

Central Florida Expressway Authority Multimodal Investment Assessment

CFX Board Presentation

CUTR, University of South Florida

February 9, 2017

Background

- 2040 Master Plan Update – Expanded Role
- Policy for multimodal investments
- CFX workshop – December
- CUTR commissioned to assist

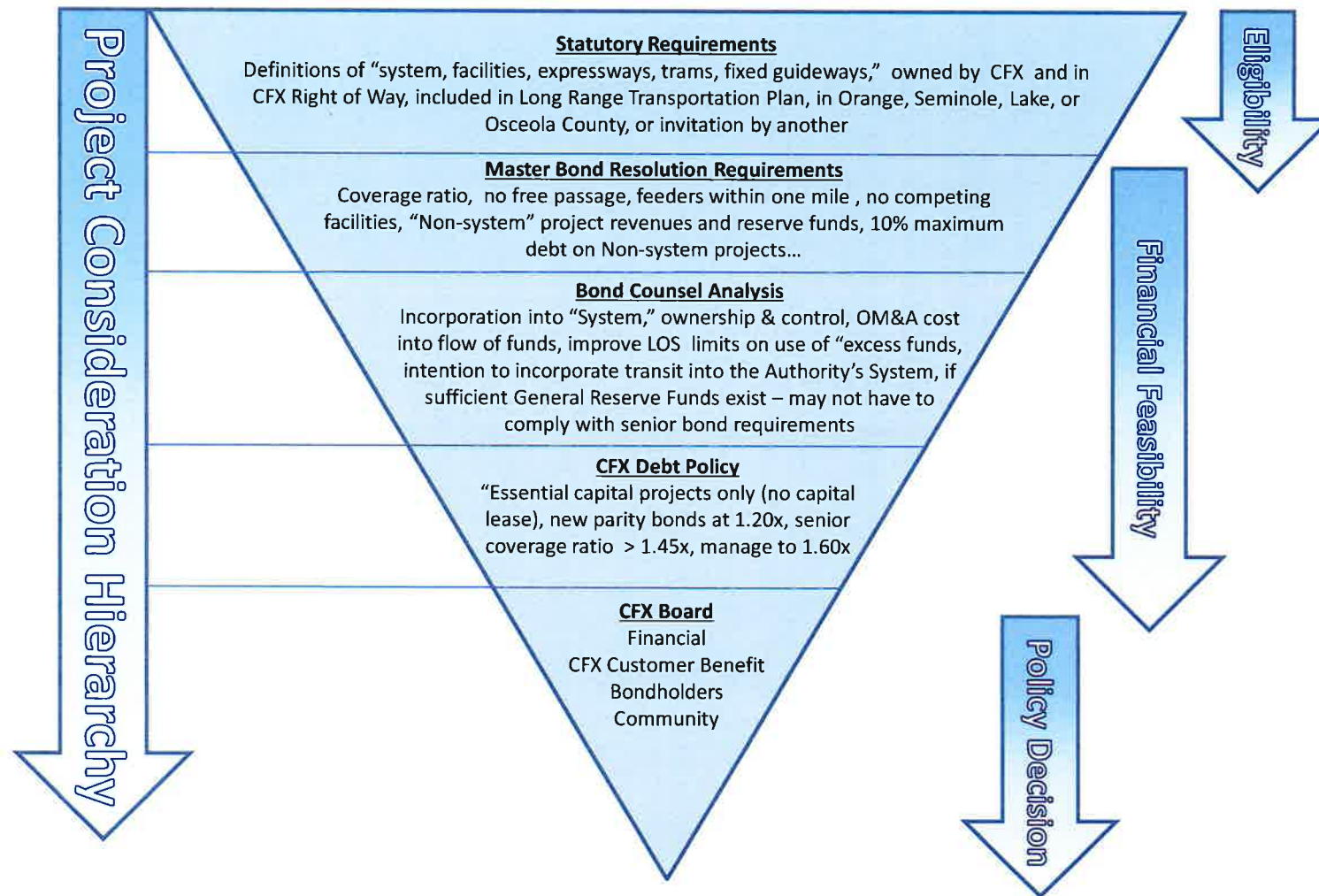
“How can a revenue authority funded with user fees, financially, or otherwise partner to further multimodal mobility without jeopardizing its long-term sustainability and maintain its commitment to customers, bondholders and the community?”



Approach

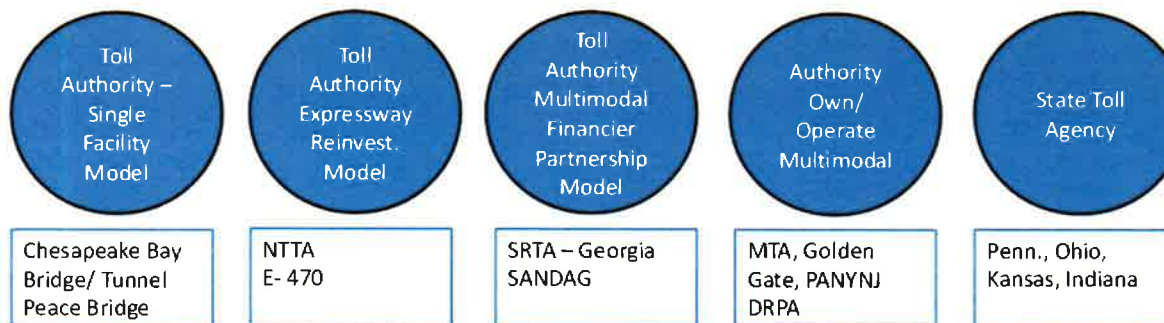
- Document Review
- Discussions with CFX Partners
- Review of National Trends
- Agency Case Studies
- Meetings Higher Education Officials
- Interviews Regional Transportation Leaders

Results of Document Review



Agency Reviews

- 18 Agencies
 - Single facility
 - Reinvestment model
 - Multimodal financier/partnership
 - Agency own/operate multimodal
 - State toll agency



Agency Review- Summary

- Areas with multimodal agencies incorporating tolls, transit and other modes are large, dense, and mature, i.e., New York and San Francisco
- These regions have significantly worse highway congestion than Central Florida
- Transit trips on a per capita basis are more than 10 times per capita toll transactions
- Feasibility to increase highway capacity is constrained



Chesapeake Bay Bridge/ Tunnel
Peace Bridge

Pros
Single purpose
Predicable costs
No risk of revenue "diversion"
Cons
Toll roads only
Less responsive to community
No leveraging opportunities



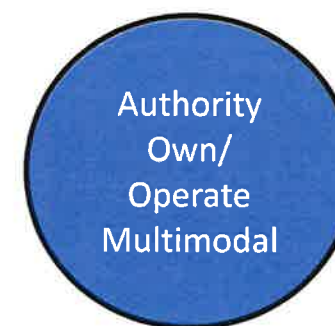
CFX
NTTA
E- 470

Pros
System Pledges
Predicable costs
System Expansion
Minimal risk of revenue "diversion"
Cons
Toll roads only
Little flexibility for investment
Less responsive to community



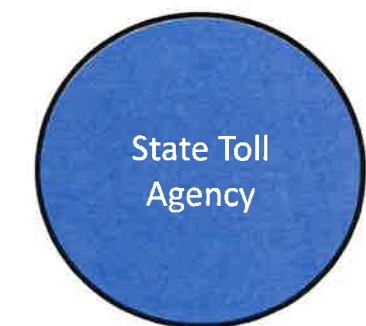
SRTA – Georgia
SANDAG

Pros
Provide corridor relief
Benefits toll customers
Integrated corridor management & funding
Increased partnership opportunities
Cons
Some risk to base system funding



MTA, Golden Gate, PANYNJ
DRPA

Pros
Provide multimodal benefit to region
Additional funding source for transit deficits
Cons
Debt rating concerns
Limits reinvestment in base system
Diversion risk increase



Penn., Ohio, Kansas, Indiana

Pros
Statewide system coordination/ planning
Mature revenue steam
Cons
Targets for state budget balancing, not urban focused

Data Gathering

- Local Needs/Concerns
 - More transit, higher ed. connectivity, significant highway capacity needs
- National Trends
 - Revenue needs, monetization, challenges to toll “diversions”
- CFX Credit/Debt
 - Rating agencies’ caution – extensive Capital Expenditures

Findings

- Current CFX Work Program uses much of the financial capacity indicating an on-going need for expressways
- Strong regional sense for CFX to be more engaged in multimodal – wide spectrum of opinion on how best
- Examples of trading sustainability for short-term gains
 - Sale of Asset
 - Mandatory Diversion
 - Direct Subsidy

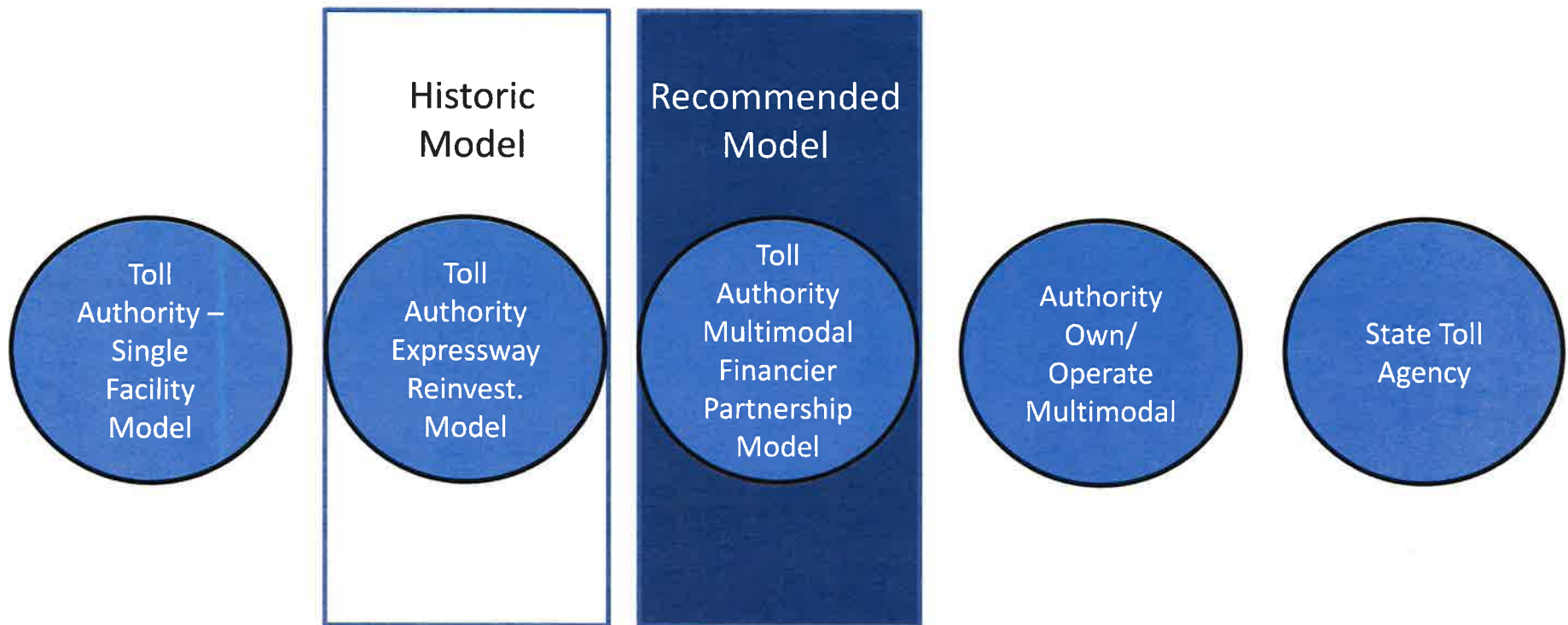
Findings

- Revenue authority model is regionally tailored
- Organizational structure can/should evolve as region's needs evolve
- Recent trend seems to show spinning off economic development roles
- Total multimodal integration models reserved for densely developed areas with no ability or appetite for additional highway capacity – mature urbanized areas
- Transit demand is high in areas with heavy multimodal involvement

Recommendations

- Continue expansion as a multimodal financier and regional partner
- Owner/operator of transit not recommended
- Be cautious when reinvesting toll-payer revenues
- Remain open to broader role as region develops
- Evaluate new projects prior to major commitment
- Account for toll-payer/customer benefits while assessing new investments

Recommended CFX Business Model



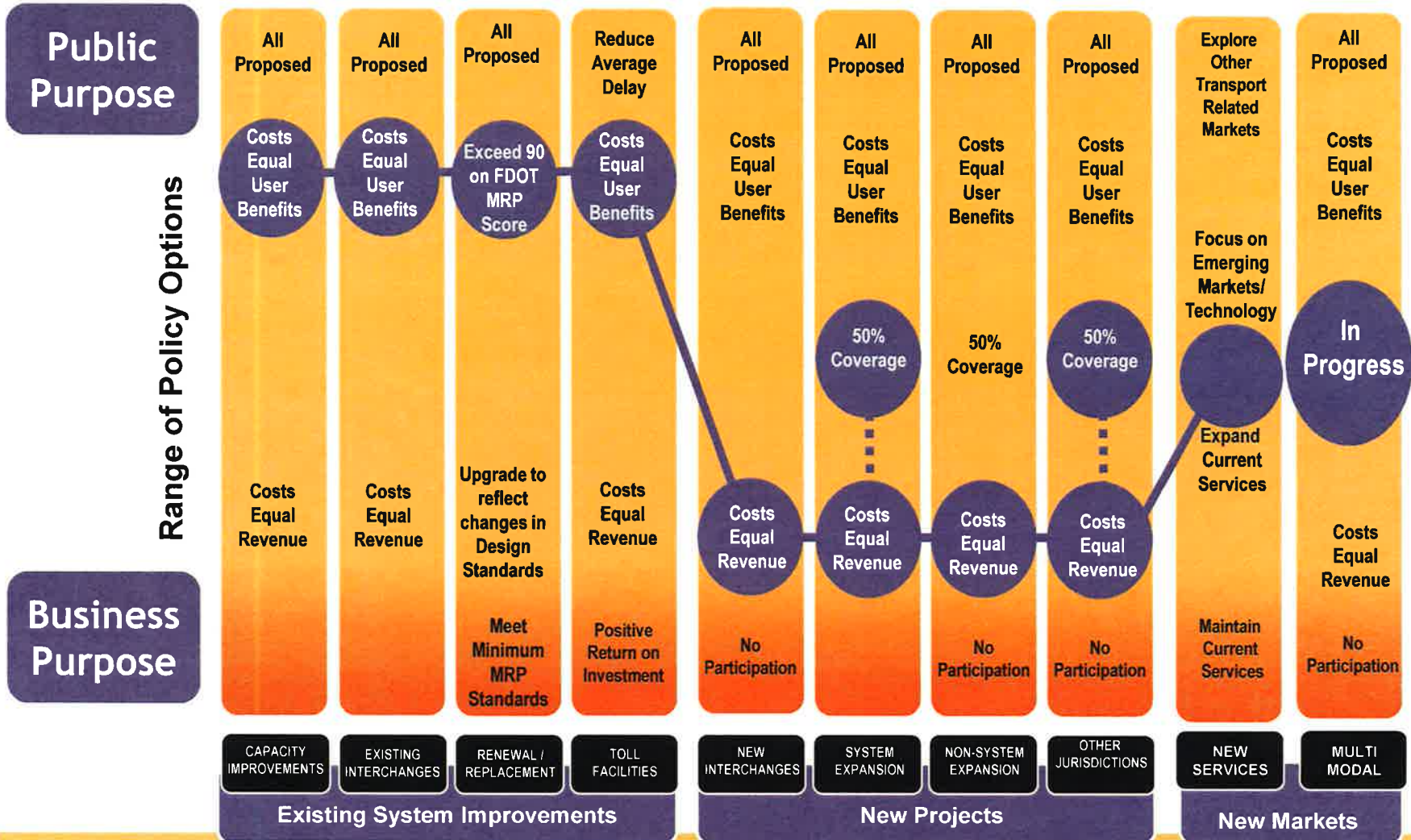
Potential Project Opportunities

- SR 408 - Bus Rapid Transit/ Express Bus Treatment/
Higher Ed Connectivity
Supported by LRTP, New Downtown UCF Campus
- I-Drive “Tourist Corridor” to OIA – High Capacity Transit
Evaluation
Supported by LRTP, 2040 Master Plan Improvement
- SR 417 - Express Bus Accommodation
Included in LRTP, 2040 Master Plan Improvement
- Area Wide - Parking Structure Funding Feasibility
Alleviate Expressway Congestion, Potential Revenue
Generation

