

## Chatham Ridgeline Identification

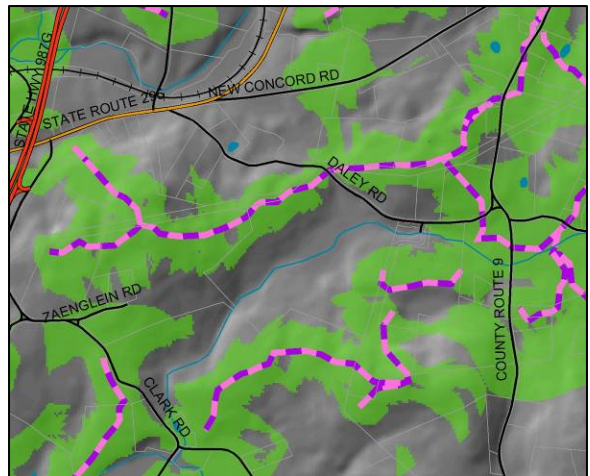
The Comprehensive Plan Steering Committee identified prominent ridgelines as one aspect of the landscape that contributes significantly toward Chatham's rural character. Ridgelines serve as rural landmarks. Landmarks are simple physical



elements that provide uniqueness to a specific area. Landmarks become more significant as they become more easily identifiable, that is, with a clearer form contrasting with their background, in a prominent location. (Lynch, *The Image of the City*, page 78). Clearly defined ridgelines viewed along the horizon provide important landmarks in rural neighborhoods, and along rural transportation routes. Inappropriate development on landmark ridgelines can negatively impact the rural character of these areas.

The following steps were taken to identify important landmark ridgelines in the town of Chatham.

1. Using the GIS database compiled for the comprehensive plan, watershed boundaries were generated. Since they are natural high points where the water flows in opposite directions, ridgelines are always found along a watershed boundary.
2. Using the Digital Elevation Model (DEM) in the GIS database, all of the peaks and high points in the town were identified. Peaks can help identify ridgelines, especially where they occur in a group along a watershed boundary.
3. After identifying watershed boundaries and peaks, every road in the town was driven to identify which ridgelines were visible from public roads. (It is best to actually drive every road in both directions, although this was not done for the entire town.)
4. While driving, conspicuous ridgelines were identified that break the horizon, forming natural landmarks. The viewpoints from which these ridgelines are visible were also recorded.
5. After mapping these landmark ridgelines, a vertical buffer was generated using the GIS. A 40' elevation buffer was used to



**A close up of a section of the ridgeline map**  
Ridgelines are identified by the purple dashed line, 40 ft. elevation buffers are shown in green.

- identify were a house might break the horizon line.
6. In order to constrain the area identified as influencing the visual quality of the identified ridgelines, the elevation buffer was clipped to within  $\frac{1}{4}$  mile of its associated ridgeline
  7. Viewsheds were generated from all of the viewpoints recorded during the field survey.
  8. The viewsheds were then used to refine the ridgeline layer. They helped to identify major ridgelines that might have been overlooked using the watershed method.
  9. The viewsheds were overlaid onto the elevation buffer. This helped to categorize the results, showing which ridgeline buffers are visible from multiple points.

### Things to Consider when Evaluating Visual Impact

- Break of the horizon line
  - A building that rises above the horizon line interrupts the natural horizontal line of the ridgeline, having a negative impact on the view



- Elevation along the slope of the Ridge
  - The higher up the slope, the greater the impact on the character of the ridgeline



- **Height/Mass/Style of the building**
  - The architecture of the building can influence the impact it has on the viewshed. Some buildings will fit into the landscape better than others



- **Color of Building**
  - Some colors will blend into the landscape better than others



- **Screening**
  - Appropriate screening can minimize the impact of a building on the view.



- Inappropriate selective cutting can increase the impact a building has on the view



- Amount/percent of Viewshed Impacted by Building (or Buildings)

- Multiple buildings in a common landscape will occupy a larger percentage of the view, with a correspondingly larger impact on the quality of the view.



- The same number of buildings viewed from a longer distance will occupy a smaller percentage of the view, having a smaller impact on that view.