

**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 15 ORCHARD PARK ROAD IN THE TOWN
OF MADISON, CONNECTICUT

DOCKET NO. 390

Date: November 25, 2009

**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 first set of Pre-Hearing Interrogatories propounded by the Connecticut Siting Council in connection with the above-captioned Application.

1. How many of the return receipts for the notices sent to abutting landowners did T-Mobile receive? If some return receipts were not received, did T-Mobile make other attempts to notify the landowners? If yes, explain.
A1 T-Mobile has received all but two of the return receipts for the abutting landowners listed in the Application. Those that remain outstanding include the following: (1) John J. McLaughlin and Doreen McLaughlin of 7 Esterly Road, Madison, CT and (2) David A. Ferrante and Pamela H. Ferrante of 25 Esterly Road, Madison, CT. On October 27, 2009, T-Mobile issued a second notice to these abutters and those notices have been returned unclaimed.

2. To what engineering standard would the tower be built? What would be the dimensions of the tower (diameter of tower at base; diameter of tower at top)?
A2 The tower for the telecommunications facility at 15 Orchard Park Road, Madison ("Facility") would be built to Engineering Standard TIA 222F. The base diameter of the monopole tower would be between 36" and 48" and the diameter at the top of the monopole tower would be between 18" and 24". Please see Exhibit B to the Application.

3. How much cut and fill would be required to develop the proposed site?
- A3 The development of the Facility would require 130 cubic yards of fill for the compound, with 30 cubic yards of crushed stone facility surface treatment. The Facility would also require 65 cubic yards of cut for the retaining wall and 135 cubic yards of cut for the utility trench.**
4. Would any blasting be required to develop the site?
- A4 T-Mobile does not anticipate any rock blasting; however, the Facility would likely require some rock chipping and/or hoe ramming for the utility trench.**
5. Has T-Mobile received any written correspondence from the Town of Madison indicating its interest in locating antennas on the proposed tower? If so, please provide a copy.
- A5 T-Mobile has not received any written correspondence from the Town of Madison ("Town") regarding co-location.**
6. When did this site search begin? Where was the site search centered? What was the extent of the search ring? Provide a map, with scale and compass, of search ring.
- A6 T-Mobile initiated its search for a site in this area of Madison on or about August 28, 2006. T-Mobile centered its site search between Johnson Lane and Orchard Park Road, off of Mungertown Road. The search radius of this area was 0.5 miles from the center location. T-Mobile devised this search ring with the objective to provide coverage to the Amtrak rail line, Route 1, Interstate 95, and secondary roadways around Mungertown Road in this area of Madison. A copy of the Search Area Map is appended hereto as Attachment A.**
7. What would T-Mobile use for backup power at the proposed facility?
- A7 T-Mobile will utilize a Self-Contained 48 VDC Self Back-Up Power System with sealed batteries rated at an approximate 4 to 12 hour duration.**

8. How many condominium units on Esterly Road are within a 1,000-foot radius of the proposed facility?

A8 The condominium complex on Esterly Road consists of 25 units, 10 of which are within 1000' of the Facility.

9. What is the estimated cost of T-Mobile's antennas and related ground equipment that would be installed at this site?

A9 The estimated cost of the antennas and related ground equipment would be approximately \$75,000.

10. What are T-Mobile's licensed operating frequencies in the area to be served from this site?

A10 The area T-Mobile will serve from the Facility is Madison Connecticut (New Haven BTA). T-Mobile's licensed operating frequencies for this are:

GSM

Upper 2/3 PCS A Band

Transmit: 1935.000 MHz to 1945.000 MHz

Receive: 1855.000 MHz to 1865.000 MHz

PCS C4 Band

Transmit: 1980.200 MHz to 1984.800 MHz

Receive: 1900.200 MHz to 1904.800 MHz

UMTS

Transmit 1: 2140.000 MHz to 2145.000 MHz

Receive 1: 1740.000 MHz to 1745.000 MHz

Transmit 2: 2110.000 MHz to 2120.000 MHz

Receive 2: 1710.000 MHz to 1720.000 MHz

11. What are T-Mobile's design signal strengths for in-vehicle and in-building coverage?

A11 T-Mobile's minimum design thresholds are -84 dBm for In-Vehicle Coverage and -76 dBm for In-Building Coverage.

