



# COLORADO

Department of Transportation

Division of Accounting and Finance

2829 West Howard Place  
Denver, CO 80204

## MEMORANDUM

**TO:** TRANSPORTATION COMMISSION  
**FROM:** JEFF SUDMEIER, CHIEF FINANCIAL OFFICER (CFO)  
**DATE:** OCTOBER 17, 2018  
**SUBJECT:** FY 2017-18 REVENUE RECONCILIATION / ALLOCATION OF PROGRAM RESERVE FUNDS

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### Purpose

This memorandum summarizes the Fiscal Year (FY) 2017-18 revenue reconciliation, the resultant Transportation Commission (TC) Program Reserve Fund balance, and options for the allocation of funds.

### Action

No action is requested this month. Staff requests TC direction on options relating to the allocation of TC Program Reserve funds, including additional funds resulting from FY 2017-18 revenue reconciliation and FHWA redistribution.

### Background & Details

At the close of each fiscal year, DAF compares the forecasted revenues to the actual revenues and presents to the TC for review and further action.

#### *FY 2017-18 Revenue Reconciliation*

Attachment A details the reconciliation of forecasted to actual revenues for FY 2017-18. Highlights include:

- CDOT had estimated revenues for the FY 2017-18 budget of \$1.56 billion and received actual revenues, including additional federal obligation authority (FY 2017-18 redistribution), in the amount of \$1.69 billion. The surplus is primarily due to federal redistribution, an additional allocation of federal Surface Transportation Black Grant (STBG) funding included in the FY 2017-18 appropriation act passed in March, and higher than forecasted local contributions to Bridge Enterprise (BE) projects.
  - **HUTF** revenues were \$9.9 million higher than forecasted in the FY 2017-18 Annual Budget, totaling \$469 million.
  - **Aeronautics revenue** was higher than anticipated, totaling \$29.2 million in FY 2017-18, an increase of \$6.2 million from the FY 2017-18 Annual Budget.
  - **Federal Highway Administration (FHWA) revenue** was \$11.4 million lower than forecasted, with federal funds, excluding additional federal obligation authority, totaling \$545.3 million.
  - **FHWA Redistribution** - CDOT is eligible to receive an increase in federal obligation authority through the annual Federal Redistribution process. The amount available to states varies each year. For FY2016-17, CDOT received \$44.9 million. CDOT has received a new record amount of \$69.6 million for FY 2017-18 (see Attachment B for more information).
  - **FHWA STBG Supplemental Allocation** - The FY 2017-2019 appropriations act included a supplemental allocation of STBG funding. For Colorado, this totaled \$27 million, with \$17.9 million of that flexible and \$9.1 million passed through via the STP-Metro program.



- The Colorado Bridge Enterprise estimated revenues for the FY 2017-18 of \$112.2 million, and received actual revenue in the amount of \$141.1 million, creating a surplus of \$28.9 million. The majority of this amount is due to the receipt of \$24.9 million from Kiewit Meridiam Partners as part of the closing on the Central 70 project.
- The Colorado High Performance Transportation Enterprise (HPTE) estimated revenues for FY 2017-18 of \$18.7 million, and received actual revenues in the amount of \$17.3 million, a difference of \$1.46 million. The main factor behind the difference was that Tolling Revenues and related fees/fines came in lower than expected, totaling \$9.3 million for the year. A mid-year Fee for Service increase, miscellaneous charges and project revenue helped to offset the decrease in toll revenue.

**CDOT Unused Cost Center Funds**

At the end of each fiscal year, DAF reviews cost center budgets to determine the total amount of unspent funds, if any. Per Policy Directive (PD) 703, some cost centers rollforward automatically, for others a request can be made to rollforward, which requires either Executive Management or TC approval (if greater than \$1 million). Cost center balances that are not rolled forward are transferred into the TC Program Reserve. For FY 2017-18, the total amount of unspent funds transferred to TC Program Reserve was \$3,521,141.

**TC Program Reserve Reconciliation**

The TC Program Reserve shows a projected balance of \$144.4 million for the beginning of October 2018. Table 1 (below) reflects changes to the Program Reserve balance as a result of the FY 2017-18 revenue reconciliation and reconciliation of unused cost center funds. Reconciled revenues that result in transfers to Program Reserve are highlighted in grey in Attachment A. (Note the \$17.9 million in flexible federal funds on line 32 of Attachment A are not reflected below. These funds were received earlier this summer and are already included in the beginning balance of \$144.4 million.) Other revenues not resulting in a transfer to Program Reserve are those revenues dedicated to specific programs (i.e. non-flexible), which are carried forward and reconciled within that particular program. Reconciled revenues transferred to Program Reserve include:

