

Finance Techniques and Strategies

I. Introduction

The Alliance Region is the nation's gateway for trade between the United States and Latin America. Eighty six percent of Latin American imports into the U.S. and 71 percent of U.S. exports to Latin America occur through the Alliance Region.¹ The multimodal transportation system that is in place has to provide transportation capacity for local, regional and national domestic transportation needs, in addition to supporting the expanding international trade opportunities.

Traditional funding mechanisms such as regular Federal-aid highway apportionments, licensing fees, and gasoline and motor fuel taxes have provided extensive resources to develop and maintain our nation's network of transportation infrastructure. Over time however, the demand for new traffic infrastructure and services has outpaced traditional funding mechanisms leading to fiscal distress for state DOTs. Many factors have led to deficit revenues including increased fuel efficiency in newer vehicles, political opposition to increasing fuel taxes, development of alternative fuel and hybrid vehicles and increasing uses of alternative transportation including air, transit and bike/pedestrian. In addition, state DOTs have fallen victim to state budget deficits

As a result of fiscal pressure, states have been forced to explore alternative funding mechanisms for transportation investments. The purpose of this document is to highlight the measures Alliance states have taken to fund critical infrastructure investments and to assess options for future funding. Evidencing the role and importance of alternative funding mechanisms, investment needs through 2020 are provided for marine, air and highway transportation modes for each of the LATTs Alliance states in the initial LATTs report and summarized in the following section. Section three discusses traditional funding mechanisms including motor fuel taxes and section four examines innovations in transportation financing. Public-private partnerships are discussed in Section five followed by case studies from the Alliance Region including:

- Mississippi – Canal Road
- Texas -- Trans Texas Corridor Plan
- Virginia -- I-81 Development Plan

The report concludes with recommendations regarding the Alliance's approach to future funding.

II. Investment Needs

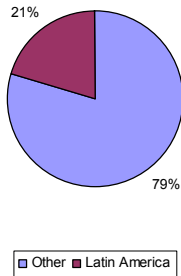
During the 1990's, the nation's unprecedented economic growth fueled a dramatic increase in demand for freight transportation services. At the same time, changes in the business sector resulted in new demands for higher quality freight transportation service. Just-in-time manufacturing, e-commerce, and demand for small package service resulted in smaller, but more frequent, individual shipments of high-value goods. As the number and frequency of shipments have increased, reliability has become more

¹ Wilbur Smith Associates. LATTs Alliance Report. 2001.

important. Freight transportation today is also more complex than it was in the past. A single shipment might move across two or three modes of transportation en-route to its final destination. The rapid growth in freight transportation, the increasing emphasis on reliability and the emergence of containerization of freight have led to the elevation of freight transportation as a high priority national issue.

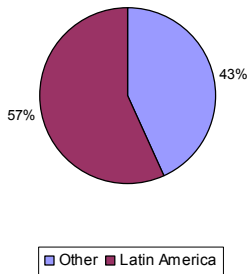
The original LATTs report highlights the investment needs for waterports, airports, and highways over a 20-year period. Rail was excluded from the investment needs analysis, because they are for the most part the responsibility of the private sector. Investment needs were compiled for each Alliance State by mode from the individual LATTs State Reports.² Exhibit 1 displays the aggregate investment needs for the 20-year period and the investment needs to support Latin American Trade. (Highway investment needs were based on each state's capacity needs and did not include annual pavement resurfacing costs.) Exhibit 2 displays investment needs on a state-by-state basis.

Exhibit 1: 20-Year Investment Needs



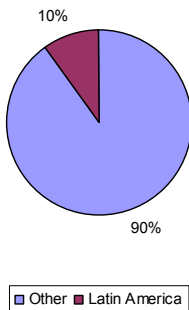
Total 20-Year Needs estimate is approximately \$92 Billion.

Approximately 21 percent or \$18.8 Billion is the direct result of Latin American trade.



Waterport Needs amount to approximately \$22 Billion.

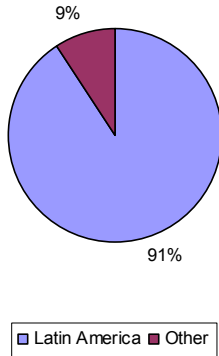
The majority, 57 percent, is related to trade with Latin America.



Airport Needs amount to approximately \$3.3 Billion.

Approximately 10 percent is related to Latin American trade.

² Missouri and Oklahoma were not part of the original LATTs study; therefore, statistics for the needs of these two states were not available.



Highway Needs amount to approximately \$66.7 Billion.

Approximately 9 percent is related to Latin American trade.

The graphs in Exhibit 1 highlight the fact that investment needs for highways outpace the other transportation modes. However, when looking at the percentage related to Latin American trade, waterports outpace the other modes at 57 percent of total trade. The investment needs identified in Exhibit 2 are in 1999 dollars so that the investment requirements are in line/comparable to LATTs. It is important to note that the purpose of the identified investment needs is to serve as a barometer of investment requirements and to provide information to assist the Alliance states in developing communication tools for prioritizing their investment decisions as opposed to actually assigning programming dollars.

Exhibit 2 shows the needs directly related to Latin American trade relative to total needs. As can be seen, the needs attributable to Latin American range from less than 2.0 percent to over 90.0 percent.

Exhibit 2: Alliance State's 20-Year Investment Needs

LATTS											
Total Infrastructure Needs in 2020											
(1999 Dollars in Millions)											
State	Waterport			Airport			Highways			Total	
	Total	% LATTS	LATTS	Total	% LATTS	LATTS	Total	% LATTS	LATTS	Total	LATTS
Alabama	\$350.0	47.00%	\$164.5	\$10.0	0.40%	\$0.0	\$5,300.0	7.55%	\$400.0	\$5,660.0	\$564.5
Arkansas	\$68.0	36.00%	\$24.5	\$7.4	0.00%	\$0.0	\$3,400.0	2.94%	\$100.0	\$3,475.4	\$124.5
Florida	\$6,400.0	82.00%	\$5,248.0	\$744.0	39.80%	\$296.1	\$6,800.0	7.35%	\$500.0	\$13,944.0	\$6,044.1
Georgia	\$3,000.0	35.00%	\$1,050.0	\$287.0	1.20%	\$3.4	\$4,100.0	4.88%	\$200.0	\$7,387.0	\$1,253.4
Kentucky	\$19.1	45.00%	\$8.6	\$667.0	0.01%	\$0.1	\$4,000.0	2.50%	\$100.0	\$4,686.1	\$108.7
Louisiana	\$5,700.0	52.00%	\$2,964.0	\$12.9	0.00%	\$0.0	\$2,100.0	19.05%	\$400.0	\$7,812.9	\$3,364.0
Mississippi	\$741.6	34.00%	\$252.1	\$29.0	0.00%	\$0.0	\$700.0	14.29%	\$100.0	\$1,470.6	\$352.1
North Carolina	\$299.0	35.00%	\$104.7	\$149.0	2.70%	\$4.0	\$6,600.0	1.52%	\$100.0	\$7,048.0	\$208.7
Puerto Rico	\$180.4	72.00%	\$129.9	\$133.0	5.50%	\$7.3	\$1,421.0	100.00%	\$1,421.0	\$1,734.4	\$1,558.2
South Carolina	\$834.0	23.00%	\$191.8	\$70.0	2.70%	\$1.9	\$4,500.0	2.22%	\$100.0	\$5,404.0	\$293.7
Tennessee	\$0.0	29.00%	\$0.0	\$631.0	1.10%	\$6.9	\$4,500.0	8.89%	\$400.0	\$5,131.0	\$406.9
Texas	\$3,900.0	58.00%	\$2,262.0	\$487.0	1.50%	\$7.3	\$18,100.0	10.50%	\$1,900.0	\$22,487.0	\$4,169.3
Virginia	\$536.5	18.00%	\$96.6	\$49.0	0.90%	\$0.4	\$4,500.0	6.67%	\$300.0	\$5,085.5	\$397.0
West Virginia	\$0.0	0.00%	\$0.0	\$13.0	0.00%	\$0.0	\$704.0	4.83%	\$34.0	\$717.0	\$34.0
TOTAL	\$22,028.6		\$12,497	\$3,289.3		\$327.6	\$66,725.0		\$6,055.0	\$92,042.9	\$18,879.2

III. Funding Mechanisms

The \$92 Billion investment requirement highlights the need and rationale for innovative financing and strategies by the States. This investment also highlights the need for state and local governments, citizenry, business and industry within the Alliance region to work together in finding solutions to maintain the nation's major gateway to Latin American and international trade.

There are certain funding mechanisms that have been established historically by mode. Waterports are generally funded through private resources, port revenues, and the use of revenue bonds. Similarly, railroads have traditionally depended on private capital to self-fund the majority of system rehabilitation and new construction projects. Unlike ports and rail, highway funding is derived primarily from Federal and State highway programs. Airport infrastructure is primarily supported by passenger fees and by jet-fuel taxes. However, airport related legislation in the 1986 Tax Reform Act spurred the trend for public-private partnerships between airport authorities and airfreight integrators so that revenue bonds could be issued for the purpose of developing cargo facilities.³

Airports and waterports generally operate under the umbrella of an Authority. Authorities are created and established by the State's legislative body to serve as a public benefit corporation to provide and manage the necessary transportation facility. Authorities own or lease space, provide the necessary infrastructure, and manage the transportation facility through the assessment of fees and charges to a variety of users -- carriers and businesses that provide goods and services to the traveling public and to the civilian, business, industry and governmental users. As a quasi government entity, Authorities have the capability of borrowing funds for major investments through the use of revenue bonds, based on the anticipated revenue stream generated from the investment.

The funding of highway investments, however, has a direct dependence on the public sector funding, primarily motor fuel taxes. The next section looks at the varying motor fuel tax rates established by the states throughout the U.S.

State Motor Fuel Tax Rates

State motor fuel taxes have been the traditional funding mechanism for highways and state DOTs. Exhibits 3 and 4 identify the gasoline and diesel motor fuel tax rates for all states, respectively.⁴ Exhibit 3 illustrates wide variations in gasoline tax rates ranging from 8 cents to 31.1 cents per gallon with an average tax rate of 21.61 cents. Diesel tax rates displayed in Exhibit 4, range from 8 cents to 31.8 cents per gallon with an average tax rate of 21.93 cents. Further review of the tax rates show 80% of the states within the Alliance are below the national average for gasoline (excluding Puerto Rico) and 73% of the states within the Alliance are below the national average for diesel (excluding Puerto Rico). The Alliance region also differs in its treatment of gasoline and diesel as the national average for diesel is greater than gasoline, but for Alliance states Florida is the only one with a higher tax on diesel relative to gasoline. Others tax diesel at a rate that is less than or equal to the gasoline tax rate.

³ FHWA. Funding and Institutional Options for Freight Infrastructure Improvements. November 2002.

⁴ TNDOT Website. Data provided by Arkansas HTD.

**Exhibit 3: Gasoline
STATE MOTOR FUEL TAX RATES
As of June 30, 2003
(Cents per Gallon)**

Rank	States	Gasoline Tax Rate
1	Wisconsin	31.10
2	Rhode Island	29.00
3	Washington	28.62
4	Montana	27.75
5	Pennsylvania	26.60
6	New York	26.07
7	Idaho	26.00
8	Michigan	25.88
9	California	25.85
10	Illinois	25.55
11	West Virginia	25.35
12	Nebraska	25.20
13	Connecticut	25.00
14	Nevada	24.75
15	Utah	24.75
16	North Carolina	24.55
17	Kansas	24.02
18	Ohio	24.00
19	Oregon	24.00
20	South Dakota	24.00
21	Maryland	23.50
22	Maine	23.25
23	Indiana	23.08
24	Delaware	23.00
25	Colorado	22.00
26	Minnesota	22.00
27	Arkansas	21.70
28	Tennessee	21.40
29	North Dakota	21.03
30	Iowa	21.00
31	Massachusetts	21.00
32	Louisiana	20.03
33	District Columbia	20.00
34	Hawaii	20.00
35	Texas	20.00
36	Vermont	20.00
37	Arizona	19.00
38	New Hampshire	19.00
39	New Mexico	18.88
40	Mississippi	18.40
41	Alabama	18.00
42	Virginia	17.70
43	Missouri	17.04
44	Oklahoma	17.00
45	South Carolina	16.75
46	Kentucky	16.40
47	New Jersey	14.54
48	Florida	14.03
49	Wyoming	14.00
50	Georgia	12.50
51	Alaska	8.00

21.61 Nat'l Avg.

**Exhibit 4: Diesel
STATE MOTOR FUEL TAX RATES
As of June 30, 2003
(Cents per Gallon)**

Rank	States	Diesel Tax Rate
1	Pennsylvania	31.80
2	Wisconsin	31.10
3	Rhode Island	29.00
4	Washington	28.62
5	Illinois	28.05
6	Montana	27.75
7	Nevada	27.75
8	Arizona	27.00
9	Florida	26.40
10	Idaho	26.00
11	Kansas	26.00
12	Vermont	26.00
13	West Virginia	25.35
14	Nebraska	24.80
15	Utah	24.75
16	North Carolina	24.55
17	New York	24.27
18	Maryland	24.25
19	Indiana	24.00
20	Ohio	24.00
21	Oregon	24.00
22	South Dakota	24.00
23	Maine	23.75
24	Iowa	23.50
25	Arkansas	22.70
26	Delaware	22.00
27	Minnesota	22.00
28	Michigan	21.88
29	North Dakota	21.03
30	Massachusetts	21.00
31	Colorado	20.50
32	District Columbia	20.00
33	Hawaii	20.00
34	Louisiana	20.00
35	Texas	20.00
36	New Mexico	19.88
37	Alabama	19.00
38	New Hampshire	19.00
39	California	18.60
40	Mississippi	18.40
41	Tennessee	18.40
42	Connecticut	18.00
43	New Jersey	17.54
44	Missouri	17.00
45	South Carolina	16.75
46	Virginia	16.20
47	Oklahoma	14.00
48	Wyoming	14.00
49	Kentucky	13.40
50	Georgia	12.50
51	Alaska	8.00

