



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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

December 13, 1999

Sandy M. Carter, Manager – Regulatory
Bell Atlantic NYNEX Mobile
20 Alexander Drive
P.O. Box 5029
Wallingford, CT 06492

RE: EM-BAM/SCLP-034-991124 - Bell Atlantic Mobile and Springwich Cellular Limited Partnership notice of intent to modify an existing telecommunications tower located at 48 Newtown Road in Danbury, Connecticut.

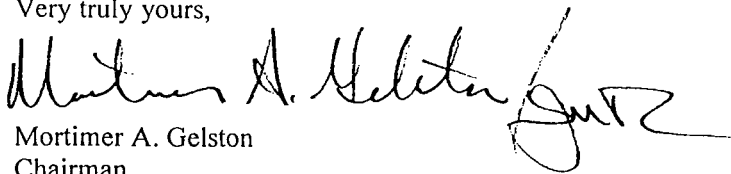
Dear Ms. Carter:

At a public meeting held on December 8, 1999, the Connecticut Siting Council (Council) ruled that the proposed use of this existing tower would not cause a significant change or alteration in the physical and environmental characteristics of the site, and pursuant to Section 16-50j-72 (c) of the Regulations of Connecticut State Agencies would constitute a regulatory exemption.

The proposed modifications are to be implemented as specified here, in your notice dated November 24, 1999, and in additional information dated December 1, 1999. This exemption is conditioned on the requirement that the existing 100-foot guyed lattice tower located at 50 Newtown Road be removed as required by the town zoning permit for the new tower at 48 Newtown Road. The modifications are in compliance with the exception criteria in Section 16-50j-72 (c) of the Regulations of Connecticut State Agencies as changes to an existing non-facility tower that have received all municipal zoning approvals and building permits and that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels or more, and increase the total radio frequency 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 tower has been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequency now used on this tower. Any additional change to this tower 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 No. 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/SLL/sll

cc: Honorable Gene F. Eriquez, Mayor, City of Danbury
Peter W. van Wilgen, Director – Real Estate Operations, SNET Wireless, Inc.

Bell Atlantic Mobile

20 Alexander Drive
P.O. Box 5029
Wallingford, CT 06492-2430
203-269-8858

December 1, 1999



HAND DELIVERED

Mr. Steve Levine, Siting Analyst
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

RECEIVED

DEC 02 1999

CONNECTICUT
SITING COUNCIL

Re: Bell Atlantic Mobile and Springwich Cellular Limited Partnership – Danbury
Cell Site

Dear Mr. Levine:

As per our recent phone conversation regarding a fence around the tower and generator at the Danbury cell site, I called the owner and asked if there was to be a fence constructed in this area. He indicated that a fence was to be built around the tower and generator area and that it had been included on the construction plans. I asked for a copy of that drawing and he had the engineer send it to me. I am submitting three copies of that plan to you to indicate that a fence will be erected around the tower and the generator.

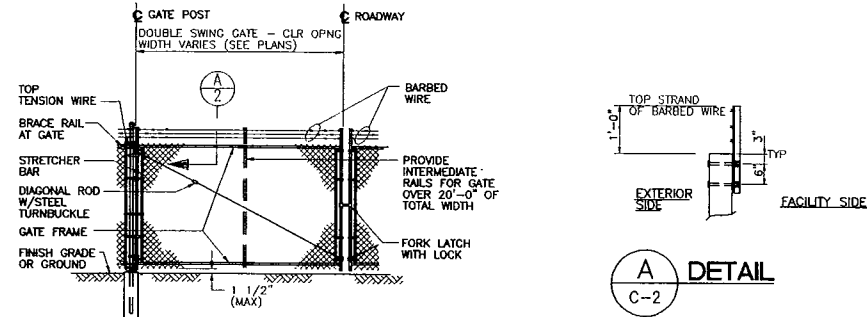
Thank you for your time and consideration on this matter.

Very truly yours,

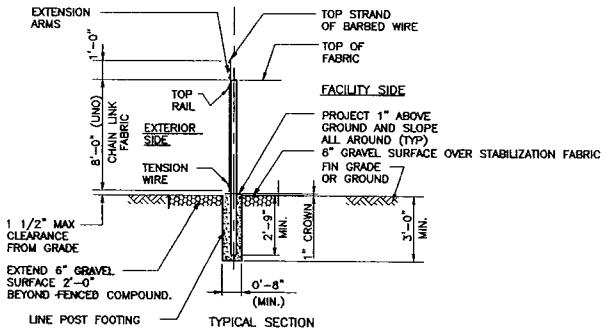
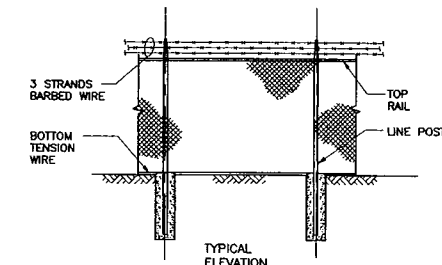
A handwritten signature in cursive script that reads "Sandy M. Carter".

Sandy M. Carter
Manager – Regulatory
Bell Atlantic Mobile

Attachment



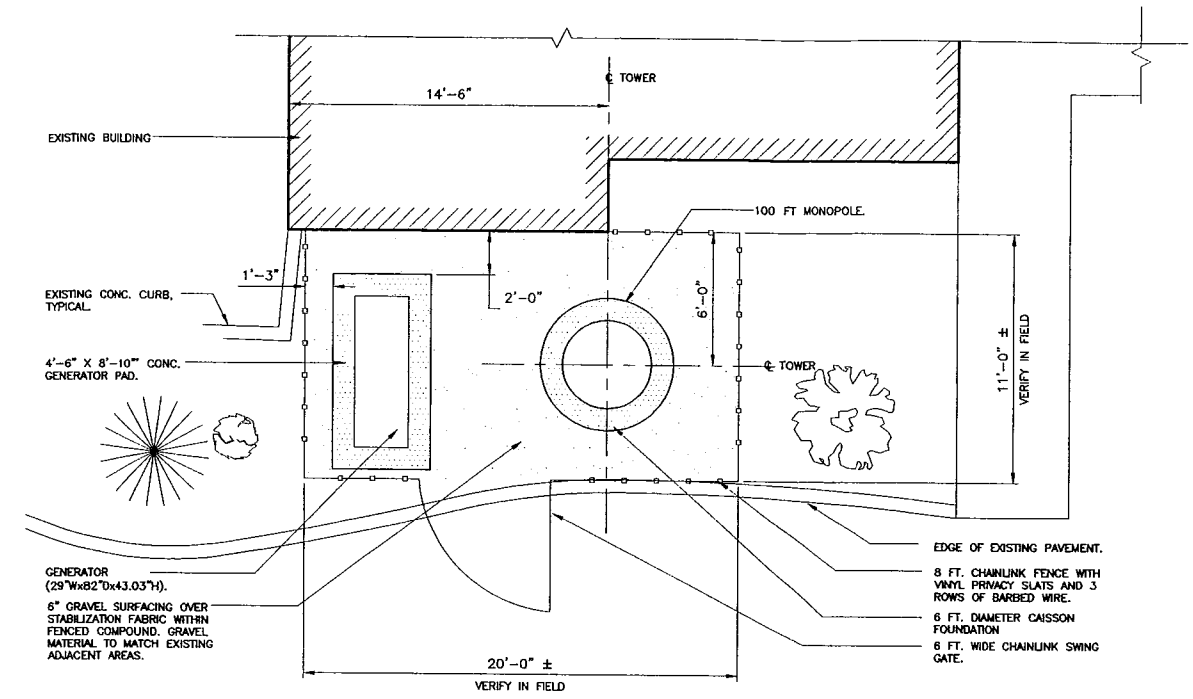
4 WOVEN WIRE SWING GATE-DOUBLE
C-2 NOT TO SCALE



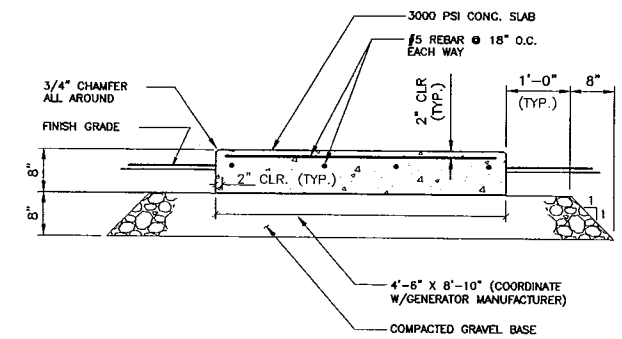
NOTE: SEE WOVEN WIRE FENCE NOTES FOR THIS DWG. FOR ADDITIONAL INFO.

5 WOVEN WIRE FENCE DETAIL
C-2 NOT TO SCALE

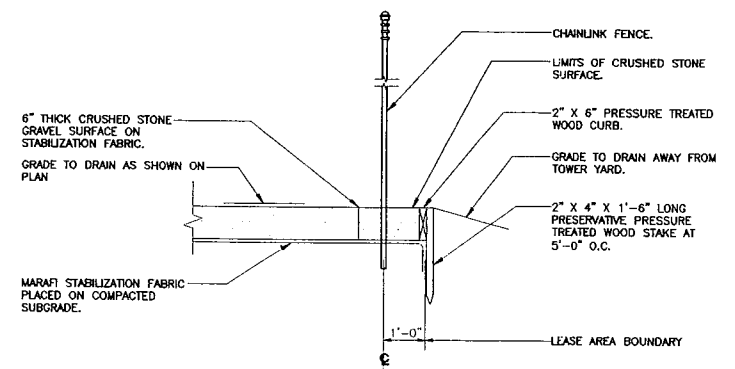
- WOVEN WIRE FENCE NOTES**
- GATE POST: CORNER, TERMINAL OR PULL POST 2 1/2" # SCHEDULE 40 FOR GATE WIDTHS UP THRU 6 FEET OR 12 FEET FOR DOUBLE SWING GATE PER ASTM-F1083.
 - LINE POST: 2" # SCHEDULE 40 PIPE PER ASTM-F1083.
 - GATE FRAME: 1 1/2" # SCHEDULE 40 PIPE PER ASTM-F1083.
 - TOP RAIL & BRACE RAIL: 1 1/2" # SCHEDULE 40 PIPE PER ASTM-F1083.
 - FABRIC: 12 GA. CORE WIRE SIZE 2" VINYL COATED MESH, CONFORMING TO ASTM-A392.
 - TIE WIRE: MINIMUM 11 GA. GALVANIZED STEEL AT POSTS AND RAILS A SINGLE WRAP OF FABRIC TIE AND AT TENSION WIRE BY HOG RINGS SPACED MAX 24" INTERVALS.
 - TENSION WIRE: 7 GA. GALVANIZED STEEL.
 - BARBED WIRE: DOUBLE STRAND 12-1/2" O.D. TWISTED WIRE TO MATCH W/FABRIC 14 GA., 4 PT. BARBS SPACED ON APPROXIMATELY 5" CENTERS.
 - GATE LATCH: DROP DOWN LOCKABLE FORK LATCH AND LOCK, KEYED ALIKE FOR ALL SITES IN A GIVEN MTA.
 - LOCAL ORDINANCE OF BARBED WIRE PERMIT REQUIREMENT SHALL BE COMPLIED WITH IF REQUIRED.
 - HEIGHT = 8' VERTICAL + 1' BARBED WIRE VERTICAL DIMENSION.
 - PRIVACY SCREENING: MAX SLAT AS MANUF. BY PATRICIAN, OR APPROVED EQUAL.



