

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

Sandy M. Carter Verizon Wireless 20 Alexander Drive P.O. Box 5029 Wallingford, CT 06492

RE:

TS-VER-086-010328 - Cellco Partnership d/b/a Verizon Wireless request for an order to approve tower sharing at an existing telecommunications facility located at 557 Route 82, Montville, Connecticut.

Dear Ms. Carter:

At a public meeting held April 12, 2001, the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures. 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 may require an explicit request to this agency pursuant to General Statutes § 16-50aa or notice pursuant to Regulations of Connecticut State Agencies Section 16-50j-73, as applicable. Such request or notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point 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.

This decision applies only to this request for tower sharing and is not applicable to any other request or construction.

The proposed shared use is to be implemented as specified in your letter dated March 28, 2001, and amended site plan dated April 3, 2001.

Thank you for your attention and cooperation.

Very truly yours,

Mortimer A. Gelston

Chairman

MAG/RKE/laf

Honorable Howard R. Beetham, Jr., Mayor, Town of Montville
 Ms. Marcia Vlaun, Town Planner, Town of Montville
 Julie M. Donaldson, Esq., Hurwitz & Sagarin LLC



Verizon Wireless 20 Alexander Drive Wallingford, Connecticut 06492

OVERNIGHT DELIVERY

April 3, 2001

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



Re: Request by Cellco Partnership d/b/a Verizon Wireless for an Order to Approve the Shared Use of a Tower facility located at 557 Route 82, Montville, Connecticut.

Dear Chairman Gelston:

Please be advised that on March 28, 2001, I filed a request for tower sharing for the above noted site with the Council. After the application was filed, Sprint Spectrum contacted us and required Verizon to change the location of the proposed equipment shelter within the leased compound. Verizon has made the required change and I am submitting twenty-three (23) sets of plans to the Council to be included with the original request for tower sharing.

Verizon Wireless regrets any inconvenience to the Council for this required change. Thank you for your consideration of this matter and we request that the Council issue an order approving the proposed-shared use.

Respectfully yours,

Sandy M. Carter

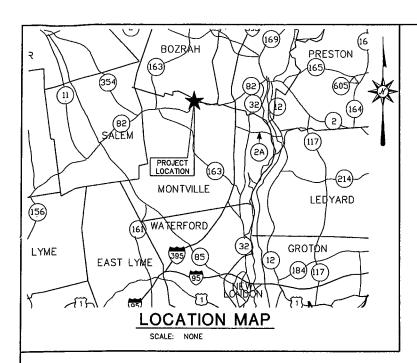
Manager – Regulatory

Sandy M. Carter

Verizon Wireless

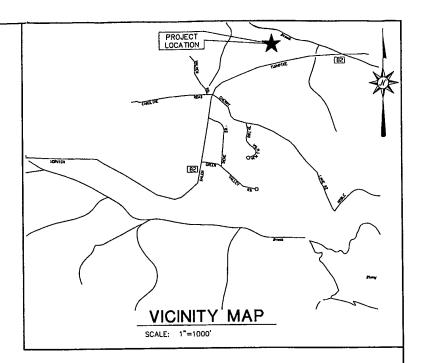
Enclosure

Cc: Honorable Howard R. Beetham, Jr., Mayor



SITING COUNCIL SUBMISSION

MONTVILLE NORTHWEST TELECOMMUNICATION FACILITY



557 ROUTE 82 MONTVILLE, CONNECTICUT 06353

PREPARED FOR:

CELLCO PARTNERSHIP DBA
VERIZON WIRELESS
20 ALEXANDER DRIVE
WALLINGFORD, CONNECTICUT 06492

CONTENTS

TITLE SHEET

SC-1

SITE PLAN AND ELEVATION

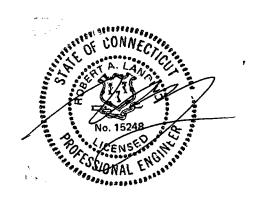
PREPARED BY:



