STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
www.ct.gov/csc

August 14, 2009

Jennifer Young Gaudet
HPC Development LLC
53 Lake Avenue Ext.
Danbury, CT 06811

RE: **EM-T-MOBILE-080-090708** - Omnipoint Communications, Inc. (T-Mobile) notice of intent to modify an existing telecommunications facility located at 462 West Main Street, Meriden, Connecticut.

Dear Mrs. Gaudet:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

- Field measurements of existing radio frequency power density shall be performed at this tower site and a report shall be submitted to the Council prior to construction to certify that the cumulative (existing and proposed) percent maximum permissible exposure would not exceed 100 percent of the applicable limit;
- The tower foundation shall be analyzed for adequacy and reinforced if necessary to ensure that the foundation does not exceed 100 percent of its post-construction structural rating; and
- A signed letter from a Professional Engineer duly licensed in the State of Connecticut shall be submitted to the Council prior to construction to certify that the foundation does not exceed 100 percent of its post-construction structural rating.

The proposed modifications are to be implemented as specified here and in your notice dated July 7, 2009, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65.

Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/MP

c: The Honorable Michael S. Rohde, Mayor, City of Meriden
Lawrence Kendzior, City Manager, City of Meriden
Dominick Caruso, City Planner, City of Meriden
Christopher B. Fisher, Esq., Cuddy & Feder LLP

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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Internet: ct.gov/csc

Daniel F. Caruso
Chairman

July 8, 2009

The Honorable Michael S. Rohde
Mayor
City of Meriden
City Hall
142 East Main Street
Room 124
Meriden, CT 06450

RE: **EM-T-MOBILE-080-090708** – Omnipoint Communications, as subsidiary of T-Mobile USA, Inc. notice of intent to modify an existing telecommunications facility located at 462 West Main Street, Meriden, Connecticut.

Dear Mayor Rohde:

The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

If you have any questions or comments regarding this proposal, please call me or inform the Council by July 22, 2009.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/jb

Enclosure: Notice of Intent

c: Dominick Caruso, City Planner, City of Meriden
Lawrence Kendzior, City Manager, City of Meriden

HPC DEVELOPMENT LLC

EM-T-MOBILE-080-090708

July 7, 2009

ORIGINAL

RECEIVED
JUL - 8 2009
CONNECTICUT
SITING COUNCIL

Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051
Attn: Mr. S. Derek Phelps, Executive Director

Re: Omnipoint Communications, Inc. – exempt modification
462 West Main Street, Meriden, Connecticut

Dear Mr. Phelps:

This letter and attachments are submitted on behalf of T-Mobile Northeast LLC, successor-in-interest to Omnipoint Communications, Inc. ("T-Mobile"). T-Mobile is enhancing the capabilities of its wireless system in Connecticut by implementing UMTS technology. In order to do so, T-Mobile will modify antenna and equipment configurations at a number of its existing 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, a copy of this letter and attachments is being sent to the Mayor of Meriden.

T-Mobile plans to modify the existing facility at 462 West Main Street, Meriden (coordinates 41°32'23.6" N, -72°49'08" W). The tower is owned by AT&T; the underlying property is owned by Hunter Ambulance Service. Attached are a compound plan and tower elevation depicting the planned changes, and documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration. Also included is a power density calculation reflecting the modification to T-Mobile's operations at the site.

The changes to the facility do not constitute a modification as defined in Connecticut General Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facility will not be significantly changed. 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 be unaffected. Both T-Mobile's existing and proposed antennas will be located at an approximate center line of 90' AGL on the approximately 100' tower. T-Mobile will add three panel antennas and three TMAs, for a total of six antennas and nine TMAs. Six additional coaxial cables will be added. The proposed modifications will not extend the height of the tower.

2. The proposed changes will not extend the site boundaries. T-Mobile will install one additional cabinet on its existing concrete pad within the fenced compound. Thus, there will be no effect on the site boundaries.

3. The proposed changes will not increase the noise level at the existing facility by six decibels or more. The incremental effect of the proposed changes will be negligible.

4. The changes to the facility will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site. As indicated on the attached power density calculation, T-Mobile's operations at the site will result in a power density of 10.2429%; the combined site operations will result in a total power density of 98.1929%.