1 EQUIPMENT COMPOUND PLAN
C-2 SCALE: NOT TO SCALE

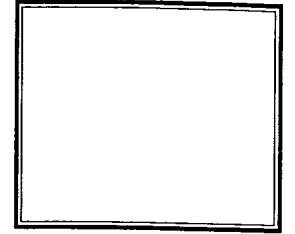


2 GENERATOR PAD DETAIL
C-2 N.T.S.



3 COMPOUND SURFACING DETAIL
C-2 NOT TO SCALE

REVISIONS		
00	07/20/99	PERMIT
01	07/30/99	BID PURPOSES
02	09/24/99	CONSTRUCTION DOCS.
03	10/18/99	ADDENDUM 1
04		
05		
06		
07		
08		



NATCOMM

Natcomm, LLC - Engineering Consultants
 63-2 North Branford Road
 Branford, Connecticut 06405
 Tel: (203) 488-6580
 Fax: (203) 488-8587
 Consulting Engineers - Project Management
 Site Acquisition - Communications Installations



GERMANTOWN DANBURY

50 NEWTOWN ROAD
DANBURY, CONNECTICUT



PROJECT NO:	995159
DRAWN BY:	CTW
CHECKED BY:	CFC
SCALE:	1"=20'-0"
DATE:	4/23/99

**TOWER COMPOUND
PLAN & SITE DETAILS**

C-2
DWG. 3 OF 22

SPRINGWICH CELLULAR LIMITED PARTNERSHIP
500 Enterprise Drive, 3rd Floor
Rocky Hill, CT. 06067
860/513-7615

BELL ATLANTIC MOBILE
20 Alexander Drive
Wallingford, CT. 06492
203/294-8519

November 24, 1999

RECEIVED

NOV 24 1999

**CONNECTICUT
SITING COUNCIL**

HAND DELIVERED

Mr. Mortimer A. Gelston, Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Re: Bell Atlantic Mobile and Springwich Cellular Limited Partnership – Danbury
Cell Site

Dear Mr. Gelston:

Cellco Partnership d/b/a Bell Atlantic Mobile (the “Company”) and Springwich Cellular Limited Partnership (“SCLP”) (collectively, the “Applicants”) plan to install cellular antennas and related equipment at the tower facility in Danbury owned by Fifty Newtown Road Corporation of Danbury, Connecticut. Please accept this letter as notice of intent, pursuant to R.C.S.A. Section 16-50j-73, of the placement of associated equipment on an existing non-facility tower pursuant to R.C.S.A. Section 16-60j-72(c). In further compliance with R.C.S.A. Section 16-50j-73, a copy of this letter is being sent to the Mayor of Danbury.

The existing non-facility tower is a 100’ steel monopole tower located at 48 Newtown Road, Danbury, Connecticut. The Applicants each plan to install twelve panel-type cellular antennas (total of 24 antennas) and one G.P.S. antenna on the building. Bell Atlantic Mobile plans to install its equipment within a portion of the existing building, approximately a 12’ x 20’ space. Bell Atlantic Mobile will also install a diesel generator for emergency use at the base of the tower. The generator will be installed following receipt of the required DEP permit. Springwich Cellular Limited Partnership will continue to occupy its equipment space at 50 Newtown Road previously approved by the Council at its meeting held on August 25, 1995.

The addition of the Applicants’ antennas and equipment to the tower site does not constitute a substantial environmental affect since such additions do not cause a significant change or alteration in the physical and environmental characteristics of the site (see attached site plan). Rather, the planned changes to the existing non-facility tower falls squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72 (c).

First, the height of the existing tower will be unaffected. Bell Atlantic Mobile will install twelve antennas, Allgon Model 7129.16, four per sector on a triangular platform to be attached to the tower. The center of radiation will be 90' AGL. The GPS antenna will be mounted on the building. Springwch Cellular Limited Partnership will install twelve antennas, Model Allgon 7120.16, four per sector on a triangular platform to be attached to the tower. The center of radiation will be 100' AGL. Attached is the Structure Design Calculation Report which Bell Atlantic Mobile had performed for this site.

Second, the proposed addition will not extend the site boundaries. Bell Atlantic Mobile's proposed equipment will be located within an existing building on the site at 48 Newtown Road. A zoning permit was issued to the property owner for the tower and equipment storage at 48 Newtown Road (see attached copy of zoning permit dated 12/29/98). Springwch Cellular Limited Partnership's equipment will remain in the existing space located within a building at 50 Newtown Road which was previously approved by the Council on August 29, 1995. Antenna cables from the existing equipment room will be routed underground to the building located at 48 Newtown Road and then routed along the side of the building and across the roof to the new monopole tower. The existing 100' guyed tower located at 50 Newtown Road will be removed as required by the zoning permit for the new monopole tower at 48 Newtown Road.

Third, the proposed addition will not increase the noise levels at the existing compound facility by six decibels or more.

Fourth, operation of the antennas will not increase the total frequency electromagnetic radiation power density, measured at the tower base, to a level at or above the applicable ANSI standards. "Worst-case" exposure calculations for a point at the base of the tower in relation to operation of each of BAM's and SCLP's antenna arrays are as follows:

	<u>Applicable ANSI Stnd.</u>	<u>Calculated "Worst Case"</u>	<u>Percentage of Stnd.</u>
BAM	0.583 mW/cm2	0.0843 mW/cm2	14.46%
SCLP	0.5867 mW/cm2	0.0683 mW/cm2	11.63%
		Total	26.09%

The collective "worst-case" exposure would be only 26.09% of the ANSI standard, as calculated for mixed frequency sites. Power density levels from shared use of the tower facility would thus be well below applicable ANSI standards.

Mr. Mortimer A. Gelston
November 24, 1999
Page 3

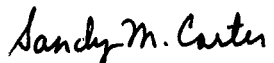
Finally, the owner of the tower, 48 Newtown Road Corporation, has received the necessary municipal approvals and permits for the project for a multi-tenant monopole communications facility. (see attached building and zoning permits).

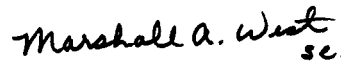
For the foregoing reasons, the Applicants seek a ruling that their proposed additions to the non-facility tower would not cause a significant change or alteration in the physical and environmental characteristics of the site pursuant to R.C.S.A. Section 16-50j-72 (c)(1). The Applicants further submit that the changes comply with R.C.S.A. Section 16-50j-72 (c), (2) through (5) and therefore request a determination that the placement of the antennas and equipment on the existing non-facility tower site does not constitute a substantial environmental effect under R.C.S.A. Section 16-50j-72 (c).

Thank you for your consideration of this matter.

Pursuant to Connecticut General Statutes Section 16-50v-1 (a) of the Regulations of Connecticut State Agencies, the Applicants have enclosed a check in the amount of \$500.00 for the required filing fee.

Very truly yours,


Sandy M. Carter
Manager – Regulatory
Bell Atlantic Mobile


Marshall A. West
Manager – Real Estate Contracts & Construction
Springwich Cellular Limited Partnership

Attachments

cc: Honorable Gene F. Eriquez, City of Danbury

SPRINGWICH CELLULAR LIMITED PARTNERSHIP
500 Enterprise Drive, 3rd Floor
Rocky Hill, CT. 06067
860/513-7700

BELL ATLANTIC MOBILE
20 Alexander Drive
Wallingford, CT. 06492
203/294-8519

November 24, 1999

Honorable Gene F. Eriquez, Mayor
City of Danbury
City Hall
155 Deer Hill Avenue
Danbury, Connecticut 06810

Dear Mr. Eriquez:

This letter is to inform you that Cellco Partnership d/b/a Bell Atlantic Mobile ("BAM") and Springwich Cellular Limited Partnership ("SCLP") plan to install antennas and associated equipment at the existing tower facility located at 48 Newtown Road, Danbury, Connecticut. As required by Section 16-50j-73 of the Regulations of the Connecticut State Agencies (R.C.S.A.), please accept this letter and the attached letter to the Connecticut Siting Council as notice on intent of the placement of the associated equipment on an existing non-facility tower pursuant to R.C.S.A. Section 16-50j-72 (c).

The attached letter fully sets forth the Companies' proposal. However, if you have any questions or require any further information on the plans for this site or the Siting Council's procedures, please contact the undersigned at (203) 294-8519 or Mr. Joel Rinebold, Executive Director of the Connecticut Siting Council, at (860) 827-2935.

Sincerely,

Marshall A. West
s.c.

