

JESSE A. LANGER

PLEASE REPLY TO: Bridgeport
E-Mail Address: jlanger@cohenandwolf.com

October 25, 2011

VIA FEDERAL EXPRESS and ELECTRONIC MAIL

Ms. Linda Roberts
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: Docket No. 407 – Application by T-Mobile Northeast LLC for a Certificate of Environmental Compatibility and Public Need for a Telecommunications Facility at Pleasant Point Road in the Town of Branford, Connecticut

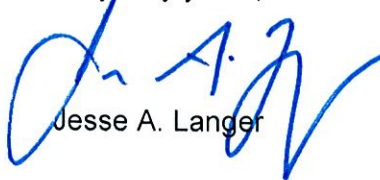
Dear Ms. Roberts:

Enclosed herein please find the following document filed on behalf of the Applicant, T-Mobile Northeast LLC:

- (1) An original and twenty (20) copies of Applicant T-Mobile Northeast LLC's responses to the Connecticut Siting Council's Third Set of Interrogatories.

Please contact me if you have any questions.

Very truly yours,



Jesse A. Langer

cc: Service List

**STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL**

RE: APPLICATION BY T-MOBILE
NORTHEAST LLC FOR A
CERTIFICATE OF ENVIRONMENTAL
COMPATIBILITY AND PUBLIC NEED
FOR A TELECOMMUNICATIONS FACILITY
AT PLEASANT POINT ROAD IN THE
TOWN OF BRANFORD, CONNECTICUT

DOCKET NO. 407

Date: October 25, 2011

**INTERROGATORY RESPONSES TO CONNECTICUT SITING
COUNCIL FROM APPLICANT T-MOBILE NORTHEAST LLC**

The Applicant, T-Mobile Northeast LLC ("T-Mobile"), submits the following responses to the third set of Pre-Hearing Interrogatories propounded by the Connecticut Siting Council in connection with the above-captioned Application.

34. What is the demand on the system in the area of the proposed site?
- A34 The demand in the area of the telecommunications facility, proposed by T-Mobile at Pleasant Point Road, Branford, Connecticut ("Facility"), includes both voice and data.**
35. How much capacity is needed in the area of the proposed site?
- A35 The primary purpose of the proposed Facility is to provide an initial footprint of service in this area. The proposed Facility would introduce voice and data services to the coverage objective. T-Mobile experiences a coverage gap in the area of the proposed Facility, with coverage falling below T-Mobile's required threshold levels. T-Mobile anticipates some future capacity relief for the surrounding cells.**
36. Are certain frequencies assigned to different T-Mobile services (e.g. AWS used for data?) Are certain frequencies assigned to voice?
- A36 T-Mobile provides voice and data services on both of its licensed bands. T-Mobile operates its GSM radios in the PCS band centered around a transmit frequency of 1950 MHz and its UMTS radios in the AWS band centered around 2100 MHz.**

37. What frequency bands does T-Mobile use in the Branford area?

A37 T-Mobile uses PCS 1900 MHz and AWS 2100 MHz in the Branford area.

38. Is the proposed site required for a specific T-Mobile service?

A38 The proposed Facility would provide voice and data services.

39. What signal strength is required to transmit voice/text? Streaming data? Downloading? Provide a plot showing what is available in the area for each of these from nearby existing sites and from the proposed site.

A39 T-Mobile utilizes a minimum design threshold of -84 dBm for reliable in-vehicle coverage for voice services. T-Mobile can transmit data services at a similar signal strength; however, the signal may be at a reduced throughput or quality. The driving force behind reliable high speed data transfer is signal quality or clarity. Traffic loading on a wireless system can deteriorate the quality level of data services because of increased noise, which is introduced into the environment. As a result, greater signal levels are required to provide consistent high speed data transfer, especially for downloading large files or utilizing a streaming data application. It is difficult to assign a static value to what signal level is required to provide these data services because of fluctuating RF environments and traffic loads. The coverage plots provided with the Application serve as a good starting point. The deeper green shading represents areas where the proposed coverage would be at a -76 dBm signal level or better. Data transmission should be fairly robust within these areas.

40. Explain the demand on the cellular system from the use of wireless devices (including but not limited to phones and wireless tablets) for downloading or streaming data.