Potential Project Opportunities

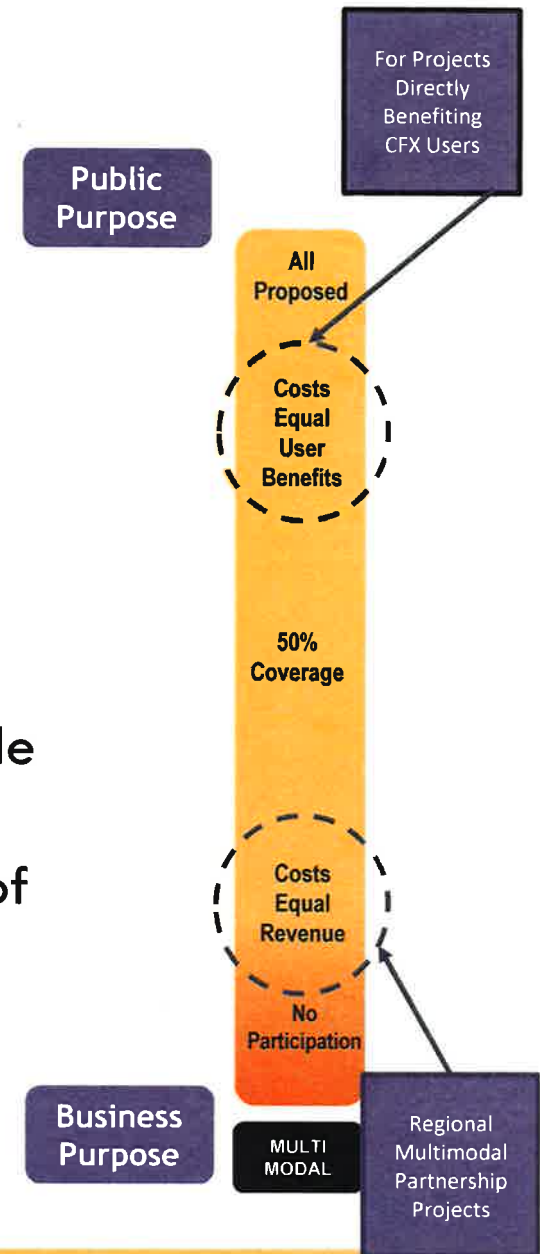
- Area Wide - Integrated Regional Fare/Toll Services
Facilitate Regional Mobility, Potential Revenue Benefit or Neutrality
- Area Wide – Variable Pricing Study/ Future Funding Options
Congestion Mitigation Measure, Potential Multimodal Funding Stream
- Area Wide – Transit Joint Development Opportunities
Contribution to Regional Mobility, Potential Revenue Generation

CFX 2040 Master Plan Policy Profile



Policy Profile Recommendation

- Framework to establish policy positions for major capital investment and organizational decisions on future initiatives
- Two types of multimodal initiatives – different policies:
 - Multimodal projects with clear benefits to CFX toll payers - “*Cost Equals User Benefits*”
 - (e.g., express bus accommodation, park and ride facilities)
 - Projects meeting financial or revenue tests but not of direct benefit to expressway users - “*Cost Equals Revenue*”
 - (e.g. transit joint development, off-system parking facilities)



For Projects
Directly
Benefiting
CFX Users





Central Florida Expressway Authority Multimodal Investment Assessment

**Final Draft Report
January 2017**

**PROJECT NO.
2117-1637-00**

**PREPARED FOR
Central Florida Expressway Authority**

**CENTRAL
FLORIDA
EXPRESSWAY
AUTHORITY**



Center for Urban Transportation Research
University of South Florida
4202 E. Fowler Ave., CUT100, Tampa, FL 33620-5375

Central Florida Expressway Authority Multimodal Investment Assessment

PREPARED FOR

**CENTRAL
FLORIDA
EXPRESSWAY
AUTHORITY**

Central Florida Expressway Authority
4974 ORL Tower Road
Orlando, Florida 32807

PREPARED BY



Janet L. Davis and Stephen L. Reich
Center for Urban Transportation Research
University of South Florida
4202 E. Fowler Avenue, CUT 100
Tampa, Florida 33620

Final Draft Report

January 2017

Disclaimer

This research was conducted under a grant from the Central Florida Expressway Authority. The opinions, findings, and conclusions expressed in this publication are those of the authors and not necessarily those of the Central Florida Expressway Authority.

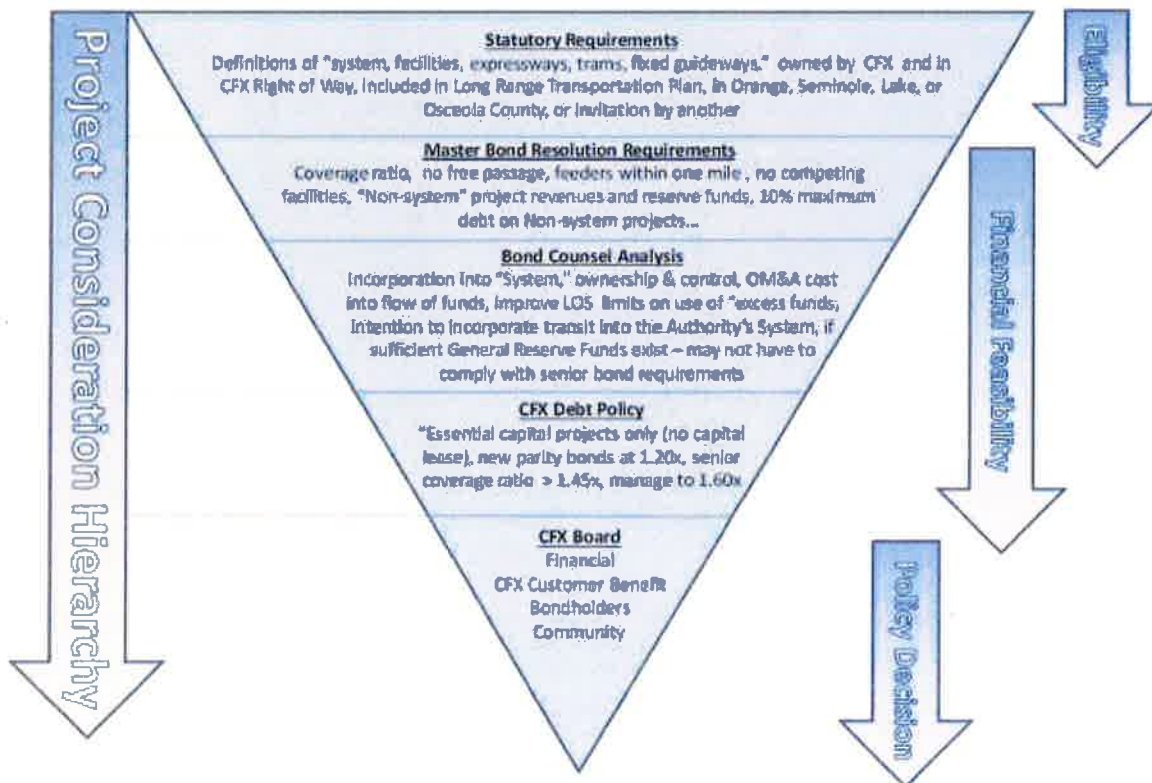
Executive Summary

The creation of the new Central Florida Expressway Authority expanded the regional reach of the previous organization and broadened its potential role to contribute to the mobility needs and economic health of Central Florida. The objective of this initiative was to offer a set of policy recommendations for investing in regional multimodal initiatives and to evaluate opportunities in Central Florida for multimodal investment by CFX. Currently, CFX has a commitment of \$1.3 billion in its five-year work program, and has identified an estimated \$2 billion need over the following 20 years for reinvestment in the existing system, and somewhere between \$6 and \$9 billion in potential new expressway projects identified in the 2040 Master Plan.

CUTR researchers followed an approach to this study that was outlined in the scope of work for the project. This consisted of a thorough review of relevant documents, interviews with expert consultants and advisors to the agency, and a thorough review of organizational models of transportation authorities across the United States.

A review of the statute and other relevant documents yield a few tiers of feasibility that CFX must consider. They are illustrated below.

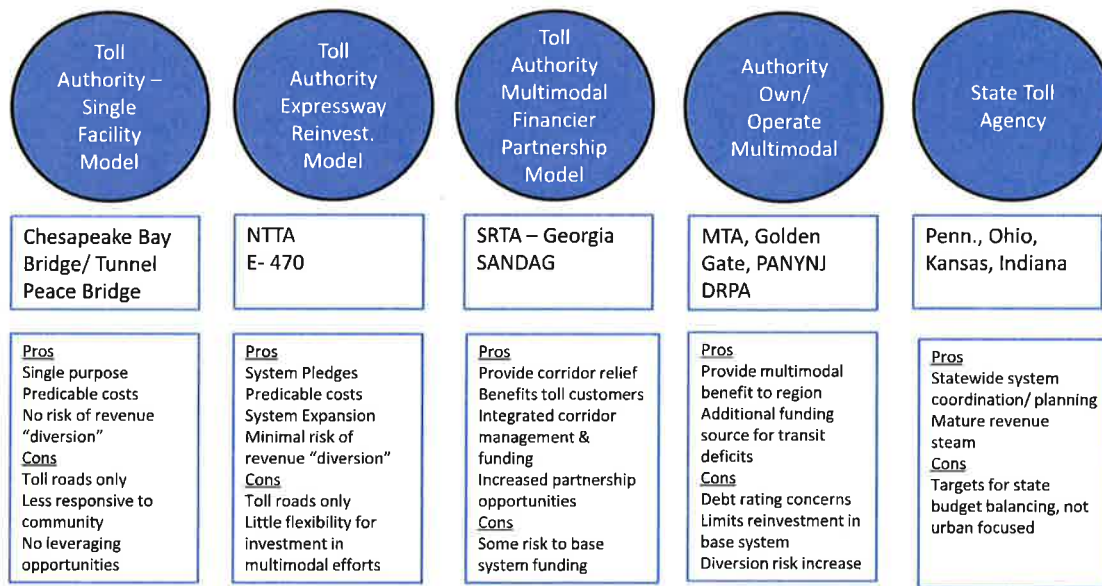
CFX Project Consideration Hierarchy



In order to help CFX determine an appropriate role in the Central Florida region based on the agency's expanded authority, it was important to review various business models of toll-financed agencies to understand the context in which they operate. Further, it is instructive to study the current trends and issues that are facing these agencies.

Toll agencies can range from a single purpose, single facility organization to a totally integrated multimodal regional transportation institution.

Toll Agency Organizational Spectrum – Pros and Cons



After reviewing the various toll agency models several findings emerged. The regional toll authority model is tailored to area's needs and individual jurisdictional relationships. The organizational structure and role of the agency evolves as region's needs evolve. Recent trend indicate that agencies are now spinning off economic development and other non-core roles, and are refocusing on the organization's main mission. Total multimodal integration models of authorities are reserved for densely developed areas with no ability or appetite for additional highway capacity. These are mature urbanized areas where there is arguably a nexus between the use of toll revenue to support other surface transportation modes where any increment of passenger capacity contributes to overall mobility. Transit demand is demonstrably high in areas with heavy multi-modal involvement by toll agencies and, typically, involves an extremely dense employment center or centers.

CFX has already evolved through the “single purpose” model and the “reinvestment model” and is in the beginning stages of the “multimodal financier partnership.” The agency's expanded roles in initiatives in the Goldenrod Road project, electronic revenue collection at the Orlando International Airport, its recent agreement with the Osceola County Expressway Authority (OCX) transferring the lead for the

OCX Master Plan development to CFX, and, its role in developing a corridor for a high-speed rail connection along the Beachline expressway, are examples of this evolution.

The Multimodal Financier Partnership model is the appropriate position for CFX at this time in Central Florida's regional transportation system development. To assume any role in the ownership of and or operations of fixed guideway transit system is, in the authors' opinion, not prudent at the present time. This finding is based on the current provisions in the prevailing bond documents, the lack of a demonstrated demand for high capacity transit, the identified expressway needs in the region, and the future financial capacity of CFX that is planned to tackle future regional expressway needs.

CFX should take a cautious approach to any expansion of its financial or operating mission, as moving too far from the concept of reinvesting toll revenues for the benefit of the rate payers could lead to legal challenges and, otherwise, unnecessary toll increases at worst, and at best, a sense of unfairness by the Expressway Authority's customers. It is recommended that CFX consider establishing a multimodal project Development and Evaluation (D&E) program as a part of its Work Plan. This programmatic category could be used as mechanism to modestly fund the evaluation of various multimodal initiatives, including those identified in this report. Planning funds could be programmed, and, if evaluations yield promise, specific projects could then be forwarded for additional funding, further analysis, and PD&E. It is recommended that no project be programmed for construction or for on-going operating support without first moving through this D&E phase, including preliminary ridership analysis for public transportation initiatives. Potential projects for further consideration that were identified in the course of the study are listed below.

Candidate Initiatives for Development and Evaluation
SR 408 - Bus Rapid Transit/ Express Bus Treatment/ Higher Ed Connectivity Supported by LRTP, New Downtown UCF Campus
I-Drive/ Florida Mall to OIA – High Capacity Transit Evaluation Supported by LRTP, 2040 Master Plan Improvement
SR 417 - Express Bus Accommodation Included in LRTP, 2040 Master Plan Improvement
Area Wide - Parking Structure Funding Feasibility Alleviate Expressway Congestion, Potential Revenue Generation
Area Wide - Integrated Regional Fare/ Toll Services Facilitate Regional Mobility, Potential Revenue Benefit or Neutrality
Area Wide – Variable Pricing Study/ Future Funding Options Congestion Mitigation Measure, Potential Multimodal Funding Stream
Area Wide – Transit Joint Development Opportunities Contribution to Regional Mobility, Potential Revenue Generation

CFX has developed a Policy Profile that is updated and presented as a part of its Master Plan. It provides a framework to establish policy positions for major capital investment decisions and guides organizational decisions on future initiatives and capital programs. For projects that are multimodal but

Contents

Disclaimer.....	ii
Executive Summary.....	iii
List of Tables	ix
List of Figures	ix
Chapter 1 Introduction	1
Background	1
Objective	1
Current Situation.....	1
Chapter 2 Study Approach.....	4
Document Review	4
Expert Interviews	4
Agency Reviews.....	5
Interviews and Meetings with Transportation and Higher Education Leaders	5
Chapter 3 Review of Relevant Documents	6
Chapter 4 Toll Agency Models	12
Chesapeake Bay Bridge Tunnel District (CBBT) – Single Facility Model.....	13
Buffalo and Fort Erie Public Bridge Authority (Peace Bridge) – Single-Facility Model	13
E-470 Public Highway Authority – Reinvestment Model.....	14
North Texas Tollway Authority (NTTA) – Reinvestment Model.....	15
San Diego Association of Governments (SANDAG) – Multimodal Financier Partnership Model	16
State Road and Tollway Authority (SRTA) – Multimodal Financier Partnership Model	17
Delaware River Port Authority (DRPA) – Owning/Operating Multimodal.....	18
Golden Gate Bridge, Highway and Transportation District (GGBHTD) – Owning/Operating Multimodal	18
Metropolitan Transportation Authority (MTA) – Owning/Operating Multimodal.....	19
Port Authority of NY & NJ (PANYNJ) – Owning/Operating Multimodal Model.....	21
South Jersey Transportation Authority (SJTA) – Owning/Operating Multimodal	23
Chapter 5 Findings	25
Toll Agency Model Summary and Findings	25
Local Needs and Concerns	28
National Trends.....	28
Credit Rating and Debt Considerations.....	29
Project Opportunities.....	30

Chapter 6 Project Consideration Process	35
Chapter 7 Recommendations	37
Business Model	37
Potential Projects.....	38
Chapter 8 Conclusions	41
References	43

List of Tables

Table 1-1. Population Growth 1990 – 2015	2
Table 1-2. Employment Data – November 2016 v. November 2015	2
Table 3-1. Summary of Project Qualifications and Sources	6
Table 5-1. Metropolitan Toll Authority Comparison – Toll and Transit Characteristics	26
Table 7-1. Projects and Initiatives Identified for Development and Evaluation – Summary	39

List of Figures

Figure 1-1. Central Florida Expressway System Vehicle Miles Traveled 2002-2015	2
Figure 1-2. Central Florida Expressway Authority Asset Value Growth	3
Figure 3-1. CFX Project Consideration Hierarchy - CUTR	11
Figure 4-1. Toll Agency Organizational Spectrum	12
Figure 5-1. Toll Agency Organizational Spectrum – Pros and Cons	27
Figure 5-2. MetroPlan Orlando 2040 Long Range Plan Transit Modes	31
Figure 5-3. Central Florida Expressway Authority 2040 Master Plan Map	32
Figure 6-1. CFX Work Plan Project Consideration Process	36
Figure 7-1. Recommended CFX Business Model – Toll Agency Organizational Spectrum	37
Figure 7-2. CFX Policy Profile – Multimodal Investment Recommendation	40

Chapter 1

Introduction

Background

The creation of the new Central Florida Expressway Authority expanded the regional reach of the previous organization and broadened its potential role to contribute to the mobility needs and economic health of Central Florida. The recently created Central Florida Expressway Authority's (CFX) jurisdiction includes Lake, Orange, Osceola and Seminole Counties. Like its predecessor, CFX is responsible for the construction, maintenance, and operation of a 109-mile limited-access expressway system. In addition, based on SB 230, which was signed in to law on June 20, 2014, it may also acquire, construct, and equip rapid transit, trams, and fixed guideways within its rights-of-way.

