STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@po.state.ct.us
Web Site: www.state.ct.us/csc/index.htm

November 4, 2003

Michael P. Murphy
T-Mobile, USA - CT Real Estate Manager
76 Progress Drive
Stamford, CT 06902

RE: **EM-T-MOBILE-085-031008** - T-Mobile USA, Inc. notice of intent to modify an existing telecommunications facility located at 1430 Monroe Turnpike, Monroe, Connecticut.

Dear Mr. Murphy:

At a public meeting held on October 29, 2003, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated October 8, 2003. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,

PBK/laf

Pamela B. Katz, P.E.
Chairman

PBK/laf

c: Honorable Andrew J. Nunn, First Selectman, Town of Monroe
Daniel A. Tuba, Planning Administrator, Town of Monroe
Tom Nolan, Connecticut Architectural Towers LLC
Christopher B. Fisher, Esq., Cuddy & Feder LLP

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T-Mobile®

October 8, 2003

Pamela B. Katz, Chairperson
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Our No.: CT11-838

Dear Ms. Katz:

Enclosed please find:

1. One (1) original and twenty (20) copies of T-Mobile USA, Inc.'s Notice of Exempt Modification for an Existing Wireless Telecommunications Tower Facility Located in Monroe, Connecticut.

2. T-Mobile's application fee in the amount of $500.00.

Please feel to call me at (203) 328-8900 with any questions you may have concerning this application. Thank you for your consideration in this matter.

Very truly yours,

Michael P. Murphy
Real Estate Manager

T-Mobile USA, Inc.
76 Progress Drive 2nd Floor
Stamford, CT 06902

T-Mobile®

October 8, 2003

Pamela B. Katz, Chairperson
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Re: Notice of Exempt Modification for an Existing Wireless Telecommunications Tower Facility Located in Monroe, Connecticut.

Our No.: CT11-838

Dear Ms. Katz:

T-Mobile USA, Inc., also known as Omnipoint ("T-Mobile"), intends to install telecommunications antennas and associated equipment on an existing multicarrier telecommunications tower located at 1430 Monroe Turnpike, Monroe, Connecticut. Please accept this letter as notification to the Connecticut Siting Council ("Council"), pursuant to R.C.S.A. Section 16-50j-72(b)(2).

In compliance with R.C.S.A. Section 16-50j-73, a copy of this notice is being sent to the First Selectman of the Town of Monroe.

The Monroe facility is owned and operated by Connecticut Architectural Towers LLC ("CAT") with offices at 523 Pepper Street, Monroe, Connecticut 06468. The facility is located on the Marion Heights complex at coordinates N 73 degrees, 11 minutes, 11 seconds and W 41 degrees, 22 minutes, 35 seconds.

CAT and T-Mobile have entered into an agreement concerning the modification and sharing of the Monroe facility. CAT has previously entered into agreements with AT&T and Sprint. AT&T and Sprint have already installed antennas on the Monroe facility.

T-Mobile is licensed by the Federal Communication Commission (FCC) to provide wireless telephone service in the State of Connecticut, including the Town of Monroe. CAT has authorized T-Mobile to apply for all necessary permits, approvals and authorizations, which may be required for the proposed modifications of the Monroe facility.

Attached to this notice are site maps (Exhibit A), proposed design drawings (Exhibit B), and information concerning the structural carrying capacity of the tower (Exhibit C). The structural data demonstrate that the existing monopole is capable of supporting the T-Mobile antennas in addition to other planned and /or approved antennas.

T-Mobile USA, Inc.
76 Progress Drive 2nd Floor
Stamford, CT 06902

The Monroe facility consists of a 160-foot monopole tower with a fenced equipment compound.

As shown on the attached drawings and as further described below, T-Mobile proposes to install up to twelve panel antennas on a triangle antenna platform with the center of radiation at 140 feet above ground level ("AGL").

The changes to the Monroe tower facility do not constitute a modification as defined in Connecticut General Statutes (C.G.S.) Section 16-50i(d) because the general physical characteristics of the facility will not be significantly changed or altered. Rather, the planned changes to the facility fall squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b)(2) because they will not result in any substantial adverse environmental effect as follows:

1. The height of the overall structure will be unaffected.

2. The proposed changes will not affect the property boundaries. All new construction will take place within the existing fenced compound.

3. The proposed additions will not increase will not increase the noise level at the existing facility by six decibels or more. Except for noise resulting from construction, the only additional sound will be from equipment cooling systems.

4. The proposed antennas will not operate with a total radio frequency electromagnetic radiation power density, measured at the tower base, at or above the standard adopted by the State of Connecticut and the FCC. The "worst-case " exposure calculation in accordance with FCC OET bulletin #65 (1997) for a point of interest at the base of the tower in relation to the operation of the currently proposed antennas array is as follows:

Owner of Antennas	Centerline Height (feet)	Frequency (MHz)	Power Density (mW/cm2)	Standard Limits (mW/cm2)	Percent of Limit
AT&T	157	1945.0	0.000290*	1.00	.03%
Sprint	150	1962.5	0.061889*	1.00	6.19%
T-Mobile	140	1935.0	0.049514	1.00	4.9514%
TOTAL					11.1714%

*Power density taken from Sprint's application to the Council.

As the table demonstrates, the cumulative "worst-case" exposure would be 11.1714% of the ANSI/IEEE standard, as calculated for mixed frequency sites. Total power density levels from T-Mobile's use of the tower facility would thus be well within applicable standards.

For the foregoing reasons, T-Mobile respectfully submits that proposed changes to implement expanded shared use at the Monroe site constitute an exempt modification under R.C.S.A. Section 16-50j-72(b)(2).

Please feel to call me at (203) 328-8900 with any questions you may have concerning this application. Thank you for your consideration in this matter.

