STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:	:	
	:	
APPLICATION OF CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE AND OPERATION OF A WIRELESS TELECOMMUNICATIONS FACILITY AT THE GAYLORDSVILLE VOLUNTEER FIRE DEPARTMENT, NEW MILFORD, CONNECTICUT	:	DOCKET NO. 347
	:	DECEMBER 11, 2007

RESPONSES OF CELLCO PARTNERSHIP D/B/A
VERIZON WIRELESS TO INTERVENORS PRE-HEARING INTERROGATORIES

On November 28, 2007, the Intervenors, Theodore and Ellen Berson issued Pre-Hearing Interrogatories to the Applicant, Cellco Partnership d/b/a Verizon Wireless ("Cellco"), relating to the above-captioned docket. Below are Cellco's responses.

Question No. 1

What is the extent and quality of existing coverage, including coverage at levels below -85 dBm, on Route 7 for the 2.4 miles that the Applicant states will be covered by the new facility?

Response

Existing signal strength along Route 7 in the area that would be covered by the New Milford NW facility currently ranges between -86 dBm and -105 dBm (or greater); unreliable service for Cellco customer.

Question No. 2

State whether there is uninterrupted in-vehicle coverage presently for any portion of the 2.4 mile stretch of Route 7 and, if so, identify the specific locations within that 2.4 mile stretch where uninterrupted coverage occurs.

Response

As illustrated on the coverage plots included behind Tab 7 of the Application, Cellco currently provides very spotty -85 dBm coverage along limited portions of Route 7 within the 2.4 mile area covered by the proposed New Milford NW facility. Because these are small, localized coverage areas it is inappropriate to describe them as areas "uninterrupted coverage".

Question No. 3

With respect to the Gaylordsville United Methodist Church site, please identify any cellular carriers who are located at, or have approval to locate at, the Methodist Church site.

Response

Sprint Nextel is the only wireless carrier listed in the Council's Telecommunications Database – Comprehensive List of Sites, as maintaining antennas in the steeple of the Gaylordsville United Methodist Church. We are not aware of any other carriers who have been approved to use the church steeple.

Question No. 4

For any carrier located at the Methodist Church site, identify the antenna types on site, the orientation of the antennas, the antenna elevation, the exact coordinates of the site and the effective radiated power from the site facility.

Response

Sprint antennas are located inside the steeple, at the 78-foot level. Nextel antennas are located at the 68 and 62-foot levels in the steeple. The Council's database lists the coordinates of the church as 41° 38' 41"N 73° 29' 04"W. Information regarding antenna orientation and antenna type is included as a part of the project plans submitted to the Town of New Milford Building Official (See Attachment 1). Cellco does not have any specific information on the Sprint Nextel transmit power.

Question No. 5

Please provide the propagation maps which support your conclusion that the United Methodist Church site does not meet Cellco's coverage objectives in this area. Include all relevant data used to produce the maps, such as antenna types, heights, orientation and effective radiated power.

Response

Included behind Attachment 2 is a propagation map showing coverage from Cellco antennas mounted at 52 feet AGL in the church steeple; ten feet below the lowest Sprint Nextel antennas. This propagation plot assumes the use of the same PCS antenna described in the Application with a similar antenna orientation (0° 120° 240°). These plots also assume a pilot channel power of 151W EIRP.

Question No. 6

What height at the United Methodist Church location would Cellco need to achieve coverage approximating that to be achieved at the Applicant's preferred location?

Response

Cellco antennas would need to be located at a height of 120 feet above ground level ("AGL") at the United Methodist Church site in order to provide coverage comparable to that achieved at the Gaylordsville Volunteer Fire Department ("GVFD") site.

Question No. 7

With respect to the farm silo located off Long Mountain Road discussed as an alternative site, please state the exact coordinates of this site, including how many feet above sea level the ground level of the silo is.

Response

The coordinates for the silo location are 41° 38' 37.2"N 73° 27' 52.8"W. The ground elevation at this site is approximately 830 feet above mean sea level ("AMSL").

Question No. 8

Please provide all propagation maps which support the Applicant's conclusion that this silo site would not provide adequate coverage. Include all relevant data used to produce the maps such as antenna types, heights, orientation and effective radiated power.

Response

As stated in the Application, the existing silo is approximately 50 feet tall and is approximately one mile from the GVFD site. Included in Attachment 3 is a propagation map showing Cellco coverage at 50 feet from the silo location. This plot assumes the use of the same PCS antennas proposed in the Application with similar antenna orientation (0° 120° and 240°). This plot also assumes a pilot channel power of 151W EIRP.

Question No. 9

At this silo site, please state the height above ground level that would be necessary to place antennas in order to achieve approximately the same coverage as from the Applicant's preferred site.

Response

Cellco ran coverage plots at the silo location up to a height of 180 feet AGL and could not achieve a coverage footprint along Route 7 comparable to that which is achieved from the GVFD site.

Question No. 10

With respect to co-locating on CL&P transmission line structures, explain in detail why co-location could not be achieved on a nearby transmission line 398 or line 568 transmission pole or structure such as was done pursuant to Petition No. 517 and Petition No. 675 before the Connecticut Siting Council. In your response, please give details concerning the ground level height above sea level of each CL&P pole within those transmission line rights of way within a ½ mile of the intersection of Route 7 and Route 55 and state the corresponding actual height of each such existing CL&P transmission structure.

Response

As discussed in detail in the Application (Tab 9), Cellco spent a significant amount of time investigating the potential shared use of the CL&P transmission line structures in the Gaylordsville area. The tower structures identified, and investigated, were those that Cellco's RF engineers believed could satisfy its coverage objectives in this area. Structures further north or south were not investigated simply because it was obvious to the network design engineers that, based on each site's location, ground elevation, distance from Route 7, and intervening

topography, these locations could not satisfy Cellco's coverage objectives. For the locations discussed in the Site Search Summary the information requested is as follows. Please refer to site search summary key map for particular site reference.

Site	Approx. G.E.	Approx. Structure Height	Cellco Antenna Height Needed
A	310'	60' Wood	n/a
B	310'	60' Wood	n/a
C	340'	60' Wood	n/a
D	360'	60' Wood	n/a
E	560'	50' Wood	n/a
1	370'	60' Wood	100-120
2	365'	60' Wood	100-120
3	356'	35' Wood*	100-120
4	358'	70' Metal	100-120
5	395'	70' Wood	100-120

*This is an existing CL&P distribution line structure.

Question No. 11

The New Milford Zoning Commission proposed, as an alternative site, the 50 foot tall CL&P structure at elevation 320 feet located at coordinates 41° 39' 03.39"N 73 °29'05.91"W with a ground level which is 80 feet higher than the Applicant's preferred location and which alternative site is located just approximately one quarter of a mile north of the Applicant's preferred location. Please describe in detail the coverage area that the Applicant's facilities would realize at this location. Provide propagation plots utilizing assumed antenna height necessary to provide coverage similar to that achieved at the Applicant's preferred site. Include all relevant

data used to produce the maps, such as antenna types, heights, orientation and effective radiated power.

Response

Like many of the CL&P structures investigated, this structure location could provide Cellco with coverage comparable to that which it achieves from the proposed GVFD site. In order to provide that comparable coverage, however, Cellco would have to double the height of the existing 50-foot pole and mount its antennas 100 feet AGL. Because the ground elevation is 50 feet higher than at the GVFD site, this structure would be substantially more visible than the existing CL&P tower and more visible from a greater number of nearby residences than the GVFD site. The propagation plot from this site at 100 feet is included in Attachment 4.

Question No. 12

For the Applicant's preferred location at the Fire Department site, please explain in detail why the tower needs to be 120 feet tall (above ground level). How much space was allocated for additional wireless carriers and how does this space affect the overall height of the structure? Identify the specific carriers the space was reserved for. Please also explain or justify the reason for an additional 20 foot whip antenna on the top bringing the total height to 140 feet above ground level and provide propagation maps for the coverage achieved with and without this antenna.

Response

The 120-foot antenna height was determined to be the level at which Cellco could maximize its coverage footprint in northwest New Milford. As discussed in Dave Crotty's Pre-Filed Testimony dated December 11, 2007, due to topography in this area, a taller tower at the

GVFD site would not result in significantly better coverage in the area overall or coverage that would connect to the adjacent cell sites.

Cellco is not aware of any other carriers who are interested in sharing the GVFD tower but would design the tower to accommodate three additional wireless carriers, the GVFD antennas and other municipal emergency service entities (e.g. Police). For the purposes of this Application, Cellco assumed that the GVFD would relocate its existing 20-foot whip antennas from their existing location to the top of the proposed tower. New Milford is currently assessing its emergency service communications needs town-wide, including its needs in the Gaylordsville area. Cellco does not have access to the information it would need to produce coverage maps for the Town's emergency service communications network.

Question No. 13

Why were drive tests not completed for the proposed coverage area? How was the Applicant's propagation model calibrated? Explain the benefits of drive tests.

Response

Cellco does not drive test all proposed or potential cell site locations. Cellco has a high level of confidence in its propagation modeling tool; a tool that is "fine-tuned" regularly using Cellco's monthly baseline drive data. Cellco is confident that data from a "drive test" would simply confirm what the propagation model predicts.

Question No. 14

What were the coverage criteria used to determine that there was a 4.1 mile coverage gap along Route 7? Please provide records of dropped calls/failed calls from adjacent sectors.

Response

The 4.1 mile coverage gap is the distance between areas of reliable (-85 dBm) coverage from Cellco's existing adjacent cell sites (Kent South and New Milford West). In northwest New Milford, Cellco customers currently experience a rate of failed calls (dropped calls and ineffective attempts) in excess of 15%.

Question No. 15

Do you claim that there is no coverage at -85 dBm?

Response

No. However, once Cellco's signal strength drops below -85 dBm it does not and cannot provide its customers with reliable coverage.

Question No. 16

How large would the gap be at -90 dBm?

Response

3.7 miles.

Question No. 17

With reference to the Applicant's statements on page 18 of its application pertaining to "stealth" installations, please provide photo realistic renderings of how these facilities would appear from the residential homes surrounding the proposed tower site on three sides.

Response

The Applicant has prepared photosimulations from those locations referenced in the visual assessment, for both a traditional tower (see Application, Tab 10) and a tree tower (see Attachment 1 to Pre-Filed Testimony of Michael Libertine). Photograph location #1 is a view from adjacent residential areas to the north of the tower site.

Question No. 18

On page 20 in the application, the Applicant states that the maximum power density would be 3.84% of the "standard." Please identify which standard the Applicant is referring to.

Response

Section III.D.3.c. of the Application (pp. 14-15) refers to the radio frequency emissions standard adopted by the Federal Communications Commission.

Question No. 19

With respect to the preparation of the propagation maps previously prepared by the Applicant, please state the technical parameters used including antenna type, antenna orientation, antenna elevation, antenna down tilt (if any), effective radiated power and the exact site coordinates.

Response

Information regarding antenna type, antenna height, and ERP was provided in response to Council Interrogatory No. 5 dated November 14, 2007. The calculations produced are "worst-case" approximations and do not contemplate any "down-tilt of the antennas". The site coordinates are found behind Tab 1, page 4 of the Application and are 41° 38' 56.54"N 73° 28' 59.9"W.

Question No. 20

Please state the specific formula, input parameters and any assumptions you used for the calculation of maximum power densities. Please show the actual calculations.

Response

Cellco engineers utilize the FCC adopted formula found in OET Bulletin 65. That formula is: $S = (0.64)\ (1.64)\ (ERP)/3.14R^2$. ERP = 450W/channel.

Question No. 21

If a calculation of maximum power density uses the base of the tower as the closest accessible point to the antennas, please explain why the base is appropriate in a scenario where there is no down tilt of the antennas.

Response

As described on page 14 of the Application, the "worst case" approximation is a conservative calculation, using a point at the base of the tower as the closest accessible point to the transmitting antenna. This "worst case" calculation assumes that the antennas at 120 feet AGL are pointing directly at the ground at the base of the tower, while transmitting on all channels, simultaneously at full power. Even under these worst case conditions the RF emissions from the Cellco antennas is only 3.84% of the FCC safety standard (approximately 25 times below the established standard).

Question No. 22

Does the Applicant include potential contributions from the Fire Department and other potential carriers in calculating its conclusions concerning power density? If not, please provide this information, including the specific formula(s), assumptions and input parameters used. Please show the actual calculations.

Response

The power density calculation included in the Application is for Cellco antennas only. Information on the Fire Department's equipment is not currently available.

Question No. 23

Please provide the non-ionizing radio frequency radiation reports (RF reports) including all formulas, assumptions and calculations used to support the applicant's conclusion that its calculations were in accordance with the FCC OET Bulletin 65.

Response

The Applicant performs the FCC mandated power density calculation to confirm that the facility will conform to the adopted FCC standard. No formal report has been prepared.

Question No. 24

Is any RFR monitoring program proposed?

Response

No.

Question No. 25

On page 35 of the application, the Applicant refers to the use of EIA/TIA-222F Structural Standards in the design of the facility. Will the Applicant comply with the newer standard, 222G?

Response

EIA/TIA-222G has not been adopted as a part of the Connecticut State Building Code. Cellco will have the tower designed to meet the State of Connecticut Building Code which includes the International Building Code 2003 (IBC) and Connecticut Supplements and EIA/TIA-222F.

Question No. 26

Is coverage for Verizon in all or some of the "gap" area which the Applicant seeks to provide coverage for pursuant to this application, currently being provided by roaming agreements with other wireless carriers?

Response

In Litchfield County, Connecticut, Cellco is licensed to provide wireless service at PCS frequencies and has entered into a roaming agreement with Alltel Communications. Alltel's closest cell site is located at 136 Bulls Bridge Road in Kent (Cellco's Kent South facility). Coverage from this Alltel site does not provide any coverage into Cellco's existing gaps in Gaylordsville. Alltel antennas are located at the 170-foot level on the Kent South tower (ten feet above Cellco's antennas). Alltel's coverage from the Kent South site is limited by terrain to the south and does not extend further south than Cellco's existing PCS coverage from the same site. Even with Alltel's coverage from the Kent South facility, Cellco would need the GVFD tower.

Question No. 27

If the answer to the last interrogatory is yes, then please identify the "roaming agreement" wireless carriers by name and identify the specific cellular tower locations of those carriers in the vicinity of the Applicant's preferred site which provide the roaming gap coverage.

Response

Cellco's roaming agreement is with Alltel Communications. Alltel currently has antennas located at the 170-foot level in the 136 Bull Bridge Road tower site in Kent.

Question No. 28

Please state in detail why the applicant cannot co-locate on the roaming carrier facilities.

Response

Cellco's PCS antennas are located on the Bulls Bridge Road tower site.

Question No. 29

Please identify all locations where Cellco/Verizon have co-located on CL&P structures or within CL&P rights of way in the State of Connecticut.

Response

1. Hilltop View Lane, New Milford, Connecticut
2. Hebron Avenue, Glastonbury, Connecticut
3. South Shore Drive, Greenwich, Connecticut
4. Sky Edge Lane, Bethel, Connecticut (approved but not constructed)

Question No. 30

Please describe how there will not be any RF interference with Town of New Milford Emergency Service operations by locating the proposed service facilities at the Gaylordsville Volunteer Fire Department site.

Response

Cellco is licensed to operate in the 1970 to 1975 MHz frequency range in Litchfield County. These frequencies are dedicated to Cellco as an FCC licensee. The GVFD operates in the 150 MHz range. Based on the fact that both Cellco and the emergency services operate in their own dedicated frequency ranges and due to the large separation between the two operating frequencies, interference between the two systems is not a concern. Cellco has co-located on many tower sites with emergency service communications providers. Interference issues have not been a problem.

Question No. 31

Please provide all coverage or propagation maps prepared for or possessed by the Applicant for all alternative locations discussed in Tab 9 attached to the Application. Please include all relevant data used to produce the maps, such as antenna types, heights, orientation and effective radiated power.

Response

See Attachment 5.

Question No. 32

What type of trees in the area is the Applicant concerned will grow taller, necessitating a higher tower height, where are these "trees of concern" located, what is the present height of these trees and what is the ground level of the trees, and what is the present height of these trees in relation to the proposed tower height?

Response

Cellco estimates that the average tree height in the area is approximately 65 feet. The ground level (topography) in the Gaylordsville area varies drastically, which is what makes Route 7 such a difficult roadway to cover. Over the 25 year term of the Cellco lease, it is conceivably that the trees in the general vicinity of the site area can grow 10 to 20 feet. It is also important to remember that with this "line of sight" technology trees immediately around the tower site and those further from the tower site but between the tower and Route 7, for example, can effect radio signal propagation in similar ways.

Question No. 33

Please submit an updated abutters map which includes all existing, surrounding residential homes such as Berson and Flynn.

Response

See Attachment 6.

Question No. 34

Please create a document similar to that attached hereto as Exhibit A which accurately (as opposed to our estimated hand drawn boundary) depicts on one plot the area of new service provided by the Applicant's proposed facility.

Response

Attachment 7 includes a stand-alone plot showing coverage from the proposed site without coverage from the two adjacent sites.

CERTIFICATION

I hereby certify that on this 11th day of December, 2007, a copy of the foregoing was mailed, postage prepaid, to the following parties and intervenors:

New Milford Zoning Commission
c/o D. Randall DiBella, Esq.
Cramer & Anderson LLP
51 Main Street
New Milford, CT 06776

Theodore M. and Ellen Berson
c/o Thomas W. Beecher, Esq.
Collins, Hannafin, Garamella, Jaber & Tuozolo, P.C.
148 Deer Hill Avenue
Danbury, CT 06810

Carmen and Anthony Scuderi
21 South Kent Road
Gaylordsville, CT 06755

James and Linda Hart
44 South Kent Road
Gaylordsville, CT 06755

Michael Covert
17 South Kent Road
Gaylordsville, CT 06755

Reed Hotchkiss
703 Kent Road
Gaylordsville, CT 06755

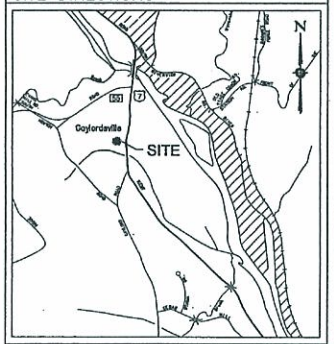
Kenneth C. Baldwin

NEXTEL COMMUNICATIONS OF THE MID-ATLANTIC INC

DBA NEXTEL COMMUNICATIONS
CT-3661E NEW MILFORD NORTH

FROM ROCKY HILL: TAKE I-84 WEST TO EXIT #7 (US-7 N/NEW MILFORD/BROOKFIELD. CONTINUE ON ROUTE 7 NORTH TO GAYLORDSVILLE). THE SITE IS ON THE LEFT.

SITE DIRECTIONS



LOCATION MAP SCALE: N.T.S.

USGS TOPO MAP SCALE: N.T.S.

1. ALL WORK SHALL COMPLY WITH THE CONNECTICUT STATE BUILDING AND LIFE SAFETY CODES, SUPPLEMENTS AND AMMENDMENTS.
2. FOR EXISITNG PROPERTY LINE AND TOPOGRAPHIC DATA, SEE MAP ENTITLED "PARTIAL BOUNDARY & TOPOGRAPHIC SURVEY LAND OF GAYLORDSVILLE UNITED METHODIST CHURCH, INC., 685 KENT ROAD SOUTH –U.S. ROUTE 7, NEW MILFORD, CONNECTICUT. PREPARED FOR NEXTEL COMMUNICATIONS" BY URS CORPORATION, DATED JANUARY 2006.
3. CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUB– CONTRACTORS AND ALL RELATED PARTIES. THE SUB–CONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND SPECIFICATIONS FOR THE INFORMATION THAT AFFECTS THEIR WORK.
4. CONTRACTOR SHALL PROVIDE A COMPLETE BUILD–OUT WITH ALL FINISHES, CIVIL, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS AND PROVIDE ALL ITEMS AS SHOWN OR INDICATED ON DRAWINGS OR WRITTEN IN SPECIFICATIONS.
5. CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FURNISH A COMPLETED JOB ALL IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION OVER THE WORK.
6. THE PERMIT FOR GENERAL CONSTRUCTION WILL BE OBTAINED THROUGH NEXTEL. THE CONTRACTOR SHALL PROVIDE NECESSARY CONSTRUCTION COST ESTIMATES, CERTIFICATES OF INSURANCE AND CONNECTICUT CONTRACTORS' LICENSE NUMBERS. THE CONTRACTOR SHALL ARRANGE AND PAY FOR ALL INSPECTIONS REQUIRED BY THE MUNICIPALITY AND PAY FEES REQUIRED FOR ALL SUBSEQUENT PERMITS SUCH AS PLUMBING, HVAC, AND/OR ELECTRICAL.
7. CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS AND SPECIFICATIONS ON SITE AT ALL TIMES AND INSURE THE DISTRIBUTION OF NEW DRAWINGS TO SUB–CONTRACTORS AND OTHER RELEVANT PARTIES AS SOON AS THEY ARE MADE AVAILABLE. ALL OLD DRAWINGS SHALL BE MARKED VOID AND REMOVED FROM THE CONTRACT AREA. CONTRACTOR SHALL FURNISH "AS–BUILT" SET OF DRAWINGS TO NEXTEL CONSTRUCTION MANAGER UPON COMPLETION OF PROJECT, PRIOR TO APPLYING FOR FINAL PAYMENT.
8. INSTALLATION OF THIS WIRELESS COMMUNICATIONS EQUIPMENT SITE REQUIRES WORK IN THE IMMEDIATE VICINITY OF THE OTHER WIRELESS CARRIERS EQUIPMENT AND ANTENNAS THE CONTRACTOR SHALL PROVIDE AND COORDINATE THE METHODS OF PROTECTION WITH THE VARIOUS CARRIERS.
9. ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUB–CONTRACTORS FOR ANY CONDITION PER MFR'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR ARCHITECT.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON–SITE SAFETY FROM THE TIME THE JOB IS AWARDED UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE OWNER.
11. CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ARCHITECT FOR REVIEW. DRAWINGS MUST BEAR THE CHECKER'S INITIALS BEFORE SUBMITTAL TO THE ARCHITECT FOR REVIEW.
12. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES, AND EXISTING CONDITIONS AT THE SITE, PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA.
13. THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE EXISTING BUILDING AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF ALL SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY.
14. COORDINATE ALL CIVIL, ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR THE LOCATION OF ALL OPENINGS, RECESSES, BUILT–IN WORK, ETC.
15. CONTRACTOR TO CONTACT "CALL BEFORE YOU DIG" AT 1–800–922–4455 TO VERIFY AND IDENTIFY THE EXACT LOCATIONS OF ALL UNDERGROUND UTILITIES AND OBSTRUCTIONS IDENTIFIED AT LEAST 48 HOURS PRIOR TO COMMENCING WORK IN THE CONTRACT AREA.
16. ALL EXISTING COMPOUND AREAS, ACCESS DRIVES, DRIVEWAYS AND SIDEWALKS DISTURBED BY CONSTRUCTION IN OR OUTSIDE THE PROJECT AREA SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER AND SHALL BE GRADED TO MEET PROPOSED CONSTRUCTION AS DIRECTED BY THE ENGINEER, AT NO ADDITIONAL COST TO OWNER.
17. THE CONTRACTOR SHALL TAKE PHOTOS WITH A DIGITAL CAMERA OF ALL UNDERGROUND CONDUIT, UTILITIES, ANTENNA WORK, CABLING, ETC. DURING CONSTRUCTION AND EMAIL IMAGES IN A JPEG FORMAT TO THE NEXTEL CONSTRUCTION MANAGER.

