

 **pennsylvania**
DEPARTMENT OF TRANSPORTATION

Using Transportation Dollars to
Build Sustainable and Livable Communities





APA Pennsylvania Chapter
October 6, 2009

Smart Transportation
it starts with me

1

The Transportation
World is Changing






"Sustainability must be reflected in all our infrastructure investments...

... it implies a **commitment to** the principles of **livability**...

The era of one-size-fits-all transportation projects must give way to one where **preserving and enhancing unique community characteristics**, be they rural or urban, is a primary mission of our work rather than an afterthought."



Secretary Ray LaHood, US DOT
January 21, 2009

EPA, HUD, and DOT Partnership on Livability

1. Provide more transportation choices
2. Promote equitable, affordable housing
3. Enhance economic competitiveness
4. Support existing communities
5. Coordinate and leverage federal policies and investment
6. Value communities and neighborhoods



Partnership on Livability

- **Enhance integrated planning and investment.** Integrate housing, transportation, water infrastructure, and land use planning and investment.
- **Redefine housing affordability.** Develop housing affordability measures that include housing and transportation costs.
- **Redevelop underutilized sites.** Target development to locations with infrastructure and transportation choices.
- **Develop livability measures and tools.**
- **Align HUD, DOT, and EPA programs.**



Source: EPA website (<http://www.epa.gov/ced/2009-0816-epahuddot.htm>)



- What does Livability mean to you?
- What is your organization doing to work towards Livability?

What other State DOTs are doing

- Revised Project Process to include more thoughtful Planning Upfront
- Shift to Multi-Modalism
- Emphasis on System Preservation
- Performance Based Programming
- Organizational Change to Increase Planning/ Respond to Emerging Issues



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What is Smart Transportation?

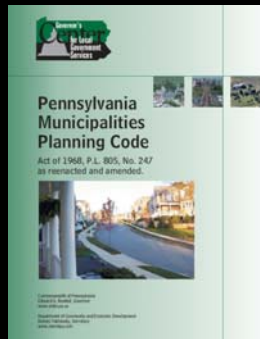
*"Smart Transportation is **partnering to build great communities** for future generations of Pennsylvanians by **linking transportation investments and land use** planning and decision making."*

Smart Transportation is about

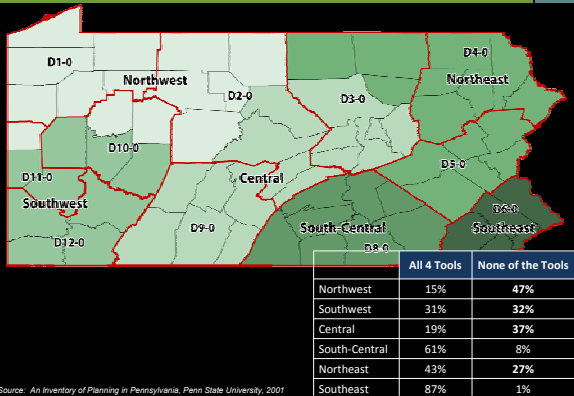
- Partnership with communities
- Linking land use & transportation decisions/investments.

Four BASIC Land Use Tools

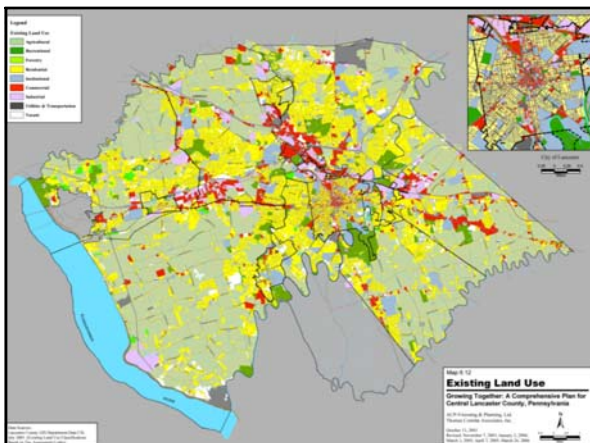
- Comprehensive plans
- Zoning
- Subdivision ordinances
- Planning commissions

