5.0 FUNDING OF PROPOSED RAIL PROJECTS

Investment on rail yields significant economic, transportation and environmental benefits. According to the U.S. Department of Commerce data, every dollar spent on investments in freight railroads — tracks, equipment, locomotives, bridges — yields three dollars in economic output. According to a U.S. Department of Commerce model of the U.S. economy, the nation's freight railroads generate nearly $265 billion in total economic activity each year, including direct, indirect, and induced effects. In addition, each $1 billion of rail investment creates 20,000 jobs. Investments in railroads also alleviate congestion on highways, resulting in reduction of greenhouse gas and air pollutant emissions.

Arizona's rail infrastructure is dependent on limited support from federal funding sources, most of which are directed toward highway improvements. Federal rail funding is becoming increasingly competitive among similar projects across the country and typically requires matching funds from the State. The State of Arizona is in the process of identifying potential funding sources and mechanisms that can support rail development, both freight and passenger, and provide matching funds required by certain federal programs, with a view to a more efficient State rail system. Funding for rail could also act as a catalyst for generating economic activity and employment in the State. Investments in rail will be crucial in the diversification of the State's economy by attracting more industrial development to the State.

This chapter identifies federal rail funding programs, which provide support to states for a variety of rail improvements. Examples of funding mechanisms used by other states have been identified based on the possible role of these states as examples for Arizona to follow. Sample rail projects in Arizona, supported by public funding, are included to highlight projects that have provided benefits to the State's taxpayers.

5.1 Federal Funding Programs for Rail

5.1.1 American Recovery and Reinvestment Act, 2009

The objectives of the American Recovery and Reinvestment Act (ARRA) of 2009 include preserving and creating jobs and promoting economic recovery, investing in transportation infrastructure that will provide long-term economic benefits, and assisting those most affected by the current economic downturn. Title XII of the Recovery Act appropriates $1.5 billion, available through September 30, 2011, for Supplementary Discretionary Grants for a National Surface Transportation System, the "TIGER Discretionary Grants" (Transportation Investment Generating Economic Recovery).

Under the TIGER grants program, State and local governments, including U.S. territories, tribal governments, transit agencies, port authorities, metropolitan planning organizations (MPOs), other political subdivisions of State or local governments, and multi-State or multi-jurisdictional applicants can receive funding for surface transportation projects that have a significant impact on desirable long-term outcomes for the Nation, a metropolitan area, or a region.

5.1.2 Passenger Rail Investment and Improvement Act, 2008

The federal Passenger Rail Investment and Improvement Act (PRIIA) of 2008 authorized $14.3 billion during FY 2009–2013 for the development of new and improved intercity passenger rail services. As part of the act, an innovative intercity passenger rail capital grant program was established, to help the states fund intercity passenger rail projects. States must identify intercity passenger rail corridor improvement projects in their State Rail Plan (SRP) in order to be eligible for the grants.

The act authorized $1.9 billion over a period of five years, beginning in 2009, for capital grants to states for facilities and equipment required for new and improved passenger rail, $2 million annually for small capital projects. The act authorized $325 million in 'congestion grants' for high priority rail corridors, to be made available to Amtrak and states during FY 2009 – 2013, which will help in increasing capacity along certain lines to reduce congestion and facilitate ridership.

Amtrak and the states can also apply for capital project grants out of the $1.5 billion authorized for the high-speed rail (HSR) corridor development program.

5.1.3 SAFETEA-LU Funding Programs

Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) originally came into effect in 2005 and originally expired in September 2009. In December 2009 the law was extended through September 2010. SAFETEA-LU continues many of the policies and programs established by the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the Transportation Equity Act for the 21st Century (TEA-21).

SAFETEA-LU allows states and MPOs to tap various federal funding sources for rail projects. These sources include Congestion Mitigation and Air Quality Management (CMAQ), Transportation Enhancements Program, Rail-Highway Crossing Safety Program (Section 130 Program), HSR Development, and other programs.

