

Comments by:

Jim Norman
3721 Templeton Place
Alexandria Resident for over 30 years

"I want to speak about **facts** – and Seminar Road

Safety is the neighborhood and the Seminary's number one concern. 25 miles per hour speed limit is exceeded by more than 12 miles per hour all day long by many drivers.

Because it **feels unsafe**, it is avoided by pedestrians; because it is avoided by pedestrians, there are few pedestrian deaths and injuries. Dean Knowles won't let her children walk 3 blocks to MacArthur School. She Drives.

The Virginia Seminary (landowner of almost ½ of this section of Seminary Road) has informal classes in Faculty Homes every Thursday morning **except** when the class has to cross Seminary. They have to find other space.

For our faculty and staff who commute by bus, or students who take the bus to Old Town, crossing four lanes of traffic is dangerous. We strongly support the pedestrian refuge islands that allow crossing direction at a time as the safest option. (see flyer attached).

One seminarian, from the West Coast, where Road Diets are commonplace said, "Road Diets are **Better Design** for safety. Road diets, when installed correctly, have been proven to work over and over again and not add congestion." (Reference Articles, attached).

Dean Markham sent a letter in early April where ha said, "... this is a once in 20-year opportunity to improve the safety of the community... The program of the Seminary and the safety of the community needs to be our collective priority." Obviously we need the buffer lanes, the sidewalk completion, the speed reduction, but I'll leave that to other speakers.

Please direct staff to bring forward the safest option, including pedestrian refuge islands.

(3:02 minutes)



U.S. Department of Transportation
Federal Highway Administration

PROVEN SAFETY COUNTERMEASURES



Medians and Pedestrian Crossing Islands in Urban and Suburban Areas



Median and pedestrian crossing islands near a roundabout.

Source: www.pedbikeimages.org / Dan Burden

SAFETY BENEFITS:

RAISED MEDIAN

46%

Reduction in pedestrian crashes

PEDESTRIAN CROSSING ISLAND

56%

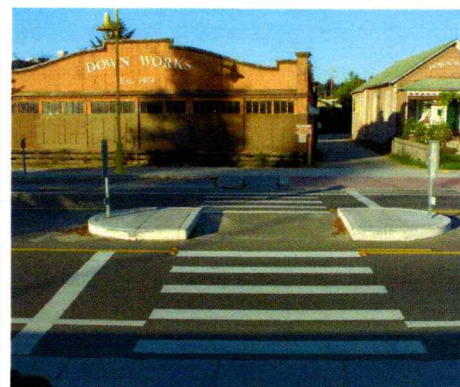
Reduction in pedestrian crashes

Source: *Desktop Reference for Crash Reduction Factors*,
FHWA-SA-08-011, September 2008, Table 11.



Example of a road with a median and pedestrian crossing islands.

Source: City of Charlotte, North Carolina



Example of a pedestrian crossing island.

Source: pedbikeimages.org / Dan Burden

A **median** is the area between opposing lanes of traffic, excluding turn lanes. Medians in urban and suburban areas can be defined by pavement markings, raised medians, or islands to separate motorized and non-motorized road users.

A **pedestrian crossing island** (or refuge area) is a raised island, located between opposing traffic lanes at intersection or midblock locations, which separate crossing pedestrians from motor vehicles.

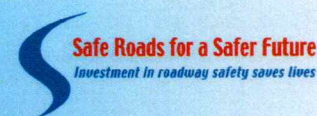
Pedestrian crashes account for approximately 15 percent of all traffic fatalities annually, and over 75 percent of these occur at non-intersection locations.¹ For pedestrians to safely cross a roadway, they must estimate vehicle speeds, adjust their walking speed, determine gaps in traffic, and predict vehicle paths. Installing raised medians or pedestrian crossing islands can help improve safety by simplifying these tasks and allowing pedestrians to cross one direction of traffic at a time.

Transportation agencies should consider medians or pedestrian crossing islands in curbed sections of urban and suburban multi-lane roadways, particularly in areas with a significant mix of pedestrian and vehicle traffic and intermediate or high travel speeds. Some example locations that may benefit from raised medians or pedestrian crossing islands include:

- Mid-block areas.
- Approaches to multi-lane intersections.
- Areas near transit stops or other pedestrian-focused sites.

