Transportation for America

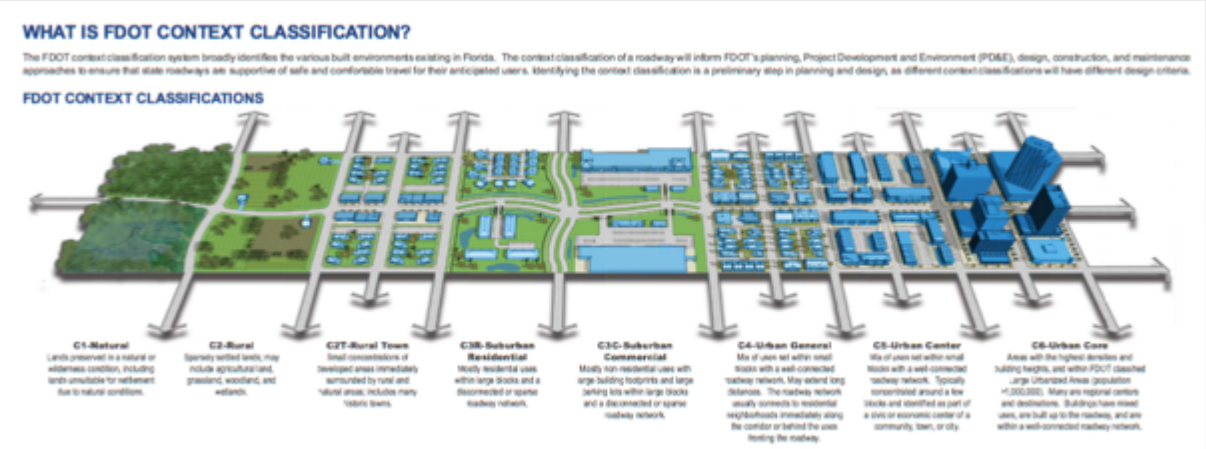
RVTPO Performance Management Workshop

Chris Zimmerman
March 13, 2018

www.T4america.org
@t4america

About Transportation for America

Transportation for America is the alliance of elected, business and civic leaders from communities across the country that want smart, locally-driven transportation solutions — because these are the investments that hold the key to our future economic prosperity.



Why we are here

Six MPOs selected to receive performance management technical assistance:

- Sarasota/Manatee, FL
- Roanoke Valley, VA
- Des Moines, IA
- South Bend, IN
- Lake Charles, LA
- Alexandria/Pineville, LA

THE KRESGE FOUNDATION

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Transportation performance management

Aligning the mechanisms of government with our values and goals.

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No, really, why are we here?

a) You are competing with other places for jobs and economic growth – and it's about **place**.

b) You are competing with other places for limited and diminishing transportation funds. Which are becoming **harder to get**.

How can Roanoke position itself to compete effectively?

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A little review

The economy has changed, and that has implications for transportation.

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We built highways, expanded them . . .

Lovell Road and I-40 40 years ago and today

. . . and economic development followed.

Sense of place?

Not so competitive in the 21st century


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Prime office location
(late 20th century)

From: http://dilemma-x.net/2012/11/10/research-triangle-park-unveils-new-master-plan/

There is a price/value premium for walkable places

Great public spaces, with a mix of uses –

- Retail
- Commercial
- Residential

Mix of uses – traditional main street

Westchester PA – 2007 (CZ photo)

