

A VISION FOR I-95

January 12, 2011



*Delaware Department
of Transportation*



DELAWARE TURNPIKE PROJECT



- x The East Coast's Main Street
- x Along with SR 1, the most significant highway in Delaware





DELAWARE TURNPIKE PROJECT



Sponsoring / Cooperating Agencies



Federal Highway
Administration



Delaware Department
of Transportation





Coordinating Environmental Resource Agencies



National Marine Fisheries



Department of Natural Resources
and Environmental Control



State Historic
Preservation Office



Environmental
Protection Agency



Corps of Engineers



US Fish and Wildlife Service



Prior Planning Effort

1992 – 1995

Turnpike Improvements Study

Turnpike Mainline - 5th Lane +
Collector-Distributor (C-D) Roads

SR 1 Interchange – major modifications –
freeway to freeway

1995



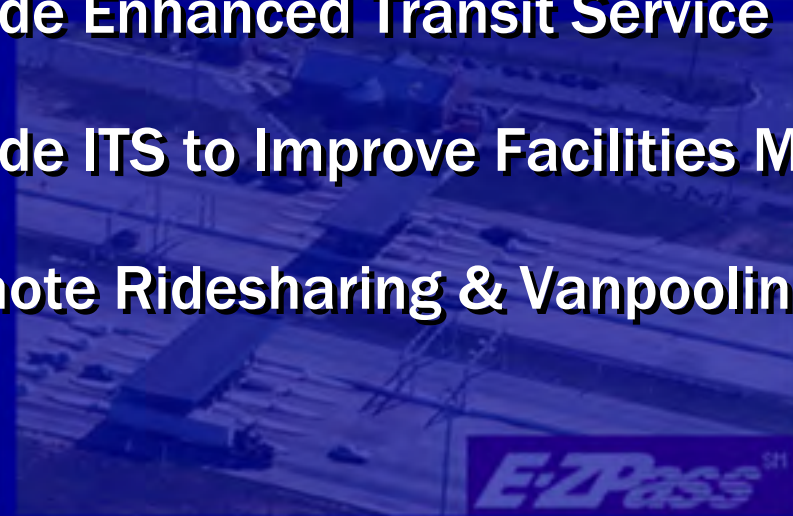
Highway Improvements put on hold

Pursued other options in I-95 Corridor



DelDOT Changed Focus to:

- x Extend Commuter Rail Services
- x Provide Enhanced Transit Service
- x Provide ITS to Improve Facilities Management
- x Promote Ridesharing & Vanpooling





Successful Expansion in I-95 Corridor:

Commuter Rail Service

Bus Service

ITS (DeITrac) Facilities

TDM Efforts

*Yet, traffic on turnpike continued to grow
at unprecedented rates*

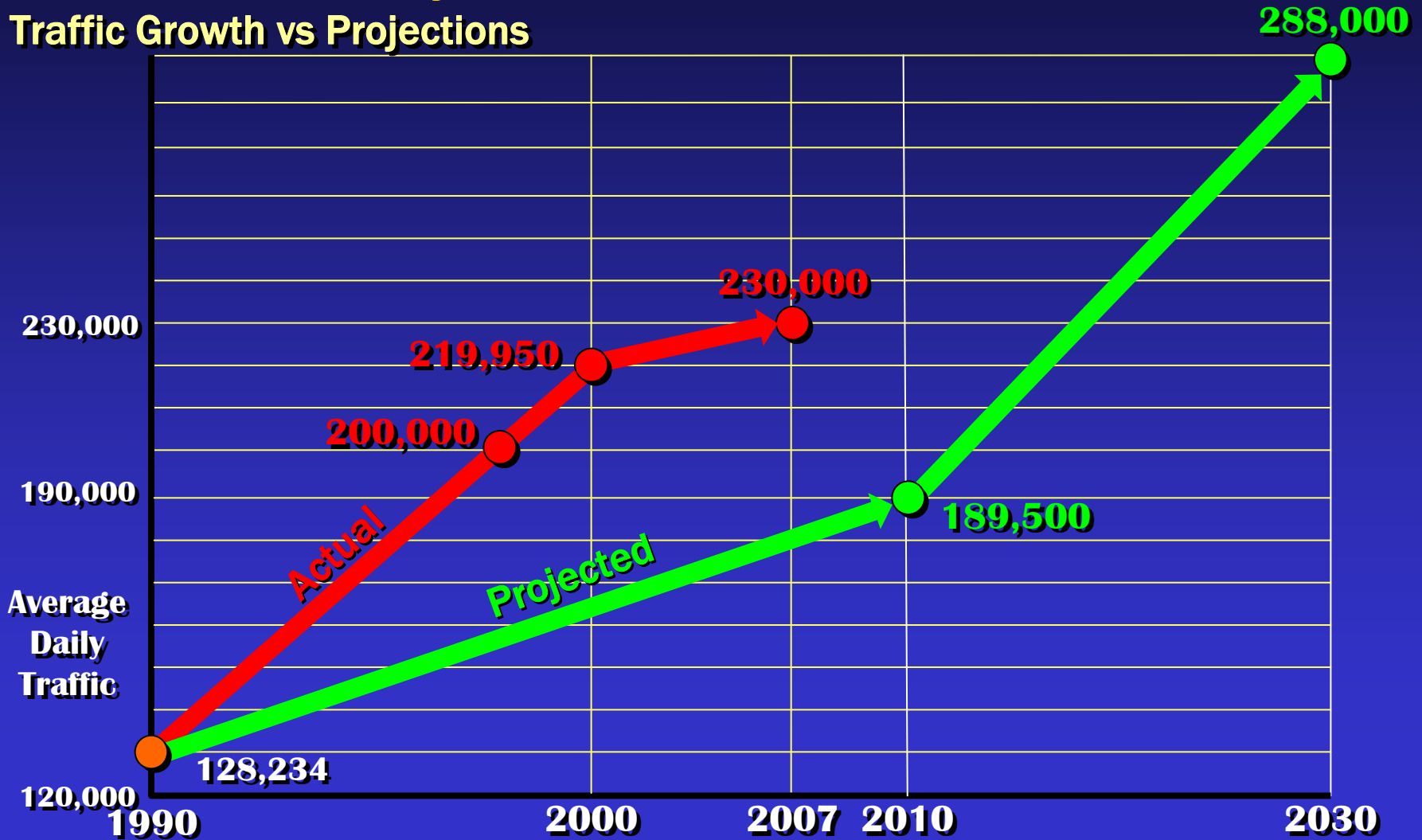


DELAWARE TURNPIKE PROJECT



1990 Projection of 20-year Traffic Growth (2010) Actually Exceeded in 1998 - 8 Years

Traffic Growth vs Projections





Yearly Traffic Growth

- x Driven by Both Local Development and Interstate Traffic

Growth in
Local
Traffic

Growth in
Interstate
Traffic





Interstate Problem Areas

Five areas of turnpike currently experiencing serious operational and safety problems are:

1. 5th Lane
2. I-95 / SR 1 Interchange
3. I-95 Newark Toll Plaza
4. I-295 Improvements
5. I-95 / SR 896 Interchange
6. I-95 / US 202



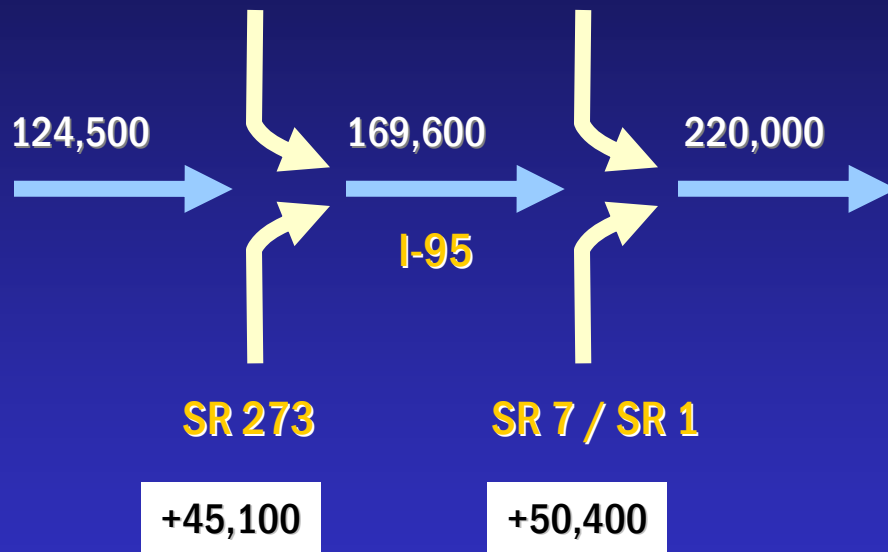


DELAWARE TURNPIKE PROJECT



Additional Mainline Capacity Provided, SR 1 to SR 141

Average Daily Traffic on I-95



⌘

Mainline Traffic Distribution

- Traffic volumes that entered the Turnpike from SR 273 and SR 1 were almost as great as the traffic on the mainline south of SR 273.
- Overall, the Turnpike served more local traffic with Delaware destinations than out-of-state traffic (2 to 1).
- It was a must that Improvements considered interchange traffic.

