





ROUTE 360 SAFETY IMPROVEMENT ROAD DIET

Town of Warsaw, Richmond County

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Why is a project needed on Route 360?

The crash and injury rate in Warsaw is above the state average.

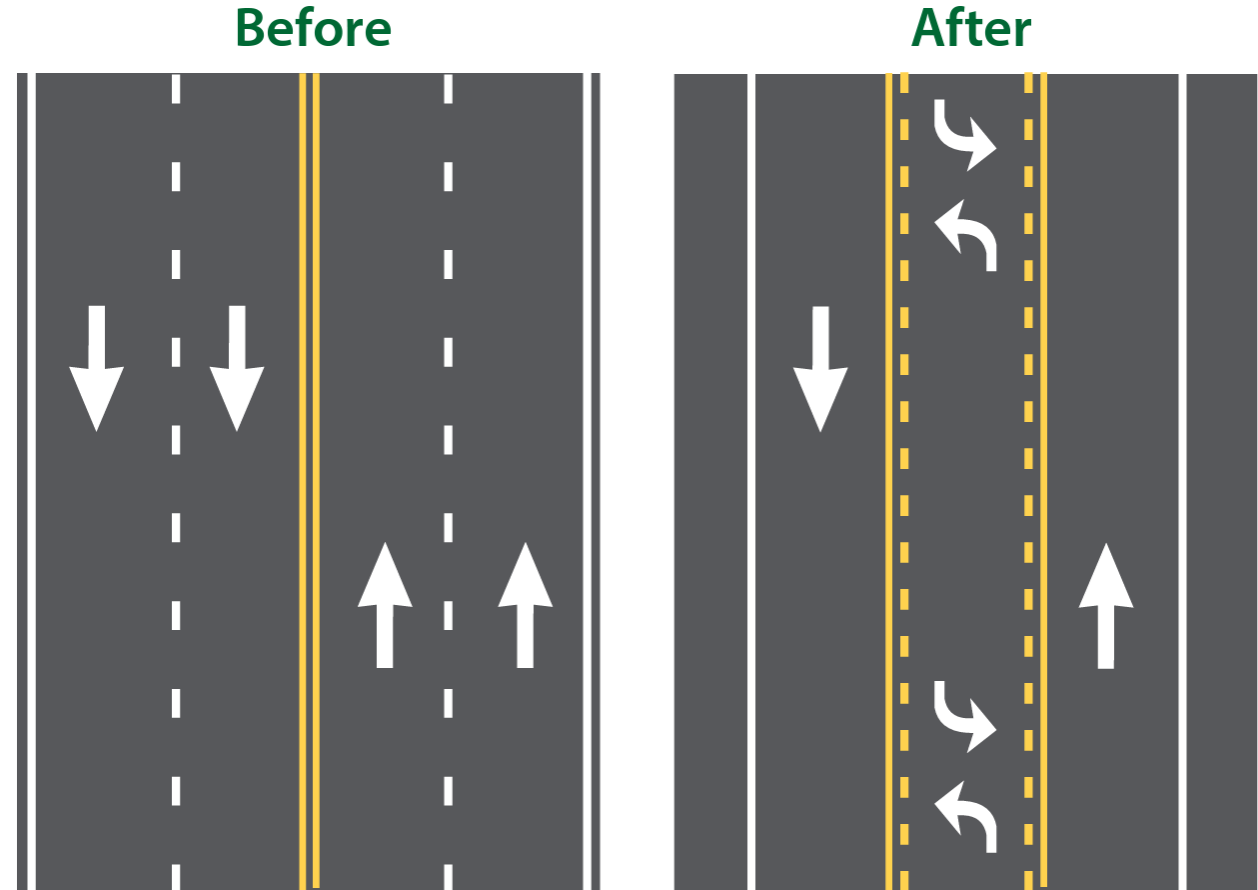
Route 360, Gordon Lane to Route 3 (2017-2020)

	Total	Angle	Rear End	Sideswipe	Fixed Object – Off Road	Deer	Backing
Crashes	30	12	11	4	1	1	1
Injury	11	5	5	1	0	0	0
Property Damage Only	19	7	6	3	1	1	1

Angle and rear-end crashes most common

We recommend changing the traffic pattern to reduce crashes.

