LYNCHBURG REGIONAL CONNECTIVITY STUDY

VDOT

November 15, 2022



VDOT Virginia Department of Transportation LYNCHBURG DISTRICT

Office of INTERMODAL Planning and Investment www.vtrans.org

DRPT

VTrans 2040 Safe • Strategic • Seamless

CENTRAL VIRGINIA METROPOLITAN PLANNING ORGANIZATION CVMPO

VDOT Virginia Department of Transportation Transportation and Mobility Planning Division

REGION 2000 PARTNERSHIP

Consultant Team

Economic Development RESEARCH GROUP

Michael Baker INTERNATIONAL

RENAISSANCE PLANNING

RECAP: PROJECT PURPOSE

A state & regional collaboration to study the **economic role/impact** of **regional transportation connectivity** in the Lynchburg region.

Overall Purpose: **STRENGTHEN The REGIONAL ECONOMY**

TWO PHASES

I. Baseline Assessment



II. Strategies for Improvement

Identify and Assess Opportunities for Improvement

PROJECT ELEMENTS

Economy	Role of Connectivity	Key Issues	Potential Improvements	Strategies & Recommendations
What is the current and future role of traded industries that serve outside markets and drive the regional economy?	How does transportation, workforce, and information infrastructure support the regional economy?	What are the key connectivity issues and constraints affecting the region's economic competitiveness?	How would transportation investments or other strategies support the region's economy?	Develop recommendations addressing transportation and other connectivity issues affecting economic competitiveness.

- ***Interviews***: Regional Experts, Transportation Service Providers, Businesses
- ***Data-driven analysis:*** Economic trends and patterns of transportation usage - Travel & TREDIS Economic Model
- ***Comparison to peer/aspirational regions***: Similar size and economic composition, but faster-growing than Lynchburg; shaped by transportation system conditions

College Station, TX
Merced, CA
Wilmington, NC

- Peer and VA experience, scan of national best practice examples
- Economic evaluation

OUTREACH & IMPLEMENTATION

This project has benefitted from ongoing outreach & dialogue with a diverse group of local stakeholders. Many of whom have pledged to stay involved and **implement** the recommendations in the coming months!

- Commonwealth Transportation Board
- Lynchburg Convention & Visitor's Bureau
- Central Virginia Metropolitan Planning Organization
- Greater Lynchburg Transit Company
- Region 2000 Local Government Council
- Lynchburg Regional Business Alliance
- Lynchburg Regional Transportation Advocacy Group
- Lynchburg Airport
- Lynchburg Office of Economic Development
- VDOT (Lynchburg District)

STRATEGIES & ACTIONS FELL INTO 3 THEMES:



Focus on physical connectivity and infrastructure

Other types of strategies addressed in mutually supportive efforts (e.g. the CEDS)

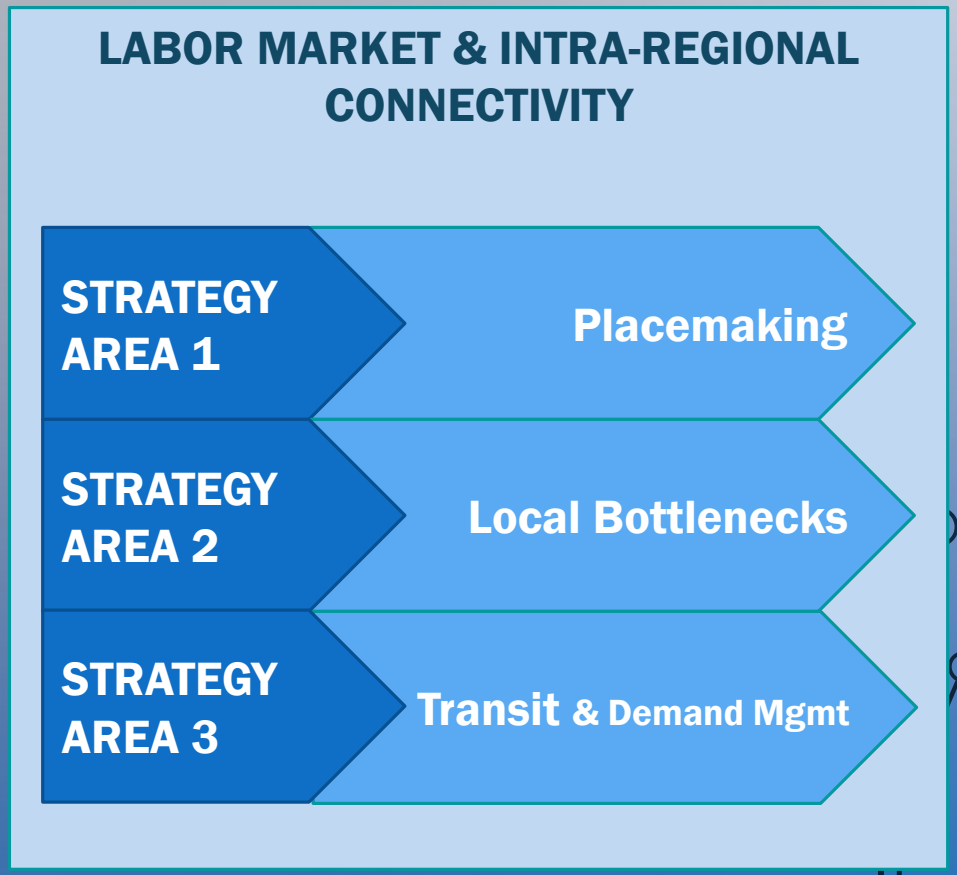
OUTLINE: STRATEGIES & ACTIONS

Labor Market & Intra-Regional Connectivity	**1. Placemaking**	Complete/Better Streets
		Regional Priority Bike Corridors
		Improve Wayfinding
		Higher Ed/Urban Core Multimodal Connectivity
	2. Local Bottlenecks	Intra-Regional Bottleneck Relief
	3. Transit and Demand Mgmt	Enhance Business Community Outreach
		Commuter Rewards Program
		Unified Transit Pass Program
		Statewide Rural Vanpooling Efforts
Inter-Regional Connectivity	**4. Intercity Passenger Rail**	Amtrak Marketing
		Advocate for enhanced rail reliability and access
	5. Air Service Development	Coordinated Regional Narrative on Lynchburg Airport
		Advocate for Service to Dulles (Governor's Budget)
		Startup Incentives - United To Dulles
		Air Market Data Sharing with Colleges & Universities
		Economic Development "Leading Indicators" Communication
	6. Access on Key Hwy Corridors	Inter-Regional Key Corridor Improvements
		Work with Adjacent Communities on Key Corridors
	7. Cargo-Oriented Development	Build Awareness of Virginia Rail Industrial Access Program
		Focus on Sites Adjacent to Existing Rail Infrastructure/Customers
		Ongoing Communication with Class I Railroads
Broadband Connectivity	**8. Broadband coverage**	Marktet the Fiber Network in Economic Development Efforts
		Expand Broadband to Rural Areas