A40 Each service provided on a cellular / PCS network imposes unique demands on the network's resources. Voice services typically impose less demand on a network than that of high speed data services. Simple voice patterns require the transfer of lower amounts of data, particularly when compared to streaming video. The demand on existing networks will increase as handheld devices continue to evolve and offer increasing numbers of data rich applications.

41. Are there weak points in the network for downloading and/or streaming data in the area of the proposed site?

A41 Yes. T-Mobile experiences a coverage gap in the areas surrounding the proposed Facility. The existing coverage levels in these areas are below T-Mobile's minimum design threshold for providing reliable voice and

data service. The existing coverage levels inhibit the ability to download data or stream data reliably.

42. What is the distance of the proposed site from the existing telecommunications facilities at 21 Acorn Road in Branford and 201 Granite Road in Guilford?

A42 The proposed Facility would be approximately 1.2 miles from 21 Acorn Road in Branford and approximately 2.2 miles from 201 Granite Road in Guilford.

43. Has T-Mobile investigated the use of a site at 21 Acorn Road and a ball field in the Stony Creek Section of Branford? What was the outcome of the investigation? Please provide coverage maps showing potential coverage from these two sites.

A43 T-Mobile is evaluating the feasibility of the locations proposed by the Town of Branford and has not reached a conclusion as of the date of these interrogatory responses. The coverage plots regarding these proposed locations are appended hereto as Attachment A.

44. What is the address of the ball -field?

A44 The ball field is located at West Point Park on Thimble Islands Road, Branford, Connecticut.

45. Would T-Mobile locate antennas on a tower approved to be constructed at 723 Leetes Island Road in Branford?

A45 Yes. T-Mobile intervened in Docket 413 and intends to locate its antennas on that facility at 80 feet above grade level.

46. Would the proposed tower hand off to the Leetes Island Road tower?

A46 Yes, the proposed Facility would hand off to the telecommunications facility approved by the Council at Leetes Island Road.

47. Would the proposed site provide coverage that is redundant of the approved Leetes Island Road tower?

A47 The proposed Facility would not provide coverage which is redundant to the approved Leetes Island Road facility. There would be some overlap to effectuate sufficient handoff.

48. What is the distance of the Leetes Island Road tower from the proposed site?

- A48 The proposed Facility would be approximately 1.8 miles from the Leetes Island Road facility.**
49. In Tab N of the application, View 8 and View 9 are both listed as having a distance of 0.75 miles to the proposed site. Is this measurement correct in both cases?
- A49 The caption for View 8 is incorrect. View 8 is approximately 0.45 miles from the location of the proposed Facility. The caption for View 9 is correct.**
50. How long will battery back up work if the proposed facility were being used at full capacity?
- A50 The battery back-up would work approximately 12 to 16 hours.**

Respectfully submitted,

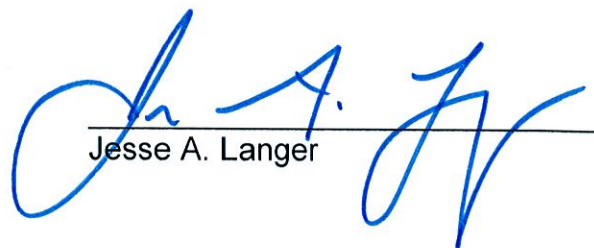
T-MOBILE NORTHEAST LLC

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CERTIFICATE OF SERVICE

I hereby certify that on this day a copy of the foregoing was delivered by Electronic Mail and First Class U.S. Mail, postage prepaid, to all parties and interveners of record, as follows:

Keith R. Ainsworth, Esq.
Evans Feldman & Ainsworth, L.L.C.
261 Bradley Street
P.O. Box 1694
New Haven, CT 06507-1694
(**Via Email:** krainsworth@snet.net)