- FY 2017-18 Highway Users Tax Fund Revenue Reconciliation - \$9.9 million
- FY 2017-18 CDOT Miscellaneous Revenue - (\$4.0 million)
- FY 2017-18 FHWA - Flexible - (\$9.4 million)
- FY 2017-18 FHWA Redistribution - \$69.6 million

**Table 1: FY 2018-19 Transportation Commission Program Reserve Reconciliation**

<b>Beginning of October FY 2018-19 TC Program Reserve Balance</b>		<b>\$ 144,391,203</b>
September Allocations to TC Program Reserve		\$ 69,617,062
· FY 2017-18 Revenue Reconciliation	\$ (3,477,440)	
· FY 2017-18 Federal Redistribution	\$ 69,573,361	
· FY 2017-18 Return of Unused Cost Center Funds (End-of-Year TC Allocation)	\$ 3,521,141	
<b>Total FY 2017-18 TC Program Reserve Projected Working Balance</b>		<b>\$ 214,008,265</b>
<b>FY 2018-19 October Pending Budget Supplement Items:</b>		<b>\$ -</b>
· No Actions Pending	\$ -	
<b>FY 2018-19 End of October TC Program Reserve Balance<sup>^</sup></b>		<b>\$ 214,008,265</b>

<sup>^</sup>Does not include TC Contingency Balance of \$28.3 million



### Options for the Allocation of TC Program Reserve Funds

The projected October 2018 ending TC Program Reserve balance, reflecting the additions associated with revenue reconciliation including federal redistribution, and return of unused cost center balances, totals \$214 million. Attachment C details some options available for the Commission to consider in allocating these funds and drawing the Program Reserve balance down to a target level. Staff recommends maintaining a balance of approximately \$60 million to accommodate anticipated TC Program Reserve requests in the next year. Potential requests include matching funds for federal grants, ADA Compliance, and additional costs associated with the Union Pacific Railroad settlement, agreed to by the Commission in July 2017.

### **Previously Planned "Draws"**

Staff recommends that the Commission approve three previously planned "draws" on Program Reserve, which have been identified as forecasted expenditures on the monthly Program Reserve balance included in monthly Budget Supplements. Each of these items were previously approved for funding by the Commission, but have not yet been allocated from the Program Reserve balance. These include:

- Union Pacific Railroad (UPRR) Right of Way (ROW) Settlement - \$33.4 million
  - Remaining amount of previously approved payment to UPRR of \$34.9 million, to be utilized for siding extensions/improvements in order to offset the mobility impacts due to the close proximity of US 85 within the UPRR ROW.
- FY 2019 MS4 Water Quality Requirements - \$3.35 million
  - Remaining portion of one-time costs associated with diagnostic cleaning of Permanent Water Quality Facilities, identified as part of EPA Audit, and previously approved by TC in August 2017.
- FY 2019 ADA Compliance Program - \$15 million
  - Remaining FY 2019 ADA Compliance commitment. The TC approved \$5 million of SB 18-001 funding for ADA Compliance in July, leaving \$15 million of the planned FY 2019 ADA Compliance amount remaining.

Additionally, staff recommends allocating \$11.7 million to the TC Contingency in order to bring the TC Contingency back up to the target balance of \$40 million, previously established by the Commission as the targeted beginning of Fiscal Year balance.

### **Other Existing Commitments**

Staff recommends that the Commission approve three other existing commitments. Although these have not been previously identified as planned "draws" on Program Reserve, each reflect existing commitments of the Department for which funding is needed. These include:

- MASH Safety Hardware Compliance - \$25.0 million
  - Funding needed to help address compliance with new Manual Assessment of Safety Hardware (MASH) roadside safety hardware (guardrail, cable barrier, concrete barrier, sign crash worthiness, crash cushions) standards, which were adopted by FHWA and AASHTO in 2017. The reason for the change to the new standard is due to the increased size of the current vehicle fleet and increased understanding of safety performance vehicle populations (vehicle height/size/weight changes) on the roadway resulting in height increase of MASH roadside safety hardware. CDOT is committed to the implementation of MASH roadside safety hardware on state highways and the national highway system. This funding will allow CDOT to prioritize corridors and locations statewide and accelerate the transition to the new standards.
- FY 2019 Surface Treatment - \$16.7 million



- Funding needed to complete restoration of asset management funding levels from reduced levels resulting from advancement of FY 2019 program under RAMP. The TC approved the allocation of \$100 million of SB 18-001 funds to Asset Management in July, which addressed the majority of the restoration of funding, but left a shortfall of \$16.7 million.
- FY 2019 Toll Corridor GP Lane Maintenance Agreement - \$1.8 million
  - Funding needed to address shortfall in Maintenance funding for maintenance agreement on US 36. CDOT makes monthly payments for maintenance performed by Plenary on the General Purpose lanes on the US 36 corridor. The FY 2019 budget for maintenance did not reflect a planned increase in monthly payments, resulting in a shortfall.