KEY ISSUES & STRATEGY AREAS

Key Issues

- (-) Limited labor market size
- (-) Skills gap, particularly in trades & STEM
- (-) Anticipated retirements and struggles to recruit young professionals
- (+) Comparatively short/uncongested commutes
- (+/-) Downtown Lynchburg as an emerging but still limited regional urban core
- (-) Limitations in transit accessibility/service
- (+) Strong higher educations presence
- (+) Relatively low cost of living, social/civic engagement, quality of the natural environment



Theme: Labor Market & Intra-Regional Connectivity

STRATEGY: PLACEMAKING

Continue to build a region that:

- Is livable and appeals to younger workers.
- Has a strong sense of place with connectivity between activity centers
- Is connected by quality pedestrian and bicycle infrastructure
- Has an urban core that serves as a region-wide asset

Millennials Are More Likely to Walk, Use the Train, and Use the Bus than Are the Other Generations

Modes Used for Non-Work Trips	Millennial	Gen X	Boomer	Silent/ Greatest
Sample size	*386*	*1,186*	*1,660*	*530*
Drive alone or by taxi	65%	75%	76%	68%
Drive or ride with others in a personal vehicle	78%	68%	63%	66%
Walk	21%	12%	9%	9%
Train	9%	3%	3%	2%
Bus	8%	3%	3%	1%
Bicycle	4%	4%	3%	2%

Source: SIR. DRPT 2015 VA Statewide Travel Study







BUILDING ON EXISTING REGIONAL EFFORTS:

Complete Streets, Long-Range Transportation Plan



http://ridesolutions.org/features-archives/developing-better-streets/

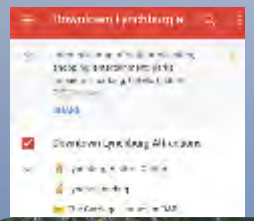
Regional Priority Bike Corridors

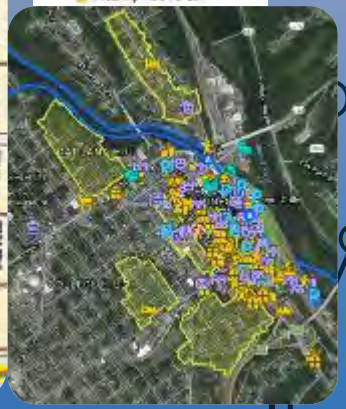


Wayfinding







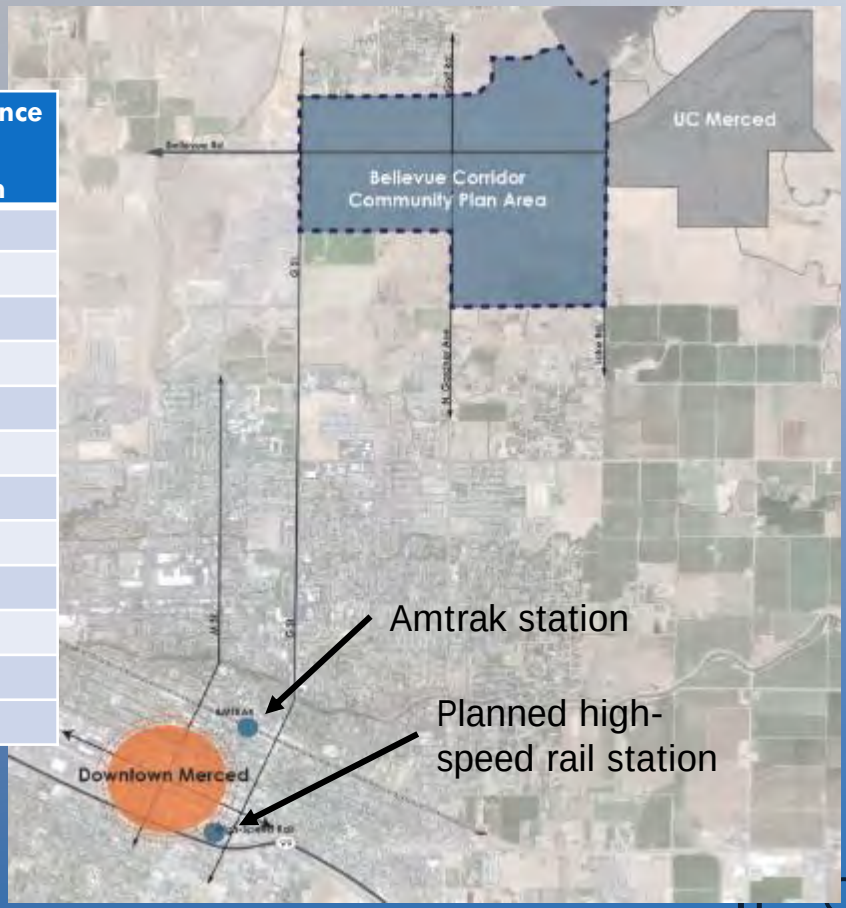


LEARNING FROM PEER REGIONS

Higher-Ed/Urban Core Connectivity

Region	College/University	Driving Distance To-From Downtown
Lynchburg, VA	Randolph College	2.7 miles
	Lynchburg College	3.5 miles
	Liberty University	5.7 miles
	Central VA Community College	6.1 miles
	Virginia Univ. of Lynchburg	2.3 miles
	Sweet Briar College	12.8 miles
College Station, TX	Texas A&M University	<1 mile
Merced, CA	Merced College	2.4 miles
	UC Merced	7 miles
Wilmington, NC	Cape Fear Community College	1.1 miles
	UNC Wilmington	5.1 miles

Source: Google Maps



POTENTIAL ECONOMIC GAINS

- Vibrant urban areas attract/retain well-educated workers
- Educational attainment is the strongest predictor of regional employment growth
- Walkability and transit accessibility can increase property values and foot traffic for street-level businesses







Theme *Labor Market & Intra-Regional Connectivity*

STRATEGY **LOCAL BOTTLENECKS**

- Target key **intra-regional transportation bottlenecks** and work to ensure patterns of growth do not erode the current quality of commuting in the region.