Traditional Main Streets are back

Credit: clariontoday.com

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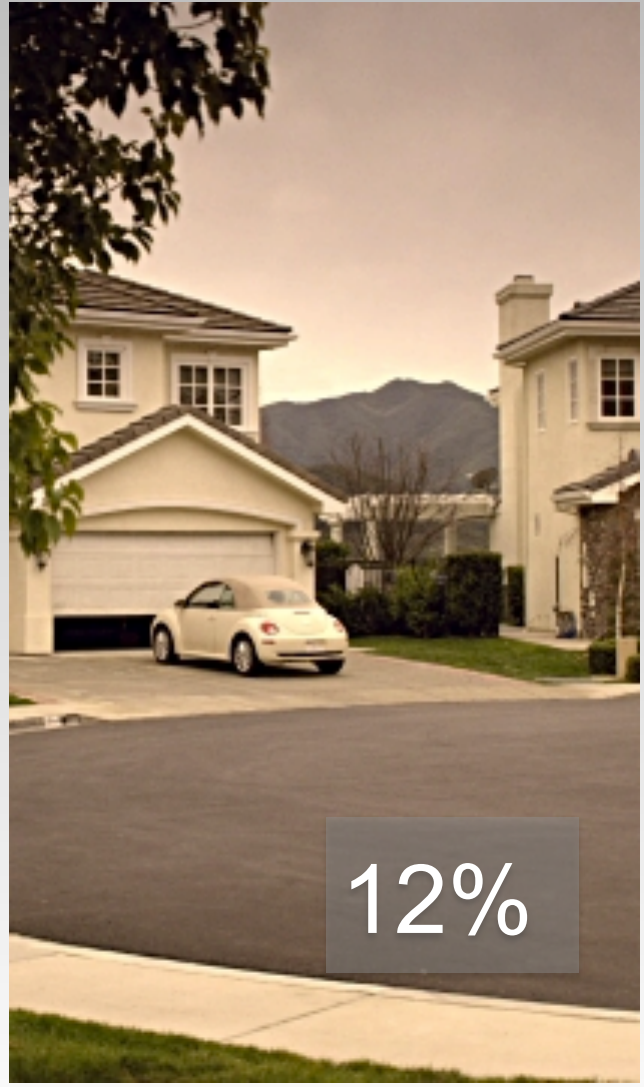
Millennial Preferences



From: National Association of Realtors

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Transportation “improvements”

Don’t always help achieve other goals, like economic vitality and tax base.

Especially if the only measure of performance is vehicle throughput.

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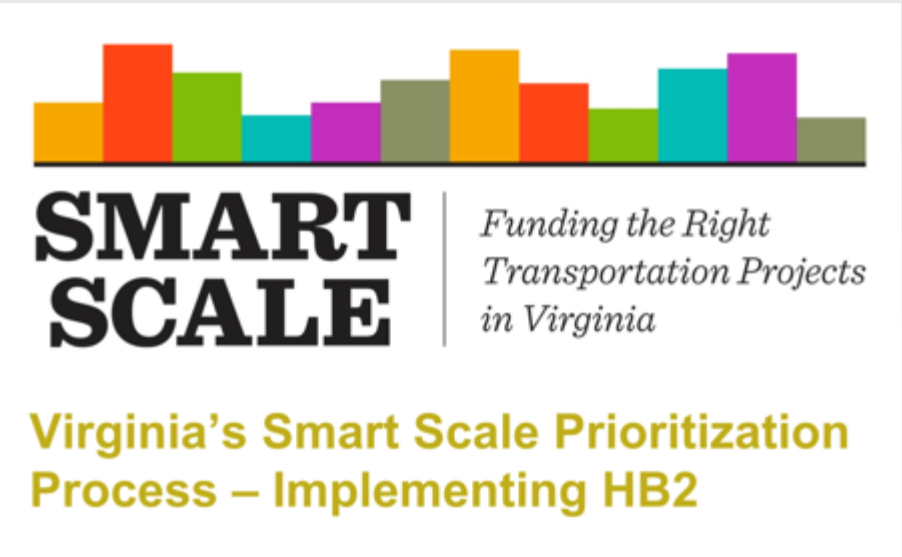
Transportation improvement as placemaking tool

