



COLORADO

Department of Transportation

Statewide Bridge Enterprise

Colorado Bridge Enterprise

Quarterly Report No. 28 (Q3 FY2018)



June 21, 2018

Table of Contents

Introduction	1
Program Highlights.....	2
Program Activities and Accomplishments in Q3 FY2018	4
Program Schedule Update	4
New CDOT “Poor” Bridge Definition	4
Four-Year Program Plan.....	6
Central 70 Project Update.....	6
Budget and Encumbrance Balances	7
Program Financial Information	8

Listing of Tables and Figures

Table 1. Project Status of FASTER Eligible Structures as of Q3 FY2018

Table 2. Status of the Original 30 Most Deficient Structures

Table 3. Completed Central 70 Project Milestones

Table 4. Projects Substantially Complete over Six Months Aging Encumbrance and Budget Balances

Table 5. Program Financial Statistics as of March 31, 2018 (\$ in Millions)

Table 6. Current Allocation Plan (\$ in millions)

Figure A. Historic Status of FASTER Eligible Structures

Figure B. Active Program SPI Reported by Month, for the Period

Figure C. Bridge Condition Ratings based on the NBI Rating Scale

Figure D. Forecasted Programmatic Impacts of the New "Poor" Definition

Figure E. Four Year Quarterly Cash Flow Projection

Figure F. Forecast vs Actual FASTER Revenue Comparison

Figure G. Total Program Financial Performance

Listing of Appendices

Appendix A. Program Allocation Plan

Appendix B. Central 70 Quarterly Status Report

Introduction

This report is the 28th Quarterly Report (Report) published in support of the Colorado Bridge Enterprise (BE or “Program”). This Report outlines progress and accomplishments associated with the Program for work completed during January, February, and March of 2018; which coincides with the third quarter of CDOT’s 2018 fiscal year (Q3 FY2018). Detailed information regarding the FASTER (Funding Advancement for Surface Transportation and Economic Recovery) legislation, program development activities, bond program, previous significant milestones and achievements can be found in the previous Program Annual Reports and Quarterly Reports viewable on the Colorado Department of Transportation (CDOT) website at www.coloradodot.info/programs/BridgeEnterprise.

During Q3 FY2018, program staff conducted numerous meetings and analysis related to the creation of the mid-range and long-range program forecast plans. The following is an itemization of other significant achievements, some of which are discussed in further detail later in the report:

- Drafted and finalized the 27th Colorado Bridge Enterprise Quarterly Report for Q2 FY2018.
- Completed monthly updates to the overall Program Schedule for work completed in January, February, and March of 2018.
- Approved the 6th Budget Supplement of FY18 to fund the construction phases for:
 - SH 69 over Milligan Arroyo (M-16-P)
 - SH 60 over the South Platte River (C-17-B)
- Approved the 7th Budget Supplement of FY18 to fund:
 - Additional pre-development work for Central 70 (E-17-FX; E-17-EW; E-17-DF; E-17-KR)
 - Preconstruction and construction phases for Prospect Road over I-25 (B-16-AM)
 - Preconstruction and construction phases for I-25 over Draw (C-17-EL)
 - Construction phase for US 50 over Agate Creek (K-11-G)
- Approved the 8th Budget Supplement of FY18 to fund the construction phase for SH 96 over Rush Creek (K-17-F).
- Approved the Fiscal Year 2018-19 Budget.
- Updated program status for various program metrics including Major Achievements, Total Program Financial Performance, Status of FASTER Eligible Structures, Status of 2010A Bond Structures, and Status of 30 Most Deficient Structures.
- Continued efforts to reduce excess budget on projects with completed phases and reallocated the budget savings to other BE projects.
- Completed a risk-based probabilistic cost estimate (RBCE) for the pool of BE eligible structures which establishes a more robust and reliable baseline cost estimate for the program.
- Drafted the Bridge Enterprise FY2019-2022 Four-Year Plan and coordinated updates to the FY2019-2022 Statewide Transportation Improvement Program (STIP).

Program Highlights

- Since the BE milestone payment schedule for Central 70 was released in September 2017, BE has been aggressively programming available resources and advancing shelf projects to construction once all required clearances are obtained (e.g. ROW, RR, environmental). Construction funding was approved for the following shelf projects from the December 2017 Prioritization Plan:
 - SH 69 over Milligan Arroyo (M-16-P)
 - SH 60 over the South Platte River (C-17-B)
 - US 50 over Agate Creek (K-11-G)
 - SH 96 over Rush Creek (K-17-F)
- Preconstruction and construction funding was approved for the following structures which are part of the North I-25 project:
 - Prospect Road over I-25 (B-16-AM)
 - I-25 over Draw (C-17-EL)

Funding for the BE eligible portions of B-16-AM was approved in August 2017, however, an increase in the budget was necessary for two reasons. First, the overall North I-25 project came in higher than originally estimated prior to issuing the RFP. Second, an in-depth eligibility review of newly available project information found that there are more BE eligible items than originally estimated.

C-17-EL was funded to eliminate recurring maintenance costs and take advantage of the overall economy of scale presented by the North I-25 project. The Contractor will have the ability to innovate and construct the project in the most time and cost-effective manner and provide the best value to CDOT and BE.

- Several efforts are ongoing to scope upcoming high priority projects from the BE Prioritization Plan:

BE is collaborating with Staff Bridge and Region 1 to develop a scope of work to perform a fatigue study on I-76 WB/EB over Clear Creek (E-16-LU/E-16-LT). A finite element model of the bridge will be developed and calibrated using data gathered from full-scale load testing. The goal of the study is to better understand the scope of the rehabilitation and minimize construction costs by pinpointing the locations where retrofits are necessary to mitigate fatigue cracking.

BE and Region 3 are collaborating to develop a scope of work for a feasibility study on the replacement of I-70 over Straight Creek (F-13-S_Minor), located between Silverthorne and the Eisenhower/Johnson tunnel on I-70. The focus of the study will be to gain a better understanding of the resources in the project area, identify fatal flaws with proposed design alternatives, and recommend a structure type and procurement method. Due to the location of the project, this effort is critical to determine the best option to minimize the project's impact on the travelling public and CDOT operations.

BE is in the early stages of developing an initiative to replace numerous BE eligible timber bridges statewide. BE is currently working with the Regions to perform high-level scoping to better understand the profile of these structures. Ultimately, the goal will be to bundle projects with similar geometry, site characteristics, etc. to achieve economy of scale. Efforts are also on-going to better understand how this initiative may be impacted by the upcoming FHWA funding opportunity for rural bridges.

- As of the end of March 2018, there were a total of 217 structures considered eligible to receive FASTER funding. The progress status associated with the 217 is itemized in *Table 1*. The progress status associated with the Original 30 Most Deficient Structures is itemized in *Table 2*.

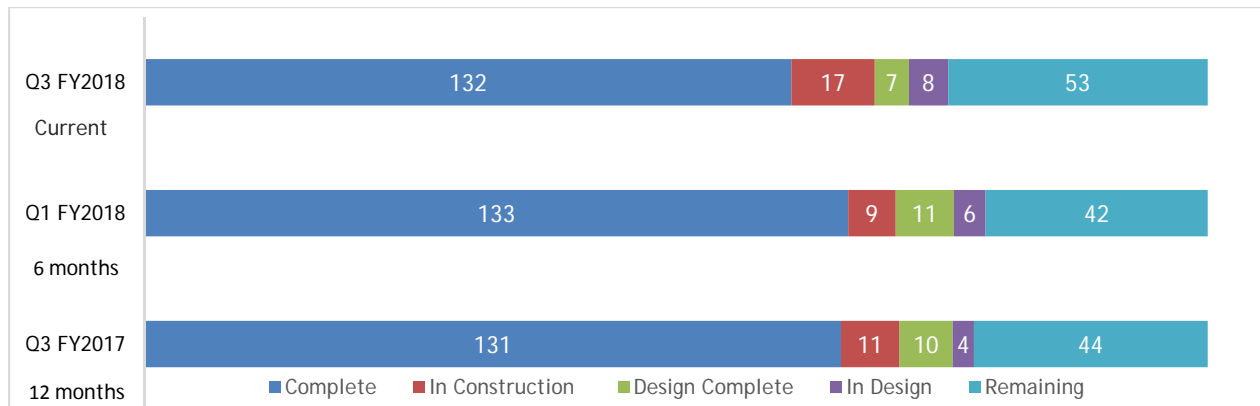
Table 1. Project Status of FASTER Eligible Structures as of Q3 FY2018

Project Phase	# of Structures
Remaining	53
In Design	8
Design Completed	7
In Construction	17
Projects Completed	132 ¹
Total	217

Table 2. Status of the Original 30 Most Deficient Structures

Project Phase	# of Structures
Remaining	0
In Design	0
Design Completed	0
In Construction	2
Projects Completed	28
Total	30

Figure A. Historic Status of FASTER Eligible Structures



Other relevant bridge statistics are as follows:

- Approximately 69% of FASTER eligible structures are now in construction or completed.
- Approximately 7% of FASTER eligible structures are currently in design or design is completed.
- Approximately 24% of FASTER eligible structures are remaining.

