

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:

APPLICATION OF NORTH ATLANTIC
TOWERS, LLC AND NEW CINGULAR
WIRELESS, PCS LLC FOR A CERTIFICATE OF
ENVIRONMENTAL COMPATIBILITY AND
PUBLIC NEED FOR THE CONSTRUCTION,
MAINTENANCE AND OPERATION OF A
WIRELESS TELECOMMUNICATIONS
FACILITY IN BRANFORD OR EAST HAVEN,
CONNECTICUT

DOCKET NO. 427

JUNE 18 2012
COMMUNICATIONS
SITING COUNCIL
JUNE 18, 2012

RESPONSES OF INTERVENOR CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS
TO CONNECTICUT SITING COUNCIL PRE-HEARING INTERROGATORIES, SET ONE

On May 31, 2012, the Connecticut Siting Council (“Council”) issued Pre-Hearing Interrogatories, Set One to Intervenor, Cellco Partnership d/b/a Verizon Wireless (“Cellco”).

Below are Cellco’s responses.

Question No. 1

Discuss Cellco’s need for the proposed facility. Specifically, what level of service does Cellco currently have in this area, and in what ways would the proposed facility improve service? Indicate the size of Cellco’s proposed service area for each frequency in square miles.

Response

Cellco currently provides wireless service in southwest Branford and southeast East Haven from four (4) existing cell sites in the area. These sites include Cellco’s existing Cosey Beach cell site, a tower at 60 Commerce Street in East Haven; East Haven cell site, a roof-top facility at 65 Messina Drive in East Haven; Branford Southwest cell site, a tower at 850 West Main Street in Branford; Branford cell site, a tower at 180 North Main Street in Branford; and

Branford West cell site, a tower at 123 Pine Orchard Road in Branford. Cellco's existing level of service in the Short Beach area ranges from -86 dBm to -100 dBm. As shown on Cellco's existing coverage plots (Attachment 2), Cellco currently experiences significant gaps in coverage along Route 142 (Short Beach Road), Clark Avenue, Alps Road and Burban Drive, as well as the Granite Bay shoreline area.

The proposed 171 Short Beach Road alternative cell site would provide coverage to an area of approximately 6.65 square miles at cellular frequencies; approximately 3.21 square miles at PCS frequencies and approximately 6.4 square miles at LTE frequencies. The proposed 82 Short Beach Road, East Haven alternative cell site would provide coverage to an area of approximately 7.39 square miles at cellular frequencies; approximately 3.34 square miles at PCS frequencies and approximately 6.29 square miles at LTE frequencies. Both of the alternative sites under consideration would also provide coverage over significant portions of Long Island Sound.

Question No. 2

What are Cellco's operating frequencies and minimum signal level thresholds?

Response

Cellco is licensed to operate in the Cellular (850 MHz), PCS (1900 MHz) and LTE (700 MHz) frequency ranges throughout Connecticut. Cellco's minimum coverage threshold for each of its operating frequencies throughout its network nationwide is -85 dBm. The signal level depicted on all of Cellco's propagation coverage maps is -85 dBm.

Question No. 3

Provide antenna specifications, including type, make, size, model, number of channels, and maximum power output. Indicate the proposed antenna height, number of antennas and antenna mounting configuration planned for each site.

Response

171 Short Beach Road, Branford, CT

Cellular Antennas

Alpha Sector – 100 ft.

Antenna Type: SC-E-6014
REV 2

Frequency: Tx: 869-
880,890-891.5 MHz; Rx:
824-835, 845-846.5 MHz

No. Channels: 9
No. Channels: 2

ERP/Channel: 34 W Max

Beta Sector – 100 ft.

Antenna Type: SC-E-6014
REV 2

Frequency: Tx: 869-
880,890-891.5 MHz; Rx:
824-835, 845-846.5 MHz

No. Channels: 9
No. Channels: 2

ERP/Channel: 324 W Max

Gamma Sector – 100 ft.

Antenna Type: SC-E-6014
REV 2

Frequency: Tx: 869-
880,890-891.5 MHz; Rx:
824-835, 845-846.5 MHz

No. Channels: 9
No. Channels: 2

ERP/Channel: 324 W Max

PCS Antennas

Alpha Sector – 100 ft.

Antenna Type: LPA-
171063-8CF

Frequency: Tx: 1965-
1980,1945-1950 MHz; Rx:
1885-1900,1865-1870 MHz

No. Channels: 3
No. Channels: 2

ERP/Channel: 360 W Max

Beta Sector – 100 ft.

Antenna Type: LPA-
171063-8CF

Frequency: Tx: 1965-
1980,1945-1950 MHz; Rx:
1885-1900,1865-1870 MHz

No. Channels: 3
No. Channels: 2

ERP/Channel: 360 W Max

Gamma Sector – 100 ft.

Antenna Type: LPA-
171063-8CF

Frequency: Tx: 1965-
1980,1945-1950 MHz; Rx:
1885-1900,1865-1870 MHz

No. Channels: 3
No. Channels: 2

ERP/Channel: 360 W Max

LTE Antennas

Alpha Sector – 100 ft.

Antenna Type: BXA-70063-6CF

Frequency: Tx: 746-757 MHz; Rx: 776-787 MHz

No. Channels: 1
No. Channels: 1

ERP/Channel: 646 W Max

Beta Sector – 100 ft.

Antenna Type: BXA-70063-6CF

Frequency: Tx: 746-757 MHz; Rx: 776-787 MHz

No. Channels: 1
No. Channels: 1

ERP/Channel: 646 W Max

Gamma Sector – 100 ft.

Antenna Type: BXA-70063-6CF

Frequency: Tx: 746-757 MHz; Rx: 776-787 MHz

No. Channels: 1
No. Channels: 1

ERP/Channel: 646 W Max

82 Short Beach Road, East Haven, CT

Cellular Antennas

Alpha Sector – 90 ft.

Antenna Type: SC-E-6014 REV 2

Frequency: Tx: 869-880,890-891.5 MHz; Rx: 824-835, 845-846.5 MHz

No. Channels: 9
No. Channels: 2

ERP/Channel: 324 W Max

Beta Sector – 90 ft.

Antenna Type: SC-E-6014 REV 2

Frequency: Tx: 869-880,890-891.5 MHz; Rx: 824-835, 845-846.5 MHz

No. Channels: 9
No. Channels: 2

ERP/Channel: 324 W Max

Gamma Sector – 90 ft.

Antenna Type: SC-E-6014 REV 2

Frequency: Tx: 869-880,890-891.5 MHz; Rx: 824-835, 845-846.5 MHz

No. Channels: 9
No. Channels: 2

ERP/Channel: 324 W Max

PCS Antennas

Alpha Sector – 90 ft.

Antenna Type: LPA-171063-8CF

Frequency: Tx: 1965-1980,1945-1950 MHz; Rx: 1885-1900,1865-1870 MHz

No. Channels: 3
No. Channels: 2

ERP/Channel: 360 W Max

Beta Sector – 90 ft.

Antenna Type: LPA-171063-8CF

Frequency: Tx: 1965-1980,1945-1950 MHz; Rx: 1885-1900,1865-1870 MHz

No. Channels: 3
No. Channels: 2

ERP/Channel: 360 W Max

Gamma Sector – 90 ft.

Antenna Type: LPA-171063-8CF

Frequency: Tx: 1965-1980,1945-1950 MHz; Rx: 1885-1900,1865-1870 MHz

No. Channels: 3
No. Channels: 2

ERP/Channel: 360 W Max

LTE Antennas

Alpha Sector – 90 ft.

Antenna Type: BXA-70063-6CF

Frequency: Tx: 746-757 MHz; Rx: 776-787 MHz

No. Channels: 1
No. Channels: 1

ERP/Channel: 646 W Max

Beta Sector – 90 ft.

Antenna Type: BXA-70063-6CF

Frequency: Tx: 746-757 MHz; Rx: 776-787 MHz

No. Channels: 1
No. Channels: 1

ERP/Channel: 646 W Max

Gamma Sector – 90 ft.

Antenna Type: BXA-70063-6CF

Frequency: Tx: 746-757 MHz; Rx: 776-787 MHz

No. Channels: 1
No. Channels: 1

ERP/Channel: 646 W Max

Cellco would mount its antennas at either site on a low-profile mounting platform.

Question No. 4

Provide specifications of the radio equipment to be installed at the proposed site.

Response

Specifications for Cellco's Cellular, PCS and LTE antennas and associated radio equipment are included in Attachment 1. Information regarding Cellco's backup generator is included in response to Q.7 below.

Question No. 5

Provide a multi-signal level propagation plot at a scale of 1:40,000, depicting coverage from all existing and/or approved Cellco sites in the area. Provide a brief description of the existing sites including location, distance to the proposed facility, facility type, and antenna height. Depict and label major roads on the plot.

Response

The coverage plots for Cellco's existing and approved cell sites in the area are included in Attachment 2.

Question No. 6

Provide a multi-signal level propagation plot, at a scale of 1:40,000, depicting coverage from existing sites and each of the proposed sites. Depict and label major roads on the plot.

Response

The coverage plots for Cellco's existing and approved cell sites in the area together with coverage from the 171 Short Beach Road alternative site are included in Attachment 3.

The coverage plots for Cellco's existing and approved cell sites in the area together with coverage from the 82 Short Beach Road alternative site are included in Attachment 4.

Question No. 7

Provide specifications of the emergency power equipment to be installed at the proposed site.

Response

At either of the alternative sites proposed in the Docket No. 427 application, Cellco would install a Generac 60 kW, natural gas-fired backup generator, inside a dedicated 10' x 12' generator room in its equipment shelter. Specifications for the backup generator are included in Attachment 5.

Question No. 8

Did Cellco have a search ring in this area prior to the filing of this application? If so, provide a map depicting the search ring and describe the properties and/or structures identified for possible use.

Response

Cellco's RF Engineers did not formally issued a search ring for its "Branford Short Beach" cell site until January, 2012. A copy of the search ring map is included in Attachment 6. By this time, however, Cellco was well aware of the efforts of AT&T and North Atlantic Towers ("NA Towers") to develop a tower site in the Branford-Short Beach area. Cellco initially determined that the 171 Short Beach Road alternate site would satisfy its coverage objectives in the area and made NA Towers aware of its interest in this location. Later in the local review process, Cellco was made aware of NA Towers' pursuit of an alternative site at 82 Short Beach Road in East Haven. Cellco determined that the East Haven alternate site location would also satisfy its coverage objectives in the area. Given the site search efforts of NA Towers in the area, Cellco did not undertake its own site search process.

Question No. 9

Provide a power density analysis according to the methodology prescribed in the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997), assuming all Cellco antennas are directed at the base of the tower and all channels are operating simultaneously.

Response

A Power Density/RF Emissions table for Cellco antennas included in Attachment 7.