→ For more information on this and other FHWA Proven Safety Countermeasures, please visit <https://safety.fhwa.dot.gov/provencountermeasures>.

FHWA-SA-17-064



<http://safety.fhwa.dot.gov>

¹ National Highway Traffic Safety Administration, *Traffic Safety Facts - 2015 Data - Pedestrians*. Report DOT HS 812 375, (Washington, DC: 2017).

Despite the controversy, Silver Lake's 'road diet' worked

By DAVE GOODSMITH AND BEN VAN DYKE



A bicyclist rides alongside traffic on Rowena Avenue. (Los Angeles Times) In 2013, the Los Angeles Department of Transportation rather famously installed a safety improvement project on Rowena Avenue in Silver Lake, with the goal of saving lives by reducing deadly collisions. The "road diet," as the project was called, shaved the busy commuter surface street from four

lanes to three, partially as a response to the death of Ashley Sandeau, who was struck and killed by a vehicle while attempting to cross the street to see her father.

Speed is the No. 1 factor in vehicular homicide. According to the American Automobile Association, the average risk of death for a pedestrian reaches 10% at an impact speed of 23 mph, 50% at 42 mph and 90% at 58 mph. Putting streets on a "diet" slows traffic, making it safer for cyclists and pedestrians and greatly improving the odds that when accidents do occur, the results are far less deadly.

Some nearby residents, however, complained that the new street design — though well-intentioned — increased traffic and decreased safety by diverting drivers onto neighboring residential streets. They organized a much-publicized petition calling for the city to provide an alternative solution to its road diet plan.

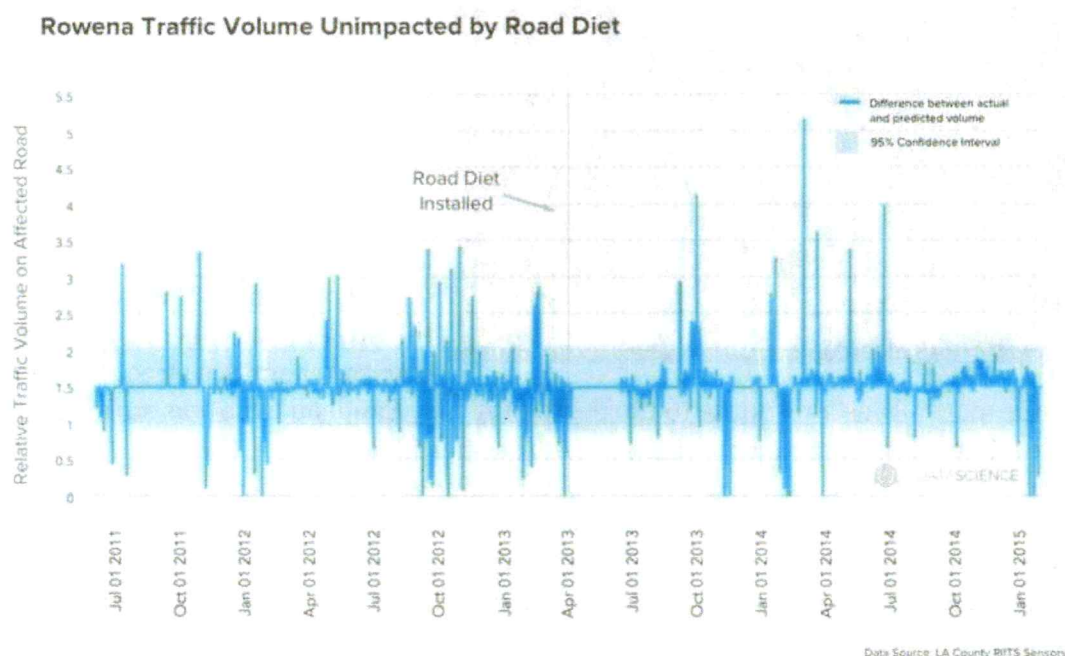
Data collected from road diets in other cities across America generally disputes residents' complaints — despite reducing speed, traffic volume is rarely affected. However, impact studies require time to compile data, something LADOT didn't have the luxury of as it fended off critiques of its plan. The implications of the controversy are wide-reaching, as L.A.'s citywide "Mobility Plan 2035" calls for the construction of road diets, among other road safety infrastructure, on streets across the city.

And so the debate over whether road diets in L.A. are an important public safety measure or a traffic nightmare-maker has raged on. Until now.

