FRPR
FRONT RANGE PASSENGER RAIL

MEMORANDUM

Project:	Front Range Passenger Rail Service Development Plan and National Environmental Policy Act (NEPA)
Memo Date:	August 27, 2020
To:	Randy Grauberger, Front Range Passenger Rail Project Director David Singer, CDOT FRPF Project Manager
From:	FRPR Project Team
Subject:	Funding and Finance Options

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1 INTRODUCTION

1.1 OVERVIEW OF FRONT RANGE PASSENGER RAIL

The Vision: *Developing passenger rail that serves Front Range communities from Fort Collins to Pueblo is a critical component of Colorado's future. FRPR will provide a safe, efficient, and reliable transportation option for travel between major population centers and destinations along the Front Range and create a backbone for connecting and expanding rail and transit options in the state and region*.

1.2 PURPOSE OF THE FUNDING AND FINANCIAL MEMORANDUM

The purpose of the Funding and Financing memorandum is to initiate funding discussions with project leaders and stakeholders around potential funding sources to consider in advancing Front Range Passenger Rail in Colorado. In addition, this memo serves as an educational mechanism on how various funding sources and financing mechanism could work together to support investment in the project as it advances through various project stages. The funding and financial options presented are not a specific recommendation but rather a menu of multiple sources that could form a financial strategy to pay for an entire project, likely encompassing a mixture of funding sources.

An examination of a broad range of federal, state and local funding programs and sources is included along with available funding where applicable. This memo further examines the potential role of value capture mechanisms and the potential role of Colorado's High Performance Transportation Enterprise (HTPE) for consideration. Also provided is an overview (table comparison) of the financial strategies used to implement other passenger rail and commuter rail systems in the United States. This data provides insight on how various combinations of funding sources were used to advance or implement those services.

Recognizing that this memo has been developed during the period of a national pandemic, many of the sources and options may be impacted in unknown ways. COVID-19 implications are considered as well as federal transportation reauthorization changes as much as reasonably possible.

Finally, this information should not be considered in a vacuum. For that reason it is suggested that the Governance and Implementation Strategies Memorandum and well as the summaries for the Segment Stakeholder Coalitions be considered simultaneously as a means of more fully understanding the dynamics around moving Front Range Passenger Rail forward toward implementation.

2 FEDERAL PROGRAMS

This section summarizes federal funding sources that could potentially support implementation of the Front Range Passenger Rail (FRPR) projects. The sources described below reflect existing grant and financing programs available under the current federal transportation authorization legislation, Fixing America's Surface Transportation (FAST) Act. Historically, federal transportation authorization legislation has covered a 5- to 6-year period. The FAST Act authorization is scheduled to expire at the end of the current federal fiscal year in September 2020. Based on prior legislative history, it is likely that most, if not all, of the sources described below will continue.

What is not clear is the federal government's near-term response to the coronavirus COVID-19 pandemic, and how it will impact the schedule for approving a new transportation authorization bill or impact the programs included in the bill. There are ongoing discussions in Washington, D.C. on a potential infrastructure stimulus bill. While there are few details on what may be included, as described in Section 3.1, there may be some lessons learned from the federal government's infrastructure spending during the Great Recession.

In addition to summarizing potential funding sources, this section includes two additional details relevant to the early phase of project development status of the FRPR. First, the majority of the sources described below only provide funding for construction. However, there are a few sources that include planning and engineering costs as eligible expenses. These sources could be targeted over the next few years to provide supplemental revenue for pre-construction activities (planning and engineering) for the FRPR program.

Second, the United States Department of Transportation (USDOT) has separate funding programs for intercity passenger rail and commuter rail services. As described in Section 3.2, the results of the FRPR service planning development tasks will result in a system definition, including whether one or more systems or technologies will be used depending on the geographic markets served. This distinction will determine which federal programs could be targeted in the future.

2.1 FEDERAL GOVERNMENT INFRASTRUCTURE SPENDING DURING THE GREAT RECESSION

The most recent example of the federal government passing an economic stimulus bill that accelerated infrastructure investment was in 2009 during the Great Recession. In February 2009, the President signed the $800 billion American Recovery and Reinvestment Act (ARRA or the Recovery Act) into law, to promote economic recovery, provide employment, and invest in infrastructure that would generate long-term economic benefits. As shown in Table 1, from the total funding, the USDOT received $48.1 billion in stimulus money to be spent primarily on "shovel ready" projects, or those projects in advanced stages of planning, prepared to execute relatively quickly, and could be completed within three years. Additionally, ARRA created two new discretionary (competitive) grant programs to further support investment in transportation infrastructure. The $1.5 billion Transportation Investment Generating Economic Recovery (TIGER) discretionary grant program was created with the objective of supporting multimodal projects with a longer-term economic vision. Further, $49.9 million was appropriated for grants to public transit agencies for capital investments, referred to as the Transit Investments for Greenhouse Gas and Energy Reduction (TIGGER) program.

It is also important to note that the Recovery Act included $8 billion to support the Passenger Rail Investment and Improvement Act (PRIIA), which was signed into law in October 2008. PRIIA created the first grant mechanism within the Federal Railroad Administration for high-speed passenger rail and intercity rail programs

– the Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service. Specifically, PRIIA provided grant funding for investments focused on intercity passenger rail, state-sponsored corridors throughout the nation, and the development of high-speed rail corridors through three programs: Intercity Passenger Rail Service Corridor Capital Assistance Program, High-Speed Rail Corridor Development, and Congestion Relief. These programs represented the first time the federal government partnered with states on intercity passenger rail planning and construction projects. While funding for these programs did not continue beyond the FY 2010 Budget, the federal funding for intercity passenger rail projects continues in the programs summarized in Section 3.3.

Finally, if Congress passes a stand-alone infrastructure stimulus bill in response to the coronavirus COVID-19 impact, it is likely the funds will be allocated to "shovel-ready" projects. While the FRPR project is not currently at a point in the implementation process that would meet this definition, there may be ancillary opportunities. For example, if a stimulus bill were to provide supplemental funding that accelerates implementation of CDOT, county, or other regionally significant projects, this may free up funding that was previously programmed for other projects. It will be important to track the potential flow of funds and coordinate with potential funding partners to target unplanned funds that could be used to further planning and engineering of the FPRR project.

Table 1. USDOT ARRA Funding, by Obligation and Outlay Deadlines and Program

Mode/Account	Funding Amount (millions)	Obligation Deadline	Outlay Deadlines
FHWA Highway Infrastructure Investment	$27,500	9/30/2010	9/30/2015
FTA Capital Investment Grants	$750	9/30/2010	9/30/2015
FTA Transit Capital Assistance	$6,900	9/30/2010	9/30/2015
FTA Transit Fixed Guideway Infrastructure Investment	$750	9/30/2010	9/30/2015
FRA Grants to the National Railroad Passenger Corporation	$1,300	9/30/2010	9/30/2015
FRA Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service	$8,000	9/30/2012	9/30/2017
FAA Facilities & Equipment	$200	9/30/2010	9/30/2015
FAA Grants-in-aid for Airports	$1,100	9/30/2010	9/30/2015
MARAD Assistance to Small Shipyards	$100	9/30/2010	9/30/2015
OST Supplemental Discretionary Grants for a National Surface Transportation System	$1,500	9/30/2011	9/30/2016
OIG Salaries and Expenses	$20	9/30/2013	9/30/2018
Total:	**$48,120**		

This figure provides a breakdown of funding for transportation infrastructure included in the Recovery Act, along with the deadlines for obligating and spending those funds. Aggressive deadlines prompted near-term activity and economic stimulus. Some programs intended to spur longer-term investment included somewhat later deadlines.[1]

Note: Should Congress and the Administration decide on federal funding stimulus packages related to COVID-19 that focus on transportation infrastructure investment, updated information will be added to this memorandum.

[1] U.S. Department of Transportation, American Recovery and Reinvestment Act Final Report. https://www.transportation.gov/mission/budget/arra-final-report

2.2 OVERVIEW OF FEDERAL FUNDING PROGRAMS FOR INTERCITY PASSENGER RAIL SERVICE COMPARED TO COMMUTER RAIL SERVICE

As stated above, the FRPR system's definition will determine which federal programs to target. Historically, significantly more funding has been provided for the planning, construction, and asset management of transit projects and systems. Transit systems fall under the jurisdiction of the Federal Transit Administration (FTA) and include bus, light rail, streetcar, commuter rail, and ferry services. In FY 2020, the FTA will allocate the following annual funding to eligible transit systems, including commuter rail services, across the country:

- Formula funds (Urbanized Area and State of Good Repair programs): approximately $8.0 billion in FY 2020; eligible expenses include planning, capital investments, construction, and asset management.
- Discretionary grants (Capital Investment Grants program): approximately $2.0 billion in FY 2020; eligible expenses include planning, engineering, and construction. Federal participation is typically constrained at 50 percent of total project costs with funding provided on a reimbursement basis that could be years after the expenses are incurred.

Additionally, annual formula funds from the Federal Highway Administration (FHWA) are eligible to be transferred or "flexed" to support transit systems. These funds are programmed by metropolitan planning organizations (MPOs), councils of government (COGs), and CDOT and include the Congestion Mitigation and Air Quality Improvement (CMAQ) program and the Surface Transportation Program (STP). Typically, the level of funds "flexed" to transit projects is less than $10 million, and eligible expenses include planning, engineering, and construction.

Intercity passenger rail systems fall under the jurisdiction of the Federal Railroad Authority (FRA). As mentioned previously, until 2009, the FRA did not provide grant funds to support intercity passenger rail systems. While grant programs have continued since 2009 (see Section 3.3), FRA annually provides less than $1 billion in grants nationally with eligible expenses including planning, engineering, and construction. This indicates that federal funding is limited for intercity passenger rail systems, and states, regions, and local jurisdictions are the primary sources of funding for these types of projects.

2.3 FEDERAL RAILROAD ADMINISTRATION (FRA)

The following provides an overview of the three FRA grant programs that could be targets if all or a part of the FRPR is considered intercity passenger rail service.

2.3.1 CONSOLIDATED RAIL INFRASTRUCTURE AND SAFETY IMPROVEMENTS PROGRAM (CRISI)

Description: The goal of this competitive grant program is to support safety enhancements and general improvements to infrastructure for both intercity passenger and freight railroads by leveraging private, state, and local funding. The CRISI program invests in a wide range of construction projects to improve railroad safety, efficiency, and reliability; mitigate congestion at both intercity passenger and freight rail chokepoints; enhance multi-modal connections; and lead to new or substantially improved intercity passenger rail

transportation corridors. Additionally, the program includes rail safety projects, such as grade crossing enhancements and rail line relocations and improvements. Preconstruction activities are also eligible expenses including: regional and corridor planning, environmental analyses, and workforce development.

Evaluation criteria include key FRA objectives such as supporting economic vitality; leveraging federal funds to attract other sources of funding; preparing for project life-cycle costs; using innovative approaches to improve safety and expedite project delivery; and holding recipients accountable for achieving specific, measurable outcomes.

Eligible Expenses: There are four categories (tracks) within the CRSI program. In the near term, the FRPR Project could target Tracks 1 and 2 to further service development and environmental planning activities. Track 3 could be a future target for final design and construction activities.

- Track 1: Planning - Track 1 consists of eligible rail planning projects. Examples include the technical analyses and associated environmental analyses that support the development of state rail plans, regional rail plans, and corridor service development plans, including: identification of alternatives, rail network planning, market analysis, travel demand forecasting, revenue forecasting, railroad system design, railroad operations analysis and simulation, equipment fleet planning, station and access analysis, conceptual engineering and capital programming, operating and maintenance cost forecasting, capital replacement and renewal analysis, and economic analysis.
- Track 2: Eligible Preliminary Engineering (PE)/National Environmental Policy Act (NEPA) Projects - PE examples include: PE drawings and specifications (scale drawings at the 30 percent design level, including track geometry as appropriate); design criteria, schematics and/or track charts that support the development of PE; and work that can be funded in conjunction with developing PE, such as operations modeling, surveying, project work/management plans, preliminary cost estimates, and preliminary project schedules.
- Track 3: Final Design (FD)/Construction - Track 3 consists of eligible projects for FD, construction, and project implementation and deployment activities. Applicants must complete all necessary planning, PE, and NEPA requirements for FD/construction projects. FD funded under this track must: resolve remaining uncertainties or risks associated with changes to design scope; address procurement processes; and update and refine plans for financing the project or program to accurately reflect the expected year-of-expenditure costs and cash flow projections.