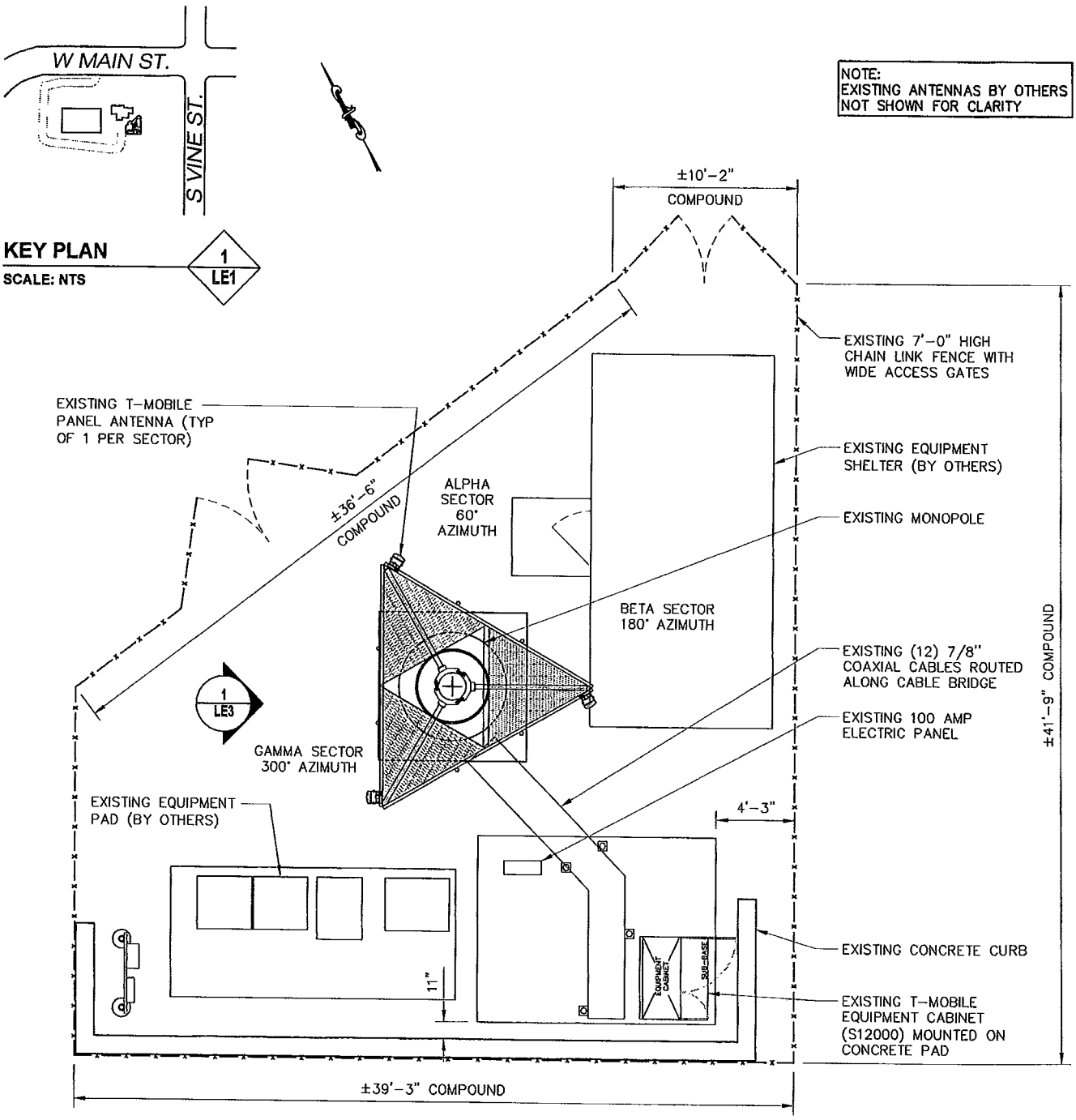
Please feel free to call me at (860) 798-7454 with questions concerning this matter. Thank you for your consideration.

Respectfully yours,

Jennifer Young Gaudet

cc: Honorable Michael S. Rohde, Mayor, City of Meriden
Hunter Ambulance Service

Attachments



KEY PLAN

SCALE: NTS

1 LE1

EXISTING COMPOUND PLAN

SCALE: 1/8" = 1'-0"

