STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square
New Britain, Connecticut 06051
Phone: (860) 827-2935
Fax: (860) 827-2950

May 30, 2001

Stephen J. Humes
LeBoeuf, Lamb, Greene & MacRae
Goodwin Square
225 Asylum Street
Hartford, CT 06103

RE: **EM-VOICESTREAM-135-010503** - VoiceStream Wireless notice of intent to modify an existing telecommunications facility located at 555 Main Street, Stamford, Connecticut.

Dear Attorney Humes:

At a public meeting held on May 25, 2001, 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, with the condition that the tower be strengthened as recommended by a Professional Engineer.

The proposed modifications are to be implemented as specified here and in your notice dated May 3, 2001. 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,

Mortimer A. Gelston
Chairman

MAG/RKE/laf

c: Honorable Dannel P. Malloy, Mayor, City of Stamford
Robin Stein, Planning and Zoning Director, City of Stamford
Dawn Holmes, SNET
Peter W. van Wilgen, SNET Mobility LLC
Sam J. D'Agostino, PageNet, Inc.

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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

May 7, 2001

Honorable Dannel P. Malloy
Mayor
City of Stamford
Stamford Government Center
888 Washington Boulevard
P. O. Box 10152
Stamford, CT 06904-2152

RE: **EM-VOICESTREAM-135-010503** - VoiceStream Wireless notice of intent to modify an existing telecommunications facility located at 555 Main Street, Stamford, Connecticut.

Dear Mayor Malloy:

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

The Council will consider this item at the next meeting scheduled for Thursday, May 24, 2001, at 1:30 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

Please call me or inform the Council if you have any questions or comments regarding this proposal.

Thank you for your cooperation and consideration.

Very truly yours,

Joel M. Rinebold
Executive Director

JMR/RKE/grg

Enclosure: Notice of Intent

c: Robin Stein, Planning and Zoning Director, City of Stamford

I:\siting\em\voicestream\stamford\rmalloy4.doc

LeBoeuf, Lamb, Greene & MacRae
L.L.P.

A LIMITED LIABILITY PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS

NEW YORK
WASHINGTON, D.C.
ALBANY
BOSTON
DENVER
HARRISBURG
HARTFORD
HOUSTON
JACKSONVILLE
LOS ANGELES
NEWARK
PITTSBURGH
SALT LAKE CITY
SAN FRANCISCO

GOODWIN SQUARE
225 ASYLUM STREET
HARTFORD, CT 06103
(860) 293-3500
FACSIMILE: (860) 293-3555

WRITER'S DIRECT DIAL:
(860) 293-3744

LONDON
(A LONDON-BASED MULTINATIONAL PARTNERSHIP)
PARIS
BRUSSELS
MOSCOW
RIYADH
(AFFILIATED OFFICE)
TASHKENT
BISHKEK
ALMATY
BEIJING

May 3, 2001

Joel Rinebold, Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Re: Notice of Exempt Modification
555 Main Street, Stamford, Connecticut

Dear Mr. Rinebold:

Please be advised that LeBoeuf, Lamb, Greene & MacRae, L.L.P. represents VoiceStream Wireless Corporation ("VoiceStream") in the above-referenced matter. VoiceStream intends to update its existing equipment at the existing facility, located at 555 Main Street in Stamford. VoiceStream intends to install six new panel antennas to complement the six VoiceStream panel antennas currently existing on the rooftop tower, creating a total of twelve (12) panel antennas and related equipment at the existing facility in Stamford. Please accept this letter as notification, pursuant to R.C.S.A. § 16-50j-73, of construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to the Stamford Mayor, Dannel P. Malloy.

Background

In February 2000, VoiceStream acquired from Omnipoint Communications, Inc. the "A block" "Wideband PCS" license for the 2-GHz PCS frequencies for the greater New York City area, including the entire State of Connecticut. VoiceStream is licensed by the Federal Communications Commission (FCC) to provide PCS wireless telecommunications service in the State of Connecticut, which includes the area to be served by the proposed installation.

Discussion

The existing facility consists of a Southern New England Telephone ("SNET") 125-foot Type "K" tower and related equipment located on the roof of 555 Main Street, Stamford, Connecticut. The coordinates for the site are **41°-03'-13" N** and **73°-32'-06" W**. The tower currently supports various antennas at various elevations (see attached Antenna List, Structural Analysis, Exhibit C).

VoiceStream plans to update its existing antenna cluster consisting of three sectors, with up to four antennas per sector, constituting a total of twelve (12) panel-type antennas on the existing tower. Currently, the tower holds six VoiceStream panel antennas with a centerline of one hundred and three feet (103'-0") above the base plate ("ATBP") of the tower. The base plate is located three feet above the roof of the existing building at an elevation of approximately 106 feet above grade level. The model number for each antenna is EMS FR 90-16-02DP. VoiceStream intends to double this configuration, installing six new panel antennas with a centerline of ninety six feet, six inches (96'-6") ATBP. (see Elevation Drawing S-1, Exhibit A). A structural analysis of the tower has been completed and is attached as Exhibit C. As stated in the Structural Analysis, some tower strengthening is required to render the tower structurally capable of supporting VoiceStream's new antennas. To strengthen the tower, new 3/4" diameter ASTM A325 high-strength galvanized replacement bolts will be installed at several of the tower face braces below VoiceStream's proposed antennas. The location of these bolts is shown in the structural analysis (Exhibit C, drawing TS-1). As stated in the structural analysis, after the installation of the replacement bolts, the tower will be structurally capable of supporting the proposed VoiceStream antennas. A new Nortel S8000 equipment cabinet and subbase will be added to the two existing cabinets on the fifth floor equipment room. The new cables and utility routings will follow the existing lines up through the sixth floor to the roof. Provisions were made in the original design and construction for the future addition of this equipment.

The planned modifications to the Stamford facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The proposed modification will not increase the height of the tower. VoiceStream's new antennas will be installed with a centerline of approximately 96 feet, six inches AGL. The enclosed tower drawing confirms that the planned changes will not increase the overall height of the tower.

2. The installation of VoiceStream equipment within the building, as reflected on the attached site plan, will not require an extension of the site boundaries. VoiceStream's proposed equipment cabinet will be added to those already existing and located entirely within the equipment room on the fifth floor of the building .

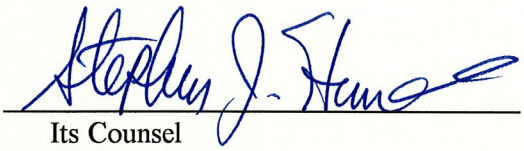
3. The proposed modification to the facility will not increase the noise levels at the existing facility by six decibels or more. VoiceStream's equipment is self-contained and requires no additional heating, ventilation or cooling equipment.

4. The operation of the additional antenna will not increase the total radio frequency (RF) power density, measured at the site boundary, to a level at or above the applicable standard. The "worst-case" RF power density calculations, for a point at the site boundary, are attached hereto as Exhibit D.

For the foregoing reasons, VoiceStream respectfully submits that the proposed addition of antennas and equipment at the Stamford facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Thank you for your consideration of this matter.
Respectfully submitted,

VOICESTREAM WIRELESS CORPORATION

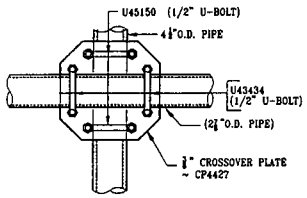
By: 

Its Counsel
Stephen J. Humes
Diane W. Whitney

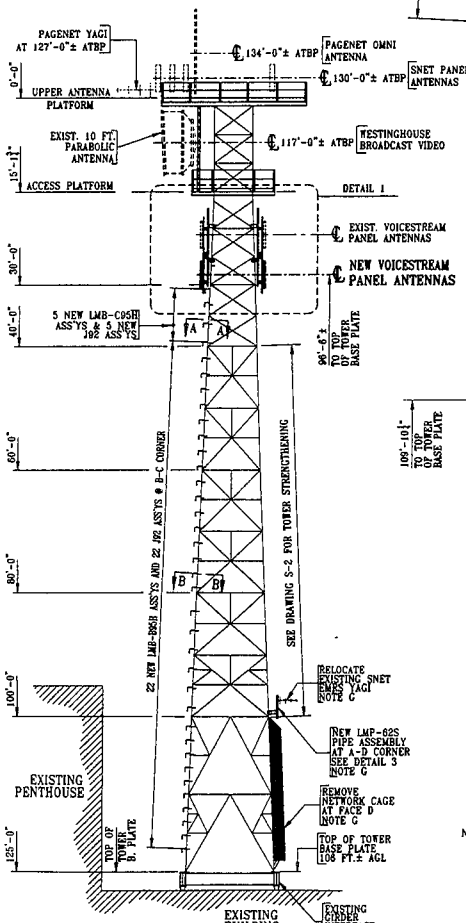
Attachments
cc: Stamford Mayor, Dannel P. Malloy

Exhibit A

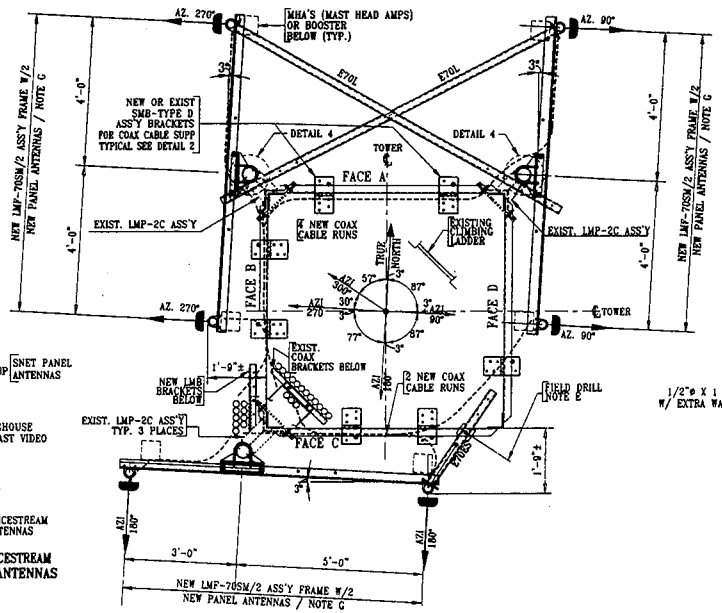
Design Drawings
555 Main Street
Stamford, Connecticut



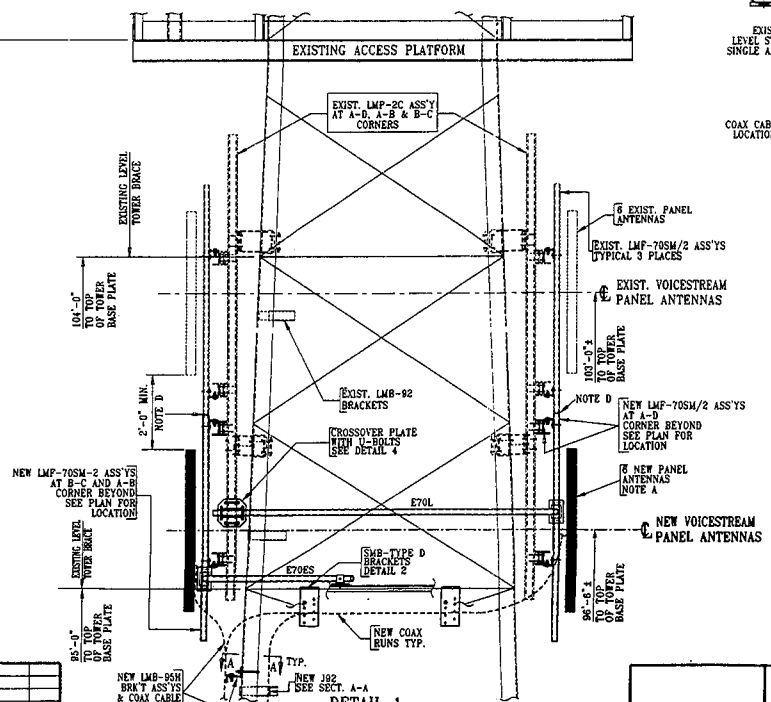
DETAIL 4
TYPICAL PIPE CROSS CONNECTION



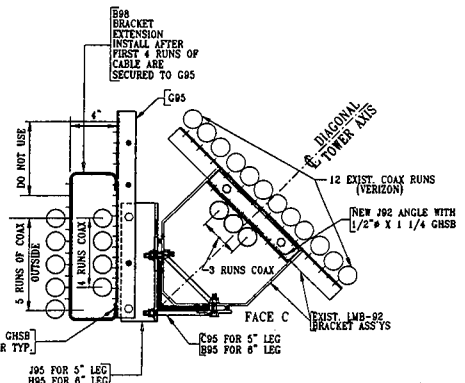
TOWER ELEVATION - FACE C (LOOKING NORTH)
EXISTING 125'-0" TYPE "K" TOWER
SCALE: 1/8" = 1'-0"



PLAN AT 95'-0" ABOVE BASE PLATE
SCALE: 3/4" = 1'-0"

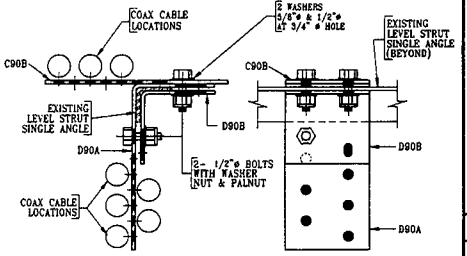


DETAIL 1
PARTIAL ELEVATION - FACE C (AS SHOWN)
SCALE: 3/4" = 1'-0"

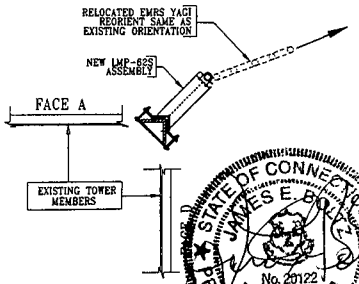


SECTION A - A
ASSEMBLY LMB-C95H FOR 5" LEG

SECTION B - B
ASSEMBLY LMB-B95H FOR 6" LEG



DETAIL 2
SMB - TYPE D ASSEMBLY



DETAIL 3

PLAN NOTES

A. NEW PANEL ANTENNAS ARE TO BE EMS PR90-16-XX-DP. ANTENNAS ARE TO BE EQUIPPED WITH MHA'S OR BOOSTERS AND TWO RUNS OF 1-5/8" COAX FOR EACH ANTENNA

B. THE SIX EXISTING VOICESTREAM PANEL ANTENNAS AND EXISTING TWELVE CABLES ARE TO REMAIN.

C. NEW LEG MOUNTED BRACKETS TO SUPPORT VERTICAL COAX. RUNS TO BE TYPE LMB-95H. INSTALL APPROPRIATE BRACKETS CORRESPONDING TO TOWER LEG SIZE AT APPROXIMATELY 50 INCHES ON CENTER BETWEEN 95 FT. ABOVE BASE PLATE LEVEL AND THE TOWER BASE.

D. THE NEW PANEL ANTENNAS SHALL BE INSTALLED WITH A MINIMUM OF 2 FT. CLEAR SEPARATION FROM THE EXISTING PANEL ANTENNAS. MOVE EXISTING ANTENNA PIPES UP AS NEEDED TO FACILITATE INSTALLATION OF NEW PIPES.

E. FIELD DRILL ONE 11/16"ø HOLE TO SECURE E70ES PIPE STRUT BRACKET TO EXIST. TOWER BRACE.

F. SEE FIELD INSTALLATION DRAWINGS LMP-70SM/2, LMB-95H, SMB-90 & LMP-62S FOR ADDITIONAL ERECTION AND INSTALLATION INFORMATION.

G. RELOCATE EXISTING ANTENNA ATTACHED TO THE NETWORK CAGE TO NEW LMP-62S MOUNT AT A-D CORNER AND REMOVE EXISTING CAGE.

ORDERING INFORMATION FOR TOWER MOUNTS & PARTS

ALL NEW STEEL MOUNTS AND COAX SUPPORTS SHOWN ON THIS DRAWING ARE AVAILABLE FROM:
COMMUNICATION STRUCTURES ENGINEERING, INC.
2430 HERODIAN WAY, SUITE 102
SMYRNA, GA. 30080
(770) 951-8080

ALLOW 4 WEEKS (MIN.) FOR FABRICATION AND DELIVERY. ALL PARTS TO INCLUDE ALL NECESSARY FIELD BOLTS, U-BOLTS AND V-BOLTS.

GENERAL ERECTION WORK NOTES

1. FIELD WORK WILL BE DONE NEAR EXISTING WAVEGUIDES AND OPERATING EQUIPMENT. ALL WORK MUST BE DONE IN SUCH A MANNER TO CAUSE NO DAMAGE TO EQUIPMENT OR INTERRUPTION OF SERVICE. ALL NEW HOLES IN EXISTING MEMBERS SHALL BE DRILLED. FIELD CUTS SHALL NOT BE BURNED. FIELD WELDING WILL NOT BE PERMITTED.
2. FIELD HOLES & CUTS SHALL BE GIVEN TWO COATS OF ZINC DUST -ZINC OXIDE PAINT (90% OR MORE OF POWDERED ZINC) WHICH CONFORMS TO FEDERAL SPECIFICATION DOD-P-21035. PREPARATION AND APPLICATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
3. UNLESS NOTED, FIELD DRILLING OF HOLES OR FIELD CUTTING OF NEW MATERIAL WILL NOT BE PERMITTED WITHOUT THE PERMISSION OF OWNER'S REPRESENTATIVE. ANY ERROR IN SHOP WORK WHICH PREVENTS THE PROPER ASSEMBLY AND FITTING OF PARTS SHALL BE CORRECTED AS DIRECTED BY OWNER'S REPRESENTATIVE. THE USE OF A GAS CUTTING TORCH IN THE FIELD WILL NOT BE PERMITTED.
4. THE SELECTION OF CONSTRUCTION MEANS AND METHODS AS WELL AS SAFETY IN ON OR ABOUT THE WORK SITE ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR(S) PERFORMING THE WORK. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.

GENERAL SHOP FABRICATION NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF A.I.S.C. "SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
2. U.N.O. ON DRAWINGS INDICATES "UNLESS NOTED OTHERWISE."
3. U.N.O. ALL STRUCTURAL STEEL SHALL CONFORM WITH ASTM A-36. STRUCTURAL STEEL PIPE SHALL COMPLY WITH ASTM A-53, GRADE B WITH Fy = 36 KSI.
4. ALL NEW MATERIAL, INCLUDING FASTENERS, SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A-123 AND A-153.
5. ALL CONTACT SURFACES IN SHOP WELDED ASSEMBLIES SHALL BE SEAL WELDED PRIOR TO GALVANIZING. SHOP BOLTED ASSEMBLIES SHALL BE ASSEMBLED AFTER GALVANIZING.
6. ALL WELDED CONNECTIONS SHALL BE MADE WITH E-70 ELECTRODES. MINIMUM WELD SIZE SHALL BE 3/16". U.N.O. ALL SHOP WELDING SHALL COMPLY WITH THE STANDARDS OF A.W.S.

DRAWING LIST (FOR TOWER WORK)

DWG. NO.	TITLE
S-1	TOWER ELEVATION AND PLANS
S-2	TOWER STRENGTHENING
	FIELD INSTALLATION DRAWINGS
LMP-62S	LEG MOUNT PIPE (2"ø) ASSEMBLY
LMP-70SM/2	LEG MOUNTED FRAME ASSEMBLY
SMB-86	PIPE MOUNTED BRACKET ASS'Y
SMB-90	STRUT MOUNTED BRACKET ASS'Y
LMB-92	LEG MOUNTED BRACKETS FOR TRANSMISSION LINE SUPPORT
LMB-95H	LEG MOUNTED BRACKETS FOR TRANSMISSION LINE SUPPORT
BEX-98	BRACKET EXTENSION FOR TRANSMISSION LINE SUPPORT

STATE OF CONNECTICUT JAMES E. BOLTZ No. 20122 LICENSED PROFESSIONAL ENGINEER
3/26/2001

Communication Structures Engineering, Inc.	Designed by: A. K. PADMAN
2430 Herodian Way, Suite 102 Smyrna, Georgia 30080 (770) 951-8080	Drawn by: W. F. ELEVES
	Checked by: J. E. BOLTZ

SNET LAND LINE TOWER 555 MAIN STREET STAMFORD CT	Date: MARCH 2001
VOICESTREAM WIRELESS SITE ID CT-11-410-A	CSEI Project No.: 01106
TOWER ELEVATION AND PLANS	Scale: AS NOTED
	Drawing No.: S-1

⚠ CONSTRUCTION

BOLT REPLACEMENT NOTES

A. EXISTING ANTENNAS AND MOUNTS ARE NOT SHOWN ON ON THIS SKETCH FOR CLARITY.

B. REPLACE ONE "X" BRACE CONNECTION BOLT AT ALL FACES WITH ONE 3/4"ø X 2" GALV. A325 GHSB.

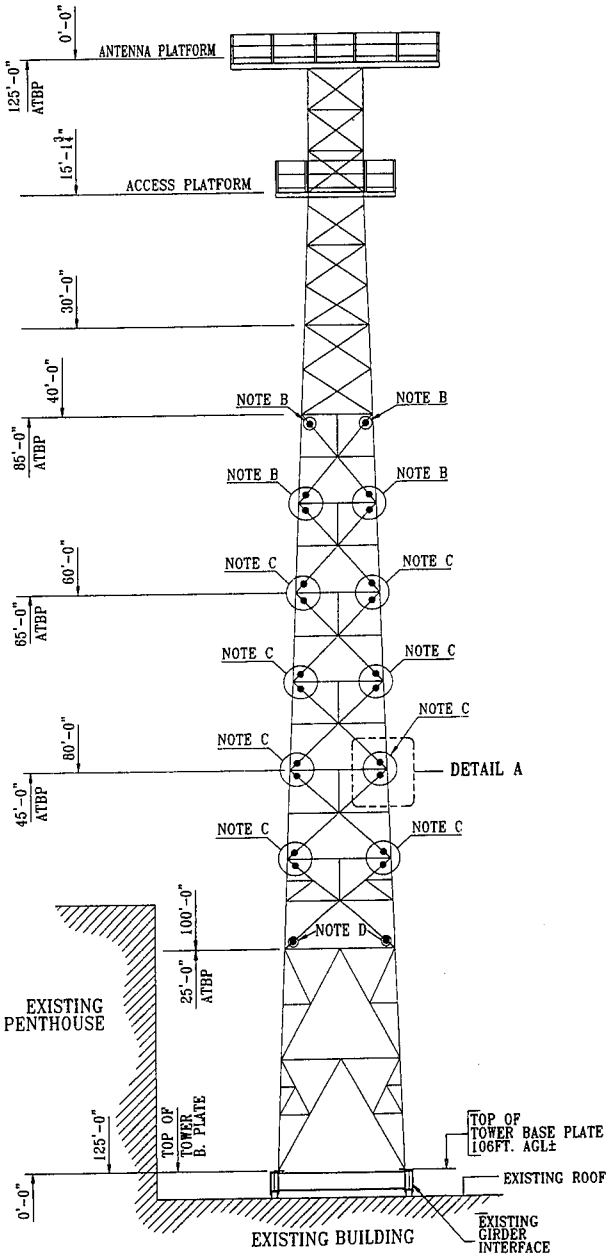
C. REPLACE ONE "X" BRACE CONNECTION BOLT AT ALL FACES WITH ONE 3/4"ø X 2 1/4" GALV. A325 GHSB.