Marshall A. West
Manager-Real Estate Contracts & Construction
Springwich Cellular Limited Partnership

Sandy M. Carter

Sandy M. Carter
Manager - Regulatory
Bell Atlantic Mobile

Enclosure



CITY OF DANBURY
155 DEER HILL AVENUE
DANBURY, CONNECTICUT 06810

PLANNING & ZONING DEPARTMENT
(203) 797-4525
(203) 797-4586 (FAX)

December 29, 1998

Mr. Paul S. McNamara
Donnelly, McNamara & Gustafson, P.C.
150 Danbury Road
PO Box 2006
Ridgefield, CT 06877

RE: Waiver No. 98-49
48 Newtown Road - Telephone Tower and Equipment Storage
Assessor's Lot Numbers K12265, K12266

Dear Mr. McNamara:

Your application for a Waiver to Site Plan Requirements for the construction of a Telephone Tower and Equipment Storage on the above-referenced site is approved as follows:

1. The existing telephone tower on the adjacent site identified as 50 Newtown Road will be removed in lieu of the construction of the tower and equipment storage facility to be located at 48 Newtown Road.
2. There shall be no exterior changes to the building facade other than the addition of the tower in the location as shown on the Site Plan prepared for 48 Newtown Road Corporation by New England Land Surveying, dated August 21, 1989 as revised to September 9, 1994 as submitted in support of this Waiver Application.
3. This approval does not waive any other departmental approvals, requirements or permits that may be necessary to complete this proposed project.

A Zoning Permit may now be required. Please contact the Zoning Department for further information regarding this process. Upon completion of construction, a Zoning Certificate of Compliance will be issued by this Office prior to the issuance of a Certificate of Occupancy by the Building Department, provided work was completed in accordance with the Waiver to Site Plan Requirements approved December 29, 1998.

Respectfully,

Sharon B. Calitro
Sharon B. Calitro
Assistant Planning Director

C: Wayne Skelly, Zoning Enforcement Officer
Mario Ricozzi, P.E., Director of Dept. of Permit Coordination

Post #	Fax Note	7671
From	Paul McNamara	
Co. Dept.		
Phone #		
Fax #	738-1283	
Date	12/29	# of pages 1
From	Sharon Calitro	
Co. c/o	Danbury	
Phone #	297-445388	
Fax #		

Telephone 797-4525

CITY OF DANBURY PLANNING & ZONING DEPARTMENT

010144

ZONING PERMIT

DATE Jan. 6, 1999

50

Property Owner's Name & Address 48 Newtown Road Corporation, 48 Newtown Rd. Danbury

Applicant's Name & Address Same

Property Located At 48 NEWTOWN RD.

Current Use of Property Commercial Proposed Use of Property Same

Zone CG-20 Lot Area or Dimensions 25,998 sq.ft. Assessor's Lot No. K-12265

THIS PERMIT IS FOR THE FOLLOWING ACTIVITY:

New Construction Change of Use Interior Alterations
Addition Exterior Alterations Excavation
Sign (Give linear measure of exterior building wall)
[Proposed Sign Area
[Maximum Sign Allowed
x Other (Specify)

DESCRIPTION OF WORK PROPOSED: Construction of telephone tower

Dimensions of Proposed Structure: Width 5'± X Length 4'± X Height 90'±

Distance from Front Property Line 125' Adjacent Property Lines 38'-58' Rear Line 50'

NOTE: COMPLY WITH WAIVER AS APPROVED.

Table with 4 columns: FOR OFFICE USE ONLY, Conditions (Yes/No), Effective Date, Permit No. Or Expiration Date. Lists various permits like Plot Plan, Site Plan or Waiver, etc.

This Zoning Permit, if issued, is based upon the plot plan submitted. Falsification, by misrepresentation or omission, or failure to comply with conditions of approval of this permit, shall constitute a violation of the Zoning Regulations of the City of Danbury. CALL 797-4525 WHEN JOB IS COMPLETED TO ARRANGE ZONING COMPLIANCE INSPECTION.

ESTIMATED COST \$75,000.00
FEE \$200.00 + \$10.00 = \$210.00
Total includes \$10 State Fee

Signature of Owner or Authorized Agent

POST THIS PERMIT CONSPICUOUSLY

DEPARTMENT OF BUILDINGS, DANBURY, CONNECTICUT

Phone 797-4581

BUILDING PERMIT

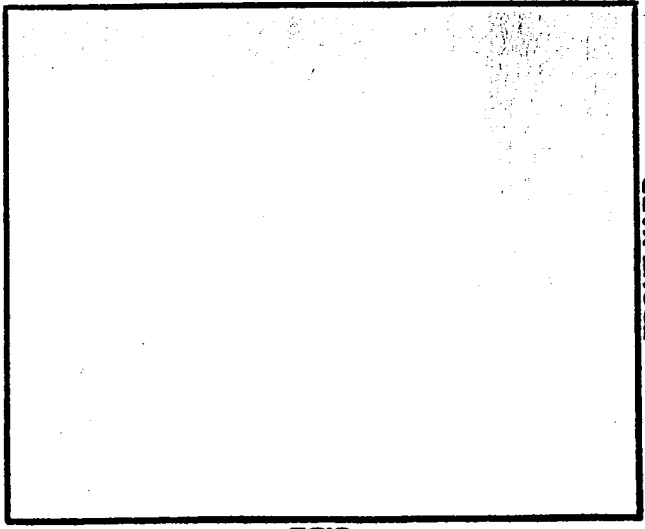
Issued 10/13/99 Expires 10/13/00
 No 029204 Owner 48 Newtown Rd Corp.
 Building 100' monopole tower & equip. room; 47' retaining wall
 Located 48 Newtown Rd Zone C6.20
 Builder BRT General Corp.
 Electrical Contractor take out own License No. ✓
 Plumbing & Heating Contractor take out own License No. ✓

In accordance with application, plans and specifications on file, and subject to ordinances and Building Code of the City of Danbury, otherwise this permit is void. Occupancy of this new building or addition prior to issuance of a Certificate of Occupancy will be considered a violation of the Building Code Regulations.

Leo P. Nulman
Building Inspector

NOTICE:

- Changes, regardless of size, from stamped approved plans must be submitted to Building Inspector before they are made.
- Prompt notification by the Plumbing, Electrical, and General contractors of completion of their respective portions of the work will avoid delay in issuance of the Certificate of Occupancy.
- This Application is null and void if the building is not completed in one year from the date of issue, except by extension of application.
- INSPECTIONS:
 Normally there are nine or more required inspections of a new building, and as many as apply on alterations and additions:
1. ZONING
 2. SOIL CONDITIONS—before foundation footings
 3. FOOTING—drain inspection
 4. ELECTRICAL—wiring roughing
 5. PLUMBING—roughing
 6. FRAMING—before insulation or lathing
 7. INSULATION—inspection
 8. GAS OR OIL BURNER—installation and wiring
 9. ELECTRICAL—final when fixtures have been hung
 10. PLUMBING—final when fixtures have been set
 11. FINAL—fire divisions, exits, etc.

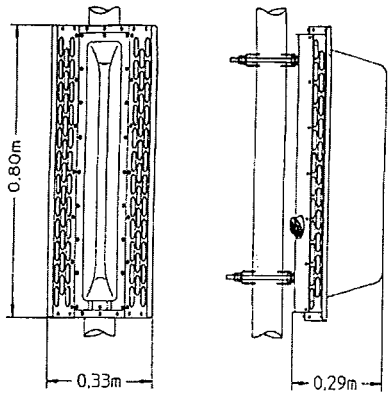




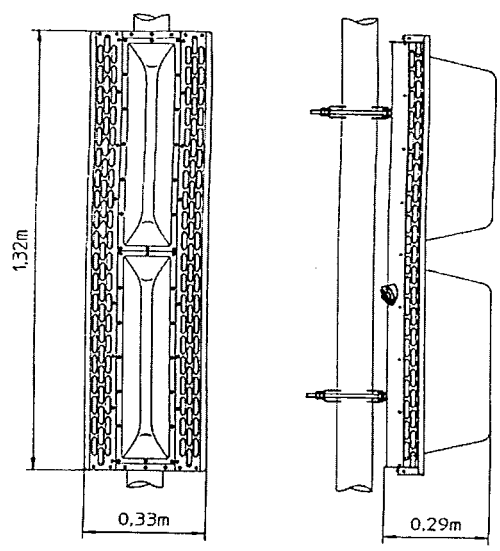
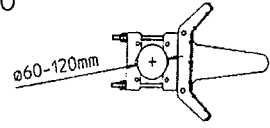
Allgon Log Periodic 85°

Electrical Specifications	7129.20	7129.16
Polarization	linear, vertical	linear, vertical
Gain dBd (dBi)	11 (13)	13 (15)
Horizontal -3dB beamwidth	85°	85°
Front-to-back ratio	>30 dB	>30 dB
Vertical -3dB beamwidth	25°	15°
Electrical Downfitt	0	0
Nominal Impedance	50 ohm	50 ohm
VSWR	<1.5:1	<1.5:1
Maximum input power	500W	500 W
Intermodulation products(2Tx@20 W)	<-103 dBm	<-103 dBm

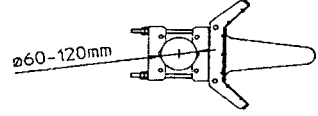
Mechanical Specifications	7129.20	7129.16
Height	31.5" (.8m)	52" (1.32m)
Width	13" (.33m)	13" (.33m)
Depth	11.4" (.29m)	11.4" (.29m)
Weight	12.1 lb (5.1 kg)	17.4 lb (7.9kg)
Survival wind speed	156 mph (70m/s)	156 mph (70m/s)
Maximum wind area	2.7 sq ft (.25 sq m)	4.5 sq ft (.42 sq m)
Max. wind load @ 100 mph (C=1)	44 lbf. (194N)	73 lbf. (326N)



7129.20



7129.16



Part Number Guide:
 ex: 7129.14.XX.00 — **Electrical Downfitt**

Type of Connector
 .05 - N Connector
 .22 - E Connector
 .33 - 7/16 DIN Connector

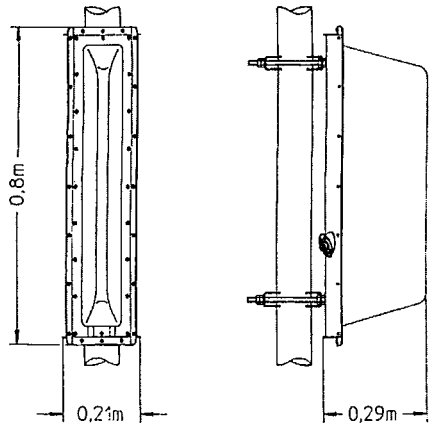
INFORMATION:
 Call 1-888-Allgon 1



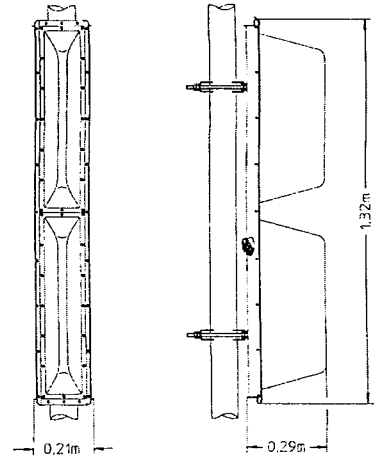
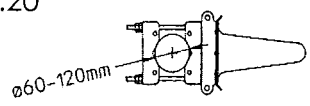
Electrical Specifications	7120.20	7120.16
Polarization	linear, vertical	linear, vertical
Gain dBd (dBi)	9 (11)	11 (13)
Horizontal -3dB beamwidth	110°	110°
Front-to-back ratio	>28 dB	>25 dB
Vertical -3dB beamwidth	25°	15°
Electrical Downtilt	0	0
Nominal Impedance	50 ohm	50 ohm
VSWR	<1.5:1	<1.5:1
Maximum input power	500W	500 W
Intermodulation products(2Tx@20 W)	<-103 dBm	<-103 dBm
First Upper Sidelobe Suppression	>17 dB.	

