



COMMONWEALTH of VIRGINIA
Office of the
SECRETARY of TRANSPORTATION

Secondary Street Acceptance Requirements

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February 26, 2008



Secondary Street Acceptance Requirements

- Initiative is a result of legislation proposed by Governor Kaine and unanimously approved during the 2007 General Assembly Session
- Legislation requires the Commonwealth Transportation Board to develop new Secondary Street Acceptance Requirements
- Regulation will supersede and replace existing Subdivision Street Requirements

Secondary Street Acceptance Requirements

- Intended to ensure streets accepted into state system for perpetual public maintenance provide public benefit
- 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

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Secondary Street Acceptance Requirements

Process to Date

- Internal VDOT team formed – Spring 2007
- Internal VDOT team developed initial draft regulation and reviewed work of Implementation Advisory Committee
- Secretary Homer established Implementation Advisory Committee which reviewed and refined the draft regulation – summer/fall 2007

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Process to Date (cont'd)

- **Implementation Advisory Committee consisting of stakeholders has met five times, membership includes:**
 - Development community
 - Local government officials
 - Planning district commissions
 - Environmental community
 - Other stakeholders

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Secondary Street Acceptance Requirements

Timeline

- **Input from Commonwealth Transportation Board - ongoing**
- **Outreach with localities and developers throughout Virginia - ongoing**
- **Publish regulation for public comment, public hearing held – early to mid 2008**
- **Advisory Committee reviews public comments and refine regulation – summer/fall 2008**
- **Final action by CTB – late 2008**

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Secondary Street Acceptance Requirements

New concepts/standards in draft regulation

- Network Addition
- Area Types
- Connectivity
- Vesting
- Conditional Acceptance
- Pedestrian Accommodations

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Secondary Street Acceptance Requirements

Streets may be accepted as:

- Network addition (group of streets)
- Individual street

To be accepted into state system streets must provide public benefit, defined as:

- Public service
- Connectivity*
- Pedestrian accommodations*

*Vary depending on location of development

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Secondary Street Acceptance Requirements

Network Additions

- Evaluating connectivity requires consideration of all streets in a proposed development as a whole instead of individually
- Streets within a development will be considered as a group for acceptance into the state system

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Area Types

Draft regulation propose:

- Establish graduated requirements based on location and conditions, with appropriate flexibility
- Create areas based on long-term local, regional and federal planning boundaries
- Three tiered system
 - Compact Area Type
 - Suburban Area Type
 - Rural Area Type

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Area Types

Compact Area Type

- Census urbanized areas
- Census urban clusters
- Urban development areas
- Transfer of development rights receiving areas
- Any area designated by local comprehensive plan

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Area Types

Suburban Area Type

- Metropolitan planning organization study boundary
- 2-mile buffer around urban development areas and urban clusters
- Cluster developments
- Area designated by local comprehensive plan

