

# MEMORANDUM

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## DEPARTMENT OF TRANSPORTATION

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Date: January 15, 2014

To: Transportation Commission, High Performance Transportation Enterprise (HPTE) Board of Directors, and Colorado Bridge Enterprise (CBE) Board of Directors

From: Scott Richrath, Chief Financial Officer  
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 Mike Cheroutes, Director of the HPTE  
 Ben Stein, Office of Major Project Development

CC: Don Hunt, CDOT Executive Director and Director of the CBE

Subject: Next Steps for the I-70 East / Viaduct Project

### **Purpose**

During the workshop for the I-70 East / Viaduct project on December 18, 2013, a model for funding this project was presented to the Transportation Commission. Several members requested additional information and alternatives to consider possible alternative funding sources and mixes. This memorandum is designed to fulfill that request.

### **Background**

The I-70 East / Viaduct replacement project has had a long gestation within the department. The Environmental Impact Statement for this project has gone on for more than a decade. Given the magnitude of this project, the Commission and CBE have over the years received periodic updates on its progress. These updates have been provided via: the annual bridge asset condition presentation; budget workshops; the 2012 Bridge Enterprise Annual Report, which noted that the cost of this project would strain the resources of the Bridge Enterprise; the workshop to discuss the engagement of Macquarie to serve as the project's financial advisor; and the various budget actions by the Commission and CBE to fund the EIS and early action on right of way and design. The most recent budget action by the Commission occurred in May 2013 that budgeted an additional \$39.5 million for project design, environmental, and ROW acquisition, and financial advisory services.

As noted in the most recent workshop the present staff recommendation is to identify sufficient funds to reconstruct I-70 from its intersection with I-25 to its intersection with I-270. This section of the interstate notably includes the I-70 viaduct which is the centerpiece of the current decade long EIS process. The viaduct's physical condition remains an issue of concern within the department, as at the time the CBE was created this was by far the largest and most notable bridge on the "poor" list. One reaction to its deteriorating condition was the decision in 2008 to expend \$32 million to repair or remove expansion joints along the 1.8 mile long structure with the goal of adding 10-15 years of structure life.

## **Action**

**Part I** – You are asked today to provide guidance to staff on the following:

- Reaffirmation of the commitment to this project;
- Preferred mix of funding sources should you favor continuing to forward with viaduct replacement;

**Part II** – Staff will also introduce for February discussion CDOT policies, either statewide or specific to this corridor, related to

- tolling through use of managed lanes;
- concessionaire agreements as a means of operating such tolled facilities;
- Public-Private Partnerships as a means of investing in the viaduct.

This memorandum will focus on a Design-Build alternative for the portion of I-70 highlighted in red in Figure 1 to allow you to consider the policy issues above this month and to discuss financing alternatives in a future discussion if you decide to proceed with this project.

**Figure 1 – Map of corridor with focus this month highlighted in red**



## PART I: I-70 East / Viaduct

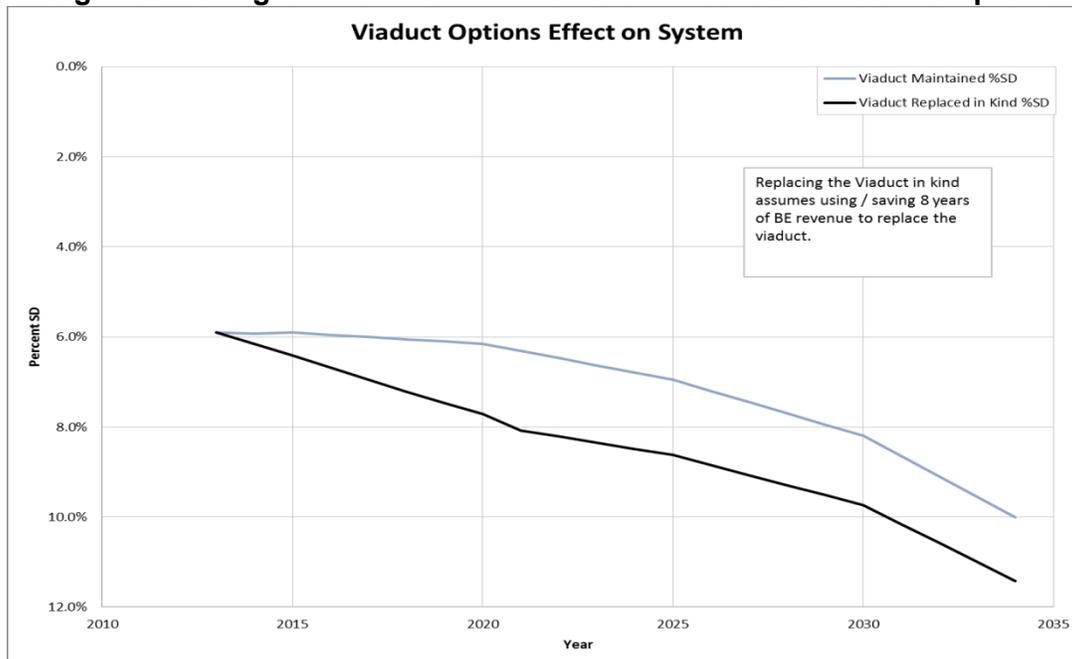
### Replace the Viaduct: Why is Preventative Maintenance Not an Analyzed Option?

Though CBE considers repair vs. replace on all eligible bridges, this option does not meet the purpose and need of the Environmental Impact Statement (EIS) for the I-70 viaduct. It does not address safety and capacity improvements.

The last repair of the structure occurred in September 2008, when CDOT performed an expansion joint repair project on the I-70 viaduct from Brighton Boulevard to Colorado Boulevard. The project repaired or replaced 64 bridge expansion joints on the 45-year old structure, improved drainage, performed some pier cap repairs and replaced the bridge rail. Total cost of the project was \$32 million. The project was a repair project designed to extend the life of the bridge and it was not connected with the I-70 Environmental Impact Statement (EIS). It was completed in the spring of 2011. Staff Bridge estimated at the time of the repair that the structure life (not Structurally Deficient and above 50 in sufficiency rating) was increased by 15 years.

This bridge represents the deck size of more than 50 average CDOT bridges. Maintaining the existing viaduct does offer investment benefits. If CDOT were to maintain the viaduct in its current condition the statewide bridge condition in 20 years would be about 10% structurally deficient. If CDOT were to replace the viaduct in-kind (EIS No-action alternative), the state-wide bridge condition in 20 years would be about 11.5% not structurally deficient. The MAP-21 target threshold is 10% and for context, CDOT's national rank for structurally deficient bridges is currently 26th with 6% deficient.

**Figure 2 – Bridge Network Deterioration Curves for Maintain vs. Replace**



Maintaining the existing structure would ensure safety and structural capacity which are two of the four purpose and need statements in the EIS, but could not address the traffic congestion and traffic safety purpose and need. The maintenance operations would also require night work and would impact the community via noise, lights, dust, etc. This option was therefore excluded from the option analysis below.

## **EIS and Cost Estimates: History and a Look Forward**

In 2003, CDOT began an Environmental Impact Statement for I-70 East. The purpose and need of this study is to improve safety, access, and mobility along I-70 from Brighton Boulevard to Tower Road. Over the last 10 years, the project team has evaluated dozens of options to reconstruct I-70 and has conducted a level of public outreach exceeding any EIS effort in CDOT history. Most of the alternatives analyzed have centered on the future of the viaduct, which is a focus for residents and local political leadership. In 2012, a new alternative was presented to the public. The Partial Cover Lowered (PCL) alternative is the first concept to receive broad community and political support since the start of study. One sign of this support is the City of Denver's inclusion of I-70 reconstruction as one of six redevelopment projects in north Denver designed to rebuild a connected community and energize the gateway to downtown Denver. The PCL will be identified as the Preferred Alternative in the Supplemental DEIS, due to be released this spring. An overview of the EIS study and the larger context surrounding this work is included in Appendix A.

### **Current Cost Estimates**

The actual cost of addressing the mapped portion of I-70 varies somewhat depending upon the segments addressed, the delivery method selected, as well as some technical issues. Cost estimates range from about \$1.05 billion to \$1.25 billion and do not include the amounts spent to date for the environmental clearance and some other transactional costs. Since costs estimates are in current dollars and the delivery method will not be addressed this month, for the purposes of this memorandum the figure \$1.1 billion will be used. The actual cost may be somewhat higher or lower.

In addition to the costs to reconstruct this section of the interstate, an additional consideration is the cost to operate, maintain, and rehabilitate (OM&R) it once rebuilt. The current estimate for the first 25 years is \$7.4 million per year including operation and maintenance of the tolled facilities. These are important considerations, as some delivery methods “cover” these costs, and some do not.

### **A Look Forward**

Critical future dates include:

- Late 2014 revenue estimates from Governor's Office of State Planning Budget with improved certainty over FY2016 Senate Bill 09-228 revenues
- Late 2014 appellate court decision on appeal of district court decision in favor of CBE
- Mid-2015 scheduled Record of Decision (ROD)

## **Potential Funding Sources for Replacement – Design-Build Only**

Bridge Enterprise is not the only funding source for Bridges on the state’s system. Other state and federal sources are allocated to the Bridge Asset management program federal and state fuel tax and FASTER Safety. Senate Bill 228 funds could also represent a funding source for the I-70 corridor.

Other sources exist and may be critical in helping to close the funding gap for this project, but are excluded from this month’s analysis to allow for further policy discussion. Managed Lane Toll Revenues (TR) can be analyzed in a future discussion, but are projected at a level insufficient to cover even annual operating and maintenance of the new facility. Denver Region Council of Governments (DRCOG) would represent a vital contribution to this project and could help close a funding gap.

### **Bridge Safety Surcharges**

The I-70 Viaduct is a “poor” bridge within the definition used in the “FASTER” legislation and is therefore eligible for replacement or rehabilitation with funds derived from this source. The Bridge Enterprise’s annual revenues in FY2013 were \$92.8 million and are projected over the next 30-35 years to grow at approximately 1% per year. In addition, by Transportation Commission resolution resulting from its financing activities, the Bridge Enterprise receives an annual transfer of \$15 million of federal apportionments to support its program and about \$6 million from the US Treasury as a subsidy to support the annual payments on the 2010 Build America Bonds. So, its total annual revenues including Commission transfers total about \$113 million per year.

Against these annual revenues the Bridge Enterprise has a commitment to annual payments for the 2010 Build America Bonds (BABs). Currently these payments are about \$18 million per year through 2025 and about \$30 million per year in 2026 through 2040. The Commission’s annual allocation of \$15 million in federal apportionments to the Bridge Enterprise is used primarily for repayment of the bonds. It should be noted that the US Treasury subsidy is 32% of the annual payment so when the annual payments on the bonds increases so will the annual subsidy.

**Table 1 – Summary of Bridge Revenues and “Fixed” Costs**

<b>Funds Available to Bridge Program</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
CBE Funding (with \$15M TC and \$6M US-T subsidy)	\$112.3	\$115.2	\$117.3	\$119.6	\$121.9	\$124.3
CBE Existing Debt Service (BABs)	(18.2)	(18.2)	(18.2)	(18.2)	(18.2)	(18.2)
<b>Net Funds Available to CBE</b>	<b>94.1</b>	<b>97.0</b>	<b>99.1</b>	<b>101.4</b>	<b>103.7</b>	<b>106.1</b>
Other Bridge Asset Mgmt (FY2015 budget)	55.9	55.9	55.9	55.9	55.9	55.9
Mandated bridge inspection program	(11.6)	(11.7)	(11.8)	(12.0)	(12.1)	(12.2)
<b>Total Funds Available for Bridge Network</b>	<b>\$138.4</b>	<b>\$141.1</b>	<b>\$143.1</b>	<b>\$145.3</b>	<b>\$147.5</b>	<b>\$149.8</b>

## Federal and State Fuel Taxes, FASTER Safety, and Other Sources

These are the funds the department receives in the course of its normal ongoing budget cycles and they are used to fund the department's range of activities. This analysis assumes that funding for Bridges remains at \$55.9 million in addition to previously discussed CBE funding. Beginning in 2018, retirement of Transportation Anticipation Revenue Notes (TRANS) will help maintain this level by providing portions of \$167 million annually to Bridge Asset Management and leaving \$138 million for other assets.

FASTER Safety generates more than an additional \$100 million annually and affords the department more than \$60 million after accounting for \$40 million of funding for safety projects within Asset Management.