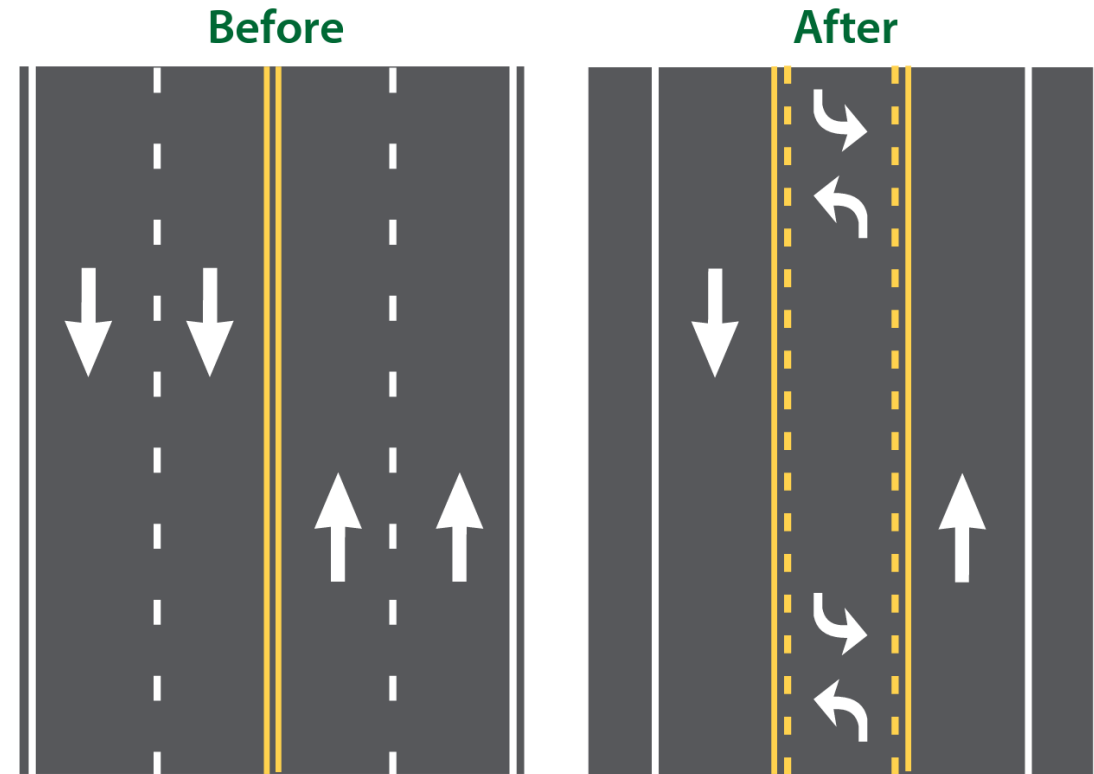
- **After paving in 2024, new lane markings would install a “road diet”**
- **2 travel lanes**
- **Center two-way turn lane**
- **No widening needed**
- **Built within existing road**
- **No changes to entrances**



When are road diets recommended?

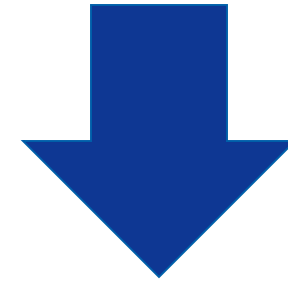
When there is a need to

- Improve safety
- Reduce speeds
- Mitigate left turning traffic
- Improve bicyclist accessibility
- Enhance pedestrian environment
- Best for locations with 20,000 vehicles a day or fewer

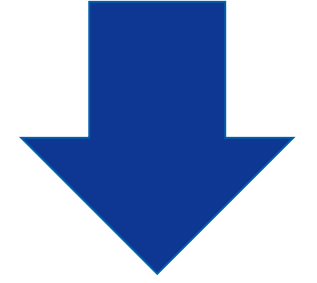


Benefits at a glance

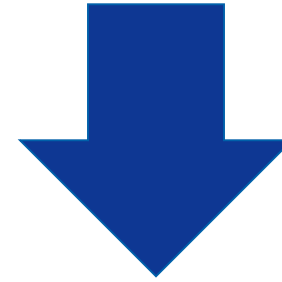
- **Reduced crash rate overall**
- **Reduces rate of severe crashes (fatalities and injuries)**
- **Reduced rear-end crashes**
- **Reduced angle crashes**
- **Reduced head-on crashes**