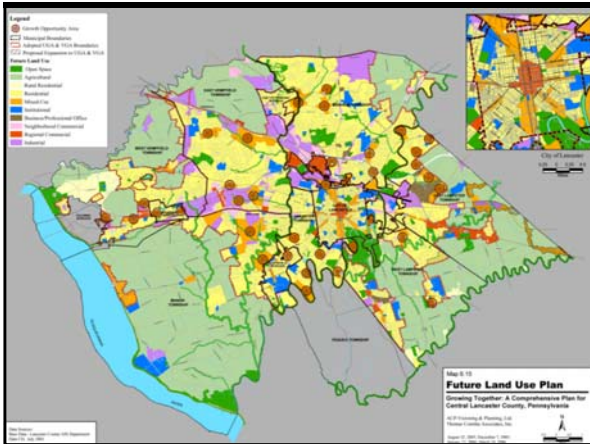


The Challenge...

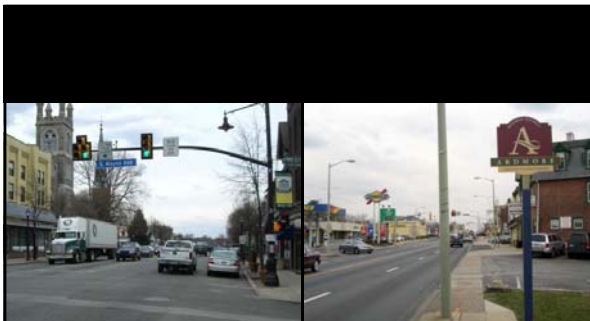


Source: An Inventory of Planning in Pennsylvania, Penn State University, 2001









Route 30, Wayne

Route 30, Ardmore

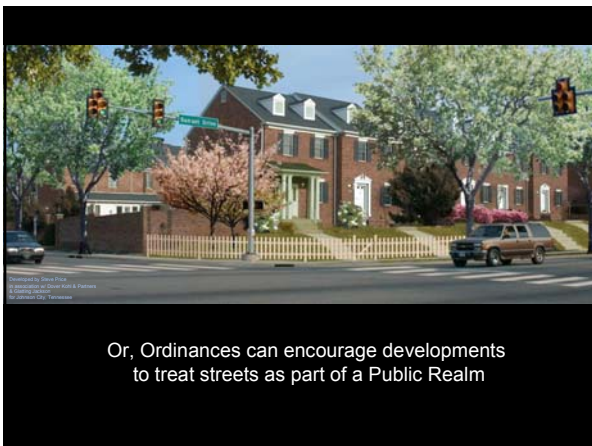
Both roadways have devoted the same width to travel lanes, but there are important differences







Ordinances can encourage land uses
to treat streets as traffic conduits



Existing Roles

PennDOT

- Manage statewide and regional mobility
- Allocate and manage state/federal transportation funds
- Maintain and improve state transportation infrastructure

MPOs and RPOs

- Help plan and allocate state/federal transportation funds
- Develop transportation plans (LRTP & TIP)

Local Government

- Manage local mobility
- Maintain local circulation system
- Manage and control land use and development



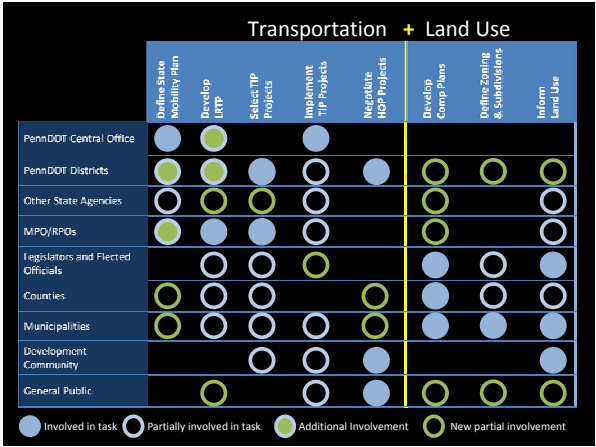
Partnering Actions

PennDOT & Planning Partners

- Work with municipalities to understand land development decisions and limitations
- Work together to understand how to manage and maintain existing transportation assets
- Understand local planning and transportation goals and align project alternatives with these goals

Municipalities

- Make land use decisions based on understanding of long-term transportation impacts and fiscal realities
- Improve local network connectivity
- Adopt ordinances that promote smart transportation (access management, mixed-use, TOD, etc.)
- Promote alternative modes of transportation
- Plan regionally and work with all levels of government





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Smart Transportation in Action