Very truly yours,

Michael P. Murphy
Real Estate Manager

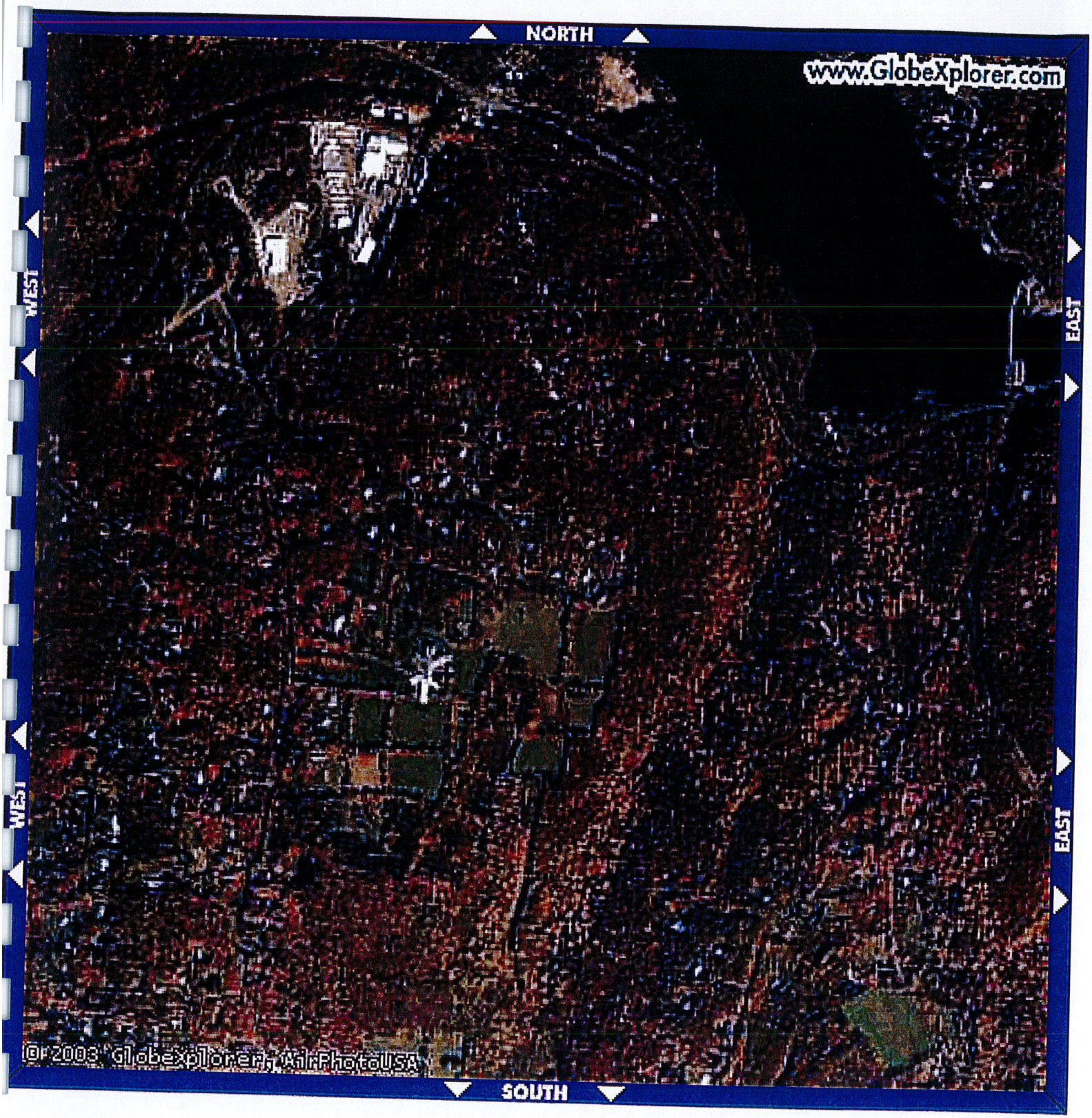
Exhibits

cc: Honorable Andrew Nunn , First Selectman, Town of Monroe

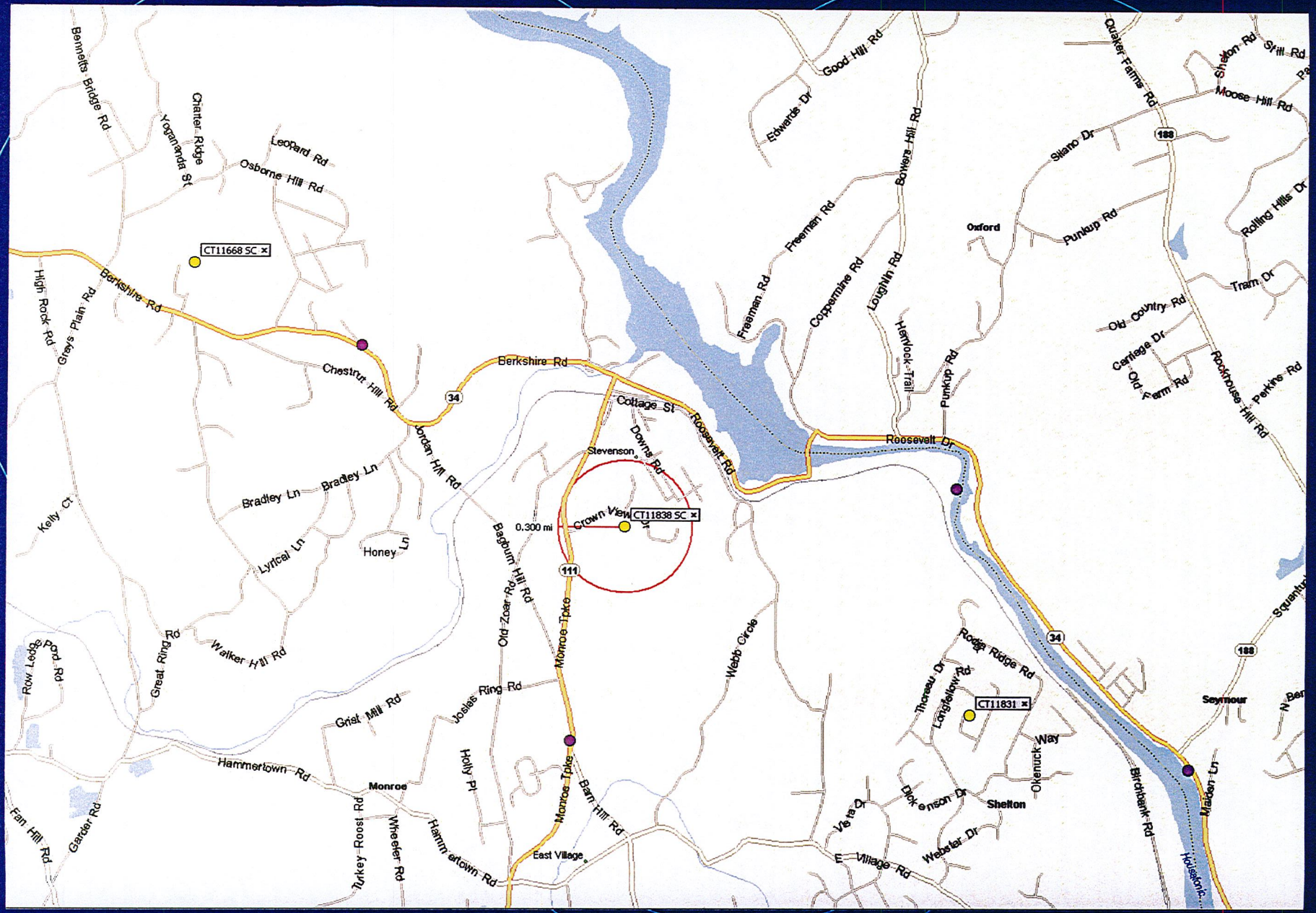
EXHIBIT A

SITE MAPS

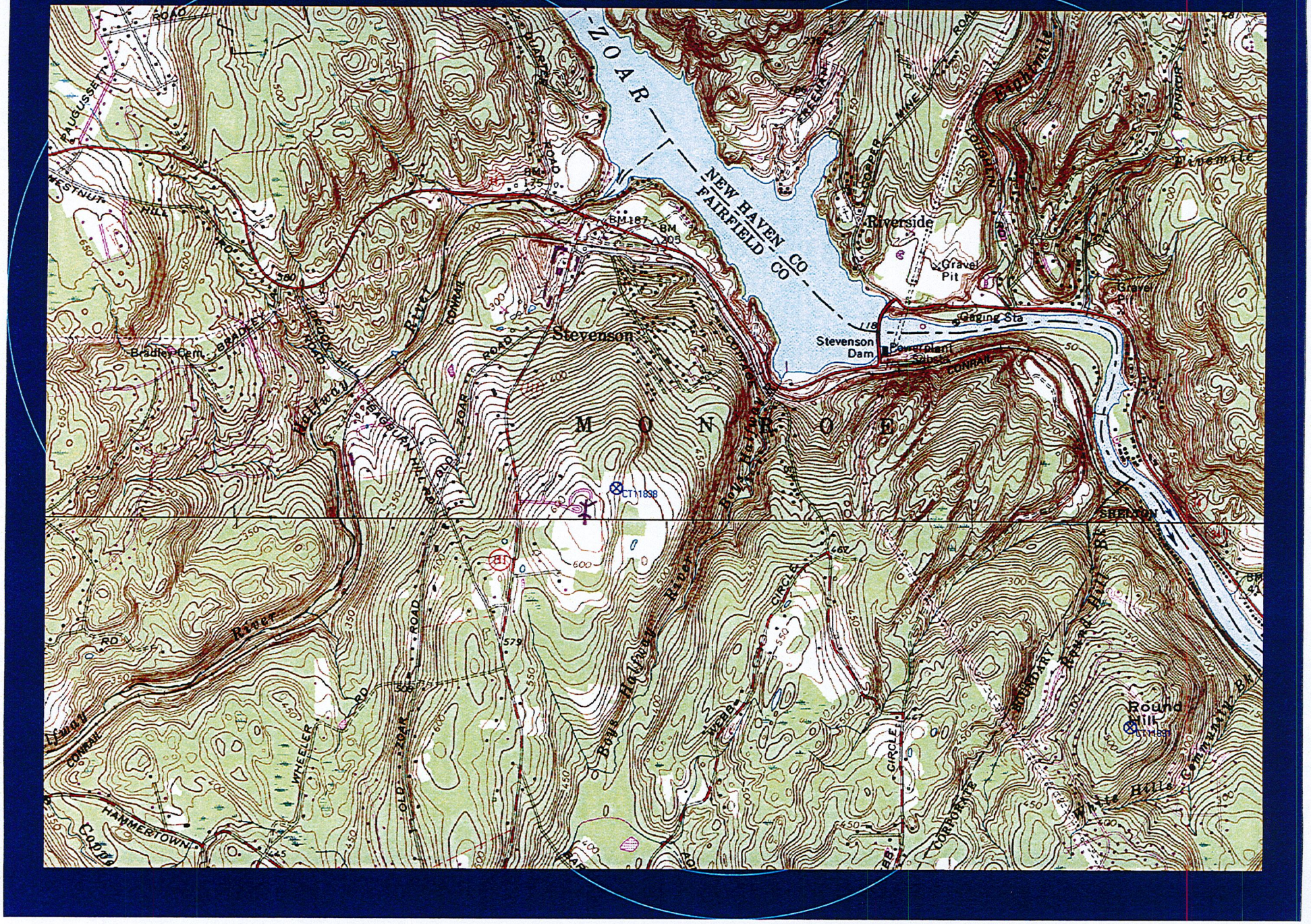