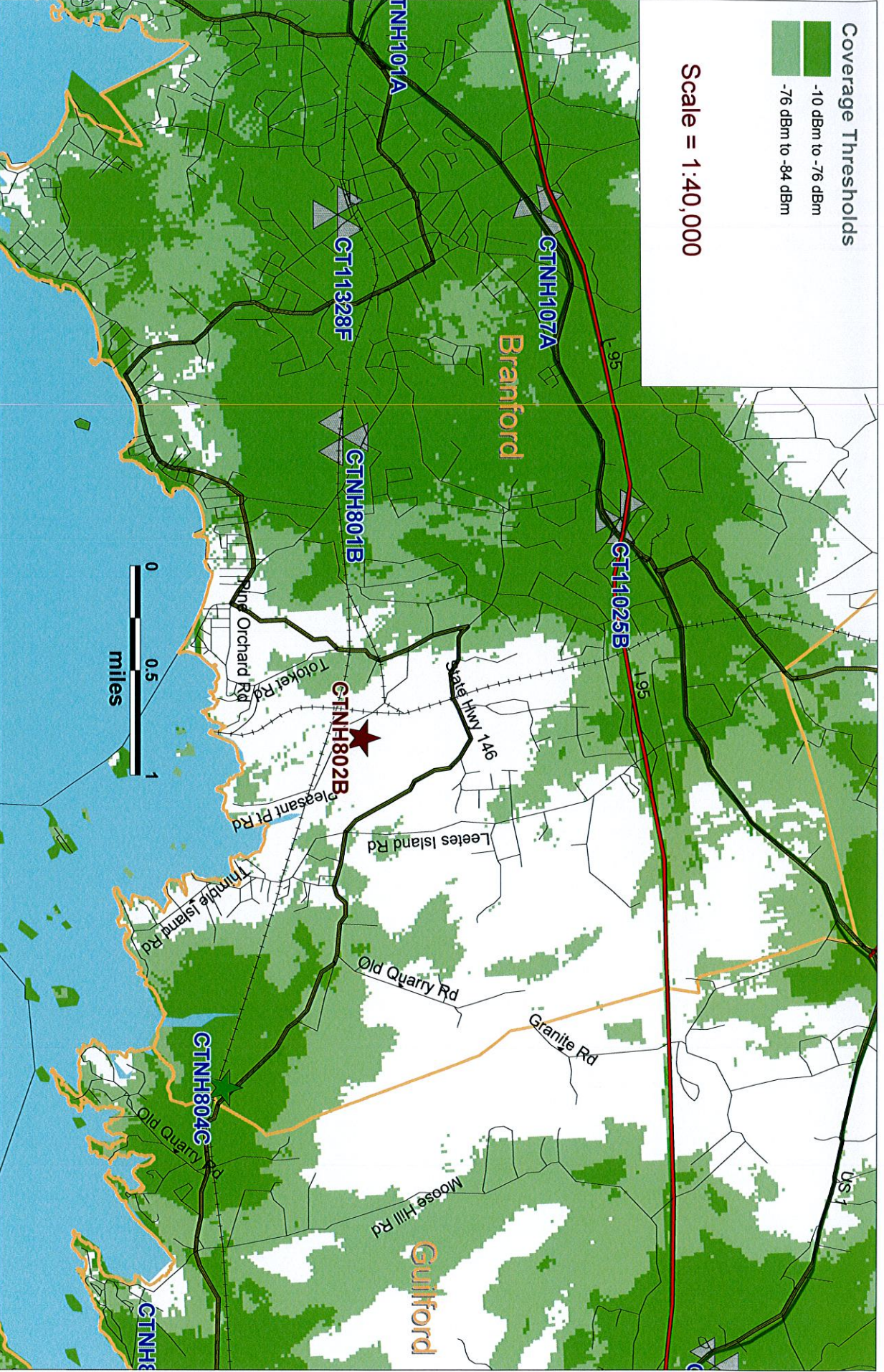
Jesse A. Langer

ATTACHMENT A

Coverage Thresholds

- 10 dBm to -76 dBm
- 76 dBm to -84 dBm

Scale = 1:40,000

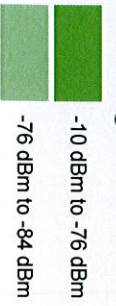


T-Mobile

