Secondary Street Acceptance Requirements

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Secondary Street Acceptance Requirements

- Legislation proposed by Governor Kaine and unanimously approved by General Assembly
- Chapter 382 requires CTB to develop Secondary Street Acceptance Requirements
- New regulation will replace and supersede current Subdivision Street Requirements
- Intended to ensure streets accepted into state system for perpetual public maintenance provide commensurate public benefit

Secondary Street Acceptance Requirements

Secretary Homer has empanelled an Implementation Advisory Committee consisting of representatives from:

- Local Government
- Development Industry
- Planning Organizations
- Other Stakeholders

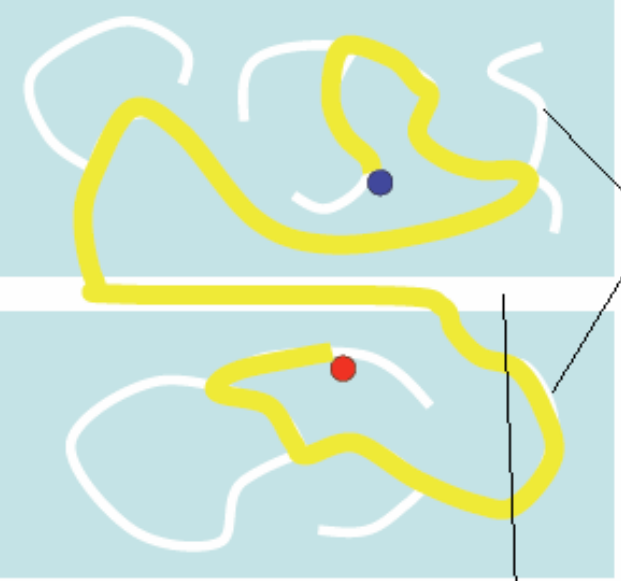
Secondary Street Acceptance Requirements

Legislation mandates that the new regulation include requirements or provisions that:

- Ensure connectivity of road and pedestrian networks with existing and future transportation network
- Minimize storm water run-off
- Minimize impervious surface area through reduced streets widths
- Address performance bonding and cost recovery

Evaluating Connectivity

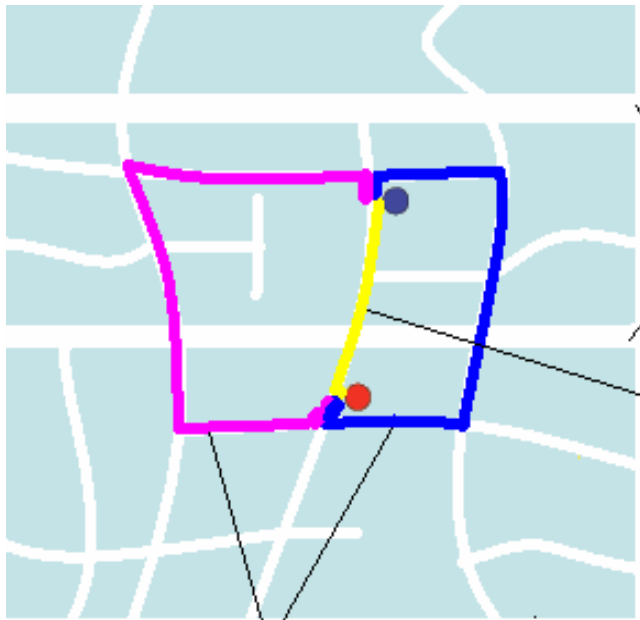
- Highway connectivity is a measure of the degree to which a road network provides direct travel and redundant travel options.
  - Greater connectivity provides increased overall network capacity and reduces reliance on arterial roadways, particularly for local trips
- Pedestrian connectivity is a measure of the degree to which a public network provides direct and safe non-motorized travel options.
  - Greater pedestrian connectivity supports use of alternative transportation modes
- Evaluating connectivity requires consideration of all streets in a proposed development as a whole instead of individually



Conventional Subdivision Street Layout

Major Roadway

Connected Street Network



Major Roadways

Direct Route

Alternative Routes

Network Addition

- Have developed the concept of a “Network Addition”
- Streets within a development will be considered for acceptance into the state system as a whole not individually
- May be conditionally accepted with reduced connectivity and stub-outs for future connections

Network Addition

- Only considering streets for acceptance as network addition is not appropriate in all situations such as in-fill and smaller development

- Provision to allow for acceptance of individual streets not part of a larger network, with different connectivity requirement

What is a Link-Node Ratio?