2 LE1

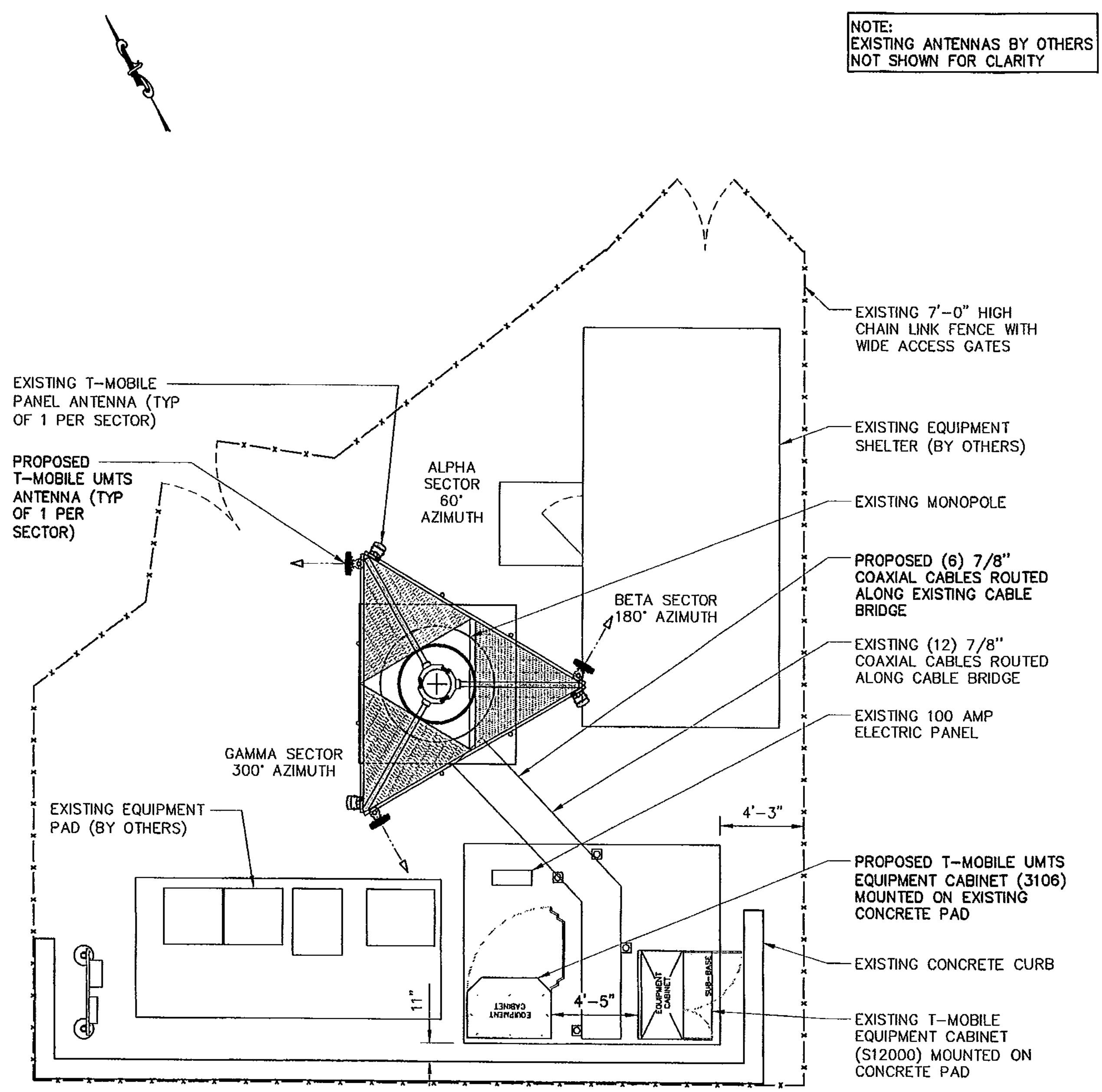
NOTES:
1. LEASE EXHIBITS ARE A CONCEPTUAL DESIGN OF LEASE AGREEMENT ONLY. ACTUAL CONSTRUCTION DOCUMENTS MAY VARY TO COMPLY WITH BUILDING CODES.
2. THE INFORMATION SHOWN IS TAKEN FROM A SURVEY PERFORMED BY "KMB DESIGN GROUP, LLC." DURING SITE VISIT.
3. ELECTRIC/ TELCO SERVICES SHALL BE CONFIRMED PRIOR TO CONSTRUCTION DOCUMENT PHASE.
4. 24 HR. 7 DAYS PER WEEK ACCESS IS REQUIRED FOR SERVICE TECHNICIAN.

KMB DESIGN GROUP
www.kmbdg.com

TITLE:	KEY & COMPOUND PLAN
CLIENT:	Omnipoint
PROJECT:	462 WEST MAIN STREET
ADDRESS:	462 WEST MAIN STREET MERIDEN, CT 06451 NEW HAVEN COUNTY
SITE NO:	CT11733B
KMB NO:	350.0004.071
DRAWN BY:	CCR
CHECKED BY:	