### Additional Allocation Options

If the Commission concurs with a target ending balance of \$60 million, and allocating funds to previously planned draws totaling \$63.5 million, and other existing commitments of \$43.5 million, approximately \$47 million remains available to allocate to other needs. These additional allocation options have been identified as priorities by the Executive Management Team and presented in Attachment C in four different categories:

- Maintenance
- Asset Management / Construction
- Advanced Mobility/Mobility Operations
- Project/Program Development and Other Needs

Attachment D provides a narrative description of each, which total approximately \$111 million in need as compared to roughly \$47 million available. Although each of these are priority needs, recognizing the limited amount of funding available, the Executive Management Team reviewed and identified from these options a staff recommendation. The staff recommendation includes:

- Striping - \$8.75 million
  - Funding will provide for the replacement of aged and outdated striping, improving the overall life-cycle age of the system and performance condition of striping, and helping the regions to implement recent statewide striping best practices.
- Rest Area Rehabilitation - \$5 million
  - Funding will address some of the most critical needs associated from an estimated \$28 million in rest area rehabilitation needs, including waste water upgrades at the Vail Pass and Pueblo Rest Areas.
- Noise Walls - \$5 million
  - Funding will be used to address high priority noise wall needs. CDOT recently completed a noise wall inventory. In recent years, most wall funding went to retaining walls. Funding will accelerate efforts to address some of the most deficient noise walls as the noise wall program develops.
- Statewide Asset Data Collection/LIDAR - \$3.25 million
  - Funding will be used to inventory and assess condition of ancillary assets, and on the initial deployment of a statewide LIDAR data collection project to support 3-D modeling, engineering design, traffic safety assessments, and permit compliance.
- Panasonic Connected/Autonomous Vehicle Partnership - \$20 million
  - Funding will fully pay for the FY 19 Phase III (of V) of the Panasonic Data Ecosystem. This phase will deliver up to 1,700 connected vehicles along the I-70 corridor, quarterly software updates and rerouting, construction alerts, dynamic weather alerts, along with other basic safety message including crash notification, queue warnings, variable speeds.
- 811 Utility Compliance - \$5 million



- Funding for 811 Utility Compliance will provide for more detailed utility work on construction projects required by Senate Bill 18-167. Effective August 9, 2018, a majority of CDOT's projects will require a higher level of utility information, identified in SB 18-167 as a SUE Required Project

### **Options**

1. Recommend a different remaining TC Program Reserve balance, making more or less available for allocation.
2. Direct staff to retain the current recommended remaining TC Program Reserve balance, and return for approval in November of previously planned draws, other existing commitments, and the staff recommendation for additional allocation options.
3. Direct staff to return for approval in November with modifications as directed by the Commission.
4. Hold an additional workshop in November to review additional options or discuss options in more detail.

### **Next Steps**

Staff will return in November for approval, or an additional workshop if desired. Additionally, the FY 2018-2019 Annual Budget will be amended to reflect changes resulting from revenue reconciliation, return of unused cost center funds, and the allocation of Program Reserve. Staff will return in a subsequent month to request TC approval of an amended FY 2018-2109 Annual Budget.

### **Attachments**

- Attachment A - FY 2017-18 Revenue Reconciliation
- Attachment B - 2018 Federal Redistribution Fact Sheet
- Attachment C- Presentation
- Attachment D - Additional Allocation Options