  FD examples include: drawings at the 100 percent design level, interim design drawings that support development (e.g., drawings at the 60 percent design level), project work/project management plan, cost estimates, project schedules, and right-of-way acquisition and relocation plans. Construction examples include: additions, improvements, replacements, renovations and/or repairs to track, bridge, station, rail yard, signal, and communication system infrastructure, or other railroad safety technology.
- Track 4: Research, Safety Programs and Institutes (non-railroad infrastructure) - Track 4 includes workforce development activities, research, safety programs or institutes designed to improve rail safety that clearly demonstrates the expected positive impact on rail safety. Examples include: initiatives for improving rail safety, training, public outreach, and education.

Revenue Potential: This program accepted grant applications the last three fiscal years with annual funding ranging from $65 million to $318 million. The CRISI program does not have any minimum or maximum thresholds for awards. However, on average, individual grant awards are less than $10 million. Additionally,

while the program provides funding for freight and intercity passenger rail projects, the majority of the awards have gone to freight -related improvements.

Most recent application cycle: The FY 2019 Notice of Funding Opportunity (NOFO) was published on August 19, 2019, grant applications were due on October 18, 2019, and awards were announced on March 12, 2020 and included a $225,000 grant for Colorado's Southwest Chief line. This grant will support developing a corridor service development plan to extend Amtrak's Southwest Chief service from existing station stops at La Junta and Trinidad to Pueblo and Colorado Springs to provide connections to Amtrak's national network and allow for social and economic benefits for Front Range communities.

While not announced, there will likely be another CRISI application cycle later this summer to award the FY 2020 funds allocated to the program under the FAST Act.

2.3.2 FEDERAL-STATE PARTNERSHIP FOR STATE OF GOOD REPAIR PROGRAM

Description: This competitive grant program funds intercity passenger rail projects that repair, replace, or rehabilitate qualified railroad assets to reduce the state of good repair backlog and improve service performance. The Partnership Program grants are intended to benefit publicly- or Amtrak-owned or -controlled passenger rail infrastructure, equipment, and facilities in rural and urban American communities. Additionally, FRA encourages the submission of track and equipment safety applications focused on grade-separation and/or other enhancements at highway-rail grade crossings.

Applications must address key FRA objectives including enhancing economic vitality; leveraging federal funding; using innovative approaches to improve safety and expedite project delivery; and holding grant recipients accountable for achieving specific, measurable outcomes. The federal share of a project's total costs must not exceed 80 percent, although preference is given to those projects where the proposed federal share is 50 percent or less.

Eligible Project Categories: Examples of eligible qualified railroad assets include track, ballast, switches and interlockings, bridges, communication and signal systems, power systems, highway-rail grade crossings, and other railroad infrastructure and support systems used in intercity passenger rail service; stations, including station buildings, support systems, signage, and track and platform areas; equipment, including passenger cars, locomotives, and maintenance-of-way equipment; and facilities, including yards and terminal areas and maintenance shops.

Revenue Potential: Nationwide, applicants competed for grant funding totaling $272 million in 2018 and $396 million in 2019. Ten projects received grants in 2018 with awards ranging between $3.7 million and $76 million.

Most recent application cycle: The FY 2019 NOFO was published on October 8, 2019, grant applications were due on December 9, 2019, and awards will be announced after the application review period. As of April 2020, the 2019 grant awards have not been announced.

Further, there will likely be another application cycle later this summer to award the FY 2020 funds allocated to the program under the FAST Act.

2.3.3 RESTORATION AND ENHANCEMENT GRANTS PROGRAM

Description: The FRA Restoration and Enhancement Grants Program provides operating assistance to initiate, restore, or enhance intercity passenger rail service. The FRA will prioritize funding to projects that:

- Show completed or nearly completed planning, design, environmental reviews, negotiation of agreements, acquisition of equipment, construction, and other actions necessary for initiation, restoration, or enhancement of service;
- Restore service over routes formerly operated by Amtrak, including routes in the Gulf Coast region between New Orleans, Louisiana, and Orlando, Florida;
- Provide daily or daytime service over routes where such service did not previously exist;
- Include funding or other significant participation by state, local, and regional governmental and private entities;
- Include a funding plan that demonstrates the intercity rail passenger service will be financially sustainable beyond the three-year grant period;
- Provide service to regions and communities that are underserved or not served by other intercity public transportation;
- Foster economic development, particularly in rural communities and for disadvantaged populations;
- Provide other non-transportation benefits, such as livability benefits; or
- Enhance connectivity and geographic coverage of the existing national network of intercity rail passenger service.

Eligible Project Categories: Eligible operating expenses include: staffing costs for train engineers, conductors, and on-board service crew; diesel fuel or electricity costs associated with train propulsion power; station costs such as ticket sales, customer information and train dispatching services; station building utility and maintenance costs; lease payments on rolling stock; routine planned maintenance costs of equipment and train cleaning; host railroad costs; train yard operating costs; general and administrative costs; and management, marketing, sales, and reservation costs.

Revenue Potential: Only one project received a grant award from the 2017 application cycle. The Southern Rail Commission received a $4.6 million operating grant to help restore intercity passenger rail service (Sunset Limited Trains) along the Gulf Coast that was impacted by Hurricane Katrina.

Most recent application cycle: The FY 2018-2019 NOFO was published on November 6, 2019, and grant applications were due on February 6, 2020. Awards will be announced after the application review period.

2.4 FEDERAL TRANSIT ADMINISTRATION (FTA)

If a part of the FRPR system is defined as a commuter rail service, FTA's Capital Investment Grant (CIG) program would be the primary funding program to support implementation.

2.4.1 CAPITAL INVESTMENT GRANT PROGRAM: NEW STARTS CATEGORY

Description: This FTA discretionary grant program funds transit capital investments, including heavy rail, commuter rail, light rail, streetcars, and bus rapid transit projects. Projects with capital costs greater than $300 million follow the requirement for the New Starts funding category. More specifically, these projects are required by law to complete a rigorous technical and financial review during two pre-construction phases (Project Development and Engineering) in order to obtain a construction grant agreement. The law requires projects be rated by FTA at various points in the two pre-construction phases according to statutory criteria evaluating project justification, local financial commitment, and technical capacity.

Eligible Project Categories: Eligible expenses include planning, engineering, and construction with federal funding provided on a reimbursement basis that could be years after the expenses are incurred.

Revenue Potential: The FAST Act authorized approximately $2.3 billion annually between 2016 and 2020. While the maximum CIG share of total project costs allowed for New Starts projects is 60 percent, typically the FTA will not award grants greater than 50 percent. Examples of commuter rail projects that have received or are pursuing New Starts grants include:

- Denver Eagle P3 Project: $2.2 billion in eligible costs; awarded $1.0 billion New Starts grant (45 percent);
- Orlando Sun Rail: $360 million in eligible costs; awarded $180 million New Starts grant (50 percent);
- Fort Worth TEX Rail: $1.0 billion in eligible costs; awarded $500 million New Starts grant (50 percent); and
- Northern Indiana West Lake Corridor: $900 million in eligible costs; awarded $440 million New Starts grant (49 percent).

Most recent application cycle: Ongoing – project sponsors may apply to enter the New Starts process at any time during the year.

2.5 FEDERAL FINANCING PROGRAMS

This section summarizes federal financing programs that could potentially be pursued to support implementation of the FRPR. As noted below, a long-term, dedicated revenue source is required to apply for any of these financing programs.

2.5.1 TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION ACT (TIFIA)

Description: The program's fundamental goal is to leverage federal funds by attracting substantial private and other non-federal co-investment in critical improvements to the nation's surface transportation system. TIFIA was established to provide credit assistance in an effort to support state and local governments seeking to finance large-scale transportation projects and programs with forms of user-backed revenue. Prior to the creation of the TIFIA program in 1998, project sponsors had difficulty obtaining financing at reasonable rates due to the uncertainties associated with user-backed revenue streams. These revenues, such as tolls and

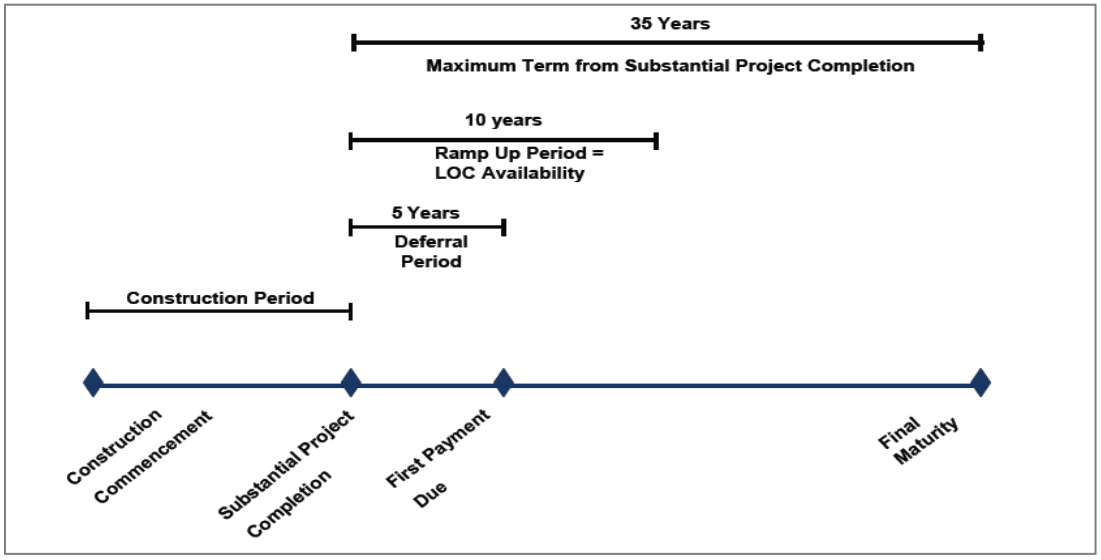
innovative revenue sources including value capture mechanisms (tax increment finance districts or benefit assessment districts), are difficult to predict during the initial "ramp-up" years after construction of a new infrastructure improvement, though they can become a predictable revenue source over the long term. The TIFIA program helps address this challenge. In addition to user-backed revenues, applicants can also apply for TIFIA financing backed by dedicated revenue sources, including sales tax.

TIFIA credit assistance offers the following advantages relative to traditional financing approaches:

- Long-term loans at the comparable U.S. Treasury yield (State and Local Government Series ("SLGS") rate plus one basis point) – interest rate of 1.26 percent for a 35-year loan as of April 1, 2020;
- Ability to lock in the interest rate several years in advance of a drawdown, without any additional cost;
- Right to prepay loan drawdowns in whole or in part at any time, without penalty;
- Potential willingness of USDOT to accept more flexible terms, such as backloading;
- Debt service to reflect anticipated growth in the pledged revenue stream, and thinner debt service coverage margins than otherwise required to obtain an investment-grade rating in the capital markets;
- Diversified source of debt capital (U.S. Treasury as lender), reducing market saturation;
- Lower transaction costs; and
- Ability to include multiple related improvement projects in one application, as long as the individual components meet TIFIA eligibility requirements and the related projects are secured by a common pledge (revenue source).

As shown in Figure 1, the maximum maturity of TIFIA credit instruments is the lesser of either 35 years after a project's substantial completion or the useful life of the project. Additionally, there is the potential to defer the first TIFIA payment up to five years after substantial project completion.

Figure 1. Illustrative TIFIA Repayment Structure as Permitted by Statute



Source: USDOT TIFIA Program Guide

While there are a number of advantages related to the TIFIA program, there are also several challenges in pursuing credit assistance:

- Nationwide demand may exceed funding supply. Therefore, applications are on a competitive basis. Additionally, while federal legislation allows for financing up to 50 percent of total project costs, the maximum level of financing provided is 33 percent;
- Availability of funds are subject to Congressional appropriation, which may impact project schedule;
- Project sponsors must pay fees in the amount of $250,000 before USDOT hires financial and/or legal advisors as part of the Letter of Interest review process. In addition, there is a credit processing fee at loan execution of $400,000 to $700,000, and an ongoing annual agency fee of $13,000. These transaction costs are in addition to a TIFIA loan's annual debt service payments; and
- An investment grade rating is required for facilities senior to the TIFIA loan.