GENERAL NOTES

PROJECT INDEX

SITE NUMBER:	CT-3661E
SITE NAME:	NEW MILFORD NORTH
SITE ADDRESS:	687 KENT ROAD – U.S. ROUTE 7 GAYLORDSVILLE, CT 06755
APPLICANT:	NEXTEL COMMUNICATIONS OF THE MID–ATLANTIC, INC DBA NEXTEL COMMUNICATIONS 100 CORPORATE PLACE ROCKY HILL, CT 06067
PROPERTY OWNER:	UNITED METHODIST CHURCH 685 KENT ROAD – U.S. ROUTE 7 GAYLORDSVILLE, CT 06755
SITE CONTACT:	JOANN JENSEN TELEPHONE: (860) 355–6511
JURISDICTION:	TOWN OF NEW MILFORD
ZONING DISTRICT:	R–40 (SINGLE FAMILY DISTRICT)
PARCEL ID:	MAP 75.2/LOT #3
USGS MAP:	KENT 041073F4
COUNTY:	LITCHFIELD
LATITUDE:	41°–38'–41.00"
LONGITUDE:	73°–29'–04.00"
DECLINATION:	–14°–02'
GROUND ELEVATION:	286.0± AMSL ELEVATION (IN FEET)

NEXTEL CONSTRUCTION MANAGER:	KEVIN KUSHI (860) 575–7749 KEVIN.KUSHI@GDWIRELESS.COM
NEXTEL POWER & TELCO CONTACT:	BILL KING (617) 839–0934

PROJECT CONTACTS

BUILDING CODE:
CONNECTICUT STATE BUILDING CODE
2003 INTERNATIONAL BUILDING CODE
2003 INTERNATIONAL PLUMBING CODE
2003 INTERNATIONAL MECHANICAL CODE
2003 INTERNATIONAL EXISTING BUILDING CODE
2005 CONNECTICUT SUPPLEMENT
2005 NATIONAL ELECTRICAL CODE

CONNECTICUT STATE FIRE SAFETY CODE
2003 INTERNATIONAL FIRE CODE

CODE REFERENCES

THE SCOPE OF THIS PROJECT CONSISTS OF THE INSTALLATION OF A 12'x20' UNMANNED WIRELESS EQUIPMENT BUILDING ON A CONCRETE PAD, TWELVE (12) COAXIAL CABLES, AND SIX (6) PANEL ANTENNAS MOUNTED IN EXISTING CHURCH STEEPLE.

PROJECT DESCRIPTION

SHT. NO.	DESCRIPTION	REV NO	REVISION DATE
T–1	TITLE SHEET– GENERAL NOTES AND LEGEND	0	02.17.06
S–1	SURVEY	0	01.2006
C–1	SITE PLAN AND LEGEND	0	02.17.06
C–2	SITE PLAN, DETAILS AND LEGEND	0	02.17.06
C–3	FOUNDATION PLAN, DETAILS AND NOTES	0	02.17.06
C–4	EQUIPMENT BUILDING ELEVATIONS, DETAILS AND NOTES	0	02.17.06
A–1	BUILDING ELEVATIONS, SECTION AND PLANS	0	02.17.06
A–2	ANTENNA DETAILS, CABLE SUPPORT DETAILS AND SCHEDULE	0	02.17.06
E–1	PARTIAL SITE UTILITIES PLAN, GROUNDING PLANS, DETAILS AND NOTES	0	02.17.06
E–2	RISER DIAGRAM, NOTES AND DETAILS	0	02.17.06
E–3	ELECTRICAL SPECIFICATIONS AND DETAILS	0	02.17.06

SHEET INDEX

THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL ITEMS OF CONCERN HAVE BEEN ADDRESSED AND EACH OF THE DRAWINGS HAS BEEN REVISED AND ISSUED "FOR CONSTRUCTION"

APPROVALS

OWNER	DATE
NEXTEL R.F. ENGINEER	DATE
NEXTEL CONSTRUCTION	DATE
NEXTEL SITE ACQUISITION	DATE
NEXTEL FIELD OPERATIONS	DATE
GENERAL DYNAMICS	DATE
SITE ACQUISITION AGENT	DATE
CONSTRUCTION FIELD SUPERVISOR	DATE

THE ABOVE PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL CONSTRUCTION DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND ANY CHANGES OR MODIFICATIONS THEY MAY IMPOSE.

0 1 2 3
ORIGINAL SIZE IN INCHES

A&E FIRM
URS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CONNECTICUT
1-(860)-529-8882

NEXTEL

STATE OF CONNECTICUT DOUGLAS J. FOX 310 LICENSED ARCHITECT

URS PROJECT NUMBER	DRAWN BY
36930094 (CON 058)	PD

NO.	DATE	ISSUED FOR
A	02.06.06	REVIEW
0	02.17.06	CONSTRUCTION

RELEASE BY	DATE
AA	01.30.08

APPROVALS
CONSTRUCTION _____ DATE: _____
LEASING _____ DATE: _____
RF _____ DATE: _____
ZONING _____ DATE: _____
QC _____ DATE: _____
NETWORK ENG _____ DATE: _____
OWNER _____ DATE: _____

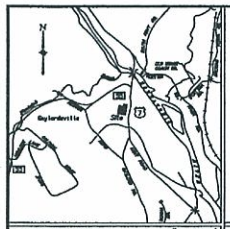
NEW MILFORD NORTH
CT-3661E
687 KENT ROAD
GAYLORDSVILLE, CT
06755

NEXTEL COMMUNICATIONS
OF THE MID–ATLANTIC, INC
DBA NEXTEL COMMUNICATIONS
100 CORPORATE PLACE
ROCKY HILL, CT 06067
OFFICE: (860) 513–5400
FAX: (860) 513–5444

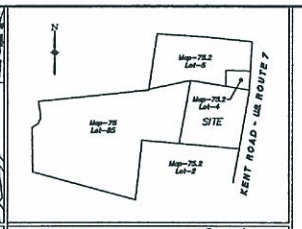
SHEET TITLE
TITLE SHEET - GENERAL NOTES AND LEGEND

SHEET NUMBER
T-1

Attachment 1



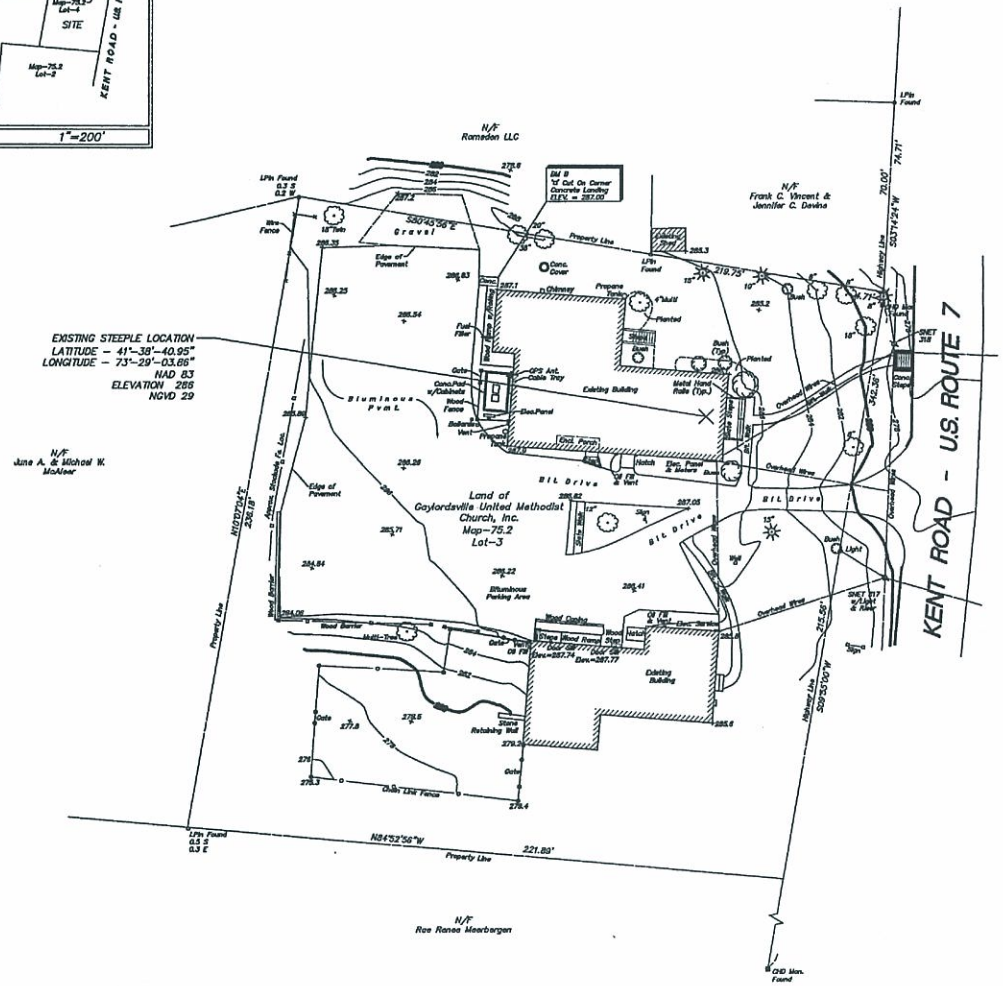
LOCATION MAP 1"=1500'



VICINITY MAP 1"=200'

LEGEND

- Bush
- Catch Basin
- Coniferous Tree
- Deciduous Tree
- Gas Gate
- Hydrant
- Light Pole
- Mailbox
- Manhole
- Parking Meter
- Sign
- Utility Pole
- Water Gate



NOTES:

1. THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTIONS 20-300b-1 THRU 20-300b-20, AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996. THE TYPE OF SURVEY IS A PROPERTY AND A 1-2 TOPOGRAPHIC SURVEY. THE BOUNDARY DETERMINATION CATEGORY IS A RESURVEY. THE HORIZONTAL AND VERTICAL ACCURACY CONFORMS TO CLASS A-2 & V-2 ACCURACY.
2. BEARINGS REFER TO THE CONNECTICUT COORDINATE SYSTEM (NAD 27) ESTABLISHED USING G.P.S.
3. ELEVATIONS REFER TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29) BASED UPON CGS MONUMENT 1873 HOLDING THE PUBLISHED ELEVATION OF 286.87.
4. REFERENCE IS MADE TO THE FOLLOWING MAPS:
   A. "CONNECTICUT STATE HIGHWAY DEPARTMENT RIGHT OF WAY MAP, TOWN OF NEW MILFORD NEW MILFORD-KENT ROAD FROM STRATIS ROCK NORTHERLY TO GAYLORDSVILLE ROUTE (U.S.7)", SCALE 1"=40', DATED MARCH 26, 1952, NUMBER 95-08, SHEET 3 OF 3.
   B. "MAP SHOWING LAND OF FREDERICK F. & AMELIA C. RIDOUT ROUTE U.S. 7 GAYLORDSVILLE NEW MILFORD, CONNECTICUT", BY JOHN F. WHINOTT, SCALE 1"=40', DATED MARCH 1972.
   C. "MAP PREPARED FOR FREDERICK F. RIDOUT & JANE McCALLUGH U.S. ROUTE 7 GAYLORDSVILLE DISTRICT NEW MILFORD, CONNECTICUT", BY C. JAMES OSBORNE, JR., SCALE 1"=40', DATED NOVEMBER 14, 1985.
   D. "PARTIAL BOUNDARY & TOPOGRAPHIC SURVEY LAND OF GAYLORDSVILLE UNITED METHODIST CHURCH, INC. 685 KENT ROAD-U.S. ROUTE 7 NEW MILFORD, CONNECTICUT PREPARED FOR SPRINT PCS", BY URS GREINER WOODWARD-CLYDE, INC. ACS, SCALE 1"=20', DATED FEBRUARY 2000. PREPARED FOR SPRINT PCS", BY URS GREINER WOODWARD
5. THE PROPERTY IS SUBJECT TO SUCH RIGHTS AS MAY EXIST FOR A RIGHT OF WAY AS DESCRIBED IN VOLUME 73, PAGE 44 OF THE NEW MILFORD LAND RECORDS AND NOTED ON THE MAP IN NOTE 4B.
6. THE PROPERTY IS LOCATED IN ZONE C PER THE NATIONAL FLOOD INSURANCE PROGRAM MAP, COMMUNITY PANEL NUMBER 090048 0014 C, DATED FEBRUARY 12, 1985.
7. THE PROPERTY IS SUBJECT TO A LEASE IN FAVOR OF SPRINT SPECTRUM L.P. AS DESCRIBED IN VOLUME 886, PAGE 278 OF THE NEW MILFORD LAND RECORDS.
8. UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING AND OTHER DATA SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES, GOVERNMENTAL AGENCIES AND/OR OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO URS CORPORATION AES. THE EXISTENCE, SIZE AND LOCATION OF ALL SUCH FEATURES BE DETERMINED AND VERIFIED IN THE FIELD BY THE APPROPRIATE PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455.
9. THE SITE WAS COVERED WITH SNOW AT TIME OF SURVEY.

PARTIAL BOUNDARY & TOPOGRAPHIC SURVEY
LAND OF
GAYLORDSVILLE UNITED METHODIST CHURCH, INC.
685 KENT ROAD – U.S. ROUTE 7
NEW MILFORD, CONNECTICUT
PREPARED FOR
NEXTEL

GRAPHIC SCALE 1"= 20'

TO MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON

MARVAIL G. WILMER, L.S. LICENSE NO. 14206

TRUE AND VALID COPIES OF THIS MAP OR PLAN MUST BEAR THE ORIGINAL SIGNATURE AND EMBOSSED SEAL OF THE ABOVE NAMED LAND SURVEYOR. UNAUTHORIZED REPRODUCTION OR ALTERATION IS FORBIDDEN.

Embossed seal

URS

Scale: 1" = 20'
Date: JANUARY 2005

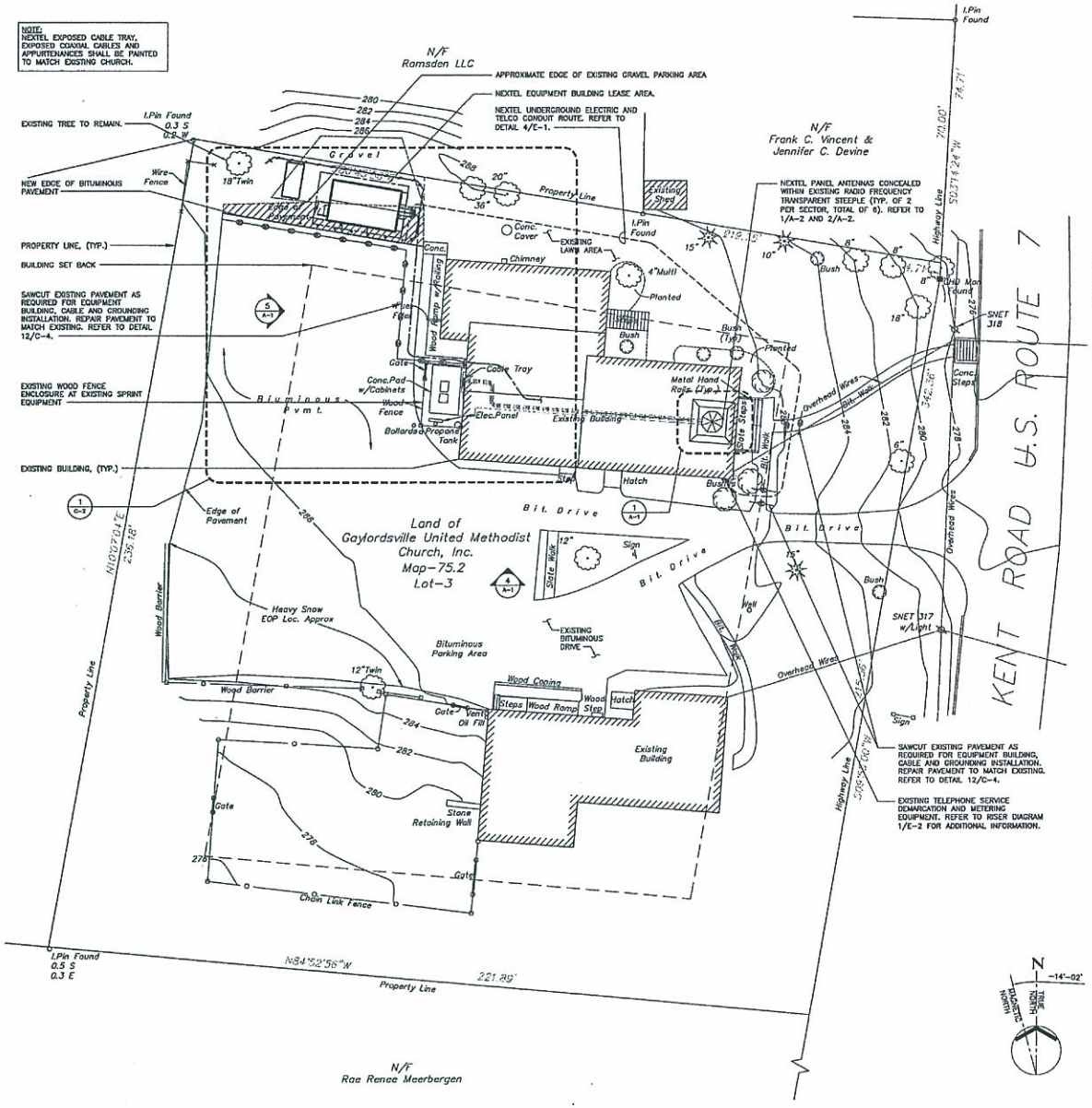
Surveying and Mapping by:
URS Corporation AES
500 Enterprise Drive, Suite 3B
Rocky Hill, Connecticut 06067-4002
Tel. (860) 529-8882

Field book #	Crew Chief	Project #
1833-24	S.P.	36930091
Search #	Drawn by	Checked by	Map File #
3728	K.C.		T119-40A

GENERAL LEGEND

DESCRIPTIONS	EXISTING	PROPOSED
PROPERTY LINE		
HIGHWAY LINE		
LEASE LINE		
CHAIN LINK FENCE		
CONTOUR LINES	128	
UTILITY POLE		
SEDIMENTATION FENCE		
TREE LINE		
SPOT ELEVATION	× 276.5	
SAW CUT		

NOTE:
NEXTEL EXPOSED CABLE TRAY, EXPOSED COAXIAL CABLES AND APPURTENANCES SHALL BE PAINTED TO MATCH EXISTING CHURCH.



1 C-1 SITE PLAN
SCALE: 1" = 15'-0"

COPIES OF THIS DOCUMENT WITHOUT A FACSIMILE OF THE SIGNATURE AND AN ORIGINAL EMBOSSED SEAL OR ORIGINAL STAMP IN BLUE OR RED INK OF THE PROFESSIONAL ENGINEER OR LAND SURVEYOR SHALL NOT BE CONSIDERED VALID COPIES.

0 1 2 3
ORIGINAL SIZE IN INCHES

A&E FIRM
URS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CONNECTICUT
1-(860)-529-8882

NEXTEL

STATE OF CONNECTICUT
DOUGLAS J. BOND
LICENSED ARCHITECT

URS PROJECT NUMBER	DRAWN BY
36930084 (GDN 058)	PD

NO.	DATE	ISSUED FOR
A	02.06.06	REVIEW
0	02.17.06	CONSTRUCTION

RELEASE BY	DATE
AA	01.30.06

APPROVALS
CONSTRUCTION ____ DATE: ____
LEASING ____ DATE: ____
RF ____ DATE: ____
ZONING ____ DATE: ____
QC ____ DATE: ____
NETWORK ENG ____ DATE: ____
OWNER ____ DATE: ____

NEW MILFORD NORTH
CT-3661E
687 KENT ROAD
GAYLORDSVILLE, CT
06755

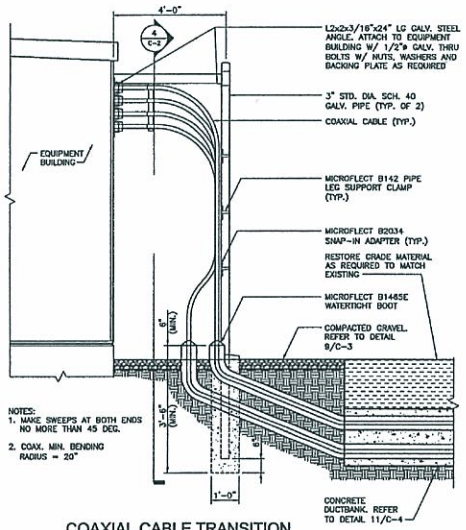
NEXTEL COMMUNICATIONS
OF THE MID-ATLANTIC, INC
DBA NEXTEL COMMUNICATIONS
100 CORPORATE PLACE
ROCKY HILL, CT 06067
OFFICE: (860) 513-5400
FAX: (860) 513-5444

SHEET TITLE
SITE PLAN
AND LEGEND

SHEET NUMBER
C-1

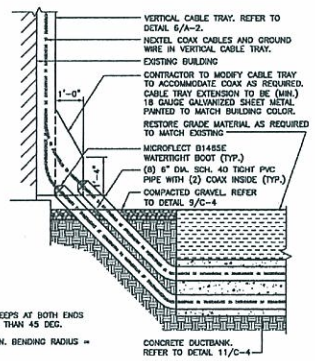
GENERAL LEGEND

DESCRIPTIONS	EXISTING	PROPOSED
PROPERTY LINE		
HIGHWAY LINE		
LEASE LINE		
CHAIN LINK FENCE		
CONTOUR LINES	128	
UTILITY POLE	ø	
SEDIMENTATION FENCE		
TREE LINE		
SPOT ELEVATION	× 276.5	
SAW CUT		



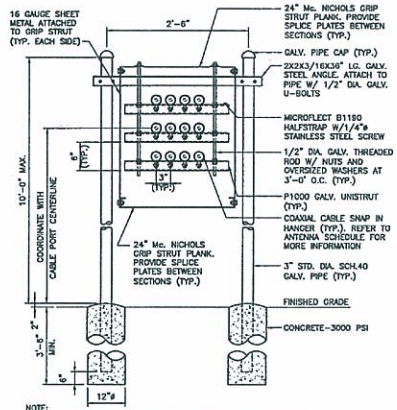
NOTES:
1. MAKE SWEEPS AT BOTH ENDS NO MORE THAN 45 DEG.
2. COAX. MIN. BENDING RADIUS = 20"

3 / C-2 COAXIAL CABLE TRANSITION AT EQUIPMENT BUILDING DETAIL
SCALE: 1/2" = 1'-0"



NOTES:
1. MAKE SWEEPS AT BOTH ENDS NO MORE THAN 45 DEG.
2. COAX. MIN. BENDING RADIUS = 20"

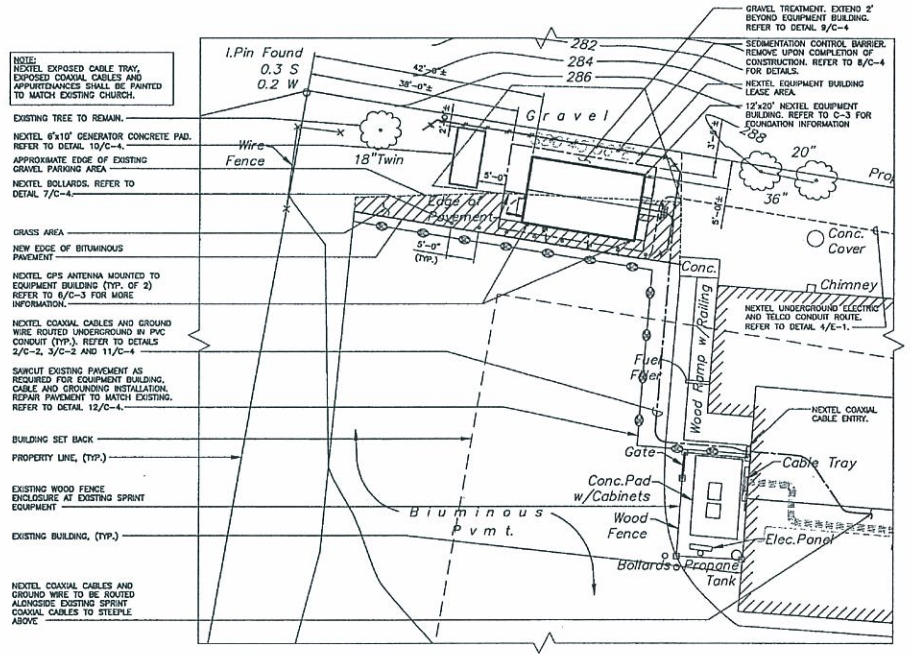
2 / C-2 COAXIAL CABLE TRANSITION AT EXISTING BUILDING DETAIL
SCALE: 1/2" = 1'-0"



NOTE:
1. COAXIAL CABLE SHALL BE SLOPED 1/8"/FT. AWAY FROM SHELTER.
2. MAXIMUM 10' SPACING BETWEEN POST SUPPORTS.