Within the federal funds category another possibility is to seek augmentation from the Denver Council of Regional Governments (DRCOG). DRCOG is responsible for allocating funds from the Surface Transportation Program (Metro) and Congestion Mitigation and Air Quality (CMAQ) programs. Although fund available from this source could not pay for the entire project, they could conceivably provide a material contribution to its funding package. DRCOG is projected to receive well more than \$50 million in FY2014 from these federal funding sources.

## State of Colorado General Fund Revenues (SB 09-228)

Under SB09-228 the department may receive General Fund transfers for a five year period which commences in the year after personal income in the state grows by 5% or more. This is currently expected to occur in calendar year 2014 so that the mechanism will take effect for in FY2016. Once this mechanism takes effect the department will receive annual transfers equal to 2% of general fund revenues. Over the five years, according to the Governor's Office of State Planning & Budget (OSPB), this could result in annual transfers in the \$200-225 million range potentially totaling about \$1 billion in SB09-228 transfers. However, note that revenue forecasts that you adopted last April project less than this amount. Note that 10% of these funds are statutorily directed to transit and the balance to the department's strategic investment program. The I-70 project is located on a corridor that is currently within that program.

There is some uncertainty as to whether the department will actually receive the full amount noted above because the statute also states that if there are TABOR refunds during this period, the amount of the transfers may be reduced (or possibly eliminated). If the TABOR refund is greater than 1% of General Fund revenues in that year the SB09-228 transfer is cut in half. If the TABOR refund exceeds 3% of General Fund revenues the transfer for that year is cancelled.

**Advice from the OSPB is to be conservative and budget no more than a total of \$270 million into critical projects.** Where SB 228 funds are utilized, this analysis assumes full use of \$177 million (net of transit) in FY2016 and the balance of \$270 million used in FY2017. The remainder of SB09-228 funds should be treated as *potential* funding only.

**Table 2 – Source and Use of Funds through Construction, without Issuing Debt I-70 East / Viaduct****Potential Source of Funds - Design-Build (Cash Only; No Debt)***millions; per Revenue Forecast adopted 04/2013 unless otherwise noted*

	2015	2016	2017	2018	2019	2020	Total
Net Funds Available to CBE	\$94.1	\$97.0	\$99.1	\$101.4	\$103.7	\$106.1	\$601.4
Other Bridge Asset Management (per FY2015 budget)	55.9	55.9	55.9	55.9	55.9	55.9	335.3
TRNS Retirement (not already allocated to Bridge AM above)	-	-	39.0	138.3	138.3	138.3	453.9
FASTER Safety (net of Asset Management included above)	65.5	68.6	70.9	73.2	75.5	78.0	431.7
Senate Bill 09-228 (net of Transit; per OSPB projection for FY2016)		177.2	92.8				270.0
<b>Total Potential Source of Funds</b>	<b>\$215.5</b>	<b>\$398.7</b>	<b>\$357.7</b>	<b>\$368.8</b>	<b>\$373.4</b>	<b>\$378.3</b>	<b>\$2,092.3</b>

**Use of Funds - Design-Build***millions; per Macquerie Value for Money report*

	2015	2016	2017	2018	2019	2020	Total
Construction Costs	0	147.8	285.4	245.5	253.9	198.5	1131.1
Construction Insurance Costs	0	10.1	10.4	0	0	0	20.5
Total Operating, Maintenance, and Rehab	Excluded						
Tolling Costs	Excluded						
<b>Total Use of Funds</b>	<b>\$0.0</b>	<b>\$157.9</b>	<b>\$295.8</b>	<b>\$245.5</b>	<b>\$253.9</b>	<b>\$198.5</b>	<b>\$1,151.6</b>
<b>I-70 Project % Use of Potential Source</b>	<b>0%</b>	<b>40%</b>	<b>83%</b>	<b>67%</b>	<b>68%</b>	<b>52%</b>	<b>55%</b>

## **Summary of November 2012 Bridge Enterprise 10-Year Plan Workshop**

At the request of Bridge Enterprise Director Don Hunt, staff in concert with the Bridge Enterprise Program Manager and CBE financial consultants completed a preliminary 10-year bridge program plan for the Board's consideration and comments.

This 10-year program plan was completed in 2012 and was based upon a cash flow model that recognizes incoming revenues (defined as FASTER pay-go funding, bond proceeds, BABs subsidy, and Federal BR debt service pledge) as compared to outgoing expenditures (defined as payment on debt-service, bridge replacement costs, maintenance and planned preventative maintenance costs) on a quarterly basis summarized by fiscal year from 2013 through 2023.

The amount of cash remaining in the Treasury at the end of the 10 year period is represented by the Un-Committed Cash Balance. A base of \$25 million per year is recommended as a minimum cash balance to address program management costs, asset maintenance, and unexpected contingencies.

CBE does not have sufficient funding to address all of the poor bridges within Colorado in the next 10 years, and the funding gap becomes worse with time. CDOT Staff Bridge uses a model to predict the amount of deck area projected to be rated "poor" in future years based upon the year a structure was initially built. This model indicates that "poor" rated deck area will increase 1.7 times by 2020; 3 times by 2025; and over 4.5 times by 2030. The model does not however have the ability to predict (or determine) when a specific bridge may become poor.

Staff asked the CBE Board to provide guidance on its priorities on when and how to use the available funding in a 10 year plan, so that plan can be implemented and completed. The CBE management team (which includes the program manager and CDOT financial consultants) developed two funding and timing scenarios to aid in the decision making. The Board provided no specific guidance related to preferences for funding. See Appendix B for the complete November 2012 report.

### **Macquarie Synopsis of Design-Build (CDOT Finance) Scenario**

The financing structure for the Design-Build (DB) scenario combines:

- Upfront construction milestone payments of \$450 million sourced from SB09-228 funds and CBE "PAYGo" funds (as described in Macquarie Value for Money report);
- A CBE municipal bond issue based on the assumptions provided by JP Morgan;
- A TIFIA loan borrowed directly by CBE; and
- CDOT direct funding of operation, maintenance and rehabilitation costs of the Project.

For consistency, the assumed timing of payments to the construction contractor is the same under all scenarios as described by Macquarie. It is important to note that under the DB scenario all sources of financing have recourse to CBE rather than to the Project itself. Under the Design-Build-Finance and Design-Build-Finance-Operate-Maintain scenarios, the senior lenders and TIFIA take direct risk on the performance of the construction contractor. At this stage in the analysis, Macquarie calculates the amount of construction cost which can be supported. In respect of the optimized DB scenario, the project can afford a construction cost of \$1,131 million. Actual construction costs under the DB scenario may be higher than this.

See Appendix C for the updated Macquarie DB analysis.

## **Funding Sources – Staff Alternatives**

### **Funds Available to the Bridge Program**

As discussed above, CDOT’s bridge program (Enterprise and non-Enterprise collectively) currently obtains its funding from Bridge Safety Surcharges, Transportation Commission transfers, and Asset Management from a combination of sources. In addition to repairing and replacing bridges, it has annual obligations for debt service and a national inspection program. The bridge program also manages culverts and tunnels, but those funds have been excluded from this analysis.

### **Staff Design-Build Funding Alternatives with Resulting Impact to CBE**

As exhibited in Table 2, funding the I-70 East / Viaduct project without financing is not a viable alternative. It consumes nearly 50% of all available funds during the five years of construction. And because toll revenues are projected to generate even less than the annual operating expense for the corridor, tolling is not discussed here as a revenue solution but rather offered only as a policy discussion in the following section. Therefore, the following alternatives build upon the “baseline” Design-Build-Finance alternative by incrementally adding additional funding sources to CBE revenues. The result is calculated as a reduced impact to CBE.

### **Option #1 – Viaduct-Only Alternative: Funded Exclusively by CBE**

Using only CBE funds to pay for the I-70 East / Viaduct project poses several problems. Besides significantly depleting funds for completing other bridge work, it would under FASTER Bridge Enterprise statute preclude the department from repairing any portion of the corridor other than the viaduct. As with any of the following options, it could also violate additional bonds test requirements and prevent CDOT from meeting debt coverage ratios. Nevertheless, that alternative is presented here as the baseline, with an assumption that debt would be financed comparably to the financing structure and rates as in the Macquarie analysis.

Note that this assumes (1) an estimated \$895 million for the viaduct, though actual costs could be less; (2) that CBE utilizes \$180 million of cash reserves and near term Pay-Go funds, some of which have already been used to purchase I-70 Right of Way; and (3) blended private (~5.0%) and TIFIA (~3.75%) rates apply to all debt service calculations.

The data below shows totals for all annual projections from 2015 through 2046. See Appendix D for all full tables.

<b>Viaduct-Only Alternative - All CBE</b>	<b>'15-'46</b>	<b>Avg.</b>	<b>Min</b>	<b>Max</b>
Net Funds Available to CBE	\$4,177.0	\$130.5		
Less: Construction Insurance & Transaction Costs	(32.8)	(1.0)		
Senior Debt and TIFIA Debt Payments	<u>(1,136.1)</u>	<u>(35.5)</u>		
Remainder to CBE	\$3,008.1	\$94.0	\$45.9	\$172.3

As discussed above, this and any other option could also draw upon Bridge Asset Management funding to augment funding sources.

### Option #2 – Macquarie Alternative: Add \$270 million of SB 09-228 and extend to I-270

Using the analysis provided by Macquarie, Option #2 assumes a \$1.157 billion cost to I-270. Further assuming \$270 million of Senate Bill 09-228 funds are used in the first two years of that program reduces required financing, coincidentally resulting in a nearly equal amount available to CBE. See Figure 4 below.

<b>Macquarie Alternative - CBE + SB 09-228</b>	<b>'15-'46</b>	<b>Avg.</b>	<b>Min</b>	<b>Max</b>
Net Funds Available to CBE	\$4,177.0	\$130.5		
Less: Construction Insurance & Transaction Costs	(33.3)	(1.0)		
Senior Debt and TIFIA Debt Payments	<u>(1,155.2)</u>	<u>(36.1)</u>		
Remainder to CBE	\$2,988.5	\$93.4	\$45.1	\$172.1

### Option #3A – FASTER Safety Alternative: Add \$50 million total to Option #2

Building on the prior alternative, each additional \$50 million reduces annual debt service by approximately \$1.5 million.

<b>FASTER Safety Alternative - CBE + 228 + FS</b>	<b>'15-'46</b>	<b>Avg.</b>	<b>Min</b>	<b>Max</b>
Net Funds Available to CBE	\$4,177.0	\$130.5		
Less: Construction Insurance & Transaction Costs	(31.0)	(1.0)		
Senior Debt and TIFIA Debt Payments	<u>(1,075.8)</u>	<u>(33.6)</u>		
Remainder to CBE	\$3,070.2	\$95.9	\$48.6	\$172.9