⌘ Need to Address High Accident Locations

- I-95 and SR 1 merge and diverge areas are high accident locations due to severe congestion.
- Southbound I-95, I-295, I-495 and SR 141 merge area is high accident location.



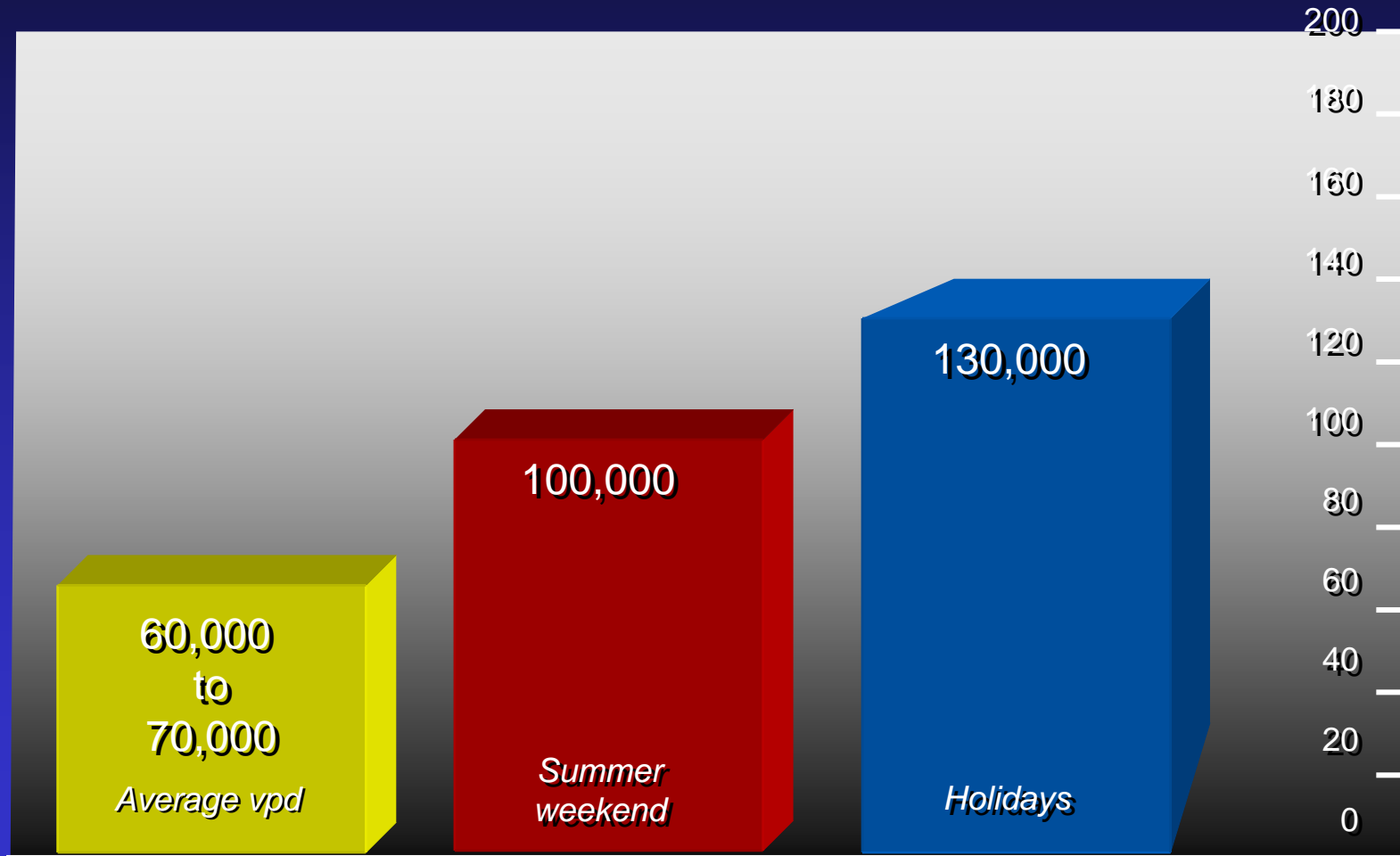
DELAWARE TURNPIKE PROJECT



I-95 Newark Toll Plaza



I-95 / Newark Toll Plaza Traffic



Vehicles per Day



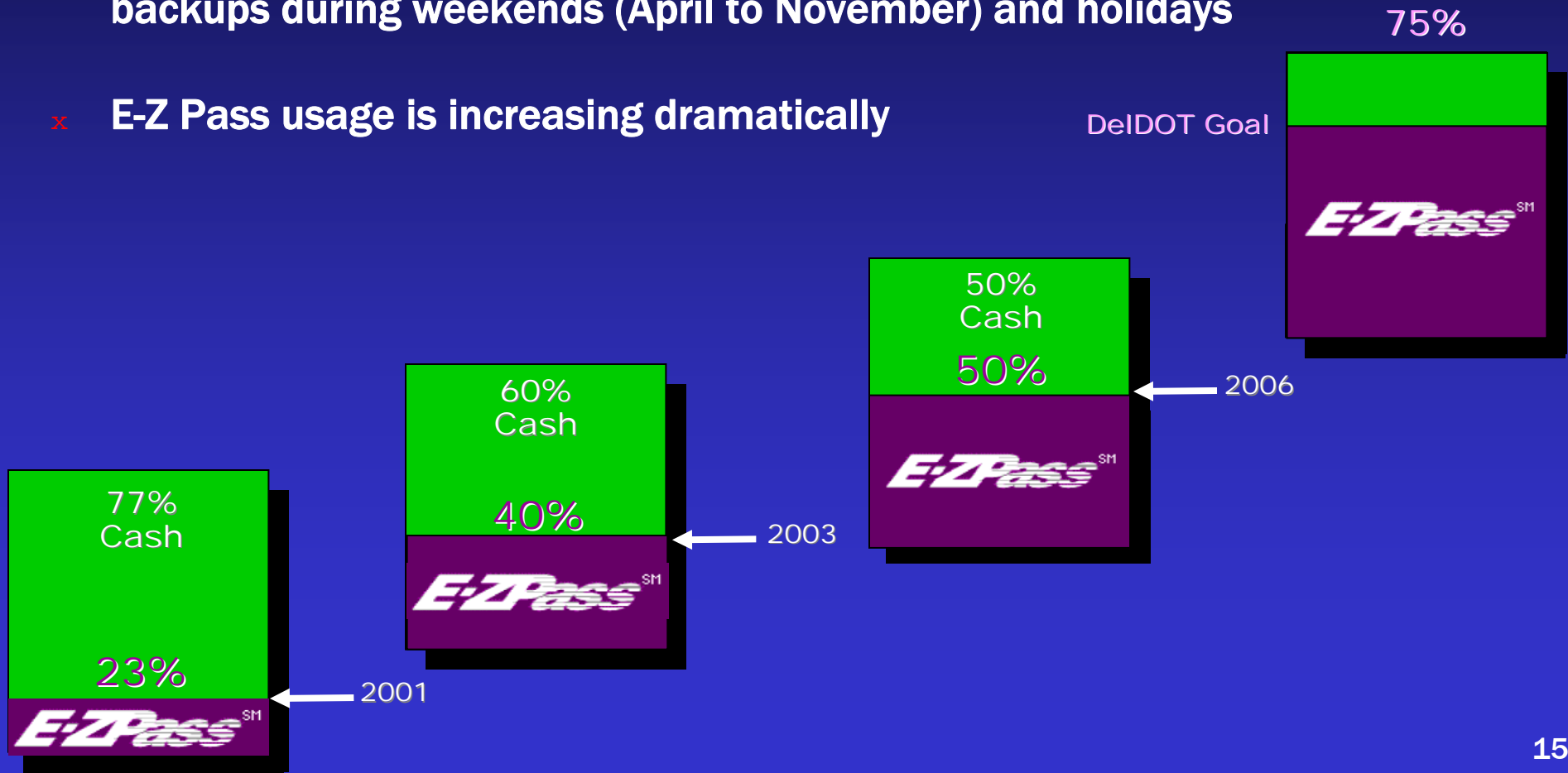
Vehicles Per Hour Per Lane





I-95 Newark Toll Plaza Highway Speed E-Z Pass Lanes

- x The Project is addressing heavy traffic congestion and significant traffic backups during weekends (April to November) and holidays
- x E-Z Pass usage is increasing dramatically