ARCHITECTURE ENGINEERING PLANNING LANDSCAPE ARCHITECTURE

LAND SURVEYING ENVIRONMENTAL SCIENCES ANALYTICAL SERVICES

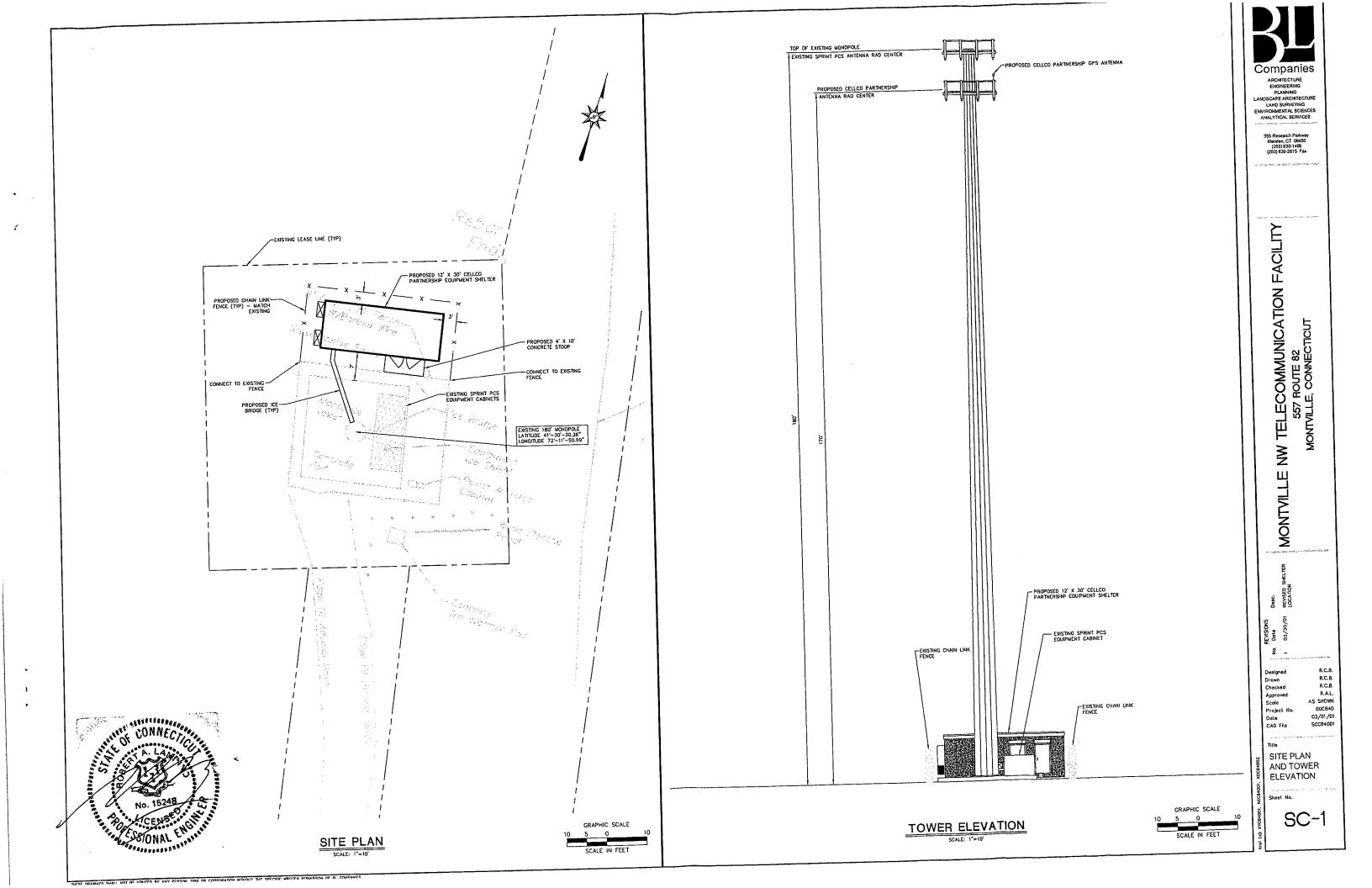
355 RESEARCH PARKWAY MERIDEN, CONNECTICUT 06450 (203) 630-1406 (203) 630-2615 Fax



NOT FOR CONSTRUCTION

DATES

ISSUE DATE: MARCH 1, 2001
REVISION: MARCH 30, 2001





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

March 29, 2001

Honorable Howard R. Beetham, Jr. Mayor
Town of Montville
Town Hall
310 Norwich New London Turnpike
Uncasville, CT 06382

RE: TS-VER-086-010328 - Cellco Partnership d/b/a Verizon Wireless request for an order to approve tower sharing at an existing telecommunications facility located at 557 Route 82, Montville, Connecticut.