Since the road diet was installed more than three years ago, LADOT has been collecting data on traffic patterns. An analysis of that data makes it clear that the project has worked as intended: Average speeds dropped from 39 mph to 35 mph, and safety has significantly increased on Rowena, with no effect on overall traffic volume.

To come to this determination, we obtained data collected by LADOT from induction loops — or traffic sensors — embedded in the asphalt throughout Los Angeles County. There are sensors installed at either end of the road diet on Rowena itself, and we examined the data before and after the diet to see its impact on traffic volume.

LADOT's traffic sensors provided us with estimated vehicle counts about once per minute. We analyzed the average traffic counts on Rowena both before and after the project and found that typical traffic volume was unchanged after the road diet was implemented.



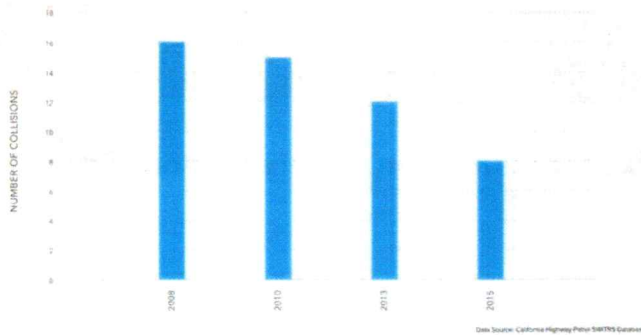
(DataScience)

In addition, publicly available collision data collected by the California Highway Patrol show that motor vehicle crashes dropped after project implementation. Collisions on Rowena were lower in 2013 and 2015 compared with identical periods in 2010 and 2008. In 2008 and 2010, there were six crashes where unsafe speed was a contributing factor. In 2013 and 2015, there were zero crashes involving unsafe speeds. Collisions involving pedestrians and bicyclists also declined after the introduction of the road diet.

Improved safety for all road users, especially pedestrians and bicyclists — the primary goal of the project — has clearly been achieved.

Total Collisions on Rowena Avenue

During Comparable Months (March - November)



(DataScience)

Measuring the impact on cut-through traffic is more complicated. LADOT does not have sensors installed on Angus, a natural cut-through, making it impossible to directly measure traffic volume. Additionally, Waze and other real-time navigation apps — that

proactively reroute motorists onto side streets to avoid congestion — rose in popularity over roughly the same period as the road diet conversion, preventing us from determining the exact cause of any additional cut-through traffic.

Nevertheless, without directly addressing the cut-through issues, we can convincingly conclude that traffic volume is unchanged on Rowena — and that the street is much safer now than it was before the road diet. These results challenge the perception that Los Angeles is too auto-centric for road diets to work. In fact, Los Angeles' experience with Rowena is consistent with a proven track record of success around the nation.

Concerns about cut-through traffic remain valid, and they can be addressed through engineering solutions that keep the benefits of the road diet intact. Now that the city participates in the Waze "Connected Citizens Program" and can access anonymized data from nearly 2 million users in Los Angeles, future interventions, such as road diets, will be able to be analyzed easily for cut-through impacts, in addition to volume, speed and safety.

Beyond safety, road diets make streets more accessible to pedestrians and bicyclists, bringing us closer to a future Los Angeles unburdened by the polluted, traffic-choked stereotype that exists today. Our analysis of the Rowena project confirms that road diets work — even in the most congested city in America.

Dave Goodsmith and Ben Van Dyke are data scientists at DataScience Inc. You can find them on the DataScience blog and Twitter. Ruslana Dalinina contributed data modeling to this report.

State's Highest Court Holds NYC Liable for Injuries on Streets Without Traffic Calming

- By [Brad Aaron](#) [Jan 5, 2017](#)

Gerritsen Avenue, where a speeding driver severely injured 12-year-old Anthony Turturro after locals asked DOT to calm traffic on the street. A state Court of Appeals ruling exposes the city to liability for failing to redesign streets when it's aware of dangerous conditions.

The Court of Appeals, New York's highest court, ruled that New York City and other municipalities can be held liable for failing to redesign streets with a history of traffic injuries and reckless driving.

The [ruling](#) stems from a crash in 2004, when Louis Pascarella, driving "at least" 54 miles per hour in a 30 mph zone, struck 12-year-old Anthony Turturro as he rode a bike on Gerritsen Avenue. Pascarella later pled guilty to assault.