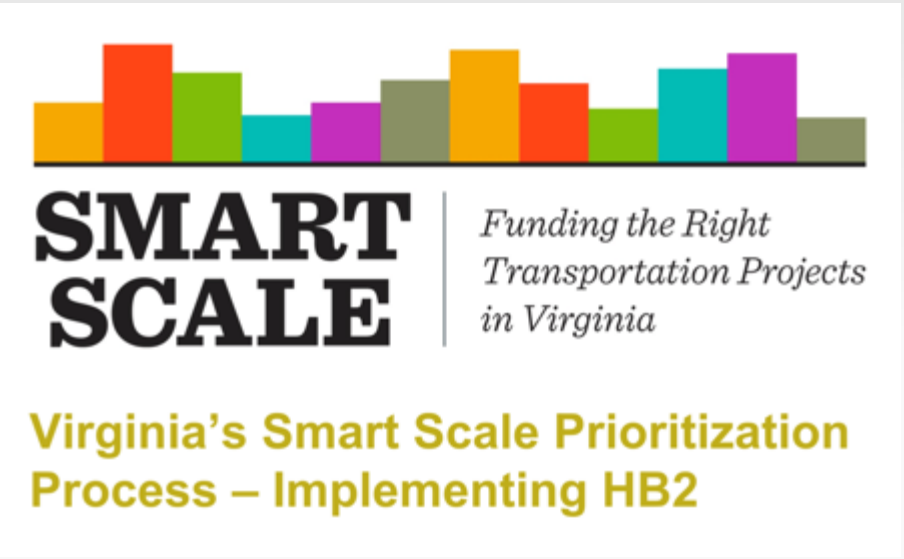
A little review (2nd point)

The transportation funding game has changed, and that has implications for how MPOs and local governments do projects.



A little review (2nd point)

Performance management is now a key factor in transportation planning and funding decisions.



What is performance management?

A strategic approach that uses system information to make investment and policy decisions to achieve performance goals.

Performance measurement:

- Regular measurement of outcomes and results, which generates reliable data on the effectiveness and efficiency of programs

Performance measure:

- A comparison that provides objective evidence of the degree to which a performance result is occurring over time.

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Why are we talking about it?

It is the best way to remain competitive to receive limited funding while actually accomplishing your region's goals.

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How we have always done things

1) Road is congested

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How we have always done things

TIP Project #2009-72-036: SR-109 Reconstruction & Widening

SR-109 reconstruction & widening from 2 lanes to 5 lanes with shoulders and ditches beginning south of Dry Fork Creek for approximately 3.25 miles and with curb and gutter for approximately 0.5 miles to south of the Cumberland River.

Type:	Road Widening	**Regional Plan ID:**	1072-348-2
Lead Agency:	TDOT	**TDOT PIN:**	100281.03
County:	Wilson County	**Total Cost:**	$50,229,000.00
Name/Route:	SR-109	**Total Programmed:**	$39,729,000.00
Location:	South of Dry Fork Creek to south of the Cumberland River	**Federal Share:**	$31,783,200.00
Length:	3.73 miles	**Federal Obligation*:**	
Air Quality Status:	Non-Exempt	**Unobligated Balance:**	$31,783,200.00

* Obligations during current TIP period only.

2) Project to fix it

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How we have always done things

3) Project goes into queue for state funding

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How we have always done things

