



County of Fairfax, Virginia

MEMORANDUM

DATE: June 24, 2008

TO: David Marshall, Chief
Facilities Planning and Revitalization Branch, DPZ

FROM: Kevin Guinaw, Chief *K. Guinaw*
Special Projects/Applications Management Branch, ZED, DPZ

SUBJECT: Proposed FiberTower Telecommunications Facility at 6800 Versar Center,
Tax Map 80-2 ((1)) 22B; 2232 Application FS-M08-17

This is in response to a request for a determination as to whether the telecommunications facility at 6800 Versar Center, proposed by FiberTower, is in substantial conformance with the proffers accepted by the Board of Supervisors in conjunction with the approval of Rezoning RZ 81-A-001 and Proffered Condition Amendment PCA 78-A-094 and with the development conditions imposed in conjunction with the approval of Special Exception SE 80-A-072 for fill in the floodplain. As described in the 2232 application dated March 20, 2008, from Adam Knubel, agent for the applicant, one (1) 13-inch diameter dish antenna is proposed to be mounted at a height of 145 feet on an existing 194-foot tall monopole. In addition, one (1) equipment cabinet (66 inches high x 30.6 inches wide x 38.5 inches deep) is proposed to be located on the ground within the existing fenced equipment compound at the base of the monopole. A copy of 2232 application, including illustrations depicting the proposed locations of the telecommunications equipment and facility, is attached for reference.

The Zoning Administration Division has determined that a telecommunications facility, as described above, is a permitted use pursuant to the provisions of Sect. 2-514 of the Zoning Ordinance provided that it is determined to be in substantial conformance with any applicable rezoning, proffered condition amendment and special exception. It is my determination that the proposed telecommunications facility is in substantial conformance with RZ 81-A-001, PCA 78-A-094 and SE 80-A-072. Please note that this proposal is also subject to 2232 review requirements and that FiberTower's ability to proceed with its proposal is dependent upon the pending 2232 approval by the Fairfax County Planning Commission. This determination has been made in my capacity as the duly authorized agent of the Zoning Administrator. If you have any questions regarding this memorandum, please call Carrie Lee at (703) 324-1290.

KG/CDL /O:\clee01\ActionAssignments\Antennas\6800 Versar Center_FiberTower_monopole.doc

Attachments: A/S

cc: Penelope A. Gross, Supervisor, Mason District
Janet Hall, Planning Commissioner, Mason District
Regina C. Coyle, Director, Zoning Evaluation Division, DPZ
Diane Johnson-Quinn, Deputy Zoning Administrator, Zoning Permit Review, ZAD, DPZ
Ken Williams, Chief, Plan and Document Control, Land Development Services, DPWES
Adam Knubel, Network Building & Consulting LLC, 7380 Coca Cola Dr., Suite 106, Hanover, MD 21076
File: RZ 81-A-001, PCA 78-A-094, SE 80-A-072, ANT 0803 016, Imaging, Reading File



County of Fairfax, Virginia

MEMORANDUM

TO: Zoning Administration Division, DP&Z / Department of Planning & Zoning
 Technology Infrastructure Division, DIT
 Other: _____

RECEIVED 3-20-08
 MAR 24 2008

FROM: David B. Marshall, Chief
 Facilities Planning Branch, DPZ
 Zoning Evaluation Division

SUBJECT: Request for Review: 2232 Review Application

RE: Application Number: FS-M08-17 Tax Map: 80-2 (1) 22B

FAIRFAX COUNTY RECEIVED
 MAR 21 2008
 DIVISION OF ZONING ADMINISTRATION
 2008-0166

Attached for your review and comment is a 2232 Review application:

RECEIVED FROM: Fiber Tower

PROPOSED USE: monopole collocation

LOCATION OF USE: 6800 Versar Center

Please send your comments to David Marshall by: 4/14/08 Additional comments:

****ZAD COMMENTS:**

Property is zoned I-5

Proposed use is permitted by Zoning Ordinance and meets all zoning requirements. *Per Part 1 of Sect. 2-514 of the Zoning Ordinance, see below*

Proposed use does not meet all Zoning Ordinance requirements as follows:

Referred to ZED for the following: must be in substantial compliance with the proffered conditions of RZ81-A-001, PCA 78-A-094 and with development conditions of SE 80-A-072.

****ZED COMMENTS:**

Proposed use is in substantial accord with all development conditions and/or proffers. *SE 80-A-072.*

Proposed use is not in substantial accord with development conditions and proffers.

ZED comments prepared by: _____ Date: _____

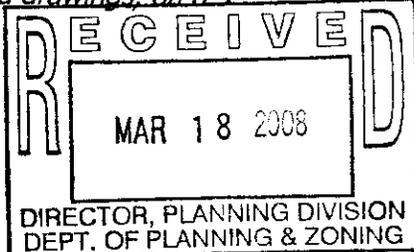
Department of Planning and Zoning
 Planning Division
 12055 Government Center Parkway, Suite 730
 Fairfax, Virginia 22035-5509
 Phone 703-324-1380
 Fax 703-324-3056
 www.fairfaxcounty.gov/dpz/

COUNTY OF FAIRFAX, VIRGINIA
APPLICATION FOR DETERMINATION
PURSUANT TO
SECTION 15.2-2232 OF THE CODE OF VIRGINIA

Application Number: FS-2008-17
(assigned by staff)

The application contains three parts: I. Application Summary; II. Statement of Justification; and I Telecommunication Proposal Details. Please do not staple, bind or hole-punch this application. Please provide at least one copy of all pages, including maps and drawings, on 8 1/2 x 11 inch paper.

(Please Type or Print All Requested Information)



PART I: APPLICATION SUMMARY

ADDRESS OF PROPOSED USE

Street Address 6800 Versar Center
City/Town Springfield Zip Code 22151

APPLICANT(S)

Name of Applicant FiberTower
Street Address 185 Berry, Suite 480
City/Town San Francisco State CA Zip Code 94107
Telephone Number: Work (410) 459-8573 Fax ()
E-mail Address aknubel@nbcllc.com
Name of Applicant's Agent/Contact (if applicable) Adam Knubel
Agent's Street Address 7380 Coca Cola Drive, Suite 106
City/Town Hanover State MD Zip Code 21076
Telephone: Work (410) 459-8573 Fax ()

PROPOSED USE

Street Address 6800 Versar Center

Fairfax Co. Tax Map and Parcel Number(s) 0802 01 0022B

Brief Description of Proposed Use _____

An unmanned telecommunication facility, consisting of collocating one (1) 13" dish antenna at the 145' level of an existing 194' monopole, and placing one (1) equipment cabinet within an existing fenced compound at the monopole base.

Total Area of Subject Parcel(s) 347,397 sq. ft. (acres or square feet)

Portion of Site Occupied by Proposed Use 16 sq. ft. (acres or square feet)

Fairfax County Supervisor District Mason

Planned Use of Subject Property (according to Fairfax County Comprehensive Plan)
Public facility, including telecommunication facilities.

Zoning of Subject Property I-5

List all applicable Proffer Conditions, Development Plans, Special Exceptions, Special Permits or Variances previously approved and related to this site

PROPERTY OWNER(S) OF RECORD

Owner SPRINGFIELD REALTY INVEST,

Street Address 6850 Versar Center

City/Town Springfield State VA Zip Code 22151

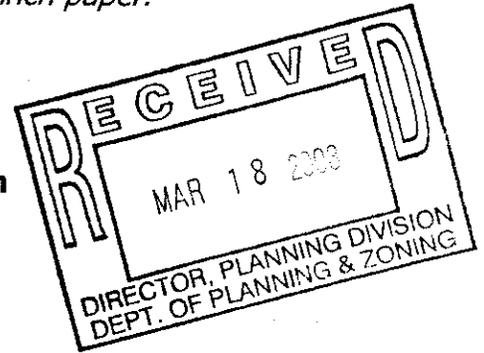
PART II, entitled "Statement of Justification," pages 4 through 6, shall be completed by all applicants and included as part of the application. **PART III**, entitled "Telecommunication Proposal Details," pages 7 through 9, also shall be completed and included for all proposed telecommunication uses.

Name of Applicant or Agent Adam Knubel
Signature of Applicant or Agent _____
Date March 17, 2008

Please do not staple, bind or hole-punch this application. Please provide at least one copy of all pages, including maps and drawings, on 8.5 x 11 inch paper.

Submit completed application to:

**Fairfax County
Department of Planning and Zoning, Planning Division
Herrity Building
12055 Government Center Parkway, Suite 730
Fairfax, Virginia 22035**



FOR STAFF USE ONLY

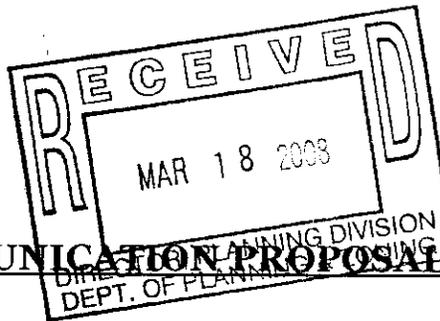
Date application received: 3/19/08

By: DBM

Additional information requested to complete application:

Date application accepted: 3/20/08

By: _____



PART III: TELECOMMUNICATION PROPOSAL DETAILS

Please complete and provide all requested information. If question is not applicable to the proposed use, please indicate with N/A.

