

Groton Wind, LLC

Docket No. 2010-01

Record Request: Redrawn line of sight cross-section sheets (from visual impact study) with correct turbine heights as well as new line of sight calculations.

Response:

Please refer to the attached memorandum from John Hecklau and revised Figure 9 (sheets 2-5) of the Groton Wind Visual Impact Assessment. These drawings replace Figure 9 (sheets 2-5) contained in Volume III, Appendix 24 of the Groton Wind Application.

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## memorandum

**To:** Kristen Goland  
Iberdrola Renewables, Inc. **edr Project No:** 09048

**From:** John Hecklau

**Date:** November 5, 2010

**Reference:** Revised Groton Cross Sections

**Comments:**

Attached is revised Figure 9 (Sheets 2-5) of the Groton Visual Impact Assessment (VIA). The figures have been corrected to show a 399-foot turbine height and associated areas of potential turbine visibility. Additionally, we recalculated the percentage of visibility along each section line. Revised visibility calculations are presented below:

	Total Length of Section	Approximate Length with Turbine Visibility	Percent with Turbine Visibility
Section A-A'	15.9 mi.	7600' +/-	9.0 %
Section B-B'	13.4 mi.	2900' +/-	4.1 %
Section C-C'	18.2 mi.	3400' +/-	3.5 %
Section D-D'	15.2 mi.	1300' +/-	1.6 %

Please note that the small difference in percent visibility, when compared to the information included in the VIA, reflects the fact that a turbine blade tip at 300 feet above ground level is already visible from most of the small open areas along each section line. Adding another 100 feet may increase the amount of turbine that is visible from any given location, but does not substantially increase the areas from which some portion of this turbine may be visible. Please also keep in mind that the percent visibility indicated above is an approximation of the visibility of selected turbines along specific lines of sight. The viewshed analysis provides the best assessment of potential visibility of all the proposed turbines throughout the 10-mile radius study area.

I also wanted to inform you that we double checked the turbine height used in conducting the viewshed analysis, and confirmed that the correct 399-foot blade tip height and 259-foot nacelle height were used in this analysis. Consequently, the viewsheds as shown in the VIA are an accurate indication of potential visibility of the proposed turbines and FAA warning lights within the study area.

We also double checked the turbine height used in the shadow flicker analysis and development of the visual simulations. Again, these were found to be 399 feet, and thus confirmed as being accurate.

**Copies To:** File

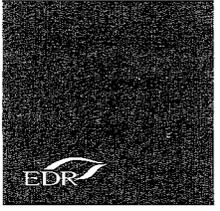
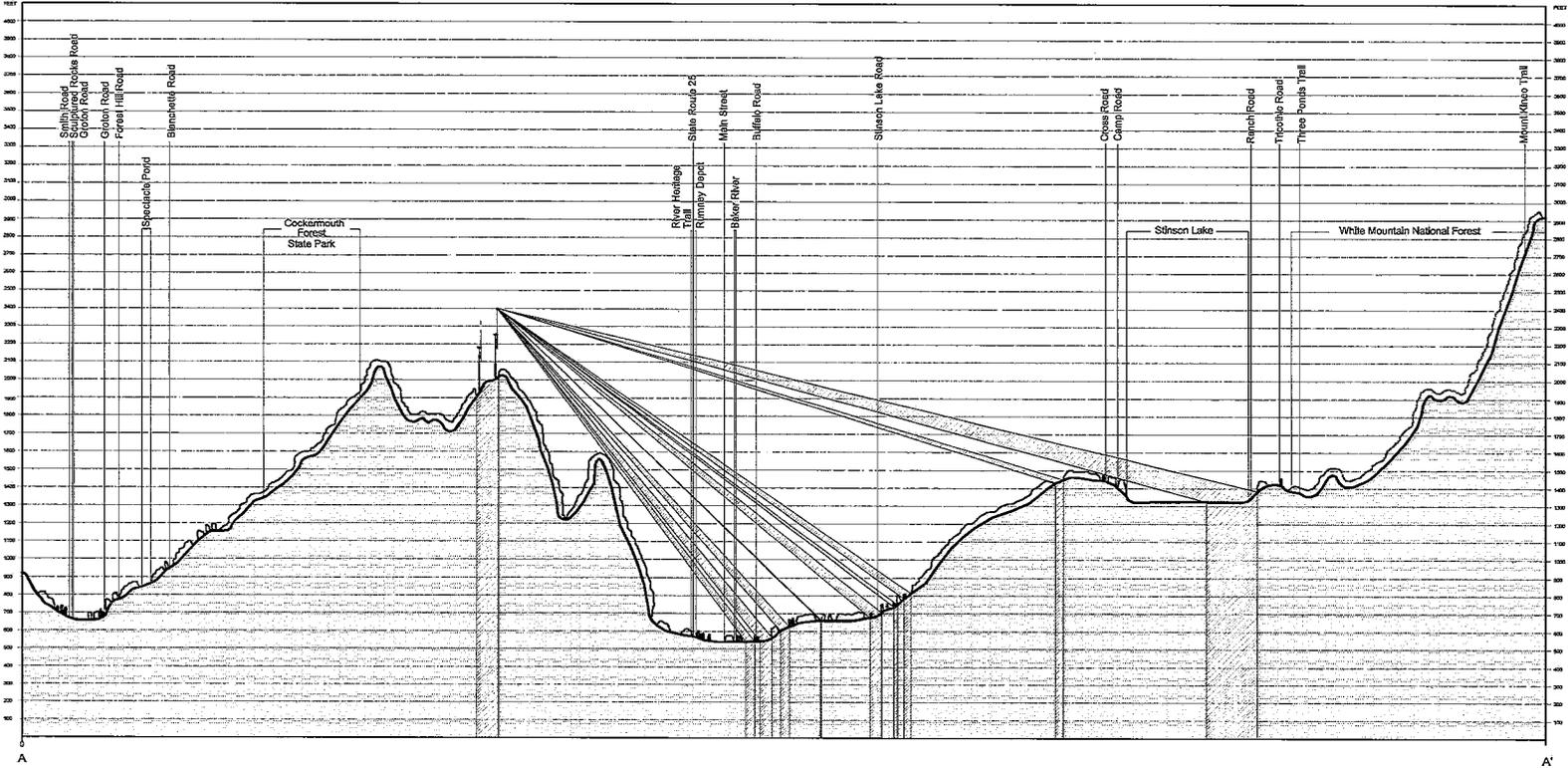
**Groton Wind Project**