4) Designed and constructed based on standards

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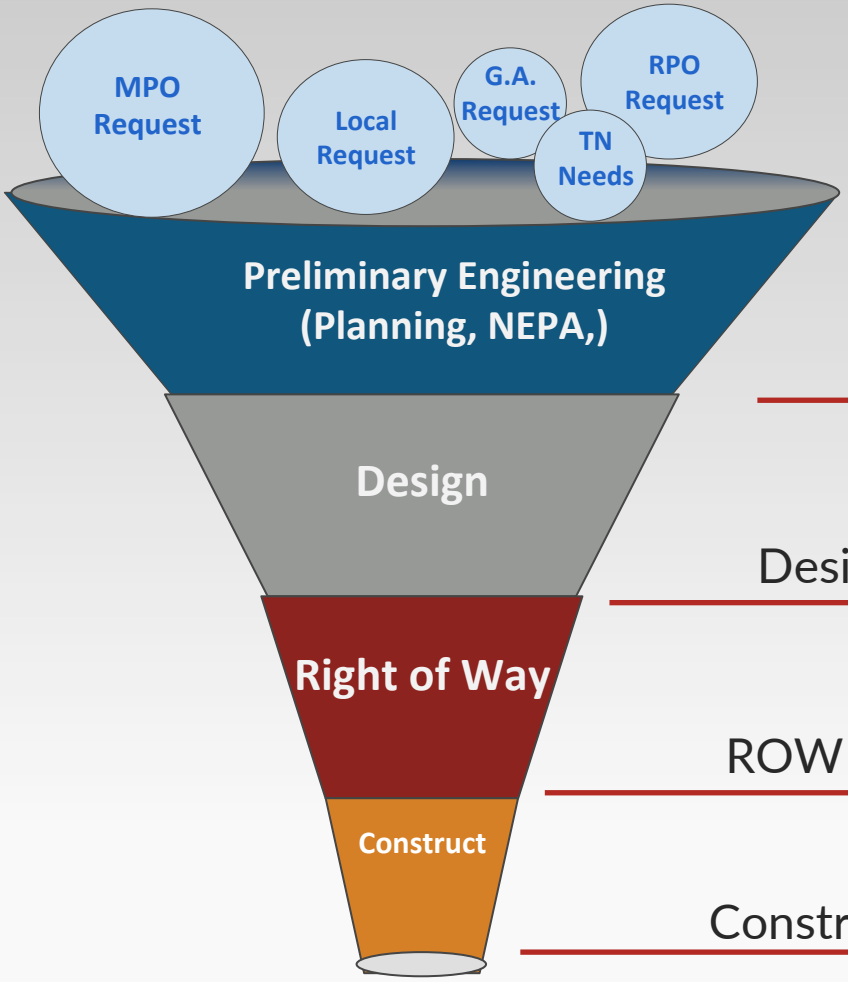
That isn't working anymore



