

ITEM 8
January 4, 2018
PRTC Regular Meeting

PRTC Executive Director's Time

- A. Follow-up from Prior Meetings
- B. Executive Director's Report
 - OmniRide Fuel Gauge
 - Strong Towns Article – The Negative Consequences of Car Dependency

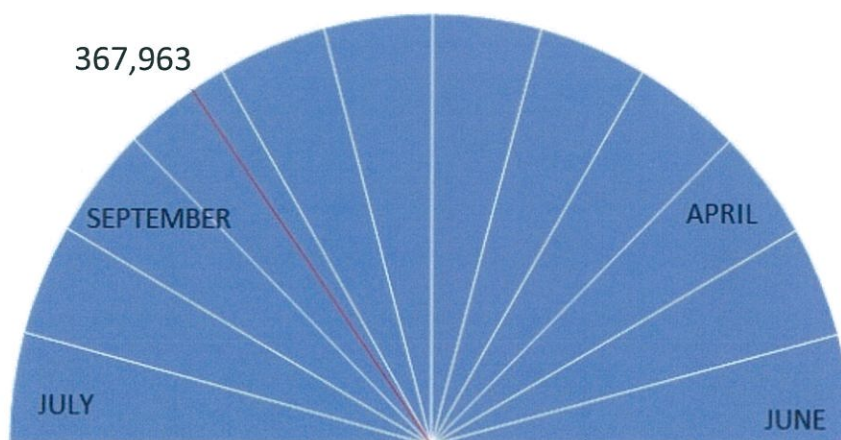


OmniRide Fuel Gauge

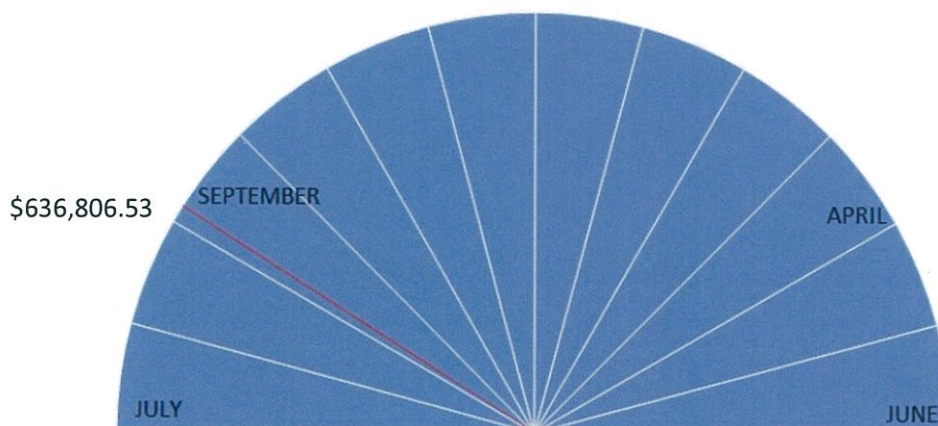
July 1, 2017—October 31, 2017: All Services

YTD FY2018 Fuel Delivered			YTD FY2017 Fuel Delivered		
Average Per Gallon	\$	1.73	Average Per Gallon	\$	1.92
Total Gallons		367,963	Total Gallons		355,845
Total Cost \$ 636,806.53			Total Cost \$ 683,935.34		

Delivered Fuel vs Budgeted Fuel Delivery (FY18)



Fuel Expenditures vs Budgeted Fuel Expenditures (FY18)





Potomac and Rappahannock
Transportation Commission

14700 Potomac Mills Road
Woodbridge, VA 22192

January 4, 2018

TO: Chairman Principi and PRTC Commissioners

From: Robert A. Schneider, PhD
Executive Director

RE: Strong Towns Article – The Negative Consequences of Car Dependency

The attached article is from **Strong Towns**, a 501c3 organization with a mission of supporting "...development that allows America's cities, towns and neighborhoods to become financially strong and resilient." Their premise is that informed and active citizens (people who care) that work with and through local government can establish fiscal solvency. They argue that job creation and economic growth is a byproduct of a healthy local economy, not the other way around (i.e., jobs follow people).

This article offers a high-level review of the car-centric nature of the US economy and communities, with the varying ways that communities are negatively impacted. The article itself is a short, quick read but has a series of links that connect to more in-depth articles and studies on everything from declining pedestrian safety, pollution rates, and livability indexes due to traffic. The full article link can be found at:

<https://www.strongtowns.org/journal/2017/11/2/the-negative-consequences-of-car-dependency>

As we examine land use, mass transit, the investment in communities, and the varying development patterns, it allows leaders to think about development preferences and the impacts for communities. As with any decision, there are trade-offs; the article is designed to create a contemplative discussion about the benefits and consequences of car culture within cities, suburban zones and even neighborhoods.