**Colorado Department of Transportation  
Attachment A – FY 2017-18 Revenue Reconciliation**

REVENUE SOURCE	FY 2017-18		
	Budgeted	Actual Revenue	Variance
<b>1 STATE FUNDS</b>			
2 HUTF Revenue to CDOT	\$ 459,397,271	\$ 469,316,171	\$ 9,918,901
3 CDOT Miscellaneous Revenue	\$ 28,429,863	\$ 24,408,505	\$ (4,021,358)
4 General Fund Revenue to CDOT	\$ 79,000,000	\$ 79,000,000	\$ -
5 State Infrastructure Bank	\$ 400,000	\$ 533,560	\$ 133,560
6 State Safety Education Funds	\$ 3,870,410	\$ 2,314,123	\$ (1,556,287)
7 Aeronautics Funds	\$ 23,000,000	\$ 29,171,534	\$ 6,171,534
8 Bustang	\$ -	\$ 1,937,529	\$ 1,937,529
<b>9 TOTAL STATE FUNDS</b>	<b>\$ 594,097,544</b>	<b>\$ 606,681,422</b>	<b>\$ 12,583,879</b>
<b>10 FASTER FUNDS</b>			
11 FASTER Safety - State Share to CDOT	\$ 112,517,819	\$ 114,491,246	\$ 1,973,427
12 FASTER Safety - Local Share for Rail and Transit	\$ 5,000,000	\$ 5,000,000	\$ -
<b>13 TOTAL FASTER FUNDS</b>	<b>\$ 117,517,819</b>	<b>\$ 119,491,246</b>	<b>\$ 1,973,427</b>
<b>14 FEDERAL FUNDS</b>			
15 Federal Highway Administration - Flexible	\$ 408,198,018	\$ 398,823,035	\$ (9,374,983)
16 Federal Highway Administration - Inflexible	\$ 118,795,215	\$ 116,795,215	\$ (2,000,000)
17 Federal Transit Administration	\$ 19,555,230	\$ 20,870,759	\$ 1,315,529
18 National Highway Traffic Safety Administration	\$ 9,989,439	\$ 8,848,147	\$ (1,141,291)
19 Federal Aviation Administration	\$ 225,000	\$ -	\$ (225,000)
<b>20 TOTAL NON- EMERGENCY FEDERAL FUNDS</b>	<b>\$ 556,762,902</b>	<b>\$ 545,337,157</b>	<b>\$ (11,425,745)</b>
<b>21 LOCAL MATCHING FUNDS</b>			
22 Local Match for FHWA Funding	\$ 21,323,169	\$ 21,323,168	\$ (1)
23 Local Match for FTA Funding	\$ 10,619,782	\$ 11,819,188	\$ 1,199,405
<b>24 TOTAL LOCAL MATCHING FUNDS</b>	<b>\$ 31,942,951</b>	<b>\$ 33,142,356</b>	<b>\$ 1,199,405</b>
<b>25 Certificates of Participation</b>			
26 Certificates of Participation	\$ -	\$ -	\$ -
<b>27 Total Certificates of Participation</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>28 Total Colorado Department of Transportation Revenue</b>	<b>\$ 1,300,321,216</b>	<b>\$ 1,304,652,181</b>	
<b>29 ADDITIONAL FEDERAL FUNDING OBLIGATION AUTHORITY - PERMANENT RECOVERY &amp; REDISTRIBUTION</b>			
30 Federal Highway Administration - Permanent Recovery	\$ 131,669,300	\$ 131,669,300	
31 Federal Highway Administration - Redistribution	\$ -	\$ 69,573,361	\$ 69,573,361
32 Federal Highway Infrastructure Program Flexible	\$ -	\$ 17,850,572	\$ 17,850,572
33 Federal Highway Infrastructure Program Inflexible	\$ -	\$ 9,074,513	\$ 9,074,513
<b>34 TOTAL ADDITIONAL FEDERAL OBLIGATION AUTHORITY</b>	<b>\$ 131,669,300</b>	<b>\$ 228,167,746</b>	<b>\$ 96,498,446</b>
<b>35 Total Colorado Department of Transportation Revenue &amp;</b>	<b>\$ 1,431,990,516</b>	<b>\$ 1,532,819,927</b>	<b>\$ 100,829,411</b>

**Notes:**

<i>Total CDOT Flexible Revenue &amp; Federal Obligation</i>	\$ 975,025,152	\$ 1,058,971,644	\$ 83,946,492
<i>Total CDOT Inflexible Revenue &amp; Federal Obligation</i>	\$ 456,965,364	\$ 473,848,283	\$ 16,882,919

**Colorado Bridge Enterprise (CBE)**  
**Attachment A – FY 2017-18 Revenue Reconciliation**

REVENUE SOURCE	FY 2017-18		Variance
	Budgeted	Actual Revenue	
<b>36 STATE FUNDS</b>			
37 Interest Income - Exempt	\$ 1,711,000	\$ 3,413,647	\$ 1,702,647
38 Bond Interest Income-Exempt	\$ -	\$ 310,426	\$ 310,426
39 Reimbursement of Expenditures	\$ -	\$ 289,544	\$ 289,544
40 Miscellaneous/Local Project Contributions	\$ -	\$ 25,104,389	\$ 25,104,389
<b>41 TOTAL STATE FUNDS</b>	<b>\$ 1,711,000</b>	<b>\$ 29,118,006</b>	<b>\$ 27,407,005</b>
<b>42 FASTER FUNDS</b>			
43 FASTER - Bridge Surcharge	\$ 104,630,664	\$ 106,023,648	\$ 1,392,983
<b>44 TOTAL FASTER FUNDS</b>	<b>\$ 104,630,664</b>	<b>\$ 106,023,648</b>	<b>\$ 1,392,983</b>
<b>45 FEDERAL FUNDS</b>			
46 Buy America Bonds Credit	\$ 5,900,000	\$ 5,960,695	\$ 60,695
47 Project & Debt Service	\$ -	\$ -	\$ -
48 Re-distributed FHWA for BE Projects	\$ -	\$ -	\$ -
<b>49 TOTAL FEDERAL FUNDS</b>	<b>\$ 5,900,000</b>	<b>\$ 5,960,695</b>	<b>\$ 60,695</b>
<b>50 Statewide Bridge Enterprise Revenue</b>	<b>\$ 112,241,665</b>	<b>\$ 141,102,348</b>	<b>\$ 28,860,683</b>