Mechanical Specifications	7120.20	7120.16
Height	31.5" (.8m)	52" (1.32m)
Width	8.3" (.21m)	6.3" (.16m)
Depth	11.4" (.29m)	9.8" (.25m)
Weight	10.1 lb (4.6 kg)	15.4" (7 kg)
Survival wind speed	156 mph (70m/s)	156 mph (70m/s)
Maximum wind area	2.3 sq ft (.21 sq m)	3.7 sq ft (.34 sq m)
Max. wind load @ 100 mph (C=1)	37 lbf. (163N)	59 lbf. (264N)

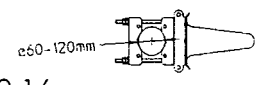
Allgon Log Periodic 110°



7120.20



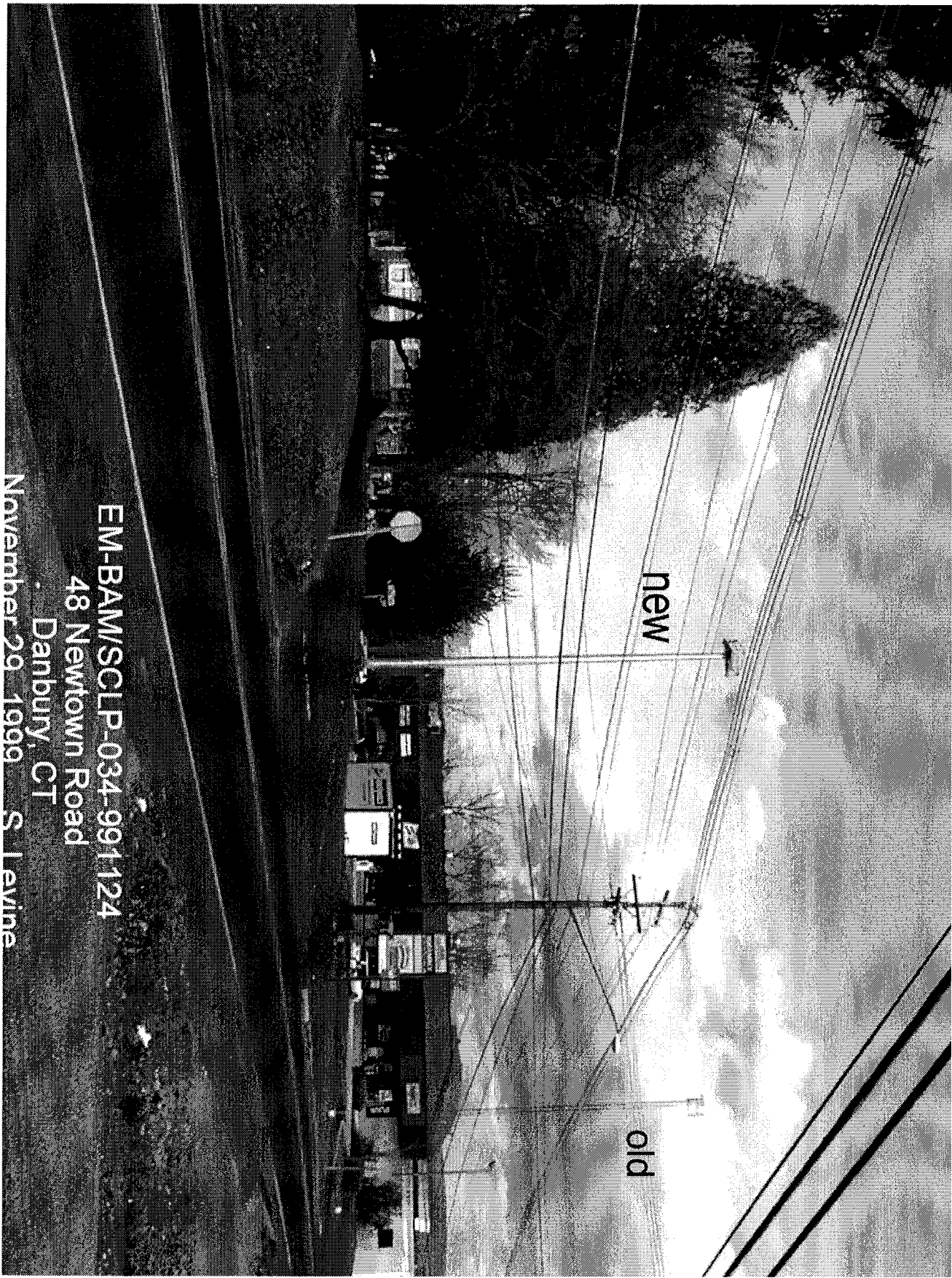
7120.16



Part Number Guide:
 ex: 7129.14.XX.00 ——— **Electrical Downtilt**

Type of Connector
.05 - N Connector
.22 - E Connector
.33 - 7/16 DIN Connector

INFORMATION:
 Call 1-888-Allgon 1



EM-BAM/SCLP-034-991124
48 Newtown Road
Danbury, CT
November 29, 1999 S. Levine



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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

November 30, 1999

Honorable Gene F. Eriquez
Mayor
City of Danbury
City Hall
155 Deer Hill Avenue
Danbury, CT 06810

RE: **EM-BAM/SCLP-034-991124** - Bell Atlantic Mobile and Springwich Cellular Limited Partnership notice of intent to modify an existing telecommunications tower located at 48 Newtown Road in Danbury, Connecticut.

Dear Mayor Eriquez:

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

The Council will consider this item at the next meeting scheduled for Wednesday, December 8, 1999, 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.

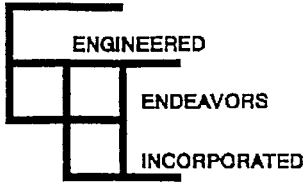
Very truly yours,

A handwritten signature in black ink, appearing to read "Joel M. Rinebold".

Joel M. Rinebold
Executive Director

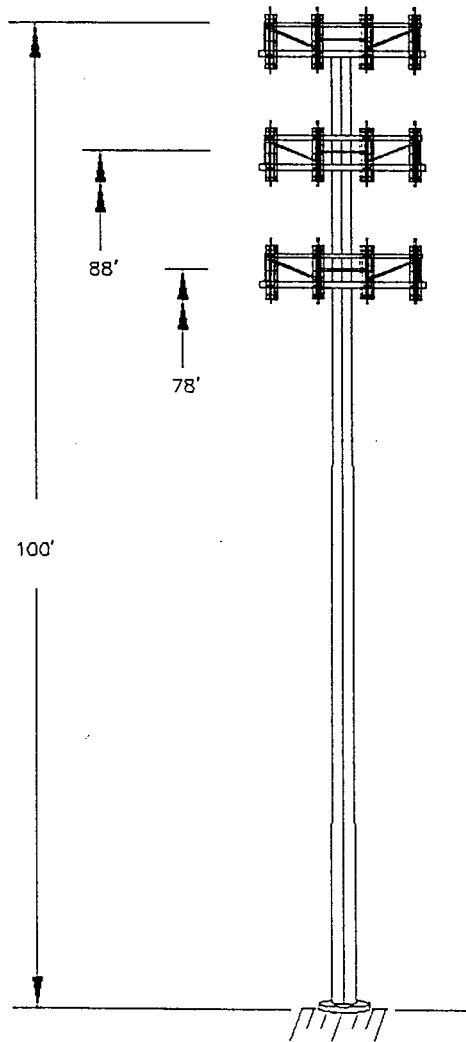
JMR/jlh

Enclosure: Notice of Intent



Customer BELL ATLANTIC/CT By L. PADGETT 7/6/99
Date
Structure 100' MONOPOLE Checked _____ 5246
Job/Quote No.

SITE LOCATION - FAIRFIELD COUNTY, CT
SITE NAME - GERMANTOWN



ANTENNA LOADING:

- (12) ALP 9212 DIRECTIONAL ANTENNAS
STANDARD PLATFORM
- (12) ALP 9212 DIRECTIONAL ANTENNAS
STANDARD PLATFORM @ 88' (FUTURE)
- (12) ALP 9212 DIRECTIONAL ANTENNAS
STANDARD PLATFORM @ 78' (FUTURE)



DESIGN NOTES:

DESIGNED IN ACCORDANCE WITH TIA/EIA 222 F
85 MPH BASIC WIND SPEED
1/2" RADIAL ICE

CASE I - 85 MPH BASIC WIND SPEED

CASE II - 75% OF 85 MPH BASIC WIND
WITH 1/2" SIMULTANEOUS ICE

NOTE: IT IS THE RESPONSIBILITY
OF THE PURCHASER TO VERIFY
THAT THE WIND LOADS AND DESIGN
CRITERIA SPECIFIED MEET THE REQUIREMENTS
OF ALL LOCAL BUILDING CODES

Engineered Endeavors Inc.