Summary: “The Negative Consequences of Car Dependency”

Original article by Andrew Price in Strong Towns. Appeared Nov. 3, 2017.

Most American towns are shaped around driving. Wide highways, copious parking, minimum lot sizes, and low density zoning ensure that, apart from rush hour, we enjoy relatively fast drives that usually end at an open parking space. However, in a November 2017 article in Strong Towns, Andrew Price argues that designing communities for only driving has unintended fiscal, economic, transportation, health, and social consequences.

1. Fiscal

Car-centered transportation only works in low-density areas, as the parking quickly eats up land and pushes buildings apart. Meanwhile, to keep up with even modest growth, localities must constantly widen roads, build new roads, add new traffic signals, construct new interchanges, and generally expand the road network.

At the same time, new homes and shopping centers need sewer, water, power, police, fire, and schools services extended to them. Over time, this infrastructure must be maintained or rebuilt, but in the low-density, car-oriented environment, the tax base is too thin to cover costs. There simply aren't enough people per-acre to pay for the pipes, wires, and roads.

2. Transportation Access

Getting around a car-dependent town is hard if you can't drive. As Price writes, you have to be “old enough to drive (but not *too* old), have no major mental or physical disabilities, passed the test, and can afford a car and all of its associated costs”. Furthermore, car-centric development precludes other modes, as wide roads, lack of sidewalks, and large parking lots disperse development makes transit, biking, and walking inconvenient.

3. Economic

Car-oriented developments require lots of parking. This additional cost, as well as minimum lot sizes and landscaping requirements are de-facto taxes on business. These mandates function as a barrier, pricing potential entrepreneurs out of the initial investment.

Price also argues that small stores suffer in car-oriented environments. In a traditional neighborhood you can walk from store-to-store in a couple minutes each. However, in a car-dependent area, you may have to drive across town several times to get to various small shops. It's just easier to drive to a supermarket, creating another barrier for small businesses.

4. Health

Prices points out a couple of health concerns with car-centered development, including exhaust, deaths from collisions, and obesity from replacing walking with driving.

5. Social

Price also argues that cars, by segregating us in individual pods, reduce our ability to meet new people and engage in our community.

So what? Do Price's arguments against car-dependency have any bearing on PRTC?

We are beginning to feel the fiscal, economic, and transportation consequences of basing our lives around cars in Virginia. Transit, by encouraging (and requiring) denser, more traditional development to thrive, may offer a solution to help mitigate the issues Price raises.

1. Transit as Infrastructure

Virginia spends hundreds of millions each year building and maintaining roads. In Prince William, drivers are used to seeing heavy equipment and work crews along roads from Route 1 to Sudley. All that infrastructure is expensive, and the low-density suburbs that define much of our community may struggle to pay for upkeep when pavement, sewers, schools, and water infrastructure needs refurbishment in 20 years, since low-density subdivisions often don't have enough of a tax base to cover costs.

At the same time, transit is often seen as a nice service provided to the public instead of an essential piece of infrastructure. Transit requires dense development to be successful; in turn, denser areas need transit to reduce traffic. Thankfully, the tax-base of traditional downtown-style development often covers the cost of the transit service. It's a virtuous cycle. As parts of Prince William develop into denser areas, PRTC's services can help ensure that this growth is successful. It's important to note that "denser development" does not necessarily mean high rises and packed streets, but instead it can be as pleasant as Old Town Occoquan or Manassas.

2. Transportation Access

Large segments of the population—the elderly, the disabled, youth, and the poor—cannot drive. That wouldn't be so bad in a place where they could walk or take a bus to get around, but those options are usually stunted or non-existent in the suburbs. It's harder to provide high-quality transit service in a place that is designed for cars only, sort of like fitting a round peg in a square hole. PRTC's services can help plug this gap by offering those folks mobility. However, if the community isn't designed for transit, it will continue to languish as a second-or-third choice for those who have a car.

3. Economic

A transit-oriented environment means less required parking, which reduces the cost to build, open, and operate a business. It also means that businesses have larger audiences that are closer by, creating more opportunity for people to walk-in or discover a new shop.

