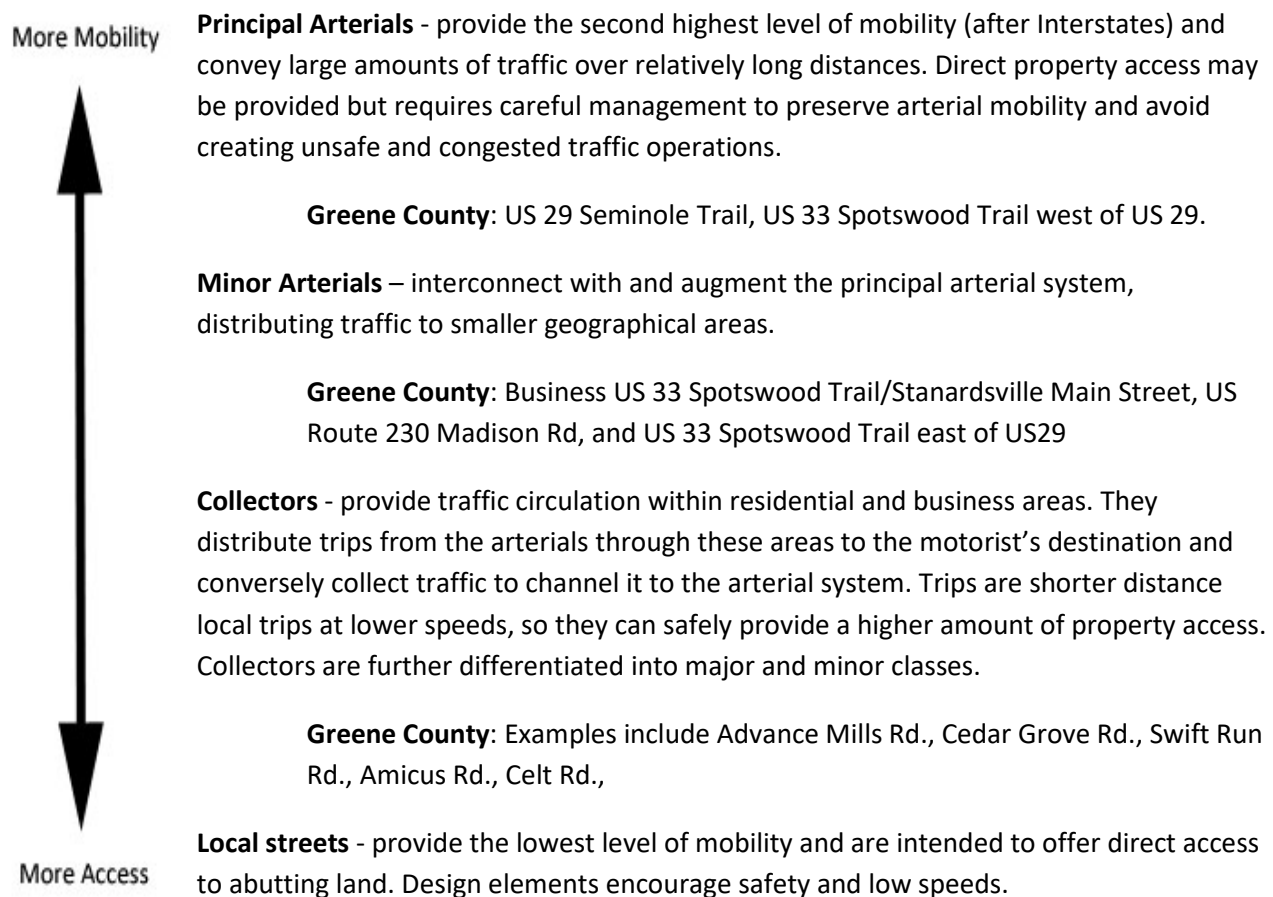

FUNCTIONAL CLASSIFICATION OF ROADWAYS

A street network provides a spectrum of different road types to serve different functions in order to achieve safe and efficient travel circulation. The hierarchy of classification is based on the balance between moving traffic swiftly and in high volumes and providing high levels of access to adjoining properties. Different streets are needed to serve these different purposes. Furthermore, the functional classification of various roadways will significantly overlap with the land use of the adjoining properties. This reality is reflected in the land use chapter of this plan.

The Code of Virginia 15.2-2222.1 requires localities to develop plans that “recognize and differentiate among a hierarchy of roads such as expressways, arterials, and collectors.” VDOT categorizes functional classification according to a statewide standard, differentiating between urban and rural areas. Despite recent growth in Greene’s urban growth areas, the area is still characterized as a rural area as far as functional classification is concerned.



The VDOT classifications have corresponding capacity thresholds attached to them, represented by the following chart. Level of Service (LOS) is a measure of roadway congestion, with LOS A signifying the completely free flow of traffic and LOS F forced or breakdown traffic flows. LOS E, given on the chart, is the maximum capacity of the roadway before reaching failing levels of congestion.