**Colorado High Performance Transportation Enterprise (HPTE)**  
**Attachment A – FY 2017-18 Revenue Reconciliation**

REVENUE SOURCE	FY 2017-18		Variance
	Budgeted	Actual Revenue	
<b>51 STATE FUNDS</b>			
52 Tolling Fee/Fines	\$ 12,831,849	\$ 9,347,563	\$ (3,484,286)
53 Managed Lanes	\$ 920,000	\$ 1,211,987	\$ 291,987
54 Interest Income - 536	\$ 177,500	\$ 1,473,913	\$ 1,296,413
55 Interest Income - 537	\$ 25,000	\$ 62,493	\$ 37,493
56 Fee for Service	\$ 4,774,500	\$ 5,169,500	\$ 395,000
<b>57 TOTAL STATE FUNDS</b>	<b>\$ 18,728,849</b>	<b>\$ 17,265,456</b>	<b>\$ (1,463,393)</b>
<b>58 High Performance Transportation Enterprise Revenue</b>	<b>\$ 18,728,849</b>	<b>\$ 17,265,456</b>	<b>\$ (1,463,393)</b>
<b>59 Total Transportation Revenue &amp; Federal Obligation</b>	<b>\$ 1,558,186,529</b>	<b>\$ 1,686,018,231</b>	<b>\$ 127,831,702</b>

**60 Notes:**

\*Revenue is subject to change pending final audit.



## FHWA Announces Guidance for Redistribution

On July 6, 2018, FHWA issued their Notice outlining the procedures for the determination and redistribution of unneeded balances of their Fiscal Year 2018 obligation authority.

August Redistribution is an annual process that allows states who demonstrate they can use 100% or more of their annual obligation authority (“ob. limit”) to request additional funds if other states leave funding on the table; or if other USDOT funded programs, such as Infrastructure for Rebuilding America (INFRA), go unobligated during the year. CDOT is historically very successful at demonstrating that it will obligate 100% of the FHWA Formula funds and thus qualifies for FHWA August Redistribution.

## CDOT’s Previous Redistributions.

On August 31, 2018 CDOT was distributed a CDOT record \$69.5 million. Colorado’s share of the national total was 1.66%. The redistributed amount was Colorado’s third consecutive year receiving over \$40M. A large portion of USDOT grants were not obligated during FY18, leading to unusually large national redistribution. FY20 may not result in similarly high redistributions if these grants are obligated as intended.

**CDOT's Most Recent Redistribution Amounts**

Fed Fiscal Year	CDOT Request	Actual Received	National Total	Colorado Share of National Total
2018	119,000,000	69,573,361	4,183,936,196	1.66%
2017	123,000,000	44,872,399	3,137,048,104	1.43%
2016	106,000,000	48,047,076	2,832,803,208	1.70%
2015	121,000,000	27,786,142	1,906,572,178	1.46%
2014	40,000,000	31,769,903	2,117,694,862	1.50%
2013	40,000,000	25,515,737	1,595,648,530	1.60%
2012	15,000,000	15,000,000	1,400,464,387	1.07%
2011	88,000,000	18,953,017	1,182,665,012	1.60%
2010	18,000,000	18,000,000	1,336,569,692	1.35%

## Redistribution Timeline

**July 6:** Initial Notice issued.

**July 18:** State plans/responses to Division Office due.

**August 31:** Final Notice signed & issued; released Obligation Authority (OA) is redistributed to States as additional formula OA.

**September 25:** All FY18 formula funds including redistribution must be obligated.

**September 30:** End of federal fiscal year.



## What will CDOT do with the additional \$69.5 million?

Federal Obligation Authority is the ability to commit FHWA participation and subsequent cash reimbursement to the DOT for eligible expenditures. A prerequisite for qualifying for redistribution of additional authority is that the DOT must demonstrate that the funds will be obligated prior to the end of the federal fiscal year on September 30<sup>th</sup>. Due to the short turnaround required it is advantageous for the DOT to have a pipeline of previously authorized federally eligible projects ready to consume this funding.

CDOT utilizes a cash management tool known as “advance construction” to leverage future anticipated federal revenues in order to start construction projects prior to the the beginning of that fiscal year. CDOT applies the additional current fiscal year revenues toward these projects thereby increasing cash reimbursements for the year.