Dear Mayor Beetham:

The Connecticut Siting Council (Council) received this request for tower sharing, pursuant to Connecticut General Statutes § 16-50aa.

The Council will consider this item at the next meeting scheduled for April 12, 2001, at 1:30 p.m. in Hearing Room Two, 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 Tower Sharing

e: Marcia Vlaun, Town Planner, Town of Montville

Network Dept.



Verizon Wireless 20 Alexander Drive Wallingford, Connecticut 06492

HAND DELIVERED

March 28, 2001

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



Re: Request by Cellco Partnership d/b/a Verizon Wireless for an Order to Approve the Shared Use of a Tower Facility located at <u>557 Route 82 Montville</u>, Connecticut.

Dear Chairman Gelston:

Pursuant to Connecticut General Statutes (C.G.S.) Sec. 16-50aa, Cellco Partnership d/b/a Verizon Wireless hereby requests an order from the Connecticut Siting Council ("Council") to approve the proposed shared use by Verizon Wireless of an existing tower located at 557 Route 82, Montville, Connecticut. The property is owned by Carolyn Besade and the tower is owned and managed by Sprint Spectrum, L.P. As shown on the attached drawing and as further described below, Verizon Wireless proposes to install antennas on the existing tower and to locate an equipment shelter at the base of the tower. Verizon Wireless requests that the Council finds that the proposed shared use of the tower facility satisfy the criteria stated in C.G.S. Sec. 16-50aa, and to issue an order approving the proposed shared use.

Background

Verizon Wireless is licensed by the Federal Communications Commission to provide cellular telephone service in the New London County New England County Metropolitan Area (NECMA), which includes the area to be served by the proposed Montville installation.

The facility at 557 Route 82 in Montville, consists of a an approximately 180 foot AGL monopole tower built by Sprint Spectrum, L.P. and is located on a leased parcel. The monopole tower supports the antennas of Sprint Spectrum PCS. This wireless carrier provides mobile communications service to the public pursuant to its FCC license. Verizon Wireless and Sprint Spectrum, L.P. have agreed to the proposed-shared use of this monopole tower pursuant to mutually acceptable terms and conditions. Sprint Spectrum, L.P. has authorized Verizon Wireless to apply for all necessary permits, approvals and authorizations which may be required for the proposed shared use of this facility.

Mr. Mortimer A. Gelston March 28, 2001 Page 2

Verizon Wireless proposes to install three (12) antennas on the tower. Six of the antennas will be Decibel Model DB844H90 antennas, approximately 48 inches in height, and six of the antennas will be Decibel Model DB948F85, approximately 48 inches in height. They will be mounted on a platform with their center of radiation at approximately 170 feet above ground level ("AGL"). Verizon Wireless will also install one (1) GPS antenna. Equipment associated with these antennas, as well as a 40 KW diesel-fueled emergency stand-by generator, would be located in a new approximately 12-foot x 30-foot equipment building located at the base of the tower.

C.G.S. Sec. 16-50aa provides that, upon written request for approval of a proposed shared use, "if the Council finds that the proposed shared use of the facility is technically, legally, environmentally and economically feasible and meets public safety concerns, the Council shall issue an order approving such shared use" (C.G.S. Sec. 16-50aa©(1).)