CERTIFICATION OF SERVICE

I hereby certify that on this 18 day of June, 2012, a copy of the foregoing was first class mail, postage prepaid, to the following:


Lucia Chiocchio, Esq.
Christopher B. Fisher, Esq.
Cuddy & Feder LLP
445 Hamilton Avenue, 14th Floor
White Plains, NY 10601

Randy Howse
North Atlantic Towers, LLC
1001 3rd Avenue West, Suite 420
Bradenton, FL 34250

Michele Briggs
AT&T
500 Enterprise Drive
Rocky Hill, CT 06067-3900

Sarah Pierson
63 Hilton Avenue
East Haven, CT 06512

Town of Branford
c/o Keith R. Ainsworth, Esq.
Evans, Feldman & Ainsworth, L.L.C.
261 Bradley Street
P.O. Box 1694
New Haven, CT 06507-1694



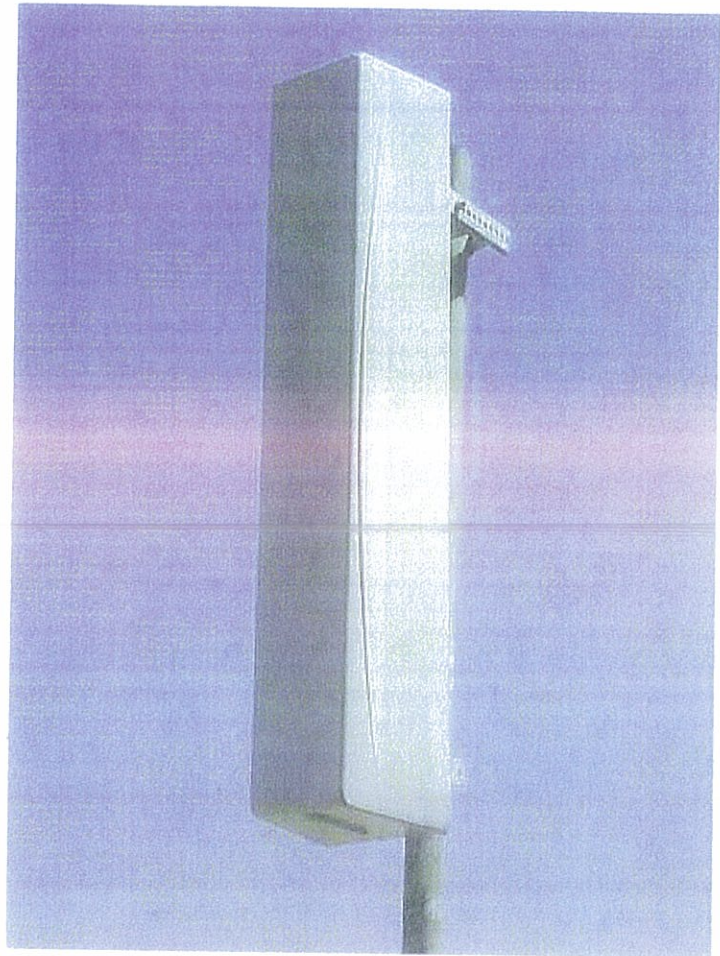
Kenneth C. Baldwin, Esq.

SC-E 6014 rev2

Enhanced 800 - 960 MHz log-periodic antenna

Features

- Small size
- Aesthetically pleasing
- Suitable for TDMA/CDMA/GSM/3G
- High return loss
- Low intermodulation
- High front-to-back ratio
- Outstanding performance over the entire band (800 - 960 MHz)
- Upper side-lobe suppression
- Rugged design
- Dramatically improved signal to interference performance



Electrical specifications

Frequency range:	800-960 MHz
Impedance:	50 ohm
Connector type:	7/16 Din
Return loss:	20 dB
Polarization:	Vertical
Gain:	14 dBd
Front-to-back ratio:	> 30 dB
Upper side-lobe suppression:	18 dB

Intermodulation (2x20W):	IM5 160 dB
	IM7/9 170 dB

Power rating:	500 W
H-plane (-3 dB point):	54 - 60°
V-plane (-3 dB point):	16 - 18°
Lightning protection:	DC grounded

Mechanical specifications

Overall height:	43 in	[1092 mm]
Width:	8.5 in	[216 mm]
Depth:	8 in	[203 mm]
Weight (excluding brackets):	15 lbs	[6.8 Kg]
Wind load measured up to:	150 mph	[240 Km/h]
Wind area (side of antenna):	2.54 sq. ft.	[0.24 sq.m]
Lateral thrust At 113 mph/ 180Km/h (worst case):	122 lbs	[577 N]

Materials

Radiating Elements:	Aluminum
Transformer (Power distribution)	Ceramic PCB
Chassis:	Aluminum
Radome:	Grey Fiberglass/PVC
Tilt-bracket:	Hot dip galvanized steel
Mounting bolts:	Stainless steel

The SC-E 6014 rev2 is made in the U.S.A.

LPA-171063-8CF-EDIN-X

V-Pol | Log Periodic | 63° | 17.0-17.5 dBi

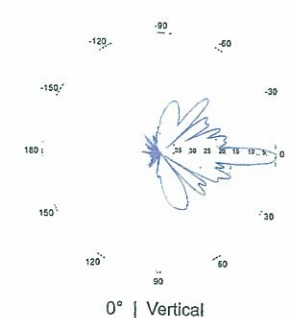
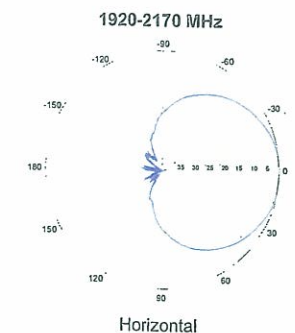
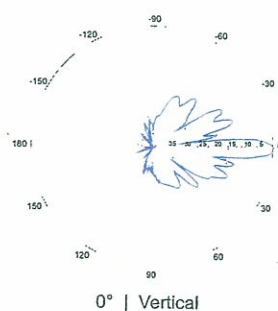
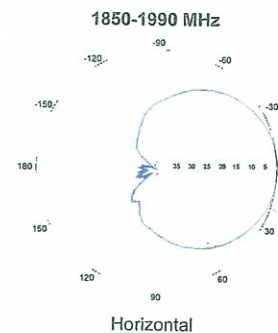
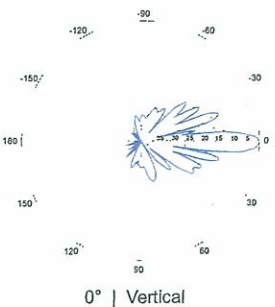
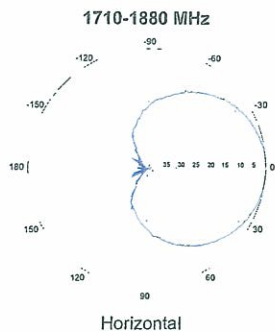
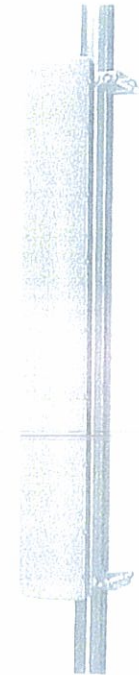
Replace "X" with desired electrical downtilt.

Antenna is available with NE connector(s).
Replace "EDIN" with "NE" in the model number when ordering.

Electrical Characteristics		1710-2170 MHz		
Frequency bands	1710-1755 MHz	1850-1990 MHz	1920-2170 MHz	
Polarization	Vertical			
Horizontal beamwidth	61°	63°	60°	
Vertical beamwidth	6°	7°	6°	
Gain	14.9 dBd (17.0 dBi)	15.4 dBd (17.5 dBi)	14.9 dBd (17.0 dBi)	
Electrical downtilt (X)	0, 2			
Impedance	50Ω			
VSWR	≤ 1.5:1			
Null fill	5% (-26.02 dB)			
Input power	250 W			
Lightning protection	Direct Ground			
Connector(s)	1 Port / EDIN or NE / Female / Center (Back)			

Mechanical Characteristics		1710-2170 MHz		
Dimensions Length x Width x Depth	1207 x 203 x 203 mm	47.5 x 8.0 x 8.0 in		
Weight without mounting brackets	5.2 kg	11.5 lbs		
Survival wind speed	>201 km/hr	>125 mph		
Wind area	Front: 0.20 m ² Side: 0.27 m ²	Front: 2.2 ft ² Side: 2.9 ft ²		
Wind load @ 161 km/hr (100 mph)	Front: 246 N Side: 323 N	Front: 55.3 lbf Side: 72.7 lbf		

Mounting Options	Part Number	Fits Pipe Diameter		Weight	
2-Point Mounting Bracket Kit	26799997	50-102 mm	2.0-4.0 in	2.3 kg	5.0 lbs
2-Point Mounting and Downtilt Bracket Kit	26799999	50-102 mm	2.0-4.0 in	2.3 kg	5.0 lbs

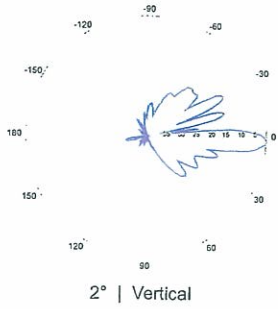


Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to product may be made without notice.

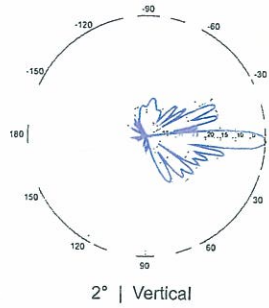
LPA-171063-8CF-EDIN-X

V-Pol | Log Periodic | 63° | 17.0-17.5 dBi

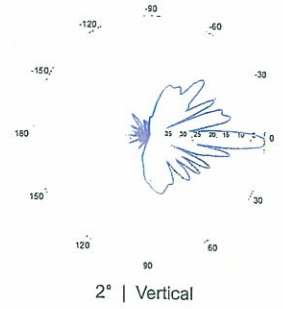
1710-1880 MHz



1850-1990 MHz



1920-2170 MHz



Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to product may be made without notice.

BXA-70063-6CF-EDIN-X

X-Pol | FET Panel | 63° | 14.5 dBd

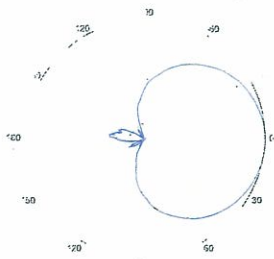
Replace "X" with desired electrical downtilt.

Antenna is also available with NE connector(s). Replace "EDIN" with "NE" in the model number when ordering.

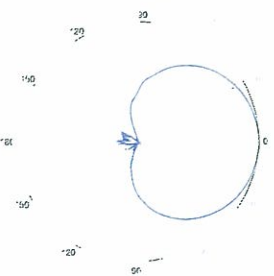


Electrical Characteristics	696-900 MHz	
	696-806 MHz	806-900 MHz
Frequency bands	696-806 MHz	806-900 MHz
Polarization	±45°	±45°
Horizontal beamwidth	65°	63°
Vertical beamwidth	13°	11°
Gain	14.0 dBd (16.1 dBi)	14.5 dBd (16.6 dBi)
Electrical downtilt (X)	0, 2, 3, 4, 5, 6, 8, 10	
Impedance	50Ω	
VSWR	≤1.35:1	
Upper sidelobe suppression (0°)	-18.3 dB	-18.2 dB
Front-to-back ratio (+/-30°)	-33.4 dB	-36.3 dB
Null fill	5% (-26.02 dB)	
Isolation between ports	< -25 dB	
Input power with EDIN connectors	500 W	
Input power with NE connectors	300 W	
Lightning protection	Direct Ground	
Connector(s)	2 Ports / EDIN or NE / Female / Center (Back)	
Mechanical Characteristics		
Dimensions Length x Width x Depth	1804 x 285 x 132 mm	71.0 x 11.2 x 5.2 in
Depth with z-brackets	172 mm	6.8 in
Weight without mounting brackets	7.9 kg	17 lbs
Survival wind speed	> 201 km/hr	> 125 mph
Wind area	Front: 0.51 m ² Side: 0.24 m ²	Front: 5.5 ft ² Side: 2.6 ft ²
Wind load @ 161 km/hr (100 mph)	Front: 759 N Side: 391 N	Front: 169 lbf Side: 89 lbf
Mounting Options		
3-Point Mounting & Downtilt Bracket Kit	Part Number: 36210008	Fits Pipe Diameter: 40-115 mm 1.57-4.5 in Weight: 6.9 kg 15.2 lbs
Concealment Configurations	For concealment configurations, order BXA-70063-6CF-EDIN-X-FP	

BXA-70063-6CF-EDIN-X

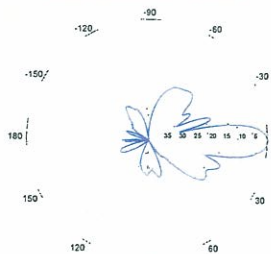


Horizontal | 750 MHz

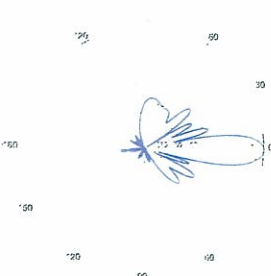


Horizontal | 850 MHz

BXA-70063-6CF-EDIN-0

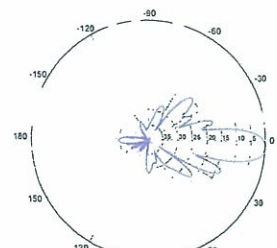


0° | Vertical | 750 MHz

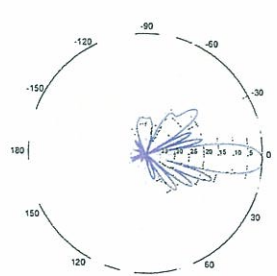


0° | Vertical | 850 MHz

BXA-70063-6CF-EDIN-2



2° | Vertical | 750 MHz



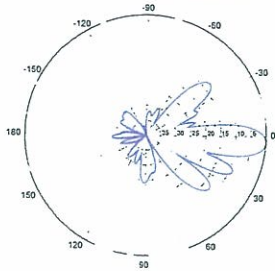
2° | Vertical | 850 MHz

Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to product may be made without notice.