  Action: Pursue funding of significant improvements that would relieve bottlenecks on corridors serving commuter flows and regional activity centers, such as:

  1. Route 622, Lynbrook Road (already funded in Six Year Plan)
  2. Candlers Mountain Road (US 501) Improvement (LRTP #91, rank 6)
  3. South Amherst Hwy (BUS 29)/ Rt 163 Interchange (LRTP #31, rank 12)
  4. Lakeside Drive (221) Improvement (LRTP #88, rank 14)
  5. Candlers Mountain Road (Rt 670) Improvement (LRTP #94, rank 25)

POTENTIAL ECONOMIC GAINS

- **Construction Impacts:** Short term impacts associated with infrastructure investment
- **Operational Impacts:** Associated with reductions in vehicle operating costs, reduced travel time, and decreased congestion.
- **Labor Market Impacts:** Associated with improved productivity due to ability to access a wider pool of qualified workers
- **Multiplier effects as businesses grow:** increased orders to suppliers and increased spending of worker wages within local economy.

The Value of Relieving Bottlenecks

Cumulative long term impacts out to the year 2050 (from the improvements listed under Recommended Actions) could reach approximately **$140 million** in additional business sales and **$77 million** in value added to businesses.

Lynchburg/Central Virginia Connectivity
A Pilot Study of Economic Opportunity for the Future

Theme: *Labor Market & Intra-Regional Connectivity*

STRATEGY

TRANSIT & TRANSPORTATION DEMAND MANAGEMENT (TDM)

- Continue to build on the **RIDE Solutions platform,** increasing awareness of alternative transportation options and programs.
- Build support for transit and alternative transportation options by **encouraging collaborative communication and problem-solving** between major employers, regional commuters, and transit operators.

RIDE Solutions-Business Partnerships

RIDESolutions
Connecting the Region's Commuters

LYNCHBURG REGIONAL BUSINESS ALLIANCE
Chamber & Economic Development

REGION 2000
Workforce Development Board

Lynchburg/Central Virginia Connectivity
A Pilot Study of Economic Opportunity for the Future

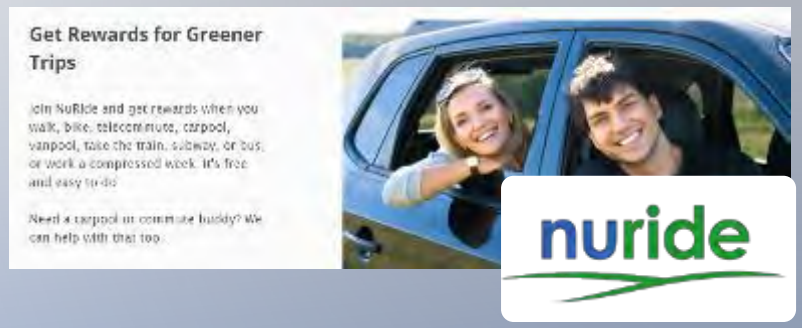
Theme: Labor Market & Intra-Regional Connectivity

STRATEGY

TRANSIT & TRANSPORTATION DEMAND MANAGEMENT (TDM)

VIRGINIA EFFORTS & PEER EXPERIENCE

Commuter Rewards Program



Transit Pass Program



Statewide Rural Vanpooling Efforts

DRPT



Lynchburg Downtown Circulator



POTENTIAL ECONOMIC GAINS

Growing Transit

GLTC is updating its overall Transit Development Plan in 2017 and will be considering service enhancements and expansions throughout the region.



- Corporations are following the Millennials workforce into places served by transit—e.g., General Electric in Boston, McDonald's and Motorola in Chicago, ADP in Norfolk
- Transit facilitates efficient clustering, strengthening knowledge economy industries (including start-ups/VC which tend to cluster in urban areas)
- Transit is key to workforce accessibility, including in service sectors that are major employers (e.g. health care)

KEY ISSUES & STRATEGY AREAS

Key Issues

- (+) Amtrak service, particularly to DC
- (-/+) Air service connectivity
- (-) Lack of an interstate and both real and perceived remoteness
- (+) Convergence of freight rail lines with no major capacity constraints

- (-) Limited broadband in rural areas
- (+) Fiber-optic connections in the core

INTER-REGIONAL CONNECTIVITY

STRATEGY AREA 4	Intercity Passenger Rail
STRATEGY AREA 5	Air Service Development
STRATEGY AREA 6	Access on Key Hwy Corridors
STRATEGY AREA 7	Cargo-Oriented Development

BROADBAND CONNECTIVITY

STRATEGY AREA 8	Broadband Coverage

Theme *Inter-Regional Connectivity*

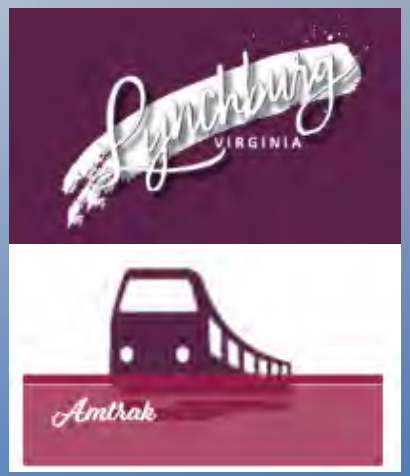
STRATEGY

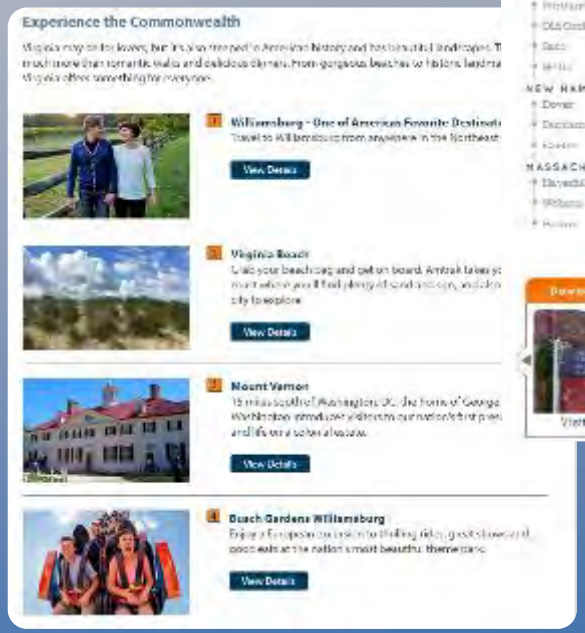
INTERCITY PASSENGER RAIL

- Build off the existing success with Amtrak services through marketing and advocacy efforts.