A civil trial jury awarded Turturro \$20 million, finding the city 40 percent responsible for the crash. The city appealed, and the case made its way to the Court of Appeals, which last month rendered a 6-1 finding in favor of Turturro.

"This decision is a game-changer," says Steve Vaccaro, an attorney who represents traffic crash victims. "The court held that departments of transportation can be held liable for harm caused by speeding drivers, where the DOT fails to install traffic-calming measures even though it is aware of dangerous speeding, unless the DOT has specifically undertaken a study and determined that traffic calming is not required."

At trial, Turturro's attorneys presented evidence that in the years before the crash, residents asked the city to take measures to calm traffic on Gerritsen, which locals described as a "racetrack."

DOT subsequently conducted studies at three intersections, according to court documents, and "notified police of the speeding problem after each study." But DOT didn't look at the incidence of speeding along Gerritsen Avenue as a whole, and failed to follow up with NYPD to determine if speeding was still a problem.

Prior to the crash, DOT did not study potential traffic-calming measures like narrower lanes or raised crosswalks for Gerritsen, the court noted.

From the decision by Justice Eugene Fahey:

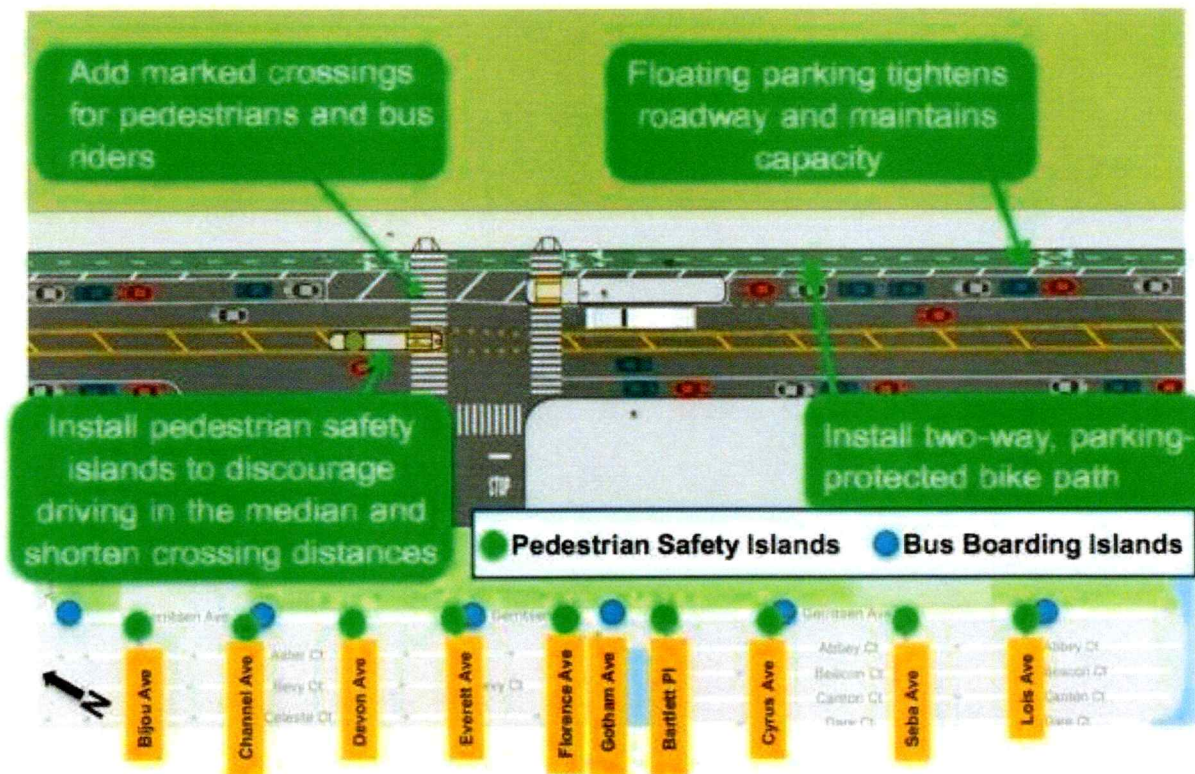
Plaintiffs' expert testified that it was known among traffic engineers that straight, wide roads with little interference from pedestrians and other vehicles, such as Gerritsen Avenue, encourage speeding because drivers feel more comfortable on roadways with those characteristics. He testified that traffic calming measures deter speeding because they cause drivers to be more cautious, and that such measures are known to reduce the overall speed on roadways.