Pennsylvania Community Transportation Initiative

- Applications received:
403 requesting \$600 million
- Applications selected:
50 granting \$59.3 million



Type of Project	# of Selections	% of Total Selections	Total Funding for Selected Projects	% of Total Funding
Bicycle/Pedestrian	9	18%	\$ 9,230,405	16%
Roads/Intersections/Local Network	6	12%	\$ 9,937,000	17%
Intermodal/Transit-oriented Development	13	26%	\$ 14,007,200	24%
Land Use & Transportation Planning/Redevelopment	13	26%	\$ 7,666,500	13%
Streetscape/Traffic Calming	8	16%	\$ 18,158,887	31%
Regional Planning	1	2%	\$ 285,000	0%
TOTAL	50	100%	\$ 59,284,992	100%

US Route 202, Montgomery & Bucks County

In 2004, US 202 was planned as an expressway at a cost of \$465 million.



US Route 202, Montgomery & Bucks County



Most trips are local trips rather than regional/through trips

Only 7% of trips on US 202 are regional through trips.



37% of all trips begin or end in the study area.



56% of all trips are local, beginning and ending in the study area.



Focus on local leadership and local trips.

Route 202 - as a 2-Lane Parkway for \$200 million.



US Route 202, Montgomery & Bucks County

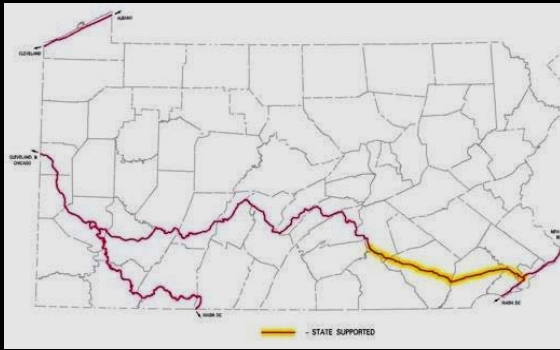
- From concept to construction in 3 years.
- Gained Community and Advisory Group support.
- Saved \$185 million.



High Speed Rail



Intercity Rail in PA



Keystone Corridor Investments

PLAN the KEYSTONE RESOURCES CALENDAR STATIONS CONNECT CONTACT

ABOUT THE KEYSTONE HIGH SPEED RAIL CHARTER 101 TRANSIT ORIENTED DESIGN 101

KEYSTONE CORRIDOR EAST HIGH SPEED RAIL PROGRAM

LEGEND

- Station
- Express Lane
- Transit Oriented Design
- Station Upgrade
- Interlocking
- Station Relocation

PLANNED IMPROVEMENTS

Interlocking improvements:

- State
- Local
- PA
- PA
- PA
- PA
- PA
- PA

PROJECT DESCRIPTION

The Federal Railroad Administration (FRA) and the Pennsylvania Department of Transportation (PennDOT) are implementing improvements along the 133-mile central corridor rail line between Harrisburg and York. This program will be implemented in an incremental manner as part of the East High Speed Rail Program. Potential changes include replacement and/or new tracks and/or in place where tracks currently exist and/or in future each existing express track between the York Station and the region including potential additional areas and/or, and/or potential track relocation of an existing track to provide high-speed, high-capacity platforms at the York Station, regular the Capital Region, and/or to the York Station, which has a regular the Capital Region.

Station Area Planning

PLAN the KEYSTONE RESOURCES CALENDAR STATIONS CONNECT CONTACT

ABOUT THE KEYSTONE HIGH SPEED RAIL CHARTER 101 TRANSIT ORIENTED DESIGN 101

LESSON 1: What makes a great transit station?

STATION AREA PLANNING

Station area planning is a critical component of the high-speed rail program. It involves the development of a comprehensive plan for the station area, including the station platform, parking, transit, and other transportation modes. The plan should take into account the needs of the community and the goals of the high-speed rail program.