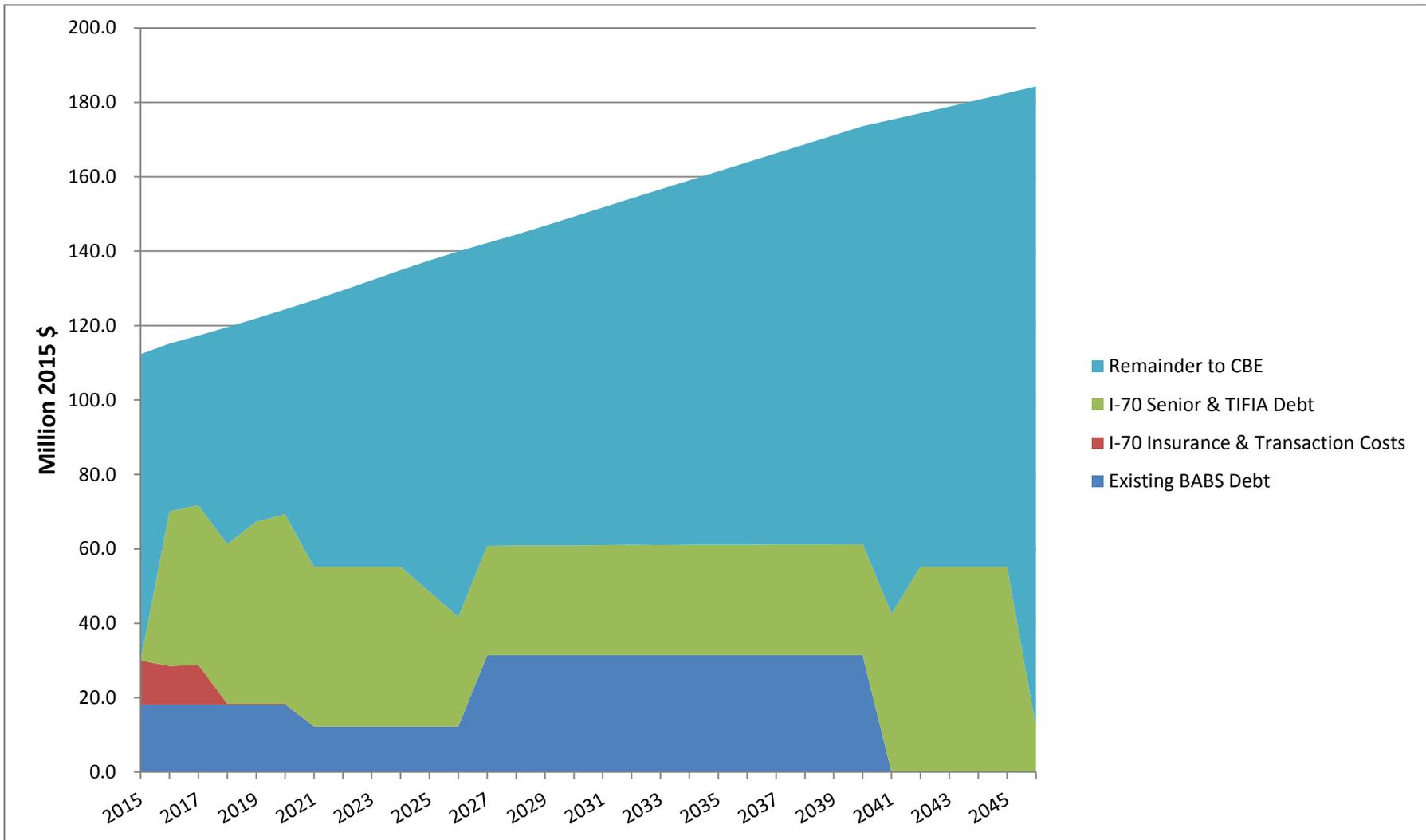
### Option #3B – MPO Alternative: Add \$50 million total to Option #3

Again building on the prior alternative, an influx of funding from DRCOG makes additional annual funding available to CBE.

<b>MPO Alternative - CBE + 228 + FS + DRCOG</b>	<b>'15-'46</b>	<b>Avg.</b>	<b>Min</b>	<b>Max</b>
Net Funds Available to CBE	\$4,177.0	\$130.5		
Less: Construction Insurance & Transaction Costs	(28.7)	(0.9)		
Senior Debt and TIFIA Debt Payments	<u>(996.3)</u>	<u>(31.1)</u>		
Remainder to CBE	\$3,151.9	\$98.5	\$52.2	\$173.8

See Appendix D for year-by-year analysis of all options.

**Figure 4 – CBE Spending over 20 Years under Macquarie Alternative**



## PART II: Public-Private Partnerships

### **Policy Discussion**

Staff would now like to introduce for in-depth February discussion CDOT policies, either statewide or specific to this corridor, related to

- tolling through use of managed lanes;
- concessionaire agreements as a means of operating such tolled facilities;
- Public-Private Partnerships as a means of investing in the viaduct.

The FASTER transportation measure passed by Colorado lawmakers in 2009 authorized state officials to look for innovative ways to finance and construct major highway projects, since traditional sources of roads funding, including federal and state fuel taxes, are insufficient for the task. Passage of the law followed the release in January 2008 of a special report on Colorado's transportation crisis, commissioned by then Gov. Bill Ritter, that highlighted the need to invest billions of dollars in highway and bridge modernization in a period of diminishing resources. The \$500 million project to expand and rebuild U.S. 36 between Denver and Boulder is the first highway venture in Colorado that will rely on the expertise of a private consortium to finance, build, operate and maintain a major roadway under a long-term contract.

The four-lane highway between Denver and Boulder first opened as a toll road in 1951 and the bonds that financed construction were paid off early. Since 1968, the road has been a toll-free facility. Given the age and constrained lane capacity of U.S. 36, the deal forged between Colorado and the private consortium represents an opportunity to dramatically accelerate construction of a state-of-the-art multimodal transportation corridor. It offers several benefits.

### **Transfer of Risk**

In April 2013, Colorado's High Performance Transportation Enterprise (HPTE) selected Plenary Roads Denver LLC (Plenary) to collaborate with the state in a public-private partnership, or P3, that calls for Plenary's team to expand the highway and operate and maintain it for 50 years, in exchange for the right to collect toll revenues from the project over the life of the concession agreement. Under terms of the pact, Plenary also will retain tolls collected from the 7.7-mile express-toll operation on Interstate 25 between downtown Denver and the Pecos Street interchange on U.S. 36. The I-25 High Occupancy Toll, or "HOT lane", facility opened in 2006 and generates about \$2.6 million in annual toll revenues.

The transaction HPTE reached with Plenary calls for the concessionaire to assume nearly all the risk, while retaining for the state the right to share in excess revenues generated by the highway if toll income exceeds pre-determined targets over the life of the agreement. Plenary is making an equity investment of about \$20 million in the U.S. 36 project and taking on more than \$140 million in debt. The concessionaire can request toll increases to secure its investment and guarantee that enough revenue is generated to meet loan obligations and operate and maintain the roadway over the decades. Approval from HPTE's board of directors is required before any toll increase can go into effect.

### **Shared Responsibility**

The concession agreement is a shared enterprise. The state of Colorado, local governments along the corridor, the Regional Transportation District (RTD), the Denver Regional Council of Governments (DRCOG) and the federal government are making significant financial contributions to the U.S. 36 effort, totaling more than \$335 million. Plenary is contributing more than \$160 in equity and loans (about 30%), including more than \$114 in Transportation

Infrastructure Finance and Innovation Act (TIFIA) loans from the federal government. Plenary is responsible for paying all the loans.

### **Long-Term Partnerships**

HPTE and Plenary each commissioned studies to estimate traffic counts and toll revenues on the U.S. 36 and I-25 express lanes over the life of the concession agreement. HPTE's consultant examined these and other data to determine the project's value under the two scenarios – one under the concession model in which the P3 consortium builds, operates and maintains the highway, and the other under the public model that would have HPTE and CDOT operating and maintaining the highway after construction.

Highway projects using the express lanes model have limited experience in the United States. This adds to the uncertainty about how the U.S. 36 project will fare financially over the long term. Lower-than-expected toll revenues are among the risks being borne by the P3 concessionaire. Shortfalls could mean a decline in toll income totaling tens of millions of dollars, yet Plenary still will have the responsibility for paying off loans, and operating and maintaining the highway over the 50-year period.

### **Potential for Revenue Sharing**

HPTE's consultant also looked at scenarios in which toll revenues might exceed predictions, including one where income would be 10 percent higher. Such a case would reward Plenary for the risks it took on the project by accelerating the concessionaire's return on its investment, including the payment of interest. To attract involvement from the private sector in the U.S. 36 venture, it was necessary to provide an adequate return on the equity investment a consortium would be making in the project.

HPTE's contract with Plenary calls for the state to share in revenues generated by the U.S. 36 project after minimum rate-of-return targets are met. The revenue-sharing formula is designed to maintain an incentive for the concessionaire to maximize revenue, but also increases the state's revenue share as the return to Plenary increases. In this way, HPTE has a stake in the financial upside of the project while leaving in place the primary incentive for securing participation of a private investor.

The U.S. 36 concession agreement could be a model for other major highway ventures in Colorado, including I-70 in both the mountain corridor and central Denver. The possibility for revenue sharing in this corridor is limited, but that does not apply in all project and managed lane scenarios.

## Next Steps

The I-70E project is complex and extremely expensive. There are a number of potential revenue sources available to complete it: the Bridge Safety Surcharge, State of Colorado General Fund SB09-228 appropriations, and the Highway Users Tax Fund. Unfortunately all three of these funding sources have other significant demands for their use across the state. Initial thoughts were that toll revenues from a managed lane on the project would significantly contribute to its financing but after analysis it is clear that toll revenues can only help alleviate operating, maintenance, and rehabilitation costs and will not contribute to the project's capital costs. Absent a decision to pursue a funding option not available in current law, the Commission and respective boards will have to make some difficult prioritization decisions.

**Table 3 – Summary Table**

<b>Millions Available to CBE</b>	<b>'15-'16</b>	<b>Avg.</b>	<b>Min</b>	<b>Max</b>
1 - Viaduct-Only Alternative - All CBE	\$3,008.1	\$94.0	\$45.9	\$172.3
2 - Macquarie Alternative - CBE + SB 09-228	\$2,988.5	\$93.4	\$45.1	\$172.1
3a - FASTER Safety Alternative - CBE + 228 + FS	\$3,070.2	\$95.9	\$48.6	\$172.9
3b - MPO Alternative - CBE + 228 + FS + DRCOG	\$3,151.9	\$98.5	\$52.2	\$173.8

Next month staff would like to discuss financing and policy considerations in greater detail, including the rationale for a Design-Build-Finance-Operate-Maintain alternative that transfers several construction and operating risks from CDOT to the contractor. This will allow you to revisit policy discussions related to tolling, concessionaire agreements, and other elements of Public-Private Partnerships.

In February, staff will respectfully seek general approval to proceed with initial procurement to engage private sector expertise and competition. The fallback is to delay further project development until a future milestone is reached, such as a future NEPA milestone or Bridge Enterprise lawsuit milestone, resulting in a push to a potential 2016 construction start.

# I-70 EAST BACKGROUND AND CONTEXT

## ENVIRONMENTAL IMPACT STATEMENT

Began EIS in 2003 with study area including I-70 from Brighton Blvd to Tower Road. CDOT leadership directed study to include mobility and congestion relief while replacing the aging viaduct. Initial EIS also partnered with RTD to study transit and future East corridor.

Purpose and Need: implement a transportation solution that improves safety, access, and mobility and addresses congestion along I-70.

Community involvement and outreach exceeds any project in CDOT history, including years of input from the diverse stakeholders in the region. Dozens of alternatives have been evaluated, including concepts that would move the location of a portion of the interstate.

Three alternatives will be presented in the 2014 Supplemental DEIS:

1. **NO BUILD:** Would reconstruct the viaduct to meet FHWA standards for lane and shoulder width without new lanes (\$540-5550m)
2. **VIADUCT REBUILD:** Rebuilds viaduct and adds two new tolled express lanes in each direction either shifting the structure north, requiring relocation of Swansea Elementary School, or south, requiring relocation of Purina Plant (\$1.64-\$1.66B)
3. **PARTIAL COVER LOWERED (PCL):** Removes viaduct and places highway below ground with two new tolled express lanes, reconnecting neighborhoods and improving community facilities with a cover over the highway (\$1.8B)

PCL Alternative is first concept to receive broad community and political support since start of study.

## COMMUNITY/RESIDENTS

Original decision to locate I-70 in Denver along 46<sup>th</sup> Ave. was controversial and debated for many years in the late 1950s, including several City Council votes.

By 1960, I-70 location was a well-established industrial area and home to freight rail lines, Purina Plant, and several smelters. Also was the location of several historic neighborhoods, largely housing workers from adjacent companies.

Interstate location divided Swansea, Elyria and Globeville neighborhoods. Today, Swansea and Elyria are designated environmental justice communities. CDOT has focused EIS outreach on these neighborhoods.



## POLITICAL CONTEXT

I-70 East has generated a significant amount of discussion. CDOT originally developed a realignment option that would have relocated I-70 along I-270 and 52<sup>nd</sup> Avenue. It was strongly opposed by Commerce City.

CDOT formed the Preferred Alternative Collaboration Team (PACT) in 2011 after reaching an impasse following the publication of the 2008 DEIS. PCL alternative broke the impasse between keeping Purina and moving the highway closer to Swansea Elementary.

PCL has the support of the City of Denver, Adams County and City of Commerce City—along with the Denver Chamber of Commerce, the Downtown Denver Partnership and the National Western Stock Show.

Mayor Hancock has brought a renewed focus to this part of Denver and recently formed the North Denver Cornerstone Collaborative (NDCC). I-70 reconstruction is one of six projects under the NDCC umbrella and has been termed the Corridor of Opportunity by the Mayor.