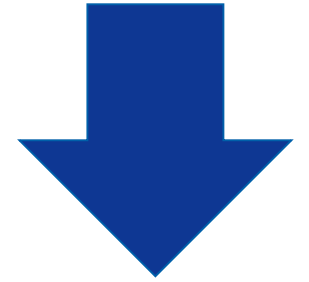
**Overall
crashes**



**Severe
crashes**



**Angle
crashes**



**Rear-end
crashes**

Benefits at a glance, continued

- **Reduced vehicle speeds**
- **Fewer lanes for pedestrians to cross**
- **Complements town sidewalk**
- **Improves sight distance**
- **Easier for side street traffic to see gaps**
- **Wider lanes and shoulders make it easier to turn right**
- **Center lane as refuge for left turns**



Road diets in Virginia

Lawyers Road, Reston

- **2 miles**
- **Around 10,000 vehicles a day**
- **Crashes fell by 70 percent over the following 5 years**



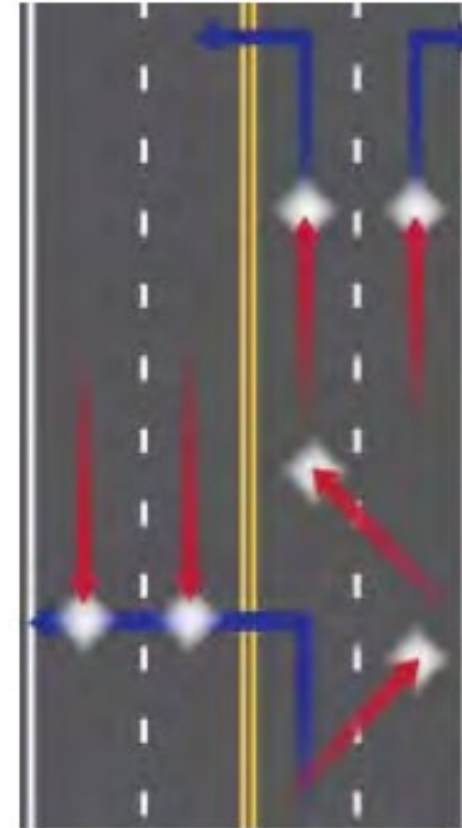
Community survey taken one year after installation found ...

- *69 percent said Lawyers Road seemed safer*
- *69 percent said vehicle travel times had not increased*
- *59 percent said vehicle speeds had dropped*
- *74 percent agreed that the road diet had improved Lawyers Road*

Fewer conflict points

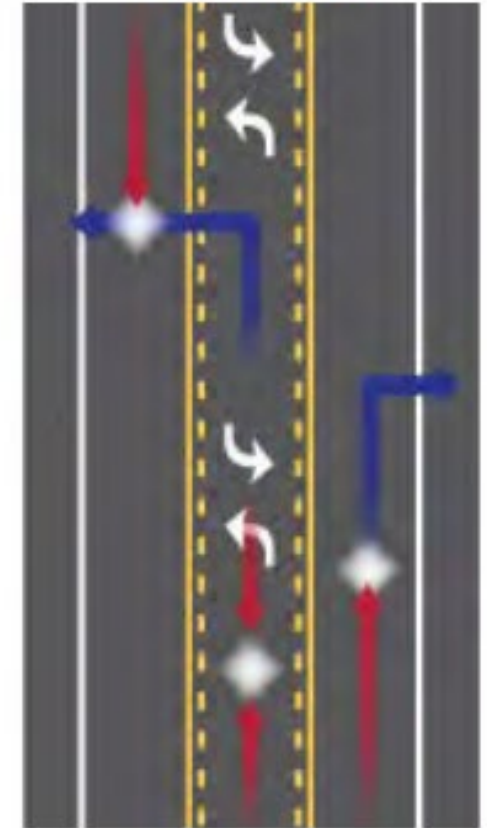
- Left lane traffic slows, stops to turn
- Avoids sideswipe crashes than can result from abrupt lane changes
- Reduces head-on crashes by separating eastbound and westbound Route 360
- 29 percent reduction in overall crash rate anticipated
- Greater reduction likely for severe crashes with injuries and/or fatalities