12. What are T-Mobile's existing signal strengths in the area that would be covered from this site?

A12 T-Mobile's existing signal strength in the area of the proposed Facility range from approximately -80 dBm to levels below -110 dBm. Those areas with a signal strength closer to -80 dBm include those fringe areas in close proximity to existing telecommunications facilities that might provide additional overlap coverage. Those areas with the weaker signal strength are located closer to the site of the proposed Facility. See propagation plots with updated drive data appended hereto as Attachment B.

13. What is the length of any existing coverage gaps on the Amtrak rail line? On I-95? On US Route 1? On Neck Road? On Mungertown Road?

A13 The length of the coverage gap along the Amtrak rail line in the proposed coverage area is approximately 0.5 miles. This coverage gap is measured to the fringe areas of the coverage provided by the nearest existing telecommunications facilities – where the signal strength is -84 dBm. The total distance of the coverage gap to the more reliable areas with contiguous -84 dBm (i.e. beyond the fringe areas) is approximately 1.1 miles. This latter distance is measured east and west of the proposed Facility.

The length of the coverage gap along Interstate 95 in the proposed coverage area is approximately 0.75 miles. This section of Interstate 95 has a signal strength of -84 dBm; however, the coverage is channeled along the interstate itself with no lateral coverage to secondary roadways. The proposed Facility would serve as the best server in the area along Interstate 95 and provide the secondary roadways with coverage.

The length of the coverage gap along Route 1 in the proposed coverage area is approximately 1.77 miles.

The length of the coverage gap along Neck Road in the proposed coverage area is approximately 0.44 miles.

The length of the coverage gap along Mungertown Road in the proposed coverage area is approximately 0.35 miles south of Interstate 95 and 0.82 miles north of Interstate 95 – a total of 1.17 miles.

14. What are the respective distances T-Mobile would cover from the proposed facility on the Amtrak rail line and roads identified above?

A14 The proposed Facility would cover a distance of:

- a) 3.13 miles along the Amtrak rail line;
- b) 1.80 miles along Interstate 95;
- c) 2.68 miles along Route 1;
- d) 0.72 miles along Neck Road; and
- e) 1.15 miles along Mungertown Road.

15. What would be the total area T-Mobile could cover from the proposed facility?

A15 The proposed Facility would cover a total area of 10.48 square miles.

16. Identify existing sites with which the proposed site would hand off signals. Include address, type and height of tower, height of T-Mobile antennas, and distance and direction from proposed site.

A16

Site ID	Address	Town	Facility Type	Structure Height (AGL)	T-Mobile Antenna Height (AGL)	Status
CT11167A	8 Old Route 79	Madison	Self Support Tower	150 feet	120 feet	On Air
CT11029I	135 New Road	Madison	Guyed Tower	190 feet	162 feet	On Air
CT11443E	17 Cottage Street	Madison	Monopole	120 feet	117 feet	On Air
CT11028A	119 Tanner Marsh Road	Guilford	Monopole	150 feet	163 feet	On Air
CT11027D	1919 Boston Post Road	Guilford	Monopole	150 feet	147 feet	On Air
CTNH110C	131 Manor Road	Guilford	Monopole	150 feet	128 feet	On Air
CTHA332C	258 Ridge Road	Madison	Monopole	150 feet	147 feet	Approved

17. What is the lowest height at which T-Mobile could achieve its coverage objectives at the proposed site?

A17 T-Mobile's signal strength begins to deteriorate once the height to the centerline of the antenna decreases below 100 feet. T-Mobile can best achieve its coverage goals with a telecommunications facility at the height proposed in the Application.