D. REPLACE ONE "X" BRACE CONNECTION BOLT AT ALL FACES WITH ONE 3/4"ø X 2 1/2" GALV. A325 GHSB.

FIELD BOLTS REQUIRED	
QTY	DESCRIPTION
24	3/4" DIA. X 2" GHSB (NOTE B)
64	3/4" DIA. X 2 1/4" GHSB (NOTE C)
8	3/4" DIA. X 2 1/2" GHSB (NOTE D)

GHSB = GALVANIZED A325 HIGH STRENGTH BOLT WITH HEAVY HEX NUT, HARDENED WASHER AND PALNUT.

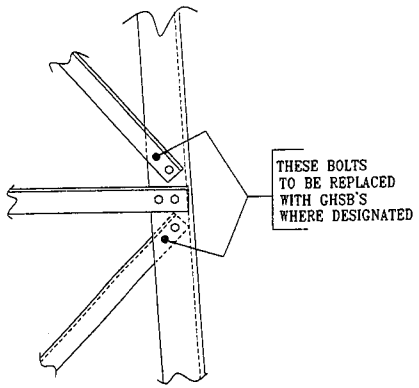
ATBP = ABOVE TOWER BASE PLATE



REQUIRED BOLT REPLACEMENTS

EXISTING 125'-0" MODIFIED TYPE "K" TOWER

TYPICAL ALL FACES



DETAIL A

TYPICAL BOLT REPLACEMENT

STATE OF CONNECTICUT
JAMES E. BOLTZ
No. 20122
LICENSED PROFESSIONAL ENGINEER

3/26/2001

⚠	CONSTRUCTION

Communication Structures Engineering, Inc.
2450 Herodian Way, Suite 102
Smyrna, Georgia 30080
(770) 951-8080

Designed by: A. K. PADMAN
Drawn by: W. F. ELEVES
Checked by: J. E. BOLTZ

SNET LAND LINE TOWER
555 MAIN STREET
STAMFORD CT
VOICESTREAM WIRELESS
SITE ID CT-11-410-A

TOWER STRENGTHENING

Date: MARCH 2001
CSE Project No.: 01106
Scale: AS NOTED
Drawing No.: S-2

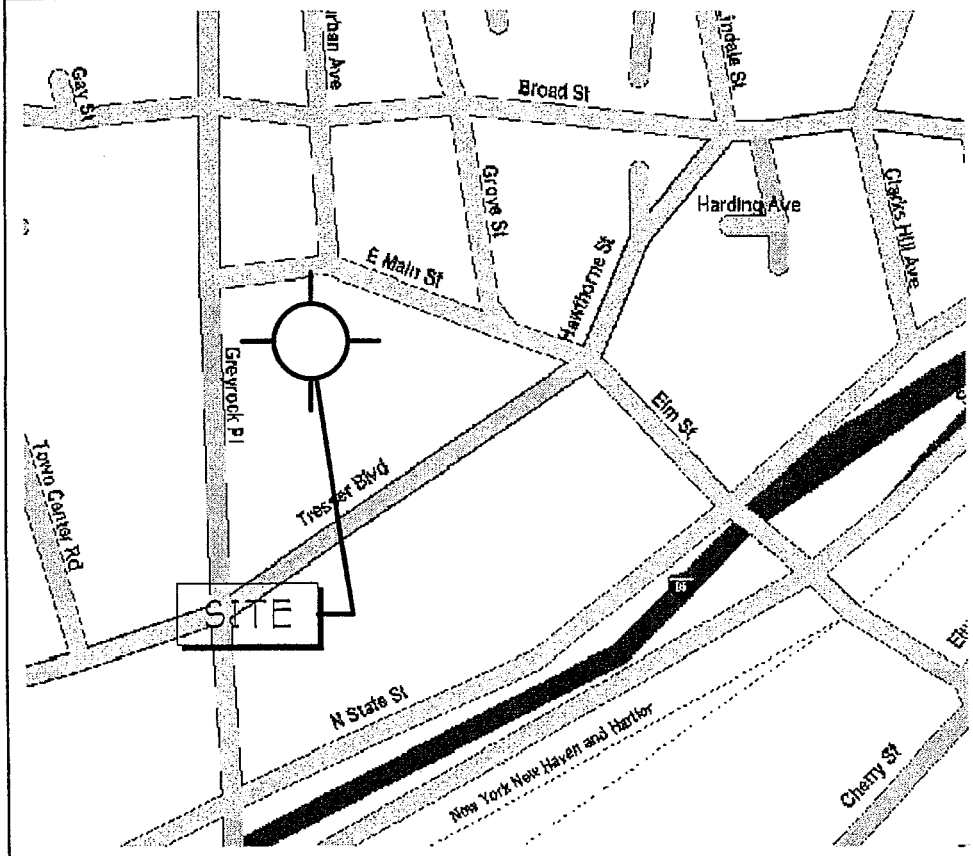
SNET LANDLINE TOWER
555 MAIN STREET
STAMFORD, CT

SEARCH AREA: **SNET/LL STAMFORD**

SITE I.D. #: **CT-11-410A**

UPGRADE

LOT#:	BLOCK#:	ZONING DISTRICT:	MAP#:



ROBERT P. JUENGERT

STATE OF CONNECTICUT * ROBERT PAUL JUENGERT * No. 4208 REGISTERED ARCHITECT

CT # 4208

DIRECTIONS TO SITE:

I-95 SOUTH TO EXIT 8 (ELM STREET) AT END OF RAMP, MAKE LEFT. FOLLOW TO LIGHT. MAKE LEFT ONTO MAIN STREET. MAKE LEFT ONTO GREYROCK. PULL INTO FENCED PARKING LOT

NORTH

SITE LOCATION MAP

SCALE: NTS

DWG.:	TITLE:
A-0	PROCEDURES
A-1	ROOF LAYOUT
A-2	TOWER PLAN
A-3	ELEVATION
A-4	5TH FLOOR ROOM
A-4a	5TH FLOOR ROOM CABLE LAYOUT
A-5	CABLE SUPPORT LADDER
A-6	6TH FLOOR LAYOUT
A-7	CABINET DETAILS
A-8	6TH FLOOR ELEVATION
A-9	PENETRATIONS AND DETAILS
A-10	GENERAL NOTES 1 OF 3
A-11	GENERAL NOTES 2 OF 3
A-12	GENERAL NOTES 3 OF 3
A-13	MATERIAL LIST
E-1	GENERAL INFORMATION
E-2	SERVICE PLAN
E-3	GROUNDING PLAN
E-4	RISER
E-5	GROUNDING DETAILS
E-6	GROUNDING DETAILS
E-7	GROUNDING DETAIL
Rev. 3	4/19/00
Rev. 4	3/02/00

ARCNET PROJECT NO. A99-506-605A | P.C.: JDi | DATE: 3/3/00

ARCNET ARCHITECTS, INC.
670 North Beers Street, Building 2, Holmdel, NJ 07733
Tel: 732.739.3200 Fax: 732.739.0440

ELECTRICAL ENGINEER: DLB ASSOCIATES, INC. Electrical/Mechanical Consulting Engineers Wanamassa, NJ

STRUCTURAL ENGINEER: CSE Comunication Structures Engineering, Inc.

CIVIL ENGINEER:

SNET Landline Procedures

All work to be completed in accordance with SNET standard general conditions for building construction dated February, 1998. Following are Contractor responsibilities and guidelines for work to be performed at SNET Landline sites.

Construction Schedule:

- Upon notification to proceed with construction, the Contractor shall provide a detailed construction schedule listing the dates and times required on site. **This schedule shall be provided in writing to SNET, Omnipoint Construction and Leasing prior to starting work.** The Contractor must adhere to this schedule and forward any changes in writing to each of the above parties.

Construction Access:

- Construction access shall be limited to those dates and times provided in the construction schedule.
- Construction access shall be via keys and lock combinations provided to the Contractor.
- When working at sites other than a Central Office, the Contractor shall notify the SNET operator **immediately upon arriving at the site and immediately upon leaving the site**. The telephone number of the SNET operator is posted on the entrance door to the building and/or adjacent to the telephone inside the building.
- A SNET representative must personally accompany the Contractor for access to Central Office Buildings.

Removal of Existing Equipment on Towers by SNET

- **SNET shall remove** existing equipment on the tower and up to the waveguide entry port at the building exterior. This includes, but is not limited to, parabolic antennas, waveguide lines, mounting hardware, etc. The contract drawings indicate the items to be removed. **These materials must be transported off-site and properly** disposed of immediately upon removal.

Relocation of Existing Equipment Inside Buildings by SNET

- **SNET shall relocate** existing equipment inside buildings where these items are called out to be relocated on the drawings. In general, this includes existing microwave equipment, racks, waveguide pressurization equipment and controls, conduits, piping, gauges, etc. This equipment shall be relocated to an area not affected by the nature of Omnipoints construction.
- Existing waveguide and electrical circuits entering the top of microwave equipment racks shall be properly disconnected and terminated at the ceiling level.

General SNET Construction Requirements

- Wooden Sleepers are not permitted for the support of coaxial cable inside or outside the building. The Contractor shall use 4" x 4" PVC sleepers for the support of jumper and coaxial cable adjacent to the equipment cabinet at all installations, whether called out on the drawings or not.
- The Contractor is **not** permitted to relocate any existing ceiling hung cable trays. If the Contractor wishes to utilize existing empty trays, he may do so in their existing locations only. The Contractor may replace an existing tray with a larger (wider) tray in the same location in lieu of installing an alternate horizontal support system inside the building.
- SNET has requested that jumper-coaxial cable connections inside the building **not be weatherproofed**. The Contractor shall use electrical tape only on interior connections.

All work to be completed in accordance with SNET standard general conditions for building construction dated February , 1998.

- General contractor to perform to currant **SNET STANDARD GENERAL** conditions for building construction. (Feb. 1998 or Later).
- All roof details, construction drawings and roof penetrations and repairs are to be approved by SNET and to be conducted by SNET approved roof contractor prior to construction

ROBERT P. JUENGERT

STATE OF CONNECTICUT * ROBERT PAUL JUENGERT * NO. 4208 REGISTERED ARCHITECT

CT # 4208

UPGRADE

ARCNET ARCHITECTS, INC.
670 North Beers Street, Building 2, Holmdel, NJ 07733
Tel: 732.739.3200 Fax: 732.739.0440

Drawing Title: PROCEDURES

Client: OCS

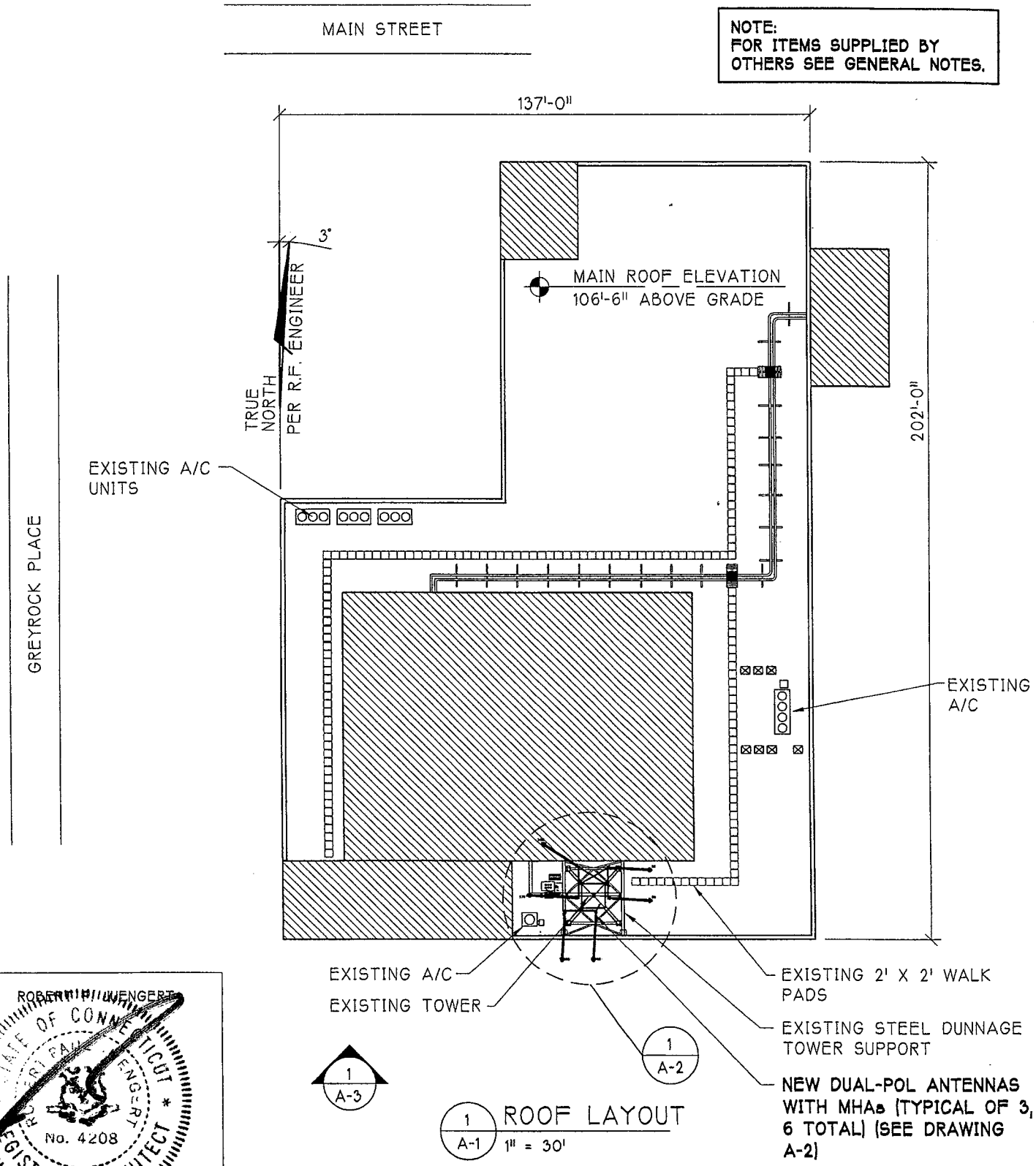
Project: **SNET LANDLINE TOWER**
Address: 555 MAIN STREET
STAMFORD, CT
Search Area: SNET/ LL-STAMFORD
Site ID No.: CT-11-410A

P.C.:	P.C. Chkd.:	Chkd. by:	ARCNET Project No.	Drawn:	Date:
JDi			A99-506-605A	RSa	2/25/00

Approved By: CLIENT: _____ DATE: _____

Revision No.	Date:
3 WCo	4/19/00

Drawing No. **A-0**



ROBERT P. WENGERT
STATE OF CONNECTICUT
REGISTERED ARCHITECT
No. 4208

CT #	4208

UPGRADE

ARCNET ARCHITECTS, INC.
670 North Beers Street, Building 2, Holmdel, NJ 07733
Tel: 732.739.3200 Fax: 732.739.0440

Drawing Title: ROOF LAYOUT

Client: OCS

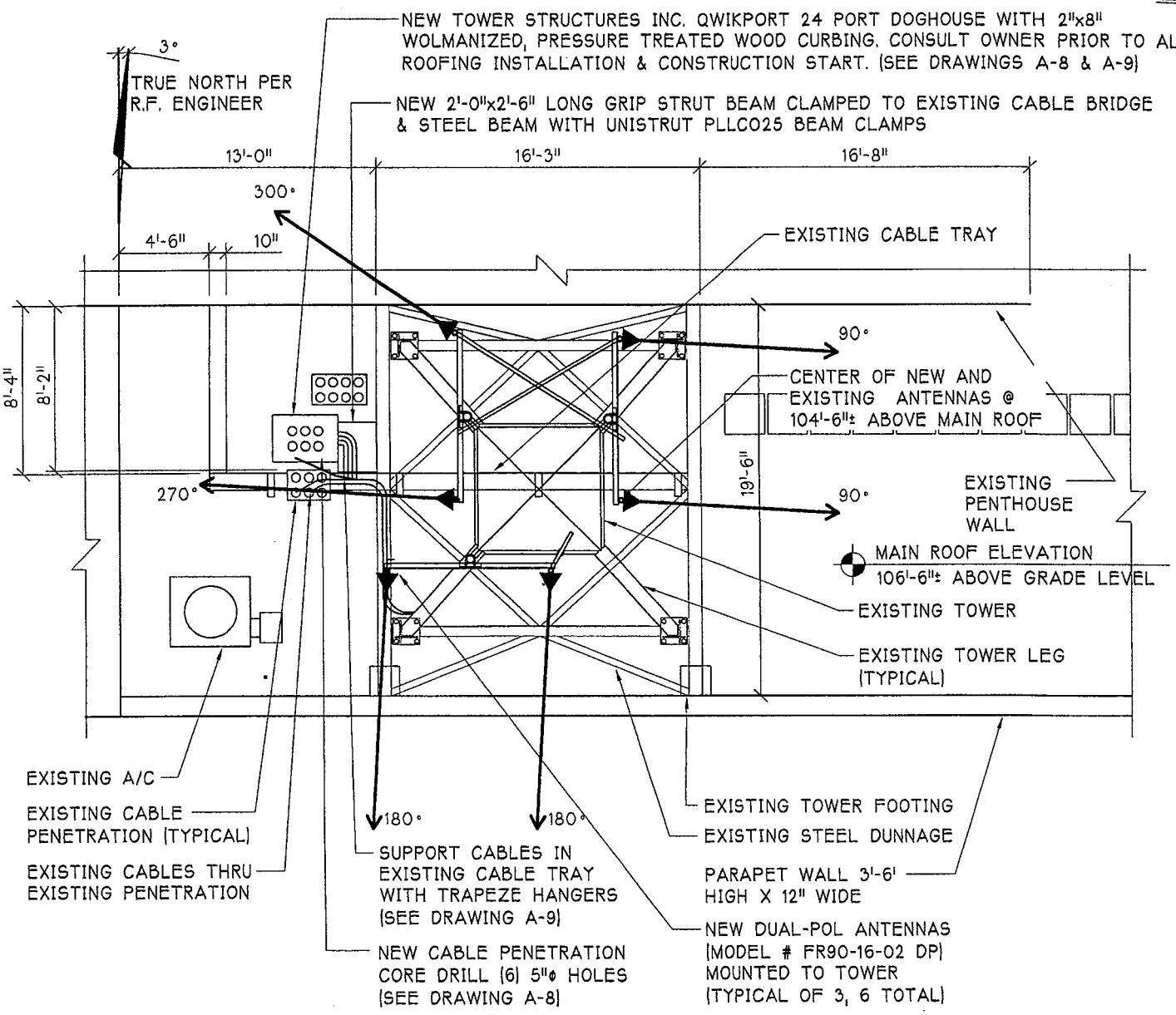
Project: SNET LANDLINE TOWER
Address: 555 MAIN STREET
STAMFORD, CT
Search Area: SNET/ LL-STAMFORD
Site ID No.: CT-11-410A

P.C.	P.C. Chkd.	Chkd. by	ARCNET Project No.	Drawn	Date
JDi			A99-506-605A	RSa	2/25/00

Approved By:
CLIENT: _____ DATE: _____

Revision No.	Date
4 WCo	6/05/00
3 WCo	4/19/00
REV2 RS	3/2/00

Drawing No. A-1



1 / A-2 TOWER PLAN @ 106'-6" ABOVE MAIN ROOF

1/8" = 1'-0"

ROBERT P. JUENGERT

STATE OF CONNECTICUT * ROBERT PAUL JUENGERT * No. 4208 REGISTERED ARCHITECT

CT # 4208

UPGRADE

NOTE:
PLATFORM AND EXISTING ANTENNAS NOT SHOWN FOR CLARITY. FOR EXACT LOCATION AND ORIENTATION AND MOUNTING OF ALL ANTENNAS CONTACT CSEI FOR COPY OF S-1 DRAWING. CONTACT LIZ STARR, EXT: 207 @ TOWER STRUCTURES, INC. (888)-219-0299

ARCNET ARCHITECTS, INC.
670 North Beers Street, Building 2, Holmdel, NJ 07733
Tel: 732.739.3200 Fax: 732.739.0440