PROPOSED TELECOMMUNICATION USE

Use is (check one):

- New structure (monopole, tower or camouflaged facility)
- Replacement of existing pole or tower at same location with another pole or tower
- Antenna placement on building or penthouse facade
- Antenna placement on building or penthouse rooftop
- Collocation on other existing telecommunications structure (monopole or tower)
- Collocation on other non-telecommunications structure (such as an electric transmission tower/pole, utility pole, water tower, etc.)
- Modification to telecommunications facility previously approved for same applicant:

Prior 2232 Review application number: _____

Date of Planning Commission approval: _____

PROJECT DETAILS

1. ANTENNA

Number and Type: _____

Dimensions: height _____ width _____ depth _____ diameter 13"

Location / Placement: mounted to the monopole

Wattage: 25 dBi

Material and Color: metal, aluminum and plastic in gray

Material and Color of the Antenna Mounting: metal and aluminum in gray

Height Above Ground: 145'

2. EQUIPMENT

Number and Type of Cabinets or Structures: 1 cabinet

Cabinet / Structure Dimensions: height 66" width 30.6" depth 38.5"

Height of equipment platforms, if any: 12"

Material and Color: metal in gray

Location: at monopole base within a fenced compound

Method of Screening: fence

3. STRUCTURE ON WHICH ANTENNAS WILL BE MOUNTED

Maximum Height: 194'

Material: metal

Color: gray

If structure is within a utility right-of-way, state right-of-way width:

N/A

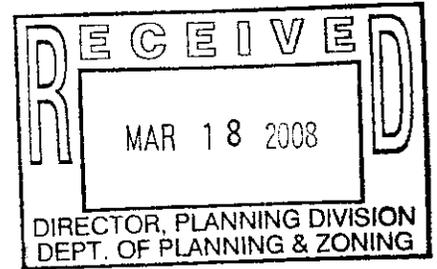


**NETWORK BUILDING
& CONSULTING, LLC**

March 17, 2008

Mr. James P. Zook, Director
Fairfax County Office of Comprehensive Planning
12055 Government Center Parkway, Suite 730
Fairfax, Virginia 22035-5505

**RE: Feature Shown Application
6800 Versar Center
Springfield, VA 22151
Applicant: FiberTower Corporation
FiberTower Site Number: WDC0470**



Dear Mr. Zook:

FiberTower, an FCC licensed provider of wireless personal telecommunications services, proposes to install an unmanned telecommunications facility. An unmanned telecommunication facility, consisting of collocating one (1) 13" dish antenna at the 145' level of an existing 194' monopole and placing a radio equipment cabinet within an existing fenced compound at the tower base.

APPLICANT:

FiberTower Corporation
185 Berry Street, Suite 4800
San Francisco, CA 94109

APPLICANT'S AGENT:

Adam Knubel
7380 Coca Cola Drive, Suite 106
Hanover, Maryland 21076
410.459.8573
aknubel@nbcllc.com

SITE LOCATION:

Tax Map: 0802 01 0022B
Address: 6800 Versar Center
Zoning District: I-5
Use: Telecommunication Facility
Use Group: U
Supervisor District: Mason



DESCRIPTION OF PROPOSAL:

At 6800 Versar Center, FiberTower plans to collocate one (1) 13" dish antenna at the 145' level of an existing 194' monopole and placing a radio equipment cabinet within an existing fenced compound at the tower base. The locations of the proposed dish antennas and the equipment cabinet are shown on Sheets C01 and A01 of the FiberTower facility plan drawings prepared by Aerial Spectrum.

The facility will operate automatically and will not require personnel or hours of attendance. It will operate twenty-four (24) hours a day, 365 days a year. It is anticipated that a technician will need to perform routine maintenance on the facility at a rate of once or twice per month or on an "as needed" basis for cases of emergency repair.

REQUIREMENT FOR PROPOSED USE:

The proposed installation is part of FiberTower's communications network as a provider of telecommunications service to wireless carriers; i.e. FiberTower supplies telephone service that replaces the current T-1 service that a wireless carrier purchases from the local exchange carrier, which connects that carrier's wireless telecommunications facility to the public telephone switching network. FiberTower's technology is line of site technology, which accounts for the placement of its installations on existing towers and tall structures.

ANTICIPATED IMPACTS ON ADJOINING PROPERTIES:

FiberTower has eliminated the need for a new telecommunications monopole or tower in the search area and employs an antenna and equipment cabinet configuration that minimizes the visual impact of the project on the surrounding property owners. Due to the fact that the facility will be unmanned, there will be no other impact of the underlying Amendment to Feature Shown.

RELATIONSHIP OF THE PROPOSAL TO THE COMPREHENSIVE PLAN:

The location, character and extent of the application should be found to be in substantial accord with the Comprehensive Plan.

The instant application is also consistent with the objectives found under the Policy Plan of the Comprehensive Plan concerning "Mobile and Land-Based Telecommunication Services."

Under the "General Guidelines" section, it states:

Objective 42: In order to provide for the multiple and land-based telecommunication network for wireless telecommunication systems licensed by



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the Federal Communications Commission, and in order to achieve opportunities for the collocation of related facilities and the reduction of their visual impact, locate the network's necessary support facilities which include antennas, monopoles, lattice towers and equipment building in accordance with the following policies:

Policy b. Avoid construction of new structures by locating mobile and land-based telecommunication facilities on available existing structures such as building rooftops, telecommunication broadcast poles and towers, electrical utility poles and towers, and water storage facilities when the telecommunication facilities can be placed inconspicuously to blend with existing structures.

Proposal is consistent.

Policy g. Design, site and/or landscape mobile and land-based telecommunication facilities to minimize impacts on the character of the property and surrounding areas. Demonstrate the appropriateness of the design through facility schematics and plans which detail the type, location, height, and material of the proposed structures and their relationship to other structures on the property and surrounding areas.

Proposal is consistent.

Policy i. Locate telecommunication facilities to ensure the protection of historically significant landscapes. The views of and vistas from architecturally and/or historically significant structures should not be impaired or diminished by the placement of telecommunication facilities.

Proposal is consistent.

Policy j. Site proposed facilities to avoid areas of environmental sensitivity.

Proposal is consistent.

Objective 43: Design telecommunication facilities to mitigate their visual presence and prominence, particularly when located in residential areas, by concealing their intended purpose in a way that is consistent with the character of the surrounding area.

Policy a. Disguise and camouflage the appearance of telecommunication facilities so as to resemble other man-made structures and natural



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features (such as flagpoles, bell towers, and trees) that are typically found in a similar context and belong to the setting where placed.

Collocation on an existing telecommunication structure minimizes impact by avoiding a need for a new site.

Objective 44: *With Planning Commission approval, consider mobile and land-based telecommunication facilities to be located on existing or replacement structures a "feature shown" of the Comprehensive Plan to be processed without a public hearing when placed in conformance with the following policies:*

Policy a.: *Locate telecommunication facilities on existing buildings and structures at the following properties:*

- *commercial and industrial zoned property and in the commercial areas of PDH, PDC, PRM and PRC zoning districts*

The property the proposed facility is located on is zoned I-5.

Policy c.: *In determining that the proposed telecommunication facilities are a feature shown of the Comprehensive Plan, ensure that the following general factors are met:*

- *the proposed installation has no material adverse impact on the visual quality or character of the general area in which it is to be placed including any surrounding residential properties;*

Proposal is consistent.

- *the proposed installation is located and designed to blend with the structure on which it is placed such as flush-mounting antennas or screening the antennas and equipment as appropriate to the site;*

This is a collocation on an existing 194' monopole located on property zoned I-5 and the equipment will be placed within an existing compound.

- *the proposed installation, when in a grouping of other similar structures, is consistent with the pattern of those surrounding structures;*



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Proposal is consistent.

- ***related equipment cabinets or shelters located on the ground or on a rooftop should be appropriately screened or placed to obscure their visibility from surrounding properties;***

Proposal is consistent.

ALTERNATIVE SITES CONSIDERED FOR THIS PROPOSAL

FiberTower is expanding its own antenna installation to meet its clients' needs in this area and for this reason chose to collocate additional antennas at this site. Since the installation is a collocation and meets the objectives of the plan, FiberTower does not see any need to evaluate alternative locations.

The applicant submits to the Planning Commission that the proposal is consistent with the Comprehensive Plan as to character, location and extent and requests that the Planning Commission determine that the facility is a feature shown. If you have any questions, or need further information, please feel free to contact me at 410.459.8573 or aknubel@nbcllc.com.