Four-Lane Undivided



Current:
6 conflict points

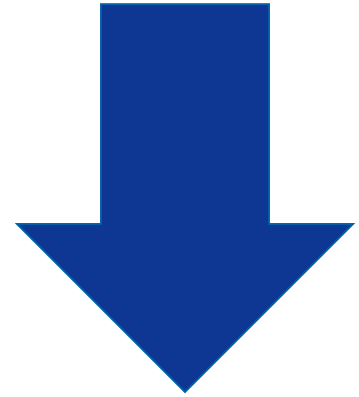
Three-Lane



Road diet:
3 conflict points

Traffic calming effect

- **Vehicles speeds after road diet expected to fall by 3-5 mph on average**
- **Posted speed limit will remain 35 mph**
- **Average speed is 37-39 mph**
- **15 percent of drivers are traveling at 45 mph or faster**
- **Reduces extreme speeding**



**Reduces speed
3-5 mph,
on average**

Wider travel lanes

Existing travel lane width:

9 to 11 feet, varying

Design travel lane standard:

11 feet

Proposed travel lane width

with road diet:

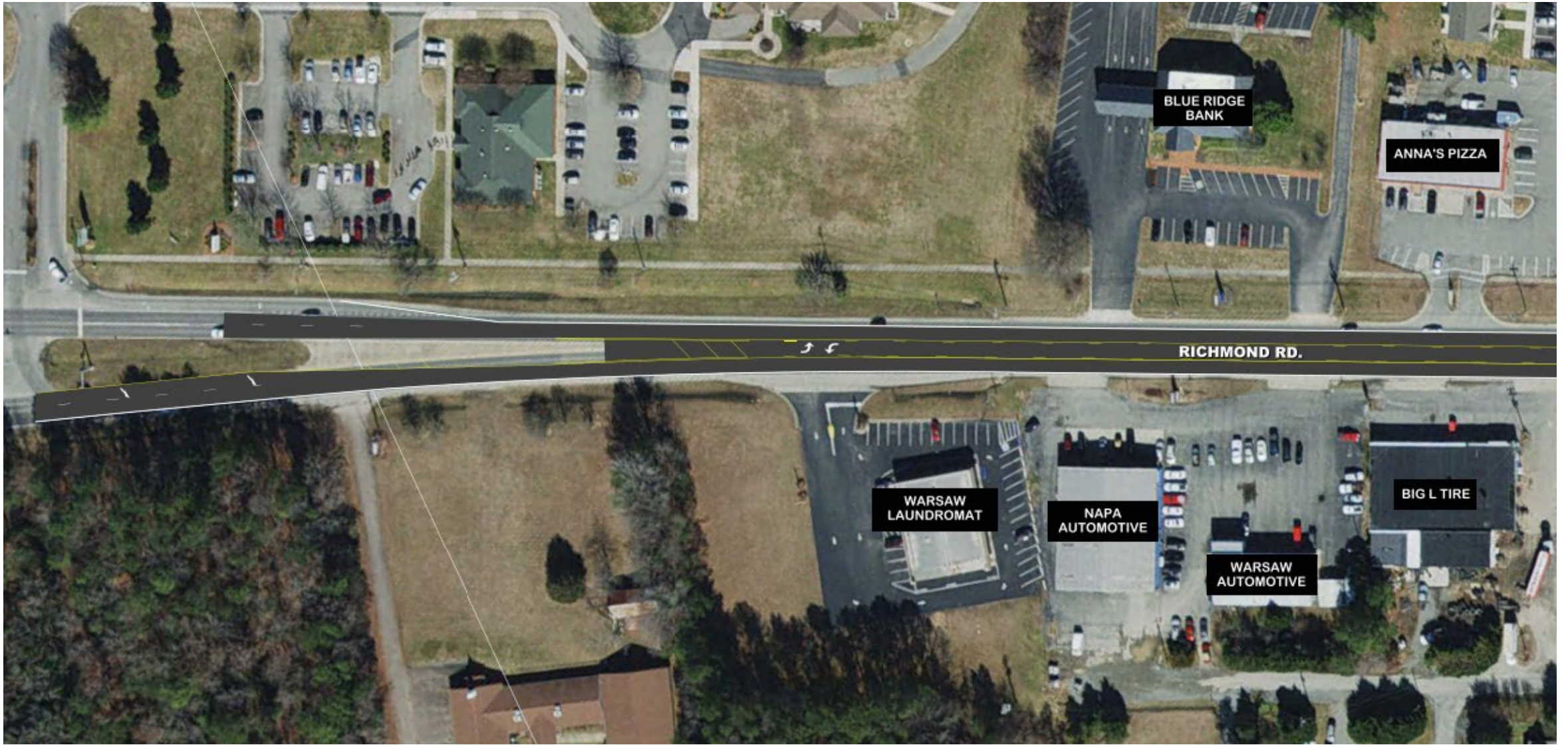
11.5 to 13 feet, varying

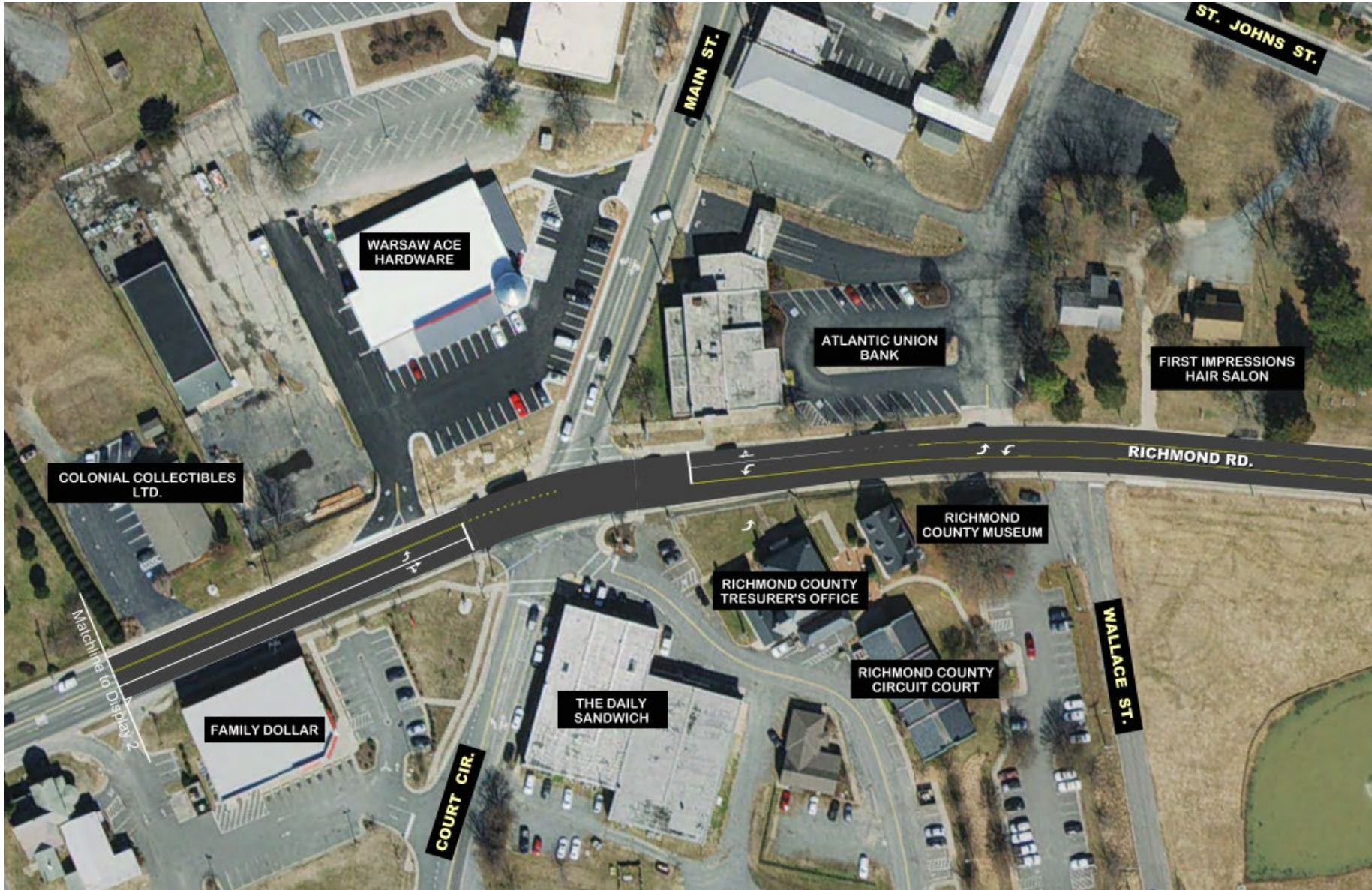
Shoulder width:

