Getting on Track

Good Investments for Pennsylvania's Public Transit System

PennPIRG Education Fund

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Timothy Telleen-Lawton
Frontier Group

James Browning
PennPIRG Education Fund

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Executive Summary

Pennsylvania has long spent vastly more public resources on highways than on transit to meet our transportation needs. While Pennsylvania's highway system provides the Keystone State with increased mobility, our historic neglect of transit is inflicting a heavy price – leaving too few of us with good alternatives to skyrocketing gasoline prices and increasingly gridlocked commutes.

There are dozens of important public transportation projects that can play an important role in addressing the Commonwealth's transportation challenges. By moving ahead with these projects, Pennsylvania can give more of its residents new transportation choices, reduce our dependence on oil, ease congestion, and curb pollution.

Pennsylvania's transportation system is doing an increasingly poor job of moving people and goods efficiently and inexpensively around the Keystone State, while contributing to oil dependence and environmental harm.

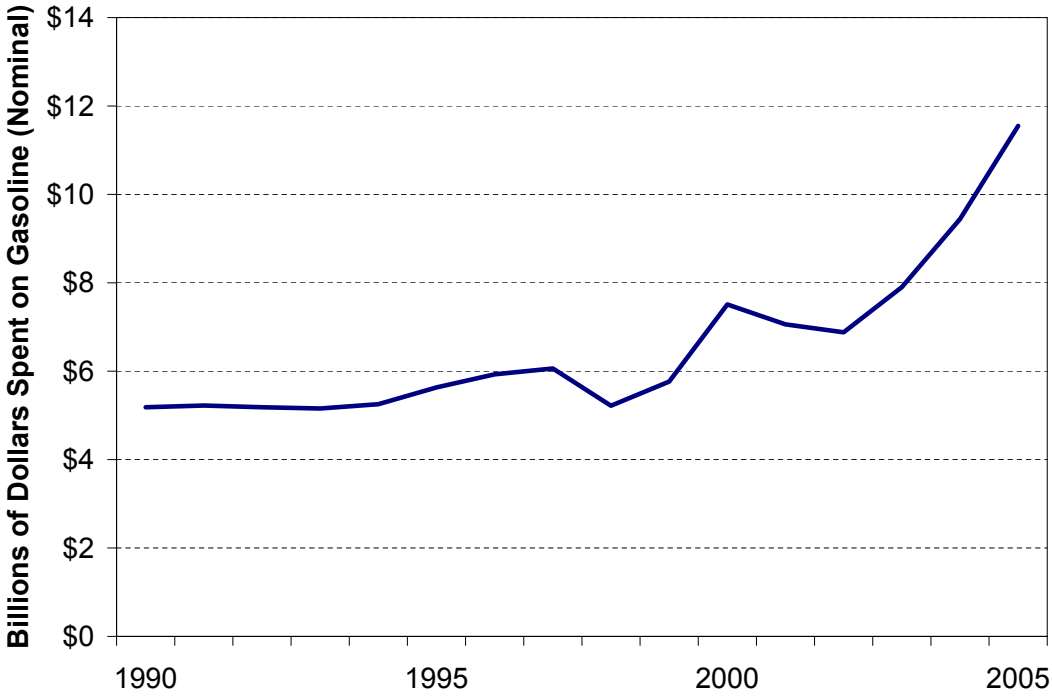
- Since 1990, the number of miles traveled on Pennsylvania's highways increased by 21 percent, for an additional 23 billion miles of annual travel.

- Despite large investments in road expansion projects, gridlock is increasing on the Commonwealth's highways. Congestion in the Philadelphia and Pittsburgh areas, as well as the Lehigh Valley, has gotten markedly worse since 1990, costing the economies of the three regions an estimated $2.5 billion in 2005. Most of that cost is borne by commuters through lost time and increased expenditure on gas.

- Pennsylvanians are more dependent on oil than ever before and many face crushing financial burdens due to higher gasoline prices. The amount of gasoline and diesel used in Pennsylvania grew 24 percent between 1990 and 2005. Pennsylvania now spends over $1,000 per person on gasoline each year, more than twice as much it did in 1990.

- Global warming pollution from Pennsylvania's transportation sector

Figure ES-1. Spending on Gasoline in Pennsylvania Has Increased Dramatically



has grown more than 20 percent in the last 15 years.

Pennsylvania's public transportation systems already make an important contribution toward reducing oil consumption, traffic congestion and global warming pollution.

- In 2006, the state's transit services saved more than 110 million gallons of gasoline, prevented 755,000 metric tons of global warming pollution, and saved Pennsylvanians more than 20 million hours of sitting in traffic.

- Pennsylvanians are increasingly turning to public transportation as an alternative to higher gasoline prices and tougher commutes. Ridership on Amtrak's Keystone Corridor, for example, has grown more than 20 percent in the last year, after track upgrades increased the train's top speed. Ridership on SEPTA's commuter rail system increased by nearly 8 percent in 2007.

By building a series of critical – and often long-delayed – public transportation projects, Pennsylvania can help solve its transportation problems. There are many worthy transit expansion projects – many of which have been on the drawing board for decades – that can expand Pennsylvanians' access to transit and improve the state's transportation system.

- **The Philadelphia area** is home to the biggest transit network in the state. Philadelphia's growth, however, has outpaced the expansion of the region's

Bradley Maule

After decades of service cuts and budget crises, the Southeastern Pennsylvania Transportation Authority (SEPTA) has secured critical new state funding and is poised to expand to meet the region's transportation needs.

transit network. While existing rail lines are heavily used, and service in a number of areas will soon become more frequent, great opportunities for improving service to new areas have been left on the drawing board for lack of funding despite their significant benefits.

- Making services more convenient and easier to use can be a relatively inexpensive way of increasing ridership, from a streamlined website to free wireless internet on trains.

- **The Roosevelt Boulevard Metro** would be a new subway line from Center City Philadelphia to Northeast Philadelphia, where the 12-lane Roosevelt Boulevard is unable to handle growing congestion and safety issues.

- **Connecting Thorndale and Trenton, N.J., via Norristown** with a new Cross County Metro rail line, would facilitate east-west travel across the region.

- **Expanding the PATCO Line** to run along the Philadelphia Waterfront would increase the reach of existing trains from South Jersey with a second line allowing access to the destinations along the Delaware River.

- **Extending the Elywn Line to Wawa and Sylmar** via Chadds Ford and Oxford would expand Philadelphia's transit network to the southwest.