Sincerely,

Adam Knubel
Zoning Project Manager
Network Building & Consulting
Consultant to FiberTower

ELECTRICAL SPECIFICATIONS

17.7-19.7 GHz (WR42)

Model Number	Frequency, GHz	Diameter ft. (m)	3dB BW degs	Gain, dBi			XPD dB	F/B Ratio dB	VSWR, Max (R.L., dB)
				Low	Mid	High			
High Performance - Plane Polarized									
HPCPE-18	17.7-19.7	1 (0.3)	3.1	33.1	33.6	34.0	28	52	1.37:1 (16.1)
HPLP1-18	17.7-19.7	1 (0.3)	3.0	33.5	34.0	34.4	30	55	1.37:1 (16.1)
HP2-18	17.7-19.7	2 (0.6)	2.0	38.2	38.6	39.0	30	67	1.37:1 (16.1)
HP3-18	17.7-19.7	3 (0.9)	1.3	41.6	42.0	42.4	30	69	1.37:1 (16.1)
HP4-18	17.7-19.7	4 (1.2)	1.2	44.1	44.5	44.9	30	72	1.37:1 (16.1)
HP6-18	17.7-19.7	6 (1.8)	0.7	47.5	48.0	48.5	30	74	1.37:1 (16.1)
High Performance - Dual Polarized									
HPLPD1-18	17.7-19.7	1 (0.3)	3.0	33.3	33.8	34.2	30	55	1.37:1 (16.1)
HPD2-18	17.7-19.7	2 (0.6)	2.8	38.0	38.4	38.8	30	67	1.37:1 (16.1)
HPD3-18	17.7-19.7	3 (0.9)	2.1	41.4	41.8	42.2	30	69	1.37:1 (16.1)
HPD4-18	17.7-19.7	4 (1.2)	1.4	43.9	44.3	44.7	30	72	1.37:1 (16.1)
HPD6-18	17.7-19.7	6 (1.8)	0.7	47.3	47.8	48.3	30	74	1.37:1 (16.1)
Standard Parabolic - Plane Polarized									
SP2-18	17.7-19.7	2 (0.6)	2.8	38.0	38.4	38.8	30	49	1.37:1 (16.1)
SP3-18	17.7-19.7	3 (0.9)	2.1	41.4	41.8	42.2	30	52	1.37:1 (16.1)
SP4-18	17.7-19.7	4 (1.2)	1.4	43.9	44.3	44.7	30	54	1.37:1 (16.1)
SP6-18	17.7-19.7	6 (1.8)	0.7	47.3	47.8	48.3	30	56	1.37:1 (16.1)
Standard Parabolic - Dual Polarized									
SPD2-18	17.7-19.7	2 (0.6)	2.8	38.2	38.6	39.0	30	49	1.37:1 (16.1)
SPD3-18	17.7-19.7	3 (0.9)	2.1	41.6	42.0	42.4	30	52	1.37:1 (16.1)
SPD4-18	17.7-19.7	4 (1.2)	1.4	44.1	44.5	44.9	30	54	1.37:1 (16.1)
SPD6-18	17.7-19.7	6 (1.8)	0.7	47.5	48.0	48.5	30	56	1.37:1 (16.1)

21.2-23.6 GHz (WR42)

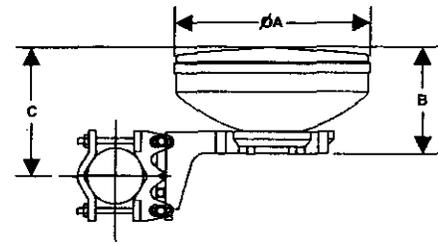
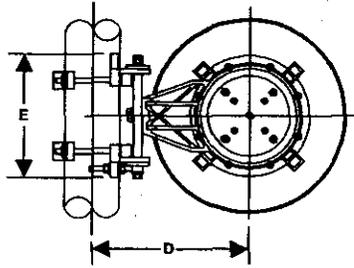
Model Number	Frequency, GHz	Diameter ft. (m)	3dB BW degs	Gain, dBi			XPD dB	F/B Ratio dB	VSWR, Max (R.L., dB)
				Low	Mid	High			
High Performance - Plane Polarized									
HPCPE-23	21.2-23.6	1 (0.3)	2.9	34.0	34.4	34.8	28	60	1.37:1 (16.1)
HPLP1-23	21.2-23.6	1 (0.3)	2.7	34.7	35.1	35.5	30	60	1.37:1 (16.1)
HP2-23	21.2-23.6	2 (0.6)	1.7	39.7	40.2	40.7	30	68	1.37:1 (16.1)
HP3-23	21.2-23.6	3 (0.9)	1.1	43.2	43.7	44.2	30	68	1.37:1 (16.1)
HP4-23	21.2-23.6	4 (1.2)	0.8	45.7	46.2	46.6	30	72	1.37:1 (16.1)
HP6-23	21.2-23.6	6 (1.8)	0.5	48.5	49.2	49.4	30	72	1.37:1 (16.1)
High Performance - Dual Polarized									
HPLPD1-23	21.2-23.6	1 (0.3)	2.7	34.5	34.9	35.3	30	60	1.37:1 (16.1)
HPD2-23	21.2-23.6	2 (0.6)	1.7	39.5	40.0	40.5	30	68	1.37:1 (16.1)
HPD3-23	21.2-23.6	3 (0.9)	1.1	43.1	43.5	44.0	30	68	1.37:1 (16.1)
HPD4-23	21.2-23.6	4 (1.2)	0.8	42.5	46.0	46.4	30	72	1.37:1 (16.1)
HPD6-23	21.2-23.6	6 (1.8)	0.5	48.3	49.0	49.2	30	72	1.37:1 (16.1)
Standard Parabolic - Plane Polarized									
SP2-23	21.2-23.6	2 (0.6)	1.7	39.8	40.5	40.8	30	49	1.37:1 (16.1)
SP3-23	21.2-23.6	3 (0.9)	1.1	43.4	43.9	44.4	30	52	1.37:1 (16.1)
SP4-23	21.2-23.6	4 (1.2)	0.8	45.9	46.4	46.8	30	54	1.37:1 (16.1)
SP6-23	21.2-23.6	6 (1.8)	0.5	48.7	49.4	49.6	30	56	1.37:1 (16.1)
Standard Parabolic - Dual Polarized									
SPD2-23	21.2-23.6	2 (0.6)	1.7	39.7	40.2	40.7	30	49	1.37:1 (16.1)
SPD3-23	21.2-23.6	3 (0.9)	1.1	43.2	43.7	44.2	30	52	1.37:1 (16.1)
SPD4-23	21.2-23.6	4 (1.2)	0.8	45.7	46.2	46.6	30	54	1.37:1 (16.1)
SPD6-23	21.2-23.6	6 (1.8)	0.5	48.5	49.2	49.4	30	56	1.37:1 (16.1)

All specifications subject to change without notice.

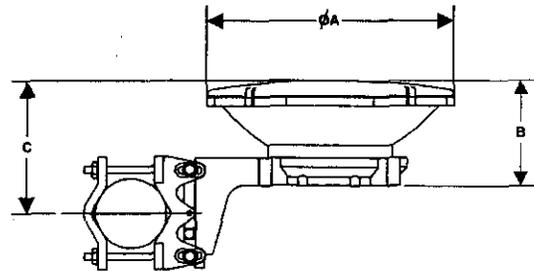
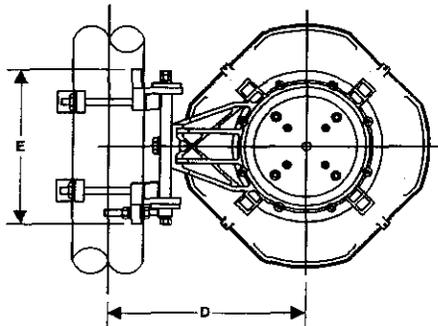
ANTENNA DIMENSIONS (DETAIL)

HP SERIES: HPLP1' (0.3M), HPCPE 1' (0.3M) & HP2 (0.6M)

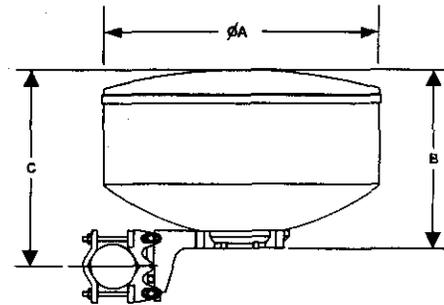
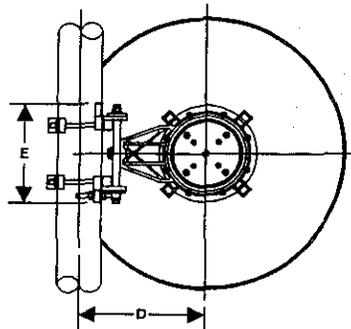
HPLP1 view



HPCPE view



HP2 view



*Dimensions = inches (cm)

Rear View

Side View

Diameter	A	B	C	D	E
HPLP1 (0.3m)	13.0 (33.0)	6.1 (15.5)	7.6 (19.3)	11.2 (28.4)	8.9 (22.6)
HPCPE (0.3m)	13.9 (35.3)	7.7 (19.6)	9.3 (23.6)	11.2 (28.4)	(8.9 22.6)
HP2 (0.6m)	24.5 (62.2)	16.2 (41.1)	17.7 (44.9)	11.2 (28.4)	8.9 (22.6)

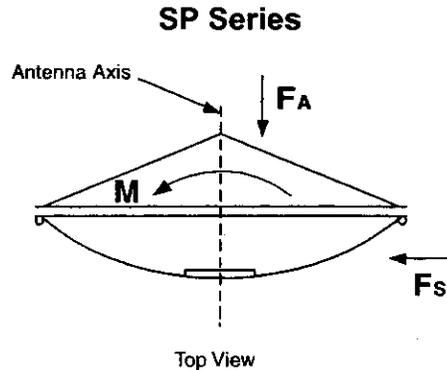
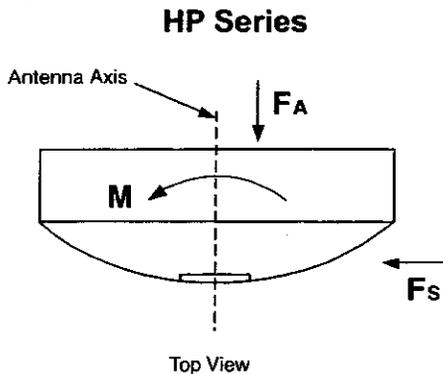
Adjustment Ranges:

Azimuth:	Coarse	360°	Elevation:	Fine	+/-30°
	Fine	+/-10°			

Mount designed to attach to pipemast between 2.0" (51 mm) and 4.5" (114 mm).