4 / C-2 ICE BRIDGE DETAIL
SCALE: 1"=1'-0"

NOTE:
NEXTEL EXPOSED CABLE TRAY, EXPOSED COAXIAL CABLES AND APPURTENANCES SHALL BE PAINTED TO MATCH EXISTING CHURCH.



1 / C-2 SITE PLAN
SCALE: 1" = 10'-0"

0 1 2 3
ORIGINAL SIZE IN INCHES

A&E FIRM
URS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CONNECTICUT
1-(860)-529-8882

NEXTEL

STATE OF CONNECTICUT DOUGLAS A. ROBERTS

URS PROJECT NUMBER	DRAWN BY
36930094 (UON 058)	PD

NO.	DATE	ISSUED FOR
A	02.06.06	REVIEW
0	02.17.06	CONSTRUCTION

RELEASE BY	DATE
AA	01.30.06

APPROVALS
CONSTRUCTION ____ DATE: ____
LEASING ____ DATE: ____
RF ____ DATE: ____
ZONING ____ DATE: ____
QC ____ DATE: ____
NETWORK ENG ____ DATE: ____
OWNER ____ DATE: ____

NEW MILFORD NORTH
CT-3661E
687 KENT ROAD
GAYLORDSVILLE, CT
06755

NEXTEL COMMUNICATIONS OF THE MID-ATLANTIC, INC
DBA NEXTEL COMMUNICATIONS
100 CORPORATE PLACE
ROCKY HILL, CT 06067
OFFICE: (860) 513-5400
FAX: (860) 513-5444

SHEET TITLE
SITE PLAN, DETAILS AND LEGEND

SHEET NUMBER
C-2

SITE NOTES

1. EQUIPMENT BUILDING PROVIDED BY MANUFACTURER SHALL BE DESIGNED AND MANUFACTURED TO MEET ALL STATE AND LOCAL CODES. ITS LAYOUT SHALL BE COORDINATED WITH THE EQUIPMENT BUILDING OWNER.
2. ELEVATIONS REFER TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929.
3. THE FOLLOWING STANDARD SPECIFICATIONS ARE INCORPORATED INTO THE WORK SHOWN HEREON UNLESS SUPERSEDED BY LOCAL NEW MILFORD REGULATIONS:
   - STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION" FORM 816 ENGLISH & METRIC FORM 816 ORIGINAL.
     - –FORM 816 SUMMARY OF CHANGES
     - –SUPPLEMENT FORM 816 JANUARY 2005
     - –SUPPLEMENT FORM 816 JULY 2005
   - "DEP BULLETIN 34, CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL" AS PUBLISHED BY THE CONNECTICUT COUNCIL OF SOIL AND WATER CONSERVATION, DATED 2002.
4. THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN SOIL EROSION AND SEDIMENTATION CONTROLS AT ALL TIMES DURING CONSTRUCTION. ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ARE SUBJECT TO INSPECTION AND MONITORING BY THE TOWN.
5. ALL DISTURBED AREAS SHALL BE RESTORED TO MATCH PRECONSTRUCTION CONDITIONS.
6. COORDINATION, LAYOUT AND FURNISHING OF CONDUIT, CABLE AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
7. THE EXACT BUILDING FOUNDATION SIZE AND BUILDING FLOOR PENETRATIONS FOR UTILITIES SHALL BE CONFIRMED WITH THE BUILDING SPECIFICATIONS AND PLANS PRIOR TO LAYOUT.
8. ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
9. IF ANY FIELD CONDITIONS PRECLUDE COMPLIANCE WITH THE DRAWINGS AND/OR CONDITIONS SPECIFIED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY CONSTRUCTION MANAGER AND SHALL NOT PROCEED WITH ANY AFFECTED WORK.
10. THE CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENTATION CONTROL MEASURES PRIOR TO ANY GRADING ACTIVITIES.
11. THE CONTRACTOR SHALL STABILIZE ALL UTILITY LINE TRENCHES WITHIN FIVE WORKING DAYS AFTER EXCAVATION UNLESS OTHERWISE APPROVED BY NEXTEL CONSTRUCTION MANAGER.

SOIL

1. SOIL BEARING CAPACITY OF 3,000 PSF USED FOR FOUNDATION DESIGN. GENERAL CONTRACTOR TO CONFIRM THE SPECIFIED SOIL BEARING PRESSURE.
2. ALL SURFACES MUST BE FREE OF STANDING WATER PRIOR TO PLACING CONCRETE.
3. ALL FOOTINGS SHALL BEAR ON EXISTING UNDISTURBED ORGANIC FREE SOIL. ALL UNSUITABLE SOIL SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AND REPLACED WITH COMPACTED GRANULAR FILL PLACED IN 8" LAYERS AND COMPACTED IN CONFORMANCE TO STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FROM 814A, 1995, WITH SUPPLEMENT DATED JANUARY 2002, SECTION 2.14.01 THROUGH 2.14.03 FOR COMPACTED GRANULAR FILL.
4. CONTACT THE ENGINEER IF GROUND WATER IS ENCOUNTERED AND DEWATERING IS REQUIRED.

CONCRETE

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318 AND THE SPECIFICATION CAST-IN-PLACE CONCRETE.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. ALL CONCRETE TO BE AIR-ENTRAINED TO (4% TO 6%), SLUMP 3" TO 5".
3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:

   CONCRETE CAST AGAINST EARTH.....3 IN.

   CONCRETE EXPOSED TO EARTH OR WEATHER:

   #6 AND LARGER .....2 IN.
   #5 AND SMALLER & WWF

   CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:

   SLAB AND WALL .....3/4 IN.
   BEAMS AND COLUMNS
5. A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
6. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRETE.
7. COLD WEATHER CONCRETE PLACING SHALL BE IN ACCORDANCE WITH ACI-306
8. NO FOOTING SHALL BE PLACED ON FROZEN GROUND. CONCRETE SHALL BE PROTECTED AGAINST FROST.
9. APPLY NON-SLIP BROOM FINISH IMMEDIATELY AFTER TROWEL FINISHING.

STRUCTURAL STEEL

1. MATERIALS

STRUCTURAL STEEL, PLATES, ANGLES		ASTM A572 GRADE 50
PIPE COLUMNS		ASTM A53 GRADE B
TUBE COLUMNS	F=46.KSI	ASTM A500
BOLTS		ASTM A325
WELDING ELECTRODE		ASTM E 70
ANCHOR BOLTS		ASTM A307

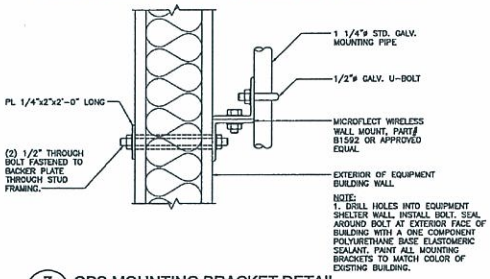
2. STRUCTURAL STEEL SHALL CONFORM TO THE CURRENT "AISC SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", AND THE "AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
3. ALL WELDING SHALL BE DONE BY A CERTIFIED WELDER IN ACCORDANCE WITH A.W.S. STANDARDS.

DESIGN CRITERIA

DESIGN BASIS	CONNECTICUT
GOVERNING CODE	STATE BUILDING CODE
DESIGN LIVE LOADS:	250 PSF
SNOW LOAD:	
GROUND SNOW LOAD(Pg)	35 PSF
IMPORTANCE FACTOR (I)	1.2
EXPOSURE FACTOR (Ce)	.7
WIND LOAD:	
BASIC WIND LOAD	75 MPH
BASIC VELOCITY PRESSURE (Pv)	14.4 PSF
EXPOSURE GROUP	C
IMPORTANCE FACTOR category III (I)	1.17
EQUIPMENT BUILDING LOAD (W/OUT EQUIPMENT)	25,000 LB (MAX)
EQUIPMENT BUILDING LOAD (W/ EQUIPMENT)	35,000 LB (MAX)
CONCRETE SLAB (LIVE LOAD)	40 P.S.F.
SEISMIC DESIGN PARAMETERS:	
HAZARD EXPOSURE GROUP	GROUP III
PERFORMANCE CATEGORY	GROUP C
PEAK VELOCITY (Av)	.11
PEAK ACCELERATION (Ao)	.15
SEISMIC SOIL COEFFICIENT	2 FOR UNKNOWN SOIL PROFILE

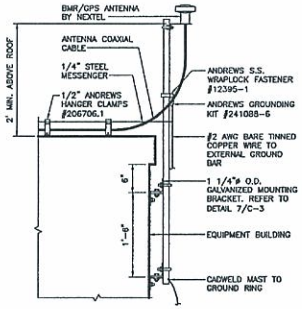
GPS ANTENNA MOUNTING NOTES:

1. THE ELEVATION AND LOCATION OF THE GPS ANTENNA SHALL BE IN ACCORDANCE WITH THE FINAL RF REPORT.
2. THE GPS ANTENNA MOUNT IS DESIGNED TO FASTEN TO A STANDARD 1-1/4" DIAMETER, SCHEDULE 40, GALVANIZED STEEL OR STAINLESS STEEL PIPE. THE PIPE MUST NOT BE THREADED AT THE ANTENNA MOUNT END. THE PIPE SHALL BE CUT TO THE REQUIRED LENGTH (MINIMUM OF 18 INCHES) USING A HAND OR ROTARY PIPE CUTTER TO ASSURE A SMOOTH AND PERPENDICULAR CUT. A HACK SAW SHALL NOT BE USED. THE CUT PIPE END SHALL BE DEBURRED AND SMOOTH IN ORDER TO SEAL AGAINST THE NEOPRENE GASKET ATTACHED TO THE ANTENNA MOUNT.
3. THE MOUNTING BRACKET SHALL BE MICROFLECT PART# B1592 AS SHOWN OR APPROVED EQUAL AND ATTACHED TO THE APPROPRIATE SUPPORT STRUCTURE USING U-BOLTS. THE SUPPORT PIPE SHALL THEN BE ATTACHED TO THE MOUNTING PLATE USING THE U-BOLTS PROVIDED TO ALLOW ADJUSTMENT. IT IS CRITICAL THAT THE GPS ANTENNA IS MOUNTED SUCH THAT IT IS WITHIN 2 DEGREES OF VERTICAL AND THE BASE OF THE ANTENNA IS WITHIN 2 DEGREES OF LEVEL.

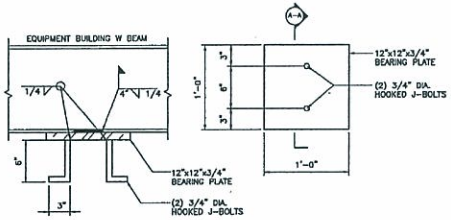


NOTE:
1. DRILL HOLES INTO EQUIPMENT SHELTER WALL. INSTALL BOLT. SEAL AROUND BOLT AT EXTERIOR FACE OF BUILDING WITH A ONE COMPONENT POLYURETHANE BASE ELASTOMERIC SEALANT. PAINT ALL MOUNTING BRACKETS TO MATCH COLOR OF EXISTING BUILDING.

7 C-3 GPS MOUNTING BRACKET DETAIL
SCALE: 3" = 1'-0"

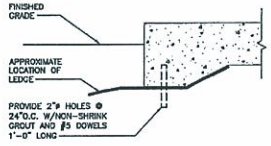


6 C-3 GPS ANTENNA MOUNTING DETAIL
SCALE: 1" = 1'-0"



SECTION A-A

5 C-3 BEARING PLATE DETAIL
SCALE: 1 1/2" = 1'-0"

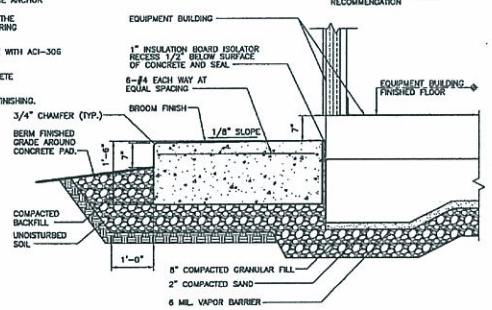


NOTE:
CONTRACTOR SHALL EXCAVATE TO ALLOW THE FOOTING TO REST ON LEVEL ROCK

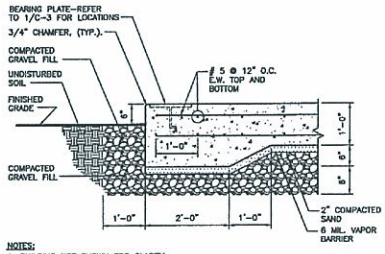
4 C-3 PINNED FOUNDATION DETAIL
SCALE: NTS

NOTE:
1. VERIFY ALL DIMENSIONS WITH BUILDING REQUIREMENTS.
2. REFER TO 1/C-1 FOR EQUIPMENT BUILDING ORIENTATION.
3. FOUNDATION DESIGN BASED ON 12'x20' TYPE (IM#24478) 2-HOUR FIRE RATED PERCISION QUINCY CORPORATION EQUIPMENT BUILDING.

NOTES:
1. WELD AS REQUIRED BY EQUIPMENT BUILDING MANUFACTURER'S RECOMMENDATION

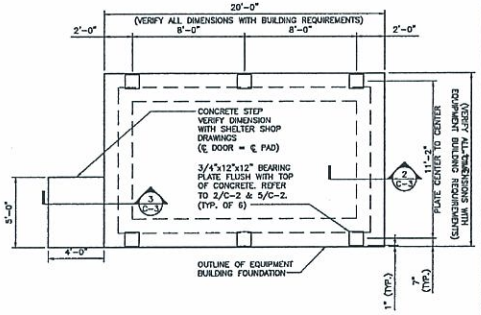


3 C-3 CONCRETE STEP DETAIL
SCALE: 3/4" = 1'-0"



NOTES:
1. BUILDING NOT SHOWN FOR CLARITY
2. IF LEDGE IS ENCOUNTERED REFER TO DETAIL 4/C-3

2 C-3 FOUNDATION SECTION
SCALE: 3/4" = 1'-0"



1 C-3 EQUIPMENT BUILDING FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

0 1 2 3
ORIGINAL SIZE IN INCHES

A&E FIRM
URS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CONNECTICUT
1-(860)-529-8882

NEXTEL

STATE OF CONNECTICUT DOUGLAS A. POLK

URS PROJECT NUMBER	DRAWN BY
36930054 (CDN 058)	PD

NO.	DATE	ISSUED FOR
A	02.06.06	REVIEW
0	02.17.06	CONSTRUCTION

RELEASE BY	DATE
AA	01.30.06

APPROVALS

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NEW MILFORD NORTH
CT-3661E
687 KENT ROAD
GAYLORDSVILLE, CT
06755

NEXTEL COMMUNICATIONS OF THE MID-ATLANTIC, INC
DBA NEXTEL COMMUNICATIONS
100 CORPORATE PLACE
ROCKY HILL, CT 06067
OFFICE: (860) 513-5400
FAX: (860) 513-5444

SHEET TITLE
FOUNDATION PLAN, DETAILS AND NOTES

SHEET NUMBER
C-3

SOIL EROSION AND CONTROL NOTES

EROSION CONTROL NOTES

1) THE EROSION CONTROL PROCEDURES SHALL CONFORM TO ALL APPLICABLE SECTIONS OF THE "DEP BULLETIN 34, CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL DATED 2002".

2) DURING CONSTRUCTION AND THEREAFTER EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED. NOT GREATER THAN 60,000 SQ. FT. OF LAND SHALL BE EXPOSED AT ANY ONE TIME DURING DEVELOPMENT. WHEN LAND IS EXPOSED DURING DEVELOPMENT, THE EXPOSURE SHOULD BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME AND SHALL NOT EXCEED 90 DAYS. LAND SHOULD NOT BE LEFT EXPOSED DURING THE WINTER MONTHS.

3) SILTATION FENCING SHALL BE INSTALLED WHERE SHOWN PRIOR TO ANY ON SITE GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL. IT SHOULD BE MAINTAINED DURING AND AFTER DEVELOPMENT TO REMOVE SEDIMENT FROM RUNOFF WATER AND FROM LAND UNDERGOING DEVELOPMENT. WHERE POSSIBLE NATURAL DRAINAGE-WAYS SHOULD BE UTILIZED AND LEFT OPEN TO REMOVE EXCESS SURFACE WATER.

4) ALL DISTURBED AREAS AND SIDE SLOPES WHICH ARE FINISH GRADED WITH NO FURTHER CONSTRUCTION TO TAKE PLACE SHALL BE LOAMED AND SEEDED. A MINIMUM OF 4" OF LOAM SHALL BE INSTALLED. A SEED, LIME AND FERTILIZER PROGRAM SHALL CONFORM TO ALL APPLICABLE SECTIONS OF THE "DEP BULLETIN 34, CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL DATED 2002".

5) ANY DISTURBED AREAS WHICH ARE TO BE LEFT TEMPORARILY, AND WHICH SHALL BE REGRADED LATER DURING CONSTRUCTION SHALL BE MACHINE HAY MULCHED AND SEEDED WITH RYE GRASS TO PREVENT EROSION. HAY OR STRAW MULCH SHALL BE APPLIED TO ALL FRESHLY SEEDED AREAS AT A RATE OF 2 TONS PER ACRES. BALES SHALL BE UNSPOILED, AIR-DRIED, AND FREE FROM WEED, SEEDS AND ANY COARSE MATERIAL.

6) UPON ESTABLISHMENT OF VEGETATION OF ALL DISTURBED AREAS AND UPON COMPLETION OF CONSTRUCTION, ALL SEDIMENTATION CONTROL MEASURES SHALL BE REMOVED FROM THE SITE.

SILT FENCE NOTES

1) THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR SILT FENCES

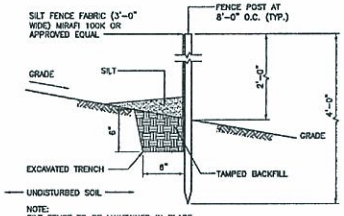
2) MAINTENANCE SHALL BE PERFORMED AS NEEDED TO PREVENT BULGES IN THE SILT FENCE DUE TO DEPOSITION OF SEDIMENT.

3) SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.

4) IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.

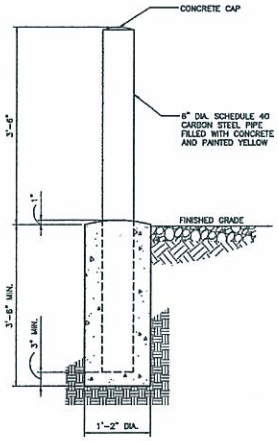
5) SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT, THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.

6) SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATION.

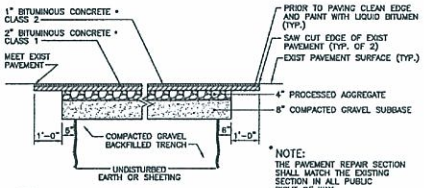


NOTE:
SILT FENCE TO BE MAINTAINED IN PLACE DURING CONSTRUCTION. REMOVE UPON COMPLETION OF CONSTRUCTION.

8 C-4 SEDIMENTATION BARRIER/SILT FENCE DETAIL
SCALE: 1 1/2" = 1'-0"

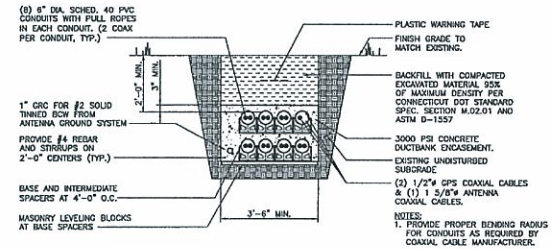


7 C-4 BOLLARD DETAIL
SCALE: N.T.S.



* NOTE:
THE PAVEMENT REPAIR SECTION SHALL MATCH THE EXISTING SECTION IN ALL PUBLIC RIGHT OF WAY

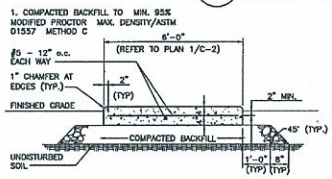
12 C-4 BITUMINOUS PAVEMENT REPAIR DETAIL
SCALE: N.T.S.



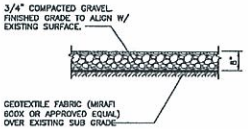
NOTES:
1. PROVIDE PROPER BENDING RADIUS FOR CONDUITS AS REQUIRED BY COAXIAL CABLE MANUFACTURER.
2. MAKE SWEEPS AT BOTH ENDS NO MORE THAN 45 DEGREES.

TRENCHING NOTES:
TRENCH EXCAVATION SHALL CONSIST OF THE REMOVAL OF ALL MATERIALS, EXCAVATION, TRENCH WALL SUPPORTS, DEWATERING, TEMPORARY STREAM OR GROUNDWATER DIVERSION; SATISFACTORY DISPOSAL OF ALL SURPLUS OR UNSUITABLE MATERIAL; BACKFILL AND COMPACTION NECESSARY FOR THE CONSTRUCTION OF THE WORK AT THE LOCATIONS AND TO THE DIMENSIONS AS SHOWN ON THE CONTRACT DRAWINGS OR AS DIRECTED BY THE ENGINEER. ALL DIMENSIONS ARE MINIMAL ACCEPTABLE QUANTITIES. IF EXCAVATION IS WITHIN GRASS AREA, DISTURBED AREAS SHALL BE REPAIRED WITH SEED. IF EXISTING CURB IS DAMAGED OR REMOVED, REPLACE WITH SAME TYPE OF CURB TO DIMENSIONS OF EXISTING CURB. IF CONCRETE WALKS ARE DISTURBED REPLACE WITH CONCRETE TO MATCH EXISTING THICKNESS.