- **The Pittsburgh area** has several exciting transit projects that use existing heavy rail tracks, would build new light-rail lines, or simply expand bus service.

  - **The Spine Line Light Rail** would expand Pittsburgh's existing light-rail network to include Oakland and extend towards Homestead or Wilkinsburg.

  - **Cranberry Township** has plans to create a modern bus transit system to improve transportation options within this rapidly growing community and for commutes to Pittsburgh.

  - **The Allegheny Valley Commuter Rail** would shuttle residents of Lawrenceville, Verona, Oakmont, New Kensington and Arnold to Pittsburgh's Strip District.

  - **A Latrobe to Pittsburgh commuter rail** line would link communities along the congested Route 30 corridor, including Wilkinsburg, Swissvale, Braddock, East Pittsburgh, Wilmerding, Trafford, Irwin, Jeannette and Greensburg.

- **The Harrisburg – Lancaster area's CorridorOne** commuter rail project

would connect Harrisburg with Lancaster to the southeast, along with several communities in between. The project is intended to be the first step in a larger network of regional rail transit. Mechanicsburg, to the west of Harrisburg in Cumberland County, is one of the areas that is being considered for connecting service.

- **Linking Scranton-Wilkes-Barre and Northeastern Pennsylvania with New York City** via a connection with New Jersey Transit would bring new opportunities to the region. A commuter rail connection used to exist and reinstating the service would help relieve congestion in the area with high commuter populations.

- **Linking Pittsburgh with Philadelphia via high-speed rail** would provide an important alternative to car and air travel between the two cities, while improving transportation connections with central Pennsylvania. The upgrade would expand upon the successful recent launch of higher-speed rail service between Philadelphia and Harrisburg by connecting the two with Pittsburgh.

- **Rail transit between Lehigh Valley and Philadelphia** would reinstate service that was phased out in 1979 due to insufficient funding in an area that has grown 25 percent since that time. If the existing tracks and ties were upgraded, a study predicted that as many as 4,267 trips might take place on the line each day.

- **The Schuylkill Valley Metro** proposal would link Reading into the Philadelphia-area rail network with 62 miles of new route.

Pennsylvania took the first step to addressing its long-term transit needs with the creation of a dedicated state funding source for transit in 2007. Thanks to this new funding source, SEPTA announced plans this August to expand service on some of its busiest bus and train routes, including the R5 to Paoli/Thorndale, the R6 to Norristown, and the R7 to Trenton. However, the long-term trends in driving, oil consumption and global warming pollution suggest that Pennsylvania needs to do more and act now by fully investing in a new transportation future, with efficient, modern transit at its core.

Local, state and federal decision makers should prioritize investing in the state's transit network in order to create viable long-term transportation options for Pennsylvanians, cut down on gasoline expenditures, and reduce wasted time and global warming pollution. Policy actions should include increasing funding for transit projects across the state, shifting funding from sprawl-inducing highways to public transit projects, and calling on Congress to increase federal funding for critical transit projects around the country.

Introduction

Pennsylvania has historically owed much of our prosperity to innovation and investment in transportation.

In the early days of the Commonwealth, access to waterways such as the Delaware River in the east and the Ohio River in the west made Pennsylvania an important center of trade and commerce. Later, railroads spanned the Allegheny Mountains, linking east and west and bringing the fruits of Pennsylvania agriculture and industry to the nation and the world. And in the 20th century, the Commonwealth's highways—including the nation's first superhighway, the Pennsylvania Turnpike—brought new mobility and opportunity to Pennsylvanians.

Now, however, the Commonwealth's transportation system is in trouble. Like many other states, Pennsylvania has spent much of the last 50 years building out its network of highways – at a cost of billions of dollars—while spending relatively little on alternatives such as public transportation. As the state expanded its highway networks, rail lines were discontinued, streetcars and trolleys were shut down, and transit agencies found it increasingly difficult to deliver high quality public transportation at affordable prices.

Pennsylvanians are now paying the price for our neglect of public transportation in the form of rising congestion on our highways, growing dependence on oil, skyrocketing prices at the gas pump, and increased pollution that causes global warming and health problems. For too many Pennsylvanians, the state's transportation system offers few good alternatives to frustrating commutes and the financial burden of fueling their vehicles.

But there are answers to Pennsylvania's growing transportation problems. Well-planned transit systems, integrated with existing development and well-designed growth plans, can meet the state's growing transportation needs while replacing rush hour car trips.

As gas prices rise and congestion continues to grow, demand for transit alternatives is growing again. Old rail lines that were shut to passenger traffic decades ago are being considered for renewed service, and plans are being forged to build new transit corridors to service growing population centers around the state. Forward-thinking

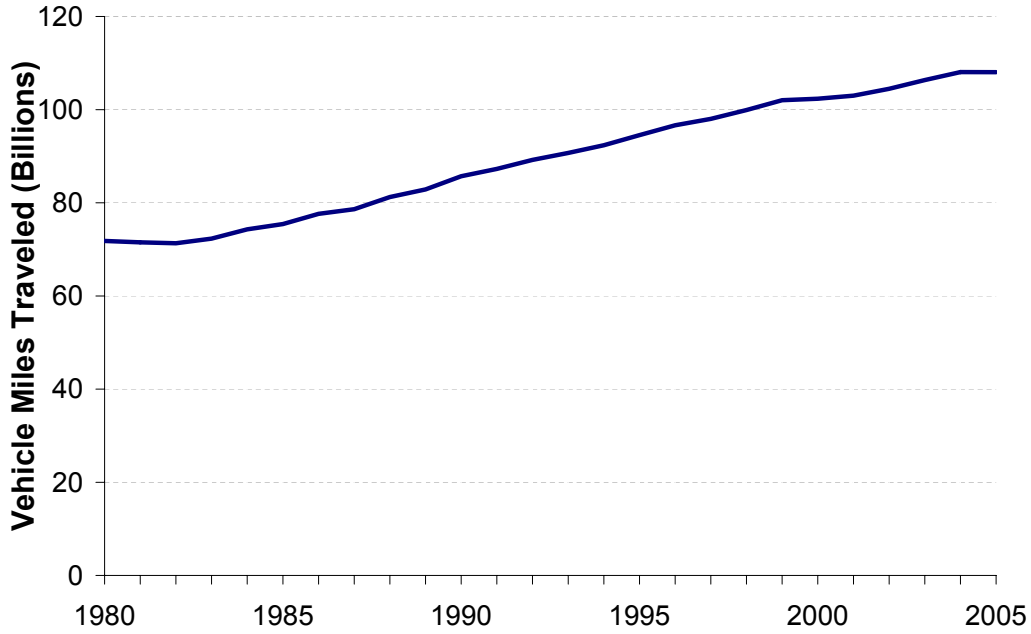
planning agencies are recognizing that public transit can play an integral and highly beneficial role in shaping local development in the coming decades.