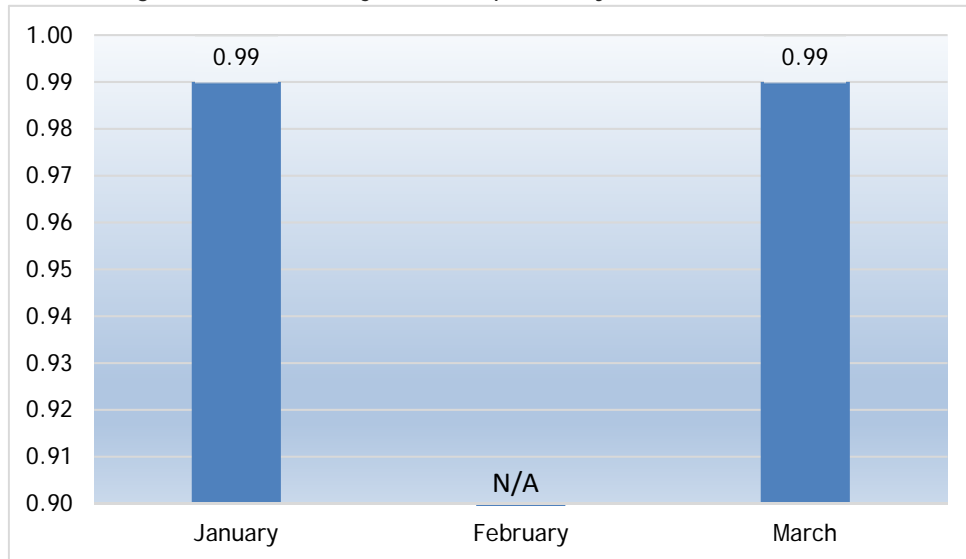
¹ F-16-OG was repaired through CDOT maintenance efforts and classification as "Completed". The structure has been reclassified as "Remaining" since it was included in the most recent update of the Staff Bridge "Poor" List.

Program Activities and Accomplishments in Q3 FY2018

Program Schedule Update

Due to complications related to the recent cyber-attack on the CDOT network, the program schedule was only updated two times during the period for work completed in January, February, and March of 2018. This includes publishing the monthly updated program bar-chart schedule, cost and schedule database, and list of projects with a Schedule Performance Index (SPI) less than 0.90. This information was consolidated and distributed to the Regional Transportation Directors (RTDs) and their respective Program Engineers. The SPIs reported for each month during the quarter are graphically depicted in *Figure B* below. Historically, BE has reported an overall program SPI. This metric currently has marginal value due to dilution of the SPI, which has resulted from a significant number of completed projects with an SPI = 1.0. It was determined that reporting active project SPI would provide a better indication of the status of projects in the BE program.

Figure B. Active Project SPI Reported by Month, for the Period



New CDOT “Poor” Bridge Definition

As part of the Fixing America’s Surface Transportation Act (FAST Act), the final performance measures and rules regarding bridge condition became effective on May 20, 2017. The percentage of NHS bridges classified as “Good”, “Fair”, and “Poor” as defined by FHWA in 23 CFR 490.409 are required for both statewide and MPO reporting.

Per 23 CFR 490.409, the assignment of the classification of “Good”, “Fair”, and “Poor” shall be based on the bridge’s condition ratings for the following National Bridge Inventory (NBI) items as shown in Figure C below:

Figure C: Bridge Condition Ratings based on the NBI Rating Scale

NBI Rating Scale <i>(from 0 – 9)</i>	9	8	7	6	5	4	3	2	1	0
	Good			Fair		Poor				
Deck <i>(Item 58)</i>	≥7			5 or 6		≤4				
Superstructure <i>(Item 59)</i>	≥7			5 or 6		≤4				
Substructure <i>(Item 60)</i>	≥7			5 or 6		≤4				
Culvert <i>(Item 62)</i>	≥7			5 or 6		≤4				

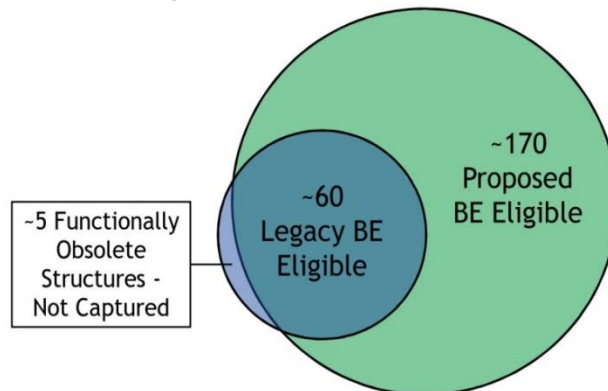
Classification of "Good" - lowest rating of Items 58, 59, and 60 must be 7 or greater

Classification of "Poor" - lowest rating of Items 58, 59, and 60 is 4 or less

For culverts, Item 62 will determine the classification

To be eligible for FASTER funding, a bridge must have a sufficiency rating less than 50 and be classified as structurally deficient or functionally obsolete. This criterion is based on the legacy CDOT "poor" bridge definition. Since CDOT has recently adopted the FHWA "Poor" definition, BE anticipates that the program eligibility criterion will be updated to align with CDOT. BE performed an analysis to determine how the FASTER eligible bridge population would change under the new criterion and the results showed a significant increase in the current population. See Figure D below. BE staff is presenting the forecasted impacts of the new "Poor" definition to the BE Board of Directors in an April workshop.

Figure D: Forecasted Programmatic Impacts of the New "Poor" Definition



BE forecasts that it will be challenging to address the increasing population due to current program commitments. A more detailed analysis is ongoing to better understand the profile of prospective projects. Based on preliminary findings, it appears that some of the projects may be good candidates for major rehabilitations, which may prove to be an effective use to funding when compared to full bridge replacements.

Four-Year Program Plan

In Q3, Bridge Enterprise staff began work on the program’s Four-Year Program Plan which incorporates current program commitments, the BE Prioritization Plan, forecasted revenues, Department/FHWA policy or guidance, Board resolutions, etc. The release of the FY2019-FY2022 plan was delayed to Q4 FY18 due to complications related to the cyberattack on the CDOT network. The timing of future yearly plan releases will be adjusted to Q3 to align with CDOT’s Statewide Transportation Improvement Program (STIP) and the biannual update of the On-System Poor Bridge List in December.

The plan will include: an update on active BE projects and program fiscal information; a summary of the FY18 program; and the program forecast for FY2019-FY2022. A parametric risk-based cost estimate will also be provided for all potential upcoming projects in the plan.

Central 70 Project Update

The FASTER Eligible portion of the Central 70 project includes approximately 8.5 miles of I-70 between Brighton Blvd. and I-270 in Denver. Four FASTER eligible structures from the top tier of the June 2017 BE Prioritization Plan, including the Viaduct (I-70 over US6, UPRR and CCD St.), are included in the project scope. The project represents a major investment for the BE program, and approximately 60% of BE’s current statewide eligible bridge deck area will be addressed by the project. Additionally, the Viaduct was identified as one of the 30 worst bridges in the state when the Enterprise was created in 2009, and will be the last of the 30 worst bridges to be addressed.