P.E. Millions $

Design Millions $

ROW Millions $

Construction Billions $

Credit: Toks Omishaken, TDOT

TDOT Backlog Projects Total $6.1 Billion

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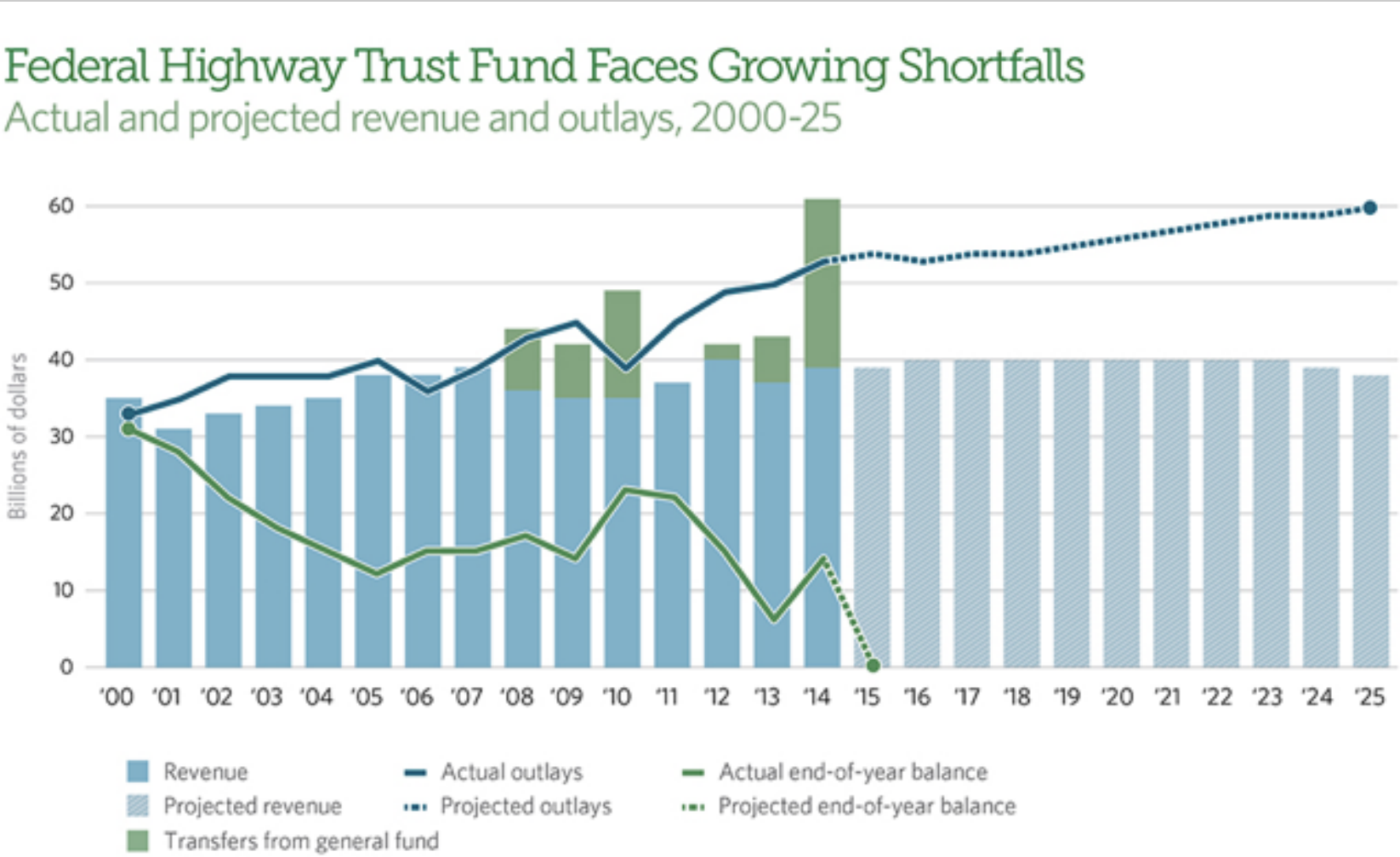
Why?


Federal Highway Trust Fund Faces Growing Shortfalls
Actual and projected revenue and outlays, 2000-25
Billions of dollars
60
50
40
30
20
10
0
'00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13 '14 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25
Revenue
Projected revenue
Transfers from general fund
Actual outlays
Projected outlays
Actual end-of-year balance
Projected end-of-year balance
Note: Numbers not adjusted for inflation.
Source: Pew's analysis of Congressional Budget Office and Federal Highway Administration data
© 2015 The Pew Charitable Trusts

Why?

PROVIDENCE Journal

Cost of Route 95 viaduct

▲ HIDE CAPTI

The Route 95 northbound viaduct requires frequent repairs and often caus

Menu The Seattle Times

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Originally published July 21, 2016 at 2:39 pm | Updated July 22, 2016 at 10:45 pm

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Audit finds huge cost overruns at Wisconsin DOT, some road project costs triple