Toll Plaza Improvements

- x Rebuild plaza to include Highway Speed E-ZPass Lanes
- x Provide 2 initial highway speed E-ZPass lanes in each direction, with room for expansion
- x Provide 7 cash lanes per direction (reduction from 10 lanes currently)
- x New overhead walkway and direct access to satellite booths
- x ORT collection system



Benefits of Highway-Speed E-ZPass Lanes

- x Reduces toll plaza congestion
- x Reduces motorist delay
- x Reduces accidents caused by speed changes into and out of booths, and merging traffic
- x Reduces emissions caused by idling and accelerating traffic



DELAWARE TURNPIKE PROJECT



Toll Plaza

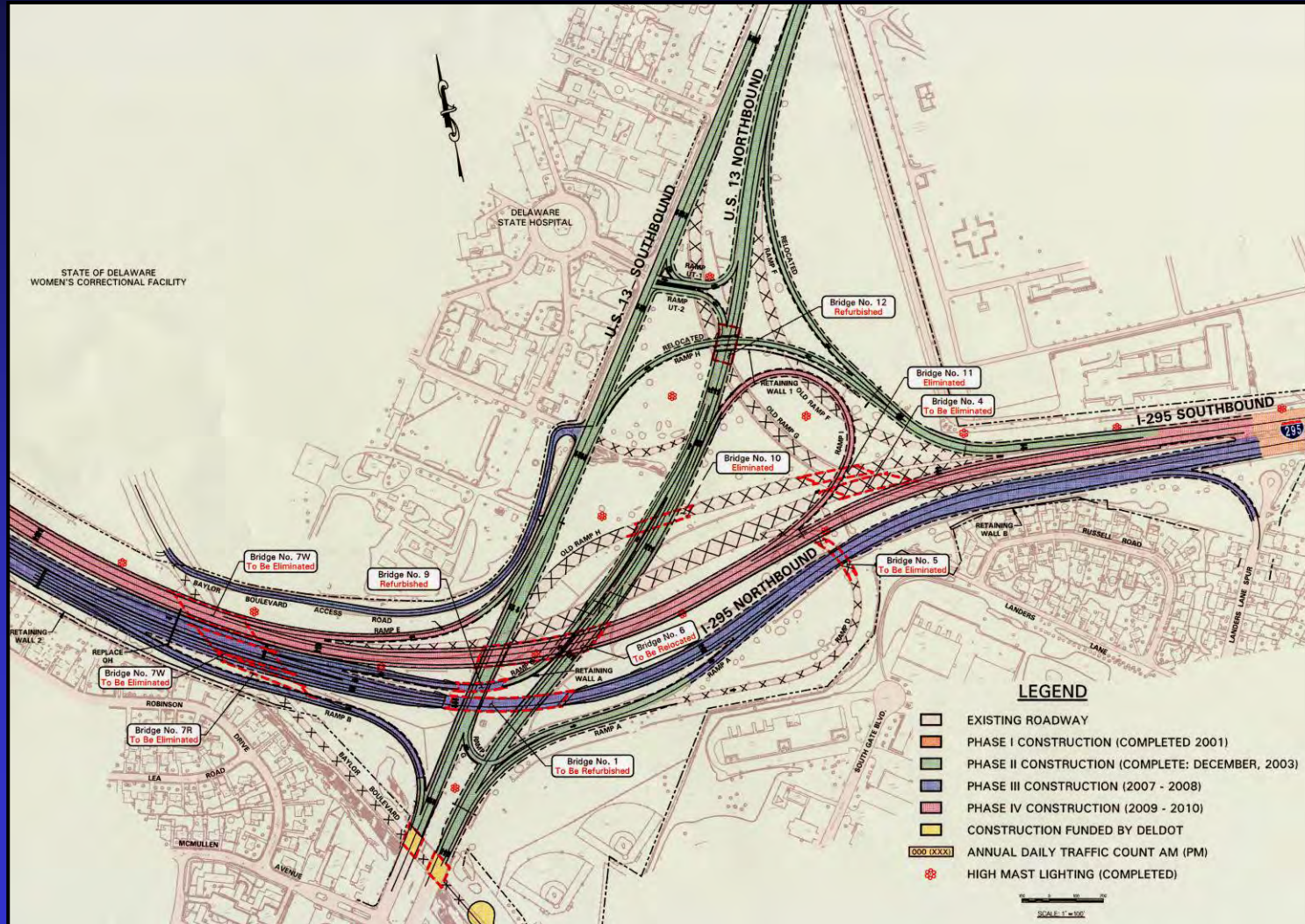




DELAWARE TURNPIKE PROJECT



I-295 Improvements – DeIDOT / DRBA





I-95 & US 202 Interchange

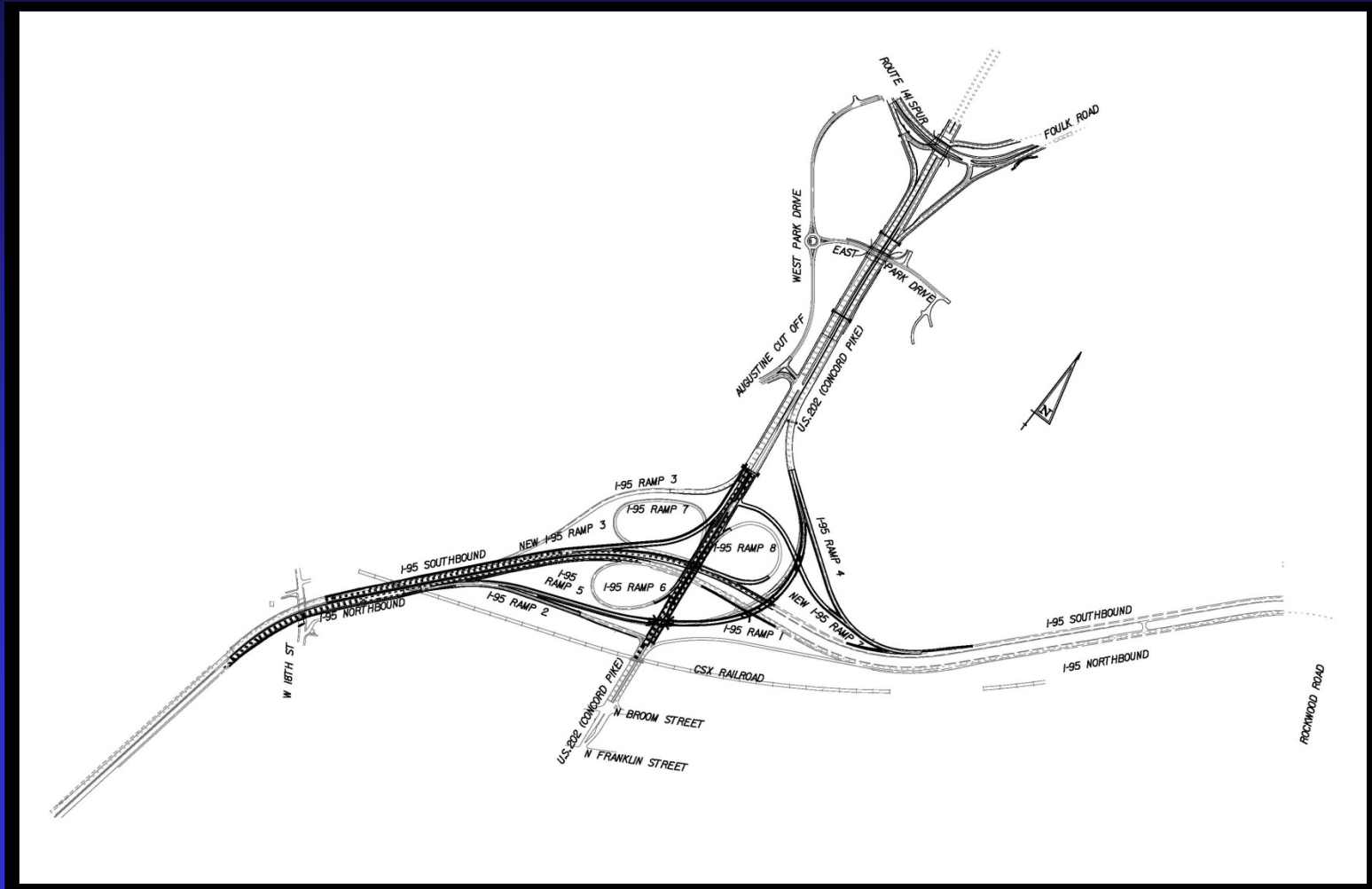
- x Construction estimated to be between June 2011 and August 2014
- x Project consists of:
 - Adding additional lanes to I-95 ramps heading to and from US202 (West Chester)
 - Realigning and reconstructing other interchange ramps
 - Lowering I-95 SB at interchange to address existing clearance issue (Note: Other area bridges over I-95 will still have clearance restrictions)
 - Bridge reconstructions, new sign structures, reconstructed pavement on I-95