Queen Street TOD, Lancaster

- Transit-oriented development
- Partnership among Red Rose Transit, Lancaster Museum of Art, the City of Lancaster, and private developer
- Received PCTI Funding from PennDOT, Green roof funding from EPA



Queen Street TOD, Lancaster

- Redevelopment of parking lot into joint-use development
- Bus hub, Art Museum on ground floor, 350-space parking, and residential flats
- Supported by PennDOT through PCTI program
- Construction starting soon



Route 62, Route 6N, Route 19

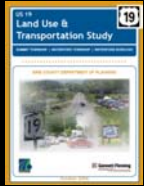
- Multiple land use & transportation planning studies
- PennDOT was part of land use decision-making process that will ultimately dictate transportation needs



Route 62, Warren

Route 62, Route 6N, Route 19

- What the Studies looked into:
 - Existing Land Use Conditions
 - Growth Patterns & Trends
 - Future Land Use Plans
 - Access & Growth Management
 - Zoning & Subdivision Ordinances
 - Community Assets



Route 62, Warren; and Route 6N, Edinboro



Route 6N, Edinboro

Meadville 1-79 Interchange



Eco-Art

Meadville 1-79 Interchange

Recycling existing materials to preserve our environment





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Implementing
Smart
Transportation

Implementing Smart Transportation

- 1 Increasing Partnership Efforts
- 2 Changing the Rules
- 3 Changing the Decision Making Processes

1. Increasing Partnership Efforts

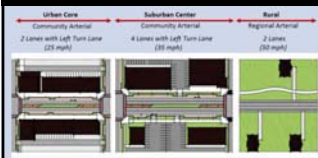
- **Sharing Smart** Transportation message
- **Strategic discussions** with partner agencies and organizations and local municipalities
- **Outreach activities and interactive workshops** with local officials and professionals



2. Changing the Rules

Smart Transportation Guidebook (incorporated with Design Manual 2)

- Use **flexible design** on all projects
- **Increase coordination** with local municipalities
- Link existing and future **land use contexts and roadway design values**
- Design to a **desired operating speed**

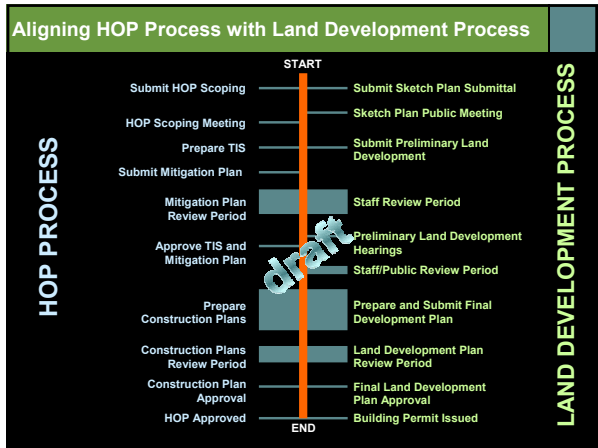


2. Changing the Rules

Revised HOP Guidelines

- Consistency with **Smart Transportation Guidebook**
- **Local coordination** throughout process
- **Mitigation applied** with consistency across the state
- **Alternative mitigation strategies** including local network, transit, TDM
- **Predictable timelines** for approval

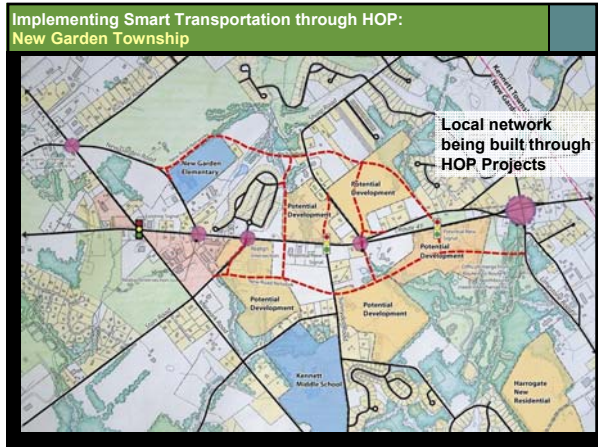




Alternative Mitigation Strategies

- Vehicular trip credits awarded for
 - Sidewalks and bicycle lanes
 - Employer trip reduction program
 - Transit services
- Improvements on alternate routes
- Access management plans
- Must be implementable and funded
- Cost to developer equivalent to conventional mitigation





Implementing Smart Transportation through HOP: Lancaster YMCA

- TIS Requirements in Lancaster SALDO: Development shall "promote pedestrian, bicycle and mass transit access to the site"
- **Original plan** for YMCA: Principal entrance was off parking lot to rear, with emergency exit on front of building
- **Revised plan:**
 - Main entrance on Harrisburg Pike
 - 'Window walls' on work-out room
 - Bus pull-out on Harrisburg Pike