CT11-838
1430 Monroe Turnpike, Monroe


NORTH
www.GlobeXplorer.com
WEST
EAST
WEST
EAST
SOUTH
©2003 GlobeXplorer, AirPhotoUSA

CT11838 – Street Map



CT11838 – Terrain



CT11838 – Terrain - 3D

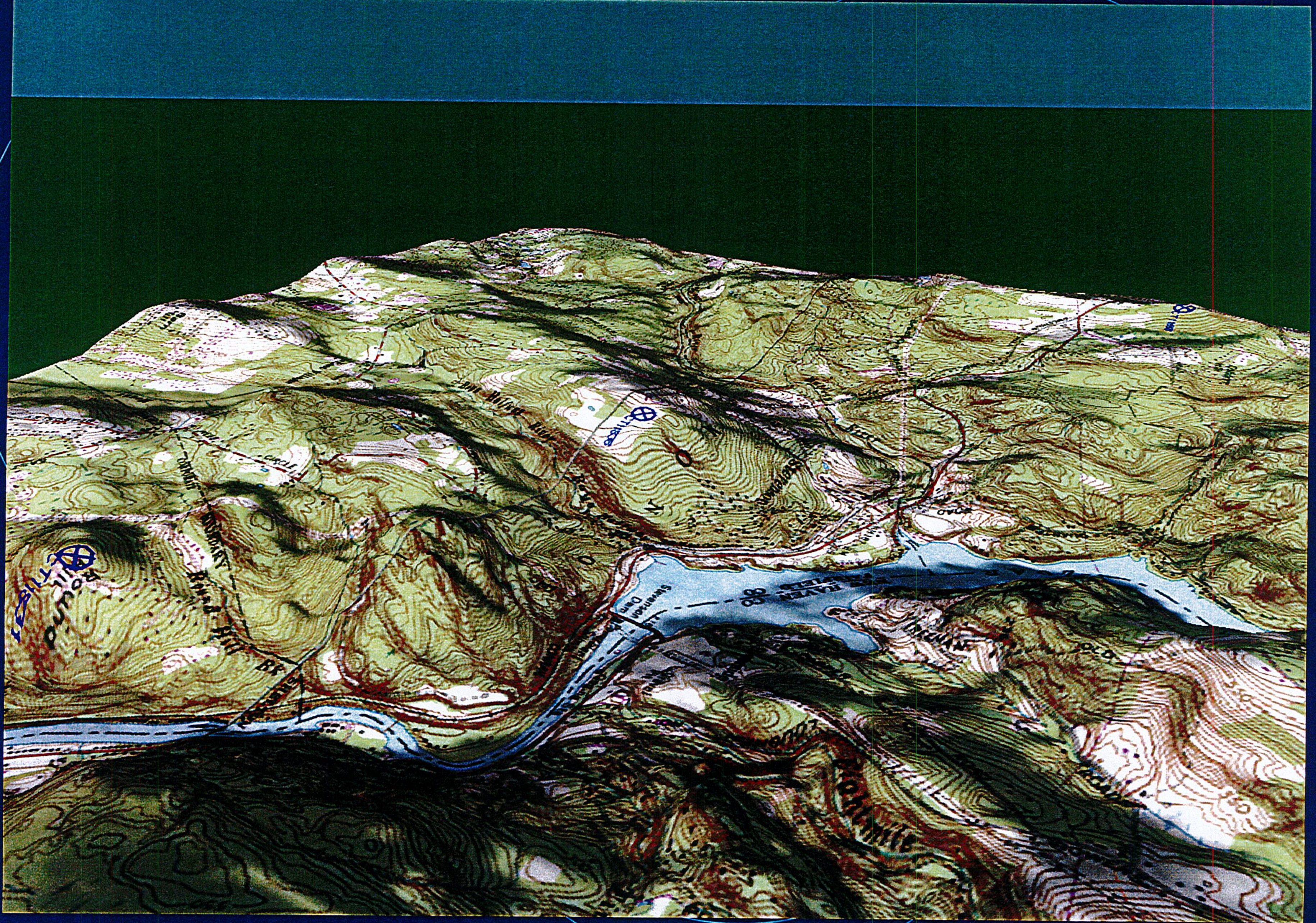
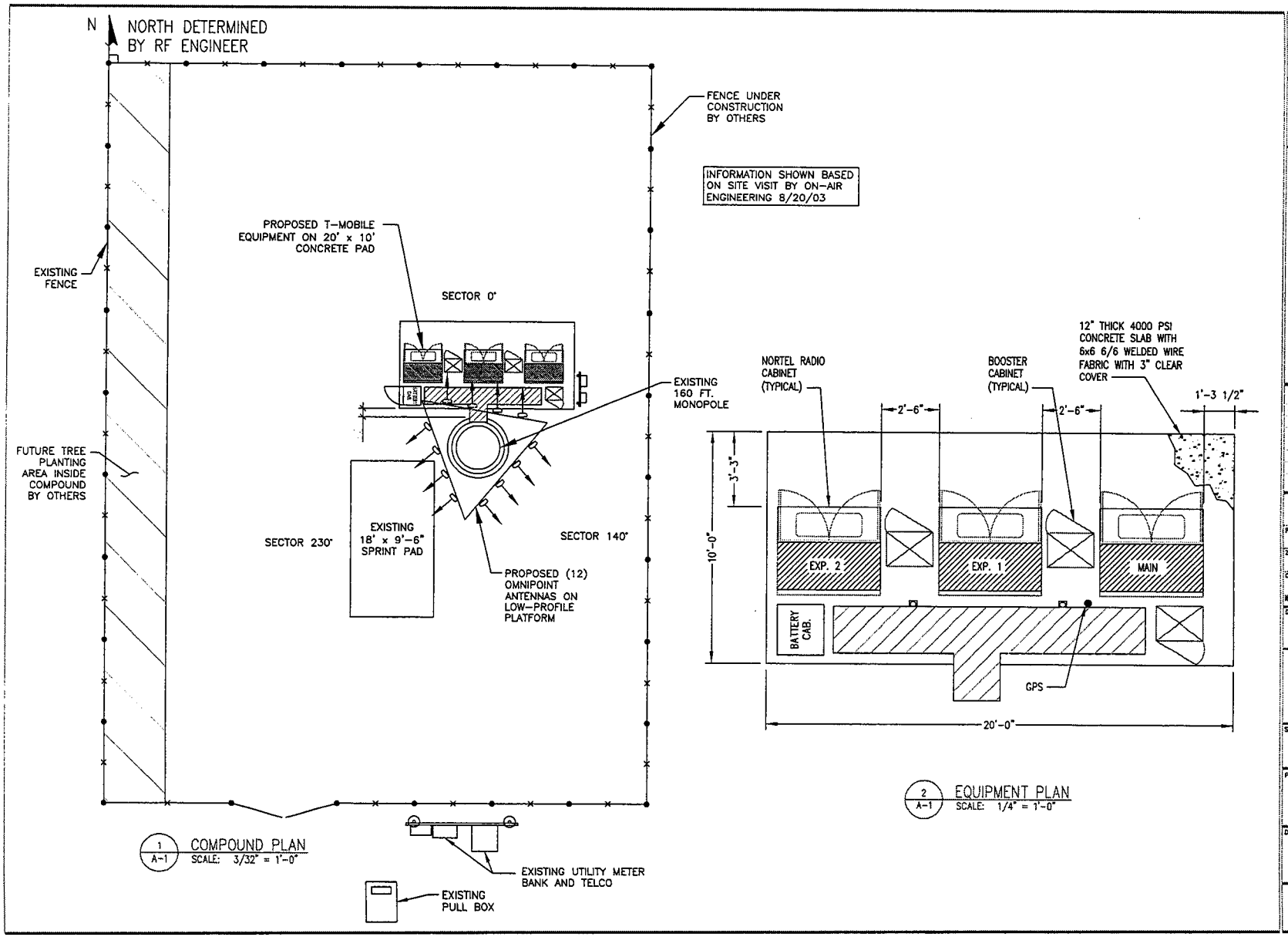