Driving isn't bad—it's is often a great way to get around, whether you live in Dale City or Manassas. However, designing communities for more than just driving can bring greater economic growth, reduced infrastructure expenses, and a higher quality of living to residents. For instance, in traditional downtowns like Manassas, people in can drive if they want but they

can just as conveniently choose to walk, bike, or take the bus. People in more suburban areas can really only drive. That's Price's point—that options are good, while a lack of options gives us some nasty side-effects.

The Negative Consequences of Car Dependency

Posted in [Andrew Price](#), [Top Story](#), [Transportation](#) and tagged with [auto-oriented](#), [cars](#), [seniors](#), [suburban experiment](#)

Jul 17, 2017

Help us double our readership this week. As you savor our greatest hits, take a second to share them with someone else.

The majority of American towns and cities are built around the automobile. From multi-lane highways to vast paved parking lots, our communities have been shaped around a single mode of transportation over the last seventy years. While this may feel like progress, it has also harmed ourselves and our towns in ways that will be felt for generations.

Today I'm going to talk about some of the negative consequences of car dependency and how a more walk-friendly, human-scaled development pattern would make us all better off. Specifically, I'm going to talk about them from the perspective of a town or suburb that has gone all-in on the auto-oriented pattern of development, where car travel and storage is prioritized over any other mode of transportation, and where the entire community is designed around car use. Some of these negative consequences are:

1. Social isolation
2. Discrimination
3. Expense
4. Decline of small businesses
5. Effect on public health



I've lived in both cities (taking transit and walking everywhere) and suburbs (working in a suburban office campus and driving everywhere). When I lived in the city, I used to have random encounters with strangers, often daily. These were usually nothing more than simple interruptions. The elderly lady that asks for help at the train station. Overhearing the couple's conversation behind me on a bus. The homeless man asking for my spare change... These people were rich and poor, old and young. Even though the idea of being forced to interact with strangers sounds undesirable, there's something very human about feeling that you are part of a living world. I was not the most sociable child, so these random encounters played an important part in developing my social skills and feeling comfortable around strangers.

When I lived in the suburbs, I eliminated most of these random encounters. When I got into my car to drive to work, I felt like I was traveling through

town in my own isolated box. When I got out of my car at work, the only people that I interacted with were co-workers, and when I returned home, the only people that I interacted with were my family. The possibility of random encounters with strangers was still there (when I visited the supermarket, for example) but I reduced the window for this to occur from an everyday experience to a couple of hours on the weekend. I had to go out of my way and place myself in public to interact with my neighbors and others that lived in my town, rather than it being a natural part of my day. The places where I shopped and spent time targeted my demographic, so I was constantly surrounded by people that were similar to me.

I often wonder if not having those small everyday interactions with strangers has a greater psychological effect on us than we realize.



Getting around in a car dependent environment is fine if you're old enough to

drive (but not *too* old) have no major mental or physical disabilities, passed the test, and can afford a car and all of its associated costs. Everyone else is treated like a second class citizen; they are either a burden to their friends and family to escort them around, isolated at home and get out very little, have to rely on mobility services, or they tough it out and walk, cycle, or take transit in environments not suited to those forms of transportation.

It's discriminatory. By going all-in on the auto-oriented development pattern and creating a car-dependent environment, we're discriminating against those that cannot drive: the poor, the young, the elderly, the disabled. We place so much emphasis on buildings that are ADA complaint, so that people with disabilities can conveniently navigate through doors and between floors, yet we keep building car dependent environments where an even greater demographic cannot conveniently get around on their own.

There is a gross inequity behind this model; those that can drive are entitled to a fast and easy day, while those who cannot are not.



Going all in on the car is very expensive for everyone. This includes our cities, our business owners, and individuals.

For Cities

We are endlessly "upgrading" roads by widening them and adding extra lanes. We install countless numbers of traffic lights and stop signs. We build vast networks of freeways and interchanges. We spread out across the landscape, promising sewage, water, power, police and fire protection, schools, and perfectly paved roads to a tax base spread too thin to support them (this is at [the heart of the Strong Towns message](#)). We issue bonds, take on debt, cut services, and increase taxes so we can keep on doing more of them same.

Improvements to walk and bike infrastructure cost far less and save our

communities millions over the long run. These are some of the most high returning investments we can make in our towns.



Businesses built under the auto-oriented pattern require landscaping (greenspace) and extensive maintenance to prevent this style of development from appearing blighted. (Source: Google Maps)

For Property Owners

The appeal of locating a business in the suburbs is based on the availability of cheap land, usually fueled by a city's desire to attract more easy horizontal growth. In auto-oriented places, there are usually regulations that require a minimum lot size (perhaps 1/4 of an acre), parking, and perhaps landscaping. Sometimes the business needs to pay for things that are technically part of the street, such as installing and maintaining the sidewalk.