Link-node ratio is the industry standard connectivity measure applicable to network addition concept

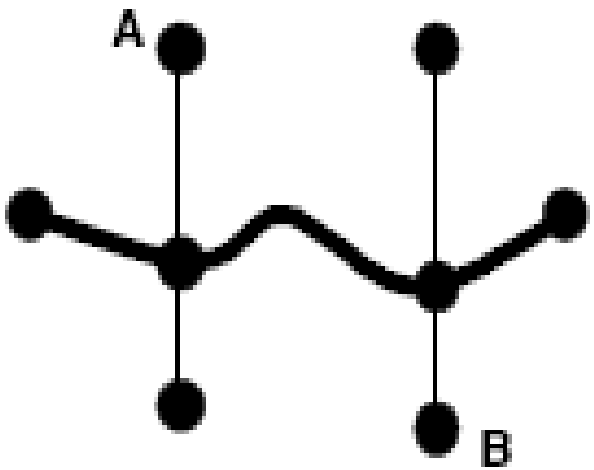
- It is used by many localities including one in Virginia

Link-Node Ratio is the number of links divided by the number of nodes within a development or area.

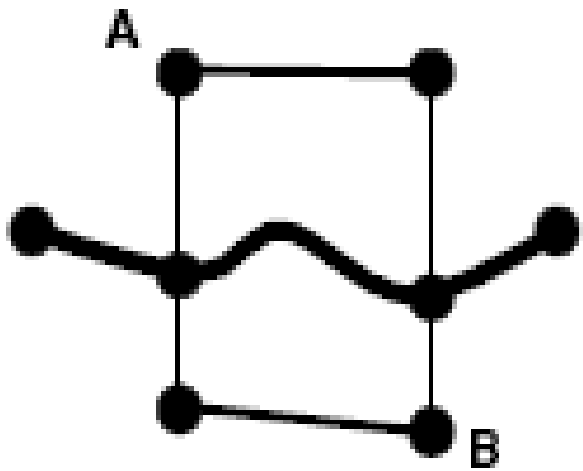
- “Links” are defined as roadway or alley segments between two nodes or a stub-out.
- “Nodes” are intersections or ends of cul-de-sacs.