7610 Jenther Drive
Mentor, Ohio 44060
Tel (440) 918-1101 Fax (440) 918-1108

Communications Structure Nonlinear Analysis and Design Program

15:52:14 07-06-1999
Revision 1.2 - 4/22/98
Engineer: L. PADGETT

Customer BELL ATLANTIC MOBILE/CT
Job Name 5246
Structure 100' MONOPOLE
Location FAIRFIELD COUNTY, CT
Site GERMANTOWN

OD BOT	OD TOP	NUM. SIDES	THICK INCH	TAPER IN/FT	LENGTH FT	JOINT INCH	JOINT TYPE	YIELD KSI	WEIGHT LBS	JOINT HEIGHT
27.98	17.50	18	0.2500	0.210	50.00	48.00	SLIP	52.0	2999.	48.00
37.00	26.52	18	0.3125	0.210	50.00	0.00	BASEPL	52.0	5242.	0.00
TOTAL TUBE WEIGHT								8242.	POUNDS	
POLE SHAFT LENGTH								96.00	FEET	

E = 29600.0 KSI
UNIT WGT = 0.283 LBS/CU IN
AISC constants are used for stress reductions.
TUBE SECTIONS HAVE 18 SIDES AND ARE TREATED AS ROUND
Internal bend radius = 3 X T
Tube diameters are measured flat to flat.
Tube diameters are increased by 1.020 for wind across points.
Drag coefficients are increase by 1.300 for steps on the pole.
AISC Tube Shape Coefficient of 1.000 is applied.
ORIGINAL DATA FILE NAME H:\LAP\QUOTES9\9625-100
REVISED DATA FILE NAME H:\LAP\JOBS5\5246-100

APPURTENANCES

DESCRIPTION	NUM.	ELEV.	Kz	< WITHOUT ICE >		< WITH ICE >		Ca	FACTOR
				AREA	WGT	AREA	WGT		
ALP 9212-N	12	98.	1.365	3.90	27.	2.0000	4.24	55.	2.0000 0.75
STD AMPS PLATFORM	1	98.	1.365	33.75	2000.	1.0000	42.20	3000.	1.0000 1.00
ALP 9212-N	12	88.	1.323	3.90	27.	2.0000	4.24	55.	2.0000 0.75
ALP 9212-N	12	78.	1.279	3.90	27.	2.0000	4.24	55.	2.0000 0.75
STD AMPS PLATFORM	1	78.	1.279	33.75	2000.	1.0000	42.20	3000.	1.0000 1.00
STD AMPS PLATFORM	1	88.	1.323	33.75	2000.	1.0000	42.20	3000.	1.0000 1.00

SUMMARY TABLE

ELEV	STRESS RATIO	AXIAL	BENDING	LOADING
96.00	0.04	2.05	8.9	1 85 MPH BASIC WIND SPEED
88.00	0.16	4.39	47.2	1 85 MPH BASIC WIND SPEED
78.00	0.40	6.94	143.9	1 85 MPH BASIC WIND SPEED
68.00	0.65	7.69	288.2	1 85 MPH BASIC WIND SPEED
58.00	0.82	8.54	436.8	1 85 MPH BASIC WIND SPEED
48.00	0.95	8.54	589.6	1 85 MPH BASIC WIND SPEED
36.00	0.88	11.39	778.6	1 85 MPH BASIC WIND SPEED
24.00	0.93	13.23	973.2	1 85 MPH BASIC WIND SPEED
12.00	0.96	14.61	1173.5	1 85 MPH BASIC WIND SPEED
0.00	0.99	15.33	1379.3	1 85 MPH BASIC WIND SPEED

MAXIMUM SUPPORT MOMENT K-FT 1379.35
 CORRESPONDING AXIAL FORCE KIPS 15.32
 CORRESPONDING SHEAR FORCE KIPS 17.49

BASE PLATE AT ELEVATION 0.00 FEET
 TUBE DIAMETER 37.00 INCHES
 DESIGN MOMENT 1379.3 KIP FT
 DESIGN MOMENT IS 0. DEGREES FROM THE WIND DIRECTION
 BOLTS ARE ON THE KNUCKLES OF THE TUBE
 APPLIED AXIAL FORCE 15.3 KIPS
 APPLIED SHEAR 17.49 KIPS

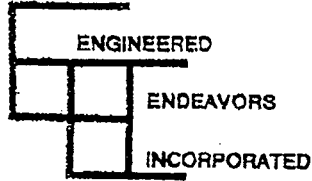
BOLT DATA

BOLT TYPE A615 GR75
 BOLTS ARE EVENLY SPACED
 DIAMETER 2.250 INCHES
 EFFECTIVE AREA 3.250 SQ IN
 TOTAL LENGTH (DET) 6.0 FEET
 MINIMUM EMBEDMENT 5.0 FEET
 NUMBER OF BOLTS 8
 BOLT CIRCLE DIAMETER 45.00 INCHES
 ALLOWABLE STRESS 60.0 KSI
 APPLIED AXIAL STRESS 57.2 KSI
 MAX BOLT FORCE 185.8 KIPS
 BOLT BENDING STRESS 3.2 KSI
 COMBINED BOLT STRESS 60.4 KSI
 CLEARANCE UNDER PLATE 3.25 INCHES
 BOLT WEIGHT POUNDS

PLATE DATA

DIAMETER OF PLATE 51.00 INCHES
 MATERIAL A871 GR60
 PROVIDED THICKNESS 1.500 INCHES
 REQUIRED THICKNESS 1.455 INCHES
 BOLT HOLE DIAMETER 2.625 INCHES
 CENTER HOLE SIZE 27.00 INCHES
 NET WEIGHT 605.7 POUNDS
 RAW STOCK WEIGHT 1104.1 POUNDS
 SURFACE AREA 19.82 SQ FT
 ALLOWABLE STRESS 59.99 KSI
 MAX APPLIED STRESS 56.47 KSI
 CONCRETE STRENGTH 3000. PSI

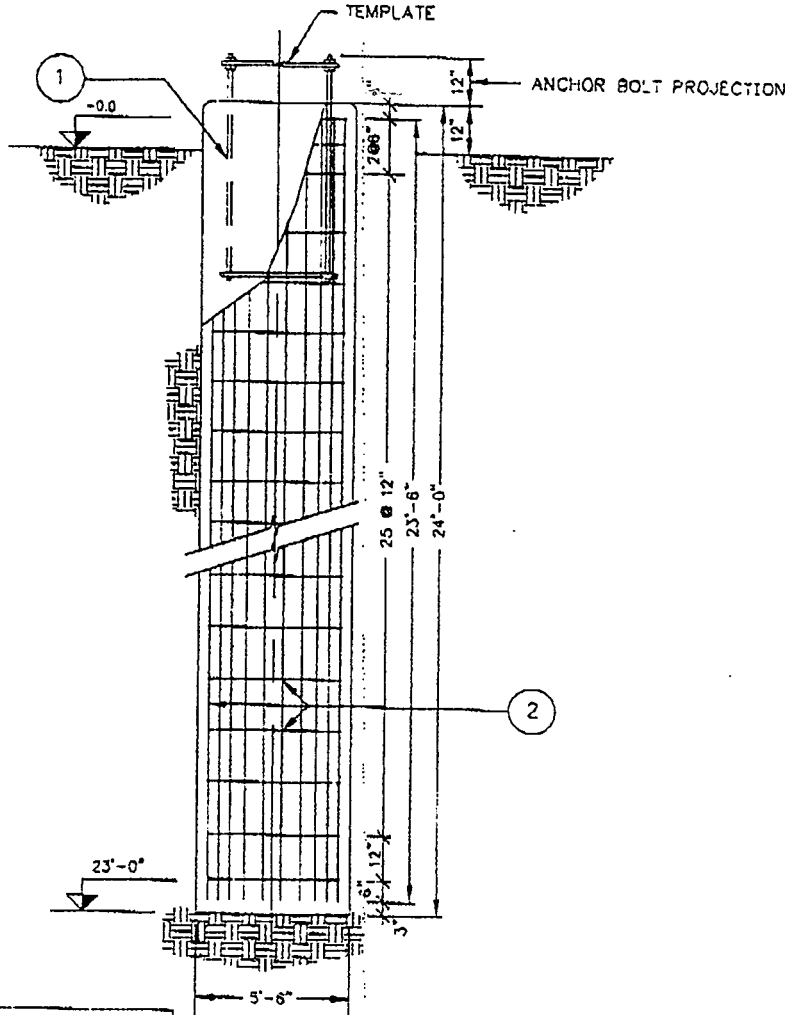
Base Plate - use 51.00 inch ROUND x 1.500 inch A871 GR60
 with (8) 2.250 diameter x 6.00 foot caged A615 GR75 double end
 threaded bolts w/(5) hex nuts each on a 45.00 inch bolt circle



Customer BELL ATLANTIC/CT By L.A.P. Date 08/02/99
 Structure 100' MONOPOLE Checked _____ Date 5246
 Job/Quote No. _____

SITE NAME - GERMANTOWN
 SITE LOCATION - FAIRFIELD COUNTY, CT

NORMAL SOIL FOUNDATION



MATERIAL LIST

ITEM	QTY.	LENGTH	DESCRIPTION
①	8	5'-0"	2 1/4" ANC. BOLTS A615-GR.75
②	##	##	(ASTM A615-GR.60)