18. Provide a propagation map, at the same scale as those provided in the application, showing what T-Mobile's coverage would be at ten feet below its minimum required height.
- A18 The propagation plots showing T-Mobile's coverage from the proposed Facility at a height of 90' (as opposed to the proposed 100') are appended hereto as Attachment C. These propagation plots demonstrate that a facility with an antenna array at 90' leaves a significant gap along Route 1 to the southeast of the proposed Facility. The Facility with the proposed height of 100' largely overcomes the terrain obstruction that would otherwise cause this coverage gap at 90'.**
19. The application identifies the proposed facility being at 15 Orchard Park Road. However, the NEPA report refers to the application as being at 7 Orchard Park Road. Which is the correct address?
- A19 The correct address is 15 Orchard Park Road.**

Respectfully submitted,

T-MOBILE NORTHEAST, LLC

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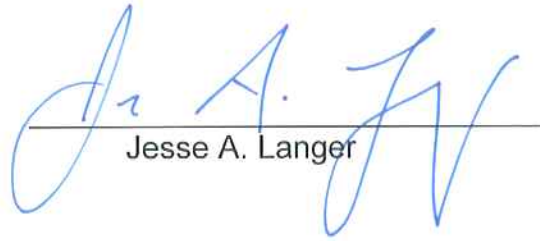
jkohler@cohenandwolf.com

jlanger@cohenandwolf.com

CERTIFICATE OF SERVICE

I hereby certify that on this day a copy of the foregoing was delivered by regular mail, postage prepaid, to all parties and interveners of record, as follows:

N/A



Jesse A. Langer

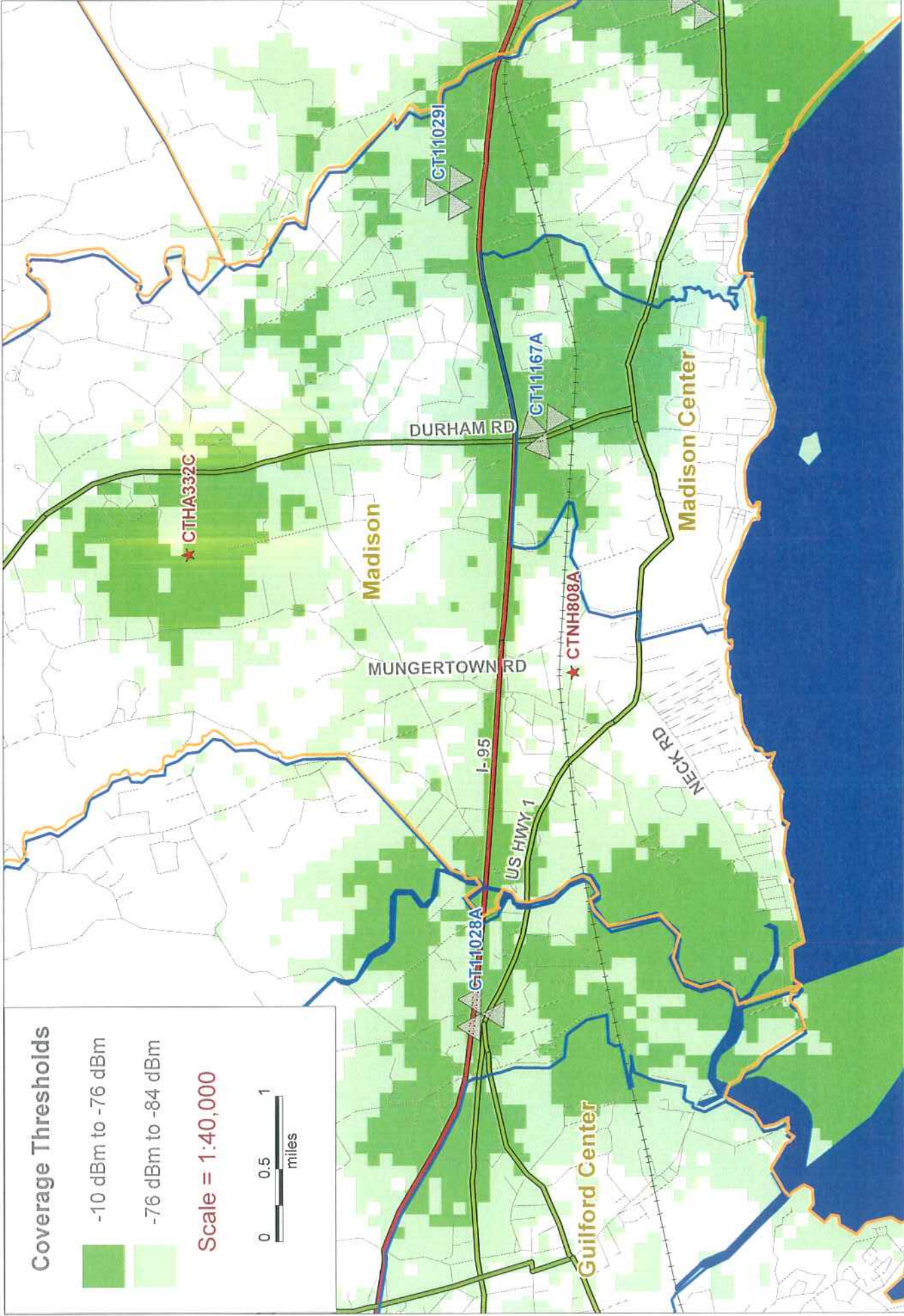
ATTACHMENT A

CTNH808 Amtrak_Madison



Soft Cost Approved Date: 7/10/2008	BTA: 318	Region: CT01	AOR: Patrick
RANK: 41		Modified Date: 3/8/2009 4:55:37 PM	Modified By: jford28
Capital Type: InFill	Budget Year: 2009	Created Date: 8/28/2006 2:40:22 PM	Created By: joverbey
County: New Haven	City: Madison	State: CT	
Lat Decimal: 41.28405462		Desired Cov Radius: 0.5	
Lon Decimal: -72.6265764		RF Required OnAir Date: 12/31/2009	
Ring Rad Center: 90 - 120		AMSL: 46	
Priority Comments:	Potential Candidate: Amtrak		
<u>Justification</u> Amtrak	<u>Coverage Objective</u> Route 1, Mungertown Road, Amtrak Rail Line		