This equates to additional recognized revenues and therefore creates increased Budget Authority for CDOT.

The increased Budget Authority created by redistribution is provided along with other revenue adjustments to the Transportation Commission through the Program Reserve Fund and will remain in reserve until a decision for allocation to programs or initiatives is made by the TC.

Projects **AUTHORIZED** by FHWA can proceed to construction advertisement if they are in the Statewide Transportation Improvement Program (STIP), have an environmental clearance, and are reviewed by an FHWA engineer and financial analyst prior to project advertisement.

**OBLIGATED** projects are those that FHWA has formally agreed to reimburse CDOT for incurred eligible expenditures. CDOT is capped in the amount it can obligate (and therefore seek reimbursement) by the annual Appropriations Act (plus any redistribution received). CDOT employees often refer to this as the “Ob. Limit” and it is precious due to its limited nature.

**ADVANCE CONSTRUCTION** is a provision granted by FHWA in order to aid DOT’s in “cash managing” projects by leveraging not just current year obligation limit, but also future projected obligation limit. Projects in **ADVANCE CONSTRUCTION** cannot be reimbursed by FHWA until they are “converted” to **OBLIGATED** the following year. In the meantime, DOTs use their state funds to cover the contractor payments.

Therefore, CDOT Finance staff strategically **OBLIGATES** projects with incurred expenses in order to maximize cash inflows from FHWA.



**COLORADO**  
Department of Transportation  
Division of Accounting and Finance

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# Allocation of Program Reserve Funds

TRANSPORTATION COMMISSION

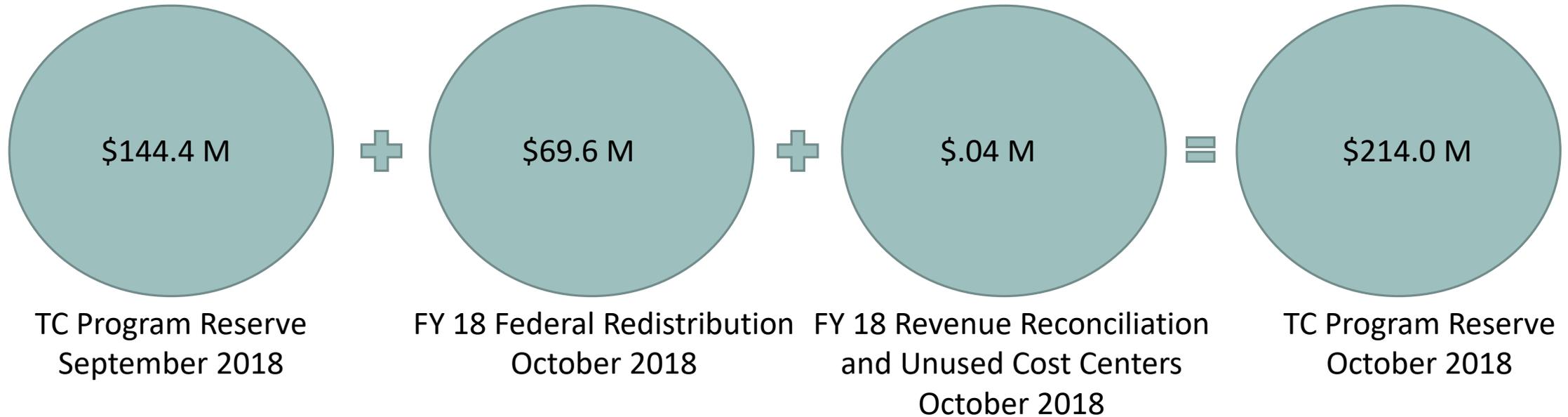
JEFF SUDMEIER, CFO

OCTOBER 17, 2018



# TC Program Reserve

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# Allocation Options

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- Consider previously planned “draws”
- Consider requests to address other existing commitments
- Consider additional allocation options
- Leave sufficient balance to address anticipated needs in FY 20.

# Allocation Options

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- Previously planned “draws” - \$63.5 M
  - UPRR ROW Settlement - \$33.4 M
    - Complete remaining settlement amount, approved by TC in July 2017.
  - FY 2019 MS4 Water Quality Requirements - \$3.35 M
    - Complete funding for FY 2019 MS4 water quality permit compliance at CDOT maintenance facilities, previously approved by TC in August 2017.
  - FY 2019 ADA Compliance Program - \$15 M
    - Complete remaining funding for FY 2019 ADA program pursuant to plan approved by TC in July 2016.
  - Backfill TCCRF balance to equal \$40 M - \$11.7 M
    - Backfill TCCRF to reach target level for FY 2019 of \$40 M.