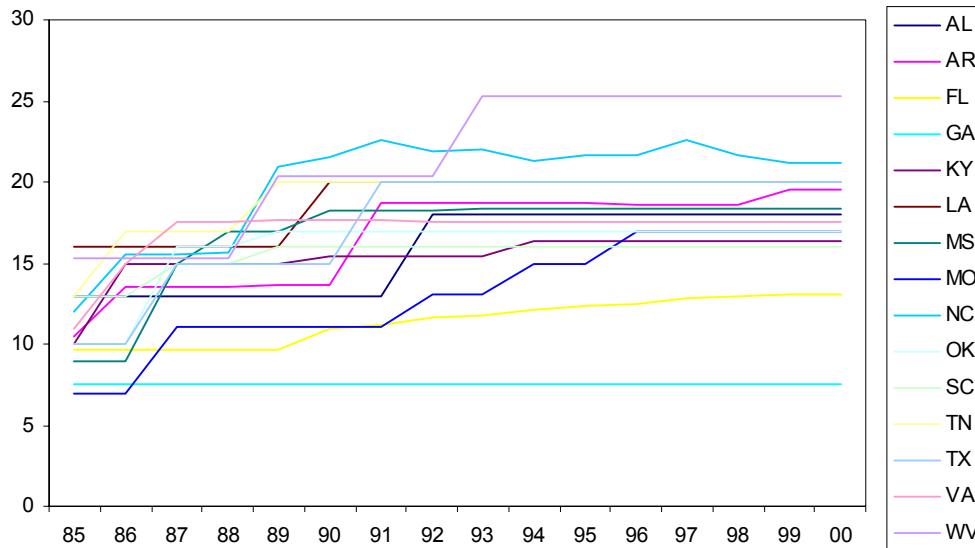
} **21.93 Nat'l Avg.**

It is important to note that some of the differences in tax rates relate directly to the amount of roads for which the DOTs have responsibility. For example, in Georgia, the DOT has much less responsibility as counties and cities have ownership of a large share of the roadways and it is reflected in their relatively low state motor fuel tax rates.

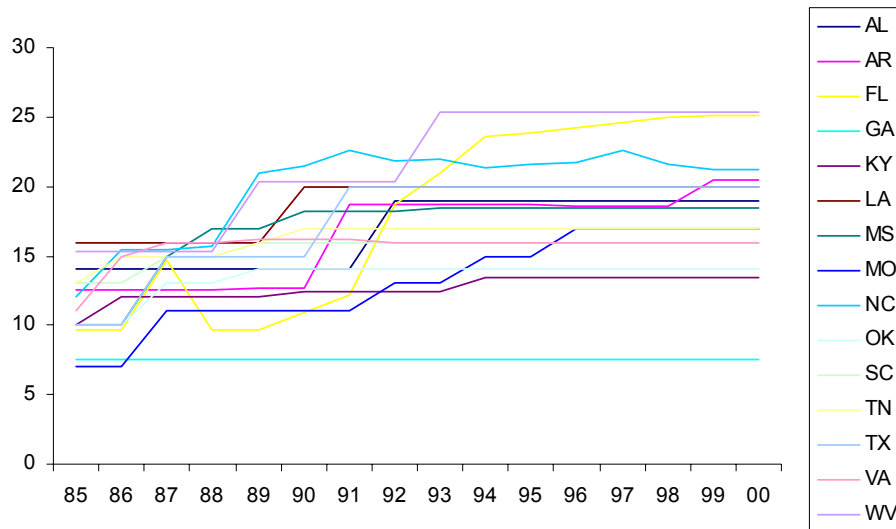
An examination of state motor fuel tax rates over a 15-year period from 1985 to 2000 reveals similar patterns among Alliance states. Not only are the rates below the national average, but there has been little change in the rates since the early nineties. While several states increased both gasoline and diesel taxes between 1988 and 1992, the rates have remained relatively constant since. Despite increasing fiscal pressures and demands on DOTs, only three states in the Alliance region increased rates from 1998-2000. In fact, one state, North Carolina, actually decreased both tax rates in 1998.

**Exhibit 5: State Motor Fuel Tax Rates
Gasoline and Diesel Cents per Gallon**

Gasoline



Diesel



These trends demonstrate the political sensitivity of increasing motor fuel tax rates. It also highlights the expanding gap between investment needs for transportation improvements that increase on a continuum while motor fuel tax rates remain constant, for the most part. As far as the Alliance states being below the national average for motor fuel tax rates, policy makers easily justify this position because their labor force earns less income than the national average. None the less, a critical revenue stream remains constant and this perpetuates the need and demand for financing strategies.

Innovations in Transportation Financing

The Federal Highway Administration (FHWA) worked with the states and other stakeholders to develop and implement financing tools that could assist in meeting the variety of needs that existed within the states. The resulting programs are described in the FHWA document titled *"Innovative Finance Primer."*⁵ Exhibit 6 provides a summary various funding tools introduced via federal legislation.

⁵ FHWA. Innovative Finance Primer. Publication FHWA-AD-02-004. April 2002.

Exhibit 6: Legislative History

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

- Introduced new concepts to increase investment levels by encouraging the use of user fees.
- Created a loan program where states could lend Federal funds to toll projects.
- Permitted certain toll revenue expenditures to serve as credit for non-Federal matching requirements.

FHWA's Innovative Finance Test and Evaluation Program (TE-045) of 1994

- Requested states to identify flexible approaches to combining Federal and non-Federal highway funds and leveraging existing Federal resources.
- States responded overwhelmingly and the TE-045 initiative incorporated thinking outside the box into a variety of innovative financing techniques.

National Highway System Designation Act of 1995

- Built upon experience of ISTEA.
- Codified innovative financing tools tested under the TE-045 initiative.
- Established State Infrastructure Bank Pilot Program.
- Increased Federal matching ratio for toll projects.
- Expanded opportunity for states to retire the cost of debt financing with future Federal aid.
- Allowed loans of Federal aid to non-toll projects.
- Broadened types of funding commitments eligible to satisfy non-Federal matching requirements.

Transportation Equity Act for the 21st Century (TEA-21)

- Enacted Transportation Infrastructure Finance and Innovation Act (TIFIA) to provide up to \$10.6 billion in credit assistance to major projects of national significance.
- Continued the SIB pilot program in a limited form with additional capitalization to only four states.
- Provided additional flexibility in non-Federal share matching requirements.

Innovative finance techniques range from fairly modest strategies that permit states greater flexibility in satisfying the standard matching requirements for receipt of Federal funds to very ambitious credit enhancement strategies suitable for capital intensive projects. Notable is the fact that none of them actually increase federal funds for transportation but instead offer methods intended to allow states to be able to do more with the same dollars.

A key to the effective/successful use of innovative finance strategies is the ability to recognize what kind of projects can most benefit from the various tools. The FHWA has grouped the innovative finance techniques and strategies into four classifications, innovative management of federal funds, debt financing, credit assistance, and tolling. A summary of these techniques is provided in Exhibit 7. More detailed discussions of the tools are provided in Appendix A.

Exhibit 7: Finance Techniques	
Classification	Strategies
Innovative Management of Federal Funds	<ul style="list-style-type: none"> ▪ Advance Construction ▪ Partial Conversion of Advance Construction ▪ Tapered Match ▪ Flexible Match ▪ Toll Credits
Debt Financing	<ul style="list-style-type: none"> ▪ Grant Anticipation Revenue Vehicles (GARVEEs)
Credit Assistance	<ul style="list-style-type: none"> ▪ Section 129 Loans ▪ State Infrastructure Banks (SIBs) ▪ Transportation Infrastructure Finance & Innovation Act (TIFIA)
Tolling	<ul style="list-style-type: none"> ▪ General Toll Provisions ▪ Interstate Reconstruction & Rehabilitation Program ▪ Value Pricing Pilot Program

The Alliance Region's Use of Innovative Financing Options

State Infrastructure Banks

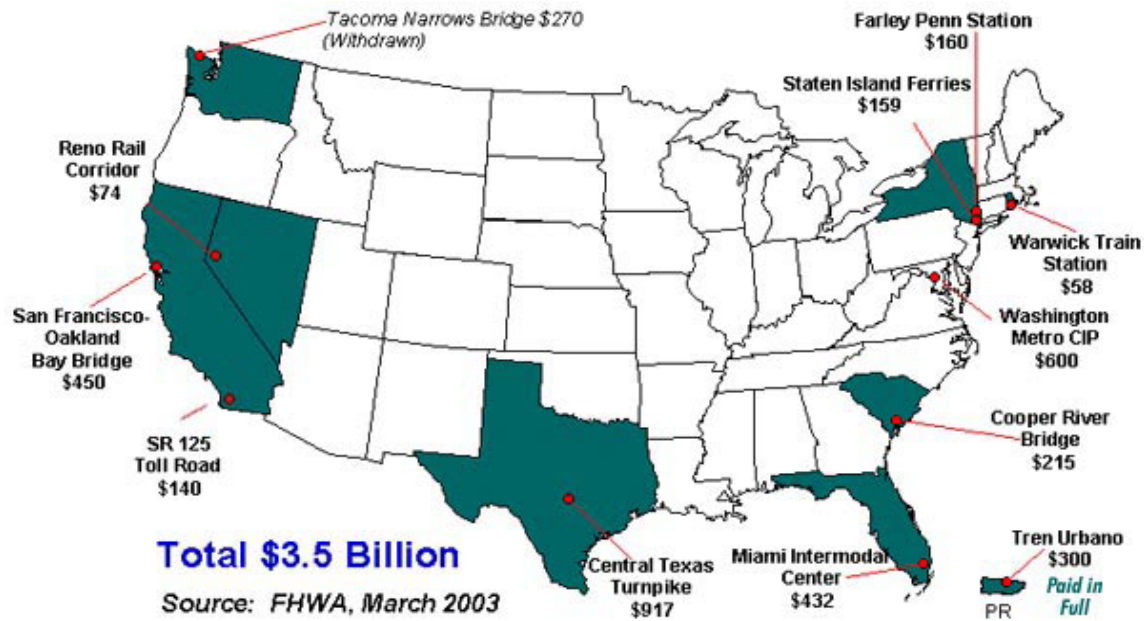
The Alliance states have been very active in participating in state infrastructure banks (SIBs). As illustrated in Exhibit 8, there were four states in the Alliance actively participating in the SIB program as of 2001. Of those four, South Carolina is the most aggressive in its use of the SIB as the state implements its "27 in 7" program. In 2001, the participation of the Alliance region states represents over 70 percent of the total SIB program loan agreement amount and more than 60 percent of the total disbursements to date.

Exhibit 8: SIB Program Summary 2001			
State	Number Agreements	Loan Agreement Amount (1,000)	Disbursements To Date (1,000)
South Carolina	5	1,502,289	510,428
Florida	32	465,000	94,000
Texas	32	88,900	70,016
Missouri	10	69,251	66,754
Subtotal	137	\$2,026,540	\$741,198
Total	245	\$2,891,187	\$1,179,956

TIFIA Loans

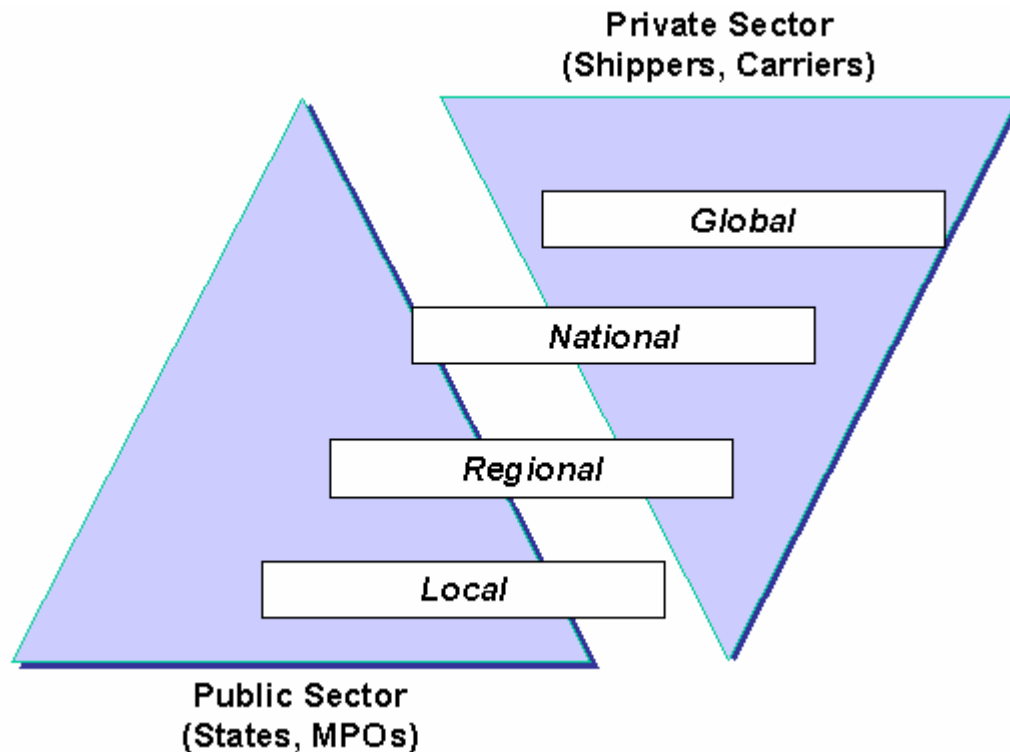
The Alliance region has also been very aggressive in its use of TIFIA loans. To date, 2003, \$1.5 billion had been loaned to states through the program. Exhibit 9 displays a map of TIFIA funded projects as of March 2003. Nearly half of the value of all loans to date has been to states located in the Alliance region including Texas, Florida, South Carolina and Puerto Rico. In addition, Louisiana submitted an application for consideration for the 2004 funding cycle. Again, the Alliance has taken the lead on the use of innovative funding mechanisms to finance their transportation needs.