ATTACHMENT B



Coverage Thresholds

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

Scale = 1:40,000

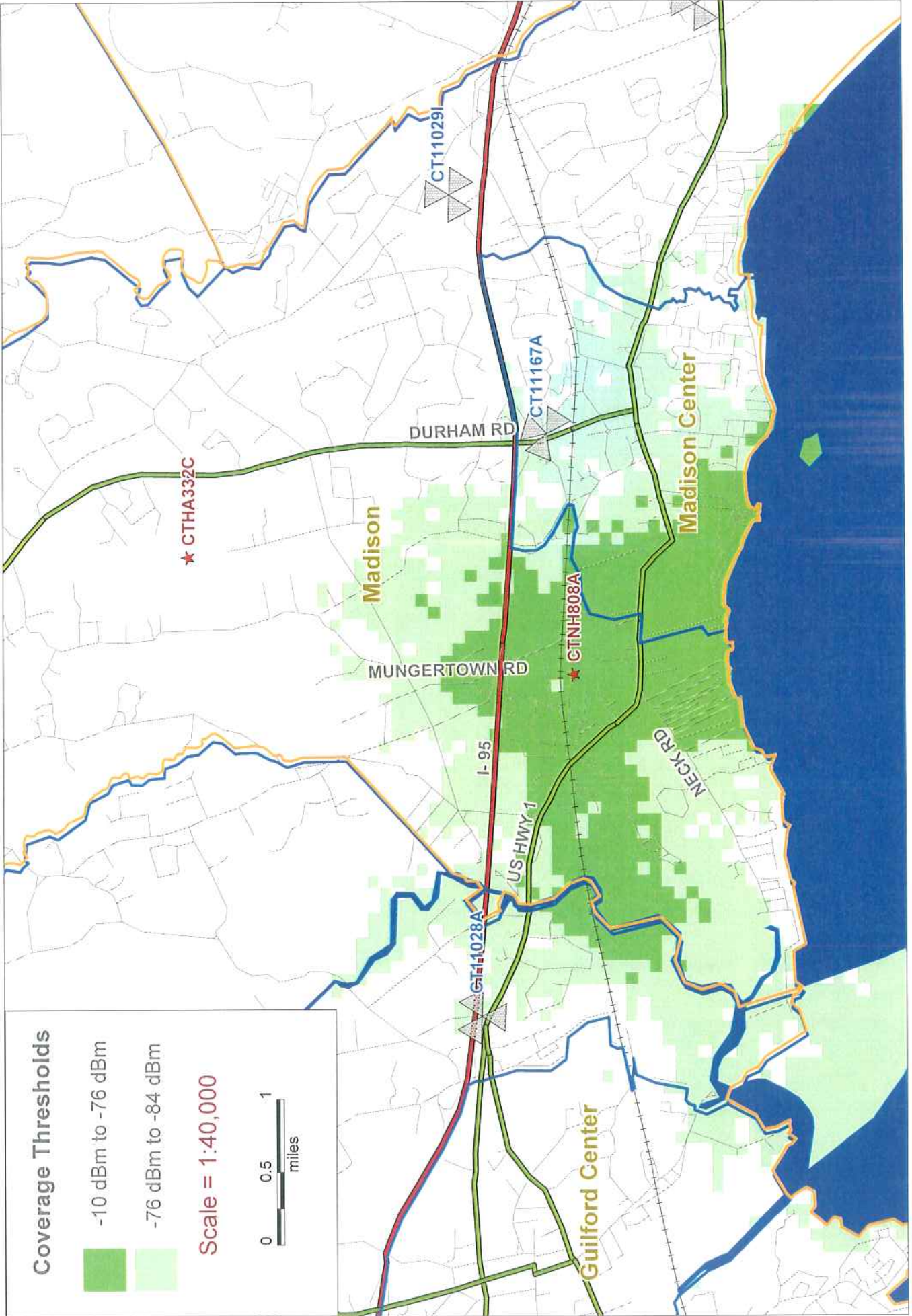


Coverage Thresholds
 Dark Green - In Building Coverage
 Light Green - In Vehicle Coverage

Existing T-Mobile On Air Coverage
 with Approved CTHA332C
 (258 Ridge Road @ 147')