"There was a rational process by which the jury could have concluded that the City's negligence was a proximate cause of the accident," Fahey concluded.

Transportation Alternatives Executive Director Paul Stealy White said the court's decision should prompt Mayor de Blasio to "make a greater investment in street safety redesigns" in the next city budget. For the last two years the mayor has resisted calls from the City Council to [increase funding](#) for Vision Zero street improvements.

"This ruling from New York's highest court puts an end to the notion that traffic safety improvements should be subject to debate and contingent on unanimous local opinion," White said.

Vaccaro said the decision "will create an affirmative obligation on the DOT's part to — at the very least — conduct studies to determine whether infrastructure can reduce traffic violence, and unless such studies indicate otherwise, to install the infrastructure."



Several people were killed before DOT went ahead with a plan for concrete pedestrian islands and a protected bike lane on Gerritsen Avenue. Image: [DOT](#)

Several people were killed before DOT went ahead with a plan for concrete pedestrian islands and a protected bike lane on Gerritsen Avenue. Image: [DOT](#)

In 2005, DOT converted Gerritsen from four lanes to three and installed a painted median in the vicinity of Gotham Avenue, where Turturro was struck. DOT proposed concrete pedestrian islands and painted bike lanes in 2008 and 2009, but dropped the plans after locals objected.

Four people have died in collisions on Gerritsen since 2007, including a motorist who in 2015 crashed through a gate and a retaining wall, landing in a creek. "I'm afraid of them coming right through the window," said a resident who spoke with the [Times](#) about street racing on Gerritsen.

Last July, a drunk driver [killed 17-year-old cyclist Sean Ryan](#) near the site of the crash that injured Turturro. DOT responded with a plan for a [two-way protected bike lane and concrete pedestrian islands](#). Installation got started in the fall, though some people still [oppose safety measures](#) for the street.

"The City is firmly committed to Vision Zero investments in street redesigns and enforcement that save lives," de Blasio spokesperson Austin Finan told Streetsblog in an email. "No legal decision will change that."

Code of Virginia
Title 46.2. Motor Vehicles
Chapter 8. Regulation of Traffic

§ 46.2-839. Passing bicycle, electric personal assistive mobility device, electric power-assisted bicycle, moped, animal, or animal-drawn vehicle

Any driver of any vehicle overtaking a bicycle, electric personal assistive mobility device, electric power-assisted bicycle, moped, animal, or animal-drawn vehicle proceeding in the same direction shall pass at a reasonable speed at least three feet to the left of the overtaken bicycle, electric personal assistive mobility device, electric power-assisted bicycle, moped, animal, or animal-drawn vehicle and shall not again proceed to the right side of the highway until safely clear of such overtaken bicycle, electric personal assistive mobility device, electric power-assisted bicycle, moped, animal, or animal-drawn vehicle.

1981, c. 585, § 46.1-208.1; 1989, c. 727; 1999, c. 999; 2001, c. 834; 2002, c. 254; 2004, cc. 947, 973; 2014, c. 558.

The chapters of the acts of assembly referenced in the historical citation at the end of this section may not constitute a comprehensive list of such chapters and may exclude chapters whose provisions have expired.

May 18, 2019

Good morning – my name is Eileen Boettcher and I live directly off of Seminary Road on Chapel Hill Drive.

I come to you today as a mother, a cyclist, and an Alexandria city taxpayer. I ask for your support to make Alexandria a safer place to live by supporting the Seminary Road Diet.

As a mother, my daughter rode her bicycle to and from school along the sidewalk of Seminary Road over the course of five years. Since there are no cycling lanes, she rode on the sidewalks; on a daily basis she had to navigate around pedestrians. As an adolescent, this was a challenge and a safety issue for both her and those around her. Imagine a 12-year-old girl cycling to school with a heavy backpack, ringing her bell, accidentally startling walkers/runners. She'd swerve and weave - trying to safely pass them on a too-narrow sidewalk, too close to speeding traffic. There simply isn't sufficient room for both cyclists and pedestrians on these sidewalks.