ANTENNA WIND FORCES AND LOADS

HP & SP SERIES



*Dimensions = Inches/cm

Antenna Windloading		2' (0.6m)		3' (90 cm)	
1' (0.3m) (HPLP1 & HPCPE)					
Fa Max	46 lbs. (204N)	Fs max	202 lbs. (899N)	Fs max	403 lbs. (1792N)
Fs Max	13 lbs. (58N)	Fs max	100 lbs. (445N)	Fs max	200 lbs. (890N)
MT Max	27 ft-lbs. (36N)	MT max	194 ft-lbs. (263Nm)	MT max	344 ft-lbs. (466Nm)

SP Series Windloading

		Without Radome		Without Radome	
Fa Max	46 lbs. (204N)	Fa max	222 lbs. (988N)	Fa max	492 lbs. (2189N)
Fs Max	13 lbs. (58N)	Fs max	14 lbs. (62N)	Fs max	40 lbs. (178N)
		MT max	225 lbs. (305Nm)	MT max	545 lbs. (739Nm)
		With Radome		With Radome	
		Fa max	122 lbs. (543N)	Fa max	271 lbs. (1206N)
		Fs max	24 lbs. (107N)	Fs max	64 lbs. (285N)
		MT max	194 ft-lbs. (263Nm)	MT max	394 ft-lbs. (534Nm)

Antenna Windloading		6' (1.8m)		8' (2.4m)	
4' (1.2m)					
Fa max	737 lbs. (3278N)	Fa max	1680 lbs. (7473N)	Fa max	2773 lbs. (12334N)
Fs max	365 lbs. (1623N)	Fs max	832 lbs. (3700N)	Fs max	1422 lbs. (6325N)
MT Max	784 ft-lbs. (1063Nm)	MT max	2100 ft-lbs. (2847Nm)	MT max	4400 ft-lbs. (5965Nm)

SP Series Windloading

Without Radome		Without Radome		Without Radome	
Fa max	855 lbs. (3803N)	Fa max	1768 lbs. (7865N)	Fa max	3795 lbs. (16940N)
Fs max	45 lbs. (200N)	Fs max	98 lbs. (436N)	Fs max	1115 lbs. (4980N)
MT Max	1120 ft-lbs. (1518Nm)	MT max	2270 ft-lbs. (3077Nm)	MT max	4800 ft-lbs. (6508Nm)
With Radome		With Radome		With Radome	
Fa max	469 lbs. (2087N)	Fa max	973 lbs. (4329N)	Fa max	2773 lbs. (12334N)
Fs max	93 lbs. (414N)	Fs max	162 lbs. (721N)	Fs max	1422 lbs. (6325N)
MT max	784 ft-lbs. (1063Nm)	MT max	2100 ft-lbs. (2847Nm)	MT max	4400 ft-lbs. (5966Nm)

Radio Waves, Inc.

46 <http://www.radiowavesinc.com>

sales@radiowavesinc.com

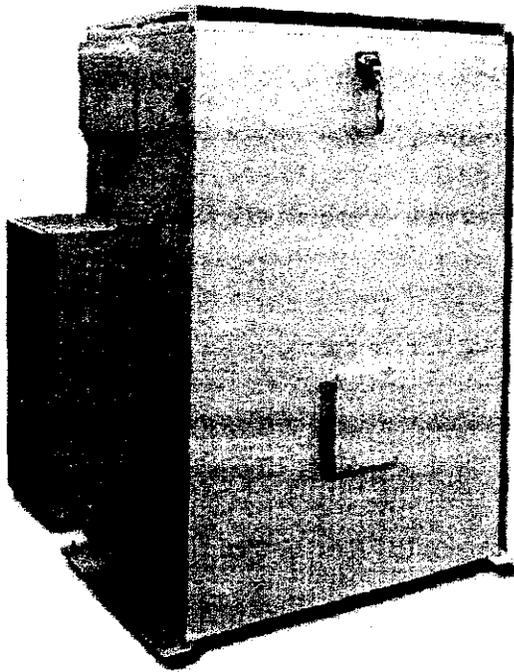


MAGNETEK
UNCOMMON POWER

SPECTRUM SERIES

Telecom Power Group

General Specifications



MPE5130 Enclosure with AC Option

SPECTRUM MPE5130 PowerEnclosure System

Magnetek's Spectrum Series MPE5130 Power Enclosure system is the ideal solution for broadband and backhaul applications. The Spectrum enclosure houses digital transmission equipment or routing and switching equipment, as well as other critical communications equipment in an environmentally controlled enclosure. The Spectrum MPE5130 can be custom configured to your specifications with 20 vertical rack spaces available to integrate equipment and backup power accessories in one enclosure. If connecting businesses to broadband networks or maximizing network performance is your goal then this climate controlled enclosure is the answer.

A unique feature of the Spectrum MPE5130 is the temperature-sensing devices that operate the fan and heater. In the event of an AC utility fail, the sensing devices trigger the fan or battery heater operation in addition to opening and closing the air louvers that are located at the top of the enclosure to maintain a balanced internal temperature. A separate temperature-sensing device is located in the battery compartment to maintain temperature parameters. In addition, the enclosure can be equipped to provide up to 24 amperes rectification at 24 Volts or 12 amperes rectification at 48 Volts and the 85 to 264 Volts single-phase AC input supports a wide variety of utility configurations. Other enclosure options are available.

Key Features of the Spectrum MPE5130 PowerEnclosure

- Designed to meet UL 60950 and NEMA 3R
- 24 or 48 Volt configurations
- AC power feed
- Equipped with temperature sensitive fan and heater components
- Removeable front accessible door
- Pad or pole mount installation

Model Summary

Model Number	Order Number	Output voltage, nominal	Output Current	Battery
Contact Magnetek Sales Engineers for complete ordering information.				

Specifications

Mechanical

Height:	51.32 inches
Width:	30 inches
Overall width:	47.70
Enclosure depth:	22 inches
Enclosure approx. weight:	175 lbs
Finish:	Textured powder coat

Input Characteristics for Power Equipment

Voltage range:	85-264 Vac
Frequency:	47-63 Hz
Input current:	< 3 Amps per rectifier
Inrush current:	< 5 Amps per rectifier
Power factor correction:	0.99 (typical @ full load)
Turn on delay:	< 2 sec

Output Characteristics for Power Equipment

Output power:	168W maximum continuous
Output current:	<ul style="list-style-type: none"> • 48V 3 Amps per rectifier • 24V 6 Amps per rectifier • 12V 12 Amps per rectifier
Hold-up time:	30msec@full load
Load regulation:	± 0.5%
Output PARD:	250mV P-P; bw: 100 Mhz
Output current walk-in time:	8-16 sec @ 90% load
Overcurrent protection type:	constant current limitation
Overcurrent and shortcircuit limitation:	102%-110%
Overvoltage protection:	two levels of protection
• Catastrophic:	65V triggers within 100 msec
• First OV threshold:	100% of nominal Vout only alarm

Efficiency:	81% @ 85 Vac
	85% @ 180 Vac

Note: Power shelf accommodates up to 4 rectifier modules

Specifications

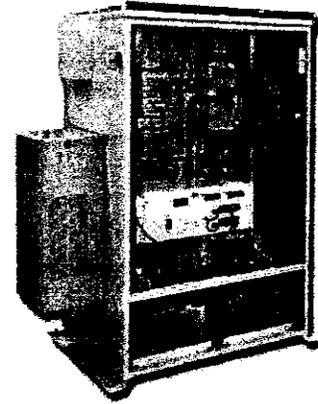
Data subject to change without notice.