## ECONOMIC CONTEXT

Denver has developed along I-70. The interstate serves as an economic thread connecting DIA to Downtown, and Denver to the rest of the Rocky Mountain region.

Today, 684 businesses, employing approx. 11,000 people, are located along I-70 between I-25 and I-270. These numbers about double when the stretch between I-270 and Tower Road is included.

Nearby businesses are heavily reliant on the I-70 corridor, including major distribution and trucking centers (e.g. UPS and Safeway).

Close to 200,000 cars travel I-70 every day, and that number is expected to increase to 350,000 by 2035.

At full completion, the project will generate significant economic benefits:

- Benefit the regional economy by \$1.513 billion annually
- Generate 23,950 new jobs in the region (9,790 recurring)
- Generate \$21.8 million from construction sales and use taxes; \$26.4 million from productivity improvements and time savings
- Reduce the average time spent by a vehicle traversing any part of the I-70 East Corridor by approximately 12 minutes



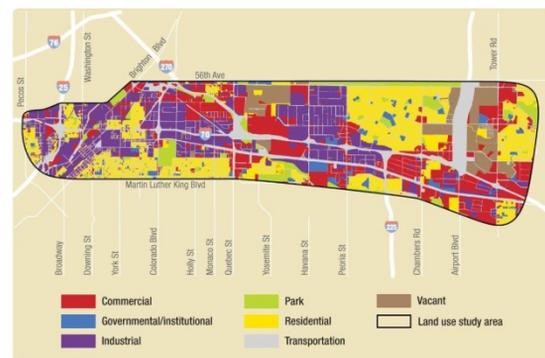
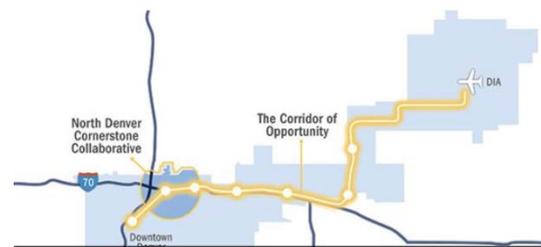
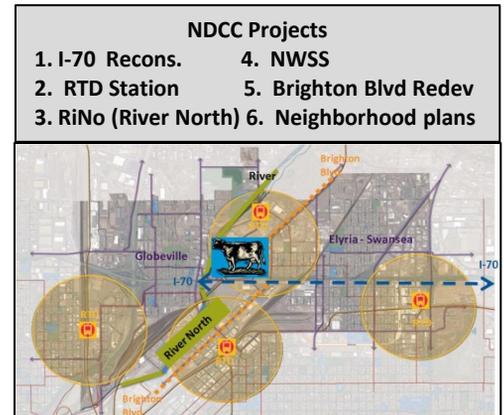
June 6, 2008

Don Hart, Executive Director  
Colorado Department of Transportation  
4000 E. Arkansas Ave  
Denver, CO 80222

Dear Mr. Hart:

It has come to our attention that a small number of people believe the decision by CDOT and the I-70 PACT stakeholders to keep I-70 on its current alignment should be challenged and that the option of realigning I-70 along the I-270 route should be uniformly pursued. The City and County of Denver, Adams County, and the City of Commerce City continue to support CDOT's decision to keep I-70 on its current alignment and plan to begin work for the following reasons:

- The City and County of Denver, Adams County and the City of Commerce City continue to honor the tremendous work of the I-70 PACT, which consisted of key stakeholders, including residents, business and community leaders. The I-70 PACT spent many months carefully analyzing all available data, objectively reviewing every alternative and listening openly to everyone affected by the alignment alternatives. CDOT relied heavily on the I-70 PACT's recommendations to have I-70 on the current alignment. We trust and request the work of the I-70 PACT and intend to honor its thoughtful recommendations.
- It is crucial that I-70, I-76 and I-270 remain separate, regional routes so incident responders have non-congested options on the freeway. These freeways also serve as critical evacuation routes from east to west.
- The I-70 PACT was extremely concerned about the negative impact realigning I-70 along the I-270 route would have on the National Western Stock Show facility, the new FaTrails station planned for the 19000 and Denver Coliseum, as well as the many negative impacts this alignment would have on the potential for Transit Oriented Development around the 19000 FaTrails station. The I-70 PACT believed that new TOD development around the 19000 light rail station will be a key catalyst to the overall economic revitalization of the neighborhoods, including the proposed redevelopment of the National Western Complex into a green-recycled destination in this area, which will have positive local, regional and statewide economic impacts.



**Appendix B – November 2012 10-Year Bridge Enterprise Plan**

## COLORADO BRIDGE ENTERPRISE Memorandum

Colorado Bridge Enterprise  
4201 East Arkansas Avenue  
Denver, Colorado 80222

**DATE:** November 2, 2012  
**TO:** Bridge Enterprise Board of Directors  
**FROM:** Ben Stein, CBE Chief Financial Officer  
**SUBJECT:** 10 Year Bridge Program Plan

At the request of Bridge Enterprise Director Hunt, staff in concert with the Bridge Enterprise Program Manager and CBE financial consultants has completed a preliminary 10 year bridge program plan for the Board's consideration and comments.

This 10-year program plan is based upon a cash flow model that recognizes incoming revenues (defined as FASTER pay-go funding, bond proceeds, BABs subsidy, and Federal BR debt service pledge) as compared to outgoing expenditures (defined as payment on debt-service, bridge replacement costs, maintenance and planned preventative maintenance costs) on a quarterly basis summarized by fiscal year from 2013 through 2023.

The plan identifies four discrete work scope items, their projected financial liability, and proposed funding sources. The plan looks at two funding and timing scenarios (Options A and B). Staff can prepare and present alternative scenarios at a future date if so desired by the Board. The plan and attached documents will be presented at the November Bridge Enterprise workshop.

**CBE staff requests further guidance from the Board as to how it would like the program to proceed in response to the "Request for Direction" questions.** The Board does NOT have to provide any specific guidance or funding commitments associated with the I-70 viaduct project or other elements of the plan at this time. The goal is to ensure the Board gains a familiarity of proposed project scopes, timelines, and options at this time, and Board has an opportunity to provide any guidance or input it wishes to provide before staff proceeds with any implementation recommendations.

**Bridge Enterprise Board of Directors  
Request for Direction**

**List of Documents**

- Request for Direction Questions (1 page)
- 10 Year Plan Report (4 pages)
- Options Summary / I-70 Viaduct Information (project milestone dates)
- Option A (\$569M Viaduct Investment) and Option B (\$898M Viaduct Investment) - Funding Source Summary & Synopsis
- Option A and B\* - Projected Cash and Bond Revenues / Projected Cash and Bond Expenditures by Fiscal Year (FY 2013 thru FY 2023)
- Cash Balances (Committed and Un-Committed)
- Poor Bridge Deck Area
- Interest Rate Sensitivity

\* Source data based upon projected revenues and expenditures outlined on a quarterly basis by fiscal year.

## Bridge Enterprise Board of Directors Request for Direction

The Bridge Enterprise Program management team has prepared a draft 10 year plan to discuss with the Board of Directors as it addresses the following issues:

- 1) Considering funding levels for the I-70 viaduct.
  - a. Projected cost +/- \$1.0B.
  - b. 10 year plan investment range is from \$569M to \$898M.
  
- 2) Should the Board commit to completing the original 128 structures identified in the legislation regardless of what other bridges are now or may become poor?
  - a. 14 remain.
  - b. One is the viaduct and 6 currently designated as “No Action Proposed”; based upon a business decision not to address.
  
- 3) Does the Board have particular views regarding the prioritization of the four work scope elements identified in the 10 year plan?
  - a. For example, does the Board prefer to allocate more funding to current / future un-programmed poor bridges (work scope item #4) and less funding to the I-70 viaduct project (work scope Item #3)?

CBE requests Board input relative to Question Nos. 2 and 3 at the November workshop. The Board does NOT have to commit to a funding level for the I-70 viaduct project (Question No. 1) for approximately one calendar year (or late Fall 2013). CDOT is currently in the process of hiring a financial consultant and its input on I-70 funding options will be provided to the Board once available. CBE shall update and reissue the 10 year plan with funding commitments at that time or sooner if the Board would like to evaluate other funding options other than those presented in this workshop.

## Colorado Bridge Enterprise 10 Year Plan Report

### Executive Summary

Bridge Enterprise (BE) does not have sufficient funding to address all of the poor bridges within Colorado in the next 10 years, and the funding gap becomes worse with time. CDOT Staff Bridge uses a model to predict the amount of deck area projected to be rated “poor” in future years based upon the year a structure was initially built. This model indicates that “poor” rated deck area will increase 1.7 times by 2020; 3 times by 2025; and over 4.5 times by 2030. The model does not however have the ability to predict (or determine) when a specific bridge may become poor.

Staff requests the BE Board to provide guidance on its priorities on when and how to use the available funding in a 10 year plan, so that plan can be implemented and completed. The BE management team (which includes the program manager and CDOT financial consultants) has developed two funding and timing scenarios to aid in the decision making. If the Board has other alternatives it would like to see, these can be prepared and provided at a future date.

### Work Scope and Analysis

The Bridge Enterprise program consists of only on-system CDOT bridges designated as structurally deficient or functionally obsolete, and rated poor (Sufficiency Rating < 50). This reduced the eligible work scope to 128 (in 2009) out of a total of 3,429 bridges or about 4% of the total population at the time the legislation creating the Enterprise was enacted. Since 2009, 39 additional bridges have become poor (or eligible); making the current number of FASTER eligible structures total to 167. In total, 60 structures have been completed since 2009 utilizing both BE and non-BE funding leaving 107.

	2009	2012
Number of on-system bridges	3,429	3,447
Deck area of on-system	31,726,590 sq-ft	32,656,115 sq-ft
Deck area of poor bridges	1,783,317 sq-ft	1,663,467 sq-ft

The BE management team identified discrete scope elements to better plan the 10 year financial investment and timing in our analysis. The BE management team divided the bridges into 4 scope elements (itemized below).

- The first element is the existing bond plan which will complete 57 of 87 structures identified and programmed in the current bond program allocation plan.
- The second scope of work potentially completes the 30 structures included in the bond program allocation plan for phases other than the construction phase.
- The third scope is the I-70 viaduct. The total project cost is estimated at over \$1.0B. BE management and the I-70 EIS team and FHWA met to determine an estimate of eligible work per the FASTER legislation. The group determined that approximately \$898M of the total cost may be eligible. Therefore, any amount from \$0 to \$898M can be funded in the next 10 years to complete this project. However the impact to the BE program at the \$898M level is significant.
- The fourth scope item is bridges that became poor after the 2009 legislation was enacted and future poor structures.

Note – A fifth cost component associated with on-going maintenance of assets and program management is also included in the analyses.

## Colorado Bridge Enterprise 10 Year Plan Report

### Bridge Count

The program maintains and reports two bridge counts within the monthly progress report provided by Tim Harris as noted below:

- FASTER eligible bridges
- Bond program bridges

The FASTER eligible bridge count is an ongoing tally of the number of bridges designated as poor which are eligible to receive FASTER funding. When the law was enacted in 2009, there were 128 poor rated structures. In 2010 and 2011, CDOT Staff Bridge identified another 11 and 15 poor rated structures, respectively. CDOT Staff Bridge currently updates the poor listed quarterly and in calendar year 2012 another 13 bridges have been rated poor to date. This brings the FASTER eligible bridge count total to 167 as itemized below. Note the two following clarifications: (1) the law does not mandate that all poor rated bridges be addressed, and (2) as of 2009, once a bridge is rated poor it retains eligibility to receive FASTER funds if subsequent bridge inspections raise its sufficiency rating above fifty.

Year	Poor list count
2009 (Year FASTER legislation enacted into law)	128
2010	11
2011	15
2012 (poor listed updated quarterly)	13
<b>Total FASTER eligible bridges</b>	<b>167</b>

Bond program bridges are those programmed to receive proceeds from the \$300M bond. Currently there are 87 bridges that are partially or fully funded with bond proceeds.

### 10-Year Bridge Plan Cash Flow Model

The 10-year program plan is based upon a cash flow model that recognizes incoming revenues (defined as FASTER pay-go funding, bond proceeds, BABs subsidy, and Federal BR debt service pledge) as compared to outgoing expenditures (defined as payment on debt-service, bridge replacement costs, maintenance and planned preventative maintenance costs) on a quarterly basis also summarized by fiscal year from 2013 through 2023.