Discussion

- A. <u>Technical Feasibility</u>. The existing tower is structurally sound and capable of supporting the proposed Verizon Wireless antennas. The tower will not require any structural modification to support the proposed attachments. A letter certifying the structural design will be submitted under separate cover. Verizon Wireless engineers have determined that the proposed antenna installations present minimal potential for interference to or from existing radio transmissions from this location. In addition, the applicant is unaware of any occasion where its operations have caused interference with AM, FM or television reception. The proposed shared use of this tower therefore is technically feasible.
- B. <u>Legal Feasibility</u>. Under C.G.S. Sec. 16-50aa, the Council has been authorized to issue an order approving the proposed-shared use of an existing communications tower facility such as the facility at 557 Route 82 (C.G.S. Sec. 16-50aa©(1).) This authority complements the Council's prior existing authority under C.G.S. Sec. 16-50p to issue orders approving the construction of new towers that are subject to the Council's jurisdiction. C.G.S. Sec. 16-50x(a) directs the Council to "give consideration to other state laws and municipal regulations as it shall deem appropriate" in ruling on requests for the shared use of existing tower facilities. Under the authority vested in the Council by C.G.S. Sec. 16-50aa, an order by the Council approving the shared use would permit the applicant to obtain a building permit for the proposed installations.

- C. <u>Environmental Feasibility</u>. The proposed shared use would have a minimal environmental effect, for the following reasons:
 - 1. The proposed installations would have an insignificant incremental visual impact, and would not cause any significant change or alteration in the physical or environmental characteristics of the existing site. The addition of the proposed antennas would not increase the height of the tower, and would not extend the boundaries of the tower site, including the placement of the equipment building near the base of the existing tower.
 - 2. The proposed installation would not increase the noise levels at the existing facility by six decibels or more. The only additional noise will occur during emergency use or periodic exercising of the generator.
 - 3. Operation of the additional antennas will not increase the total radio frequency electromagnetic radiation power density, measured at the tower base to a level at or above the applicable standard. "Worst-case" exposure calculations for a point at the base of the tower in relation to operation of Verizon Wireless's and the other carriers' antenna arrays are as follows:

| | Applicable ANSI Stnd | Calculated "Worst-Case" | Percentage of Stnd |
|------------------|-------------------------|-------------------------|-----------------------|
| Verizon Wireless | 0.583 mW/cm2 | 0.0236 mW/cm2 | 4.05% |
| Sprint | 1.000 mW/cm2 | 0.0149 mW/cm2 | 1.49% |
| | | Total | 5.54% |

The collective "worst-case" exposure would be only 5.54% 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.

4. The proposed installations would not require any water or sanitary facilities or generate discharges to water bodies. Operation of the emergency back-up generator will result in limited air emissions, pursuant to R.C.S.A. Section 22a-174-3, the generator will require the issuance of a permit from the Department of Environmental Protection Bureau of Air Management. After construction is complete, the proposed installation would not generate any traffic other than periodic maintenance visits.

The proposed use of this facility would therefore have a minimal environmental effect, and is environmentally feasible.

- D. <u>Economic Feasibility</u>. As previously mentioned, the tower owner and the applicant have entered into a mutual agreement to share use of the existing tower on terms agreeable to the parties, and the proposed tower sharing is thus economically feasible.
- E. <u>Public Safety Concerns.</u> As stated above, the existing tower is structurally capable of supporting the proposed Verizon Wireless antennas. The Applicant is not aware of any other public safety concerns relative to the proposed tower sharing of the existing tower. In fact, the provision of new or improved cellular phone service in the Montville area, including 5 miles on heavily traveled Route 82 and 4.5 miles on Route 163 through shared use of the tower is expected to enhance the safety and welfare of area residents and travelers. The public safety benefits of wireless service are further illustrated by the decision of local authorities elsewhere in Connecticut to provide cellular phones to residents to improve local public safety and emergency communications. The proposed-shared use of this facility would likewise improve public safety in the Montville area.

Conclusion

For the reasons discussed above, the proposed shared use of the existing telecommunications tower facility at 557 Route 82 in Montville satisfies the criteria stated in C.G.S. Sec. 16-50aa, and advances the General Assembly's and the Council's goal of preventing the proliferation of towers in Connecticut. The Applicant therefore requests that the Council issue an order approving the proposed shared use.

Mr. Mortimer A. Gelston March 28, 2001 Page 5

Thank you for your consideration of this matter.