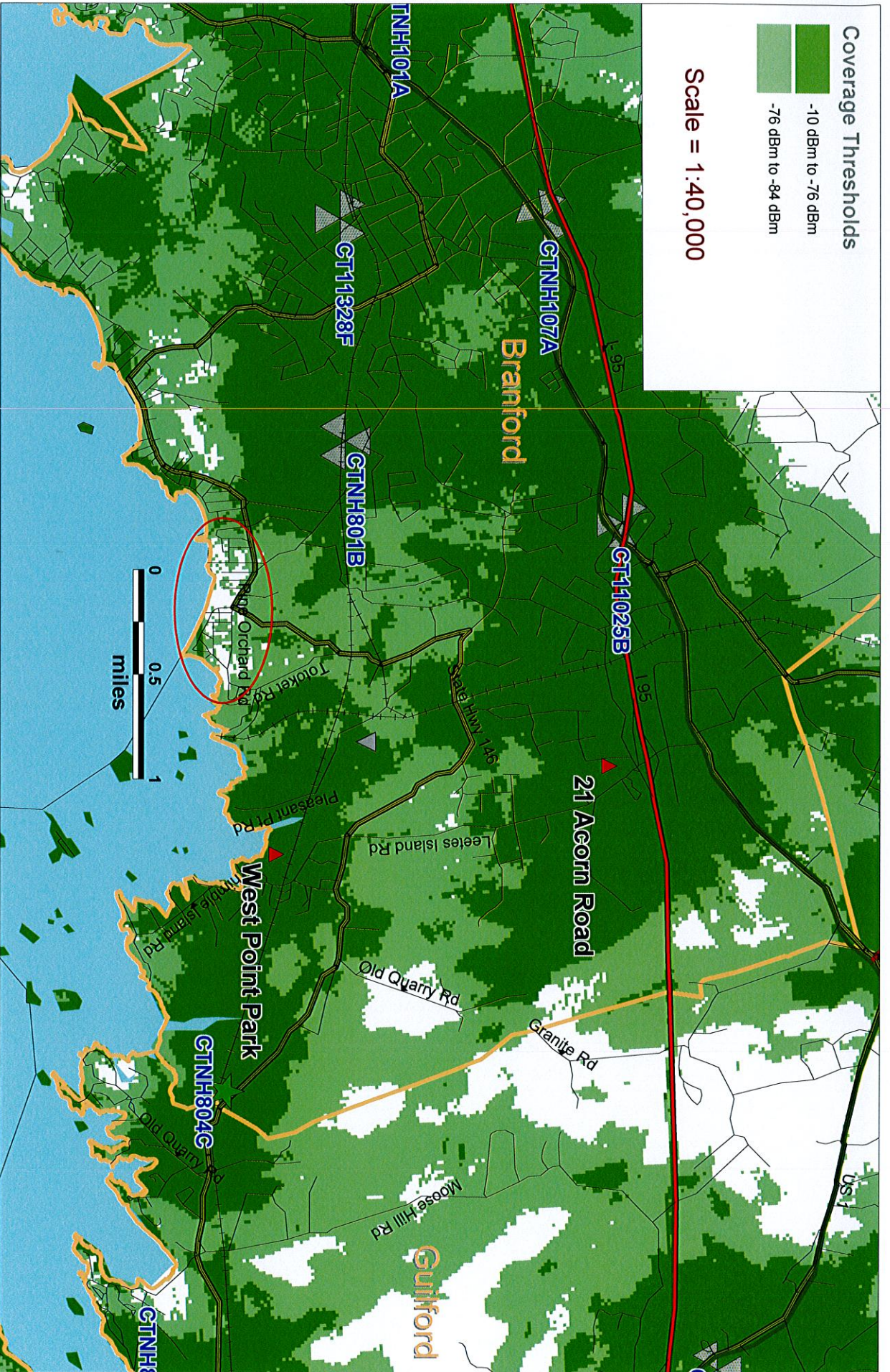
Existing T-Mobile On Air Coverage
With CTNH804C

Coverage Threshold Descriptions
Dark Green: In-Building Coverage (Residential)
Light Green: In-Vehicle Coverage