POSTED 9:42 AM, JANUARY 26, 2017, BY THEO KEITH, UPDATED AT 06:19PM, JANUARY 26, 2017

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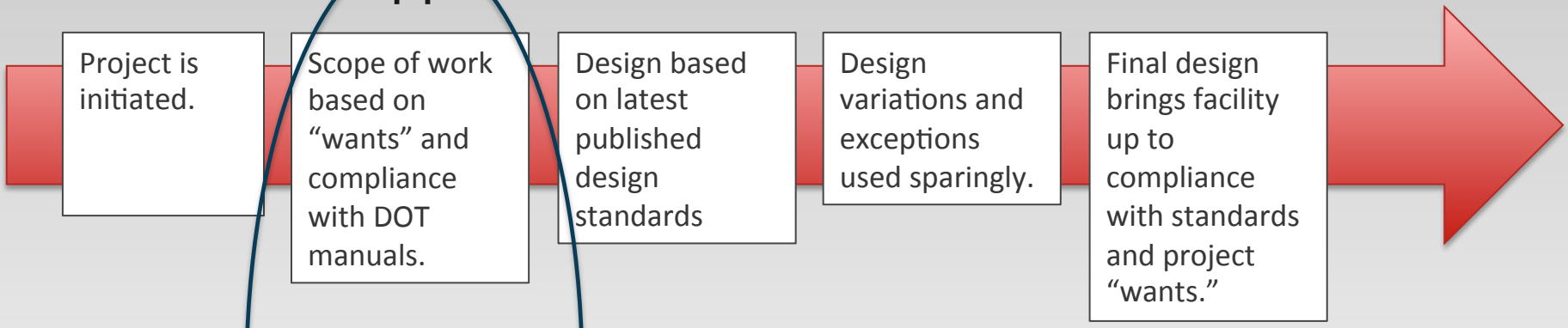
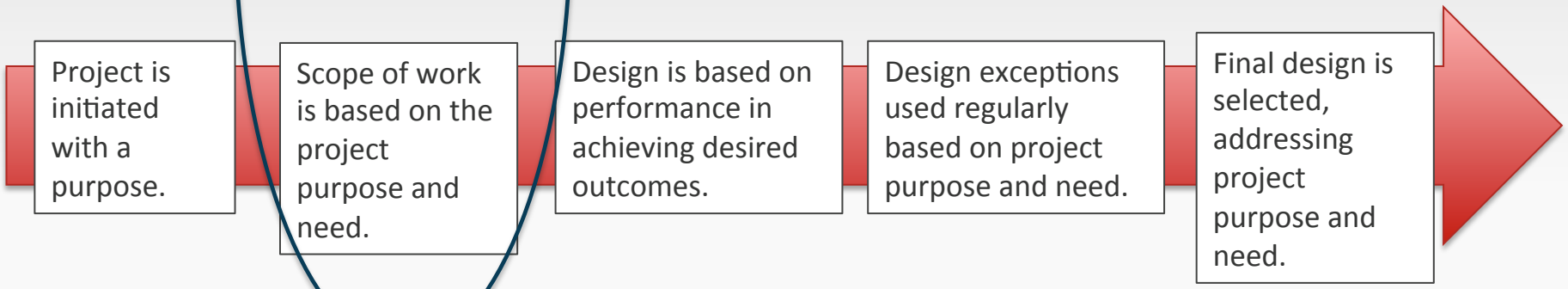
Our approach needs to evolve

Traditional Approach



Practical Design Approach



Source: Modified from FDOT

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Changing the question

I-64 Widening from I-295 to Bottoms Bridge

Original design

Revised design

Original design - $79M | Revised design - $60M

Both projects provide the same benefits

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Repurposed with permission from VDOT

Common sense engineering

I-81 Exit 17 Interchange

Original design - $157M

- Full interchange reconstruction
- Improved level-of-service from E to B

Revised design - $21M

- Realigning existing ramps and adding one new ramp
- Improved level-of-service from E to C