- T-Mobile -





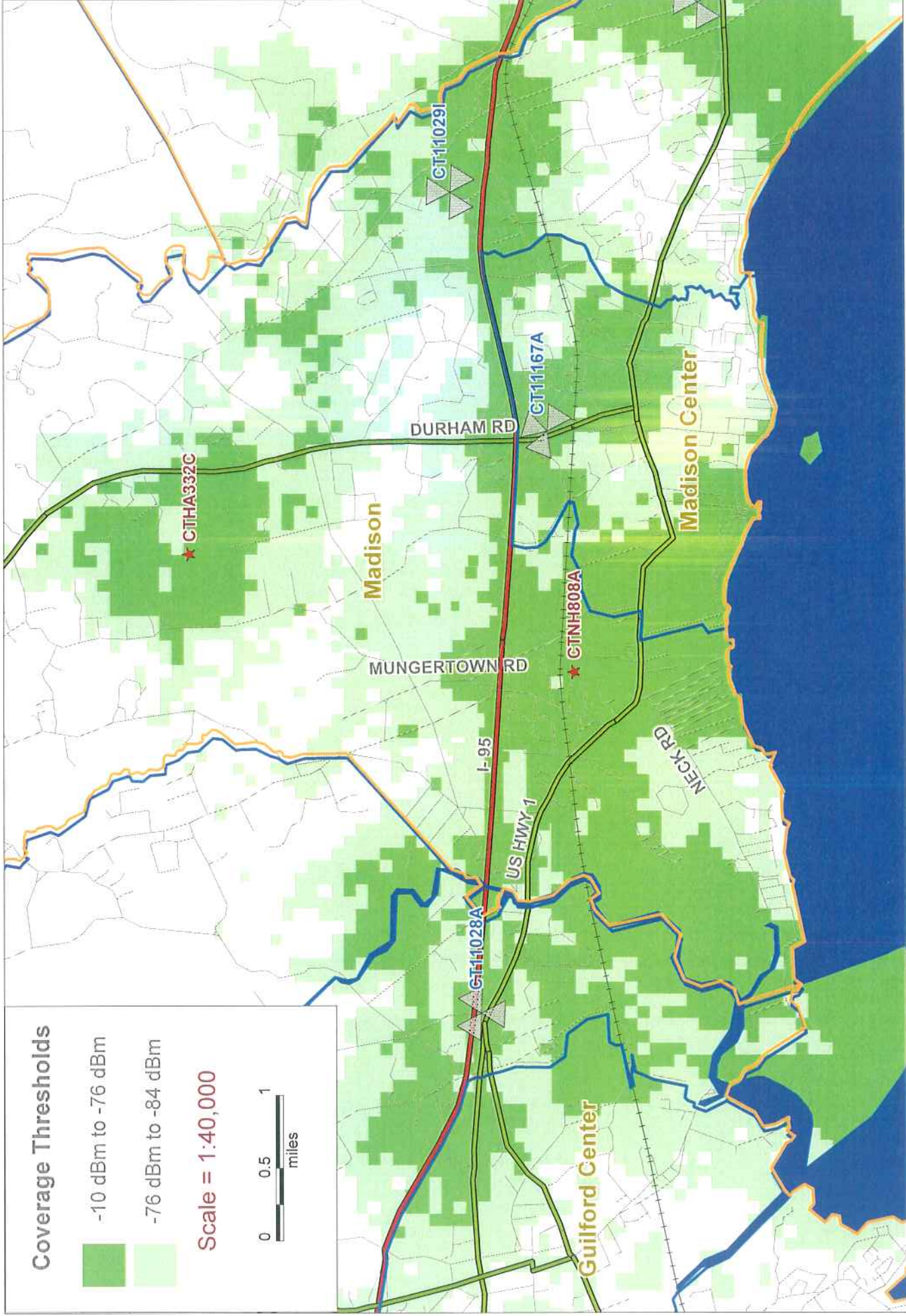
T-Mobile--

Coverage Thresholds
 Dark Green - In Building Coverage
 Light Green - In Vehicle Coverage

T-Mobile Proposed CTNH808A @ 100'