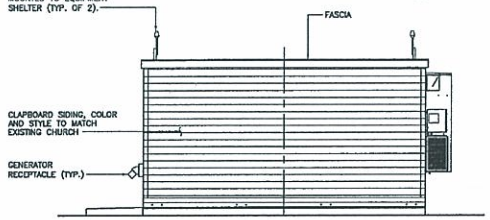
11 C-4 TYPICAL COAXIAL CABLE TRENCHING DETAIL
SCALE: 1/2" = 1'-0"



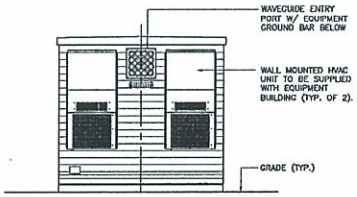
10 C-4 GENERATOR CONCRETE PAD
SCALE: 1/2" = 1'-0"



9 C-4 GRAVEL TREATMENT
SCALE: N.T.S.



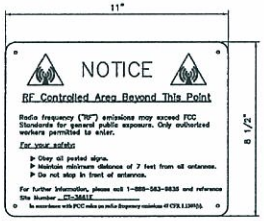
4 C-4 EQUIPMENT BUILDING ELEVATION - SOUTH
SCALE: 1/4" = 1'-0"



3 C-4 EQUIPMENT BUILDING ELEVATION - EAST
SCALE: 1/4" = 1'-0"

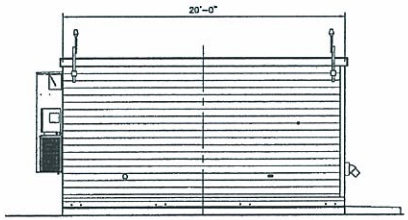
(WHITE METAL SIGN W/BLACK LETTERING)

6 C-4 EMERGENCY SIGN
SCALE: N.T.S.

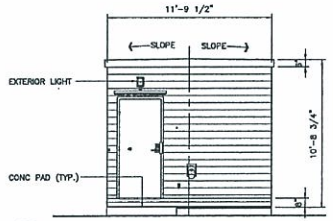


(WHITE METAL SIGN W/BLACK LETTERING)

5 C-4 RF SIGN NOTICE
SCALE: N.T.S.



2 C-4 EQUIPMENT BUILDING ELEVATION - NORTH
SCALE: 1/4" = 1'-0"



NOTE:
EQUIPMENT BUILDING ELEVATIONS ARE REPRESENTATIVE OF A 12'x20' TYPE (M#234378) 2-HOUR FIRE RATED PRECISION QUINCY CORPORATION EQUIPMENT BUILDING.

1 C-4 EQUIPMENT BUILDING ELEVATION - WEST
SCALE: 1/4" = 1'-0"

0 1 2 3
ORIGINAL SIZE IN INCHES

A&E FIRM
URS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CONNECTICUT
1-(860)-529-8882

NEXTEL

STATE OF CONNECTICUT
DOUGLAS J. ROSS
LICENSED ARCHITECT

URS PROJECT NUMBER	DRAWN BY
36936074 (GDN 058)	PD

NO.	DATE	ISSUED FOR
A	02.08.06	REVIEW
0	02.17.06	CONSTRUCTION

RELEASE BY	DATE
AA	01.30.06

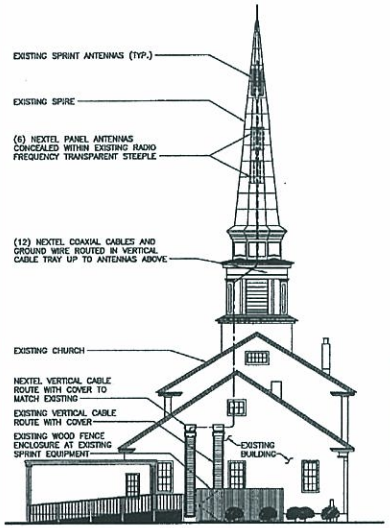
APPROVALS
CONSTRUCTION ____ DATE: ____
LEASING ____ DATE: ____
RF ____ DATE: ____
ZONING ____ DATE: ____
QC ____ DATE: ____
NETWORK ENG ____ DATE: ____
OWNER ____ DATE: ____

NEW MILFORD NORTH
CT-3661E
687 KENT ROAD
GAYLORDSVILLE, CT
06755

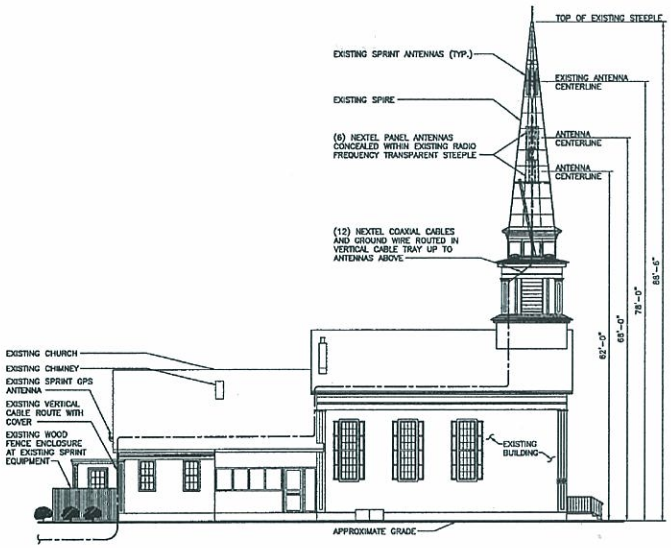
NEXTEL COMMUNICATIONS OF THE MID-ATLANTIC, INC
DBA NEXTEL COMMUNICATIONS
100 CORPORATE PLACE
ROCKY HILL, CT 06067
OFFICE: (860) 513-5400
FAX: (860) 513-5444

SHEET TITLE
EQUIPMENT BUILDING ELEVATIONS, DETAILS AND NOTES

SHEET NUMBER
C-4

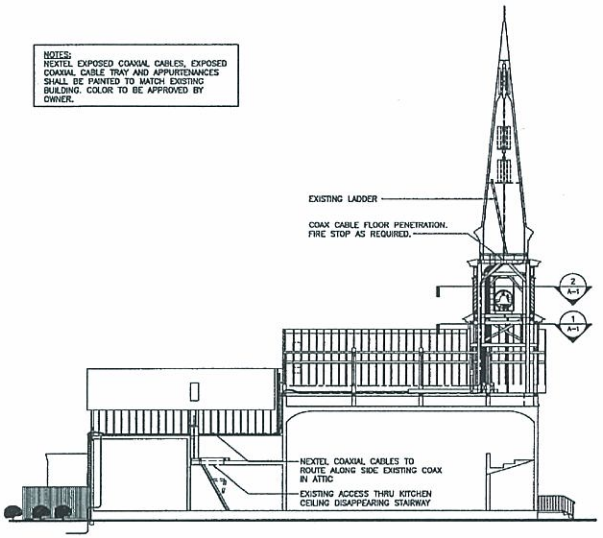


5 A-1 WEST ELEVATION
SCALE: 1" = 10'-0"

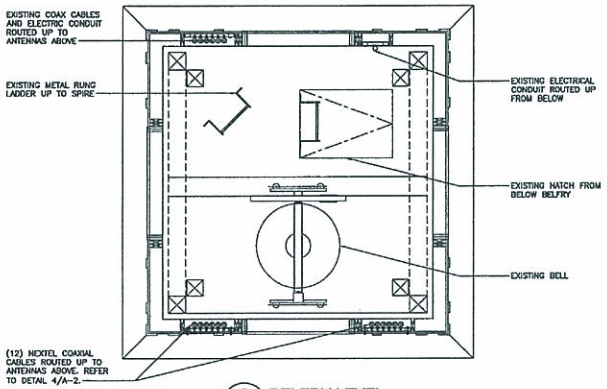


4 A-1 SOUTH ELEVATION
SCALE: 1" = 10'-0"

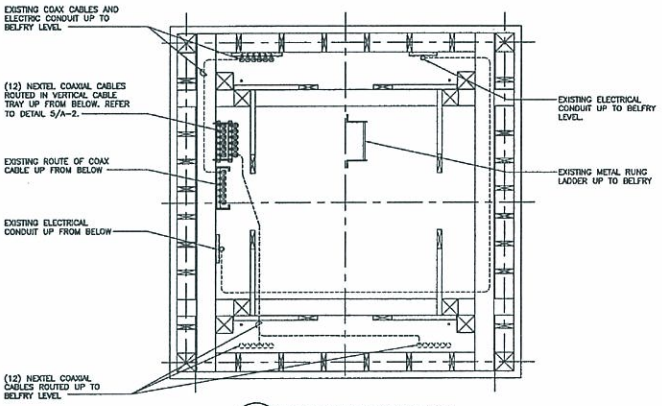
NOTES:
NEXTEL EXPOSED COAXIAL CABLES, EXPOSED COAXIAL CABLE TRAY AND APPURTENANCES SHALL BE PAINTED TO MATCH EXISTING BUILDING. COLOR TO BE APPROVED BY OWNER.



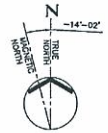
3 A-1 CROSS SECTION
SCALE: 1" = 10'-0"



2 A-1 BELFRY LEVEL
SCALE: 1/2" = 1'-0"



1 A-1 BELOW BELFRY LEVEL
SCALE: 1/2" = 1'-0"



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0 1 2 3
ORIGINAL SIZE IN INCHES

A&E FIRM
URS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CONNECTICUT
1-(860)-529-8882

NEXTEL

STATE OF CONNECTICUT
DOUGLAS C. ROBERTS
LICENSED PROFESSIONAL ENGINEER

URS PROJECT NUMBER	DRAWN BY
36930094 (CDN 058)	PD

NO.	DATE	ISSUED FOR
A	02.06.06	REVIEW
0	02.17.06	CONSTRUCTION

RELEASE BY	DATE
AA	01.30.06

APPROVALS
CONSTRUCTION _____ DATE: _____
LEASING _____ DATE: _____
RF _____ DATE: _____
ZONING _____ DATE: _____
QC _____ DATE: _____
NETWORK ENG _____ DATE: _____
OWNER _____ DATE: _____

NEW MILFORD NORTH
CT-3661E
687 KENT ROAD
GAYLORDSVILLE, CT
06755

NEXTEL COMMUNICATIONS
OF THE MID-ATLANTIC, INC
DBA NEXTEL COMMUNICATIONS
100 CORPORATE PLACE
ROCKY HILL, CT 06067
OFFICE: (860) 513-5400
FAX: (860) 513-5444

SHEET TITLE
BUILDING ELEVATIONS, SECTION AND PLANS

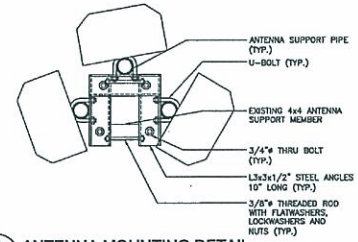
SHEET NUMBER
A-1

NEXTEL RF SYSTEM SCHEDULE

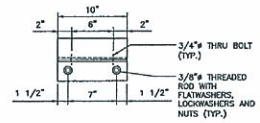
SECTOR	ANTENNA	AZIMUTH	MECHANICAL DOWNTILT	ELECTRICAL DOWNTILT	RAD CTR, FT. AGL	MAKE	MODEL	FEED	COAX SIZE, IN.	COAX MODEL #	LENGTH, FT.*
A	I G/I R	350'	0'	0'	68'-0"±	RFS	APXV86906513-C	BOTTOM	(2) 1 1/4"ø	ANDREW LDF6-50	250'±
A	I B/I W	350'	0'	0'	62'-0"±	RFS	APXV86906513-C	BOTTOM	(2) 1 1/4"ø	ANDREW LDF6-50	250'±
B	II G/II R	120'	0'	0'	68'-0"±	RFS	APXV86906513-C	BOTTOM	(2) 1 1/4"ø	ANDREW LDF6-50	250'±
B	II B/II W	120'	0'	0'	62'-0"±	RFS	APXV86906513-C	BOTTOM	(2) 1 1/4"ø	ANDREW LDF6-50	250'±
C	III G/III R	250'	0'	0'	68'-0"±	RFS	APXV86906513-C	BOTTOM	(2) 1 1/4"ø	ANDREW LDF6-50	250'±
C	III B/III W	250'	0'	0'	62'-0"±	RFS	APXV86906513-C	BOTTOM	(2) 1 1/4"ø	ANDREW LDF6-50	250'±
GPS #1**	I Y	PRIMARY	0'	0'	13'-6"±	BASE STATION	GPS0015	BOTTOM	1/2"ø	ANDREW LDF4-50A	10'±
GPS #2**	II Y	SECONDARY	0'	0'	13'-6"±	BASE STATION	GPS0015	BOTTOM	1/2"ø	ANDREW LDF4-50A	10'±

* COAX CABLE LENGTHS ARE ESTIMATES; CONTRACTOR SHALL VERIFY IN FIELD.
** MINIMUM SEPARATION BETWEEN GPS ANTENNAS IS 4'. INSTALL GPS FOR SOUTHERN EXPOSURE AND REGIONAL SNOW DEPTH.

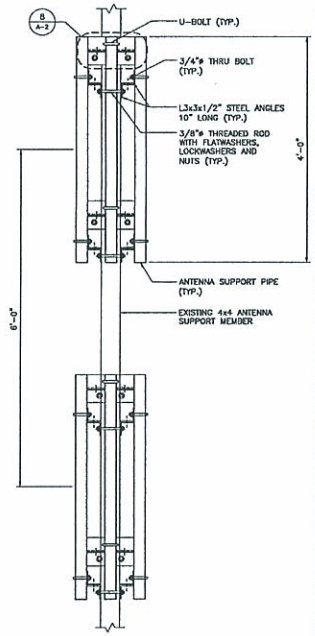
NOTES:
1. ALL ANTENNAS TO BE FURNISHED WITH MECHANICAL DOWN TILT BRACKETS. ANTENNA DOWN TILT SHALL BE SET AND VERIFIED BY A SMART LEVEL.
2. GPS ANTENNAS SHALL BE MOUNTED 2'-0" ABOVE THE NEXTEL EQUIPMENT BUILDING. REFER TO 1/C-1 FOR LOCATION.



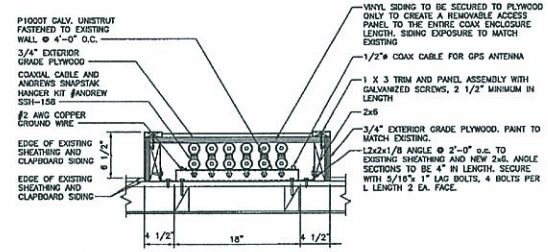
9 A-2 ANTENNA MOUNTING DETAIL
SCALE: 1 1/2" = 1'-0"



8 A-2 CONNECTION DETAIL
SCALE: 1 1/2" = 1'-0"

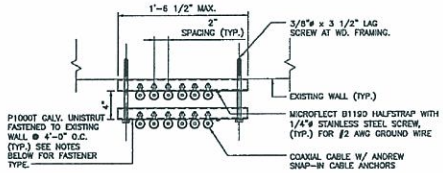


7 A-2 ANTENNA MOUNTING ELEVATION
SCALE: 1" = 1'-0"

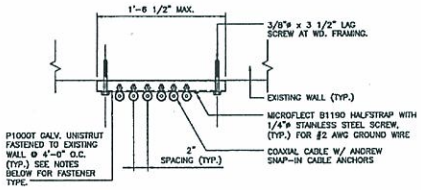


NOTE:
1. REMOVE PORTION OF EXISTING VINYL SIDING. CABLE TRAY TO BE INSTALLED TO EXISTING SHEATHING AND WALL STUDS WITH 1/2" X 2 1/2" LAG BOLTS 2'-0" O/C

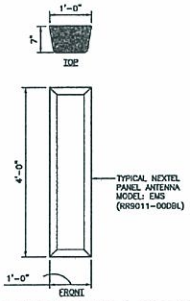
6 A-2 VERTICAL CABLE ENCLOSURE
SCALE: 1 1/2" = 1'-0"



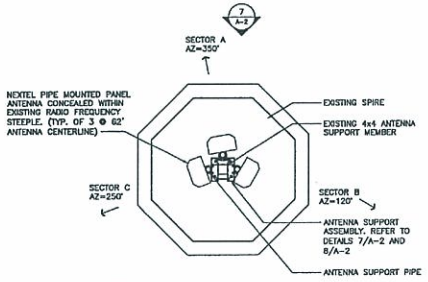
5 A-2 VERTICAL CABLE SUPPORT @ INTERIOR
SCALE: 1 1/2" = 1'-0"



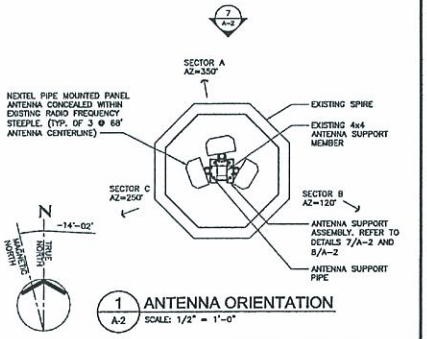
4 A-2 VERTICAL CABLE SUPPORT @ INTERIOR
SCALE: 1 1/2" = 1'-0"



3 A-2 TYPICAL PANEL ANTENNA
SCALE: N.T.S.



2 A-2 ANTENNA ORIENTATION
SCALE: 1/2" = 1'-0"



1 A-2 ANTENNA ORIENTATION
SCALE: 1/2" = 1'-0"

0 1 2 3
ORIGINAL SIZE IN INCHES

A&E FIRM
URS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CONNECTICUT
1-(860)-529-8882

NEXTEL

STATE OF CONNECTICUT
DOUGLAS J. PUTNAM
LICENSED PROFESSIONAL ARCHITECT

URS PROJECT NUMBER	DRAWN BY
36930094 (CON 058)	PD

NO.	DATE	ISSUED FOR
A	02.06.06	REVIEW
0	02.17.06	CONSTRUCTION

RELEASE BY	DATE
AA	01.30.06

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NEW MILFORD NORTH
CT-3661E
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DBA NEXTEL COMMUNICATIONS
100 CORPORATE PLACE
ROCKY HILL, CT 06067
OFFICE: (860) 513-5400
FAX: (860) 513-5444

SHEET TITLE
ANTENNA DETAILS, CABLE SUPPORT DETAILS AND SCHEDULE

SHEET NUMBER
A-2

GROUNDING NOTES:

OBJECTIVE

PROVIDE A GROUNDING SYSTEM WITH 5 OHM MAX. ALTERNATING CURRENT RESISTANCE BETWEEN ANY POINT ON THE GROUNDING SYSTEM AS MEASURED BY 3-POINT GROUNDING TEST. MODIFY EXTERIOR GROUNDING SCHEME WITH NEXTEL CONSTRUCTION MANAGER'S APPROVAL AS REQUIRED TO ACHIEVE MINIMUM AC RESISTANCE TO GROUNDING. TESTING PROCEDURE AS DESCRIBED IN SPECS. CHEMICAL ADDITIVES SHALL NOT BE USED TO ENHANCE MINIMUM RESISTANCE ON THE GROUNDING SYSTEM UNLESS APPROVED BY NEXTEL CONSTRUCTION MANAGER.

GROUNDING ELECTRODE

GROUNDING ELECTRODE SHALL BE 5/8" DIA. x 8'-0"L COPPER CLAD STEEL ROD. ADJUST LOCATION OF GROUNDING ELECTRODE IF SOIL LOCATION IS NOT CONDUCTIVE (GRAVEL, SANDY SOIL, ROCKS). SPACE GROUNDING ELECTRODES NOT MORE THAN 8'-0" APART. ELECTRODES SHALL BE DRIVEN ONLY WITH THE PROPER DRIVER SLEEVE TO PREVENT MUSHROOMING TOP OF ROD. WHEN ROCK BOTTOM IS ENCOUNTERED, THE ELECTRODE SHALL BE DRIVEN AT AN OBLIQUE ANGLE NOT TO EXCEED 45° FROM VERTICAL AWAY FROM STRUCTURES. TOP OF GROUNDING ELECTRODE SHALL BE MIN. 3'-6" BELOW FINISHED GRADE. IF IT IS IMPRACTICAL TO DRIVE THE 8'-0" GROUND ROD, CONTRACTOR SHALL INSTALL THE GROUND ROD HORIZONTALLY IN A TRENCH AWAY FROM STRUCTURE, NOT LESS THAN 36" BELOW FINISHED GRADE. UNDER NO CIRCUMSTANCES SHALL THE GROUND ROD BE CUT OR MODIFIED TO ACCOMODATE VERTICAL INSTALLATION INTO LEDGE. REFER TO NEC 2005, ARTICLE #250 FOR MORE INFORMATION ON GROUNDING.

CONDUCTOR USED FOR GROUNDING SYSTEM

EGR – #2 AWG ANNEALED SOLID TINNED BARE COPPER.
INTER-BUS EXTENSION (FROM IGR TO EGR) – #2 AWG ANNEALED SOLID TINNED BARE COPPER.
EXTERNAL BOND CONNECTIONS TO EGR – #2 AWG ANNEALED SOLID TINNED BARE COPPER.
TOWER BOND CONNECTION TO EGR – #2 AWG SOLID COPPER.

MINIMUM BENDING RADIUS

EGR #2 : 2'-0" NOMINAL AND 8" MINIMUM.
GROUNDING CONDUCTOR SHALL BE AS STRAIGHT AS POSSIBLE WITH MINIMUM 6" BENDING RADIUS.

CONNECTIONS (MECHANICAL)

COMPRESSION LUG CONNECTOR – 15 TON COMPRESSION, 2 HOLE, LONG BARREL, ELECTRO TINNED PLATED, HIGH CONDUCTIVITY COPPER, 600V RATED. USE 1/4" DIA. BOLT, 3/4" SPACING LUGS TO BOND OBJECTS FROM IGR. CONNECTOR SHALL BE BURNDY "HYLUG SERIES" OR EQUAL.

EXOTHERMIC WELD LUG CONNECTOR – 2 HOLE OFFSET, ELECTRO TINNED PLATED, HIGH CONDUCTIVITY COPPER, 600V. USE 1/2" DIA. BOLT, 1-3/4" SPACING LUGS. CONNECTOR SHALL BE CADWELD CONNECTION STYLE (CABLE TO SURFACE) TYPE "LA". EXOTHERMIC WELD TO LUG AS REQUIRED.

"C" TAP COMPRESSION CONNECTOR – HIGH CONDUCTIVITY COPPER FOR MAIN-BRANCH TAPPING. CONNECTOR SHALL BE BURNDY "HYTAP" SERIES OR EQUAL.

USE MATCHING MANUFACTURER TOOL AND DIE FOR COMPRESSION CONNECTION. APPLY ANTI-OXIDANT CONDUCTIVITY ENHANCER COMPOUND ON SURFACES THAT ARE COMPRESSED. SURFACES INTENDED TO BE CONNECTED WITH MECHANICAL CONNECTORS SHALL BE BARE METAL TO BARE METAL. PRIME AND PAINT OVER BONDED AREA TO PREVENT CORROSION.

CONNECTIONS BELOW GRADE (EXOTHERMIC)

PROVIDE CADWELD CONNECTIONS – STYLE AND TYPE AS REQUIRED.

WHEN BONDING #2 TO #2

EXTERIOR OF BUILDING – USE EXOTHERMIC WELD CONNECTION.

WHEN BONDING #2 TO FENCE POST

USE EXOTHERMIC WELD 'CADWELD TYPE VS' CONNECTION TO FENCE POST STEEL SURFACE. TEST WELD FOR POSSIBLE BURN THRU. PATCH WELDED AREA WITH GALVANIZED COATING AS REQUIRED FOR PROPER WELDED PERMANENT BOND. REFER TO MANUFACTURER'S REQUIREMENTS FOR DETAILS.