The BE management team developed multiple scenarios of bonding and use of the FASTER revenue stream to recommend appropriate fiscal and regulatory decisions for the program (see Figure 1). Bonding financial regulations and debt service calculations were provided by CBE bond counsel and financial consultants Kutak Rock and Stifel Nicolaus, respectively. The amount of cash remaining in the Treasury at the end of the 10 year period is represented by the Un-Committed Cash Balance. A base of \$25M per year is recommended as a minimum cash balance to address program management costs, asset maintenance, and unexpected contingencies. The analysis led the BE management team to the following recommendations:

- Complete the Original list of structures but not structures currently designated as "No Action Proposed". This includes 6 structures where BE has made a business decision to not address for various reasons. For example, CDOT addressed structural issues associated with the Perry Street bridge over 6<sup>th</sup> Ave (F-16-GG); but, the structure remains functionally

## Colorado Bridge Enterprise 10 Year Plan Report

obsolete (road width) but rework would result in extensive costs addressing the 6<sup>th</sup> Ave retaining walls.

- Fund the I-70 viaduct via the BE programs remaining bonding capacity and supplement with FASTER revenue. Fund between \$569M to \$898M as needed. (see above scope item 3)
- Formally implement a more detailed selection process for determining which bridges will be funded in the future with program management developing objective criteria for bridge selection for the Board to adopt. (see above scope Item 4)

### Options Summary

	Funding		Viaduct	Total	Total Debt	Uncommitted
	Cash	Bond	Investment	Investment	Service (P+I)	Cash Balance
Option A	\$839 M	\$809 M	\$569 M	\$1,648 M	-\$1,896 M	\$25 M
Option B	\$839 M	\$809 M	\$898 M	\$1,648 M	-\$1,896 M	\$25 M

*Figure 1: Summary Data from Detailed analysis of Options*

### Cost Effectiveness

Identify and implement efficiencies and controls to improve the delivery of projects:

- Delivery methods – Preconstruction and Construction Strategies
- Programmatic Agreements with Agencies or Entities that most impact delivery
- Pre-project assessment to identify scope, cost and delivery issues
- Packaging & Bundling projects to create economies of scale
- Accelerated Construction and Every Day Counts initiatives
- Performance Metrics to track efficient delivery

### Program Constraints

The program is constrained to approximately \$100M of work annually. This is based upon past CDOT performance and limitations associated with current available CDOT staffing levels. In addition, on a “pay-go-basis” the program’s funding is constrained to a number considerably below this level. There are two exceptions: (1) to satisfy \$300M bond spending requirements approximately \$144M is projected to be spent in FY2013 and FY2014, and (2) the I-70 replacement project is considered a stand-alone project with its own dedicated staff.

Over-budgeting is another challenge that the BE management team is addressing. Projects that are now closing out construction are typically returning about 16% of budgeted funds based on empirical data. For this reason, the BE management team has over-programmed by about 10%. If our estimate is not conservative enough (i.e., the actual amount of over-budgeting is determined to be less than 10%), we will recommend design project(s) be shelved and not constructed at this time.

### On-going Program

Completion of the 30 previously noted bond structures (construction funding not within the bond proceeds) represents an additional \$274M of investment beyond the currently issued \$300M bond. The I-70 viaduct funding is anticipated to exhaust the BE Bonding Capacity with approximately \$600M of remaining bond funds supplemented with FASTER fee revenue stream a.k.a. “pay-go” dollars. Once the

## Colorado Bridge Enterprise 10 Year Plan Report

previously identified poor bridges are completed and the I-70 viaduct is replaced. The BE funding will be insufficient to replace all the bridges in the state expected to become poor in the future.

As the Enterprise becomes more financially constrained, future decisions made by the Bridge Enterprise should include a more robust analysis of investment based upon:

- Safety
- Average Daily Traffic / Economic Impact
- Adjacent roadway work scheduled / needed (Economy of Scale)
- Repair versus replacement

Staff seeks to learn if the Board has any firm views on how to prioritize between these four criteria or would like staff to consider other criteria in place of or in addition to these. After receiving this input, staff will develop and present to the board a recommended process for prioritizing future poor bridges.

### Federal Authorization MAP-21

Finally, CDOT/CBE is in the process of digesting the newly issued federal transportation legislation commonly referred to as MAP-21 (Moving Ahead for Progress in the 21st Century). The new legislation outlines new requirements associated with asset management and performance measurement.

There are two changes in the legislation that affect the Bridge Enterprise. The law indicates that the federal government intends to phase-out the use of “sufficiency ratings”. CDOT Staff Bridge uses sufficiency rating to determine whether a bridge is “poor”; poor structure has SR < 50. The new legislation appears to allow state DOT’s to “define” poor which may allow CDOT/CBE greater flexibility on the future usage of FASTER Bridge Fees. The FASTER legislation indicates that bridge must be SD or FO, and rated poor to be eligible for FASTER funding but going forward the Board, or possibly CDOT may be able to establish their own definition of “poor”. The use of a broader definition could make more bridges eligible for BE funding which, given the limitations on BE funding and the number of potentially eligible bridges may simply overwhelm the BE’s resources.

The second change eliminates the Federal Bridge Replacement (FBR) program and the national bridge inspection (NBI) categories. With MAP-21, the funding categories are fewer and the dollars have fewer explicit “strings attached” allowing DOTs greater flexibility on usage. On the other hand, these dollars have to be committed internally by CDOT to meet specific performance goals embedded in MAP-21 some of which are related to bridge conditions.

### Options Summary

	Funding		Viaduct Investment	Total Investment	Total Debt Service (P+I)	Uncommitted Cash Balance
	Cash	Bond				
Option A	\$839 M	\$809 M	\$569 M	\$1,648 M	-\$1,896 M	\$25 M
Option B	\$839 M	\$809 M	\$898 M	\$1,648 M	-\$1,896 M	\$25 M

### I-70 Viaduct Information

Costs	
Construction Estimate	\$1 B
ROW Estimate	\$120 M
Schedule	
Preferred Alternative	Dec-12
Final Environmental Impact Study	Jun-14
Record of Decision	Jun-15
Design/Build Request for Proposals	Dec-15
Notice to Proceed	Jun-16

FY 2013 to FY 2023  
10 Year Plan

Funding Needed	Funding Source	
	Cash	Bond
On-going		\$240 M Series 2010
Current Bond Program 57 of 87 structures programmed		
May-2013	\$274 M	\$0 M Series 2013
Complete Remaining 30 of 87 structures programmed		
Jun-2016	\$0 M	\$569 M Series 2016
Fund the I-70 Viaduct		
Dec-2015	\$549 M	
Complete currently eligible bridges not programmed and future poor bridges		
Apr-2016	\$16 M	
Maintenance		
Subtotal	\$839 M	\$809 M

- Synopsis**
- + Single project (viaduct) bond is easier to meet spending requirements
  - +/- Intermediate viaduct investment (\$569M)
  - +/- Preserves funding for other current/future FASTER (yet to be determined) structures
  - Limited cash flow for future work in 2020
  - Does not bond until FY 2017
  - High Cash Balance during bond issuance (Hedge bond rules)

Total \$ invested \$1,648 M  
 Viaduct investment \$569 M  
 \*Total poor deck replaced 836,736 ft2  
 Total Debt Service -\$1,896 M  
 Un-committed Cash Balance in FY 2023 \$25 M

\* Does not include I-70 Viaduct

Funding Needed	Funding Source	
	Cash	Bond
On-going		\$240 M Series 2010
Current Bond Program 57 of 87 structures programmed		
May-2013	\$274 M	\$0 M Series 2013
Complete Remaining 30 of 87 structures programmed		
Jun-2016	\$329 M	\$569 M Series 2016
Fund the I-70 Viaduct		
Dec-2015	\$220 M	
Complete currently eligible bridges not programmed and future poor bridges		
Apr-2016	\$16 M	
Maintenance		
Subtotal	\$839 M	\$809 M

- Synopsis**
- + Highest viaduct investment (\$898M)
  - + Single project (viaduct) bond is easier to meet spending requirements
  - Limited cash flow for future work in 2021
  - Does not bond until FY 2017
  - Commits majority of remaining FASTER funding to one metro-Denver project (I-70 Viaduct)
  - High Cash Balance during bond issuance (Hedge bond rules)

Total \$ invested \$1,648 M  
 Viaduct investment \$898 M  
 \*Total poor deck replaced 595,359 ft2  
 Total Debt Service -\$1,896 M  
 Un-committed Cash Balance in FY 2023 \$25 M

