or above the standards adopted by the Federal Communications Commission pursuant to Section 704 of the Telecommunications Act of 1996, as amended, and the State Department of Energy and Environmental Protection, pursuant to Section 22a-162 of the Connecticut General Statutes.

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

6. The proposed equipment changes will not impair the structural integrity of the facility, as determined in a certification provided by a professional engineer licensed in Connecticut.

For the foregoing reasons, AT&T respectfully submits that the proposed changes at the referenced site constitute exempt modifications under R.C.S.A. Section 16-50j-72(b)(2).

Please feel free to call me at (860) 830-0380 with questions concerning this matter. Thank you for your consideration.

Sincerely,

Steven L. Levine
Real Estate Consultant

cc: Chief Elected Official, Town of Bridgewater (by email)
Planning & Zoning Department, Town of Bridgewater (by email)
Property Owner of Record – Robert J. Riebe
Tower Owner / Operator – AT&T (no notice required)

Attachments

NEW CINGULAR WIRELESS PCS, LLC
Equipment Modification

111 Second Hill Road, Bridgewater
Geographic Coordinates: N 41-31-57.6 W 73-22-2.8
AT&T Site CT1252
CSC Approvals: Docket 437

Tower Owner/Manager: AT&T Towers

Land Owner of Record: Robert J. Riebe
(See attached Assessor Card, Assessor Map, and Docket 437 Property Map.)

Original Permitting: The Second Hill Road facility was approved by the Council under Docket 437 in 2013. (See the attached Decision and Order). AT&T's present Notice contains no proposed modifications that would violate the conditions of approval.

Lease Area: The attached Site Plan excerpt from the Docket 437 Application shows the site layout approved in 2013. Comparison with the proposed CD's, attached, shows the current overall site size and boundaries to be as approved in Docket 277. Since all proposed modifications will occur either on the existing tower structure or within AT&T's existing equipment shelter, the proposed modifications will not extend either AT&T's lease area or the existing overall site boundaries.

Equipment Configuration: 160-ft Monopole

Current and/or Approved: Platform with handrails
Twelve CCI HPA-65R-BUU-H8 antennas @ 156 ft c.l.
Six Ericsson RRUS-11 remote radio heads @156 ft
Three Ericsson RRUS-12 + A2 remote radio heads @ 156 ft
Two Raycap DC6-48-60-18-8F surge arrestors @ 156 ft
Eight DC lines and two fiber lines
Equipment shelter
Diesel Generator (CSC approved in Docket 437.)

Planned Modifications: Remove all RRUS-12 + A2 remote radio heads.
Install three Ericsson RRUS-32 + B2 remote radio heads @ 156 ft.

Power Density:

Worst-case calculations with 10 dB reduction for existing wireless operations at the site indicate a radio frequency electromagnetic radiation power density, measured at six feet above ground level beside the tower, of approximately 0.7 % of the standard adopted by the FCC. As depicted in the second table below, the total radio frequency electromagnetic radiation power density following proposed modifications would be approximately 2.2 % of the standard.

Existing

Carrier & Technology	Frequency (MHz)	Antennas (Total for All Sectors)	Centerline Ht (feet)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm^2)	Standard Limits (mW/cm^2)	Percent of Limit
Other Users *								0.00
AT&T LTE *	734		156	1	500	0.0080	0.4893	0.16
AT&T UMTS *	880		156	1	500	0.0080	0.5867	0.14
AT&T UMTS *	1900		156	1	500	0.0080	1.0000	0.08
AT&T GSM *	880		156	3	296	0.0142	0.5867	0.24
AT&T GSM *	1900		156	1	427	0.0068	1.0000	0.07
Total								**0.69%**

* Per CSC records.

Proposed

Carrier & Technology	Frequency (MHz)	Antennas (Total for All Sectors)	Centerline Ht (feet)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm^2)	Standard Limits (mW/cm^2)	Percent of Limit
Other Users *								0.00
AT&T LTE	740	CCI 6 Antennas	156	2	1476	0.0472	0.4933	0.96
AT&T LTE	1900	CCI 3 Antennas	156	2	2421	0.0774	1.0000	0.77
AT&T LTE	2300	CCI 6 Antennas	156	2	1285	0.0411	1.0000	0.41
AT&T UMTS	880	CCI 3 Antennas	156	2	150	0.0048	0.5867	0.08
Total								**2.22%**

* Per CSC records.

Structural Information:

The attached structural analysis demonstrates that the tower and foundation have adequate structural capacity to accommodate the proposed equipment modifications. (American Tower Corp. 1-27-17)

111 SECOND HILL RD

Assessor Card

Location	111 SECOND HILL RD	**Mblu**	28/ 50/ / /
Acct#	00068800	**Owner**	RIEBE ROBERT J
Assessment	$256,900	**Appraisal**	$366,900
PID	744	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$146,300	$220,600	$366,900
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$102,400	$154,500	$256,900

Owner of Record

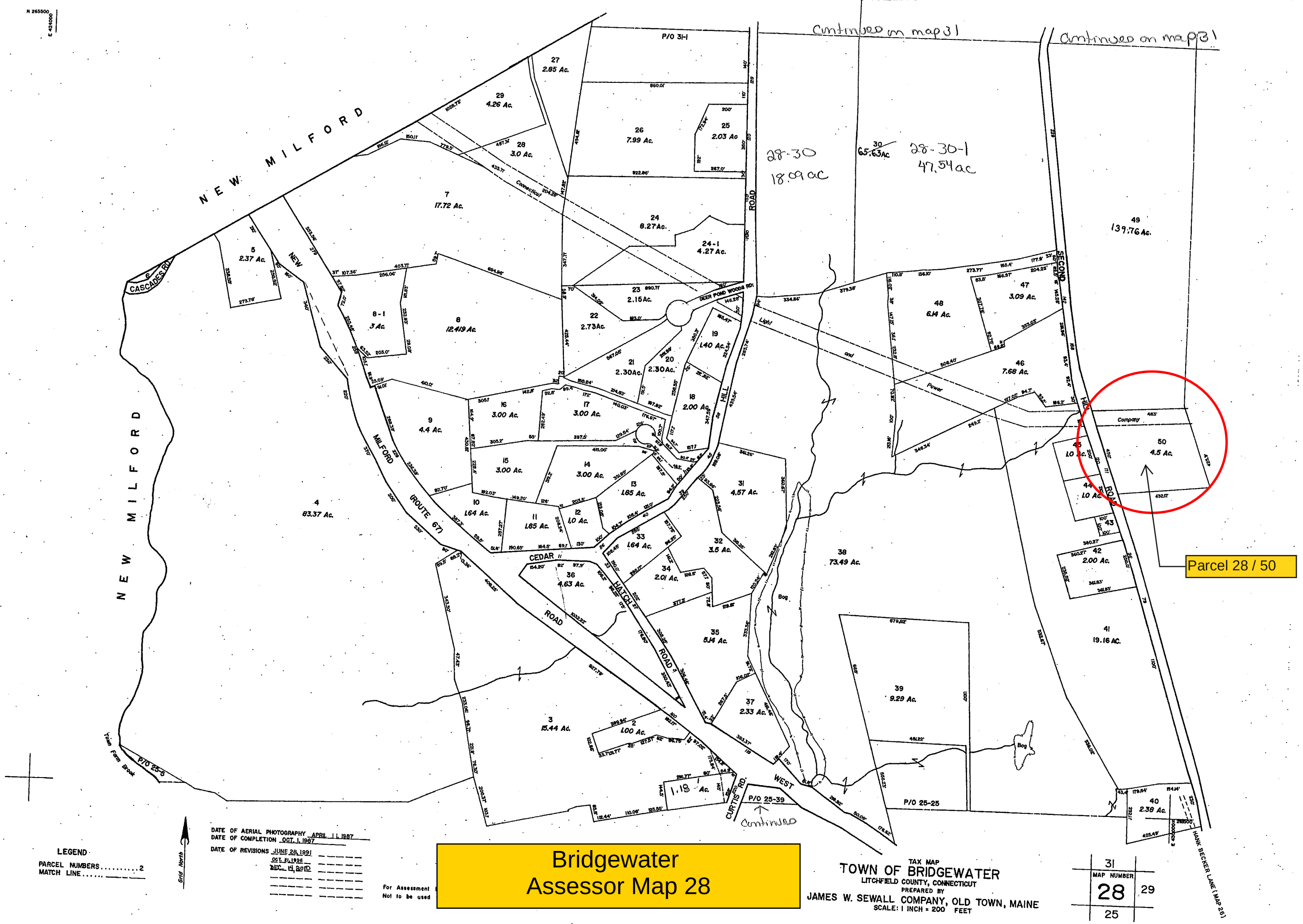
Owner RIEBE ROBERT J
Co-Owner

Sale Price $230,000
Certificate C
Book & Page 43/ 362
Sale Date 12/04/1995
Instrument 00

Ownership History

Ownership History					
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Instrument**	**Sale Date**
RIEBE ROBERT J	$230,000	C	43/ 362	00	12/04/1995

Building Information



Bridgewater
Assessor Map 28

SURVEY NOTES:

1. THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20–300b–1 THROUGH 20–300b–20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS INC. ON SEPTEMBER 26, 1996. THE BOUNDARY LINES SHOWN ON THIS PLAN WERE COMPILED FROM OTHER MAPS, RECORD RESEARCH OR OTHER SOURCES OF INFORMATION. IT IS NOT TO BE CONSTRUED AS HAVING BEEN OBTAINED AS THE RESULT OF A FIELD SURVEY, AND IS SUBJECT TO SUCH CHANGE AS AN ACCURATE FIELD SURVEY MAY DISCLOSE.