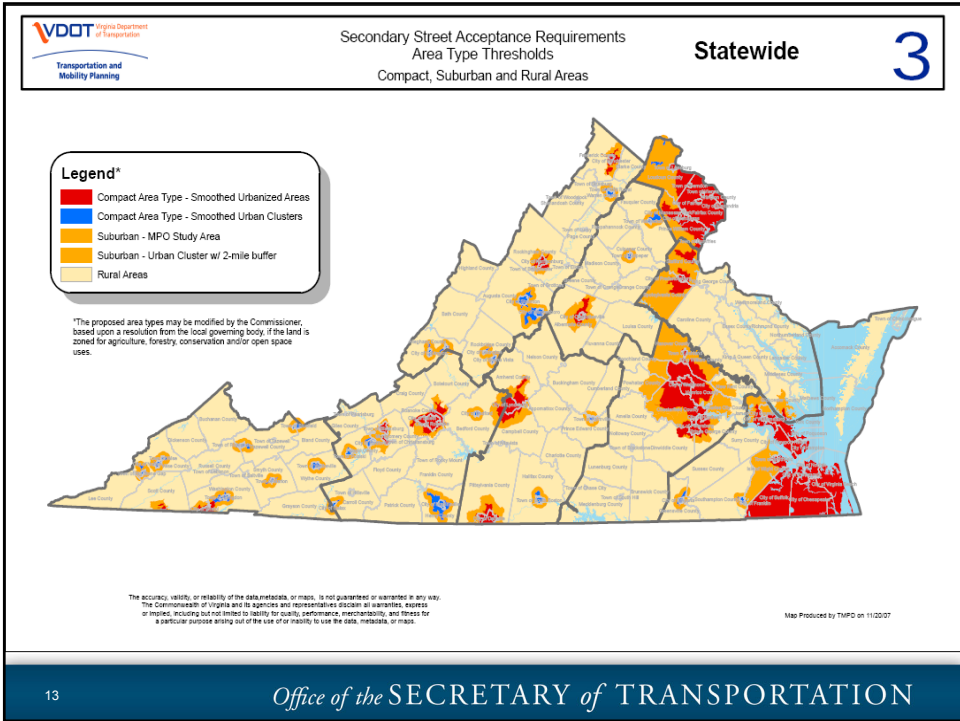
Rural Area Type

- All other areas of the state

Area types may be modified at the request of the local governing body

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Connectivity Requirements

Legislation states that regulation shall include:

“requirements to ensure the connectivity of road and pedestrian networks with the existing and future transportation network”

Benefits of connectivity

- **Improve the effectiveness of the overall regional and local transportation network**
- **Provide redundant routes and increase network capacity**
- **Reduce reliance on arterial roadways for local trips**
- **Provide direct and alternative routes for emergency service providers**

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Connectivity Requirements

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

- It is used by many localities in the country including one in Virginia

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

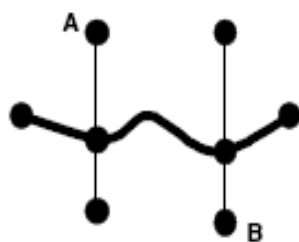
- “Links” are defined as roadway or alley segments between two nodes or a stub-out.
- “Nodes” are intersections or ends of cul-de-sacs

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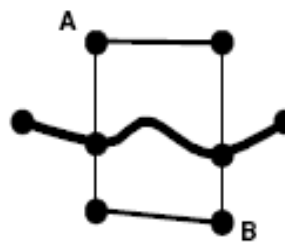
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Connectivity Requirements

Link-node ratio increases as connectivity of road network increases



$$\text{Ratio} = 7/8 = 0.88$$

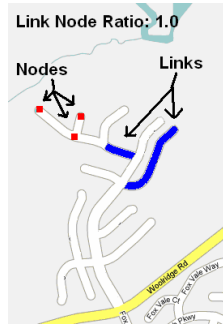
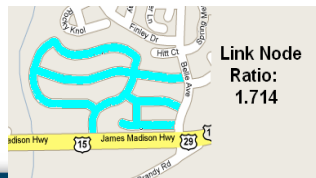
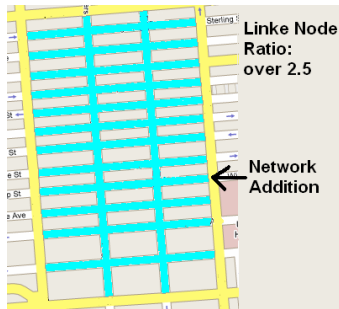


$$\text{Ratio} = 9/8 = 1.13$$

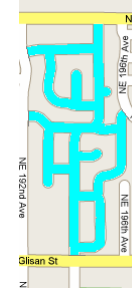
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Connectivity Requirements - Examples



Link-node ratio of 1.474



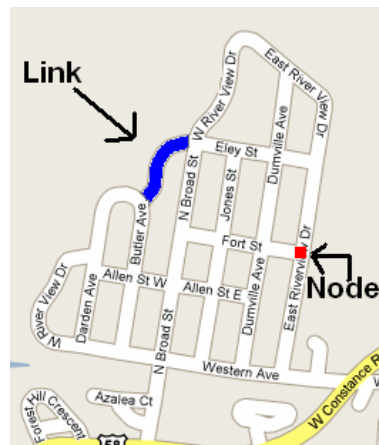
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Connectivity Requirements

Compact Area Type for Network Additions

- Link-Node Ratio of 1.6 or greater
- One external connection as well as an additional external connection and stub-out per 50 links or fraction thereof