DRAWING NOTES:

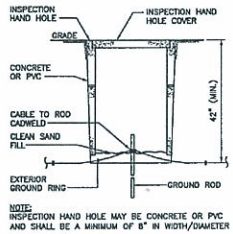
1. REFER TO DRAWING C-1 FOR ACTUAL LOCATIONS OF STRUCTURE ON SITE.
2. COORDINATION, LAYOUT AND FURNISHING OF CONDUIT, CABLE AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL SERVICES SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
3. PROVIDE CADWELD CONNECTION STYLE (CABLE TO CABLE) TYPE "TA".
4. PROVIDE CADWELD CONNECTION STYLE (CABLE TO SURFACE) TYPE "LA".
5. PROVIDE CADWELD CONNECTION STYLE (CABLE TO ROD) TYPE "GT" OR "NC".
6. COORDINATE LOCATION OF NEXTEL ICE BRIDGE SUPPORT POST AND CONNECT EACH TO THE NEXTEL EXTERIOR GROUND RING WITH #2 AWG.
7. REFER TO RISER DIAGRAM 1/E-2 FOR ADDITIONAL INFORMATION.
8. EXTEND TELEPHONE SERVICE FROM TELCO DEMARCATION LOCATED IN EXISTING TELCO ENCLOSURE TO TELEPHONE BACKBOARD LOCATION INSIDE NEXTEL EQUIPMENT BUILDING.
9. ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
10. EXTEND ELECTRIC SERVICE FROM NEW MULTIMETER CENTER TO NEXTEL MANUAL TRANSFER SWITCH LOCATION INSIDE NEXTEL EQUIPMENT BUILDING.
11. BOND NEXTEL AC UNITS, DUNNAGE STEEL AND ALL EXTERIOR METAL FRAMES TO THE EGR WITH #2 AWG, BCW.
12. GROUND COAXIAL CABLES TO GROUND BAR PER NEXTEL CONSTRUCTION MANAGER'S REQUIREMENTS AND INSTRUCTIONS. GROUND ANTENNAS PER DETAIL 2/E-2. REFER TO DETAILS 2/E-1 AND 3/E-1. FOR MORE INFORMATION. EXTEND EGR #2 AWG TO ANTENNA GROUND BAR.
13. CONNECT GROUND WIRES TO GROUND BAR LOCATED AT ANTENNA SUPPORT ASSEMBLY.
14. MOUNT ANTENNA GROUND BARS ON THE ANTENNA SUPPORT STRUCTURE APPROXIMATELY 8" BELOW THE ANTENNAS.
15. BOND GPS ANTENNA MAST TO EGR WITH #2 AWG, BCW.

NEXTEL
(CHEMICAL GROUNDING)

NOTES:

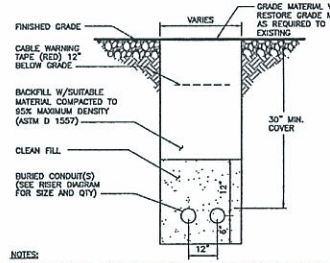
1. AT THE COMPLETION OF THE GROUNDING INSTALLATION CONTRACTOR SHALL TEST THE GROUNDING SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE SOIL TESTING FOR FINAL APPROVAL.
2. CHEMICAL GROUNDING SYSTEM COMPRISING OF 2" I.D. "L" SHAPED MODEL WITH 20'-0" HORIZONTAL LENGTH AND 3'-0" VERTICAL RISER. CHEMICAL GROUND ROD WITH INSPECTION WELL. THE CONTRACTOR IS COMPLETELY RESPONSIBLE FOR SUPPLYING AND INSTALLING THE XIT ROD, AND ALL GROUNDING AS NOTED. THE GC CONTRACTOR IS RESPONSIBLE FOR SUPPLYING, DELIVERY, AND INSTALLATION OF THE XIT RODS AND ALL OTHER GROUNDING AS NOTED. CADWELD THE EGR (COVERED IN THIS CONTRACT) TO THE CHEMICAL GROUNDING SYSTEM WITH #2 AWG. BARE COPPER WIRE. PRIOR TO BACKFILLING THE CONTRACTOR SHALL REMOVE THE TAPE COVERING THE WEEP HOLES ON THE CHEMICAL GROUND ROD, TAKE SEVERAL DIGITAL PHOTOS OF THE CHEMICAL GROUNDING SYSTEM AND E-MAIL PHOTOS IN JPEG FORMAT TO THE NEXTEL CONSTRUCTION MANAGER.

SYMBOL	DESCRIPTION
—EGR—	EXTERIOR GROUND RING
—T—	UNDERGROUND TELEPHONE SERVICES
—E—	UNDERGROUND ELECTRICAL SERVICES
—⊗—	EXOTHERMIC WELD THRU" CONDUCTOR TO TOP OF GROUND ROD
—⊤—	EXOTHERMIC WELD "T" OF THRU" CONDUCTOR & TAP CONDUCTOR
⊗	GROUND ROD
	GROUND BAR
	CONNECTION POINT TO EXISTING SYSTEM
A/C	AIR CONDITIONING UNIT
GRC	GALVANIZED RIGID CONDUIT
AFG	ABOVE FINISHED GRADE
PB	STACKABLE PULLBOX
	GROUND CONNECTION
VIF	VERIFY IN FIELD
	CONDUIT UP
BCW	BARE COPPER WIRE
M M	REVENUE METER
MDP	MAIN DISTRIBUTION PANEL
MCB	MAIN CIRCUIT BREAKER
MGB	MAIN GROUND BAR
	INSPECTION HAND HOLE



NOTE:
INSPECTION HAND HOLE MAY BE CONCRETE OR PVC AND SHALL BE A MINIMUM OF 8" IN WIDTH/DIAMETER

5 / E-1 GROUND ROD WITH INSPECTION HAND HOLE
SCALE: N.T.S.



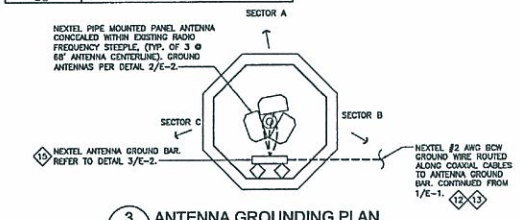
NOTES:

1. THE CLEAN FILL SHALL PASS THROUGH A 3/8" MESH SCREEN AND SHALL NOT CONTAIN SHARP STONES. OTHER BACKFILL SHALL NOT CONTAIN ASHES, CINDERS, SHELLS, FROZEN MATERIAL, LOOSE DEBRIS OR STONES LARGER THAN 2" IN MAXIMUM DIMENSION. THE TRENCH SHALL BE BACKFILLED IMMEDIATELY FOLLOWING PLACEMENT OF THE CONDUITS.
2. WHERE EXISTING UTILITIES ARE LIKELY TO BE ENCOUNTERED, CONTRACTOR SHALL HAND DIG AND PROTECT EXISTING UTILITIES.
3. IF CONTRACTOR DISTURBS EXISTING EGR HE SHALL REPAIR OR REPLACE EXISTING EGR TO A CONDITION EQUAL TO OR BETTER THAN THE EXISTING EGR AT NO COST TO OWNER.

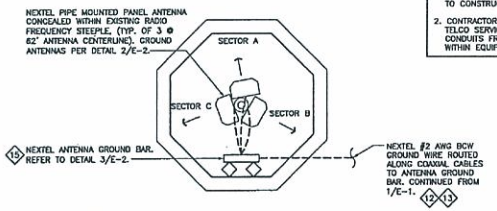
4 / E-1 ELECTRICAL/TELCO TRENCH DETAIL
SCALE: N.T.S.

NOTES:

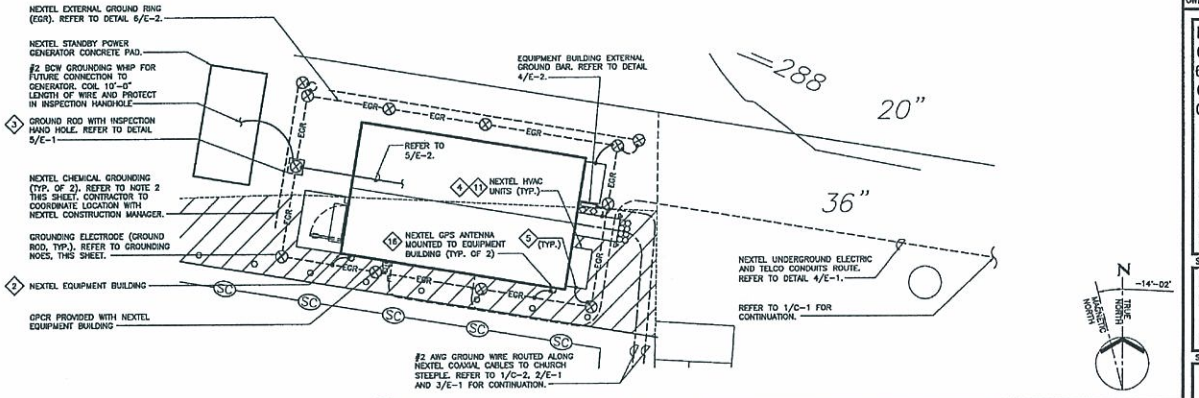
1. CONTRACTOR SHALL VERIFY CONDUIT STUB-UP LOCATIONS WITH CONSTRUCTION MANAGER AND WITH BUILDING MANUFACTURER SHOP DRAWINGS PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL EXTEND ELECTRIC, TELCO SERVICE AND STANDBY SERVICE CONDUITS FROM ENTRY LOCATIONS TO WITHIN EQUIPMENT BUILDING AS REQUIRED.



3 / E-1 ANTENNA GROUNDING PLAN
SCALE: 1/2" = 1'-0"



2 / E-1 ANTENNA GROUNDING PLAN
SCALE: 1/2" = 1'-0"



1 / E-1 PARTIAL SITE UTILITIES PLAN
SCALE: 1/10" = 1'-0"

0 1 2 3
ORIGINAL SIZE IN INCHES

A&E FIRM
UBS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CONNECTICUT
1-(860)-529-8882

NEXTEL

STATE OF CONNECTICUT
N. SUBRAMANIAN
LICENSED
PROFESSIONAL ENGINEER

URS PROJECT NUMBER	DRAWN BY
36930094 (CON 058)	PD

NO.	DATE	ISSUED FOR
A	02.06.06	REVIEW
0	02.17.06	CONSTRUCTION

RELEASE BY	DATE
AA	01.30.06

APPROVALS

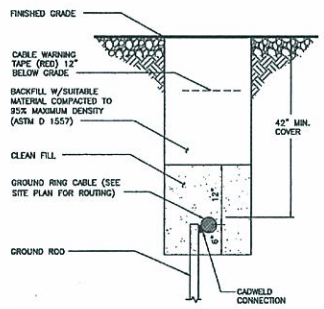
CONSTRUCTION _____ DATE: _____
LEASING _____ DATE: _____
RF _____ DATE: _____
ZONING _____ DATE: _____
QC _____ DATE: _____
NETWORK ENG _____ DATE: _____
OWNER _____ DATE: _____

NEW MILFORD NORTH
CT-3661E
687 KENT ROAD
GAYLORDSVILLE, CT
06755

NEXTEL COMMUNICATIONS
OF THE MID-ATLANTIC, INC
DBA NEXTEL COMMUNICATIONS
100 CORPORATE PLACE
ROCKY HILL, CT 06067
OFFICE: (860) 513-5400
FAX: (860) 513-5444

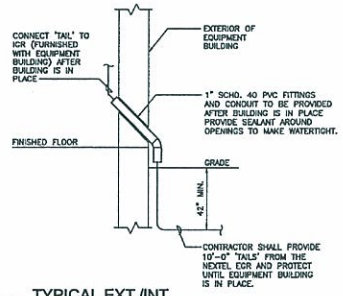
SHEET TITLE
PARTIAL SITE UTILITIES PLAN, GROUNDING PLANS, DETAILS AND NOTES

SHEET NUMBER
E-1

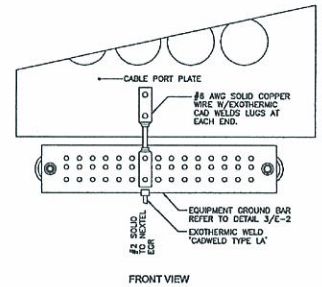


NOTES:
1. WHERE EXISTING UTILITIES ARE LIKELY TO BE ENCOUNTERED, CONTRACTOR SHALL HAND DIG AND PROTECT EXISTING UTILITIES.
2. GRADE MATERIAL VARIES. RESTORE GRADE MATERIAL AS REQUIRED TO MATCH EXISTING.

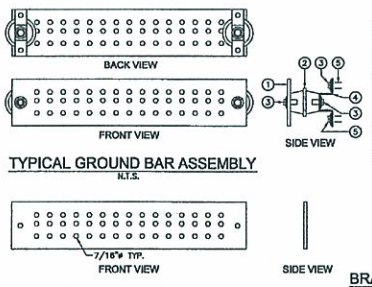
6 / E-2 TYPICAL EGR DETAIL
SCALE: N.T.S.



5 / E-2 TYPICAL EXT./INT. GROUNDING CONNECTION
SCALE: N.T.S.



4 / E-2 EXTERNAL GROUND BAR LUG CONNECTION
SCALE: N.T.S.



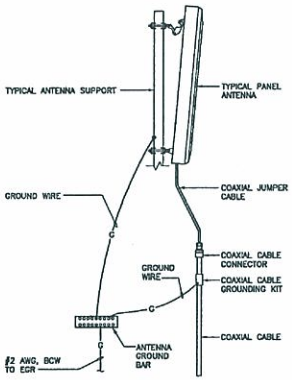
NOTES:
1. HIGH CONDUCTIVITY COPPER BAR 2'-0"Lx4"Wx1/4"D
2. RED COLORED STANDOFF INSULATOR CLASTIC #1872-1A
3. STAINLESS STEEL TYPE 304 HARDWARE 3/8"x-16-7/8"L HEX BOLT W/MATCHING 3/8" BOLT SIZE SPLIT LOCKWASHER AND FLAT WASHER
4. 1"Wx1/8"T STAINLESS STEEL TYPE 304 BRACKET.
5. STAINLESS STEEL TYPE 304 HARDWARE 3/8"ø EXPANSION BOLT.

TYPICAL GROUND BAR ASSEMBLY
N.T.S.

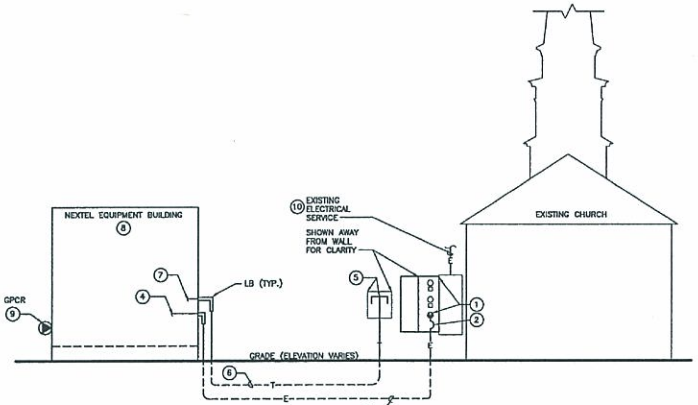
TYPICAL GROUND BAR - DIMENSIONS
N.T.S.

BRACKET FOR GROUND BAR-DIMENSIONS
N.T.S.

3 / E-2 EQUIPMENT/MASTER GROUND BAR DETAILS
SCALE: N.T.S.



2 / E-2 TYPICAL ANTENNA GROUNDING DETAIL
SCALE: N.T.S.



RISER NOTES:

1. CONTRACTOR SHALL DISCONNECT, RESERVE AND PROTECT EXISTING LINE SIDE FEEDERS FROM EXISTING METERING MODULE. REPLACE EXISTING 2-GANG MODULAR METER UNIT WITH 3-GANG, 400A COPPER BUSSED MODULAR METERING UNIT AS MANUFACTURED BY SQUARE D, EZM SERIES. UNIT SHALL BE PLUG-IN COMPATIBLE WITH EXISTING MODULAR SERVICE ENTRANCE. METER PROVISIONS SHALL BE RINGLESS, S-JAW, WITH LEVER BYPASS. GROUND METERING EQUIPMENT PER NEC ARTICLE #250. RECONNECT EXISTING LINE SIDE FEEDERS TO NEW METERING EQUIPMENT TO REFEED EXISTING CHRUCH BUILDING AND SPRINT. PROVIDE NEW BREAKERS TO MATCH EXISTING AMPACITY OF SERVICES. NEW BREAKERS SHALL BE BOLT-ON AND HAVE AN INTERUPPTING CAPACITY OF 25K AIC. CONTRACTOR SHALL LABEL METER SOCKET IN ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS. LABEL SHALL BE BAKELITE OR SIMILAR SEMI-PERMANENT LABEL. COORDINATE ELECTRIC SERVICE INSTALLATION WITH UTILITY COMPANY.
2. PROVIDE 200A, 2 POLE BRANCH CIRCUIT BREAKER. CIRCUIT BREAKER SHALL BE BOLT-ON 25K AIC AS MANUFACTURED BY SQUARE D, MODEL #QOP22200TM.
3. PROVIDE 3#3/0 AND 1#6G IN 3" SCHEDULE 40 PVC CONDUIT TO SUPPORT A 200A, 120/240V, 1ø, 3WIRE SERVICE TO NEXTEL EQUIPMENT BUILDING. REFER TO PLANS 1/C-1, 1/C-2 AND 1/E-1 FOR ROUTING. REFER TO DETAIL 4/E-1 FOR TRENCHING. PVC CONDUIT SHALL TRANSITION TO GRC ABOVE GRADE INCLUDING VERTICAL SWEEP AND WHERE SUBJECT TO PHYSICAL DAMAGE.
4. COORDINATE PENETRATION OF CONDUIT INTO EQUIPMENT BUILDING WITH MANUAL TRANSFER SWITCH LOCATED INSIDE OF EQUIPMENT BUILDING.
5. EXISTING TELEPHONE DEMARCATION POINT LOCATED INSIDE EXISTING TELEPHONE ENCLOSURE. REFER TO PLANS 1/C-1, 1/C-2 AND 1/E-1 FOR ROUTING CONDUITS AND FOR LOCATION. TELEPHONE COMPANY SHALL EVALUATE ADEQUACY OF EXISTING DEMARCATION AND UPGRADE AS REQUIRED.
6. PROVIDE 3" SCHEDULE 40 PVC CONDUIT WITH TWO (2) 4 - PAIR TWISTED INDIVIDUALLY SHIELDED, #22AWG, CATEGORY 5 RATED T-1 CABLE FROM EXISTING TELCO DEMARCATION TO NEXTEL BACKBOARD INSIDE NEXTEL EQUIPMENT BUILDING TO SUPPORT TELEPHONE SERVICE. TERMINATE CONDUIT APPROXIMATELY 12" FROM BACKBOARD IN NEXTEL'S EQUIPMENT BUILDING, PROVIDE NYLON BUSHING. FINAL TERMINATION OF WIRES WILL BE DONE BY OTHERS. REFER TO PLANS 1/C-1, 1/C-2 AND 1/E-1 FOR ROUTING CONDUITS AND DETAIL 4/E-1 FOR TRENCHING. PVC CONDUIT SHALL TRANSITION TO GRC ABOVE GRADE INCLUDING VERTICAL SWEEP AND WHERE SUBJECT TO PHYSICAL DAMAGE.
7. COORDINATE PENETRATION OF CONDUIT INTO BUILDING WITH BACKBOARD LOCATION INSIDE OF EQUIPMENT BUILDING.
8. REFER TO EQUIPMENT BUILDING SHOP DRAWINGS PROVIDED BY BUILDING MANUFACTURER.
9. GENERATOR POWER CONNECTION RECEPTACLE (FURNISHED WITH THE BUILDING.) REFER TO DETAIL 1/E-3.
10. ELECTRIC COMPANY SHALL EVALUATE THE ADEQUACY OF THE EXISTING SERVICE TO PROVIDE ADDITIONAL 200A, 120/208/240V, 1ø, 3 WIRE ELECTRIC SERVICE TO NEXTEL.

1 / E-2 RISER DIAGRAM
SCALE: N.T.S.

0 1 2 3
ORIGINAL SIZE IN INCHES

A&E FIRM
URS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CONNECTICUT
1-(860)-529-8882

NEXTEL

STATE OF CONNECTICUT
N. SUBRAMANIAN
LICENSED PROFESSIONAL ENGINEER

URS PROJECT NUMBER	DRAWN BY
36930084 (CDN 058)	PD

NO.	DATE	ISSUED FOR
A	02.08.06	REVIEW
0	02.17.06	CONSTRUCTION

RELEASE BY	DATE
AA	01.30.06

APPROVALS
CONSTRUCTION _____ DATE: _____
LEASING _____ DATE: _____
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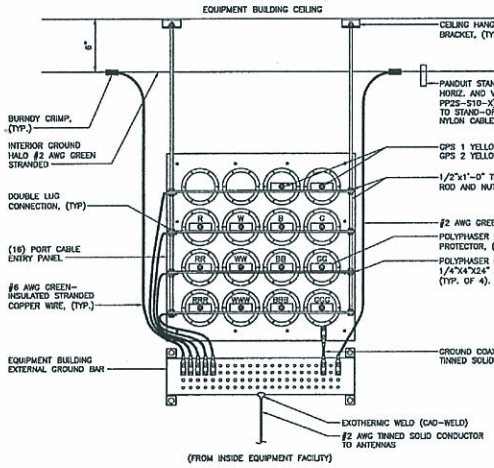
ZONING _____ DATE: _____
QC _____ DATE: _____
NETWORK ENG _____ DATE: _____
OWNER _____ DATE: _____

NEW MILFORD NORTH
CT-3661E
687 KENT ROAD
GAYLORDSVILLE, CT
06755

NEXTEL COMMUNICATIONS
OF THE MID-ATLANTIC, INC
DBA NEXTEL COMMUNICATIONS
100 CORPORATE PLACE
ROCKY HILL, CT 06067
OFFICE: (860) 513-5400
FAX: (860) 513-5444

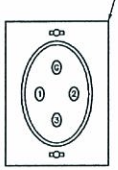
SHEET TITLE
RISER DIAGRAM, NOTES AND DETAILS

SHEET NUMBER
E-2



NOTES:
1. CONTRACTOR SHALL CONNECT GROUND LEADS TO FRONT AND BACK OF MASTER GROUND BAR.
2. CAP UN-USED PORTS WITH MICROFLECT RUBBER BOOT PART #8267 AND CLAMP.

2 POLYPHASER DIAGRAM
E-3 SCALE: N.T.S.



APPLETON AJA20034-RS STYLE 2 (PART NUMBER FOR COMPLETE ASSEMBLY-INCLUDES AJM-SERIES BOX AND ANGLE ADAPTER)

GENERATOR RECEPTACLE, VIEWED FROM OUTSIDE OF SHELTER (LOOKING INTO SLEEVE CONTACTS THAT CORD SET WILL MATE WITH). CABLES EXIT FROM REAR AND CONNECT TO TRANSFER SWITCH.

NOTES:

1. "RS" SUFFIX SPECIFIES "REVERSE SERVICE". THIS MUST BE SPECIFIED FOR BOTH BOX RECEPTACLE AND MATING PLUG FOR GENERATOR CORD SET.

2. IF THE APPROPRIATE MOUNTING BOX AND ANGLE ADAPTER ARE ALREADY INSTALLED, THE BOX RECEPTACLE MAY BE ORDERED SEPARATELY AND INSTALLED IN THE FIELD. BOX RECEPTACLE PART NUMBER: APPLETON ADR20034-RS STYLE 2.

3. WIRING FOR SINGLE-PHASE 120/208/240 VOLT SERVICE IS AS FOLLOWS:

PIN G – GROUND PIN (TOP OF CONNECTOR, NEAR INDEX PIN) – GREEN CONDUCTOR
PIN 1 – RED CONDUCTOR, HOT LEG
PIN 2 – BLACK CONDUCTOR, HOT LEG
PIN 3 – WHITE CONDUCTOR, NEUTRAL

4. CELL SITE RECEPTACLE MOUNTING BOX AND ANGLE ADAPTER IS INTERCHANGEABLE WITH CROUSE-HINDS PARTS LISTED.

APPLETON:	CROUSE-HINDS
AJA520:	AJ58
AJM20:	AJ68
AJA720:	AJ78

1 GENERATOR RECEPTACLE
E-3 SCALE: N.T.S.

ELECTRICAL SPECIFICATIONS

SECTION 16010 "ELECTRICAL REQUIREMENTS"

1.01 SCOPE OF WORK

A. WORK SHALL INCLUDE ALL LABOR, EQUIPMENT AND SERVICES REQUIRED TO COMPLETE (MAKE READY FOR OPERATION) ALL THE ELECTRICAL WORK INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:
   1. PROVIDE A 200A, 120/208/240V, 1 PHASE, 3 WIRE POWER SERVICE.
   2. SECONDARY CABLE TERMINATIONS AND EQUIPMENT PER CONTRACT DRAWINGS.
   3. CELLULAR GROUNDING SYSTEMS, CONSISTING OF EXTERIOR GROUNDING RING, GROUND BARS, GROUND RODS, CHEMICAL GROUNDING ETC..