BXA-70063-6CF-EDIN-X

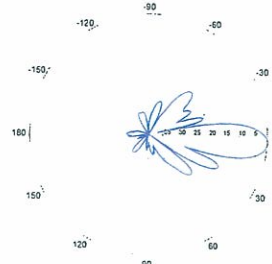
X-Pol | FET Panel | 63° | 14.5 dBd

BXA-70063-6CF-EDIN-3



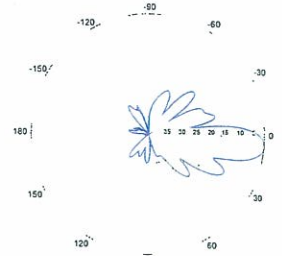
3° | Vertical | 750 MHz

BXA-70063-6CF-EDIN-4

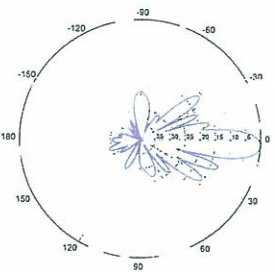


4° | Vertical | 750 MHz

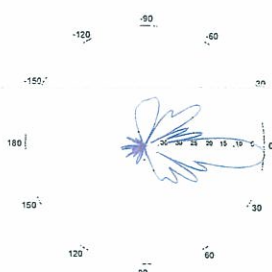
BXA-70063-6CF-EDIN-5



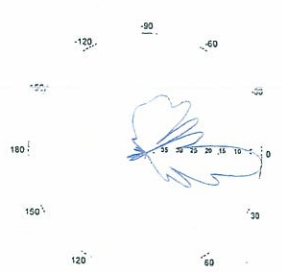
5° | Vertical | 750 MHz



3° | Vertical | 850 MHz

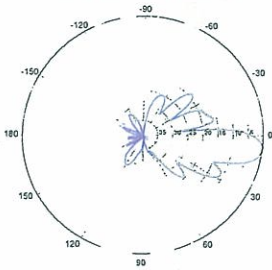


4° | Vertical | 850 MHz



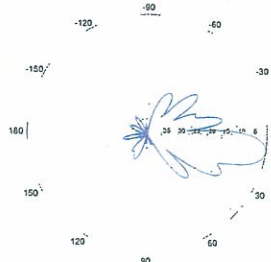
5° | Vertical | 850 MHz

BXA-70063-6CF-EDIN-6



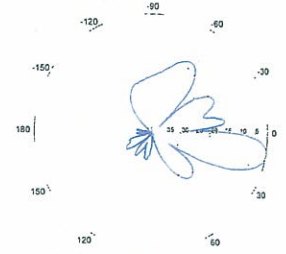
6° | Vertical | 750 MHz

BXA-70063-6CF-EDIN-8

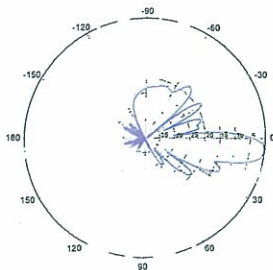


8° | Vertical | 750 MHz

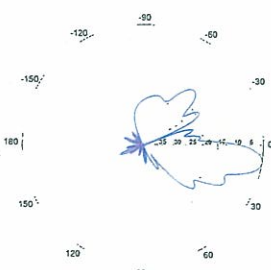
BXA-70063-6CF-EDIN-10



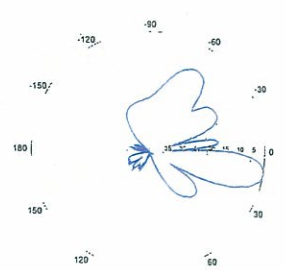
10° | Vertical | 750 MHz



6° | Vertical | 850 MHz



8° | Vertical | 850 MHz



10° | Vertical | 850 MHz

Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to product may be made without notice.

Lucent CDMA Modular Cell 4.0B Indoor

For CDMA Networks



Lucent CDMA Modular Cell 4.0B is a high capacity base station equipped with the state-of-the-art technologies developed by Bell Labs. The product brings you outstanding carrier density and immediate OPEX savings. This indoor product can support up to 8 carriers/3 sectors per frame. It is twice the density of Modular Cell 4.0 (indoor). Modular Cell 4.0B offers full spectrum coverage in a single frame, dramatically simplifying growth patterns. As the leader in spread spectrum technology, Lucent Technologies continues to introduce innovations to the market: Multi-Carrier Radio (15MHz), Block Filters/Wideband Filters, and 40W Power Amplifier Modules are the latest assets integrated in the base station.

Features

The Modcell 4.0B indoor version offers a small footprint with exceptional carrier density in a standard ETSI cabinet.

- Indoor Single Frame Configuration
- 1-8 carriers per frame at 3 sectors (will support up to 11 carriers with Auxiliary Amplifier Frame)
- Dual Band: one cell to the ECP & mobile
- Close Loop Gain Control
- Timing and Controller Redundancy
- Integrated Power option
- Support CDMA2000™1X, and EV-DO Rev.0, with future support to EV-DO Rev. A
- IP Backhaul and Ethernet Backhaul capable
- 6-Sector option ready
- Intelligent Antenna option ready

Benefits

- Optimized for highest carrier density, smooth growth in one frame
- Conserves indoor footprint, reducing hardware and floor space requirements
- Minimizes configuration complexity
- Software-Only Carrier Add at certain carrier counts
- Flexible channel growth planning
- Designed to use existing power supply
- Grow CDMA carriers on only 2 antennas/sector
- Multi-Carrier Radio (15MHz), Block Filters/Wideband Filters, and 40W Power Amplifier Modules



Technical Specifications

Description	Specification
1. Configurations	
a. Sectors	3, 4 and 6
b. Carriers	1-8 per frame at 3 sectors (up to 11 with Auxiliary Amplifier Frame)
2. CDMA Channel Card Capacity	12 slots; CMU IVB capable
3. T1, E1 Facilities	Maximum of 20 per cabinet when equipped with URC-II's
4. User Alarms	7 Power Alarms, 25 User Alarms
5. GPS Antenna	Yes
6. Air Interface Standards	T1A/E1A 95-A plus TSB-74; T1A/E1A 95-B for 850 MHz; CDMA 2000
7. Frequency Bands	850MHz/1900 MHz; 300 to 2100 MHz capable
8. Vocoder	8 Kbps; 8 Kbps EVRC; 13 Kbps; SMV-ready
9. Environmental Cabinet Housing	Standard ETSI cabinet; UL50 compliant; zero rear clearance
10. Cabinet Access	Front Access
11. Operating Temperature Range	Range: -5 to +40°C (continuous)
12. Dimensions	600 mm W x 600 mm D x 1880 mm H (23.6 x 23.6 x 74) inches
13. Estimated Installed Weight	365 kg (785 lbs.) DC [8 carriers in one cabinet]
14. Power Options	Integrated Power, AC 120/240 Volt Input, -48V or +24 V DC Conversion Non-integrated Power requires either + 24 VDC Input or - 48 VDC Input
15. Power Consumption	
a. 3 Carrier/3 Sectors	2167 W
b. 6 Carrier/3 Sectors	5449 W
c. 11 Carrier/3 Sectors	10026 W
16. RF Power (at J4)	25 W per carrier (850) FCC Rated short-term average 20 W per carrier (850) FCC Rated long-term average 20 W per carrier (1900) FCC Rated short-term average 16 W per carrier (1900) FCC Rated long-term average
17. Minimal Antenna Configuration	2 antennas/sector
18. Filter	Block and Wide Band Dual Duplex
19. Growth Frame	PCS AUX Frame, Dual Band Growth Frame
20. Operational Accessories	Integrated Power
21. Channel Elements	Channel pooling across sectors or carriers

To learn more about our comprehensive portfolio, please contact your Lucent Technologies Sales Representative or visit our web site at <http://www.lucent.com>.

This document is for informational or planning purposes only, and is not intended to create, modify or supplement any Lucent Technologies specifications or warranties relating to these products or services. Information and/or technical specifications supplied within this document do not waive (directly or indirectly) any rights or licenses — including but not limited to patents or other protective rights — of Lucent Technologies or others. Specifications are subject to change without notice.

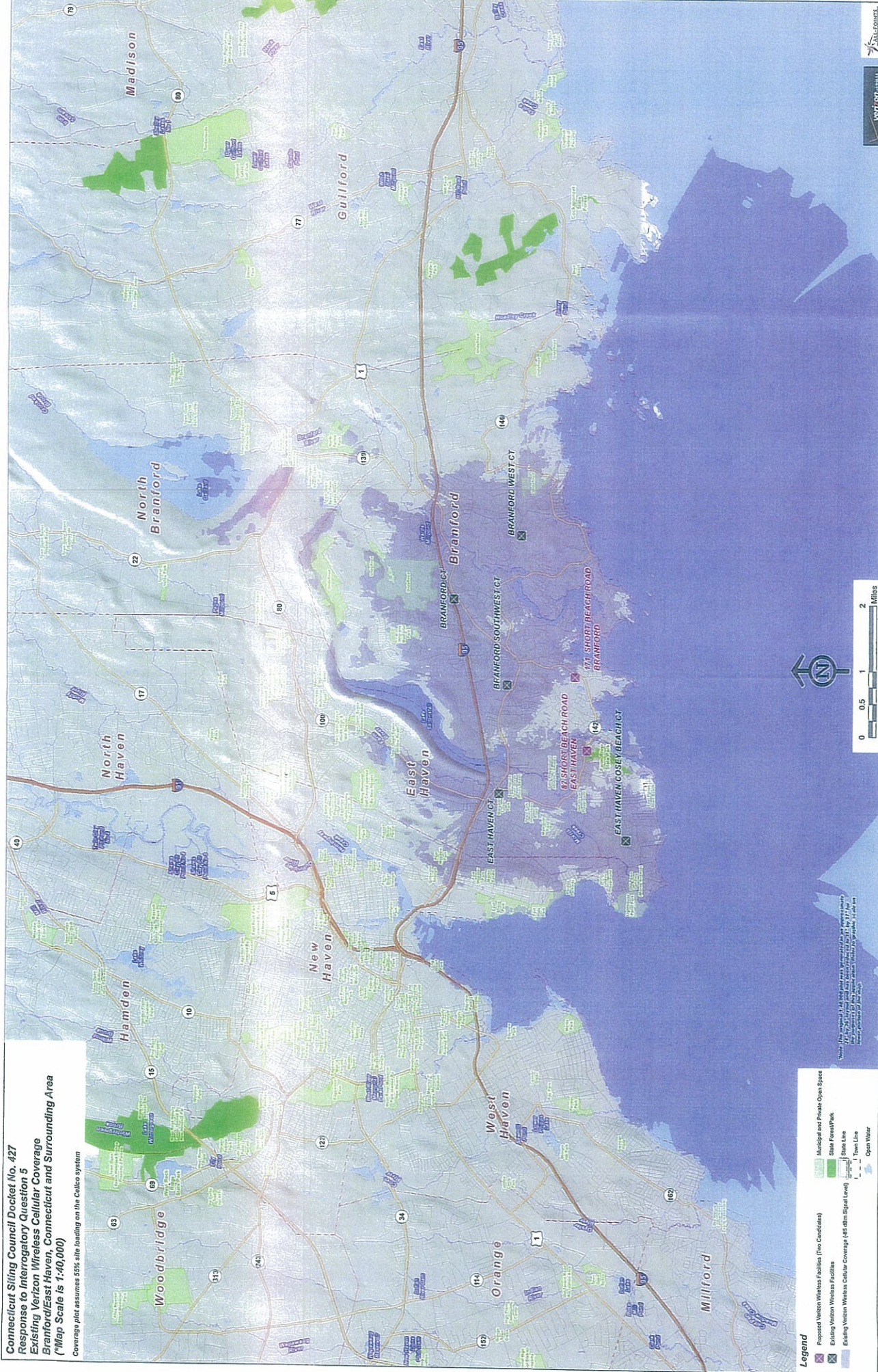
CDMA2000 is a trademark of the Telecommunication Industry Association