Eligible Project Categories: Any type of project that is eligible for federal assistance through existing surface transportation programs (highway projects and transit capital projects) is eligible for the TIFIA credit program, including intelligent transportation systems (ITS) improvements. Related to the FRPR, this includes intercity passenger rail facilities and vehicles. Additionally, the FAST Act expanded eligible uses to include transit-oriented development (TOD) projects. Specifically, eligible costs related to TOD projects include: property acquisition; demolition of existing structures; site preparation; utilities; building foundations; walkways; pedestrian and bicycle access to a public transportation facility; renovation and improvement of historic transportation facilities; open space; safety, and security equipment (including lighting, surveillance, and related ITS applications); facilities that incorporate community services such as daycare or healthcare; a capital project to improve equipment or a facility for an intermodal transfer facility or transportation mall; and construction of space for commercial uses. TOD project cost must be greater than $10 million.

Finally, the projects listed below are examples that have received TIFIA financing backed by value capture revenue sources:

- Denver Union Station: Project cost - $519 million; TIFIA financing - $146 million; revenue pledge – real estate tax increments;
- San Francisco Transbay Transit Center: Project cost - $1.2 billion; TIFIA financing - $171 million; revenue pledge – real estate tax increments; and
- Chicago Red Purple Line Modernization: Project cost - $2.0 billion; TIFIA financing - $622 million; revenue pledge – real estate tax increments.

2.5.2 RAILROAD REHABILITATION AND IMPROVEMENT FINANCING (RRIF)

Description: The RRIF program was established by Congress to offer long-term, low-cost loans to railroad operators, with particular attention to small freight railroads, to help finance improvements to infrastructure and investments in equipment. However, intercity passenger rail and commuter rail projects are also eligible under this program. USDOT is authorized to provide direct loans and loan guarantees to eligible applicants for up to $35.0 billion to support the development of railroad infrastructure.

Unlike the TIFIA program, RRIF requires loan recipients to pay a credit risk premium intended to offset the risk of a default on their loan and helps the program comply with a congressional requirement that federal loan assistance programs operate at no cost to the federal government. This may make RRIF loans less attractive to borrowers than other types of federal, state, or private financing.

Loan proceeds may be used to acquire, improve, or rehabilitate intermodal or rail equipment or facilities, and establish new intermodal or railroad facilities. It may also reimburse planning and design expenses related to or refinance outstanding debt incurred for the development of railroad infrastructure.

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. The FRA will give priority to projects that provide public benefits, including benefits to public safety, the environment, and economic development.

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

USDOT is authorized to issue loans up to $35 billion. As of December 2019, $6.29 billion in loan agreements have been executed. The most recent recipients include:

- Dallas Area Rapid Transit in Texas for the Cotton Belt Corridor Regional Rail Project ($908 million RRIF loan);
- Amtrak for new trains and improvements to Amtrak's high-speed Acela service from Washington, D.C., to Boston ($2.45 billion RRIF loan);
- Massachusetts Bay Transportation Authority for the MBTA Positive Train Control Project ($220 million RRIF Loan);
- Metropolitan Transportation Authority in New York for the Positive Train Control Systems on the tracks operated by the Long Island Rail Road Company and Metro-North Commuter Railroad Company ($967 million RRIF loan); and
- Denver Union Station Project Authority (DUSPA) for the redevelopment of the site in the lower downtown of Denver as an intermodal transit district ($155 million RRIF Loan).

2.5.3 PRIVATE ACTIVITY BONDS (PABS)

Description: Private Activity Bonds (PABs) are debt instruments issued by state or local governments whose proceeds are used to construct projects with significant private involvement. Transportation infrastructure became eligible for PAB financing in 2005 with the passage of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA – LU). This change allows private activity on infrastructure projects while maintaining the tax-exempt status of the bonds. Providing private developers and operators with access to tax-exempt interest rates lowers the cost of capital significantly, and increasing the involvement of private investors in transportation projects. Encouraging the use of PABs reflects the Federal Government's desire to increase private sector investment in U.S. transportation infrastructure and the corresponding goal to generate new sources of money, ideas, and project implementation efficiency.

PABs are issued when state or local governments issue tax-exempt debt on behalf of the private entity undertaking the transportation improvement project. The private entity finances and delivers the project and is

responsible for debt service on the PABs. There is a time limit on the funds—federal legislation requires that at least 95 percent of the net proceeds of bond issues be expended for qualified projects within a 5-year period from the date of issue. If this does not occur, the issuer must use all unspent proceeds to redeem bonds of the issue within 90 days after the conclusion of the 5-year period, or the issuer may request an extension of the 5-year period if it can establish that the failure to expend the funds was due to circumstances beyond its control.

Depending on market demand, PABs financing may be more expensive than traditional tax-exempt bonds or other alternatives. However, PABs provide assistance to projects which are beneficial to the public but have too much private involvement to qualify for tax-exempt financing. The level of financing costs with PABs may also enable innovative project procurement. Finally, though project elements funded with federal funds must follow all federal-aid requirements, not all elements of the PAB project may have to follow all federal-aid requirements.

Eligible Projects: Any surface transportation project which receives Title 23 assistance is qualified to benefit from PABs, including projects that receive TIFIA credit assistance. However, the law limits the total amount of PABs to $15 billion and directs the Secretary of Transportation to allocate this amount among qualified facilities. The $15 billion in exempt facility bonds is not subject to any individual state's volume cap, and state and local projects receiving a PAB allocation must also receive assistance under Title 23 or Title 49, United States Code (U.S.C.).

As of February 2020, about $12.12 billion in PABs had been issued, and $930 million in PAB allocations has also been approved. As shown in Table 2, projects similar to the proposed FRPR that have received PABs include: Denver RTD Eagle Project, the Purple Line Light Rail Project in Maryland, and the Brightline Intercity Passenger Rail in Florida.

Table 2. PAB Pipeline (as of February 2020)

Project	dollars in thousands
	Bond Issuances
I-495 Capital Beltway HOT Lanes, Northern Virginia	$589,000
North Tarrant Express (I820 and SH 121/183), Fort Worth, Texas	$400,000
IH 635 (LBJ Freeway) Managed Lanes, Dallas, Texas	$615,000
Denver RTD Eagle Project (East Corridor & Gold Line), Denver, Colorado	$397,835
CenterPoint Intermodal Center, Joliet, Illinois	$150,000
CenterPoint Intermodal Center, Joliet, Illinois	$75,000
Elizabeth River Downtown and Midtown Tunnels, Norfolk, Virginia	$675,004
I-95 HOV/HOT Lanes, Northern Virginia	$241,950
Ohio River Bridges East End Crossing, Louisville, Kentucky	$676,805
North Tarrant Express 35W Project, Fort Worth, Texas	$274,030
Goethals Bridge Replacement, Staten Island, New York	$460,915
U.S.36 Managed Lanes & BRT Phase 2, Denver Metro Area, Colorado	$20,360
I-69 Section 5, Bloomington to Martinsville, Indiana	$243,845
Rapid Bridge Replacement Project, Pennsylvania	$721,485
Southern Ohio Veterans Memorial Highway, Portsmouth, Ohio	$227,355
I-77 HOT Lanes, Charlotte, North Carolina	$100,000
Centerpoint Intermodal Center, Joliet, Illinois	$100,000
SH-288 Toll Lanes, Houston, Texas	$272,635
Centerpoint Intermodal Center, Joliet, Illinois	$130,000
MTA Purple Line, Maryland	$313,035
I-395 Express Lanes, Northern Virginia	$232,995
Transform 66 Outside the Beltway, Northern Virginia	$737,000
All Aboard Florida, Brightline Phase 1, Florida	$600,000
I-70 East Project, Denver, Colorado	$114,660
I-75 Modernization Segment 3, Michigan	$610,300
All Aboard Florida, Brightline Phase 2, Florida	$1,150,000
All Aboard Florida, Brightline Phase 2, Florida	$950,000
Fredericksburg Express Lanes Extension, Virginia	$262,000
North Tarrant Expressway 3C, Texas	$653,865
Gilcrease Expressway West Turnpike Project, Oklahoma	$125,000
Issuances Subtotal	**$12,120,074**
	Bond Allocations
CenterPoint Intermodal Center, Joliet, Illinois	$150,000
I-10 Mobile River Bridge and Bayway Project	$420,000
Cibolo Parkway and Cibolo Expressway Project	$200,000
DC Smart Lighting	$160,000
Allocations Subtotal	**$930,000**
Bond Issuances and Allocations, Total	**$13,050,074**

Source: https://www.transportation.gov/buildamerica/programs-services/pab

3 POTENTIAL STATE FUNDING SOURCES

This section summarizes two categories of State funding sources that could potentially support implementation of the Front Range Passenger Rail (FRPR) program. The first category includes taxes and fees that were previously authorized in state statutes, to support major transportation programs, such as the Public Highway Authority Act. The second category includes funding programs administered by the Colorado Department of Transportation (CDOT). While the revenue potential from the CDOT funding programs is likely less than that of new legislatively authorized fees and taxes, these programs might be a more direct source of funding over the next few years to provide support for pre-construction activities (planning and engineering) for the FRPR program. CDOT programs could also potentially fund construction of smaller elements of the FRPR Program.

Given the current economic crisis due to the COVID-19 pandemic, extreme caution should be used in attempting to project forward the illustrative potential revenue estimates provided in the following sections. The COVID-19 pandemic is expected to result in a significant decrease in sales tax revenue across the nation. In April 2020, the U.S. Census Bureau reported that retail sales fell a seasonally adjusted 8.7 percent in March 2020 from the prior month, the largest monthly decline on record. More generally, the Tax Foundation describes the impacts to sales tax revenue in times of economic contraction, such as the one expected from COVID-19:

> *"Sales taxes are usually among the most stable during economic contractions, because consumption patterns remain considerably more constant than income. Savings tend to be reduced before, and more aggressively than, personal expenditures, and those who begin receiving unemployment benefits or other government assistance see the decline or elimination of their taxable income but continue to have taxable expenses. However, the COVID-19 pandemic is unique inasmuch as social distancing and shelter-in-place orders, along with mandatory closures of many non-essential businesses, have led to a sharp contraction of consumer spending. The goods and services seeing spikes in demand, moreover, such as groceries and digital entertainment, are less likely to be subject to state sales tax."*

These initial reports provide a glimpse into COVID-19's potential impact on sales tax revenue, though it may take years to fully understand the extent of the crisis and its impacts on each revenue source.

Finally, while not described as potential sources below there are two other taxes that could provide support or the FRPR system in the future: property tax and income tax. As described below, additional voter and local government approvals would be required to use a portion of these potential sources for the FRPR.

- Property tax: Included on the November 2020 ballot is a referred constitutional amendment from the Colorado Legislature to repeal the Gallagher Amendment of 1982. The Gallagher Amendment limits the residential and non-residential property tax assessment rates so that residential property tax revenue maintains a 45 percent share of total state property tax revenue and the remaining non-residential property tax revenue maintains the remaining 55 percent of the total. When the Gallagher Amendment, was implemented in 1982, property tax assessment rates were initially set in the state constitution to be 29 percent for non-residential property and 21 percent for residential property. Every two years the residential assessment rate is adjusted to maintain the 45percent/55 percent split of total property tax revenue. Reflecting the significant increase in property values since 1982, the current residential property tax assessment rate is currently 7.15 percent and the non-residential tax assessment rate is 29 percent. If the ballot measure is unsuccessful, the residential property tax assessment rate will continue to decrease in order to maintain the 45 percent/55 percent split, and also continue to limit revenue growth for the State and local communities as the need for services and associated costs continue to increase.

  It is important to note that in addition to the referred constitutional amendment, the legislature also passed a companion bill, Senate Bill 20-223, which would take effect if voters approve the constitutional amendment. This bill would freeze the current property tax rate at 7.15 percent for residential and 29 percent for non-residential and prohibit the legislature from changing these assessment rates.

  The impact of the ballot measure and companion legislation is that the State and local jurisdiction will likely receive annual increases in residential property tax revenue. More specifically the General Fund for these entities will see an increase in revenue. With regards to the FRPR, future legislative decisions and actions would be required to allocate a portion of the increase residential property tax revenue to support implementation or operation of the Project.

- Income tax: Implementing a graduated income tax has been discussed as a potential revenue source to support increased public services, including transportation for many years. Within the State of Colorado the individual income tax rate and corporate income tax rate is a flat 4.63 percent. These rates have been in place since 2000. Based on the Colorado Department of Revenue 2019 Annual Report, net collections for individual income tax was $8.1 billion and net collections for corporate income tax was $654.7 million. An example of a graduated income tax approach was Initiative 271: Colorado Graduated Income Tax Initiative, which failed to meet the requirements to be on the November 2020 ballot. The initiative would have repealed the existing individual flat tax and replaced it with the following graduated income tax rates.
    - Decreased from 4.63 percent to 4.58 percent for income up to $250,000;
    - Increased from 4.63 percent to 7 percent for income from $250,001 to $500,000;
    - Increased from 4.63 percent to 7.75 percent for income from $500,001 to $1,000,000; and
    - Increased from 4.63 percent to 8.90 percent for income over $1,000,000.