TYPE OF SURVEY: COMPILATION PLAN

BOUNDARY DETERMINATION CATEGORY: NONE

CLASS OF ACCURACY: HORIZONTAL CLASS A–2
VERTICAL CLASS V–2
TOPOGRAPHIC CLASS T–2

2. PROPERTY LINE SHOWN HEREON ARE FROM RECORD DEEDS PLOTS AND TAX MAPS AS OVERLAID ON ANY MONUMENTATION OR OTHER EVIDENCE THAT MAY HAVE BEEN LOCATED DURING THE TOPOGRAPHIC SURVEY. A PROPERTY SURVEY WAS NOT PERFORMED BY CHA AND AS A RESULT THE PROPERTY LINES SHOWN ARE APPROXIMATE AND DO NOT PRESENT A PROPERTY/BOUNDARY OPINION.

3. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2010 FIELD SURVEY.

4. NORTH ORIENTATION IS TRUE NORTH BASED ON GPS OBSERVATIONS TAKEN AT THE TIME OF THE FIELD SURVEY.

5. UNDERGROUND UTILITIES, STRUCTURES AND FACILITIES HAVE BEEN SHOWN FROM SURFACE LOCATIONS AND MEASUREMENTS OBTAINED FROM A FIELD SURVEY, THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHER UTILITIES WHICH THE EXISTENCE OF ARE NOT KNOWN. SIZE, TYPE AND LOCATION OF ALL UTILITIES AND STRUCTURES MUST BE VERIFIED BY PROPER AUTHORITIES PRIOR TO ANY AND ALL CONSTRUCTION. CALL DIG SAFE PRIOR.

6. SUBJECT TO ANY STATEMENT OF FACTS THAT AN UP–TO–DATE ABSTRACT OF TITLE WOULD DISCLOSE.

7. SUBJECT TO ALL RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.

8. LATITUDE/LONGITUDE/ELEVATIONS WERE OBTAINED FROM GPS OBSERVATIONS REFERENCED TO NAD83 CONNECTICUT ZONE. COORDINATES SHOWN, IF ANY, ARE EXPRESSED IN U.S. SURVEY FEET. ELEVATIONS ARE REFERENCED TO NAVD88. TOP OF STRUCTURE HEIGHT AS SHOWN, IF ANY, DETERMINED BY VERTICAL ANGLE OR BY ACTUAL LOCATION.
INFORMATION SHOWN BASED ON FAA 1A CERTIFICATION ACCURACY LEVEL DEFINED AS;
HORIZONTAL: ±20 FEET / 15 METERS
VERTICAL: ±3 FEET / 6 METERS

9. SITE FALLS WITHIN ZONE "C" DEFINED AS AREAS OF MINIMAL FLOODING, AS SHOWN ON FLOOD INSURANCE RATE MAP, TOWN OF BRIDGEWATER, CONNECTICUT, LITCHFIELD COUNTY, COMMUNITY PANEL NUMBER 090184 0001 B, EFFECTIVE DATE NOVEMBER 1, 1979.

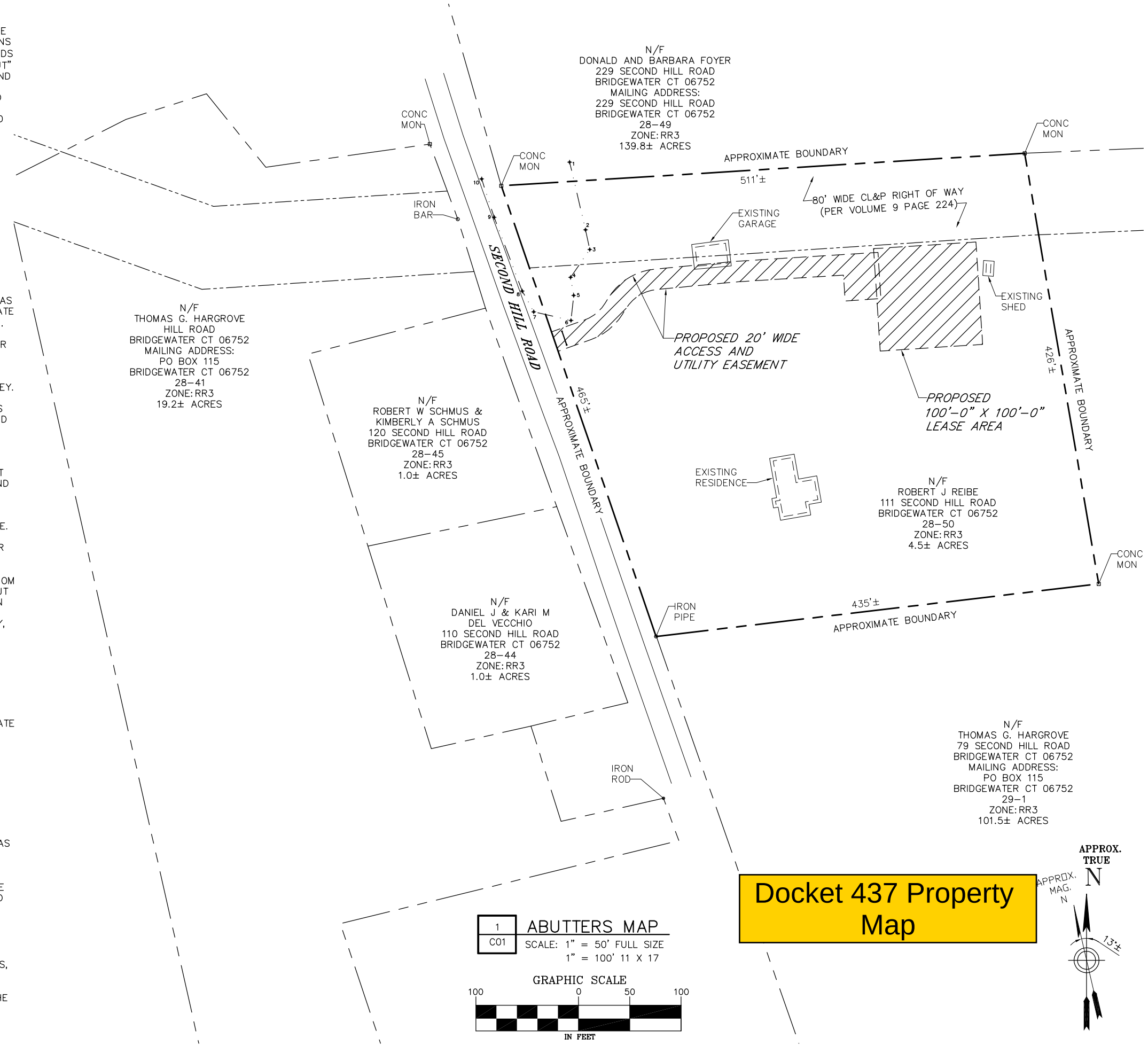
MAP REFERENCES:

1. MAP ENTITLED "42.461 ACRES PREPARED FOR STATE OF CONNECTICUT LOWENTHAL PROPERTY" AS PREPARED BY LINWOOD R. GEE & SON INC., DATED MAY 8, 1990 AND FILED IN THE BRIDGEWATER TOWN CLERKS OFFICE AS MAP NO. 931.