Pennsylvania has the opportunity to invest now in public transit to help solve the state's transportation problems, improve residents' quality of life, and reduce global warming pollution. And all this at lower cost than achieving the same objectives by expanding roads and grappling with the consequences. Pennsylvanians must be willing to demand efficient, long-term solutions to the state's transportation problems to make them a reality.

Transportation Problems Are Growing

Over the last few decades, Pennsylvania has grown to rely heavily on highways to satisfy the state's transportation needs. As a result, Pennsylvanians are now driving more than ever before, and roads are often congested with rush hour traffic. Unfortunately, underfunded transit agencies have been unable to satisfy the growing demand for fast and convenient transportation options, and all the driving and congestion are taking their toll on Pennsylvania's economy.

Figure 1. Growth of Car and Truck Travel in Pennsylvania



Driving Has Increased in Pennsylvania

While high gas prices have recently decreased total miles driven in Pennsylvania, the long term trend in the Commonwealth is still rising.[1] In 2005, the last year for which data is available, cars and trucks drove more than 108 billion miles in Pennsylvania, compared with 85.7 billion in 1990. (See Figure 1.) While some of this increase can be attributed to the 4 percent increase in population in that time period, Pennsylvanians are also driving more per person. The number of miles driven per licensed driver in the Commonwealth has increased 18 percent to more than 12,000 miles since 1990.[2]

Oil Consumption Is Growing

The growing reliance on driving has taken a toll on Pennsylvania's economy. Driving longer distances means using more gasoline and spending more time in the car, rather than working or enjoying free time. Since 1990, the amount of gasoline and diesel used in Pennsylvania has grown 24 percent. (See Figure 2.) Fuel consumption relies heavily on imports from beyond state and national borders, exposing Pennsylvanians to the fluctuations of the global oil market.

Besides increasing our dependence on foreign oil, driving and congestion also tax Pennsylvania's economy by sending dollars

Figure 2. Gasoline and Diesel Usage Have Grown in Pennsylvania

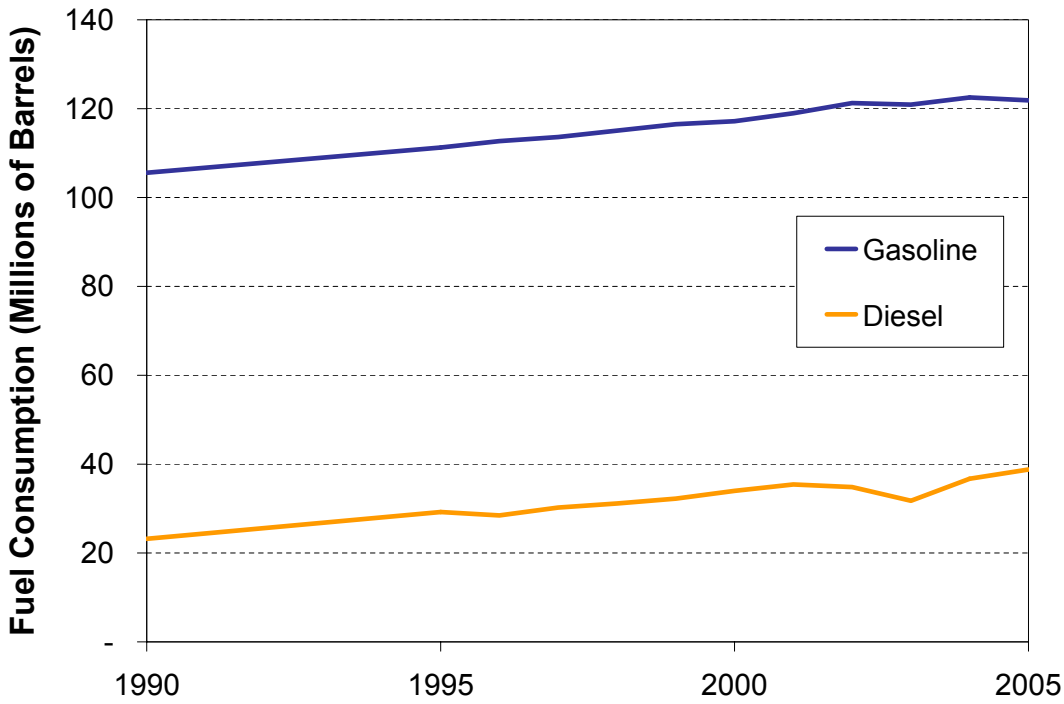
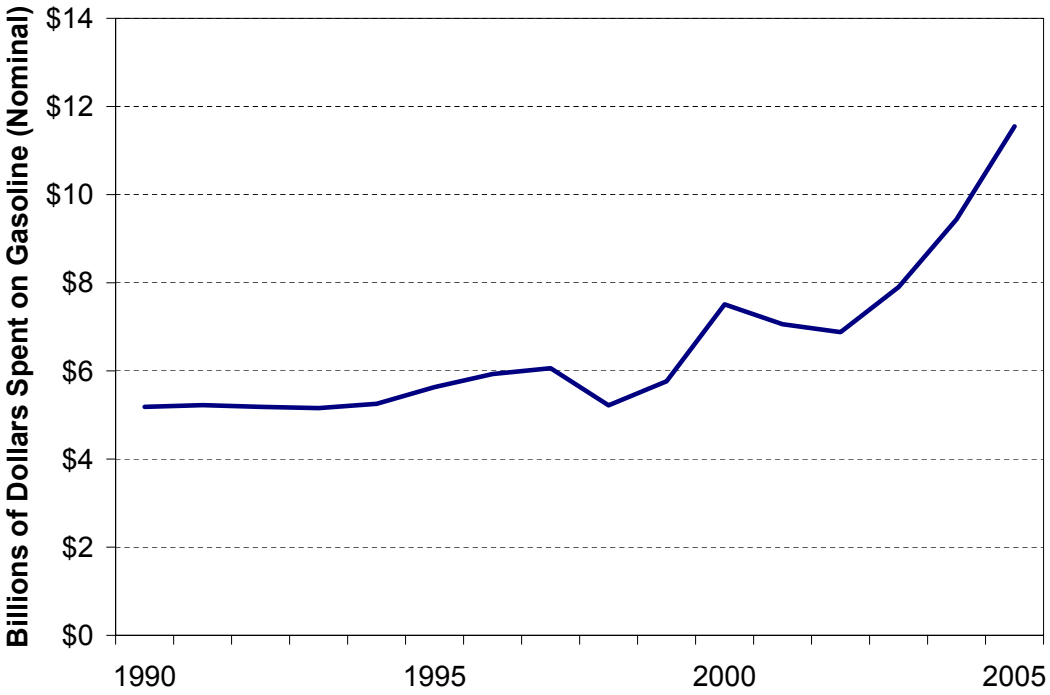