  The ballot initiative language indicated these changes would generate an additional $2 billion in annual State revenue. The initiative would have required at least 50 percent of the additional revenue to be used for preschool through twelfth grade public education and the remainder to be used to address the impacts of a growing population and a changing economy.

  With respect to the FRPR, if a future initiative is passed similar to the above description, there would need to be legislative action to allocate a portion of the additional revenue to support implementation or operation of the Project.

4 POTENTIAL LEGISLATIVELY AUTHORIZED SOURCES

Reflecting existing examples of legislatively authorized fees and taxes, this section provides an overview of dedicated sales tax, lodging fees/taxes, and vehicle registration fees. If creation of a new special district and collection of a sales tax would be targeted as a funding source for the FRPR Project, a legislatively referred statutory measure would be required to address Taxpayer's Bill of Rights (TABOR) requirements. More specifically a majority of the State House and Senate would first have to approve legislation that will place the sales tax on the ballot and then voters in the district would have to approve any tax increase or new tax.

4.1 SALES TAX

Description: Sales tax represents the State's second largest revenue source (behind income tax) and is assessed on the purchase of most goods and services. Colorado has a state sales tax rate of 2.9 percent, and is one of 32 states where local entities (including counties, cities, and special districts) can elect to impose additional sales taxes.

If a sales tax is pursued for the FRPR program, it would likely be in the form of a special district geographically defined among the counties or portions of counties served along the planned rail alignment. Within Colorado,

there are currently 32 special districts that collect sales tax. These districts include narrowly defined local improvement districts (LID) as well as those providing services that span multiple counties (such as a regional transportation authority [RTA]).

Sales tax for a given transaction is calculated by adding the rates for all taxing entities whose boundaries are included at a transaction location. For example, a purchase at the Southwest Plaza Mall in unincorporated Jefferson County is subject to a total of six separate sales taxes: state, county, two regional special districts (the Regional Transportation District [RTD] and the Scientific and Cultural Facilities District [SCFD]), and two small area special districts (a LID and a Metropolitan District Tax [MDT]). The total sales tax collected for a purchase at Southwest Plaza Mall is 8.65 percent and includes the non-State special district taxes totaling 5.5 percent.

As of January 2020, combined sales tax rates across Colorado ranges from 2.9 percent in places where only state sales tax is collected, such as parts of Weld County, to 11.2 percent in Winter Park, where a 7 percent city tax, a 1.3 percent Grand County tax, and the state's 2.9 percent tax are all collected. Winter Park reflects a community that collects the maximum sales tax rate currently allowed by State statute (C.R.S. 39-26). The 11.2 percent includes the 2.9 percent state sales tax and local sales tax, reflecting a combination of county, city and special district taxes, capped at a total of 8.3 percent.

Table 3 summarizes the range of sales tax rates for the 11 counties within the proposed FRPR corridor. As shown in the table, the total sales tax rates range from 2.9 percent in unincorporated Weld County, to over 9 percent in Adams County (Commerce City) and El Paso County (Woodland Park). For all counties in the corridor and their respective jurisdictions, there are varying levels of capacity to increase sales tax within the current 11.2 percent maximum rate.

Table 3: 2020 Sales and Use Tax Rates within FRPR Corridor

	2020 Sales Tax Rates				
County	State Sales Tax Rates	County Sales Tax Rates	Range of City Sales Tax Rates	Range of Special District Sales Tax Rates	Range of Total Sales Tax Rates
Adams	2.90%	0.75%	3.46% to 4.50%	0.10% to 1.10%	**3.75% to 9.25%**
Arapahoe	2.90%	0.25%	2.50% to 4.00%	0.10% to 1.10%	**3.25% to 8.00%**
Boulder	2.90%	0.985%	2.00% to 4.00%	1.10% to 2.10%	**4.99% to 8.99%**
Broomfield*	2.90%	4.15%	N/A	0.10% to 1.30%	**3.00% to 4.20%**
Denver*	2.90%	4.31%	N/A	1.10% to 1.10%	**4.00% to 4.00%**
Douglas	2.90%	1.00%	1.38% to 4.00%	0.00% to 1.60%	**4.00% to 8.75%**
El Paso	2.90%	1.23%	2.00% to 4.09%	0.00% to 1.10%	**4.88% to 9.22%**
Jefferson	2.90%	0.50%	0.60% to 4.00%	1.10% to 3.10%	**4.50% to 8.50%**
Larimer	2.90%	0.80%	1.00% to 5.00%	0.00% to 0.00%	**3.70% to 8.70%**
Pueblo	2.90%	1.00%	3.70% to 3.70%	0.00% to 0.00%	**3.90% to 7.60%**
Weld	2.90%	0.00%	2.00% to 4.11%	0.00% to 1.00%	**2.90% to 7.65%**
*** Note that Broomfield and Denver function as both cities and stand-alone counties – therefore, county tax rates are commensurate with city rates elsewhere in the state.**					

Revenue Potential: If the Rail Commission were to pursue statutory authority to utilize sales tax as a potential revenue stream to support development of Front Range Passenger Rail, the following funding scenarios have been developed for illustrative purposes to include the 11 counties along the FRPR alignment. Three potential

increase scenarios were selected, 0.10, 0.25 percent, and 0.50 percent, and assumed that a sales tax-collecting special district would be created that encompassed the entirety of each county. The estimates shown in Table 4 were based on the net taxable sales collected for the 11 counties in 2018, which totaled $87.0 billion (https://www.colorado.gov/pacific/revenue/retail-sales-report). Based on this amount, which reflect a pre-COVID 19 economy, the illustrative annual revenue generation estimates range from $87 million to $435 million.

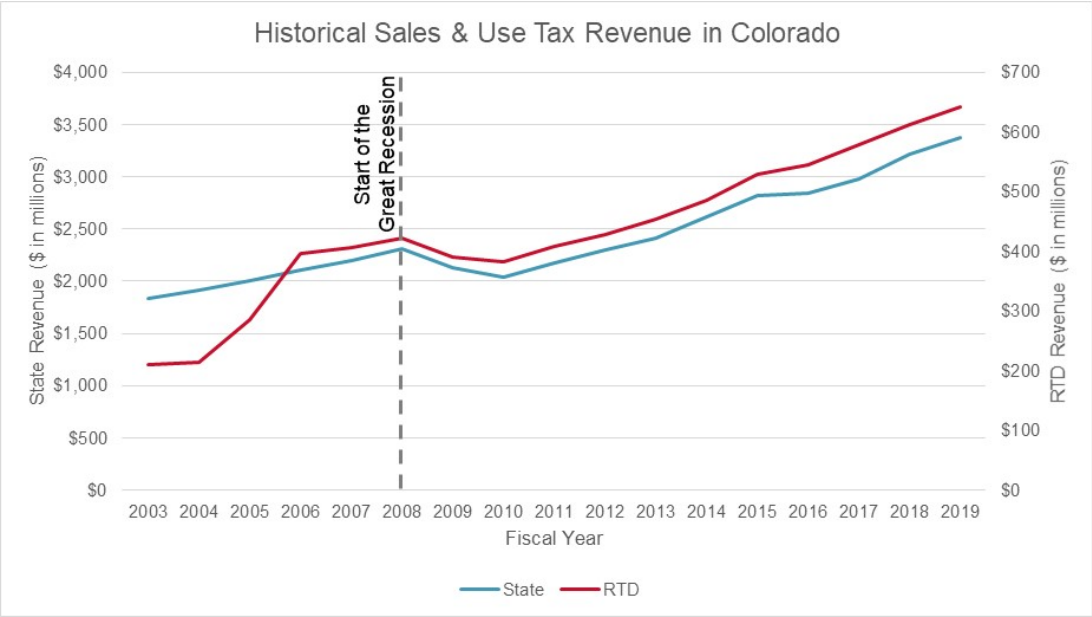
Table 4: Illustrative Annual Sales Tax Revenue Scenarios

Sales Tax Increase	Potential Annual Revenue ($ in millions)
0.10%	**$87**
0.25%	**$218**
0.50%	**$435**

Source: Colorado Department of Revenue, HDR

The illustrative annual sales tax estimates are based on the information available as of spring 2020 and do not account for the impacts of COVID-19 on the economy. It may take years to fully understand the extent of the COVID-19 crisis and its impacts on sales tax. The closest comparison to the potential revenue impacts would be looking at what happened to sales tax revenue during and after the Great Recession. Figure 2 shows historical sales and use tax revenue since 2003, using totals collected by the State and (for comparison), the RTD special district in the Denver region. The figure shows that sales tax revenue generally increased over the 16 years but decreased significantly from 2008 to 2010 in response to the Great Recession. As shown in the figure, for both the State and RTD, it took approximately 4 years for sales tax revenue to return to the 2008 pre-recession levels.

Figure 2: Historical Sales & Use Tax Revenue in Colorado, 2003-2019 ($ in millions)



Source: https://www.colorado.gov/pacific/revenue/annual-report, HDR

4.2 LODGING TAX/FEE

Description: A lodging tax is a fee levied only in certain cities or towns within Colorado and is applied specifically to lodging services, such as hotels, motels, condominiums, space rentals, camping facilities and services, auto camps, and trailer parks. If one of these types of businesses rents rooms and accommodations for less than 30 days, a lodging tax is charged to the customer. Rooms and accommodations occupied for a period of 30 or more consecutive days are exempt from the local lodging tax.

Revenue Potential: For illustrative purposes, it was assumed that a lodging tax/fee could be levied in the 11 counties adjacent to the proposed FRPR alignment. The Colorado Hotel and Lodging Association publishes a statewide report on lodging trends and statistics, including available room nights, monthly average occupancy rates, and average nightly cost. The most recent publicly available report includes 2017 data. Using this information, occupied room nights and total monthly revenue were calculated for the major metropolitan areas within these 11 impacted counties. It was assumed that lodging options outside of these urbanized areas would produce negligible lodging tax/fee revenue. Note, if the FRPR district is more narrowly defined, revenues from this source would reduce accordingly.

Table 5shows potential annual revenue based on a per-night fee in dollars and percentages. Note the revenue is similar between dollars and percentages, reflecting that the average nightly lodging rate is close to $100; specifically, the average nightly rate across the identified metropolitan areas is $114 per night. Using the illustrative rates shown in Table 5, estimated annual revenues from a lodging fee could be in the range of $20 million to $65 million. Again, these estimates are based on information available as of spring 2020 and do not account for the impact of COVID-19 on the hospitality and tourism industries.

Table 5: Potential Annual Revenue by Nightly Lodging Tax (2018$ in millions)

	Potential Revenue by Nightly Tax ($)			Potential Revenue by Nightly Tax (%)		
Nightly Tax	**$2**	**$3**	**$5**	**2%**	**3%**	**5%**
Denver/Boulder Metro	$18.8	$28.2	$46.9	$22.2	$33.3	$55.5
Colorado Springs	$2.1	$3.1	$5.2	$1.8	$2.7	$4.6
Estes Park	$0.2	$0.3	$0.5	$0.3	$0.4	$0.7
Longmont	$0.2	$0.3	$0.5	$0.2	$0.3	$0.6
Fort Collins	$0.7	$1.0	$1.7	$0.6	$0.9	$1.5
Loveland	$0.5	$0.8	$1.4	$0.5	$0.8	$1.4
Greeley	$0.3	$0.5	$0.8	$0.3	$0.5	$0.8
Total	**$22.9**	**$34.3**	**$57.2**	**$26.0**	**$39.0**	**$65.0**

Source: 2019 Colorado Hotel and Lodging Association, HDR. Note: estimates reflect hospitality and tourism industries prior to COVID-19.

4.3 VEHICLE REGISTRATION FEE

Description: According to an August 2019 Legislative Council Staff Memo[2], the State of Colorado collects two types of fees when vehicles are registered annually: registration fees and the specific ownership tax. Table 6 summarizes the registration fees the legislature has provided authorization to collect. As shown in the table, one of these fees, Public Highway Authority Fee, is no longer collected.