Copyright © 2006
Lucent Technologies Inc.
All rights reserved

MOB-Mod4B-i 0106

Lucent Technologies
Bell Labs Innovations





Connecticut Siting Council Docket No. 427
 Response to Interrogatory Question 5
 Existing Verizon Wireless Cellular Coverage
 Branford/East Haven, Connecticut and Surrounding Area
 (*Map Scale is 1:40,000)
 Coverage plot assumes 50% site loading on the Cellico system

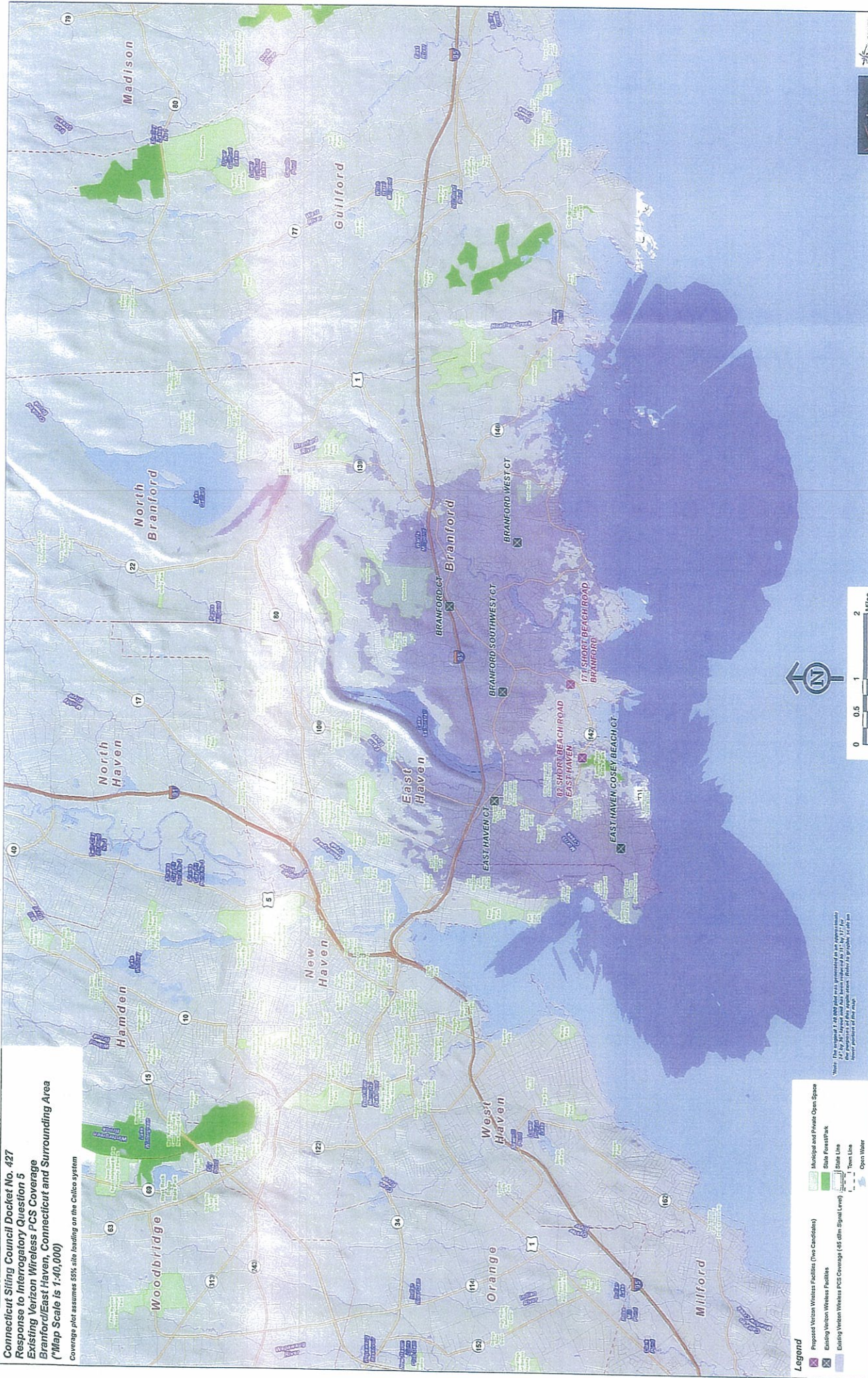
- Legend**
- Proposed Verizon Wireless Facilities (Two Candidates)
 - Existing Verizon Wireless Facilities
 - Existing Verizon Wireless Cellular Coverage (60 dBm Signal Level)
 - Municipal and Private Open Space
 - State Forest/Park
 - State Line
 - Thru Line
 - Open Water



This map was prepared by the Connecticut Siting Council in accordance with the provisions of the Connecticut Siting Council Act, Public Act 05-217, as amended. The map is not intended to be used for any other purpose.

Connecticut Siting Council Docket No. 427
Response to Interrogatory Question 5
Existing Verizon Wireless PCS Coverage
Branford/East Haven, Connecticut and Surrounding Area
(*Map Scale is 1:40,000)

Coverage plot assumes 55% site loading on the Cellco system

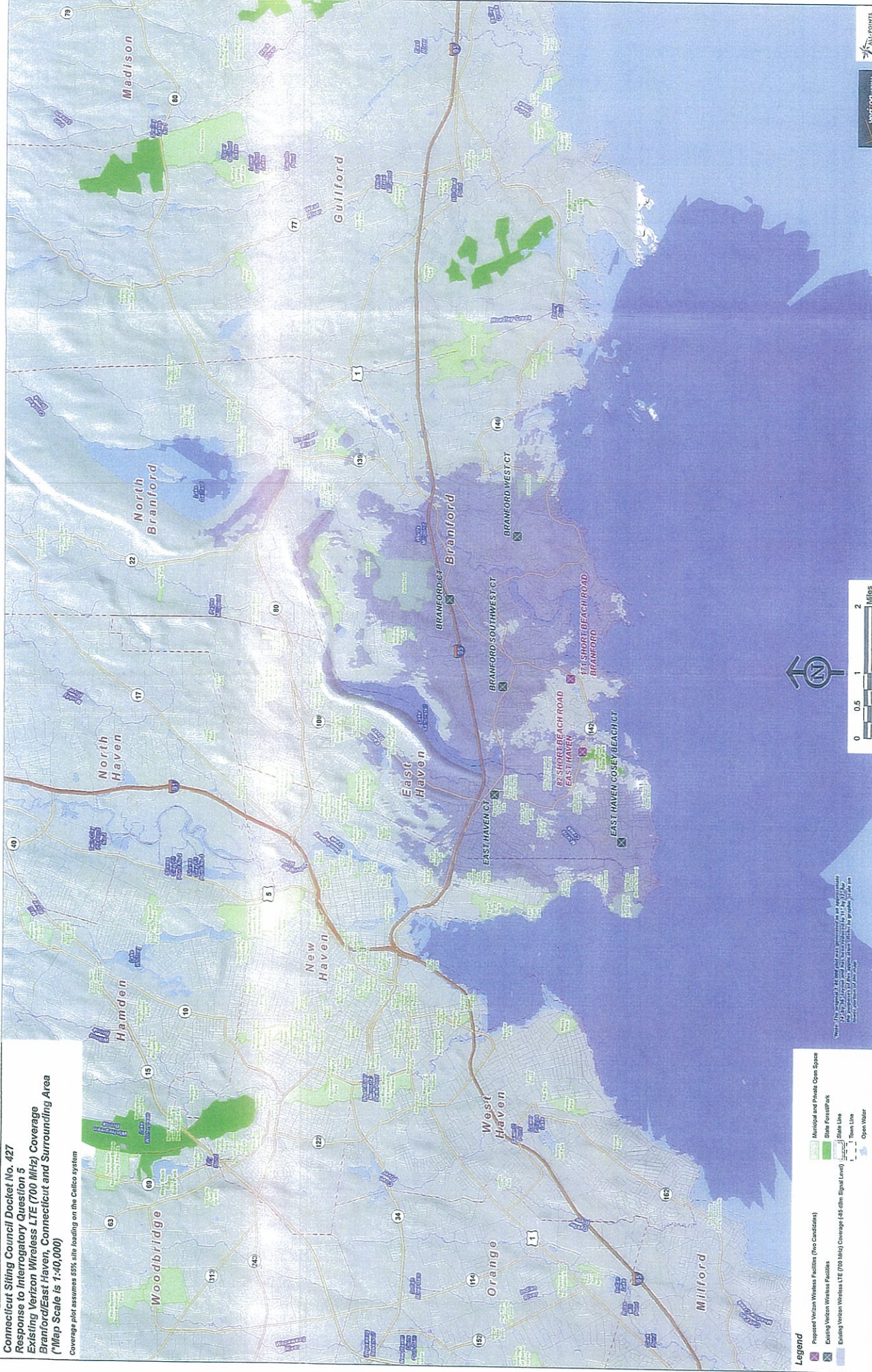


Legend

- Existing Verizon Wireless PCS Coverage (65 dBm Signal Level)
- Proposed Verizon Wireless Facilities (Two Candidates)
- Municipal and Private Open Space
- Existing Verizon Wireless Facilities
- State Forest/Park
- Cell Site
- Town Line
- Open Water

Notes: This original 1:40,000 map and data presented are an approximation of the actual coverage and are not intended to be used for any other purpose. The coverage shown is based on the current information available to the Commission as of the date of this report.





Connecticut Siting Council Docket No. 427
 Response to Interrogatory Question 5
 Existing Verizon Wireless LTE (700 MHz) Coverage
 Branford/East Haven, Connecticut and Surrounding Area
 (*Map Scale is 1:40,000)