DELAWARE TURNPIKE PROJECT



I-95 & US 202 Interchange





I-95 & US 202 Interchange

Major Issues During Construction

- x Most Lanes will remain open during construction period within the work zone
- x Closures of I-95, US202, and interchange ramps will be needed during portions of the 3 year construction period for new bridge beam placements and removals
 - I-95 Mainline closed 4 weekends and 12 weeknights
 - US202 Mainline closed 2 weekends
 - Various ramps closed 7 weekends and 12 weeknights
 - Ramp from US202 NB to I-95 SB closed one month
- x I-495 would be the recommended alternative route for regional traffic
- x Other detours will be in place for local traffic



DELAWARE TURNPIKE PROJECT



I-95 / SR1 Interchange



I-95 / SR 1 Interchange



✘ Failing Traffic Movements

- Freeway Mainline, NB SR 1 - AM
- Diverge, NB SR 1 to Road A - AM
- Diverge, SB I-95 to SR 1 - PM
- Freeway Mainline, SB I-95 - PM
- Freeway Mainline, NB I-95 - AM, PM
- Weave, SB I-95 at SR 1 - AM, PM
- Weave, SB SR 1 at I-95 - AM & PM
- Weave, SB SR 1 South of I-95 - PM
- Weave, NB SR 1, Road A to I-95 - AM
- Merge, NB SR1 to NB I-95 - AM, PM



Project Improvements

- x High speed directional ramps – SB I-95 to SB SR 1
– NB SR 1 to NB I-95
- x Separate through interstate movements from local traffic (Mall)
- x New ramp in NB I-95 median improves access to Wilmington
- x Replaces dangerous loop ramps with safer directional ramps



DELAWARE TURNPIKE PROJECT



- x Key Issues: Construction Staging, Maintenance of Traffic and Christiana Mall Access



I-95 / SR1 Interchange



Construction Constraints

- x Detours limited to maximum number of total days
- x Time of day restrictions on lane closures
- x Financial penalty if detours or lane closures are not concluded per time limits
- x Traffic restrictions change depending on seasonal demand (i.e. beach, holiday shopping)



TMP Work Plan

- x Coordinated construction projects around the Newark area
- x Evaluated potential detour routes and constructed mitigation measures (improved turn lanes)
- x Analyzed/Updated/Signal timings
- x Implemented Portable VMS along routes that would likely experience detour when backs up became extreme
- x Coordinated with Maryland State Highway



DELAWARE TURNPIKE PROJECT





DELAWARE TURNPIKE PROJECT



To see a video rendering of the new I-95 and SR 1 Interchange please visit the following link:

http://www.deldot.gov/information/projects/jfk_mem_hwy_improvement/sr1-i95/overview.shtml



Public Outreach

- x Created Project Brochures
- x Added new Billboards along I-95
- x Conduct an elaborate Public information network to be aware of roadway conditions and potential impacts.
- x Worked through AAA, Motor Transport Groups, I95 Corridor Coalition etc.
- x Provided continual radio/media releases on the project
- x Create I-95 Blog network for updates



STATUS

I-95 / SR 896 Interchange

Advertise for Bids Jan 2007
Construction: June – August 2007
(\$1.8 million)

I-95 ML Improvement (5th Lane)

Construction Began: Spring 2007
Construction Completed: Fall 2008
(\$60 million)

I-95 / SR1 Interchange

Currently Advertised for Bids

I-95 Newark Toll Plaza

Advertise for Bids Fiscal Year 2010
Begin Construction: March 2010
Anticipate Construction Completion:
August 2011
(\$33 million)

I-295 (Eastbound) Improvements (DRBA)

Construction Completed: 2010
(\$29 million)

US202 / I95 Interchange

Anticipate Construction Start: Summer 2011

I-295 (Westbound) Improvements (DRBA)

Anticipate Construction Start: 2013



DELAWARE TURNPIKE PROJECT



CONSTRUCTION UNDERWAY...

CONSTRUCTION UNDERWAY AT THE I-95 NEWARK TOLL PLAZA IN DELAWARE

The Delaware Department of Transportation (DelDOT) is reconstructing the I-95 Newark, Delaware Toll Plaza to incorporate two new highway-speed E-ZPass lanes in the northbound and southbound directions.



During construction travelers are advised to:

- Expect delays approaching the toll plaza, especially during peak hours, holidays and weekends.
- Stay alert in work zones – speeds may be reduced, traffic patterns may change, and workers and equipment may be on, or near, the road.
- For more information tune to 1380 AM (in Delaware) or go to i95.deldot.gov.

TIPS FOR DRIVING SAFELY IN WORK ZONES

- Stay alert
- Expect the unexpected
- Slow down
- Watch for construction workers and equipment
- Pay attention to work zone signs
- Don't tailgate
- No phone calls or texting
- Minimize distractions
- Schedule extra time
- Be patient and stay calm

Delaware Department of Transportation
P.O. Box 778, Dover, DE 19903
302-760-2080 (in Delaware) or 1-800-652-5600

For more information, tune to 1380 AM (in Delaware) or go to i95.deldot.gov.

To sign up for E-ZPass:
www.EZPassDE.com or call 1-888-397-2773



I-95 Delaware Toll Plaza HIGHWAY-SPEED E-ZPass® Lanes



Pay Your Toll While You Roll



i95.deldot.gov



i95.deldot.gov



DELAWARE TURNPIKE PROJECT



COMING IN 2011



The existing Newark I-95 Toll Plaza experiences back-ups and delays.



Proposed Toll Plaza with highway-speed E-ZPass lanes to the left of the toll booths.

FUTURE I-95 NEWARK TOLL PLAZA

Currently, the Newark Toll Plaza experiences high levels of congestion and average delays can run anywhere from 20 to 45 minutes. Since 55% of travelers use E-ZPass (and the number is growing), the new highway speed E-Z Pass lanes should:

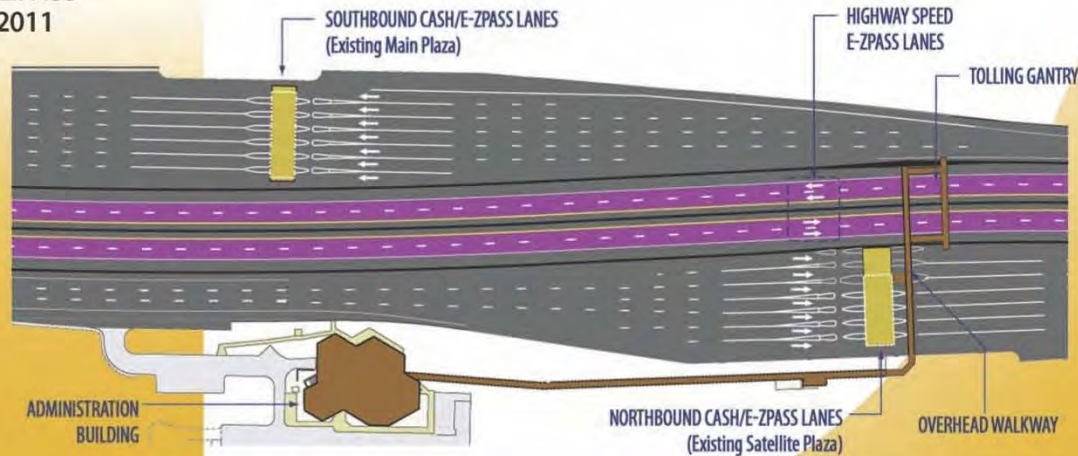
- Drastically reduce back-ups and delays without substantial widening or environmental impacts.
- Significantly improve safety for travelers by reducing backups and sudden lane changes.