**Exhibit 9
TIFIA Funded Projects as of 2003**



Public-Private Partnerships

For the most part, the public and private sectors have been investing heavily in the freight transportation network. However, historically these investments have not been coordinated or even discussed between the two sectors. Specifically, the public sector has invested heavily in the nation's highway network and the private sector has invested heavily in the rail and marine transportation systems. The private sector has also invested in access roads and interchanges to the National Highway System to reduce their costs, increase productivity and improve profits. Despite the lack of coordination, the investments have benefited each other. The reasons for the lack of integration between the two planning sectors are numerous but they are primarily built upon lack of understanding. Traditionally, there has been a mismatch between the perspectives of the private and public sectors regarding freight transportation. This mismatch in perspectives has been exacerbated by a lack of understanding of those perspectives by both sides. For the most part, the public transportation perspective regarding freight is that it is a local or regional issues whereas the private sector is concerned with national and global freight networks (see Exhibit 10).

Exhibit 10: Freight Transportation Perspectives

Source: FHWA. *Freight Financing Options for National Freight Productivity*. October 2002

Consequently, public sector investments are typically based on local area benefits whereas private sector investments are driven by larger national or global network efficiencies or benefits. These differing perspectives have led to differing objectives and prioritization of freight transportation projects and little, if any, coordination regarding investments. In addition, many freight investments are made based on benefits to a single mode as opposed to system-wide benefits. However, freight movements are often multi-modal; thus, in order to fully maximize the efficiencies of freight movements, it is necessary to analyze the entire “freight chain.” Moving toward public/private coordination and multi-modal investments requires a partnering of the public and private sectors. While the benefits of doing so seem apparent, public-private partnerships face many challenges.

The dual public/private nature of the country’s transportation infrastructure creates a challenge for public agencies considering whether to provide support to projects owned by the private sector. The primary challenges include arguments that:

- Public agency would be benefiting one railroad over another;
- Public benefits are sufficient to justify public cost sharing for projects that benefit the private industry; and
- Railroads are being given preferential treatment over the trucking industry.

Another clarity issue arises with intermodal projects. Intermodal projects are much more complicated than the more traditional single mode projects. There might be a project

designed to link transportation modes such as a connector between a marine terminal and a rail yard or Interstate highway. In this case there is no clear owner of the project to initiate planning and development and assembling financing.⁶

With the demand for new traffic infrastructure and services continuing to outpace the limited amount of public funds, the need for public-private partnerships has gained momentum and public approval. The latest public private partnership initiatives utilize contractual relationships with a private entity/team that can provide full service “one-stop-shopping” to include the design, construction, financing, maintenance or operation of a project. One major advantage of such a relationship is the ability of the public agency to accomplish important high priority projects without having to staff up several hundred new full-time positions to accomplish the additional workload. Exhibit 11 highlights the Public-Private Partnership initiatives within the Alliance states.

Exhibit 11: PPP Initiatives in Alliance States	
State	Initiative
Florida	Toll Facilities Revolving Trust Fund Loans (TFRTFL) encourages development and enhances financial feasibility of revenue producing road projects undertaken by local governments, Expressway Authorities, and Turnpike Enterprise. 19 entities served. \$169.6 million awarded and advanced.
Kentucky	Kentucky Turnpike Authority utilizes resource recovery and economic development revenue bonds. Active Tolls: <ul style="list-style-type: none"> • Audubon Parkway • Green River Parkway • Cumberland Parkway --(Portion of I-65) • Daniel Boone Parkway
Mississippi	MDOT is currently conducting a toll feasibility study for Canal Road in October 2003. Preliminary information is due to MDOT December 2003, so they can approach the 2004 Legislature in January 2004 to get authority to establish toll roads and authority for Design/Build.
North Carolina	NC Turnpike Authority Board, established October 2002, authorized to construct, operate and maintain up to 3 toll roads in the state. Also authorized to study, plan, develop and prepare preliminary designs for

⁶ FHWA. Freight Financing Options for National Freight Productivity. October 2002.

	<p>three additional toll roads that will require legislative approval to build.</p> <p>November 2003 Board meeting to discuss I-95 Toll Feasibility Study and the development process.</p>
<p>Oklahoma</p>	<p>Oklahoma Transportation Authority (OTA) operates the Oklahoma Turnpike:</p> <ul style="list-style-type: none"> • Generates approximately \$60 million in state & federal motor fuel tax. • Approximately 40% of toll revenues collected on OTA turnpikes come from out-of-state motorists.
<p>South Carolina</p>	<p>“27 in 7” Peak Performance – SC DOT is accomplishing 27 years of road and bridge projects in 7 years by putting aside conventional ways of doing business. The SCDOT selected the assistance of Construction and Resource Managers (CRM) that has experience in highway/bridge design construction. In 1999, two CRMs were selected and act as an extension of SCDOT. By partnering with the CRMs, SCDOT avoided having to hire an estimated 500 employees to handle the additional workload.</p> <p>The Cross Island Parkway completed in 1998 was SC’s first toll in 50 years. Also, the Greenville Southern Connector, a 16-mile, four lane road linking Interstates 85 and 385, was completed in February 2001. It was financed by “The Connector 2000 Association” a local not for profit corporation set up to finance and operate the facility.</p>
<p>Texas</p>	<p>Texas voters provided the framework for funding transportation infrastructure in November 2001 when they approved Proposition 15. Proposition 15, a constitutional amendment, allows Texas more flexibility than it has ever had to pay for transportation projects. Proposition 15 includes public-private partnerships called exclusive development agreements, and funding options like toll equity, the Texas Mobility Fund, and Regional Mobility Authorities.</p> <p>New Proposed Rules for Regional Mobility Authorities (RMA) and toll roads were presented in 2003. The Texas Transportation Commission (TTC) was seeking public comment on proposed rules allowing TXDOT to convert non-tolled highways to toll facilities. Through an RMA, counties can establish an authority to</p>

	<p>develop, construct and maintain local turnpike projects as part of the state highway system.</p> <p>In 2002 the commission approved the state's first RMA to serve Travis and Williamson counties. In August 2003, \$63.2 million was provided for construction contract putting nearly half of the SH 45 north toll road under construction serving these two counties. The TTC is seeking a public/private partnership to expedite/fast track SH 45 southeast, a candidate toll road project connecting I-35 and SH 130/U.S. 183.</p> <p>In addition, House Bill 3588 signed into law in June 2003 provides new financial tools to expedite needed construction. The new law allows TXDOT to enter into comprehensive development agreements with a private entity for the design, construction, financing, maintenance or operation of a turnpike project.</p>
<p>Virginia</p>	<p>The just recently completed Route 895 Connector Project, "Pocahontas Toll Road," was the first capital project under the <i>Virginia Public-Private Transportation Act of 1995</i>. This legislation allows for innovative financing, including tax-free bond financing of projects on which private developers and the state collaborate.</p> <p>VDOT through the procurement process has received two proposals from teams that can design, build, finance, operate and maintain the I-81 Corridor Development Program.</p>
<p>West Virginia</p>	<p>WV Parkways, Economic Development and Tourism Authority operates the WV Turnpike, 88 miles of toll road.</p>

Case Studies

The Alliance region is following a growing trend toward pursuing public-private partnerships to help close the funding gap and to promote a multi-modal approach to adequate infrastructure to accommodate the ever-increasing demands of ensuring efficient flow of goods and people. While there are numerous examples of PPP initiatives throughout the Alliance region, the consultant team has selected three initiatives to highlight including:

- Mississippi – Canal Road
- Texas -- Trans Texas Corridor Plan

- Virginia -- I-81 Development Plan

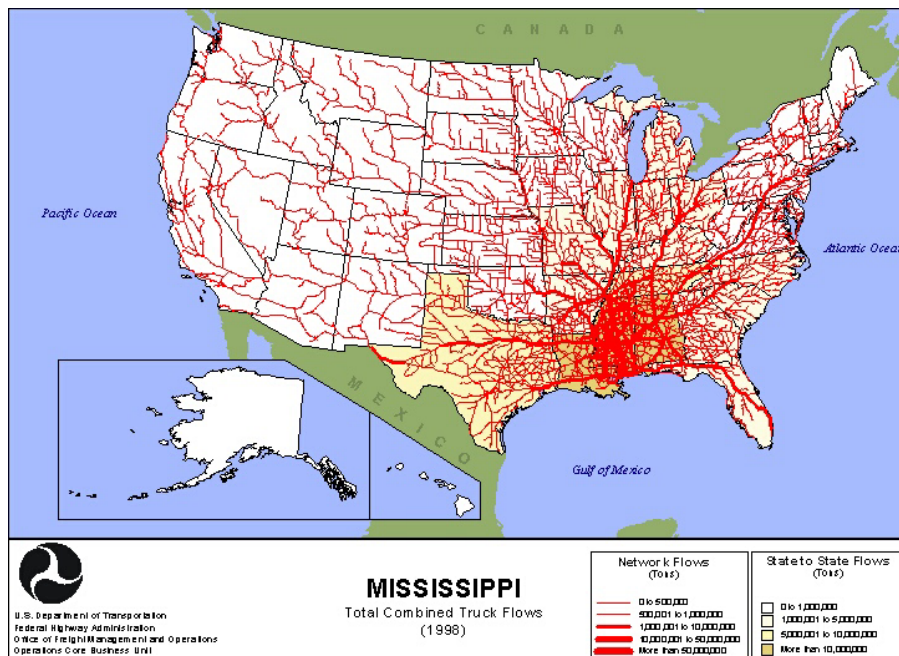
All three initiatives are being driven in large part by the voluminous truck traffic and the critical role that accommodating increasing trade activity plays in ensuring the future competitiveness of their respective state from an economic development perspective. By understanding their role, they were able to articulate a vision for improving their transportation system and have identified and prioritized key transportation projects that are critical to the system. The key transportation projects underwent and/or are undergoing analysis, the state legislatures have embraced the projects with authorizing legislation providing the necessary public-private partnership funding mechanisms, and the states are moving forward with pursuing the development of the projects.

Canal Road Connector

Description

The Alliance region serves as a key gateway to the nation for trade with Latin America as LATTs so strongly demonstrated. Because of its strategic location in the Gulf region, Mississippi provides critical access to Latin American markets. The Port of Gulf Port positions the state to be a primary beneficiary of projected increased trade with Latin America. It also positions the state to sustain tremendous demands on its transportation infrastructure as evidenced by Exhibit 12. Exhibit 12 highlights the significant north/south movement of goods via the highway system and within the state of Mississippi, much of which is a result of Latin American trade.⁷

Exhibit 12: Freight Flows



⁷ FHWA. Office of Operations. Freight Professional Development. State Freight Profiles. Freight Analysis Framework, Transportation. Website.

Exhibit 13 provides information on freight shipments that move through Mississippi. Some goods originate, some terminate and others simply pass through the state. Regardless, the ability to accommodate the projected increase in goods movement is vital to the economic prosperity of the state. Trucks moved a large percentage of the tonnage and value of shipments, followed by rail and waterborne commerce. Exhibit 13 also highlights the projected increase in freight shipments through 2020.⁸

Exhibit 13: Freight Shipments

	Tons (millions)			Value (billions \$)		
	1998	2010	2020	1998	2010	2020
State Total	262	376	459	168	325	509
By Mode						
Air	<1	<1	<1	2	5	9
Highway	173	257	321	148	289	454
Other ^a	25	34	38	3	5	7
Rail	31	43	53	9	17	26
Water	33	42	48	5	9	13
By Destination/Market						
Domestic	229	328	401	157	303	472
International	33	48	58	11	22	37

^a Includes international shipments that moved via pipeline or by an unspecified mode.

Truck traffic is expected to grow throughout the state over the next 20 years as shown. Truck traffic moving to and from Mississippi accounted for 12 percent of the average annual daily truck traffic (AADTT) on the Freight Analytical Framework's (FAF) statewide road network. Approximately 8 percent of truck traffic involved in-state shipments, and 33 percent involved trucks traveling across the state to other markets. It is likely that truck traffic along key trade corridors such as Canal road comprises significantly more of the total traffic. Exhibit 14 illustrates the estimated AADT on Mississippi roads by 2020.