Coverage Thresholds



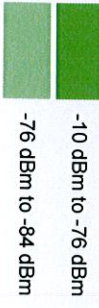
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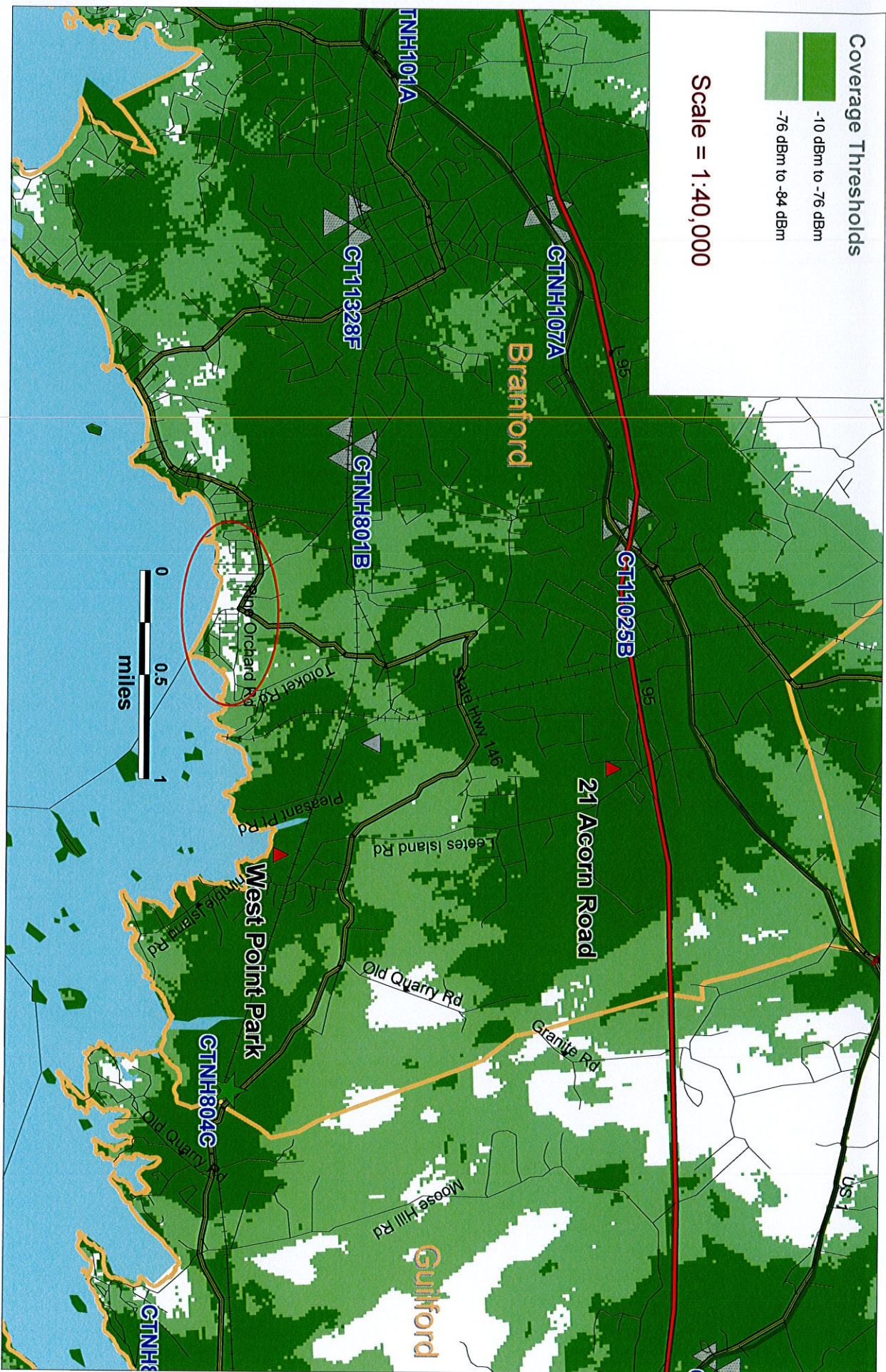
Branford Composite 2-Site Alternate
With CTNH804C (Construction)
21 Acorn Rd @ 95'
West Point Park @ 101'

Coverage Threshold Descriptions
Dark Green: In-Building Coverage (Residential)
Light Green: In-Vehicle Coverage

Coverage Thresholds



Scale = 1:40,000



Branford Composite 2-Site Alternate
 With CTNH804C (Construction)
 21 Acorn Rd @ 130'
 West Point Park @ 101'



Coverage Threshold Descriptions
 Dark Green: In-Building Coverage (Residential)
 Light Green: In-Vehicle Coverage