[2] Motor Vehicle Registration Fees, Legislative Council Staff Memorandum, August 2019, https://leg.colorado.gov/sites/default/files/r19-791_vehicle_registration_fees_interested_persons_memo.pdf

- **Registration Fees:** The State began collecting motor vehicle fees in 1913. As shown in Table 6, since 1913, the General Assembly has created an additional 13 state motor vehicle fees paid at registration, with several other applicable county fees. The General Assembly last made major changes to motor vehicle fees in 2009 with the passage of the Funding Advancements for Surface Transportation and Economic Recovery Act (FASTER). As highlighted in the grey shaded cells in the table, the following changes were made as part of FASTER:
    - Establishing a Road Safety Surcharge and Bridge Safety Surcharge, based on vehicle weight, which are collected when a vehicle is registered;
    - Requiring owners of motor vehicles to register their vehicles or pay late fees of $25 per month, up to a maximum of $100 per vehicle;
    - Setting a $2.00 daily rental car fee for all vehicles rented in the state of Colorado (not shown in the table); and
    - Creating an overweight vehicle charge for vehicles that exceed normal road operating conditions.

- **Specific Ownership Tax**: All motor vehicle owners pay the specific ownership tax. The specific ownership tax was created in 1937 and is calculated based on a vehicle's original age and value. Revenue is distributed to cities, counties, special districts, and school districts in proportion to property taxes levied by those entities, except for 50 cents distributed to the Colorado Driver License, Record, Identification and Vehicle Enterprise Solution (DRIVES) Account.

Table 6: Colorado Motor Vehicle Registration Fees

Motor Vehicle Fee	Fee Amount	Distribution	Fee History
Registration Fee: Section 42-3-306 (2), C.R.S.)	• $3.00 for motorcycles; • $6.00 for passenger vehicles, up to 2,000 pounds, plus • $0.20 per 100 pounds up to 4,500 pounds; and • $12.50 for passenger vehicles 4,500 pounds or more, plus $0.60 each additional 100 pounds.	Fee credited to the Highway Users Tax Fund (HUTF).	Fee created in 1913.
Diesel Fee (Section 42-3-304 (20), C.R.S)	• $10.00	Fee collected for all qualified diesel vehicles registering within the emission program area and credited to the Automobile Inspection and Readjustment (AIR) account.	Fee created in 1986.
Public Highway Authority Fee (Section 43-4-506 (1)(k), C.R.S)	• No more than $10.	Collected annually for vehicles registered within public highway authority boundaries for use by the authorities.	Fee created in 1987; however the E470 fee is no longer collected
Emission Control Fees (Section 42-3-304 (18)(a) and (18)(b), C.R.S.)	• $0.50 for all vehicles, plus $0.70, to be collected and retained by the county for vehicles in the emissions program area; and • $1.50 for vehicles in the emissions program area.	Emission fees credited to the AIR account. The fees are used for the emissions program enforcement and administration.	Fee created in 1987.
Emergency Medical Services Fee (Section 42-3-304 (21), C.R.S.)	• $2.00	Fee credited to the Emergency Medical	Fee created in 1990.

		Services Account in the HUTF.	
Motorcycle Surcharge Fee (Section 42-3-304 (4),C.R.S.)	• $4.00	Fee collected for all motorcycle registrations and credited to the Motorcycle Operator Safety Training (MOST) Fund.	Fee created in 1991.
Additional Registration Fee (Section 42-3-306 (14)(a), C.R.S.)	• $0.50 for non-self-insured motor vehicles; and • $0.10 for self-insured motor vehicles.	Fee credited to the DRIVES Account in the HUTF. DRIVES is a software program used for driver and vehicle services.	Fee created in 1997.
Motorist Insurance Identification Fee (Section 42-1-211 (2),C.R.S)	• adjusted annually	Fee credited to the DRIVES Account.	Fee created in 1997.
Additional Highway Fee (based on age of vehicle) (Section 42-3-306 (2)(b)(II), C.R.S.)	• $12.00 for vehicles under 7 years old; • $10.00 for vehicles between 7 and 10 years old; and • $7.00 for vehicles 11 years old and older.	Fee credited to the HUTF.	Fee created in 2001.
Peace Officers Standards and Training (P.O.S.T.) Board Fee (Section 42-3-304 (24), C.R.S)	• $1.00	Fee collected at registration on Class A, B, and C vehicles to support the activities of the POST Board.	Fee created in 2003.
Road Safety Surcharge (Section 43-4-804 (1), C.R.S.)	• $16.00 for motorcycles and vehicles weighing 2,000 pounds or less; • $23.00 for vehicles weighing 2,001 to 5,000 pounds; • $28.00 for vehicles weighing 5,001 pounds to 10,000 pounds; • $37.00 for passenger busses and vehicles weighing 10,001 to 16,000 pounds; and • $30.00 for vehicles weighing more than 16,000 pounds.	Fee credited to the HUTF.	Fee created in 2009.
Bridge Safety Surcharge (Section 43-4-805 (3)(a), C.R.S.)	• $13.00 maximum surcharge for motorcycles, trailer coaches, multipurpose trailers, and vehicles weighing 2,000 pounds or less; • $18.00 maximum surcharge for vehicles weighing 2,001 to 5,000 pounds; • $23.00 maximum surcharge for vehicles weighing 5,001 to 10,000 pounds; • $29.00 maximum surcharge for vehicles weighing 10,001 to 16,000 pounds or passenger buses; and • $32.00 maximum surcharge for vehicles weighing more than 16,000 pounds.	Fee credited to the Bridge Special Fund.	Fee created in 2009
Late Registration Fees (Section 42-3-112, C.R.S.)	• One-month grace period; • $25.00 per month for the subsequent four months; • $100.00 limit on total fees.	Fee credited to the HUTF.	Fee created in 2009.
Plug-in Electric Vehicle Fee (Section 42-3-304 (25), C.R.S.)	• $50.00	Fee collected annually on plug-in electric vehicles. $30 of the fee is credited to the HUTF and $20 is credited to the Electric Vehicle Grant Fund.	Fee created in 2013.

Source: Motor Vehicle Registration Fees, Legislative Council Staff Memorandum, August 2019

As shown in Table 6, the State has defined how each of the registration fees are allocated to different transportation funding programs. Additionally, the Specific Ownership Tax is one of multiple fees and taxes that funds the State's HUTF, which is a program that helps the State, counties and cities cover a share of expenses related to maintenance, construction, repair, and administration of roads and highways. At this time, it is assumed that these roadway/highway dollars would not be eligible to support the FRPR.

Revenue Potential: For illustrative purposes, a calculation was made for an increase in vehicle registration fee for the 11 counties adjacent to the proposed FRPR alignment. Table 7 shows the total number of vehicles registered in 2019 for each county. Illustrative revenue estimates are also provided assuming vehicle registration fees of $5, $10, and $15. Note this fee structure is highly simplified and would likely need to be refined should this funding source be selected for further analysis. Using this simplified calculation, the illustrative annual revenue ranges from approximately $25 million to $70 million.

Table 7: Potential Annual Revenue by Vehicle Registration Fee ($ in millions)

County	2019 Vehicle Registrations	Illustrative Revenue by Vehicle Registration Fee Level		
		$5.00	**$10.00**	**$15.00**
Larimer	369,261	$1.8	$3.7	$5.5
Weld	374,513	$1.9	$3.7	$5.6
Boulder	293,449	$1.5	$2.9	$4.4
Broomfield	65,738	$0.3	$0.7	$1.0
Jefferson	596,125	$3.0	$6.0	$8.9
Adams	523,261	$2.6	$5.2	$7.8
Denver	613,829	$3.1	$6.1	$9.2
Arapahoe	602,777	$3.0	$6.0	$9.0
Douglas	335,379	$1.7	$3.4	$5.0
El Paso	695,171	$3.5	$7.0	$10.4
Pueblo	179,990	$0.9	$1.8	$2.7
Total	**4,649,493**	**$23.2**	**$46.5**	**$69.7**

Source: Colorado Department of Revenue, HDR

4.4 CDOT ADMINISTERED PROGRAMS

CDOT receives funding from the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) as well as dedicated state transportation taxes, some of which were described in the previous sections. These funds are pooled together, based on legislatively defined eligible uses, and then allocated among multiple programs to support a variety of infrastructure investments. The following provides a summary of programs that may be applicable o future expenses for the FRPR Program

4.4.1 MULTI MODAL OPTIONS FUND

Description: The Multi-Modal Options Fund (MMOF) was created during the 2018 Colorado legislative session (Senate Bill [SB] 2018-001). This program's funds may be used for an array of capital, construction, operations and planning projects, including but not limited to bicycle, pedestrian, ride sharing, or transit projects. The bill transferred a combined $96.75 million of FY 2019 and FY 2020 general fund revenues to the MMOF, of which the Front Range Passenger Rail Commission received $2.5 million in FY2019.

The remaining $94.25 million was split based on the following:

- CDOT Multimodal Investments: $14.13 million (15 percent), however due to COVID-19 impacts, the legislature transferred $10 million for other uses and CDOT staff recently proposed utilizing the

remaining $4.1 million to establish a grant program to support communities across Colorado in implementing active transportation options on an accelerated basis, and in a manner that responds to current public health needs; and

- MMOF Local Fund: $80.12 million (85 percent) to be allocated to local or regional entities for multimodal investments.

Eligible project categories under the MMOF Local Fund category include capital or operating costs for: fixed route and on-demand transit; Transportation demand management programs; multimodal mobility projects enabled by new technology, multimodal transportation studies; and bicycle or pedestrian projects.

The Colorado Transportation Commission (TC) established a distribution formula for the MMOF Local Fund based on population and transit ridership criteria among Colorado's 15 Transportation Planning Regions (TPRs). The TPR's are responsible for prioritizing and selecting projects within their region for funding. MMOF Local Fund recipients are required to provide a 50 percent match. However, the TC is permitted to also create a formula for reducing or exempting the match requirement for local governments or agencies due to their size or any other special circumstance.

Table 8 summarizes the allocation of the $80.12 million in MMOF Local Funds among the TPRs. As shown in Table 8, 81 percent of funding was allocated to the urban TPRs and 19 percent was allocated to the rural TPRs. prioritize and select projects within their regions.

Table 8: MMOF Local Fund - Transportation Planning Region Allocations

	TPR Name	Pop 2016	Jobs	Disadv Pop	Zero vehicles	Revenue Miles	Unlinked Trips	Bike Crash	Pedestrian Crash	School-Aged Children	Household Affordability Burden	Alloc%	Allocation$
Urban (81%)	Pikes Peak Area	12.3%	10.0%	11.8%	9.9%	4.4%	2.6%	7.4%	7.5%	13.5%	12.2%	8.6%	$6,531,199
	Denver Area	57.7%	64.3%	52.9%	62.5%	69.6%	80.5%	65.6%	75.1%	56.8%	54.4%	60.2%	$45,810,761
	North Front Range	8.9%	8.0%	9.2%	7.3%	4.7%	3.9%	12.9%	5.0%	9.4%	8.8%	7.3%	$5,575,009
	Pueblo Area	3.0%	2.3%	4.4%	4.8%	1.2%	0.7%	2.6%	3.1%	3.0%	3.6%	2.6%	$2,003,884
	Grand Valley	2.7%	2.6%	3.6%	2.8%	1.1%	0.6%	3.3%	2.0%	2.8%	3.1%	2.3%	$1,731,488
Rural (19%)	Eastern	1.5%	1.0%	1.7%	1.5%	0.1%	0.0%	0.2%	0.4%	1.4%	1.9%	1.4%	$1,031,838
	Southeast	0.8%	0.6%	1.3%	1.0%	0.1%	0.0%	0.1%	0.2%	0.8%	1.1%	0.9%	$664,017
	San Luis Valley	1.2%	0.9%	1.9%	1.6%	0.1%	0.0%	0.5%	0.4%	1.2%	1.6%	1.3%	$961,989
	Gunnison Valley	1.8%	1.4%	2.6%	1.9%	5.0%	2.7%	1.0%	0.7%	1.7%	2.3%	3.1%	$2,355,869
	Southwest	1.8%	1.6%	2.1%	0.9%	1.2%	0.4%	0.2%	0.4%	0.9%	2.1%	1.6%	$1,247,368
	Intermountain	3.1%	3.5%	2.5%	1.7%	7.9%	6.4%	2.7%	2.6%	3.5%	3.3%	4.9%	$3,751,566
	Northwest	1.1%	1.1%	1.0%	0.8%	1.2%	1.3%	0.7%	0.5%	1.1%	1.2%	1.3%	$993,003
	Upper Front Range	1.9%	1.4%	2.1%	1.4%	1.0%	0.1%	1.9%	1.0%	2.1%	2.0%	2.0%	$1,492,904
	Central Front Range	1.8%	1.0%	2.3%	1.3%	2.3%	0.8%	0.7%	0.8%	1.5%	2.1%	2.1%	$1,617,326
	South Central	0.4%	0.3%	0.6%	0.7%	0.2%	0.0%	0.1%	0.2%	0.3%	0.5%	0.5%	$345,780
	Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**$76,114,000**
	Urban Formula wt	*20.0%*	*10.0%*	*10.0%*	*10.0%*	*10.0%*	*10.0%*	*10.0%*	*10.0%*	*10.0%*		*100%*	
	Rural Formula wt	*20.0%*		*15.0%*	*10.0%*	*15.0%*	*10.0%*	*5.0%*	*5.0%*	*10.0%*	*10.0%*	*100%*	

Note: Allocations do not include 5% ($4,006,000) withheld for CDOT Administrative cost.