2. MAP ENTITLED "114.735 ACRES (SHEET 1 OF 2) MAP SHOWING DEVELOPMENT RIGHTS TO BE AQUIRED BY THE STATE OF CONNECTICUT FROM ANDRE VONDERWEIDT AND MARILENE VONERWEIDT" AS PREPARED BY SAMUEL P. BERTACINI, DATED FEBRUARY 1983 AND FILED IN THE BRIDGEWATER TOWN CLERKS OFFICE AS MAP NO. 904A.

3. MAP ENTITLED "SHEET 1 OF 2 PROPERTY SURVEY PREPARED FOR ELEANOR LOWENTHAL, ANNE C. HERMANS, JAMES D. LOWENTHAL, KATHERINE LEVIN, BARALEVIN & JENNIFER LEVIN" AS PREPARED BY NEW ENGLAND LAND SURVEYING, PC., DATED MAY 20, 2009 AND FILED IN THE BRIDGEWATER TOWN CLERKS OFFICE AS MAP NO. 1155A.

4. TOWN OF BRIDGEWATER TAX MAP NUMBER 28.



Docket 437 Property Map

1 | C01 ABUTTERS MAP
SCALE: 1" = 50' FULL SIZE
1" = 100' 11 X 17

at&t
Your world. Delivered.

NEW CINGULAR WIRELESS PCS, LLC
500 ENTERPRISE DRIVE
ROCKY HILL, CT 06067

Drawing Copyright © 2010

CHA
2139 Silas Deane Highway, Suite 212 · Rocky Hill, CT 06067-2336
Main: (860) 257-4557 · www.chacompanies.com

CHA PROJECT NO:
18301 – 1071 – 43000

NO.	SUBMITTAL		
0	12/23/10	ISSUED FOR CSC CERTIFICATE	
	BY: JDM	CHK: PAL	APP'D: JPS
1	01/25/11	MOVED ROAD	
	BY: PAL	CHK: PAL	APP'D: PAL
2	02/28/13	UPDATED ABUTTERS	
	BY: PAL	CHK: PAL	APP'D: PAL

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.

SITE ID:
SR1252
SITE NAME:
BRIDGEWATER
SITE ADDRESS:
111 SECOND HILL ROAD
BRIDGEWATER, CT
06752
LITCHFIELD COUNTY

SHEET TITLE
ABUTTERS MAP

SHEET NUMBER
C01

File: W:\SA_CINGULAR\18301\SITES\071 BRIDGEWATER 1252\20\BRIDGEWATER-1 ABUTTERS MAP.DWG Saved: 2/28/2013 12:54:39 PM Plotted: 2/28/2013 12:57:07 PM User: Lustoni, Paul

Docket 437 Decision and Order

DOCKET NO. 437 – New Cingular Wireless PCS, LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a telecommunications facility located at 111 Second Hill Road, Bridgewater, Connecticut.	} } }	Connecticut Siting Council September 5, 2013

Decision and Order

Pursuant to Connecticut General Statutes §16-50p and the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, maintenance, and operation of a telecommunications facility, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate, either alone or cumulatively with other effects, when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application, and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to New Cingular Wireless PCS, LLC, hereinafter referred to as the Certificate Holder, for a telecommunications facility at 111 Second Hill Road, Bridgewater, Connecticut.

Unless otherwise approved by the Council, the facility shall be constructed, operated, and maintained substantially as specified in the Council's record in this matter, and subject to the following conditions:

1. The tower shall be constructed as a monopole, no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of the Certificate Holder and other entities, both public and private, but such tower shall not exceed a height of 160 feet above ground level. The height at the top of the Certificate Holder's antennas shall not exceed 160 feet above ground level.

2. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Town of Bridgewater for comment, and all parties and intervenors as listed in the service list, and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
   a) a final site plan(s) of site development to include specifications for the tower, tower foundation, antennas, equipment compound, radio equipment, access road, utility line, and landscaping;
   b) construction plans for site clearing, grading, landscaping, water drainage, and erosion and sedimentation controls consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended; and
   c) protective measures for the wood turtle and American Kestrel.

3. Prior to the commencement of operation, the Certificate Holder shall provide the Council worst-case modeling of the electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall ensure a recalculated report of the electromagnetic radio frequency power density be submitted to the Council if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.

4. Upon the establishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.

5. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.

6. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed with at least one fully operational wireless telecommunications carrier providing wireless service within eighteen months from the date of the mailing of the Council's Findings of Fact, Opinion, and Decision and Order (collectively called "Final Decision"), this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's Final Decision shall not be counted in calculating this deadline. Authority to monitor and modify this schedule, as necessary, is delegated to the Executive Director. The Certificate Holder shall provide written notice to the Executive Director of any schedule changes as soon as is practicable.

7. Any request for extension of the time period referred to in Condition 6 shall be filed with the Council not later than 60 days prior to the expiration date of this Certificate and shall be served on all parties and intervenors, as listed in the service list, and the Town of Bridgewater. Any proposed modifications to this Decision and Order shall likewise be so served.

8. If the facility ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.

9. Any nonfunctioning antenna, and associated antenna mounting equipment, on this facility shall be removed within 60 days of the date the antenna ceased to function.

10. In accordance with Section 16-50j-77 of the Regulations of Connecticut State Agencies, the Certificate Holder shall provide the Council with written notice two weeks prior to the commencement of site construction activities. In addition, the Certificate Holder shall provide the Council with written notice of the completion of site construction, and the commencement of site operation.

11. The Certificate Holder shall remit timely payments associated with annual assessments and invoices submitted by the Council for expenses attributable to the facility under Conn. Gen. Stat. §16-50v.

12. This Certificate may be transferred in accordance with Conn. Gen. Stat. §16-50k(b), provided both the Certificate Holder/transferor and the transferee are current with payments to the Council for their respective annual assessments and invoices under Conn. Gen. Stat. §16-50v. In addition, both the Certificate Holder/transferor and the transferee shall provide the Council a written agreement as to the entity responsible for any quarterly assessment charges under Conn. Gen. Stat. §16-50v(b)(2) that may be associated with this facility.

13. The Certificate Holder shall maintain the facility and associated equipment, including but not limited to, the tower, tower foundation, antennas, equipment compound, radio equipment, access road, utility line and landscaping in a reasonable physical and operational condition that is consistent with this Decision and Order and a Development and Management Plan to be approved by the Council.

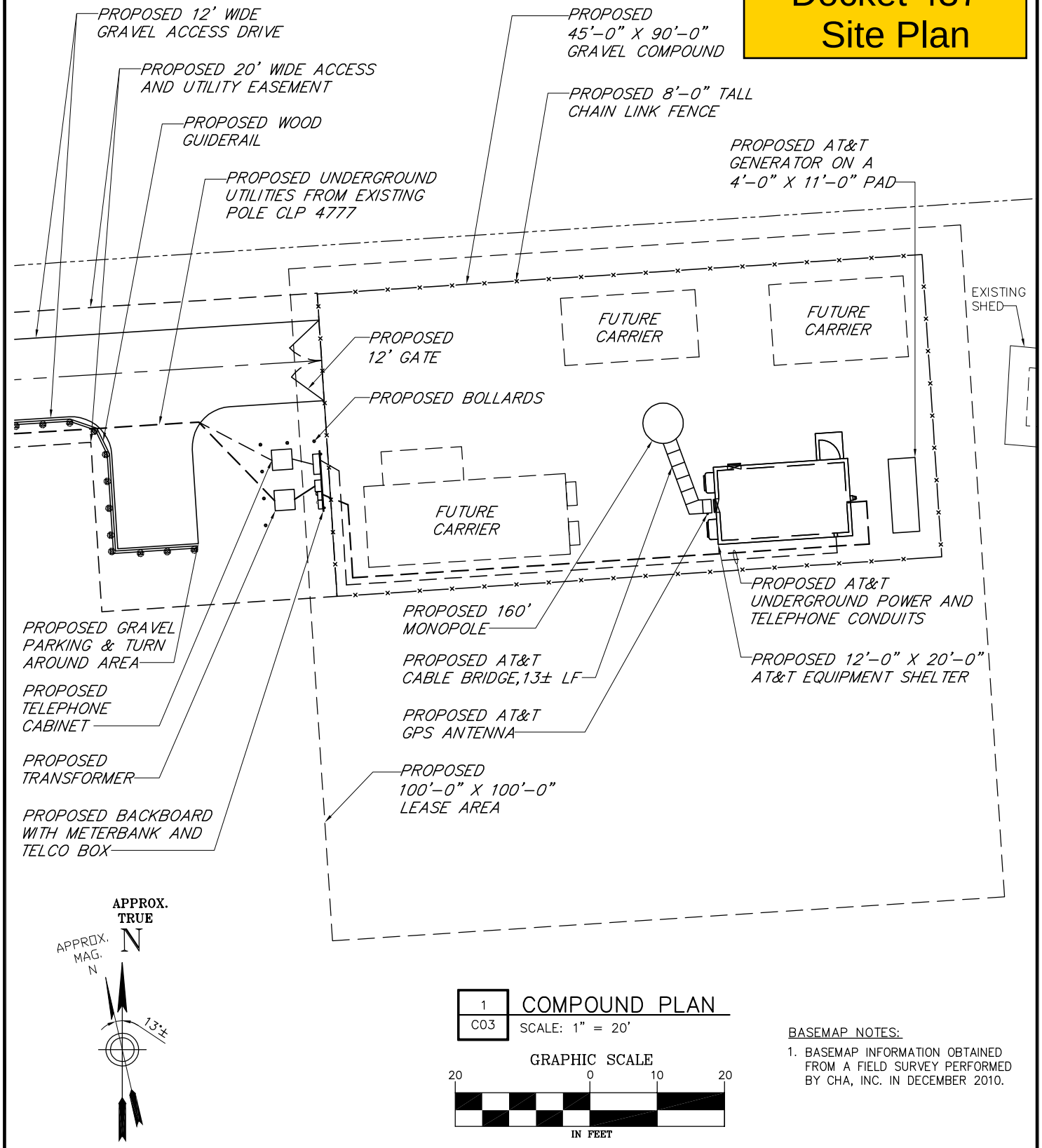
14. If the Certificate Holder is a wholly-owned subsidiary of a corporation or other entity and is sold/transferred to another corporation or other entity, the Council shall be notified of such sale and/or transfer and of any change in contact information for the individual or representative responsible for management and operations of the Certificate Holder within 30 days of the sale and/or transfer.