⁸ Ibid

Exhibit 14: Estimated AADT: 2020

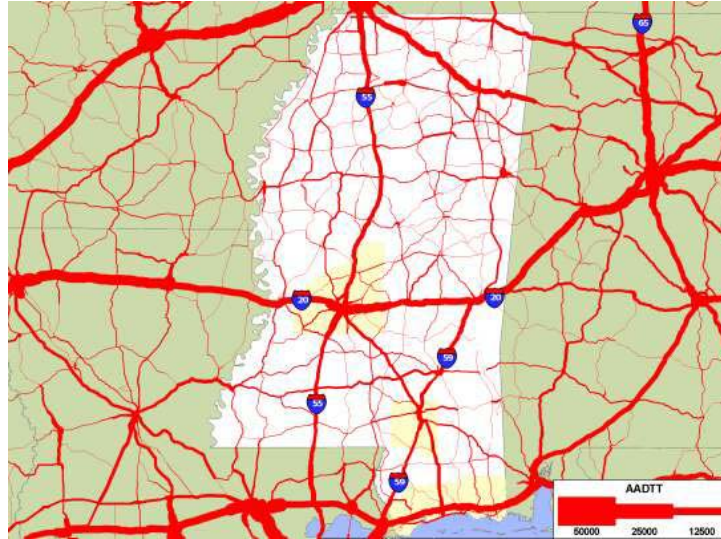


Exhibit 15 shows the top five commodity groups shipped to, from, and within Mississippi by all modes. The top commodities by weight are lumber or wood products and secondary traffic. By value, secondary traffic is the top commodity. Secondary traffic is defined as freight flows to and from distribution centers or through intermodal facilities. No commodities are assigned to this intermediate step in the transportation process.⁹

Exhibit 15: Commodity Groups

Commodity	Tons (millions)		Commodity	Value (billions \$)	
	1998	2020		1998	2020
Lumber/Wood Products	46	85	Secondary Traffic	35	144
Secondary Traffic	34	93	Chemicals/Allied Products	22	53
Crude Petroleum/Natural Gas	24	35	Lumber/Wood Products	17	55
Nonmetallic Minerals	23	24	Food/Kindred Products	16	55
Farm Products	23	28	Transportation Equipment	11	25

The breakdown of commodity freight flow information highlights the importance of freight movement to regional, national and international trade opportunities. In addition, the freight flow information provides the necessary tools to conceptualize and communicate the importance of freight and its relationship to trade, thus providing the necessary vision and rationale for supporting the necessary investments.

⁹ FHWA. Office of Operations. Freight Professional Development. State Freight Profiles. Freight Analysis Framework, Transportation. Website.

Canal Road Connector

The Canal Road is a National Highway System (NHS) Intermodal Connector from I-10 to the Port of Gulfport, in Gulfport, Mississippi. The route was designated a State Highway by the Mississippi Legislature in the Gaming Infrastructure Program, thus making the route eligible for state and federal funding. The 2002 Mississippi Legislature included the route in *Vision-21* (a \$3.5 billion 20-year highway construction program). The program includes extending Canal Road north to bypass the highly developed coastal area along US-49 in Gulfport. The entire new route would be constructed to Interstate highway standards with full access control.

The Federal Highway Administrator, Mary Peters, stated during a Canal Road Intermodal Connector Meeting on Tuesday, October 21, 2003, in Gulfport, Mississippi, “...*this is an important project. It is a much needed connection between Interstate 10 and the Port of Gulfport and the project qualifies for regular federal aid, but it is an expensive one for Mississippi Department of Transportation (MDOT) to undertake. Partnerships are crucial. Federal, state, and local leaders must work together to get Canal Road and other projects funded and built. Intermodal corridors are the key to future mobility. We need every mode, working together because freight is the heartbeat of our economy, and we can't let bottlenecks persist. Sometimes you do need concrete, asphalt, and steel.*”

The Federal Highway Administration has approved the previously submitted environmental/location document for the Canal Road Connector. However, MDOT does not have adequate funding available in *Vision-21* for early construction of the route. Therefore, they are considering either a state owned toll facility or a private/public financing toll facility to expedite the construction of the facility.

Background

- In the mid 1990's each state was required to designate the NHS Intermodal connectors. MDOT designated US-49 from I-10 south to the Port of Gulfport as an Intermodal Connector (IC).
- Because the truck freight at the Port was sufficient to justify 2 ICs, MDOT designated Canal Road & 28th Street as an additional IC to the Port.
- The MS Legislature created the *Gaming Infrastructure Program* in 1995. They designated 25% of the state gaming tax to the program (2% of gross gambling receipts) and directed the funds to MDOT. As part of this program, the Legislature also designated where the money should be spent. They designated some specific routes and in some areas required various intersection improvements. Canal Road was one of the designated routes.
- The Legislature also allocated \$6 million of Economic Development funds to the Canal Road project.
- The MDOT proceeded with the environmental analysis and concluded the route should be “full access control” Interstate design standards (cost approximately \$300 million).
- The Legislature later (1998 or 1999) required MDOT to have an independent priority study done for the Gaming Roads. The *Gaming Infrastructure Program* required the first \$36 million of tax revenue to go for construction and everything

- over that amount to be for maintenance. They also required MDOT to sell \$300 million in bonds to expedite the program. The expiration of the tax was 2012.
- MDOT conducted the priority study. Projects were then scheduled based on this study. The *Gaming Infrastructure Program* will generate about \$600 million in construction revenues and projects designated by the Legislature totaled about \$1.2 billion.
 - The mandated priority schedule used all the *Gaming Infrastructure Program* revenue before Canal Road could be programmed for construction.
 - In 2002 the Legislature enacted *Vision-21*, a \$3.6 billion, 20 year, 4-lane highway construction program.
 - *Vision-21* merged the *Gaming Infrastructure Program*, Phase IV of the 1987 Highway Program, and included routes recommended by the MDOT as needing capacity improvement during the period 2005 thru 2015. Canal Road is included in the \$3.6 billion.
 - The current *Vision-21* schedule for Canal Road is 2014 & 2016.
 - MDOT hired *Wilbur Smith Associates* (WSA) to conduct a toll feasibility study for Canal Road in October 2003. Preliminary information is due MDOT December 2003, so they can approach the 2004 Legislature in January to get authority to establish toll roads and authority for Design/Build.

Toll Feasibility Study

A preliminary feasibility analysis and technical assistance for the Canal Road Connector and I-10 preliminary toll feasibility analysis are currently underway. The primary objective for the two toll feasibility analysis is that the results will serve as a basis upon which the state legislature can pass laws enabling toll authorities and projects.

Canal Road Connector

The project consists of two distinct elements:

- A project extending from south of US-90 to I-10, Harrison County, Mississippi.
- A longer project extending from south of US-90 to US-49 north of the community of Lyman, Harrison County, Mississippi.

The study will determine toll feasibility and estimated financial analysis of expected revenues from tolls for both project segments. The location/route for the second project, also in Vision-21 has not been decided; therefore, only a corridor level analysis will be conducted for the portion north of I-10. A general alignment of the Canal Road Connector is shown in Exhibit 16 to highlight the geographical area being considered.

I-10 in Mississippi

A preliminary toll feasibility analysis of several project alternatives and tolling strategies along this route is also underway. The current study will establish the general conditions under which the Interstate would most successfully perform as a toll facility. The intent is to evaluate the eligibility of this route for one of the allowed TEA-21 existing Interstate toll pilot projects. If the analysis indicates that tolling may be a variable option, then the next step is for MDOT to submit an application to FHWA. Should the project move

forward based upon the findings of the feasibility study and successful application, an investment grade traffic and revenue study will be necessary.

Exhibit 16: Canal Road Connector



Figure 1 Proposed Project Alignment

Socio-Economic Drivers

The study area is located in Harrison County along the Mississippi Coast. The socio-economic drivers pushing the development/expansion of the Canal Road connector from I-10 to the Port of Gulfport include¹⁰:

- The Mississippi Coast is home to over 12,000 businesses with 7,000 concentrated in Harrison County.
- Five key growth areas include gaming tourism, manufacturing/distribution, military/federal installations, retail, and transportation.
- The Biloxi-Gulfport-Pascagoula MSA population is estimated at 369,447 residents with over 190,000 of these residents residing in Harrison County.
- Population estimates for this region are expected to surpass 470,000 by 2005.
- Harrison County gaming revenue totaled \$1,091,875,357 in 2002, a 3% increase from 2001.
- The provision of \$42,170,298 in gaming tax receipts for the County, a 3.2% increase from 2001.

¹⁰ Harrison County Mississippi Development Commission

International Trade Activity

Mississippi Coast Foreign Trade Zone totaled \$3.2 billion in 2002.

Port tonnage in 2002 was 2,133,724, a 5% increase from 2001.

Growing trade reported with Cuba, Central & Latin America and Russia.

Top exports include frozen poultry, cotton, paper products, textiles and apparel.

Top imports include apparel, mineral ores, lumber, forest products, aluminum and steel.

Interstate 10 Section 1216(b) application assistance

TEA-21 under section 1216(b) provides the opportunity for the designation of selected Interstate routes as Toll Pilot Projects. Interstate 10 meets many if not all of the criteria appropriate for this designation. It is a critical link in national and international trade and future projects support its continued growth in travel demand and importance, alone. Mississippi will not be able to finance the improvements necessary to maintain a suitable level of service, and it is ideally situated to support toll operations for Interstate travel. Following this work, the MDOT may authorize WSA to assist the Department in the preparation of the application called for in fulfillment of Section 1216(b). Because the development of a toll facility is a lengthy process involving the enactment of state legislation and the involvement of financial agencies and others, approval as a Toll Pilot Project may be given on a preliminary or provisional basis to allow planning to continue while final approval is contingent on final agreement by all parties.

Summary

The state of Mississippi understands the significant role they have in maintaining a reliable, efficient and cost effective transportation system that supports an expanding multimodal freight system. Ensuring a seamless and efficient system is critical to maintaining a competitive advantage for the port and the state as a whole. By reducing the cost of transportation and improving the reliability of the system, the DOT can help advance economic development and trade. MSDOT is currently undertaking the analysis necessary to evaluate the opportunity for public-private partnerships to support this major investment.

Trans Texas Corridor Plan

Description

Texas serves geographically as the funnel for a majority of the commodity flows to and from Mexico and other Latin American and global destinations. As demonstrated in Exhibit 17, the state is a gateway for Latin American trade that flows throughout the rest of the Alliance region and the U.S. as a whole.

Exhibit 17: Freight Flows

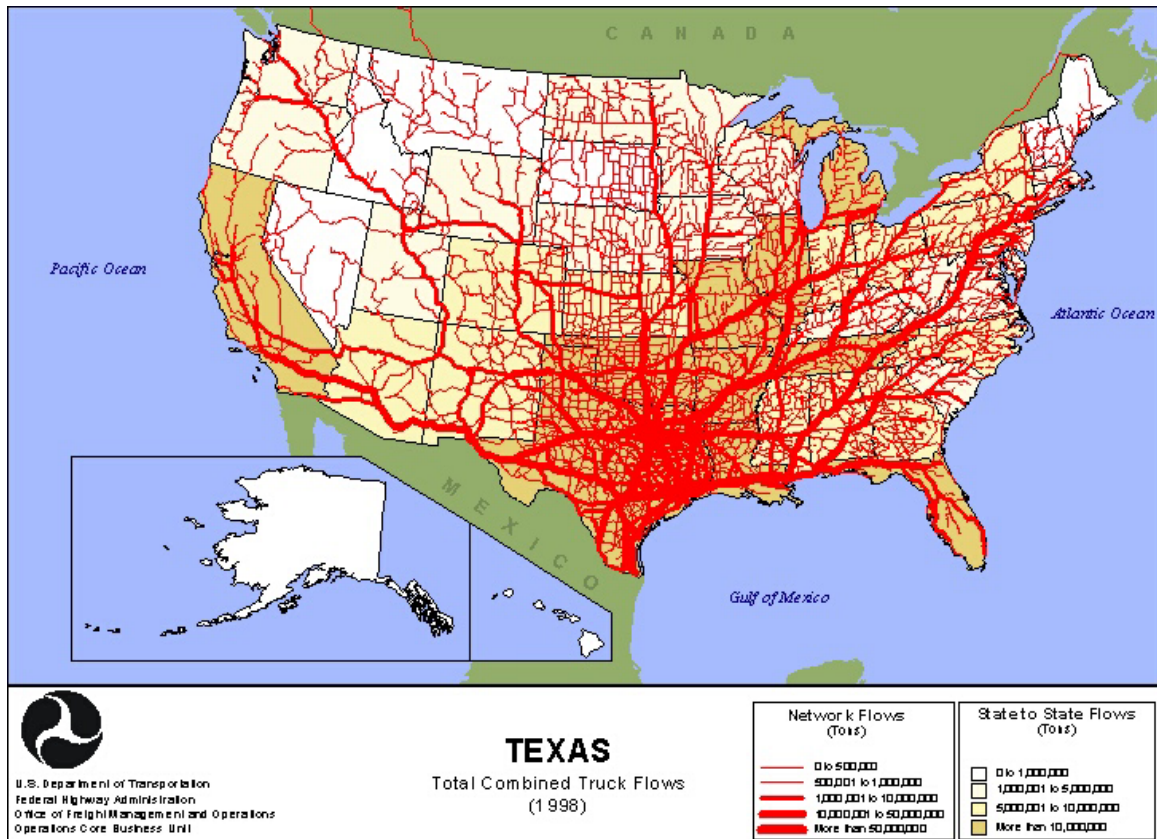


Exhibit 18 presents information on freight shipments that have either an origin or a destination in Texas. As shown, trucks moved a large percentage of the tonnage and value of shipments, followed by rail. Truck traffic is expected to grow throughout the state over the next 20 years. Much of the growth will occur in urban areas and on the Interstate highway system. On average, truck traffic moving to and from Texas accounted for 20 percent of the AADTT on the FAF road network. Approximately 27 percent of truck traffic involved in-state shipments, and 13 percent involved trucks traveling across the state to other markets. The top commodities by weight are products related to natural resources and minerals. By value, the top commodities are chemical products and transportation equipment.¹¹

¹¹ FHWA. Office of Operations. Freight Professional Development. State Freight Profiles. Freight Analysis Framework, Transportation. Website.