Amtrak Marketing

Discover Lynchburg





Amtrak Virginia website



Traintomaine.com (a state effort)

RAIL MARKETING AND PLANNING



- Continue and enhance marketing of Amtrak services, -esp. to and from northeast markets.
- Participate in efforts to improve on-time reliability of trains
- Participate in long-term planning to increase rail accessibility, with a focus on key network capacity constraints



DRPT 2013 Rail Plan



North Carolina 2015 State Rail Plan

Lynchburg/Central Virginia Connectivity
A Pilot Study of Economic Opportunity for the Future

Theme *Inter-Regional Connectivity*

STRATEGY **INTERCITY PASSENGER RAIL**

POTENTIAL ECONOMIC GAINS

"…one reason why our Amtrak service is so important is that it serves areas of the country that are traditionally strong for the Virginia Tourism industry (the northeastern US) that includes cities where residents often do not own automobiles such as Boston, New York, Philadelphia, and Washington, DC…"

- SERGEI TROUBETZKOY, DIRECTOR OF TOURISM, LYNCHBURG

AREVA:
Uses Amtrak to travel to meetings in DC, with the Nuclear Regulatory Commission and the Nuclear Energy Institute. Amtrak provides value in that it is affordable, reliable, and allows employees to be productive rather than sitting in congestion.

Rail Value

"In attracting **new business investment** or working with **existing businesses** to expand, we can point to the train as a real way of connecting to major metro areas"

- Bryan David, Region 2000 Economic Development Council

Targeting easy one-day-return travel (access within ~3 hours) by rail would enhance Lynchburg's business connectivity and economic integration with other major east coast economies



Theme *Inter-Regional Connectivity*

STRATEGY **AIR SERVICE DEVELOPMENT**

Consolidate regional support for the air service development activities managed by LYH, focusing on a 3-tiered strategy:

1. **Maintain** current service levels.
2. **Enhance** service through equipment upgrades and efforts to expand capacity and service reliability.
3. **Expand** commercial air service, targeting major carrier hubs and potentially tourism niche markets.



CURRENT EFFORTS – GOVERNOR'S BUDGET

Advocate for Service to Dulles (Governor's Budget)

- **$50 M** over 2 years approved in the State budget
- Goal: reduce cost per enplanement at Dulles
- Opportunities for state-level advocacy for new connections at the two current VA airports without service to Dulles: Lynchburg & Newport News

Startup Incentives - United To Dulles

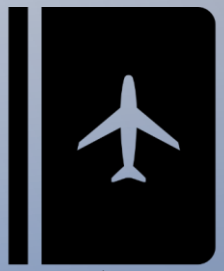
- A necessary part of the game, to help airlines **mitigate risks.**
- **"The million dollar question":**
  - Lynchburg (2011): Proposed $1,070k ($800k federal) for marketing, revenue guarantees, and landing fee waiver.
  - College Station (2015): Proposed $750k (70% federal) for an action plan, marketing, startup revenue guarantee.

COMMUNICATION WITH AIRLINES

Coordinate data sharing with colleges and universities.

- Research
- Online learning
- International students

Business Alliance "Leading Indicators" Communication



"Tell me something I don't know..."

- Airlines are more likely to respond to information not already revealed in their own market analysis

"Having a strong business community, a desirable destination, and a sizeable local market with demographics and growth to support new service are critical to a carrier's success."

-Virginia Commercial Air Service Strategic Review, DOAV (2015)

Icon created by Francisca Arévalo from Noun Project

Lynchburg/Central Virginia Connectivity
A Pilot Study of Economic Opportunity for the Future

Theme *Inter-Regional Connectivity*

STRATEGY **AIR SERVICE DEVELOPMENT**

POTENTIAL ECONOMIC GAINS

Improvements in air system connectivity add to industry productivity.



Strong effects in manufacturing & high-end services

2010 Economic Contribution of LYH:

Impact Source	Impact
On-Airport Activity	375 Jobs
Impacts of Visitors	515 Jobs
Total Regional Impact	890 Jobs
Avg. Impact Per Commercial Enplanement	$1,166 in Business Sales
38.7% of 2010 enplanements were visitors	

Source: DOAV. 2011 Economic Impact Study.

$109 million
- Total economic activity associated with on-airport activities and visitor spending at LYH in 2010

Dulles would be a new hub connection & new airline (United)

Lynchburg/Central Virginia Connectivity
A First Study of Economic Opportunity for the Future

Theme *Inter-Regional Connectivity*

STRATEGY **ACCESS ON KEY HIGHWAY CORRIDORS**

- Focus on maintaining good access to the interstate system and on key **inter-regional corridors.**

Work with Adjacent Communities on Key Corridors

Inter-Regional Roadway Improvements Recommended:

1. **501/221 One-Way Pair Project** - Intersection improvement, with one-way split pairs on US 501 on either side of 221. Facilitates regional network connectivity and connects key corridors with medium truck volumes
2. **Wards Road Access Management** - Access management and operational improvements on US 29; a primary commuter and truck corridor with congestion, near airport.
3. **Lynchburg Expressway/ Candlers Mount Road** - Improves interchange; connects key inter-regional corridors with high truck volumes.
4. **US 501 Improvement from Old Forest Rd to Rt 620** - addresses future constraints on a key connector corridor.

POTENTIAL ECONOMIC GAINS

- **Construction Impacts:** Short term impacts associated with infrastructure investment
- **Operational Impacts:** Associated with reductions in vehicle operating costs, reduced travel time, and decreased congestion. Trucks drive farther but save time.
- **Labor Market Impacts:** Associated with improved productivity due to ability to access a wider pool of qualified workers
- **Multiplier effects as businesses grow:** increased orders to suppliers and increased spending of worker wages within local economy.