15. This Certificate may be surrendered by the Certificate Holder upon written notification and approval by the Council.

We hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed in the Service List, dated March 6, 2013, and notice of issuance published in the News Times.

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

Docket 437 Site Plan



1	COMPOUND PLAN
C03	SCALE: 1" = 20'

GRAPHIC SCALE

20 0 10 20

IN FEET

BASEMAP NOTES:

1. BASEMAP INFORMATION OBTAINED FROM A FIELD SURVEY PERFORMED BY CHA, INC. IN DECEMBER 2010.

Drawing Copyright © 2010

CHA
2139 Silas Deane Highway, Suite 212 · Rocky Hill, CT 06067-2336
Main: (860) 257-4557 · www.chacompanies.com

at&t
Your world. Delivered.

NEW CINGULAR WIRELESS PCS, LLC
500 ENTERPRISE DRIVE, ROCKY HILL, CT 06067

SR1252
BRIDGEWATER
111 SECOND HILL ROAD
BRIDGEWATER, CT 06752
LITCHFIELD COUNTY

CHA PROJ. NO. – 18301–1071–43000

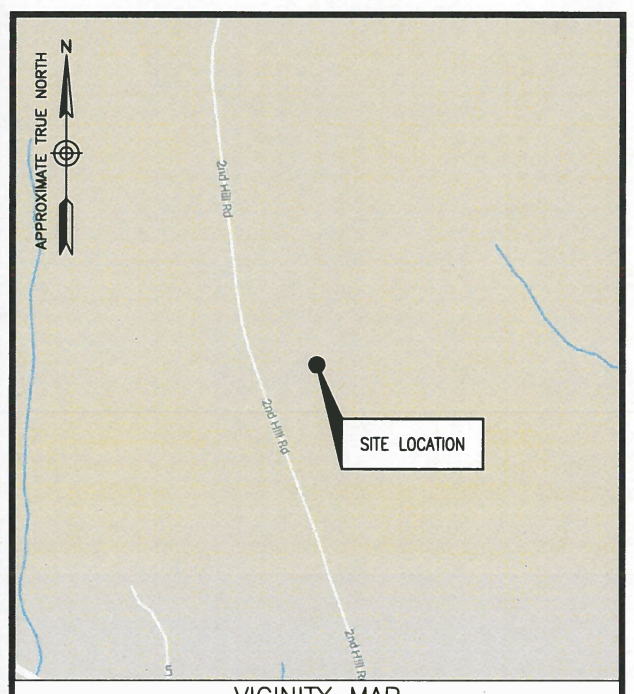
SHEET TITLE: COMPOUND PLAN

DATE: 12/23/10

REVISION: 0

DATE: 12/21/2010 11:29 AM FILE: W:\SAI CINGULAR\18301\SITES\1071 BRIDGEWATER 1252\ZD\BRIDGEWATER-3 COMPOUND PLAN.DWG

SITE NAME: BRIDGEWATER
SITE NUMBER: CT1252
111 2ND HILL ROAD
BRIDGEWATER, CT 06752



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 15 FOR US-6 E/CT-67 TOWARD SOUTHBURY. TURN RIGHT ONTO CT-67 N/US-6 E. TURN LEFT ONTO CT-67 W. TURN LEFT TO STAY ON CT-67 W. CONTINUE STRAIGHT ONTO CHURCH ST. CONTINUE ONTO WELLERS BRIDGE RD. TURN LEFT ONTO CT-67 W. TURN RIGHT ONTO 2ND HILL RD. SITE WILL BE ON THE RIGHT.

SITE INFORMATION

SITE COORDINATES:
LATITUDE: 41°-33'-17.9" N (NAD83)
LONGITUDE: 73°-22'-15.2" W (NAD83)
(PER GOOGLE EARTH)

ELEVATION DATA:
GRADE ELEVATION AT TOWER = 913'± A.M.S.L.
(PER GOOGLE EARTH)

PROJECT DESCRIPTION

- SWAP EXISTING AWS RRUS-12 + A2 MODULE WITH 1900 RRUS-32 B2 (TYP.-1 PER SECTOR) (3 TOTAL)
- ADD XMU

PROJECT INFORMATION

SITE NAME:
BRIDGEWATER

SITE NUMBER:
CT1252

SITE ADDRESS:
111 2ND HILL ROAD
BRIDGEWATER, CT 06752
LITCHFIELD COUNTY

TOWER OWNER:
AMERICAN TOWER CORPORATION
116 HUNTINGTON AVE., 11TH FLOOR
BOSTON, MA 02116

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

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 INDEX

SHEET NUMBER	DESCRIPTION
T-1	TITLE SHEET
G-1	GENERAL NOTES
C-1	COMPOUND PLAN
C-2	EXISTING & PROPOSED SHELTER LAYOUTS
C-3	ANTENNA LAYOUTS & ELEVATIONS
C-4	CONSTRUCTION DETAILS
E-1	GROUNDING NOTES & DETAILS

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

SAI
27 NORTHWESTERN DRIVE
SALEM, NH 03079

CT1252
BRIDGEWATER

CONSTRUCTION DRAWINGS

0	01/31/17	ISSUED FOR CONSTRUCTION
A	01/05/17	ISSUED FOR REVIEW

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.
CONNECTICUT 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:	BJR
REVIEWED BY:	BSH
CHECKED BY:	GHN
PROJECT NUMBER:	50055106
JOB NUMBER:	50065672
SITE ADDRESS:	