Component Ratings

DC Fan rating: 102 CFM, 48Vdc
Heater rating: 375 Watts, 250V

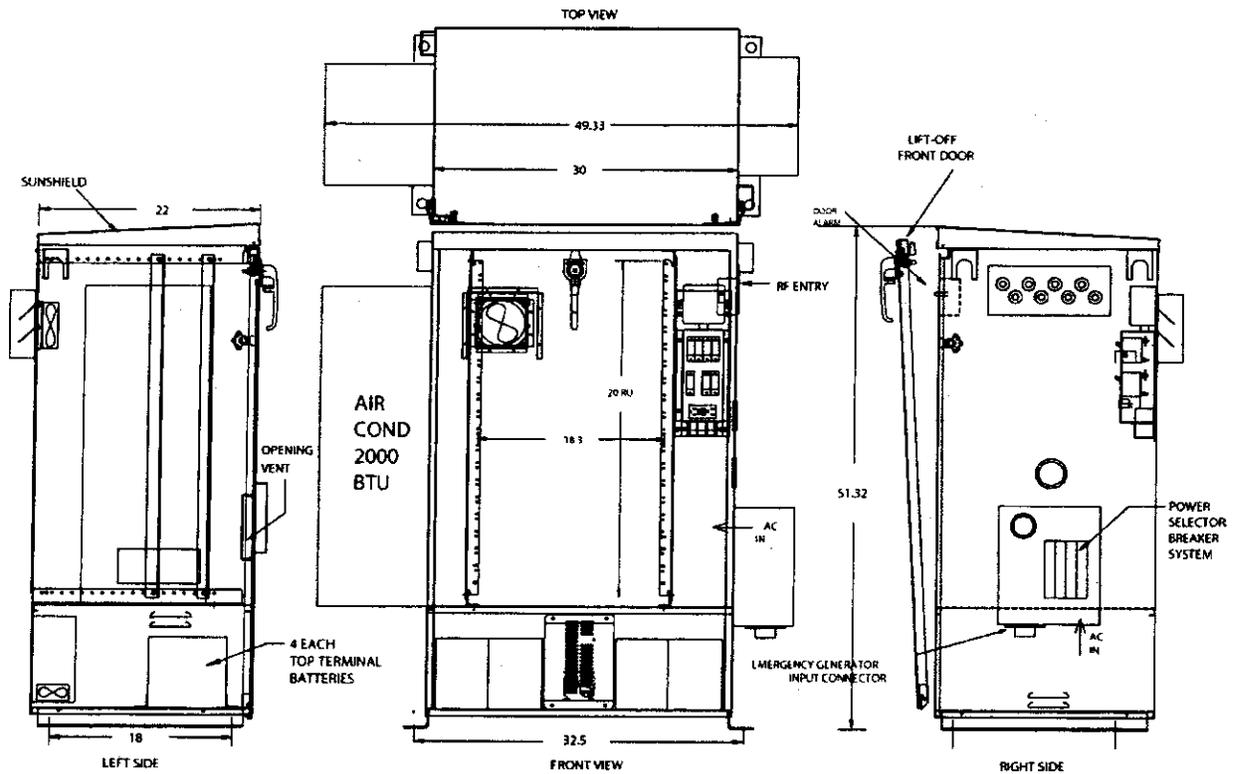
Options

- 168 Watt rectifier modules
- 1600 or 2000 BTU air conditioner
- Temperature compensation module for rectifiers
- Low voltage disconnect
- AC distribution
- AC surge protection
- DC distribution load breakers
- GMT fuse distribution panel
- Telecom grade batteries, 30 Ahr up to 70 Ahr sizes
- Contact closure alarms - door, distribution, battery detect, rectifier output failure, overcurrent, VAC fail



Outline Drawing and Dimensions

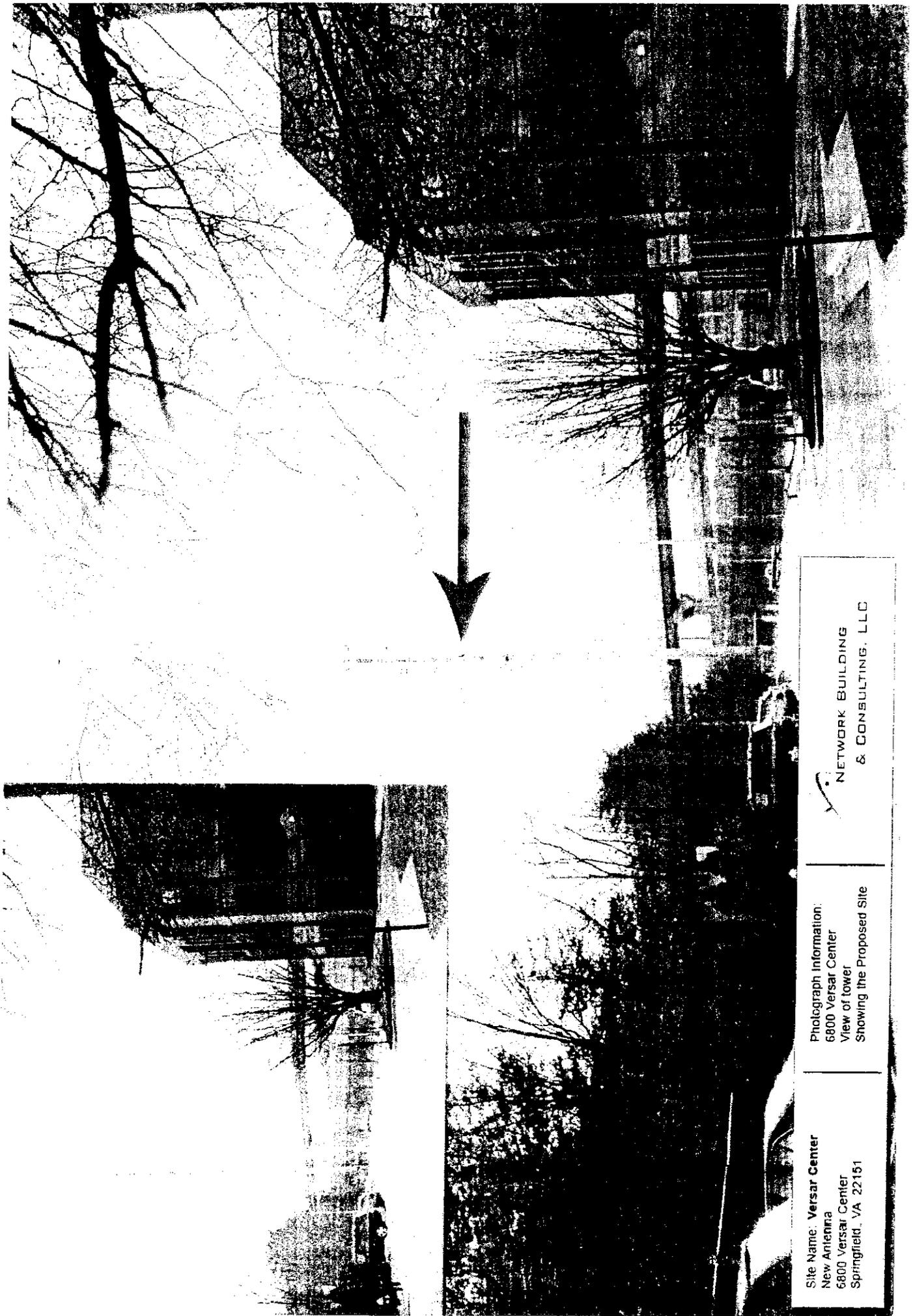
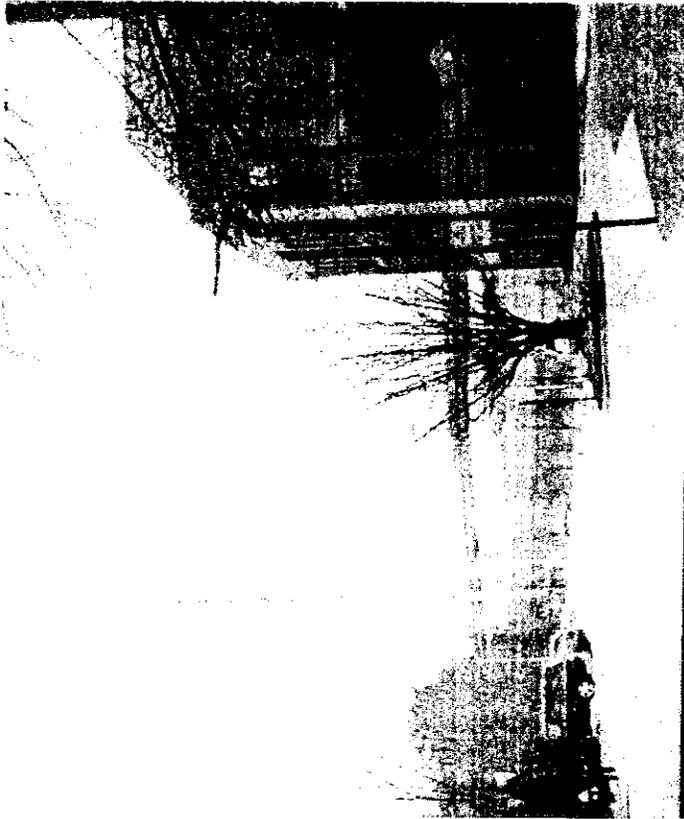
All dimensions are in inches.