As the Authority Board finalized its Master Plan update almost one year ago, this new role presented a policy question that required some analysis, discussion, and deliberation. Namely, "How can a revenue authority funded with user fees financially or otherwise partner to further multimodal mobility without jeopardizing its long-term sustainability and maintain its commitment to customers, bondholders, and the community?"

In order to explore this policy question, the CFX Board requested a study be performed to assist in new policy formulation by recommending a set of policy recommendations consistent with Board direction that comply with state statute; an evaluation of multimodal funding needs and potential projects; and, a suggested process for periodic review and evaluation of partnership opportunities.

The University of South Florida's (USF) Center for Urban Transportation Research (CUTR) was engaged to conduct the study and began its effort in earnest in May of 2016. This report summarizes CUTR's effort and presents observations, findings, and recommendations the authors hope provide useful guidance to the Authority Executive Management and its Board.

Objective

The objective of this initiative was to offer a set of policy recommendations for investing in regional multimodal initiatives and to evaluate opportunities in Central Florida for multimodal investment by CFX. The recommendations presented are built on the basis of detailed reviews of relevant policy and financial documents, in-depth interviews with local transportation leaders, and detailed examination of toll-based transportation authorities nationwide, and an understanding of the intricacies of funding and operating both toll and transit systems.

Current Situation

CFX serves and is represented on its Board by the contiguous area that is coincidental with the Orlando Metropolitan Statistical Area (MSA). It extends over 4,012 square miles and consists of four counties: Orange County, Seminole County, Lake County, and Osceola County. The MSA is experiencing robust

growth that is placing increasing pressure on the transportation system and mobility needs. Table 1-1 illustrates the population growth for the MSA since 1990 and compares it to the rates for Florida.

Table 1-1. Population Growth 1990 – 2015¹

Florida and Orlando Area Population					Percent Change		
Area	1990	2000	2010	2015	1990 to 2000	2000 to 2010	2010 to 2015
Orlando MSA	1,224,852	1,644,561	2,139,565	2,387,138	34.3%	30.1%	11.6%
Florida	12,938,071	15,982,571	18,849,890	20,271,272	23.5%	17.9%	7.5%

The region is the destination for over 60 million visitors annually, and the labor force is growing with a decreasing unemployment rate. The information in Table 1-2 is taken from the Orlando Economic Commission.

Table 1-2. Employment Data – November 2016 v. November 2015²

	Most Recent Data	Previous Year	Percent Change
Labor Force Nov. 2016	1,273,890	1,227,226	3.8%
Employment Nov. 2016	1,217,444	1,170,621	4.0%
Unemployment Nov. 2016	56,446	56,605	-0.3%
Unemployment Rate Nov. 2016	4.4	4.6	-0.2%

Highway traffic in the region is also experiencing growth. On the State Highway System in Lake, Orange, Osceola, and Seminole counties, vehicle miles traveled grew 22 percent from 2000 to 2010 and 15 percent from 2010 to 2015 (or 1.7 percent for those recent five years). From 2010 to 2015, the CFX system experienced a 32 percent increase or a 6.4 percent annual rise. In 2015, the CFX served 2.3 billion vehicle miles of travel (VMT). Figure 1-1 graphically illustrates growth in VMT.

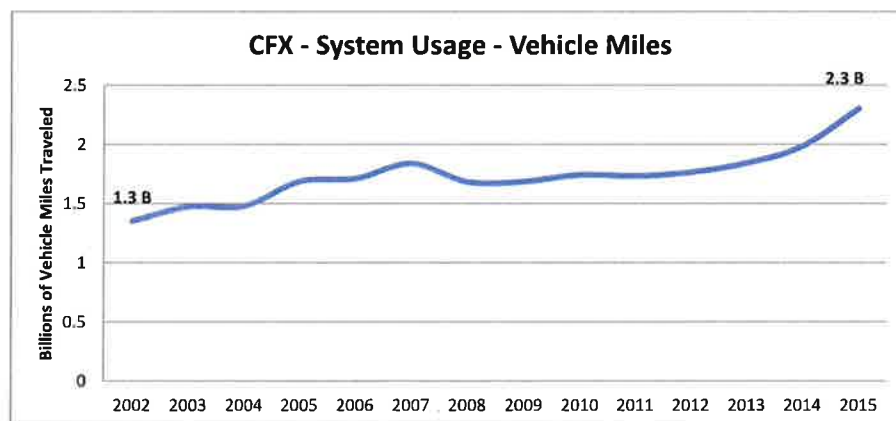


Figure 1-1. Central Florida Expressway System Vehicle Miles Traveled 2002-2015³

CFX currently owns and operates limited access roadways in Lake, Orange, Osceola, and Seminole counties totaling over 745 lane miles. The system includes 63 interchanges, 14 mainline toll plazas, 66 ramp toll plazas, and 285 bridges. In addition, CFX maintains and operates the Goldenrod Extension, a non-system two-mile tolled expressway with one mainline toll plaza.

CFX diligently maintains its facilities and plans for system expansions based on regional growth. To manage and operate its program of system improvements, the Authority annually updates its Five-Year Work Plan. The Work Plan strategically identifies those projects to be funded during the next five years and serves as an integral part of the 2040 Expressway Master Plan. Work Plan projects are intended to maintain and improve the current system and, ultimately, improve travel and safety conditions for users. As illustrated in Figure 1-2, the value of the agency's assets has grown by three times since 2002, demonstrating its commitment to system reinvestment.

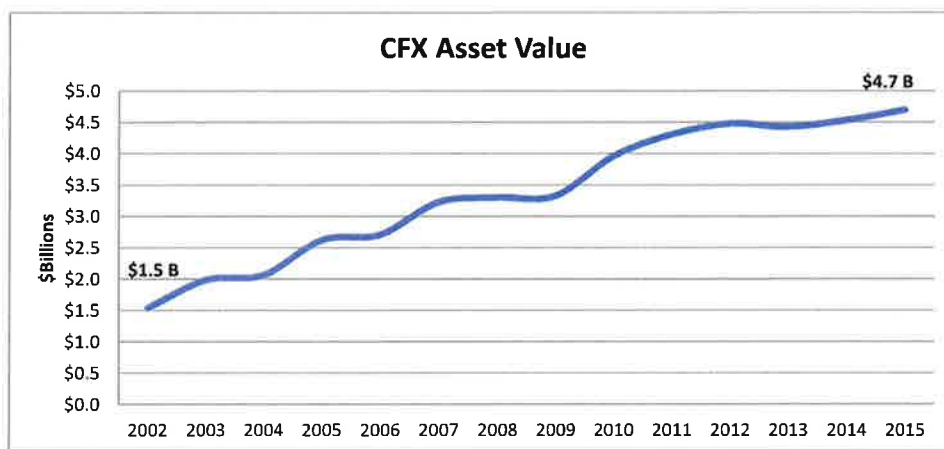


Figure 1-2. Central Florida Expressway Authority Asset Value Growth⁴

Currently, CFX has a commitment of \$1.3 billion in its five-year work program, and has identified an estimated \$2 billion need over the following 20 years for reinvestment in the existing system, and somewhere between \$6 and \$9 billion in potential new expressway projects identified in the 2040 Master Plan.

Chapter 2

Study Approach

CUTR researchers followed an approach to this study that was outlined in the scope of work for the project. This consisted of a thorough review of relevant documents, interviews with expert consultants and advisors to the agency, and a thorough review of organizational models of transportation authorities across the United States.

Document Review

In order gain a better understanding of CFX's position, constraints and potential investment opportunities, the following documents were reviewed in detail.

- Relevant Florida Statutes
- Minutes and materials for the Board workshop held in December 2015
- Fiscal Year 2016 to 2020 Work Plan
- CFX Investment Policy
- CFX Debt Policy
- Bond Counsel Transit Guidance Memorandum
- CFX Rating Agency Presentation Material
- Rating Agency Reports on the agency from Moody's, Standard and Poor's, and Fitch
- The Wekiva Interlocal Agreement
- The most current Amended and Restated Master Bond Resolution
- CFX Board Questionnaire Responses conducted and summarized by Valencia College
- Survey Responses from the Valencia initiative – high level and detailed responses
- CFX 2040 Visioning and Master Plan
- CFX General Traffic and Earnings Consultant's Annual Report – FY 2015
- U.S. PIRG Report – "A New Direction – Our Changing Relationship with Driving and the Implications for America's Future
- "Toll Revenue Diversion – Credit Perspective" – Fitch Ratings
- Metropolitan Orlando 2040 Long Range Transportation Plan

Expert Interviews

Extensive interviews were held the members of CFX Management, the agency's traffic and revenue consultant, the financial advisor to CFX, and its bond counsel. These interviews were conducted during May and June of 2016. This time spent early in the study process helped tremendously in verifying and clarifying the information gleaned from the document reviews, provided regional and political context for the challenges facing transportation funding locally, and, raised practical concerns over expectations for the future role of CFX.

Agency Reviews

After consultation with national toll authority experts, the authors began a detailed review of toll-based transportation authorities across the county. The review was focused on the span of facilities operated, multimodal responsibilities, financial position and market for transit demand in the area. The objective of this effort was to determine level of urbanization and transit demand in regions where public transportation was being supported by a toll-based revenue authority, what lessons were there to be learned, and to develop a taxonomy, or classification schema, to assist CFX in gauging its current and future position in its role as a regional transportation provider.

Interviews and Meetings with Transportation and Higher Education Leaders

In order to better understand the mobility plans, needs, and aspirations for the region, individual and, sometimes, group meetings and interviews with various public officials were conducted. Particular emphasis was placed on the institutions of higher education in the region, as there are several very large and growing institutions serving tens of thousands of Central Florida residents with multiple campuses. Consultation took place with high-level representatives of the University of Central Florida (UCF), Valencia College, Lake-Sumter College, and Seminole State College.

Meetings and interviews with transportation leaders were also held to determine if there were opportunities for current or future collaborations with CFX. These sessions included conversations with the Florida Department of Transportation (FDOT) District Five Secretary, the Executive Director of MetroPlan Orlando, Director of Lake County Public Transportation, Executive Director of the Greater Orlando Aviation Authority, Chief Executive Officer of the Central Florida Regional Transportation Authority (LYNX), and the Executive Director of SunRail.

The sessions provided rich insights into several dimensions of the future transportation needs for the region and ideas for enhanced partnerships with CFX.

Chapter 3

Review of Relevant Documents

The first step in determining the multimodal investment potential for CFX is to define what is permissible under current law and obligations to the current investors in the agency's bonds. While the statute may seem definitive, there are areas that require further interpretation and examination by experts who previously reviewed the provisions.

The CFX statute is permissive and grants authority to the agency to construct, own, operate, and maintain facilities other than traditional expressways; nonetheless, the authority's ability to enter into a multimodal or transit venture is limited by statute, bond agreement, and prudent fiscal policy. In order to establish the parameters of eligible potential multimodal investments, a summary of project qualifications and the sources of the parameters are presented below in Table 3-1. These provisions are taken from Florida Statute, the Amended and Restated Master Bond Resolution, guidance from the CFX Bond Counsel, and the Central Florida Expressway Authority Debt Policy, Adopted April 9, 2015.

Table 3-1. Summary of Project Qualifications and Sources

Provision	Language	Reference	Remarks
CFX System Defined	"Central Florida Expressway System" means any expressway and appurtenant facilities, including all approaches, roads, bridges, and avenues for the expressway and any rapid transit, trams, or fixed guideways located within the right-of-way of an expressway.	F.S. 348.752 (10)	System may include rapid transit and fixed guideways
CFX Facility	The term "transportation facilities" means and includes... fixed guideway facilities, including maintenance facilities..."	F.S. 348.752 (14)	Fixed guideway meets facility definition
Service Area	the area served by the authority shall be within the geographical boundaries of Orange, Seminole, Lake, and Osceola Counties.... With the consent of the county within whose jurisdiction the following activities occur, the authority shall have the right to construct, operate, and maintain roads, bridges, avenues of access...	F.S. 348.754 (1)(a) & (2)(n)	Build, operate and maintain in Orange, Seminole, Lake, and Osceola Counties or by invitation by other counties

Provision	Language	Reference	Remarks
Use of Revenue	Revenues that are generated by the expressway system and other facilities of the Central Florida Expressway Authority which were pledged by the Orlando-Orange County Expressway Authority to payment of the bonds will remain subject to the pledge for the benefit of the bondholders.	F.S. 348.753 (2)(c)	Revenue that has been pledged is subject to the same provisions as pre-CFX bonds
Project Eligibility	"...the authority may construct any extensions, additions, or improvements to the system or appurtenant facilities, including all necessary approaches, roads, bridges, avenues of access, rapid transit, trams, fixed guideways..."	F.S. 348.754 (1)(b)	Transit capital projects eligible
Project Eligibility	"...revenues of the expressway system exceed amounts required to comply with any covenants made with the holders of bonds issued pursuant to this part, revenues may be used for purposes enumerated in subsection (6), provided the expenditures are consistent with the metropolitan planning organizations' adopted long-range plan."	F.S. 348.754 (2)(f)2	Project must be the approved Regional Long Range Transportation Plan
Project Eligibility	The authority may, within the right-of-way of the expressway system, finance or refinance the planning, design, acquisition, construction, extension, rehabilitation, equipping, preservation, maintenance, or improvement of an intermodal facility or facilities, a multimodal corridor or corridors, or any programs or projects that will improve the levels of service on the expressway system.	F.S. 348.754 (6)	Project must reside in CFX right-of-way
Financial Test	Pledged Revenues "...shall equal at least one hundred twenty percent (120%) of the Annual Debt Service Requirement in such Fiscal Year with respect to all Bonds then Outstanding under this Master Resolution..."	Amended and Restated Master Bond Resolution – Article V Section 5.2(A)(i)	No project may be bond financed that would cause the current debt service coverage covenant to be violated

Provision	Language	Reference	Remarks
Tolls and Fares	The Authority covenants that they will not allow or permit any free use of the toll facilities of the Expressway System except to officials or employees of the Authority and the Department engaged in official business of the Authority and the Department or law enforcement officers or emergency vehicles while in the discharge of their official duties, or except as required by existing law	Amended and Restated Master Bond Resolution – Article V Section 5.3	Free use of CFX facilities is prohibited
New Project Debt	The Authority covenants that it shall not issue any bonds, evidences of indebtedness or other obligations payable on a senior or priority basis to the Bonds from the System Pledged Revenues	Amended and Restated Master Bond Resolution – Article V Section 5.5(A)	Any new debt must be issued on a parity or subordinate basis to the existing bonds
New Project Debt	The Authority may issue other obligations secured by a pledge of the System Pledged Revenues and Supplemental Payments in addition to the Bonds authorized by this Master Resolution provided such obligations contain an express statement that such obligations are junior, inferior and subordinate in all respects	Amended and Restated Master Bond Resolution – Article V Section 5.5(B)	(see above)
Intermodal Connectors	The Authority shall not participate financially in the acquisition, construction or operation of any non-tolled road except for a "feeder road." For the purposes of this section, "feeder road" shall mean any non-tolled road directly connecting to the Authority's right-of-way and extending not more than one centerline mile beyond the Authority's right-of-way.	Amended and Restated Master Bond Resolution – Article V Section 5.13	Non-Tolled intermodal connections may be constructed up to one mile

Provision	Language	Reference	Remarks
Competing Facilities	Except as otherwise permitted herein, the Authority shall not consent to, authorize or approve the location on or use of any Expressway System right-of-way of or by any competing transportation-related facility that is not owned, operated or under the jurisdiction and control of the Authority consistent with the provisions of this Master Resolution, unless there shall first be obtained and filed with the Authority a report of an Independent Consultant projecting that while any Bonds are Outstanding, the operation of such competing facility will not cause a reduction in the System Pledged Revenues (taking into account any compensation to be paid the Authority with respect to such competing facility that would constitute a System Pledged Revenue).	Amended and Restated Master Bond Resolution - Article V Section 5.14	Use of CFX right-of-way for a parallel facility must be revenue neutral
Incorporation of a Non-System Facility	Non-System Projects owned and controlled by the Authority may, by resolution of the Authority, be designated and become part of the Expressway System ...if for any period of twelve (12) consecutive calendar months out of the fifteen (15) consecutive calendar months immediately preceding such designation, the revenues received by the Authority with respect to such Non-System Project... equaled or exceeded the aggregate for such period of (A) the Non-System Project Operating Expenses of such Non-System Project ... and (B) a reasonable renewal and replacement reserve deposit with respect to such Non-System Project, as determined by such Independent Consultant.	Amended and Restated Master Bond Resolution – Article V Section 5.15	Financial test of revenue, operating costs and reserves must be met before a project can be considered as “System” project
Expressway System and Transit Projects	“Based on the language of the Enabling Act, it appears that Transit Facilities constructed or improved by the Authority are intended to be incorporated into the Authority’s Expressway System, or as an appurtenant facility.”	Bond Counsel Analysis “Transit Memo” p.4	(see above)