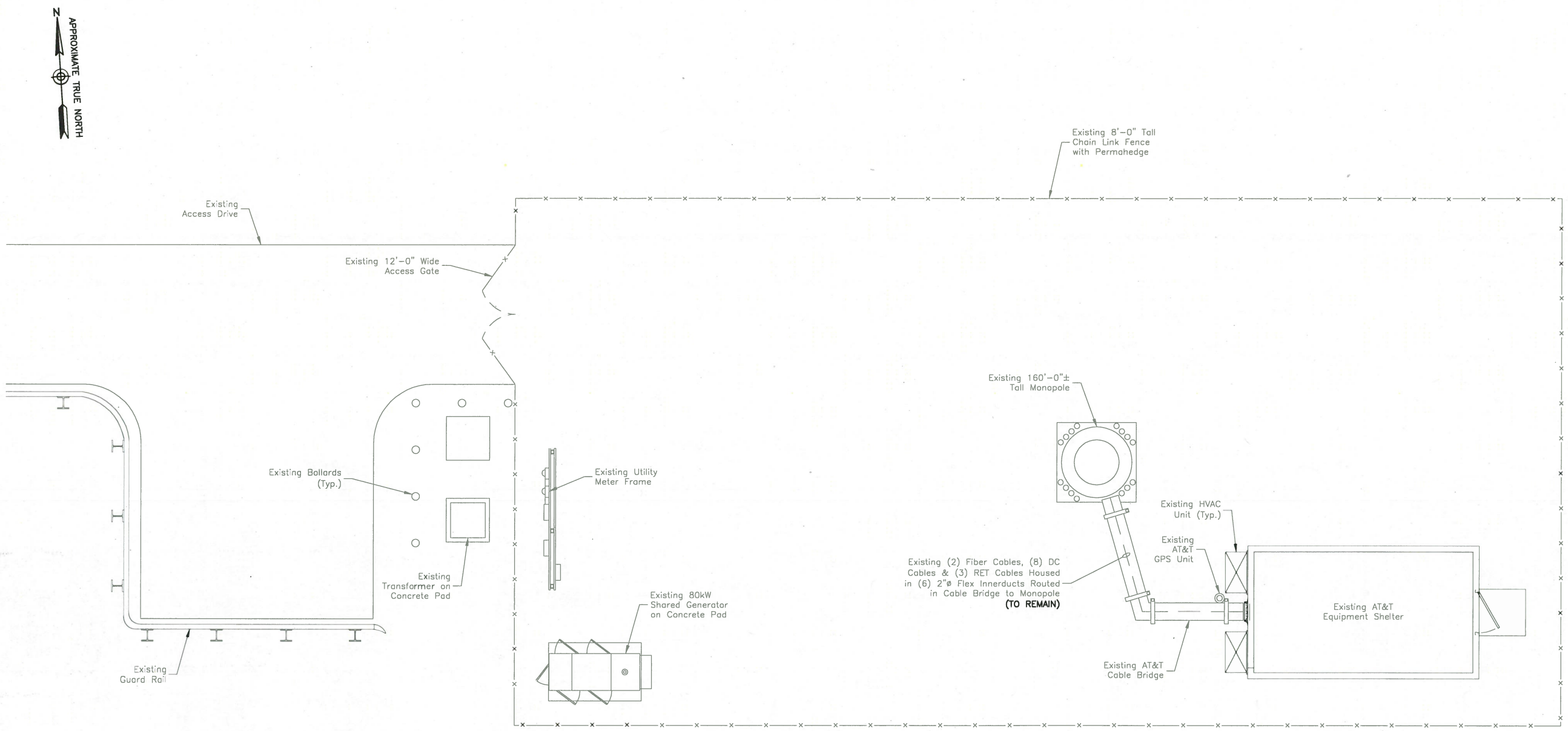
111 2ND HILL ROAD
BRIDGEWATER, CT 06752
LITCHFIELD COUNTY

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1



3
C-3

NOTES:

1. NORTH SHOWN AS APPROXIMATE.
2. NOT ALL INFORMATION IS SHOWN FOR CLARITY.
3. ALL PROPOSED EQUIPMENT, INCLUDING ANTENNAS, COAX, SURGE ARRESTORS, TMA'S, RRU'S, ETC., SHALL BE MOUNTED IN ACCORDANCE WITH THE TOWER STRUCTURAL ANALYSIS BY AMERICAN TOWER CORPORATION DATED JANUARY 27, 2017.

COMPOUND PLAN

1

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

CT1252
BRIDGEWATER

CONSTRUCTION DRAWINGS		
0	01/31/17	ISSUED FOR CONSTRUCTION
A	01/05/17	ISSUED FOR REVIEW

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. 28222
LICENSED
PROFESSIONAL ENGINEER

JIANG YU, P.E.
CONNECTICUT 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:	BJR
REVIEWED BY:	BSH
CHECKED BY:	GHN
PROJECT NUMBER:	50055106
JOB NUMBER:	50065672
SITE ADDRESS:	