In Q3 FY18, BE staff coordinated with the project team, Region 1 staff, and Office of Finance Management and Budget (OMFB) staff to determine the necessary actions to authorize the project. The project has been TIP’d by DRCOG, and STIP’d and budgeted by BE. Additionally, the project completed several significant milestones which are summarized in Table 3 below.

Table 3. Completed Central 70 Project Milestones

Date	Milestone
Jan. 24, 2018	Central 70 Initial Financial Plan was approved by the Federal Highway Administration (FHWA) Feb 9, 2018: Notice to Proceed 1 was issued by the Enterprises.
Feb. 9, 2018	The Kiewit Meridiam Partners (KMP) Baseline Schedule was unconditionally accepted.
Feb. 13, 2018	KMP began submitting 30% design plans for review.
Feb. 26, 2018	Mobilization of initial Enterprises and KMP staff to the temporary co-located project office, which is located at 10825 E 47 th Avenue, Denver, CO 80239.
Mar. 9, 2018	Union Pacific Railroad (UPRR) Approval of 100% Issued for Construction Track Plans.
Mar. 24, 2018	Colonial Motel demolition began.

For additional information, Central 70 Quarterly Status Report for Q3 FY18 has been included in Appendix B.

Budget and Encumbrance Balances

Bridge Enterprise staff continues to coordinate with the Region staff to de-budget projects that are substantially complete in accordance with the SB 16-122. *Table 4* shows the encumbrance and budget balances as of March 31, 2017, by Region, for projects that have been substantially complete for more than six months.

Table 4. Projects Substantially Complete over Six Months Aging Encumbrance and Budget Balances

Region	Encumbrance (\$)	Budget Balance (\$)	Projects	Phases
1	1,793,381	521,799	5	6
2	-	-	0	0
3	-	-	0	0
4	-	-	0	0
5	470,810	138,992	1	1
Total	2,264,191	660,790	6	7
% of Total Current Program	6.4%	1.0%	23.0%	12.1%
Previous Quarter (Q2 FY2018)	2,027,399	567,440		
Difference	236,792	93,350		

Since December 31, 2017 the budget and encumbrance balances increased by \$330,142. During this time, one project was removed from the project count and one was added.

Removed/Closed Out:

- US 50/BNSF RR over Draw (L-28-C & L-27-S)

Additions:

- SH 90 over Dolores River (K-01-C)

Program Financial Information

The following is a program overview of financial statistics as of March 31, 2018.

- The program has multiple funding sources including: proceeds from the Build America Bond program, FASTER bridge dollars which is commonly referred to as the statewide pay-go program (collected yearly revenues from vehicle registrations), Bank of America Loan, and Other Funds which are primarily Federal-aid BR funding.
- From program inception (life-to-date) through March 31, 2018, a total of \$994.5M has been budgeted (all funding sources), and Expenditures and Encumbrances are \$893.0M and \$35.8M (all funding sources), respectively. Reference *Table 5* below for details by funding source.
- For comparison purposes, the totals from the previous quarterly report (Q2 FY2018) are also reported in the far-right column.
- All \$307.9M of bond proceeds and interest earnings available have been expended as of June 30, 2016.

Table 5. Program Financial Statistics as of March 31, 2017 (\$ in Millions)

	Build America Bonds 2010 A Proceeds	FASTER Bridge	Bank of America Loan	Other Funds	Total Q3 FY2018	Total Q2 FY2018
Budget	\$307.9	\$581.4	\$40.7	\$64.5	\$994.5	\$959.0
Expenditures	\$307.9	\$481.3	\$40.7	\$63.1	\$893.0	\$881.3
Encumbrances	\$0.0	\$35.8	\$0.0	\$0.0	\$35.8	\$20.0

- The Statewide Bridge Enterprise program currently consists of 132 funding-eligible structures; including 89 structures budgeted with bond funds. The structure count has increased to recognize three BE eligible Central 70 structures left out of the previous count and the addition of an emergency project (G-25-K). The current programmed amount for these 132 structures is approximately \$1,396.7M. This amount has increased slightly from last quarter due to the addition of the emergency project. *Table 6* below provides an itemization of current funding sources for the Bridge Enterprise program.

Table 6. Current Allocation Plan (\$ in Millions)

Build America Bonds	FASTER Bridge	Other Funds	Bond Interest	Total
\$298.1	\$983.6	\$105.2	\$9.8	\$1,396.7

Attached is the Program Allocation Plan² that tracks BE projects programmed since the beginning of the Bond Program by funding source, pre-construction activity and construction activity. In addition, the Program Allocation Plan includes projects that have yet to be budgeted, primarily FY2019, and also includes budget adjustments that have not been posted to the accounting system as of March 31, 2018. Projects that were budgeted prior to the Bond Program are shown in summary at the bottom of the third page as Pre-Bond Projects. The program life-to-date (LTD) total liabilities for the BE program are \$1,396.7M, an increase of \$7.4M from the \$1,389.3M total liability reported on December 31, 2017. This is the result of the addition of an emergency project to the Allocation Plan and adjustments and releases of project budgets.

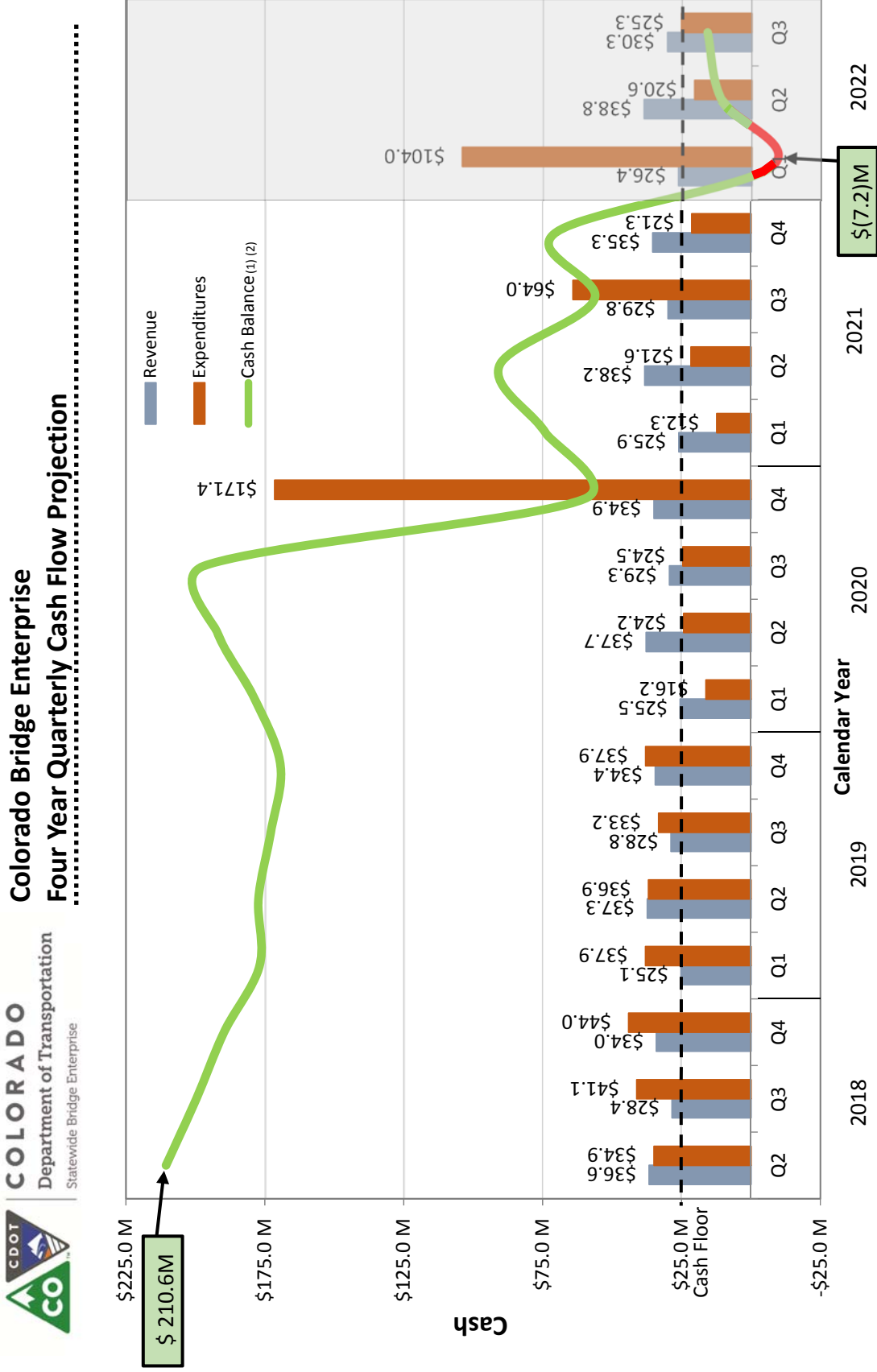
² Reference Appendix B for the Current Allocation Plan