T-Mobile--



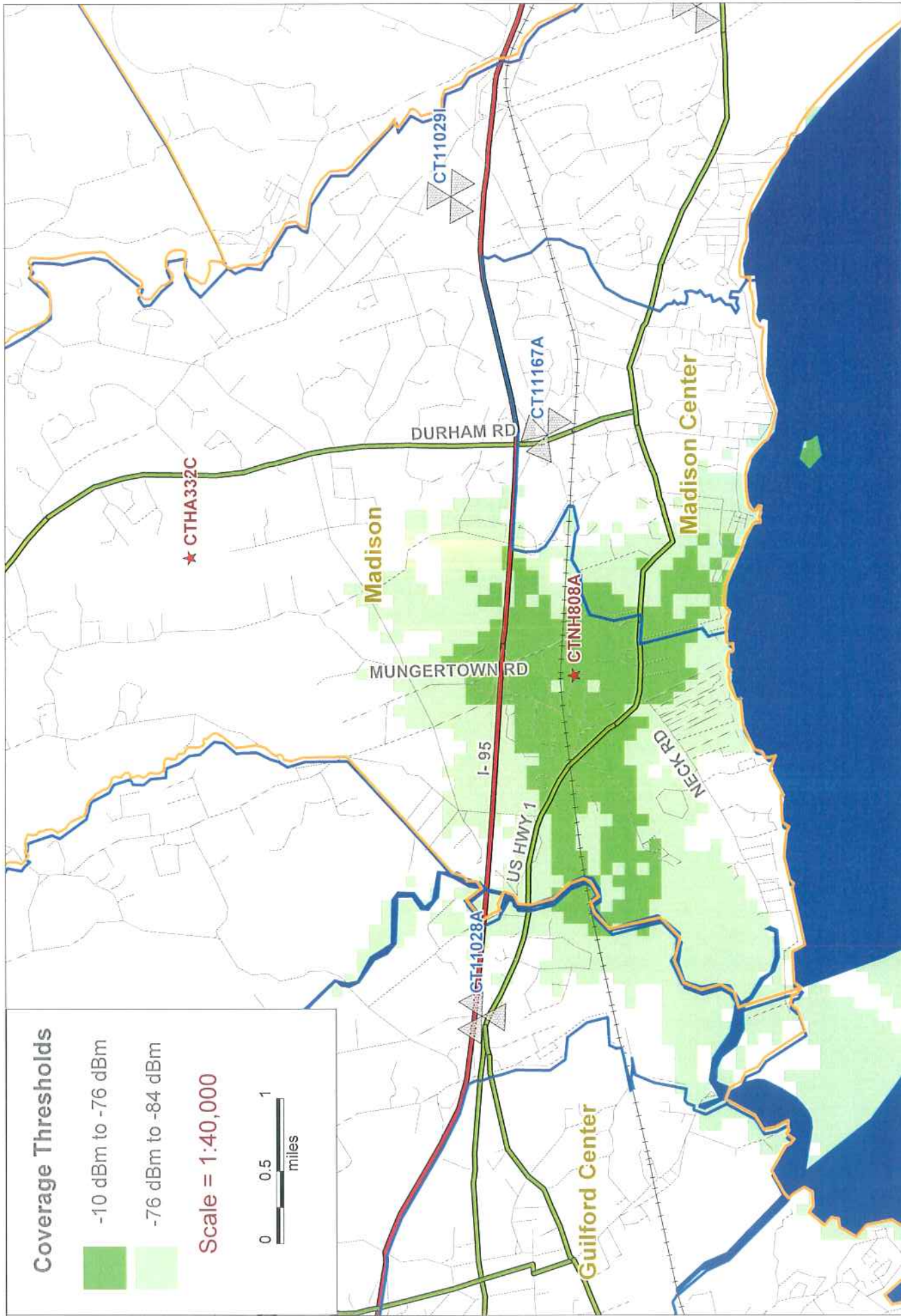


- T-Mobile -

Existing T-Mobile On Air Coverage
with Approved CTHA332C
& CTNH808A @ 100'

Coverage Thresholds
Dark Green - In Building Coverage
Light Green - In Vehicle Coverage