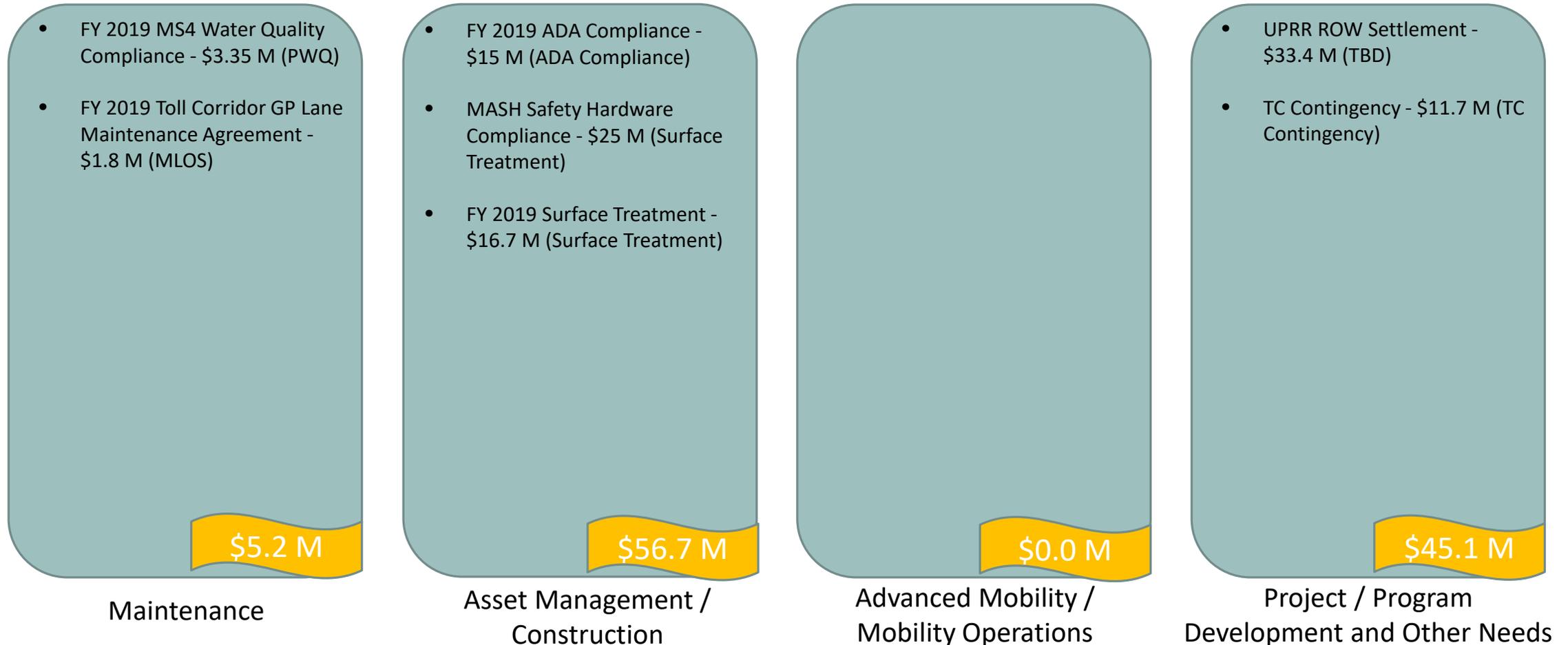
# Allocation Options

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- Other Existing Commitments - \$43.5 M
  - MASH Safety Hardware Compliance - \$25.0 M
    - Provide initial funding to advance efforts to comply with new standards for safety hardware, including guardrail, cable barriers, and crash cushions)
  - FY 2019 Surface Treatment - \$16.7 M
    - Complete funding needed to restore asset management funding levels from reduced levels resulting from advancement of FY 2019 program under RAMP.
  - FY 2019 Toll Corridor GP Lane Maintenance Agreement - \$1.8 M
    - Address shortfall in Maintenance funding for maintenance agreement on US 36.



# Proposed Allocation



(indicates Budget program(s) funds will be allocated to)

# Allocation Options

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\$214.0 M

(\$63.5 M)

(\$43.5 M)

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\$107.0 M

(\$60 M)

\$47.0 M

TC Program Reserve Balance – October 2018

Previously planned “draws”