Provision	Language	Reference	Remarks
Project Ownership	“...the Authority likely would have to own or control such a facility. In addition, the OM&A costs and expenses of such a project would be added to the application of Authority revenues in the flow of funds for OM&A costs and expenses. Any financing of such a project would also be incorporated into the flow of funds at the appropriate lien level at which such financing is undertaken”	Bond Counsel Analysis “Transit Memo” p.4	Multimodal or transit project must be owned by CFX in order to invest agency funds
Financing Multimodal Projects with Excess Revenues	Authority is limited to using excess revenues for such purposes- • The proposed Multimodal Facilities must improve the levels of service on the Expressway System, • The proposed Multimodal Facilities must be consistent with the MetroPlan Orlando’s adopted long-range plan.	Bond Counsel Analysis “Transit Memo” p.4	In order to avoid the financial test of a “System Project,” excess revenue could be used with a demonstrated benefit to “System”
Financing Multimodal Projects with Excess Revenues	The Authority may not have to comply with the requirements of the Senior Bond Resolution (or other applicable junior or subordinate lien resolutions). To the extent excess revenues are on deposit in the General Reserve Fund and are not already obligated for such purposes, such revenues legally could be applied by the Authority to finance or refinance plan, design, acquire, construct, extend, rehabilitate, equip, preserve, maintain or improve Multimodal Facilities.	Bond Counsel Analysis “Transit Memo” p.4	(see above)
Borrowing for Operations	“Long-term debt will be used to <u>finance essential capital projects</u> and certain equipment where it is cost effective, prudent or otherwise determined to be in the best interest of CFX. Long-term debt, which includes capital lease financings, should not be used to fund CFX's operations.	Central Florida Expressway Authority Debt Policy, Adopted April 9, 2015	Capital Leases are eligible for debt financing
Borrowing for Multimodal Projects	For CFX to issue new bonds on a parity basis, per the Master Resolution, CFX will need to demonstrate that revenues, as defined in the Master Resolution, shall be sufficient to cover the existing and new debt service by 1.20x	Central Florida Expressway Authority Debt Policy, Adopted April 9, 2015	Existing debt service covenant cannot be violated

Provision	Language	Reference	Remarks
Borrowing for Multimodal Projects	CFX shall maintain a minimum senior lien debt service coverage ratio of at least 1.45x on the existing and planned debt issues. For planning purposes, staff shall make every effort to plan for a 1.60x senior lien debt service coverage ratio	Central Florida Expressway Authority Debt Policy, Adopted April 9, 2015	Debt for new transit or multimodal projects must comply with current debt policies

It is clear from this review that in order for multimodal project to be eligible for CFX financing, there are a few tiers of feasibility that CFX must consider. The protections of the current bondholders, the security of the financial status of the agency, and the prudence required by a public agency that is user-fee financed are sufficiently addressed in the framework for considering non-traditional project endeavors by CFX. Figure 3-1 graphically illustrates a hierarchy of considerations for multimodal projects starting with most basic statutory provisions through policy decision for the CFX Board.

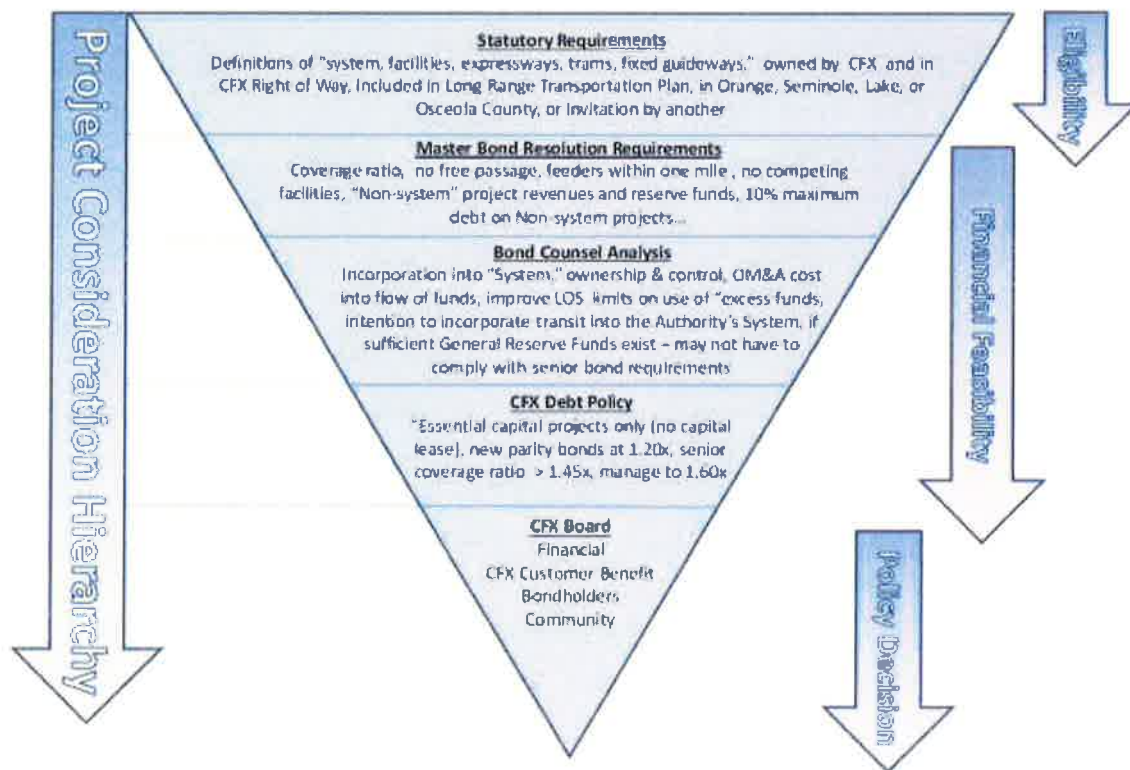


Figure 3-1. CFX Project Consideration Hierarchy - CUTR

Chapter 4

Toll Agency Models

In order to help CFX determine an appropriate role in the Central Florida region based on the agency's expanded authority, it was important to review various business models of toll-financed agencies to understand the context in which they operate. Further, it is instructive to study the current trends and issues that are facing these agencies.

The current state of transportation funding in the United States is under stress, and attempts to raise traditional fees, fuel taxes, and regional transit taxes continue to be resisted. This has led policy makers and elected officials to search for alternative sources of transportation revenue. Because well-run toll authorities have sound financial policies and practices in place, they are sometimes targets for revenue diversion, an expansion of their span of operations, and, in some cases, monetization to address an immediate, short term, budget crisis.

Toll agencies can range from a single purpose, single facility organization to a totally integrated multimodal regional transportation institution. Again, the analysis is intended to assist CFX in gauging its current and future position in its role as a regional transportation provider.

Figure 4-1 depicts this range of organizational models as well as examples of agencies that meet the description. On the left is the self-explanatory "Single Facility Model" followed by the "Reinvestment Model," which is described as an agency with multiple facilities, and system-wide revenue pledges that are invested in new toll facilities that eventually generate sufficient revenue to cover all costs. The "Multimodal Financier Partnership" model is one where the toll agency acts the financier of non-traditional toll facilities and partners in multimodal initiatives, but does not operate or own transit facilities per se. The "Authority Own/Operate" Model is typified by fully integrated multimodal agencies with responsibilities for operating public transportation systems. Lastly, are the State Toll authorities, which are included in the agency review, but are not used for public transportation market comparisons because of their nature.

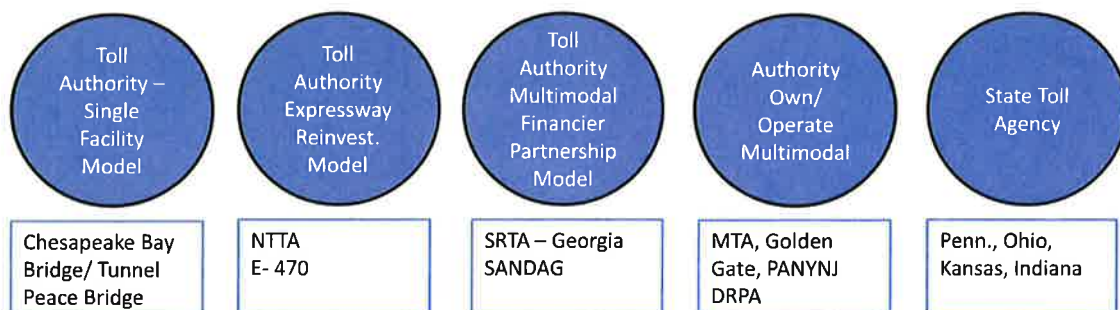


Figure 4-1. Toll Agency Organizational Spectrum

Abbreviated descriptions of ten agencies (excluding state toll agencies) are presented. A detailed overview of 18 agencies, including state toll agencies, and two commuter rail systems (SunRail and Tri-Rail), were presented to the agency in the form of an appendix to the report.

Chesapeake Bay Bridge Tunnel District (CBBT) – Single Facility Model

The Chesapeake Bay Bridge-Tunnel crosses the mouth of Chesapeake Bay and connects the City of Virginia Beach to Cape Charles in Northampton County on the Virginia eastern shore. The Bay Bridge-Tunnel is 17.6 miles long from shore to shore. Including land approach highways, the overall facility is 23 miles long and carries highway traffic on US-13. The original 2-lane bridge-tunnel facility opened in April 1964; a new parallel 2-lane trestle was completed in April 1999.⁵

FY 2014 vehicular traffic increased by 1.8 percent compared to FY 2013. In FY 2014, toll transactions per capita, based on the 2014 Virginian Beach VA UZA, equaled 3.1. Heavy truck volumes began increasing in FY 2013 as the US economy slowly recovered. Toll revenues during FY 2014 totaled \$48,032,232 and were 7.6 percent more than FY 2013 toll revenues. The increase in toll revenues was due to a toll rate increase of approximately 10 percent implemented in January 2014. Other revenues in FY 2014 totaled \$1,193,390, an increase of 4.7 percent over other revenues in FY 2013. The increase in other revenue was due to additional lease income generated from the scheduled increase in marine lease revenue. Operating expenses in FY 2014, before District facility expenses, totaled \$14,145,345, which was an increase in operating expenses of \$377,621 from FY 2013, and 1.0 percent less than the legally adopted FY 2014 budget.⁶

Created as a political subdivision of the Commonwealth of Virginia in 1954, the Commission was authorized to acquire the private ferry corporation through bond financing, to improve the existing ferry service, and to implement a new service between the Virginia Eastern Shore and the Peninsula cities of Hampton and Newport News. In 1956, the General Assembly authorized the Ferry Commission to conduct feasibility studies for the construction of a fixed crossing, and in 1960, the Ferry Commission sold \$200 million in toll revenue bonds to private investors. The proceeds were used to finance the construction of the Bridge-Tunnel. Funds collected by future tolls were pledged to pay the principal and interest on these bonds. In April 1964, the Chesapeake Bay Bridge-Tunnel opened to traffic, and ferry service was discontinued.⁷

Buffalo and Fort Erie Public Bridge Authority (Peace Bridge) – Single-Facility Model

The Peace Bridge is located near the center of downtown Buffalo, NY, and Fort Erie, Ontario, where it crosses the Niagara River. The Bridge is one of four vehicular toll crossings over the Niagara River in the region. The other three are owned and operated by the Niagara Falls Bridge Commission. The Peace Bridge is the only border crossing with *E-ZPass*®, and is the second busiest border crossing between the US and Canada. The bridge is a 3,580-foot long steel structure with three lanes. Tolls are collected one-way only on crossing from the U.S. into Canada. In addition to being a principal artery in the Niagara Frontier for travel and commerce between the US and Canada, the Peace Bridge is a vital link to long distance, interstate travel and international trade.⁸

The Authority derives significant revenues in the form of rental and fee income from the US Bureau of Customs and Border Protection, Public Works and Government Services Canada, U.S. and Canadian duty-free shops, and commercial brokers operating on the property owned by the Authority and from leases of communication conduits spanning the Peace Bridge

In FY 2014, eastbound (to US) and westbound (to Canada) vehicle crossings totaled 5,608,870, and toll transactions per capita, based on the 2014 Buffalo NY UZA equaled 4.7. Toll revenues decreased slightly during 2014 and 2013 due to the 7 percent and 2 percent decline in passenger vehicle crossings, respectively. Commercial vehicle volumes and toll rates remained unchanged. Other revenue (29-32% of total), consisting primarily of rental income, was impacted by a decrease in rental income from duty-free operators during 2014 and 2013. Commercial volume accounts for 70 percent of toll revenues.⁹

The Peace Bridge was dedicated on August 7, 1927. Since 1923, the Authority and its predecessor, the Buffalo and Fort Erie Public Bridge Company, have held pursuant to Canadian law an exclusive franchise under Canadian law to construct and operate a bridge across the Niagara River. The law provides that “no other bridge for a like purpose shall be constructed or located at any point nearer than six miles from the Authority’s bridge, except with the consent of the Authority or of the Governor in Council.” By a letter dated November 30, 2004, Transport Canada confirmed the Authority’s exclusive six-mile franchise.¹⁰

E-470 Public Highway Authority – Reinvestment Model

E-470 is a toll highway that runs along the eastern perimeter of the Denver metropolitan area. The 75-mph highway extends 47 miles from State Highway C-470 at I-25 in Douglas County to I-25 near 160th Avenue in Thornton, and travels through three counties and six municipalities. The first segments of the highway opened on June 1, 1991, and the final segment was opened on January 3, 2003. The E-470 is a four-lane highway, five miles of which consist of six lanes, and a major route to Denver International Airport. The highway is operated by the Authority and financed without state or federal funding or taxes, and relies primarily on toll revenues as well as vehicle registration fees, investment income, and other non-toll revenues.¹¹

Traffic on the toll road grew 12 percent from 66.4 million transactions in 2014 to 74.6 million transactions in 2015. This was the highest annual traffic on record, and was the sixth straight year of traffic growth for the Authority. In 2014, toll transactions per capita based on the 2014 Denver-Aurora CO UZA, equaled 28.0. Operating revenues increased 16 percent from 2014 to 2015, improving from \$159.6 million to \$181.9 million, the highest annual revenue on record. Operating expenses, before depreciation, grew 16 percent from \$35.7 million in 2014 to \$41.4 million in 2015.¹²

The E-470 was formed by a Memorandum of Understanding in 1985. The State legislature enacted the Public Highway Authority Act in August 1987. Under the Act, as modified by amendments, a public highway Authority has the following powers that do not require voter approval, unless limited by the contract creating the Authority: acquire rights-of-way, construct, finance, operate, and maintain beltways and other transportation improvements; take private property by condemnation; establish and collect tolls on any highway provided by the Authority; establish and collect highway expansion fees from persons developing property within the boundaries of the Authority (generally 1-1/2 miles on

either side of the highway centerline); issue bonds, to pledge its revenues to the payment of bonds; and, succeed to the obligations of other governmental entities. The Authority also may, with voter approval, levy vehicle registration fees and may create special Districts. While voters approved a \$10 Vehicle Registration Fee in November 1988, no special district election has ever been held.¹³

In 2014, the Authority opened a new interchange at Quebec Street on the northern section of the toll road. The interchange was substantially completed and opened in November 2014, but did not charge tolls through December 31, 2014 to allow time for testing and encourage usage by customers. The \$5.8 million project was opened six months early and under budget.¹⁴

North Texas Tollway Authority (NTTA) – Reinvestment Model

NTTA was created on September 1, 1997, to finance, construct, and oversee turnpike projects in North Texas. NTTA has the first option to develop toll roads planned in North Texas. When a proposed roadway's feasibility does not support tolling, NTTA may choose to waive its primacy. NTTA's mission is to provide a safe and reliable toll road system, increase value and mobility options for customers, operate the Authority in a businesslike manner, protect bondholders, and partner to meet the region's growing need for transportation infrastructure.¹⁵

NTTA does not receive tax revenue for its operations; however, partner cities, which do collect sales taxes, frequently buy right-of-way for the roads. The donation of that property is seen as an investment for those cities, which they later realize through increased property values along the roadway corridor. The North Texas Tollway System includes a Major Enterprise Fund as well as a Non-Major Enterprise Fund. The Major Enterprise Fund includes the Dallas North Tollway (DNT); the President George Bush Turnpike (PGBT), including the Eastern Extension, Sam Rayburn Tollway (SRT); the Mountain Creek Lake Bridge (MCLB); the Addison Airport Toll Tunnel (AATT); and, the Lewisville Lake Toll Bridge (LLTB). The Non-Major Enterprise Fund includes Tolling Services Agreements (TSAs) for managed lanes, which presently consist of the following, and are accounted for separately: managed lanes for Interstate Highway 635 (LBJ-635), DFW Connector, and North Tarrant Express (NTE).

