Watson Road Turning Movement Counts

Study Area Traffic Conditions

Watson Road Turning Movement Counts and Study Area Traffic Conditions

As of June 12, 2018

Leesburg

Dulles

Goombas Quattro Courtland Farm Ln Golf

Creighton Farms Dr 0.5 Airport Golf Course Business Fire Department Law Enforcement

Ocelot Prince Recreation Religious Institution

LITTLE RIVER Banshee Twin Oaks Everfield Dr

RED CEDAR Marcum Farm M Christmas Tree Farm Preserve and Study Area

Traffic Conditions

and Study Area Traffic Conditions

As of June 12, 2018

John Mosby Hwy

Previous Site of Leesburg

Loudoun 121 (26)

Church Watson R

313 (57) Academy

23 (141) 403 (325)

Tall Cedars Pkwy

Beaverdam Manor House Rd

Columbia West

Beverdam

Regional Park Winery

Elementary School

Springs

27 (60)

Ladbrook Dr

Reservoir Rd

309 (47)

386 (520)

386 (520)

313 (57) 

10 (50) 2 (3)

10 (48) 2 (4)

4:45 - 5:45PM

7:30 - 8:30AM

February Peak:

85th Percentile (mph): 55 42

Average Speed (mph): 47 42

March April

441 (473)

83 (15) 6 (8)

85th Percentile (mph): 55 50

Average Speed (mph): 49 47

* Weekday TMCs for Evergreen SportsPlex collected Tuesday, March 6-7, 2018, and April 11-12, 2018, 48 hours

** Weekend TMCs for Evergreen SportsPlex collected Saturday,

March 6-7, 2018, and April 11-12, 2018, 48 hours

study and were counted in October 2017.
As of June 12, 2018

Turning Movement Counts & Speed
Evergreen Mills Road—North & South

Traffic Data Collected: Tuesday, February 13, 2018, 16-hour counts (5AM-9PM)
Speed Data Collected: March 8, 2018, and April 11-12, 2018, 48 hours

Average Weekday Traffic:
March: 15,000
April: 10,000

85th Percentile (mph):
March: 56
April: 54

Average Speed (mph):
March: 46
April: 47

May Peak Hour Traffic Volumes

March April
Traffic Counts:

AM Peak: 7,500 - 8,000
PM Peak: 6,000 - 6,500

Traffic Counts:

AM Peak: 7,500 - 8,000
PM Peak: 6,000 - 6,500

Northern Portion of Corridor

Southern Portion of Corridor
Evergreen Mills Road
• Stripe wide edge lines
• Contains Hot Spots 1 - 3

Southeast Zone

SHORT-TERM RECOMMENDATIONS

Example 4-in Edge Line Recommendation

Right of Way

Example from FHWA Example 8-in Edge Line

Stone Springs Boulevard
• Install street name signs
• Install retroreflective tape to bollards
• Install additional pavement markings ("puppy tracks" through intersection and wider edge lines)
• Install high-visibility signal backplates (HVSBs)
• Install advance warning beacon – dependent on timing for County right-turn lane project

Southeast Zone & Hot Spot 3

Hot Spot 3
Evergreen Mills Road & Stone Springs Boulevard

SHORT-TERM RECOMMENDATIONS

Recommendation

Stone Springs Boulevard

Install roadside street name signs
Install retroreflective material on bollards
Install additional pavement markings ("puppy tracks" through intersection and wider edge lines)
Install high-visibility signal backplates (HVSBs)
Install advance warning beacon – dependent on timing for County right-turn lane project

Southeast Zone

Stripe wide edge lines

Right of Way

Recommendation

Stone Springs Boulevard

Install roadside street name signs
Install retroreflective material on bollards
Install additional pavement markings ("puppy tracks" through intersection and wider edge lines)
Install high-visibility signal backplates (HVSBs)
Install advance warning beacon – dependent on timing for County right-turn lane project