CONCRETE (cub.yd.)	22.0	4000 psi
STEEL (lbs)	1834.9	ASTM A615-GR.60

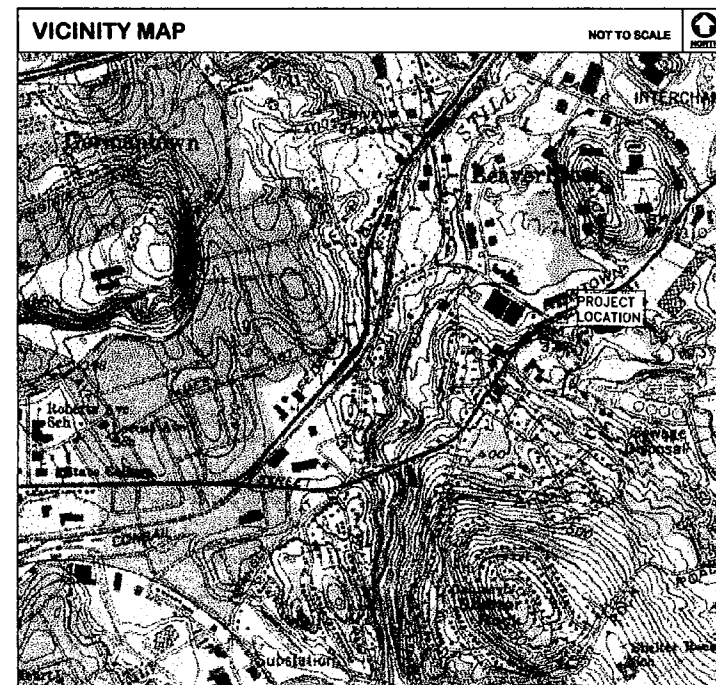
FOUNDATION LOADING



MOMENT, kip-ft	1379.30
SHEAR, kips	17.50
AXIAL, kips	15.30

NOT FOR CONSTRUCTION

Bell Atlantic Mobile WIRELESS COMMUNICATIONS FACILITY

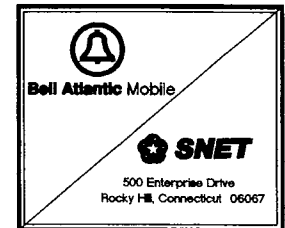
GERMANTOWN 50 NEWTOWN ROAD DANBURY, CONNECTICUT




LEGEND	
SYMBOL	DESCRIPTION
	SECTION OR DETAIL NUMBER SHEET WHERE DETAIL/SECTION OCCURS
	ELEVATION NUMBER SHEET WHERE ELEVATION OCCURS

SHEET INDEX		
SHT. NO.	DESCRIPTION	REV. NO.
T-1	TITLE SHEET, GENERAL NOTES & LEGENDS	00
C-1	SITE PLAN	00
C-2	BUILDING ELEVATION	00

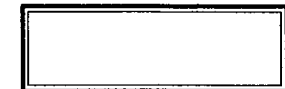
REVISIONS		
00	11/22/99	CT SITING COUNCIL
01		
02		
03		
04		
05		
06		
07		
08		




NATCOMM
 Natcomm, L.L.C.
 65-2 North Branford Road
 Branford, Connecticut 06406
 Tel: (203) 486-0980
 Fax: (203) 486-8087
 Consulting Engineers-Project Management
 Site Acquisition-Communications Installations



**GERMANTOWN
 DANBURY
 BAM PROJECT
 NO. 963120**
 50 NEWTOWN ROAD
 DANBURY, CONNECTICUT



PROJECT NO:	995159
DRAWN BY:	CTW
CHECKED BY:	CFC
SCALE:	NONE
DATE:	4/23/99

**TITLE SHEET,
 GENERAL NOTES
 AND LEGENDS**

T-1
 DWG. 1 OF 3

REVISIONS		
00	11/22/99	CT SITING COUNCIL
01		
02		
03		
04		
05		
06		
07		
08		

Bell Atlantic Mobile

SNET

500 Enterprise Drive
Rocky Hill, Connecticut 06067

Natcomm, LLC - Engineering Consultants

NATCOMM

Natcomm, L.L.C.

63-2 North Bedford Road
Branford, Connecticut 06405

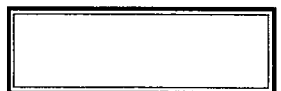
Tel: (203) 488-0580
Fax: (203) 488-8087

Consulting Engineers - Project Management
Site Acquisition - Communications Installations



GERMANTOWN DANBURY BAM PROJECT NO. 963120

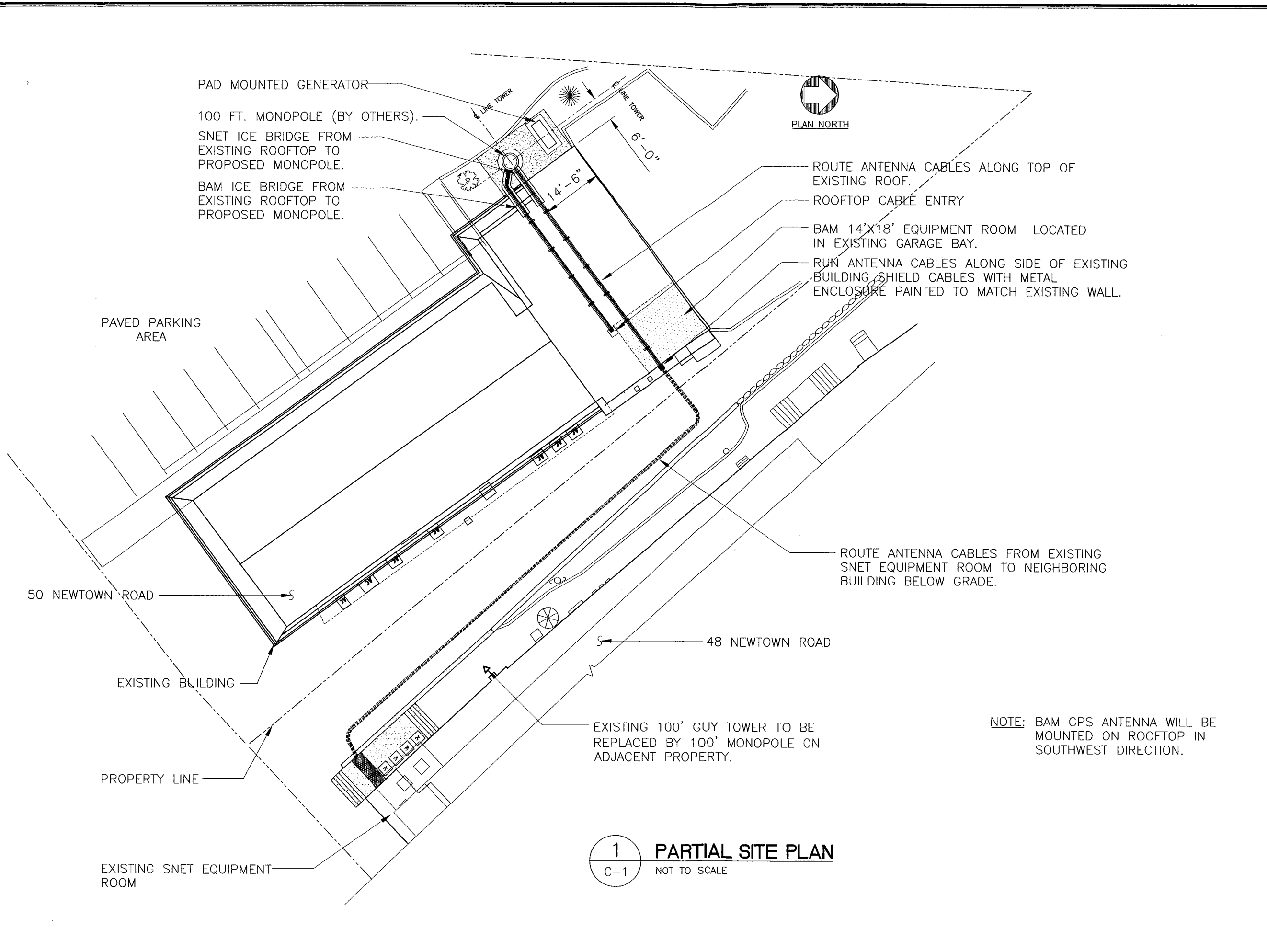
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DANBURY, CONNECTICUT