MAGNETEK
UNCOMMON POWER

www.magnetektelecom.com

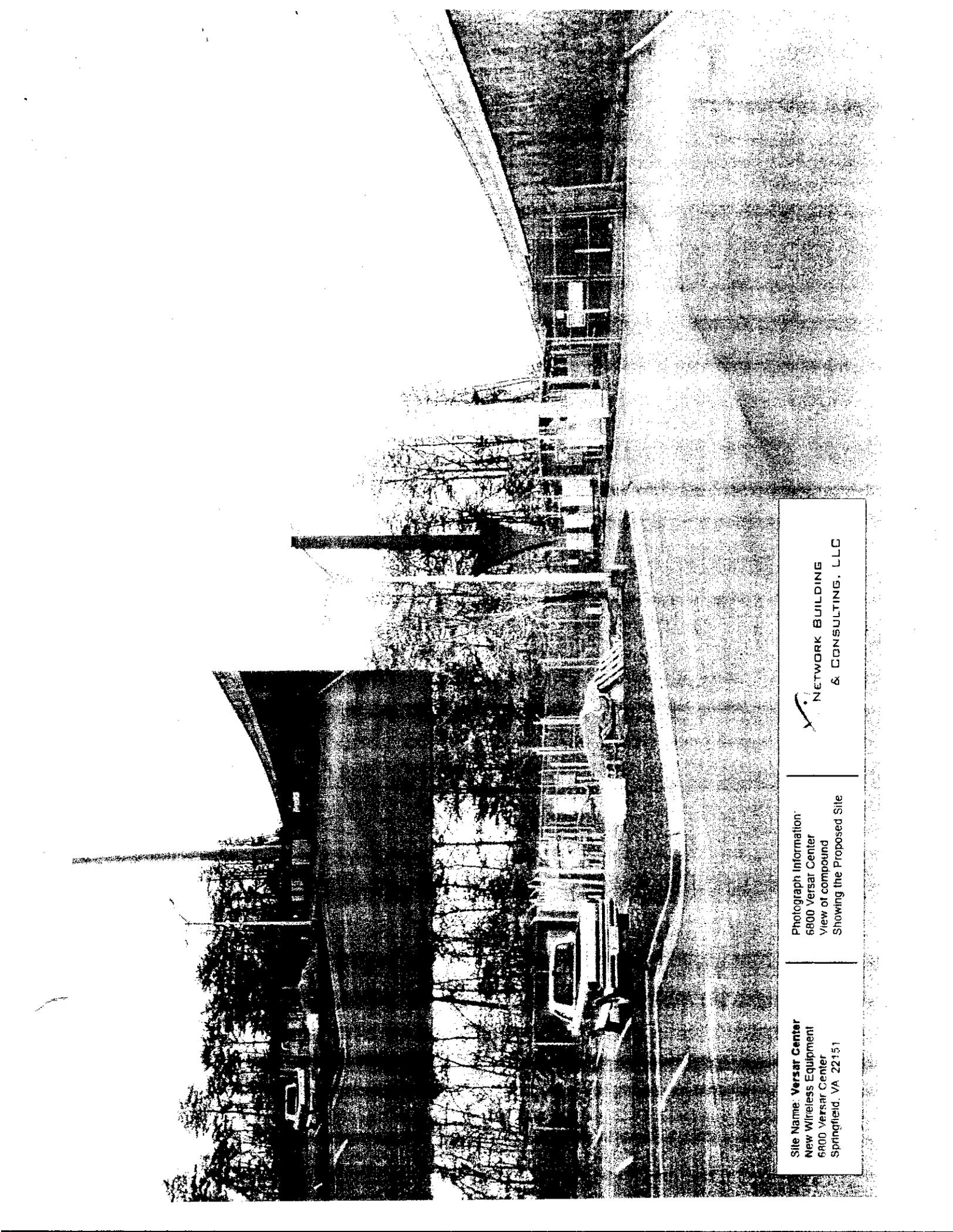
Magnetek Telecom Power Group
2025 Royal Lane, Suite 310, Dallas, Texas 75229-3229
(972) 484.0365 / (800) 443.4742 / Fax (972) 484.7822



Site Name: Versar Center
New Antenna
6800 Versar Center
Springfield, VA 22151

Photograph Information:
6800 Versar Center
View of tower
Showing the Proposed Site


NETWORK BUILDING
& CONSULTING, LLC



Site Name: **Versar Center**
New Wireless Equipment
6800 Versar Center
Springfield, VA 22151

Photograph Information:
6800 Versar Center
View of compound
Showing the Proposed Site

 **NETWORK BUILDING
& CONSULTING, LLC**

BUILDING CODE INFORMATION:

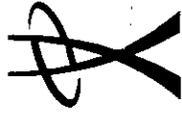
DESIGN CODE: INTERNATIONAL BUILDING CODE 2003

TIA-222-F

BASIC WIND SPEED: 80 MPH (3 SECOND GUST)

ANTENNA DESIGN PURSUANT TO STRUCTURAL ANALYSIS COORDINATED BY MAJOR TOWER OWNER.

SEE STRUCTURAL ANALYSIS REPORT PROVIDED BY B&T ENGINEERING, INC. FOR WDC0470 - 6800 VERSAR CENTER, DATED NOVEMBER 26, 2007.



FiberTower

WDC NUMBER: WDC0470
 FTX NUMBER: FTX1075550
 SITE NAME: 6800 VERSAR CENTER

F.T. OPERATIONS	DATE
F.T. CONSTRUCTION	DATE
LANDLORD	DATE
RF ENGINEER	DATE

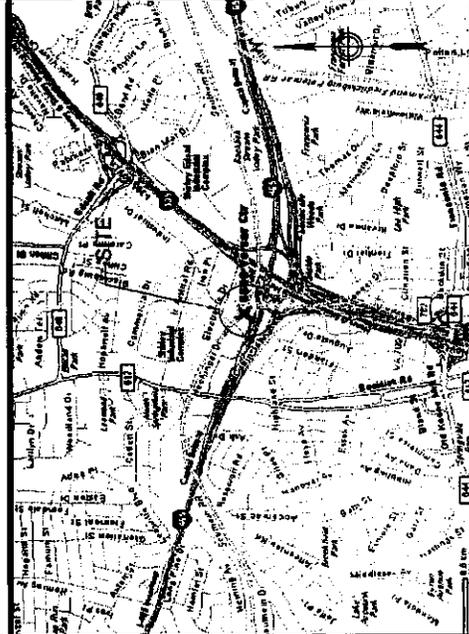
DRAWING INDEX

REV.	DESCRIPTION
0	T01 TITLE SHEET
0	C01 COMPILED SITE PLAN & ELEVATION
0	A01 COMPOUND PLAN
0	A02 CONSTRUCTION DETAILS
0	E01 ELECTRICAL & GROUNDING DETAILS

DIRECTIONS

FROM STERLING: TAKE VA-287 E (TOLL ROAD) TO LANE 8 (RICHMOND, ALEXANDRIA) TAKE EXIT 54A-3 (VA-28) BRADDOCK RD, TAKE EXIT 6A (VA-28 W. BRADDOCK RD WEST). TAKE BRADDOCK RD (VA-28 E). TURN LEFT ONTO BRADDOCK RD (VA-28). TURN ONTO BACKLICK RD (VA-617). TURN LEFT ONTO HECHINGER DR. STREET BECOMES VERSAR CTR. SITE IS LOCATED ON YOUR RIGHT.

VICINITY MAP



PROJECT INFORMATION

ADDITION TO AN UNLICENSED TELECOMMUNICATION FACILITY CONSISTING OF INSTALLING A NEW CARRIER INSIDE THE EXISTING COMPOUND, AND (1) DISH ANTENNA MOUNTED TO THE EXISTING MONOPOLE.

SCOPE OF WORK

SITE ADDRESS: 6800 VERSAR CENTER, SPRINGFIELD, VA 22151

APPLICANT: FIBERTOWER, 185 BERRY ST., SUITE 400, SAN FRANCISCO, CA 94108

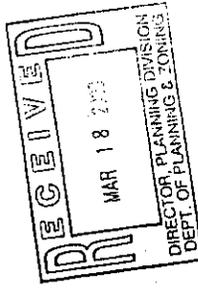
APPLICANT: N 28.793° (28° 47' 24.7"), W 77.177° (77° 10' 37.7")

FAIRFAX COUNTY TELECOMMUNICATIONS FACILITY

CONWAY CASTLE INTERNATIONAL MARKING BOWL #74802

SPRINGFIELD REALTY INVEST. 10000 WOODBURN RD, SPRINGFIELD, VA 22151

PARCEL ID: 0802 01 00228



SITE QUALIFICATION PARTICIPANTS

AE	SA	ZM	NAME	COMPANY	NUMBER
			ROBERT LOCKE	AERIAL SPECTRUM INC.	(703) 295-0818
			JENNIFER SWINNEY	EN CONSULTING	(913) 806-5943
			ADAM GRUBEL	NETWORK BUILDING & CONSULTING	(410) 712-7092

599 North Avenue, Suite 8
 Wakefield, MA 01880
 tel: (781) 292-0618
 fax: (781) 292-0625
 e-mail: paulm@aerialspectrum.com