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

Respectfully yours,

Sandy M. Carter

Manager – Regulatory

Sandy M. Carter

Verizon Wireless

Attachments

cc: Honorable Howard R. Beetham, Jr., Mayor

Network Dept.



Verizon Wireless20 Alexander Drive
Wallingford, Connecticut 06492

March 28, 2001

Honorable Howard R. Beetham, Jr., Mayor Town Hall 310 Norwich-New London Turnpike Uncasville, Connecticut 06382

Dear Mr. Beetham:

This letter is to inform you that Cellco Partnership d/b/a Verizon Wireless plans to install antennas and associated equipment at the existing tower facility located 557 Route 82, Montville, Connecticut. I am enclosing a copy of Verizon Wireless's tower sharing application to the Connecticut Siting Council.

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

Sincerely,

Sandy M. Carter

Manager - Regulatory

Sandy M. Carter

Verizon Wireless

Enclosure



Sprint Sites USA

East Region - Northeast District Office 535 East Crescent Avenue Ramsey, NJ 07446 Mailstop NJRAMA0101

VIA FEDERAL EXPRESS (203) 294-8519

March 12, 2001

Sandy M. Carter
Manager – Regulatory
Verizon Wireless
20 Alexander Drive
Wallingford, Connecticut 06492

RE: Sprint Site # CT33XC061-01

557 Route 82, Montville, Connecticut 06370

Dear Ms. Carter:

I, David Karpiak, representing Sprint Spectrum L.P. (Sprint), authorize Verizon Wireless to act as applicant, representing Sprint before Connecticut Siting Counsel to obtain approval for an order required for governmental compliance. However, Verizon Wireless shall not be authorized to make any concessions or commitments to the Connecticut Siting Counsel that may affect the operations or future leasing opportunities of Sprint beyond what is shown on the construction drawing prepared by Bay State Design Associates, Inc., dated November 19, 1999, without obtaining prior approval and consent from Sprint.

Sincercly,

David Karpiak
Regional Manager



DB842H80N-X7, D8842H90N-X7 dB DIRECTOR™ LOG PERIODIC ANTENNAS D8844H80N-X7, D8844H90N-XY 9-13 dBd GAIN, 40 dB F/B RATIO, 806-960 MHz



Ideal for cellular and trunking/ESMR applications, these high quality log periodics are now available from Decibel in four new models with 80 or 90 degree horizontal apertures. They're compact, lightweight, and provide an unmatched front-to-back ratio of 40 dB.

- Less Wind Loading They measure only 24 or 48 inches (610 or 1219 mm) tall, 8.5 inches deep (216 mm), and 6 inches wide (152 mm). They weigh only 5 or 10 pounds.
- Downtilt Electrical downtilt is available on all 4-foot models, 6°, 8°, 11°, 13°, or for mechanical downtilt, order DB5083 bracket.
- Muil-Fill Four-foot models provide null-fill and upper lobe suppression.
- Most Stringent iM Test Each antenna is tested for the absence of IM with 16 carriers at 500 watts of composite power.
- Sturdy Construction Made in the U.S. of high-strength aluminum alloy backs, brass elements and UV resistant ABS plastic radomes. No rivets are used!
- · Lightning Resistant All metal parts are grounded.
- Terminations and Mounts All models are available with N-Female or 7/16 DIN connectors. DB380 pipe mount is included.

Ordering information - See table for models to fit your requirements.

UPS Shippable

| Models Available | | | 4 | | |
|-----------------------------|--------------|--------------|--------------|--------------|--|
| Model* | DB842H80N-XY | DB844H80N-XY | DB842H90N-XY | DB844H90N-XY | |
| Gain – dBd/dBi | 10/12.1 | 13/15.1 | 9/11.1 | 12/14.1 | |
| F/B Ratio – dB | 40 | 40 | 40 | 40 | |
| Horizontal beamwidth** | 80° | 80° | 90° . | 90° | |
| Vertical beamwidth** | 30° | 15° | 30° | 15° | |
| Height - in. (mm) | 24 (610) | 48 (1219) | 24 (610) | 48 (1219) | |
| Weight - Ibs. (kg) | 5 (2.3) | 10 (4.6) | 5 (2.3) | 10 (4.6) | |
| Shipping weight – lbs. (kg) | 8 (3.6) | 15 (6.8) | 8 (3.6) | 15 (6.8) | |

- For 7/16 DIN connectors substitute "E" for "N" in the model numbers. Example: DB842H80E-XY.
- ** 3 dB from maximum.