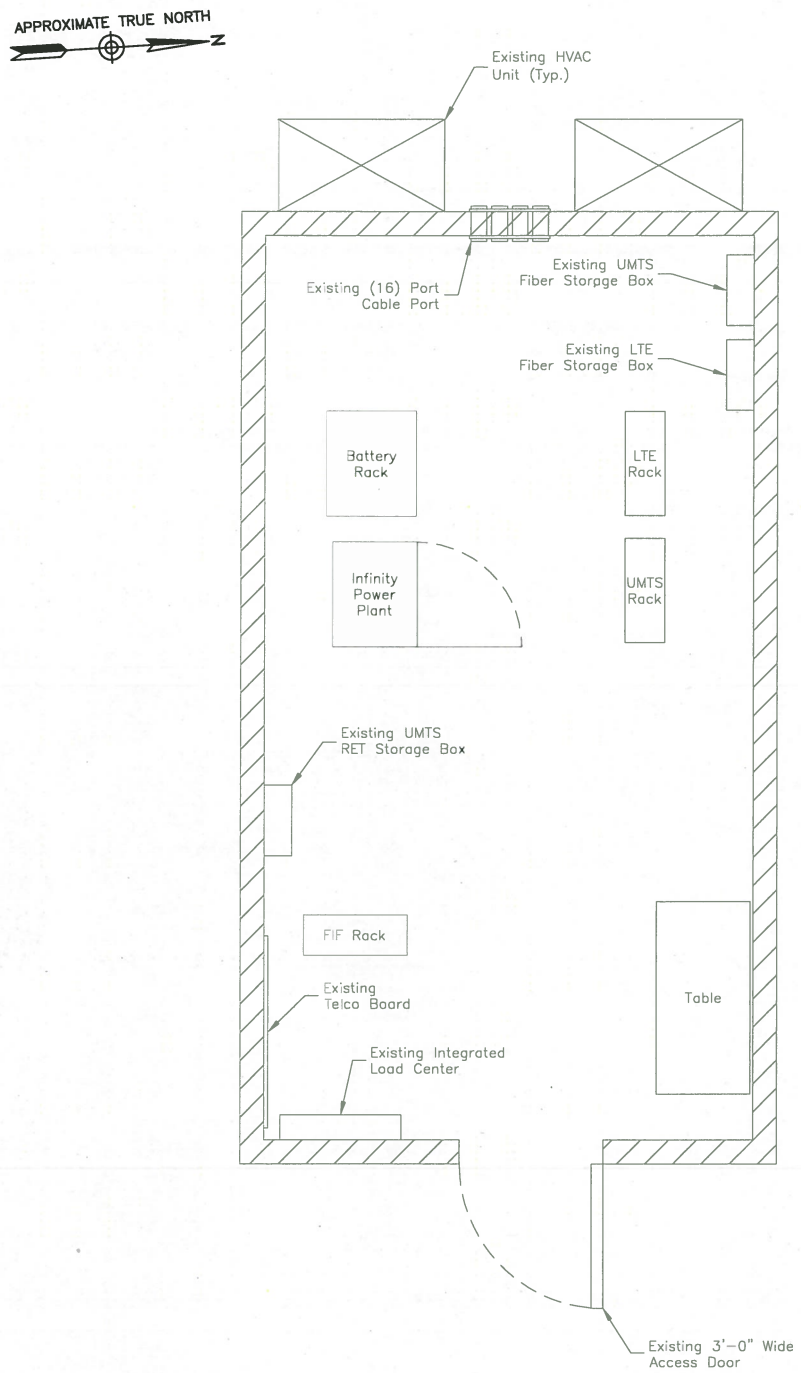
111 2ND HILL ROAD
BRIDGEWATER, CT 06752
LITCHFIELD COUNTY

SHEET TITLE

COMPOUND PLAN

SHEET NUMBER

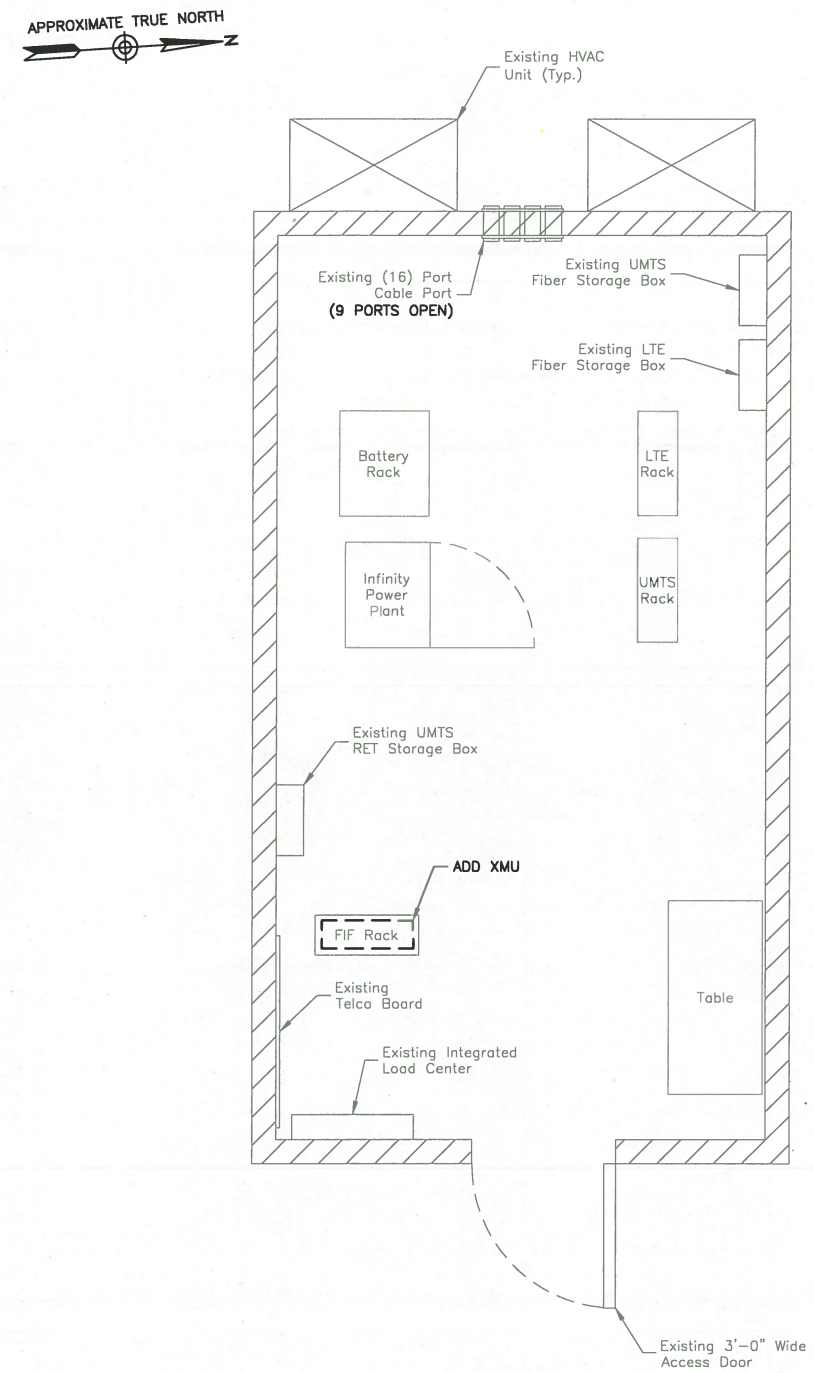
C-1



EXISTING SHELTER LAYOUT (1)

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

0' 1' 2' 4'



PROPOSED SHELTER LAYOUT (2)

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

0' 1' 2' 4'

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

SAI
27 NORTHWESTERN DRIVE
SALEM, NH 03079

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BRIDGEWATER

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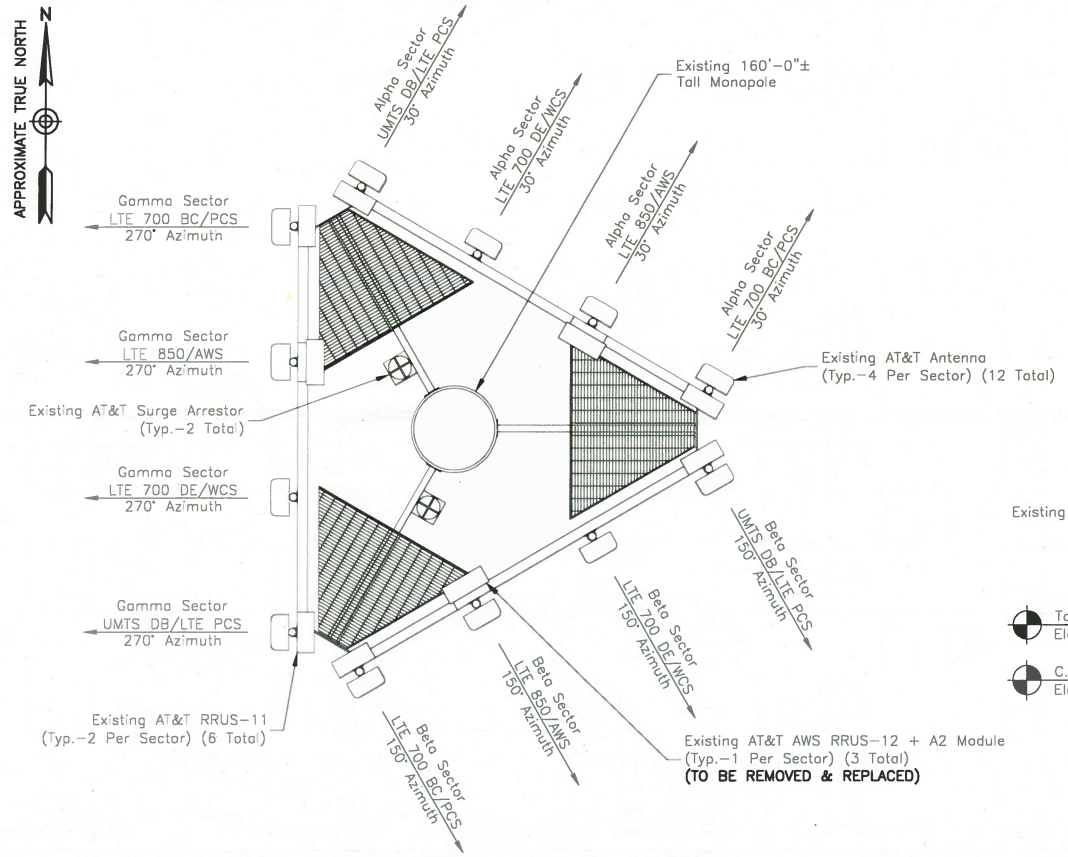
BRIDGEWATER, CT 06752
LITCHFIELD COUNTY