Figure 3. Spending on Gasoline in Pennsylvania Has Increased Dramatically



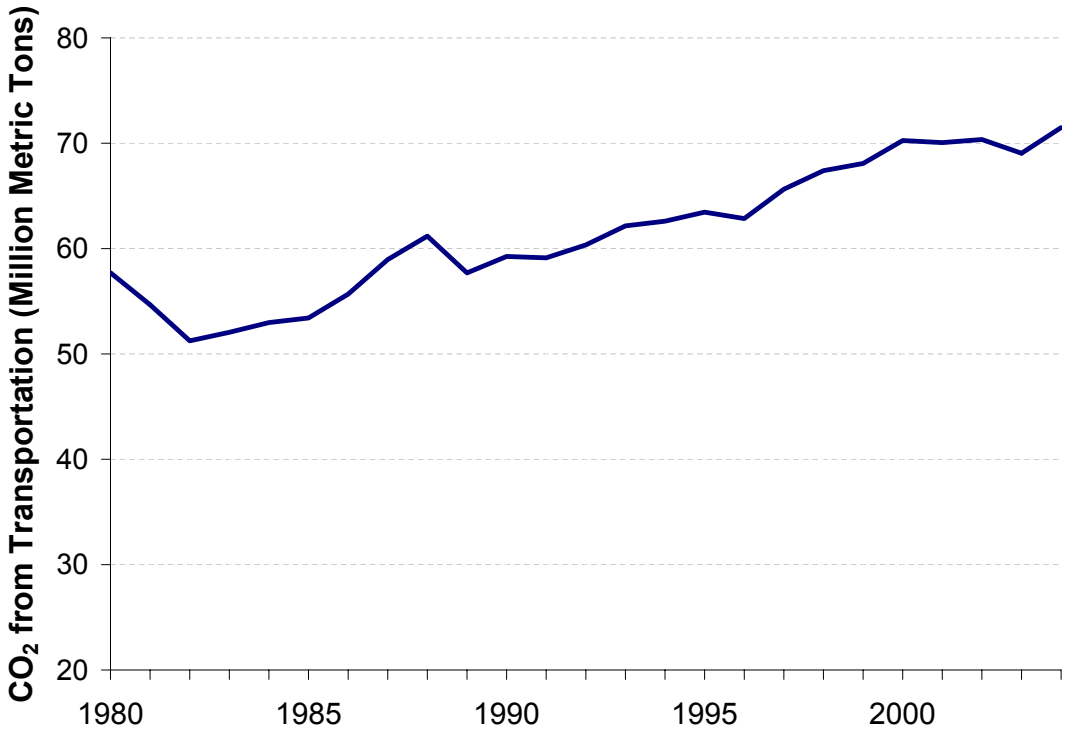
abroad for oil, especially with record high gas prices. By 2005, drivers in Pennsylvania were already spending over $11 billion annually on gasoline, a 123 percent increase from 1990.[3] (See Figure 3.) Unfortunately, gas prices have only risen since then, increasing over 20 percent in the Mid-Atlantic region between 2005 and 2007.[4]

Pollution Is Increasing

As Pennsylvanians burn more fuel to get around, global warming pollution from the transportation sector is increasing as well. Emissions from Pennsylvania's transportation sector have grown more than 20 percent since 1990.[5] (See Figure 4.) Global warming pollution from gasoline and diesel consumption has increased 26 percent in the same time period, making it responsible for the vast majority of the overall rise in emissions from transportation.

More driving also contributes to pollution that has short-term impacts on Pennsylvanians' health. According to the American Lung Association, the Philadelphia metropolitan area ranks 12th among cities with the highest levels of ground-level ozone pollution.[6] In 2006, Philadelphians experienced 19 code orange alert days for this type of pollution – days on which children, seniors, and those with respiratory problems are urged to limit their outdoor activity.[7]

Figure 4. Carbon Dioxide Emissions from the Transportation Sector Have Grown in Pennsylvania



Highway Expansion Hasn't Solved Pennsylvania's Transportation Problems

In order to help cope with the growing number of cars and trucks on the road, Pennsylvania has built new highways and expanded existing ones. The state's total lane-miles of road, or length of road multiplied by its width in lanes, has grown by 9,528 lane-miles since 1990, a 3.9 percent increase.

But Pennsylvania cannot reduce traffic by building more and bigger roads forever. Such expansions are costly, especially in urban areas where roadside developments prevent widening. Furthermore, expanding roads and highways induces more people to drive, deepening the reliance on automobiles.[8] Pennsylvanians need better alternatives to the endless congest-and-expand cycle and the high cost of driving.

Congestion Is Making Transportation Problems Worse

Congestion has gotten steadily worse since 1990 despite Pennsylvania's efforts to expand highway capacity. The Texas Transportation Institute measured the extent and cost of congestion in Pennsylvania's three biggest metropolitan areas: Philadelphia, Pittsburgh, and the Lehigh Valley. These regional characteristics include the entire metropolitan area, which, in the cases of Philadelphia and Pittsburgh, include neighboring states.