EXHIBIT B

DESIGN DRAWINGS

CT11-838
1430 Monroe Turnpike, Monroe



OMNIPOINT FACILITIES NETWORK 2, LLC
STAMFORD, CT 06902
203-328-8900

On Air Engineering
201 WALNUT STREET
TWP. OF WASHINGTON, NJ 07676
OFFICE: (201) 358-9541
FAX: (201) 358-9542

LICENSURE

DAVID A. WEINPAHL
CT LIC. NO. 22144

NO.:	DATE:	SUBMISSIONS
1	9-12-03	OMNIPOINT REVIEW

APPROVALS:

	DATE
PROPERTY OWNER	
ZONING	
CONSTRUCTION	
RF ENGINEER	

DRAWN BY:	CHECKED BY:
JI	DW

SITE#
CT-11-838-A

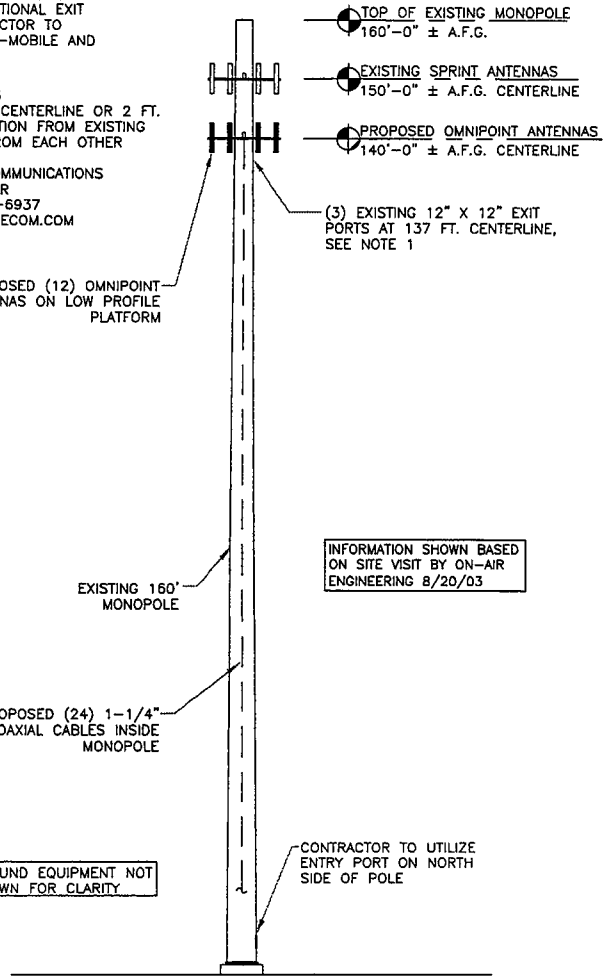
PROJECT INFORMATION:
CT ARCHITECTURAL TOWERS
1428 MONROE TURNPIKE
MONROE, CT

DRAWING TITLE:
COMPOUND & EQUIPMENT PLAN

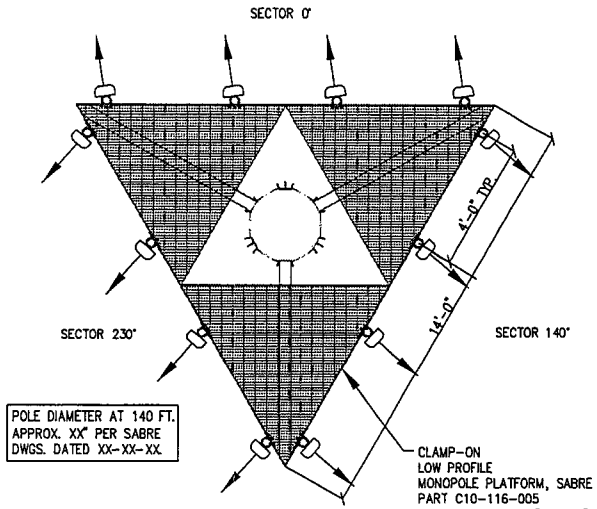
A-1

NOTES:

1. CONTRACTOR TO VERIFY EXISTING (3) EXIT PORTS ABLE TO ACCOMODATE (24) 1-1/4" COAX CABLES. IF ADDITIONAL EXIT PORTS ARE REQUIRED, CONTRACTOR TO PROVIDE SEPARATE COST TO T-MOBILE AND INSTALL AS FOLLOWS:
   - A. SIZE: 12" X 6"
   - B. QUANTITY: MAXIMUM 3
   - C. LOCATION: 142 FEET CENTERLINE OR 2 FT. CLEAR VERTICAL SEPERATION FROM EXISTING
   - D. ORIENTATION: 120° FROM EACH OTHER
   - E. PART #: C30138001
   - F. CONTACT: SABRE COMMUNICATIONS
     RUSS LEHR
     866-428-6937
     WWW.SABRECOM.COM



1 / A-2 ELEVATION
SCALE: 1"=20'-0"



2 / A-2 ANTENNA MOUNT PLAN
SCALE: 1/4" = 1'-0"

OMNIPOINT FACILITIES NETWORK 2, LLC
76 PROGRESS DRIVE, 2ND FLOOR
STAMFORD, CT 06902
203-328-8900

On Air Engineering
201 WALNUT STREET
TWP. OF WASHINGTON, NJ 07676
OFFICE: (201) 358-9541
FAX: (201) 358-9542

LICENSURE

DAVID A. WEINPAHL
CT LIC. NO. 22144

NO.:	DATE:	SUBMISSIONS
1	9-12-03	CLIENT REVIEW

APPROVALS:

PROPERTY OWNER	DATE
ZONING	DATE
CONSTRUCTION	DATE
R.F. ENGINEER	DATE

DRAWN BY:	CHECKED BY:
JI	DW

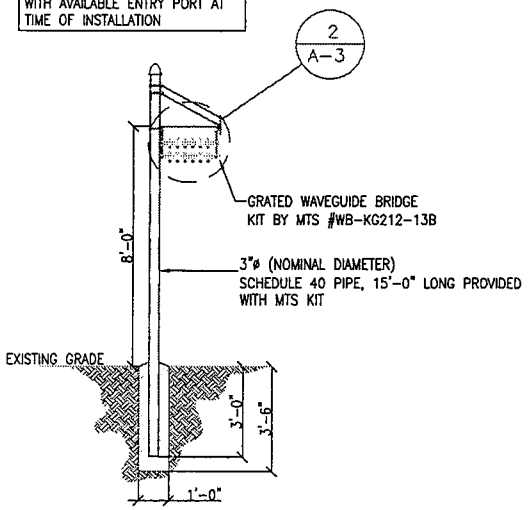
SITE#
CT-11-838-A

PROJECT INFORMATION:
CT ARCHITECTURAL TOWERS
1428 MONROE TURNPIKE
MONROE, CT

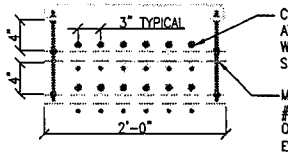
DRAWING TITLE:
ELEVATION & ANTENNA MOUNT PLAN

A-2

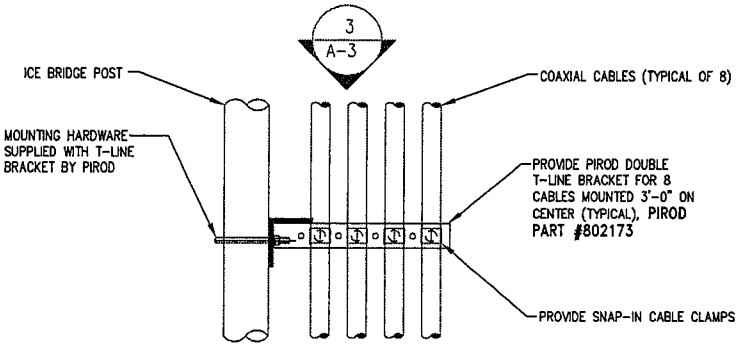
CONTRACTOR TO ADJUST HEIGHT IN FIELD AS NECESSARY TO ALIGN WITH AVAILABLE ENTRY PORT AT TIME OF INSTALLATION