5.1.4 Surface Transportation Program

The Surface Transportation Program provides flexible funding that may be used by states and localities for projects on any federal-aid highway, including the National Highway System, bridge projects such as grade separations with rail facilities on any public road, transit capital projects, and intercity bus terminals.

5.1.5 Congestion Mitigation and Air Quality Management

The CMAQ program was created in 1991 as part of ISTEA in order to provide innovative funding for transportation projects that improve air quality and help achieve compliance with national air quality standards set forth by the Clean Air Act. SAFETEA-LU authorized funding through CMAQ for projects in areas not meeting national air quality standards. The CMAQ program pays for transportation projects or programs that will contribute to attainment of national ambient air quality standards.

CMAQ funding is directed toward transportation projects or services having air quality benefits. The program encompasses projects and programs that reduce traffic congestion and help meet federal Clean Air Act requirements. CMAQ funding may be used for freight and passenger rail projects that accomplish the program's air quality goals.

5.1.6 Transportation Enhancements Program

SAFETEA-LU set aside 10 percent of funds from the Surface Transportation Program for the Transportation Enhancement Program. The purpose of this program is to fund projects that allow communities to strengthen the local economy, improve the quality of life, enhance the travel experience, and protect the environment. Transportation Enhancement Program funds can be used for rehabilitation and operation of historic transportation buildings, structures or facilities and preservation of abandoned railway corridors (e.g. conversion of abandoned rail corridors to trails).

5.1.7 Section 130 Highway-Rail Grade Crossing Program

The Federal Highway Administration (FHWA) Section 130 Highway Railroad Grade Safety Crossing program provides grants for the improvement of highway-railroad grade crossings that enhance safety , including: separation or protection of grades at crossings; the reconstruction of existing railroad grade crossing structures; and the relocation of highways or rail lines to eliminate grade crossings.

Funds from the FHWA Section 130 Program can be used for freight rail projects, provided that the projects improve safety at grade crossings. This may include a variety of methods, such as installation of warning devices, elimination of at-grade crossings by grade separation or consolidation, and closing of crossings. Work may also include replacement of crossing surfaces, improvement of road approaches, installation of new gates/flashers, and installation of other safety signal equipment.

Funding may also be used for elimination of crossing hazards should a state choose to use the funds for this purpose. For example, any repair, construction or reconstruction of roads and bridges affected by a project would be eligible.

In general, federal funding is available for up to 94.3 percent of project costs, with a 5.7 percent minimum local match. For certain projects, such as active warning devices and crossing closures, the federal share may amount to 100 percent.

5.1.8 HSR Corridor Development Program

PRIIA ended the HSR Corridor Development Program under SAFETEA-LU and recreated it in a new section as state grant program with $1.5 billion over five years. The states are required to match 20 percent of the federal funding.

5.1.9 Railroad Rehabilitation and Improvement Financing

The Railroad Rehabilitation and Improvement Financing Program provides direct federal loans and loan guarantees to finance development of railroad infrastructure. The program was established by TEA-21 and amended by SAFETEA-LU. Under this program the FRA Administrator is authorized to provide direct loans and loan guarantees up to $35.0 billion. Up to $7.0 billion is reserved for projects benefiting freight railroads other than Class I carriers.

The funding may be used to:

- Acquire, improve, or rehabilitate intermodal or rail equipment or facilities, including track, components of track, bridges, yards, buildings and shops;
- Refinance outstanding debt incurred for the purposes listed above; and
- Develop or establish new intermodal or railroad facilities

Direct loans can fund up to 100 percent of a railroad project, with repayment periods of up to 35 years and interest rates equal to the cost of borrowing to the government.

Eligible borrowers include railroads, state and local governments, government-sponsored authorities and corporations, joint ventures that include at least one railroad, and limited option freight shippers that intend to construct a new rail connection.