Drawing Title: TOWER PLAN

Client: OCS

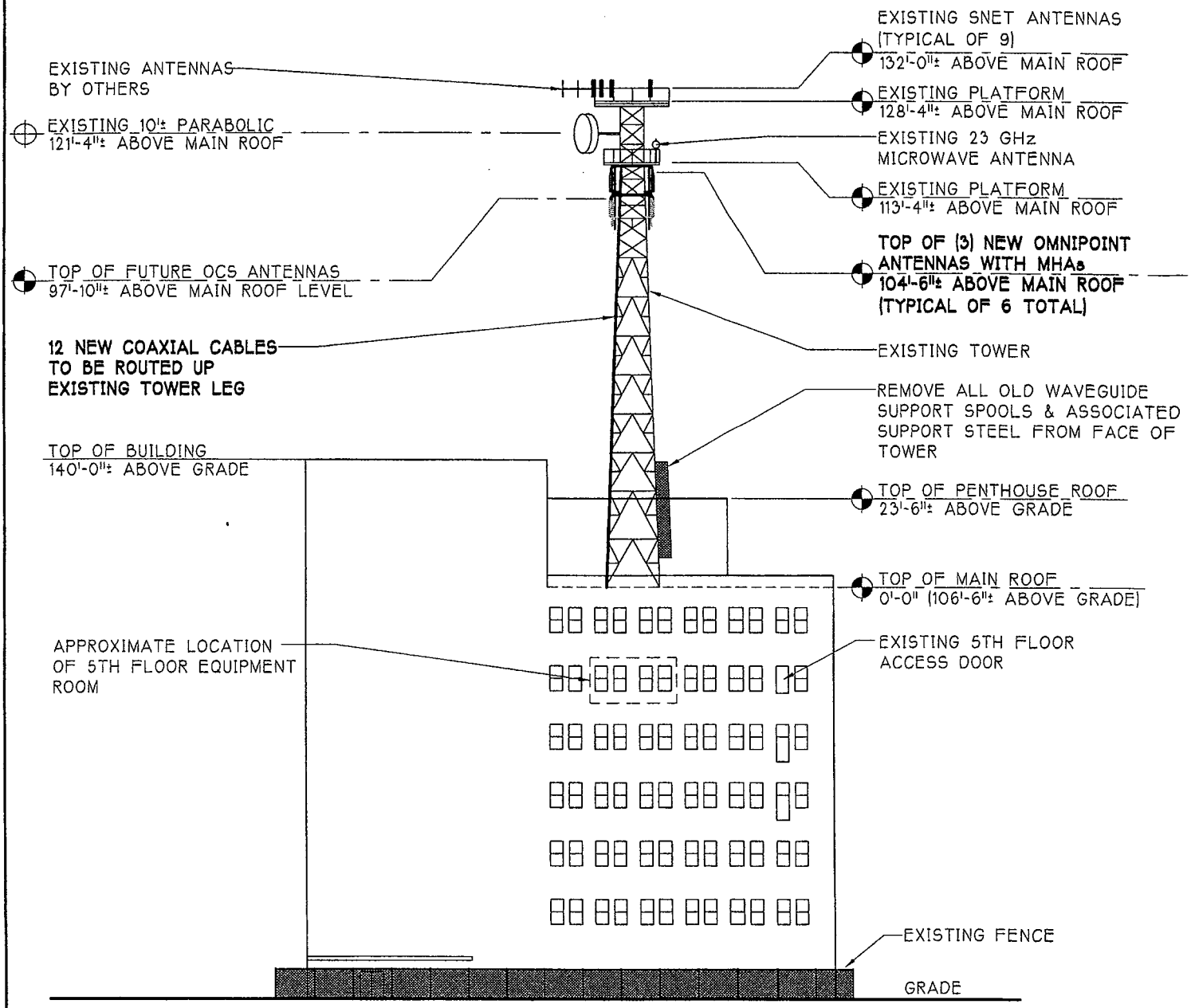
Project: SNET LANDLINE TOWER
Address: 555 MAIN STREET STAMFORD, CT
Search Area: SNET/ LL-STAMFORD
Site ID No.: CT-11-410A

Revision No.	Date:
4 WCo	6/5/00
3 WCo	4/19/00
REV2 RS	3/2/00

P.C.:	P.C. Chkd.:	Chkd. by:	ARCNET Project No.	Drawn:	Date:
JDi			A99-506-605A	RSa	2/25/00

Approved By: CLIENT: _____ DATE: _____

Drawing No. A-2



1 / A-3 SOUTH ELEVATION

1" = 40'

NOTE:
UTILIZE 5TH FLOOR ACCESS DOOR
VIA CRANE TO TRANSPORT CABINET
TO 5TH FLOOR

ROBERT P. JUENGERT

STATE OF CONNECTICUT
ROBERT P. JUENGERT
No. 4208
REGISTERED ARCHITECT

CT # 4208

UPGRADE

ARCNET ARCHITECTS, INC.
670 North Beers Street, Building 2, Holmdel, NJ 07733
Tel: 732.739.3200 Fax: 732.739.0440

Drawing Title: ELEVATION

Client: OCS

Project: SNET LANDLINE TOWER

Address: 555 MAIN STREET
STAMFORD, CT

Search Area: SNET/ LL-STAMFORD

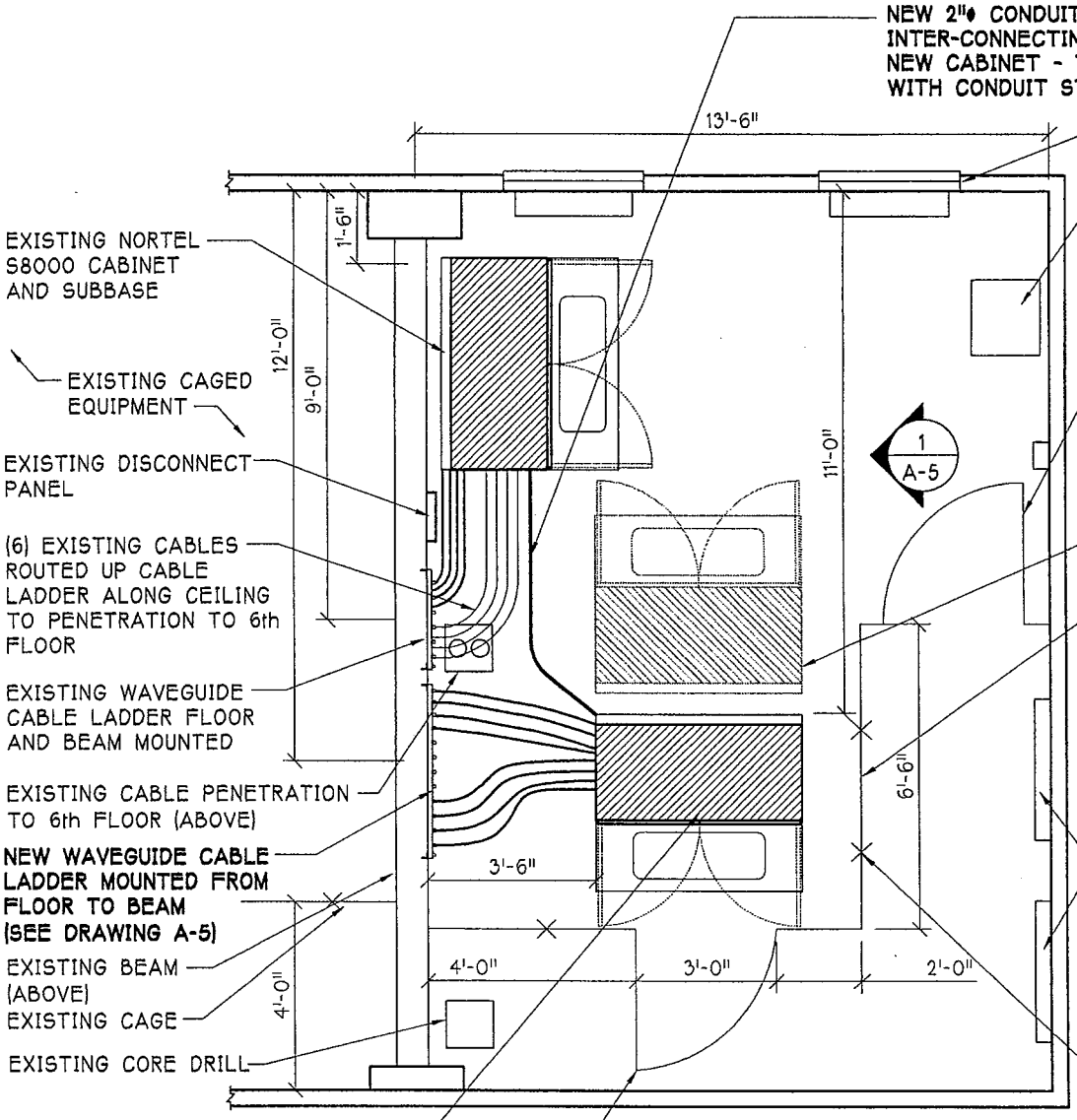
Site ID No.: CT-11-410A

P.C.	P.C. Chkd.	Chkd. by	ARCNET Project No.	Drawn	Date
JDi			A99-506-605A	RSa	2/25/00

Approved By:
CLIENT: _____ DATE: _____

Revision No.	Date
4 WCo	6/05/00
3 WCo	4/19/00
REV2 RS	3/2/00

Drawing No. A-3



GREYROCK PLACE

MAIN STREET

1/A-4 5th FLOOR ROOM

SCALE: 1/4"=1'-0"

ROBERT P. JUNGERT

STATE OF CONNECTICUT — ROBERT PAUL JUNGERT — No. 4208 — REGISTERED ARCHITECT

CT #	4208

NOTE:
AVOID EXISTING COLUMN.
CONTRACTOR TO VERIFY ALL LOCATIONS

NOTE:
ELECTRIC/TELCO CONDUITS TO BE ROUTED UP WALL, ACROSS CEILING, AND DOWN NEW CABLE LADDER TO NEW BTS. SNET TO WIRE INTO MAIN A/C PANEL.
MAINTAIN ADEQUATE CLEARANCES FROM EXISTING SNET ELECTRIC/TELCO PANELS AND OVERHEAD AIR CONDITIONING VENTS

UPGRADE

ARCNET ARCHITECTS, INC.
670 North Beers Street, Building 2, Holmdel, NJ 07733
Tel: 732.739.3200 Fax: 732.739.0440

Drawing Title: 5TH FLOOR ROOM

Client: OCS

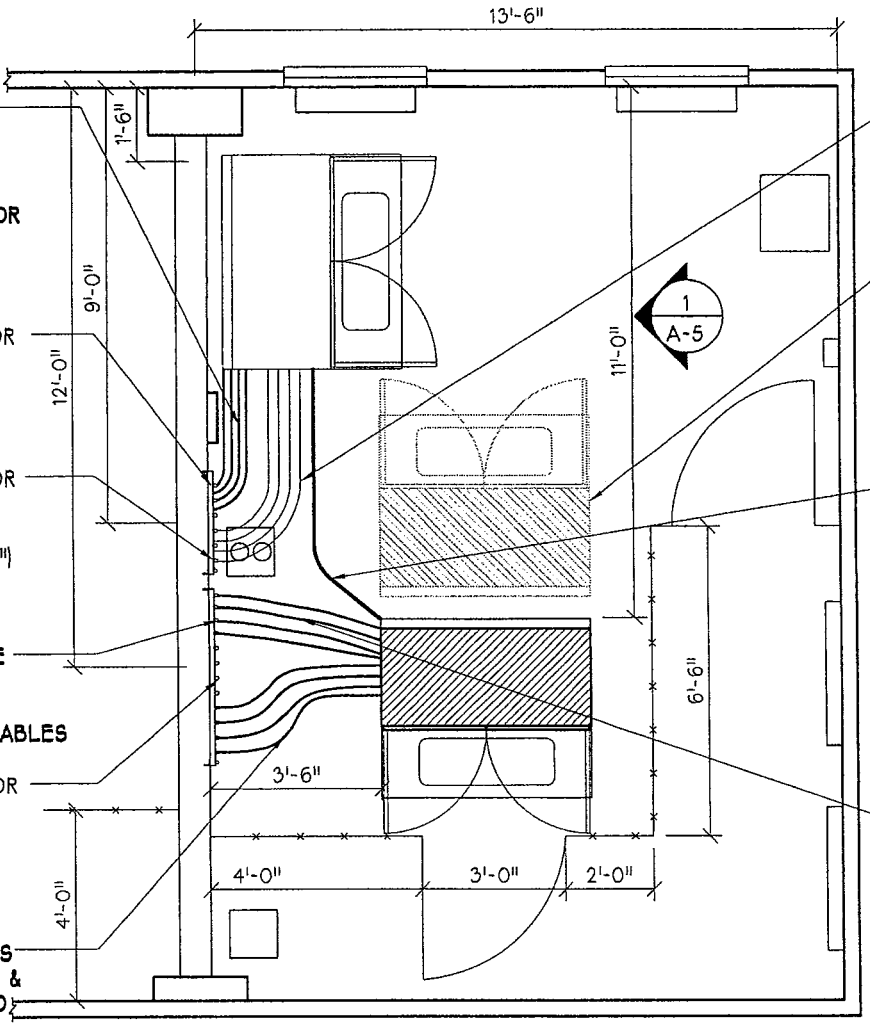
Project: SNET LANDLINE TOWER
Address: 555 MAIN STREET STAMFORD, CT
Search Area: SNET/ LL-STAMFORD
Site ID No.: CT-11-410A

P.C.:	P.C. Chkd.:	Chkd. By:	ARCNET Project No.	Drawn:	Date:
JDi			A99-506-605A	RSa	2/25/00

Approved By: CLIENT: _____ DATE: _____

Revision No.	Date:
3 WCo	4/19/00

Drawing No. A-4



NEW (4) CABLES ROUTED FROM 190° SECTOR INTO EXISTING CABINET (RESERVE SPACE FOR 4 FUTURE CABLE GROWTH ROUTED FROM 190° SECTOR)

RESERVE SPACE FOR 4 FUTURE COAXIAL CABLE GROWTH ROUTED FROM 90° SECTOR

RESERVE SPACE FOR 4 FUTURE COAXIAL CABLE (APPROXIMATELY 10") ROUTED FROM 270°, 300° SECTORS

CABLE TRAY TO BE WIDENED TO ACCOMMODATE (12) FUTURE COAXIAL CABLES

RESERVE SPACE FOR 4 FUTURE COAXIAL CABLE GROWTH ROUTED FROM 270° SECTOR

(4) COAXIAL CABLES ROUTED FROM 270° & 300° SECTORS INTO NEW EXTENSION CABINET (SEE NOTE AND DRAWING A-12)

(4) NEW COAXIAL CABLES ROUTED FROM 90° SECTOR

ADJUST FUTURE CABINET AS REQUIRED TO ACCOMMODATE FUTURE CABLE SPACINGS ON CABLE LADDER

NEW 2"ø CONDUIT FOR CABLE INTER-CONNECTING EXISTING CABINET WITH NEW CABINET

(4) COAXIAL CABLES ROUTED FROM 90° SECTORS INTO NEW EXTENSION CABINET (SEE NOTE AND DRAWING A-12)

5th FLOOR ROOM CABLE ORIENTATION LAYOUT

1 / A-4a SCALE: 1/4"=1'-0"

NOTE:
ELECTRIC/TELCO CONDUITS TO BE ROUTED UP WALL, ACROSS CEILING, AND DOWN NEW CABLE LADDER TO NEW BTS. SNET TO WIRE INTO MAIN A/C PANEL.
MAINTAIN ADEQUATE CLEARANCES FROM EXISTING SNET ELECTRIC/TELCO PANELS AND OVERHEAD AIR CONDITIONING VENTS

NOTE:
RELOCATE EAST & NEW CABINET DISCONNECT PANELS AS REQUIRED TO ALLOW FOR ADEQUATE NEW 7 FUTURE COAXIAL SPACINGS

NOTE:
AVOID EXISTING COLUMN. CONTRACTOR TO VERIFY ALL LOCATIONS

NOTE:
1- ON 270° SECTOR COLOR CODE TAPEMARKINGS AS B3 & B4.

2- ON 300° SECTOR COLOR CODE TAPEMARKINGS AS B1 & B2.

ROBERT P. JUENGERT
STATE OF CONNECTICUT
ROBERT PAUL JUENGERT
No. 4208
REGISTERED ARCHITECT

CT # 4208

UPGRADE

ARCNET ARCHITECTS, INC.
670 North Beers Street, Building 2, Holmdel, NJ 07733
Tel: 732.739.3200 Fax: 732.739.0440

Drawing Title: 5th FLOOR ROOM-CABLE LAYOUT

Client: OCS

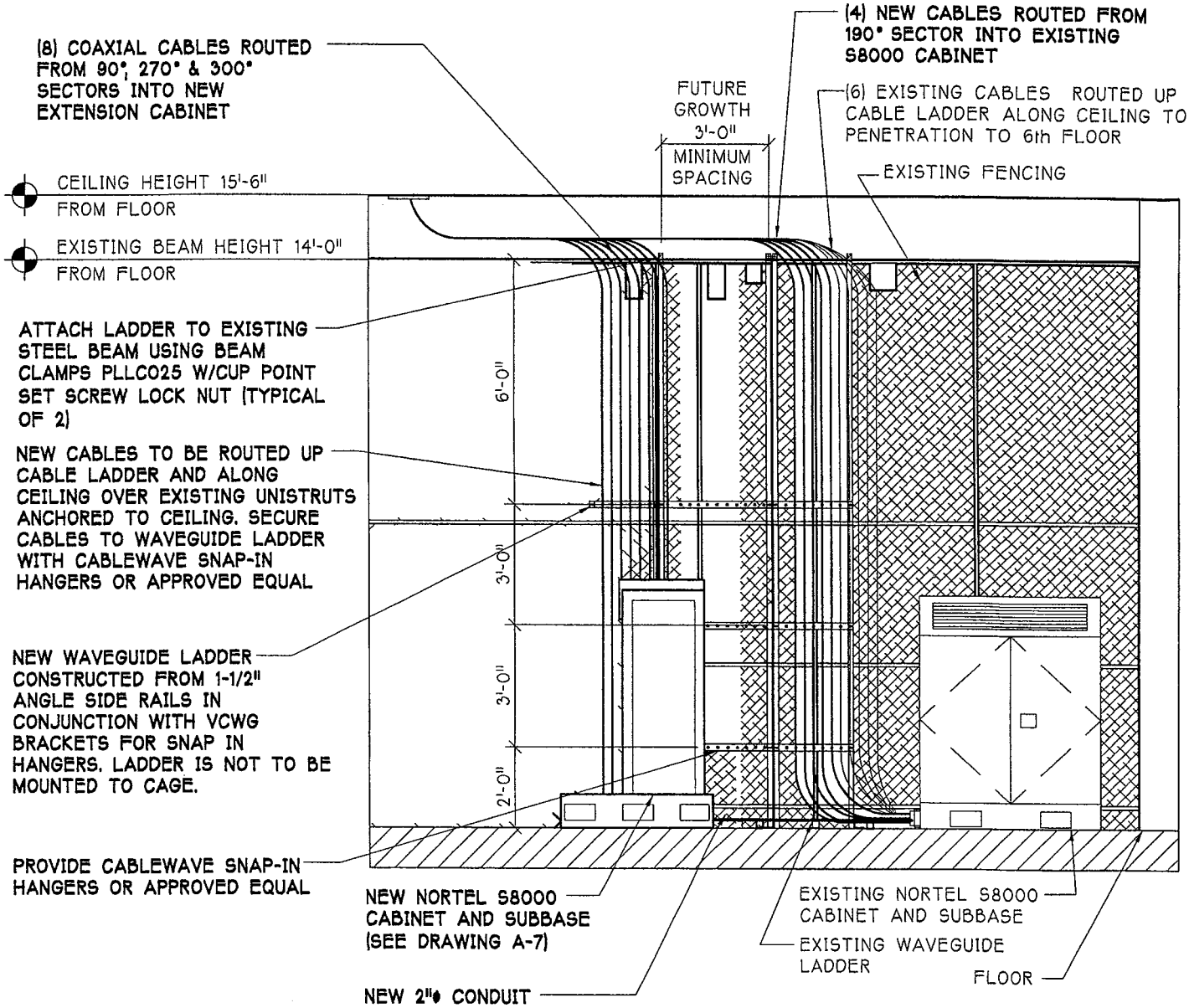
Project: SNET LANDLINE TOWER
Address: 555 MAIN STREET
STAMFORD, CT
Search Area: SNET/ LL-STAMFORD
Site ID No.: CT-11-410A

P.C.	P.C. Chkd.	Chkd. by	ARCNET Project No.	Drawn:	Date:
JDi			A99-506-605A	RSa	2/25/00

Approved By: CLIENT: _____ DATE: _____

Revision No.	Date:
3 WCo	4/19/00

Drawing No. A-4a



1 / A-5 CABLE SUPPORT LADDER
1/4"=1'-0"

NOTE:
1-UTILIZE (4) EXISTING CABLES TO SERVICE 190° SECTOR ANTENNAS.

2-UTILIZE OTHER (2) EXISTING CABLES FOR OTHER SECTORS (RE-ROUTE AS REQUIRED).