- Reduce fuel consumption and greenhouse gases, and ease interstate truck traffic.

Approximately \$32 million from the American Recovery and Reinvestment Act (ARRA) is being used to fund this project. The addition of highway-speed E-ZPass lanes and other I-95 Newark Toll Plaza improvements will result in over 300 construction-related jobs during approximately 479 calendar days. Workplace safety will also be improved, since some toll takers will be able to get to their booths via an overhead passageway instead of walking across lanes.

HIGHWAY-SPEED E-ZPASS® LANES TO OPEN IN 2011

When opened in 2011, motorists with E-ZPass® will be able to drive through the highway-speed lanes without slowing down to pay a toll. Tolls will be collected automatically using overhead equipment that records information from a vehicle-mounted transponder and deducts the toll from the user's account. Currently, motorists must slow down to 5 or 10 miles per hour when passing through the E-ZPass lanes.





I-95 Toll Plaza Construction
Expect Delays I-95 South

Working today to make your drive easier tomorrow



deldot.gov



Delaware Valley Regional Planning Commission

January 2011

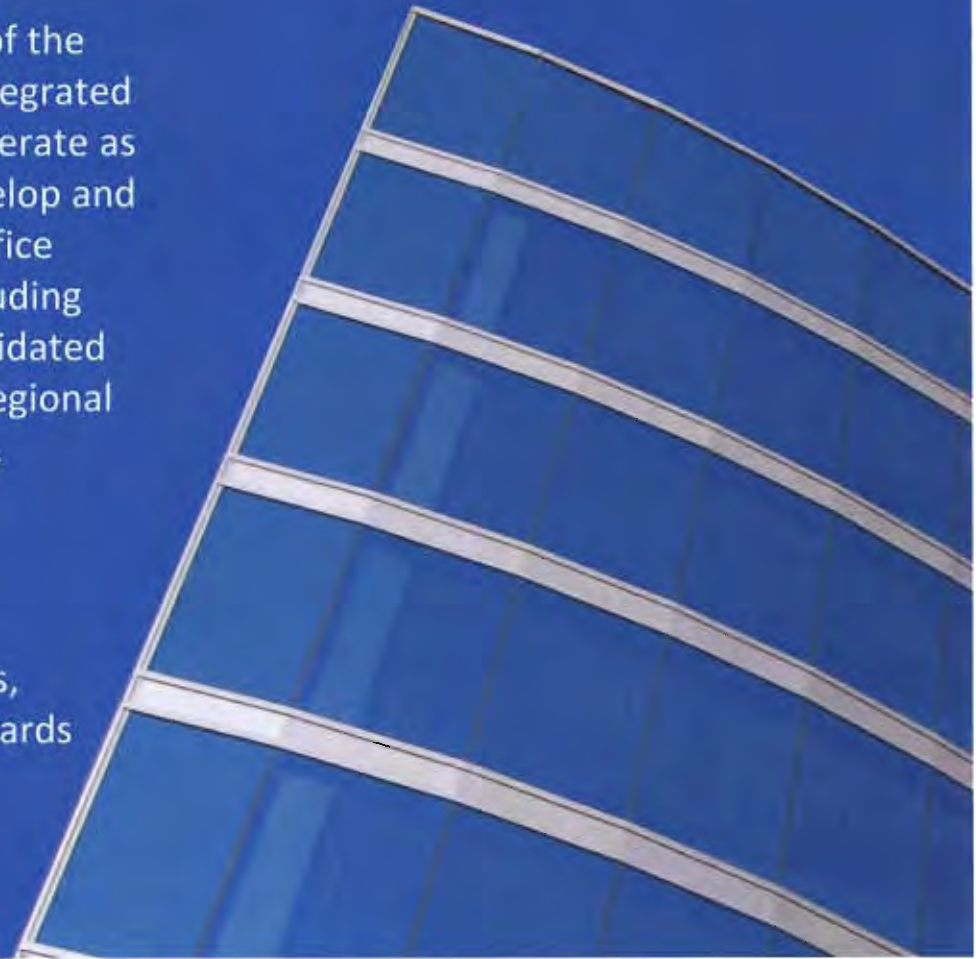


BrandywineRealtyTrust

History & Ownership

Founded in 1986 with just four properties and two employees, Brandywine Realty Trust is today one of the largest, publicly owned (NYSE:BDN) full-service, integrated real estate companies in the United States. We operate as a real estate investment trust (REIT) and own, develop and manage a primarily Class-A suburban and urban office portfolio aggregating 34.3 million square feet, including 25.9 million square feet which we own on a consolidated basis. We are headquartered in Radnor, PA with regional offices in nine locations, including Philadelphia, PA, Mount Laurel, NJ, Falls Church, VA, Richmond VA, Austin, TX, and Carlsbad, CA.

Our mission is to design, create, and maintain extraordinary working environments for our clients, tenants, and employees that reflect our high standards and uncompromising commitment to excellence.



Innovative Approach

Today, as a leading full-service real estate company, we're engaged in some of the most innovative development projects currently in progress. We're taking the lead in such smart-growth initiatives as transit-oriented development and automated parking. We're revitalizing historic urban properties and pursuing LEED certification for new and existing developments. We're breaking ground on award-winning suburban mid-rises and injecting existing suburban office parks with the sort of energy and vibrancy that matter to tenants and investors alike.

In a changing, challenging world, we're looking ahead.



High Quality Portfolio in Stable Markets

(as of 10/25/2010)

Region	# of Properties	Square Feet	% of Total SF	Q3' 10 % of NOI
Core Properties				
Metro D.C.	30	4,850,464	18.7%	26.3%
PA Suburbs	86	7,029,092	27.1%	25.9%
Phila. CBD	7	4,658,366	18.0%	18.0%
NJ / DE	63	4,715,709	18.2%	14.4%
Richmond, VA	33	2,362,470	9.1%	6.7%
Austin, TX	6	1,262,751	4.9%	5.6%
California	11	989,111	3.8%	2.8%
Total	236	25,867,963	100.0%	100.0%



Top 10 Submarkets Comprise 76% of NOI

(as of 10/25/2010)

Submarket	Region	Square Feet	BDN % of Total	% Submarket	Q3 '10 NOI	% of Total
Philadelphia CBD	PA CBD	4,658,366	18.0%	15.1%	\$ 14,764	18.0%
Dulles Toll Rd. Corridor	DC	3,019,625	11.7%	6.5%	14,278	17.6%
Radnor	PA Sub.	1,782,469	6.9%	85.6%	6,392	7.8%
KOP / Berwyn / N 202	PA Sub.	1,910,988	7.4%	14.9%	6,235	7.6%
Southwest Austin	AUS	1,262,751	4.9%	12.1%	4,626	5.6%
Richmond Mid-rise	RCH	1,603,184	6.2%	5.4%	4,237	5.2%
Mount Laurel	NJ/DE	1,446,766	5.6%	37.3%	3,750	4.6%
Plymouth Meeting	PA Sub.	1,052,575	4.1%	17.8%	3,150	3.9%
Princeton Pike	NJ/DE	799,338	3.1%	6.4%	2,785	3.4%
Rockville, MD	DC	432,384	1.7%	4.6%	1,883	2.3%
Top 10 Submarkets		17,968,446	69.5%	11.0%	\$ 62,100	76.0%
Other		7,899,517	30.5%		19,464	24.0%
Total		25,867,963	100.0%		\$81,561	100.0%