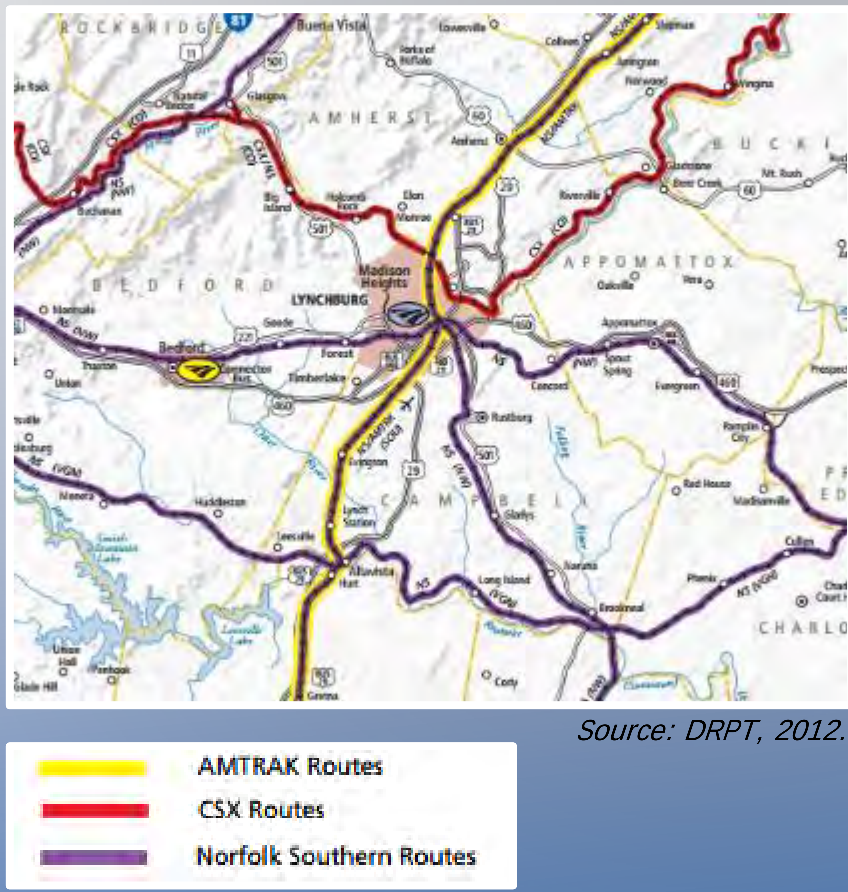
Potential Value of Improving Inter-Regional Connectivity

Cumulative long term impacts out to the year 2050 (from the improvements listed under Recommended Actions) could reach approximately **$154 million** in additional business sales and **$83 million** in value added to businesses.

Lynchburg/Central Virginia Connectivity
A Pilot Study of Economic Opportunity for the Future

Theme *Inter-Regional Connectivity*

STRATEGY *CARGO ORIENTED DEVELOPMENT*



Source: DRPT, 2012.

- Enhance local readiness to respond to freight rail oriented development opportunities – e.g. Build awareness of the **Virginia Rail Industrial Access program** within the regional economic development community as a tool for supporting new cargo oriented development
- Maintain ongoing open lines of communication with the Class I railroads and the region through the Commonwealth Transportation Board's standing **Rail Committee**

BEST PRACTICE: EXPAND FROM EXISTING

Focus on Sites Adjacent to Existing Rail/Rail Customers

For example:



Near the airport



Oddfellows Rd Area



Tomahawk Industrial

Ongoing Communication with Class I Railroads

Work from the Class I RR's perspective:

- **Profits** from new customers v. **disruption** to through-flows on a main line
- Business lines: commodity rather than geography based

POTENTIAL ECONOMIC GAINS

- Concentration of carriers lowers transportation costs because more trucks and trains are filled more quickly and more efficiently
- Potential for Resource Sharing: Equipment, Warehouses, Workers

Rail-dependent industry output (2012)

Industry	Dependent Output ($M)
Plastics & Rubber Products Mfg	$170
Paper Mfg	$97
Textile Mills & Products Mfg	$65
Fabricated Metal Mfg	$62
Chemical Mfg	$60
Printing	$27
Food Manufacturing	$25
Primary Metal Mfg	$14
Machinery Mfg	$13

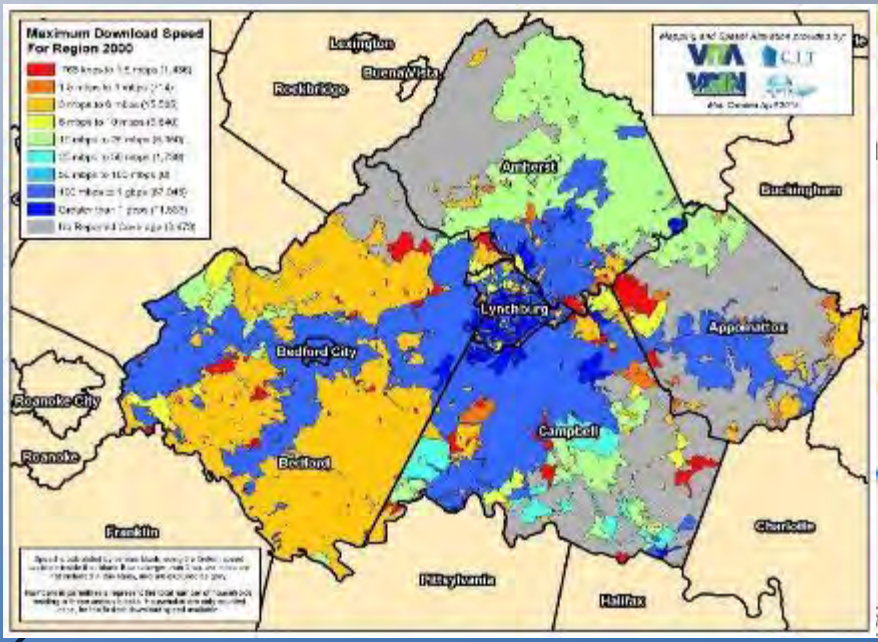
Source: TREDIS fueled by Transearch

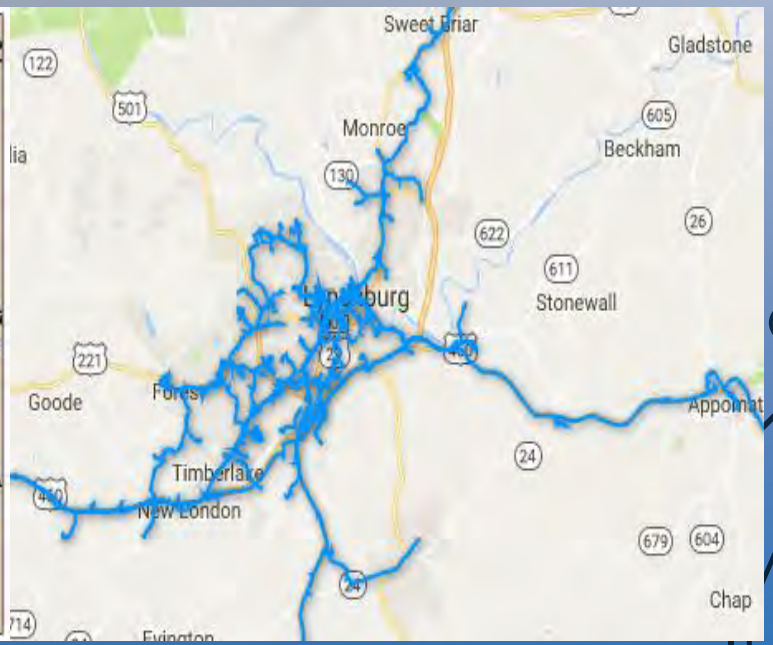
Freight in the State

Goods movement supports over $350 billion of Virginia's Gross State Product (28% of the total statewide economy)

STRATEGY BROADBAND COVERAGE

- Pursue a minimum target of 25 mbps download/3 mbps upload for broadband coverage throughout the region.
- Capitalize on existing fiber-optic assets by building them into economic development strategy and site selection.