\* Does not include I-70 Viaduct

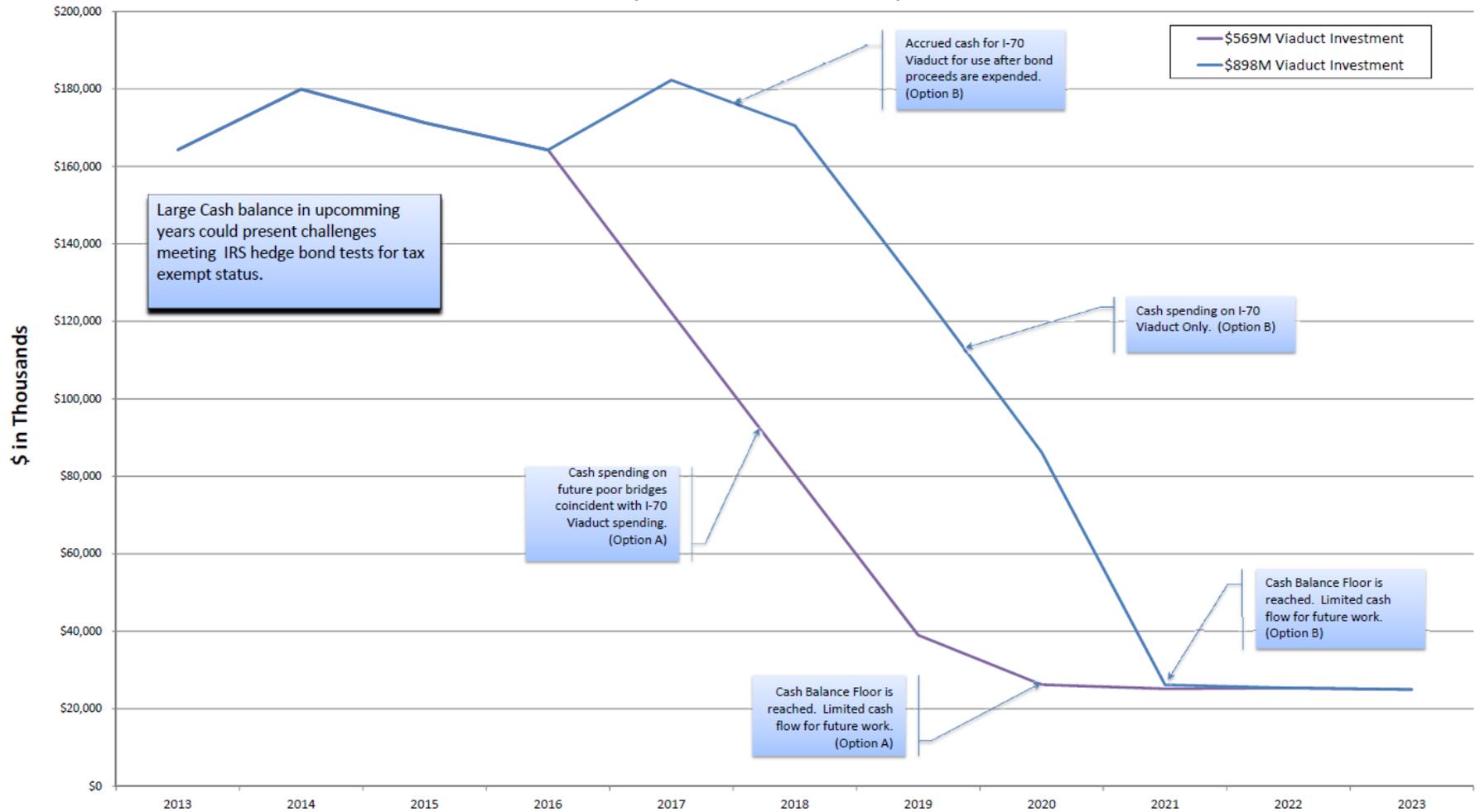
FY 2013 to FY 2023  
10 Year Plan

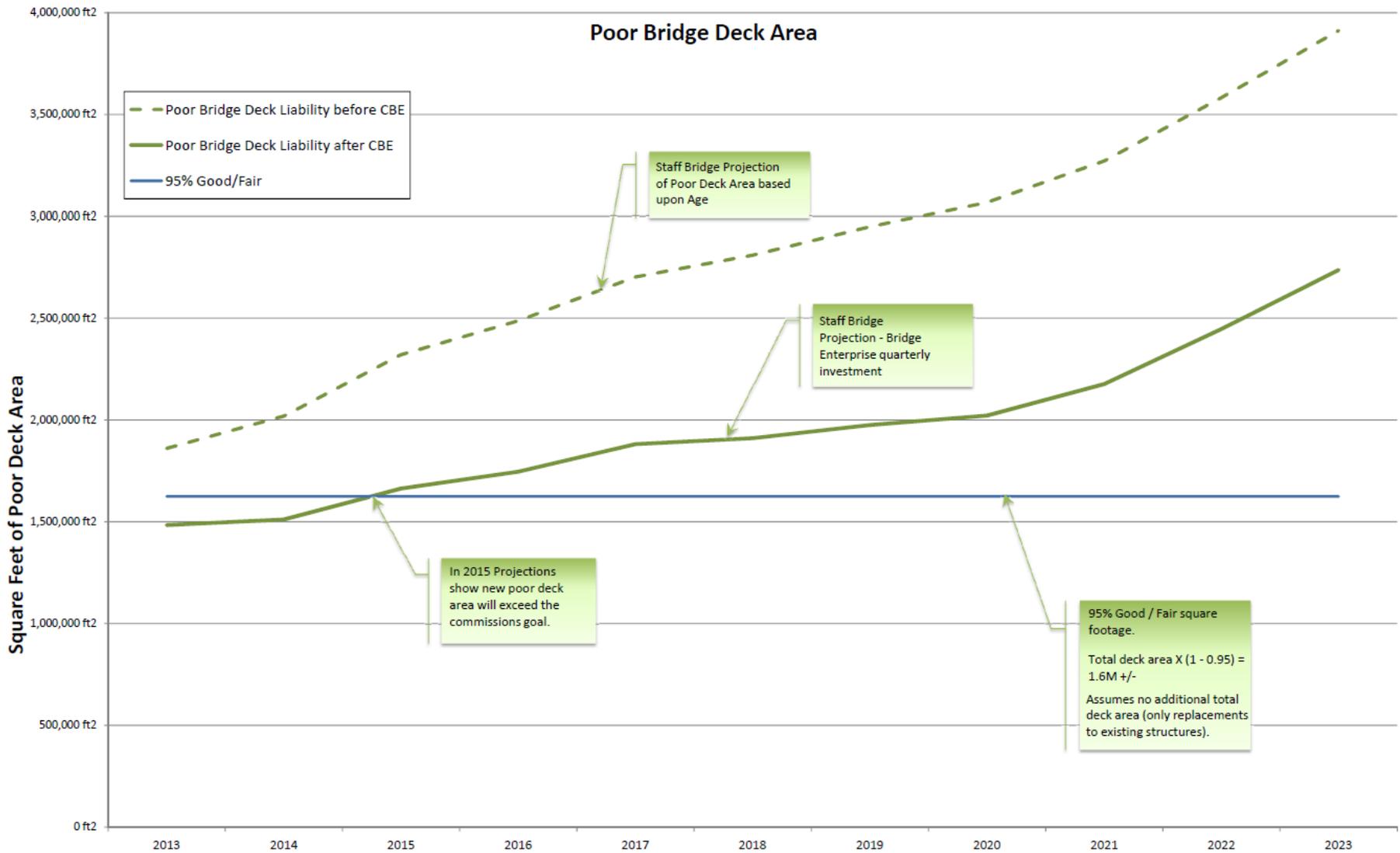
\$569M Viaduct Investment		Fiscal year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Revenues	FASTER Revenues <sup>(1)</sup>	\$87,000	\$88,096	\$88,977	\$89,867	\$90,765	\$91,673	\$92,590	\$93,516	\$94,451	\$95,395	\$96,349	
	Fed BR (debt service)	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	
	BABs Subsidy	\$6,400	\$6,400	\$6,400	\$6,400	\$6,400	\$6,400	\$6,400	\$6,400	\$6,400	\$6,400	\$6,400	
Current Bond Program 57 of 87 structures programmed	Bond <sup>(2)</sup>	240,000	96,000	-	-	-	-	-	-	-	-	-	
	Debt Serv.	(18,234)	(18,234)	(18,234)	(18,234)	(18,234)	(18,234)	(18,234)	(18,234)	(18,234)	(18,234)	(18,234)	
	Spending	(144,000)	(96,000)	-	-	-	-	-	-	-	-	-	
Complete Remaining 30 of 87 structures programmed	Bond	-	-	-	-	-	-	-	-	-	-	-	
	Debt Serv.	-	-	-	-	-	-	-	-	-	-	-	
	Spending	-	-	-	-	-	-	-	-	-	-	-	
	Paygo	-	(75,000)	(100,000)	(99,000)	-	-	-	-	-	-	-	
Fund the I-70 Viaduct	Bond	-	-	-	-	568,835	350,835	250,835	150,835	50,835	-	-	
	Debt Serv.	-	-	-	-	(34,648)	(35,100)	(35,561)	(37,521)	(36,488)	(36,959)	(37,439)	
	Spending	-	-	-	-	(218,000)	(100,000)	(100,000)	(100,000)	(50,835)	-	-	
	Paygo	-	-	-	-	-	-	-	-	-	-	-	
Complete currently eligible bridges not programmed and future poor bridges	Bond	-	-	-	-	-	-	-	-	-	-	-	
	Debt Serv.	-	-	-	-	-	-	-	-	-	-	-	
	Spending	-	-	-	-	-	-	-	-	-	-	-	
	Paygo	-	-	-	-	(100,000)	(100,000)	(100,000)	(70,000)	(60,000)	(59,000)	(60,000)	
On-going Program needs	Maintenance	Paygo	(269)	(435)	(600)	(766)	(931)	(1,097)	(1,262)	(1,428)	(1,593)	(1,759)	(1,822)
	Planned Prev. Maintenance	Paygo	(98)	(158)	(218)	(278)	(338)	(398)	(459)	(519)	(579)	(639)	(662)
	Bond Balance	96,000	-	-	-	350,835	250,835	150,835	50,835	-	-	-	
<sup>(1)</sup> CDOT OFMB forecast	Total Cash Spending	(18,601)	(93,826)	(119,052)	(118,278)	(154,151)	(154,829)	(155,516)	(127,701)	(116,894)	(116,590)	(118,156)	
<sup>(2)</sup> Less FY 2012 spending	Total Bond Spending	(\$144,000)	(\$96,000)	\$0	\$0	(\$218,000)	(\$100,000)	(\$100,000)	(\$100,000)	(\$50,835)	\$0	\$0	
<sup>(3)</sup> Per CDOT OFMB - trustee balance	Committed Cash Balance <sup>(3)</sup>	164,263	179,933	171,258	164,247	122,262	80,506	38,980	-	-	-	-	
<sup>(4)</sup> Without the I-70 viaduct	Total Bond & Cash Balance	260,263	179,933	171,258	164,247	473,097	331,341	189,815	50,835	-	-	-	
	Un-committed Cash Balance	-	-	-	-	-	-	-	26,195	25,152	25,357	24,950	
	Deck Area Replaced <sup>(4)</sup>	131,069	149,228	83,911	79,954	77,805	75,101	72,562	49,123	40,760	38,876	38,346	