ROBERT P. JUENGERT
STATE OF CONNECTICUT * ROBERT PAUL JUENGERT * No. 4208 REGISTERED ARCHITECT
CT # 4208

UPGRADE

ARCNET ARCHITECTS, INC.
670 North Beers Street, Building 2, Holmdel, NJ 07733
Tel: 732.739.3200 Fax: 732.739.0440

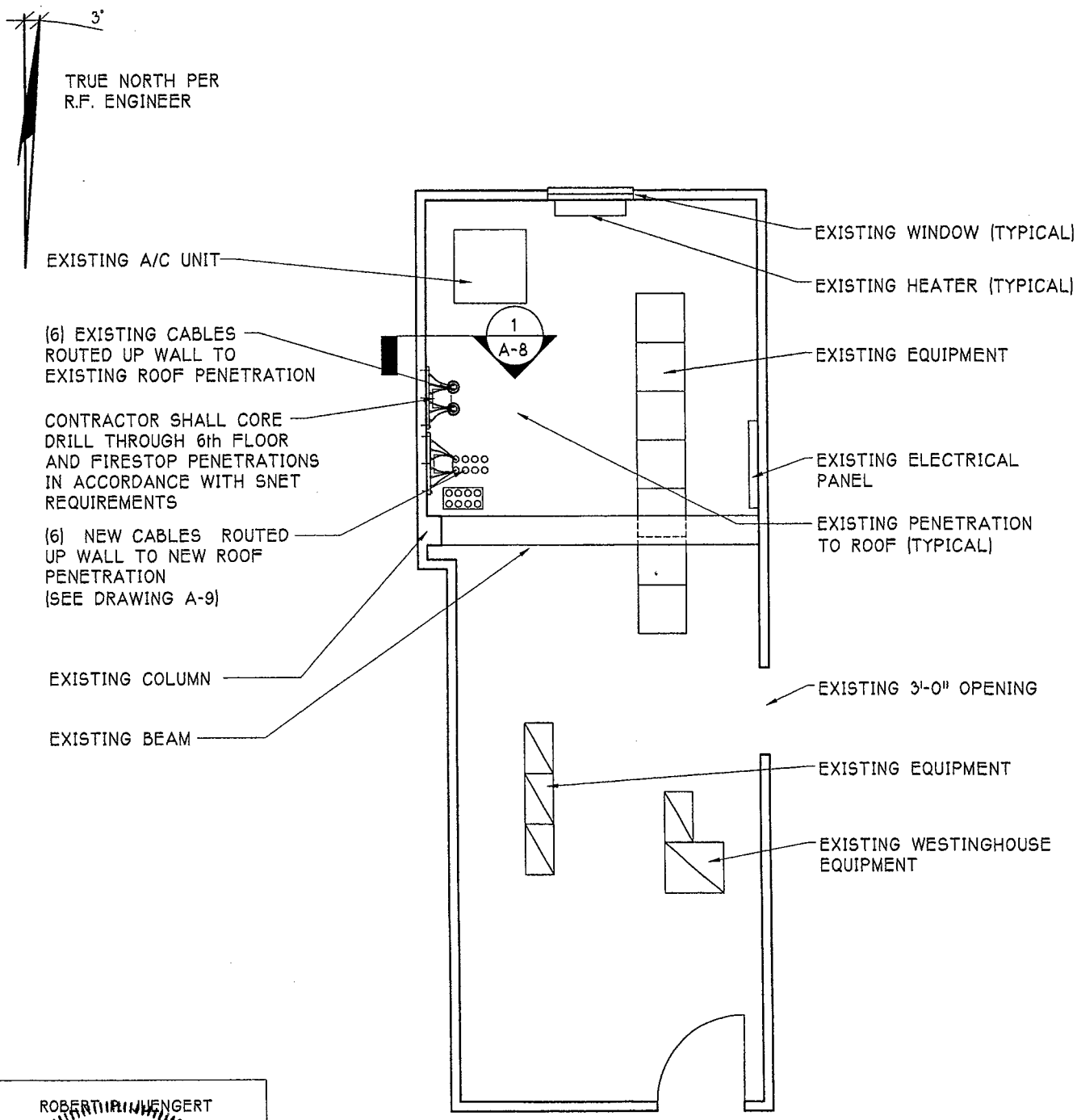
Drawing Title: CABLE SUPPORT LADDER
Client: OCS
Project: SNET LANDLINE TOWER
Address: 555 MAIN STREET STAMFORD, CT
Search Area: SNET/ LL-STAMFORD
Site ID No.: CT-11-410A

P.C.:	P.C. Chkd.:	Chkd. by:	ARCNET Project No.	Drawn:	Date:
JDi			A99-506-605A	RSa	2/25/00

Approved By: CLIENT: _____ DATE: _____

Revision No.	Date:
3 WCo	4/19/00

Drawing No. A-5



1 / A-6 PARTIAL 6th FLOOR ROOM LAYOUT
SCALE: 3/16"=1'-0"

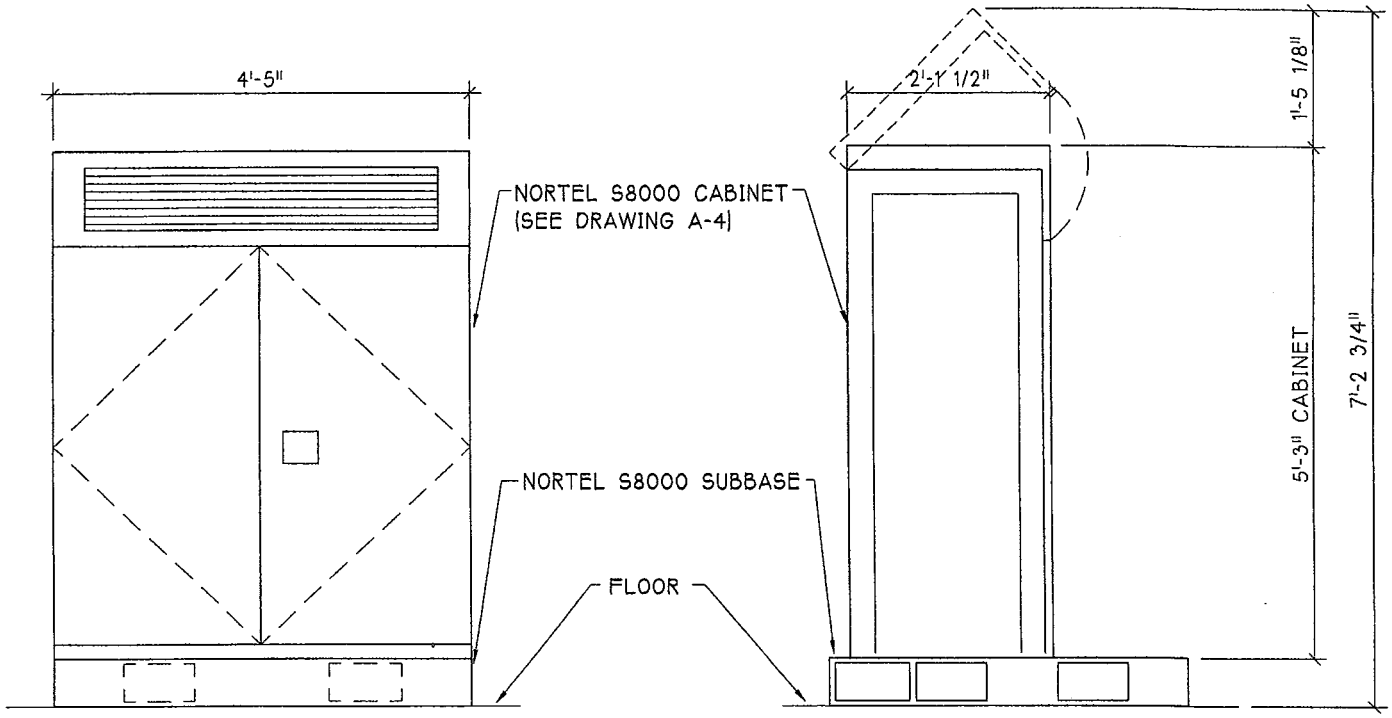
ROBERT P. LUENGERT
STATE OF CONNECTICUT
No. 4208
REGISTERED ARCHITECT

CT # 4208

UPGRADE

ARCNET ARCHITECTS, INC.
670 North Beers Street, Building 2, Holmdel, NJ 07733
Tel: 732.739.3200 Fax: 732.739.0440

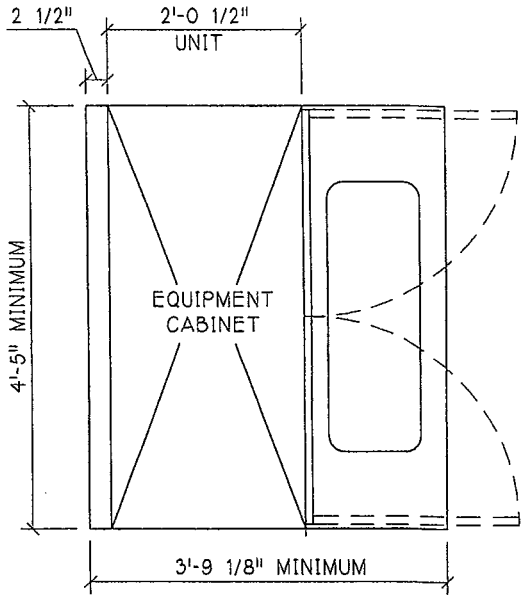
Drawing Title:	6TH FLOOR LAYOUT
Client:	OCS
Project:	SNET LANDLINE TOWER
Address:	555 MAIN STREET STAMFORD, CT
Search Area:	SNET/ LL-STAMFORD
Site ID No.:	CT-11-410A
Revision No.	3 WCo
Date:	4/19/00
P.C.:	JDi
P.C. Chkd.:	
Chkd. By:	
ARCNET Project No.	A99-506-605A
Drawn:	RSa
Date:	2/25/00
Approved By:	CLIENT: _____ DATE: _____
Drawing No.	A-6



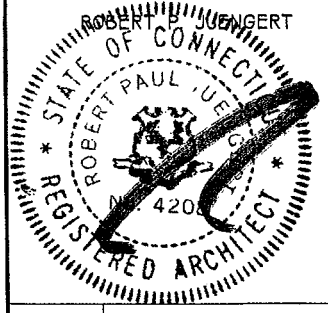
1 / A-7 FRONT VIEW
SCALE: 1/2" = 1'-0"

2 / A-7 SIDE VIEW
SCALE: 1/2" = 1'-0"

NOTE:
SECURE CABINET TO
FLOOR WITH HILTI HIT
HY-20 SYSTEM WITH 3/8"ϕ
X 6" ANCHORS AND 4" SCREEN TUBE



3 / A-7 PLAN
SCALE: 1/2" = 1'-0"



WEIGHT OF CABINET = 1056 lbs
WEIGHT OF PLATFORM = 110 lbs

UPGRADE

CT #	4208

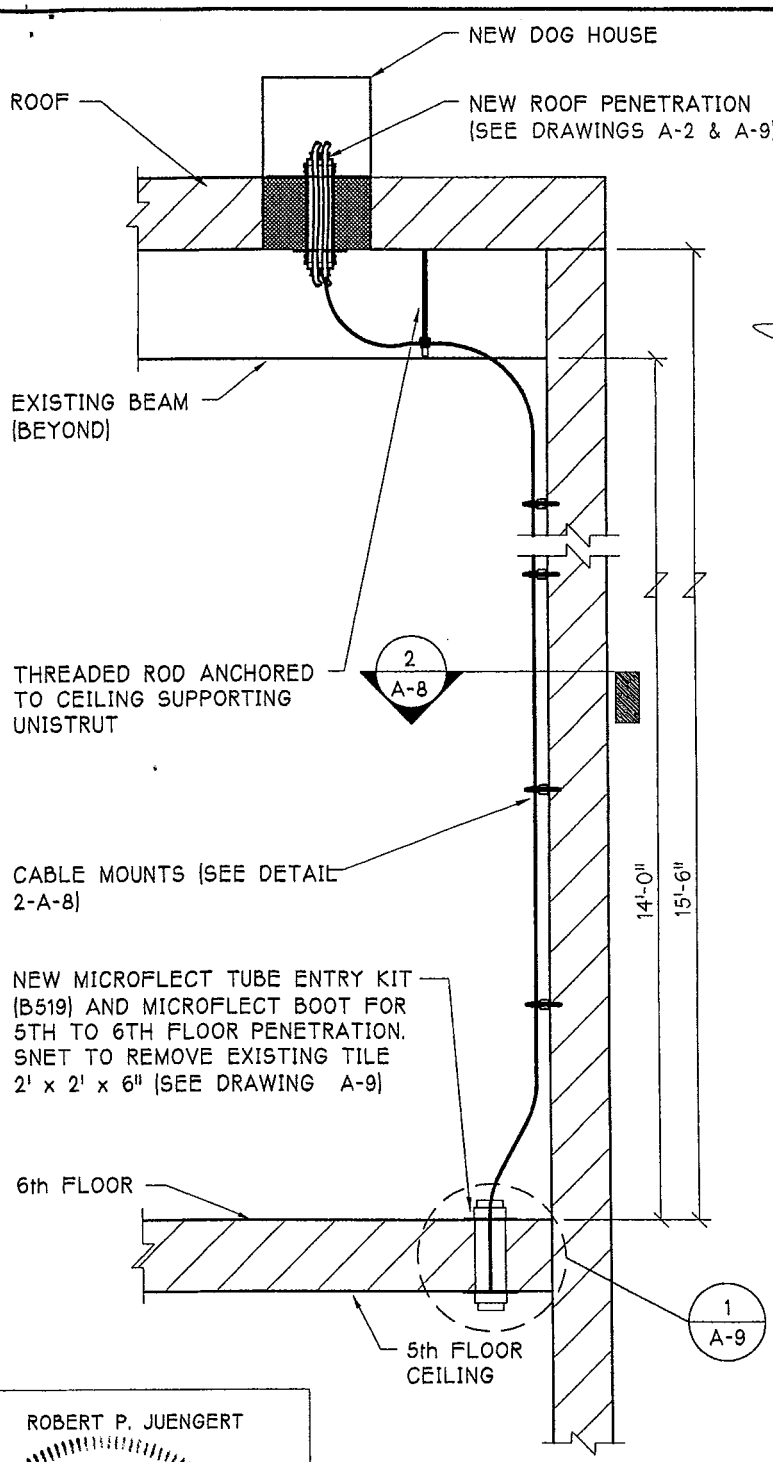
ARCNET ARCHITECTS, INC.
670 North Beers Street, Building 2, Holmdel, NJ 07733
Tel: 732.739.3200 Fax: 732.739.0440

Drawing Title: CABINET DETAILS
Client: OCS
Project: SNET LANDLINE TOWER
Address: 555 MAIN STREET
STAMFORD, CT
Search Area: SNET/ LL-STAMFORD
Site ID No.: CT-11-410A
Approved By: CLIENT: _____ DATE: _____

P.C.	P.C. Chkd.	Chkd. By	ARCNET Project No.	Drawn	Date
JDi			A99-506-605A	RSa	2/25/00

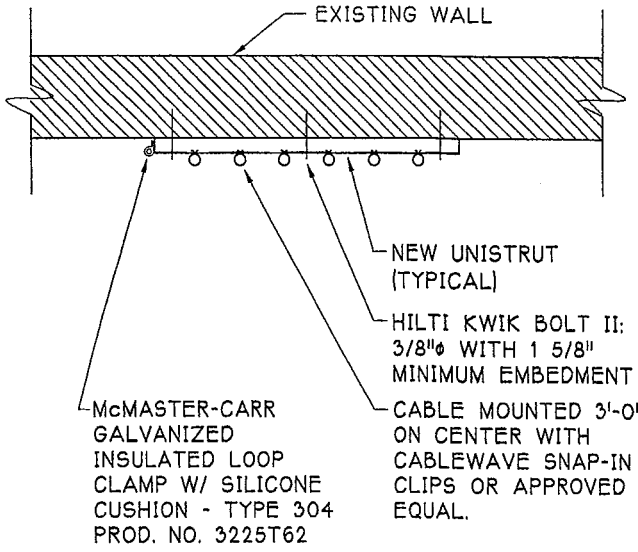
Revision No.	Date
REV2RS	3/2/00

Drawing No. A-7



1/A-8 CABLE MOUNTING

SCALE: 1/4"=1'-0"



NO. OF HOLES	MODEL #	LENGTH
1	VCWG-1	6"
2	VCWG-2	8"
4	VCWG-4	15"
7	VCWG-7	24"
12	VCWG-12	40"

2/A-8 WALL MOUNT

SCALE: 1/4"=1'-0"

NOTE 1:
CONTRACTOR TO MODIFY BOOT ASSEMBLY TO ACCOMMODATE (6) 1 5/8" COAX CABLES AS NEEDED. BOOT ASSEMBLY #B1619 FOR EXISTING CORE DRILL ON ROOF OR APPROVED EQUAL. ROOF ENTRY BOOT SEAL (SILICON BASE) MICROFLECT #B1177 OR APPROVED EQUAL.

NOTE:
CONTRACTOR TO UTILZE OWNER'S ROOFER FOR ALL REPAIRS

ROBERT P. JUENGERT

STATE OF CONNECTICUT * ROBERT P. JUENGERT * No. 4208 * REGISTERED ARCHITECT

CT # 4208

UPGRADE

ARCNET ARCHITECTS, INC.
670 North Beers Street, Building 2, Holmdel, NJ 07733
Tel: 732.739.3200 Fax: 732.739.0440

Drawing Title: 6TH FLOOR ELEVATION

Client: OCS

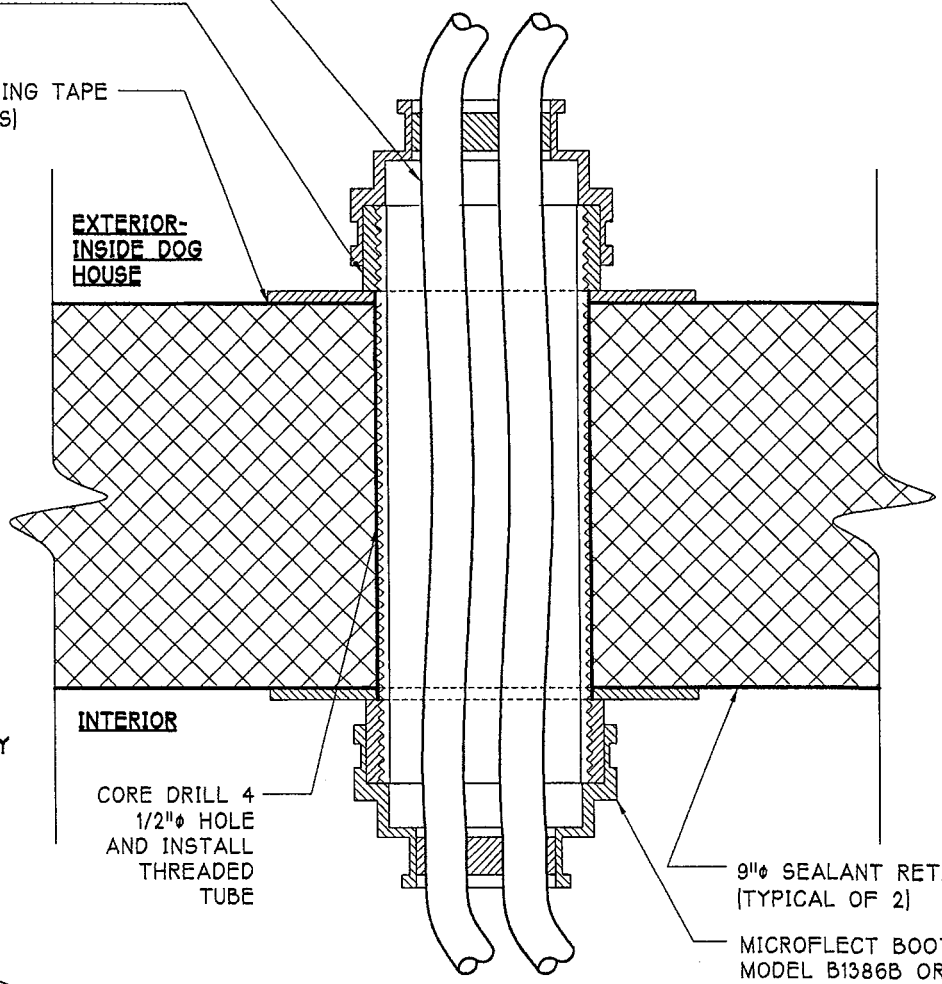
Project: SNET LANDLINE TOWER
Address: 555 MAIN STREET
STAMFORD, CT
Search Area: SNET/ LL-STAMFORD
Site ID No.: CT-11-410A

3 WCo	4/19/00
REV2 RS	3/2/00
Revision No.	Date:

P.C.:	P.C. Chkd.:	Chkd. by:	ARCNET Project No.	Drawn:	Date:
JDi			A99-506-605A	RSa	2/25/00

Approved By:
CLIENT: _____ DATE: _____

Drawing No. A-8



NOTE:
1-CUT THREADED CONDUIT TO LENGTH REQUIRED.

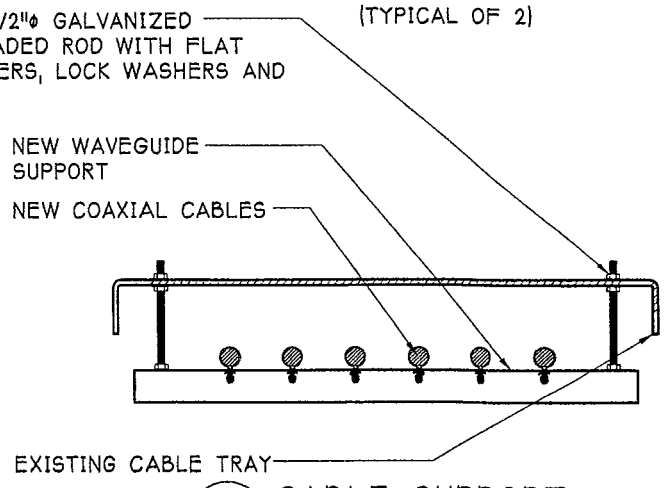
2-MICROFLECT BOOTS OPTIONAL, TO INSURE NO DAMAGE TO COAXIAL CABLES.