Longer Rush Hours

The busiest times of day on a highway are the morning rush from home to work and the evening rush back. Rush hour length is a measure of how many hours in the day highways are subject to reduced driving

speeds from high traffic. Rush hour in Philadelphia is 1.5 hours longer than it was in 1990. By 2005, 7.2 hours of every workday contained rush-hour traffic. In Pittsburgh the amount of time roads are clogged by rush-hour traffic each day increased from 3.2 in 1990 to 3.6 hours in 2005. The Lehigh Valley's roads are now in rush hour 5.6 hours a day, up from 3.2 hours in 1990.[9]

Wasted Time

The time that drivers are delayed due to congestion is time that they could otherwise be using for work or leisure, and is a significant cost of congestion. In Philadelphia, the average rush hour traveler loses 52 percent more time each year to congestion than in 1990. In the Lehigh Valley, the average wasted time per rush hour traveler has increased 83 percent from 1990. And in Pittsburgh, the per-traveler time spent in traffic has held steady since the late 1980s, but total wasted hours have increased more than 10 percent.[10]

Wasted Gas

Cars use more fuel per mile traveled on congested roads. The reason is that most cars are designed to be most fuel-efficient at speeds close to highway speed limits, so slow travel and stop-and-go traffic that requires the use of brakes consume more fuel per mile than travel at full highway speed. In 2005, Philadelphia drivers used an extra 70.9 million gallons of fuel because of congestion. Pittsburgh drivers burned an extra 9.2 million gallons of fuel because of congestion, and Lehigh Valley drivers burned an extra 4.7 million gallons that year.[11]

Economic Drain

Together, wasted time and fuel from congestion impose a major economic cost on Pennsylvania's metropolitan areas. Not including the negative effects of global warming pollution, Philadelphia's congestion cost area drivers over $2 billion in 2005. Pittsburgh lost $285 million to congestion in 2005, and the Lehigh Valley lost $137 million the same year.[12]

Transit Ridership Is on the Rise

There is some good news in Pennsylvania's transportation trends: transit usage has generally been on the rise since 1990. Ridership could have increased more if transit authorities had received the funding they needed to maintain transit systems and add new projects. Transit passengers in Philadelphia, Pittsburgh and the Lehigh Valley together rode 48 million more miles in 2005 than in 1990.[13] In fact, if transit in the three regions were discontinued, then over 21,000 more hours would be lost to congestion and over 12 million additional gallons of fuel would be wasted, representing a $396 million cost to drivers per year.[14]

This August, Southeastern Pennsylvania Transportation Authority (SEPTA) announced plans to expand service on some of its busiest bus and train routes, including the R5 to Paoli/Thorndale, the R6 to Norristown and the R7 to Trenton. Soaring gas prices have boosted SEPTA's rail ridership by 12 percent in 2008, with standing-room only on some rush-hour trains. The service improvements will cost $10 million and are made possible in part by the passage of Act 44 in 2007, which secured dedicated funds for SEPTA for the first time.[15]

Hopefully, this expansion will be merely the first step in the emergence of better transit service in the Philadelphia region.

Pennsylvania Has Great Opportunities to Invest in Transit

Pennsylvania already has many opportunities to invest in transit. There are many worthy transit expansion projects proposed that would give Pennsylvanians more transportation options, reinvigorate urban areas, save gasoline, cut congestion, and reduce pollution. Public transit advocates did achieve a major victory in 2007 with the passage of a new state transportation funding plan, which included the creation of new dedicated funding sources for public transit. Still, to close its funding gap, SEPTA was forced to raise fares in July and systems across the Commonwealth were considering further dramatic fare increases and drastic service cuts as a way to avert an impending financial crisis. The fact that Pennsylvania had relatively few funding sources dedicated to public transit was a substantial factor in creating the underlying financial problems. The following projects, however, can play an important role in a 21st century transportation future for Pennsylvania, and the Commonwealth should identify the resources needed to build them.

Philadelphia Area

Philadelphia is home to the biggest transit network in the state. Rail lines operated by the Southeastern Pennsylvania Transportation Authority (SEPTA) connect the downtown with surrounding areas as far south as Newark, Delaware, as far east as Trenton, New Jersey, as far north as Doylestown, and as far west as Thorndale. Bus lines interface with the rail stations and expand the transit network to more neighborhoods. Additionally, the Port Authority Transit Corporation (PATCO) maintains a heavy rail transit line that connects Philadelphia's Center City with southern New Jersey, and Amtrak train lines provide rail service to surrounding cities within and beyond Pennsylvania, including a high speed line to Harrisburg.[16]

Philadelphia's growth, however, has outpaced the expansion of the region's transit network. While existing rail lines are heavily used, and service in several areas will soon become more frequent, great opportunities to expand service to new areas

have been left on the drawing board for lack of funding despite their generous benefits. And while fare hikes can increase revenue in the short term, they undermine public transit use in the long term.

Improving Service Quality

Investing some resources in improving the quality of transit service already in operation would pay off in increased ridership, fare revenue and public satisfaction.

Rapid Transit and Rail

SEPTA still does not have electronic ticketing for its passenger rail service. Modern fare machines will pay for themselves over time by reducing transaction costs and reducing expenditures on human ticket vendors. One setback in implementing smart cards and electronic ticketing has been lack of up-front funds; indeed, the Transportation Authority has been forced to use part of its capital budget to cover operating expenses instead.

The ideal solution would be the implementation of a Smart Card system similar to the one used by Washington, D.C., a touchless system in which a farecard with stored value works on trains and buses. The system could also be used for SEPTA regional rail service, which would prevent riders from having to choose between waiting in a long line for tickets or paying a surcharge for buying their ticket on the train. Chicago and Boston also have Smart Card systems in place, and many other metropolitan areas are working to implement them soon.

Other improvements that would make rail service more popular and accessible, both in Philadelphia and around the region, are:

- Providing outlets at each seat and **wireless Internet service on board the train** – features available on trains in San Jose and Seattle that allow commuters to be productive in transit.
- Experimenting with **more express train routes**. Trip speed can be increased by strategically eliminating some stops on high traffic routes. At the same time, experiment with changes to regional rail that might increase the number of rush hour express trains and offer increased service to close-in train stations.
- Promoting **transit-oriented development**. So many of our towns and communities were developed around the train stations. Development planners are again realizing the benefits to having retail and dense residential buildings close to transit stations. While SEPTA's land holdings are limited, SEPTA is in a position to work with local governments to support new transit-oriented development and link (and expand) its parking facilities with that new development.
- **Overhauling the SEPTA Web site** to make it easier to use and quickly find the most useful routes and times.

Bus Lines

While some cities now have bus shelters with digital displays announcing the estimated time of arrival of the next bus, SEPTA's perpetual funding crisis and concerns about vandalism have slowed attempts to modernize the system's bus shelters. Real-time information on bus and train arrival times could be made available to people on their cell phones.