Below is the Four Year Quarterly Cash Flow Projection (*Figure E*), which depicts all current available BE cash balances, forecast revenues, and forecast expenditures for currently programmed projects. BE liabilities and the timing of milestone payments for the Central 70 project are now known due to Financial Close on December 21, 2017. These changes have been incorporated in the cash flow. This forecast model also takes into account Resolution BE 15-8-2 which sets parameters for the use of BE funds during the construction period of the Central 70 project. In addition, the forecast contains the Capital Performance Payment (Availability) which grows at 2% per year.

Bridge Enterprise has forecast the cash balance to decrease by \$217.8M due to the Central 70 project during the period of the Four-Year Cash Flow (April 2018 through March 2022), down to (7.2)M. This projection has remained essentially unchanged since the last quarter. The final milestone and substantial completion payments are now both scheduled in March of 2022, just within the scope of the Four-Year Cash Flow. In accordance with Resolution BE-17-11-1, the contingency for the BE share of potential Supervening Events has been included. In order better quantify the impacts to cash, BE has included a high-level forecast for the second and third quarters of 2022 (the area shaded in gray).

As currently forecast, cash is expected to drop to \$(7.2)M by the end of March 2022 and then begin to climb into a positive balance in the second quarter of 2022. BE will continue to monitor and update the model and incorporate the most current revenue, cash and drawdown forecasts. BE is currently planning to manage project AD Dates in FY2022 in order to maintain a positive cash balance if necessary.

Figure E. Four Year Quarterly Cash Flow Projection



(1) Cash balance includes the use of \$172.3M of preconstruction activities for the Central 70.

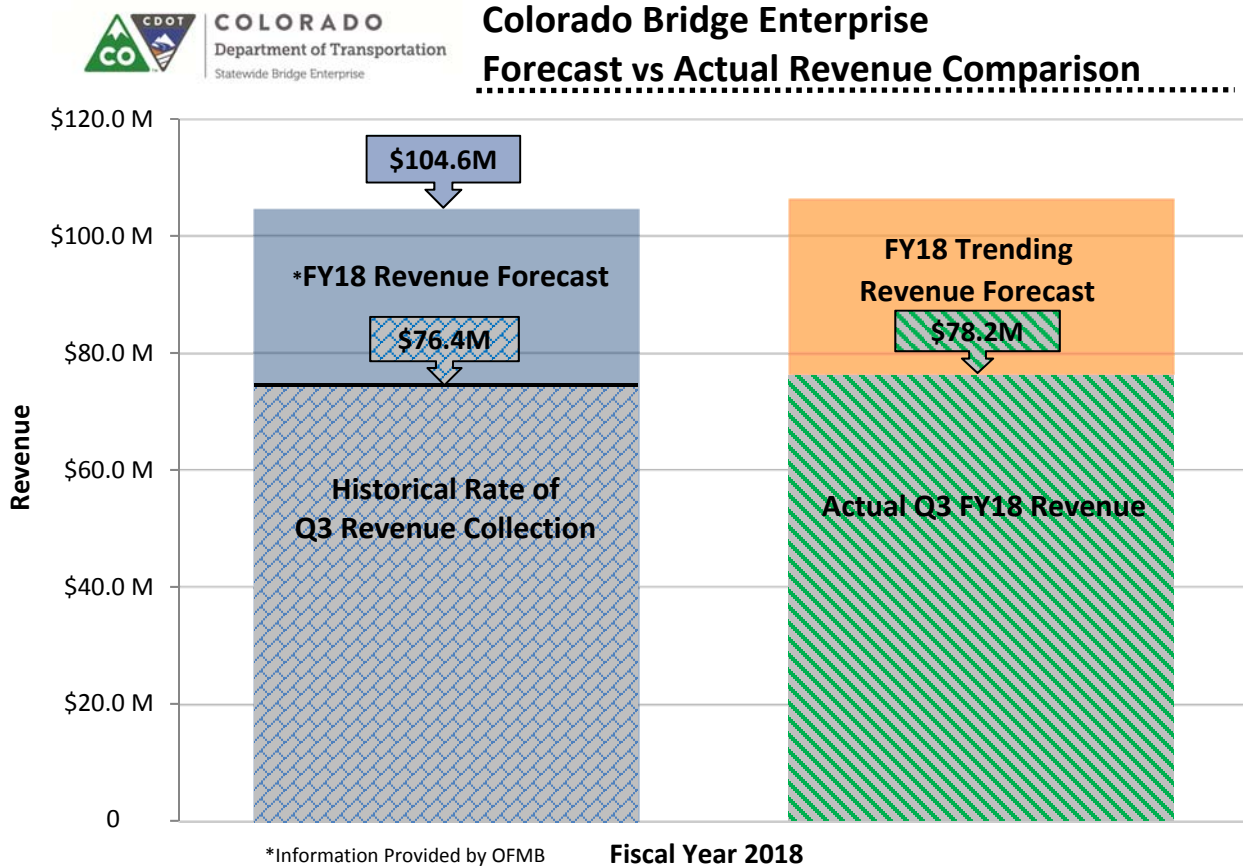
(2) Estimated impact to cash - assuming cash contribution to Central 70 project through Q1 2022, for milestone and availability payments from the most recent financial model

(3) Grayed out area is a high level forecast beyond the limits of the 4 year forecast.

(4) Forecast negative cash will be refined as data and forecasts in the upcoming years are updated and will be mitigated by managing AD dates.