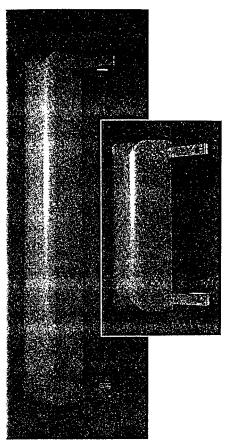
Side offset mounting bracket is included. For electrical downtilt of 6°, 8°, 11° or 13° add T6, T8, T11 or T13 before the "N" or "E" in any 4-foot model number. Example: DB844H80T6N-XY. Note: Electrical downtilt causes a gain loss of .05 dB, or , at the horizon, a reduction of 3, 6, 9 or 12 dB on downtilts of 6°, 8°, 11° or 13° respectively. For mechanical downtilt order DB5083 bracket.

| Mechanical Data | | | | |
|--|---|--|--|--|
| Width – in. (mm) Depth – in. (mm) Height | 6 (152) 8.5 (216) See table above | | | |
| Maximum wind speed – m Wind area – ft² (m²) 24" (610 mm) antenna 48" (1219 mm) antenn Wind load (at 100 mph/16 24" (610 mm) antenna 48" (1219 mm) antenn | 1 (.093) a 2 (.186) km/h) – lbf (N) kp 40 (178) 18 | | | |
| Radome Backplate Radiators Mounting hardware Weight | Gray ABS Passivated aluminum Brass Galvanized steel See table above | | | |

| Electric | cal Data |
|---|--------------------------|
| Frequency Range - MHz | 806-960 |
| Gain - dBd | See table above |
| Front-to-back ratio - dB | >40 |
| Beamwidths | See table above |
| VSWR | <1.5:1 |
| Null-fill and secondary | On 48" (1219 mm) |
| lobe suppression | models only |
| Maximum power input - Nominal impedance - of | |
| Lightning protection | All metal parts grounded |
| Termination | N-Female or 7/16 DIN |

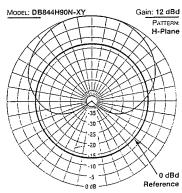


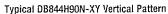
| Typical DB842H80-XY Vertical Pattern | | | | |
|--------------------------------------|--------------------------|--|--|--|
| MODEL: DB842H80-XY | Gain: 10 dBd | | | |
| | PATTERN: | | | |
| AATITA | E-Plane | | | |
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| -20 | $\langle \times \rangle$ | | | |
| | X | | | |
| 7.10 1 | 0 dBd | | | |
| 5 T 0 tB | Reference | | | |
| 9 40 | | | | |

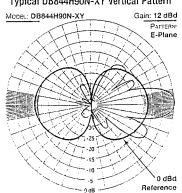


4-Foot and 2-Foot dB DIRECTORS

Typical DB842H90N-XY, DB844H90N-XY Horizontal Pattern







IRECTIONAL -

LOG

PERIODIC

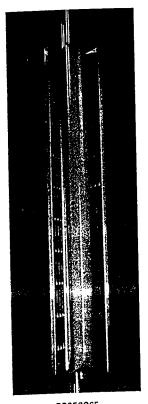
The dB Director Log Periodic Antenna Family is engineered to provide the best possible coverage control for today's complex digital systems.