SEPTA is currently reviewing manufacturers' proposals for buses with state-of-the-art accessibility features, including improved wheelchair accessibility, bike racks, audio/visual annunciating systems, and a public address system for drivers to speak to passengers outside the bus. More can be done to make bus stops safe and accessible. Solar power is now being used to

light bus stops in Israel—a feature which improves both accessibility and safety, and could conceivably be used to heat bus stops as well.

As with rail lines, efficiency and ridership gains could be found in more strategic use of express routes, as well as programming stop lights to turn green for approaching buses. Areas with high traffic from buses should also consider transit-oriented development.

Extending Rapid Transit Along Roosevelt Boulevard

Roosevelt Boulevard is an expansive 12-lane road that serves as the transportation spine of Northeast Philadelphia, home to one-third of Philadelphia's residents and one-fifth of its jobs.[17] The region was rapidly developed after World War II, with a density and development mix similar to other parts of the city that incorporated rail transit service.[18] Unfortunately, no parallel service was built through the Roosevelt Boulevard corridor, and instead, the boulevard itself became the dominant method of travel for the region.

Due to heavy reliance on the boulevard, congestion is a problem to this day. According to the Roosevelt Boulevard Corridor Study completed in 2003, traffic problems in the area result in "overburdened intersections, reduced safety, and daily congestion that reduce quality of life."[19] Two intersections along its 14-mile stretch, for example, were ranked in the top three most risky intersections in the country by State Farm insurance in 2001.[20] That year, 23 pedestrians died in motor vehicle accidents on Roosevelt Boulevard.[21]

While bus service through the area is extensive, it is slow and often relies on transfers that further inconvenience passengers, dissuading all but those without other options from relying on it. Traveling by transit from the northeastern city limit at Roosevelt Boulevard to Center City takes 60 to 90 minutes. Still, 25 percent of Northeast Philadelphia residents don't own a car and rely on the bus system for travel needs.[22] The combination of dense housing, traffic problems, and poor transit alternatives makes Roosevelt Boulevard an optimal place for investment in a major transit project.

After a four-year, $1.4 million study of the transportation problems of Northeast Philadelphia and Roosevelt Boulevard and the potential solutions, an expansion of SEPTA's subway system into the corridor was recommended.[23] A new rail line would share the Broad Street subway line's express tracks from Center City, eventually branching off to the Northeast in a bored tunnel under Roosevelt Boulevard. The line would mostly stay below ground until passing Blue Grass Road, after which it would be raised above street level on an elevated platform.

Because the area is well-suited to such a transit improvement, ridership would be expected to rival Philadelphia's other major subway lines at 124,500 daily boardings, replacing 83,300 daily car trips, and saving 12,900 hours of wasted time each day from reduced congestion and faster travel.[24] The congestion benefits would extend beyond Roosevelt Boulevard itself onto I-95 and other nearby roads. In March, a large crack in a concrete support pillar forced the closure of a two-mile stretch of I-95 for several days, wreaking havoc for commuters.[25] (Alarmingly, the crack was only spotted because a PennDOT inspector happened to be in the area for lunch—not as part of any regularly scheduled inspection.)

The huge expected ridership would require expanded bus service to bring riders to the subway stations, making local bus service itself more attractive with shorter waits and fewer transfers. Additionally, construction of several of the 12 new subway stations would provide opportunity to create transit-oriented developments with dense residential and commercial destinations nearby or even directly above

subway stops.[26] Such developments further increase the attractiveness of transit and increase fare revenue, as well as revitalizing those sections of the city.

The recently announced service expansion for SEPTA will help ease some of the problems in the Roosevelt Boulevard corridor and improve transportation alternatives for residents. Still, as discussed here, much more can be gained by implementing the full rail expansion project.

The Roosevelt Boulevard rail expansion project is an exciting vision that promises huge benefits to residents of Philadelphia. The only factor preventing immediate implementation is lack of funding. The project is estimated to cost between $2.5 and $3.4 billion, and would cost about $56 million a year to operate, the majority of which would be offset by increased fare revenue.[27] The investment is well worth the cost for Pennsylvania's economy, urban health, and global warming pollution reduction.

Connecting Thorndale and Trenton, N.J., via Norristown

The Cross County Metro would connect Thorndale to Trenton via a SEPTA rail line that would traverse the suburban areas in Chester, Montgomery and Bucks counties north of downtown Philadelphia. Currently, all of SEPTA's major transit lines feed into downtown Philadelphia. While the network is useful for people who live in the suburbs and work in the city, much of today's workforce is in the suburbs as well, creating large volumes of commuter travel that doesn't enter Philadelphia itself. The Cross County Metro would connect many of the northern lines together, making it possible to move between outlying areas more quickly, and providing a much-needed alternative to the high-cost of driving between suburban counties.

In addition to providing suburban commuters a viable rail option, the Cross County Metro project would also make travel to New York City through Trenton much easier for areas north of Philadelphia by avoiding the need to travel south into the city.

A required upgrade to the freight rail line along the proposed route makes the Cross County Metro project possible at relatively low cost of about $700 million.[28] The project also provides a great opportunity to help transform the transportation system of the suburban counties into a new, balanced system with cheaper and better alternatives to driving. Transit-oriented developments could be built around the new stations that would be created for the Cross County Metro, ensuring even greater value from the new line and making SEPTA's rail network a more attractive option to yet more residents and travelers.

Building the Cross County Metro would be a boon to Philadelphia-area residents who work in the suburbs, travel to New York, or simply suffer from existing congestion problems and the high cost of driving.

Expanding the PATCO Line

The Port Authority Transit Corporation (PATCO) is considering expanding its South Jersey to downtown Philadelphia service to include a line running along the Delaware River on the city's waterfront. Ridership for the first phase of the project was estimated at 7,900 daily trips, at a cost of approximately $1 billion.[29] Stops along the waterfront would greatly enhance visitors' access to waterfront attractions and serve employees using public transit, since the only existing service to those areas is slower bus routes.

At the same time, PATCO is also attempting to expand its service significantly into Southern New Jersey. This expansion, while outside the jurisdiction of Pennsylvania, would greatly complement the Philadelphia waterfront expansion by providing an even larger pool of people that could use the line to end up in the waterfront area.