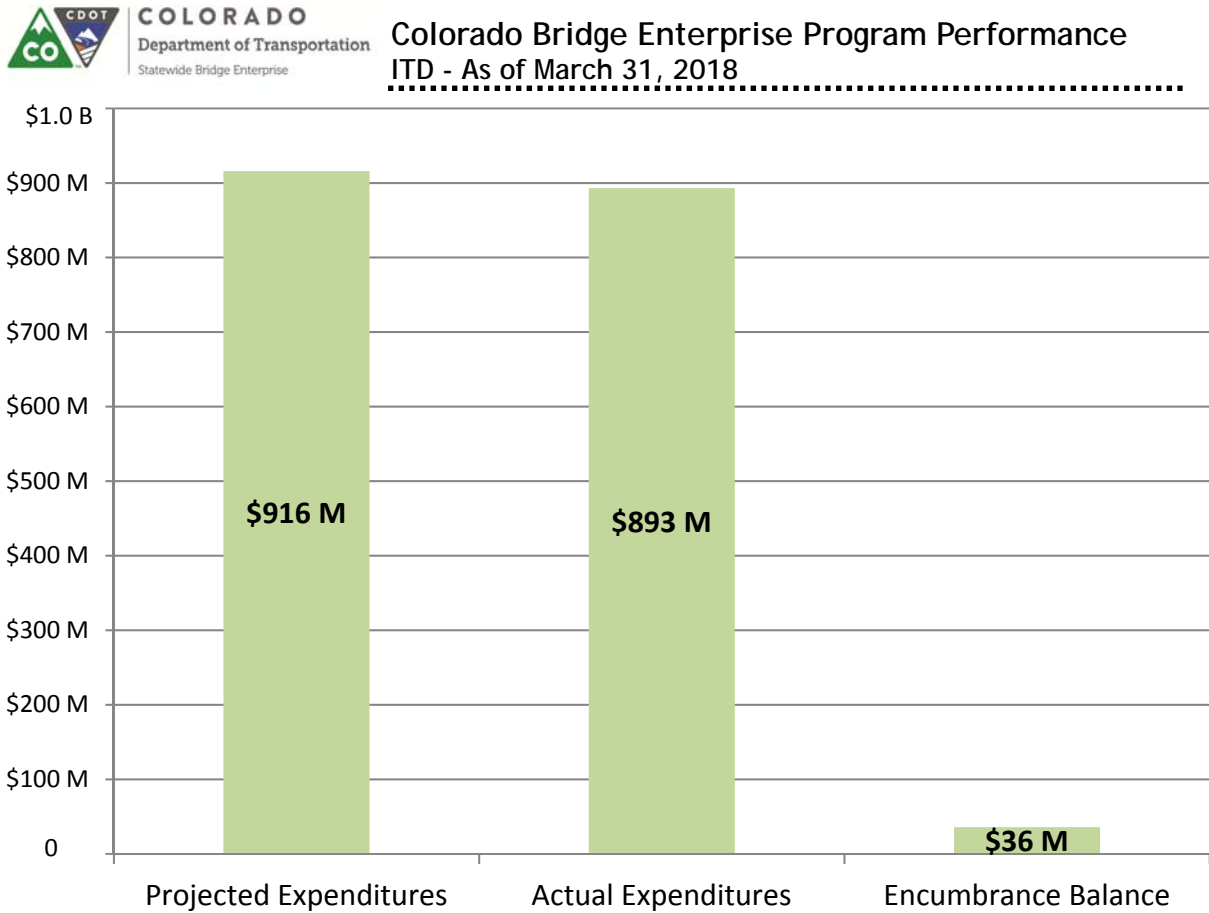
Actual Q3 FY2018 FASTER revenues were \$78.2M, which is \$1.8M above the historical rate of collection, which would tend to indicate an increase for the year. Currently, BE is not forecasting an increase to FY2018 revenues. This information is shown below in *Figure F*.

Figure F. Forecast vs Actual FASTER Revenue Comparison



The Total Program Financial Performance graph (*Figure G*) depicts actual expenditures and encumbrances against projected expenditures, inception to date (ITD). Projected expenditures are forecast at \$916M on March 31, 2018, a slight decrease since December 31, 2017. Actual LTD expenditures as of March 31, 2018 are \$893M as compared to \$881M on December 31, 2017, an increase of \$12M or 1.4%. The current encumbrance balance is \$36M compared to \$20M on December 31, 2017, an increase of \$16M or 80%.

Figure G. Total Program Financial Performance





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Appendix A

Program Allocation Plan

Colorado Bridge Enterprise
Program Allocation Plan - Quarterly Update
As of March 31, 2018 (FY18 -Period 9)

Location	Project Accounting Number	Count	Original Bridge Number	Region	Pre-Construction				Construction				Project Total All Funds	Pre-Construction Start Date	Ad Date	Construction Start Date	Completion Date	
					Total Other Funds	Total FASTER Funds	2010 Bond Proceeds	Bond Interest	Total Pre-Construction All Funds	Total Other Funds	Total FASTER Funds	2010 Bond Proceeds						Bond Interest
US 160 ML over CAT CREEK	18321	1	O-26-L	2	-	340,422	868	-	341,290	-	-	-	-	-	341,290	02/01/11		
US 160 ML over DRAW	18321	1	O-25-I	2	-	-	-	-	-	-	-	-	-	-	-	02/01/11		
US 160 ML over N FK Sand Arroyo	18321	1	O-25-H	2	-	-	-	-	-	-	-	-	-	-	-	02/01/11		
Combined		0	O-26-L, O-25-I/H	2	-	-	-	-	-	12,034	3,543,166	-	-	3,555,200	3,555,200	12/15/11	03/29/12	12/13/12
SH 101 ML over DRAW	18178	1	M-24-B	2	-	268,899	-	-	268,899	-	-	-	-	-	268,899	02/01/11		
SH 101 ML over Purgatoire River - R2	18435	1	L-24-F	2	-	-	132,413	-	132,413	-	-	-	-	-	132,413	02/01/11		
COMBINED CONST. SH 101 ML over DRAW and over PURGATOIRE RIVER	18722	0	M-24-B & L-24-F	2	-	-	-	-	-	-	3,731,491	-	-	3,731,491	3,731,491	11/23/11	03/29/12	10/31/12
SH 266 ML over HOLBROOK CANAL	18179	1	L-22-O	2	-	722,726	-	-	722,726	-	-	-	-	-	722,726	12/01/10		
FT. LYON STORAGE CANAL	18179	1	L-22-E	2	-	-	-	-	-	-	-	-	-	-	-	12/01/10		
SH 71 ML over FT. LYON CANAL	18440	1	L-22-K	2	-	200	743,798	-	743,998	-	-	-	-	-	743,998	07/15/11		
COMBINED CONST. HOLBROOK & FT. LYON CANAL & STORAGE CANAL	18627	0	L-22-O, E & K	2	-	-	799,497	-	799,497	-	32,953	5,486,885	-	5,519,838	6,319,335	09/22/11	08/20/12	03/07/13
US 50 ML over BNSF RR	18155	1	L-28-C	2	-	1,553,259	106,079	-	1,659,338	-	6,166,545	1	-	6,166,546	7,825,884	02/01/11	07/17/14	02/23/15
US 50 ML over DRAW	18155	1	L-27-S	2	-	-	-	-	-	-	-	-	-	-	-	02/01/11	07/17/14	02/23/15
US 350 ML over DRAW	18461	1	O-19-J	2	-	-	299,217	-	299,217	-	-	2,105,844	-	2,105,844	2,405,061	10/15/10	09/20/12	12/03/12
SH 239 ML OVER IRRIGATION CANAL	18461	1	P-19-AD	2	-	-	-	-	-	-	-	-	-	-	-	10/15/10	09/20/12	12/03/12
US 350 ML over PURGATOIRE RIVER	18208	1	O-19-H	2	-	493,712	-	-	493,712	-	34,143	3,153,661	-	3,187,804	3,681,516	10/15/10	02/21/13	04/29/13
SH 120 ML over DRAW, UP RR	18370	1	K-16-S	2	-	505,078	755,829	-	1,260,907	1	4,106,291	312,427	-	4,418,719	5,679,626	03/15/11	06/19/14	10/28/14
I-25 ML over Indiana Ave.	19206	0	L-18-M & L-18-W	2	-	123,988	108,191	-	232,179	-	-	-	-	-	232,179	10/15/12		
Northern Ave. over I-25 ML	19207	0	L-18-AQ	2	-	132,619	2,000	-	134,619	-	-	-	-	-	134,619	10/15/12		
I-25 over Ilex, RR, Bennet	17666	0	K-18-CL	2	7,547,800	599,222	1,908,484	-	10,055,506	-	-	-	-	-	10,055,506	06/01/11		
I-25 over Ilex, RR, Bennet	17666	0	K-18-CK	2	-	-	-	-	-	-	-	-	-	-	-	06/01/11		
I-25 ML over Indiana Ave.	19205	1	L-18-M	2	-	-	-	-	-	-	3,271,797	10,000	-	3,281,797	3,281,797	03/06/14	04/01/15	10/29/16
I-25 ML over Indiana Ave.	19205	1	L-18-W	2	-	-	-	-	-	-	771,562	10,000	-	781,562	781,562	03/06/14	04/01/15	10/29/16
Northern Ave. over I-25 ML	19205	1	L-18-AQ	2	-	-	-	-	-	-	3,918,686	10,000	-	3,928,686	3,928,686	03/06/14	04/01/15	10/29/16
Mesa Ave over I-25 ML	19205	1	L-18-AU	2	-	-	-	-	-	-	3,527,195	10,000	-	3,537,195	3,537,195	03/06/14	02/10/15	10/18/16
I-25 ML NBND over US 50 ML	19205	1	K-18-AX	2	-	-	-	-	-	-	3,469,192	10,000	-	3,479,192	3,479,192	03/06/14	02/10/15	10/19/16
US 50 BUS EBND over Arkansas River	19205	1	K-18-R	2	-	-	-	-	-	-	5,000,941	11,983	-	5,012,924	5,012,924	03/06/14	02/10/15	10/19/16
I-25 over Ilex, RR, Bennet	19205	1	K-18-CL	2	-	-	-	-	-	1,300,757	38,489,977	100,000	-	39,890,734	39,890,734	03/06/14	02/10/15	08/31/17
I-25 over Ilex, RR, Bennet	19205	1	K-18-CK	2	-	-	-	-	-	-	-	-	-	-	-	03/06/14	02/10/15	08/31/17
Sub-Total Ilex									1,300,757	58,449,350	161,983	-	-	59,912,090	59,912,090			
I-25 Frontage Road over Pine Creek	19123	1	I-17-O	2	-	-	168,125	-	168,125	-	-	-	-	-	168,125	10/15/12		
US50 ML over Draw Cotopaxi-Texas Creek	19304	1	K-14-J	2	-	-	342,596	-	342,596	-	1,452,992	-	-	1,452,992	1,795,588	10/30/12	06/12/14	03/01/15
SH69 ML over Milligan Arroyo	19055	1	M-16-P	2	-	3,460	385,840	-	389,300	-	-	-	-	-	389,300	12/19/12		
	22320					42,187			42,187		4,312,863			4,355,050				
I-25 Bus Route over Sull Creek	19054	1	N-17-C	2	-	3,876	558,109	-	561,985	-	-	1,910,242	-	1,910,242	2,472,227	12/19/12	10/24/13	02/17/14
SH160 ML over Smith Canyon	19053	1	P-23-A	2	-	-	373,691	-	373,691	-	1,775,780	-	-	1,775,780	2,149,471	12/19/12	02/05/15	05/26/15
SH71 over ARKANSAS RIVER	21012	1	L-22-L	2	-	511,600	-	-	511,600	-	6,000,000	-	-	6,000,000	6,511,600	05/13/15		
SH 96 over Rush Creek	21011	1	K-17-F	2	-	425,000	-	-	425,000	-	2,546,388	-	-	2,546,388	2,971,388	07/29/15		
I-25 over CO RD640, Butte Creek	20407	1	N-17-BN	2	-	630,700	-	-	630,700	-	14,000,000	-	-	14,000,000	14,630,700			
I-25 over CO RD 103, Butte Creek	20407	1	N-17-S	2	-	-	-	-	-	-	-	-	-	-	-			
I-25 over US 160 ML, RR Spur	22350	1	N-17-AD	2	-	856,700	-	-	856,700	-	13,000,000	-	-	13,000,000	13,856,700			
US 6 ML over EAGLE RIVER	18160	1	F-09-H	3	155,656	150,986	-	-	306,642	-	-	4,201,213	-	4,201,213	4,507,855	09/28/10	05/19/11	07/20/11
US 50 SERVICE RD over GUNNISON RVR	SR 18193	1	J-09-C	3	143,514	-	203,584	-	347,098	-	-	2,369,188	-	2,369,188	2,716,286	06/01/10	06/23/11	08/29/11
US 50 SERVICE RD over GUNNISON RVR	SR 18193	1	J-09-D	3	-	-	-	-	-	-	-	-	-	-	-	06/01/10	06/23/11	08/29/11