Southeast Zone & Hot Spot 3

Hot Spot 3
Evergreen Mills Road & Stone Springs Boulevard

SHORT-TERM RECOMMENDATIONS

Recommendation

Right of Way

Example from FHWA Example 8-in Edge Line

Stone Springs Boulevard
• Install street name signs
• Install retroreflective tape to bollards
• Install additional pavement markings ("puppy tracks" through intersection and wider edge lines)
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Southeast Zone

Stripe wide edge lines

Right of Way

Recommendation

Stone Springs Boulevard

Install roadside street name signs
Install retroreflective material on bollards
Install additional pavement markings ("puppy tracks" through intersection and wider edge lines)
Install high-visibility signal backplates (HVSBs)
Install advance warning beacon – dependent on timing for County right-turn lane project
**Hot Spot 4 & Hot Spot 5**

**Briarfield Lane/Belmont Ridge Road**

- VDOT intersection improvements
- Install "No Merge Area" plaque for channelized right-turn
- Install "shark tooth" yield line for channelized right-turn
- Install high-visibility signal backplates (HVSBs)
- Install missing signal head visors
- Relocate EB signal ahead warning sign
- Assess NB stop bar for sight distance improvement
- Evaluate traffic signal operations (clearance calculations, signal timing, left-turn phasing)

**Red Hill Road/Ryan Road**

- Install high-visibility signal backplates (HVSBs)
- Relocate EB and WB signal ahead warning signs
- Evaluate traffic signal operations (clearance calculations, signal timing, left-turn phasing for side streets)

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**Short-Term Recommendations**

Evergreen Mills Road & Briarfield Lane/Belmont Ridge Road

- VDOT intersection improvements
- Install "No Merge Area" plaque for channelized right-turn
- Install "shark tooth" yield line for channelized right-turn
- Install high-visibility signal backplates (HVSBs)
- Install missing signal head visors
- Relocate EB signal ahead warning sign
- Assess NB stop bar for sight distance improvement
- Evaluate traffic signal operations (clearance calculations, signal timing, left-turn phasing)

Evergreen Mills Road & Red Hill Road/Ryan Road

- Install high-visibility signal backplates (HVSBs)
- Relocate EB and WB signal ahead warning signs
- Evaluate traffic signal operations (clearance calculations, signal timing, left-turn phasing for side streets)
Short-Term Recommendations

**Evergreen Mills Road (Route 621)**

- Install retroreflective material on guardrail
- Install wider edge line pavement markings
- Install additional stop sign for the northbound approach
- Install pole mounted speed display signs (PMSDs)
- Install intersection conflict warning system (ICWS)

**Watson Road**

- Install retroreflective material on top of the guardrail
- Install wider edge line pavement markings
- Install additional stop sign for the northbound approach
- Install pole mounted speed display signs (PMSDs)
- Install intersection conflict warning system (ICWS)
Short-Term Recommendations

**Crimson Place/Red Cedar Drive**
- Install pole mounted speed display signs (PMSDs)

**Hot Spot 7**
- Evergreen Mills Road & Crimson Place/Red Cedar Drive

**Hot Spot 8**
- Evergreen Mills Road & Shreve Mill Road

**Crimson Place/Red Cedar Drive**
- Install pole mounted speed display signs (PMSDs)

**Evergreen Mills Road**
- Upcoming left-turn lane for Firing Range
- Install "No Merge Area" plaque for channelized right-turn and "shark tooth" yield line for channelized right-turn
- Install high-visibility signal backplates (HVSBs)
- Install missing signal head visors
- Relocate EB signal ahead warning sign
- Assess NB stop bar for sight distance improvement
- Evaluate traffic signal operations (clearance calculations, signal timing, left-turn phasing)

**Shreve Mill Road**
- Upcoming left-turn lane for Firing Range
- VDOT intersection improvements
- Install "No Merge Area" plaque for channelized right-turn and "shark tooth" yield line for channelized right-turn
- Install high-visibility signal backplates (HVSBs)
- Install missing signal head visors
- Relocate EB signal ahead warning sign
- Assess NB stop bar for sight distance improvement
- Evaluate traffic signal operations (clearance calculations, signal timing, left-turn phasing)
Evergreen SportsPlex