Exhibit 18: Freight Shipments

	Tons (millions)			Value (billions \$)		
	1998	2010	2020	1998	2010	2020
State Total	1,764	1,376	2,625	2,347	1,428	3,673
By Mode						
Air	2	4	5	113	265	472
Highway	1,008	1,483	1,872	841	1,681	2,756
Other ^a	358	424	485	46	65	92
Rail	282	388	473	102	191	295
Water	113	145	155	23	42	12
Grand Total	1,763	2,444	2,990	1,125	2,244	3,627
By Destination/Market						
Domestic	1,258	682	1,749	2,114	892	2,720
International	506	694	876	233	536	953

^a Includes international shipments that moved via pipeline or by an unspecified mode.

International trade moving through Texas is expected to grow at a faster pace than domestic trade over the next 20 years. U.S.-Mexico trade crossing the state's numerous border facilities will be one of the fastest growing segments. Exhibit 19 shows the average annual percent change in volume of goods traded between the U.S. and Mexico.¹²

Exhibit 19: Change in Volume of Goods Traded

			Average Annual % Change	
1980	1990	2000	1980-1990	1990-2000
\$28 Billion	\$58 Billion	\$207 Billion	7.6%	13.6%

Trans Texas Corridor

The Trans Texas Corridor Plan outlines a very aggressive "new vision" for a new multi-use, statewide transportation corridor that moves people and goods safely, efficiently, and more reliably, while improving quality of life. The Trans Texas Corridor Plan provides a design concept, identifies four priority corridor segments, details the financial tools necessary to make it happen, and addresses the importance of public private partnerships. The concept would be connected by a 4,000 mile network of corridors up to 1,200 feet wide with separate lanes for passenger vehicles (three in each direction) and trucks (two in each direction). The corridor would also include six rail lines (three in each direction), one for high-speed passenger rail between cities, one for high-speed freight, and one for conventional commuter and freight. The third component of the corridor would be a 200-foot-wide dedicated utility zone for the transmission of electricity, natural gas, petroleum, data, and most importantly water.¹³

¹² Laredo Development Foundation

¹³ http://www.dot.state.tx.us/ttc/ttc_report_summary.pdf

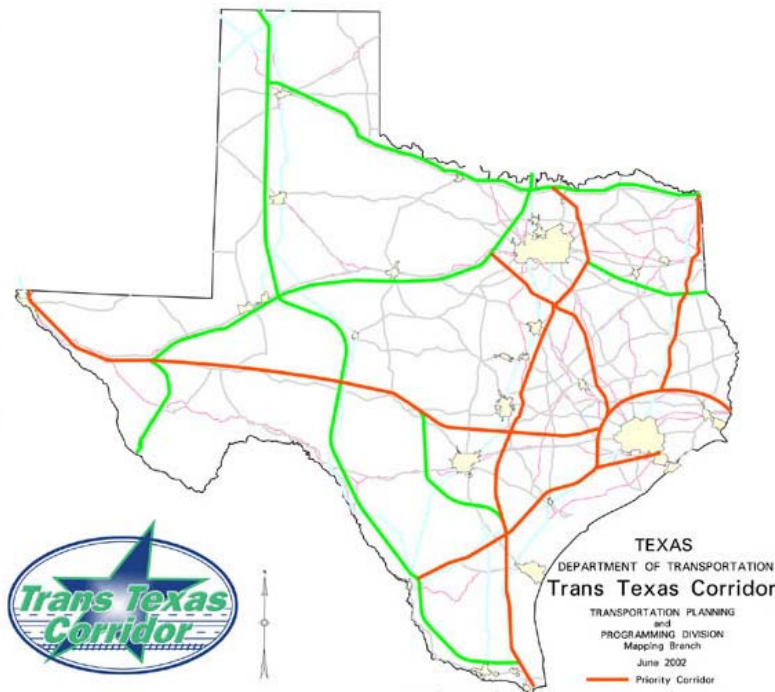
Separating passenger vehicle and truck lanes to benefit the public is fundamental to the corridor's overall design. To avoid contributing to urban congestion, the corridor would link major cities but not flow directly through them. The corridor would also be designed to take advantage of intelligent transportation systems.

Based on an estimated cost of \$31.4 million per centerline mile, the 4,000-mile corridor would cost \$125.5 billion, not including right of way and miscellaneous costs. Factoring in right of way at \$11.7 billion to \$38 billion and miscellaneous costs at \$8 billion to \$20 billion, the estimated total cost for the Trans Texas Corridor would range from \$145.2 billion to \$183.5 billion.¹⁴

The objectives of the Trans Texas Corridor Plan include the ability to move/transport people and freight faster and safer; relieve congested roadways; keep hazardous materials out of populated areas; improve air quality by reducing emissions; and support local and regional economic development and international trade.

Four corridors have been identified as priority segments of the Trans Texas Corridor in Exhibit 20. These corridors parallel I-35, I-37 and I-69 (proposed) from Denison to the Rio Grande Valley, I-69 (proposed) from Texarkana to Houston to Laredo, I-45 from Dallas-Fort Worth to Houston, and I-10 from El Paso to Orange.¹⁵

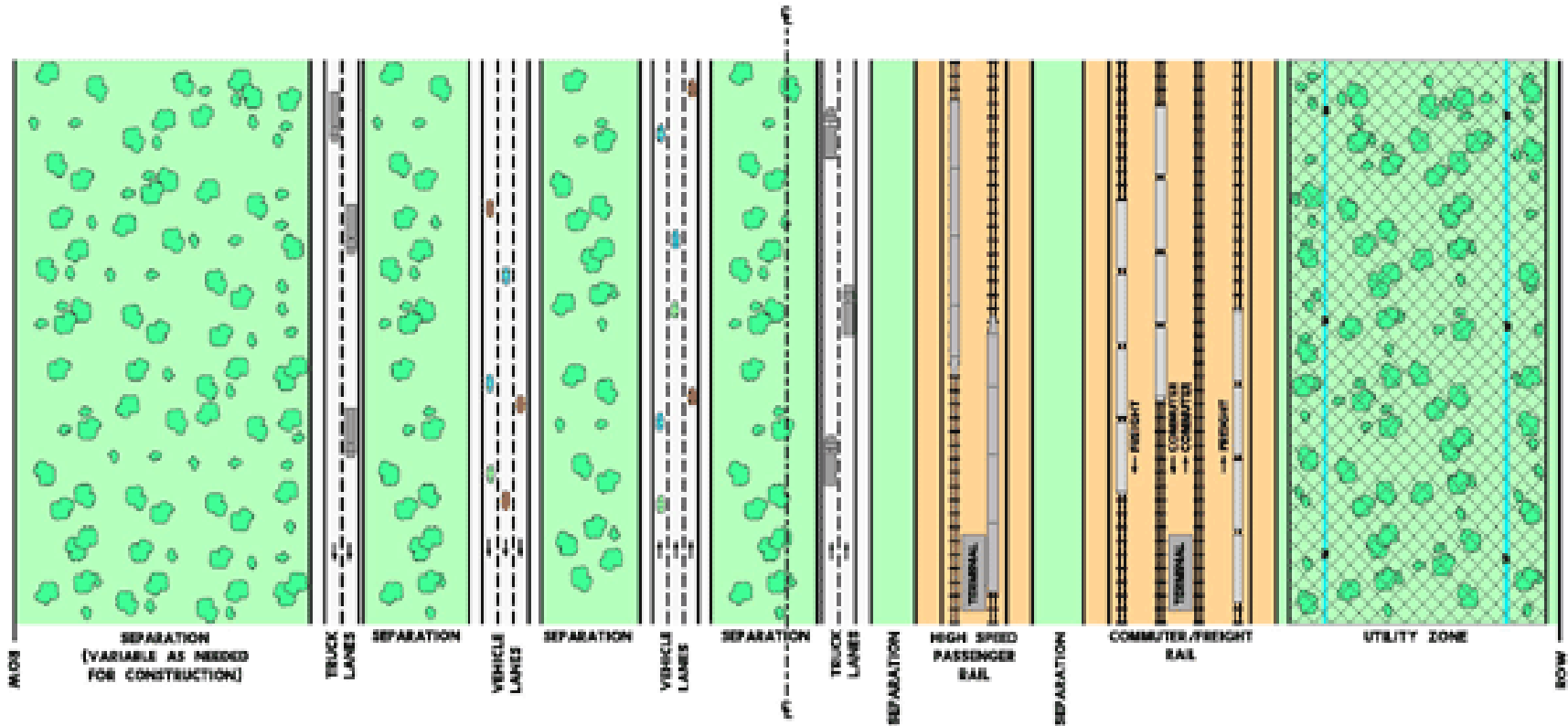
Exhibit 20: Priority Segments



¹⁴ Ibid.

¹⁵ Ibid.

(CONCEPTUAL)
1000' - 1200' CORRIDOR RIGHT OF WAY



Socio-Economic Drivers

“On a typical day, about 205,000 vehicles and 97,000 pedestrians cross the Texas-Mexico Border. The 15,000 commercial trucks and 1,220 railcars that traverse the border daily highlight the importance of international trade to the region and the nation.¹⁶ Goods movement between the U.S. and Mexico has increased steadily and dramatically over the past decades as shown previously in Exhibit 22. The growth rate (in volume) accelerated during the 1990’s to nearly double the growth rate of the 1980’s.¹⁷”

Seventy-nine percent of all U.S.-Mexico trade passes through the Texas ports of entry. Under the North American Free Trade Agreement this trade dynamic will expand even more. In addition, Texas’ population has increased a staggering 65 percent since 1988 and population growth is projected to continue at a rate of 30,000 new residents a month.¹⁸

The movement of goods from the Border has origins and destinations throughout the U.S. that includes major markets on the West Coast, Midwest, Upper Midwest and the East Coast. In addition, the many shopping malls grocery stores, and discount super-centers attest to the numbers of Mexican nationals crossing the border to buy goods. The costs of building and maintaining infrastructure to service international trade, however, remains a challenge.”

Financing Options

Texas voters provided the framework for funding such an aggressive plan in November 2001 when they approved Proposition 15. Proposition 15, a constitutional amendment, allows Texas more flexibility than it has ever had to pay for transportation projects. Proposition 15 includes public-private partnerships called exclusive development agreements, and funding options like toll equity, the Texas Mobility Fund, and Regional Mobility Authorities. Financing options for this aggressive plan would include a combination of these tools.¹⁹

Exclusive Development Agreement – contract between the state and a consortium to perform any or all of the following tasks: design, construct, operate, maintain or finance a transportation project. The state determines the overall need for a project and then considers proposals from competing consortiums on how the final project can be accomplished. The state then can select the consortium that proposes the method offering the best value for the project.

Toll Equity – financing option that makes potential toll projects more viable and can speed up relief from congestion while stretching limited state transportation funds. Toll equity allows state highway funds to be combined with other funding sources to help pay

¹⁶ Keith Phillips and Carlos Manzanares, Transportation Infrastructure and the Border Economy, Federal Reserve Bank of Dallas, June 2001.

¹⁷ Laredo Development Foundation, “Laredo Texas Bordering the Future”, using data from Texas A&M International University.

¹⁸ http://www.dot.state.tx.us/ttc/ttc_report_summary.pdf

¹⁹ http://www.dot.state.tx.us/ttc/ttc_report_summary.pdf.

for toll roads, and makes projects more attractive for additional private sector investment.

Regional Mobility Authority – new mobility authorities that operate much like existing toll authorities, but with additional benefits. These authorities will be initiated on the local level and will have the ability to build, operate and maintain newly-created toll projects.

Texas Mobility Fund – this fund supplements the traditional pay-as-you-go method of financing highway transportation. It allows the Texas Transportation Commission to issue bonds so construction of major highway projects can be accelerated. Funds can be used to finance road construction on the state-maintained highway system, publicly-owned toll roads or other public transportation projects. The state Legislature will need to appropriate funds for the Texas Mobility Fund.

Trans Texas Corridor Plan Development

Interstate 69

Today I-69 connects Indianapolis with the Canadian border at Port Huron, Michigan and Sarnia, Ontario and provides an important link between the lower Midwest and Canada. The dynamic trade corridor that I-69 provides has served as the catalyst for the current plans to extend I-69 much further. The proposed I-69 extension would connect three different border crossings in Texas (Laredo, McAllen, and Brownsville) to I-465 in Indianapolis; from there, traffic would continue over the existing I-69 and other freeways to border crossings in Detroit, Port Huron or Sault Ste. Marie, Michigan. Approximately 1,600 miles of freeway (including the 3 Texas branches) would be added to existing I-69 when it is complete. In some areas, particularly in Kentucky, Mississippi, and Texas, much of I-69 would probably be built as upgrades of existing four-lane highways to modern freeway standards, while in other areas construction on new alignment is likely. In Texas, I-69 is expected to follow existing U.S. 59, 77 and 281, but that was before the Trans Texas Corridor Proposal surfaced with its plans of a new freeway roughly along the same corridors.²⁰

TXDOT and the Federal Highway Administration are funding and managing the necessary corridor studies. Together, eighteen federal, state and other agencies are working to find mutually acceptable transportation solutions along/in the I-69 corridor. Environmental studies in all 14 Texas SIUs (Section of Independent Utility – meaning sections can stand on their own) should be underway by the end of August 2003.²¹

Ports to Plains

One of the corridors identified in the Trans Texas Corridor Plan follows the Ports to Plains Corridor alignment. Because of its direct connection to the Mexican border, the Ports to Plain Corridor was designated by TEA-21 as one of the 43 U.S. high priority corridors. A feasibility study was conducted in 2001. The study area traversed the states of Texas, New Mexico, Oklahoma, and Colorado. It is approximately 800 miles long, with widths varying between approximately eight miles along the IH 27 alignment, and up to 200 miles south along the remainder of the corridor.