Location	Project Accounting Number	Count	Original Bridge Number	Region	Pre-Construction				Construction					Project Total All Funds	Pre-Construction Start Date	Ad Date	Construction Start Date	Completion Date	
					Total Other Funds	Total FASTER Funds	2010 Bond Proceeds	Bond Interest	Total Pre-Construction All Funds	Total Other Funds	Total FASTER Funds	2010 Bond Proceeds	Bond Interest						Total Construction All Funds
I 70 SERVICE RD over COLORADO RIVER SR	18162	1	F-08-F	3	146,819	-	1,805,747	-	1,952,566	-	-	7,966,405	-	7,966,405	9,918,971	04/06/11	09/02/12	09/04/12	09/30/13
Historic Eagle County Bridges Book	19325	0	F-08-F	3	-	22,062	-	22,062	-	-	-	-	-	22,062					
US 40 ML over E FORK ELK RIVER	18138	1	C-09-C	3	-	-	1,517,178	-	1,517,178	-	-	4,117,918	-	4,117,918	5,635,096	04/01/11	12/13/12	02/28/13	11/19/13
I 70 ML EBND over US 6, RR, EAGLE RIVER	18159	1	F-11-AC	3	1	-	1,779,324	-	1,779,325	-	12,457,691	500,000	-	12,957,691	14,737,016	04/01/11	03/06/14	07/19/14	05/05/17
I 70 ML WBND over US 6, RR, EAGLE RIVER	18159	1	F-11-AB	3	-	-	-	-	-	-	-	-	-	-		04/01/11	03/06/14	07/19/14	05/05/17
SH 82 ML over I70 ML, COLORADO RVR, RR	18158	1	F-07-A	3	75,569	31,010,894	10,537,357	-	41,623,820	1,675,353	54,923,984	-	-	56,599,337	98,223,157	05/11/11	07/01/15	01/01/16	06/30/18
PEDESTRIAN BRIDGE over COLORADO RVR	21122	0		3	-	-	-	-	-	6,492,960	7,975,809	-	-	14,468,769	14,468,769	05/11/11	07/01/15	01/01/16	12/31/17
US 34 over NORTH FORK COLORADO RIVER	21010	1	D-13-A	3	-	825,774	-	-	825,774	-	4,900,000	-	-	4,900,000	5,725,774	08/05/15			
I-70 WBND over Colorado River	21007	1	F-05-L	3	231,182	26,919	-	-	258,101	-	-	-	-	-	258,101	08/12/15			
	22359					66,400			66,400		3,909,758			3,909,758	3,976,158				
I-70 EBND over US6,RR, Eagle River	21008	1	F-10-L	3	225,184	26,104	-	-	251,288	-	-	-	-	-	251,288	08/12/15			
	22360					59,813			59,813		3,701,423			3,701,423	3,761,236				
I-70 WBND over Colorado River Overflow	21009	1	G-03-Q	3	410,959	47,567	-	-	458,526	-	-	-	-	-	458,526	08/12/15			
	22170					73,318			73,318		4,291,557			4,291,557	4,364,875				
	22576	1	F-09-K	3		300,000			300,000		2,600,000			2,600,000	2,900,000				
US 24 ML over DRAW	18003	1	G-22-J	4	-	-	-	-	-	799,863	-	244,857	-	1,044,720	1,044,720	04/01/08	12/16/10	05/02/11	08/24/11
US 287 ML over DRAW	17804	1	B-16-AE	4	1,401,692	85,153	139,160	-	1,626,005	-	-	2,338,640	-	2,338,640	3,964,645	04/15/10	05/12/11	07/25/11	05/01/12
SH 14 ML over COALBANK CREEK	18451	1	B-17-L	4	-	1,399,208	249,641	-	1,648,849	-	-	3,358,015	-	3,358,015	5,006,864	12/16/10	11/01/12	04/01/14	09/30/15
I 25 SERVICE RD over LITTLE THOMPSON RIVER SR	18053	1	C-17-BN	4	941,887	-	-	-	941,887	-	-	1,782,003	-	1,782,003	2,723,890	02/01/11	04/05/12	09/04/12	04/12/13
US 34 ML over N FRK REPUBLICAN RIVER	18432	1	D-28-B	4	-	781,069	-	-	781,069	-	-	2,693,477	-	2,693,477	3,474,546	11/23/10	04/26/12	06/25/12	12/14/12
SH 66 ML over ST VRAIN River	18224	1	D-17-AK	4	-	-	1,311,071	-	1,311,071	-	-	4,228,779	-	4,228,779	5,539,850	02/01/11	09/06/12	11/05/12	06/18/14
I-70 FRONTAGE ROAD over DRAW	18610	1	G-21-B	4	-	-	348,714	-	348,714	-	-	1,012,700	-	1,012,700	1,361,414	09/05/11	11/16/12	01/28/13	05/23/13
SH 14 ML over CACHE LA POU DRE RIVER	18085	1	B-16-D	4	1,395,490	351,788	753,947	-	2,501,225	611,742	9,946,160	-	800,000	11,357,902	13,859,127	07/14/09	06/19/14	09/22/14	11/20/15
US 85 ML over UPRR Nunn Bridge	18669	1	B-17-C	4	-	-	1,254,778	-	1,254,778	-	3,053	6,009,722	-	6,012,775	7,267,553	06/24/11	01/10/13	03/17/13	06/13/14
SH60 over SOUTH PLATTE RIVER	21146	1	C-17-B	4		1,170,375	-	-	1,170,375	-	9,929,000	-	-	9,929,000	11,099,375	06/17/15			
I-25 ML over County Road 48	20999	1	B-16-EU	4	-	737,900	-	-	737,900	-	3,900,000	-	-	3,900,000	4,637,900				
Prospect Road over I-25	22248	1	B-16-AM	4	-	2,903,200	-	-	2,903,200	-	18,482,900	-	-	18,482,900	21,386,100				
I-25 ML over DRAW (Hillsboro)	22482	1	C-17-EL	4	-	78,100	-	-	78,100	-	3,526,600	-	-	3,526,600	3,604,700				
SH59 over I-70 (Emergency)	22566	1	G-25-K	4		1,150,000			1,150,000		8,400,000			8,400,000	9,550,000				
SH 145 ML over LEOPARD CREEK	18231	1	L-04-B	5	-	-	506,177	-	506,177	47,559	-	3,301,616	-	3,349,175	3,855,352	02/01/11	03/15/12	05/15/12	05/30/13
SH 62 ML over UNCOMPAGRE RIVER	18323	1	L-05-B	5	-	1,012,619	268,923	-	1,281,542	3,380	-	6,519,674	-	6,523,054	7,804,596	02/01/11	02/09/12	04/24/12	05/30/13
SH90 over DOLORES RIVER	20817	1	K-01-C	5	-	965,694	-	-	965,694	-	5,572,557	-	-	5,572,557	6,538,251	01/30/15			
US 50 over AGATE CREEK	22436	1	K-11-G	5	-	-	-	-	-	-	1,727,162	-	-	1,727,162	1,727,162				
FY 18 Design for Future Years						5,864,100			5,864,100					-	5,864,100				
FY 19 Design for Future Years						5,789,899			5,789,899					-	5,789,899				
														-	-				
														-	-				
														-	-				
														-	-				
PRE-BOND PROJECTS		16		All	2,338,990	85,383	-	-	2,424,373	29,706,723	6,071,211	-	-	35,777,934	38,202,307				
Total		132			\$ 43,202,947	\$ 267,467,406	\$ 52,835,939	\$ 546,911	\$ 364,053,203	\$ 62,022,461	\$ 716,098,149	\$ 245,307,666	\$ 9,279,210	\$ 1,032,707,486	\$ 1,396,760,689	Total Impact all Projects all funds			
															\$ 298,143,605	2010 Bond Proceeds			
															\$ 9,826,121	Bond Interest Earnings LTD			
															\$ 307,969,726	2010 Bonds with Interest:			