Link-Node Ratio

Link-node ratio increases as connectivity of road network increases

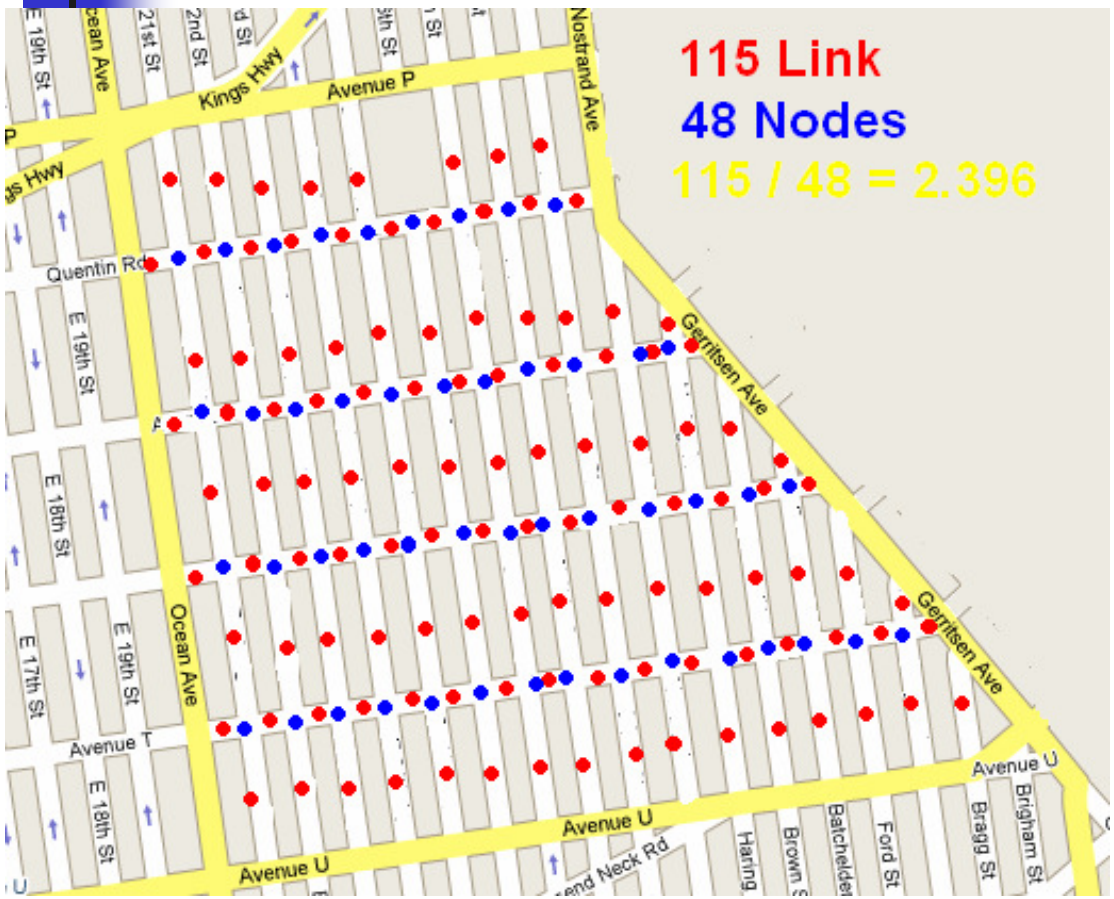


Ratio = 7/8 = 0.88



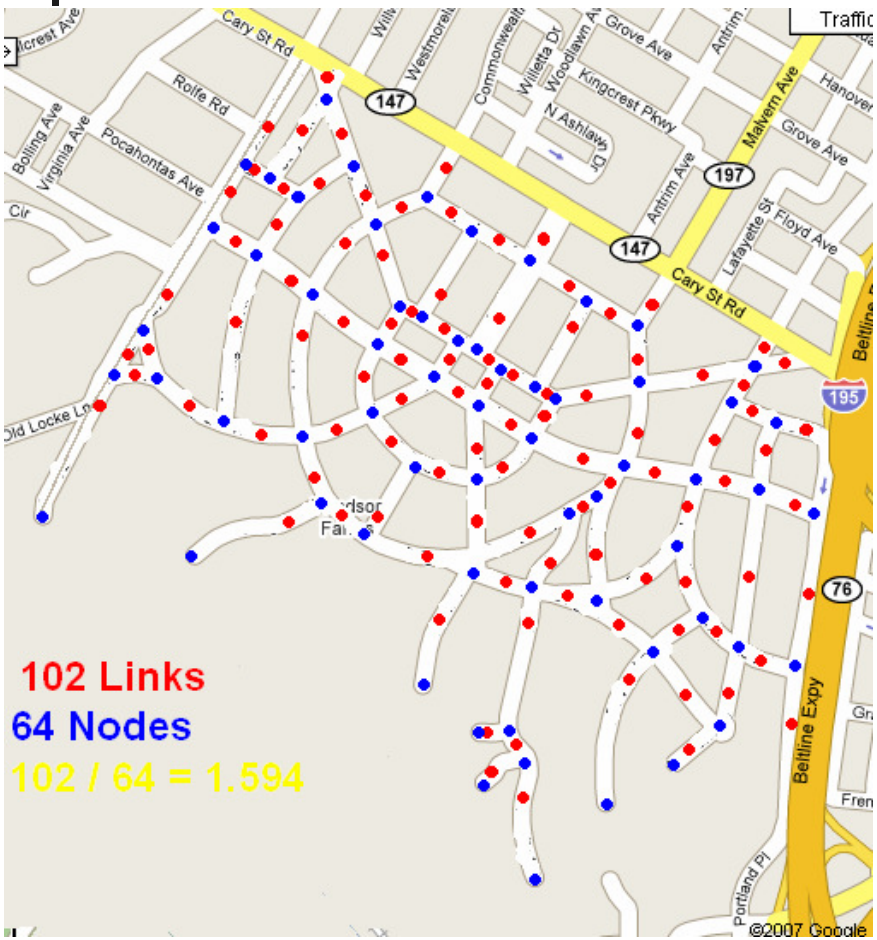
Ratio = 9/8 = 1.13

Link-Node Ratio: Brooklyn



Grid Street Networks generally have link-node ratios between 2.3 and 2.5

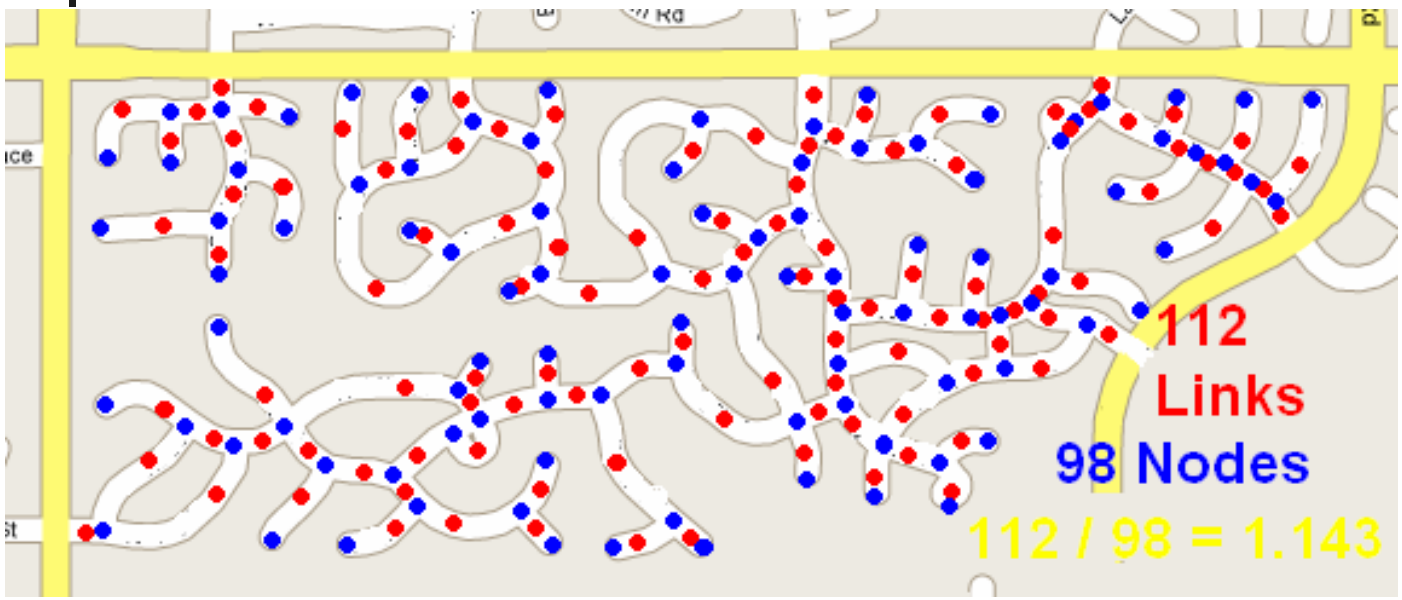
Link-Node Ratio: Richmond



Example of a non-grid street network that provides connectivity

Curvilinear street networks can easily achieve ratios between 1.4 and 1.8

Link-Node Ratio: Conventional Street Layout



Conventional Street Layouts generally have link-node ratios between 1.0 and 1.2

Secondary Streets Acceptance Requirements

The Implementation Advisory Committee is reviewing appropriate level of connectivity for the various Area Types and will make recommendations to the CTB

Intend to publish draft regulation in November Register for public comment

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