

**DEMO - Nedmore
Towers / EEI Imaging
Sample Inspection**

This report is the result of a sample inspection conducted by Needmore Towers / EEI Imaging on a site representative of client's needs.

1. These inspections are visual only and the audit crew will open any cabinets, connectors or connections that may be service impacting.
2. If a Tower climb is performed, a JSA (Job Safety Analysis) will be included in this report.
3. If a Lidar Scan is performed, a JSA showing field notes of scan and target locations will be attached.
4. If a UAS flight is conducted, a JSA, a copy of our EEI exemption and applicable COA will all be attached.
5. Pictures, files, reports and other documents can all be downloaded from this site.

Report Summary

| | |
|-----------------------|----------------------------------------------------------------------|
| NTI # | Demo |
| Project Type | Demonstration Inspection |
| Notes | Demonstration Inspection at Credit River Tower *Used With Permission |
| Inspected By | Quinn, Rich |
| Inspected Date | Tuesday, September 8th 2015 |

Site Information

| | |
|-------------------|--------------------------------|
| Name | Credit River Tower |
| Height | 220.000 |
| Site Type | Sheltered |
| Tower Type | AI 333 GT |
| Switch | Demo Switch |
| Market | Demo |
| Owned By | Owner |
| Contact | Contact, Demo |
| Latitude | 44.63052800 [93° 22' 50.8" S] |
| Longitude | -93.38077800 [93° 22' 50.8" W] |

File Links

- 4.b - FAA Form 7711-1 2016-CSA-13039-114-333E (Airlake MN) Needmore Towers Inc-2.pdf [286 KB]
 - 4.b - Needmore Towers Inc - Exemption 9-25-2015.pdf [1 MB]
 - 5.a - LIDAR JSA.jpg [3 MB]
 - 6.a - D__Leica Geosystems Projects_160308 Credit River_CAD_Twist and Plumb Credit River Model (1).pdf [217 KB]
 - 6.a - Guy Tension Credit River 160308.pdf [384 KB]
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Links to Potential Issues

- 2.b.iii - One RF sign on Sprint Gate, nothing on tower or shelter
 - 2.c.i - Safety climb is painted
 - 3.c - Soil settlement near building has created negative drainage
 - 3.c - Sprint gate hardware loose and gate lifts off of hinges
 - 3.c - Trip hazards where old shelter was removed
-

1 Site Summary and Photo Documentation

a Standard Site Photos

i #1 Site Location Identifier

**1a1**

ii # 2N, 3E, 4S, 5W four elevations of the site (N, E, S & W)

**1a2****1a2a**



1a3a



1a4



1a4a



1a5 a



1a5 b

**1a5 c****iii****#6 A full site elevation or aerial view including tower****1a6 a****b****~~Site Access and Contact Information~~**

[The category "(b) Site Access and Contact Information" is not applicable in this report]

c**Inspection Field Notes****1a1a**

a ~~JSA Form - Tower Climb~~

[The category "(a) JSA Form - Tower Climb " is not applicable in this report]

b Signage**i** Gate/Site Signage**2b1****2b2****2b3****ii** FCC Tower Registration Number posted at site



2b4



2b6

iii

Haz Mat, RF Exposure, or other signs on fences or towers

One RF sign on Sprint Gate, nothing on tower or shelter

/



2b5

C

Tower Safety Climb

i

Safety Climb



2c1

Safety climb is painted



2c2

ii

~~Safety Climb obstructions / Hazards~~

[The category "(ii) Safety Climb obstructions / Hazards" is not applicable in this report]

3

Tower and Site Construction

No tower drawings were provided

a

~~Tower Drawings (Data File Upload)~~

[The category "(a) Tower Drawings (Data File Upload)" is not applicable in this report]