5.1.10 Transportation Infrastructure Finance and Innovation Act

The Transportation Infrastructure Finance and Innovation Act (TIFIA) program provides federal credit assistance in the form of direct loans, loan guarantees, and standby lines of credit to finance surface transportation projects of national and regional significance. TIFIA credit assistance provides improved access to capital markets, flexible repayment terms, and potentially more favorable interest rates than can be found in private capital markets for similar instruments. TIFIA can help advance qualified, large-scale projects that otherwise might be delayed or deferred because of size, complexity, or uncertainty over the timing of revenues. Each dollar of federal funds can provide up to $10 in TIFIA credit assistance and leverage $30 in transportation infrastructure investment. TIFIA is not a funding source, but a method of financing projects through assisted borrowing.

5.1.11 Tax Credits

The American Jobs Creation Act of 2004 provides for a tax credit to help regional and short line railroads fund their infrastructure projects. The tax credit provides small railroads 50 cents for every dollar of qualifying track maintenance expenditures, such as the cost to improve track, bridges and signals.

5.2 Rail Funding Programs in Other States

Several funding programs from other states are presented below as illustrations of the creativity utilized to support freight and passenger rail improvements elsewhere. These programs have funded rail improvement projects that are similar to those recommended for Arizona in this SRP.

5.2.1 California

Proposition 1A, approved in November 2008, approved the issuance of $9.95 billion of general obligation bonds. This will partially fund a $40 billion, 800-mile high speed train under the supervision of the California High-Speed Rail Authority. The train will run between San Francisco and Los Angeles, with Anaheim, California, designated as the southern terminus of the initial segment of the high-speed train system. $950 million of the bond proceeds will be available for capital projects on other passenger rail lines to provide connectivity to the high-speed train system and for capacity enhancements and safety improvements to those lines.

Proposition 1B, approved in November 2006, authorized approximately $20 billion of State general obligation bonds for sixteen transportation programs. Under the Trade Corridor Improvement Fund (TCIF), $2 billion is provided for infrastructure improvements along federally designated “Trade Corridors of National Significance” and other corridors with a high volume of freight movement.

The TCIF program adopted in April 2008 provides $3.088 billion for 79 projects, including $643 million for rail projects. The TCIF funds will leverage an additional $925 million in non-state funds, resulting in total rail-related investment of $1.6 billion. Projects funded by the TCIF include mainline track improvements, rail port and yard improvements, and a rail over rail flyover.

The California DOT supports three intercity Amtrak rail corridors: the Pacific Surfliner between San Diego, Los Angeles and San Luis Obispo; the San Joaquin between Oakland, Sacramento, and Bakersfield; and the Capitol Corridor between San Jose, Oakland, Sacramento and Auburn. The State also supports buses that connect trains with areas not directly served by the Amtrak corridors. During FY 2007, ridership along the three corridors was 4,962,000, with State support totaling $86.14 million. The ICR Improvement program (under Proposition 1 B) provides $400 million for intercity passenger rail improvement projects, with $125 million reserved for acquisition of new rail cars.

5.2.2 North Carolina

North Carolina DOT began the rail industrial access program to encourage railroads to locate or expand their facilities in North Carolina. The funding helps ensure that companies have access to the tracks needed to transport freight and materials. The program uses State funds to assist in constructing or refurbishing tracks required by a new or expanding industry. Funding for the projects is contingent upon prior approval of an application and on the commitment of matching funds.

Local governments, community development agencies, railroad companies and industries are eligible for funds to improve rail access. Approval of requests is based on the economic benefit of the project, including the number of expected new jobs, the amount of capital investment, rail use and the area's economic conditions.

5.2.3 Oregon

The Oregon legislature designated $2 million in 2001 to create a short line infrastructure program offering loans and grants. In 2003, the legislature approved an additional $2 million for the original program and began an $8 million rail spur program for all types of railroads. The Oregon legislature authorized $100 million in 2005, 2007 and 2009 for a Multimodal Transportation program known as Connect Oregon.