B. LOCAL UTILITY COMPANIES SHALL PROVIDE THE FOLLOWING:
   1. CUSTOMER METER.
   2. TELEPHONE CABLES (ONLY IF REQUIRED)

C. CONTRACTOR SHALL CONFER WITH LOCAL UTILITY COMPANIES TO ASCERTAIN THE LIMITS OF UTILITY COMPANY WORK AND SHALL INCLUDE IN THE BID ANY CHARGES OR FEES MADE BY THE UTILITY COMPANIES FOR THE UTILITY COMPANY'S PORTIONS OF THE WORK.

1.02 GENERAL REQUIREMENTS

A. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE MADE IN STRICT ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES AND REGULATIONS WHICH MAY APPLY AND NOTHING IN THE DRAWINGS OR SPECIFICATIONS SHALL BE INTERPRETED AS AN INFRINGEMENT OF SUCH CODES OR REGULATIONS.

B. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLETE INSTALLATION AND COORDINATION OF THE ENTIRE ELECTRICAL SERVICE. ALL ACTIVITIES TO BE COORDINATED THROUGH THE NEXTEL CONSTRUCTION MANAGER AND OTHER AUTHORITIES HAVING JURISDICTION OF TRADES.

C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND PAY ALL FEES AS MAY BE REQUIRED FOR THE ELECTRICAL WORK AND FOR SCHEDULING OF ALL INSPECTIONS AS MAY BE REQUIRED BY THE LOCAL AUTHORITY.

D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH LOCAL TELEPHONE COMPANY AS MAY BE REQUIRED FOR THE INSTALLATION OF TELEPHONE SERVICE TO THE CELLULAR SITE.

E. NO MATERIAL OTHER THAN THAT CONTAINED IN THE "LATEST LIST OF ELECTRICAL FITTINGS" APPROVED BY THE UNDERWRITERS' LABORATORIES, SHALL BE USED IN ANY PART OF THE WORK. ALL MATERIAL FOR WHICH LABEL SERVICE HAS BEEN ESTABLISHED SHALL BEAR THE U.L. LABEL.

F. THE CONTRACTOR SHALL GUARANTEE ALL NEW WORK FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE BY THE NEXTEL CONSTRUCTION MANAGER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WARRANTIES FROM ALL EQUIPMENT MANUFACTURERS FOR SUBMISSION TO THE NEXTEL CONSTRUCTION MANAGER.

G. ALL WORK SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER AND WILL BE SUBJECT TO THE APPROVAL OF THE NEXTEL CONSTRUCTION MANAGER.

H. ALL EQUIPMENT AND MATERIALS TO BE INSTALLED SHALL BE NEW, UNLESS OTHERWISE NOTED.

I. BEFORE FINAL PAYMENT, THE CONTRACTOR SHALL PROVIDE THE NEXTEL CONSTRUCTION MANAGER A COMPLETE SET OF PRINTS, LEGIBLY MARKED IN RED PENCIL TO SHOW ALL CHANGES FROM THE ORIGINAL PLANS.

J. SHOP DRAWINGS
   1. CONTRACTOR SHALL SUBMIT SIX (6) COPIES OF SHOP DRAWINGS ON ALL EQUIPMENT AND MATERIALS PROPOSED FOR USE ON THIS PROJECT, GIVING ALL DETAILS, WHICH INCLUDE DIMENSIONS, CAPACITIES, ETC. TO THE NEXTEL CONSTRUCTION MANAGER.
   2. CONTRACTOR SHALL SUBMIT SIX (6) COPIES OF ALL TEST REPORTS CALLED FOR IN THE SPECIFICATIONS AND DRAWINGS TO THE NEXTEL CONSTRUCTION MANAGER.

SECTION 16112 "CONDUIT"

1.01 CONDUIT MATERIAL SHALL BE AS FOLLOWS:

(1) GALVANIZED RIGID CONDUIT (GRC) – FEEDERS EXPOSED TO EXTERIOR & UNDERGROUND CONDUIT SWEEPS.

(2) PVC CONDUIT (SCHED. 40) – SERVICE CONDUITS AND WHERE SHOWN ON GROUNDING DETAILS.

SECTION 16123 "CONDUCTORS"

1.01 ALL CONDUCTORS SHALL BE TYPE THWN (INTERIOR) AND XHHW (EXTERIOR), 75 DEGREE C. 600 VOLT INSULATION, SOFT ANNEALED STRANDED COPPER. #10 AWG AND SMALLER SHALL BE SPLICED USING SOLDERLESS PRESSURE CONNECTORS, ACCEPTABLE. #12 AWG SHALL BE THE MINIMUM SIZE CONDUCTOR FOR LINE VOLTAGE BRANCH CIRCUITS. REFER TO PANEL SCHEDULE FOR BRANCH CIRCUIT CONDUCTOR SIZE(S). CONDUCTORS SHALL BE COLOR CODED FOR CONSISTENT PHASE IDENTIFICATION:

120/208/240V, 1 PHASE, 3 WIRE SYSTEM

PHASE	COLOR
A	BLACK
B	RED
N	CONTINUOUS WHITE
G	CONTINUOUS GREEN

1.02 MINIMUM BENDING RADIUS FOR CONDUCTORS SHALL BE 12 TIMES THE LARGEST DIAMETER OF BRANCH CIRCUIT CONDUCTOR.

SECTION 16450 "GROUNDING"

1.01 ALL NON-CURRENT CARRYING PARTS OF THE ELECTRICAL AND TELEPHONE CONDUIT SYSTEMS SHALL BE MECHANICALLY AND ELECTRICALLY CONNECTED TO PROVIDE AN INDEPENDENT RETURN PATH TO THE EQUIPMENT GROUNDING SOURCES.

1.02 GROUNDING SYSTEM WILL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL INSPECTOR HAVING JURISDICTION.

1.03 ELECTRICAL AC SERVICE GROUNDED SYSTEM – GROUNDING AT MAIN SERVICE OVERCURRENT PROTECTION DEVICE:

A. THE GROUNDED CONDUCTOR (NEUTRAL) OF THE INCOMING SERVICE FEEDERS (LINE SIDE OF METER SOCKET) SHALL TERMINATE INTO THE MAIN OVERCURRENT DEVICE ENCLOSURE SOLID NEUTRAL BAR WHICH IS INSULATED FROM THE ENCLOSURE.

B. THE GROUNDING ELECTRODE CONDUCTOR SHALL EXTEND CONTINUOUSLY WITHOUT SPLICES OR JOINTS FROM THE MAIN OVERCURRENT DEVICES SOLID NEUTRAL BAR TO THE MAIN SWITCHBOARD GROUND TERMINAL.

C. THE MAIN SERVICE OVERCURRENT PROTECTION DEVICE ENCLOSURE'S EQUIPMENT GROUND BAR KIT SHALL BE LUGGED TO THE ENCLOSURE WITH THE SURFACES BETWEEN THEM BARE METAL TO BARE METAL. PROVIDE BONDING JUMPER BETWEEN EQUIPMENT GROUND BAR AND SOLID NEUTRAL. BONDING JUMPER CONDUCTOR SIZE SHALL BE THE SAME AS THE GROUNDING ELECTRODE CONDUCTOR. CONDUITS TERMINATING INTO THE MAIN OVERCURRENT DEVICE ENCLOSURE SHALL HAVE GROUNDING TYPE BUSHINGS. THE BUSHINGS SHALL BE BONDED TOGETHER WITH #10 AWG BARE COPPER WHICH IN TURN IS TERMINATED INTO THE EQUIPMENT GROUND BAR KIT.

1.04 CELLULAR GROUNDING SYSTEM:

PROVIDE THE CELLULAR GROUNDING SYSTEM AS SPECIFIED ON DRAWINGS, INCLUDING, BUT NOT LIMITED TO:

- GROUND RODS
- GROUND BARS
- EXTERIOR GROUNDING RING AND CHEMICAL GROUNDING SYSTEM.
- ANTENNA GROUND CONNECTIONS AND PLATES.

1.05 CONTRACTOR, AFTER COMPLETION OF THE COMPLETE GROUNDING SYSTEM BUT PRIOR TO CONCEALMENT/BURIAL OF SAME, SHALL NOTIFY THE NEXTEL CONSTRUCTION MANAGER AND LOCAL AUTHORITIES HAVING JURISDICTION WHO WILL VISIT SITE AND MAKE A VISUAL INSPECTION OF THE GROUNDING GRID, AND CONNECTIONS OF THE EXTERIOR GROUNDING SYSTEMS AND CHEMICAL GROUNDING SYSTEM.

SECTION 16960 "TESTS BY INDEPENDENT ELECTRICAL TESTING FIRM"

1.01 CONTRACTOR SHALL RETAIN THE SERVICES OF A LOCAL INDEPENDENT ELECTRICAL TESTING FIRM (WITH MINIMUM 5 YEARS COMMERCIAL EXPERIENCE IN THE ELECTRICAL TESTING INDUSTRY) TO PERFORM:

TEST 1: RESISTANCE TO GROUND TEST ON THE CELLULAR GROUNDING SYSTEM AS MEASURED BY THE 3-POINT FALL OF POTENTIAL GROUNDING TEST. THE TEST SHALL BE DONE PRIOR TO THE CONNECTION OF IGR TO NEXTEL EGR, AND CHEMICAL GROUNDING SYSTEM.

TEST 2: THERMAL OVERLOAD AND MAGNETIC TRIP TEST FOR ALL CIRCUIT BREAKERS RATED 100 AMPERES OR GREATER.

TEST 3: CABLE INSULATION TEST FOR ALL CIRCUITS RATED 100 AMPERES OR GREATER.

1.02 THE TESTING FIRM SHALL INCLUDE THE FOLLOWING INFORMATION WITH THE REPORT:

A. TESTING PROCEDURE INCLUDING THE MAKE AND MODEL OF TEST EQUIPMENT.

B. CERTIFICATION OF TESTING EQUIPMENT CALIBRATION WITHIN SIX (6) MONTHS OF DATE OF TESTING, INCLUDE CERTIFICATION LAB ADDRESS AND TELEPHONE NUMBER.

C. GRAPHICAL DESCRIPTION OF TESTING METHOD ACTUALLY IMPLEMENTED.

1.03 THESE TESTS SHALL BE PERFORMED IN THE PRESENCE AND TO THE SATISFACTION OF NEXTEL CONSTRUCTION MANAGER. TESTING DATA SHALL BE INITIALED AND DATED BY THE NEXTEL CONSTRUCTION MANAGER AND INCLUDED WITH THE WRITTEN REPORT/ANALYSIS.

1.04 THE CONTRACTOR SHALL FORWARD SIX (6) COPIES OF THE INDEPENDENT ELECTRICAL TESTING FIRM REPORT/ANALYSIS TO THE NEXTEL CONSTRUCTION MANAGER A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO THE JOB TURNOVER.

1.05 CONTRACTOR TO PROVIDE A MINIMUM OF ONE (1) WEEK NOTICE TO THE NEXTEL CONSTRUCTION MANAGER FOR ALL TESTS REQUIRING WITNESSING.

0 1 2 3
ORIGINAL SIZE IN INCHES

A&E FIRM
URS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CONNECTICUT
1-(860)-529-6882

NEXTEL

STATE OF CONNECTICUT
N. SUBRAMANIAN
LICENSED
PROFESSIONAL ENGINEER

URS PROJECT NUMBER	DRAWN BY
36930094 (CDN 058)	PD

NO.	DATE	ISSUED FOR
A	02.06.06	REVIEW
0	02.17.06	CONSTRUCTION

RELEASE BY	DATE
AA	01.30.06

APPROVALS

CONSTRUCTION _____ DATE: _____
LEASING _____ DATE: _____
RF _____ DATE: _____
ZONING _____ DATE: _____
QC _____ DATE: _____
NETWORK ENG _____ DATE: _____
OWNER _____ DATE: _____

NEW MILFORD NORTH
CT-3661E
687 KENT ROAD
GAYLORDSVILLE, CT
06755

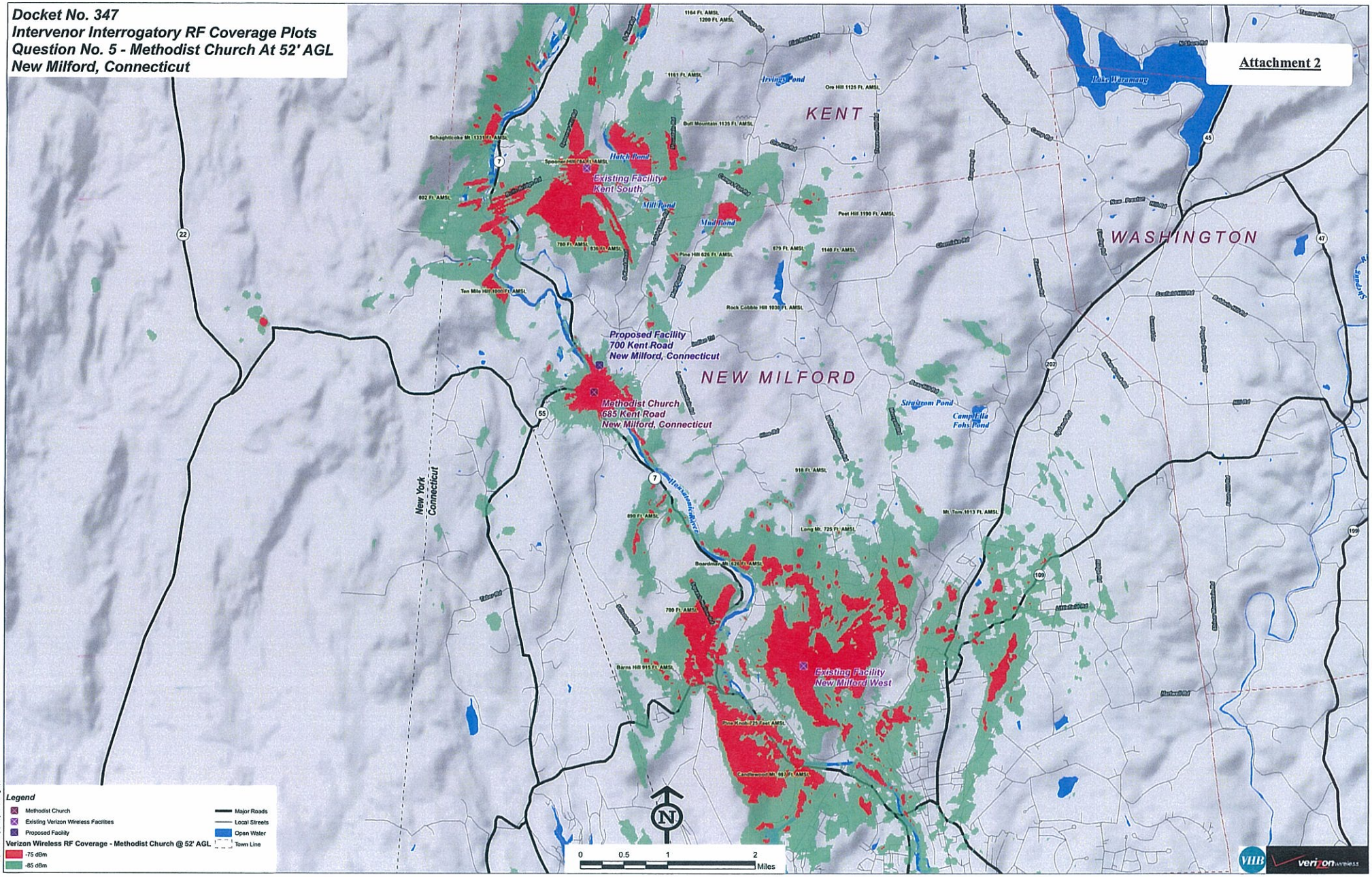
NEXTEL COMMUNICATIONS
OF THE MID-ATLANTIC, INC
DBA NEXTEL COMMUNICATIONS
100 CORPORATE PLACE
ROCKY HILL, CT 06067
OFFICE: (860) 513-5400
FAX: (860) 513-5444

SHEET TITLE
ELECTRICAL SPECIFICATIONS AND DETAILS

SHEET NUMBER
E-3

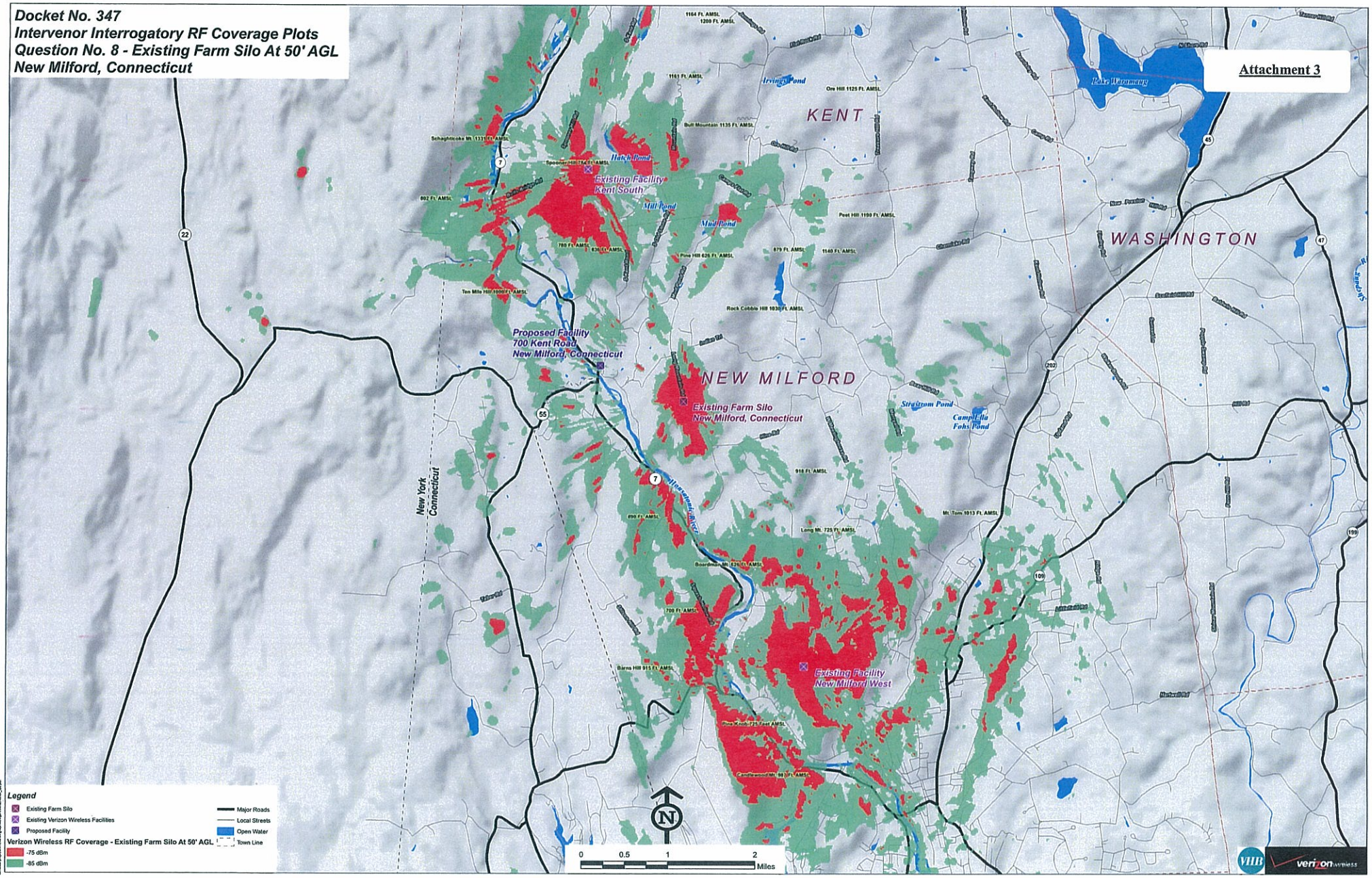
Docket No. 347
Intervenor Interrogatory RF Coverage Plots
Question No. 5 - Methodist Church At 52' AGL
New Milford, Connecticut

Attachment 2



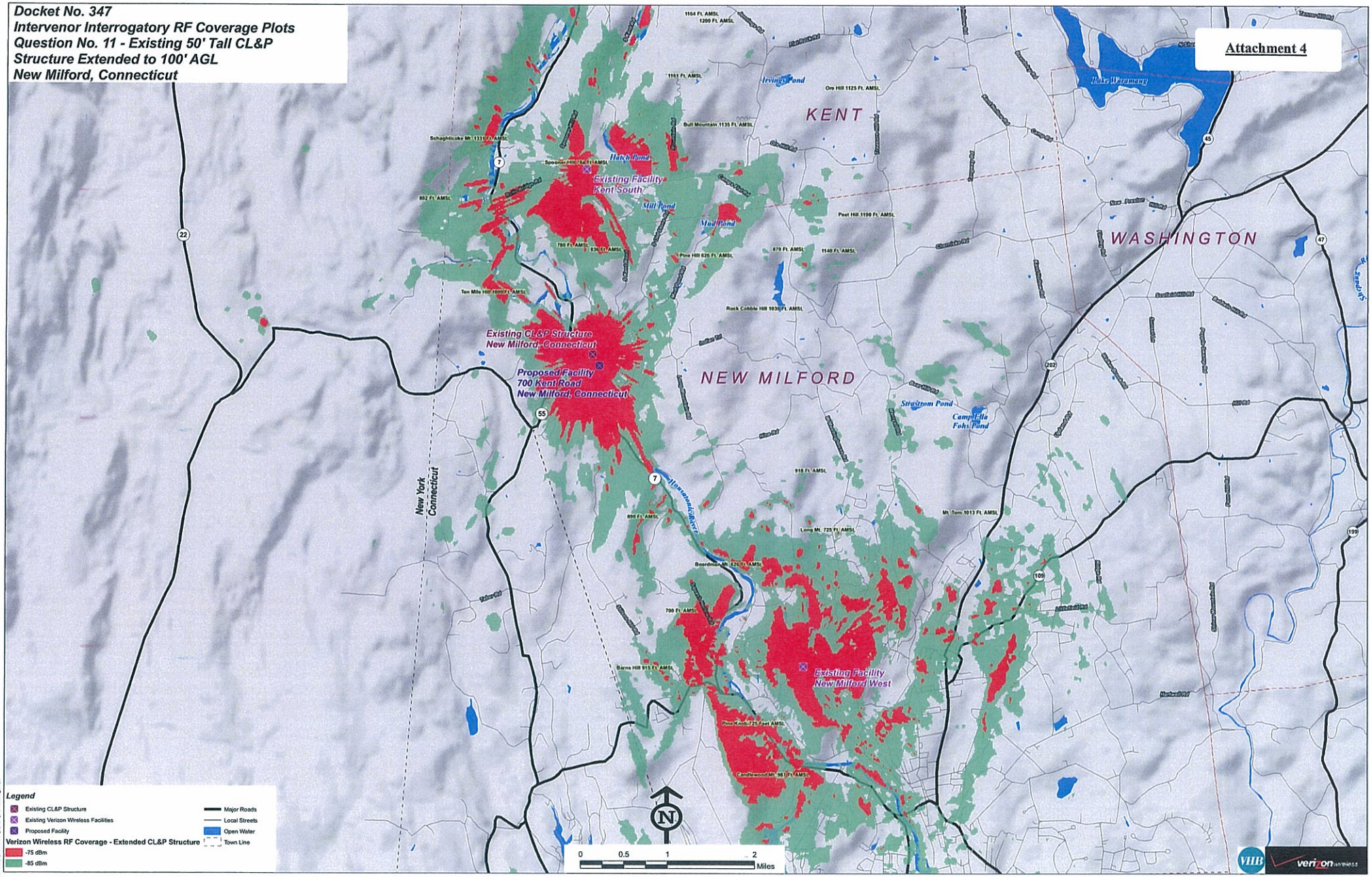
Docket No. 347
Intervenor Interrogatory RF Coverage Plots
Question No. 8 - Existing Farm Silo At 50' AGL
New Milford, Connecticut