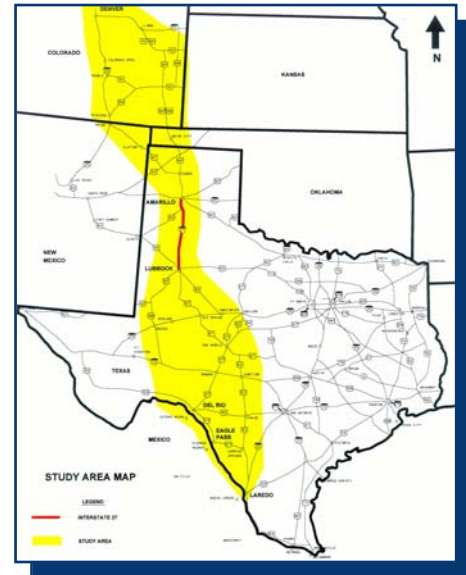
²⁰ <http://www.i69info.com/>

²¹ <http://www.i69corridorstudy.com/central/pooverview/>

Elements of the study included a detailed and comprehensive analysis of various alternative highway alignments throughout the entire corridor. The methodology and procedures were consistent with recent feasibility studies conducted in other high priority corridors. It included: travel demand modeling and forecasting; consideration of NAFTA / international trade flow; economic feasibility analysis, including travel efficiency, economic development, and the benefits for national, state, and corridor perspectives; evaluation of traffic; engineering cost; potential environmental land use impacts; and a public involvement program.

In addition, special consideration was given to impact evaluation of infrastructure and ITS improvements planned at the U.S./Mexico border. The study considered other highway improvements planned throughout the corridor states, as well as proposed transportation improvements and highway connections in Mexico.

In the fall of 2003, a contract was awarded by TXDOT for the preliminary design and costs of developing a specific alignment within this corridor.



Interstate 35

TXDOT issued in July 2003 a call for proposals to acquire, develop, design, construct, finance, maintain, and operate a combination of facilities which together constitute the I-35 High Priority Trans Texas Corridor. The I-35 Project includes facilities which parallel the I-35 corridor and includes portions of the I-37 and I-69 high priority Trans Texas Corridors where necessary for connectivity and financing purposes. The proposed Project includes tolled truck and vehicle lanes, high speed passenger rail, commuter rail, freight rail and utility infrastructure and may also include intermodal facilities. TXDOT is currently developing the specific contractual relationship for development of the Project that will be set forth in a Comprehensive Development Agreement. TXDOT's current vision is that the successful Proposer will become a long-term strategic development partner with TXDOT, helping the agency analyze, identify, plan and finance Project facilities and develop the Project on a multi-modal, multi-facility basis over the short-term, mid-term and long-term.²²

Financing Tools

Texas voters provided the framework for funding transportation infrastructure in November 2001 when they approved Proposition 15. Proposition 15, a constitutional amendment, allows Texas more flexibility than it has ever had to pay for transportation projects. Proposition 15 includes public-private partnerships called exclusive development agreements, and funding options like toll equity, the Texas Mobility Fund, and Regional Mobility Authorities.

²² <http://www.dot.state.tx.us/tta/profserv/i35/default.htm>

New Proposed Rules for Regional Mobility Authorities (RMA) and toll roads were presented in 2003. The Texas Transportation Commission (TTC) was seeking public comment on proposed rules allowing TXDOT to convert non-tolled highways to toll facilities. Through an RMA, counties can establish an authority to develop, construct and maintain local turnpike projects as part of the state highway system.

In 2002 the commission approved the state's first RMA to serve Travis and Williamson counties. In August 2003, \$63.2 million was provided for construction contract putting nearly half of the SH 45 north toll road under construction serving these two counties. The TTC is seeking a public/private partnership to expedite/ fast track SH 45 southeast – a candidate toll road project connecting I-35 and SH 130/U.S. 183. In addition, House Bill 3588 signed into law in June 2003 provides new financial tools to expedite needed construction. The new law allows TXDOT to enter into comprehensive development agreements with a private entity for the design, construction, financing, maintenance or operation of a turnpike project.

Summary

TXDOT with their new funding mechanisms are moving forward with the development of the Trans Texas Corridor Plan on several fronts one corridor segment at a time. Four corridors have been identified as priority segments of the Trans Texas Corridor. These corridors were prioritized based on previous analysis and studies. Now that the strategic corridors have been identified and the authorization for public-private partnerships in place, TXDOT has begun the process of soliciting for private sector partners.

The authorizing legislation also put more control in the hands of communities by delegating power to local authorities (Regional Mobility Authorities) and giving them ways to fund projects.

Drafting the Future has provided a two pronged approach in meeting the investment needs of the State's transportation system -- a top down approach by the State and a bottom up approach for local communities, where both can take on the necessary planning, development and public-private partnerships.

Interstate 81 Development Plan



Description

Virginia, the most northern state in the Alliance Region on the East coast, receives and distributes freight in all directions. A good portion of the goods moving to, from and within the state via the highway system flow through the Alliance Region as shown in Exhibit 21. The map also highlights the important role of I-81 in the movement of freight in the Eastern region of the U.S.²³

Exhibit 21: Freight Flows

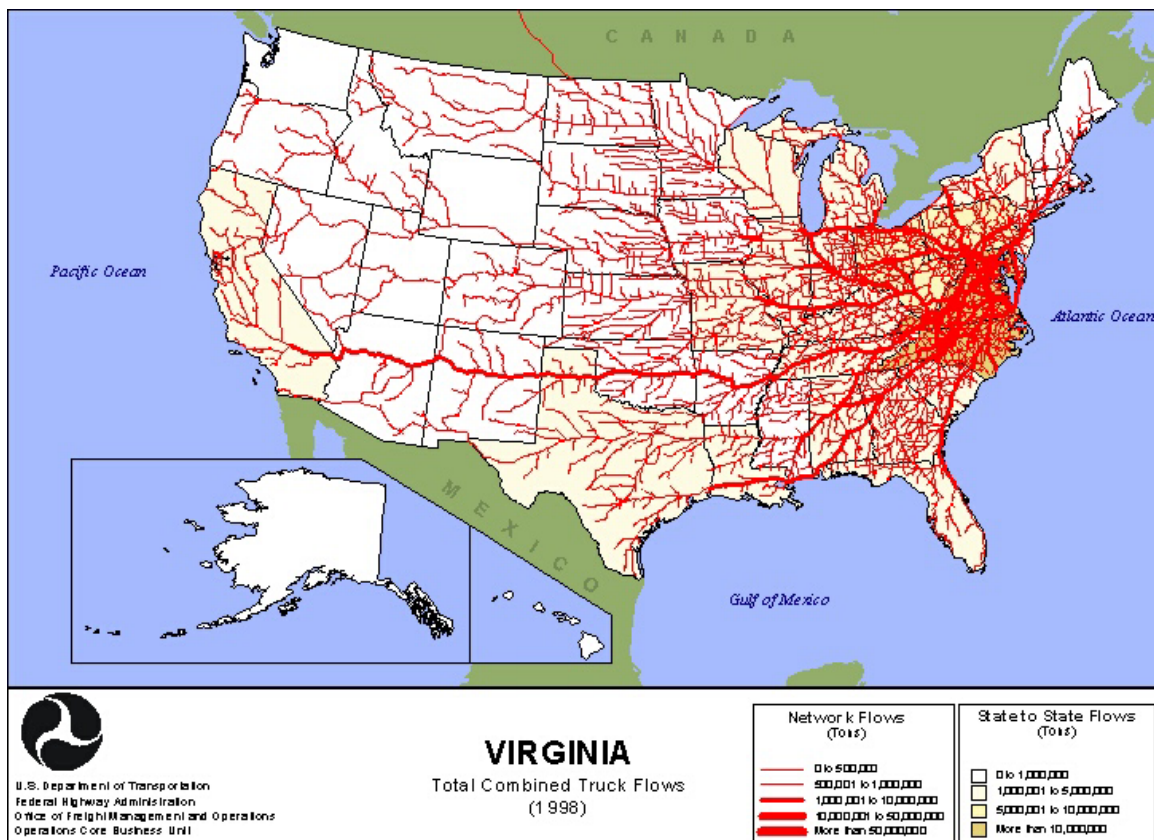


Exhibit 22 provides information on freight shipments that have either an origin or a destination in Virginia. As shown, trucks moved a large percentage of the tonnage and value of shipments, followed by rail (tonnage) and air (value). Truck traffic is expected to grow throughout the state over the next 20 years.

The top commodities by weight shipped to, from, and within Virginia by all modes are

²³ FHWA. Office of Operations. Freight Professional Development. State Freight Profiles. Freight Analysis Framework, Transportation. Website.

nonmetallic minerals and coal. By value, the top commodities are transportation equipment and secondary traffic. Secondary traffic is defined as freight flows to and from distribution centers or through intermodal facilities.²⁴

Exhibit 22: Freight Shipments

	Tons (millions)			Value (billions \$)		
	1998	2010	2020	1998	2010	2020
State Total	530	753	904	346	680	1,115
By Mode						
Air	<1	1	1	30	73	129
Highway	339	495	612	290	560	914
Other ^a	9	13	16	1	2	3
Rail	158	209	234	19	33	52
Water	24	34	40	5	11	17
By Destination/Market						
Domestic	457	647	777	290	567	915
International	73	105	126	56	113	200

^a Includes international shipments that moved via pipeline or by an unspecified mode.

I-81

I-81 is a major trade/commercial truck route in the U.S., linking the population centers of the northeastern U.S. and Canada with the Alliance states, Southern Gulf Ports and South America. It is one of the top eight routes in the U.S. for carrying commercial truck traffic.

In Virginia, it extends along the western portion of the state, from the Tennessee border in the south to the West Virginia border in the north, a total of 325 miles. It has 90 interchanges and connects with Interstates 66, 64, 581, 77 and 381 as it travels through 21 cities and towns and 12 counties. There are no HOV lanes or truck/commercial lanes on the existing highway.

The majority of Virginia's portion of I-81 is a divided highway with two lanes in each direction as it traverses the Shenandoah Valley with rolling and mountainous terrain. I-81 in Virginia has been declared, by the American Automobile Association, as one of the ten most scenic highways in the U.S.

I-81 is significant to the area's transportation needs for several reasons. It provides mobility to commuters traveling and working in the New River and Roanoke Valleys, and to the students and supporters of the many colleges and universities throughout the corridor, such as Virginia Tech (25,420 students) and James Madison University (15,152 students). Additionally, there are many historic and natural resources along this route, which results in a large volume of tourist and recreational vehicles.

²⁴ Ibid.

As a result of these varied uses, mixed use traffic congestion causes major safety concerns as well as lost economic dollars to the Alliance states and the U.S. Furthermore, the terrain complicates the congestion problem where long steep upgrades use the total capacity of the right-most lane as heavy truck traffic creeps uphill. This combination creates inefficiency in the movement of people and the delivery of raw material and goods through the trade corridor.

Safety and Congestion

I-81 is widely recognized as one of the most dangerous transportation corridors in the nation, primarily because of the high rate of accidents. During a recent 18-month period, there were 2,681 total accidents on I-81 with 41 deaths and 1,528 total injuries. Of that total, 825 were accidents involving commercial trucks resulting in 15 deaths and 449 injuries.

Some of the safety issues along this route result from the design, which was completed 40 years ago when traffic volumes were less, especially those of commercial trucks.

Congestion is also a major issue during non-peak hours when speeds frequently slow to 30 mph or less. Additionally, traffic caused by the students, parents, faculty, alumni and supporters of the many colleges and universities throughout the corridor, especially during peak times in the school year such as “move in,” graduation and sporting events, exacerbate traffic problems on the interstate.

The traffic volume on I-81 is extremely heavy and currently ranges from 32,000 ADT to 64,000 ADT. Originally, the design anticipated only 15% truck traffic. However, since the completion, traffic has tripled and the commercial truck traffic is in the range of 20% to 37%. Overall traffic growth is expected to be 3.5% annually, with truck traffic increasing at 4.5% annually. The peak level of service throughout the corridor is a C or better except for two locations. By the year 2010, however, approximately one-third of I-81 will be at a level D, or worse, along with many ramps, ramp junctions and intersections having stop and go traffic conditions. The result of decreasing service levels will be effectively reduced operating speeds through large segments of the corridor.

I-81 Condition

Virginia’s portion of I-81 is between thirty and forty years old. Construction began in December 1957 and by the end of 1966 a total of 214 miles of Route 81 was opened to traffic. The last section of Virginia’s portion was opened to traffic on December 21, 1971, thus completing the entire 325 miles of the interstate.

The overall state of the facility is fair to poor, based on many factors including: pavement conditions, bridge conditions and appraisal ratings, safety issues, level of service, and maintenance expenditures. The majority of the bridge structures along I-81 are in fair condition. Eighty-nine percent of the bridges were built before 1970 with 26% of the bridges being over 40 years old. Eighteen of the bridges are structurally deficient, while 64 of the 291 main-line bridges are functionally obsolete.

In 2000, the estimated cost per mile for all interstate maintenance in Virginia was \$21,800 per lane mile. The Maintenance Division was projecting that the maintenance cost per interstate lane mile in 2001 would be \$29,000. For I-81, the annual maintenance per mile was higher and amounts to approximately \$32,500.

Virginia's Improvement Methodology

VDOT conducted a study of the entire corridor which was completed in 1999. As a result of this study, VDOT planned to improve the facility to a 6-lane divided highway at an estimated cost of \$3.4 billion. The current amount of funding available from 2003 on would be approximately \$35 million annually for the next six years.