3-USE NEW TOWER STRUCTURES INC. QWIKPORT 24 PORT DOGHOUSE ON EXTERIOR

MICROFLECT 5" TUBE ENTRY KIT MODEL B519:

1 - ENTRY TUBE
2 - COUPLING NUTS
2 - SEALANT RETAINERS
1 - CLAMP

1 / A-9 FLOOR PENETRATION DETAIL
3" = 1'-0"



2 / A-9 CABLE SUPPORT
NOT TO SCALE

ROBERT P. JUENGERT
STATE OF CONNECTICUT
ROBERT PAUL JUENGERT
No. 4208
REGISTERED ARCHITECT

UPGRADE

CT #	4208

ARCNET ARCHITECTS, INC.
670 North Beers Street, Building 2, Holmdel, NJ 07733
Tel: 732.739.3200 Fax: 732.739.0440

Drawing Title: PENETRATIONS AND DETAILS
Client: OCS
Project: SNET LANDLINE TOWER
Address: 555 MAIN STREET STAMFORD, CT
Search Area: SNET/ LL-STAMFORD
Site ID No.: CT-11-410A

P.C.:	P.C. Chkd.:	Chkd. by:	ARCNET Project No.	Drawn:	Date:
JDi			A99-506-605A	RSa	2/25/00

Approved By: CLIENT: _____ DATE: _____

Revision No.	Date:
3 WCa	4/18/00
REV2 RS	3/2/00

Drawing No. A-9

GENERAL NOTES:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES.

2. CONTRACTOR SHALL INSTALL ALL EQUIPMENT SUPPLIED BY OMNIPOINT. ALL ITEMS NOT SPECIFIED IN THE MATERIAL LIST SHALL BE SUPPLIED & INSTALLED BY THE CONTRACTOR.

3. ALL EQUIPMENT SHALL BE INSTALLED PLUMB AND LEVEL.

4. ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST AISC CODE AND ASTM SPECIFICATION. STEEL SHALL CONFORM TO ASTM A-36. PIPE SHALL CONFORM TO ASTM A-501 OR ASTM A-53 (GRADE B)

5. ALL CONNECTIONS OF STRUCTURAL STEEL MEMBERS SHALL BE MADE USING SPECIFIED WELDS WITH WELDING ELECTRODES E-70XX OR SPECIFIED HIGH STRENGTH BOLTS TO BE ASTM A325, THREAD EXCLUDED FROM SHEAR PLANE.

6. **ALL STEEL EXPOSED TO MOISTURE, SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION** PER ASTM A-123. ALL DAMAGED SURFACES, WELDED AREAS AND AUTHORIZED NON-GALVANIZED MEMBERS OR PARTS (EXISTING OR NEW) SHALL BE PAINTED WITH 2 COATS OF ZRC COLD GALVANIZING COMPOUND MANUFACTURED BY ZRC CHEMICAL PRODUCTS Co. QUINCY, MASS.. OR USE THERMAL SPRAYING WITH PLATTZINC 85/15 AS MANUFACTURED BY PLATT BROTHERS & COMPANY WATERBURY, CT 1-800-752-8276.

7. ALL SHOP AND FIELD WELDING SHALL BE DONE BY WELDERS QUALIFIED AS DESCRIBED IN THE "AMERICAN WELDING SOCIETY'S STANDARD QUALIFICATION PROCEDURE" TO PERFORM THE TYPE OF WORK REQUIRED.

8. **ALL PIPE SIZES ARE NOMINAL DIAMETER. (INSIDE DIAMETER)**

9. **CONTRACTOR SHALL MEASURE AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS IN FIELD. ANY UNUSUAL CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER PRIOR TO THE PURCHASE, FABRICATION AND ERECTION OF ANY MATERIAL.**

10. INCORRECTLY FABRICATED, DAMAGED, OTHERWISE MISFITTING, OR NON-CONFORMING MATERIALS AND CONDITIONS SHALL BE REPORTED TO THE OWNER, ARCHITECT, AND CONSTRUCTION MANAGER PRIOR TO ANY REMEDIAL OR CORRECTIVE ACTION. ALL ACTIONS SHALL REQUIRE APPROVAL FROM THE OWNER.

11. CONTRACTOR SHALL EXECUTE ALL WORK PREVENTING ANY DAMAGE TO EXISTING STRUCTURES, ESPECIALLY TO ROOF. ANY ROOF WORK INVOLVING ATTACHMENT, REMOVAL OF FINISH SURFACE OR PENETRATION SHALL BE PERFORMED TO PRESERVE EXISTING, ROOFING GUARANTEES AND WARRANTIES. ROOF SHALL BE RESTORED TO COMPLETE WATER TIGHTNESS WITH THE APPROVED MATERIAL AND BY A SUB CONTRACTOR PRE-APPROVED BY THE OWNER IN WRITING.

12. MASONRY PENETRATIONS SHOULD USE ROTARY ACTION ONLY. (NO HAMMERING ACTION.)

13. ALL PENETRATIONS TO BE PROPERLY FIRE-STOPPED WITH 3M F.S.195 WRAP STRIP FIRE-STOP AND CP25 NON-SHRINKING PUTTY FIRE BARRIER SEALANT. MAINTAIN FIRE RATING OF ALL PENETRATED SURFACES.

14. ALL MOUNTS TO WALLS TO BE SEALED AT TOP AND SIDES WITH DOW CORNING CLEAR SILICONE SEALANT OR APPROVED EQUAL. SILICONE APPLICATIONS ARE TO BE TOOLED TO MAINTAIN A FINISHED APPEARANCE.

15. CONTRACTOR SHALL PROMPTLY REMOVE ANY & ALL DEBRIS FROM SITE.

16. CONTRACTOR SHALL PROVIDE A 3/4" CHAMFER ON ALL CONCRETE SLABS.

ROBERT P. JUENGERT
STATE OF CONNECTICUT
ROBERT PAUL JUENGERT
No. 4208
REGISTERED ARCHITECT

CT # 4208

UPGRADE

ARCNET ARCHITECTS, INC.
670 North Beers Street, Building 2, Holmdel, NJ 07733
Tel: 732.739.3200 Fax: 732.739.0440

Drawing Title: GENERAL NOTES 1 OF 3

Client: OCS

Project: **SNET LANDLINE TOWER**
Address: 555 MAIN STREET
STAMFORD, CT
Search Area: SNET/ LL-STAMFORD
Site ID No.: CT-11-410A

P.C.:	P.C. Chkd.:	Chkd. by:	ARCNET Project No.	Drawn:	Date:
JDi			A99-506-605A	RSa	2/25/00

Approved By:
CLIENT: _____ DATE: _____

Revision No.	Date:

Drawing No. A-10

17. WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS, THE GENERAL CONTRACTOR SHALL PAINT ALL NEW ANTENNAS, SHROUD AND RELATED HARDWARE TO MATCH EXISTING CONDITIONS BELOW.
NOTE ALL PAINT TO BE SHERWIN WILLIAMS OR APPROVED EQUAL, UNLESS OTHERWISE SPECIFIED

A. ANTENNA PAINT SPECIFICATIONS

SURFACE PREPARATION:

REMOVE SURFACE CONTAMINATION USING ALCOHOL SOLVENT.

APPLICATION PROCEDURES

PAINTING TO BE DONE INDOORS.

1. APPLY ONE PRIMER COAT OF POLANE 2.8 PLUS FIL D61H75 PRIMER IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
2. APPLY ONE TOP COAT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

DO NOT USE METAL BASED COLORS ON ANTENNAS:

B. MOUNTING HARDWARE / CONDUIT PAINT SPECIFICATION

SURFACE PREPARATION

REMOVE SURFACE CONTAMINATION USING ALCOHOL SOLVENT, ETHANOL. PROPANOL, ISOPROPANOL, OR BUTANOL. A TEN PERCENT SOLUTION OF METHYL ETHYL KETONE IN WATER CAN ALSO BE USED WHENEVER STUBBORN OIL OR GREASE IS ENCOUNTERED.

GALVANIZED SURFACES

ONE COAT OF PERMABOND - BONDING AGENT BY CORONADO PAINT CO. #100 - 10 , **DO NOT LET DRY** IMMEDIATELY APPLY ONE COAT OF SHERWIN WILLIAMS S-W A100 FLAT LATEX HOUSE & TRIM, A6 SERIES. LET DRY AND APPLY SECOND COAT OF SHERWIN WILLIAMS S-W A100 FLAT LATEX HOUSE & TRIM, A6 SERIES (4 MILS WET, 1.3 MILS DRY PER COAT).

C. EQUIPMENT CLEARANCE LIMIT LINE DEMARCATION

WHEN SPECIFIED ON CONSTRUCTION DOCUMENTS, THE CONTRACTOR SHALL PAINT A CONTINUOUS 4" WIDE SAFETY LINE WITH CON-LUX ROAD PLEX #17 TRAFFIC YELLOW OR APPROVED EQUAL ON THE WALKING SURFACE ADJACENT TO CABINET TO DENOTE REQUIRED CLEARANCE LIMITS TO CABINET.

ROBERT P. JUENGERT
STATE OF CONNECTICUT
ROBERT PAUL JUENGERT
No. 4208
REGISTERED ARCHITECT

CT #	4208

UPGRADE

ARCNET ARCHITECTS, INC.
670 North Beers Street, Building 2, Holmdel, NJ 07733
Tel: 732.739.3200 Fax: 732.739.0440

Drawing Title: GENERAL NOTES 2 OF 3

Client: OCS

Project: **SNET LANDLINE TOWER**
Address: 555 MAIN STREET
STAMFORD, CT
Search Area: SNET/ LL-STAMFORD
Site ID No.: CT-11-410A

P.C.:	P.C. Chkd.:	Chkd. by:	ARCNET Project No.	Drawn:	Date:
JDi			A99-506-605A	RSa	2/25/00

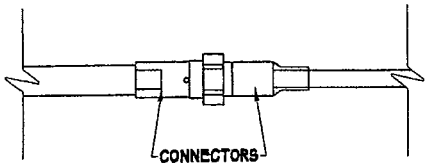
Approved By: CLIENT: _____ DATE: _____

Revision No.	Date:

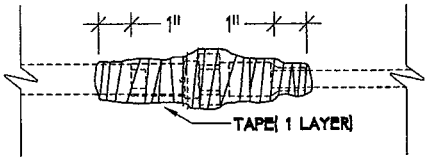
Drawing No. **A-11**

GENERAL CABLE NOTES :

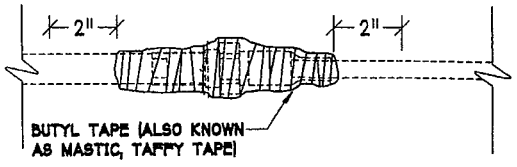
1. ALL CABLE CONNECTIONS TO BE WEATHERPROOFED: INCLUDING ELECTRICAL TAPE, VAPOR SEAL (BUTYL TAPE), THREE LAYERS OF ELECTRICAL TAPE AND SCOTCH COAT (SHOWN BELOW)



STEP 1



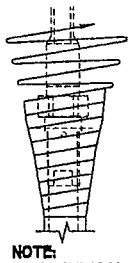
STEP 2



STEP 3

TAPE (3 LAYERS IN 1 1/2" TAPE, AND 3 LAYERS IN 3/4" TAPE, ALL TAPE WITH MINIMUM 50% OVERLAP) COAT WITH 3M SCOTCH COTE

STEP 4



VERTICAL CONNECTIONS SHOULD BE TAPED FROM THE BOTTOM UP SO OVERLAP MOVES WATER AWAY FROM CONNECTION.

NOTE:
ELECTRICAL TAPE ENDS TO BE CUT (DO NOT STRETCH)

2. CONTRACTOR TO PROVIDE DRIP LOOPS IN CABLES AND JUMPERS WHERE NECESSARY.

3. ANTENNA TAGGING:
   A. ON CONNECTICUT SITES, THE CONVENTION SHALL BE: SECTOR 1- 0° TO 120° , SECTOR 2- 120° TO 240°, SECTOR 3- 240° TO 360°

   B. COLORED ELECTRICAL TAPE SHALL MARK EACH END OF CABLE AND EACH END OF JUMPERS AS CLOSE TO EACH END AS POSSIBLE (NOT TO INTERFERE WITH WEATHERPROOFING)

   C. ALL TAPE MARKINGS TO BE DONE IN SEQUENCE FROM TRUE NORTH, WORKING CLOCKWISE. PER SECTOR RED, WHITE, BLUE MARKING. (SEE DRAWING A-4a - FOR DEVIATION)

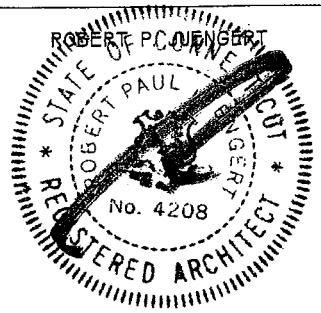
   D. WORKING CLOCKWISE, THE COAXIAL CABLE & JUMPERS SHALL BE TAPED ONCE, TWICE, THREE TIMES AND FOUR TIMES PER SECTOR, WITH COLORED TAPE.

   E. IN ADDITION TO TAPE MARKINGS, EACH END OF EVERY CABLE SHALL ALSO BE LABELED WITH BRASS TAGS (SUPPLIED BY OCS) INSCRIBED WITH NUMBER AND COLOR OF TAPE MARKINGS AS INDICATED.

4. ADDITIONAL COAXIAL CABLE SUPPORT MAY BE REQUIRED TO MEET COAXIAL CABLE SUPPORT SPECIFICATIONS (MINIMUM 3'-0" ON CENTER)

5. GENERAL CABLE SPECIFICATIONS

LENGTH OF CABLE RUN	DIAMETER OF CABLES	MINIMUM BENDING RADIUS
3'-0", 6'-0", 8'-0" AND 10'-0" SUPERFLEX JUMPER RUNS	1/2"ϕ	1 1/4"
3'-0", 6'-0", 8'-0", AND 10'-0" JUMPER RUNS	1/2"ϕ	5"
0' THRU 100'-0"	7/8"ϕ	10"
100'-0" THRU 125'-0"	1 1/4"ϕ	15"
125'-0" AND GREATER	1 5/8"ϕ	20"



CT # 4208

UPGRADE

ARCNET ARCHITECTS, INC.
670 North Beers Street, Building 2, Holmdel, NJ 07733
Tel: 732.739.3200 Fax: 732.739.0440

Drawing Title: GENERAL NOTES 3 OF 3

Client: OCS

Project: SNET LANDLINE TOWER
Address: 555 MAIN STREET STAMFORD, CT
Search Area: SNET/LL-STAMFORD
Site ID No.: CT-11-410A

P.C.:	P.C. Chkd.:	Chkd. by:	ARCNET Project No.	Drawn:	Date:
JDI			A99-506-605A	RSa	3/3/00

Approved By: CLIENT: _____ DATE: _____

Revision No.	Date:
3 WCo	4/19/00

Drawing No. A-12

MATERIAL LIST

STANDARD ITEMS

ITEM	QUANTITY	DESCRIPTION
CABINET	1	NEW NORTEL S8000 CABINET EXTENSION
CABINET JUMPERS	12	1/2"ø x 6'-0" LONG SUPERFLEX JUMPERS
CONNECTORS	24	1 5/8"ø DIN[F] CONNECTORS
CABLE	12	SEE CHART BELOW
ANTENNA JUMPERS	12	1/2"ø x 3'-0" LONG JUMPERS
ANTENNA	6	EMS FR90-16-02DP
DOWN TILT BRACKETS	6	EMS MTG-D10-20 KITS
SWIVEL MOUNT BRACKETS	6	EMS MTG-S02-10 KITS
GROUNDING KITS	36	GROUNDING KIT
WEATHERPROOFING KITS	20	WEATHERPROOFING KIT
CABLE AMPLIFIER JUMPERS	6	3'-0" X 1/2" JUMPERS
AMPLIFIERS	6	AIRTECH
BOOSTERS	0	
HOISTING GRIPS	12	1-5/8" SIZED GRIPS

NOTE:
IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL MATERIAL LENGTHS, SIZES, QUANITIES AND ANTENNA MODEL NUMBERS WITH THE OCS CONSTRUCTION MANAGER, R.F. ENGINEER AND EXISTING FIELD CONDITIONS PRIOR TO CONSTRUCTION.

CABLE SCHEDULE

ORIENTATION	RX/TX	COLOR CODING	LENGTH	DIAMETER
1 90°	TX/RX-1,TX/RX-2	RED1,RED2	199'-0"±	1-5/8"
	TX-3,TX-4	RED3,RED4	199'-0"±	1-5/8"
2 190°	TX/RX-1,TX/RX-2	WHITE1,WHITE2	199'-0"±	1-5/8"
	TX-3,TX-4	WHITE3,WHITE4	199'-0"±	1-5/8"
3 270° - 300°	TX/RX-1,TX/RX-2	BLUE1,BLUE2	199'-0"±	1-5/8"
	TX-3,TX-4	BLUE3,BLUE4	199'-0"±	1-5/8"

ROBERT P. JUENGERT
STATE OF CONNECTICUT
ROBERT PAUL JUENGERT
No. 4208
REGISTERED ARCHITECT
CT # 4208

UPGRADE

ARCNET ARCHITECTS, INC.
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Tel: 732.739.3200 Fax: 732.739.0440

Drawing Title: MATERIAL LIST
Client: OCS
Project: SNET LANDLINE TOWER
Address: 555 MAIN STREET STAMFORD, CT
Search Area: SNET/ LL STAMFORD
Site ID No.: CT-11-410A

P.C.	P.C. Chkd.	Chkd. By	ARCNET Project No.	Drawn	Date
JDi			A99-506-605A	RSa	3/3/00

Approved By CLIENT: _____ DATE: _____

Revision No	Date
3 WCo	4/19/00

Drawing No. A-13

DESIGN CRITERIA

1. ELECTRIC: PROVIDE AND INSTALL A 208V OR 240V, 2P, 60A CIRCUIT FROM A RELIABLE SOURCE TO THE COMMUNICATION CABINET. THIS SOURCE SHALL BE LOCKED ON WITH A CB LOCK. THE CONTRACTOR SHALL PROVIDE (2) SPARE FUSES WHEREVER A FUSED DISCONNECT IS REQUIRED. THE CONTRACTOR SHALL VERIFY (BEFORE ANY CONSTRUCTION IS STARTED) THAT THE POWER SOURCE IS BETWEEN 208V AND 240V LINE TO LINE. IF IT IS NOT BETWEEN THE SPECIFIED VOLTAGE, THEN CALL DLB ASSOCIATES, INC. AT (732) 922-8375 AND ASK FOR MARK WORTHLEY. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH A BLACK PLASTIC TAG WITH WHITE LETTERS "OCS" ENGRAVED IN IT.
2. UTILITY METER: IF A UTILITY METER IS SPECIFIED ON THE DRAWINGS, IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN ALL NECESSARY INSPECTIONS, CUT-IN CARDS, ETC., THAT ARE REQUIRED TO SET THE METER. THE CONTRACTOR SHALL MEET WITH THE UTILITY COMPANY TO VERIFY METER AND TAP LOCATION PRIOR TO INSTALLATION. DLB ASSOCIATES BEGINS THE PAPERWORK WITH THE VARIOUS UTILITY COMPANIES AND CAN PROVIDE THE ELECTRICAL DETAILERS NAME AND PHONE NUMBER. CONTACT DLB AT (732) 922-8375 AND ASK FOR TONY MATTURRO FOR UTILITY RELATED QUESTIONS. IF TEMPORARY POWER IS REQUIRED, ALL NEC AND/OR LOCAL ELECTRIC CODES SHALL ADHERED TO. CONTACT OCS PRIOR TO MAKING AND TEMPORARY POWER CONNECTIONS.
3. TELEPHONE: PROVIDE A 1-1/2" CONDUIT (WITH DRAG LINE IN NY AND BELDEN CABLE #8768 IN NJ AND CT) FROM THE COMMUNICATION CABINET TO THE MAIN DEMARCATION POINT (USUALLY LOCATED IN THE BASEMENT). THE MAIN DEMARCATION POINT ALLOWS FOR THE LEAST AMOUNT OF NOISE AND THE MOST AMOUNT OF PROTECTION. FOR COST SAVINGS, A CLOSER DEMARCATION POINT MAY BE SPECIFIED IN MULTIPLE STORY BUILDINGS WITH THE APPROVAL OF THE TELEPHONE COMPANY. FOR NEW TELEPHONE SERVICES IN NJ, NY, & CT, PROVIDE A 4" CONDUIT WITH A DRAGLINE FROM THE SPECIFIED UTILITY POLE TO THE LOCATION OF THE NEW DEMARCATION POINT.
4. CONDUIT ROUTING: THE ROUTING OF THE CONDUIT SHALL BE SUCH THAT THE EASIEST AND MOST PRACTICAL METHODS ARE USED WITHOUT IMPACTING THE BUILDING OWNER AND THE AESTHETIC APPEAL OF THE BUILDING. BECAUSE THE WORK BEING DONE IS IN EXISTING STRUCTURES, IT IS IMPOSSIBLE TO SHOW EVERY JUNCTION BOX, LB, CONDUIT BEND, ETC. IN A TWO DIMENSIONAL PLAN. IT IS FOR THIS REASON THAT THE CONTRACTOR MUST VISIT THE SITE BEFORE ACCEPTING THE OFFER AND UNDERSTAND THE TRUE INSTALLATION OBSTACLES THAT ARE UNIQUE TO THAT BUILDING.