WDC NUMBER: WDC0470
 SITE NUMBER: FTX1075550
 6800 VERSAR CENTER
 SPRINGFIELD, VA 22151



DATE	BY	CHKD	DATE	BY	CHKD



FIBERTOWER
 TITLE SHEET
 SCALE: AS SHOWN
 SHEET NO. T01

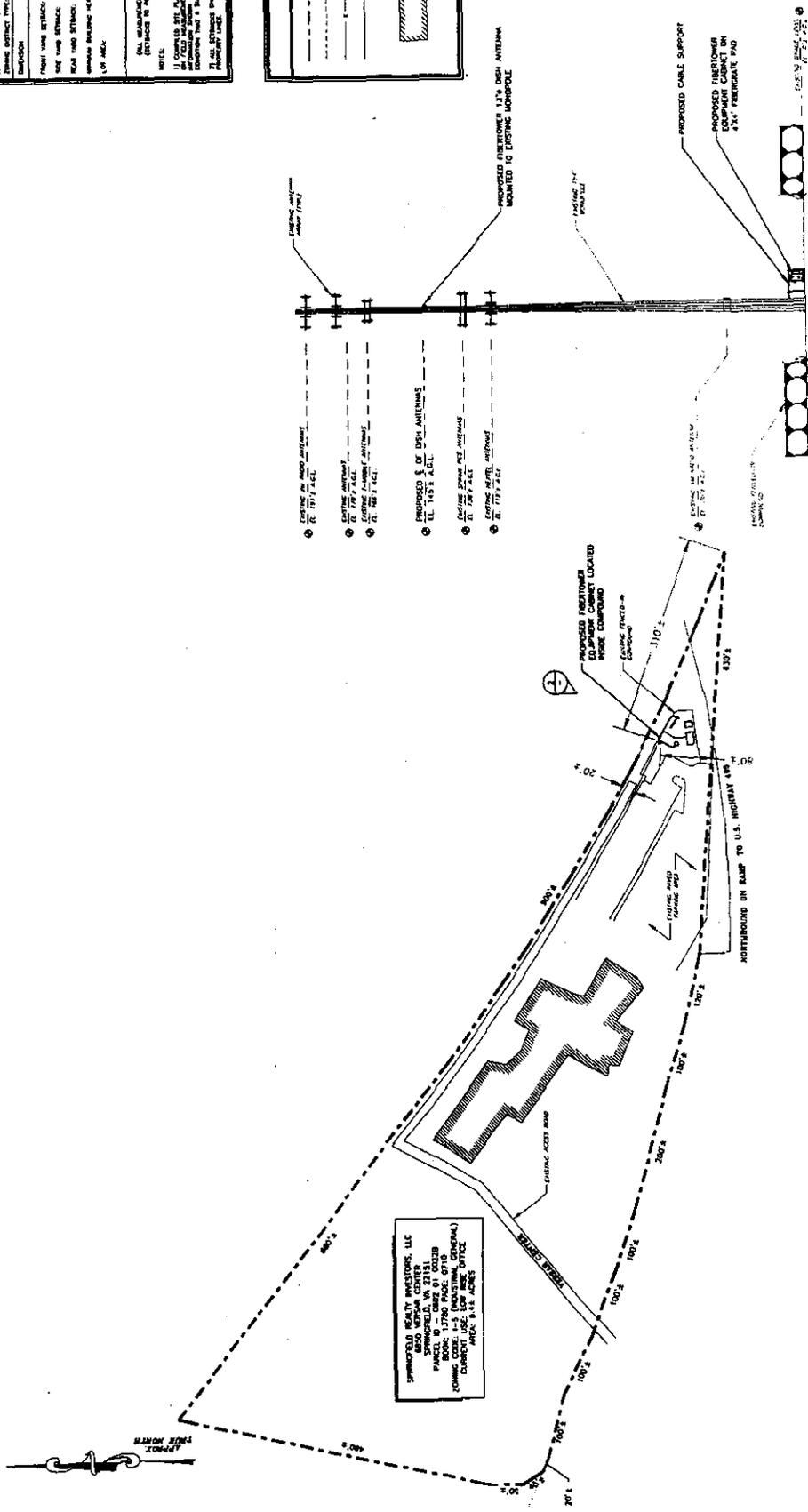
ZONING INFORMATION

JURISDICTION:	TOWN OF WILKIN, MA
COUNTY:	FARMS COUNTY
ZONING DISTRICT:	INDUSTRIAL (I-3)
MAP SHEET:	PROPOSED 1
TRAIL NAME SETBACK:	30'
SIDE YARD SETBACK:	30'
REAR YARD SETBACK:	20'
MINIMUM BUILDING HEIGHT:	10'
LOT AREA:	1.4 ACRES

NOTE:
 ALL PROPOSED USES OF THIS LOT SHALL BE SUBJECT TO THE ZONING ORDINANCE AND ANY OTHER REGULATIONS THAT MAY APPLY TO THIS PROPERTY.
 ALL PROPOSED USES OF THIS LOT SHALL BE SUBJECT TO THE ZONING ORDINANCE AND ANY OTHER REGULATIONS THAT MAY APPLY TO THIS PROPERTY.

LEGEND

--- (Dashed line)	PROPERTY LINE - SUBJECT PARCEL
--- (Dotted line)	PROPERTY LINE - ADJACENT
--- (Long dashed line)	EXISTING FENCE LINE
--- (Short dashed line)	EXISTING ROAD
▭ (Hatched area)	EXISTING BUILDING



NORTHEAST ELEVATION
 SCALE: 1" = 20'-0"

COMPILED SITE PLAN
 SCALE: 1" = 40'-0"

FIBERTOWER
COMPILED SITE PLAN & ELEVATION

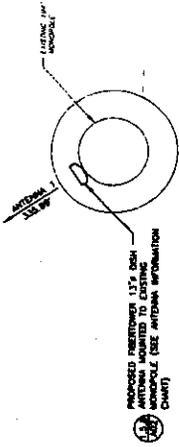
DATE:	01/15/2010
SCALE:	AS SHOWN / DETAIL: 1" = 10'-0"
PROJECT:	WILKIN, MA - 13'5' FIBERTOWER
DRAWN BY:	WILKIN, MA
CHECKED BY:	WILKIN, MA
DATE:	01/15/2010



WDC NUMBER: WDC0470
 SITE NUMBER: FTR1075550
 AND WILKIN CENTER
 SPRINGFIELD, MA 01105

599 North Avenue, Suite 8
 Woburn, MA 01880
 Tel: (781) 295-0818
 Fax: (781) 295-0825
 Email: jordan@antennaplan.com





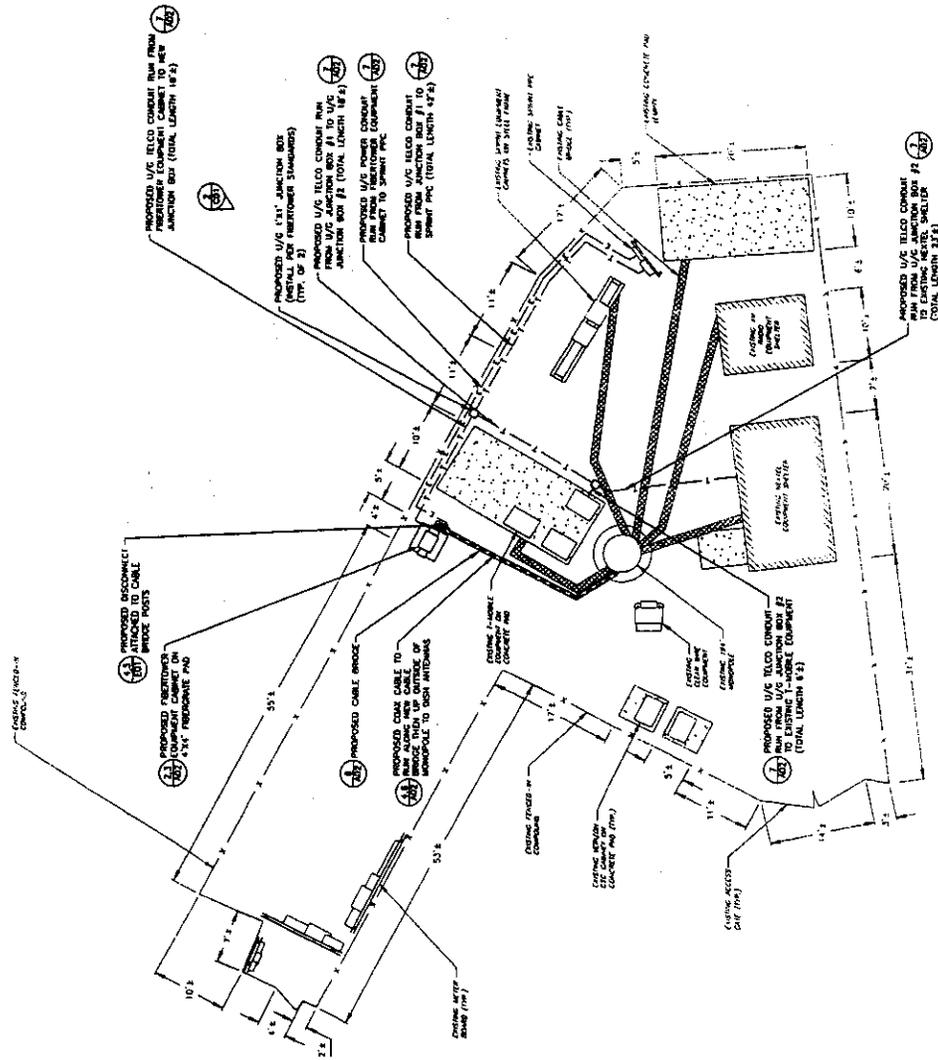
PROPOSED ANTENNA 1/8\"/>

ANTENNA INFORMATION

ANTENNA TYPE	VERTICAL
ANTENNA HEIGHT	100 FT
ANTENNA WEIGHT	150 LB
ANTENNA WIND LOAD	150 LB
ANTENNA VIBRATION	0.1 G
ANTENNA TILT	0 DEGREES

ANTENNA ORIENTATION

SCALE: N.T.S.