3.5 foot shoulder west of Jones Lane and Morgan Lane

Average Vehicle Widths

Vehicle Type	Typical Width
Car	6 feet
Pickup	6.7 feet
Tractor-Trailer	8.5 feet







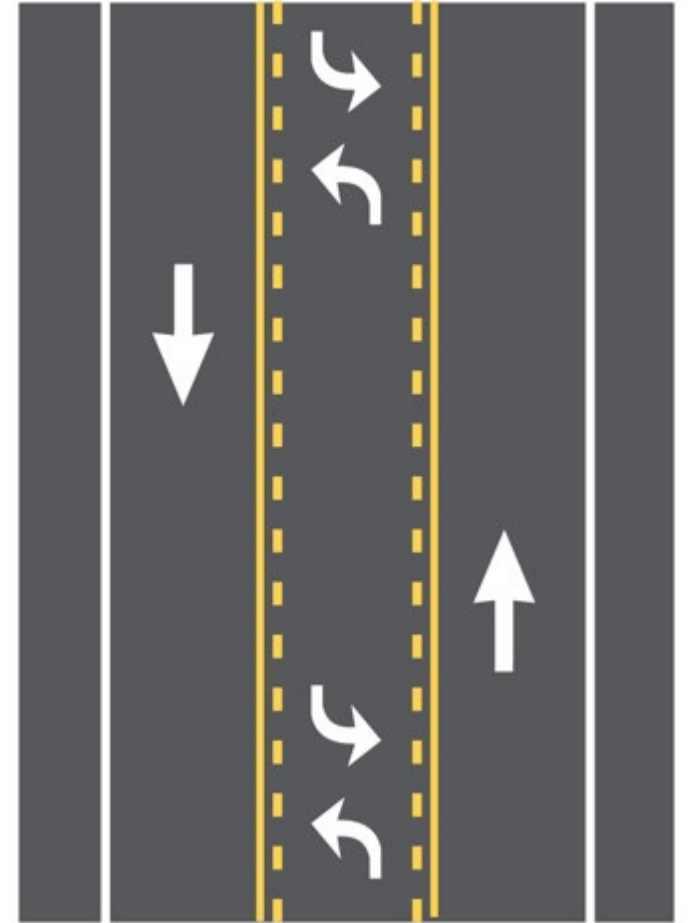
Can a road diet handle the capacity in Warsaw?

Route 360 vehicle count

- 13,000 vehicles a day in 2022
- July 4th weekend: 10,000 eastbound vehicles a day
- 18,000 vehicles a day anticipated in 2035