PROJECT NO:	995159
DRAWN BY:	CTW
CHECKED BY:	CFC
SCALE:	AS NOTED
DATE:	4/23/99

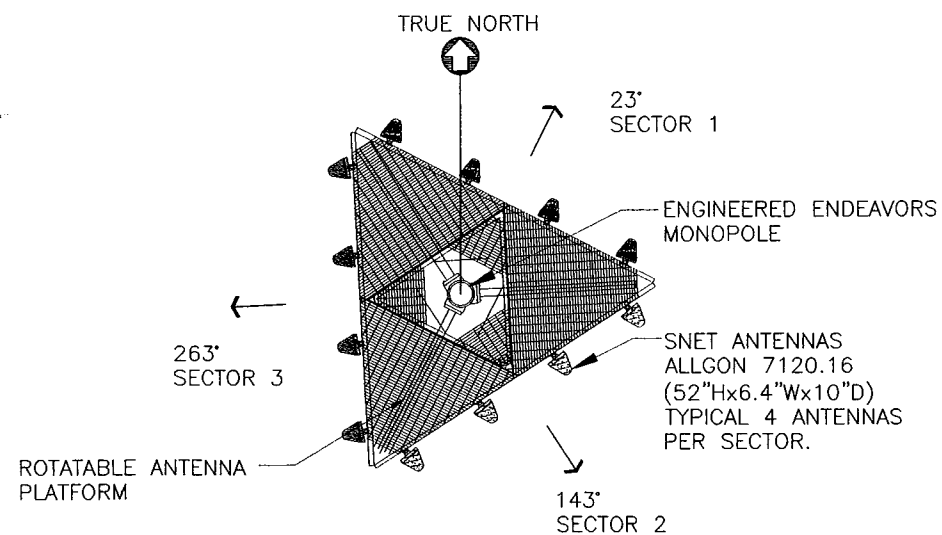
SITE PLAN

C-1
DWG. 2 OF 3

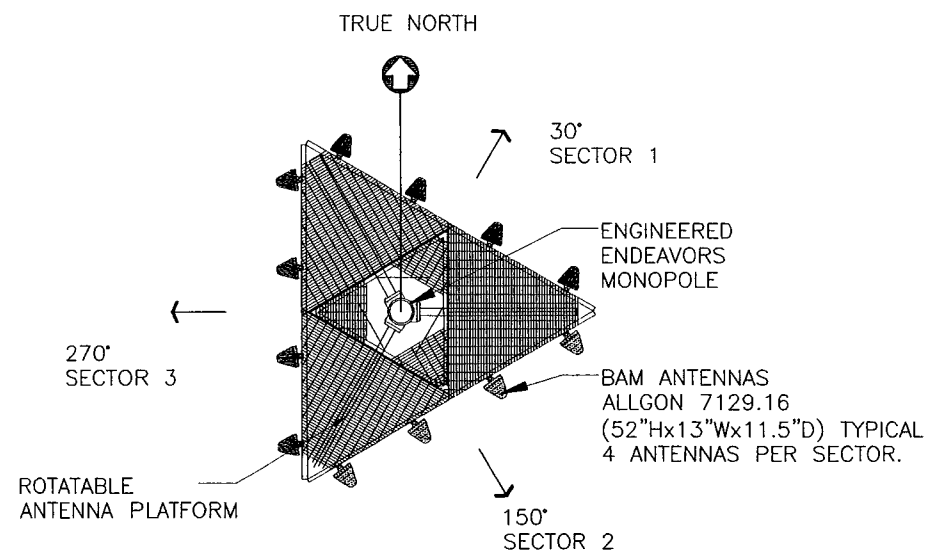


1 PARTIAL SITE PLAN
C-1 NOT TO SCALE

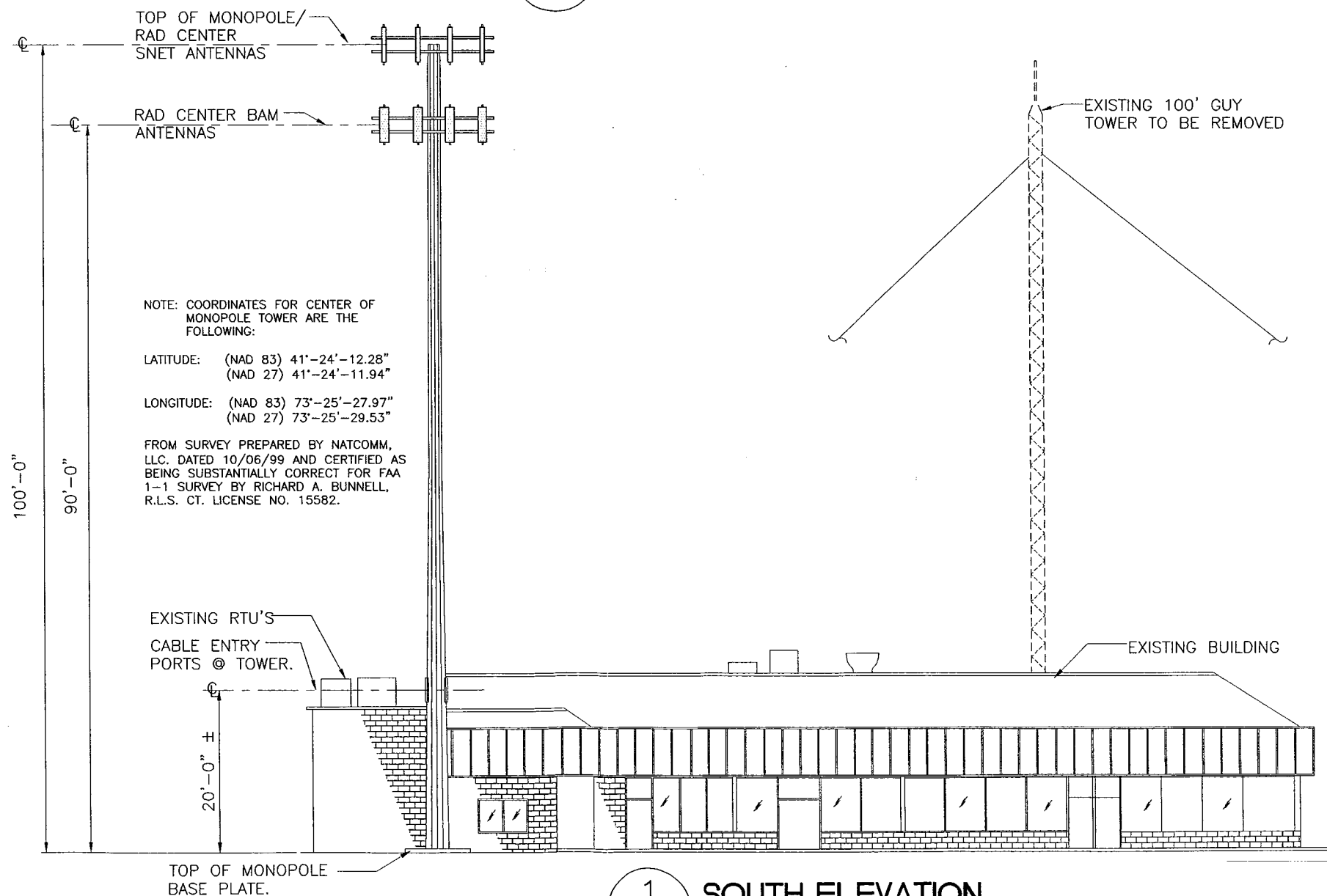
NOTE: BAM GPS ANTENNA WILL BE MOUNTED ON ROOFTOP IN SOUTHWEST DIRECTION.



3 SNET ANTENNA CONFIGURATION
 C-2 SCALE: NOT TO SCALE



2 BAM ANTENNA MOUNT CONFIGURATION
 C-2 SCALE: NOT TO SCALE



1 SOUTH ELEVATION
 C-2 SCALE: NOT TO SCALE

REVISIONS		
00	11/22/99	CT SITING COUNCIL
01		
02		
03		
04		
05		
06		
07		
08		

Bell Atlantic Mobile

SNET

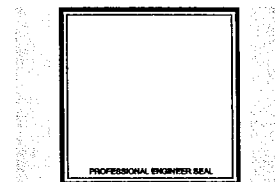
500 Enterprise Drive
 Rocky Hill, Connecticut 06067

NATCOMM

Natcomm, L.L.C. Engineering Consultants

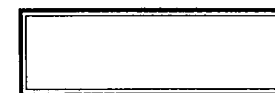
Natcomm, L.L.C.
 65-2 North Stratford Road
 Stratford, Connecticut 06465
 Tel: (203) 488-8582
 Fax: (203) 488-8587

Consulting Engineers - Project Management
 Site Acquisition - Communications Installation



GERMANTOWN DANBURY
BAM PROJECT
NO. 963120

50 NEWTOWN ROAD
 DANBURY, CONNECTICUT



PROJECT NO:	995159
DRAWN BY:	CTW
CHECKED BY:	CFC
SCALE:	NOT TO SCALE
DATE:	4/23/99

BUILDING ELEVATION

C-2
 DWG. 3 OF 3

MATERIAL REQ'D. PER ASSEMBLY

GALV. WT.	QTY.	ITEM	MK. NO.	DESCRIPTION
---	1	(1)	---	SHAFT ASSY. (TOP SECTION)
---	1	(2)	---	SHAFT ASSY. (BOTTOM SECTION)
25.00	3	(2)	C12669	12" x 32" ACCESS PORT COVER PL W/ (4) BOLTS (500822) & (4) WASHERS (500234)
HARDWARE AS FOLLOWS:				
5.51	8	(3)	GS14842	6" x 12" HANDHOLE COVER PLATE W/ (2) 3/8" x 1" LG G.H.C.S.
105.78	8	(4)	AB060DE-5	2 1/4" x 8" x 8"-0" LG. (A815-GR75) ANCHOR BOLTS W/ (5) HEX NUTS (A194-GR2H), EACH
1.08	---	(5)	S10006	5/8" x 6" 1/2" LG. BUTTION HEAD STEP BOLT W/ (1) HEX & (1) SQUARE NUT EACH
STRUCTURE ASSEMBLY AND ERECTION PROCEDURES				
---	1	(6)	---	---
---	1	(7)	DBI-100	100'-0" SAFETY CLIMB KIT
---	1	(7)	L2010	SAFETY CLIMB HARNESS
115.24	2	(8)	B-45.00T.5E	SETTING TEMPLATE
0.40	6	(9)	GS13220	3/8" # KELLUMS HOOK ASSY.
1671.97	1	(10)	K10004A	10'-8" STANDARD ANTENNA PLATFORM
36.38	1	(11)	K10015	5' LIGHTNING ROD
34.44	12	(12)	K10006	6"-8" DIRECTIONAL ANTENNA MOUNT
7.50	1	(13)	K10062	BUSS BAR KIT
---	1	(14)	---	STRUCTURE I.D. TAG

TOTAL GALV. STR. & ACCES. WT. ---#
 TOTAL ANCHOR BOLT & TEMPLATE WT. ---#

GENERAL NOTES

- ALL WELDS SHALL BE IN ACCORDANCE WITH A.W.S. D.1.1.
- LONGITUDINAL SEAM WELDS IN FEMALE SECTION OF THE SLIP JOINT SHALL BE FULL PENETRATION WELDS.
- FOR PROPER SHAFT ALIGNMENT, A 2" HORIZONTAL WELD BEAD AND A MARK NUMBER ARE POSITIONED ON EACH SHAFT AT EACH SPLICE. THE 2" HORIZONTAL WELD BEADS ARE ON MATCHING CORNERS. THE MARK NUMBER IS ON AN ADJACENT FLAT. THE HORIZONTAL WELD BEAD CORNER SHALL BE ALIGNED TOP TO BOTTOM OF THE POLE. MATCH NUMBERS SHALL BE MATCHED FOR EACH SIDE.
- FIELD ASSEMBLY NUTS (1" DIA) ARE LOCATED ON OPPOSING SECTION FLATS ABOVE AND BELOW SPLICES FOR JACKING SHAFTS TOGETHER.
- THE BOTTOM OF THE UPPER SECTION SHALL BE TELESCOPED IN THE FIELD TO WITHIN 12" OF THE WELD ORIENTATION MARK ON THE LOWER SECTION.
- A SLOT 1 1/2" x 4" IS REQUIRED AT THE TOP OF THE BOTTOM SECTION AND AT THE BOTTOM OF THE TOP SECTION FOR HANDLING DURING GALVANIZING.
- GAP BETWEEN TOP OF FOOTING AND BOTTOM BASE PLATE SHALL BE FILLED WITH A NON-SHRINK GROUT.
- POLES SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
- POLE TAPER = 0.2102 IN./FT.