Attachment 3



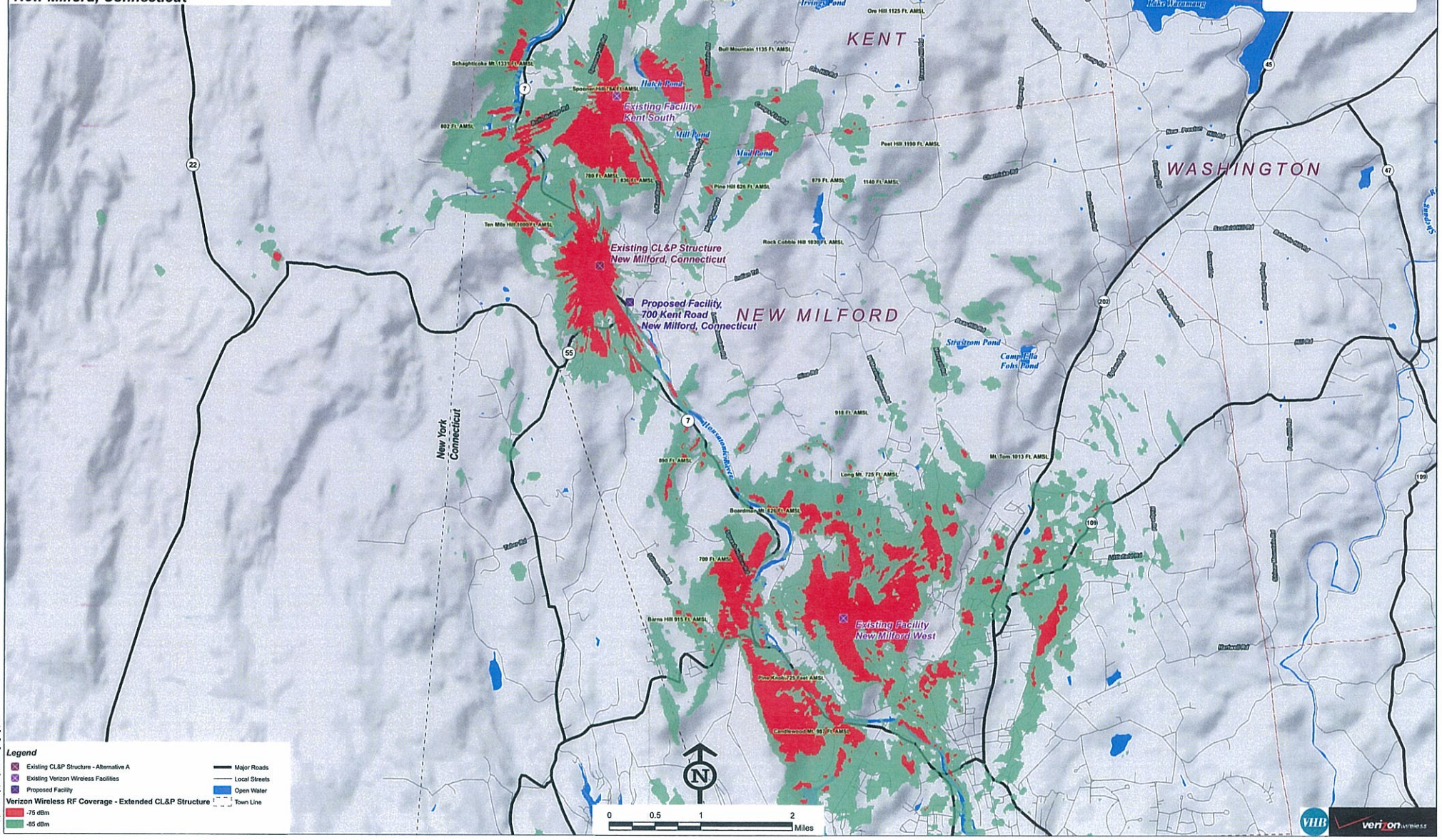
Docket No. 347
Intervenor Interrogatory RF Coverage Plots
Question No. 11 - Existing 50' Tall CL&P Structure Extended to 100' AGL
New Milford, Connecticut

Attachment 4

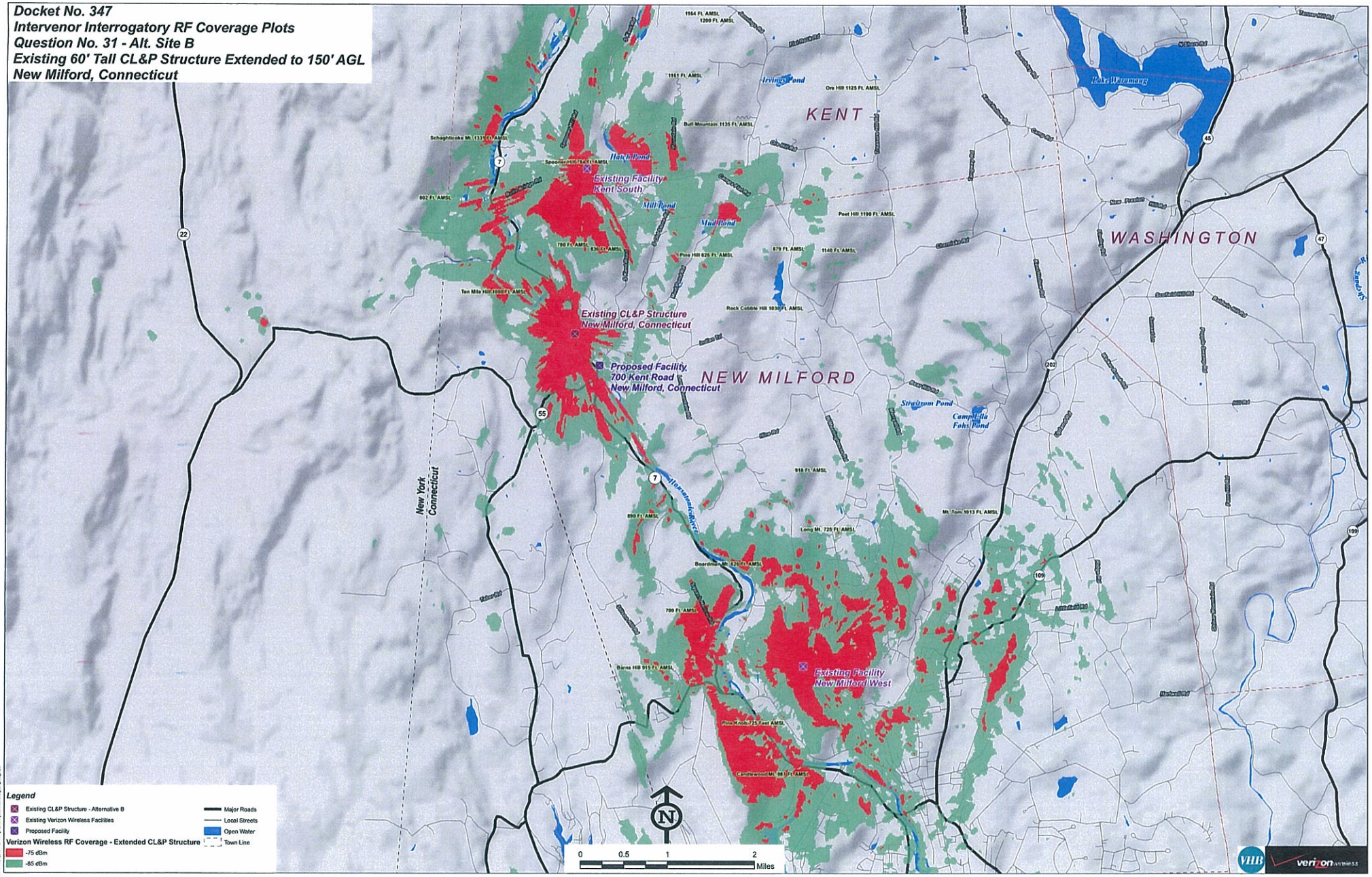


Docket No. 347
Intervenor Interrogatory RF Coverage Plots
Question No. 31 - Alt. Site A
Existing 60' Tall CL&P Structure Extended to 150' AGL
New Milford, Connecticut

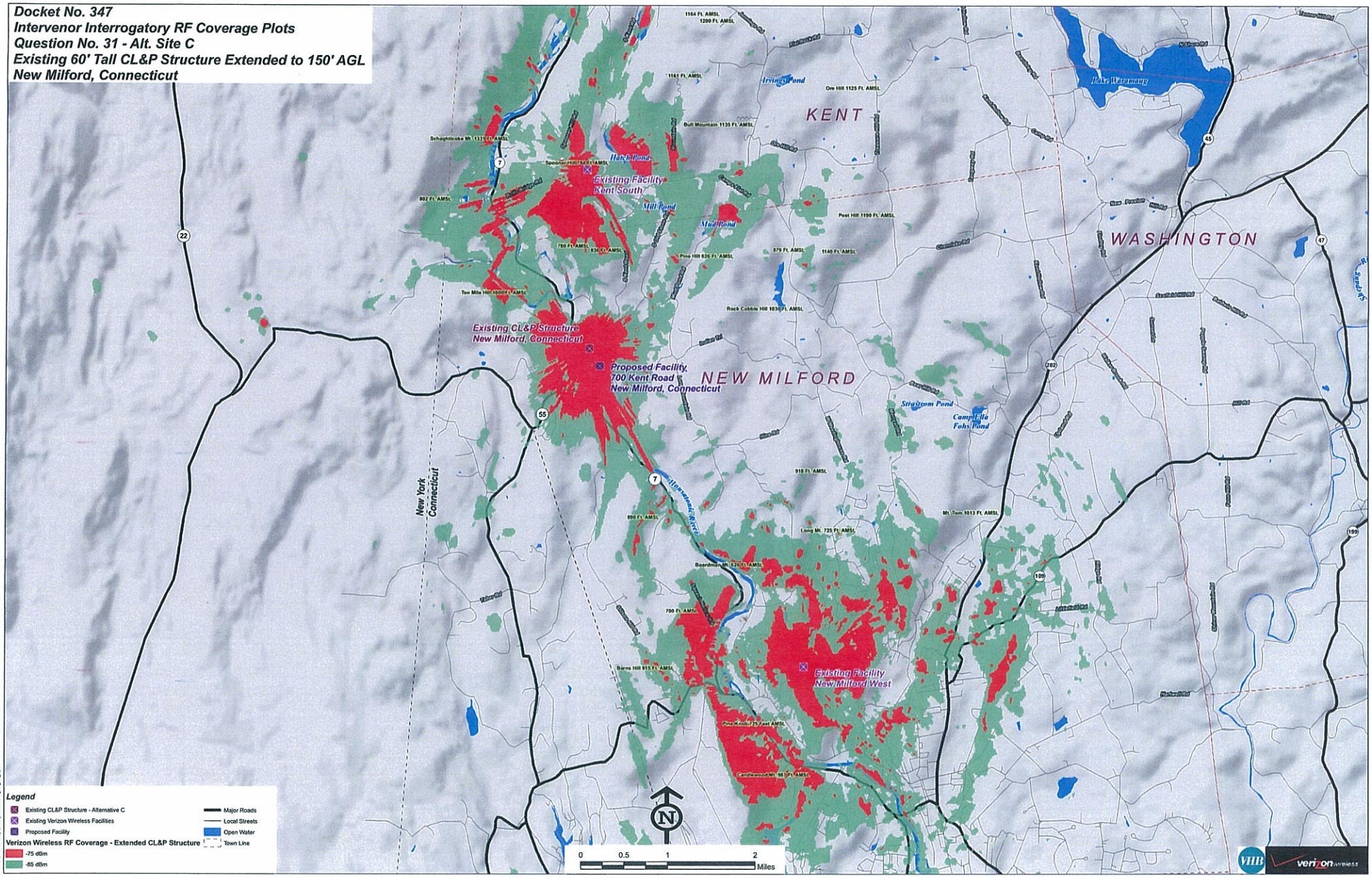
Attachment 5



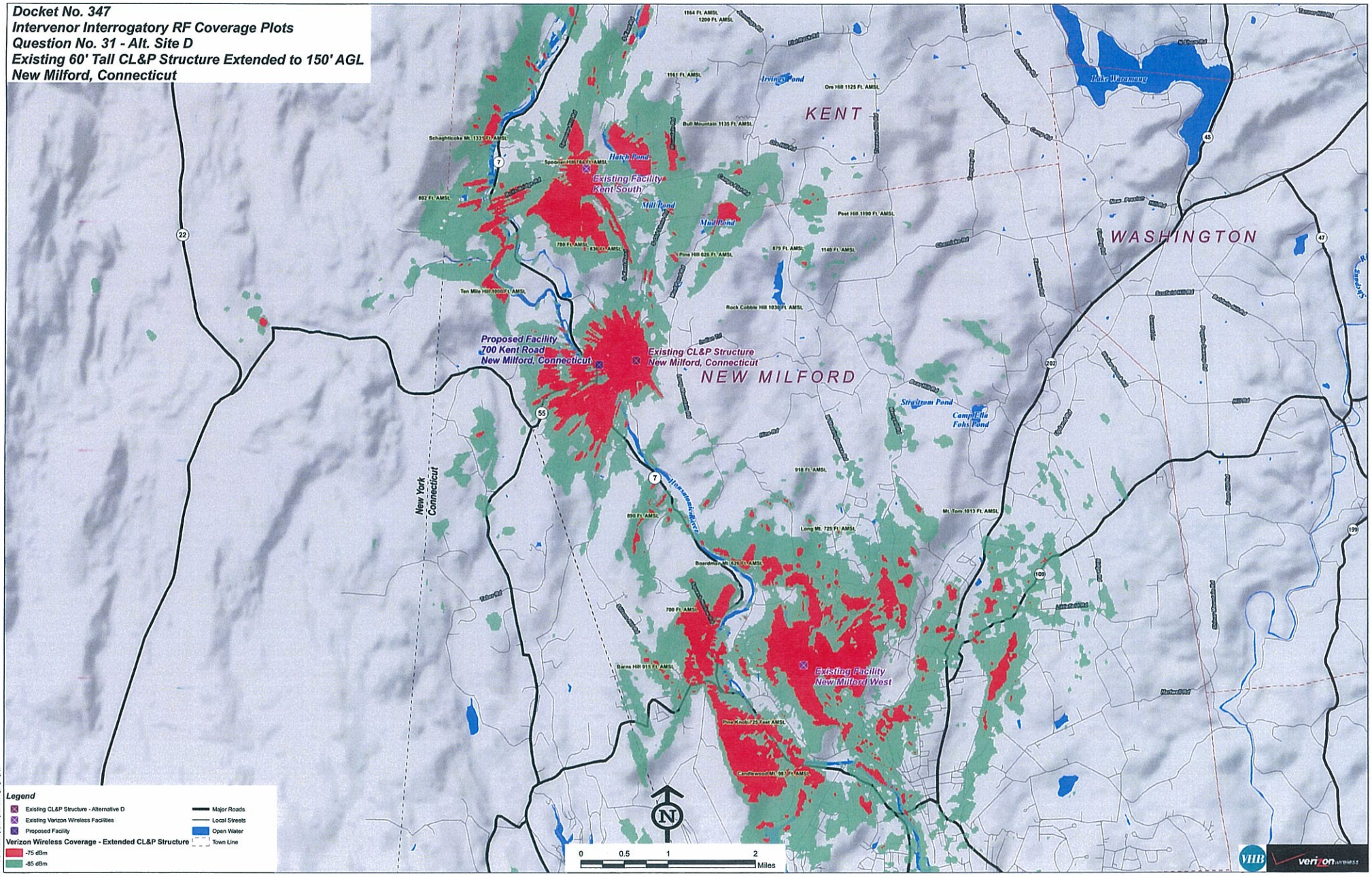
Docket No. 347
Intervenor Interrogatory RF Coverage Plots
Question No. 31 - Alt. Site B
Existing 60' Tall CL&P Structure Extended to 150' AGL
New Milford, Connecticut



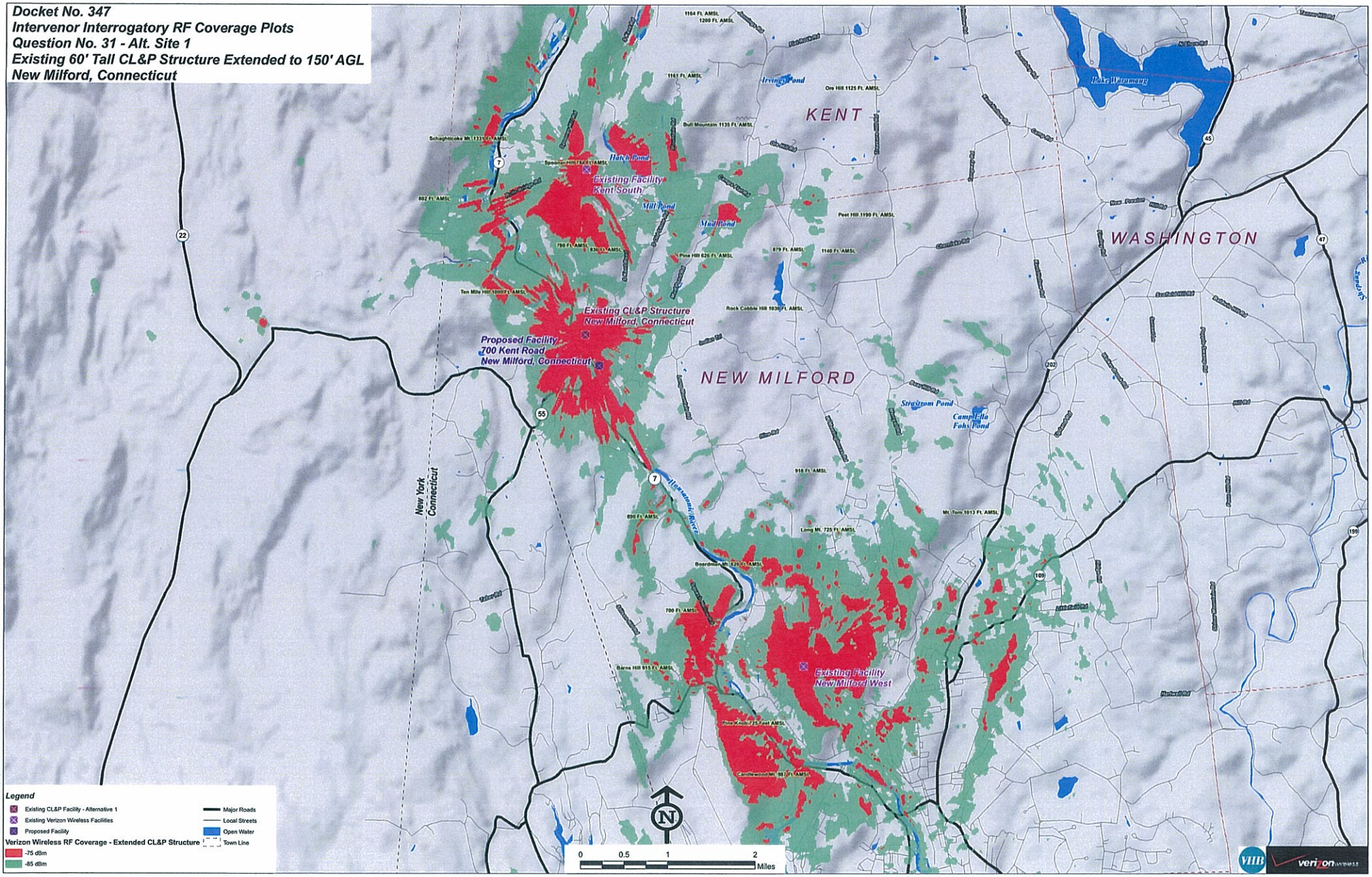
Docket No. 347
Intervenor Interrogatory RF Coverage Plots
Question No. 31 - Alt. Site C
Existing 60' Tall CL&P Structure Extended to 150' AGL
New Milford, Connecticut



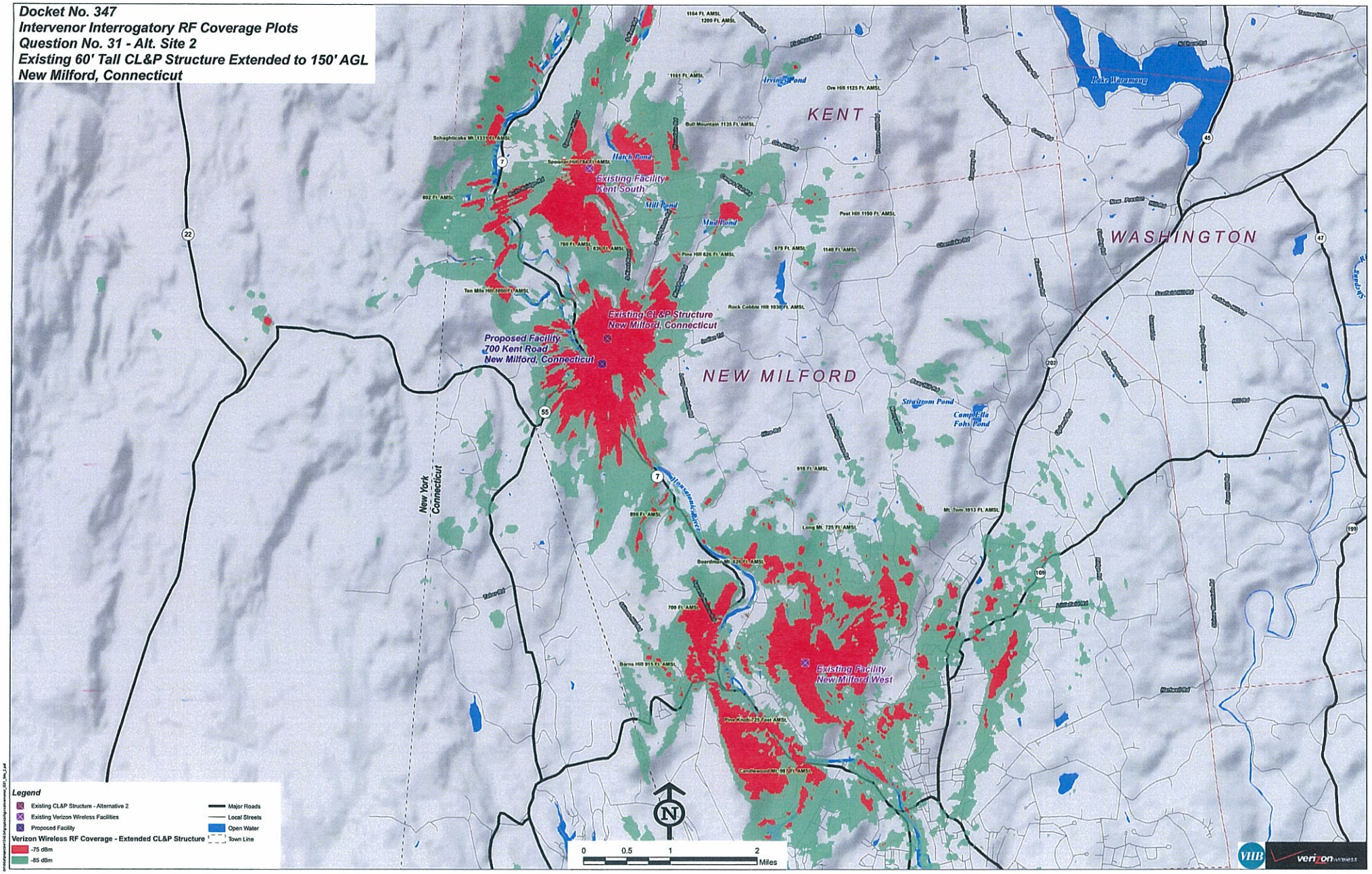
Docket No. 347
Intervenor Interrogatory RF Coverage Plots
Question No. 31 - Alt. Site D
Existing 60' Tall CL&P Structure Extended to 150' AGL
New Milford, Connecticut