Using normal funding methods, the widening and rehabilitation of Virginia's 325 miles would take 30 to 50 years. During this time the highway would become increasingly inefficient and extremely dangerous.

Innovative Design

A consortium of developers, contractors, and engineer's s, proposed to design, build, finance, operate, maintain, and transfer a rehabilitated and widened I-81 in Virginia.

A primary component of the plans was to separate the commercial truck traffic from the other traffic. The typical section would be a minimum of 4 lanes, with the two inside lanes dedicated to commercial trucks and the two outside lanes for the other vehicles. A four foot rumble strip would separate the lanes. There would be dual interchanges separating commercial trucks and other vehicles at the five interstate connections and at other interchanges that have a high volume of trucks. Truck rest areas would be built in the median and weight-in-motion would be accomplished in the pavement area with violators addressed at nearby rest areas.



Innovative Financing Plan

The finance plan would use several sources of funds. State and Federal funds would be supplemented with a toll on commercial trucks. This tolling would be accomplished using state of the art technology without booths. Toll readers would be placed at all truck entrances and exits and tolling would be only for the miles traveled.

These 325 miles cannot otherwise be functionally improved without the collection of tolls because current Federal and State funding is not adequate to improve the facility in the foreseeable future.

Federal earmarks for the entire improvement to I-81 are not realistic in light of current interstate reconstruction needs across the United States. The use of state bonds to improve the entire facility would greatly impact Virginia's bond capacity and could jeopardize its AAA bond rating. Due to the immediate need to increase capacity and improve safety for the entire corridor, the state cannot wait 30 to 50 years to improve I-81. Consequently, a combination of State and Federal funds, along with toll revenue bonds, offers the best case for funding an improved I-81. This approach, along with Virginia's ability to work with private companies through the Public Private Transportation Act, would deliver this project in 15 years as opposed to the 30 to 50 years under normal financing.

The tolling of vehicles on Interstate Roads in Virginia required enabling legislation which was enacted by the Virginia General Assembly in the 2002 session. This legislation specifically prohibits the tolling of passenger vehicles.

Other Innovative Initiatives

The plans address other innovative ideas which would benefit those traveling along I-81 and the citizens of Virginia. There would be a twenty-year pavement warranty on both the commercial truck and other vehicle lanes. This would effectively reduce maintenance cost and delays associated with pavement rehabilitation.

Additionally, the consortium would provide a fixed cost and schedule for this route. The fixed schedule would provide for completion of the entire 325 miles in 15 years from the date of the execution of a comprehensive agreement.

Other options within the plan include installing, maintaining and leasing fiber optic cable along the entire roadway and the operation and maintenance of an Intelligent Transportation System.

Asset Management of the existing and reconstructed facility and of the existing rest areas is included.

Development Plans

Two proposals to enter into public-private partnerships with VDOT have been submitted by two large consortiums that include engineering, financial and construction professionals -- STAR Solutions and Fluor -- to improve Interstate 81 in Virginia. Both proposals can be found on the VDOT website: <http://www.virginiadot.org/>.

Both proposals were submitted to affected jurisdictions along the I-81 corridor in Virginia for review and comment over a 60 day period as authorized by Virginia's Public Private Transportation Act (PPTA) of 1995. This action highlights the very important integration/involvement process of the community stakeholders along the I-81 corridor. The STAR proposal won the recommendation of VDOT.

Virginia's PPTA allows private industry to propose innovative solutions to the state's transportation needs at a time when declining state revenues had brought severe transportation budget cuts. The PPTA of 1995 was amended in 2002 by the Virginia General Assembly to remove the restriction on tolls on existing interstates. This amendment allows for a toll on trucks to help finance the much needed improvements to I-81 and helped bring Virginia law in line with legislation adopted by Congress in 1998 that created a pilot program to permit tolls on existing interstates. Under the pilot program, tolls may be levied on an existing interstate if the funds would be used exclusively to support reconstruction and improvements to that road.

Rail Plan

Both proposals include plans for the multi-modal use of rail to divert freight. Improvements to the existing rail line would give the Norfolk Southern network the capacity it needs to divert 500,000 to 560,000 trailers per year from I-81. Additionally the improvements would provide Virginia Railway Express (VRE) with the rail capacity to implement a portion of its strategic plan and extend commuter service from northern Virginia to the Haymarket area. Under the Fluor team's proposal for example, rail improvements would be financed through a surcharge on freight cars traveling on the rail

lines through Manassas. The new proposed surcharge would be significantly less than the toll proposed for commercial traffic on I-81. New revenues would help secure a federal loan pursuant to the Railroad Rehabilitation and Improvement Finance program administered by the Federal Railroad Administration.

Economic Stimulus

Improvements to I-81 could provide an economic stimulus for the entire I-81 corridor. One recent study by the American Road and Transportation Builders Association estimates that 34,437 jobs are generated by every \$1 billion spent on transportation projects. In a number of communities along the route, unemployment far exceeds the state and national average, so new jobs would be welcome. In addition, spending in localities would also boost local and state tax revenues.

Just-in-time delivery is becoming more important to businesses, and delays caused by accidents and congestion impair efficiency and could make the region less attractive to business prospects. Improvement development plan for I-81 is timely.

Summary

The Commonwealth of Virginia understands the significant role they have in maintaining a reliable, efficient and cost effective transportation system that supports an expanding multimodal freight system to enhance economic development and trade. By understanding their role, the state articulated a vision based on a study of the entire corridor. The Legislature demonstrated their support for this vision by amending the Virginia Public Private Transportation Act (PPTA) of 1995 in 2002 to remove the restriction on tolls on existing interstates.

VDOT with development plan, analysis and funding mechanisms in place has solicited proposals from the private sector to include the design, construction, financing, maintenance and operation of this project.

Funding Strategies for the Future

Transportation investments needs continue to outpace the growth in transportation funding. As Latin American and other international trade continue to increase, the ability of the Alliance region to compete in the global marketplace will hinge on its ability to properly fund its transportation system. The current report provides evidence of slow or stagnant growth in motor fuel tax rates, the primary source of funding for public transportation investments. Furthermore, the states have aggressively pursued alternative means of funding much needed infrastructure by participating in the federal programs aimed at expanding financing opportunities. The Alliance region has been a leader in the use of SIBs and TIFIA loans. Still, it is not enough. As a result, the states are now more actively pursuing innovative uses of tolls. In particular, two projects currently underway in the region will have potentially dramatic impacts on the future of transportation and trade related investments. The Trans Texas corridor and the I-81 initiative in Virginia are a major departure from the traditional way of approaching transportation projects.

Despite the intensive use of innovative methods established by federal legislation, the transportation needs will continue to outpace the available revenue. After all, these programs did not provide for new revenue streams but simply allowed DOTs to treat the same pot of money in a different manner. However, the same dollar can only do so many tricks.

The Alliance region, via its aggressive utilization of innovative financing practices has demonstrated the need for increased funding. The sources for the increased funding include:

- Increases in the motor fuel tax rates
- Development of alternative mileage based user fees
- Increases in public-private partnerships

An Increase in the motor fuel tax rates is the most critical source of increased funding. Evidence demonstrates that despite the unquestionable need for added capacity and deterioration of our current system, politicians have been reluctant to increase tax rates to fund critical investments. LATTs has established the necessity of these investments to the future economic vitality of the region and the nation. The states have done their part by embracing and actively participating in other potential solutions such as SIBs, TIFIAs, GARVEEs and other fund management tools and there are still unmet needs. Therefore, the DOTs should unite and make a call for increases to motor fuel tax rates.

However, due to the increased pressures and incentives to decrease our reliance on gasoline, an increase in motor fuel tax rates alone is not adequate. The efforts impacting motor fuel usage include mandated fuel efficiencies, incentives for alternative fuel vehicles and increased funding for mass public transportation. The effect of these programs is to lower the consumption of gasoline, thus lowering the tax revenue generated. Therefore, it is important that the Alliance states rely not just on gasoline taxes but that they also unite in their promotion of the development of alternative mileage based user fees. The key is that new user fees should be mileage based as opposed to the more generic user fees such as the current vehicle registration fee. To

the extent that this effort is successful, the new user fee could replace revenue loss due to future declines in gasoline usage.

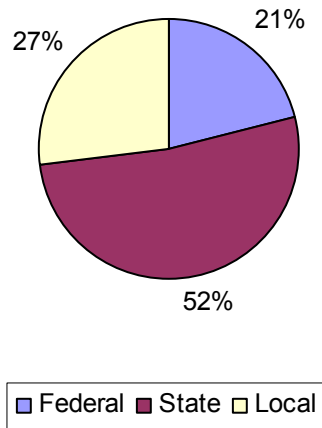
Another important financing strategy for the future is public-private partnerships. PPP will continue to increase in popularity for a variety of reasons including insufficient public funding and the increasingly multimodal nature of necessary investments. As the significance of freight traffic increases, the need to make investment decisions involving two or modes, including both public and private, will increase. Therefore, taxpayers will demand that the cost and risk of these investments be shared among the potential beneficiaries.

Appendix A

Innovative Management of Federal Funds

Historically, Federal funds accounted for 21 percent of total highway spending while state contributed the majority or 52%. Exhibit 23 provides a breakdown of highway funding by governmental unit. It is important to note that for capital improvement projects, the Federal aid share increases to 41% and the remainder funded by state and local governments.

Exhibit 23: Highway Funding Sources



Innovative management techniques are designed to provide states with greater flexibility in managing Federal-aid highway funds. The principal objective of these management techniques is to ease restrictions on the timing of obligations and reimbursements and create a broader range of options for meeting matching requirements. Sometimes the problem has more to do with how best to align funds' availability with funding needs. For this reason the grant management strategies are commonly termed cash flow tools. Exhibit 24 summarizes the most commonly used federal fund management techniques.

Exhibit 24: Innovative Management	
Technique	What Does It Do?
Advance Construction (AC) And Partial Conversion of Advance Construction (PCAC)	AC allows a state to begin a project even if the state does not currently have sufficient Federal-aid obligation authority to cover the Federal share of project costs. Under PCAC, a state may elect to obligate funds for an advance-constructed project in stages.

	<p>Serve as cash flow management tolls that allow states to begin projects with their own funds in advance of the apportionment of authorized Federal-aid funds.</p> <p>Under AC, states convert advance constructed projects to Federal aid at any time sufficient Federal-aid funds and obligation authority are available, and do so all at once.</p> <p>Under PC, a state may obligate funds for AC projects in stages. PC is particularly useful when a variable revenue stream (e.g., sales taxes, development impact fees, local option taxes, and tolls) is dedicated to the cost of the project. At the start of the project when there is no revenue history, the amount of Federal funding needed by the project may be uncertain.</p> <p>FHWA can approve an AC project at any time provided the project is on the state's transportation improvement program (STIP).</p>
<p>Tapered Match</p>	<p>Non-Federal matching requirement applies to the aggregate cost of a project rather than on a payment by payment basis. This enables the project sponsor to vary the non-Federal share of a Federal-aid project over time, as long as the Federal contribution toward the project does not exceed the Federal-aid limit.</p> <p>Under the tapered match approach, the non-Federal matching ratio is imposed on projects rather than individual payments.</p> <p>States typically find tapered match most useful in cases where the government sponsor of a Federal-aid project lacks sufficient funds to match Federal grants at the start of a project, but expects to accumulate the match over the life of the project. For example, tapered match may benefit a project when a local government has recently enacted a local transportation tax but has not yet begun to collect the revenues.</p>
<p>Flexible Match</p>	<p>Allows a wide variety of public and private contributions to be counted toward the non-Federal match for Federal-aid projects.</p> <p>Allows states to substitute private and other donations of funds, materials, land, and services for the non-Federal share of funding for highway projects, thus</p>

	<p>increasing a state's ability to fund its transportation programs by:</p> <ul style="list-style-type: none">▪ Accelerating certain projects that receive donated resources;▪ Allowing states to reallocate funds that otherwise would have been used to meet Federal-aid matching requirements; and▪ <i>Promoting public-private partnerships</i> by providing incentives to seek private donations. <p>States have found that flexible match is useful in case where a public or private partner (e.g., a sponsor of a new industrial park) has a clear interest in seeing a given project advance and is willing to make a contribution toward the project's construction.</p> <p>There are conditions where other Federal funds, such as Federal Land Management Agencies, can be attached to satisfy the Federal-aid highway matching requirements.</p>
Toll Credits	<p>States may use revenue from toll facilities as a credit towards the non-Federal matching share of certain highway projects.</p> <p>The amount of credit earned is based on toll revenues that the toll authority subsequently spends on eligible expenses for public highway facilities (including bridges, tunnels, and certain ferry systems) that serve interstate commerce. Expenditures for routine maintenance, debt service, or costs of collecting tolls cannot be included.</p> <p>The revenues may derive from toll receipts, concession sales, right-of-way leases, interest earnings, or bond or loan proceeds that are backed by the revenue streams.</p>

Debt Financing

Some transportation projects or programs are so large that their costs exceed available current grant funding and tax receipts, or would consume so much of these current funding sources many other planned projects would be delayed. For this reason, state and local agencies look to finance these large projects through borrowing. The most common method of borrowing is to issue municipal bonds. Although bond financing

imposes interest and other debt related costs, bringing a project to construction more quickly than otherwise possible, can sometime offset these costs.

Repayment of bond financing requires a stream of future revenue stream which can come from a variety of sources. Examples of traditional options include general state and local taxes, fuel taxes or vehicle-related fees, and toll receipts.