5.2.4 Pennsylvania

The Rail Freight Assistance Program of the Pennsylvania DOT provides financial assistance for rail freight infrastructure projects that preserve essential rail freight service where economically feasible, and preserve or stimulate economic development through improved or new rail services. In March 2008, Pennsylvania allocated $10.2 million for investment in freight infrastructure.

The Pennsylvania DOT offers Transit Assistance Programs under which it supports capital improvements and operating costs of passenger rail service between Philadelphia and Harrisburg (the Keystone Corridor).

5.2.5 Tennessee

The Short Line Railroad Rehabilitation Program in Tennessee is funded by a tax on diesel fuel used by aeronautics, railroads, and towboats. From this tax, the fund receives some money towards the short line program. The program is split into two parts: track rehabilitation and bridge rehabilitation, with both requiring a 10 percent match. Over the past ten years, the program has awarded $66.87 million to short lines in Tennessee.

5.2.6 Texas

The Texas Rail Relocation and Improvement Fund, created in 2005, helps share the cost of relocating and improving rail facilities, both public and private. The fund could be used throughout the State to improve freight mobility and relieve traffic congestion. The cost of relocation is shared by the State and the railroads in proportion to the benefit each entity receives for improvements. In 2009, the Texas legislature appropriated $182 million for the Rail Relocation Fund for the current two-year budget period.

5.2.7 Virginia

Virginia offers financial support to freight railroads through three programs:

1. Rail Enhancement Fund
2. The Rail Preservation and Development Program
3. Rail Industrial Access Program

The State's assistance to freight railroads is based primarily on the potential for job creation, economic development, and the continuation of rail service. Funding from these programs can help construct rail spurs into industrial sites to attract new tenants, or it can help upgrade and preserve a rail line that might otherwise be abandoned.

Created in 2005, the Rail Enhancement Fund is the first dedicated revenue stream for investment in rail infrastructure in Virginia's history. The fund supports improvements for passenger and freight rail transportation throughout Virginia.

The Rail Preservation and Development Program has grown from $500,000 in 1991 to nearly $3.0 million per year between 1999 and 2004. This fund administers grants to the railroads for qualifying projects, with recipients providing a 30 percent match.

The Rail Industrial Access Program is part of a pool of $5.5 million annually, but it is not dedicated to rail and must compete with road and airport projects. More than $20 million has been distributed through this program since 1986. The Virginia Department of Rail and Public Transportation estimates that this program has assisted in generating nearly 20,000 new jobs, more than 140,000 annual carloads of rail traffic, and more than $4.0 billion in planned capital improvements.

Virginia's passenger rail system is largely publicly funded. Virginia Railway Express's (VRE) operating revenues come from fare revenue and equipment rental, and VRE receives subsidies and grants from the State of Virginia, federal sources, and local jurisdictions. Operating revenues pay for majority of VRE's operating expenses, with the rest of the funding supplied by grants and interest income.

5.2.8 Wisconsin

The Wisconsin DOT currently has two freight rail assistance programs:

- The Freight Rail Infrastructure Improvement Program: The Freight Rail Infrastructure Improvement Program provides loans for rail projects that connect industries to the national rail system, enhance safety and intermodal freight movements, and provides opportunities for economic development. The program supports up to 100 percent of the project costs.
- Freight Rail Preservation Program: The Freight Rail Preservation Program supports purchase of abandoned rail right-of-way for future use and rehabilitation of rail infrastructure. The program supports up to 80 percent of project costs.

The Wisconsin DOT provides up to $8.5 million annually to Amtrak's Hiawatha service, which operates seven round trips daily between Chicago and Milwaukee. The Wisconsin DOT is currently studying the feasibility of increasing the service to ten round trips per day. Commuter rail and the restoration of service to Madison are also under study.

5.3 Existing Funding Sources

Funding is available to railroads in Arizona in several forms: the FHWA Section 130 Highway-Rail Grade Crossing Program, projects funded by local governments (including regional transportation plans), and general construction projects on the state highway system funded by ADOT. Rail-highway crossing improvements can be funded by federal, state or local governments. Proposition 400 funds have been used to fund the study of potential commuter rail corridors in the Maricopa County, in accordance with the Regional Transportation Plan (RTP).