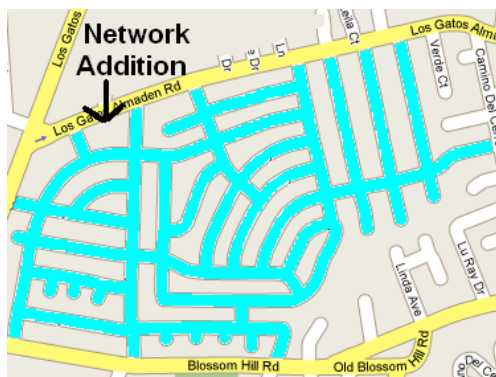
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Connectivity Requirements

Suburban Area Type for Network Additions

- Link-Node Ratio of 1.4 or greater
- One external connection as well as an additional external connection and stub-out per 50 links or fraction thereof



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Connectivity Requirements

Rural Area Type for Network Additions

- One external connection as well as an additional external connection and stub-out per 50 links or fraction thereof

All Area Types

- Developments must connect with adjoining development's stub-outs to be eligible for acceptance into state system

Stub out is a short segment of street at the edge of development intended to provide connectivity with future development

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Connectivity Requirements

- **Requirements are goals**
 - There will be circumstances when they can not be met
- **Do not apply to rural addition, industrial access roads**
- **Exceptions**
 - Incompatible land use
 - Physical impedance such as terrain, river, etc
 - Existing development
 - Parcel shape
 - Access management requirements
- **External links of collector or arterial roadways will count as two links for calculation of link-node ratio**

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Vesting and Grandfathering

- **Streets within a proffered plan of development, site plan/subdivision plat, preliminary subdivision plat or approved street construction plan may be accepted under former requirements**
- **Regulation allows previous area type requirements to apply when area type is modified after approval of development proposal**

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Conditional Acceptance

- If allowed by the locality a developer may choose to meet link-node ratio requirements for network addition through provision of additional stub-outs
- Process would carry risk that if locality or other entity prevents the stub-outs from being connected with future development, network addition would be removed from the state system after one year and adjoining network addition would be ineligible for acceptance into state system

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Pedestrian Accommodations

- **Compact Area Type**
 - Sidewalks along both sides of the street
- **Suburban Area Type**
 - Sidewalks along both sides of the street or a system of trails and sidewalks
 - Developments with 2+ acre lots may use trail system or sidewalk along one side of the street
- **Rural Area Type**
 - Trail system or sidewalk along one side of the street
 - Streets with ADT of 200 or less are not required to provide pedestrian accommodations

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Appeals

- **Developer may appeal to the District Administrator on unresolved differences of opinion**
 - **DA has 45 days to respond to such request**
 - **Developer may request a meeting to discuss issues**

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Design Requirements

- **Streets must meet geometric requirements in Road Design Manual, Subdivision Street Design Guide and Pavement Design Guide**
- **Street widths within Subdivision Street Design Guide will vary based on whether parking is on-street or off-street**
- **VDOT may establish reduced parking requirements for individual or classes of development**
- **On-street parking, if desired, will be allowed on local and collector roadways with 35mph or less speed limit in urban areas**

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Design Requirements

- **Stormwater management facilities allowed within VDOT right-of-way with appropriate agreements**
 - No VDOT liability
- **Curb and gutter is an optional street design element**
- **Requirements for utility placement**
- **Other safety requirements (dams, RR crossings, etc)**
- **Neo-traditional development section is removed**
- **Use street design to manage motor vehicle speed to match local context**

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Surety and Fees

- **Surety**
 - \$3,000 per tenth of lane mile, increased based on construction CPI
 - For up to three years, based on type of inspection process utilized
- **Administrative Cost Recovery Fee**
 - \$3,000 per center lane mile, based on 2006/2007 study
- **Inspection Fee**
 - \$1,500 per lane mile if VDOT inspects
 - \$375 per lane mile if alternative inspection processes are used

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Inspection of Streets

- **Normal VDOT inspection process**
 - Full inspection fee and surety requirements
- **Third party inspection process**
 - Reduced inspection fee and reduced surety requirements
- **Local certification process**
 - Reduced inspection fee and surety requirements are waived
- **Detailed VDOT inspection process**
 - Inspection fee and surety requirements are waived
- **Options provide incentives to developers to use more detailed inspection and use non-VDOT staff**

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