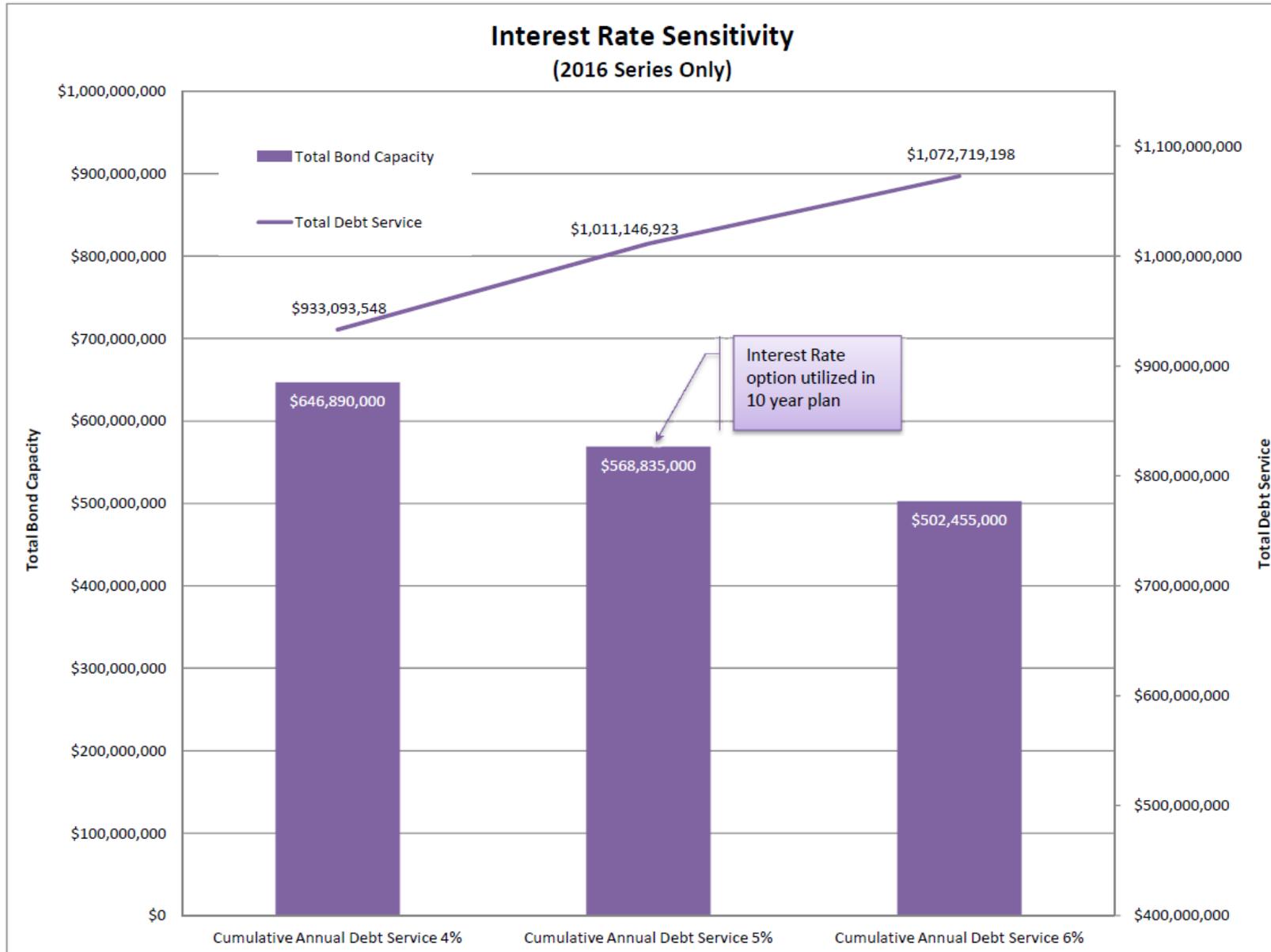
  

\$898M Viaduct Investment		Fiscal year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Revenues	FASTER Revenues <sup>(1)</sup>	\$87,000	\$88,096	\$88,977	\$89,867	\$90,765	\$91,673	\$92,590	\$93,516	\$94,451	\$95,395	\$96,349	
	Fed BR (debt service)	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	
	BABs Subsidy	\$6,400	\$6,400	\$6,400	\$6,400	\$6,400	\$6,400	\$6,400	\$6,400	\$6,400	\$6,400	\$6,400	
Current Bond Program 57 of 87 structures programmed	Bond <sup>(2)</sup>	240,000	96,000	-	-	-	-	-	-	-	-	-	
	Debt Serv.	(18,234)	(18,234)	(18,234)	(18,234)	(18,234)	(18,234)	(18,234)	(18,234)	(18,234)	(18,234)	(18,234)	
	Spending	(144,000)	(96,000)	-	-	-	-	-	-	-	-	-	
Complete Remaining 30 of 87 structures programmed	Bond	-	-	-	-	-	-	-	-	-	-	-	
	Debt Serv.	-	-	-	-	-	-	-	-	-	-	-	
	Spending	-	-	-	-	-	-	-	-	-	-	-	
	Paygo	-	(75,000)	(100,000)	(99,000)	-	-	-	-	-	-	-	
Fund the I-70 Viaduct	Bond	-	-	-	-	568,835	350,835	250,835	150,835	50,835	-	-	
	Debt Serv.	-	-	-	-	(34,644)	(35,100)	(35,558)	(37,519)	(36,488)	(36,961)	(37,437)	
	Spending	-	-	-	-	(218,000)	(100,000)	(100,000)	(100,000)	(50,835)	-	-	
	Paygo	-	-	-	-	-	(50,000)	(100,000)	(100,000)	(79,000)	-	-	
Complete currently eligible bridges not programmed and future poor bridges	Bond	-	-	-	-	-	-	-	-	-	-	-	
	Debt Serv.	-	-	-	-	-	-	-	-	-	-	-	
	Spending	-	-	-	-	-	-	-	-	-	-	-	
	Paygo	-	-	-	-	(40,000)	(20,000)	-	-	(40,000)	(60,000)	(60,000)	
On-going Program needs	Maintenance	Paygo	(269)	(435)	(600)	(766)	(931)	(1,097)	(1,262)	(1,428)	(1,593)	(1,759)	(1,822)
	Planned Prev. Maintenance	Paygo	(98)	(158)	(218)	(278)	(338)	(398)	(459)	(519)	(579)	(639)	(662)
	Bond Balance	96,000	-	-	-	350,835	250,835	150,835	50,835	-	-	-	
<sup>(1)</sup> CDOT OFMB forecast	Total Cash Spending	(18,601)	(93,826)	(119,052)	(118,278)	(94,147)	(124,829)	(155,513)	(157,699)	(175,894)	(117,593)	(118,154)	
<sup>(2)</sup> Less FY 2012 spending	Total Bond Spending	(\$144,000)	(\$96,000)	\$0	\$0	(\$218,000)	(\$100,000)	(\$100,000)	(\$100,000)	(\$50,835)	\$0	\$0	
<sup>(3)</sup> Per CDOT OFMB - trustee balance	Committed Cash Balance <sup>(3)</sup>	164,263	179,933	171,258	164,247	182,262	170,506	128,980	86,195	26,152	-	-	
<sup>(4)</sup> Without the I-70 viaduct	Total Bond & Cash Balance	260,263	179,933	171,258	164,247	533,097	421,341	279,815	137,050	26,152	-	-	
	Un-committed Cash Balance	-	-	-	-	-	-	-	-	-	25,357	24,950	
	Deck Area Replaced <sup>(4)</sup>	131,069	149,228	83,911	79,954	31,122	15,020	-	-	27,174	39,535	38,346	

### Cash Balances (Committed and Un-Committed)







**Appendix C – Macquarie Synopsis of Design-Build Financial Scenario**



#### 4.5.2 Design-Build

The financing structure for the Design -Build scenario combines:

- Upfront construction milestone payments of \$450 million sourced from SB09-228 funds and CBE "PAYGo" funds (as described in Section 4.4.1.1);
- A CBE municipal bond issue based on the assumptions provided by JP Morgan;
- A TIFIA loan borrowed directly by CBE; and
- CDOT direct funding of operation, maintenance and rehabilitation costs of the Project, partially offset by tolling revenues are described in Section 4.4.1.2.

The CBE bond issue and TIFIA loan are sized and structured such that the combined debt service obligations fall within the affordability envelope described in Section 4.4.1.1. This ensures that total CBE debt service obligations, inclusive of the 2010 BABs issue, achieves a coverage ratio of 2.0x projected CBE 2015 revenues (~\$110 million).

The CBE bond issue is assumed to be raised and drawn in full at commencement of construction in 2015. This creates some inefficiency as the "negative carry" of paying interest on the bond issue exceeds deposit interest earned on the proceeds. This inefficiency is necessary if CBE requires certainty of its funding prior to committing to the construction contract.

The TIFIA loan is drawn as required to fund construction costs after the proceeds of the CBE bond issue are fully expended.

For consistency, the assumed timing of payments to the construction contractor is the same under all scenarios as described in Section 4.5.1.2.

It is important to note that under the DB scenario all sources of financing have recourse to CBE rather than to the Project itself. Under the DBF and DBFOM scenarios, the senior lenders and TIFIA take direct risk on the performance of the construction contractor.

At this stage in the analysis, we are calculating the amount of construction cost which can be supported ("affordable") within the affordability envelope. In respect of the optimized DB scenario, the Project can afford a construction cost of \$1,131 million.

Actual construction costs under the DB scenario may be higher than this as described in Section 8.

The sources and uses of funds are described in the following table:

**Figure 20: DB Construction Period Sources and Uses**

Sources During Construction	\$000's	%
Milestone Payments (from SB09-228 and CBE "PAYGo" funds)	450,000	31.47%
Senior Debt Drawdown	308,334	21.56%
TIFIA Drawdowns (incl. accrued interest)	418,442	29.27%
Interest Income	1,411	0.10%
CBE Funding Interest during Construction (~\$43 million p.a.)	213,098	14.90%
CDOT Funding for O&M Costs during Construction <sup>10</sup>	38,512	2.69%
<b>Total Sources of Funds</b>	<b>1,429,798</b>	<b>100.00%</b>

<sup>10</sup> CBE revenues are unlikely to be available for O&M costs. Potential funding sources for O&M costs are discussed in Section 4.3.

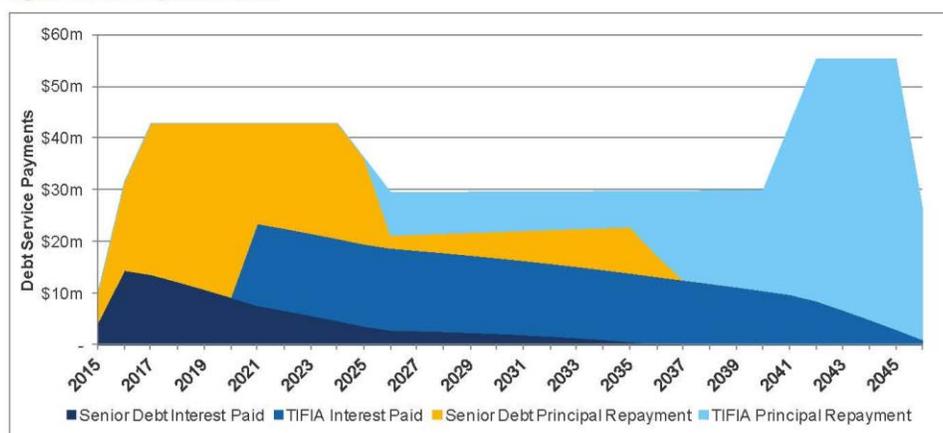


Uses During Construction	\$000's	%
Construction Cost	1,131,000	79.10%
Insurance Costs	20,481	1.43%
Transaction Costs, Upfront Debt Fees and TIFIA Admin. Costs <sup>11</sup>	5,668	0.40%
Reimbursement of CDOT Costs	5,000	0.35%
Rating Agency Costs	1,997	0.14%
Senior Debt Service	213,099	14.90%
TIFIA Interest Accrued	14,040	0.98%
Construction Period O&M Costs	38,512	2.69%
<b>Total Uses of Funds</b>	<b>1,429,798</b>	<b>100.00%</b>

A full sources and uses of funds for each year of the Project until debt is fully repaid in 2046 is provided in Appendix A.4.

The debt repayment profile is illustrated in the following diagram.

**Figure 21: DB Payment Profile**



For consistency, the same TIFIA repayment assumptions are used in all three scenarios.

Due to the lower interest cost of TIFIA, affordability is increased by backending repayment of TIFIA to the greatest extent possible. This results in the full repayment of the CBE bond issue by 2036 (9 years earlier than required) and in a slightly lower percentage TIFIA loan than the maximum funding allowed.

TIFIA assumptions are further described in Section 14.

<sup>11</sup> See Section 6.3 and 6.4 for further details on transaction, financing and issuance cost assumptions.



## A.4 Appendix: Detailed Sources and Uses Tables

Design-Build Scenario (See Section 4.5.2)

Figure 94: DB Construction Period Sources and Uses (Annual)

Year	2015	2016	2017	2018	2019	2020
<i>(in \$m's)</i>						
Drawdown from Milestone Payments <sup>32</sup>	-	-	156.1	86.9	207.0	-
Senior Debt Drawdown	11.8	157.3	139.3	-	-	-
TIFIA Drawdown	-	-	-	158.7	53.1	206.7
Interest Income <sup>33</sup>	-	0.8	0.5	0.1	-	-
CBE Funding during Construction	-	41.6	42.9	42.9	42.9	42.9
CDOT Funding for O&M Costs <sup>34</sup>	-	6.1	12.2	6.4	6.6	7.3
<b>Total Sources</b>	<b>11.8</b>	<b>205.7</b>	<b>351.0</b>	<b>294.9</b>	<b>309.5</b>	<b>256.8</b>

Year	2015	2016	2017	2018	2019	2020
<i>(in \$m's)</i>						
Construction Costs	-	147.8	285.4	245.5	253.9	198.5
Insurance Costs	-	10.1	10.4	-	-	-
Transaction Costs, Upfront Debt Fees and TIFIA Admin. Costs	5.6	0.0	0.0	0.0	0.0	0.0
Reimbursement of CDOT Costs	5.0	-	-	-	-	-
Rating Agency Costs	1.2	0.2	0.2	0.2	0.2	0.2
CBE – I70 Senior Debt Payments	-	41.6	42.9	42.9	42.9	42.9
TIFIA Interest Accrued	-	-	-	-	6.0	8.0
Construction Period O&M Costs	-	6.1	12.2	6.4	6.6	7.3
<b>Total Uses</b>	<b>11.8</b>	<b>205.7</b>	<b>351.0</b>	<b>294.9</b>	<b>309.5</b>	<b>256.8</b>

<sup>32</sup> Upfront construction milestone payments of \$450 million sourced from SB09-228 funds and CBE "PAYGo" funds (as described in Section 4.4.1.1).

<sup>33</sup> Interest earned on Senior Debt balance.

<sup>34</sup> CBE revenues are unlikely to be available for O&M costs. Potential funding sources for O&M costs are discussed in Section 4.3.



**Figure 95: DB Operating Period Sources and Uses (Annual)**

Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	
<i>(in \$m)</i>																											
CBE Funding	42.9	42.9	42.9	42.9	36.2	29.5	29.5	29.5	29.5	29.6	29.6	29.6	29.6	29.7	29.7	29.7	29.8	29.8	29.8	29.9	42.6	55.2	55.2	55.2	55.2	10.8	
CDOT Funding for O&M Costs	9.9	6.4	6.1	6.2	10.4	6.3	5.5	5.8	6.7	13.6	4.8	7.4	6.7	6.2	11.4	1.8	2.5	2.6	1.2	9.6	0.7	-	-	7.0	8.1	-	
Tolling Revenue	2.5	3.4	4.2	4.8	5.3	5.9	6.5	7.1	7.8	8.5	9.3	10.2	11.1	12.1	13.1	14.2	15.3	16.5	17.7	19.0	20.3	22.0	23.7	25.6	27.5	14.7	
<b>Total Sources</b>	<b>55.2</b>	<b>52.7</b>	<b>53.2</b>	<b>53.9</b>	<b>51.9</b>	<b>41.6</b>	<b>41.5</b>	<b>42.5</b>	<b>44.0</b>	<b>51.7</b>	<b>43.7</b>	<b>47.2</b>	<b>47.5</b>	<b>48.0</b>	<b>54.2</b>	<b>45.8</b>	<b>47.6</b>	<b>48.9</b>	<b>48.8</b>	<b>58.5</b>	<b>63.6</b>	<b>77.2</b>	<b>79.0</b>	<b>87.8</b>	<b>90.8</b>	<b>25.5</b>	

Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	
<i>(in \$m)</i>																											
CBE – I70 Senior Debt Payments	27.0	27.0	27.0	27.0	20.3	5.2	5.7	6.2	6.7	7.2	7.7	8.2	8.6	9.1	4.4	-	-	-	-	-	-	-	-	-	-	-	-
CBE – I70 TIFIA Payments	15.9	15.9	15.9	15.9	15.9	24.2	23.7	23.3	22.8	22.3	21.9	21.5	21.0	20.6	25.3	29.7	29.8	29.8	29.8	29.9	42.6	55.2	55.2	55.2	55.2	12.2	
O&M Costs	6.8	6.2	6.4	6.5	6.6	7.3	6.9	7.1	7.3	7.5	7.6	11.6	8.0	8.2	8.4	8.6	8.8	9.7	9.2	9.5	9.7	9.9	10.1	15.3	10.6	5.4	
Tolling O&M Costs	2.7	3.2	3.5	3.8	3.9	4.1	4.3	4.4	4.6	4.8	4.9	5.1	5.4	5.6	5.8	6.0	6.3	6.5	6.8	7.1	7.3	7.7	8.0	8.4	8.8	4.6	
Rehab Costs	0.4	0.4	0.4	0.7	0.7	0.8	0.8	1.4	2.6	2.7	1.6	0.9	4.5	4.6	4.7	1.4	2.8	2.8	2.9	3.0	4.0	3.6	5.1	8.9	9.1	3.3	
Tolling Rehab Costs	2.4	-	-	-	4.4	-	-	-	-	7.1	-	-	-	-	5.6	-	-	-	-	9.0	-	-	-	-	7.1	-	
<b>Total Uses</b>	<b>55.2</b>	<b>52.7</b>	<b>53.2</b>	<b>53.9</b>	<b>51.9</b>	<b>41.6</b>	<b>41.5</b>	<b>42.5</b>	<b>44.0</b>	<b>51.7</b>	<b>43.7</b>	<b>47.2</b>	<b>47.5</b>	<b>48.0</b>	<b>54.2</b>	<b>45.8</b>	<b>47.6</b>	<b>48.9</b>	<b>48.8</b>	<b>58.5</b>	<b>63.6</b>	<b>76.4</b>	<b>78.5</b>	<b>87.8</b>	<b>90.8</b>	<b>25.5</b>	

Notes:

1. 2046 represents a partial year (concession ending June 2046).
2. Total sources in 2042 and 2043 are in excess of total uses due to increase in tolling revenue above total OMR costs in those years. Debt is fully repaid in 2046 resulting in lower funding requirement from CBE (also due to partial year).
3. As noted, CBE revenues are unlikely to be available for O&M costs. Potential OMR funding sources include tolling revenues. For the purposes of this analysis, we have assumed that CDOT funds an OMR availability payment (shown above as 'CDOT Funding for O&M Costs') to cover the balance between total OMR costs and tolling revenues. Other potential funding sources for a CDOT OMR availability payment are discussed in further detail in Section 4.3



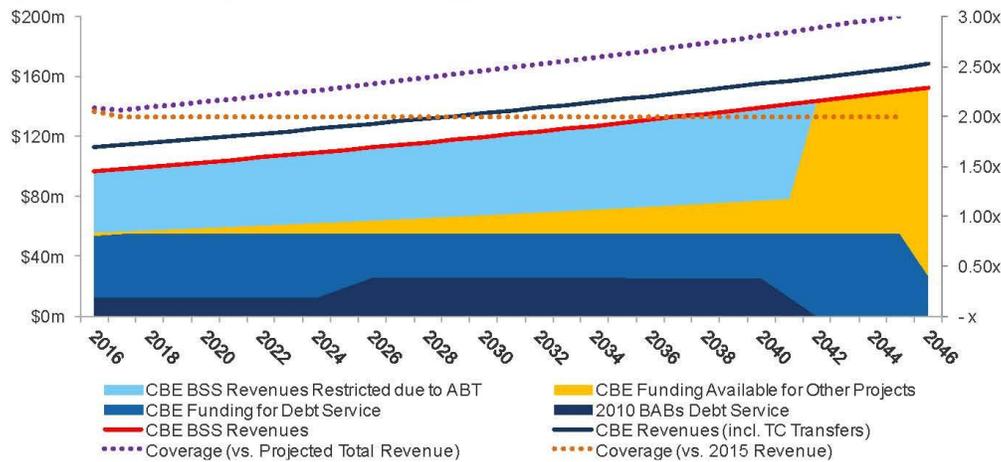
**Figure 96: Summary of CBE Funding Under DB Scenario<sup>35</sup>**

(in \$000's)

Total CBE Revenues <sup>36</sup>	\$4,294
Less: Federal Transfers	(\$491)
<b>CBE BSS Revenues</b>	<b>\$3,803</b>
Less: 2010 BABs Payments (net of subsidy)	(\$526)
Less: I70 Project Funding <sup>37</sup>	(\$1,157)
<b>Remaining CBE BSS Revenues</b>	<b>\$2,120</b>
Unrestricted CBE BSS Revenues Available for Other Projects	\$795
CBE BSS Revenues Restricted due to Additional Bonds Test	\$1,325

Note that the above table excludes \$180 million in CBE funding in the form of "PAYGo" payments during construction. It is our understanding that this funding will come from existing CBE cash balances.

**Figure 97: CBE Funding Available for Other Projects**



It is Macquarie's understanding that under the Additional Bonds Test (ABT) requirements on CBE's existing BABs debt, the minimum coverage required for CBE to be able to issue additional indebtedness with recourse to CBE is 2.0x total revenues. This restriction is in place until 2041 when the BABs debt is fully repaid. While this would restrict CBE's ability to fund other projects through the issuance of debt against these revenues streams, it is our understanding that CBE would still be able to fund other projects from these revenues provided that the payments were made from revenues reserved from prior years (i.e. the amount of 'CBE BSS Revenues Restricted due to ABT' in FY2015 could be used in FY2016 to fund other projects).

<sup>35</sup> Adjusted for calendar year end.

<sup>36</sup> Source: JP Morgan analysis. Total CBE revenues include CBE Bridge Safety Surcharge (BSS) Revenues (~\$93 million in FY2013) plus ~\$15 million in annual transfers from the Transportation Commission. CBE BSS revenues exclude federal transfers. Both total revenues and BSS revenues exclude ~\$6 million in the form of an annual subsidy from the US Treasury to support payments on the 2010 Build America Bonds (BABs). This figure is netted out of the total 2010 BABs debt service payments.

<sup>37</sup> Assumes June 2046 concession end.

**Appendix D – Year-by-Year Analysis of all Options**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046		
<b>Viaduct-Only Alternative - All CBE</b>																																		
Net Funds Available to CBE	\$94.1	\$97.0	\$99.1	\$101.4	\$103.7	\$106.1	\$114.5	\$117.2	\$119.9	\$122.6	\$125.2	\$127.6	\$110.8	\$113.0	\$115.4	\$117.9	\$120.3	\$122.8	\$125.2	\$127.6	\$130.0	\$132.5	\$134.9	\$137.3	\$139.7	\$142.2	\$175.3	\$177.1	\$178.9	\$180.6	\$182.5	\$184.3		
Less: Construction Insurance & Transaction Costs	(11.6)	(10.1)	(10.4)	(0.2)	(0.2)	(0.2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Senior Debt and TIFIA Debt Payments	0.0	(40.9)	(42.2)	(42.2)	(48.1)	(50.1)	(42.2)	(42.2)	(42.2)	(42.2)	(35.6)	(28.9)	(28.9)	(29.0)	(29.0)	(29.0)	(29.1)	(29.2)	(29.1)	(29.2)	(29.2)	(29.2)	(29.3)	(29.3)	(29.3)	(29.4)	(41.9)	(54.3)	(54.3)	(54.3)	(54.3)	(12.0)		
Remainder to CBE	82.5	45.9	46.5	59.0	55.4	55.9	72.3	75.0	77.7	80.4	89.6	98.7	81.9	84.0	86.4	88.9	91.2	93.6	96.1	98.4	100.8	103.3	105.6	108.0	110.4	112.8	133.4	122.8	124.6	126.4	128.2	172.3		
<b>Macquarie Alternative - CBE + SB 09-228</b>																																		
Net Funds Available to CBE	\$94.1	\$97.0	\$99.1	\$101.4	\$103.7	\$106.1	\$114.5	\$117.2	\$119.9	\$122.6	\$125.2	\$127.6	\$110.8	\$113.0	\$115.4	\$117.9	\$120.3	\$122.8	\$125.2	\$127.6	\$130.0	\$132.5	\$134.9	\$137.3	\$139.7	\$142.2	\$175.3	\$177.1	\$178.9	\$180.6	\$182.5	\$184.3		
Less: Construction Insurance & Transaction Costs	(11.8)	(10.3)	(10.6)	(0.2)	(0.2)	(0.2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Senior Debt and TIFIA Debt Payments	0.0	(41.6)	(42.9)	(42.9)	(48.9)	(50.9)	(42.9)	(42.9)	(42.9)	(42.9)	(36.2)	(29.4)	(29.4)	(29.5)	(29.5)	(29.5)	(29.6)	(29.7)	(29.6)	(29.7)	(29.7)	(29.7)	(29.8)	(29.8)	(29.8)	(29.9)	(42.6)	(55.2)	(55.2)	(55.2)	(55.2)	(12.2)		
Remainder to CBE	82.3	45.1	45.6	58.3	54.6	55.0	71.6	74.3	77.0	79.7	89.0	98.2	81.4	83.5	85.9	88.4	90.7	93.1	95.6	97.9	100.3	102.8	105.1	107.5	109.9	112.3	132.7	121.9	123.7	125.4	127.3	172.1		
<b>FASTER Safety Alternative - CBE + 228 + FS</b>																																		
Net Funds Available to CBE	\$94.1	\$97.0	\$99.1	\$101.4	\$103.7	\$106.1	\$114.5	\$117.2	\$119.9	\$122.6	\$125.2	\$127.6	\$110.8	\$113.0	\$115.4	\$117.9	\$120.3	\$122.8	\$125.2	\$127.6	\$130.0	\$132.5	\$134.9	\$137.3	\$139.7	\$142.2	\$175.3	\$177.1	\$178.9	\$180.6	\$182.5	\$184.3		
Less: Construction Insurance & Transaction Costs	(11.0)	(9.6)	(9.9)	(0.2)	(0.2)	(0.2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Senior Debt and TIFIA Debt Payments	0.0	(38.7)	(39.9)	(39.9)	(45.5)	(47.4)	(39.9)	(39.9)	(39.9)	(39.9)	(33.7)	(27.4)	(27.4)	(27.5)	(27.5)	(27.5)	(27.6)	(27.7)	(27.6)	(27.7)	(27.7)	(27.7)	(27.8)	(27.8)	(27.8)	(27.8)	(39.7)	(51.4)	(51.4)	(51.4)	(51.4)	(11.4)		
Remainder to CBE	83.1	48.6	49.3	61.2	58.0	58.6	74.6	77.2	79.9	82.7	91.5	100.3	83.4	85.6	88.0	90.4	92.8	95.1	97.7	100.0	102.4	104.8	107.2	109.6	112.0	114.4	135.7	125.7	127.5	129.2	131.0	172.9		
<b>MPO Alternative - CBE + 228 + FS + DRCOG</b>																																		
Net Funds Available to CBE	\$94.1	\$97.0	\$99.1	\$101.4	\$103.7	\$106.1	\$114.5	\$117.2	\$119.9	\$122.6	\$125.2	\$127.6	\$110.8	\$113.0	\$115.4	\$117.9	\$120.3	\$122.8	\$125.2	\$127.6	\$130.0	\$132.5	\$134.9	\$137.3	\$139.7	\$142.2	\$175.3	\$177.1	\$178.9	\$180.6	\$182.5	\$184.3		
Less: Construction Insurance & Transaction Costs	(10.2)	(8.9)	(9.1)	(0.2)	(0.2)	(0.2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Senior Debt and TIFIA Debt Payments	0.0	(35.9)	(37.0)	(37.0)	(42.2)	(43.9)	(37.0)	(37.0)	(37.0)	(37.0)	(31.2)	(25.4)	(25.4)	(25.4)	(25.4)	(25.4)	(25.5)	(25.6)	(25.5)	(25.6)	(25.6)	(25.6)	(25.7)	(25.7)	(25.7)	(25.8)	(36.7)	(47.6)	(47.6)	(47.6)	(47.6)	(10.5)		
Remainder to CBE	83.9	52.2	53.0	64.2	61.4	62.1	77.5	80.2	82.9	85.6	94.0	102.3	85.4	87.6	90.0	92.4	94.8	97.2	99.7	102.0	104.4	106.8	109.2	111.6	114.0	116.4	138.6	129.5	131.3	133.0	134.8	173.8		