As a cyclist, I use my bicycle to commute to work once a week. I work in McLean and the commute is 12 miles each way. I am an experienced cyclist; I wear a helmet, reflective clothing, and use both front and tail lights on my bicycle to increase my visibility. I follow the rules of the road. However, in my personal experience, many drivers do not follow the **Virginia State law** that **requires** motorists to pass bicyclists by 3 feet. Furthermore, the traffic speed along Seminary is often well above the posted limit of 25 mph. On nearly every cycle commute, I am passed by cars at an unsafe speed and an unsafe distance. Seminary Road is the most dangerous part of my entire 12 mile commute.

As a citizen and an Alexandria City taxpayer – I desire Alexandria to be a safe and healthy place for **all** residents – whether walkers, cyclists, or drivers. Traffic studies have shown there may be a slight traffic delay during peak rush hour as a result of the road diet. I ask you – what is 15 seconds (or more) of delay when compared to the life of a walker, a cyclist or a driver.

As members of the Alexandria City Council, you have a unique opportunity and responsibility to improve the safety of our city for all.

Alternative 3, with cycling lanes, makes Alexandria safer for everyone:

- For pedestrians – safer sidewalks, with no cyclists and a buffer zone from traffic
- For cyclists - dedicated lanes giving them safe passage
- For drivers – fewer accidents due to a natural reduction in speed

The time to make Alexandria a safe place for families to live is now. Hear the voices of those who actually live on Seminary Road – support the Seminary Road diet.

Alexandria City Council

Support for a Safer Seminary Road

May 18, 2019

William C. Pfister Jr. | 3718 Templeton Place | wcpfister@gmail.com

Dear morning Mayor, Vice Mayor, and members of City Council,

Thank you for your many hours and dedication to our community. A few of us are here this morning to describe conditions on Seminary Road. We'll also describe some of the features we believe are necessary and consistent with the City's stated mission to provide safe accommodations for all modes of transportation and for people of all ages and abilities.

Some of these necessary features include:

- pedestrian refuge islands for safe crossing of the street;
- center left-turn lanes, to eliminate traffic weaving around turning vehicles;
- changing the character of the street to reduce excessive vehicle speeds;
- bike lanes that provide a buffer between traffic lanes and sidewalks.

I live off Fort Williams Parkway and travel on Seminary Road nearly every day of the year. Sometimes by car, sometimes by DASH bus, sometimes by bike, and sometimes on foot. I am very familiar with some of the poor driving behavior on Seminary Road.

I have three young children, the older two attend Douglas MacArthur and the youngest will join them next year. I am also currently MacArthur's PTA president although these are my own individual comments (and those of my wife). It would be great for my kids to be able to walk to school. It's only a mile away and they actually want to walk. However, it just isn't safe.

To illustrate this point: on the last day of school last year, my son had several friends coming to a pool party at his grandparents' house, on Fort Williams Parkway. I went to the school and loaded up the Radio Flyer wagon with all their backpacks, then we began walking up Janneys Lane. Once we crossed Quaker onto Seminary Road, about a third of the drivers smiled at my little caravan of second grade boys. I made eye contact with roughly another third of the drivers, so they appeared aware of our presence. The last third didn't seem to notice because they were using their phones or doing something other than paying attention to driving. The cars were flying by, just inches from the curb, because this and many other sections of Seminary have no buffer between the sidewalk and the traffic lanes.

Enforcement hasn't been an effective for changing driver behavior. If we want to improve driver behavior, we need to change the character of the road.

In closing, I again ask you to use this once-in-a-generation opportunity to improve Seminary Road and make our streets safer for everyone.

Thank you,
Bill Pfister

Good morning. Thank you for this opportunity. My name is Anna Strauss. I am 12 years old and in 6th grade at St. Stephen's and St. Agnes School. I have lived in Alexandria all of my life, in the west end just off Seminary Rd. One part of my life that I wish that I could change is Seminary Road. Every time I travel along that road, whether by walking or biking, I don't feel safe.

I live about a mile away from my grandparents and cousins. In the summer I am often there to spend time with them. Whenever I walk up Seminary to my grandparents' house, I am always afraid and worried. The speed limit may be 25, but the cars zoom past me while I'm on the narrow sidewalks, and to me, it feels like they're going 100 miles per hour. This terrifies me every time.