BROADBAND IMPROVEMENT EFFORTS

Consider Fiber Network in Economic Development Efforts

- Consult Lumos Networks fiber optic network map
- Highlight already-connected (lit) buildings, encourage co-location

Expand Broadband to Rural Areas

Resources include:

- Governor's Development Opportunity Fund Program
- Economic Development Grant Program
- Virginia Resources Authority
- USDA Community Connect Grants

POTENTIAL ECONOMIC GAIN

- Broadband access integrates under-served and rural communities into **wider social and economic networks**
- Better broadband access helps to unite a region through more equal access to **business opportunity in rural areas.**
- Good broadband **attracts a global workforce.** Combined with good air and rail service, it supports entrepreneurship and startups drawn to the region's other workforce and quality of life assets.

Broadband Strength

Lynchburg has a very strong **existing fiber optic network**, owned by Lumos Networks. Customers include the City of Lynchburg and Liberty University





WHAT'S NEXT?

Theme: Labor Market & Intra-Regional Connectivity

STRATEGY: PLACEMAKING

RECOMMENDATIONS

RECOMMENDED STRATEGY:

Continue and enhance efforts to build an urban environment that is livable and appeals to younger workers and entrepreneurs. Focus efforts on developing a community that is connected by quality pedestrian and bicycle infrastructure, with a strong sense of place. Work to strengthen downtown Lynchburg as an asset for the entire region by addressing issues such as wayfinding and intra-regional connectivity between centers of activities such as higher education, health and the arts. Additionally, support placemaking enhancements in other local activity centers in the region and continue to build a region that:

- Is livable and appeals to younger workers and entrepreneurs.
- Has a strong sense of place with connectivity between activity centers
- Is connected by quality pedestrian and bicycle infrastructure
- Has an urban core that serves as a region-wide asset

RECOMMENDED ACTIONS:

1. Pursue implementation of Complete/Better streets projects as outlined in the Lynchburg Comprehensive Plan and the Central Virginia Long Range Transportation Plan.
2. Implement Regional Bike Corridors - Continue to work towards implementation of the CVMPO Priority Accommodation Corridors as identified in the Region 2000 Bicycle Plan.
3. Improve wayfinding (in-line information and signage) to key activity centers in the region.
4. Support improved multimodal connectivity between institutions of higher education and downtown Lynchburg.

POTENTIAL ECONOMIC GAINS

Placemaking strategies have real economic implications for regional competitiveness. In particular, research shows that:

- Vibrant urban areas both attract and retain well-educated workers
- Educational attainment is the strongest predictor of regional employment growth
- Walkability and transit accessibility can increase property values and foot traffic for street-level businesses

What is Placemaking?

Simply put, Placemaking is about enhancing our urban centers so that they become the focus of new life and economic activity. Placemaking makes good economic sense!

What is Wayfinding?

Wayfinding means enhancing on-line information and signage to make our region more welcoming to visitors.

ALREADY UNDERWAY

ACTIONS UNDERWAY:

A number of programs and initiatives throughout the region are building stronger and more vibrant centers by improving connectivity, quality of life and a "sense of place" including:

1. Lynchburg "Better Streets" Program
2. Lynchburg Downtown Campaign
3. Amherst Walkability Study
4. Riverwalk Trail Extension
5. Amherst County Greenway
6. Regional sidewalk projects
7. Wayfinding projects being conducted by Region 2000





1.

Theme: Labor Market & Intra-Regional Connectivity

STRATEGY: LOCAL BOTTLENECKS

RECOMMENDATIONS

RECOMMENDED STRATEGY:

Focus on maintaining and enhancing the outstanding reliability of the network ...ly to preserve performance on the region's road ...quality intra-regional travel. Target intra-re... ...cks and work to ensure patterns of growth do not ...omoting in the region.

...ovements that would relieve bottlenecks on ...as and regional activity centers, such as:

...d (already funded in Six Year Plan)
...US 501) Improvement (LRTP #91, rank 6)
...91/ Rt 163 Interchange (LRTP #33, rank 12)
...ovement (LRTP #88, rank 14)
...Rt 670) Improvement (LRTP #94, rank 25)

...s listed above (numbers 2 through 5) were ...demand model, generating estimates of trans- ...improvements in 2040, relative to a fiscally ...ost (table below).

	Passenger Cars	Trucks (Freight)
	77,851	48,515
	92,744	11,775
	24,445	8,970
	93,174	-
	-	382,880

...are underway that will yield a series of strategic ...ottlenecks in the region at cost-feasible project ...dy of Candlers Mountain Road addressing safety ...ening study underway for the Route 29 south ...n addition, some of the top projects from the ...tion Plan are listed below:

...n Plan Proposed Projects:
...provements
... at Waterlick Rd (Rt 622)
...from S. of Rt 221 to Northwest Expressway
...ad (One way pairs)
...St. to S. Coolwell Rd Traffic Operations/

...ss Management

POTENTIAL ECONOMIC GAINS

The four proposed improvements listed under "Recommended Actions" to the left were modeled for their economic impacts using the TREDIS economic model. Cumulative long term impacts out to the year 2050 could reach approximately $140 million in additional business sales and $77 million in value added.

The Value of Relieving Bottlenecks

Cumulative long term impacts out to the year 2050 (from the improvements listed under Recommended Actions) could reach approximately $140 million in additional business sales and $77 million in value added to businesses.




2.

Theme: Labor Market & Intra-Regional Connectivity

STRATEGY: TRANSIT & TRANSPORTATION DEMAND MANAGEMENT (TDM)

...ATIONS

POTENTIAL ECONOMIC GAINS

...D STRATEGY:
...demand for transit and alternative transportation options by ...ative communication and problem solving between major ...d commuters, and transit operators. Continue to build on the ...ation, increasing awareness of alternative transportation ...ions. Seek creative solutions that will make transit and other ...rtation options (ridesharing, biking, walking) attractive and

...D ACTIONS:
...each to the business community through partnerships ...E Solutions, the Region 2000 Workforce Development ...the LRBA (Lynchburg Regional Business Alliance).
...mentation of an activity-based commuter rewards ...ich provides rewards for walking, biking, telecommut- ...ing, and use of transit.
...ulled Transit Pass Program by working with GLTC ...burg Transit Company) and major regional employers ...nal institutions to examine the feasibility of a unified

...ovide Rural Vanpooling Efforts - Investigate opportu- ...region to benefit from DRPT's emphasis on expanding ...o rural areas across the state.