Brandywine Developments in the Delaware Valley

Philadelphia Regional Development

Total SF: 4.4 Million

Total Investment: \$927 Million



Pennsylvania Regional Map

Pennsylvania

Suburbs

Properties: 86

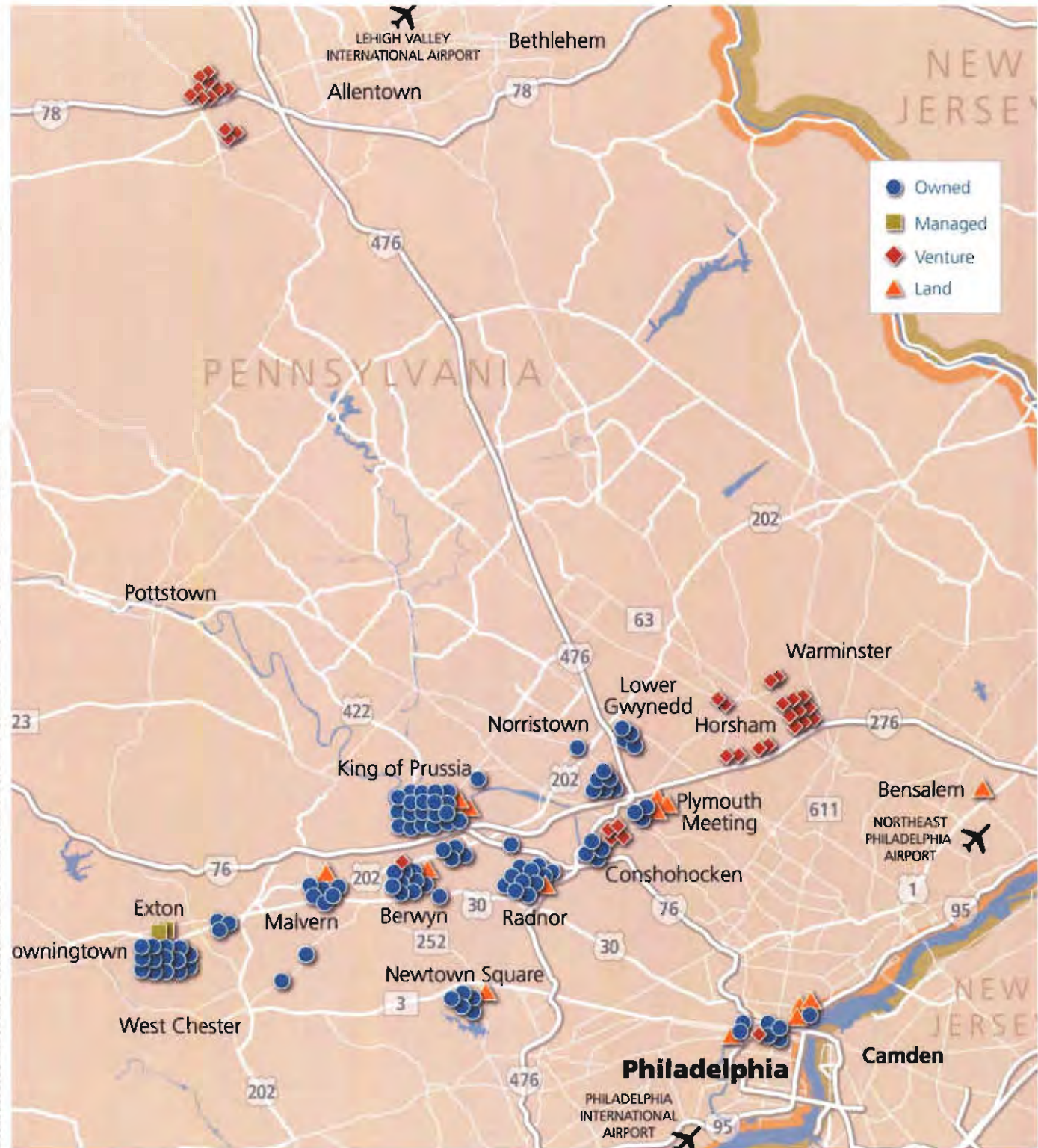
Square Feet: 7.0 M

CBD *

Properties: 7

Square Feet: 4.7 M

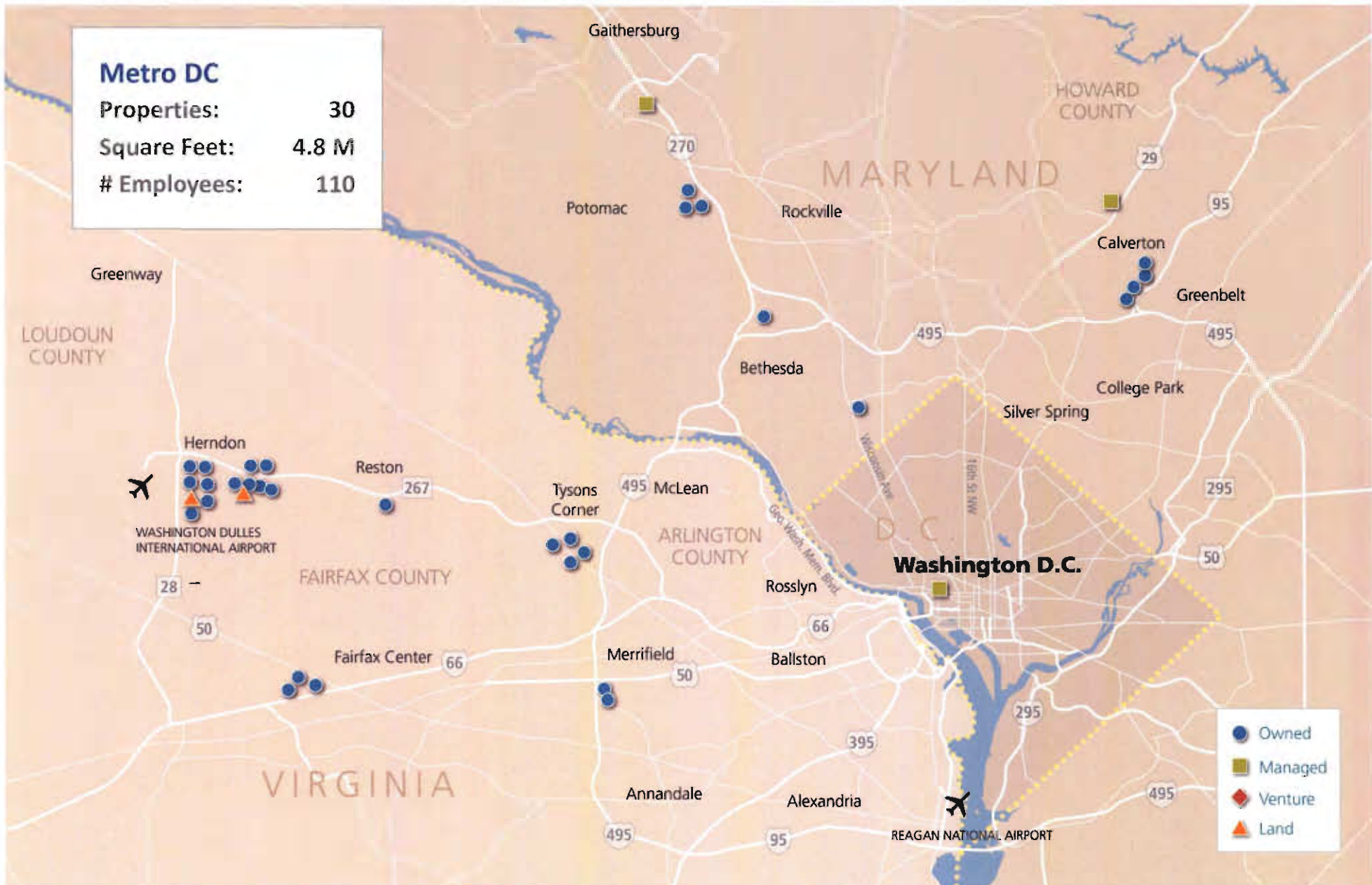
Employees: 116



Metro DC Region

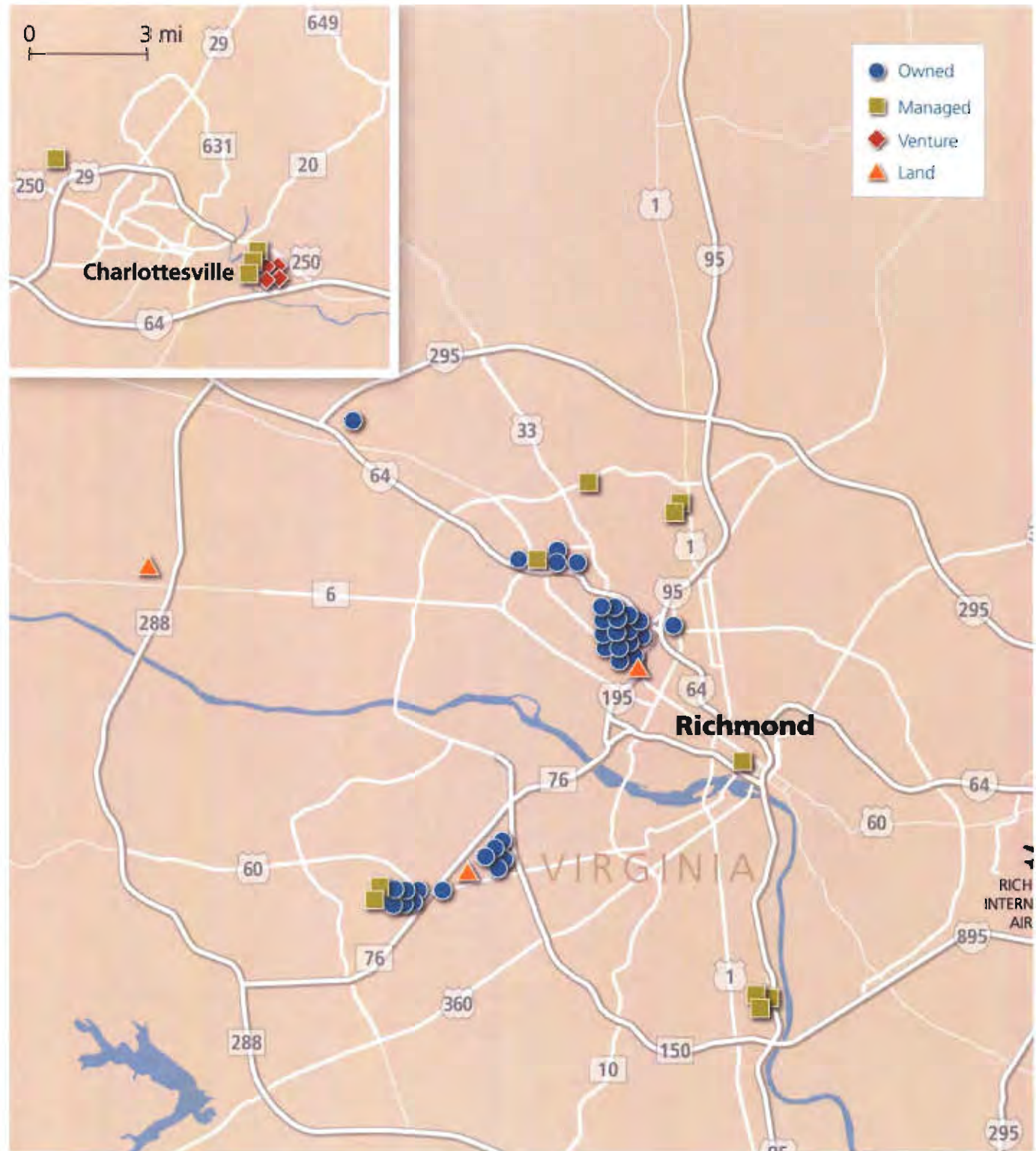
Metro DC

Properties:	30
Square Feet:	4.8 M
# Employees:	110



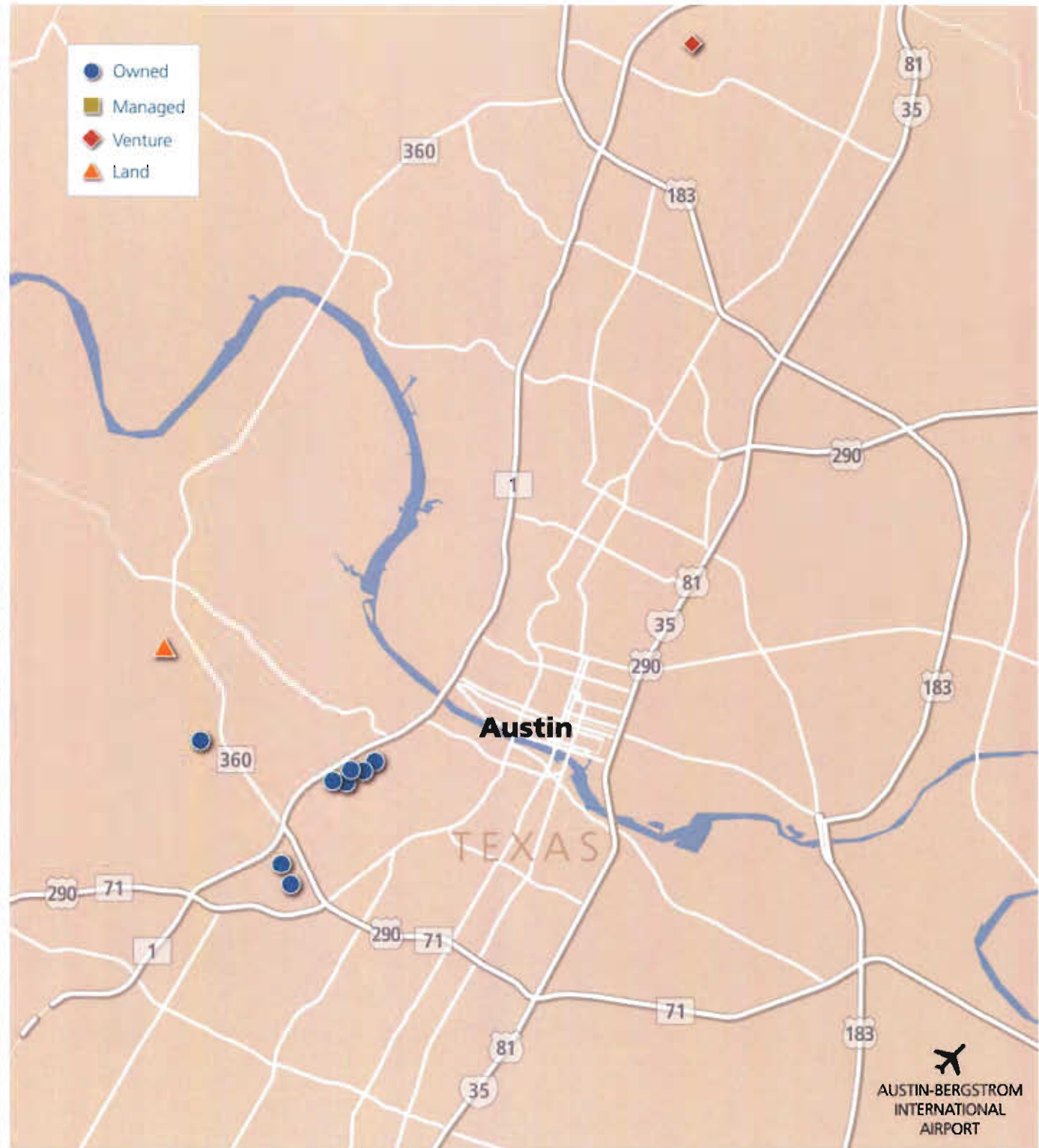
Richmond VA Regional Map

Richmond
Properties: 33
Square Feet: 2.4 M
Employees: 36



Austin TX Regional Map

Austin, TX
Properties: 6
Square Feet: 1.3 M
Employees: 16



Philadelphia CBD Assets

Cira Centre	2929 Arch Street	731,852 SF
IRS 30th Street	2970 Market Street	865,000 SF
One Logan Square	18th & Cherry Streets	594,755 SF
Two Logan Square	18th & Arch Streets	704,061 SF
Three Logan Square	1717 Arch Street	1,029,000 SF
One & Two Commerce Square		1,900,000 SF
Philadelphia Marine Center		171,900 SF
TOTAL SF:		5,996,568 SF

- » Brandywine is the largest single owner/investor in the Center City office market.
- » Brandywine owns 51% of the Trophy Class buildings in Center City

Brandywine Properties in Philadelphia CBD



Key Projects of Regional Significance

Remaking the Urban Landscape



Building	Cira Centre	IRS Campus (Formerly 30 th St. Main Post Office)	IRS Campus – Parking Garage	Total
Size	731,852 Square Feet	862,000 Square Feet	600,000 Square Feet (1,663 Spaces)	2.2 Million Square Feet
Cost	\$212 Million	\$260 Million	\$95 Million	\$567 Million
Completion	November 2005 100% Leased	August 2010 100% Leased to Federal Government (U.S. GSA)	August 2010 94% Leased to Federal Government (U.S. GSA)	

Cira Centre

30th & Arch Streets | Philadelphia, PA

*Cira Centre represents the **standard of excellence** to which Brandywine is continually committed.*

Background:

Through a competitive process begun in 2001, Brandywine was awarded an option by Amtrak for the subject site. Upon 50% preleasing, Brandywine commenced a twenty-two month construction period, delivering the building 93% pre-leased in late 2005. Brandywine maintains a long-term ground lease with Amtrak for the site. In addition to reestablishing the standard of high-rise architecture in Philadelphia, Cira Centre is widely recognized as a model for Transit-oriented development and urban renewal. The project was financed entirely off Brandywine's revolving credit facility. It is currently 100% leased.