2	12-8-08	JLS
1	11-24-08	CCR
0	11-19-08	CCR

LE1


NOTE:
EXISTING ANTENNAS BY OTHERS NOT SHOWN FOR CLARITY
EXISTING 7'-0" HIGH CHAIN LINK FENCE WITH WIDE ACCESS GATES
EXISTING T-MOBILE PANEL ANTENNA (TYP OF 1 PER SECTOR)
PROPOSED T-MOBILE UMTS ANTENNA (TYP OF 1 PER SECTOR)
ALPHA SECTOR 60° AZIMUTH
EXISTING EQUIPMENT SHELTER (BY OTHERS)
EXISTING MONOPOLE
PROPOSED (6) 7/8" COAXIAL CABLES ROUTED ALONG EXISTING CABLE BRIDGE
BETA SECTOR 180° AZIMUTH
EXISTING (12) 7/8" COAXIAL CABLES ROUTED ALONG CABLE BRIDGE
EXISTING 100 AMP ELECTRIC PANEL
GAMMA SECTOR 300° AZIMUTH
EXISTING EQUIPMENT PAD (BY OTHERS)
4'-3"
PROPOSED T-MOBILE UMTS EQUIPMENT CABINET (3106) MOUNTED ON EXISTING CONCRETE PAD
EXISTING CONCRETE CURB
11"
4'-5"
EQUIPMENT CABINET
SUB-BASE
EXISTING T-MOBILE EQUIPMENT CABINET (S12000) MOUNTED ON CONCRETE PAD

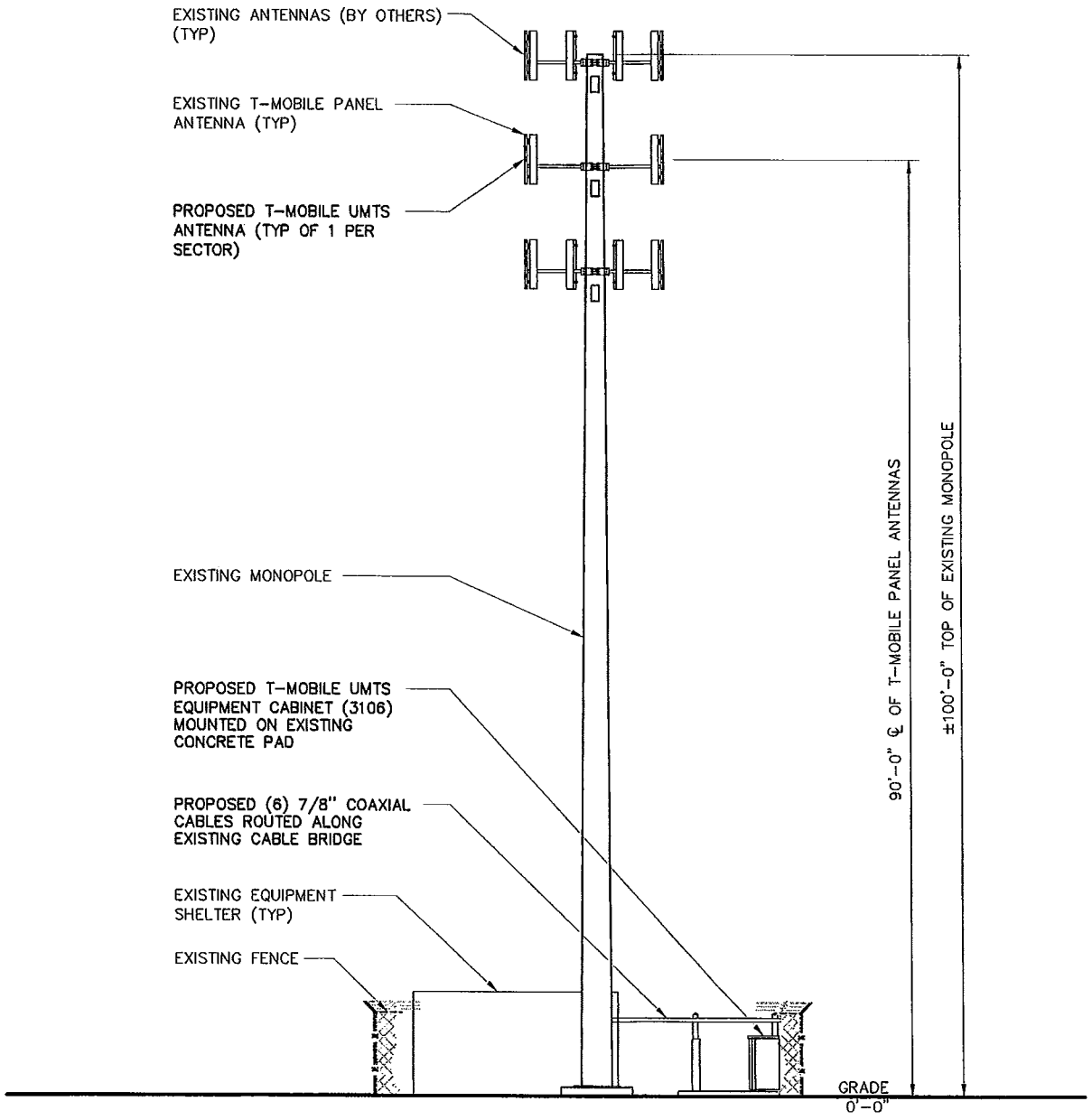
PROPOSED COMPOUND PLAN

SCALE: 1/8" = 1'-0"