Coverage plot assumes 65% site loading on the Celco system

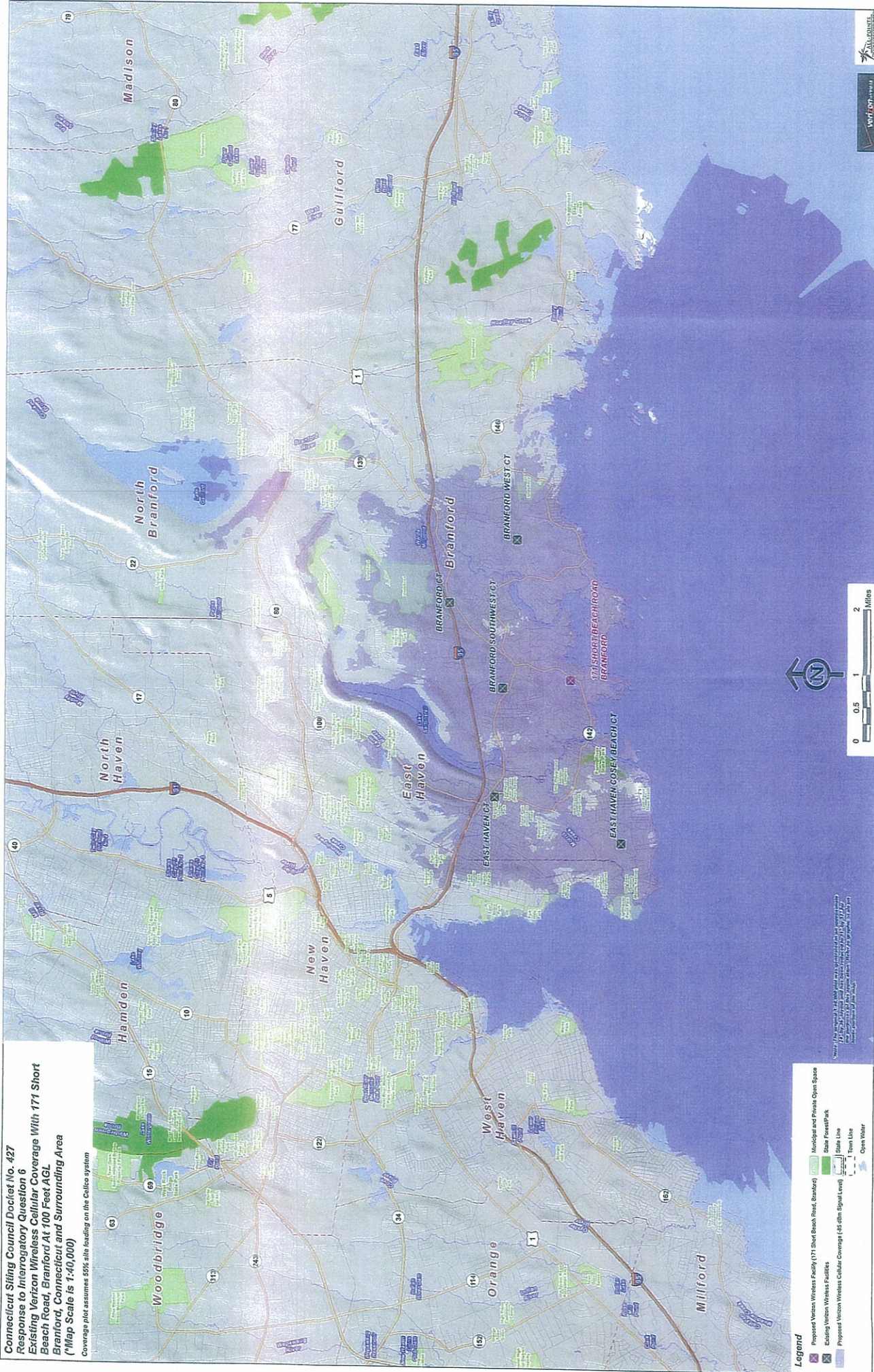
- Legend**
- Existing Verizon Wireless Facilities
 - Existing Verizon Wireless LTE (700 MHz) Coverage (64-dBm Signal Level)
 - Proposed Verizon Wireless Facilities (Two Candidates)
 - Proposed Verizon Wireless LTE (700 MHz) Coverage (64-dBm Signal Level)
 - Municipal and Private Open Space
 - State Forest/Park
 - State Line
 - Town Line
 - Open Water

Verizon Wireless and its affiliates and its subsidiaries are not responsible for any errors or omissions in this map. The map is provided as a general informational tool only and should not be used for any legal or regulatory purposes. © 2014 Verizon Wireless.



Connecticut Siting Council Docket No. 427
Response to Interrogatory Question 6
Existing Verizon Wireless Cellular Coverage With 171 Short
Beach Road, Branford At 100 Feet AGL
Branford, Connecticut and Surrounding Area
 (*Map Scale is 1:40,000)

Coverage plot assumes 55% site loading on the Celco system



- Legend**
- Proposed Verizon Wireless Facility (171 Short Beach Road, Branford)
 - Municipal and Private Open Space
 - Existing Verizon Wireless Facilities
 - State Forest/Park
 - Proposed Verizon Wireless Cellular Coverage (48 dBm Signal Level)
 - State Line
 - 1/4 Mile Line
 - Open Water

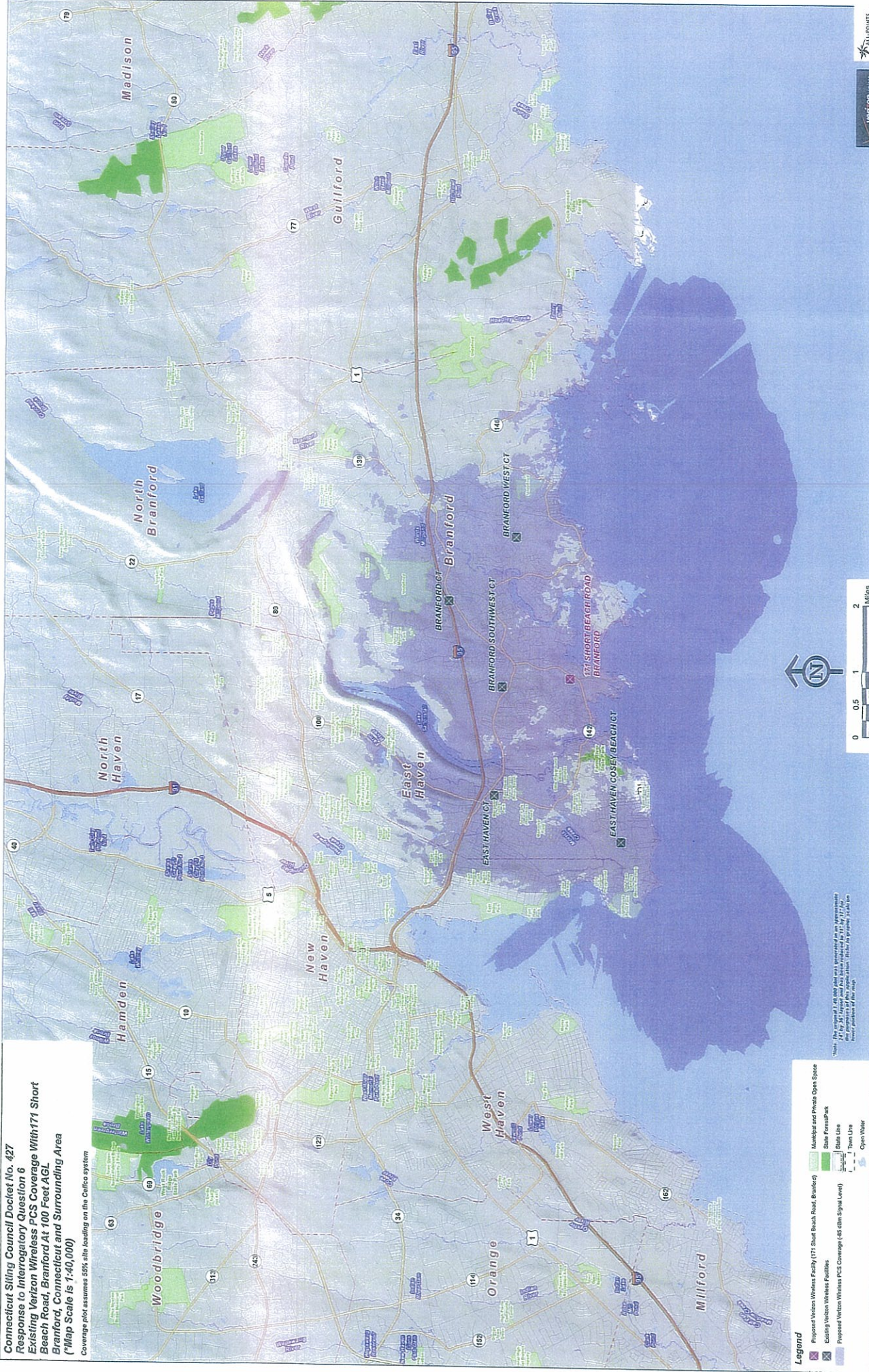


Verizon Wireless and its affiliates are not responsible for any errors or omissions in this map. Coverage is not guaranteed. © 2010 Verizon Wireless. All rights reserved.



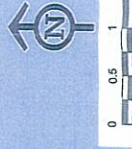
Connecticut Siting Council Docket No. 427
 Response to Interrogatory Question 6
 Existing Verizon Wireless PCS Coverage With 171 Short
 Beach Road, Branford At 100 Feet AGL
 Branford, Connecticut and Surrounding Area
 (*Map Scale is 1:40,000)

Coverage plot assumes 55% site loading on the Celco system



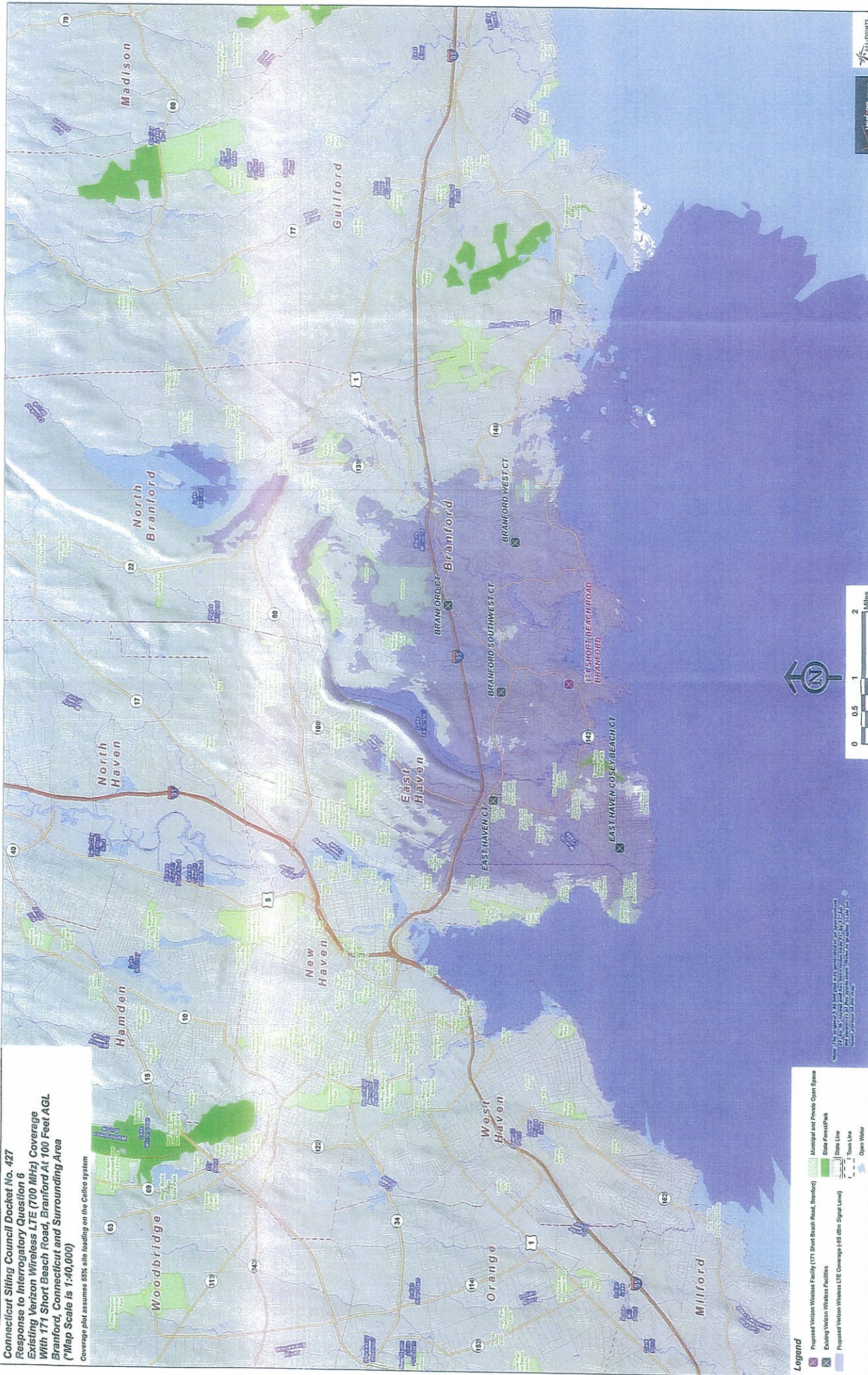
- Legend**
- Proposed Verizon Wireless Facility (171 Short Beach Road, Branford)
 - Existing Verizon Wireless Facilities
 - Proposed Verizon Wireless PCS Coverage (55 dbm Signal Level)
 - Municipal and Phone Open Space
 - State Forest/Park
 - State Line
 - Town Line
 - Open Water

*Note: The proposed 171 Short Beach Road site is projected to be operational by 12/31/12. The 171 Short Beach Road site is projected to be operational by 12/31/12. The 171 Short Beach Road site is projected to be operational by 12/31/12.