In the walk-friendly [traditional development pattern](#), businesses need only enough space for their building. Parking in the traditional development pattern doesn't need to be required or banned, because it's within a business's best interest to make their business as accessible to as many customers as possible. If the surrounding businesses and streets have an ample supply of

parking or if the majority of the customers live close enough that they don't have to drive, then the property owner may not decide to supply their own parking. Without the need to landscape or supply parking, businesses are only required to purchase, develop, and maintain enough space for their building. The end result of the traditional development pattern is a very [fine-grained](#) mix of properties that is highly walkable and takes up minimal space.

For Individuals

Living in a car dependent environment places a financial burden on the individuals that live, work, and go about their daily lives there. These financial burdens are both direct (owning a car) and indirect (taxes).

The average yearly cost of owning a car is between [\\$6,957 and \\$11,039](#) (a number that often varies, but it's usually within the higher half of four digits.) A family of two working adults who live in an auto-oriented place will likely want two cars for commuting and other daily tasks, thus doubling the yearly cost of car ownership for the household. In a family with grown children of driving age, there may even be a need for three or more cars.

In a walkable, people oriented city, many households still own a car as it's often convenient to have a car around for the few times you need it (to visit family out of town or to help transport large purchases). But in these cases, a car becomes a luxury, not a necessity, and most families could get by with only one or none.

The indirect costs, such as maintaining roads and traffic signals (as mentioned above), is eventually handed down to the tax payer through tax increases and service cuts as the bonds mature and the debt and maintenance of the auto-oriented pattern remains.



4. Decline of Small Businesses

Car-dependent environments are unfavorable for small specialty businesses. The auto-oriented development pattern creates a high cost of entry for small businesses, as discussed above. I am concerned that this high cost of entry will lead to a polarized economy where the rich get richer while the rest of the population is prohibited from participating. (Read more about this issue.)

The auto-oriented development pattern where everyone drives from store to store isn't favorable to specialty businesses. There is a considerable overhead in time and effort to make a stop; you need to turn off the street, park your car, then get out of your car. Once you are done shopping at each store, you need to get back in your car, slowly back out of your parking spot, wait for the traffic to clear so you can exit back out onto the street, and drive to your next destination.

The thought of shopping for a week's worth of groceries from small specialty businesses — going from a grocery store, to a butcher shop, to a bakery, to a pharmacy — seems overwhelming, especially if these businesses are located in different areas of town that could take up to 15 minutes to drive between. In this kind of environment, the convenience of visiting a large store where you can park once and have everything under the same roof is often the winning factor for the consumer. Contrast this to a walkable town where it takes no more than half a minute to detour into a store while you are walking down the street.



5. Effect on Public Health

At Strong Towns, we often talk about how [the design of our streets and roads can be dangerous](#) for all users, including drivers, cyclists, and pedestrians. According to the Centers for Disease Control and Prevention, [motor vehicles](#)

[crashes are the leading cause of death](#) for Americans between the age of 5 and 34. There's also a heavy correlation between [car usage and obesity](#). This shouldn't be too surprising as we've replaced the primary form of exercise throughout human history — the act of getting from A to B — with mostly sitting in a seat. Add to that the [health effects of local air pollution](#) caused by vehicle exhaust. The latter may be solved by the adoption of cleaner fuels and electric vehicles, but not the preventable deaths, injuries, and health risks associated with obesity and a sedentary lifestyle.

Car-centric towns are isolating, discriminatory, expensive, harmful to small businesses, and bad for public health. In contrast, walkable, human-oriented communities tend to be the [happiest and healthiest](#) and the most [financially productive types of places to build and retain](#).

Let's focus on building places that cater to the needs of humans, not the needs of cars.

If this message matters to you, share it with someone.

(All photos by Johnny Sanphillippo)



[Andrew Price](#)

Andrew Price has been a regular contributor to Strong Towns since 2013 and is a founding member of the organization. Andrew is a software developer by day and an urbanist by night. He is passionate about traditional urbanism — he believes in fine-grained, highly

walkable places that are built for people. He grew up in Australia and now lives in the United States with his wife. Andrew is a regular contributor on Strong Towns and runs his own blog, andrewalexanderprice.com. You can find many of his photographs throughout the Strong Towns website. Andrew's motivation to be involved in Strong Towns and urbanism is to create a great place that he and his wife, and one day their children and their future generations will want to call home.