1
LE2

KMB DESIGN GROUP www.kmbdg.com	TITLE: COMPOUND PLAN	PROJECT: 462 WEST MAIN STREET	
	CLIENT: Omnipoint COMMUNICATIONS, INC. dba T-MOBILE USA	ADDRESS: 462 WEST MAIN STREET MERIDEN, CT 06451 NEW HAVEN COUNTY	
SITE NO: CT11733B	KMB NO: 350.0004.071 / DRAWN BY: CCR / CHECKED BY:		LE2

Rev	Date	By
2	12-8-08	JLS
1	11-24-08	CCR
0	11-19-08	CCR



NORTHWEST ELEVATION

SCALE: 1/16" = 1'-0"

1
LE3

KMB DESIGN GROUP
www.kmbdg.com

SITE NO: CT11733B	KMB NO: 350.0004.071	DRAWN BY: CCR	CHECKED BY:

TITLE: ELEVATION

CLIENT: Omnipoint COMMUNICATIONS INC. dba T-MOBILE USA 35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002

PROJECT: 462 WEST MAIN STREET

ADDRESS: 462 WEST MAIN STREET MERIDEN, CT 06451 NEW HAVEN COUNTY

2	12-8-08	JLS
1	11-24-08	CCR
0	11-19-08	CCR

LE3

Glynn Walker
AT&T Mobility
5405 Windward Pkwy
Alpharetta, GA 30004
(770) 708-6122

Kevin Clements
520 South Main St., Suite 2531
Akron, OH 44311
(330) 572-2195
kclements@gpdgroup.com

GPD# 2009260.73
February 25, 2009

STRUCTURAL ANALYSIS REPORT

AT&T DESIGNATION:	Site USID:	25975
	Site FA:	10071118
	Site Name:	MERIDEN WEST CENTRAL
T-MOBILE DESIGNATION:	Site Name:	CT733/AT&T/Hunter Ambulance
	Site Number:	CT11733B
ANALYSIS CRITERIA:		TIA/EIA-222-F & 2003 IBC 85-mph with 0" ice 74-mph with 1/2" ice
SITE DATA:		450-478 West Main Street, Meriden, CT 06451, New Haven County Latitude 41° 32' 23.604" N, Longitude 72° 49' 8.04" W 100' Glen Martin Monopole

Mr. Walker,

GPD is pleased to submit this Structural Analysis Report to determine the structural integrity of the aforementioned tower. The purpose of the analysis is to determine the suitability of the tower with the addition of the following proposed loading configuration:

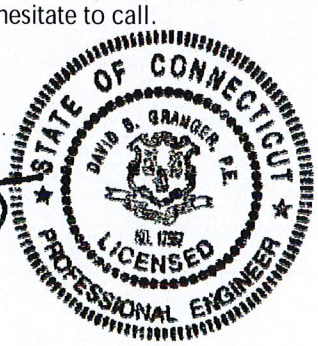
Elev. 90' (3) RFS APX16DWV-16-DWV-S-E-ACU Antennas on an existing 13' LP Platform w/ (6) 1-5/8" internal coax
(3) RFS ATMAA1412D-1A20 Tower Mounted Amplifiers mounted behind the antennas

Based on our analysis we have determined the design for tower is sufficient for the proposed, existing, and reserved loadings as referenced in Appendix A. However the foundation could not be verified based on the information provided.

We at GPD appreciate the opportunity of providing our continuing professional services to you and AT&T. If you have any questions please do not hesitate to call.

Respectfully submitted,

David B. Granger, P.E.
Connecticut #: 17557



SUMMARY & RESULTS

The purpose of this analysis was to verify whether the existing structure is capable of carrying the proposed loading configuration as specified by T-Mobile to AT&T. This report was commissioned by Mr. Glynn Walker of AT&T.

No geotechnical information was available or provided for this report. Therefore, the in place capacity of the existing foundation could not be verified. However, the proposed foundation reactions were found to be greater than the original design reactions. It is recommended that the geotechnical report be obtained or a new geotechnical study at the site be performed in order to complete a foundation analysis.

TOWER SUMMARY AND RESULTS

Member	Capacity	Results
Monopole	43.6%	Pass
Base Plate	24.6%	Pass
Anchor Rods	32.2%	Pass
Foundation	Not Verified	N/A

ANALYSIS METHOD

RISA Tower (Version 5.3.0.1), a commercially available software program, was used to create a three-dimensional model of the tower and calculate primary member stresses for various dead, live, wind, and ice load cases. Selected output from the analysis is included in Appendix B. The following table details the information provided to complete this structural analysis. This analysis is solely based on this information and being provided without the benefit of a site visit.