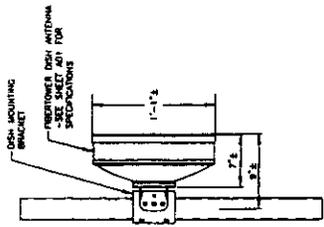
COMPOUND PLAN SCALE: 1/8" = 1'-0"

NOTE: EXISTING ANTENNAS NOT SHOWN FOR CLARITY

599 North Avenue, Suite 6
 Waltham, MA 01880
 Tel: (781) 235-0818
 Fax: (781) 235-0825
 e-mail: paulm@barrispectrum.com

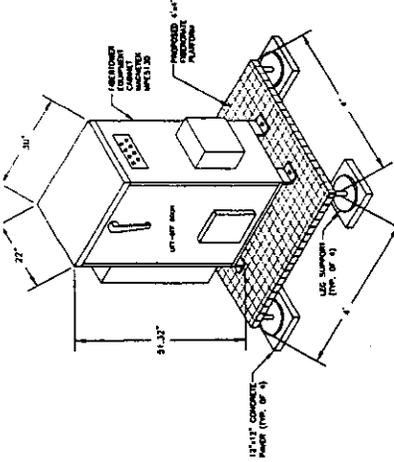
FiberTower
COMPOUND PLAN

NO. 100
 DATE: 03/20/08
 SCALE: AS SHOWN | DESIGNED: MAP | DRAWN: MAP

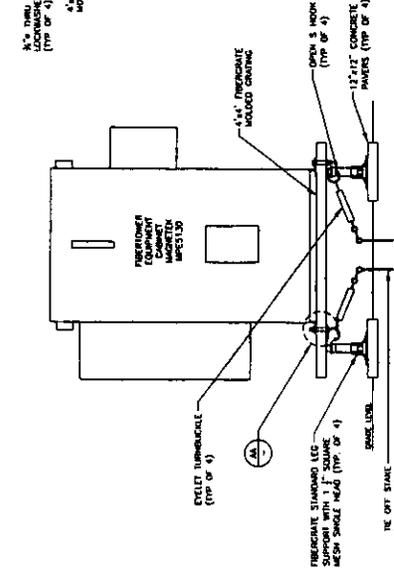


13' 9" DISH ANTENNA

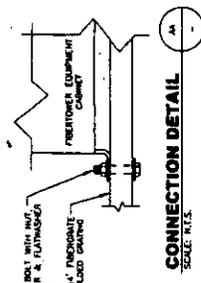
ANTENNA MOUNTING DETAIL
SCALE: N.T.S.



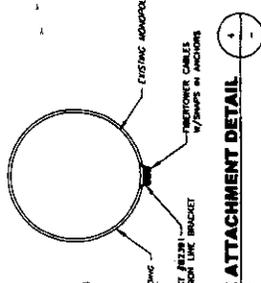
OUTDOOR CABINET DETAIL
SCALE: N.T.S.



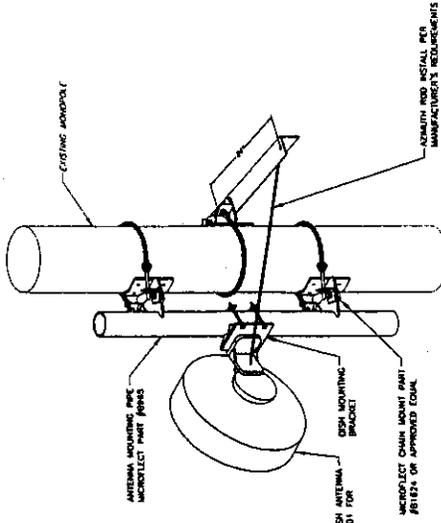
OUTDOOR CABINET DETAIL
SCALE: 1/4" = 1'-0"



CONNECTION DETAIL
SCALE: N.T.S.

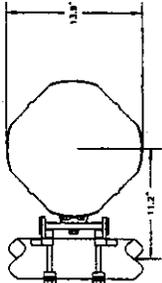


CABLE ATTACHMENT DETAIL
SCALE: N.T.S.

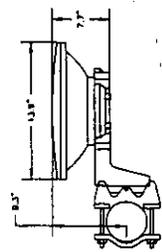


ANTENNA MOUNTING DETAIL
SCALE: N.T.S.

STRUCTURAL STEEL NOTES:
1. ALL STRUCTURAL STEEL PLATES AND SHAPES SHALL CONFORM TO ASTM A572.
2. ALL STRUCTURAL STEEL PIPES SHALL CONFORM TO ASTM A53 GRADE B.
3. ALL STRUCTURAL STEEL COMPONENTS AND FABRICATED ASSEMBLIES SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.

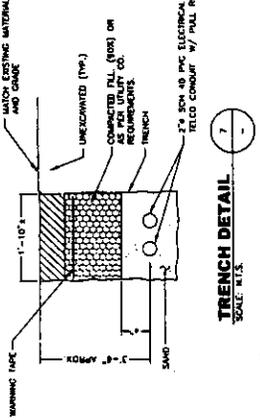


13" PANEL ANTENNA DETAIL
SCALE: N.T.S.



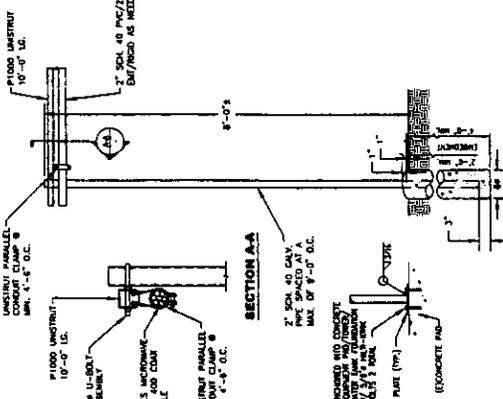
CABLE BRIDGE NOTES

1. FOR SIZES 8" OR SMALLER, 1/2" DIA. 1/2" DIA. STEEL PIPE FILLED WITH 100# PS PERMANENT CONCRETE FOR 1/2" DIA. SPACER WITH IMPROVED BRIDGE AND ANCHORS (MULTI-ROCK BRIDGES, 8" LONG).
2. FOR EXPANDED BRIDGE, PROVIDE ABOUT 10% MORE PERMANENT CONCRETE FOR 1/2" DIA. SPACER WITH IMPROVED BRIDGE AND ANCHORS (MULTI-ROCK BRIDGES, 8" LONG).
3. FOR CONCRETE, FIELDS SHOULD BE 1/2" (1) 5/8" EXPANDED BRIDGE (MULTI-ROCK BRIDGES, 8" LONG).
4. FOR BURIED BRIDGE, ALL LISTS SHALL HAVE 3"-4" BELLOW FRESH CONCRETE. FOR BURIED BRIDGE, ALL LISTS SHALL HAVE 3"-4" BELLOW FRESH CONCRETE. FOR BURIED BRIDGE, ALL LISTS SHALL HAVE 3"-4" BELLOW FRESH CONCRETE. FOR BURIED BRIDGE, ALL LISTS SHALL HAVE 3"-4" BELLOW FRESH CONCRETE.
5. FOR BRIDGES ON CONCRETE OR EXPANDED BRIDGE, PROVIDE 4" x 8" x 7/8" BRIDGE PLATE WITH (2) 1/2" DIA. BOLTS AT EACH END.
6. BRIDGE PLATE WITH 1/2" DIA. BOLTS AT EACH END. BRIDGE PLATE WITH 1/2" DIA. BOLTS AT EACH END.



TRENCH DETAIL
SCALE: N.T.S.

NOTE: IF FREE OF CORROSION OR OTHER DELIVERABLE MATERIAL, EXISTING MATERIAL MAY BE USED FOR BRIDGES. IF NOT, BRIDGES SHALL BE RECONSTRUCTED IN 8" LISTS, READY FOR LARGE ROADS PRIOR TO INSTALLATION.



CABLE BRIDGE DETAIL
SCALE: N.T.S.

WDC NUMBER: WDC00070
SITE NUMBER: WDC00070-000000
WDC HEADQUARTERS
SPRINGFIELD, VA 22151

FiberTower
140 MAIN STREET
WILMINGTON, DE 19801

NO.	DATE	BY	CHKD.	APP'D.	SCALE	AS SHOWN	DESIGNED	DATE	CHANGED	BY
1	05/22/2008	PKM	SKM	SKM	N.T.S.					

598 North Avenue, Suite 8
Walesford, MA 01820
Tel: (781) 295-0818
Fax: (781) 295-0825
e-mail: paulm@berlabpectrum.com

CONSTRUCTION DETAILS

308-32
308E
A172