Connecticut Siting Council Docket No. 427
 Response to Interrogatory Question 6
 Existing Verizon Wireless LTE (700 MHz) Coverage
 With 171 Short Beach Road, Branford At 100 Feet AGL
 Branford, Connecticut and Surrounding Area
 (*Map Scale is 1:40,000)

Coverage plot assumes 55% site loading on the Cellco system



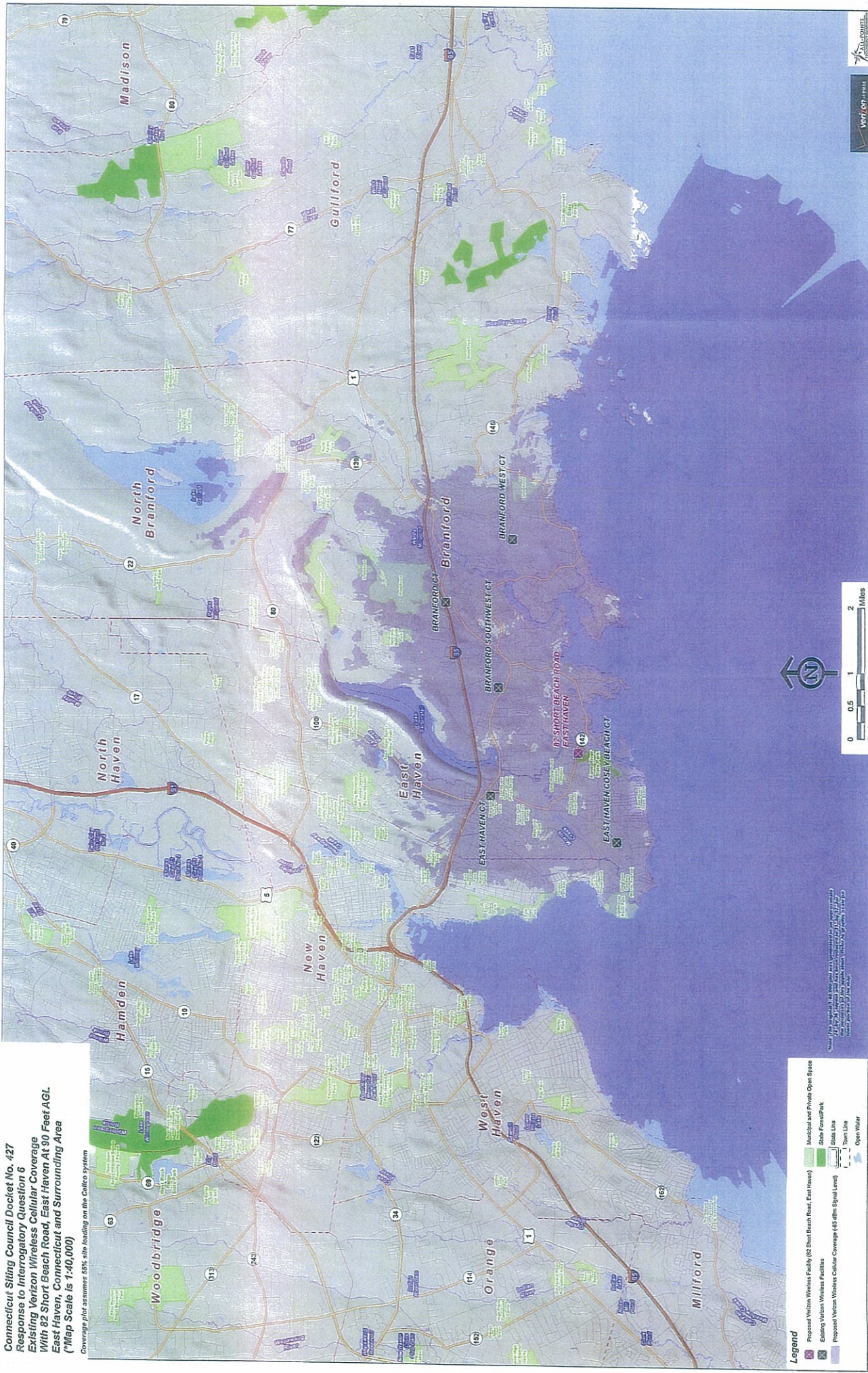
- Legend**
- Proposed Verizon Wireless Facility (171 Short Beach Road, Branford)
 - Existing Verizon Wireless Facilities
 - Proposed Verizon Wireless LTE Coverage (658 dBm Signal Level)
 - Existing Verizon Wireless LTE Coverage (658 dBm Signal Level)
 - Municipal and Private Open Space
 - State Forest/Park
 - State Line
 - Town Line
 - Open Water

Map data provided by Esri, DeLorme, GeoEye, IGN, Aerotech, Earthstar, CNES, Swire, GEBCO, US Coast Guard, AeroGRID, IGN, Esri, and the GIS User Community



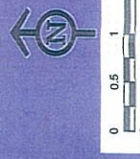
Connecticut Siting Council Docket No. 427
 Response to Interrogatory Question 6
 Existing Verizon Wireless Cellular Coverage
 With 82 Short Beach Road, East Haven At 30 Feet AGL
 East Haven, Connecticut and Surrounding Area
 (Map Scale is 1:40,000)

Coverage and assumes 55% site loading on the Celco system



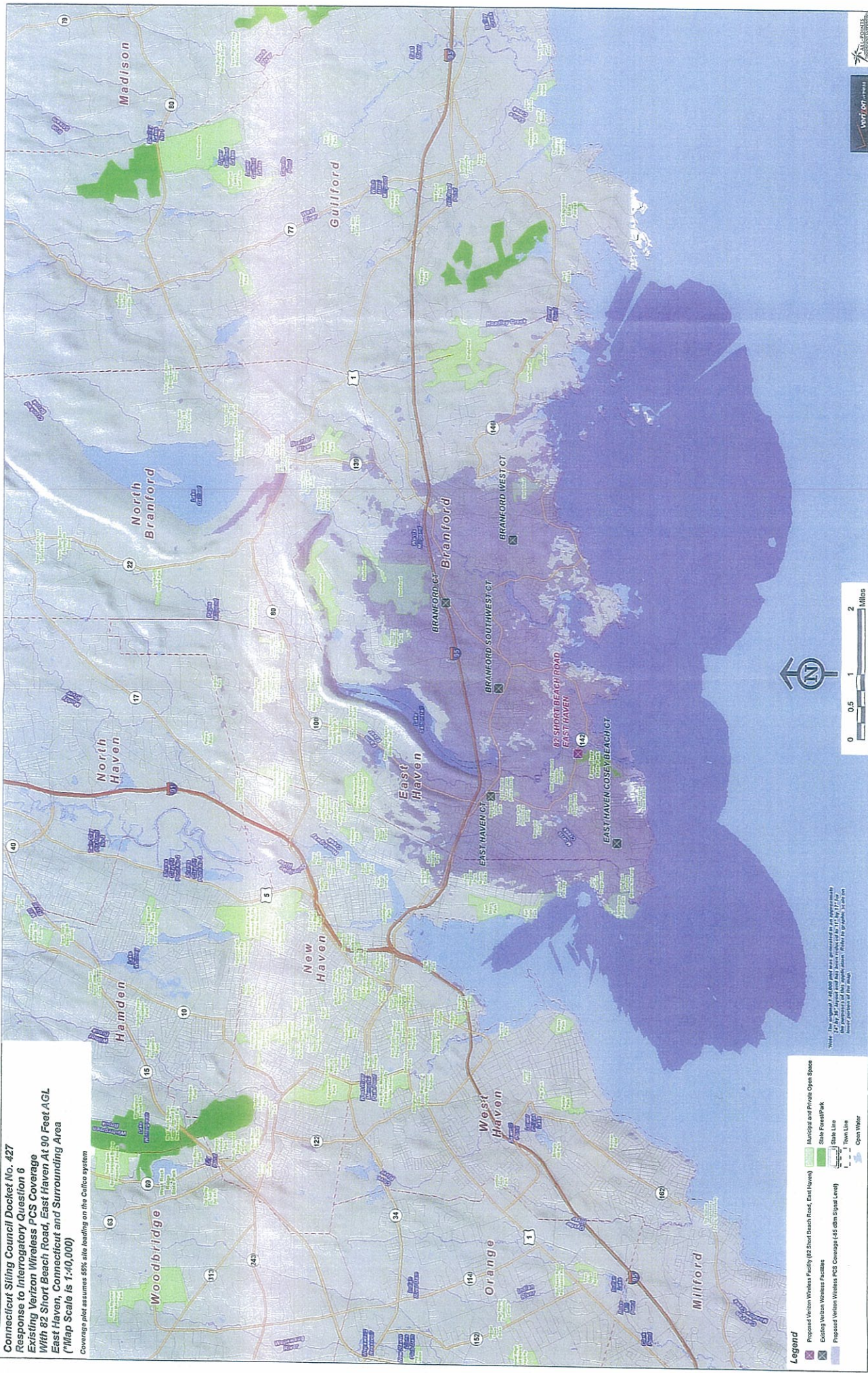
- Legend**
- ✖ Proposed Verizon Wireless Facility (82 Short Beach Road, East Haven)
 - ✖ Existing Verizon Wireless Facilities
 - ✖ Proposed Verizon Wireless Cellular Coverage (-85 dBm Signal Level)
 - ✖ Municipal and Private Open Space
 - State Forest/Park
 - State Line
 - Town Line
 - Open Water

Map data © 2010 Google, Microsoft, DeLorme, NAVTEQ, Swirex, etc. All rights reserved. Imagery © 2010 Google, Microsoft, DeLorme, NAVTEQ, Swirex, etc. All rights reserved. Coverage and assumes 55% site loading on the Celco system



Connecticut Stating Council Docket No. 427
 Response to Interrogatory Question 6
 Existing Verizon Wireless PCS Coverage
 With 82 Short Beach Road, East Haven At 90 Feet AGL
 East Haven, Connecticut and Surrounding Area
 (*Map Scale is 1:40,000)

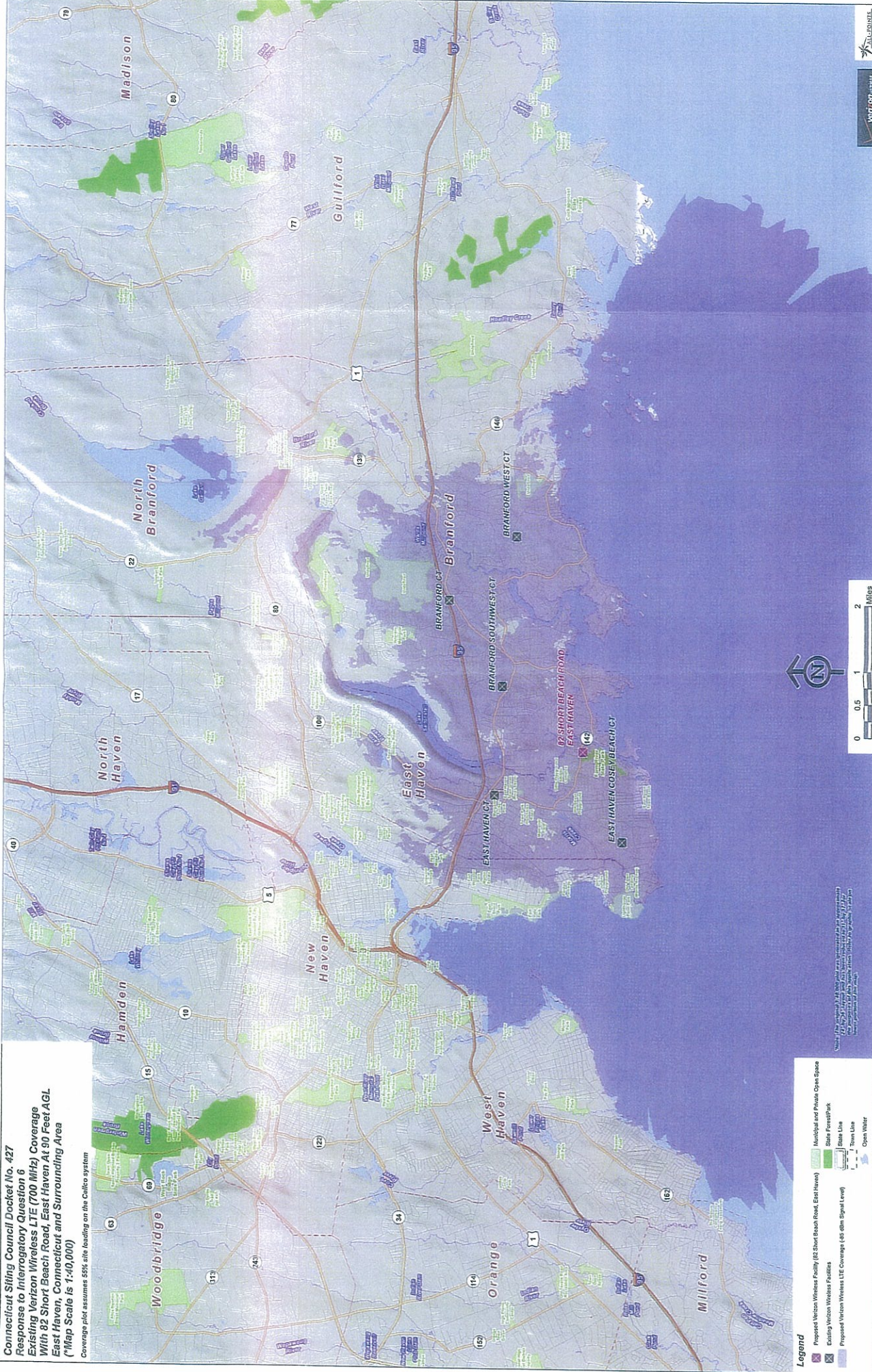
Coverage plot assumes 55% site loading on the Colfax system