DOCUMENTS PROVIDED

Document	Remarks	Source
Preliminary Tower Summary	T-Mobile Co-location document	Siterra
Site Lease Application	T-Mobile Application, dated 12/10/08	Siterra
Tower and Foundation Design	Glen Martin Engineering Inc., Site #: CT-378, dated 12/15/03	Siterra
Previous Structural Analysis	All Points Technology Corp., P.C., Project #: CT198380 dated 8/20/07	Siterra
Tower Mapping	GPD Associates & MTSI Northeast, dated 2/18/09	Siterra

ASSUMPTIONS

This structural analysis is based on the theoretical capacity of the members and is not a condition assessment of the monopole. This analysis is from information supplied, and therefore, its results are based on and are as accurate as that supplied data. GPD has made no independent determination, nor is it required to, of its accuracy. The following assumptions were made for this structural analysis.

1. The monopole shaft sizes and shape are considered accurate as supplied. The material grade is as per data supplied and/or as assumed and as stated in the materials section.
2. The antenna configuration is as supplied and/or as modeled in the analysis. It is assumed to be complete and accurate. All antennas, mounts, coax and waveguides are assumed to be properly installed and supported as per manufacturer requirements
3. Some assumptions are made regarding antennas and mount sizes and their projected areas based on best interpretation of data supplied and of best knowledge of antenna type and industry practice.
4. All mounts, if applicable, are considered adequate to support the loading. No actual analysis of the mount(s) is performed. This analysis is limited to analyzing the tower only.
5. The soil parameters are as per data supplied or as assumed and stated in the calculations. If no data is available, the foundation system is not verified. In the case of absent foundation data, it is the tower owner's responsibility to insure that the foundation system is adequate to support the structure with its new reactions.
6. The tower and structures have been properly maintained in accordance with TIA Standards and/or with manufacturer's specifications.
7. All welds and connections are assumed to develop at least the member capacity, unless determined otherwise and explicitly stated in this report.
8. Tower Mounted Amplifiers are assumed to be installed behind antennas.
9. All existing loading was obtained from the provided Preliminary Tower Summary, tower photos, and a tower mapping done by GPD Associates & MTSI Northeast, dated 2/18/09 and is assumed to be accurate.
10. All proposed coax is assumed to be internal to the monopole

If any of these assumptions are not valid or have been made in error, this analysis may be affected, and GPD Associates should be allowed to review any new information to determine its effect on the structural integrity of the tower.

DISCLAIMER OF WARRANTIES

GPD ASSOCIATES has not performed a site visit to the tower to verify the member sizes or antenna/coax loading. If the existing conditions are not as represented on the tower elevation contained in this report, we should be contacted immediately to evaluate the significance of the discrepancy. This is not a condition assessment of the tower or foundation. This report does not replace a full tower inspection. The tower and foundations are assumed to have been properly fabricated, erected, maintained, in good condition, twist free, and plumb.

The engineering services rendered by GPD ASSOCIATES in connection with this Structural Analysis are limited to a computer analysis of the tower structure and theoretical capacity of its main structural members. All tower components have been assumed to only resist dead loads when no other loads are applied. No allowance was made for any damaged, bent, missing, loose, or rusted members (above and below ground). No allowance was made for loose bolts or cracked welds.

GPD ASSOCIATES does not analyze the fabrication of the structure (including welding). It is not possible to have all the very detailed information needed to perform a thorough analysis of every structural sub-component and connection of an existing tower. GPD ASSOCIATES provides a limited scope of service in that we cannot verify the adequacy of every weld, plate connection detail, etc. The purpose of this report is to assess the feasibility of adding appurtenances usually accompanied by transmission lines to the structure.

It is the owner's responsibility to determine the amount of ice accumulation, if any, that should be considered in the structural analysis.

The attached sketches are a schematic representation of the analyzed tower. If any material is fabricated from these sketches, the contractor shall be responsible for field verifying the existing conditions, proper fit, and clearance in the field. Any mentions of structural modifications are reasonable estimates and should not be used as a precise construction document. Precise modification drawings are obtainable from GPD ASSOCIATES, but are beyond the scope of this report.

Miscellaneous items such as antenna mounts, etc., have not been designed or detailed as a part of our work. We recommend that material of adequate size and strength be purchased from a reputable tower manufacturer.