I am usually too afraid to bike along Seminary road unless I am with an adult. My parents don't let me bike on the road itself because they don't feel that it is safe for me. When you are riding your bike on the sidewalk, there are pedestrians that are on the sidewalk, sometimes with their pets, and you either have to get off your bike and walk around them or stop until they pass. People on Bikes should have a separate safe place to ride, not on sidewalks.

I am glad my parents trust me and I am allowed to walk or bike to school, Bradlee shopping center, my grandparents', lacrosse practice, pretty much anywhere as long as they know where, but it's a shame I don't feel safe walking or biking on our local roads' sidewalks. This is why we should have the safest regulations for our streets, and do what we can to encourage walking, biking, and less and slower driving. It's the right thing to do and it has the added benefit of being healthy and more environmentally friendly. Please make Seminary Road safe for everyone, not just adults in cars. Thank you for your time and for listening to my story.

A statement by Bert Ely to the Alexandria City Council regarding parking and traffic problems in Old Town

May 18, 2019

Mr. Mayor and members of Council, I am Bert Ely and I live at 200 South Pitt. I speak to you today only for myself with regard to parking and traffic issues in Old Town.

A recent Washington Post article reporting on development activity along the waterfront had an interesting quote that also was in the article's headline: Failing communities never have parking problems.

That statement may, or may not, always be true, but equally likely, communities with traffic and parking problems can fail, or at least have serious problems, because of a lack of parking as well as clogged streets. Frequent restaurant closures along King Street and vacant retail space are probably exacerbated by traffic congestion and a lack of convenient, nearby parking.

The current lack of parking along and near the waterfront, especially during many evenings, will worsen in the southeast quadrant when new restaurants open at Robinson Landing, which certainly will be harmful to nearby residents and possibly existing restaurants.

Some assert that there is ample off-street parking in nearby garages to accommodate the additional restaurant patrons, but off-street parking is expensive, adding to the cost of an evening out, which is why some restaurant patrons, as well as employees, try to park on nearby streets, squeezing out residents trying to park near their homes.

Worse, the parking supply in the waterfront area has shrunk in recent years, and continues to shrink, as parking lots are closed and on-street parking spaces are eliminated as new buildings create parking demand.

Some have suggested that restaurant patrons increasingly use Uber, Lyft, and similar ridesharing services that reduce parking demand in the waterfront area – no doubt true – but those vehicles add to already intense traffic congestion. Do we really want even more cars trying to get through the King and Union intersection?

Worse, tour buses and dinner pick-up-and-delivery services, such as Grubhub and Uber Eats, add to traffic congestion and often park illegally.

Valet parking, another oft-touted solution, not only is costly to restaurants and their patrons, but adds to traffic congestion. Worse, some of those cars may end up parked on nearby streets, with the valet operator gambling on not getting a parking ticket due to the City's well-known lax enforcement of its on-street parking restrictions.

While arguably there could be better utilization of existing off-street parking spaces, the capacity of the city's streets to handle heavier traffic volumes cannot grow. Increasing the number of one-way streets in Old Town would create as many problems as it might attempt to solve.

Bottom line, street and parking constraints, as a practical matter, limit the amount of restaurant activity that can take place along and near the waterfront area if the residential character of Old Town is to be maintained. Old Town is not, nor should the City attempt to make it, another National Harbor or The Wharf.

There is an old saying – you can't pour 50 pounds of sand into a bag with a 40-pound capacity. What has happened in Old Town is the size of bag has been shrinking as parking capacity has shrunk while the amount of sand to be poured into that bag – restaurant patrons – is steadily increasing. If Old Town has not reached the bursting point, it soon will! Old Town will fail as a restaurant destination, and more importantly, as a community!

Thank you for your time this morning – I welcome your questions.

May 18, 2019 City Council Meeting

Good morning my name is Carolyn Griglione. My address is 1416 N. Ivanhoe St. I live two houses off of Seminary Rd.

I want to provide some final thoughts about the selection of the Road Diet option, Alternative 3. This Road Diet design option changes four lanes to three lanes with a center turn lane. This design option also incorporates the Complete Streets and Vision Zero mandates approved by City Council.

You have just heard from individuals who experience the lack of safety on Seminary Rd. on a daily basis. Improved safety is needed for all users; students riding bikes or walking to school, residents crossing the road, as well as those turning into and out of cul-de-sac streets and driveways, those using transit and of course those driving.