SHEET TITLE

EXISTING & PROPOSED SHELTER LAYOUTS

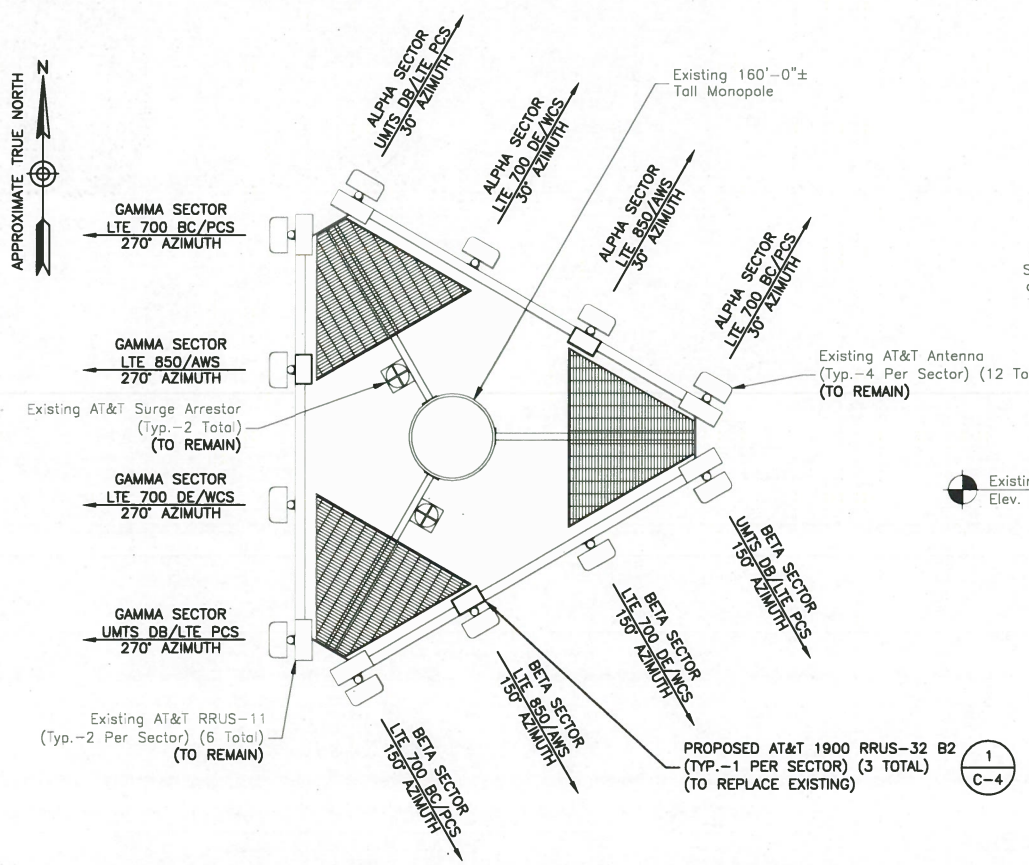
SHEET NUMBER

C-2



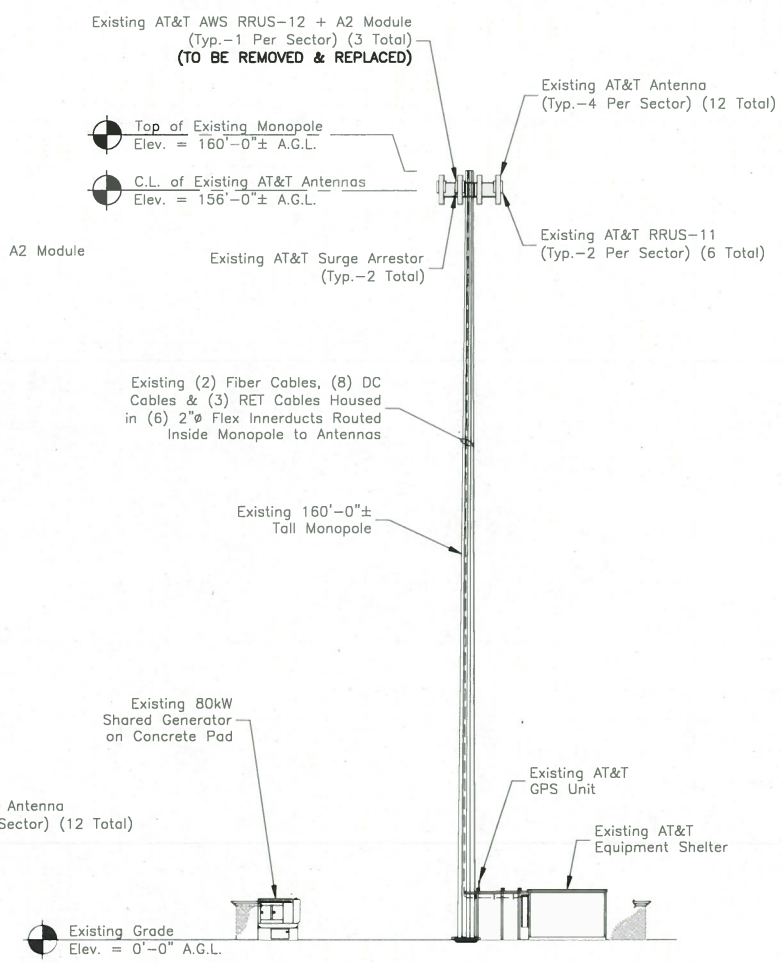
EXISTING ANTENNA LAYOUT (1)

SCALE: N.T.S.



PROPOSED ANTENNA LAYOUT (2)

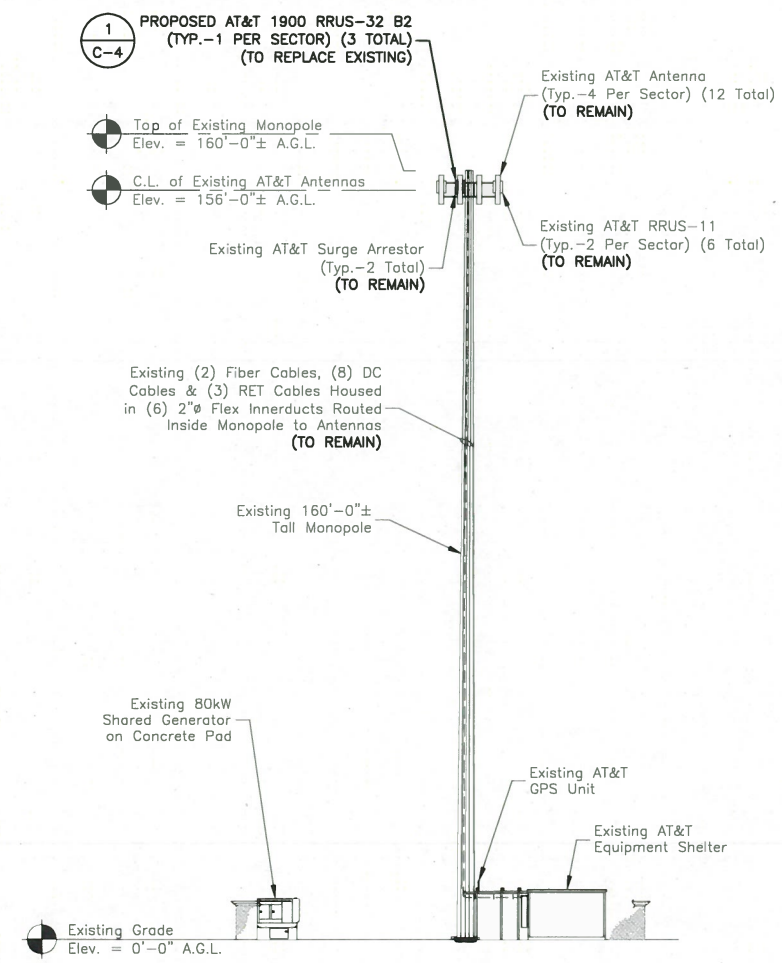
SCALE: N.T.S.



EXISTING SOUTH ELEVATION (3)

SCALE: 1"=40' FOR 11"x17"
1"=20' FOR 22"x34"

0' 20' 40'



PROPOSED SOUTH ELEVATION (4)

SCALE: 1"=40' FOR 11"x17"
1"=20' FOR 22"x34"

0' 20' 40'

NOTE:

1. ALL PROPOSED EQUIPMENT, INCLUDING ANTENNAS, COAX, SURGE ARRESTORS, TMA'S, RRU'S, ETC., SHALL BE MOUNTED IN ACCORDANCE WITH THE TOWER STRUCTURAL ANALYSIS BY AMERICAN TOWER CORPORATION DATED JANUARY 27, 2017.

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

SAI
27 NORTHWESTERN DRIVE
SALEM, NH 03079

CT1252
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CONSTRUCTION DRAWINGS		
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PROJECT NUMBER:	50055106
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SITE ADDRESS:	

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BRIDGEWATER, CT 06752
LITCHFIELD COUNTY

SHEET TITLE

ANTENNA LAYOUTS & ELEVATIONS

SHEET NUMBER

C-3

AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	**160 ft Monopole**
ATC Site Name	:	**Bridgewater CT, CT**
ATC Site Number	:	**281862**
Engineering Number	:	**OAA693298_C3_01**
Proposed Carrier	:	**AT&T Mobility**
Carrier Site Name	:	**Bridgewater - LSE8**
Carrier Site Number	:	**CT1252**
Site Location	:	**111 Second Hill Rd** **Bridgewater, CT 06752-1017** **41.55497,-73.37088**
County	:	**Litchfield**
Date	:	**January 27, 2017**
Max Usage	:	**72%**
Result	:	**Pass**

Prepared By:
Amir H. Tabarestani, E.I.
Structural Engineer II

Reviewed By:

COA: PEC.0001553

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 160 ft monopole to reflect the change in loading by AT&T Mobility.