GPD ASSOCIATES makes no warranties, expressed and/or implied in connection with this report and disclaims any liability arising from material, fabrication, and erection of this tower. GPD ASSOCIATES will not be responsible whatsoever for, or on account of, consequential or incidental damages sustained by any person, firm, or organization as a result of any data or conclusions contained in this report. The maximum liability of GPD ASSOCIATES pursuant to this report will be limited to the total fee received for preparation of this report.

APPENDIX A

Tower Analysis Summary Form

Tower Analysis Summary Form

General Info

Site Name	MERIDEN WEST CENTRAL
Site Number	25975
FA Number	10071118
Date of Analysis	2/25/2009
Company Performing Analysis	GPD

The information contained in this summary report is not to be used independently from the PE stamped tower analysis.

Tower Info	Description	Date
Tower Type (G, SST, MP)	MP	
Tower Height (top of steel AGL)	100'	
Tower Manufacturer	Glen Martin DWG	12/11/2003
Tower Model	n/a	
Tower Design	Glen Martin Site #: CT-378	6/4/2003
Foundation Design	Glen Martin Site #: CT-379	12/15/2003
Geotech Report	Tectonic Engineering Report #: 2650-CT378	8/28/2002
Tower Mapping	GPD Associates & MTSI Northeast	2/18/2009
Previous Structural Analysis	All Points Tech. Corp. Project #: CT198380	8/20/2007
Foundation Mapping	n/a	

Design Parameters

Design Code Used	TIA/EIA-222-F
Location of Tower (County, State)	New Haven, Connecticut
Basic Wind Speed (mph)	85-fastest
Ice Thickness (in)	0.5"
Structure Classification (I, II, III)	
Exposure Category (B, C, D)	
Topographic Category (1 to 5)	

Analysis Results (% Maximum Usage)

Existing/Reserved + Future Condition	
Tower	41.1%
Foundation	n/a
Guy Wire	n/a

Note: Foundation Not Verified

Existing/Reserved + Future + Proposed Condition	
Tower	43.6%
Foundation	n/a
Guy Wire	n/a

Note: Foundation Not Verified

Steel Yield Strength (ksi)

Pole	65
Base Plate	50
Anchor Rods	55

Existing / Reserved Loading

Antenna								Mount			Transmission Line			
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Quantity	Model	Size	Attachment Leg/Face
AT&T Mobility	100	115	1	Omni	Unknown	25' Omni Antenna	60	1	Unknown	pipe mounted				
AT&T Mobility	100	106	3	Whip	Unknown	5' Whip Antenna	60,180,300	1	Valmont	13' Platform w/ rails	3	Unknown	1/2"	Internal
AT&T Mobility	100	103	6	TMA	Powerwave	LGP21401	60,180,300			on same mount				
AT&T Mobility	100	103	4	Yagi	Unknown	3' Yagi Antenna	60,180,300			on same mount	4	Unknown	1/2"	Internal
AT&T Mobility	100	103	3	Panel	Kathrein	800-10121	60,180,300			on same mount	6	Unknown	1-1/4"	Internal
T-Mobile	86	90	3	Panel	RFS	APX16PV-16PVL-E	70,180,300	1	PiROD	13' LP Platform	12	Unknown	7/8"	Internal
T-Mobile	86	90	6	TMA	Andrew	dTMA1.9GHz	70,180,300			on same mount				
T-Mobile	86	87	1	Panel	Unknown	2' square panel	70			on same mount	1	Unknown	3/8"	Internal
Nextel	78	78	12	Panel	Andrew	844G65VTXASX		1	PiROD	15' LP Platform	12	Unknown	1-1/4"	Internal

Proposed Loading

Antenna								Mount			Transmission Line			
Antenna Owner	Mount	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Quantity	Model	Size	Attachment
T-Mobile	86	90	3	Panel	RFS	APX16DWV-16-DWV-S-E	60,180,300			on existing mount	6	LDF7-50A	1-5/8"	Internal
T-Mobile	86	90	3	TMA	RFS	ATMAA1412D-1A20	60,180,300			on existing mount				

Note: The proposed loading is in addition to the existing loading at the same elevation.

Future Loading

Antenna								Mount			Transmission Line			
Antenna Owner	Mount	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Quantity	Model	Size	Attachment
AT&T Mobility	100	100	6	Panel	Algon	7250.03	60,180,300			on existing mount	6	Unknown	1-1/4"	Internal

Note: Future loading shall be in addition to existing/reserved loading at the same elevation.