b Tower Manufacturer Labels

No manufacturers labels on tower

**2b7****c** Site / Foundation Details**2d1**

Trip hazards where old shelter was removed

**2d2**

Trip hazard



New Alpha Anchor

3c a1



3c a2



3c a3



3c a4



3c a5



3c a6



New Beta Anchor

3c b1



3c b2



3c b3



3c b4



3c b5

**3c b6****3c c1**

New Gamma Anchor

**3c c2**



3c c3



3c c4



3c c5



3c c7



Site fence

3c1



3c2



Corners Grounded

3c3



Sprint gate hardware loose and gate lifts off of hinges

3c4



Gates grounded

3c5

**3c7**

good site grounding outside of compound

**3c6**

Soil settlement near building has created negative drainage

d**Tower Details****3d**

Base

**3d1**



3d2



3d3



3d4 AB face



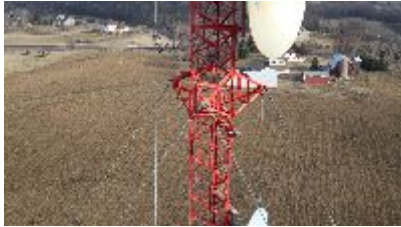
3d5 AB face



3d6 BC face



3d7 BC face

**3d8 CA face****3d9**

Torque arm @ 206.

**3d10**

Torque arm @ 265.8

**3d11**

Torque arm @ 110.25

**3d12**

Guy Attach @ 59.2

e Shelters / Cabinets



Newer shelter

3e1



Bard HVAC units

3e2



3e3



3e4

**3e5****f**

Backup Power Systems

**3e6****i**

~~DC Battery Backup~~

[The category "(i) DC Battery Backup" is not applicable in this report]

ii

~~Generator Systems~~

[The category "(ii) Generator Systems" is not applicable in this report]

g

Site Grounding Requirements

**3g1**

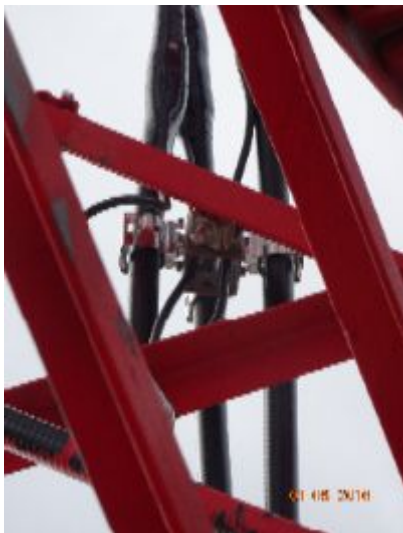
Ground bar at antenna entry port

**3g2**

Ice bridge is grounded

**3g3**

Tower is properly grounded

**3g4**

h

Antennas

**3h1 gamma**

20' whip base at 221'

**3h2 alpha**

10' dish @ 215.25 center

**3h2 beta**

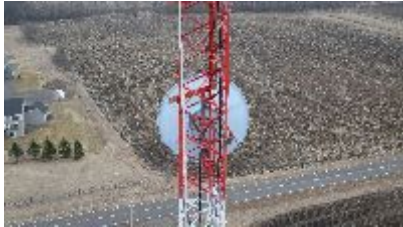
18' whip @ 209.5 base of mount

**3h2 gamma****3h3 alpha**

8.5 dish @ 191.25 center

**3h3 beta**

18' whip @ 185.2

**3h3 gamma****3h4 alpha**

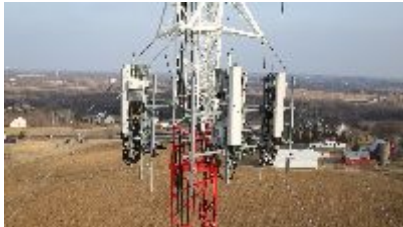
700 MHz array centered @177.25

**3h4 beta****3h4 gamma****3h5 alpha**

Sprint array mounts @ 160



3h5 beta 2



3h5 Beta



3h5 gamma



3h6 alpha



3h6 beta



8' MW @ 117

3h6 gamma**i****Alpha**

[The category "(i) Alpha" is not applicable in this report]

ii**Beta**

[The category "(ii) Beta" is not applicable in this report]

iii**Gamma**

[The category "(iii) Gamma" is not applicable in this report]

iv**Microwave**

[The category "(iv) Microwave" is not applicable in this report]

v**GPS**

[The category "(v) GPS" is not applicable in this report]

vi**Feed Lines****3h30****3h31**

**3h32**

4 Unmanned Aerial Systems (UAS)

a UAS / Drone JSA and flight Plan

b UAS - Exemption and COA

c UAS Images

5 Terrestrial LIDAR

**5a3**

a LIDAR JSA and Scan World Field Notes

b LIDAR Images

**5a1**

6 Engineering Reports - Post Inspection Reports

a Structural Analysis

b Antenna / Feed Line Inventory