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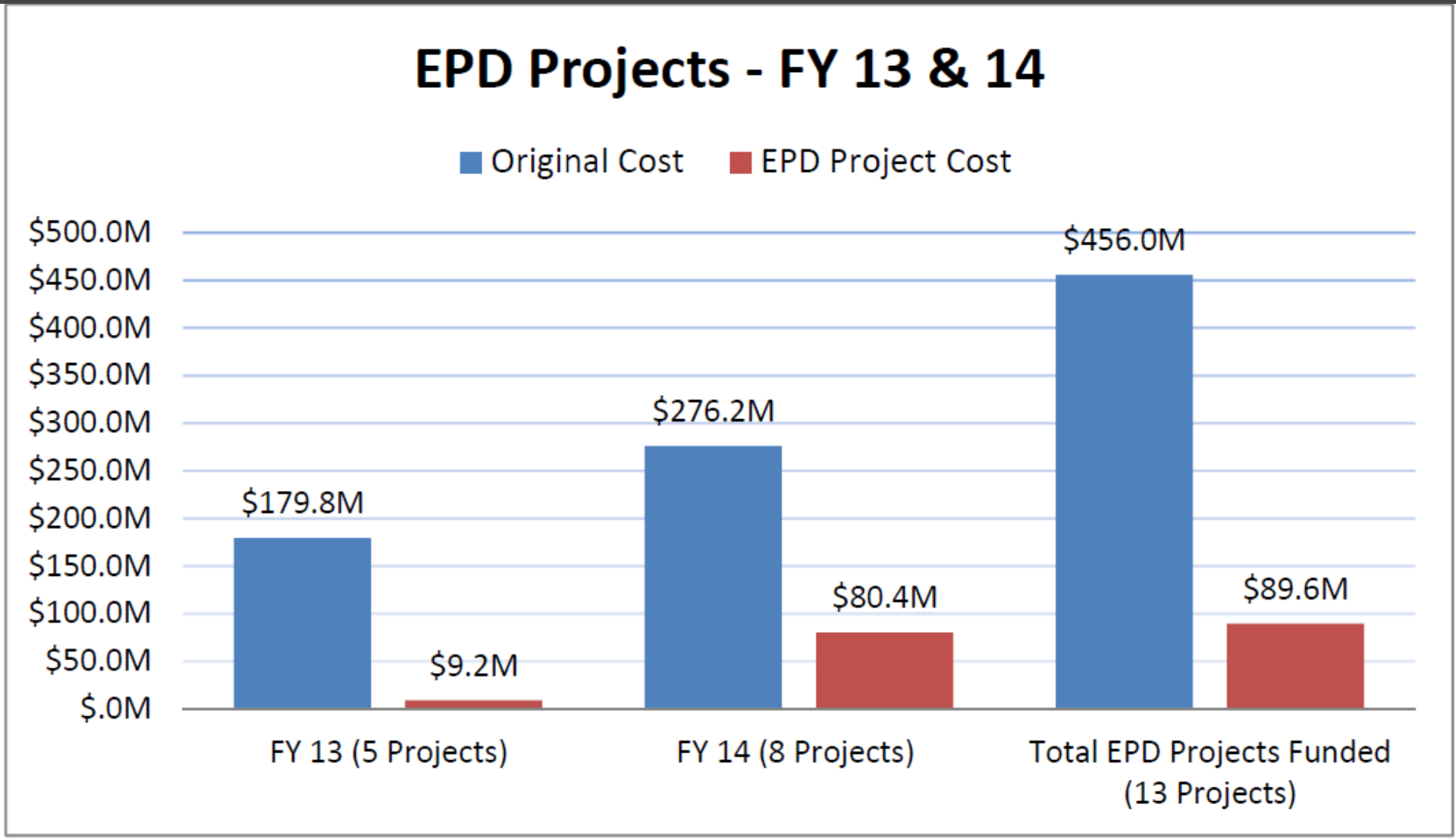
TDOT savings from the new approach



Source: TDOT

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Federal requirements are changing

Final Rule	Effective Date	States Set Targets By	MPOs Set Targets By	LRSTP, MTP, STIP and TIP Inclusion
Safety Performance Measures (PM1)	April 14, 2016	Aug. 31, 2017	Up to 180 days after the State sets targets, but not later than Feb. 27, 2018	Updates or amendments on or after May 27, 2018
Pavement/ Bridge Performance Measures (PM2)	May 20, 2017	May 20, 2018	No later than 180 days after the State(s) sets targets	Updates or amendments on or after May 20, 2019
System Performance Measures (PM3)	May 20, 2017	May 20, 2018	No later than 180 days after the State(s) sets targets	Updates or amendments on or after May 20, 2019