DESIGN NOTES

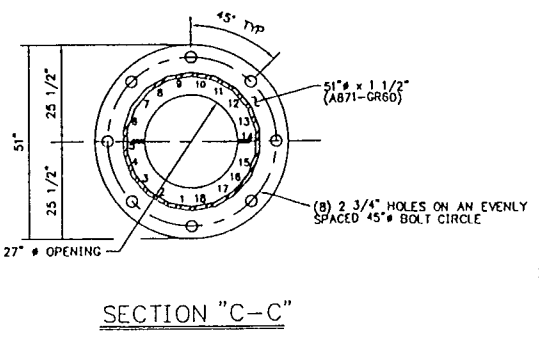
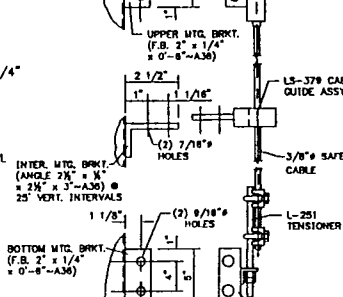
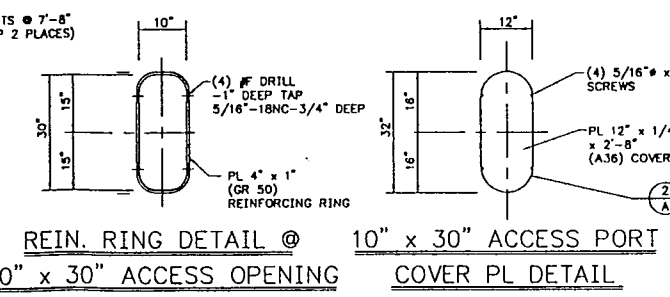
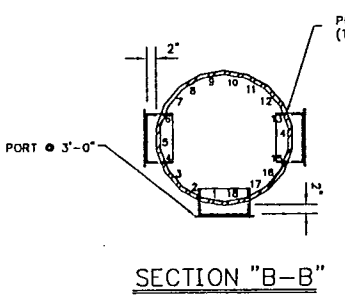
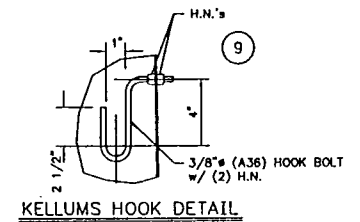
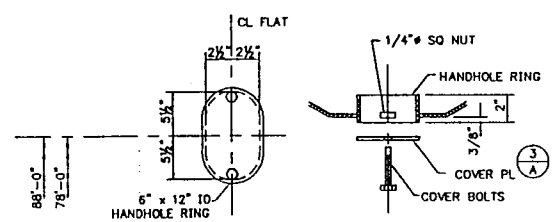
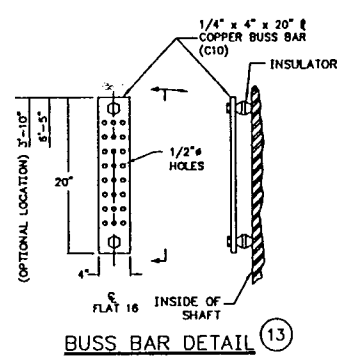
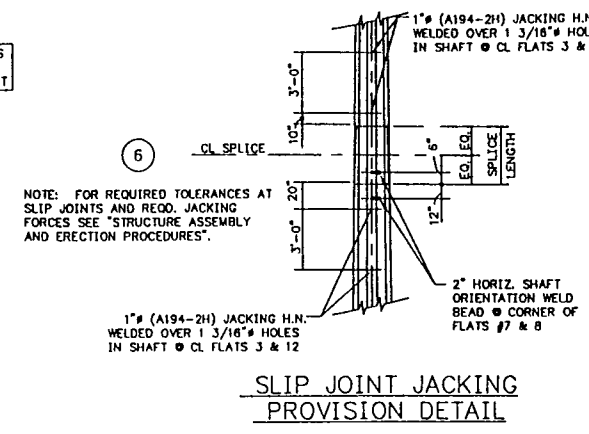
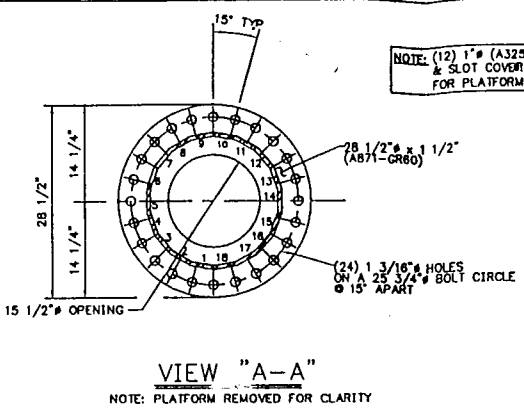
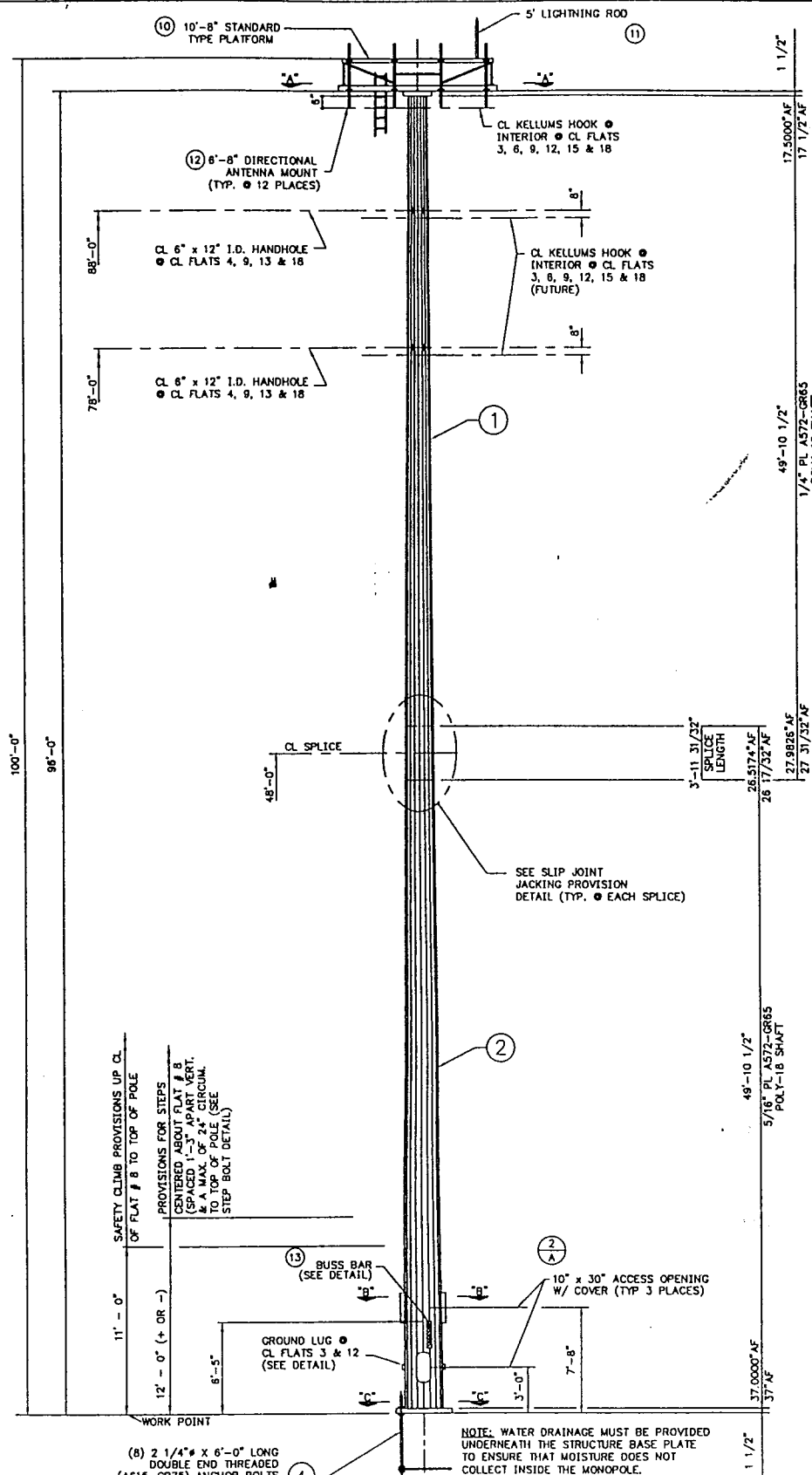
DESIGNED IN ACCORDANCE WITH TIA/EIA 222-F
 85 MPH BASIC WIND SPEED
 1/2" RADIAL ICE
 CASE I - 85 MPH BASIC WIND SPEED
 CASE II - 75% OF 85 MPH BASIC WIND WITH 1/2" SIMULTANEOUS ICE

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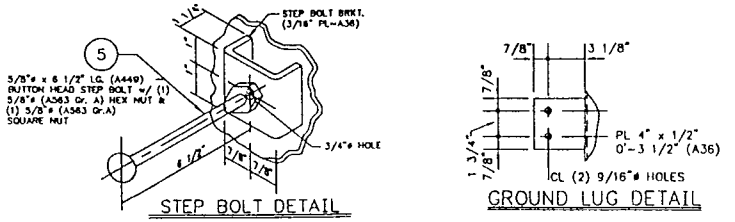
ENGINEERED BY ENDEAVORS INC. 7810 Janther Drive Mentor, Ohio 44060
 INCORPORATED (440) 918-1101

100'-0" MONOPOLE BELL ATLANTIC/CT

DRW. M.A.S.	DATE 07-06-99	SCALE NONE	REV. 1 OF 1	APP. GS51551
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GERMANTOWN SITE: FAIRFIELD COUNTY, CT



ASSEMBLY MARKING PROCEDURE
 EACH INDIVIDUAL ASSEMBLY SHALL HAVE A METAL TAG WELDED TO IT WHICH WILL BE ENGRAVED WITH THE ASSEMBLY MARK NO. AS SHOWN IN THE MATERIAL BLOCK. (MINIMUM OF 5/8\"/>

EET WILL NOT HONOR ANY BACKCHARGES WHICH HAVE NOT RECEIVED PRIOR WRITTEN AUTHORIZATION phone (440) 918-1101