Highlights:

- » 29 Floors
- » 731,862 SF
- » \$212 Million project cost
- » Designed by world-renowned architect Cesar Pelli.

Key Challenges:

- » Creating a new office market and setting a new standard of quality for future development.
- » Cost & schedule risk associated with Amtrak coordination relative to site work.
- » Site constriction: virtually no staging area for material, requiring real-time delivery logistics.
- » Time-constrained schedule: 22 months to construct in order to meet anchor tenant's commencement date.
- » Designed and executed a successful Economic Opportunity Plan (EOP).



IRS Campus

30th & Market Streets | Philadelphia, PA

As one of the largest historic urban redevelopment projects in the Country, the IRS Campus shows how Brandywine's Urban Development Team is redefining "re-use".

Background:

Brandywine purchased the historically certified U.S. Post Office Building in 2007 from the University of Pennsylvania as part of a broader, highly complex transaction with the U.S. Post Office. Brandywine subsequently entered into a twenty-year lease with the U.S. Internal Revenue Service to accommodate their regional headquarters requirement. Brandywine's first step was to leverage its experience and relationships with the City to obtain the necessary zoning overlay. The project is now fully financed, 100% leased, and "ON TIME-ON BUDGET" for an August 2010 delivery. This project is also significant because it will be bringing 5,000 jobs to University City.

Highlights:

- » Historical restoration and conversion of 1930's-era postal distribution facility into a state-of-the-art LEED certified office building.
- » 862,000 SF
- » \$260 Million Project Cost
- » Worked with Local political leadership to design EOP with extensive local labor content provisions.

Key Challenges:

- » Zoning: Project required Brandywine to obtain a zoning overlay to allow for the planned uses at the site.
- » Demonstrated our experience in overseeing the intense coordination of institutional, governmental, and corporate stakeholders.
- » Executed on forward financing commitments.
- » Navigating complex process for monetizing New Market and Historical Tax Credits critical to the project's overall financing.



IRS Campus - Parking Garage

30th & Chestnut Streets | Philadelphia, PA

Redefining the term “re-use”

Background:

As part of its lease with the U.S. Internal Revenue Service, Brandywine was obligated to construct a 1,663 car parking garage adjacent to and part of the IRS Campus. The garage is fully financed, 95% leased, under construction, and will deliver in conjunction with the IRS occupancy in August of 2010.

Highlights:

- » 1,663 Spaces
- » 600,000 SF
- » 9,000 SF of street front retail
- » \$95 Million Project Cost

Key Challenges:

- » Building the structure over and adjacent to high voltage electric lines and track associated with Amtrak’s coach yards and Northeast corridor.
- » Controlling cost and schedule risk in connection with Amtrak coordination.
- » Executed on forward financing commitments.



Focus on the Future

- » Cira II
- » Cira South — Walnut Street
— Chestnut Street
- » Take advantage of shift toward transit villages and transportation hubs
- » Automated Parking



Focus on the Future



Focus on the Future

Philadelphia is on the right track to reposition itself as a world-class city

- » Regional transportation hub
- » Academic and health care institution headquarters
- » Proven record of employment growth
- » Home to significant capital investments



The combination of these factors, along with private sector contributions, create a high probability for continuing success in creating investment value at a far greater rate than anywhere else in the entire region.

Fundamentals – A Look Ahead

- » Markets bottomed during 2010 / poised for recovery in 2011
- » Rents appear to be stabilizing
 - » Tenant psychology becoming more positive
 - » Rental market is well positioned for next recovery in 24 to 36 months
- » Well capitalized landlords will have ability to increase market share
- » Need to burn off sublease space but 2011 leasing activity is projected to outpace 2010 at an accelerating pace
- » Lower effective rent levels, more conservative debt underwriting, and higher equity returns will minimize any new development for foreseeable future.

Development & Economic Growth

- » **ACT** as a REGION
- » Focus on our competitive strengths:
 - » Regional multi-modal transportation HUB: 613 trains per day between Amtrak, SEPTA, and NJT 6MM riders annually.
 - » Economic Engine for Region: University City is ground zero for “Eds & Meds” high-growth sector (responsible for 70% of UC employment). Driving strong, office, housing, and retail markets. UC reason Philadelphia outpaces the national average for City’s Education and Healthcare GDP by 78% and 63% respectively.
 - » Continuous Public Sector Investment: UC institutions have received \$527 MM in NIH grants annually since 1998.
 - » Institutional Sector investment: educational and healthcare institutions are responsible for \$1.5 Billion in new construction and renovation in last five years, with \$1.9 Billion planned.
 - » Job Growth: UC averaged 1.65% in annual job growth between 1997 and 2007, outpacing the over city average and even some suburban counties (Montco, Delco).
 - » Intellectual Capital: 49,000 Students at six universities.
- » Aggressive tax incentives



Thank You!

BrandywineRealtyTrust



A Blue Collar Economist's View of Freight Infrastructure Financing

Peter F. Swan, Ph.D.
Penn State Harrisburg



Disclaimer

- My presentation represents my own views and not those of the Transportation Research Board





Overview

- What is a Blue Collar Economist?
- What Are Our Choices?
- What Does the Future Hold?
- What Can You Do?





Blue Collar Economists

- Believe that Market Forces Usually Provide Best Economic Regulation (With Caveats)
- Believe that Government Intervention (Shaping of Markets) is Often Necessary
- Believe that Mainstream Economists Often Let Truth take a Back Seat to Dogma
- Believe that Fairness has Place in Society





The Road Ahead is Rocky

- All Signs Predict a Crisis
 - *ASCE*
 - *AASHTO*
- Need is Great and Money is Short
- Three Choices
 - Do nothing
 - Quick Fixes
 - Raise user fees





Do Nothing

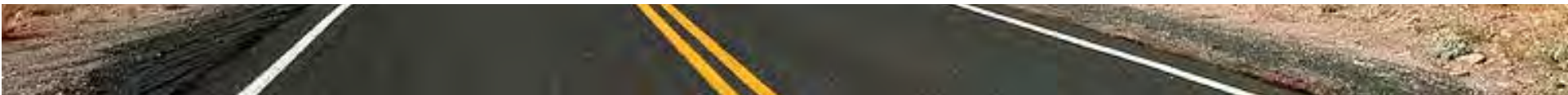
- Not a Pretty Picture
 - Cost of both imports and exports increase
 - Mobility decreases for freight and people
 - Greater cost per mile
 - Less capacity
 - Each factory becomes less able to compete
 - Cost competitive over smaller area
 - Wages, standard of living, and economic wealth decrease
- But There May be a Ray of Sunshine





Quick Fixes

- Make More Money Available
 - New revenue sources such as GST
 - Print money
 - Fix the Problem Through Federal Spending Without Raising Revenues to Match Costs
 - Prevents the “do nothing” catastrophe
 - Provides employment
- Privatize Roads
 - Can “liberate” public capital
 - Limited to roads that are not “public goods”
 - Can result in user charges much higher than the cost of use





Basic Problem with Quick Fixes

- Price of Using Freight Infrastructure Does Not Reflect cost
 - Supply chain trade-offs will lead industry to use more transportation in favor of more centralized (and probably offshore) production
 - Negative externalities increase because someone else pays the bill
 - Clear evidence of this effect
 - Continuing rise in truck VMTs per person
 - VMTs per GDP\$ remaining relatively flat even as services make up more of GDP





Third Option: Raise User Charges

- Increase Cost of Highway Use
 - Isn't really a tax, but a user charge
 - Price of highway use better reflects true cost
 - Should reduce freight traffic and replace it with decentralized production and warehousing
- Form Less Important than Substance
 - Gas tax or VMT tax both can work although VMT works better in the future
 - No free roads





How to Get to the Solution

- Education in Economics
- Apply Management Theory to Government
 - Three Legged Stool
- Restore Faith in Government Services
 - Introduce private competition
 - Create National KPIs for freight infrastructure performance
 - Fund State DOTs at least partially based on performance
 - Infrastructure
 - Transit
- Must Get Started Right Away or “Do Nothing” Option Will be Selected for us



Thank You



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Penn State Harrisburg