Revenue Potential: Front Range Passenger Rail Commission received $2.5 million in FY 2019 under the multimodal transportation study category. The MMOF Local Fund could be a funding source for additional planning and engineering studies.

4.4.2 DIVISION OF TRANSIT & RAIL FUNDING PROGRAMS

Description: While not a specific funding program, CDOT's Division of Transit & Rail (DTR) is responsible for the planning, developing, operating, and integrating transit and rail into the statewide transportation system. The Division works with other transit and rail providers to plan, promote, and implement investments in transit and rail services statewide. To accomplish this, it developed the Colorado State Freight and Passenger Rail Plan. The approval of the Freight and Passenger Rail Plan by the Transportation Commission made CDOT eligible to pursue and obtain Federal Railroad Administration funds.

The Division, which also holds a non-voting seat on the Front Range Passenger Rail Commission, is responsible for:

- Design, build, finance, operate, maintain and contract for transit services, such as bus, passenger rail, and advanced guide-way system services.
- Administer and expend state and federal funds for:
    - Building, maintaining and operating interregional transit, advanced guideway, and passenger rail services.
    - Transit projects including, but not limited to, facilities, equipment, services and provision of grants to transit operators.
    - Coordinating and negotiating with the railroads.
    - Supporting CDOT in representing the state regarding development of intercity rail facilities, including high-speed rail projects.
    - Coordinating and cooperating with regional transportation authorities

Revenue Potential: DTR is responsible for allocating funding from State and Federal Grant Programs for transit providers across Colorado. For example, DTR has contributed matching funding toward CRISI and TIFIA federal grants for the Southwest Chief. DTR also manages and operates Bustang for the state. While passenger rail falls under DTR's responsibilities, to date no state or federal funds for the FRPR have been administered through DTR.

5 VALUE CAPTURE

Value capture is generally defined as the public recovery of a portion of increased property value created as a result of public infrastructure investment. As described in the sections below, there are a variety of strategies or mechanisms for providing funding to major transportation projects from the value induced as a result of their implementation. Advancement of these strategies requires collaboration among:

- Transit agencies/rail authorities: responsible for planning, implementing and operating the transit/rail line, stations, and systems;
- Local jurisdictions: responsible for amending/modifying existing land use regulations and zoning policies (density maximums, height restrictions, parking requirements, allowable adjacent land uses) to support implementation of station area development plans;

- Developers: invest in real estate development in response to new transportation capacity and access as well as supporting development regulations.

There is additional collaboration required between the transit agency/rail authority and local jurisdictions related to how the revenue generated through value capture will be used. Specifically, these jurisdictions are responsible for deciding whether all value capture revenue will be used to support the implementation and operation of the transit/rail project or if a portion will be used to construct the public infrastructure surrounding the stations to accelerate implementation of the station area development plans.

5.1 OVERVIEW

From the Transit Cooperative Research Program Research Report 190: *Guide to Value Capture Financing for Public Transportation Projects* (*TCRP Research Report 190*), capturing a portion of the induced value to fund implementation and on-going operations and maintenance is an increasingly viable option, subject to a number of enabling conditions including:

- Real estate market vitality;
- Accommodative zoning and land use entitlements;
- Statutory authority enabling use of value capture mechanisms;
- Articulation of a compelling business case for value capture to public and private partners and to the financial markets on which they depend;
- Development of project- and context-specific financial strategies that are feasible, incentivize and reinforce value creation; and
- Institutional capacity on the part of transit agencies/rail authorities, local governments, developers, and other partners working together to maximize value creation and value capture.

Key conclusions from *TCRP Research Report 190* that provide guidance for future FRPR station area development plan efforts include:

- **Value capture opportunities and strategies vary significantly due to context.** The type and composition of real estate from which transit agencies and local governments may capture value vary from one circumstance and market location to another. The American Public Transportation Association's (APTA's) 2009 *Defining Transit Areas of Influence* highlighted that value capture techniques can generate revenue from within transit benefit areas that extend beyond the traditional half-mile-radius "transit areas of influence". More specifically, areas benefitting from enhanced mobility, transit/rail accessibility, improved bicycle and pedestrian access, and other transit-induced amenities may extend two miles or more from station locations.
- **Value capture is frequently contemplated in the context of transit-oriented development (TOD) projects.** TOD is one specific type of the many potential forms of transit-influenced development. TOD is typically composed of vibrant mixed-use development that is amenity-rich and features proximity to transit. Many multimodal features are included in TOD, including pedestrian and bicycle improvements. Numerous studies have demonstrated that under certain circumstances, TOD can command higher sales prices and rents for a variety of property types.
- **The opportunity for value creation and subsequent value capture will vary by transportation network and station characteristics.** Unique characteristics of each transit line and station area will

influence the potential for value creation and capture. Significantly different value capture strategies may be appropriate along the same transit line within a single jurisdiction. For example, transit lines and stations in mature and dense urban areas will lend themselves to different value capture strategies than those in greenfield or suburban redevelopment areas.

- **Land use regulations and zoning can support and incentivize both value creation and value capture strategies.** However, regulations that are ill-conceived, inadequate, or over-abundant may act as barriers to value creation. Realizing value creation potential related to transit projects requires that local planning, zoning, and development entities adopt rules that allow for and encourage optimization of the opportunity, including:
    - Replacing density maximums with minimums,
    - Modifying or eliminating rules requiring segregation of various land uses,
    - Reduction of minimum parking requirements, and
    - Use of development agreements or similar mechanisms that allow for negotiation of complex value exaction and policy-objective–specific entitlements.
- **Subject to market constraints, new transportation capacity and access create opportunity for increased development.** The cornerstone of successful value capture implementation is the clear identification of the economic opportunity associated with (1) real estate projects and (2) embracing a value capture strategy that optimizes benefits both for public and private partners. Developers respond to transit agency investment in infrastructure by evaluating market opportunity for value creation induced by new transportation capacity (or anticipation of such capacity).
- **From the developer's perspective, the business case for value capture relates to the balance between market opportunity and the cost burden of value capture.** Care must be taken to ensure that the amount of value captured does not exceed consumers' perceived transit-related/rail-related value premium. In an efficient real estate market, value capture costs exceeding consumers' increased willingness to pay for transit/rail amenities creates a competitive disadvantage and can disincentivize investment in development and value creation. In practice, these considerations are complicated further by real estate land acquisition, entitlement, development, construction, and financing costs, many or all of which may be higher than those in less complex projects of lower development intensity.
- **From the perspective of local government, the business case for value capture rests on its ability to fund or finance elements of a transit/rail project, municipal infrastructure, or other public needs.** Value capture strategies can allow local government to invest in further enhanced transportation infrastructure, transit supportive infrastructure, expanded transit service, and various public amenities, which can induce additional value creation.

  Opportunity for value capture may be maximized to the extent that public and private stakeholders successfully cooperate in strategic value creation. Additional value may be created, and additional public policy objectives may be achieved, through strategic planning and partnership with other public agencies or not-for-profits such as workforce or affordable housing providers. Costs and benefits associated with development of affordable or workforce housing, parks, parking, or municipal infrastructure may be allocated between the parties in the context of development agreements negotiated toward maximizing mutually beneficial value creation.

5.2 COLORADO SUCCESS STORY: DENVER UNION STATION

Denver Union Station (DUS) is viewed nationally as a successful example of value capture within an innovative overall financial strategy. Specifically, the use of value capture supported the implementation of the regional mobility hub, including light rail, passenger rail, and regional bus infrastructure investments totaling approximately $500 million. The innovative financial strategy included a combination of federal and state grants, property sales proceeds, RTD sales tax, a TIFIA loan, and a $155 million Railroad Rehabilitation and Improvement Financing (RRIF) loan that will be repaid over a 30-year period using TIF revenue from the planned real estate development that would occur on the 40-acre district that surrounds DUS.

5.2.1 PARTNERSHIPS AND PLANNING

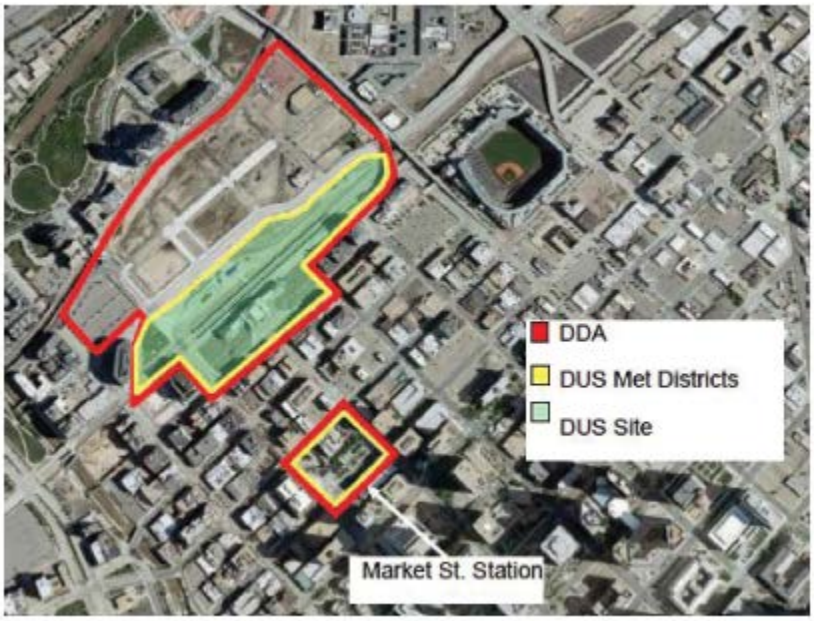
A key factor in the success of the DUS value capture approach was the station area planning and public-private partnership that occurred well in advance of the start of construction. While planning for FRPR stations would not take as long as what is described below for DUS, there may be lessons learned on the process and partnerships that could act as a guide for the FRPR.

- **Property Acquisition**: The four public partners, Denver RTD, City and County of Denver, Denver Regional Council of Governments (DRCOG), and CDOT executed an intergovernmental agreement (IGA) to purchase the DUS property in 2001.
- **Master Plan**: Denver RTD led a multi-year effort to develop the Master Plan which provided the strategic vision for DUS and the surrounding neighborhood. The Plan was endorsed by the four public partners as well as the 96-member Union Station Advisory Committee (USAC), which represented the interests of 36 stakeholder groups. The master plan called for approximately 1 million square feet of office space, up to 300 residential units, a hotel, and 100,000 square feet of retail/commercial space.
- **Rezoning**: In 2004, the City and County of Denver formally rezoned the DUS property as a transit mixed use district in order to accommodate the mixed-used transit oriented development vision from the Master Plan.
- **Master Developer Selection**: The DUS partners led a request for qualifications (RFQ) process that led to the master developer selection. DUS partners selected Continuum/East-West Development Partners (now called Union Station Neighborhood Company or USNC) from 11 competing entities in 2006.
- **Contract Authority - Denver Union Station Project Authority (DUSPA)**: The 2001 IGA did not establish a legal authority and as a result, the partners did not have the power to contract. In 2008, DUSPA was created as the legal entity for the purpose of managing, financing, and implementing the project, including issuing tax-exempt debt, another power that was lacking under the IGA. All four government partner agencies and the private partner participated in the governance of DUSPA.
- **TIF District Established**: In 2008 the TIF district was established with the creation of the Denver Downtown Development Authority (DDA) and the DUS Metropolitan Districts Numbers 1 through 5 (Met Districts).