Supporting Documents

Tower Drawings	TransAmerican Job #23513-0649, dated November 12, 2013
Foundation Drawing	TransAmerican Job #23513-0649, dated November 12, 2013
Geotechnical Report	Clarence Welti Associates Project - AT&T Tower Site #1252, dated September 10, 2013

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:	93 mph (3-Second Gust, V_{ASD}), 120 mph (3-Second Gust, V_{ULT})
Basic Wind Speed w/ Ice:	40 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:	C
Topographic Category:	3
Crest Height:	145 ft
Spectral Response:	Ss = 0.20, S_1 = 0.07
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 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					
156.0	156.0	4	Raycap DC6-48-60-18-8F	Platform w/ Handrails	-	AT&T Mobility
		3	Ericsson RRUS			

Equipment to be Removed

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
156.0	156.0	12	Ericsson RRUS	-	(15) 1 5/8" Coax	AT&T Mobility
		12	Andrew SBNH-1D6565C			

Proposed Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
156.0	156.0	3	Ericsson RRUS A2 B2	Platform w/ Handrails	(3) 3/8" RET Control Cable (6) 2" Conduit (8) 0.78" 8 AWG 6 (2) 0.39" Fiber Trunk	AT&T Mobility
		6	Ericsson RRUS 11 (Band 12) (55 lb)			
		3	Ericsson RRUS 32 B2			
		3	Ericsson RRUS-12 B2			
		12	CCI HPA-65R-BUU-H8			

[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	58%	Pass
Shaft	53%	Pass
Base Plate	37%	Pass

Foundations

Reaction Component	Original Design Reactions	Factored Design Reactions*	Analysis Reactions	% of Design
Moment (Kips-Ft)	3,550.0	4,792.5	2694.7	56%
Shear (Kips)	30.0	40.5	29.1	72%

*** The design reactions are factored by 1.35 per ANSI/TIA-222-G, Sec. 15.5.1**

The structure base reactions resulting from this analysis are acceptable when compared to those shown on the original structure drawings, therefore no modification or reinforcement of the foundation will be required.

Deflection and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
156.0	Ericsson RRUS A2 B2	AT&T Mobility	1.674	1.281
	Ericsson RRUS 11 (Band 12) (55 lb)			
	Ericsson RRUS 32 B2			
	Ericsson RRUS-12 B2			
	CCI HPA-65R-BUU-H8			

***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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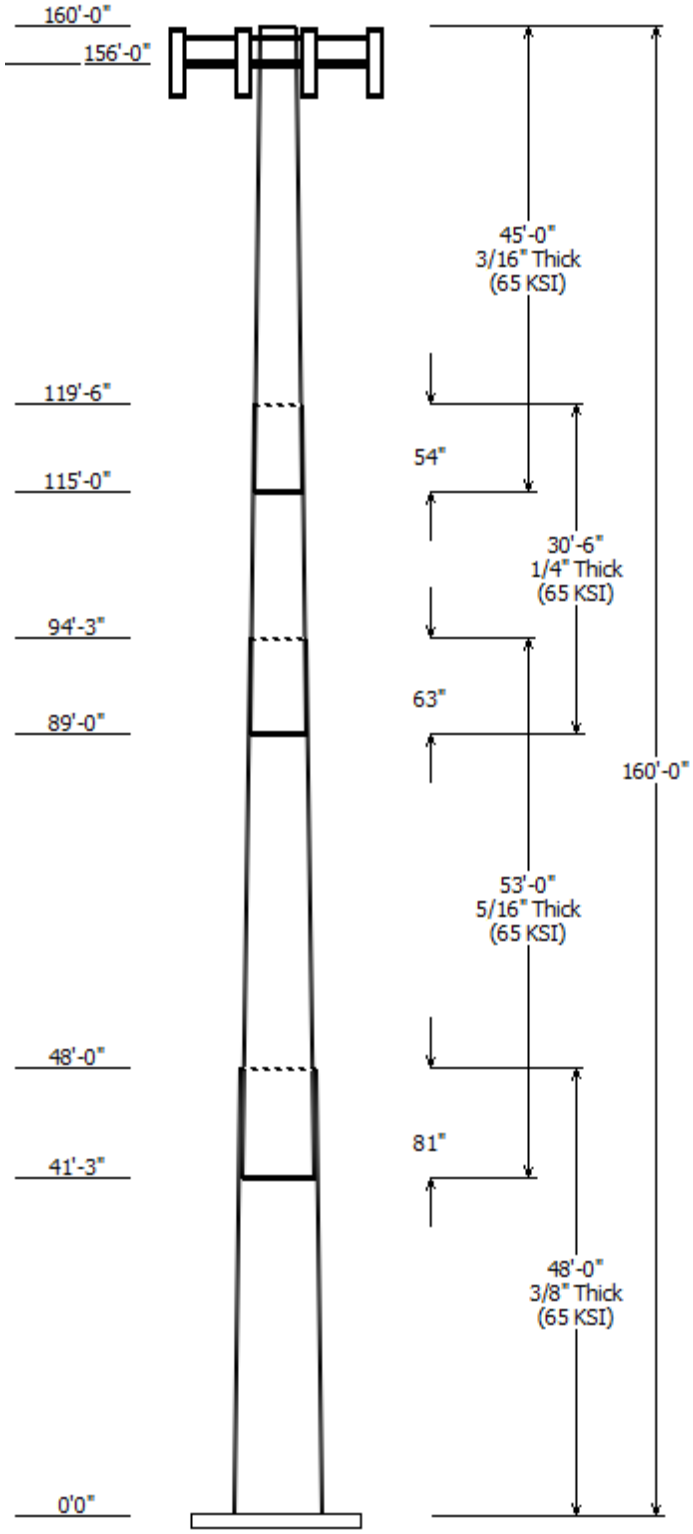

Job Information

Pole :	281862	Code:	ANSI/TIA-222-G
Description :	160 ft monopole		
Client :	AT&T Mobility	Struct Class :	II
Location :	Bridgewater CT, CT		
Shape :	18 Sides	Exposure :	C
Height :	160.00 (ft)	Topo :	3
Base Elev (ft):	0.00		
Taper:	0.250000 (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	48.000	46.50	58.50	0.375		0.000	0.250000	65
2	53.000	35.56	48.81	0.313	Slip Joint	81.000	0.250000	65
3	30.500	29.75	37.37	0.250	Slip Joint	63.000	0.250000	65
4	45.000	20.00	31.25	0.188	Slip Joint	54.000	0.250000	65

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
156.000	156.000	3	Ericsson RRUS A2 B2
156.000	156.000	6	Ericsson RRUS 11 (Band 12) (55
156.000	156.000	3	Ericsson RRUS 32 B2
156.000	156.000	3	Ericsson RRUS-12 B2
156.000	156.000	3	Ericsson RRUS
156.000	156.000	1	Round Platform w/ Handrails
156.000	156.000	12	CCI HPA-65R-BUU-H8
156.000	156.000	4	Raycap DC6-48-60-18-8F

Linear Appurtenance

Elev (ft) From	To	Description	Exposed To Wind
0.000	156.0	0.39" Fiber Trunk	No
0.000	156.0	0.78" 8 AWG 6	No
0.000	156.0	2" Conduit	No
0.000	156.0	3/8" RET Control	No

Load Cases

1.2D + 1.6W	93 mph with No Ice
0.9D + 1.6W	93 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	40 mph with 1.00 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	2694.66	29.09	36.83
0.9D + 1.6W	2675.13	29.08	27.62
1.2D + 1.0Di + 1.0Wi	586.75	6.43	66.11
(1.2 + 0.2Sds) * DL + E ELFM	174.54	1.41	36.55
(1.2 + 0.2Sds) * DL + E EMAM	248.72	2.05	36.55
(0.9 - 0.2Sds) * DL + E ELFM	172.90	1.41	25.23
(0.9 - 0.2Sds) * DL + E EMAM	246.18	2.05	25.23
1.0D + 1.0W	698.10	7.56	30.72

cread@bridgewatertownhall.org

lcarreira@bridgewatertownhall.org

New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 111 Second Hill Road, Bridgewater

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System ("UMTS") and Long Term Evolution ("LTE") capabilities, and enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("AT&T") will be changing its equipment configuration at certain cell sites.

As required by Regulations of Connecticut State Agencies ("R.C.S.A.") Section 16-50j-73, the Connecticut Siting Council has been notified of the changes and will review AT&T's proposal. Please accept this letter as notification under Section 16-50j-73 and Siting Council policy of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2).

The enclosed Notice fully sets forth the AT&T proposal. However, if you have any questions or require any further information on the plans for the site or the Siting Council's procedures, please contact the undersigned at 860-830-0380 or Ms. Melanie Bachman, Acting Executive Director, Connecticut Siting Council at (860) 827-2935.

Thank you.

-- Steve Levine, for AT&T

Centek Engineering, Inc.
3-2 North Branford Road
Branford, Connecticut 06405
Phone: (203) 488-0580
Fax: (203) 488-8587

Steven L. Levine
Real Estate Consultant

February 2, 2017

Mr. Robert J. Riebe
111 Second Hill Road
Bridgewater, CT 06752

Re: New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 111 Second Hill Road, Bridgewater

Dear Mr. Riebe:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System ("UMTS") and Long Term Evolution ("LTE") capabilities, and enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("AT&T") will be changing its equipment configuration at certain cell sites.

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Sincerely,

Steven L. Levine
Real Estate Consultant

Enclosure