Extending the Fox Chase Line to Newtown

The Newtown Connection would restore rail service from Fox Chase to Newtown, connecting that city with downtown Philadelphia and the rest of the SEPTA network. The project is estimated to cost $32 million and would attract commuters in Newtown who currently have no local transit option.[30]

Extending the Elywn Line to Wawa and Sylmar

The Octoraro Railroad would extend the Elwyn line southwest of Philadelphia to Sylmar on the border with Maryland. This line would pass through several towns including Wawa, Chadds Ford, and Oxford, allowing residents easy access to Philadelphia and the entire SEPTA network. An extra spur could also be added to connect West Chester to this line. The city is home to West Chester University with more than 10,000 students and related jobs.

Pittsburgh Area

Creating the Spine Line Light-Rail

The Spine Line Light-Rail would involve creating a new light-rail line that would connect downtown Pittsburgh with Oakland and continue on to either Wilkinsburg or Homestead. The system would reduce travel time to Oakland between 29 and 45 percent, depending on the alternative chosen, and provide a direct link between the city's biggest centers of employment, education and culture.[31]

An estimated 35,000 trips would be taken on the new line every day, reducing travel costs, pollution and congestion. The estimated upfront cost of the system is about $2.2 billion for the Homestead option and about $3 billion for the Wilkinsburg line. During rush hour and other peak times, stations would be serviced every five minutes; during other times trains would be spaced 7.5 minutes apart.[32]

Creating Transit Options for Cranberry Township

Cranberry Township, 20 miles north of Pittsburgh, illustrates the need for transportation systems that don't rely on car travel. The township has seen rapid growth in recent decades, largely because it includes the connection between four heavily used highways: Interstates 76 and 79, U.S. Highway 19, and Pennsylvania Highway 228. A study of transportation options in the area, completed in 2005, noted:

> *For many years now, the Cranberry area has been attempting to deal with growth that has been promoted by key regional highway development. The community has seen an investment in a strategy that is neither balanced, integrated, nor diversified, but rather a highly auto-oriented system that serves the Township, providing easy connections to other regional locations, but offering residents and other system users a largely undeveloped system...*[33]

The study identified problems with the existing car-dominated system, including the fact that "No sense of 'place' or town center currently exists in the community; no 'main street' can be identified, particularly one that is easily accessible and walkable." Additionally,

> *Congestion on US Route 19, PA Route 228, and I-79 means the loss of efficient access to the substantial employment opportunities in the township. This same congestion inhibits movement in [Cranberry and nearby townships] to other destinations in Butler, Allegheny, and Beaver Counties.*[34]

To solve the problem, Cranberry Township and nearby communities in Butler and Allegheny counties are hoping to create a bus transit system to facilitate travel to Cranberry, within the township, and the commute to Pittsburgh. If completed, the study estimated that about 3,500 trips would be made on the system each day, cutting down on congestion and helping to remake the township into an attractive and accessible community. The transit system would be well worth the estimated $26.5 million cost for the well-being of Cranberry Township and surrounding communities, as well as for the reduced highway congestion and global warming pollution.

This same approach could be used by other quickly growing suburban areas in the Pittsburgh region.

Bringing Commuter Rail Service Through the Allegheny Valley

The Allegheny Valley Commuter Rail would follow the southern shore of the Allegheny River over 18 miles from 11th Street or the Strip District in Pittsburgh to Lawrenceville, Verona, Oakmont, New Kensington, and finally Arnold. One option of this plan would be to include a secondary spur to Oakland, another important center of employment.

The rail line would provide an attractive alternative to commuting by car along the congested Route 28 corridor, and encourage many travelers who would otherwise drive to take transit instead. In fact, it is estimated that commuters from Arnold would save 7 to 18 percent of their commuting time using the new line instead of a car, and 15 to 23 percent relative to existing bus lines.[35]

The more advanced version of this plan would run a train every half hour during peak times, and every 90 minutes otherwise. It is estimated that 6,700 trips would be taken each day, and the project would take about $300 million to build.[36]

Linking Latrobe to Pittsburgh with Commuter Rail

The Norfolk Southern Commuter Rail would start at the Amtrak Station in downtown Pittsburgh and end 31 miles away in Latrobe of Westmoreland County, after passing through the busy Route 30 corridor of Wilkinsburg, Swissvale, Braddock, East Pittsburgh, Wilmerding, Trafford, Irwin, Jeannette and Greensburg.

The advanced option would include a half-hour schedule during peak periods and 90 minute schedule at other times. Travel from Greensburg to downtown Pittsburgh would take only 49 minutes, saving 15 minutes relative to a car and over half an hour compared with the existing 1F bus route. The reduced travel times and convenience of rail would draw about 8,800 trips a day at an initial cost of $250 - $300 million.[37]

Harrisburg-Lancaster Area

CorridorOne would connect Harrisburg with Lancaster to the southeast, along with several communities in between, including Middletown, Elizabethtown, and Mount Joy. The regional rail service is intended to be an alternative to driving to work, as well as to serve "destination areas" within the corridor.

The service would run on tracks that already exist, making the project significantly cheaper than one of its size would otherwise be. An additional stop at the Harrisburg International Airport is also being considered. The project is intended to be the first step in a larger network of regional rail transit. Mechanicsburg, to the west of Harrisburg in Cumberland County, is one of the areas that is being considered for connecting service.

Scranton-Wilkes-Barre and Northeastern Pennsylvania

Before gas prices rose dramatically, the Poconos were the fastest growing region of Pennsylvania. The growth was dominated by people who commute east to New Jersey and New York. As gas prices rise, the commute becomes less and less attractive. But car hasn't always been the only way to get to New York from northeastern Pennsylvania, nor does it need to be now.

The New Jersey Transit Connection, operated by the Pennsylvania Northeast Regional Rail Authority, would facilitate travel between Scranton and New York City by connecting northeastern Pennsylvania to the New Jersey Transit rail system. A commuter rail connection used to exist, connecting Scranton and Port Morris, New Jersey, with 88 miles of track, where the new service is now proposed. Reviving the transit service would provide commuters with an attractive alternative to the daily drive and reduce congestion by inducing some drivers to ride instead.

The new service would run 18 train trips per day, carrying up to 6,700 passenger trips each weekday, and diverting 2,700 car trips from the road. The project is expected to cost $550 million and deliver economic benefits to the entire region through facilitated travel and sustained jobs.[38]

Plans to reestablish service were given a boost this year as Pennsylvania Senators Bob Casey and Arlen Specter, along with New York Senator Charles Schumer, backed an extension of service from Hoboken, New Jersey, to Scranton, and on to Binghamton, New York. Because this route would serve more people, additional federal funds could be available for construction, up to $550 million.