In April 2011, the NTTA entered into a separate trust agreement providing authority to own, design, construct, operate, maintain, and finance a turnpike project known as the Special Projects System (SPS). The SPS consists of: PGBT Western Extension (PGBT-WE) and the Southwest Parkway/Chisholm Trail Project (CTP). The SPS is an enterprise fund of the Authority and activities are not included in the financial statements.¹⁶

Total traffic transactions (excluding non-revenue transactions) for FY 2015 were 676.5 million, an increase of 31.8 million or 4.9 percent over FY 2014. In 2014, toll transactions per capita based on the 2014 Dallas-Fort Worth-Arlington TX UZA, equaled 125.9. Approximately 3.7 million toll tags were active at the end of FY 2015, an increase of 534,416 or 16.8 percent over FY 2014 active toll tags. Toll revenues of \$621.4 million, net of bad debt expense, increased \$40.9 million or 7.0 percent over FY 2014, due to a 4.9 percent increase in traffic transactions and a partial year benefit of the toll rates increase that took effect on July 1, 2015.

In June 1997, the Texas Legislature approved a bill to create the North Texas Tollway Authority, a regional tollway authority under Chapter 366, Transportation Code. Effective September 1, 1997, the Authority became the successor agency to the Texas Turnpike Authority and acquired all assets, rights, liabilities, and other property of the Texas Turnpike Authority located in Collin, Dallas, Denton, and Tarrant Counties. The Authority also assumed and became liable for all duties and obligations related to the Texas Turnpike Authority at that time.

NTTA is a political subdivision of the State of Texas, authorized and empowered by the Regional Tollway Authority Act (the Act) to construct, maintain, repair, and operate turnpike projects at such locations within Collin, Dallas, Denton, and Tarrant Counties, as may be determined by NTTA. The Authority is authorized to issue turnpike revenue bonds, payable solely from tolls and other revenue of the Authority, for the purpose of paying all or any part of the cost of a turnpike project. Under the provisions of the Act, these revenue bonds shall not be deemed to constitute a debt or a pledge of the faith and credit of the State of Texas or of any other political subdivision thereof.¹⁷

San Diego Association of Governments (SANDAG) - Multimodal Financier Partnership Model

The San Diego Association of Governments (SANDAG) comprises the following 18 cities and county government:

City of Carlsbad	City of Imperial Beach	City of San Marcos
City of Chula Vista	City of La Mesa	City of Santee
City of Coronado	City of Lemon Grove	City of Solana Beach
City of Del Mar	City of National City	City of Vista
City of El Cajon	City of Oceanside	County of San Diego
City of Encinitas	City of Poway	
City of Escondido	City of San Diego	

SANDAG, as a public agency, serves as the forum for regional decision-making. SANDAG builds consensus; makes strategic plans; obtains and allocates resources; plans, engineers, builds public transportation; and, provides information on a broad range of topics pertinent to the region's quality of life. The Legislative Program is approved by the Board of Directors on an annual basis. The program includes the agency's legislative policies and sets priorities for possible federal and state legislation and local activities for the calendar year. The SANDAG Public Participation Plan is designed to inform and involve the region's residents in the decision-making process on issues such as growth, transportation, environmental management, housing, open space, air quality, energy, fiscal management, economic development, and public safety.¹⁸

SANDAG was formed under a Joint Powers Agreement dated September 10, 1972 and was originally named the Comprehensive Planning Organization. The Joint Powers Agreement was amended on November 5, 1980, to change the agency's name to the San Diego Association of Governments. The member agencies include 18 incorporated cities from the San Diego region and the County of San Diego,

California. On January 1, 2003, SANDAG became a legislatively created regional government agency pursuant to the San Diego Regional Transportation Consolidation Act. The SANDAG Board of Directors includes representatives from the 18 incorporated cities in the San Diego region, and the County of San Diego. The effect of this legislation was to make SANDAG a permanent rather than voluntary association of local governments and to increase the SANDAG responsibilities and powers. The Act also required the consolidation of the planning, programming, project development, and construction functions of the San Diego Metropolitan Transit Development Board, currently known as the Metropolitan Transit System (MTS) and the North San Diego County Transit Development Board, currently known as the North County Transit District (NCTD), into SANDAG.¹⁹

State Road and Tollway Authority (SRTA) – Multimodal Financier Partnership Model

The State Road and Tolling Authority (SRTA) is a public corporation and body corporate, created by the Georgia General Assembly, responsible for financing transportation projects in the State of Georgia. As of June 30, 2015, SRTA's special revenue fund maintained and operated one tolling facility as well as a state-wide electronic toll collection customer service center and three tolled facilities under construction. Additionally, SRTA managed a bond financing program and administered a transportation infrastructure bank program.²⁰

In FY 2015, SRTA collected \$10,319,514 in toll revenue from 7.1 million electronically tolled trips. Toll revenue increased 34.3 percent and electronically tolled trips increased 18.3 percent over the year ended June 30, 2014. In FY 2014, toll transactions (GA 400 and I-85 Corridor Express Lanes) per capita based on the Atlanta GA UZA, equaled 2.8. Violations administration fee revenue on I-85 was \$743,426, an increase of 60.4 percent over FY 2014. A significant portion of this increase was due to out of state violation collections. Because SRTA received an up-front, one-time payment for several years of out-of-state tolls and violation fees, the increase in FY 2015 will not be seen in future years. FY 2016 will see a decrease from the previous year, since only the current year of out-of-state violation collections will be realized. Moving forward, out-of-state tolls and violation fees will increase as new toll facilities open in FY 2017, FY 2018 and FY 2019. Under a new agreement signed in FY 2015, a vendor reimburses SRTA up front for 100 percent of the tolls and pays SRTA an additional 15 percent of the violation administration fees upon collection. During the year ended June 30, 2015, 34,600 interoperable trips resulted in toll revenue of \$44,395. Effective FY 2015, I-85 revenues and expenses are reflected and reported in the Special Revenue Fund.²¹

The State Toll Bridge Authority (STA) was created by the Georgia General Assembly in 1953. The Authority worked with Glynn County and the City of Brunswick to construct the first Sidney Lanier Bridge over the Brunswick River. In 1962, tolls were retired on the bridge, and State Toll Bridge Authority bonds were retired by the newly created State Highway Authority.

In 1972, the Georgia State Tollway Authority Authorization Act was passed by the Georgia Legislature. In 1984, the State Tollway Authority assumed operation of the Torras Causeway, which was leased from GDOT so that a \$0.35 toll could be collected for bridge operations and maintenance. In 2001, Senate Bill

134 officially changed STA to the State Road and Tollway Authority (SRTA). Tolls were, subsequently, removed from the Torras Causeway in 2003. .

In FY 2012, SRTA opened the I-85 Express Lanes toll facility. SRTA ceased collection of tolls on the GA 400 in November 2013, and completed demolition of the toll plaza in September 2014.²²

Delaware River Port Authority (DRPA) – Owning/Operating Multimodal

The Delaware River Port Authority (DRPA) is a public corporate instrumentality of the Commonwealth of Pennsylvania and the State of New Jersey created with the consent of Congress by compact legislation between the Commonwealth of Pennsylvania and the State of New Jersey. DRPA is vested with the ownership, control, operation, and collection of tolls and revenues of certain bridges spanning the Delaware River, namely, the Benjamin Franklin, Walt Whitman, Commodore Barry, and Betsy Ross bridges. DRPA constructed and owns a high-speed transit system, which is operated by its wholly owned subsidiary, the Port Authority Transit Corporation (PATCO). The transit system operates between Philadelphia, Pennsylvania and Lindenwold, New Jersey. DRPA's four bridges carry an average of 260,000 vehicles each day, and PATCO moves almost 40,000 passengers each workday, or an estimated 10 million people a year.²³

PATCO operating expenses exceeded operating revenue by \$21.4 million in 2014 and by \$16.8 million in 2013; the operating loss increased by \$4.6 million from 2013 to 2014 (27.6% increase). Passenger-fare revenues decreased by 6.4 percent, with 535,000 fewer riders (down 5.1%). PATCO ridership was impacted by inclement weather and track outages due to the BFB/PATCO track rehab project.

2014 operating revenues were \$330.9 million (\$2.8 million, 0.84% increase over 2013). Due to increased commercial vehicle volumes, toll revenues increased by \$3.4 million (up 1.2%). Bridge traffic decreased by 50,000 vehicles (down 0.10%) during 2014 due to general economic conditions in the region and inclement weather. Bridge and general administration expenses increased by a combined \$2.8 million (3.1% increase versus 2013), largely due to biennial inspection costs. In 2014, toll transactions equaled 95,664,000, and represented 17.6 toll transactions per capita.²⁴

DRPA was created in 1952 as a successor to the Delaware River Joint Commission, which was created in 1931. In January 2015, the DRPA Board approved the sale of the RiverLink ferry. DRPA had assumed control in 2000, and, subsequently, had outsourced the operation to private operators in 2004.²⁵

Golden Gate Bridge, Highway and Transportation District (GGBHTD) – Owning/Operating Multimodal

Based in San Francisco, the Golden Gate Bridge, Highway, and Transportation District operates the Golden Gate Bridge, and two public transit systems: Golden Gate Transit (GGT) buses and Golden Gate Ferry (GGF). Last year, 38 million vehicles crossed the Golden Gate Bridge and over 9 million customers rode the transit systems. Six million customers rode GGT buses (down from 6.4 million) (service connects Sonoma, Marin, San Francisco, and Contra Costa counties); 2.5 million customers rode GGF ferries (compared to 2.4 million) (links Marin and San Francisco counties); and, 20.1 million vehicles

crossed the Bridge southbound (compared to 20.0 million). A recovery indicator is increased traffic at the Bridge. Toll transactions (2014) totaled 40,172,000, and toll transactions per capita equaled 12.2, based on the 2014 San Francisco-Oakland CA UZA.²⁶

The January 17, 2003 mission statement of the Golden Gate Bridge, Highway and Transportation District (District) affirmed the District's commitment to provide safe and reliable operation, maintenance and enhancement of the Golden Gate Bridge and to provide transportation services, as resources allow, for customers within the U.S. Highway 101 Golden Gate Corridor.²⁷

On December 4, 1928, the District was incorporated as a special district of the State of California as the entity established to design, construct, finance, and operate the Golden Gate Bridge. The District was created under the Bridge and Highway District Act of 1923 and is subject to regulation under this Act, as amended. Because Bridge traffic levels had reached capacity, on November 10, 1969, the California legislature passed Assembly Bill 584 authorizing the District to develop a transportation facility plan to implement a mass transportation program in the Highway 101/Golden Gate Corridor as a means of managing traffic congestion across the Bridge. The mass transportation program was to include any and all forms of transit, including ferry transit. At that time, the word "Transportation" was added to the District's name to indicate its new commitment to public transportation.

The Golden Gate Bridge opened to traffic on May 28, 1937; the Golden Gate Ferry (GGF) launched its first vessel on August 15, 1970; and, Golden Gate Transit bus service (GGT) began regional service on January 1, 1972. The District is unique among Bay Area transit operations because it provides transit services without support from local sales tax measures or dedicated general funds. As the District does not have the authority to levy taxes, the use of surplus Bridge toll revenue is the only available local means the District has to support the District's regional transit services. Presently, Golden Gate Transit Bus and Golden Gate Ferry operations are funded nearly 50 percent by surplus Golden Gate Bridge tolls. The remainder is met by federal, state and local subsidies along with advertising, concessions, and property equipment rental revenues and District reserves. The San Francisco Bay Area's economy has shown slow and steady signs of improvement since the economic impacts of the nationwide recession in 2008, followed by the global recession in 2009.²⁸

Metropolitan Transportation Authority (MTA) – Owning/Operating Multimodal

MTA or "MTA Group" was established under the New York Public Authorities Law and is a public benefit corporation and a component unit of the State of New York whose mission is to continue, develop, and improve public transportation and to develop and implement a unified public transportation policy in the New York metropolitan area. The financial reporting entity consists of subsidiaries and affiliates, considered component units of MTA, because the Board of MTA serves as the overall governing body of these related entities.

MTA Related Groups

Metropolitan Transportation Authority Headquarters (MTAHQ) provides support in budget, cash management, finance, legal, real estate, treasury, risk and insurance management, and other services to the related groups below:

- ***Long Island Rail Road Company*** (MTA Long Island Rail Road) provides passenger transportation between New York City (NYC) and Long Island
- ***Metro-North Commuter Railroad Company*** (MTA Metro-North Railroad) provides passenger transportation between NYC and the suburban communities in Westchester, Dutchess, Putnam, Orange, and Rockland counties in NYS and New Haven and Fairfield counties in Connecticut
- ***Staten Island Rapid Transit Operating Authority*** (MTA Staten Island Railway) provides passenger transportation on Staten Island
- ***First Mutual Transportation Assurance Company*** (FMTAC) provides primary insurance coverage for certain losses, some of which are reinsured, and assumes reinsurance coverage for certain other losses
- ***MTA Capital Construction Company*** (MTA Capital Construction) provides oversight for the planning, design and construction of current and future major MTA system-wide expansion projects
- ***MTA Bus Company*** (MTA Bus) operates certain bus routes in areas previously served by private bus operators pursuant to franchises granted by the City of New York
- MTAHQ, MTA Long Island Rail Road, MTA Metro-North Railroad, MTA Staten Island Railway, FMTAC, MTA Capital Construction, and MTA Bus, collectively are referred to as MTA. MTA Long Island Rail Road and MTA Metro-North Railroad are referred to collectively as the Commuter Railroads.

The following entities are affiliates (component units) of MTA:

- ***New York City Transit Authority*** (MTA New York City Transit) and its subsidiary, Manhattan and Bronx Surface Transit Operating Authority (MaBSTOA), provide subway and public bus service within the five boroughs of NYC.
- ***Triborough Bridge and Tunnel Authority*** (MTA Bridges and Tunnels) operates seven toll bridges, two tunnels, and the Battery Parking Garage, all within the five boroughs of NYC.²⁹

Preliminary MTA system-wide utilization through the fourth quarter of 2015 declined relative to 2014, with ridership down by 2.1 million trips (0.1%); this decline was driven by a decline in bus ridership, with a 16.4 million decline in bus ridership at MTA New York City Transit and a 0.2 million decline in ridership at MTA Bus. During the first quarter of the year, harsh weather affected all MTA services, but most significantly bus operations: the winter months of 2015 brought significant snowfall totals, record cold temperatures and the “Juno” blizzard in January. February of 2015 was the coldest February since 1948, the first year for which complete data are available, and January and March temperatures were also colder than average. Moreover, March had the greatest total snowfall for that month since 1940. Despite the more favorable weather since the first quarter of the year, bus ridership has remained lower than in 2014. For New York City Transit subways and at all other MTA agencies, however, ridership has improved; and vehicle traffic at MTA Bridges and Tunnels facilities increased by 11.6 million crossings

(4.0%) through the fourth quarter, reflecting both growth in the regional economy and a steep drop in gasoline prices compared with 2014 prices.

MTA Bridges and Tunnels – Toll revenues were \$1,808.9 million and \$1,676.4 million for the years ended December 31, 2015 and 2014, respectively. One of the primary reasons for the increase was gas prices, which averaged \$2.50 (whole dollars) in 2015, which was \$1.05 (whole dollars) below the annual average for 2014. The E-ZPass electronic toll collection system continued to facilitate management of high traffic volumes and experienced significant year-to-year increases. Total average market share as of December 31, 2015, was 85.1 percent compared with 84.2 percent in 2014. The average weekday market shares were 86.8 percent and 85.9 percent for December 31, 2015 and 2014, respectively.

MTA New York City Transit – Total revenue from fares were \$4,371 million in 2015, an increase of \$180 million or 4.3 percent. This increase was due mostly to a March 2015 fare increase. Total ridership was 2,422 million, a decrease of 0.2 percent from 2014.

MTA Long Island Rail Road – Total operating revenues increased by \$43.1 million in 2015 compared to 2014. In 2015, ridership experienced strong growth finishing the year with 87.6 million passengers, which was 2.1 percent above the 2014 ridership. A steadily improving economy and service enhancements contributed to the increase.

MTA Metro-North Railroad – Passenger fares accounted for 91.6 percent and 92.0 percent of operating revenues in 2015 and 2014, respectively. MTA Metro-North (East of Hudson) passenger revenue increased in 2015 by \$27.7 million or 4.3 percent, and ridership increased by 1.297 million or 1.6 percent. The revenue increase is primarily a reflection of a 1.0 percent Connecticut fare increase implemented on January 1, 2015 and a 4.0 percent New York fare increase implemented on March 22, 2015. MTA Metro-North (East of Hudson) passenger revenue increased in 2014 by \$30.9 million or 5.0 percent, and ridership increased by 1.170 million or 1.4 percent. The revenue increase was primarily a reflection of a 5.04 percent Connecticut fare increase implemented on January 1, 2014.³⁰

The Metropolitan Transportation Authority (MTA) was established in 1965, under Section 1263 of the New York Public Authorities Law, and is a public benefit corporation and a component unit of the State of New York (NYS) whose mission is to continue, develop and improve public transportation and to develop and implement a unified public transportation policy in the New York metropolitan area.³¹

Port Authority of NY & NJ (PANYNJ) – Owning/Operating Multimodal Model

The Port Authority of New York & New Jersey (PANYNJ) conceives, builds, operates, and maintains infrastructure critical to the New York/New Jersey region's trade and transportation network. These facilities include America's busiest airport system, marine terminals and ports, the PATH rail transit system, six tunnels and bridges between New York and New Jersey, the Port Authority Bus Terminal in Manhattan, and the World Trade Center.