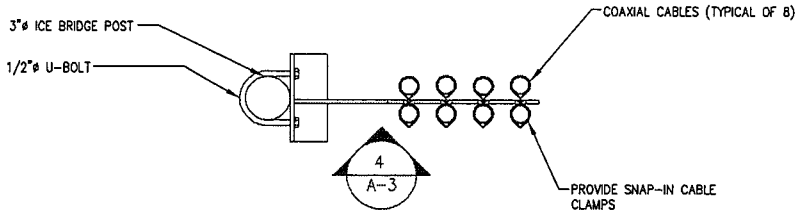
1 A-3 ICE BRIDGE – SECTION
SCALE: 1/4"=1'-0"



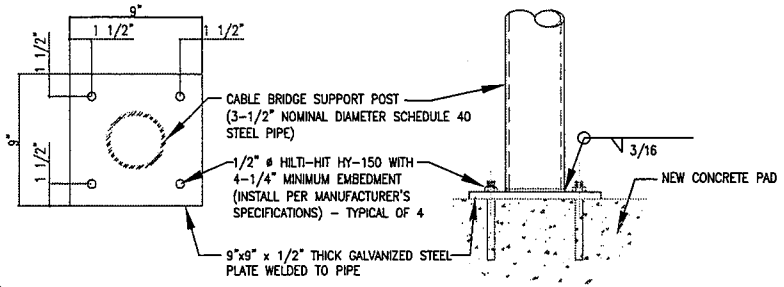
2 A-3 TRAPEZE KIT DETAIL
SCALE: 3/4"=1'-0"



4 A-3 CABLE ROUTING FROM CABINET – SECTION
SCALE: NTS



3 A-3 CABLE ROUTING FROM CABINET – PLAN
SCALE: NTS



5 A-3 SLAB MOUNT PLAN
SCALE: NTS

6 A-3 SLAB MOUNT ELEVATION
SCALE: NTS

OMNIPOINT FACILITIES NETWORK 2, L.L.C.
75 PROGRESS DRIVE, 2ND FLOOR
STAMFORD, CT 06902
203-328-8900

On Air Engineering
201 WALNUT STREET
TWP. OF WASHINGTON, NJ 07676
OFFICE: (201) 358-9541
FAX: (201) 358-9542

LICENSURE

DAVID A. WEINPAHL
CT LIC. NO. 22144

NO.: DATE: SUBMISSIONS
1 9-12-03 OMNIPOINT REVIEW

APPROVALS

PROPERTY OWNER	DATE
ZONING	DATE
CONSTRUCTION	DATE
R.F. ENGINEER	DATE

DRAWN BY:	CHECKED BY:
JI	DW

SITE#
CT-11-838-A

PROJECT INFORMATION:
CT ARCHITECTURAL TOWERS
1428 MONROE TURNPIKE
MONROE, CT

DRAWING TITLE:
CABLE ROUTING DETAILS

A-3

GENERAL ELECTRICAL PROVISIONS:

1. CONTRACTOR SHALL CARRY OUT ALL WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY AND LOCAL CODES, OSHA AND ALL OTHER ADMINISTRATIVE AUTHORITIES HAVING JURISDICTION.

2. CONTRACTOR SHALL PROVIDE CONTINUAL ON-SITE GENERATOR POWER TO ELIMINATE ANY DOWNTIME FOR EXISTING SITES THAT ARE UNDERGOING CABINET EXPANSIONS.

3. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR A COMPLETE AND PROPERLY OPERATIVE SYSTEM ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.

4. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL MEET WITH APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA AND NFPU.

5. ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC., SHALL BE TURNED OVER TO THE CONSTRUCTION MANAGER AT COMPLETION OF THE PROJECT.

6. PENETRATIONS IN FIRE RATED WALLS SHALL BE FIRE STOPPED IN ACCORDANCE WITH APPLICABLE LOCAL BUILDING CODES.

7. ALL MATERIALS SHALL BE U.L. LISTED.

8. ALL WORK SHALL BE EXECUTED IN A WORKMANLIKE MANNER AND SHALL PRESENT A NEAT MECHANICAL APPEARANCE WHEN COMPLETED. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING RELATED TO ELECTRICAL WORK AND SHALL RESTORE ALL EXISTING LANDSCAPING, SPRINKLER SYSTEMS, CONDUITS, WIRING, PIPING, ETC., DAMAGED BY THE ELECTRICAL WORK TO MATCH EXISTING.

9. CONTRACTOR SHALL PROVIDE POWER AND TELEPHONE SERVICES AS PER UTILITY COMPANY REQUIREMENTS. CONTRACTOR SHALL CONTACT UTILITY SERVICE PLANNERS AND OBTAIN ALL SERVICE REQUIREMENTS AND INCLUDE COSTS FOR SUCH IN HIS BID.

10. ALL ELECTRICAL EQUIPMENT SHALL BE ANCHORED AND TO WITHSTAND 100 M.P.H. WIND SPEED.

11. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED "OMNIPOINT" WITH PERMANENT ENGRAVED BLACK PLASTIC LABELS.

12. ELECTRICAL PLANS ARE DIAGRAMMATIC ONLY. CONTRACTOR SHALL FOLLOW ACTUAL BUILDING LAYOUT AS CLOSELY AS POSSIBLE.

13. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS SHALL BE PAID BY THE CONTRACTOR. IF TEMPORARY POWER IS REQUIRED, CONTRACTOR TO CONTACT CONSTRUCTION MANAGER PRIOR TO MAKING TEMPORARY POWER CONNECTIONS.

14. CABLE TRAYS ARE FOR COAXIAL (CLASS II FREQUENCY) CABLE ROUTING ONLY.

15. CONTRACTOR SHALL SUPPLY SPARE FUSES, IDENTICAL IN RATING AND QUANTITY TO THOSE INSTALLED IN SPECIFIED FUSED DISCONNECTS.

16. CONTRACTOR SHALL TAKE PHOTOS OF EXPOSED UNDERGROUND WORK TO BE VIEWED AT THE PUNCHLIST INSPECTION.

17. CONTRACTOR TO COORDINATE ALL WORK WITH THE PROPERTY OWNER AND/OR PROPERTY MANAGER.

18. CONTRACTOR SHALL CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL OF POTENTIAL GROUND TESTS TO BE IN COMPLIANCE WITH ALL APPLICABLE CODES, ETC. PRIOR TO PUNCHLIST INSPECTION BY CONSTRUCTION MANAGER.

19. CONTRACTOR SHALL SECURE ALL NECESSARY ELECTRICAL PERMITS AND PAY ALL REQUIRED FEES.

20. CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" FOR UTILITY MARKOUTS AND CONFIRM THE COMPLETION OF MARKED OUT AREAS PRIOR TO COMMENCING WORK. CONTRACTOR SHALL RETAIN A PRIVATE MARKOUT SERVICE FOR UNDERGROUND UTILITY LOCATIONS NOT COVERED UNDER "CALL BEFORE YOU DIG" (I.E., PRIVATE PROPERTY, EXISTING COMPOUNDS, ETC.) AT THE CONTRACTOR'S EXPENSE. ALL TRENCHING IN SUCH AREAS SHALL BE BY HAND ONLY.

21. CONTRACTOR SHALL VERIFY AVAILABLE CAPACITY OF EXISTING SWITCHBOARDS, PANELBOARDS, ETC. PRIOR TO CONNECTIONS AND CONTACT ELECTRICAL ENGINEER SHOULD POTENTIAL OVERLOADING EXIST.