Amtrak has begun a year-long feasibility study of the route and has already concluded that it would cause no significant negative environmental impact. Other projects that are languishing might learn from the momentum generated for this project by the inter-state partnership.

Lehigh Valley

Allentown and surrounding towns in the Lehigh Valley form the third-largest municipal area in the state. Yet the Lehigh Valley saw its last SEPTA train depart in 1979 as service was phased out. Since then the region's population has grown by over 25 percent.[39]

A July 2000 study by Parsons Brinckerhoff of Philadelphia determined the restoration of passenger rail service would be both feasible and viable. It said the service is needed because the population along the northern corridor of the service will increase 17 percent by 2020 and the number of jobs along the route will increase as well.[40] The project would also alleviate congestion along the Northeastern Extension of the Pennsylvania Turnpike.

While the tracks are already in place, the tracks and ties would need to be upgraded, signals replaced, bridges assessed, and repairs made to the half-mile long tunnel in Perkasie. The study predicted weekday ridership of 2,620 to 4,267. Total operating costs were projected at $5.6 million, with revenues of $3.6 million, leaving an annual operating cost of nearly $2 million.[41] For the near-term, restoring service as far as Quakertown, 13 miles south of Allentown, would vastly extend SEPTA's reach and greatly reduce congestion in the Lehigh Valley.

Reading

The Schuylkill Valley Metro rail line, which connected Reading to Philadelphia until 1981, has received renewed interest

lately for passenger service. The 62-mile route would help revitalize 52 communities, creating opportunities for transit-oriented development and alternatives to the high cost of driving.[42] The route would also help relieve congestion along the crowded Routes 422 and 202.[43]

According to one group supporting the added service:

> *This part of the Philadelphia metropolitan region has seen rapid growth in the past few decades in residences, employers, and automobile traffic—along with the increased air and noise pollution, congested roadways, and quality-of-life issues that go along with growth. A rail line that serves communities along this corridor will revitalize the old towns and cities along the Schuylkill River, encourage Smart Growth and development patterns that preserve open space, and reduce traffic, air pollution, and noise pollution related to automobile use.*[44]

Once built, the line would carry an estimated 42,000 to 68,000 passenger trips each weekday, of which 47 percent would be new to transit. It would also provide a valuable carless link between the two areas for non-commuters.

Pittsburgh to Philadelphia High Speed Rail

The recently completed high-speed line between Philadelphia and Harrisburg increased top train speeds from 75 mph to 110, cutting half an hour off express routes between the two cities. (See text box, "Keystone Corridor Success.") Ridership on the route has grown more than 20 percent in the last year since the upgrades took place.[45] Modernizing the route all the way to Pittsburgh would be even more useful, since passengers could travel across the state in high-speed trains. Amtrak, which runs the line and completed the upgrade on the Harrisburg-Philadelphia section, has expressed interest in the upgrade but will need funding assistance from the state or federal level.

Keystone Corridor Success

The projects described in this report have the power to entice more Pennsylvania commuters and travelers out of their cars and away from gas pumps and onto public transportation by providing convenient alternatives to driving. The best evidence of the willingness of Pennsylvanians to use alternatives is the dramatic increase in ridership along Amtrak's Keystone Corridor after track upgrades increased the speed of travel.

The upgrade began in 2002 as a way to bring faster travel times, more departures, and more reliable service along the 104 miles of the Keystone Corridor that stretch between Philadelphia and Harrisburg. The upgrade improved the top speed of the trains from 75 miles per hour to 110, only the third section of track in the country to reach that speed.[46] And along with the decrease in travel times (up to half an hour of savings for express trains), ridership increased 17 percent in the first half year.[47]

Pennsylvania can see similar ridership improvements in other public transit projects across the state, but it must be willing to make the upfront investment to attract riders, and the businesses and homes that follow.

Centre County Region

The State College area is growing fast, with Penn State the economic engine of the region. The local bus system does a great job moving people around quickly and efficiently, avoiding the many drawbacks of excessive reliance on cars. The Centre Area Transportation Authority (CATA) even ranks among the most effective small-city transit agencies in the country for saving oil.[48] Transit has clearly been a success for Centre County Region already, and more can be done to improve and expand the service.

Transit in Centre County could primarily be improved through extended and more frequent service that would allow more people to get close to their destination without cars. The region's relatively low population density makes it a challenge to provide effective, efficient service, but the existing network is a good start. Proposals for improvement include service to the airport, the Penn Valley Region, Grays Woods, Milesburg, and more. The proposals involve both fixed route expansions as well as minimal service routes tailored towards people without cars.

Michael DiMunno

Highly successful high-speed rail service from Philadephia to Harrisburg could be extended to Pittsburgh.

Policy Recommendations

In order to create viable long term transportation options for Pennsylvanians, cut down on economic costs of congestion, and reduce global warming pollution, local, state and federal decision makers should prioritize investing in the state's transit opportunities. The following policies should be considered:

- Invest in high-priority transit projects around the state that promise to improve communities and quality of life and encourage more riders to use transit, reducing dependence on oil, global warming pollution and traffic congestion.

- Build transit-oriented developments into plans for transit expansion projects to take full advantage of transit stops and reverse the tendency towards sprawl in Pennsylvania's metropolitan areas. Transit investments have the potential to catalyze forms of development that are less dependent on automobiles. However, that potential can only be realized if transit investments are paired with smart land-use planning that encourages compact, mixed-use neighborhoods oriented toward the use of transit. America knows how to build these types of communities; we have been building them for hundreds of years. But zoning regulations that require large minimum lot sizes, segregation of uses and large parking lots encourage sprawling development that increases dependence on automobiles—even if a transit stop is nearby.

- Press Congress for a realignment of the nation's transportation funding priorities that increases funding for public transportation. Transit projects should be more seriously considered as effective investments that provide myriad benefits for citizens, including more abundant and cost-effective transportation choices, reduced congestion on roads and highways, reduced global warming and local air pollution, and decreased reliance on expensive imported oil.

Dranoff Properties

This rendition portrays a new $180 million transit-oriented development in Ardmore, Pennsylvania, that will create a vibrant and walkable village to attract new residents, businesses and customers.

Notes

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16. The section of Amtrak's Keystone line between Philadelphia and Harrisburg runs at a top speed of 110 MPH. The Federal Railroad Administration defines trains with top speeds of 90 MPH and above as "High Speed Rail." More advanced technology being used in other countries, and being considered in some areas of the United States, can top 200 MPH.

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