...DERWAY:
...Central Business District Circulator (2016 Smart Scale ...ject), which will be a trolley service to destinations ...known Lynchburg
...ses serving commuters throughout the region
...updating its overall Transit Development Plan in 2017 ...considering service enhancements and expansions ...the region.

- Corporations are following the Millennials workforce into places served by transit--e.g., General Electric in Boston, McDonald's and Motorola in Chicago, ADP in Norfolk
- Transit facilitates efficient clustering, strengthening knowledge economy industries (including start-ups/VC which tend to cluster in urban areas)
- Transit is key to workforce accessibility, including service sectors that are major employers (e.g. health care)

Growing Transit

GLTC is updating its overall Transit Development Plan in 2017 and will be considering service enhancements and expansions throughout the region




3.

...Inter-Regional Connectivity

STRATEGY: INTERCITY PASSENGER RAIL

POTENTIAL ECONOMIC GAINS

...ub for the region. Continue to ...with Amtrak services to and from ...ng, and advocacy efforts.

...be more effectively leveraged ...avelers, and aid in recruitment of ...ess to major urban centers when

...which receives no state funding, ...1 million in revenue, turning a prof- ...2012, the Lynchburg-Washington ...from 149,306 in fiscal year 2011.

...g of Amtrak services, particularly ...markets.
...ue its efforts to improve on-time ...d from Lynchburg.
...ning of Amtrak service with in- ...stinations.

...region's greatest emerging connec- ...d down the eastern seaboard via the ...or Services. Lynchburg is served by ...Washington, DC, with a travel time ...owntown Union Station of between 3.5 ...ons in the works include:

...ortheast Corridor in 2017 ...dded in 2017

...lotte service and potential for ...adding service recommended by the North Carolina Department of Transportation

The economic logic for focusing on rail access includes:

- Rail is valuable to regional tourism, particularly for some of the northern urban markets where people may not own cars.
- Amtrak services offers convenient reliable connections to business travelers and access to northeast markets.
- This access provides value to firms both by enabling easy business travel, and by enhancing the image of the region for young talent and entrepreneurs interested in proximity to major urban centers.

Rail Value

"In attracting new business investment or working with existing businesses to expand, we can point to the train as a real way of connecting to major market areas."

--Bryan Dowd, Region 2000 Economic Development Council




4.

...STRATEGY: BROADBAND COVERAGE

...RECOMMENDATIONS

POTENTIAL ECONOMIC GAINS

...DED STRATEGY:
...imum target speed of 25 mbps download/3 mbps upload ...d coverage throughout the region, as recommended by the ...munications Commission. Capitalize on existing fiber-optic ...ding them into economic development strategy and site

...of the City of Lynchburg and portions of the outlying com- ...tively high download speeds. In an increasingly networked ...broadband connectivity is important to the business com- ...ributing to increased productivity, competitiveness, and ...se following recommendations can strengthen regional ...connectivity as the future:

...DED ACTIONS:
...be strong existing fiber optic network as an asset to ...ses considering relocation or entrepreneurs starting new ...ses.
...a region to support broadband improvements in rural ...building seeking both funding and partnerships.
...the development of a Regional Broadband Authority under ...Wireless Service Authority Act.

- Broadband access integrates under-served and rural communities into wider social and economic networks, especially the industries such as knowledge and technology industries.
- Better broadband access helps to unite a region through more equal access to business opportunity in rural areas.
- Good broadband supports a more distributed workforce. Combined with good air and rail service, it supports entrepreneurship and startups drawn to the region's other workforce and quality of life assets.

Broadband Strength

Lynchburg has a very strong existing fiber optic network, owned by Lumos Networks. Customers include the City of Lynchburg and Liberty University

...UNDERWAY

...UNDERWAY:
...000 and the Lynchburg Region's Technology Council hosted a ...ad summit in 2015, developing a vision for improved connectivity. ...ese focused on approaches to assessing demand and expanding ...is an efficient, strategic way. One way to do so is through expand- ...e of fiber optic cable, a broadband technology that transmits ...y times faster than DSL (transmitted via telephone lines) and ...times (coaxial TV cables).

...g of the existing fiber optic network, owned by Lumos Networks. ...s include the City of Lynchburg and Liberty University and fiber ...wealth is mentioned on the Opportunity Lynchburg website.




8.

...RECOMMENDATIONS

POTENTIAL ECONOMIC GAINS

RECOMMENDED STRATEGY:

Consolidate regional support for the air service development activities managed by the Lynchburg Regional Airport (LYH), focusing on maintaining and improving current service levels, enhancing service through equipment upgrades and efforts to expand capacity and service reliability, and expanding commercial air service, targeting major carrier hubs and potential tourism niche markets. This strategy mirrors the approach set forth in the Lynchburg Regional Airport's Air Service Development Strategic Plan. The airport is served by one airline, American, and provides six daily arrivals and departures to/from a single connecting hub airport in Charlotte.

RECOMMENDED ACTIONS:

1. Build a coordinated regional narrative on the value of LYH relative to other alternatives.
2. Advocate for service to Dulles in coordination with the $50 million Governor's program to reduce the cost of enplanements at Dulles. Collaborate with Newport News and other Virginia airports without direct service to Dulles; and coordinate a region-wide conversation regarding potential startup incentives for limited service to Dulles.
3. Coordinate data sharing with colleges and universities. Work with higher education institutions in the region to understand growth trends that could support additional air service.
4. Strengthen channels of communicationwith the economic development community so that "leading indicators" can be communicated to airlines.
5. Understand potential of Aviation Programs at Liberty University to leverage potential economic benefits to the airport.

- The 2011 Virginia Airport System Economic Impact Study the average impact in 2010 per enplanement was $1,166 in business sales (from on-airport activity and visitors spending effects). Commercial enplanements were 93,617 in the same year.
- Total economic activity associated with on-airport activities and visitor spending at LYH was $109.19 M in 2010. the same activity can be associated with 911 jobs and $30 million in payroll
- Lynchburg Regional airport supports jobs in the economy by enabling the arrival of visitors and supporting their expenditures on lodging, entertainment, ground transportation, and various consumer goods.

$109 million

-Total economic activity associated with on-airport activities and visitor spending at LYH in 2010

ALREADY UNDERWAY

ACTIONS UNDERWAY:

1. Growth in enplanements - as of calendar year 2014, Lynchburg Regional supported 78,876 passenger enplanements (boardings), a 1.4 percent increase over the previous year.
2. Growth in revenue - a recently published study by the Virginia Department of Aviation (DOAV) found that Lynchburg maintained a relatively constant level of capacity while other regional airports contracted, has achieved gains in aircraft size, revenue per seat, and load factors from 2004 to 2014, and outperforms peers on revenue per seat and average load factor.
3. Growth in service - this trend continues with the recent reintroduction of regional jet service to the airport.