5.3.1 Proposition 400

Proposition 400 was passed by Maricopa County voters on November 2, 2004 and authorizes a 20-year continuation of the half-cent sales tax for transportation projects in Maricopa County initially approved in 1985. The estimated revenues from the tax will total approximately $14.3 billion (year of expenditure dollars) for the 20-year period covering calendar year 2006 through 2025, and represent the major funding source for implementation of the MAG RTP.

Out of the $14.3 billion, 33.3 percent will be allocated to the public transportation fund for capital construction, maintenance and operation of public transportation classifications, and capital costs and utility relocation costs associated with a light rail public transit system; and 66.7 percent of the total revenue collected through the sales tax will be allocated to the regional area road fund for freeways and other routes in the state Highway System, major arterial street and intersection improvements, including capital expense and implementation studies. The MAG has recently completed four commuter rail studies in the Phoenix metropolitan area, funded using proposition 400 funds, including:

- Regional Commuter Rail Strategic Plan
- Regional Commuter Rail System Plan
- Grand Avenue Commuter Rail Corridor Development Plan
- Yuma West Commuter Rail Corridor Development Plan

5.3.2 Arizona Section 130 Highway-Rail Grade Crossing Program

Section 130 as funded by SAFETEA-LU allocates funds to the states specifically for eliminating hazards at public highway-railroad grade crossings (federal highway funds cannot be spent on safety improvements at private crossings). The FHWA administers the distribution of SAFETEA-LU funds.

SAFETEA-LU provided $220 million nationwide per year FY 2005-2009 for Section 130 from the Highway Trust Fund (Table 26). Arizona's apportionment for FY 2008 was $ 2.67 million.

Table 26 – Section 130 Projects Fund Allocation Summary

Year	Allocation
FY 2001	$ 2.1 million
FY 2002	$ 2.1 million
FY 2003	$ 2.1 million
FY 2004	$ 2.1 million
FY 2005	$ 2.1 million
FY 2006	$ 2.6 million
FY 2007	$ 2.6 million
FY 2008	$ 2.6 million

Source: ADOT

5.3.3 Sample Arizona Projects Using Public Funds

General Highway Improvement Projects Funded by FHWA and ADOT

General highway system improvement projects funded by the FHWA, ADOT, or the RTP of an MPO may include provisions for removal of at-grade crossings and replacing them with grade-separated crossings, installation of new grade-separated crossings, and widening of existing at-grade or grade-separated crossings. These projects are primarily designed to increase highway traffic mobility and not rail mobility, although they benefit railroads indirectly.

Examples of highway improvement projects that have resulted in improvements to the railroad grade crossings include:

1. Marsh Station Project (ADOT): The Marsh Station project will include a realignment of the UPRR Sunset Route, which traverses an I-10 overpass, and the realignment of Marsh Station Road. The existing railroad overpass on I-10 does not have adequate clearance, resulting in frequent truck accidents that can shut down train traffic during an incident. The realignment of the UPRR line would allow removal of the overpass and increase speed along the rail line. The realigned Marsh Station Road will need to cross over the railroad line in order to interchange with I-10 east of the existing location. A grade-separated railroad crossing will be constructed on the new Marsh Station Road.

2. Twin Peaks Traffic Interchange Project (ADOT and Town of Marana): This project includes extension of the existing Twin Peaks Road east to connect with I-10 and construction of a new traffic interchange on I-10 in Marana. The project also includes construction of a grade-separated crossing of Twin Peaks Road with the UPRR, and removal of an existing at-grade crossing. Construction of the Twin Peaks Road extension will require a grade-separated railroad crossing to ensure public safety and smooth movement of traffic.