- Legend**
- Proposed Verizon Wireless Facility (82 Short Beach Road, East Haven)
 - Existing Verizon Wireless Facilities
 - Proposed Verizon Wireless PCS Coverage (45 dBm Signal Level)
 - Municipal and Private Open Space
 - State Forest/Park
 - State Line
 - Town Line
 - Open Water

Notes: This Coverage Plot was prepared by the Connecticut State Planning Agency on 11/17/11. The information is for informational purposes only and does not constitute an offer of any service. The information is provided for your information only. All rights reserved.





Connecticut Siting Council Docket No. 427
 Response to Interrogatory Question 6
 Existing Verizon Wireless LTE (700 MHz) Coverage
 With 82 Short Beach Road, East Haven At 90 Feet AGL
 East Haven, Connecticut and Surrounding Area
 ("Map Scale Is 1:40,000")
 Coverage plot assumes 55% site loading on the Cellular system

- Legend**
- Proposed Verizon Wireless Facility (82 Short Beach Road, East Haven)
 - Existing Verizon Wireless Facilities
 - Proposed Verizon Wireless LTE Coverage (450 MHz Signal Level)
 - Existing Verizon Wireless LTE Coverage (450 MHz Signal Level)
 - Municipal and Private Open Space
 - State Forest/Park
 - State Line
 - Town Line
 - Open Water

Map of the Branford, CT area showing Verizon Wireless LTE coverage. The map includes labels for towns like Madison, Gullford, North Branford, North Haven, East Haven, West Haven, Hamden, Woodbridge, Orange, Millford, and Branford. Major roads like I-95, I-84, and I-295 are shown. A legend in the bottom right corner defines symbols for proposed and existing wireless facilities, signal coverage areas, and terrain features. A scale bar and north arrow are also present.

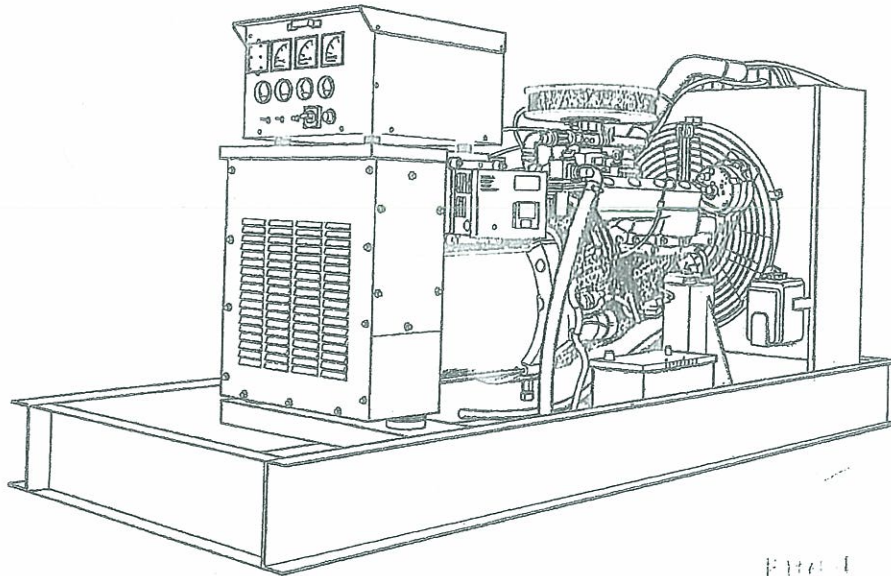


SG060

Liquid Cooled Gas Engine Generator Sets

Standby Power Rating

60KW 60 Hz



Power Matched

GENERAC 6.8 GNI ENGINE

Naturally Aspirated

VERIZON WIRELESS MODELS

NATURAL GAS

- 4816 - 120/240 - 1Ø Open
- 4817 - 120/240 - 1Ø Sound Encl.
- 4874 - 120/208 - 3Ø Open
- 4875 - 120/208 - 3Ø Sound Encl.

LP VAPOR

- 4931 - 120/240 - 1Ø Open
- 4932 - 120/240 - 1Ø Sound Encl.
- 4935 - 120/208 - 3Ø Open
- 4936 - 120/208 - 3Ø Sound Encl.

FEATURES

- ❑ **INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of GENERAC'S success in "IMPROVING POWER BY DESIGN." But it doesn't stop there. Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.
- ❑ **TEST CRITERIA:**
 - ✓ PROTOTYPE TESTED
 - ✓ SYSTEM TORSIONAL TESTED
 - ✓ ELECTRO-MAGNETIC INTERFERENCE
 - ✓ NEMA MG1 EVALUATION
 - ✓ MOTOR STARTING ABILITY
 - ✓ SHORT CIRCUIT TESTING
 - ✓ UL 2200 COMPLIANCE AVAILABLE
- ❑ **SOLID-STATE, FREQUENCY COMPENSATED DIGITAL VOLTAGE REGULATION.** This state-of-the-art power maximizing regulation system is standard on all Generac models. It provides optimized FAST RESPONSE to changing load conditions and MAXIMUM MOTOR STARTING CAPABILITY by electronically torque-matching the surge loads to the engine.
- ❑ **SINGLE SOURCE SERVICE RESPONSE** from Generac's dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component. You are never on your own when you own a GENERAC POWER SYSTEM.
- ❑ **GENERAC TRANSFER SWITCHES, SWITCHGEAR AND ACCESSORIES.** Long life and reliability is synonymous with GENERAC POWER SYSTEMS. One reason for this confidence is that the GENERAC product line includes its own transfer systems, accessories, switchgear and controls for total system compatibility.

GENERAC®

POWER SYSTEMS, INC.

APPLICATION & ENGINEERING DATA

SG060

GENERATOR SPECIFICATIONS

TYPE	Four-pole, revolving field
ROTOR INSULATION.....	Class H
STATOR INSULATION.....	Class H
TOTAL HARMONIC DISTORTION	<3%
TELEPHONE INTERFERENCE FACTOR (TIF).....	<50
ALTERNATOR	Self-ventilated and drip-proof
BEARINGS (PRE-LUBED & SEALED)	1
COUPLING.....	Direct, Flexible Disc
LOAD CAPACITY (STANDBY)	100%
LOAD CAPACITY (PRIME).....	110%

NOTE: Generator rating and performance in accordance with ISO8528-5, BS5514, SAE J1349, ISO3046, and DIN6271 standards.

VOLTAGE REGULATOR

TYPE.....	Full Digital
SENSING.....	3 Phase
REGULATION.....	± 1/4%
FEATURES.....	Built into H-100 Control Panel V/F Adjustable Adjustable Voltage and Gain

GENERATOR FEATURES

- Revolving field heavy duty generator
- Operating temperature rise 120 °C above a 40 °C ambient
- Insulation is Class H rated at 150 °C rise
- All prototype models have passed three phase short circuit testing

CONTROL PANEL FEATURES

- TWO FOUR LINE LCD DISPLAYS READ:
 - Voltage (all phases)
 - Power factor
 - kVAR
 - Engine speed
 - Run hours
 - Fault history
 - Coolant temperature
 - Low oil pressure shutdown
 - Overvoltage
 - Low coolant level
 - Not in auto position (flashing light)
 - ATS selection
 - Current (all phases)
 - kW
 - Transfer switch status
 - Low fuel pressure
 - Service reminders
 - Oil pressure
 - Time and date
 - High coolant temperature shutdown
 - Overspeed
 - Low coolant level
 - Exercise speed
- INTERNAL FUNCTIONS:
 - PT function for alternator protection from line to neutral and line to line short circuits
 - Emergency stop
 - Programmable auto crank function
 - 2 wire start for any transfer switch
 - Communicates with the Generac HTS transfer switch
 - Built-in 7 day exerciser
 - Adjustable engine speed at exerciser
 - RS232 port for GenLink® control
 - RS485 port remote communication
 - Canbus addressable
 - Governor controller and voltage regulator are built into the master control board
 - Temperature range -40 °C to 70 °C

ENGINE SPECIFICATIONS

MAKE	GENERAC
MODEL.....	6.8GN
CYLINDERS.....	V-10
DISPLACEMENT.....	6.8 Liter (417 cu. in.)
BORE.....	90.2 mm (3.55 in.)
STROKE.....	105.8 mm (4.17 in.)
COMPRESSION RATIO.....	9:1
INTAKE AIR.....	Naturally Aspirated
NUMBER OF MAIN BEARINGS	6
CONNECTING RODS.....	10-Drop forged steel
CYLINDER HEAD.....	Aluminum
PISTONS.....	Aluminum Alloy
CRANKSHAFT.....	Forged Steel

VALVE TRAIN

CAM FOLLOWER.....	Hydraulic
INTAKE VALVE MATERIAL.....	Copper Infiltrated Iron Base
EXHAUST VALVE MATERIAL.....	Copper Infiltrated Iron Base
HARDENED VALVE SEATS.....	Standard

ENGINE GOVERNOR

<input type="checkbox"/> ELECTRONIC.....	Standard
FREQUENCY REGULATION, NO-LOAD TO FULL LOAD	0.5%
STEADY STATE REGULATION.....	±0.25%

LUBRICATION SYSTEM

TYPE OF OIL PUMP.....	Gerotor
OIL FILTER.....	Full flow, Spin On Cartridge
CRANKCASE CAPACITY.....	(6 qts.)

COOLING SYSTEM

TYPE OF SYSTEM.....	Pressurized, closed recovery
WATER PUMP.....	Pre-lubed, self-sealing
TYPE OF FAN.....	Pusher
NUMBER OF FAN BLADES.....	6
DIAMETER OF FAN.....	558.8 mm (22 in.)
COOLANT HEATER.....	120V, 1500 W

FUEL SYSTEM

FUEL	
<input type="checkbox"/> Natural Gas or L.P. Vapor.....	Standard
<input type="checkbox"/> L.P. Liquid Withdrawal.....	Optional
CARBURETOR.....	Down draft
SECONDARY FUEL REGULATOR.....	Nat. Gas or L.P. Vapor Systems
HOT WATER VAPORIZER.....	L.P. Liquid Withdrawal Systems
AUTOMATIC FUEL LOCKOFF SOLENOID.....	Standard
OPERATING FUEL PRESSURE VAPOR SYSTEMS.....	7" to 14" H ₂ O

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR.....	18 Amps at 12 V
STARTER MOTOR.....	12 V
RECOMMENDED BATTERY.....	(1) - 12 V, 700 CCA, 27F
GROUND POLARITY.....	Negative

Rating definitions - Standby: Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All ratings in accordance with BS5514, ISO3046 and DIN6271). Prime (Unlimited Running Time): Applicable for supplying electric power in lieu of commercially purchased power. Prime power is the maximum power available at variable load. A 10% overload capacity is available for 1 hour in 12 hours. (All ratings in accordance with BS5514, ISO3046, ISO8528 and DIN6271).