Town of Groton  
Grafton County, New Hampshire

Figure 9: Line-of-Sight Cross Sections

Sheet 2 of 5 - Section A-A'

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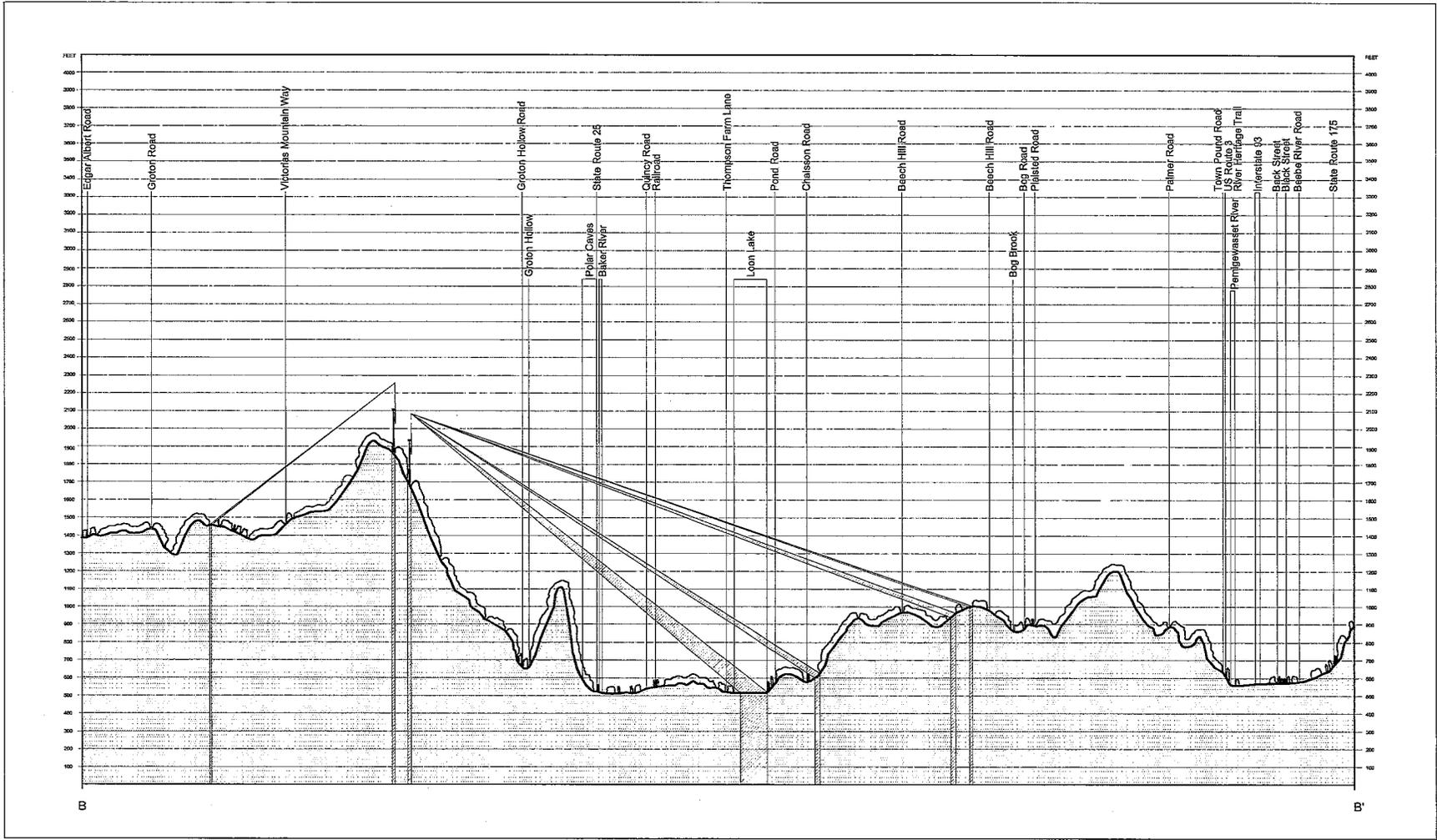
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Figure 9: Line-of-Sight Cross Sections