Our City experts have rated Alternative 3 as the design that will best provide the safety features needed in the project area on Seminary Rd. It would be foolish to not use the information provided by national and City experts.

I continue to think of the measles outbreak where individuals are not heeding the advice of experts thus causing harm to others in their communities. Alarmists using faulty information are fueling this unfortunate and dangerous situation.

We need to heed the advice of our Federal and local experts who have determined that a four to three road diet, Alternative 3, would be the strongest design option to improve safety for all users of Seminary Rd. The scheduled resurfacing of Seminary Rd. provides the perfect time to institute this proven design.

The City's Transportation Plan looks to the future, by prioritizing walking, biking and transit, including access to transit. We ask you to demonstrate your commitment to that plan and to the future of Alexandria: Direct staff to implement the safest option that incorporates a center turn lane, buffer/bike lanes, and pedestrian refuge islands.

Thank you.

Comparing Alternatives

Scoring: Concepts were scored on a scale of 1 to 5 for each of the objective for the project. One point is given when options make no improvements or substantially worsen existing conditions. Five points are given when options substantially improve conditions or fully preserve existing strengths of Seminary Road.

DESIGN ALTERNATIVES

PERFORMANCE INDICATORS

	ALTERNATIVE 1 (4 lanes with minor changes)	ALTERNATIVE 2 (1 eastbound, 2 westbound lanes, bike lanes)	ALTERNATIVE 3 (1 eastbound, 1 westbound, 1 turn lane, buffered bike lane)
PEDESTRIAN SAFETY/COMFORT	●●●●● Provides minimal additional help to crossing pedestrians, other than upgraded crosswalks, and some possible other signage/markings	●●●●● Reduces the number of through-lanes to be crossed, but median islands at uncontrolled crosswalks are unlikely.	●●●●● Provides the most comfort and safety for people walking. Upgraded crosswalks, signage/markings, and median islands make for safe access and mobility for people walking.
FILLING THE SIDEWALK GAP	●●●●● Lane configuration does not allow for future relocation of curb to provide more off-street space for a sidewalk	●●●●● Space provided to a bike lane could be reapportioned to a long-term sidewalk and protected and marked for pedestrian use in the interim	●●●●● Allows space to fill the sidewalk gap in partnership with VTS.
CONTROLLING SPEED	●●●●● Narrowed lanes may calm traffic slightly, but a wide travelway will still allow passing and speeding	●●●●● Provides a single through-lane for the eastbound direction, which would control speed, but two westbound lanes would still allow passing and speeding	●●●●● Reduced, narrowed lanes calm traffic, do not allow passing, and reduce speeding.
PREVENTING CRASHES	●●●●● Narrowed lanes may provide some crash reduction benefits, but are unlikely to reduce angle, sideswipe, or rear-end crashes	●●●●● Reduced lanes, especially eastbound, may provide some crash reduction benefits, but are unlikely to reduce angle, sideswipe, or rear-end crashes, especially in the westbound direction.	●●●●● Reduced and narrowed lanes provide the best crash reduction benefits, likely to reduce angle, sideswipe, or rear-end crashes
MINIMIZING VEHICLE DELAY	●●●●● This alternative provides the same lane distribution and signal operations as the existing conditions. Queue lengths stay the same, often extending past intersecting streets	●●●●● This alternative provides the same lane distribution and signal operations as the existing conditions. Queue lengths stay the same, slightly improve over existing conditions in most intersections, except for St. Stephens Road.	●●●●● Changes in intersection delay are generally minimal and improve in some cases. The worst average delay is seen at Howard Street with an additional 5 seconds of wait time in the evening peak period. Left turns are eased with a dedicated turn lane.
ADJACENT RESIDENT LIVABILITY	●●●●● Maintains travel times, but does not provide turn pockets, or space for cars to pull out of driveways.	●●●●● Bike lanes provide more space than existing conditions for residents to pull in and out of driveways, but no turn pockets makes access to connecting streets more difficult	●●●●● Provides dedicated turn lane for left turning vehicles. Ample space for cars to pull out of driveways or side streets with increased sight distances.
BICYCLIST SAFETY/COMFORT	●●●●● Does not provide any bicycle facilities.	●●●●● Provides an unbuffered bicycle lane but is not a low-stress connection	●●●●● Provides the best facility - a buffered bicycle lane on each side of the roadway.