CONDUIT:

1. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.

2. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LISTED LABEL. FITTINGS SHALL BE COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.

3. LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE COMPRESSION OR "SQUEEZE" TYPE.

4. CONDUIT RUNS SHALL BE SURFACE MOUNTED ON CEILINGS OR WALLS UNLESS INDICATED OTHERWISE. CONDUIT SHALL RUN PARALLEL OR AT RIGHT ANGLES TO CEILING, FLOORS OR BEAMS. VERIFY EXACT ROUTING OF ALL EXPOSED CONDUIT WITH PROPERTY OWNER PRIOR TO INSTALLING. NO HORIZONTAL CONDUITS SHALL BE BELOW 7'-6" A.F.F. NO BX OR ROMEX CABLE IS PERMITTED.

5. CONDUIT SHALL BE SUPPORTED EVERY 7' AND WITHIN 3' OF ANY TERMINATION. IF STRUCTURAL MEMBERS DO NOT PERMIT FASTENING WITHIN 3', THEN FASTENING UNBROKEN LENGTHS OF 5' IS PERMITTED.

6. PARALLEL UNDERGROUND PVC CONDUIT SHALL BE SCHEDULE 40 (UNLESS NOTED OTHERWISE) AT A MINIMUM DEPTH OF 30" BELOW GRADE. STACKED UNDERGROUND PVC CONDUIT SHALL BE SCHEDULE 40 (UNLESS NOTED OTHERWISE) AT A MINIMUM DEPTH OF 24" BELOW GRADE.

7. ABOVE GROUND PVC CONDUIT SHALL BE SCHEDULE 80 (UNLESS NOTED OTHERWISE).

8. ALL SPARE CONDUIT SHALL HAVE A PULL WIRE OR ROPE.

9. SERVICE CONDUIT SHALL HAVE NO MORE THAN (4) 90° BENDS OR A TOTAL OF 360°. THE CONTRACTOR SHALL PROVIDE PULL BOXES AS NEEDED WHERE CONDUIT REQUIREMENTS EXCEED THESE CONDITIONS.

10. CONDUITS THAT ARE BURIED UNDER EARTH THAT HAS HEAVY VEHICLE TRAFFIC SHALL BE ENCASED IN A MINIMUM OF 3" OF CONCRETE ALL AROUND AND BETWEEN OTHER CONDUITS.

11. CONDUIT CONNECTIONS TO VIBRATING EQUIPMENT SHALL CONSIST OF PULLED CONDUCTORS IN FLEXIBLE METALLIC CONDUIT (MAX 6') IN DRY LOCATIONS OR LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT (MAX 6') IN WET LOCATIONS.

12. ALL COAX, POWER AND TELEPHONE SYSTEM CONDUITS SHALL HAVE A MINIMUM 24" RADIUS SWEEPS TO EQUIPMENT PULL BOXES, MONOPOLE, ETC., UNLESS OTHERWISE NOTED, OR AS REQUIRED BY UTILITY COMPANIES.

13. JUNCTION BOXES AND CONDUIT BODIES SHALL BE SIZED IN ACCORDANCE WITH THE N.E.C. AND ANY LOCAL ORDINANCES, CODES, AND ALL OTHER ADMINISTRATIVE AUTHORITIES HAVING JURISDICTION.

ABBREVIATIONS:

AFF	ABOVE FINISHED FLOOR
AIC	AMPS INTERRUPTING CAPACITY
AWG	AMERICAN WIRE GUAGE
BCW	BARE COPPER WIRE
C	CONDUIT
CAB	CABINET
DISC	DISCONNECT SWITCH
DWG	DRAWING
EMT	ELECTRICAL METALLIC TUBING
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
IMC	INTERMEDIATE METAL CONDUIT
LB	ELBOW
MCB	MAIN CIRCUIT BREAKER

ABBREVIATIONS:

NEC	NATIONAL ELECTRICAL CODE
O/H	OVERHEAD
OSHA	OCCUPATIONAL SAFETY AND HEALTH ACT
PVC	POLYVINYL CLORIDE CONDUIT
RGS	RIGID GALVANIZED STEEL
SCH	SCHEDULE
SN	SOLID NEUTRAL
SS	STAINLESS STEEL
TYP	TYPICAL
U/G	UNDERGROUND
UL	UNDERWRITING LABORATORIES
UNO	UNLESS NOTED OTHERWISE
W	WIRE

WIRING NOTES:

1. EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANELBOARD, PULL BOX, J-BOX, ETC., IN COMPLIANCE WITH OSHA AND ALL APPLICABLE CODES.

2. USE T-TAP CONNECTIONS ON ALL MULTI-CIRCUITS WITH COMMON NEUTRAL CONDUCTOR FOR LIGHTING FIXTURES.

3. ALL CONDUCTORS SHALL BE COPPER.

4. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 AIC.

5. WIRE AND CABLE CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE ON DRAWINGS.

6. GROUNDING CONDUCTORS SHALL BE SOLID TINNED COPPER UNLESS OTHERWISE NOTED.

7. METER SOCKET AMPERES, VOLTAGE, NUMBER OF PHASES SHALL BE AS NOTED ON THE DRAWINGS. MANUFACTURED BY "SQUARE D COMPANY", OR APPROVED EQUAL.

8. SERVICE EQUIPMENT SHALL HAVE A SHORT WITHSTAND RATING EQUAL TO OR EXCEEDING THE MAXIMUM AVAILABLE FAULT CURRENT AT THE SUPPLY TERMINAL. THE INSTALLATION SHALL BE FREE FROM ANY SHORT CIRCUITS AND GROUNDS.

9. ALL WIRING SHALL BE COPPER WITH THHN/THWN DUAL RATED 600 VOLTS INSULATION.

10. CONTRACTOR TO COLOR PHASE CONDUCTORS RED (A PHASE), BLACK (B PHASE), WHITE (NEUTRAL) AND GREEN (GROUND).

11. ALL WIRING IN FINISHED AREAS SHALL BE CONCEALED UNLESS OTHERWISE NOTED. NO ROUTINGS SHALL BE ON THE EXTERIOR SURFACES OF THE BUILDING UNLESS SPECIFICALLY NOTED AND IF SO, PAINTED TO MATCH BACKGROUND.

12. VERTICAL CONDUCTOR RUNS SHALL BE SUPPORTED IN THE INTERVALS AND BY THE MEANS INDICATED IN THE APPLICABLE CODES, ETC.

13. ENVIRONMENTAL "AIR ONLY" PLENUMS ARE THE ONLY HANDLING DUCTS WHICH MAY BE USED TO ROUTE CONDUCTORS. PLENUM RATED CABLE SHALL BE USED AS REQUIRED BY CODE FOR LINE/LOW VOLTAGE AND COMMUNICATIONS CABLES.

DISCONNECT SWITCH, NON-FUSED (AMPERAGE AND POLES NOTED ON PLANS)

DISCONNECT SWITCH, FUSED PER PLANS (AMPERAGE AND POLES NOTED ON PLANS)

E — ELECTRICAL CONDUIT AND CABLES

T — TELECOMMUNICATIONS CONDUIT AND CABLE

G — GROUND SYSTEM CONDUIT AND CABLE

GROUND CONNECTION

CONNECTION POINT TO EXISTING SYSTEM

GROUND ROD

GROUND ROD WITH ACCESS

CADWELD CONNECTION

MASTER GROUND BAR (MGB)

INSULATED ANTENNA GROUND BAR (AGB)

UN-INSULATED ANTENNA GROUND BAR (AGB)

COMPRESSION TYPE CONNECTION

DUPLEX OUTLET

DUPLEX GFI OUTLET

(M) METER

OMNIPOINT FACILITIES NETWORK 2, LLC
76 PROGRESS DRIVE, 2ND FLOOR
STAMFORD, CT 06902
203-328-8900

On Air Engineering
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OFFICE: (201) 358-9541
FAX: (201) 358-9542

LICENSURE

DAVID A. WEINPAHL
CT LIC. NO. 22144

NO.:	DATE:	SUBMISSIONS
1	10-12-03	OMNIPOINT REVIEW

APPROVALS:

PROPERTY OWNER	DATE
ZONING	DATE
CONSTRUCTION	DATE
R.F. ENGINEER	DATE

DRAWN BY:	CHECKED BY:
JI	DW

SITE#
CT-11-838-A

PROJECT INFORMATION:
CT ARCHITECTURAL TOWERS
1428 MONROE TURNPIKE
MONROE, CT

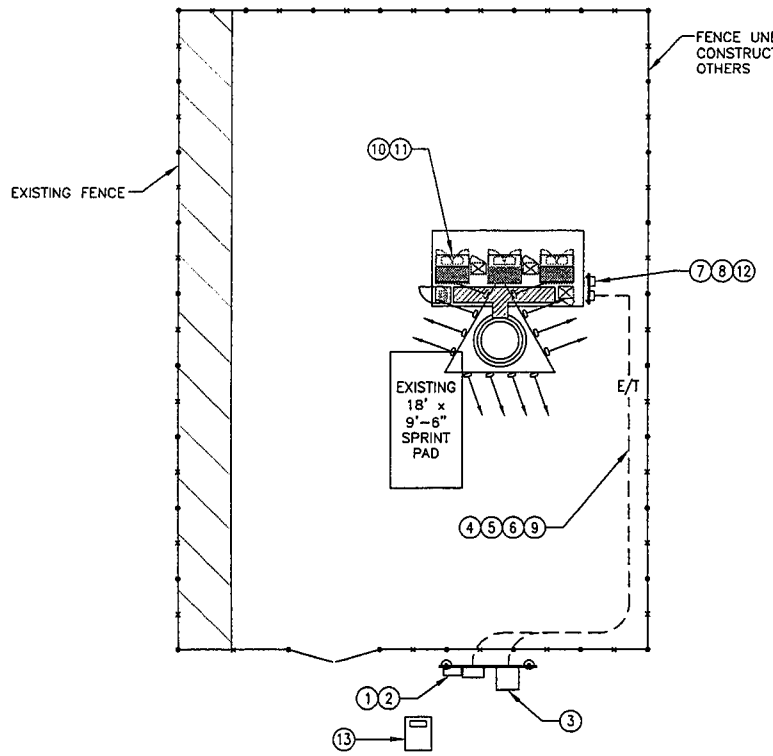
DRAWING TITLE:
ELECTRICAL NOTES

E-1

NOTES:

1. EXISTING METER CENTER
2. OMNIPOINT TO ULTILIZE EXISTING 200A BYPASS METER SOCKET
3. EXISTING TELCO DEMARC
4. (3) 3/0 AWG AND (1) #6 AWG GROUND IN 2" SCH. 40 PVC CONDUIT, APPROX. DISTANCE 90 FT.
5. CONDUIT ROUTED UNDERGROUND. HAND DIG ONLY.
6. 3" SCH. 40 PVC TELCO CONDUIT.
7. TELCO HOFFMAN BOX
8. PANELBOARD, 225 AMP, 30 CKT SQUARE D TYPE NQOD, NEMA 3R WITH 200A MCB, (3) 50A, 2P CIRCUIT BREAKERS AND (3) 20A, 1P CIRCUIT BREAKER FOR BOOSTER CABINETS.
9. (3) CAT 5 INDIVIDUALLY SHIELDED TELCO CABLE PER LATEST OMNIPOINT STANDARD
10. CIRCUIT CABINET TO PANELBOARD WITH (2) #6 AWG, (1) #6 NEUTRAL, (1) #10 GROUND IN 1" C.
11. NORTEL S8000 EQUIPMENT CABINET
12. E/T RACK, REFER TO E-3
13. EXISTING PULL BOX

NOTE: INSTALLATION OF THIS WIRELESS COMMUNICATIONS EQUIPMENT SITE REQUIRES WORK IN THE IMMEDIATE VICINITY OF EXISTING TELECOMMUNICATIONS SYSTEMS. THE CONTRACTOR SHALL PROVIDE AND COORDINATE THE METHODS OF PROTECTION WITH THE VARIOUS TELECOMMUNICATIONS CARRIERS. DIGGING WITHIN THE COMPOUND SHALL BE BY HAND ONLY.



1 / E-2 ELECTRICAL PLAN
SCALE: NTS

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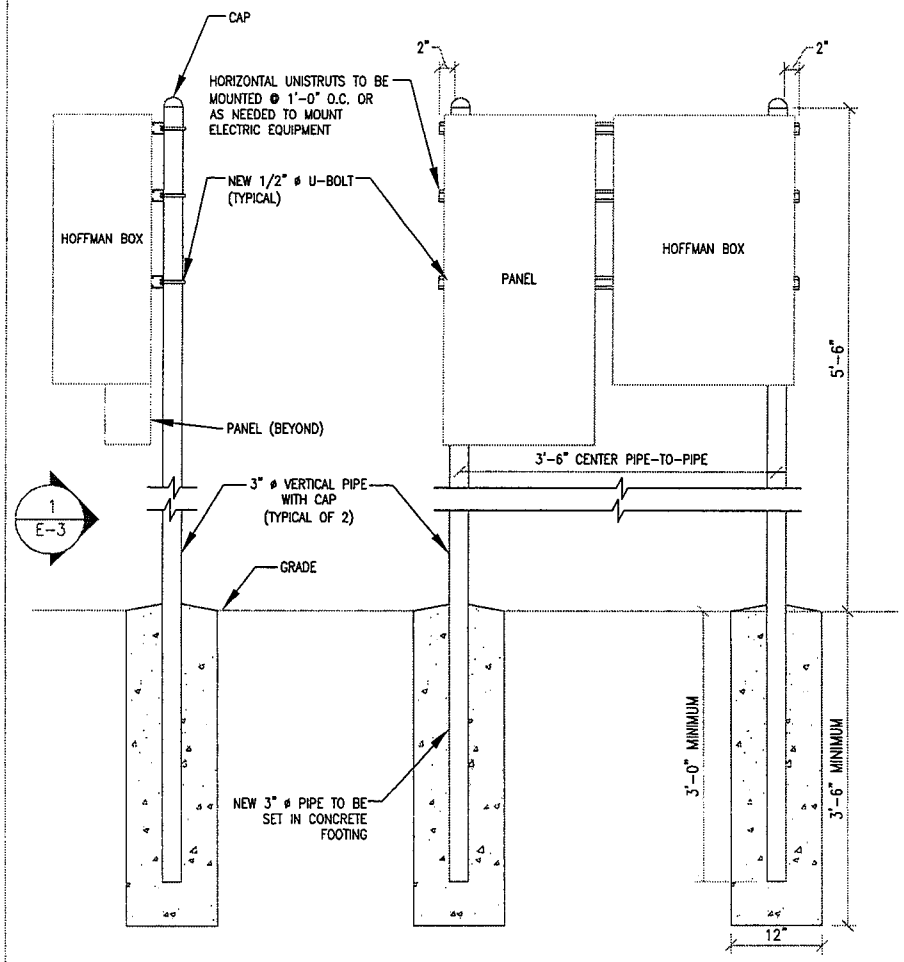
1428 MONROE TURNPIKE
MONROE, CT

DRAWING TITLE:
ELECTRICAL PLAN

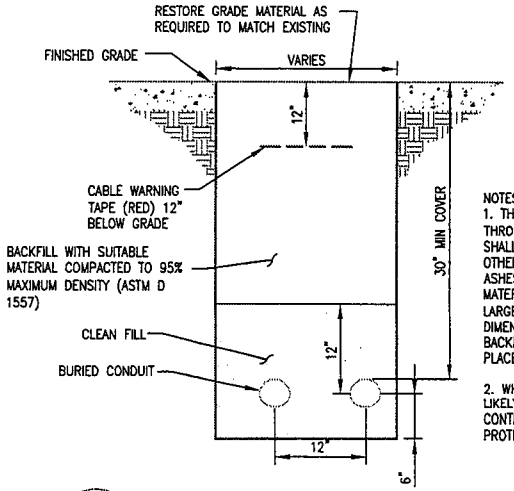
E-2



2 / E-3 SECTION DETAIL
SCALE: 3/4"=1'-0"

1 / E-3 ELECTRIC/TELCO FRAME ELEVATION
SCALE: 3/4"=1'-0"

2
E-3



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. TRENCH SHALL BE BACKFILLED IMMEDIATELY FOLLOWING PLACEMENT OF THE CONDUITS.