In recent years, Federal law has expanded states' ability to tap Federal-aid highway funds as another potential repayment source -- apportioned Federal-aid highway funds. In this variation of a grant anticipation note, states can pledge a share of future Federal highway funding toward payment of debt service on a long-term bond issue.

Bonds repaid with future Federal funds are commonly referred to as *Grant Anticipation Revenue Vehicles* (GARVEES). GARVEEs must be issued by a state, a political subdivision of a state, or a public authority, which includes State Infrastructure Banks (SIBs). There are two types of major GARVEEs, which are based on the structure of the revenue pledge. They are:

- Non-Recourse GARVEEs – States may elect to pledge their obligations of future Federal-aid funds as the only security backing the federal share of the obligation to investors. These issues may carry higher interest rates and therefore be more expensive. The market perceives risk when the pledge of future Federal-aid funds span authorization periods – because there are no guarantees on the timeliness of the reauthorization at the end of the authorization period.
- Back-Stopped GARVEEs – States may pledge other sources of revenue as a back-stop for the future Federal-aid funds. In these cases, states have pledged a secondary source of revenue such as state fuel tax revenues or local property taxes to payment of debt service in the event that future Federal-aid highway funds are not available. This type of GARVEE will generally result in lower interest costs on the bonds.

The types of debt-related costs eligible for Federal aid reimbursement include interest expense for all projects, debt issuance costs, and the cost of purchasing commercial bond insurance.

GARVEE requirements include:

- Advance construction projects must be on the approved STIP, enabling FHWA to approve an advance construction project at any time. The ability to convert advance construction in a future authorization period is critical to the GARVEE process.
- GARVEE-financed projects are subject to the same matching share requirements that attach to any other projects funded from the same program category. States cannot use *tapered match* on GARVEE financed projects.
- A fundamental decision for states structuring a GARVEE transaction is whether to match the Federal reimbursement of debt service up front or on a payment-by-payment basis.

Candidates for GARVEE financing are typically larger projects that have the following characteristics:

- They are large enough to merit borrowing rather than pay-as-you-go grant funding and costs of delay outweigh costs of financing.
- They do not have access to a revenue stream such as local taxes or tolls and other forms of repayment such as state appropriations are not feasible.
- States are willing to reserve a portion of future year Federal-aid highway funds to satisfy debt service requirements.

Credit Assistance

One of the most significant developments in Federal transportation finance during the 1990’s was the arrival of new ways for Federal transportation funds to help project sponsors borrow more easily. Federal credit assistance can take one of two forms:

- Loans – where a project sponsor borrows Federal highway funds directly from a state DOT or the Federal government; and
- Credit Enhancement – where a state DOT or the Federal government makes federal funds available on a contingent basis.

A credit enhancement helps reduce risks to investors and thus allows the project sponsor to borrow at lower interest rates. Loans can provide the capital necessary to proceed with a project or reduce the amount of capital borrowed from other sources, thereby reducing the risk borne by other investors and serving as a credit enhancement function as well. Key credit enhancement tools include Section 129 Loans, State Infrastructure Banks, and TIFIA loans. Exhibit 25 provides a summary description of credit assistance tools.

Exhibit 25: Credit Assistance	
Technique	What Does It Do?
Section 129 Loans	<p>Allows states to use regular Federal-aid highway apportionments to fund direct loans to projects with dedicated revenue streams. Loans can be in any amount, up to 80 percent of the project costs.</p> <p>Proceeds from Section 129 loans can fund the costs of engineering, right-of-way acquisition, and physical construction. No costs incurred prior to the loan authorization can be reimbursed retroactively with loan proceeds.</p> <p>One of the key advantages to Section 129 loans is the</p>

	<p>opportunity for states to get more mileage out of their annual apportionments.</p> <p>This opportunity provides states with a means to recycle Federal-aid highway funds by lending them out, obtaining payments from project revenues, and then reusing the repaid funds on other highway projects.</p> <p>It is possible to provide a loan to any project eligible for Federal-aid highway funding so long as it has a dedicated revenue source to repay the loan. Dedicated revenues may include tolls, excise taxes, sales taxes, property taxes, motor vehicle taxes, and other beneficiary fees.</p> <p>Borrowers must begin to repay Section 129 loans within 5-years after the project is opened to traffic or otherwise completed. The loan must be wholly repaid within 30 years from when Federal funds are authorized for the loan.</p>
<p>State Infrastructure Banks (SIBs)</p>	<p>SIBs are revolving infrastructure investment funds that are established and administered by states for surface transportation projects. In addition to using Federal funds, banks can be capitalized with state funds.</p> <p>Currently, any state that capitalized a SIB with Federal funds distributed in FY 1996 or 97 may continue to operate that bank with whatever Federal funds have already been deposited in that bank. These states are also free to supplement the initialized capitalization with additional state or local funds.</p> <p>Four states named in TEA 21 – California, Florida, Missouri, and Rhode Island – may continue to use Federal Highway and transit funding to further capitalize their banks.</p> <p>SIBs can provide financial support to public and private sponsors of eligible transportation projects, and can assist in financing any stage of the project's development. There are no Federal share restrictions on the cost of projects eligible to receive SIB assistance.</p> <p>Federal government places very few constraints on the terms that attach to individual loans or credit arrangements offered by a SIB. Each SIB determines what types of credit products to offer, what interest</p>

	<p>rates to charge, how to screen applicants, and other matters related to the day-to-day business of the SIB.</p> <p>Can be structured as a “leveraged” SIB. A “leveraged” SIB would issue bonds against its initial capitalization, significantly increasing the amount of funds available for loans. The decision on whether or not to leverage depends on the assessment of overall demand and policies relative to bond financing.</p> <p>SIBs can provide two principal forms of credit assistance:</p> <p><u>Loans</u> -- are the most common form of assistance offered by SIBs. The primary benefit of providing loans to projects is that loan repayments are recycled for future generations of projects. SIBs have flexibility to structure loans specific to individual project needs by offering below market interest rates and favorable repayment terms.</p> <p><u>Credit Enhancement</u> – products can provide additional security or credit support to transportation projects that are funded primarily through other means, such as the municipal bond market or private participation. This additional security can result in higher investor confidence which in turn creates lower interest rates, improved marketability of bonds, and lower overall project finance costs.</p> <p>The critical feature of a SIB and a key distinction from the TIFIA program is that it is capitalized with Federal funds but operated by the administering state.</p>
<p>Transportation Infrastructure Finance and Innovation Act (TIFIA)</p>	<p>Allows U.S. DOT to provide direct credit assistance to sponsors of major transportation projects. Credit assistance can take the form of loans, loan guarantees, or lines of credit; the total amount of credit cannot exceed 33 percent of eligible project costs. Like Section 129 loans and SIBs, the program’s goal is to provide credit rather than grants to sponsors of surface transportation projects.</p> <p>However, TIFIA differs from these programs in two important ways. First, U.S. DOT directly negotiates with private and public sponsors of eligible transportation projects. Second, because TIFIA legislation authorizes new funding for such credit assistance, TIFIA does not draw from funds already apportioned to the states for grant assisted projects.</p>

TIFIA program was designed to achieve a range of linked objectives including:

- Improving the financial feasibility of projects on the brink of obtaining capital market investment by offering credit assistance with flexible terms and a junior claim on repayment revenues;
- Attracting new private and non-Federal public investment in transportation facilities that otherwise would be delayed or not constructed at all;
- Encouraging new revenue streams, especially user fees, and improving their capacity to secure debt obligations; and
- Providing credit assistance in a responsible fashion, relying on the disciplines and practices of capital market participants to achieve a balance between flexible credit terms and repayment, and security.

TIFIA program attracts, rather than displaces, co investment.

TIFIA program offers three credit assistance products direct loans, loan guarantees and lines of credit. Direct loans reimburse a project sponsor's expenditures for eligible project costs including right-of-way acquisition, design, construction, and financing costs. Loan guarantees and lines of credit provide sources of capital should project revenues fall short of amounts needed to repay commercial investors.

Project Cost -- In general the candidate project's eligible costs must reach at least \$100 million.

TIFIA seeks credit terms that reflect standard commercial lending safeguards.

Rating Requirement – Prior to executing a credit agreement, TIFIA requires that each project's senior debt obligations receive an investment-grade rating of Baa3/BBB or higher from a nationally recognized credit rating agency.

TIFIA Selection Criteria

- National or regional significance
- Credit worthiness
- Private participation
- Technological innovation
- Budgetary costs
- Environmental Impacts

- Reduction of grant assistance

Each TIFIA dollar invested is expected to support approximately \$80 in capital investment, based on preliminary subsidy estimates.

Innovative Uses of Tolling

Tolling is not viewed as a new or innovative financing approach due to the long history of tolling facilities in our country.

Highway law now permits tolling on most non-Interstate highway projects and some Interstate projects so long as the sponsor of the toll facility commits to spending the resulting toll revenues on debt service and operations and maintenance of the toll facility. In addition, TEA-21 established a new pilot program permitting tolling of up to three reconstructed or rehabilitated Interstate highway segments. Uses of tolling include tolling Federal-aid highways, Interstate reconstruction and rehabilitation pilot programs, and value-pricing pilot programs. Exhibit 26 provides a summary description of the innovative uses of tolling.

Exhibit 26: Innovative Uses of Tolling	
Technique	What Does It Do?
Tolling Federal-Aid Highways	Provides states the discretion to levy tolls on most non-Interstate Federal-aid highways. Eligible expenditures include debt service, operations and maintenance, establishment of necessary reserve funds, and a reasonable return on private investment for projects that include private participation.
Interstate Reconstruction and Rehabilitation Pilot Program	<p>Allows up to three pilot projects to convert reconstructed or rehabilitated free Interstate highway segments into toll ways.</p> <p>Project’s eligibility for the program includes:</p> <ul style="list-style-type: none"> ▪ Demonstrated that the Interstate facility cannot be maintained or improved from current and future funding to be received; ▪ Completed a facility management plan covering imposition of tolls, a financial plan, and other appropriate information; and ▪ Assured FHWZA that the local metropolitan planning

	organization has been consulted concerning the placement and amount of tolls on the facility.
Value Pricing Pilot Program	<p>Sponsors the testing and the evaluation of road and parking pricing concepts designed to achieve reductions in highway congestion.</p> <p>Value pricing, also known as congestion pricing or peak period pricing, is a way of harnessing the power of the market to reduce congestion and the economic and environmental costs tat congestion imposes.</p> <p>The key difference between a typical toll structure and a value pricing toll is variability. The key is for toll rates to vary with the level of congestion on the tolled roadway. Thus, rates tend to be higher during rush hour.</p> <p>Examples of use include the advent of “HOT Lanes.” For example, existing HOV lane was restricted to three or more occupants. Under the Value Pricing Pilot Program, HOVs with two occupants are allowed to buy the right to use the HOV lane.</p>

State Infrastructure Banks

State Infrastructure Banks (SIBs) were/are intended to complement the traditional Federal-aid highway and transit programs by supporting certain projects with dedicated repayment streams that can be financed in whole or in part with loans, or that can benefit from the provision of credit enhancements. As loans are repaid, or the financial exposure implied by a credit enhancement expires, the SIB initial capital is replenished and can be used to support a new cycle of projects. SIB benefits include:

- Flexible project financing
- Recycling of funds
- Accelerated completion of projects
- Rapidly address emergency or disaster repairs
- Increased State and/or local investment
- Improve financial access for diverse communities
- Enhanced private investment and economic development opportunities

Under the provisions of the 1995 NHS Act, DOT was authorized to select up to 10 States to participate in the initial pilot program and to enter into cooperative agreements with FHWA and/or FTA for the capitalization of SIBs with a portion of their Federal-aid funds provided in Fiscal Years 1996 and 1997. The U.S. DOT Appropriations Act of 1997 opened SIB participation to all States and appropriated \$150 million in Federal General Funds for SIB capitalization. In total, thirty-eight States plus the Commonwealth of Puerto Rico were selected to participate in the SIB pilot program. Of the 39 participants

approved for the SIB program, 32 States (including Puerto Rico) have active SIBs. Four of the approved states have not participated due to the inability to pass state-enabling legislation and two states have de-obligated funds.²⁵

Two States in the TEA-21 pilot program (Florida and Missouri) have capitalized their SIBs with TEA-21 funds. Several important differences exist between the two pilot programs, including the percentage of Federal funds eligible for SIB capitalization, repayment provisions, the Federal outlay rate, and reporting requirements.

While SIBs have provided States increased financing flexibility to meet transportation needs, they have not provided any significant new money. The ability of SIBs to stretch both Federal and State dollars to increase transportation infrastructure investment has enabled projects to be built that may otherwise have been delayed or not funded due to budgetary constraints. Although authorizing Federal legislation establishes basic requirements and the overall operating framework for a SIB, States have the flexibility to tailor the bank to meet State specific transportation needs. By September 2001, 32 States (including Puerto Rico) had entered into 245 loan agreements with a dollar value of over \$2.8 billion as shown in Exhibit 8.²⁶

States have made major strides in implementing the SIB program and demonstrating its potential to increase transportation investment levels. Progress has been affected by the fact that the revolving fund concept was new to transportation financing and the start-up activities were complex. Also, TEA-21 impacted SIB program expansion by limiting additional Federal funding to only four States.

Most States have invested considerable resources in the establishment of their SIB program both in terms of funds contributed and time spent developing the program. These efforts have included passage of enabling State legislation, dedication of staff resources to the management of the SIB program, establishment of formal project selection procedures, and marketing and outreach initiatives. The majority of States needed State-enabling legislation to implement the SIB program. In some States, the lengthy legal processes for enacting legislation affected the implementation timeline.

²⁵ FHWA, SIB Review

²⁶ Ibid.