Safety Performance Measures

- Number of fatalities
- Number of serious injuries
- Rate of fatalities per 100 million VMT
- Rate of serious injuries per 100 million VMT
- Number of nonmotorized fatalities and nonmotorized serious injuries

Pavement Condition Performance Measures

- % of Interstate pavements in Good condition
- % of Interstate pavements in Poor condition
- % of non-Interstate NHS pavements in Good condition
- % of non-Interstate NHS pavements in Poor condition

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Bridge Condition Performance Measures

- % of NHS bridges by deck area classified in Good condition
- % of NHS bridges by deck area classified in Poor condition

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System Performance Measures

- % of reliable person-miles traveled on the Interstate
- % of reliable person-miles traveled on the non-interstate NHS

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Freight Movement on the Interstate Measure

- Truck travel time reliability on the Interstate system (average truck reliability index)

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CMAQ Measures

Traffic congestion

- Peak Hour Excessive Delay (PHED)
  measure: annual hours of PHED per capita
- Non-Single Occupancy Vehicle Travel (SOV)
  measure: % of non-SOV travel

On-road mobile source emissions

- Total emission reductions

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And state rules and expectations have changed

Performance	Project Beneft Score		HB2 COST	TOTAL COST
VTrans Need: Wash-NC Corridor of Statewide Significance	1.0	Final Score	**18.4**	**14.0**
		Statewide Rank	32/287	42/287
		District Rank	4/22	5/22

Click for details

Congestion Mitigation		Safety		Accessibility			Environment		Economic Development			Land Use
10% of score		30% of score		15% of score			10% of score		35% of score			N/A
50%	50%	50%	50%	60%	20%	20%	50%	50%	60%	20%	20%	N/A
Increase in Daily Person Throughput	Decrease in Person Hours Delay	Reduction in Fatal and Severe Injury	Reduction in Fatal and Severe Injury Rate	Increase in Access to Jobs	Increase in Access to Jobs for Disadvantaged Populations	Improved Access to Multimodal Choices (Users Benefit Value)	Air Quality (Total Benefit Value)	Acres of Natural/Cultural Resources Potentially Impacted	Economic Development Support (Sq. ft.)	Intermodal Access Improvements (Tons Benefit Value)	Travel Time Reliability Improvement	Transportation Efficient Land Use
0	0	0.4	0.5	0	0	0	0	0.2		4.1	8.4	

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But your objective hasn't

- Regions and localities have always had to work within state DOT parameters to receive funding

- The game is changing, your goal is the same:

Key Question: How to have a process that meets the unique needs of your region while still making you as competitive as possible for state funds?

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Staying competitive

Here are the transportation projects Hampton Roads is getting out of Smart Scale

By Jordan Pascale
The Virginian-Pilot
Jun 25, 2016

LET'S TALK

"Hampton Roads pulled in nearly 20 percent of this year's $1.7 billion state pot, with 22 projects from Franklin to Belle Haven."

Other places are following VDOT's lead

System Preservation	• Projects should contribute to a state of good repair on the transportation system.
Mobility	• Projects should provide modal options efficiently and effectively.
Cost Effectiveness	• Projects should result in benefits commensurate with costs and should be aimed at maximizing the return on the public's investment.
Economic Impact	• Projects should support strategic economic growth in the Commonwealth.
Safety	• Projects should contribute to the safety and security of people and goods in transit.
Social Equity & Fairness	• Projects should equitably distribute both benefits and burdens of investments among all communities.
Environmental & Health Effects	• Projects should maximize the potential positive health and environmental aspects of the transportation system.
Policy Support	• Projects should get credit if they support local or regional policies or plans; or state policies not addressed through the other criteria.

Source: MassDOT

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Other places are following VA's lead

- Hawaii DOT
- Minnesota DOT
- Illinois DOT
- North Carolina DOT
- Chattanooga, TN
- Des Moines, IA
- Bay Area, CA
- Lake Charles, LA
- Sacramento, CA
- Sarasota/Manatee, FL

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Sarasota's story

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