ATTACHMENT C

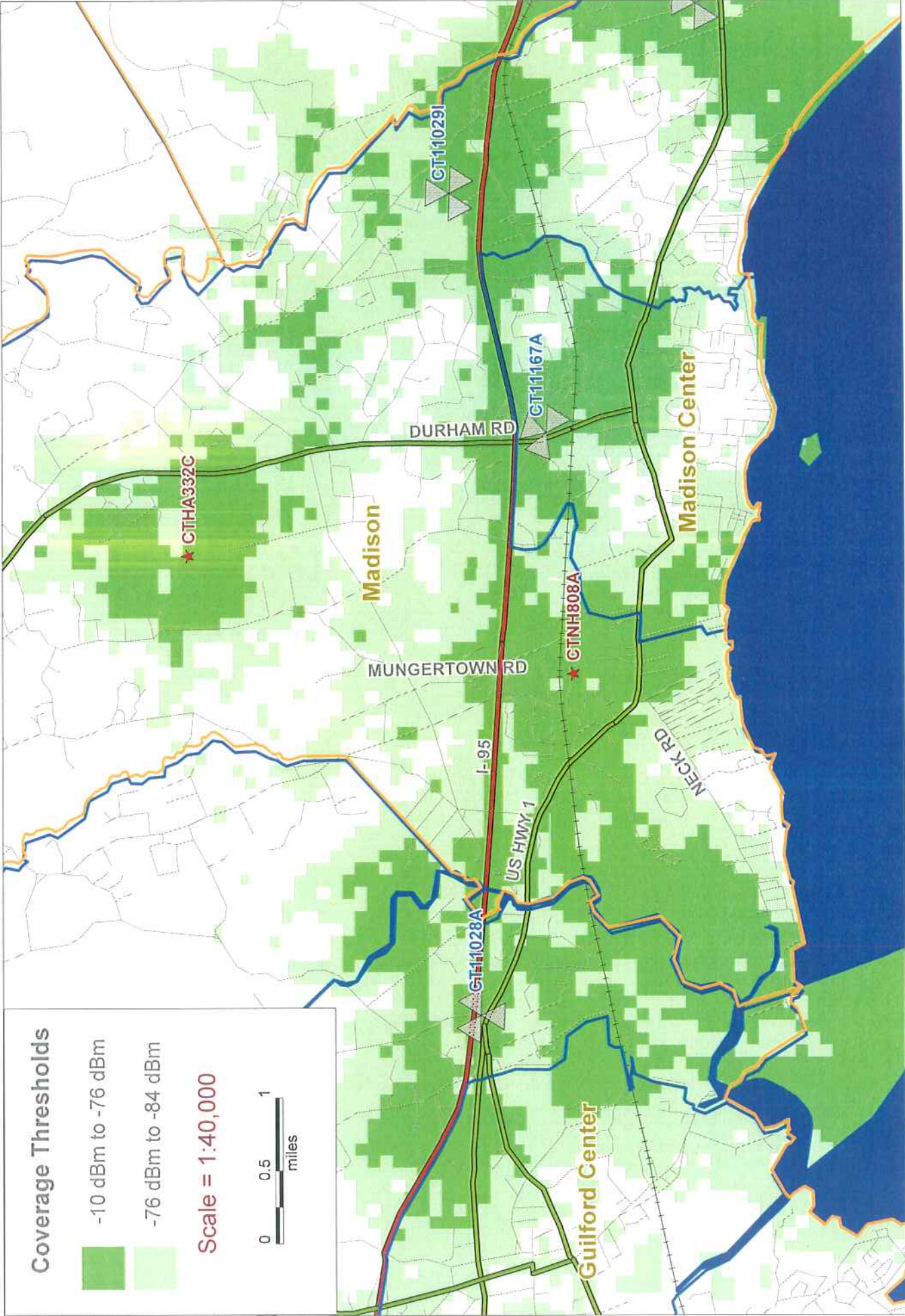


T-Mobile--

T-Mobile Proposed CTNH808A @ 90'

Coverage Thresholds
 Dark Green - In Building Coverage
 Light Green - In Vehicle Coverage





Coverage Thresholds
 Dark Green - In Building Coverage
 Light Green - In Vehicle Coverage

Existing T-Mobile On Air Coverage
 with Approved CTHA332C
 & CTNH808A @ 90'

- T-Mobile -