Aviation – 2015 Domestic and International Passengers

- John F. Kennedy International Airport – 56,608,299 (a 6.4% increase)
- LaGuardia Airport – 28,300,973 (a 5.0% increase)
- Newark Liberty International Airport – 37,274,138 (a 4.7% increase)

Marine Terminals – 2015 Containers

- New Jersey Marine Terminals – 3,427,000 (a 10.6% increase)
- New York Marine Terminals – 237,000 (a 3.0% decrease)

Port Authority Trans Hudson Rail – 2015 Passengers

- PATH – 76,565,451 (a 3.9% increase)

Tunnels and Bridges – 2015 Vehicular Trips

- Lincoln Tunnel – 18,932,000 (an 0.8% increase)
- Holland Tunnel – 15,409,000 (a 1.0% decrease)
- George Washington Bridge – 50,456,000 (a 2.9% increase)
- Staten Island Bridges (Bayonne Bridge, Goethals Bridge & Outerbridge Crossing) – 31,150,000 (a 1.7% increase)

Bus Terminals – 2015 Passengers

- Port Authority Bus Terminal – 66,700,000 (a 1.1% increase)
- George Washington Bridge Bus Station – 5,000,000 (a 6.4% increase)
- PATH Journal Square Transportation Center Bus Station – 11,940,000 (a 1.6% increase)³²

Toll revenue at the Port Authority's six vehicular crossing increased \$149 million, primarily due to a scheduled increase in tolling rates that became effective in December 2015 along with a 1.7 percent increase in vehicular traffic. PATH fares increased \$16 million due to a scheduled increase in PATH fares that took effect in October 2014 and a 3.9 percent increase in ridership levels. Rental income increased \$146 million due to increases in fixed and percentage rentals related to aviation facilities and One World Trade Center (WTC), and One WTC Observation Deck, which opened to the public in 2015. Toll transactions in 2015 totaled \$116 million, and toll transactions per capita equaled \$6.3, based on the 2014 New York-Newark NY-NJ-CT UZA.³³

The Port Authority was established on April 30, 1921. It was the first bi-state agency created under a clause of the constitution that permitted compacts between states with congressional consent. The Compact also created the Port District, which comprises an area of about 1,500 square miles in both states, centered on New York Harbor. The Port District includes the cities of New York and Yonkers in New York State, and the cities of Newark, Jersey City, Bayonne, Hoboken, and Elizabeth in the State of New Jersey, and more than 200 other municipalities, including all or part of 17 counties, in the two states. The Port Compact established a bi-state authority to provide transportation, terminals, and other facilities of commerce within the Port District.

Legislation passed by the State of New York in 1967 authorized the Port Authority to establish one additional air terminal in New York and one additional air terminal in New Jersey outside the Port District with the site of each such terminal to be approved by the governor of the state in which the terminal is located. In May 2007, the State of New Jersey enacted a statute identical in scope. Stewart International Airport, located in Orange County, New York, was approved by the NY Governor as the additional air terminal and is operated by the Port Authority. Atlantic City International Airport, located

in Atlantic County, New Jersey, was approved by the NJ Governor. In July 2013, the Port Authority was authorized to enter into an agreement with the South Jersey Transportation Authority (SJTA) to perform certain general management services and functions for the airport.³⁴

South Jersey Transportation Authority (SJTA) - Owning/Operating Multimodal

The Authority's core components include: the Atlantic City Expressway (ACE), a 44.5-mile roadway that extends from Atlantic City through Atlantic, Camden, and Gloucester counties, ending at Route 42, approximately 10 miles east of Philadelphia; a 2001 expansion of the Expressway to include the 2.5-mile Atlantic City Brigantine Expressway Connector; the Atlantic City International Airport (ACY), which conducts commercial and general aviation operations, offering air travel to support commerce, tourism and the general public; Transportation Services, with transit routes that increase accessibility to employment opportunities in areas underserved by transit; operation and management all of the SJTA parking facilities and shuttles in Camden, Atlantic City, and at Atlantic City International Airport; and promulgation and enforcement of the rules and regulations of the motorbus industry in Atlantic County; and, tourist services.³⁵

During 2012, the Authority entered into an agreement with Burlington County ("County"), New Jersey to provide operations for a new deviated fixed route system ("Burlink"). This agreement allowed the Authority to provide the operation of maintenance of County vehicles and service the agreed upon routes. This contract was for a two (2) year period beginning on January 1, 2012 through December 31, 2013. During 2014, the contract with Burlington County was extended an additional two (2) years through December of 2015. During 2014, the Authority realized \$1,063,461 in program revenue compared to \$923,067 in 2013.

Also, during 2012, the Authority entered into a shared services agreement with Rowan University to provide shuttle bus services between Rowan University, Camden Campus and Rowan University, Robinson Hall, Glassboro during the 2012-2013 school year for its students, employees and patrons. During 2014, the Authority realized \$174,102 in program revenue compared to \$145,300 in 2013.

Traffic on the Atlantic City Expressway (ACE) declined from 52,079,719 in 2013 to 50,985,868 vehicles in 2014 (a 2.1% decrease). Traffic in 2015 increased slightly (a 0.3% increase).

Scheduled service passengers using the Atlantic City Airport in 2015 increased one percent over the number of scheduled service passengers in 2014. Overall passenger traffic decreased one percent due to a decrease in charter service passengers.³⁶

SJTA was established by the legislature in June 1991 to assume operational responsibilities for the Atlantic City Expressway, Atlantic City International Airport terminal, and parking facilities in Atlantic City. As a successor to the New Jersey Expressway Authority and Atlantic County Transportation Authority (ACTA), the SJTA serves six counties—Atlantic, Camden, Cape May, Cumberland, Gloucester, and Salem. SJTA provides the traveling public with safe and efficient transportation through the

acquisition, construction, maintenance, operation, and support of expressway, airport, transit, parking, other transportation projects and services that support the economies of Atlantic, Camden, Cape May, Cumberland, Gloucester, and Salem Counties. Legislation (N.J.S.A. 27:25A-1 et seq.) charged the Authority with coordinating South Jersey's transportation system, including addressing the region's highway network, aviation facilities and transportation needs.³⁷

Chapter 5

Findings

Toll Agency Model Summary and Findings

A summary of the ten non-state entities is presented in Table 5-1 and includes the Central Florida Expressway Authority for comparison. For the agencies included in the table below, attention was given to public transportation markets and any agency role in transit, as the statutory changes that expand the role of CFX focused on “fixed guideway” and “rapid transit.”

The summary includes the type of agency, the population rank of the metropolitan area, and the travel time index ratio. This index is calculated and published by the Texas Transportation Institute at Texas A and M University and represents the ratio of the travel time during the peak period to the time required to make the same trip at free-flow speeds. A value of 1.3, for example, indicates a 20-minute free-flow trip requires 26 minutes during the peak period.³⁸ Simply stated, the higher the value, the longer the peak hour trip will take as compared to the non-peak period. This factor is included as a measure of the potential for the market transit usage.

To compare existing toll demand and transit demand, the toll transactions per capita and the transit trips per capita are included in the analysis (transit trips are expressed in unlinked passenger trips). Finally, the mode of transit used in the metropolitan area is presented and its share of the public transportation market.

Table 5-1. Metropolitan Toll Authority Comparison – Toll and Transit Characteristics

Authorities	Model	Population Rank	Travel Time Value	Toll Transactions (in millions)	Toll Transactions per Capita	Transit Services	Unlinked Passenger Trips (UPT) (in millions)	UPT per Capita	Transit Mode Split
Central Florida Expressway Authority		31	1.21	333.6	220.9	Local Transit, FDOT	30.3	20.1	Bus-92% RB-3% CR-1%
Chesapeake Bay Bridge Tunnel	Single Purpose	35	1.19	3.6	3.1	Local Transit	17.5	15.4	Bus-86% LR-10% FB-2%
Peace Bridge (NY)	Single Purpose	50	1.17	5.6	4.7	Local Transit	26.4	22.3	Bus-82% LR-18%
E-470 Denver	Reinvestment	17	1.30	66.4	28.0	Local Transit	104.5	44.0	Bus-73% LR-25%
North Texas Toll Authority	Reinvestment	6	1.27	644.7	125.9	Local Transit	81.1	15.8	Bus-56% LR-36% CR-3%
SRTA Atlanta, GA	Multimodal Financier Partnership	9	1.24	6.0	1.3	Local Transit	137.5	30.4	Bus-46% HR-50%
Golden Gate District	Owning-Operating Multimodal	13	1.41	40.2	12.2	Authority-owned	457.0	139.3	Bus-38% TB-14% HR-28% LR-11%
Delaware River Port Authority	Owning-Operating Multimodal	5	1.24	95.7	17.6	Authority-owned	369.9	68.0	Bus-51% HR-30% CR-10%
MTA – New York	Owning-Operating Multimodal	1	1.34	211.3	11.5	Authority-owned	4,358.2	237.5	Bus-27% HR-65% CR-6% FB-0.6%
Port Authority NY/NJ	Owning-Operating Multimodal	1	1.34	115.8	6.3	Authority-owned	84.2	4.6	HR-99% FB-1%
South Jersey Transportation Authority	Owning-Operating Multimodal	150	1.62	51.0	NA	Authority-contracts	NA	NA	Bus-45%+ Contract

Several observations in this comparison are worth noting. The regions, where there are multimodal agencies incorporating toll facilities, transit facilities and other modes of transportation, are generally very large, dense, and mature urban areas such as New York and San Francisco. Transit trips on a per capita basis are over 10 times that of per person toll transactions (note the highlighted figures in the table above). In Central Florida, the reverse is true. This is likely due to a less mature transit system, a less dense land use density, and the available land for horizontal expansion.

Figure 5-1 below summarizes some additional findings from the review of various toll agency models and expands on Figure 4-1.

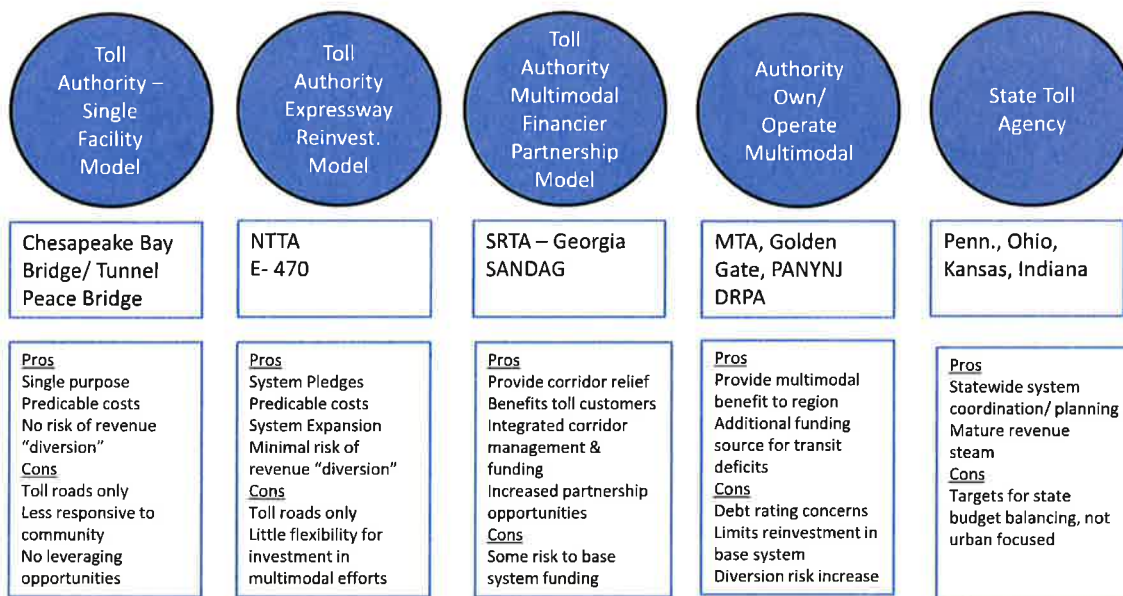


Figure 5-1. Toll Agency Organizational Spectrum – Pros and Cons

After reviewing the various toll agency models, several findings emerged:

1. The regional toll authority model is tailored to area needs and individual jurisdictional relationships.
2. The organizational structure and role of the agency evolves as a region’s needs evolve.
3. Recent trends indicate that agencies are now spinning off economic development and other non-core roles, and refocusing on the organization’s main mission.
4. Total multimodal integration models of authorities are reserved for densely developed areas with no ability or appetite for additional highway capacity. These are mature urbanized areas where there is arguably a nexus between the use of toll revenue to support other surface transportation modes, where any additional increment of passenger capacity contributes to overall mobility.
5. Transit demand is demonstrably high in areas with heavy multimodal involvement by toll agencies and, typically, involves an extremely dense employment center or centers.
6. CFX has already evolved through the “single purpose” model and the “reinvestment model” and is in the beginning stages of the “multimodal financier partnership.” The agency’s expanded roles in initiatives in the Goldenrod Road project, electronic revenue collection at Orlando International Airport, its recent agreement with the Osceola County Expressway Authority (OCX) transferring the lead for the OCX Master Plan development to CFX, and its role in developing a corridor for a high-speed rail connection along the Beachline expressway, are all examples of this evolution.

-
7. This role as the multimodal partner is the appropriate position for CFX at this time in Central Florida's development. To assume any role in the ownership of or operations of fixed guideway transit system is, in the authors' opinion, not prudent at the present time. This finding is based on the current provisions in the prevailing bond documents, the lack of a demonstrated demand for high capacity transit, the identified expressway needs in the region, and the future financial capacity of CFX planned to tackle future regional expressway needs.

Local Needs and Concerns

The review of the regional transportation plans, interviews, and meetings indicated that there is a strong desire for expanded transit options and additional expressway capacity in the region. There have been unsuccessful attempts in the past to secure a dedicated funding source for a regional transportation system, including increasing and dedicating a portion of the Florida rental car surcharge. There is a wide range of views on what CFX's role in the region should be, ranging from maintaining its role as the provider of regional expressways to actually owning and operating portions of a public transportation system.

While survey results from the CFX Master Plan update process indicate agreement on the issue of CFX doing more in the region, there is not consensus on what an expanded role would entail. A north-south commuter rail corridor has been established through the opening of SunRail, while the majority of CFX facilities serve the east-west travel demand. This may provide opportunities to provide priority transit feeder service to SunRail, if rail demand increases and east-west congestion increases.

The college and university connectivity needs that were expressed through discussions with leaders of the regional higher education institutions may also provide an opportunity for CFX to contribute to intercampus mobility through the provision of bus transit priority and, perhaps, a form of Bus Rapid Transit (BRT) on its expressways that cannot be expanded significantly beyond their current cross sections. The transit preference could also be accommodated in conjunction with congestion pricing programs in the future by providing express lanes or by the introduction of peak hour pricing.

National Trends

Historically, there have many actions taken to address transportation funding shortfalls by shifting financial or operational responsibilities to toll authorities for a variety of reasons. Some of the rationale can be linked to a revenue authority's debt being "off the books" and not used in specific debt affordability calculations, or the political expediency of dealing with short-term deficits through a series of long-term toll increases. These maneuvers have ranged from the outright monetization of public assets through the granting of multi-decade concessions to operate facilities and retention of the revenues for a large, one-time payment to large-scale annual toll diversion of revenue to offset non-toll operating deficits.

In the review of national issues, this trend seems to be waning, and in some cases, actions are being reversed in order to adequately fund and maintain toll facilities. In addition, legal actions that challenge the fairness of using toll revenue to the benefit of non-toll users are gaining momentum. Among recent examples is a successful challenge by the American Trucking Association (ATA) in its action against the

New York State Thruway Authority for its decades long practice of funding the mostly recreational, canal system in the State. The case was decided in ATA's favor and terms of the settlement specifics are being deliberated as of this writing. The case was based on the Interstate Commerce Clause of the U.S. Constitution, and applies to interstate commercial traffic.

Another relevant case is the current debate in Pennsylvania that seems to indicate some sentiment for the reversal or tempering of a state law mandating an annual transfer of \$450 million from the Pennsylvania Turnpike Commission (Commission) to the Pennsylvania Department of Transportation (PennDOT) through FY 2022 to fund public transportation operations and other non-tolled transportation initiatives. Since 2007, \$5.2 billion has been transferred from the Commission, resulting in nine consecutive annual toll increases. "Due to the significance of the quarterly payments under Act 44 and Act 89, the Commission currently does not have excess cash from operations to finance its required payments to PennDOT. Therefore, the Commission plans to continue to increase toll rates annually and to issue debt for the foreseeable future to finance the majority of these payments."³⁹ The Turnpike Commission is now in the position of actually borrowing funds to transfer to non-turnpike activities. Apparently, the ATA is considering a similar suit based on the Pennsylvania arrangement as it did in the New York case.