- ***DDA*:** Created by statute, the DDA's TIF district is comprised of 40 plus acres in the Central Platte Valley. The DDA was provided statutory authority to use TIF for a 30 year period. As shown in Figure 3, the DDA plan area included the DUS project area (19.5 acres) plus an additional 25 acres. DDA entered into an agreement with the City and County of Denver to remit TIF to DDA, which the DDA then pledged to repay debt (the RRIF loan) incurred as part of DUS.
- ***DUS Met Districts*:** The City and County of Denver established "Met Districts," statutory metropolitan districts that levied property taxes. As shown in Figure 3, boundaries of Met Districts Numbers 1 through 3 included the 19.5-acre site, and those of Numbers 4 and 5 included Market Street Station. The districts had the following characteristics:
  - These Met Districts were not-for-profit corporations organized by CCD for managing, financing, and implementing the DUS.
  - They were defined as "enterprises" under Colorado's Taxpayer Bill of Rights, each with authority to issue revenue bonds and operate "on behalf of issuer" for federal tax purposes (allowing issuance of tax-exempt debt).
  - During the TIF period, revenues generated from the 20 mills of incremental property tax would be payable through DDA, and thereafter for an additional 11 years, payable through the Districts.

- DUS Construction Completed: Completion of the approximately $500 million multimodal infrastructure program was completed in 2014. It is important to note, that renovation of the actual Denver Union Station building was not part of the core multimodal infrastructure program, aside from providing connections to the adjacent rail platforms and bus station. Denver RTD issued a separate RFP to redevelop the station building.

Figure 3: DUS Value Capture Map



Source: Barrett, 2014.

5.3 VALUE CAPTURE TYPOLOGY

Typical value capture approaches that have been used or considered in the United States are provided below and reflect the definitions provided in *TCRP Research Report 190*. As indicated in Table 9, it is important to note that most of these can be used as part of a combination of multiple value capture approaches (joint application).

Table 9: Major Value Capture Approaches and Potential Application

Value Capture Approach	Exclusive Use	Joint Application
Impact Fees	X	
Joint Development/Air Rights		X
Land Value Taxation		X
Naming Rights		X
Negotiated Exactions	X	
Sales Tax District		X
Special Assessment District/ Improvement District		X
Tax Increment Financing		X

Source: TCRP Research Report 190

Within Colorado, current State statutes allow value capture revenue to be collected through two categories of Special Districts:

- Metropolitan District: As mentioned in the description of Denver Union Station, current legislation allows for the creation of this category of Special District to implement two or more of the following investments: traffic and safety control devices, street improvements, or public transportation. Metropolitan Districts have the ability to collect ad valorem property taxes, including tax increment finance (TIF) revenue, implement an assessment fee, and issue bonds against these revenues. These

districts are also able to enter into public-private partnerships, which could support joint development opportunities, can operate and maintain facilities, and are governed by an elected Board of Directors.

- Improvement Districts: Current State statutes allow local jurisdictions to establish four different districts:
    - Public Improvement District (PID): Established and governed by a county, PIDs may construct, install, acquire, operate or maintain any public improvement or service so long as the county that forms the district is authorized to make such improvements or perform such services under the county's home-rule charter, if any, or applicable state law. PIDs have the ability to collect ad valorem property taxes, including TIF revenues, implement an assessment fee, and issue bonds against these revenues. These districts are also able enter into public-private partnerships, which could support joint development opportunities and can operate and maintain facilities.
    - Local Improvement District (LID): Established and governed by a County or City and County, LIDs may (1) construct, grade, pave, pour, curb, gutter, line, or otherwise improve any street; and (2) provide street lighting or drainage facilities in the unincorporated area of a county, or within a municipality, with municipality consent. LIDs may also construct sidewalks adjacent to any such streets or maintenance roads adjacent to any such drainage facilities. These districts have the ability to implement an assessment fee, collect a limited sales tax increment, and issue bonds against these revenues. These districts are not allowed to enter into public-private partnerships and cannot operate and maintain facilities.
    - General Improvement District (GID): Established and governed by a municipality, GIDs may acquire, install, construct, operate, or maintain any “public improvement” so long as the municipality forming the district is authorized to perform such service or provide such improvement under the municipality’s home rule charter, if any, or under state law. GIDs have the ability to collect ad valorem property taxes, including TIF revenues, implement an assessment fee, and issue bonds against these revenues. These districts are not allowed to enter into public-private partnerships, but can operate and maintain facilities.
    - Business Improvement District (BID): Established and governed by municipality, BIDs may acquire, construct, finance, install and operate and maintain public improvements, including but not limited to streets, sidewalks, curbs, gutters, pedestrian malls, street lights, drainage facilities, landscaping, decorative structures, identification signs, traffic safety devices, bicycle paths, off street parking facilities, benches, restrooms, public meeting houses, and relocating utility lines. BIDs have the ability to collect ad valorem property taxes, including TIF revenues, implement an assessment fee, and issue bonds against these revenues. These districts are not allowed to enter into public-private partnerships, but can operate and maintain facilities.

5.4 VALUE CAPTURE APROACHES

- **Impact Fees:** Assessed by local governments against new development, impact fees offset the public sector costs related to providing infrastructure and services for the development. Impact fees commonly finance roadways, water and wastewater utilities, schools, libraries, and other municipal services and more recently, impact fees have been used to finance transportation infrastructure.

  A policy challenge with impact fees is that they add costs to new development. Everything else being equal, impact fees could result in reduced competitiveness with similar properties if the associated

benefits—higher-quality infrastructure, schools, and other amenities—are not cost-effectively delivered and the value is not clearly communicated (Fogarty and America, 2008).

- **Joint Development/Air Rights:** Joint development is typically a public-private partnership among a transit agency/rail authority, a developer, and/or a local government. In the partnership, the private sector will develop land owned by the transit agency/rail authority or local government, often within half a mile of the transit facility.

  Joint development projects are generally beneficial to the private and public partners as they typically lead to increased revenue for real estate owners, decreased costs for constructing or maintaining transit/rail systems, increased transit ridership, and potentially enhanced complementary infrastructure and passenger amenities.

  Revenue is provided to transit agencies/rail authorities through either a revenue sharing arrangement associated with the real estate development or through a cost-sharing agreement where the developer agrees to contribute directly to the implementation and/or on-going maintenance of the public infrastructure investment.

  Depending on applicable legislative authority, the public sector may also be able to sell air rights to developers—including developable volume above or below a station. In general, air rights are applicable in dense urban areas where the additional costs of air rights construction can be borne by higher prices and rents.

  The FTA is a strong proponent of joint development and includes a wide range of joint development activities as eligible expenses under all of the Agency's capital grant programs. These eligible expenses include: property acquisition and preparation, relocation of utilities, construction of building foundations, bicycle and pedestrian improvements, open space, safety and security equipment, community service facilities and transit parking, and procurement of professional services, such as design, engineering and environmental analysis.

  Similar to the discussion in the Potential Federal Funding Section, if the FRPR system is defined as Intercity Passenger Rail, FTA funding could not be pursued for these joint development related expenses. If the system or components of the system are considered Commuter Rail, FTA grant funds could be pursued to support joint development projects.

- **Land Value Taxation:** This form of property tax is a levy on the unimproved value of land only. The type or level of development on the land is not part of the tax equation. From the TCRP Research 190 Report :

  > *Many economists and policy advocates have lauded the merits of land value taxation. The underlying premise is that unlike the value of vertical building improvements such as housing or office space, which are subject to many private choices and investment decisions, the economic value of unimproved land is more directly reflective of the value of public investment in infrastructure. This makes land value the most logical, and perhaps most equitable, source of public revenues. Advocates of land value taxation suggest that emphasizing ad valorem taxation on land rather than building improvements could have wide-ranging benefits with respect to investment behavior and social and economic consequences. Land value taxation is much discussed, and various versions have been implemented in many places throughout the world and in states such as Pennsylvania and Connecticut. Nevertheless, land value taxation*

remains uncommon in the United States (Gurdgiev, 2012) except for Pennsylvania and Connecticut as noted above.

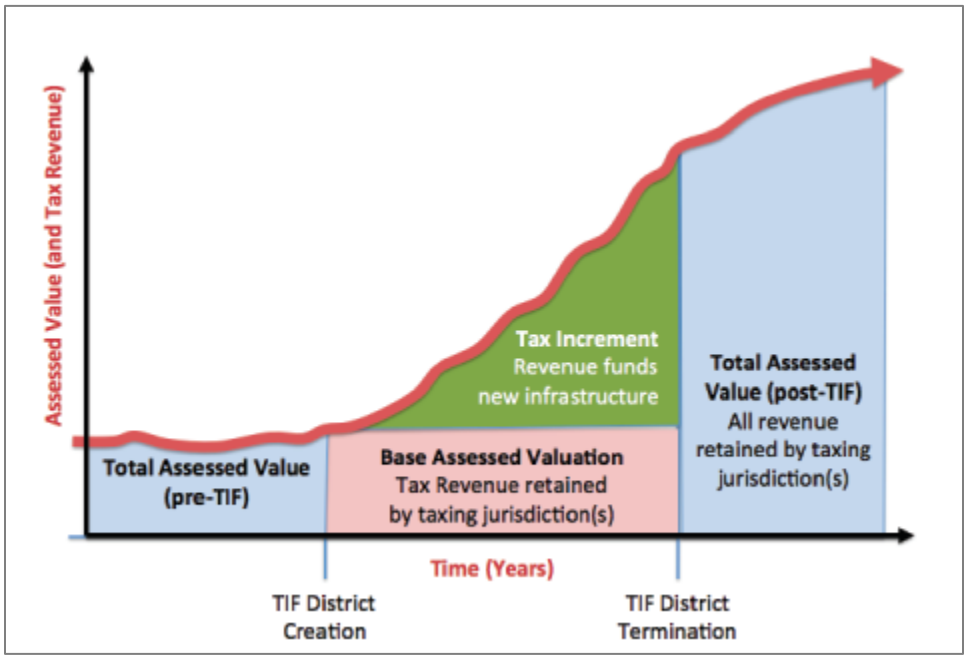
- **Naming Rights:** This form of revenue reflects private participation provided through the provision of equity investments for a project. In return, sponsors receive a combination of advertising, and promotion of their brand or image. Sponsorships have become an increasingly important mechanism for funding large public projects, such as stadiums, aquariums, and major transit programs that attract large attendance and/or provide high visibility. The local transit example is Denver RTD's naming rights agreement with the University of Colorado for commuter rail line to the Denver International Airport. As part of the 2015 agreement, the University of Colorado will provide $5 million over a five-year period for the naming rights.
- **Negotiated Exactions**: This value capture approach involves direct payments or in-kind contributions by developers to local governments that are similar to impact fees in that they are viewed as a means of having development pay for the costs associated with its impacts. Exactions that are negotiated can include infrastructure improvements (roadway paving, traffic signals) as well as contributions of equipment or facilities. Typically, negotiated exactions are a condition for granting approvals to develop a specific property or area plan.

  Negotiated exactions require two legal precedents: (1) a relationship (nexus) between the exaction requested and public sector service needed because of the development; and (2) appropriate proportionality between the exaction and the impact imposed by the development.
- **Sales Tax District**: Under this approach, retail entities and other commercial enterprises within a voter approved boundary are charged an incremental increase in the sales tax rate that is then dedicated to the transit/rail project. If the effective sales tax rate is not significantly higher than surrounding and/or competing neighborhoods or developments, sales tax districts may not negatively impact real estate markets. A recent example of a sales tax district is the Kansas City Downtown Streetcar Transportation Development District. This district was formed pursuant to the Missouri Transportation Development District Act and then approved by the residents within the district boundaries. As described in Section 1.5, in addition to the sales tax increment, this district collects revenues from multiple value capture approaches.
- **Special Assessment District/Improvement District:** To create a special assessment/improvement district, property owners within a defined boundary vote to implement a fee assessed against real property parcels that will or are benefitting from public investments. Creation of a district commonly requires a majority vote of property owners within the proposed boundaries and the term of the district typically has a sunset/termination date. Typically the assessments is levied against existing properties as well as new developments and must be proportional and directly related to the cost of the infrastructure or service and the benefit to the property owner.
- **Tax Increment Finance District (TIF):** As demonstrated in Figure 4, within a TIF districts established by the local jurisdiction, property tax revenues collected by the local government are capped for a defined time period (typically 10 to 30 years). During this time period, property tax revenues resulting from increases in assessed value—the "increment" induced as a result of the public infrastructure investment—are used to reimburse infrastructure investment either directly or via bond debt service payments. Following the conclusion of the TIF district period, the revenue generated by the total assessed value is returned to the local government.

Before establishing a TIF district, analysis is required to demonstrate that anticipated development or redevelopment would not occur except for the infrastructure investment facilitated through TIF.

TIF has been used extensively in the United States to finance a wide variety of infrastructure, including the previously discussed Denver Union Station.