Program Funding by Source Summary											
Sources:	Pre-Construction					Construction					Total All Funds
	Other	FASTER	Bond	Bond Interest	Total	Other	FASTER	Bond	Bond Interest	Total	
Federal	\$ 5,106,980	\$ -	\$ -	\$ -	\$ 5,106,980	\$ 21,225,639	\$ -	\$ -	\$ -	\$ 21,225,639	\$ 26,332,619
State	925,518	-	-	-	925,518	143,827	-	-	-	143,827	\$ 1,069,345
Local	25,139,799	-	-	-	25,139,799	11,984,673	-	-	-	11,984,673	\$ 37,124,472
FASTER	-	267,467,406	-	-	267,467,406	(1)	716,098,149	-	-	716,098,148	\$ 983,565,554
Bank of America Loan	12,030,650	-	-	-	12,030,650	28,668,323	-	-	-	28,668,323	\$ 40,698,973
2010 Bonds	-	-	52,835,939	-	52,835,939	-	-	245,307,666	-	245,307,666	\$ 298,143,605
Bond Interest	-	-	-	546,911	546,911	-	-	-	9,279,210	9,279,210	\$ 9,826,121
Future Funds	-	-	-	-	-	-	-	-	-	-	\$ -
Total	\$ 43,202,947	\$ 267,467,406	\$ 52,835,939	\$ 546,911	\$ 364,053,203	\$ 62,022,461	\$ 716,098,149	\$ 245,307,666	\$ 9,279,210	\$ 1,032,707,486	\$ 1,396,760,689



COLORADO
Department of Transportation
Statewide Bridge Enterprise

Appendix B

Central 70 Quarterly Status Report



Quarterly Status Report

January through March 2018



PREPARED BY:



IN CONSULTATION WITH:



DATE: May 17, 2018

TO: Transportation Commission, Bridge Enterprise Board of Directors, High Performance Enterprise Board of Directors

FROM: Tony DeVito, Project Director, Central 70 Project, David Spector, Director, High Performance Transportation Enterprise

SUBJECT: Quarterly Update

PROJECT PROGRESS

This memo summarizes the status of the Central 70 Project across the following areas:

- Status of Notice to Proceed
- Status of Pre-Development Budget
- Status of Community Commitments

ACTION

No actions are requested at this time. This memo is for information purposes only.

BACKGROUND

Per the Central 70 Project Intra-Agency Agreement, dated August 22, 2017, the Central 70 Project Director shall provide quarterly updates to the Transportation Commission, Bridge Enterprise Board of Directors, and the High Performance Transportation Enterprise Board of Directors through Final Acceptance.

MATTERS REQUIRING POLICY INPUT

None at this time.

COMPLETED AND UPCOMING MILESTONES

- Aug 31, 2017: Announcement of Preferred Proposer
- Nov 21, 2017: Commercial Close
- Dec 21, 2017: Financial Close
- Jan 24, 2018: Central 70 Initial Financial Plan was approved by the Federal Highway Administration (FHWA)
- Feb 9, 2018: Notice to Proceed 1 was issued by the Enterprises.
- Feb 9, 2018: The Kiewit Meridiam Partners (KMP) Baseline Schedule was conditionally accepted.
- Feb 13, 2018: KMP began submitting 30% design plans for review.

- Feb 26, 2018: Mobilization of initial Enterprises and KMP staff to the temporary co-located project office, which is located at 10825 E 47th Avenue, Denver, CO 80239.
- Mar 9, 2018: Union Pacific Railroad (UPRR) Approval of 100% Issued for Construction Track Plans
- Mar 24, 2018: Colonial Motel demolition began

Upcoming Milestones

- Jun 14, 2018: Notice to Proceed 2 issued by the Enterprises – commencement of construction related activities and operations and maintenance (O&M) during construction (excluding snow and ice)
- Sep 1, 2018: Notice to Proceed 3 issued by the Enterprises – commencement of snow and ice O&M activities

LAWSUIT UPDATE

Lawsuit/Complaint	Status
Lawsuit filed against Environmental Protection Agency (EPA) regarding Air Quality standards	Ruling in EPA’s favor
Title VI complaint filed against FHWA regarding Environmental Justice	Administrative decision in the Colorado Department of Transportation’s (CDOT) favor
Drainage lawsuit against City of Denver	Ruling in City of Denver’s favor
National Environmental Policy Act (NEPA) Lawsuit filed against FHWA regarding connected action	Lawsuit dismissed with prejudice
NEPA lawsuit filed against FHWA regarding environmental issues	Injunction denied, awaiting court decision on merits

CRITICAL ISSUES

The UPRR and Burlington Northern Santa Fe (BNSF) Railroad Agreements were not executed prior to Commercial Close. The UPRR agreement was executed on February 2, 2018 and sent as Enterprise Change Notice 003 to KMP to incorporate into the Project Agreement. KMP has submitted a Preliminary Supervening Event Submission (PSES) due to the execution date of the UPRR Railroad Agreement. The BNSF agreement is still in negotiations and anticipated to be executed in summer of 2018. This does not impact critical path of the Project.