Unsuccessful challenges have been made recently to the Port Authority of New York and New Jersey's toll increase. The challenge to the toll increase was prompted by the financial commitments to the construction of the new World Trade Center.

Although these national cases may not directly apply to any expanded role for CFX, it is instructional that moving too far from the concept of reinvesting toll revenues for the benefit of the rate payers can lead to legal challenges and otherwise unnecessary toll increases at worst, and, at best, a sense of unfairness by the Expressway Authority's customers. CFX is advised to take a cautious approach to any expansion of its financial or operating mission.

Credit Rating and Debt Considerations

One of the most valued indications of a public authority's strength is its perception in the financial world, expressed by its bond rating and future outlook. As summarized in an earlier section, CFX's debt policy that is more conservative than is required in the Bond Resolution of 1.20x, and maintains a minimum senior lien debt service coverage ratio of at least 1.45x on the existing and planned debt issues. For planning purposes, a 1.60x senior lien debt service coverage ratio is used. CFX currently has over \$2.6 billion in outstanding debt. In 2015 total debt service of over \$170 million was paid by the agency with \$359 million of operating revenue with a coverage ratio of over 2.10x.

CFX's current ratings include Standard and Poor's "A" with a Positive Outlook, Moody's "A2" with a Positive Outlook, and Fitch "A" with a Stable Outlook. In the most recent guidance, some cautionary signals are relevant to a potential expanded role for CFX, particularly if significant additional capital expenditures are contemplated. Specifically, Moody's cites the size of the current Work Plan as a challenge.

Credit Challenges

- *Extensive capital program planned totaling \$1.26 billion*
- Overall high debt to operating revenue, which is not expected to improve materially in the short term
- Significant, though reduced, exposure to variable rate debt and swaps
- Possible acquisition of the Osceola County Expressway in 2018, though this was expected to be undertaken as a non-system asset⁴⁰

Standard and Poor's commented on an expansion of the capital improvement program as well and said:

Outlook

- The positive outlook reflects strong demand for the system, as evidenced by strong transaction growth leading to increased revenues that provide strong DSC. We expect that CFX will continue to balance the needs of its existing system expansion projects, which are necessary to address regional growth, with the maintenance of sound financial operations.

Upside scenario

- Continued strength in transactions and revenue growth that leads to DSC near the authority's latest financial forecast could lead to an upgrade.

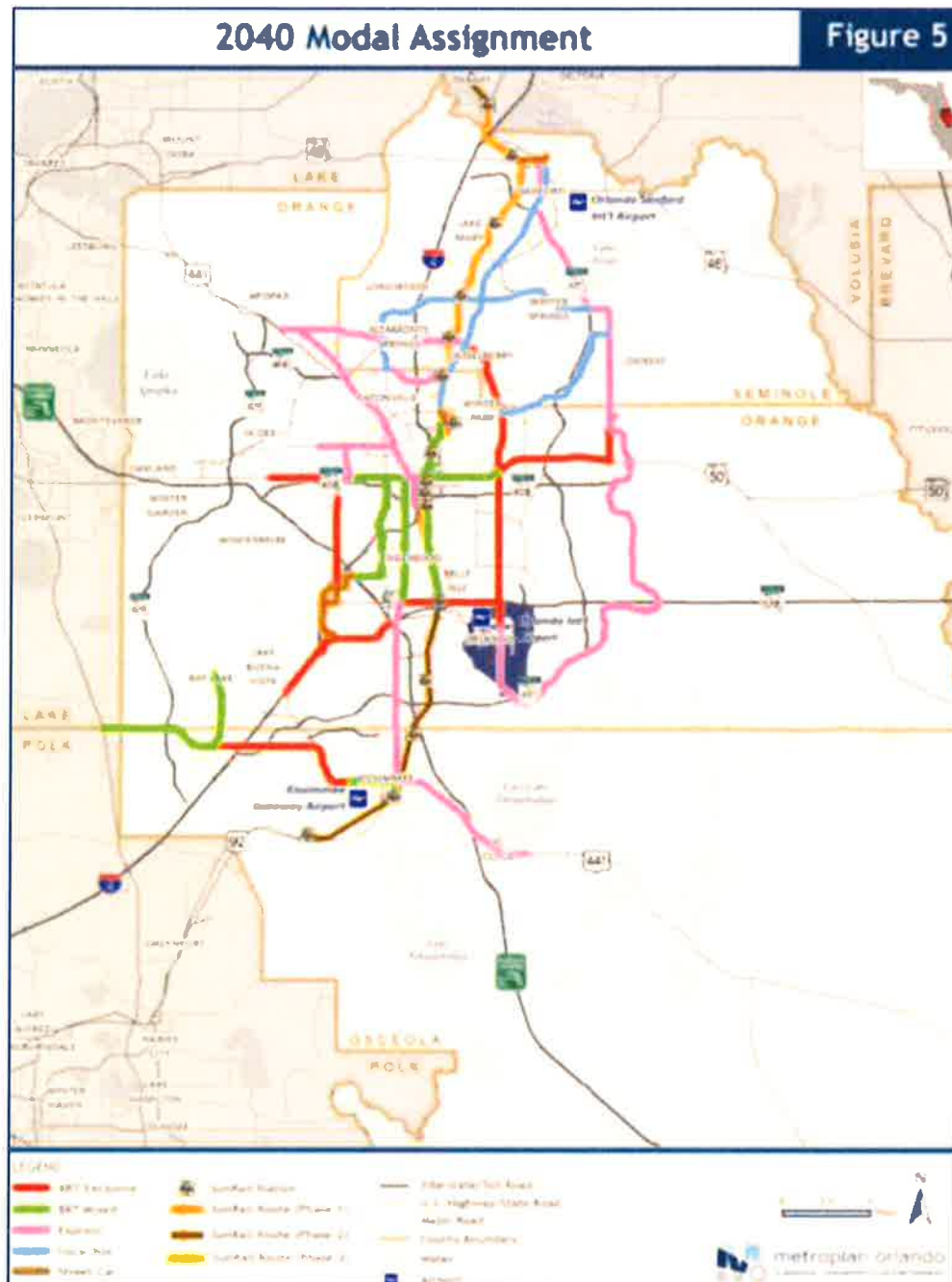
Downside scenario

- *If additional CIP needs are identified that require additional debt that leads to DSC near the authority's planning target, we could revise the outlook to stable.*⁴¹

Project Opportunities

A part of this study included an effort to identify potential projects or candidates that CFX might consider as a part of its expanded role. Potential opportunities were sought through the discussions and meetings mentioned earlier and a review of the Transit Element of the MetroPlan Long Range Transportation Plan (LRTP). Several project opportunities for consideration by the Authority emerged. Figure 5-2 depicts the modal assignments that resulted from the technical analysis performed as a part of the LRTP update undertaken by MetroPlan Orlando. The map is taken directly from Technical Report #5 (the detail of the Transit Element of the plan) and illustrates transit corridors and modes of public transit that create a logical transit network for a cost feasible regional system. Several corridors are parallel to or concurrent with CFX facilities.

One corridor parallels SR 408 along SR 50 from north of Windermere/south of Ocoee eastward across the metropolitan area to SR 417 near University Boulevard and envisions a combination of exclusive and non-exclusive Bus Rapid Transit service. Capacity improvements to SR 408 are currently programmed for expansion, and the expressway west of Interstate 4 is identified in the CFX 2040 Master Plan for potential widening. An investigation into whether future improvements to SR 408 may help accommodate express bus or BRT service appears to be worthwhile. If managed lanes are ever considered for the downtown segment of SR 408, this could present an opportunity for an east-west transit corridor using premium bus service.



An exclusive BRT facility is indicated in the MetroPlan document as having potential along SR 528 from the vicinity of US Route 441 to Orlando International Airport. In addition, there have discussions about an extension of SunRail to the airport as well as other potential high capacity transit investments from OIA to the Florida Mall/International Drive area. A portion of SR 528 is identified for improvement in

park and ride facilities to serve express bus service and CFX customers could be warranted. The issue may arise that the potential accommodation of or priority for public transportation creates a “competing facility” that would prompt a test of revenue neutrality. It is doubtful that transit riders on any of these systems would represent any significant reduction in CFX toll revenue, and there would be a benefit to toll payers in that capacity is made available due to a shift of users to transit. However, this question would need to be definitively answered by an analysis performed by the CFX Traffic and Revenue Consultant.

Another potential for CFX to contribute to mobility in the region and maintain its practice of investing in revenue producing transportation improvements is in the area of financing and constructing parking and parking structures. There are multiple major destinations for recreation and employment in close proximity to CFX facilities. The provision of additional paid parking facilities can contribute to both local and expressway traffic circulation improvements and reduce congestion. Depending on demand and location of these facilities, there may be opportunities that investments in their construction could meet all of the “system” project criteria. An alternative may be to start with funding a parking revenue project from the CFX General Fund and have revenue flow back to that fund to be used for future parking investments. Revenue streams for such investments should cover any debt service, operating, maintenance and fund reserve requirements. If successful projects can be identified, financed, and constructed, the fund could be also be used to finance non-revenue generating multimodal improvements without compromising CFX’s financial position or credit rating. Further and consistent with its 2040 Master Plan, the collection of parking revenue using E-Passat these facilities could then be expanded as service to other parking garages that are not necessarily owned by CFX. This could lead to a totally integrated transportation system for the region, allowing, parking, tolls and transit fares to be paid from one consolidated account.

As the Authority’s older facilities become more congested and there is limited ability for capacity expansion (e.g. SR 408 and SR 528), there may become a time when the agency considers variable pricing or even managed lanes as a demand management technique. Incremental revenue realized from either of these pricing changes could then be used for other congestion mitigation measures that would enhance regional mobility and benefit CFX expressway customers. Examples include funding park and ride facilities, BRT capital or operating, or access enhancements to stations and parking.

Transit joint development investment is another potential area for CFX to contribute to the region’s multimodal system. Consistent with CFX investment parameters, future opportunities may exist that combined several of the options already mentioned (parking, access, and electronic collection) with financing transit-oriented commercial development. These investments concentrate activity around public transit hubs like rail stations and major intermodal transfer points taking advantage of the increased accessibility and value created. They can also serve to bolster transit ridership.

Related to the potential accommodation of express bus and BRT on the CFX system is a need for intercampus connections between higher education sites. The opening of the UCF downtown Orlando campus is expected to serve approximately 5,400 UCF students and 2,300 Valencia College students.⁴³ The provision of a reliable connection between the main campuses and the new downtown location is

recognized as a need, and SR 408 could serve as the major connector between Valencia's east (enrollment of 28,000⁴⁴) and west (25,000) campuses and UCF's main location (63,000) with the new facilities in downtown. CFX and LYNX may want to move into more detailed dialogue with these institutions to estimate public transportation demand for these connections and how best to provide an appropriate level of service.

Chapter 6

Project Consideration Process

The criteria for major investments by CFX are well established in statute, bond documents, and by policy. As a result of this review, there appear to be a few distinct categories of potential multimodal project opportunities. First are enhancements along or on the existing expressway system that can be argued to benefit toll payers and include improvements, such as accommodation of express bus service, provision of BRT, and construction of park and ride lots. These initiatives are not terribly capital intensive and will contribute to enhancing and preserving mobility in the region as growth continues. A second category includes projects that have revenue generation potential and may or may not be directly linked to improved expressway service. This group would include, for example, transit station joint development investments. The thresholds for considering investing in the two different kinds of projects should be different and are addressed in the next section of this report. The second distinction is CFX “system” and “non-system” projects. This division basically divides projects for which revenues from current “system” facilities can be pledged to repay debt used to finance them. They must meet much more rigorous financial tests than “non-system” ventures; although, they too are subject to financial tests.

Figure 6-1 lays out a decision map for considering projects for inclusion in the CFX Five-Year Work Plan. The flow of the process moves through the statute, bond agreement, and CFX Board Policy. Ideally, projects should emanate from the CFX Master Plan and, in the future, this is likely to be the process. Given the 2040 plan has been completed only recently, this may not be feasible in the immediate future without amending the Master Plan.

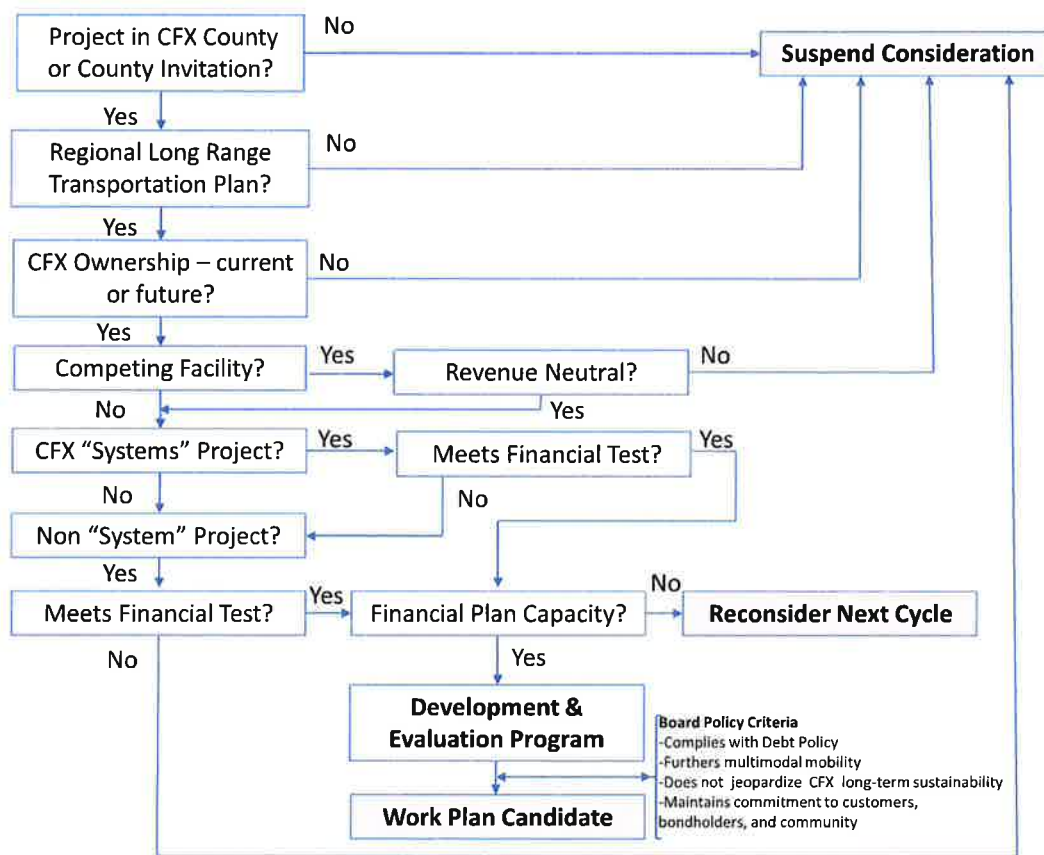


Figure 6-1. CFX Work Plan Project Consideration Process

This diagram over simplifies precisely what would be required and is intended to communicate a process that will potentially involve significant staff resources, the Traffic and Revenue Consultant, Financial Advisor, and Bond Counsel at many of these major decision points. It can serve as a quick reference for use in discussions with parties that approach the agency with project proposals. An annual consideration of multimodal projects is probably too frequent, and waiting for Master Plan updates is too infrequent. Additionally, a process must be flexible enough to accommodate projects and opportunities that emerge and deserve prompt consideration. To this end, the authors recommend that CFX consider establishing a multimodal project Development and Evaluation program as a part of its Work Plan. Funds identified in this item would be designated to evaluate various multimodal initiatives, including those identified in this report.

Planning funds could be programmed, and, if evaluations yield promise, specific projects could then be programmed for additional funding for further analysis, and PD&E. It is recommended that no project be programmed for construction or for ongoing operating support without first moving through this phase, and at least a preliminary ridership analysis be included for public transportation initiatives.

Chapter 7

Recommendations

Business Model

The appropriate position for CFX at this time in Central Florida's development is to continue to establish itself as a multimodal financier and regional partner. The CFX enabling legislation provides for the authority to engage in a broader set of projects. To assume a role in the ownership of operations of fixed guideway transit system is, in the authors' opinion, not prudent at the present time. This finding is based on the current provisions of the prevailing bond documents, the identified expressway needs in the region, and the financial capacity of CFX being planned to accommodate the future needs of an expanded regional expressway system.

CFX should take a cautious approach to any expansion of its financial or operating mission, as moving too far from the concept of reinvesting toll revenues for the benefit of the rate payers could lead to legal challenges and otherwise unnecessary toll increases at worst, and, at best, a sense of unfairness by the Expressway Authority's customers. Along the toll agency hierarchy presented in this study, Figure 7-1 indicates the authors' recommendation for the business model for CFX.