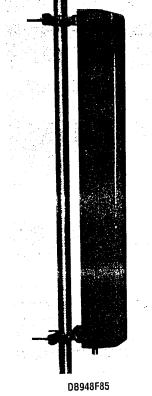
- Reduce co-channel interference.
- Provide exact coverage penetration.
- Integrated phasing and array structure in a single circuit.
- No uncontrolled fasteners, mechanical screws, or rivets in RF current path.
- Pattern shaping options:
 - Max Gain™ focused gain on the horizon.
 - Max Fill™ excellent USLS of 18 db and null fill of 11 to 12 dB.
- Outstanding "cone of silence" and front to back ratio of 40 dB, typical.
- Excellent control of intermodulation, IM3-147 dBc.
- Available in a wide range of gains and beam shapes.
- Slim profile for outstanding reduction of wind load.

Ordering Information: "G" indicates "Max Gain™", "F" indicates "Max FillTM". Max FillTM antenna gain is typically down 0.5 to 0.7dB from Max Gain™. All antennas above are standard with 7/16 DIN connectors, bottom mounted.

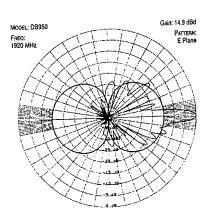
Frequency Designations: M-1850-1990, KL-1710-1880. Mounting:

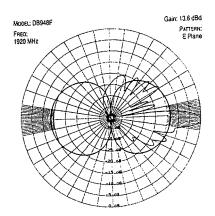
- DB390 Pipe mount kit (included).
- DB5098 Downtilt Bracket (optional).

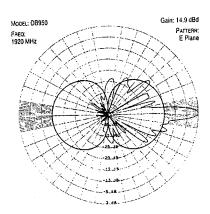


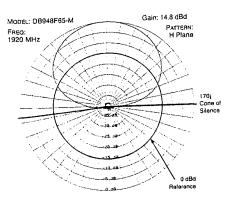


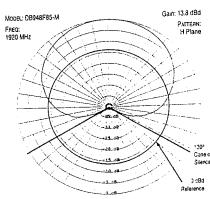
DB950G65

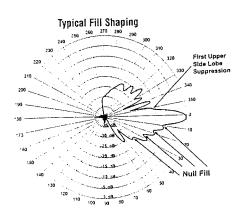


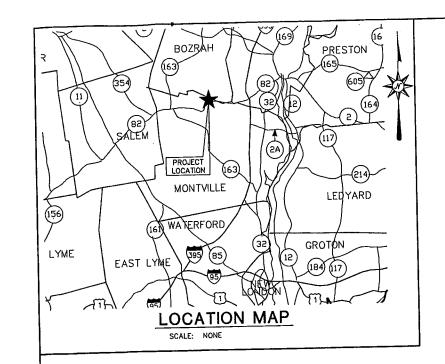






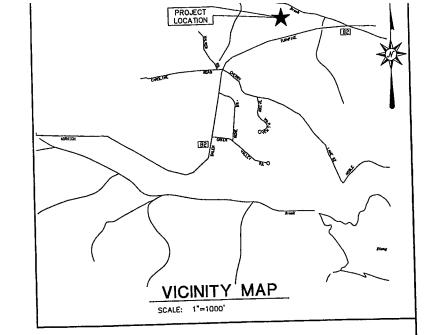






SITING COUNCIL SUBMISSION

MONTVILLE NORTHWEST TELECOMMUNICATION FACILITY



557 ROUTE 82 MONTVILLE, CONNECTICUT 06353

PREPARED FOR:

CELLCO PARTNERSHIP DBA
VERIZON WIRELESS
20 ALEXANDER DRIVE
WALLINGFORD, CONNECTICUT 06492

CONTENTS

TITLE SHEET

SC-1

SITE PLAN AND ELEVATION

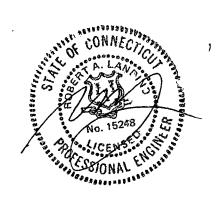
PREPARED BY



ARCHITECTURE ENGINEERING PLANNING LANDSCAPE ARCHITECTURE

LAND SURVEYING ENVIRONMENTAL SCIENCES ANALYTICAL SERVICES

355 RESEARCH PARKWAY MERIDEN, CONNECTICUT 06450 (203) 630-1406 (203) 630-2615 Fax



NOT FOR CONSTRUCTION

DATES

ISSUE DATE: MARCH 1, 2001 REVISION:

FILE: CVC84001