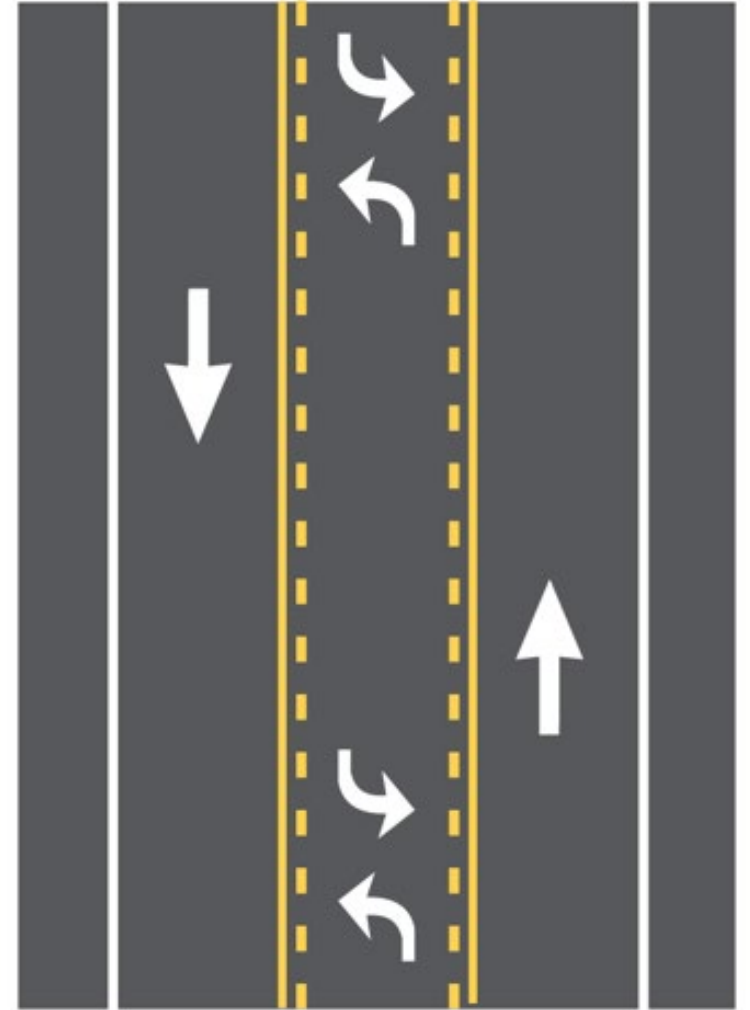
Traffic signals

- Eastbound signal unchanged
- Westbound signal modified
 - Adds 3 to 7 cars in queue
 - Signal timing adjustment



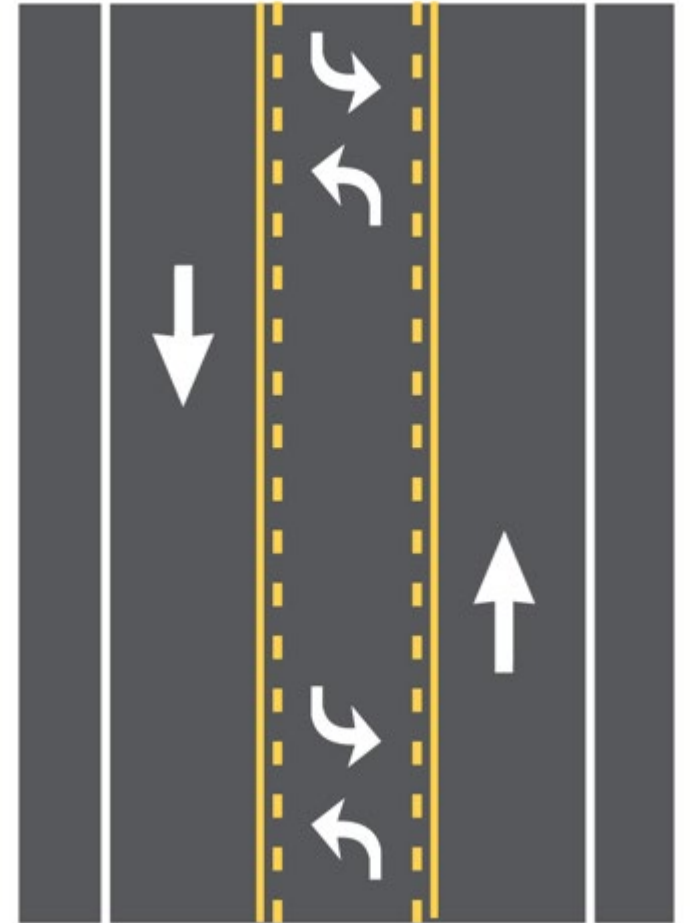
How will drivers enter from side streets?

- Fewer lanes to cross
- Ability to use center lane as refuge
- Slower mainline speeds
- Signals provide gaps in traffic



Why can't we install traffic signals?

- Numerous side streets in corridor
- Many do not connect
- Traffic signals warrants are not met
 - Requires 960 vehicles a day approaching for a signal
 - 180 vehicles a day approach Route 360 at Morgan Lane



Anticipated project schedule

Winter 2023: Advertised to potential bidders

Spring 2024: Public outreach on how to navigate a road diet

Summer 2024: Construction

Cost

- **\$30,000 for pavement marking, signs, traffic control**
- **No local matching funds required**
- **Paving already funded through state maintenance budget**

VDOT Fredericksburg District staff

Northern Neck Residency

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Thank you!

Opportunities for comment through April 28, 2023

Online at <https://www.virginiadot.org/Route360RoadDiet>

Email us at fred.comments@vdot.virginia.gov

Leave comment form in box this evening.

Mail comment form to us, postmarked by April 28:

VDOT Northern Neck Residency

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