3. I-10, Val Vista Road to Junction I-8 (ADOT): This is a project along I-10 from the Val Vista Road overpass to I-8 in Pinal County. The overpass structures over Jimmie Kerr Boulevard and the UPRR do not include adequate shoulder width on I-10; this limits the ability of UPRR to expand the Sunset Route. This project includes a new I-10 overpass which provides additional highway capacity and a longer span over the railroad providing space for additional track installation in the future.

4. SR 85 at Gila Bend (ADOT): This project includes improvements to SR 85, Business Route 8 (B-8), and the existing grade-separated railroad crossing over B-8. Improvements include construction of SR 85 as a four-lane divided highway with frontage roads that would ultimately become a grade-separated, fully access-controlled facility between I-10 and B-8; improvements to B-8, incorporating both four-lane divided and five-lane roadway sections and the reconstruction of the existing traffic interchange with SR 85; and widening of the existing grade-separated railroad crossing.

5. I-10 Ruthrauff Road to Prince Road (ADOT): This project includes converting an existing at-grade crossing of Prince Road with the UPRR into a grade separated crossing. This project involves reconstruction of several miles of Interstate 10 (which is aligned parallel to the UPRR) and the Prince Road interchange, in order to revise the profile of Prince Road to pass above the UPRR mainline and over I-10.

General Highway Improvement Projects Funded by Local Governments

Local governments also fund highway improvement projects either through the Highway User Revenue Fund (HURF) or funds received from the FHWA. Some of the funds for these projects may be used for Quiet Zone improvements, widening at-grade crossings, installation of new crossing surfaces and signal equipment and removal of at-grade crossings.

Examples of highway improvement projects funded by local governments that have resulted in improvements to the railroad grade crossings include:

1. Fourth Street Railroad Overpass, Flagstaff: The goal of the Fourth Street Railroad Overpass was to provide a grade-separated overpass connecting the north and south portions of Fourth Street across the BNSF railroad and Route 66. The overpass was dedicated on August 28, 2006.

2. Quiet Zones: A Quiet Zone means that railroad engineers are not required to sound their horn or whistle when approaching the intersection. The FRA may approve the creation of a Quiet Zone when it is satisfied the crossing is safe enough for engineers to opt not to sound their whistle.

   To date, five quiet zones have been created in Flagstaff, Sun City West, Wellton, Surprise and Phoenix. Creation of a new Quiet Zone at the 163rd Avenue/Grand Ave BSNF railroad crossing in Surprise included installation of safety measures at the crossing: flashing lights, electric bells, traffic signs, and a pedestrian sidewalk with warning signs. The Town of Wellton has also established a Quiet Zone after enhancing safety measures at the existing UPRR at-grade railroad crossing at Williams Street.

   Additionally, creation of quiet zones in four locations is under consideration. These include Tempe, Chandler, Tucson and Clifton.

3. Marana Road/I-10 Interchange Project: The Marana Road Interchange project included extension of Marana Road east of the interchange and creation of an at-grade railroad crossing of the UPRR Sunset Route. The railroad previously had two at-grade railroad crossings at McKenzie Ranch Road and Adonis Road. Extension of Marana Road allowed the closure and removal of the two old crossings, along with installation of flashing lights, traffic signs, warning signs and gates.

5.4 Conclusion

The State Rail Plan addresses current and future needs for passenger and/or freight rail investment at a statewide level. With the recent enactment of the PRIIA in October 2008, the nation is experiencing a surge in statewide rail planning as DOTs mobilize to become eligible for federal funding. To obtain funding for such projects as intercity and high-speed rail planning and design, states are required to have a FRA-approved state rail plan. With the Statewide Rail Framework Study providing the foundation, this document represents Arizona's first State Rail Plan.

This rail plan should be updated on a regular schedule as required by FRA, which is coordinated with the State's long range planning activites. The plan should be amended to reflect any changing conditions related to rail operations within the State.

The findings of this State Rail Plan will be incorporated into the State's Long Range Transportation Plan which will guide the development of the transportation Network for the following 20 years.