WIRING METHODS

1. GENERAL: ALL WIRING IN FINISHED AREAS SHALL BE CONCEALED UNLESS NOTED OTHERWISE. IN UNFINISHED AREAS, SUCH AS BASEMENTS, MECHANICAL ROOMS, ELECTRICAL CLOSETS, ETC. WIRING SHALL BE ROUTED ON THE INTERIOR SURFACE. NO WIRING SHALL BE ROUTED ON THE OUTSIDE SURFACES OF THE BUILDING UNLESS SPECIFICALLY NOTED. ALL NEC AND LOCAL ELECTRIC CODES SHALL BE ADHERED TO. ALL CONDUCTORS SHALL BE COPPER UNLESS OTHERWISE NOTED.
2. BELOW GRADE (UNDERGROUND IN EARTH OR FILL): ALL CONDUITS SHALL HAVE A MINIMUM BURIAL DEPTH OF 24". BRANCH CIRCUITS SHALL CONSIST OF PULLED CONDUCTORS IN DIRECT BURIED SCHEDULE 40 PVC CONDUITS. CONDUITS THAT ARE BURIED UNDER EARTH THAT HAVE HEAVY VEHICLE TRAFFIC OVER IT SHALL BE ENCASED IN CONCRETE. CONCRETE ENCASEMENT SHALL BE 3" MINIMUM ALL AROUND AND BETWEEN CONDUITS. ALL ELBOWS USED WITH PVC CONDUIT SHALL BE SCHEDULE 80 PVC. ALL CONDUIT INSTALLED ABOVE FINISHED GRADE SHALL BE SCHEDULE 80 PVC. PRIOR TO EXCAVATION, A UTILITY MARK OUT SHALL BE DONE TO LOCATE EXISTING UNDERGROUND UTILITIES. PICTURES SHALL BE TAKEN OF ALL UNDERGROUND WORK TO BE VIEWED AT THE PUNCHLIST.
3. INDOORS (UNCLASSIFIED AREAS): ALL FEEDERS SHALL CONSIST OF PULLED CONDUCTORS IN EMT. ALL BRANCH CIRCUITS SHALL CONSIST OF PULLED CONDUCTORS IN EMT., EXCEPT 15 AND 20 AMPERE 1 POLE LIGHTING RECEPTACLE, OR MISCELLANEOUS BRANCH CIRCUITS CONCEALED ABOVE SUSPENDED CEILINGS OR WITHIN DRY WALLS SHALL CONSIST OF TYPE MC METAL CLAD CABLE IF ALLOWED BY CODE. CONNECTIONS TO COMMUNICATION CABINET AND VIBRATING EQUIPMENT SHALL CONSIST OF PULLED CONDUCTORS IN FLEXIBLE METALLIC CONDUIT, MAXIMUM 6' IN LENGTH.
4. OUTDOORS OR INDOORS CLASSIFIED 'DAMP' OR 'WET' LOCATIONS: ALL FEEDERS AND BRANCH CIRCUITS SHALL CONSIST OF PULLED CONDUCTORS IN RGS OR RA CONDUIT. CONNECTIONS TO COMMUNICATION CABINET AND VIBRATING EQUIPMENT SHALL CONSIST OF PULLED CONDUCTORS IN LIQUID TIGHT FLEXIBLE STEEL CONDUIT, MAXIMUM 6' IN LENGTH.

SYMBOLS

IDENTIFIER	DESCRIPTION
	SAFETY SWITCH
	PANEL BOARD
M	ELECTRIC METER

IDENTIFIER	DESCRIPTION
	ELECTRICAL WIRING (TURNING UP)
	ELECTRICAL WIRING (TURNING DOWN)
CAB	COMMUNICATIONS CABINET
	BACKBOARD
	RECEPTACLE
	NEW UTILITY POLE
	EXISTING UTILITY POLE
	MASTER GROUND BAR
	INSULATED GROUND BAR
	UNINSULATED GROUND BAR

ROBERT P. JUENGERT
STATE OF CONNECTICUT
No. 4208
REGISTERED ARCHITECT
CT- 4208

LEGEND

IDENTIFIER	DESCRIPTION
——— E ———	EXISTING ELECTRIC
———NE———	NEW ELECTRIC
——— T ———	EXISTING TELEPHONE
———NT———	NEW TELEPHONE
— —NE— —	NEW UNDERGROUND ELECTRIC
— — E — —	EXISTING UNDERGROUND ELECTRIC
— —NT— —	NEW UNDERGROUND TELEPHONE
— — T — —	EXISTING UNDERGROUND TELEPHONE
———PL———	PROPERTY LINE

ABBREVIATIONS AND LABELS

AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CB	CIRCUIT BREAKER
EMT	ELECTRICAL METALLIC TUBING
GND	GROUND
MC	METAL CLAD CABLE
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANEL
MGB	MASTER GROUND BAR
MLO	MAIN LUGS ONLY
N	NEUTRAL
NEC	NATIONAL ELECTRIC CODE
PNL	PANEL
PP	POWER PANEL
PVC	POLYVINYL CHLORIDE
RA	RIGID ALUMINUM
RGS	RIGID GALVANIZED STEEL
WP	WEATHER PROOF

ARCNET ARCHITECTS, INC.
670 North Beers Street, Building 2, Holmdel, NJ 07733
Tel: 732.739.3200 Fax: 732.739.0440

Drawing Title: GENERAL INFORMATION

Client: OCS

Project: SNET LANDLINE TOWER
Address: 555 MAIN STREET STAMFORD, CT
Search Area: SNET/LL-STAMFORD
Site ID No.: CT-11-410A

Revision No.	Date:

DLB ASSOCIATES, INC.
Electrical / Mechanical
Wanamassa, NJ CT-PE 14722

P.C.	P.C. Chkd.	Chkd. by	ARCNET Project No.	Drawn:	Date:
JDi			A96.506.605A	MW	02/10/00

Approved By: CLIENT: _____ DATE: _____

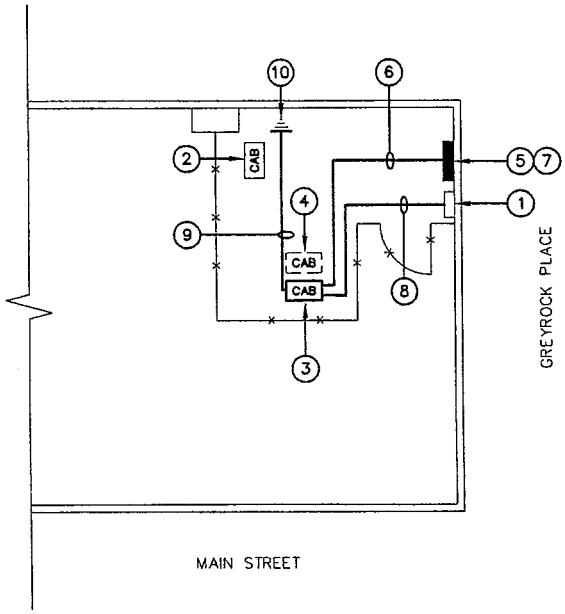
Drawing No. E-1

 Last Saved: N:\234\23463UD01.DWG, 02/10/00 at 15:24 by DBozard

DLB#23463

KEY NOTES (Symbols ①, ②, Etc.)

1. EXISTING TELCO DEMARCATION POINT.
2. EXISTING NORTEL S8000 CABINET.
3. NORTEL S8000 CABINET.
4. FUTURE CABINET.
5. EXISTING "OCS" POWER PANEL. 240/120V, 1 PHASE, 3W. PROVIDE AN ADDITIONAL 40A, 250V, 2POLE, 1 PHASE CIRCUIT BREAKER.
6. NEW ELECTRIC FEEDER ROUTED TIGHT TO CEILING UNLESS OTHERWISE NOTED. PROVIDE A 1" CONDUIT WITH 3#6 & 1#10G, FROM THE EXISTING OWNER'S POWER PANEL TO THE CABINET. APPROXIMATE DISTANCE = 10'.
7. EXISTING UNISTRUT-MOUNTED ELECTRIC/TELCO EQUIPMENT. SEE DETAIL E-3/01.
8. NEW TELEPHONE SERVICE ROUTED TIGHT TO CEILING UNLESS OTHERWISE NOTED. PROVIDE A 1-1/2" CONDUIT WITH 1(6) PAIR, #22 AWG INDIVIDUALLY SHIELDED, SOLID TINNED COPPER CONDUCTOR CABLE (BELDEN CABLE PART #8768). APPROXIMATE DISTANCE = 15'.
9. 1#2 STRANDED INSULATED COPPER GROUND. FROM THE MASTER GROUND BAR TO THE GROUNDING POINT. APPROXIMATE DISTANCE = 10'.
10. ATTACH TO EXISTING "OCS" GROUND BAR.



ROBERT P. JUENGERT

STATE OF CONNECTICUT * ROBERT PAUL JUENGERT * REGISTERED ARCHITECT * No. 4208 CT

FIFTH FLOOR PLAN | SCALE: NONE | E-2 | 01

ARCNET ARCHITECTS, INC.
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DLB ASSOCIATES, INC. Electrical / Mechanical Wanamassa, NJ CT-PE 14722

P.C.:	P.C. Chkd.:	Chkd. By:	ARCNET Project No.	Drawn:	Date:
JDi			A96.506.605A	MW	02/10/00

Drawing Title: SERVICE PLAN

Client: OCS

Project: **SNET LANDLINE TOWER**
Address: 555 MAIN STREET STAMFORD, CT
Search Area: SNET/LL-STAMFORD
Site ID No.: CT-11-410A

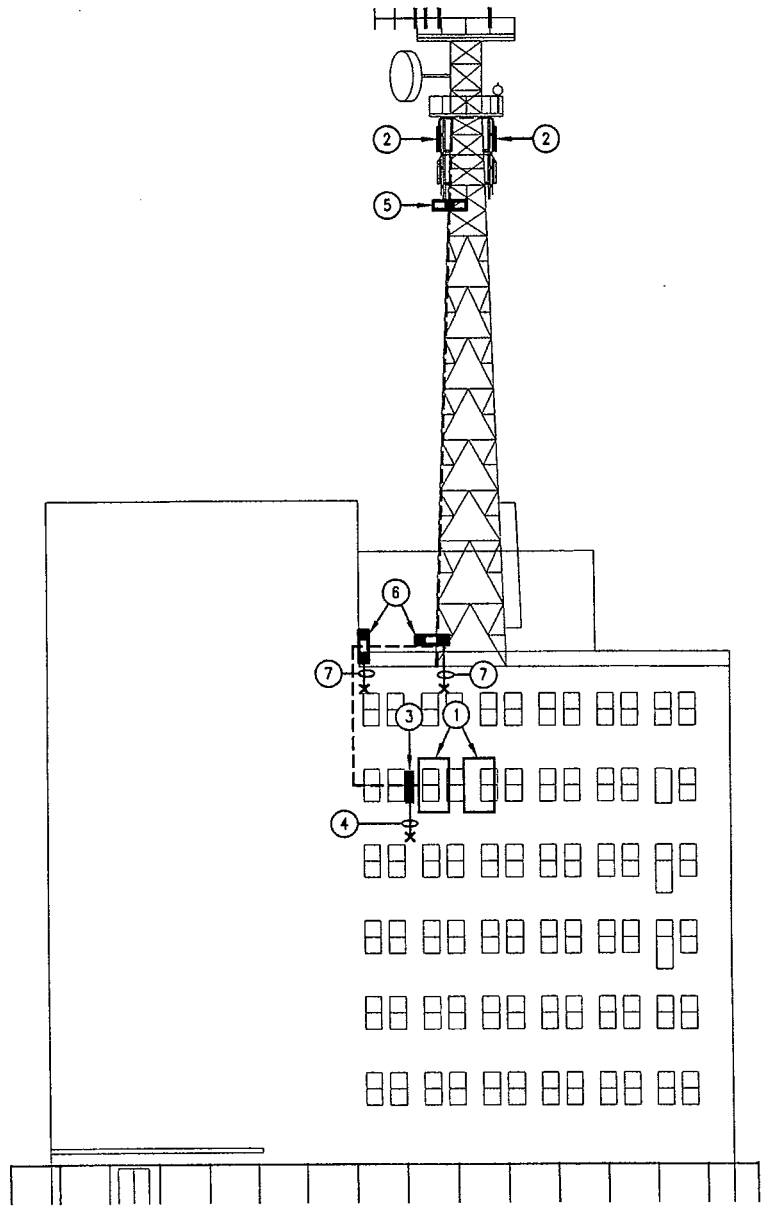
Approved By: CLIENT: _____ DATE: _____

Revision No.	Date:

Drawing No. **E-2**

Last Saved: N:\234\23463UD02.DWG, 03/06/00 at 16:25 by MDevaughn

DLB#23463



GENERAL NOTES

1. WHERE ICE BRIDGES AND ICE SHIELDS ARE USED, BOND ALL POSTS VIA #2 SOLID TINNED WIRE TO THE GROUND RING.
2. FOR NEW FENCE INSTALLATIONS BOND ALL CORNER FENCE POSTS FROM GROUND RING TO A "Y" TYPE CADWELD TO FENCE POST VIA CLAMP. (THOMAS & BETTS #2 OR APPROVED EQUAL) BOND ALL GATE POSTS AND GATE FRAMES WITH A MINIMUM OF 1/0 COPPER FLEX AND ERICO FENCE GROUND ASSEMBLIES OR APPROVED EQUAL.

KEY NOTES (Symbols ①, ②, Etc.)

1. COMMUNICATIONS CABINET.
2. ANTENNA.
3. ALL COAXIAL CABLES SHALL BE GROUNDED AT THIS POINT VIA CABLE GROUND KITS TO GROUNDING BAR.
4. 1#2/0 STRANDED COPPER GROUND. ATTACH TO GROUND POINT. REMOVE PAINT AND OTHER FOREIGN MATTER IN ORDER TO ACHIEVE A GOOD BOND.
5. ALL COAXIAL CABLES SHALL BE GROUNDED TO A GROUND BAR AT THIS POINT VIA CABLE GROUND KITS. NEWTON INSTRUMENT COMPANY OR EQUAL. THIS GROUND BAR SHALL BE LOCATED JUST BELOW THE POINT WHERE ALL CABLES COME TOGETHER AND DESCEND DOWN THE TOWER. THIS GROUND BAR SHALL BE ATTACHED DIRECTLY TO THE TOWER VIA BEAM CLAMP.
6. ALL COAXIAL CABLES LEAVING THE COMMUNICATION CABINET SHALL BE GROUNDED AT THIS POINT VIA CABLE GROUND KITS. NEWTON INSTRUMENT COMPANY OR EQUAL. THIS GROUND BAR SHALL BE LOCATED AT THE POINT WHERE THE CABLES MAKE A NINETY DEGREE BEND OFF THE TOWER.
7. 1#2/0 STRANDED COPPER CONDUCTOR FROM THE INSULATED GROUND BAR TO THE GROUND RING.

LEGEND	DESCRIPTION	DETAIL NO.
▬	MASTER GROUND BAR	1/E-5
▬	INSULATED GROUND BAR	1/E-5
▬	UNINSULATED GROUND BAR	1/E-7
▭	GROUND KIT(S)	E-6
- - - - - - - -	COAXIAL CABLES	NONE
▯	ANTENNA	1/E-7

ROBERT P. JUENGERT

STATE OF CONNECTICUT * ROBERT PAUL JUENGERT * No. 4208 * REGISTERED ARCHITECT

ELEVATION | SCALE: NONE | E-3 / 01

ARCNET ARCHITECTS, INC.
670 North Beers Street, Building 2, Holmdel, NJ 07733
Tel: 732.739.3200 Fax: 732.739.0440

Drawing Title: GROUNDING PLAN

Client: OCS

Project: SNET LANDLINE TOWER
Address: 555 MAIN STREET, STAMFORD, CT
Search Area: SNET/LL-STAMFORD
Site ID No.: CT-11-410A

Revision No.	Date:

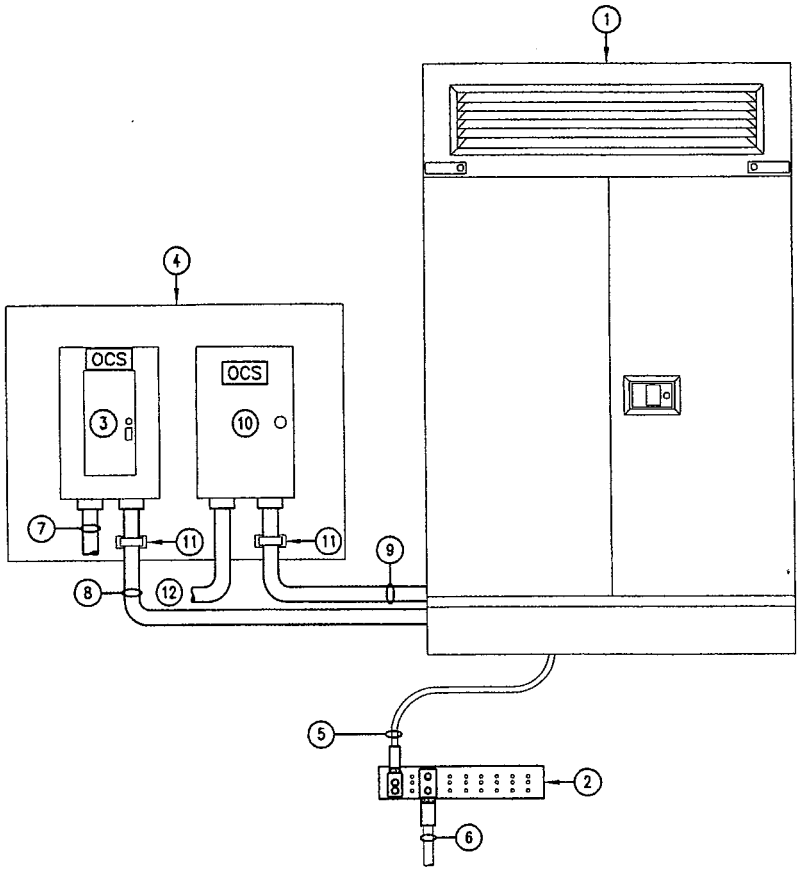
DLB ASSOCIATES, INC.
Electrical / Mechanical
Wanamassa, NJ CT-PE 14722

P.C.:	P.C. Chkd.:	Chkd. by:	ARCNET Project No.	Drawn:	Date:
JDi			A96.506.605A	MW	02/10/00

Approved By: CLIENT: _____ DATE: _____

Drawing No. E-3

Last Saved: N:\234\23463UD03.DWG, 06/07/00 at 15:58 by DBozard
DLB#:23463



KEY NOTES (Symbols ①, ②, Etc.)

1. NORTEL S8000 CABINET.
2. EXISTING MASTER GROUND BAR (MGB).
3. EXISTING 240/120V, 100A, 1 PHASE, PANEL. PROVIDE A 40A, 240V, 1 PHASE CIRCUIT BREAKER. LABEL WITH A BLACK PLASTIC TAG THAT HAS THE LETTERS "OCS" ENGRAVED IN IT.
4. EXISTING 48" x 36" x 3/4" FIRE RATED PLYWOOD BACKBOARD PAINTED FLAT BLACK.
5. 1#2 STRANDED, INSULATED GROUND WIRE FROM COMMUNICATION CABINET TO THE MGB.
6. EXISITING MAIN GROUND WIRE FROM THE MGB TO THE GROUND POINT.
7. EXISTING CONDUIT FROM THE POWER SOURCE TO THE NEW PANEL.
8. 1" SEALTIGHT FLEXIBLE CONDUIT WITH 3#6 & 1#10G FROM THE NEW PANEL TO THE COMMUNICATION CABINET TERMINATION POINT.
9. 1-1/2" SEALTIGHT FLEXIBLE CONDUIT FROM THE DEMARCATION BOX TO THE COMMUNICATION CABINET. PULL (1) 6 PAIR #22 AWG INDIVIDUALLY SHIELDED TINNED COPPER CONDUCTOR CABLE (BELDEN CABLE PART # 8768). LEAVE 5' OF SLACK WIRE AT BOTH ENDS OF CONDUIT FOR CONNECTIONS.
10. EXISTING DEMARCATION BOX.
11. SINGLE HOLE CONDUIT SUPPORT WITH BACK STRAP.
12. EXISITING TELCO CONDUIT TO DEMARCATION SOURCE.

NORTEL S8000 CABINET RISER | SCALE: NONE | E-4 | 01

ROBERT P. JUENGERT

STATE OF CONNECTICUT * ROBERT PAUL JUENGERT * No. 4208 REGISTERED ARCHITECT

ARCNET ARCHITECTS, INC.
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DLB ASSOCIATES, INC. Electrical / Mechanical Wanamassa, NJ CT-PE 14722

Drawing Title: RISER

Client: OCS

Project: SNET LANDLINE TOWER
Address: 555 MAIN STREET STAMFORD, CT
Search Area: SNET/LL-STAMFORD
Site ID No.: CT-11-410A

P.C.:	P.C. Chkd.:	Chkd. by:	ARCNET Project No.	Drawn:	Date:
JDi			A96.506.605A	MW	02/10/00

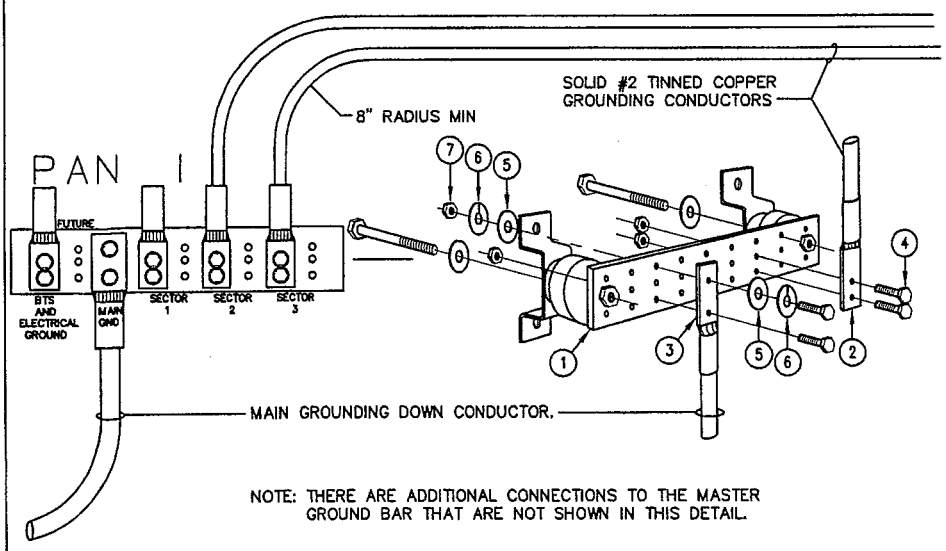
Approved By: CLIENT: _____ DATE: _____

Revision No.	Date:

Drawing No. E-4

Last Saved: N:\234\23463UD04.DWG, 02/28/00 at 11:33 by MDevaughn

DLB#23463



NOTE: THERE ARE ADDITIONAL CONNECTIONS TO THE MASTER GROUND BAR THAT ARE NOT SHOWN IN THIS DETAIL.