SG060

OPERATING DATA

	STANDBY		STANDBY	
	SG060		SG060	
GENERATOR OUTPUT VOLTAGE/KW-60Hz 120/240V, 1-phase, 1.0 pf 120/208V, 3-phase, 0.8 pf NOTE: Consult your Generac dealer for additional	<u>NG</u>	<u>Rated AMP</u>	<u>LPG</u>	<u>Rated AMP</u>
	60	250	60	250
	60	208	60	208
MOTOR STARTING KVA Maximum at 35% instantaneous voltage dip with standard alternator—60 Hz	<u>240V</u>	<u>480V</u>	<u>240V</u>	<u>480V</u>
	110	146	110	146
FUEL Fuel consumption—60 Hz—100% Load ft. ³ hr. / gal. hr.	<u>NG</u>		<u>LPG</u>	
	925 / NA		334 / 9.1	
COOLING Coolant capacity System - lit. (US gal.) Engine - lit. (US gal.) Radiator - lit. (US gal.) Coolant flow/min. 60 Hz - lit. (US gal.) Heat rejection to coolant BTU/hr. Inlet air 60 Hz - m ³ /min.(cfm) Max. operating air temp onto radiator* °F Max. operating ambient temp* °F Max. external pressure drop on radiator in. H ₂ O				
			23.7 (6.3)	
			12.3 (3.3)	
			11.4 (3.0)	
			148 (39.2)	
			218,000	
			159 (5600)	
			140	
			120	
			0.5	
COMBUSTION AIR REQUIREMENTS Flow at rated power 60 Hz - m ³ /min.(cfm)			5.2 (185)	
EXHAUST Exhaust flow at rated output 60 Hz—m ³ /min.(cfm) Max recommended back pressure Kpa(Hg) Exhaust temp at rated output °C (°F) Exhaust outlet size (2) mm (in.)			19 (679.5)	
			10 (2.9)	
			565 (1050)	
			64 (2.5)	
ENGINE Rated RPM 60 Hz HP* at rated KW 60 Hz Piston speed 60 Hz - m/sec. (ft./min.) BMEP 60 Hz - psi			1800	
			107	
			6.3 (1250)	
			113.1	
DERATION FACTORS Temperature 5% for every 10°C above - °C 2.77% for every 10°F above - °F Altitude 1.1% for every 100 m above - m 3.5% for every 1000 ft. above - ft.				
	25		25	
	104		104	
	1067		1067	
	3500		3500	

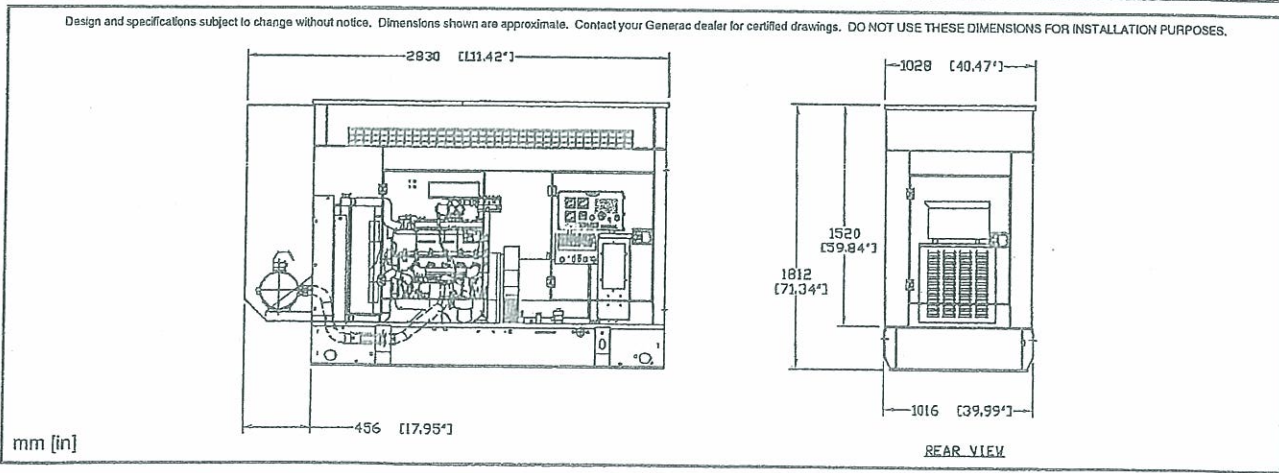
* Note: Values given are maximum temperatures to which power adjustments can be applied. Consult your Generac Power Systems representative if operating conditions exceed these maximums.

STANDARD ENGINE & SAFETY FEATURES

SG060

- High Coolant Temperature Automatic Shutdown
- Low Coolant Level Automatic Shutdown
- Low Oil Pressure Automatic Shutdown
- Overspeed Automatic Shutdown (Solid-state)
- Crank Limiter (Solid-state)
- Oil Drain Extension
- Radiator Drain Extension
- Factory-Installed Cool Flow Radiator
- Closed Coolant Recovery System
- UV/Ozone Resistant Hoses
- Rubber-Booted Engine Electrical Connections
- Secondary Fuel Filter
- Fuel Shutdown Solenoid
- Battery - 12 Volt 90 AH
- Stainless Steel Flexible Exhaust Connection
- Battery Charge Alternator
- Battery Cables
- Composite Battery Box
- Vibration Isolation of Unit to Mounting Base
- 12 Volt, Solenoid-Activated Starter Motor
- Air Cleaner
- Air Cleaner Service Indicator
- Fan Guard (CSA Compliant)
- CSA Guarding
- Critical Grade Muffler (Shipped Loose With Open Unit)
- High Temperature Exhaust Wrap
- Alternator Tropicalization
 - Resists Moisture, Fungus and Abrasives
 - In Addition to Standard Class H Epoxy Impregnation Coating
- Upsized Alternator For Increased Motor Starting
- Propylene Glycol 50/50 Mix Antifreeze
- Oil
- Coolant Expansion and Recovery Tank
- Extended Factory Test (2.5 Hr.)
 - Stepped Loads
 - Frame Temperature Test
- Specification Sheet Does Not Reflect Any Verizon Wireless Corporate Authorized Variances.
- "H" Control Console – Digital Controller
 - Communication Software for Remote Access
 - Digital Reading AC Volts
 - Digital Reading AC Amps
 - Digital Frequency
 - Emergency Stop Button
 - Audible Alarm
 - Programmable Engine Control (See Bulletin #0172110SBY For Details)
- 20 Light Annunciator Generator Alarms
- 8 Form C Dry Contact Output Relays
- 120 Volt Coolant Heater 1500 Watt with 3 Wire Connection Cord
- Mainline Circuit Breaker
 - 200 Amp & 100 Amp – 120/240 Single Phase
 - 200 Amp & 50 Amp – 120/208 Three Phase
- Flexible Fuel Lines
- Fuel Pressure Loss Protection System
- UL2200 Listed
- Five Year Extended Warranty
- Enclosure Options
 - Open Generator Set w/ Duct Adapter
 - Weather Protective Level III Sound Attenuated Enclosure w/ Enclosed Critical Grade Muffler and Flex Exhaust
- 12V Dual-Rate 10 Amp Battery Charger With 120V 3 Wire Connection Cord

Distributed by:



GENERAC POWER SYSTEMS, INC. • P.O. BOX 8 • WAUKESHA, WI 53187

262/544-4811 • FAX 262/544-4851



KIRKHAM ST
MAPLE ST

BRADLEY ST
OAK ST
EVERGREEN PL

HOME PL
REYNOLDS LN
REYNOLDS AVE

PLANT RD
SWIFT ST
BREEZY LN

ALPS RD
STONEGATE DR
DOVER CT

CLARENDON ST
WALDEN LN
EMERSON DR

JEFFERSON RD
MONTICELLO DR
SUNNY MEADOW RD

BROOKLAWN TER
JOSEPH LN
DANVIEW DR

ALEX WARFIELD RD
DOMINICAN RD

REYNOLDS LN
REYNOLDS AVE

QUARRY DCK RD
MILL CREEK PL

CLDER MIL LN
NIGOLE RD
NT DOOMNA

FLORENCE RD
ROBY CT
BRIARWOOD LN

SPICE BUSH LN
EUGLID ST
SARSETT RD

MEADOW ST
CLIFF ST
VERNON ST

STONE PILLAR RD
WHEATON RD

MC KINNELL CT
ESTHER PL
HARBOR ST

CASTLE ROCK
COVE TER

BROCKETT'S LN
BROCKETT'S POINT RD

FOREST ST
SHORT BEACH
STONE ST

WESTWOOD RD
BUNGALOW LN
PENTECOST ST

BRONN RD
SHORT BEACH RD
CLIFF ST

WHEATON RD

HARBOR ST
HARBOR ST

CASTLE ROCK
COVE TER

BROCKETT'S LN
BROCKETT'S POINT RD

FOREST ST
SHORT BEACH
STONE ST

WESTWOOD RD
BUNGALOW LN
PENTECOST ST

BRONN RD
SHORT BEACH RD
CLIFF ST

WHEATON RD

WAKEFIELD RD
FERRY LN

CASTLE ROCK
COVE TER

BROCKETT'S LN
BROCKETT'S POINT RD

FOREST ST
SHORT BEACH
STONE ST

WESTWOOD RD
BUNGALOW LN
PENTECOST ST

BRONN RD
SHORT BEACH RD
CLIFF ST

WHEATON RD

SUNSET MANOR RD
MANOR PL
SAGAMORE COVE RD

CASTLE ROCK
COVE TER

BROCKETT'S LN
BROCKETT'S POINT RD

FOREST ST
SHORT BEACH
STONE ST

WESTWOOD RD
BUNGALOW LN
PENTECOST ST

BRONN RD
SHORT BEACH RD
CLIFF ST

WHEATON RD

WHALERS PT
WHALERS PT

WHALERS PT
WHALERS PT

06405and

General Power Density

Site Name: BRANFORD SHORT BEACH, EAST HAVEN, CT
 Cumulative Power Density

Operator	Operating Frequency (MHz)	Number of Trans.	ERP Per Trans. (watts)	Total ERP (watts)	Distance to Target (feet)	Calculated Power Density (mW/cm ²)	Maximum Permissible Exposure* (mW/cm ²)	Fraction of MPE (%)
VZW PCS	1970	9	281	2529	90	0.1123	1.0	11.23%
VZW Cellular	869	9	277	2493	90	0.1107	0.5793333333	19.11%
VZW AWS	2145	1	682	682	90	0.0303	1.0	3.03%
VZW 700	698	1	898	898	90	0.0399	0.4653333333	8.57%
Total Percentage of Maximum Permissible Exposure								41.93%

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992

MHz = Megahertz

mW/cm² = milliwatts per square centimeter

ERP = Effective Radiated Power

Absolute worst case maximum values used.

General Power Density

Site Name: BRANFORD SHORT BEACH BRANFORD, CT
 Cumulative Power Density

Operator	Operating Frequency (MHz)	Number of Trans.	ERP Per Trans. (watts)	Total ERP (watts)	Distance to Target (feet)	Calculated Power Density (mW/cm ²)	Maximum Permissible Exposure* (mW/cm ²)	Fraction of MPE (%)
VZW PCS	1970	9	274	2466	100	0.0887	1.0	8.87%
VZW Cellular	869	9	273	2457	100	0.0884	0.5793333333	15.25%
VZW AWS	2145	1	666	666	100	0.0240	1.0	2.40%
VZW 700	698	1	886	886	100	0.0319	0.4653333333	6.85%

Total Percentage of Maximum Permissible Exposure
 33.36%

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992

MHz = Megahertz

mW/cm² = milliwatts per square centimeter

ERP = Effective Radiated Power

Absolute worst case maximum values used.