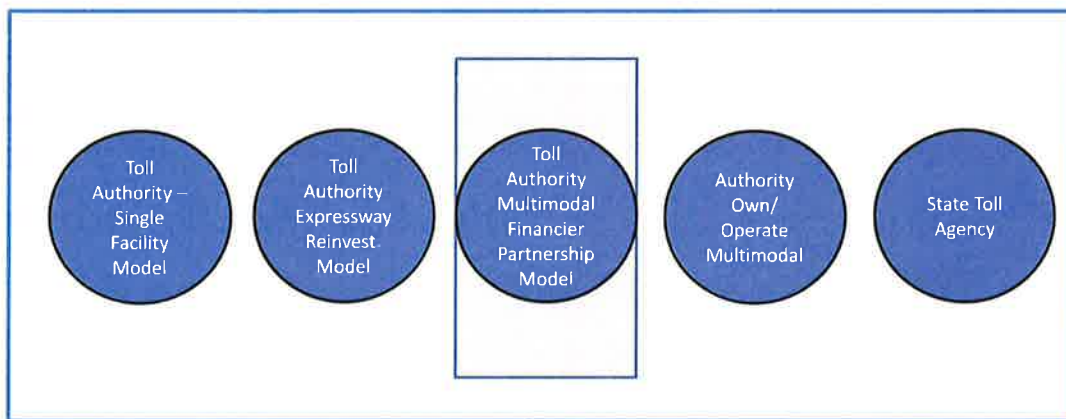


Figure 7-1. Recommended CFX Business Model – Toll Agency Organizational Spectrum

There may come a time in the future when providing additional expressway capacity is impractical in the region due to costs, environmental constraints, or public acceptance. At that time, there may be a strong case for the Expressway Authority to move into the ownership and operating role of other modes of transportation, when a nexus between the uses of toll revenue to support other surface transportation modes can be made, as in the cases of agencies high density, mature urban areas.

It is recommended that CFX consider establishing a multimodal project Development and Evaluation (D&E) program as a part of its Work Plan. This programmatic category could be used as mechanism to modestly fund the evaluation of various multimodal initiatives, including those identified in this report. Planning funds could be programmed and, if evaluations yield promise, specific projects could then be

forwarded for additional funding, further analysis, and PD&E. It is recommended that no project be programmed for construction or for on-going operating support without first moving through this D&E phase, and at least a preliminary ridership analysis be included for public transportation initiatives.

Potential Projects

- An investigation into whether future improvements to SR 408 may help accommodate express bus or BRT service appears to be worthwhile. Not only is the corridor identified in the LRTP as a BRT corridor, it could provide the best path for the establishment of intercampus transit service serving the campuses of UCF and Valencia College. If managed lanes or peak hour price pricing were considered for the downtown segments of SR 408, this would present an opportunity for a free flow east-west corridor that could facilitate premium bus services.
- An exclusive BRT facility is indicated in the MetroPlan document as having potential along SR 528 from the vicinity of US Route 441 to Orlando International Airport. In addition, there have discussions about an extension of SunRail to the airport as well as other potential high capacity transit investments from OIA to the Florida Mall/International Drive area. A portion of SR 528 is identified for improvement in the 2040 Master Plan, and future project development activities should take into consideration the potential transit demand in this corridor and consider high-capacity transit options.
- The LRTP identified SR 417 as an express bus corridor for almost the entire eastern portion of the circumferential facility. The CFX Master Plan indicates possible capacity improvements on SR 417 from SR 535 near International Drive to the interchange with SR 528. As project development and evaluation begins, accommodation of transit service in the corridor should be considered.
- Another potential for CFX to contribute to mobility in the region and maintain its practice of investing in revenue producing transportation improvements is in the area of parking and parking structures. There are multiple major destinations for recreation and employment in close proximity to its system. The provision of additional paid parking facilities can contribute to both local and expressway circulation and reduce congestion.
- Consistent with its 2040 Master Plan, the collection of parking revenue using E-Pass at these facilities could then be expanded as service to other parking garages that are not necessarily owned by CFX. This could lead to a totally integrated transportation system for the region allowing, parking, tolls, and transit fares to be paid from one consolidated account.
- As the Authority's older facilities become more congested and there is limited ability for capacity expansion (e.g. SR 408 and SR 528), there may become a time when the agency considers variable pricing or even managed lanes as a demand management technique. Incremental revenue realized from either of these pricing changes could then be used for other congestion mitigation measures that would enhance regional mobility and benefit CFX expressway customers. Examples include funding park and ride facilities, BRT capital or operating, or access enhancements to stations and parking.
- Transit joint development investment is another potential area for CFX to contribute to the region's multimodal system. Consistent with CFX investment parameters, future opportunities

may exist that combine several of the options already mentioned (parking, access, and electronic collection) with financing transit-oriented commercial development. These investments concentrate activity around public transit hubs, like rail stations and major intermodal transfer points, taking advantage of the increased accessibility and value created. They can also serve to bolster transit ridership.

Table 7-1 summarizes the potential projects that have been identified.

Table 7-1. Projects and Initiatives Identified for Development and Evaluation – Summary

Candidate Initiatives for Development and Evaluation
SR 408 - Bus Rapid Transit/Express Bus Treatment/Higher Ed Connectivity Supported by LRTP, New Downtown UCF Campus
I-Drive/ Florida Mall to OIA – High Capacity Transit Evaluation Supported by LRTP, 2040 Master Plan Improvement
SR 417 - Express Bus Accommodation Included in LRTP, 2040 Master Plan Improvement
Area Wide - Parking Structure Funding Feasibility Alleviate Expressway Congestion, Potential Revenue Generation
Area Wide - Integrated Regional Fare/Toll Services Facilitate Regional Mobility, Potential Revenue Benefit or Neutrality
Area Wide – Variable Pricing Study/Future Funding Options Congestion Mitigation Measure, Potential Multimodal Funding Stream
Area Wide – Transit Joint Development Opportunities Contribution to Regional Mobility, Potential Revenue Generation

CFX has developed a Policy Profile that is updated and presented as a part of its Master Plan. It provides a framework to establish policy positions for major capital investment decisions and guides organizational decisions on future initiatives and capital programs. The agency must consider the position of multimodal initiatives among its policy option range.

Based on the two basic types of projects or multimodal initiatives that emerged in this study, it is recommended that they be viewed differently in this policy context. For projects that are multimodal but clearly yield benefits to CFX toll payers, the policy test should be near the “Cost Equals User Benefits” range of the policy scale (e.g., Express Bus accommodation, Park and Ride facilities). However, for other projects that may meet financial or revenue tests but not directly benefit expressway users (transit joint development off-system parking facilities), a more conservative policy position of “Cost Equals Revenue” is appropriate. The CFX Policy Profile in Figure 7-2, adapted from its 2040 Master Plan Document, illustrates this recommendation.

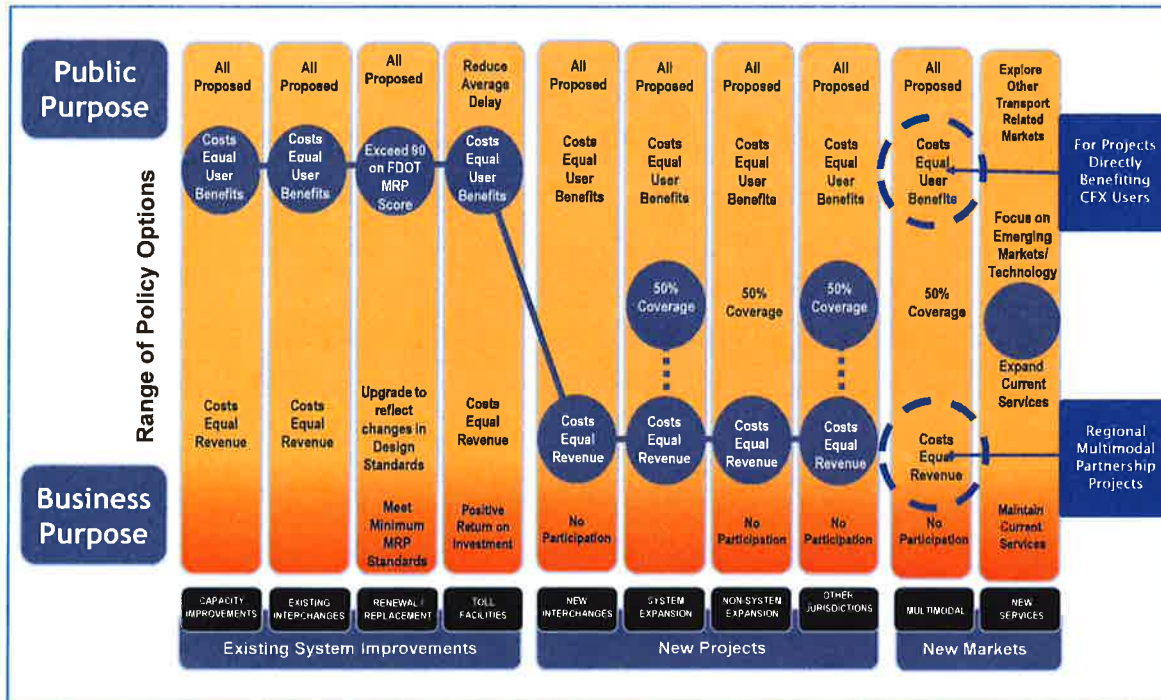


Figure 7-2. CFX Policy Profile – Multimodal Investment Recommendation

Chapter 8

Conclusions

During the development of the CFX 2040 Master Plan discussions, an expanded role for the Authority took on increased relevance as the Board and staff contemplated how to treat multimodal investments. The policy question asked by the Board nearly a year ago as it embarked on this study began to frame the approach. Namely, “How can a revenue authority funded with user fees, financially or otherwise, partner to further multimodal mobility without jeopardizing its long-term sustainability and maintain its commitment to customers, bondholders and the community?”

The CFX Board, Executives, Staff, Engineers, Attorneys, Advisors, and consultants are custodians of a \$5 billion public asset that, with minor exceptions, has been designed, constructed, operated, and maintained using no public tax dollars. User-fee financing has been employed to develop and maintain the system. Ideally, a user-financed public authority would continuously leverage its success and assets through reinvestment in expansion projects or programs that have a more than reasonable probability of ultimately generating revenue to cover their costs of capital and operations. This is largely the model that CFX and its predecessor have successfully followed

The reality is that not many transportation projects are sufficiently financially viable to cover their own costs and generate additional revenue for reinvestment in public infrastructure through direct user fees. This is why, even though Central Florida has an impressive system of tollways, toll roads represent a small fraction of the public highway mileage of the region, state and the nation.

Because these 109 miles of expressway (all of which are rated in either Good or Excellent condition) have been toll financed, the Central Florida Expressway Authority facilities not only serve the mobility and economic interests of the area, but also have made available other public resources for investment in critical infrastructure that cannot be built without general purpose, more broad-based tax sources.

User-fee based revenue authorities have to operate much like a business in that every action taken can be evaluated on the agency’s bottom line. The financial sector forms market-based judgements on the veracity of new project proposals and the management of the agency through bond ratings and interest rates that are ultimately assigned to the agency’s debt. While a significant enterprise, CFX is concise in its mission. All of these factors contribute to the current solid financial position of the Authority.

As CFX, the custodians of these assets and the underlying business model, considers an expansion of its role, changes to the model should be evaluated cautiously and with due deliberation. A delicate balance should be attempted to be reached as not to jeopardize the position of an agency with a current commitment to a \$1.3 billion five-year work program, an estimated \$2 billion need over the following 20 years for reinvestment in the existing system, and somewhere between \$6 and \$9 billion in potential new expressway projects identified in the 2040 Master Plan.

It is recommended that the agency take an evolutionary and incremental step to explore multimodal partnerships, such that those identified through this study, and avoid moving into a role that includes the operation and ownership of multimodal systems at this time.

It is important to note, that CFX has already taken concrete steps to assist in the regional transportation needs beyond the traditional toll-road model. Examples include the off-system investment in Goldenrod Road, accommodation of the All Aboard Florida right-of-way along the Beachline Expressway, automated collection of airport parking fees at Orlando International Airport, and the current and future arrangements with Osceola Expressway Authority.

References

-
- ¹ <http://www.orlandoedc.com/Data-Center.aspx>
- ² Orlando Economic Commission from Florida Department of Economic Opportunity, Labor Market Statistics Center
- ³ Florida Transportation Commission Toll Agency Data
- ⁴ Florida Transportation Commission Toll Agency Data
- ⁵ <http://www.cbtt.com>, accessed August 15, 2016.
- ⁶ <http://www.cbtt.com/wp-content/uploads/2015/11/CBBT-Audited-Financial-Stmts-2014-Final.pdf>, last accessed December 19, 2016.
- ⁷ <http://www.cbtt.com/about-us/history/>, last accessed August 18, 2016.
- ⁸ <http://www.peacebridge.com/>, last accessed August 18, 2016.
- ⁹ <http://www.peacebridge.com/docs/2014%20Financial%20Statements%20searchable.pdf>, last accessed August 18, 2016.
- ¹⁰ <http://www.peacebridge.com/index.php/about-us-sp-1874923374/peace-bridge-facts2>, last accessed August 18, 2016.
- ¹¹ <https://www.e-470.com/pages/aboutus/about-us.aspx>, last accessed July 6, 2016.
- ¹² <https://www.e-470.com/Documents/AboutUs/E-470%20Public%20Highway%20Authority%202014%20Audit%20Report.pdf>, last accessed July 6, 2016.
- ¹³ <https://www.e-470.com/Documents/AboutUs/E-470%20Fact%20File.pdf>, last accessed July 6, 2016.
- ¹⁴ <https://www.e-470.com/Documents/AboutUs/E-470%20Fact%20File.pdf>, last accessed July 6, 2016.
- ¹⁵ https://www.ntta.org/whatwedo/fin_invest_info/financial_Info/Documents/2015/2014_SYSTEM_CAFR.pdf, last accessed August 24, 2016.
- ¹⁶ https://www.ntta.org/whatwedo/fin_invest_info/NTTAsystem/Documents/2015/2014_SPS%20AFR_secured.pdf, last accessed August 24, 2016.
- ¹⁷ <https://www.ntta.org/whoweare/milestones/Pages/default.aspx>, last accessed July 6, 2016.
- ¹⁸ <http://www.sandag.org/index.asp?fuseaction=about.home>, last accessed July 14, 2016.
- ¹⁹ <http://www.sandag.org/index.asp?fuseaction=about.history>, last accessed July 6, 2016.
- ²⁰ <http://www.georgiatolls.com/about/history-statutes/>, last accessed August 8, 2016.
- ²¹ http://www.georgiatolls.com/assets/docs/FY14_SRTAFinancialReport.pdf, last accessed August 8, 2016.
- ²² http://www.georgiatolls.com/assets/docs/copy_history.pdf, last accessed August 8, 2016.
- ²³ <http://www.drpa.org/drpa/about.html>, last accessed July 6, 2016.
- ²⁴ <http://www.drpa.org/pdfs/ar2014.pdf>, last accessed July 6, 2016.
- ²⁵ <http://www.drpa.org/drpa/history.html>, last accessed July 6, 2016.
- ²⁶ <http://goldengate.org/organization/>, last accessed August 25, 2016.
- ²⁷ <http://goldengate.org/organization/mission.php>, last accessed August 25, 2016.
- ²⁸ <http://goldengate.org/organization/documents/CAFR-fy14.pdf>, last accessed August 25, 2016.
- ²⁹ <http://web.mta.info/mta/network.htm>, last accessed July 6, 2016.
- ³⁰ <http://web.mta.info/mta/budget/pdf/MTA%20Consolidated%20Financial%20Statements%202014-%20FINAL.pdf>, last accessed July 6, 2016.
- ³¹ <http://web.mta.info/mta/network.htm>, last accessed July 6, 2016.
- ³² <http://www.panynj.gov/about/facilities-services.html>, last accessed August 11, 2016.
- ³³ <http://corpinfo.panynj.gov/documents/2014/>, last accessed August 11, 2016.
-

-
- ³⁴ <http://www.panyni.gov/about/history-port-authority.html>, last accessed August 11, 2016.
- ³⁵ <https://www.sjta.com/sjta/mission.asp>, last accessed August 16, 2016.
- ³⁶ <https://www.sjta.com/sjta/publish/library/SJTA2014AnnualReport.pdf>, last accessed August 16, 2016.
- ³⁷ <https://www.sjta.com/sjta/history.asp>, last accessed August 16, 2016.
- ³⁸ <https://mobility.tamu.edu/ums/media-information/glossary/>
- ³⁹ Pennsylvania Turnpike Commission, Notes to Financial Statements of the Comprehensive Annual Financial Report for FY 2015 and FY 2014, Note 9
- ⁴⁰ Moody's Investor Service, CREDIT OPINION, 9 March, 2016
- ⁴¹ Standard and Poor's Rating Services, Central Florida Expressway Authority; Toll Roads Bridges, March 11, 2016
- ⁴² MetroPlan Orlando 2040 Long Range Plan, Technical Report#5, January, 2016, p.18
- ⁴³ <http://www.ucf.edu/downtown/frequently-asked-questions/>
- ⁴⁴ <http://valenciacollege.edu/aboutus/facts.cfm>