Hot Spot 9

SHORT-TERM RECOMMENDATIONS

Recommendation

Right of Way

Install WB side road warning sign

Hot Spot 9

Evergreen Mills Road & Evergreen SportsPlex

Install advanced intersection warning sign for the westbound approach

Hot Spot 4

Evergreen Mills Road & Briarfield Lane/Belmont Ridge Road

SHORT-TERM RECOMMENDATIONS

Recommendation

Right of Way

VDOT intersection improvements

• Install "No Merge Area" plaque for channelized right-turn and "shark tooth" yield line for channelized right-turn

• Install high-visibility signal backplates (HVSBs)

• Install missing signal head visors

• Relocate EB signal ahead warning sign

• Assess NB stop bar for sight distance improvement

• Evaluate traffic signal operations (clearance calculations, signal timing, left-turn phasing)
Hot Spot 10

Watson Road & Red Hill Road

Short-Term Recommendations

Red Hill Road

- Install retroreflective delineators around the curve
- Install pole mounted speed display signs (PMSDs)
- Install horizontal alignment chevrons for the northbound and southbound approaches
- Relocate curve warning sign further upstream
- Add supplemental plaques for intersection warning sign with road name on it
- Tree trimming/removal of vegetation
- Replace and relocate flood warning sign in the southbound direction
- Relocate/consolidate signage to reduce sign clutter in the northbound direction

Briarfield Lane/Belmont Ridge Road

- VDOT intersection improvements
- Install “No Merge Area” plaque for channelized right-turn and “shark tooth” yield line for channelized right-turn
- Install high-visibility signal backplates (HVSBs)
- Install missing signal head visors
- Relocate EB signal ahead warning sign
- Assess NB stop bar for sight distance improvement
- Evaluate traffic signal operations (clearance calculations, signal timing, left-turn phasing)
The image is a map of a corridor with various recommendations for short-term improvements. The recommendations are listed in red boxes along with their corresponding actions. The map includes sections for different roads such as 9 Evergreen SportsPlex, 8 Shreve Mill Road, 7 Crimson Place/Red Cedar Drive, 6 Watson Road, 5 Red Hill Road/Ryan Road, 4 Briarfield Lane/Belmont Ridge Road, 3 Stone Springs Boulevard, and Corridor-Wide.

The recommendations include:
- Installing advance intersection warning signs
- Installing high-visibility signal backplates (HVSBs)
- Installing centerline omnipresent raised pavement markers (SRPMs)
- Installing intersection conflict warning systems (ICWS)
- Installing pole-mounted speed displays signs (PMSDs)
- Installing centerline snowplowable raised pavement markers
- Installing pole-mounted speed display signs (PMSDs)
- Installing additional pavement markings
- Installing high-visibility signal backplates (HVSBs)
- Installing stop signs
- Installing intersection conflict warning systems (ICWS)
- Installing pole-mounted speed display signs (PMSDs)
- Installing one-time tree trimming/removal of vegetation
- Installing pole-mounted speed display signs (PMSDs)
- Installing high-visibility signal backplates (HVSBs)
- Installing advance warning beacons

The map also shows various places of interest such as Historic Park & Mt. Zion, Oatlands Mill Rd, Gilbert's Corner, Southbound direction, Replace and relocate flood warning sign in the southbound direction, Relocate curve warning sign further upstream for the eastbound approach, Install retroreflective delineators around the curve, Install centerline snowplowable raised pavement markers, and Install high-visibility signal backplates (HVSBs) along Watson Road.

The Corridor-Wide Short-Term Recommendations section includes:
- Installing centerline omnipresent raised pavement markers (SRPMs) along Watson Road
- Installing retroreflective post delineators at specific locations along Watson Road corridor (edge lines are not implemented)
- Installing pole-mounted speed display signs (PMSDs)
- Installing additional pavement markings (e.g., centerline, crosswalks)
- Installing high-visibility signal backplates (HVSBs)
- Installing advance warning beacons

The map also includes a legend for All Crash Hot Spots and a scale in miles.