Table 16: Road Classification and Level E Capacity

VDOT classification	Number of lanes	Signal/ spacing	Divided/Undivided	Capacity at Level of Service E
1 - Rural Interstate (n/a for Greene)	4	n/a	divided	63,000
2 - Other Principal Arterial	4	<2 signals/mile	divided	34,200
2 - Other Principal Arterial	4	>2 signals/mile	divided	32,200
6 - Rural Minor Arterial	2	signalized	undivided	14,900
6 - Rural Minor Arterial	4	signalized	divided	31,200
6 - Rural Minor Arterial	2	unsignalized	undivided	27,500
6 - Rural Minor Arterial	4	unsignalized	divided	58,300
7 - Rural Major Collector	2	signalized	undivided	14,600
7 - Rural Major Collector	4	signalized	divided	30,900
8 - Rural Minor Collector	2	unsignalized	undivided	14,600

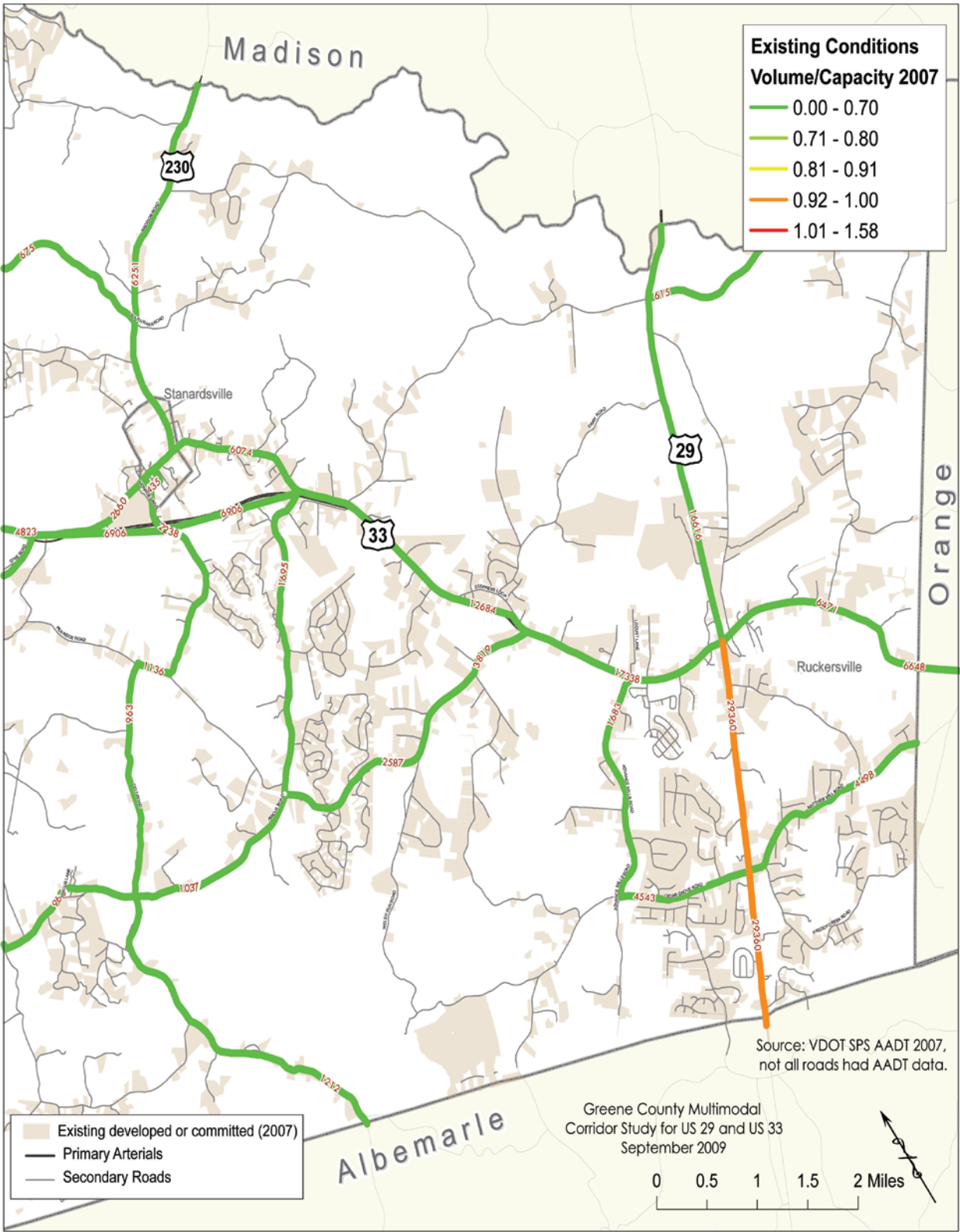
VOLUME TO CAPACITY RATIO

VDOT tracks roadway usage using sensors and cameras and releases a report periodically for each jurisdiction in the State. The measurement most commonly used to determine the volume of traffic on a particular roadway segment is Average Annual Daily Traffic (AADT), defined as the total annual traffic estimate divided by the number of days in the year.

When the existing average volume of traffic is compared to the capacity of the roadway, as determined by its functional classification, a volume-to-capacity (VC) ratio can be discerned. When a VC ratio reaches a value of 1.0 then a roadway segment is considered to be at capacity. The map on the following page shows the VC for current traffic volumes by color. All colors but red are passing. The orange color indicates that a roadway segment is approaching a failing grade, which is 0.91 or greater. The volumes for each segment are labeled on the map.

The future trend analysis, conducted for the *Multimodal Corridor Study*, uses growth projections and land use inputs to model a possible “business as usual” scenario for 2035. The next two pages contain a map of 2007 VC ratios and a map of projected 2035 VC ratios for the areas around Greene Counties’ designated growth area.

Greene County - Existing Conditions 2007 - Volume to Capacity



Greene County - 2035 Trend Road Network Analysis