Revision:3
Date: 2/18/09

T · ·Mobile·

T-Mobile USA Inc.
35 Griffin Rd South, Bloomfield, CT 06002-1853
Phone: (860) 692-7100
Fax: (860) 692-7159

Technical Memo

To: HPC
From: Farid Marbouh - Radio Frequency Engineer
cc: Jason Overbey
Subject: Power Density Report for CT11733B
Date: July 6, 2009

1. Introduction:

This report is the result of an Electromagnetic Field Intensities (EMF - Power Densities) study for the T-Mobile PCS antenna installation on a Monopole at 462 West Main St., Meriden, CT. This study incorporates the most conservative consideration for determining the practical combined worst case power density levels that would be theoretically encountered from locations surrounding the transmitting location.

2. Discussion:

The following assumptions were used in the calculations:

1) The emissions from T-Mobile transmitters are in the (1935-1944.8), (1980.2-1984.8), (2140-2145), (2110-2120)MHz frequency Band.
2) The antenna array consists of three sectors, with 2 antennas per sector.
3) The model number for GSM antenna is APX16PV-16PVL.
3) The model number for UMTS antenna is APX16DWV-16DWV.
4) GSM antenna center line height is 90 ft.
4) UMTS antenna center line height is 90 ft.
5) The maximum transmit power from any GSM sector is 2011.31 Watts Effective Radiated Power (EiRP) assuming 8 channels per sector.
5) The maximum transmit power from any UMTS sector is 1282.98 Watts Effective Radiated Power (EiRP) assuming 1 channels per sector.
6) All the antennas are simultaneously transmitting and receiving, 24 hours a day.
7) Power levels emitting from the antennas are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
8) The average ground level of the studied area does not change significantly with respect to the transmitting location

Equations given in "FCC OET Bulletin 65, Edition 97-01" were then used with the above information to perform the calculations.

3. Conclusion:

Based on the above worst case assumptions, the power density calculation from the T-Mobile PCS antenna installation on a Monopole at 462 West Main St., Meriden, CT, is 0.10243 mW/cm^2. This value represents 10.243% of the Maximum Permissible Exposure (MPE) standard of 1 milliwatt per square centimeter (mW/cm^2) set forth in the FCC/ANSI/IEEE C95.1-1991. Furthermore, the proposed antenna location for T-Mobile will not interfere with existing public safety communications, AM or FM radio broadcasts, TV, Police Communications, HAM Radio communications or any other signals in the area. The combined Power Density from other carriers is 87.95%. The combined Power Density for the site is 98.193% of the M.P.E. standard.

VoiceStream Wireless Corporation Proprietary

Connecticut Market

T-Mobile

Worst Case Power Density

Site:	**CT11733B**
Site Address:	**462 West Main St.**
Town:	**Meriden**
Tower Height:	**100 ft.**
Tower Style:	**Monopole**

GSM Data		**UMTS Data**	
Base Station TX output	20 W	**Base Station TX output**	40 W
Number of channels	8	**Number of channels**	1
Antenna Model	APX16PV-16PVL	**Antenna Model**	APX16DWV-16DWV
Cable Size	7/8 in.	**Cable Size**	7/8 in.
Cable Length	124 ft.	**Cable Length**	124 ft.
Antenna Height	90.0 ft.	**Antenna Height**	90.0 ft.
Ground Reflection	1.6	**Ground Reflection**	1.6
Frequency	1945.0 MHz	**Frequency**	2.1 GHz
Jumper & Connector loss	4.50 dB	**Jumper & Connector loss**	1.50 dB
Antenna Gain	17.8 dBi	**Antenna Gain**	18.0 dBi
Cable Loss per foot	0.0186 dB	**Cable Loss per foot**	0.0116 dB
Total Cable Loss	2.3064 dB	**Total Cable Loss**	1.4384 dB
Total Attenuation	6.8064 dB	**Total Attenuation**	2.9384 dB
Total EIRP per Channel	54.00 dBm	**Total EIRP per Channel**	61.08 dBm
(In Watts)	251.41 W	**(In Watts)**	1282.98 W
Total EIRP per Sector	63.03 dBm	**Total EIRP per Sector**	61.08 dBm
(In Watts)	2011.31 W	**(In Watts)**	1282.98 W
nsg	10.9936	**nsg**	15.0616
Power Density (S) =	**0.062538 mW/cm^2**	**Power Density (S) =**	**0.039892 mW/cm^2**

T-Mobile Worst Case % MPE = **10.2429%**

Equation Used :

$$S = \frac{(1000)(grf)^2 (Power) * 10^{(nsg/10)}}{4\pi (R)^2}$$

Office of Engineering and Technology (OET) Bulletin 65, Edition 97-01, August 1997

Co-Location Total

Carrier	**% of Standard**
Verizon	
Cingular	14.3800 %
Sprint	29.0000 %
AT&T Wireless	
Nextel	
MetroPCS	
Other Antenna Systems	44.5700 %
Total Excluding T-Mobile	**87.9500 %**
T-Mobile	10.2429
Total % MPE for Site	**98.1929%**