3. Changing the Decision-Making Processes

Revised Project Delivery Process

- Including **partners in the development of new process**- Municipalities, MPOs/RPOs, Resource Agencies
- **Emphasis on planning**
- **Organizational changes** to respond to new focus
- **Link Mobility Plan, LRTPs and TIPs** – and reduce delivery times
- **Develop Smart Transportation selection criteria** for TIPs & LRTPs



Current 10-Step Process

PROGRAMMING

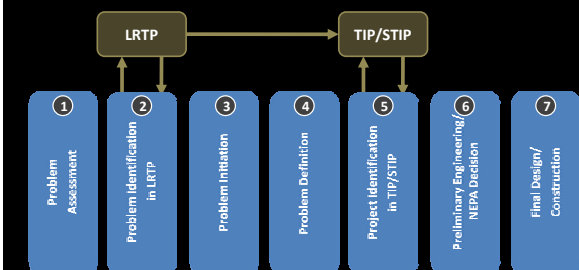
- ① Internal Administrative Activities
- ② Agency & Public-Scoping
- ③ Analysis & Review of Project Needs
- ④ Develop & Review of Preliminary Alternatives
- ⑤ Detailed Alternatives Review
- ⑥ Preparation & Circulation of Draft EIS
- ⑦ Comments, Analysis, & Coordination
- ⑧ Preparation & Distribution of Final EIS
- ⑨ Record of Decision
- ⑩ Mitigation Report

FINAL DESIGN

Current 10-Step Process



New Process (draft)

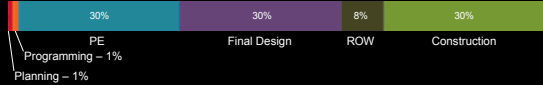


Key Changes (draft)

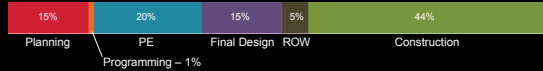
1	2	3	4	5	6	7
Problem Assessment	Problem Identification in LRTP	Problem Initiation	Problem Definition	Project Identification in TIP/STIP	Preliminary Engineering/NEPA Decision	Final Design/Construction
Focus on and define the problem, not the solution	Determine the priority of the problem within the region Use an asset management methodology to understand the priority of problem Use evaluation criteria consistent with Mobility Plan to prioritize problems	Identify potential range of land use and multi-modal transportation solutions Enhance coordination with municipalities, resource agencies and stakeholders	Identify range of potential solutions, costs and schedules Understand the surrounding future land use and transportation context	Develop more definitive costs and schedules for projects Use evaluation criteria that are consistent with the Mobility Plan to determine which projects are funded	Use planning decisions & better-defined project need to streamline this phase	More accurate schedules and costs will increase predictability and streamline this phase

Example: Moderate Roadway Project

Existing Process = 4 years



New Process = 2.5 years



Smart Transportation

it starts with you

1. What Smart Transportation activities are you doing already?
2. How else can we help you implement Smart Transportation?
3. What role can APA do to help?

www.smart-transportation.com

Click here to read the Smart Transportation Tip of the Week

Click here for the latest information on the Pennsylvania Commuter Transportation Initiative (PCTI) and Highway Occupancy Pricing

We all know the world is changing rapidly around us. Every day, we see the prices increase at our local gas station, we read in the newspaper about global warming, we talk to our neighbors about traffic congestion or the slowing economy. All of these trends are changing the needs and demands of our transportation system. To adapt to this changing world, the Pennsylvania Department of Transportation (PennDOT) is integrating a concept called "Smart Transportation" into the way we do business. Smart Transportation simply asks us to understand and embrace our existing financial, environmental, technological, and social contexts as we approach our transportation challenges. It is about consistently applying the most innovative tools and ideas to solve our new transportation challenges, while also helping to build great communities across Pennsylvania. On this website, you will find a number of resources that will help you understand what we are trying to achieve, and how you can get involved with this effort. We are still constructing this website, and it will be continually updated as the Smart Transportation effort goes forward. Please email us at smarttransportation@state.pa.us with any comments or suggestions. We look forward to everyone's help as we seek to build a more efficient, affordable, and sustainable transportation system. Together, we can ensure that our communities remain great places for future generations of Pennsylvanians.