GENERAL GROUNDING NOTES

1. ANTI OXIDANT COMPOUND SHALL BE APPLIED TO ALL GROUNDING CONNECTIONS (CTAPS, MAIN GND, MGB, ETC.)
2. THE CONNECTIONS TO THE MASTER GROUND BAR MUST FOLLOW THE PANI METHOD. SEE SPECIFICATIONS.
3. THE GROUND RUN SHALL FOLLOW A DOWNWARD PATH FROM THE ANTENNAS TO THE MASTER GROUND BAR.
4. ALL CONNECTIONS SHALL BE MADE WITH AN 8" RADIUS MINIMUM.
5. ANY GROUND WIRES, SOLID OR STRANDED, THAT PASS THROUGH CONDUIT, METALLIC SLEEVE, OR CABLE COVER, SHALL BE BONDED AT BOTH ENDS.
6. WHERE TRAY IS USED BOND ADJACENT TRAY WITH A #6 STRANDED JUMPER VIA TWO HOLE LUGS. BOND BOTH ENDS TO THE #2 SOLID TINNED WIRE.

MASTER GROUND BAR TERMINATION DETAIL

SCALE: NONE | E-5 01

	SOLID #2 TINNED COPPER	GROUND KIT	#2/0 STRANDED (MAIN DOWN CONDUCTOR)	MASTER GROUND BAR	STRUCTURAL OR TOWER STEEL	MAIN GROUNDING ELECTRODE	GROUND ROD
SOLID #2 TINNED COPPER	B or C	B or C		A or C	A, C or D		C
GROUND KIT	B or C			A	A, C or D		
#2/0 STRANDED (MAIN DOWN CONDUCTOR)				A or C	A, C or D	A	C
MASTER GROUND BAR	A or C	A	A or C				
STRUCTURAL OR TOWER STEEL	A, C or D	A, C or D	A, C or D				
GROUND ROD	C		C				

TERMINATION TYPES:

- A 2-HOLE MECHANICAL LUG WITH HYDRAULICALLY COMPRESSED LONG BARREL.
- B DOUBLE BARREL COPPER HYDRAULICALLY COMPRESSED CONNECTOR.
- C CADWELD
- D BEAM CLAMP

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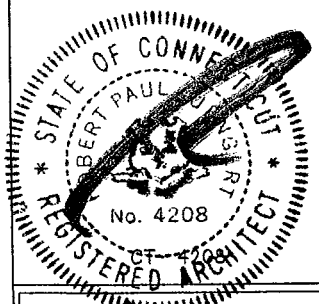

GROUNDING MATRIX

SCALE: NONE | E-5 02

KEY NOTES (Symbols ①, ②, Etc.)

1. ALL COAXIAL CABLES LEAVING THE COMMUNICATION CABINET SHALL BE GROUNDED AT THIS POINT VIA CABLE GROUND KITS. NEWTON INSTRUMENT COMPANY OR EQUAL. #B-6142 (GROUND BAR 20" X 4" X 1/4"), #3061-4 (INSULATORS), #3015-8 (5/8" LOCKWASHERS), #A-6056 (WALL MOUNTING BRACKETS), AND #3012-1 (5/8"-11 X 1" H.H.C.S. BOLTS).
2. HYDRAULICALLY COMPRESSED LONG BARREL 2-HOLE GROUNDING LUG FOR GROUNDING CONDUCTORS BETWEEN CABLE AND THE MASTER GROUND BAR TERMINAL. THOMAS & BETTS #54811BE OR EQUAL.
3. HYDRAULICALLY COMPRESSED LONG BARREL 2-HOLE GROUNDING LUG FOR THE MAIN GROUNDING DOWN CONDUCTOR BETWEEN THE MASTER GROUND BAR TERMINAL AND THE MAIN GROUNDING ELECTRODE. THOMAS & BETTS #54862BE OR EQUAL.
4. 3/8" STAINLESS STEEL DIAMETER BOLTS TO CONNECT GROUNDING LUG TO THE GROUND BAR (TYPICAL).
5. 3/8" STAINLESS STEEL DIAMETER FLAT WASHER (TYPICAL).
6. 3/8" STAINLESS STEEL DIAMETER LOCK WASHER (TYPICAL).
7. 3/8" HEX HEAD STAINLESS STEEL NUT (TYPICAL).

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DLB ASSOCIATES, INC.
Electrical / Mechanical
Wanamassa, NJ
CT-PE 14722

Drawing Title: GROUNDING DETAILS

Client: OCS

Project: SNET LANDLINE TOWER
Address: 555 MAIN STREET STAMFORD, CT
Search Area: SNET/LL-STAMFORD
Site ID No.: CT-11-410A

P.C.:	P.C. Chkd.:	Chkd. by:	ARCNET Project No.	Drawn:	Date:
JDi			A96.506.605A	MW	02/10/00

Approved By: CLIENT: _____ DATE: _____

Revision No.	Date:

Drawing No. E-5

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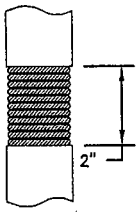

FIGURE 1	SCALE: NONE	E-6 / 01

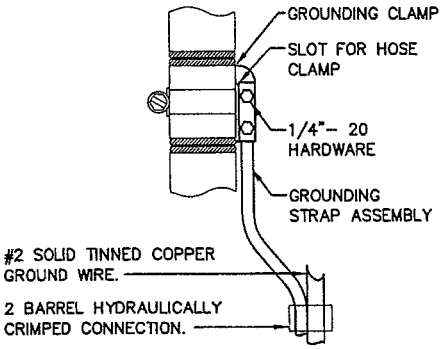

FIGURE 2	SCALE: NONE	E-6 / 02

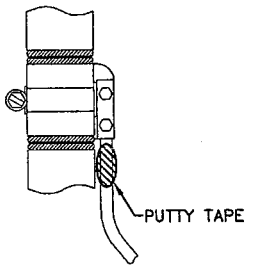

FIGURE 3	SCALE: NONE	E-6 / 03

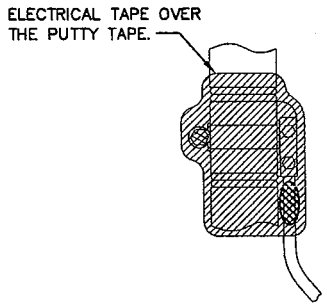

FIGURE 4	SCALE: NONE	E-6 / 04

ROBERT P. JUENGERT

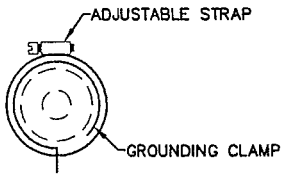

FIGURE 5	SCALE: NONE	E-6 / 05

INSTALLATION:

1. CUT AND REMOVE A 2 INCH SECTION OF CABLE JACKET SHOWN IN FIGURE #1. USE CARE NOT TO GOUGE OR CRUSH THE CABLE.
2. CLEAN THE EXPOSED SURFACE OF THE OUTER CONDUCTOR WITH BRONZE OR STEEL WOOL UNTIL THE SURFACE IS CLEAN AND BRIGHT. ALSO CLEAN ONE INCH OF THE JACKET EACH SIDE OF THE CUT SURFACE WITH A CLEAN CLOTH.
3. WRAP THE COPPER GROUNDING CLAMP AROUND THE EXPOSED OUTER CONDUCTOR. SECURE THE GROUNDING CLAMP WITH THE STAINLESS STEEL HOSE CLAMP AS SHOWN IN FIGURE #2 AND #5.
4. ATTACH THE TWO HOLE GROUNDING LUG TO THE CABLE GROUNDING CLAMP WITH 1/4" – 20 HARDWARE. SEE FIGURE #2.
5. CLEAN THE SURFACE THOROUGHLY WHERE THE SINGLE HOLE GROUNDING LUG IS TO BE CONNECTED. THE GROUNDING SURFACE MUST BE CLEAN OF ANY PAINT, GREASE, RUST OR OXIDATION FOR A GOOD ELECTRICAL CONTACT. THE GROUNDING SURFACE SHOULD BE A METAL TOWER MEMBER OR DOWN CONDUCTOR LOCATED BELOW THE GROUNDING CLAMP. THE GROUNDING WIRE SHOULD BE RUN STRAIGHT DOWN – NO DRIP LOOP. SEE FIGURE #2.
6. BOLT THE GROUNDING LUG ONTO THE PREPARED SURFACE WITH A 3/8" – 16 HARDWARE. AFTER TIGHTENING, PAINT THE GROUNDING LUG AND SURROUNDING AREA WITH A ZINC BASED CORROSION CONTROL PAINT.
7. WRAP THE GROUNDING LUG AND WIRE AT THE CLAMP ASSEMBLY WITH SEVERAL TURNS OF PUTTY TAPE AS SHOWN IN FIGURE #3. FORM THE PUTTY BY HAND AROUND THE LUG. WRAP THE REMAINDER OF THE PUTTY AROUND THE ENTIRE GROUNDING CLAMP AND LUG, INCLUDING ONE INCH OF CABLE JACKET ON EACH SIDE OF THE CLAMP. FORM THE PUTTY AROUND THE GROUNDING CLAMP AND JACKET BY HAND TO ASSURE A WEATHERPROOF SEAL. SEE FIGURE #4. TO COMPLETE WEATHERPROOFING, APPLY ELECTRICAL TAPE OVER THE PUTTY COVERED CONNECTION. OVERLAP EACH TURN, STRETCHING THE TAPE SLIGHTLY WHILE APPLYING THE FIRST TWO LAYERS AND LIGHTLY WRAPPING THE LAST TWO LAYERS. COMPRESS THE WRAPPINGS WITH BOTH HANDS TO INSURE COMPLETE CONTACT WITH ALL LAYERS OF TAPE.

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DLB ASSOCIATES, INC.
Electrical / Mechanical
Wanamassa, NJ CT-PE 14722

Drawing Title: GROUNDING DETAILS

Client: OCS

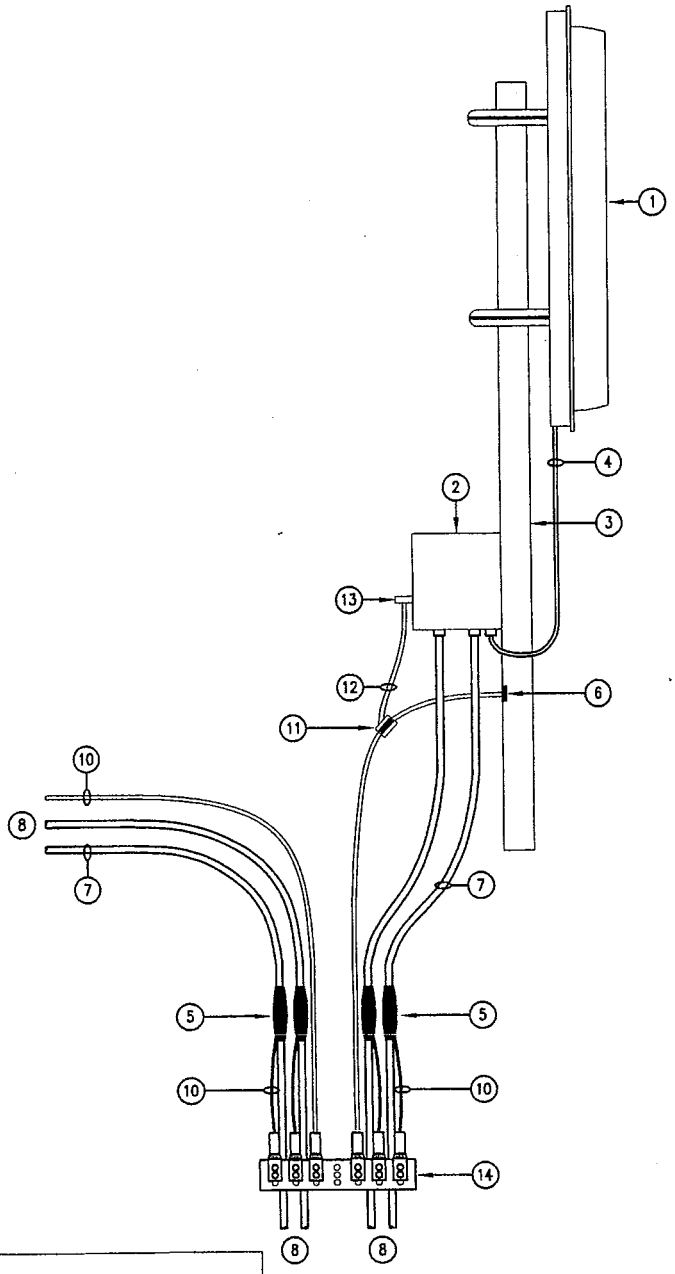
Project: SNET LANDLINE TOWER
Address: 555 MAIN STREET
STAMFORD, CT
Search Area: SNET/LL-STAMFORD
Site ID No.: CT-11-410A

P.C.:	P.C. Chkd.:	Chkd. by:	ARCNET Project No.	Drawn:	Date:
JDi			A96.506.605A	MW	02/10/00

Approved By: CLIENT: _____ DATE: _____

Revision No.	Date:

Drawing No. E-6



KEY NOTES (Symbols ①, ②, Etc.)

1. ANTENNA. (SCHEMATIC REPRESENTATION, SEE ARCHITECTURAL DRAWINGS FOR MOUNTING.)
2. AMPLIFIER.
3. MAST.
4. ANTENNA JUMPER.
5. REFER TO GROUNDING KIT DETAIL. DO NOT INSTALL ON BENDS.
6. CADWELD TYPE "VS".
7. ANTENNA COAXIAL CABLE.
8. TO NEXT ANTENNA. (IF APPLICABLE)
9. #6 INTEGRAL GROUND CONDUCTOR FROM GROUNDING KIT TO #2 SOLID.
10. #2 SOLID TINNED COPPER GROUNDING CONDUCTOR 8" MINIMUM RADIUS.
11. 2 BARREL HYDRAULICALLY COMPRESSED CONNECTION PANDUIT CATALOG # CTAP 2-4Q.
12. 1#6 STRANDED INSULATED COPPER GROUND FROM AMPLIFIER GROUNDING STUD TO #2 SOLID GROUNDING CONDUCTOR.
13. GROUNDING STUD ON AMPLIFIER.
14. COLLECTOR BAR.

ROBERT P. JUENGERT

STATE OF CONNECTICUT * ROBERT PAUL JUENGERT * No. 4208 * REGISTERED ARCHITECT *

CLD 4208

ANTENNA GROUNDING | SCALE: NONE | E-7 | 01

ARCNET ARCHITECTS, INC.
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Tel: 732.739.3200 Fax: 732.739.0440

Drawing Title: GROUNDING DETAIL

Client: OCS

Project: SNET LANDLINE TOWER
Address: 555 MAIN STREET STAMFORD, CT
Search Area: SNET/LL-STAMFORD
Site ID No.: CT-11-410A

Revision No.	Date:

DLB ASSOCIATES, INC.
Electrical / Mechanical
Wanamassa, NJ CT-PE 14722

P.C.:	P.C. Chkd.:	Chkd. by:	ARCNET Project No.	Drawn:	Date:
JDi			A96.506.605A	MW	02/10/00

Approved By: CLIENT: _____ DATE: _____

Drawing No. E-7

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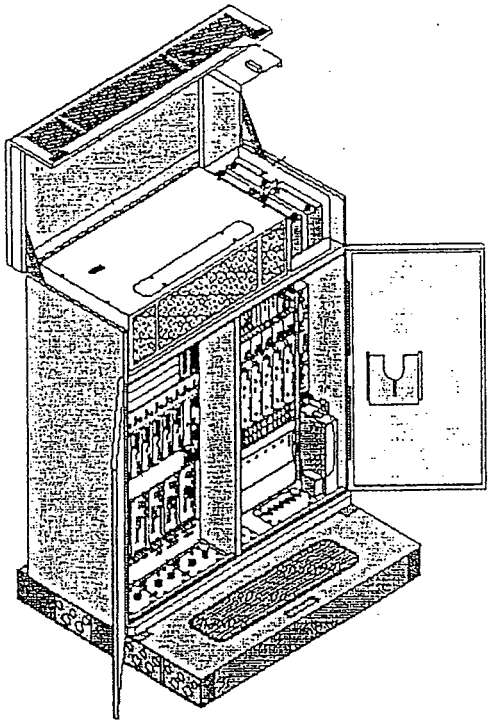
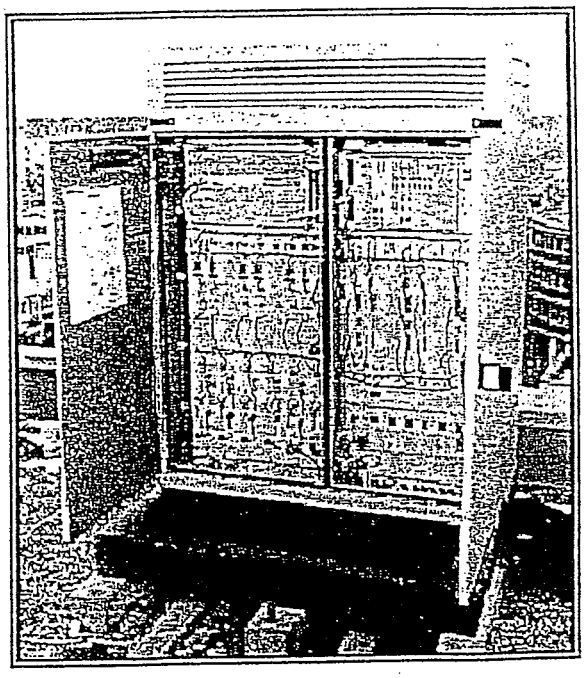
Exhibit B

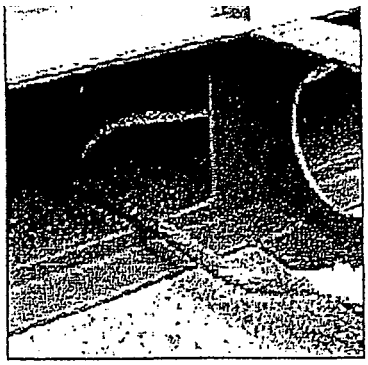
Equipment Specifications
555 Main Street
Stamford, Connecticut

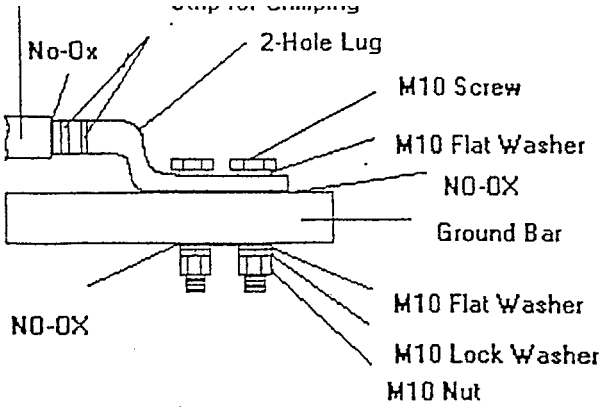
NORTEL NETWORKS™

S8000 BTS
Site Specifications









Apply a light coating of No Oxidation (NO-OX) to the ground bar area.