5.

Theme: Inter-Regional Connectivity

STRATEGY: ACCESS ON KEY HIGHWAY CORRIDORS

...POTENTIAL ECONOMIC GAINS

...TEGY:
...ed access to the interstate system and on key ...e Lynchburg region to national and internation- ...agement with connectivity issues outside the ...ect the region's interstate access. The Lynch- ...he Virginia highway system to access material ...o market, including infrastructure located both ...chburg region.

...of the highway corridors used by goods origi- ...the Lynchburg region (excluding through-flows). ...does that are particularly important to the ...ost: US 29 for north-south connections, ...access east towards the Port of Virginia and ...which provides westward connectivity to I-81

...ONS:
...egional corridors to protect and improve access ...the interstate system, and important inter- ...ities.
...surrounding regions to advance improve- ...ors that affect Lynchburg's connectivity to

...ealth's "Protecting Virginia's Arterial Invest- ...h strategic access management improvements, ...29, 460 and 501 are pilot corridors.

...ative inter-regional roadway improvements identi- ...efforts:

1. Wards Road Bike Ped Trail Project - Intersection improvement, with one-way split pairs on US 501 on either side of 221. Facilitates regional network connectivity and connects key corridors with medium truck volumes
2. Wards Road Access Management - Access management and operational improvements on US 29; a primary commuter and truck corridor with congestion, near airport.
3. Lynchburg Expressway/ Candlers Mount Road - Improves interchange; connects key inter-regional corridors with high truck volumes.
4. US 501 Improvement from Old Forest Rd to Rt 626 - addresses future constraints on a key connector corridor.

POTENTIAL ECONOMIC GAINS

The four projects described below under "Actions Underway" form an inter-regional project bundle that was modeled using the TREDIS model to understand their potential economic impacts.

Cumulative long term impacts out to the year 2050 could reach approximately $154 million in additional business sales and $83 million in value added.

Potential Value of Improving Inter-Regional Connectivity

Cumulative long term impacts out to the year 2050 (from the improvements listed under Recommended Actions) could reach approximately $154 million in additional business sales and $83 million in value added to businesses




6.

Theme: Inter-Regional Connectivity

STRATEGY: CARGO ORIENTED DEVELOPMENT

...NDATIONS

POTENTIAL ECONOMIC GAINS

...DED STRATEGY:
...d readiness to respond to freight rail oriented development ...s. The Lynchburg region is extremely well positioned for ...d development. It is served by two Class I railroads with ...acity constraints. While freight rail service in the region is ...road rather than containerized traffic, and the region is too ...ng intermodal container terminals to be a candidate for a ...e nevertheless may be ways for the region to capitalize on ...r freight rail infrastructure.

...ons can be taken to align public sector actions with antici- ...r sector interest.

...DED ACTIONS:
...areness of the Virginia Rail Industrial Access program ...e regional economic development community as a tool for ...ng new cargo-oriented development.
...dustrial development efforts on sites adjacent to existing ...structure and rail customers.
...r restored open lines of communication with the Class I ...s and the region through the Commonwealth Transportation ...Standing Rail Committee.

- Economic gains from cargo oriented development can be realized by partnering with the private sector.
- Existing rail-reliant industries provide a picture of future potential: traditional heavy manufacturing including plastics and rubber products, paper, textiles, fabricated metal, and chemical manufacturing.
- Clustering of freight and logistics activities provides numerous benefits: lowering transportation costs by enabling vehicles to be filled more quickly and efficiently, enabling more efficient resource use and management of fluctuating demand through sharing of equipment and warehouse space, supporting productivity gains from knowledge-spillovers/specialized labor pools and through making better service from railroads with more concentrated demand.

Freight in the State

Goods movement supports over $350 billion of Virginia's Gross State Product (28% of the total statewide economy)

...UNDERWAY

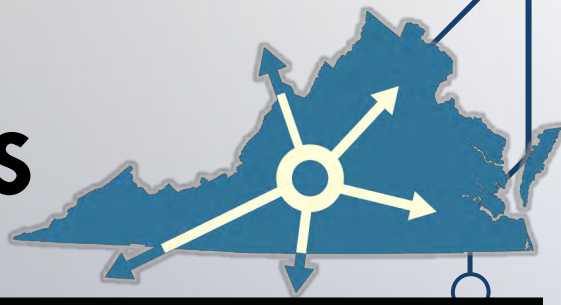
...NDERWAY:
...ment to the Norfolk Southern overpass at Wards Road and Cas- ...intain Road intersection.
...upgrades to a number of Class I railroads that cross cross ...n, including the double-stacked Norfolk Southern Heart- ...Crescent intermodal corridors. The rail network typically ...commodities that are associated with production by a ...of the more traditional heavy manufacturing sectors in the

...coordination on potential rail industrial development sites ...onal economic development entities.




7.

IMPLEMENTATION PROGRESS



1. Partner meetings & local champions identified
2. CEDS Transportation Council formed & developing performance metrics for each of the strategy areas
3. Implementing strategies and actions

STRATEGY	ACTION
THEME: LABOR MARKET & INTRA-REGIONAL CONNECTIVITY	
Placemaking	3.3 miles of dedicated bike lanes installed in the Town of Amherst
Local Bottlenecks	Route 622, Lynbrook Road funded. Traffic Operations/Signal Coordination underway on Route 29
Transit & TDM	Lynchburg Central Business District Circulator started, also known as the Hopper.
THEME: INTER-REGIONAL CONNECTIVITY	
Intercity Passenger Rail	Marketing program with Amtrak initiated
Air Service Development	Improved coordination / partnership with Lynchburg Regional Airport
Access on Key Highway Corridors	NEPA process started for Route 501/221 Split Pairs project. Arterial Preservation Studies started on Route 460 and Route 29.

TAKE AWAYS – KEY FINDINGS



1. **Build on the Foundation** – The Lynchburg Region has the structures in place (based on prior investments) upon which to build a stronger connectivity platform.
2. **Synergy** – The most significant economic impact of this Connectivity Study is a result of all 8 strategies working together
3. **Communication** - Identifying and marketing the unique assets of this regions is an "overarching" objective for each strategy. Low cost/high impact!
4. **Common Threads** - This Study has revealed common threads with other major efforts such as CEDS, GO VIRGINIA, BREC; We are all working together!
5. **A First** – This is the first study of its kind in Virginia. We hope this can be a blueprint for other regions in Virginia!

THANK YOU!

