



November 24, 2011

EastLink Communications  
Attn: Colin MacPhee

**Re: NSA224 – East Lawrencetown**

The following is an attempt to explain our technique to produce the photo renders of the tower sites:

***Eastlink Photo Rendering Procedure***

*Prior to creation of the photo rendering for the cell towers a surveyor went on site at the selected visioning locations to collect images. Multiple photos were taken from each location and in 2 of the images a graduated measuring pole was placed at varying distance from the photo origin. The location of the photo and the 2 measuring pole locations were positioned by GPS.*

*Once the GPS points were loaded into the site plan, created in AutoCAD, horizontal measurements were taken between the photo source, 2 graduated pole locations and the proposed cell tower base. From these values the distance from the image location and the proposed tower was calculated as in a multiple of the distance between the two pole positions.*

*The images were then overlaid and the graduated pole, whose real world length was known, was measured to get an association between actual and photographic vertical distances. By placing the pole at varying distances from the photo source a proportional relationship could be calculated. The apparent shortening of the pole due to perspective was expressed as a percentage.*

*Now knowing the horizontal and vertical relationship between the 2 pole locations and the distance to the proposed cell tower the apparent height of the tower, in the photograph, could be calculated. The rendering was also adjusted for elevation change between the photo and tower locations because the elevation of the camera and tower was known from the GPS coordinates.*

As for the Wide Angle Distortion comments that was spoken about in the YouTube video by Scotty, we didn't apply any wide angle technique to the photograph nor did we use a "Wide Angle Lens" to take the photos. I believe the technique that he spoke about is more commonly known as "Forced Perspective", which has a definition as follows: ***"Forced perspective is a technique that employs optical illusion to make an object appear farther away, closer, larger or smaller than it actually is. It is used primarily in photography, filmmaking and architecture. It manipulates human visual perception through the use of scaled objects and the correlation between them and the***

*vantage point of the spectator or camera". In our development of the photo renderings, we did not use the forced perspective technique.*

As for the comment about the NTS (Not to Scale), since the photo is a perspective view that has a vanishing point it would be completely false to place a scale on such a photograph. Scaled photos are rectified photos mostly in a planimetric view. An example of that would be the overall site view showing the location of the photographs and tower.

I hope the above helps explain the techniques used in the production of the photo renderings.

Regards,

GENIVAR INC.

A handwritten signature in black ink, appearing to read "Kevin Brown". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Kevin Brown, NSLS, PEILS, P. Eng.