Figure 4: Tax Increment Finance Value Capture Approach



Source: TCRP Research Report 190

5.5 VALUE CAPTURE EXAMPLES

For the FRPR system, if value capture is included in the overall financial strategy, it is possible that the type of value capture and fee assumptions could vary among the station areas. The value capture examples summarized below are intended to support near term discussions on potential approaches that could be evaluated in collaboration with station area development planning.

- **Transit TIF District: Chicago Transit Authority (CTA):** in 2016 the Illinois General Assembly passed new legislation that allowed for the creation of TIF Districts for redevelopment project areas around transit facility improvements to fund capital improvement projects and associated debt service. The new law, Public Act (PA) 99-0792, became effective on August 12, 2016 when Governor Rauner signed it. A TIF district captures the property value increase in a redevelopment project area that arises in part from being near upgraded transit stations and facilities. Within the legislation, "transit facility" is defined as an existing or proposed transit passenger station, existing or proposed transit maintenance, storage or service facility, or existing or proposed right of way for use in providing commuter rail or urban mass transit service.

  The legislation reflects the concept that existing facilities and proposed transit improvements will further increase property values and tax revenue, creating a cycle where transit facilities will improve, more transit oriented development will occur and property values will increase. The legislation requires that 80 percent of the revenue generated by these TIF districts (after whatever portion by law is paid to the municipality's school district) would be earmarked for development or redevelopment of transit-related facilities. Specific transit facility improvement areas and projects named in the legislation include:

- CTA's Red and Purple Line Modernization Program;
- CTA's Blue Line Modernization and Extension,
- CTA's Red Line Extension; and
- Chicago Union Station Master Plan.

A "transit facility improvement area" as defined in the legislation is an area whose boundaries are no more than one-half mile in any direction from the location of a mass transit facility; provided that the length of any existing or proposed right of way included in any transit facility improvement area shall not exceed six miles. The legislation also gave a TIF district created for a transit facility improvement area a maximum term of 35-years.

Transit capital expenses or servicing debt issued for transit capital expenditures are the only eligible expenses for transit TIF district revenue. "Transit facility improvement area redevelopment project costs" means those costs that are "costs related to the construction, reconstruction, rehabilitation, remodeling or repair of any existing or proposed transit facility, whether publicly or privately-owned".

In 2016, the City of Chicago implemented a Transit TIF District for a $2.1 billion Red Purple Line Modernization (RPM) Project - Phase One. The Transit TIF District was established along the Red Line corridor from Devon Avenue to North Avenue and encompassed one large redevelopment project area. The CTA, through an Intergovernmental Agreement with the City of Chicago is using the TIF revenue to repay a $620 million TIFIA loan that was used as part of the RPM's financial strategy.

- **Benefit Assessment District: Los Angeles Streetcar: -** On December 2, 2012, private property owners along the proposed Los Angeles Streetcar alignment voted to implement a benefit assessment district (referred to as a Communities Facility District (CFD) in California). According to Los Angeles Streetcar, Inc., (LASI), the streetcar CFD will place a special tax on land owned by all downtown private property owners located within the district, including condominium owners, with tax amounts tiered based on a property's proximity to the proposed route.

  The initial assessment rates were established to issue approximately $65 million in bonds to cover the non-federal share of the streetcar project's costs. The rates are prorate based on a 10,000 square foot parcel that would be taxed annually:

  - $4,490 if located directly on the proposed streetcar line;
  - $3,640 if located one to two blocks away from the streetcar; and
  - $1,730 if located approximately three blocks away.

  Condominium units will be charged their unit's proportional share of the underlying land, similar to the structure of most home-owner association fees. The majority of condominium units within the streetcar CFD will be charged $100 or less per year, with a median cost of $60 annually.

  The LA Streetcar is currently pursuing an FTA Small Starts Grant.

- **Joint Application: Kansas City Streetcar:** On December 12, 2012, property owners in downtown Kansas City approved the creation of the Downtown Transportation Development District (TDD) to support implementation of the proposed streetcar system. The Downtown TDD is an approximately 2.2-mile long corridor that generates revenue through the following special annual assessments:

  - 1 percent sales tax on sales within the TDD boundary;

- Special assessment on real estate within the TDD boundary, with the following maximum annual rates :
  - $0.48 for each $100 of assessed value for commercial property ($1,536 for each $1,000,000 of market value)
  - $0.70 for each $100 of assessed value for residential property ($133 for each $100,000 of market value)
  - $1.04 for each $100 of assessed value for property owned by the City (approximately $810,000 annually)
- A supplemental special assessment on surface pay parking lots within the TDD boundary excluding private lots or lots dedicated to residences and businesses. The rate is $0.15 per pay parking space.
- A $0.40 cost for each $100 of assessed value for property with non-profit uses. However, because the first $300,000 of market value is excluded, most non-profits will have no streetcar costs. There is also no streetcar assessment on market value greater than $50,000,000 for non-profit uses.

On an annual basis, total revenues from the Downtown TDD are approximately $14 million per year (2020$). To date these revenues have been used to issue bonds to support construction of the Starter Line Streetcar and to cover annual O&M costs (there is no fare to ride the streetcar). Based on the success of the Starter Line, in 2017 a 3.5 mile extension of the Downtown TDD was approved by residents to implement and operate the Main Street Extension Project. With the expansion of the TDD, the revenues generated (approximately $15 million annually (2021$)) will allow the City to issue $175 million in bonds to provide the local match for the $350 million streetcar extension project. Additionally, the revenue from the TDD extension will continue to allow the entire streetcar system to operate fare free. Service on the Main Street Extension is anticipated to start in 2024.

5.6 PLANNING FOR VALUE CAPTURE SUCCESS

If value capture approaches could be a component of the overall financial strategy for the FRPR, it is important to consider station area planning activities during this early stage of program development. As shown in the DUS example, setting a development vision and framework years before construction started resulted in extensive development around the station and a revenue stream to support rail and bus infrastructure investments

- Station Location: While there are a variety of factors that will determine where stations will be located, with respect to a future value capture approach, it is important that development potential as well as the location of successful existing development be factored into this process. The objective is to balance “fitting in” a station location along an alignment with evaluating location options where the station could act as a catalyst for development based on surrounding land use patterns that complement the facility or a location where the station could support expansion of existing successful real estate anchors.
- Station Typology (Placemaking): Concurrent with evaluating station locations, there should be an analysis of the type of station and station area development that could occur. The objective is to evaluate the type of place the station area should become. For example, is the location an urban

destination that would support a dense mixed use development pattern or is it a suburban or smaller urban area that is better suited to primarily be a residential development?

- Design Scenarios, Value Capture Studies and Policy Requirements: Once the typology decisions are made for each location, the next step would be to evaluate potential urban design scenarios. In addition to visual simulations, these scenarios would provide estimated development levels by land use type. Development estimates would provide the inputs for the analysis and comparison of different value approaches including potential annual revenue levels and financing capabilities. Additionally, the urban design scenario would provide the ability to determine what land use and zoning regulations would need to be changed to support implementation of both the passenger rail and station visions.

6 INNOVATIVE FINANCING

6.1 PUBLIC PRIVATE PARTNERSHIPS

Public transportation entities are increasingly turning to the private sector to improve efficiency in the design and construction of major transportation projects and to help meet the financial demands of projects. Considered to be an innovative financing mechanism, a public-private partnership is described by FTA as a contract wherein a single private entity, typically a consortium of private companies, is responsible and financially liable for performing all or a significant number of functions connected to the project. There are several options for consideration of public private partnerships in the development of passenger rail including construction delivery, service operations, and station development in addition to providing flexibility to enhance or leverage specific segments or phasing.

> According to FRA's State Rail Plan Guidance, "Successful private/public partnerships create situations where both freight and passenger operations can expand and flourish."[1]

Advantages to forming a public private partnership can include cost saving, risk management, cost predictability, additional expertise from the private sector with regard to finance, reduced project completion time, and greater private sector investment. A public entity could potentially spread the cost of a project over a greater period of time utilizing this approach. As a potential financing approach, a long-term, dedicated repayment source would be required. To date, for transit projects in the United States, P3 financing has been repaid through a dedicated sales tax.

6.2 COLLABORATION WITH THE HIGH PERFORMANCE ENTERPRISE (HPTE)

The HPTE is an innovative financing leader in Colorado and a potential partner in the financial discussion and project delivery of Front Range Passenger Rail. HPTE has the legal responsibility to aggressively seek out opportunities for innovative and efficient means of financing and delivering important surface transportation infrastructure projects in the state according to its website. Further, it has the statutory power to impose tolls and other user fees, to issue bonds, and to enter into contracts with public and private entities to facilitate Public-Private Partnerships (P3s). As the Project proposes to develop a new mobility option to transportation

users up and down the Front Range, HPTE could be a potential partner and help facilitate the consideration of innovative financing options.

7 FUNDING AND FINANCING COMPARISON TABLE

Further valuable to the conversation and consideration of funding and financing options is a review of other systems and associated funding/financing structures. Below is an overview in table format that provides a bit of comparison of the financial strategies used to implement other passenger rail and commuter rail systems in the United States. This data provides insight on how various combinations of funding sources were used to advance or implement those services.

Selected systems include:

- Cotton Belt Corridor, Texas
- Transbay Terminal - Caltrain Extension, California
- South Shore Line - West Lake Corridor Extension, Indiana
- RoadRunner Express, New Mexico
- Front Runner, Utah

Existing and Proposed Commuter and Passenger Rail Systems in the U.S.

Project	Rail Type	Total Costs (YOE$ in millions)	Federal Grants		Federal Financing		State Funds		Local Sources	
Cotton Belt Corridor (TX)	Regional Passenger Rail	$1,135.00	FHWA CMAQ	$136.0	Railroad Rehabilitation and Improvement Financing (RRIF) Loan - repaid with DART Sales Tax	$908.0			DART Sales Tax; City Contributions (Plano, Richardson, Addison, Coppell); Naming rights and Advertising	$87.7
			FTA Section 5307	$3.3						
Transbay Terminal - Caltrain Extension (CA) (**conceptual financial strategy**)	Regional Passenger Rail	$3,940.10	FHWA CMAQ	$9.4	Transportation Infrastructure Finance and Innovation Act (TIFIA) - repayment sources TBD	$689.7	Sesmic Retrofit Funds (AB 1171)	$150.0	Regional Measure I Sales Tax	$53.0
							High Speed Rail Bond Proceeds	$475.0	Regional Transportation Improvement Program	$23.0
									San Mateo Sales Tax	$27.0
									San Francisco Sales Tax	$295.0
									Land Sales	$287.9
									Tax Increment Financing District	$534.2
									Net Operating Revenue	$140.2
									Bridge Toll Increase	$150.0
									Other	$182.5
									Passenger Facilities Charge (PFC)	$873.0
									Leveraged Lease Transaction	$50.2
South Shore Line - West Lake Corridor Extension (IN)	Commuter Rail	$944.90	FTA Capital Investment Grant	$354.6			Annual State Appropriations	$136.6	Regional Development Authority (local income tax revenue or casino fees)	$325.2
							Next Level Connection Program	$118.1	Local Contributional (general funds)	$10.4
RoadRunner Express (NM)	Commuter Rail	$135.00					State Allocation	$125.0	Sandoval County	$10.0
Front Runner (UT)	Commuter Rail	$1,457.90	FTA Capital Investment Grant	$489.3					UTA Sales Tax	$968.6

Note: Caltrain Trainsbay Terminal Extension – the funding sources reflect a conceptual approach as the project is still in planning/design phase, but provides an example of the potential complexity.

Notes on additional systems. Limited financial information was found on the following systems but are included here with noted value.

- LOSSAN Corridor (CA): The State of California started this service as a contract with Amtrak and paid for initial infrastructure costs including stations since the service operates on existing freight rail lines. This service initiated in the 1980's, and no information was found through the on line research about the initial construction costs and revenues. The State continues to provide operating assistance for the line and share SGR and expansion costs with the member counties, which most if not all have a dedicated transit sales tax.

- MetroLink Commuter Rail (CA): Similar to LOSSAN, this service started in the 1990's and operates on a combination of freight lines or abandoned freight lines that were purchased by member Counties. Through online research, no information was found describing initial start-up costs. For current SGR costs, the member counties share the costs based on an allocation methodology that is primarily determined based on share of total train miles. If a county chooses to enhance service within their geographic boundary, that county is responsible for funding those improvements either through directly local funding or through state or federal competitive grants.

- Texas Central Project (TX): This is a private rail project that includes a value capture component however no public information is available on costs, revenues, and financing strategies. Early reports were that the project intended to use value capture for to address some costs however no detailed financial information is publically available.