2. WHERE EXISTING UTILITES ARE LIKELY TO BE ENCOUNTERED, CONTRACTOR SHALL HAND DIG AND PROTECT EXISTING UTILITIES.

3 / E-3 ELECTRIC/TELEPHONE TRENCH
SCALE: NTS

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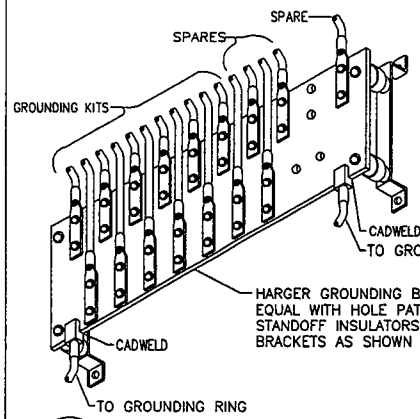
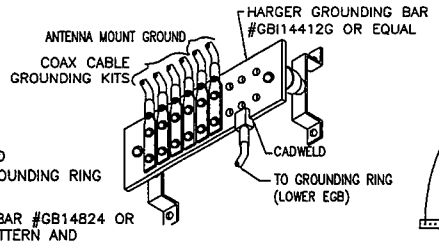
DRAWING TITLE:
ELECTRICAL DETAILS

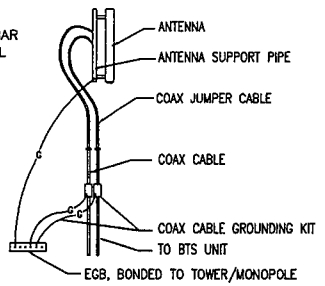
E-3



1 / E-4 MASTER GROUND BAR (MGB)
SCALE: NTS

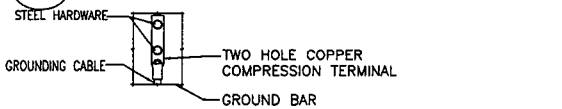


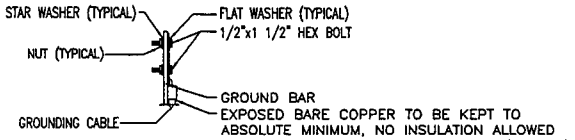
2 / E-4 EQUIPMENT GROUND BAR (EGB)
SCALE: NTS



3 / E-4 COAX CABLE CONNECTION AND GROUNDING DETAIL
SCALE: NTS

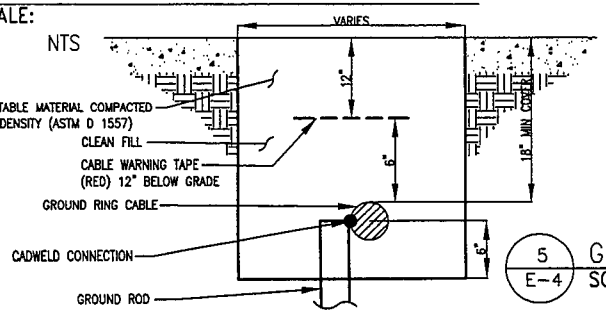
1. GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY OMNIPOINT.
2. USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
3. ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
4. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 7 FEET OF OMNIPOINT EQUIPMENT OR CABINET TO MASTER GROUND BAR.
5. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
6. APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
7. BOND ANTENNA MOUNTING BRACKETS, COAXIAL CABLE GROUND KITS, AND ALNA TO EGB PLACED NEAR THE ANTENNA LOCATION.
8. BOND ANTENNA EGB'S AND MGB TO GROUND RING.
9. TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION.



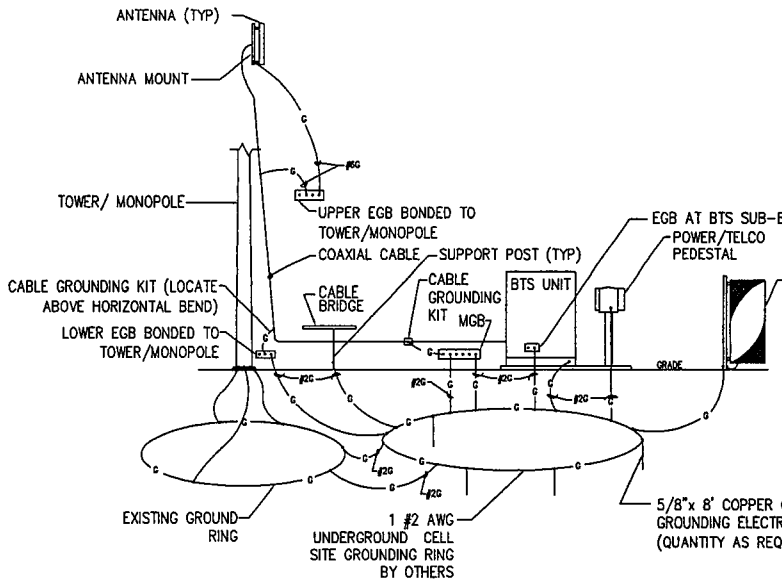


NOTE:
1. "DOUBLING UP" OR "STACKING " OF CONNECTION IS NOT PERMITTED.
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.

4 / E-4 TYPICAL GROUND BAR CONNECTIONS DETAIL
SCALE: NTS



5 / E-4 GROUND RING DETAIL
SCALE: NTS



6 / E-4 GROUNDING RISER DETAIL
SCALE: NTS

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DRAWING TITLE:
GROUNDING DETAILS

E-4

EXHIBIT C

STRUCTURAL ANALYSIS

CT11-838
1430 Monroe Turnpike, Monroe

On Air Engineering, LLC
201 Walnut Street
Township of Washington, NJ 07676
(201) 358-9541
(201) 358-9542 fax

September 24, 2003

Ms. Anne Illgen
T-Mobile/Omnipoint
76 Progress Drive, 2nd Floor
Stamford, CT 06902

Re: CT-11-838-A Omnipoint Co-location on Existing Monopole
CT Architectural Towers, 1428 Monroe Turnpike, Monroe, CT
Structural Analysis

Dear Anne:

Our office visit has completed a structural assessment and loading conditions for the above referenced monopole to determine the adequacy of the structure for supporting proposed Omnipoint antennas.

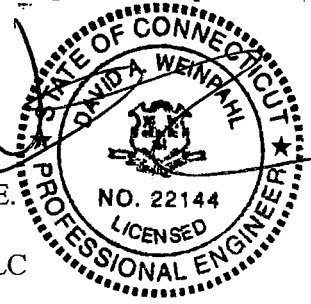
Omnipoint provided our office with monopole and foundation design drawings for a 160 foot monopole dated 5/22/03 by Sabre Communications Corporation. The drawings indicate that the monopole has been designed for 6 carriers for the following antenna loads and centerlines.

159'-0"	(9) 4' x 1' x 8" Panel Antennas on 10 ft. low profile platform
149'-0"	(12) 4' x 1' x 8" Panel Antennas on 12 ft. low profile platform
139'-0"	(12) 4' x 1' x 8" Panel Antennas on 12 ft. low profile platform
129'-0"	(12) 4' x 1' x 8" Panel Antennas on 12 ft. low profile platform
119'-0"	(12) 4' x 1' x 8" Panel Antennas on 12 ft. low profile platform
109'-0"	(12) 4' x 1' x 8" Panel Antennas on 12 ft. low profile platform

Our office conducted a site visit on 8-20-03 at which time the pole had been fully constructed to 160 feet with (6) Sprint panel antennas located at approximately 150'-0" centerline. Omnipoint is proposing to install (8) EMS Wireless FR65-17-04DP and (4) EMS Wireless RR65-18-02DPL-2 antennas on a 12 ft. low profile platform at 140'-0" centerline.

Based on our review of the design drawings in comparison with the existing loading and proposed Omnipoint loading, this monopole is structurally adequate at this time.

Very truly yours,



David A. Weinpahl, P.E.
Managing Member
On Air Engineering, LLC

DW:dw