Dimensions, Weights & Clearances

BTS

Weight: 915 pounds
Dimensions: 53.2"W x 26"D x 63"H

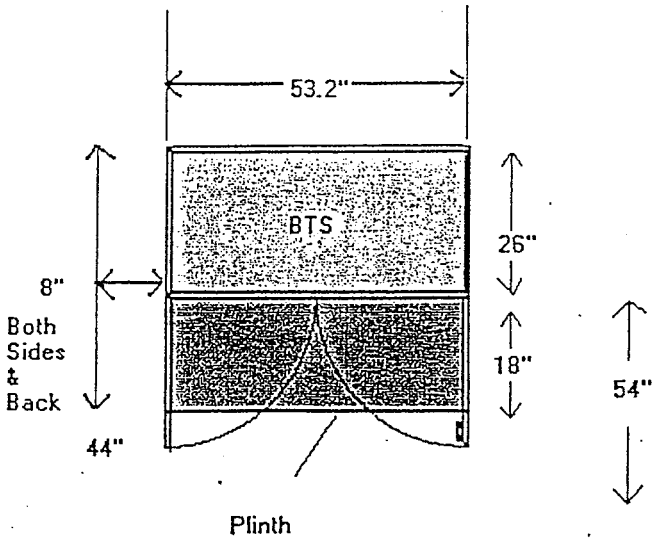
Clearances while transporting in building:
- Door Access:
  - Height: 6.6 feet
  - Width 3 feet
- Corridor Access:
  - Height: 6.6 feet
  - Width: 3.6 feet (straight), 6.6 feet (right angle)

Clearances when installed:
- Above: 28 inches for opening of hood
- Rear: 8 inches for installation of outer skin
- Sides: 8 inches for adjustment of door hinges
- Front: 54 inches to open door and technician access

Plinth

Weight:
87 pounds

Dimensions:
53.2"W x 44"D x 10.2"H



Floor Characteristics

Minimum Floor Resistance:
123 pounds/foot^2

Flatness:
¼ inch over 78 inches

Electrical Specifications

Split Single-Phase

3 wires plus ground

L1: Black 6 gauge

L2: Red 6 gauge

Neutral: White 6 gauge

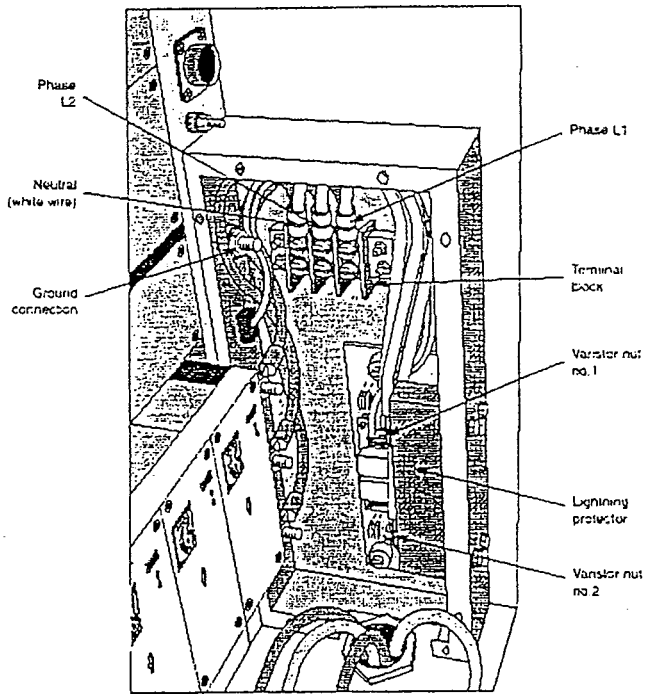
Ground: Yellow/Green 6 gauge

Maximum distance between AC box and BTS: 105 feet

187 ~ 254 VAC between L1 and L2

99 ~ 127 VAC between Neutral and L1 or L2

45 ~ 65 Hertz



AC connection to BTS located at the front, lower, right-hand side of BTS

Circuit Breaker in AC Box

Up to 4 transmitters

30 A, bipolar, C curve

5 or more transmitters

40A, bipolar, C curve

BTS to Ground connection

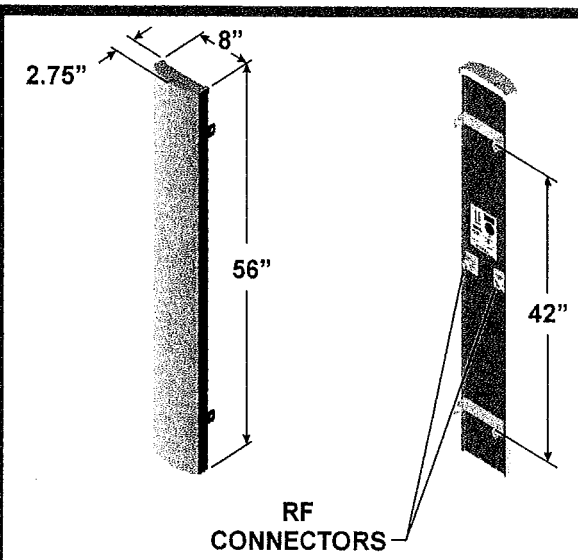
Minimum 2 AWG, run in most direct route as possible towards true earth, minimizing bends. No bend shall be less than 90 degrees.

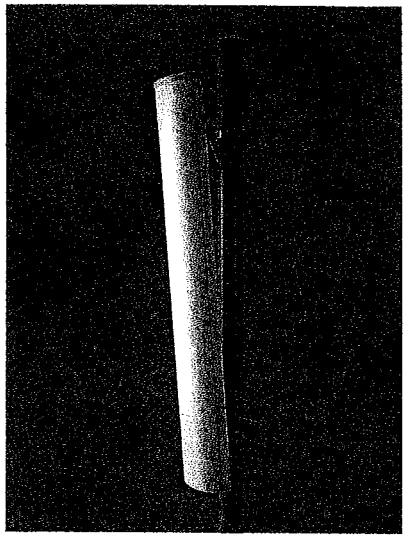
EMS WIRELESS

OptiRange™

RR90-17-XXXP

1850 MHz - 1990 MHz (P)





90° beamwidth

16.5 dBi gain

±45° DualPol™

56 inch

SPECIFICATIONS

Electrical

Azimuth Beamwidth	90°
Elevation Beamwidth	6°
Gain	16.5 dBi (14.4 dBd)
Polarization	Slant, ±45°
Port-to-Port Isolation	≥ 30 dB
Front-to-Back Ratio	≥ 25 dB (≥ 30 dB Typ.)
Electrical Downtilt Options	0°, 2°, 4°, 6°
VSWR	1.35:1 Max
Connectors	2;Type N or 7-16 DIN (female)
Power Handling	250 Watts CW
Passive Intermodulation	<-147 dBc (2 tone @ +43 dBm {20W} ea.)
Lightning Protection	Chassis Ground

Mechanical

Dimensions (L x W x D)	56in x 8in x 2.75in (142 cm x 20.3 cm x 7.0 cm)
Rated Wind Velocity	150 mph (241 km/hr)
Equivalent Flat Plate Area	3.1ft² (.29 m²)
Front Wind Load @ 100 mph (161 kph)	90 lbs (400 N)
Side Wind Load @ 100 mph (161 kph)	31 lbs (139 N)
Weight	18 lbs (8.2 kg)

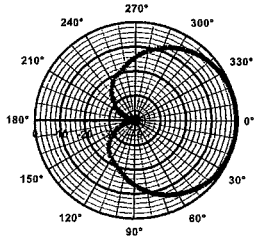
Note: Patent Pending and US Patent number 5, 757, 246.

Values and patterns are representative and variations may occur. Specifications may change without notice due to continuous product enhancements. Digitized pattern data is available from the factory or via the web site www.emswireless.com and reflect all updates.

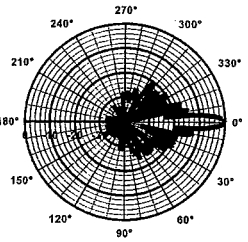
MOUNTING OPTIONS

Model Number	Description	Comments
MTG-P00-10	Standard Mount (Supplied with antenna)	Mounts to Wall or 1.5 inch to 5.0 inch O.D. Pole (3.8 cm to 12.7 cm)
MTG-S02-10	Swivel Mount	Mounting kit providing azimuth adjustment.
MTG-DXX-20*	Mechanical Downtilt Kits	0° - 10° or 0° - 15° Mechanical Downtilt
MTG-CXX-10*	Cluster Mount Kits	3 antennas 120° apart or 2 antennas 180° apart
MTG-C02-10	U-Bolt Cluster Mount Kit	3 antennas 120° apart , 4.5" O.D. pole.
MTG-TXX-10*	Steel Band Mount	Pole diameters 7.5" - 45"

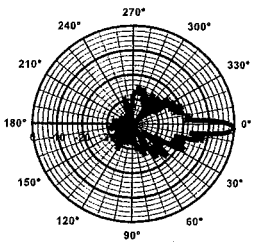
* Model number shown represents a series of products. See mounting options section for specific model number.



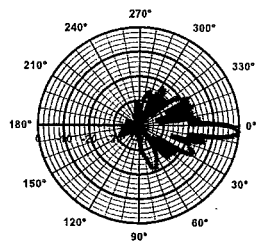
Azimuth



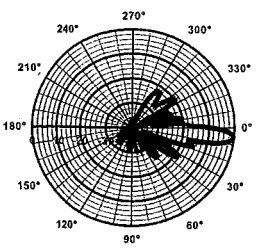
Elevation
0° Downtilt



Elevation
2° Downtilt



Elevation
4° Downtilt



Elevation
6° Downtilt

Exhibit C

Structural Analysis
555 Main Street
Stamford, Connecticut

Communication Structures Engineering, Inc.

Mr. Dave Weinpahl
On Air Engineering, LLC.
100 Filley St.
Bloomfield, CT 06002

March 26, 2001

Re: Structural Analysis of
SNET's 125-ft. Type 'K' Tower at
555 Main Street, Stamford, CT for
VoiceStream Wireless Antenna Additions
VoiceStream Site ID # **CT-11- 410A**

Dear Mr. Weinpahl,

Communication Structures Engineering, Inc. has completed a review of the existing SNET 125-ft. Type 'K' Tower that is located on the roof of the SNET 555 Main Street Building in Stamford, CT. In accordance with VoiceStream's request, we performed a structural analysis of this structure to check its capability to support the existing tower, antenna and equipment loads as well as the new loads from VoiceStream's proposed panel antennas, antenna mounts, and transmission line additions. The specific loading criteria that we utilized in accordance with BOCA were those prescribed by the national standard "ANSI/TIA/EIA-222-F-1996". The applicable "basic wind speed" that was utilized for this tower site was the 85-mph, fastest-mile velocity, specified by the above standards for the Fairfield County, CT area. CSEI utilized the engineering and fabrication drawings for the original 125-ft Type 'K' tower at this site to conduct this structural review. A CSEI engineer also visited the site and climbed this structure to review the existing tower loading, previous modifications, and present conditions. A summary of the loads considered and the results of our structural analysis follow.

ANTENNA CONFIGURATION (Used for Structural Analysis)

Existing Antennas & Cables to remain on tower

PageNet: One 8-ft Omni Antenna at 134-ft ATBP*with one run of 1-5/8 inch coaxial cable.
SNET: Nine Panel Antennas at 130-ft ATBP* with 9 runs of 7/8-inch coaxial cable.
PageNet: One 6-ft Yagi antenna at 127-ft ATBP* with one run of 1/2-inch coaxial cable.
Westinghouse Broadcast Video: One Andrew 10-ft Dia. HP Parabolic Antenna at 117-ft ATBP* w/ 2 runs EW90 waveguide.
Windstar Wireless: One 1-ft Dia. Parabolic Antenna at 115-ft ATBP* with two runs of 1/4-inch cable.
VoiceStream Wireless: Six Panel Antennas at 103-ft ATBP* with 12 runs of 1-5/8 inch coaxial cable.
SNET: One EMRS 3-ft yagi antenna at 25-ft ATBP* with one run of 1/2-inch cable.

New VoiceStream Antenna & Cable Additions

VoiceStream Wireless: Six Panel Antennas at 96.5-ft ATBP with 12 new runs of 1-5/8 inch cable.

*Elevation Note: ATBP indicates the distance Above Tower Base Plate. The Tower Base Plate is located 3-ft above the roof of the existing building at an elevation of approximately 106-ft above grade level.

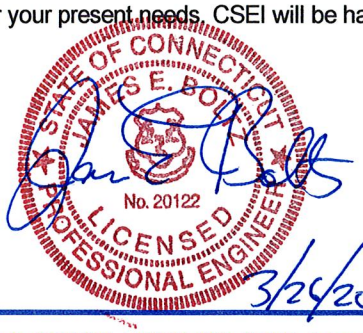
CSEI's structural analysis utilized the structural loads prescribed by "ANSI/TIA/EIA-222-F" "Structural Standards for Antenna Supporting Structures". The load carrying members of this structure were reviewed to check their compliance with the AISC 1989 ASD "Specification for Structural Steel Buildings". As a result of this structural analysis, we determined that some tower strengthening is required to enable this structure to support VoiceStream's new equipment. This strengthening is needed at the connections of several of the tower face braces below VoiceStream's proposed antennas. At these connections one of the two existing ¾-inch diameter bolts must be replaced with a new ¾-inch diameter ASTM A325 high-strength galvanized bolt. The specific locations where bolt replacements are necessary and the bolts to be used are specified on CSEI drawing TS-1, which is included with this letter. After the bolt replacement work is properly completed, this structure will be capable of supporting the loads from both the existing antennas & cables and VoiceStream's proposed additions, in accordance with the referenced codes. It is also important that the 12 new VoiceStream coaxial cables are routed up the southwest tower leg in two adjacent rows as specified on CSEI's Drawing # S1 / 01106. The routing of these cables has been configured to minimize the wind loads from the new cables. If VoiceStream or any other carriers add any future equipment to this tower, this structure should be re-analyzed at that time.

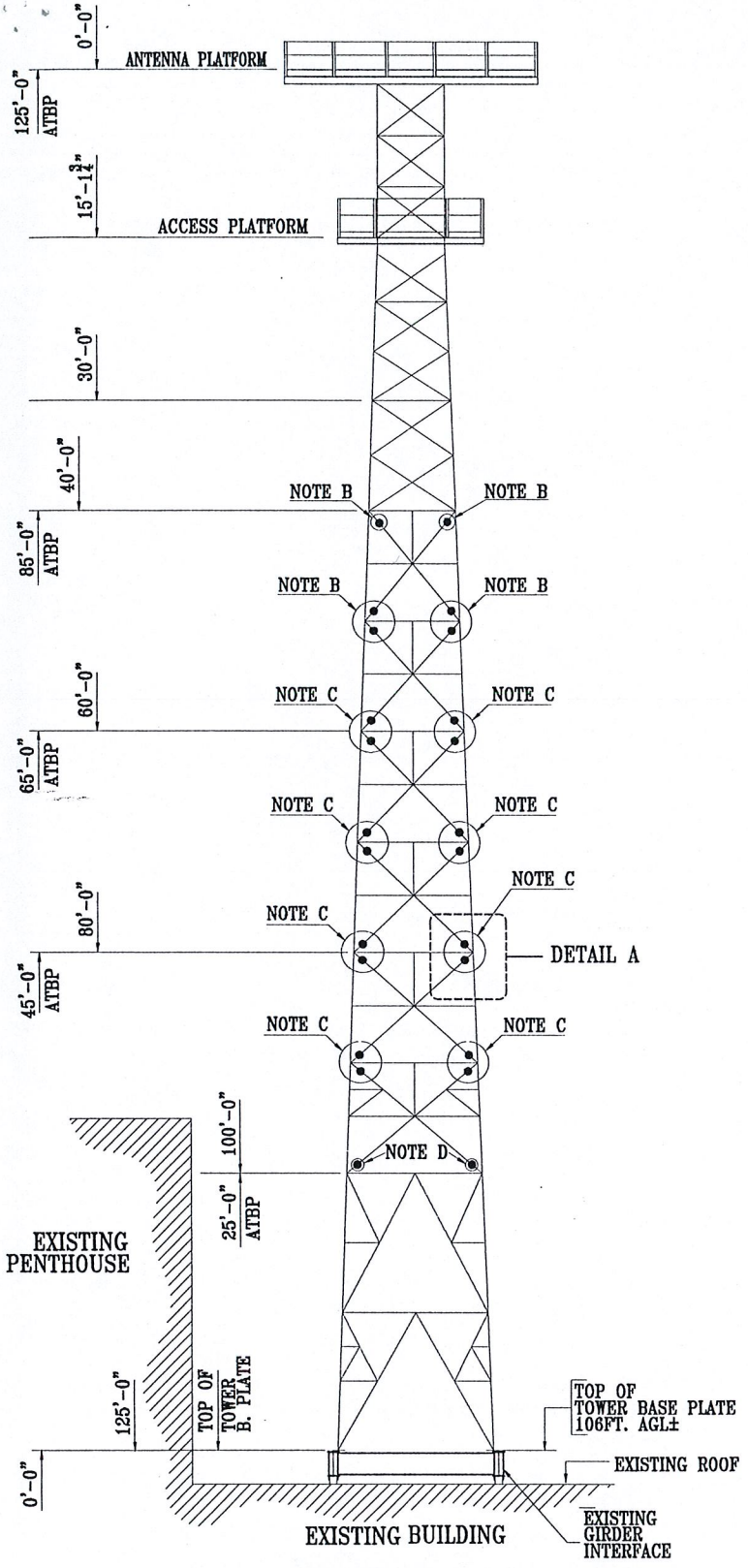
We hope that this information is sufficient for your present needs. CSEI will be happy to supply you with additional information as required.

Sincerely,

James E. Boltz, P.E. (CT P.E. #20122)

Encl: Drawing TS-1





REQUIRED BOLT REPLACEMENTS

EXISTING 125'-0" MODIFIED TYPE "K" TOWER

TYPICAL ALL FACES

BOLT REPLACEMENT NOTES

A. EXISTING ANTENNAS AND MOUNTS ARE NOT SHOWN ON ON THIS SKETCH FOR CLARITY.

B. REPLACE ONE "X" BRACE CONNECTION BOLT AT ALL FACES WITH ONE 3/4"ø X 2" GALV. A325 GHSB.

C. REPLACE ONE "X" BRACE CONNECTION BOLT AT ALL FACES WITH ONE 3/4"ø X 2 1/4" GALV. A325 GHSB.

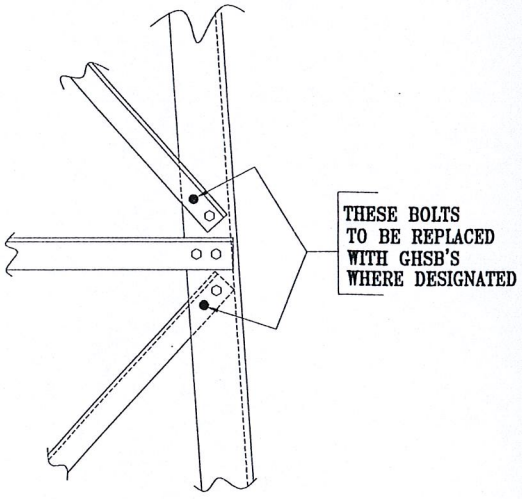
D. REPLACE ONE "X" BRACE CONNECTION BOLT AT ALL FACES WITH ONE 3/4"ø X 2 1/2" GALV. A325 GHSB.

FIELD BOLTS REQUIRED

QTY	DESCRIPTION
24	3/4" DIA. X 2" GHSB (NOTE B)
64	3/4" DIA. X 2 1/4" GHSB (NOTE C)
8	3/4" DIA. X 2 1/2" GHSB (NOTE D)

GHSB = GALVANIZED A325 HIGH STRENGTH BOLT WITH HEAVY HEX NUT, HARDENED WASHER AND PALNUT.

ATBP = ABOVE TOWER BASE PLATE



DETAIL A
TYPICAL BOLT REPLACEMENT

⚠	ORIGINAL ISSUE	3/20/01

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Designed by: A. K. PADMAN
Drawn by: W. E. ELEVES
Checked by: J. E. BOLTZ

STAMFORD, CT
555 MAIN STREET
VOICESTREAM SITE ID: CT-11-410A

TOWER STRENGTHENING

Date: MARCH 2001
CSEI Project 01106
SITE ID CT-11-410A
SHEET No: TS-1

Exhibit D

Power Density Calculations
555 Main Street
Stamford, Connecticut

VoiceStream WIRELESS

100 Filley St., Bloomfield, CT 06002
Phone: (860) 692 - 7130
Fax: (860) 692 - 7159

Technical Memo

To:
From: Brian Liu (Radio Engineering Consultant)
cc: Mike Fulton
Subject: Power Density Report for CT11410A
Date: 6/9/2000

1. Introduction:
This report is the result of an Electromagnetic Field Intensities (EMF - Power Densities) study for the proposed VoiceStream Wireless. PCS antenna installation at 555 Main Street, Stamford Connecticut. This study incorporates the most conservative considerations for determining the practical combined worst case power density levels that would be theoretically encountered from several locations surrounding the transmitting location.

2. Discussion:
The following assumptions were used in the calculations:

1) The emissions from the VSW transmitters are in the 1930-1950 MHZ frequency band.
2) The antenna cluster consists of three sectors, with 4 antennas per sector. The model number for each antenna is EMS FR-90-16-02DP
3) The antenna height is 208.7 feet Center Line.
4) The maximum combined transmit power from each sector is 2980.71 Watts Effective Isotropic Radiated Power (EiRP).
5) All the antennas are simultaneously transmitting and receiving, 24 hours a day.
6) Power levels emitting from the antennas are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
7) The average ground level of the studied area does not significantly change with respect to the transmitting location.

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

3. Conclusion:
Based on the above worse case assumptions, the power density calculations from the proposed VoiceStream Wireless PCS antenna installation are on the order of **10** to **100** times less than the FCC/ANSI/IEEE C95.1-1991 standard of 1000 microwatts per square centimeter ($\mu w/cm^2$). Details are shown in the attachment. Furthermore, the proposed antenna location for VoiceStream Wireless on SNET Facility @ 555 Main St., Stamford CT will not interfere with existing public safety telecommunications, AM band and FM band radio broadcast, TV, Police Communication, HAM Radio communications and other signals in the area.

Worst Case Power Density for Antenna installation on the Existing Lattice Tower @ 555 Main Street, Stamford, CT

Region 11 - Connecticut Power Density Calculation - Worst Case			
Base Station TX output	20 W	43.01	
Number of channels	8		
Antenna Model	EMS: FR-90-16/ FV-90-16		
Antanna Gain	15.5 dBi		
Cable Size	1 5/8"		
Cable Length	155 ft		
Jumper & Connector loss	1 dB		
Cable Loss per foot	0.0116		
Total Cable Loss	1.798 dB		
Total Attenuation	2.798 dB		
Total EIRP per channel	55.71 dB	372.59	W
Total EIRP per sector	64.74 dB	2980.71	W
Ground Reflection	1.6		
Frequency	1930 MHz		
Antenna Height	208.7 ft	6361.176	cm
nsg	12.702		
Power Density (S) =	0.015014 mW / cm^2		
% MPE =	1.5014%		

Current % MPE = 15.77

** Additional % MPE contribution Omnipoint = 1.0414*

Total % MPE for all carriers = 16.8114

Equation Used :

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

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

* 0.46 % submitted previously

VoiceStream 555 Main St., Stamford 5/18/01