Sheet 3 of 5 - Section B-B'

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Not Visible

Visible

Trees

Structures



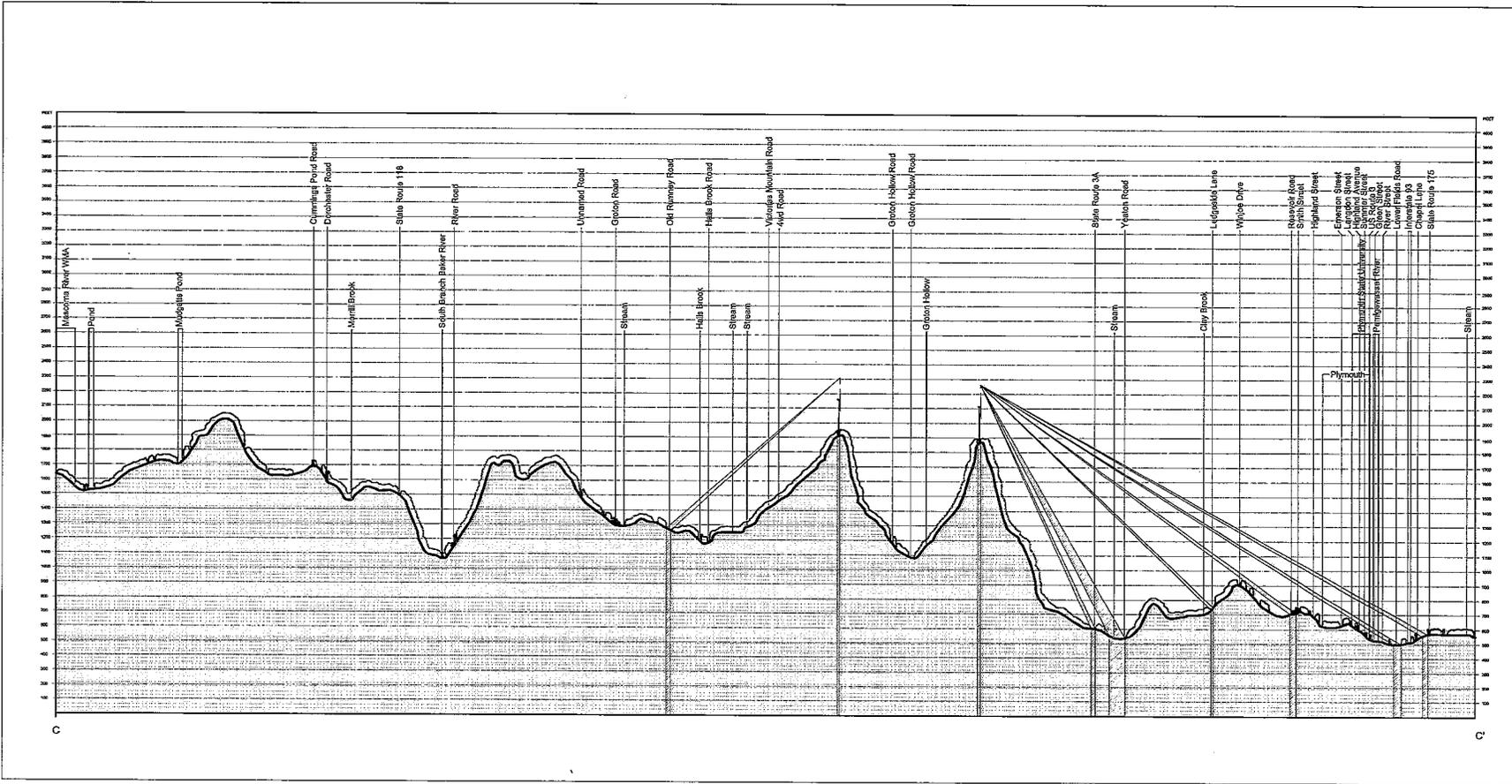
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Figure 9: Line-of-Sight Cross Sections

Sheet 4 of 5 - Section C-C'

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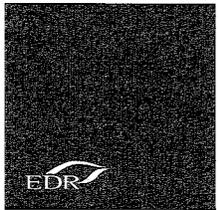


Not Visible

Visible

Trees

Structures



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Figure 9: Line-of-Sight Cross Sections

Sheet 5 of 5 - Section D-D'

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