The Project Agreement restricts KMP from starting construction of the UPRR bridge until after the UPRR completes the 36th Yard Expansion construction (Phase 0). UPRR was originally scheduled to complete this work prior to Notice to Proceed 2 (commencement of construction activities). KMP has submitted Supervening Event Notice 2.0 for this delay. This work is now

scheduled to be completed in October 2018. The Enterprises are currently working with the UPRR on mitigating this impact to the Project schedule.

KMP has not received approval of the Baseline Schedule by any of the railroads as of the date of this report. This is a Project Agreement requirement and KMP committed to having these approvals by Notice to Proceed 1 (commencement of design activities) plus 60 Working Days as a condition of the Enterprises’ issuance of Notice to Proceed 1 in February 2018. KMP has submitted the schedule to UPRR for review, but has not submitted the schedule to either BNSF or Denver Rock Island Railroad (DRIR). KMP is currently negotiating a time extension with the Enterprises for an additional 30 Calendar Days to fulfill the conditions associated with the issuance of Notice to Proceed 1.

KMP’s monthly schedule update is indicating that the design of the project is behind schedule. KMP is developing a recovery schedule to mitigate this impact to the Project.

SCHEDULE STATUS

The Enterprises conditionally accepted the Baseline Schedule on February 9, 2018. As part of these conditions, KMP must submit a Revised Baseline Schedule by June 22, 2018.

KMP is reporting that the Project is 9.57% complete thru the end of March 2018. Design is 41.86% complete and Construction is 0% complete.

Event	Baseline Date	Forecast Date	Status
Commercial Close	11/21/2017	NA	Complete
Financial Close	12/21/2017	NA	Complete
Notice to Proceed 1	02/09/2018	NA	Complete
Notice to Proceed 2	06/01/2018	06/14/2018	
Notice to Proceed 3 (Snow and Ice Control Services)	07/01/2018	09/01/2018	
Payment Milestone 1 (Sand Creek Bridge to Chambers Road)	12/09/2019	12/24/2019	
Payment Milestone 2 (Dahlia Street to Sand Creek Bridge)	10/20/2020	11/25/2020	
Payment Milestone 3 (Westbound I-70 Brighton Boulevard to Dahlia Street)	09/26/2020	11/25/2020	
Payment Milestone 4 (Eastbound I-70 Brighton Boulevard to Dahlia Street)	09/05/2021	11/03/2021	
Commence Intelligent Transportation System (ITS)/Tolling Testing/Integration	09/06/2021	11/04/2021	
Substantial Completion	03/04/2022	05/02/2022	
Final Acceptance	06/25/2022	08/23/2022	

BUDGET STATUS

No changes to the project budget have occurred in the reporting period.

Enterprises Costs Estimate	Amount
Environmental Phase	\$40.3M
Procurement Phase	\$80.8M
Delivery Phase	\$56.8M
Miscellaneous Enterprise Reserve	\$10.2M
ROW Phase	\$131.3M
Utility Phase	\$41.7M
Enterprises Construction Total	\$350.9M

In addition to the funds listed in the table above, the Enterprises have established a contingency (funded by the Department and Colorado Bridge Enterprise) to cover additional costs due to Supervening Events and Change Orders during the construction phase of the Project. Per the Project Agreement, the Enterprises have the option of paying KMP for changes via a lump sum payment or by adjusting the annual availability payment. The current balance of this contingency fund is provided in the table below.

Contingency	Amount
Enterprises Change Order/Supervening Event Initial Contingency	\$43.3M
Executed Change Orders – Previous	\$0M
Executed Change Orders – Current Period	\$0M
Remaining Enterprises Change Order/Supervening Event Contingency Balance	\$43.3M

CONTRACT CHANGE NOTICES

As of March 31, 2018, the Enterprises have issued (8) Enterprise Change Notices, received (8) Developer Change Notices, issued (1) Directive Letter, received (3) Supervening Event Notices, received (1) Preliminary Supervening Event Submission, received (0) Detailed Supervening Event Submissions, and executed (8) Change Orders. The change orders executed to date have all been for minor revisions to the Project Agreement that have no schedule or cost impacts to the Project.

No claims have been filed by KMP against the Project and the Dispute Resolution Panel (DRP) has not been utilized. The DRPs members will be finalized in May 2018.

QUALITY ISSUES

A summary of the Enterprises’ quality oversight program of KMP is provided in the table below. The Enterprises conduct assessments of KMP’s performance of project activities based on risk, with higher risk activities being evaluated on a more frequent basis. Conformances indicate that

KMP is fully compliant with the Project Agreement requirements, while nonconformances indicated that KMP’s performance is not fully compliant with the Project Agreement and requires correction.

Month	Conformances	Nonconformances	Conformance Percentage
January 2018	111	55	67%
February 2018	67	14	83%
March 2018	151	81	65%

Audits conducted by the Enterprises in January consisted primarily of KMP management plan submittals required for Notice to Proceed 1. Audits conducted in February and March consisted of evaluation of KMP’s implementation of management processes and design submittals. For March, the Enterprises and KMP both noted poor quality of 30% Design Plan and Management Plan packages submitted. KMP is implementing a Corrective Action Plan to attempt resolution of this issue.

KMP has not begun any construction activities except for some early field investigations and property demolition supporting the design development.

SAFETY ISSUES

Field activities consisted of survey, potholing, geotechnical borings, and demolition. There was one vehicle incident involving KMP staff during the reporting period. KMP will provide accident information within the project limits starting with Notice to Proceed 2.

MAINTENANCE/TRAFFIC ISSUES

No Maintenance/Traffic issues have been identified at this time. Only limited field activities supporting the project design are occurring (temporary lane closures for survey, potholing, and utility relocations).

CIVIL RIGHTS STATUS

KMP’s Small and Disadvantaged Business Participation Plan and its Workforce Development Plan were submitted at the end of January.

At the monthly civil rights meeting on February 15, it was brought to the Enterprises’ attention that Kiewit may not have paid some of its subcontractors monthly, which is a possible violation of Section 17.5 of the Project Agreement. The Enterprises are conducting a process audit of invoices and payments to subcontractors to identify any non-conformances related to Section 17.5. In addition, the Enterprises have requested (and KMP has agreed) to make civil rights an official “task force” and to hold such task force meetings on a biweekly basis in order to increase coordination and early issue identification.

KMP has been an active partner in workforce development and has enrolled several local hires to date.

MITIGATION/COMMUNITY COMMITMENTS STATUS

As of the date of this report, 65 of the 148 identified Record of Decision (ROD) mitigation measures are either in progress or completed. The Enterprises have made significant progress toward completing one of the more complex and time-intensive mitigations--providing home improvements to approximately 280 homes located near the I-70 viaduct. These improvements are being provided via a partnership with the City of Denver and several nonprofits, which has further leveraged CDOT's commitment and provided over 1,000 different improvements to these homes. In February, the WORKNOW program was launched. WORKNOW is a new employment platform designed to help place, retain and advance workers on the Central 70 Project and other regional infrastructure projects. In its first months of operation, WORKNOW enrolled 293 individuals needing varying levels of support, training and job placement. Eighty-eight WORKNOW enrollees were placed in new positions across the construction industry.

The Enterprises have completed two ROD re-evaluations to date. Two additional ROD re-evaluations are in progress. Re-evaluation #3 will make minor adjustments to the construction limits and re-evaluation #4 will incorporate KMP's Alternative Technical Concepts from the KMP proposal design.

COMMUNITY ENGAGEMENT AND COMMUNICATIONS

The Enterprises have continued to focus on neighborhood outreach as the start of construction approaches. This includes monthly "chips and chats" at a local restaurant, newsletters and e-blasts, briefings to nonprofit organizations and community leaders, and presence at community events. The team is also increasing outreach to the broader commuter audience through various media platforms. The Project is featured regularly on tv news and print media and the team is working in partnership with the Developer to develop messaging around construction coping and awareness.