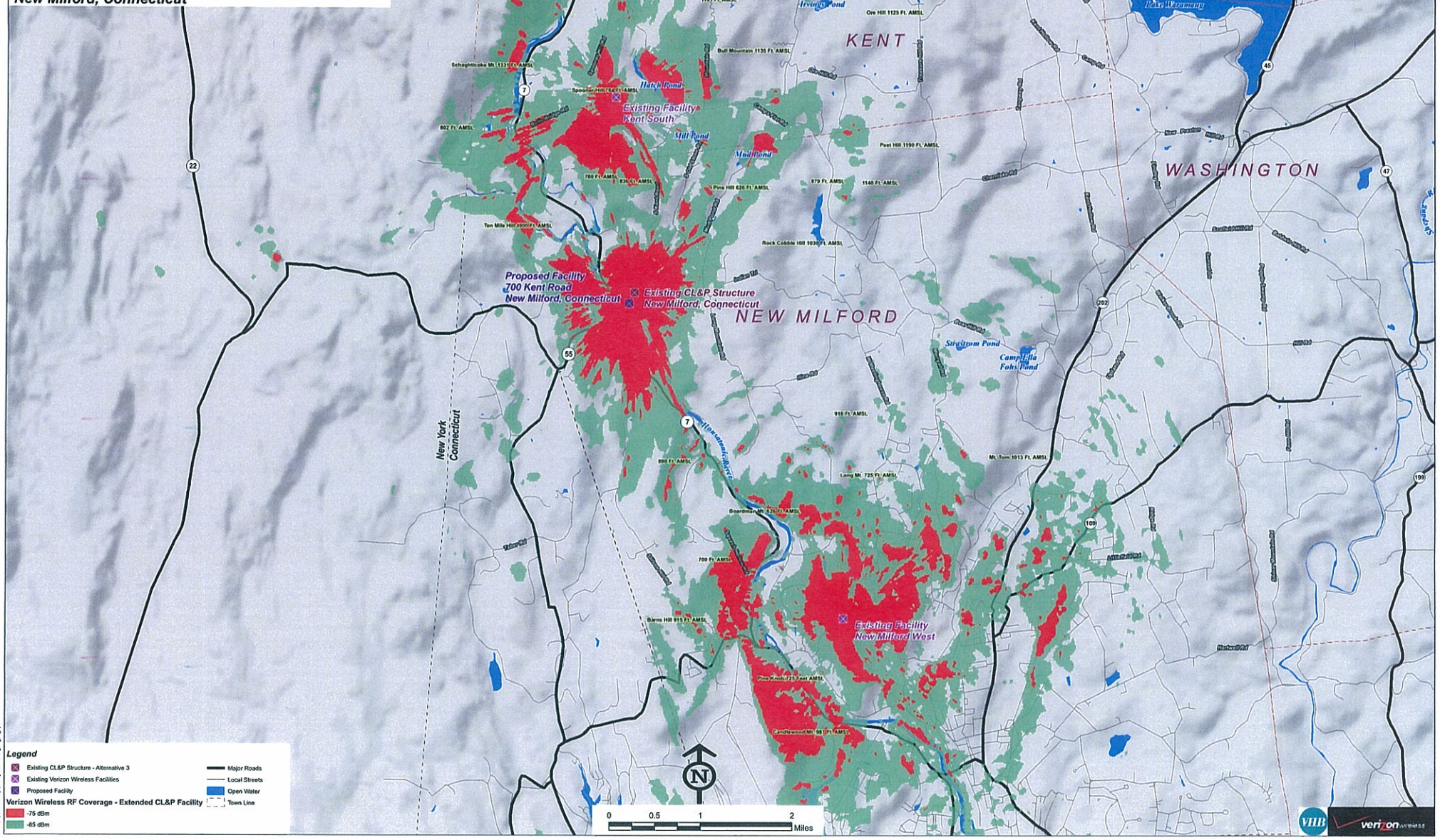
Docket No. 347
Intervenor Interrogatory RF Coverage Plots
Question No. 31 - Alt. Site 1
Existing 60' Tall CL&P Structure Extended to 150' AGL
New Milford, Connecticut



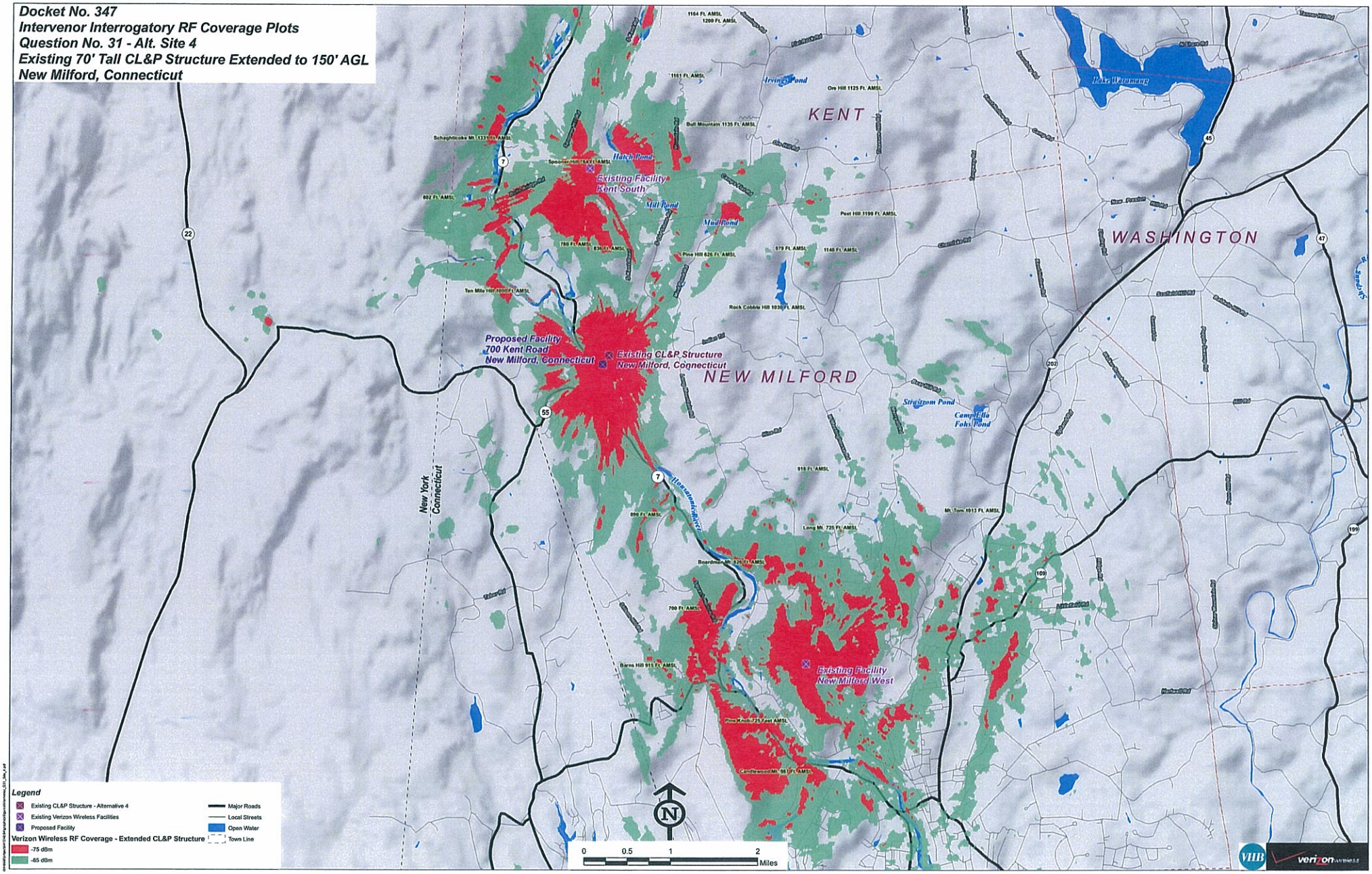
Docket No. 347
Intervenor Interrogatory RF Coverage Plots
Question No. 31 - Alt. Site 2
Existing 60' Tall CL&P Structure Extended to 150' AGL
New Milford, Connecticut



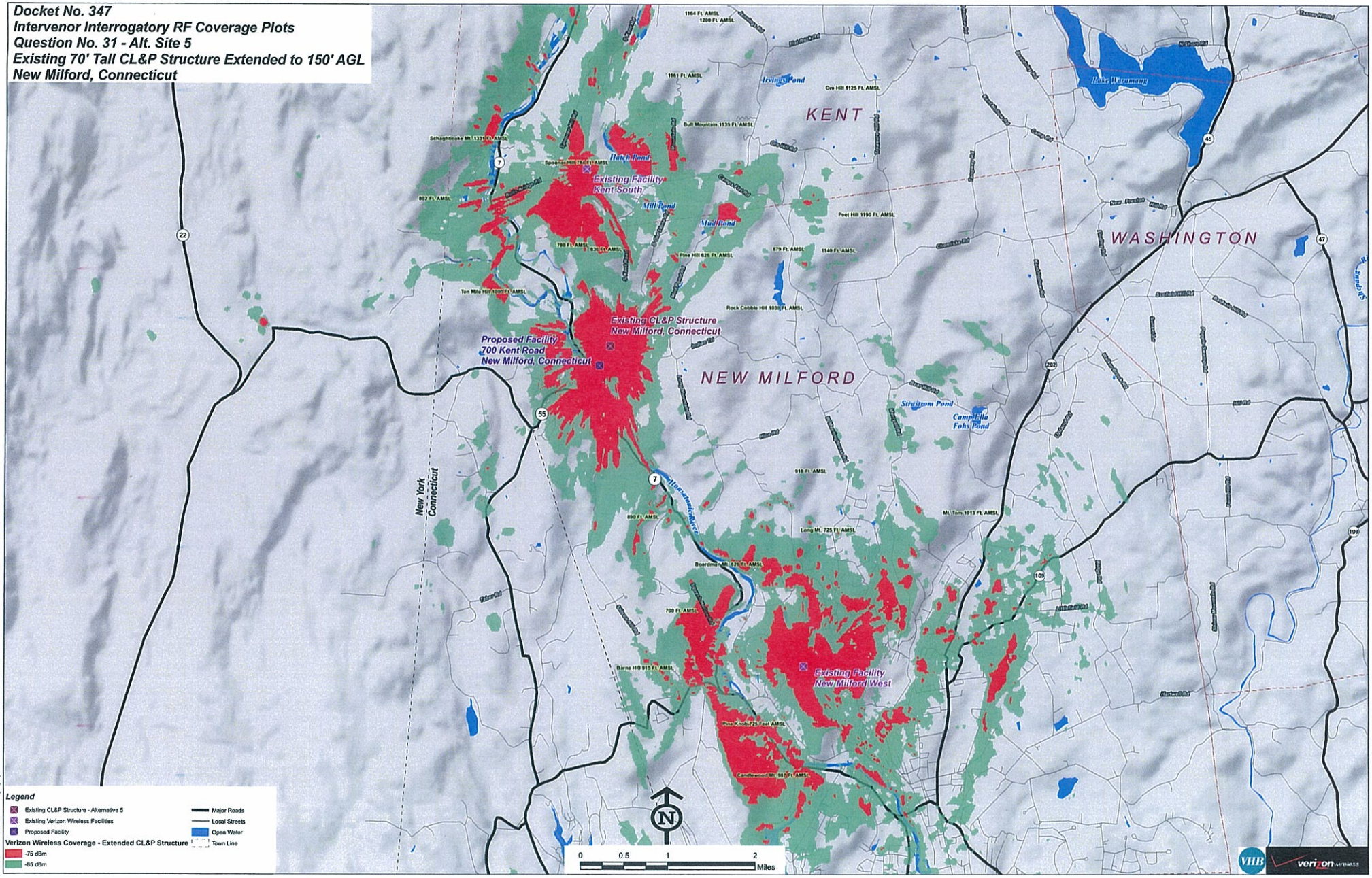
Docket No. 347
Intervenor Interrogatory RF Coverage Plots
Question No. 31 - Alt. Site 3
Existing 40' Tall CL&P Structure Extended to 150' AGL
New Milford, Connecticut



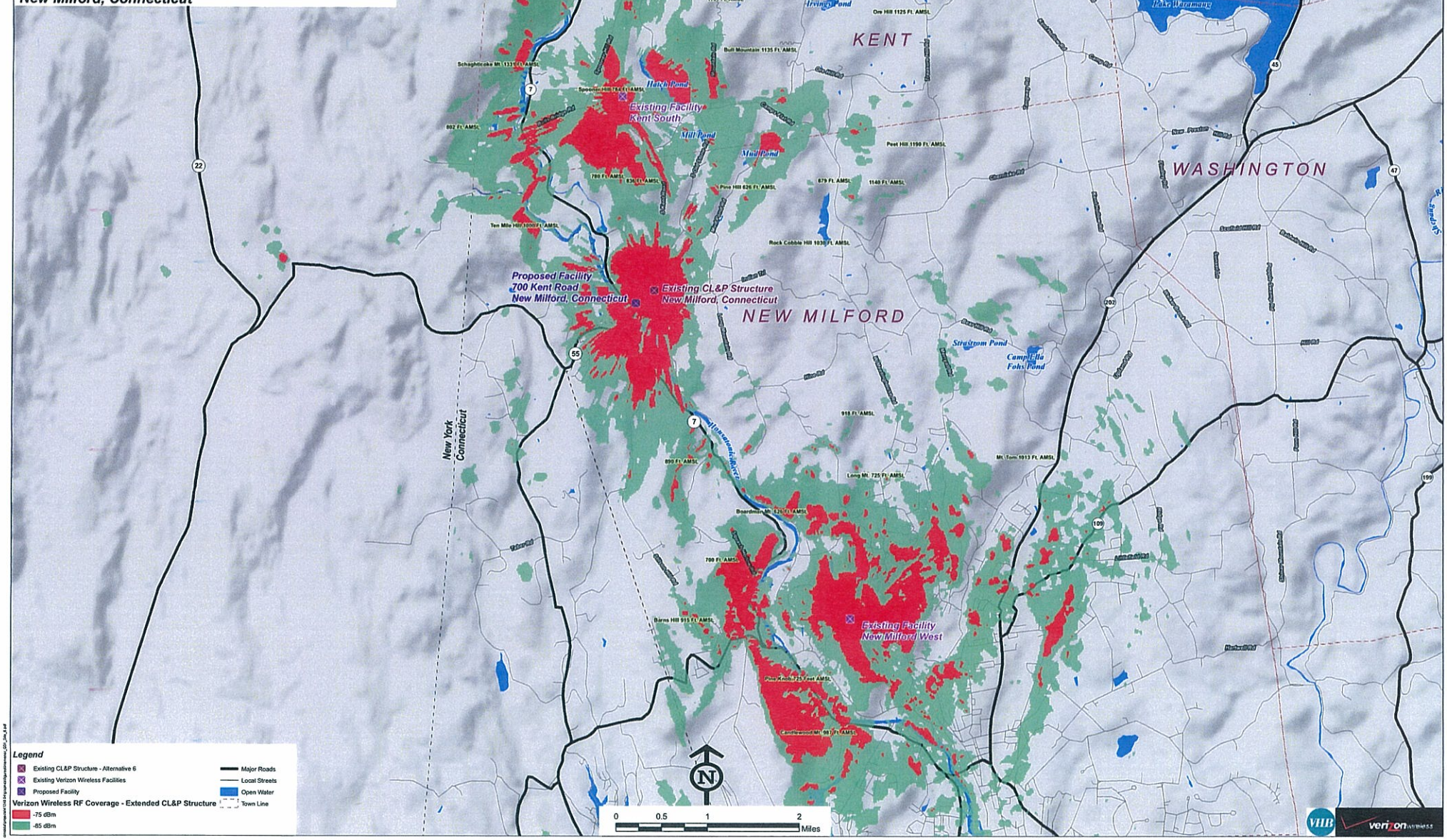
Docket No. 347
Intervenor Interrogatory RF Coverage Plots
Question No. 31 - Alt. Site 4
Existing 70' Tall CL&P Structure Extended to 150' AGL
New Milford, Connecticut



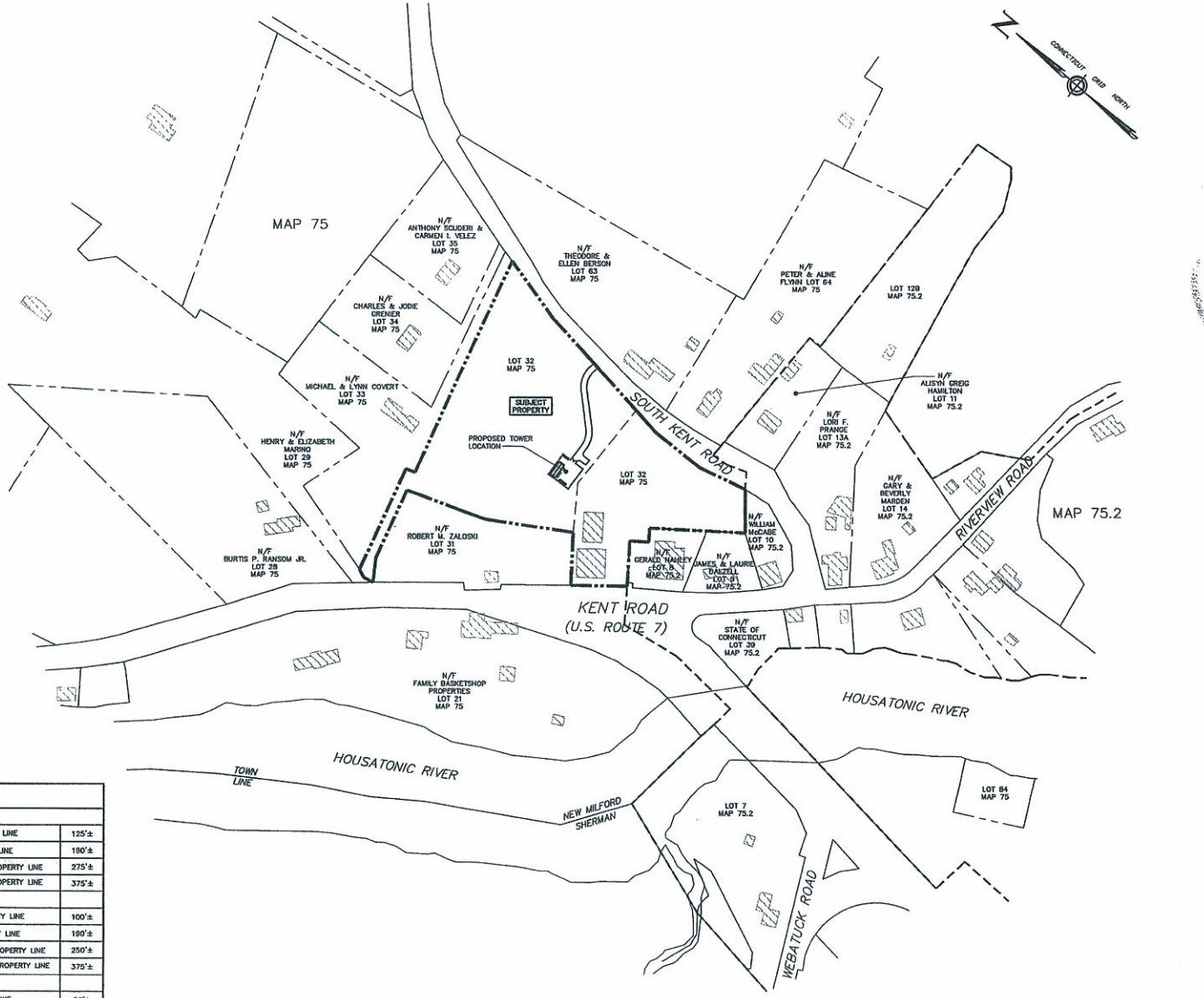
Docket No. 347
Intervenor Interrogatory RF Coverage Plots
Question No. 31 - Alt. Site 5
Existing 70' Tall CL&P Structure Extended to 150' AGL
New Milford, Connecticut



Docket No. 347
Intervenor Interrogatory RF Coverage Plots
Question No. 31 - Alt. Site 6
Existing 70' Tall CL&P Structure Extended to 150' AGL
New Milford, Connecticut



Attachment 6



SETBACK TABLE	
TOWER SETBACKS:	
FRONT YARD TOWER SETBACK TO PROPERTY LINE	125'±
REAR YARD TOWER SETBACK TO PROPERTY LINE	190'±
SIDE YARD TOWER SETBACK TO NORTH PROPERTY LINE	275'±
SIDE YARD TOWER SETBACK TO SOUTH PROPERTY LINE	375'±
EQUIPMENT SHELTER SETBACKS:	
FRONT YARD SHELTER SETBACK TO PROPERTY LINE	100'±
REAR YARD SHELTER SETBACK TO PROPERTY LINE	190'±
SIDE YARD SHELTER SETBACK TO NORTH PROPERTY LINE	250'±
SIDE YARD SHELTER SETBACK TO SOUTH PROPERTY LINE	375'±
PROPANE TANK SETBACKS:	
FRONT YARD TANK SETBACK TO PROPERTY LINE	80'±
REAR YARD TANK SETBACK TO PROPERTY LINE	200'±
SIDE YARD TANK SETBACK TO NORTH PROPERTY LINE	175'±
SIDE YARD TANK SETBACK TO SOUTH PROPERTY LINE	370'±

1 / AB-1 ABUTTERS MAP
SCALE: 1" = 100'-0"

0 25 50 100 200 300

CELLCO PARTNERSHIP DBA verizon wireless

A&E FIRM
URS CORPORATION
500 ENTERPRISE DRIVE
ROCKY HILL, CONNECTICUT
1-(860)-529-8882

STATE OF CONNECTICUT DOUGLAS H. SCHEM LICENSED ARCHITECT

PROJECT NO:	36930980
JOB NO:	VZ1-164/F03
DRAWN BY:	KAP
CHECKED BY:	

ISSUED FOR		
0	08-22-06	SITING COUNCIL
1	09-08-06	SITING COUNCIL
2	05-18-07	SITING COUNCIL
3	08-27-07	SITING COUNCIL
4	08-30-07	SITING COUNCIL
5	12-11-07	SITING COUNCIL

NEW MILFORD NORTHWEST

700 KENT ROAD/
15 SOUTH KENT ROAD
NEW MILFORD, CT

SCALE: AS NOTED

ABUTTERS MAP

AB-1

Docket No. 347
Intervenor Interrogatory RF Coverage Plots
Question No. 34 - Proposed Facility At 120' AGL
New Milford, Connecticut

Attachment 7