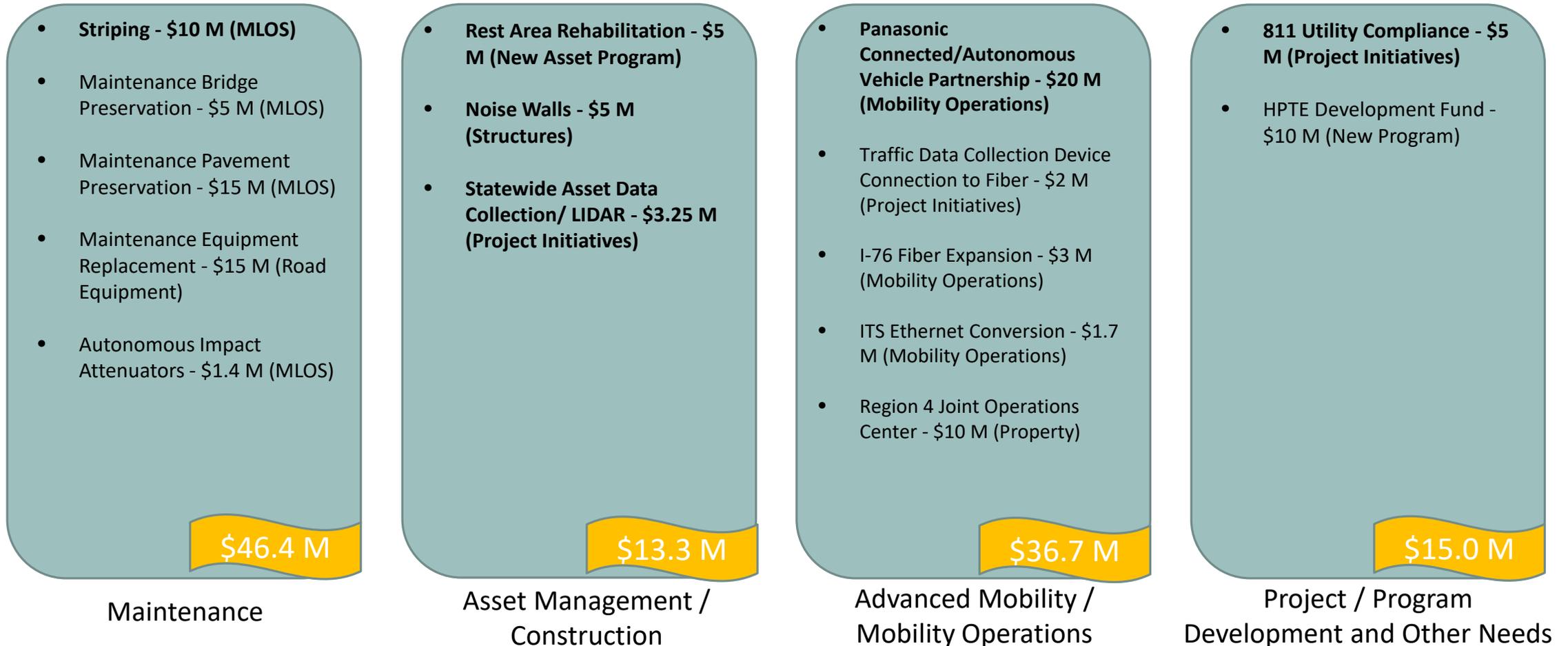
Other existing commitments

Recommended minimum ending balance to accommodate anticipated requests in 2019

Recommended maximum available to allocate to other needs



# Proposed Allocation ~\$47 M available to allocate



(indicates Budget program(s) funds will be allocated to)



# Proposed Allocation



(indicates Budget program(s) funds will be allocated to)

## **Maintenance**

### Striping - \$10,000,000

A statewide asset analysis has shown that regions are under-funded for properly striping the state by about \$10M annually. This has caused the regions to sacrifice either striping or other traffic control device asset replacement. This additional funding will help the regions replace aged and outdated striping, improve the overall life-cycle age of the system and performance condition of striping, and help the regions to implement recent statewide striping best practices (statewide interstate lane wet-reflective tape and localized wider shoulder lines). Not only will the additional striping support better visibility and safety on our roadways, it also lays the groundwork for our support of the automation framework that better enables technology enable driving systems like lane keeping assistance.

### Maintenance Bridge Preservation - \$5,000,000

Requested funds would support an initial deployment of a maintenance preservation programs for bridges, which would include annual cleaning of bridges and a proactive expansion joint replacement program.

### Maintenance Pavement Preservation - \$15,000,000

Requested funds would support an initial deployment of a Maintenance Pavement Preservation Program focused on crack sealing and chip sealing low and medium volume roadways.

### Maintenance Equipment Replacement - \$15,000,000

Requested funds would advance efforts to achieving the goal of having no essential equipment older than 10 years. Funds would be used to replace essential equipment such as snowplows, and paint marking trucks.

### Autonomous Impact Attenuators - \$1,400,000

In 2017 CDOT launched the world's first automated impact attenuator, a lead follow technology that enables the impact attenuator to follow and protect the vehicle and work crew in front of it. The vehicle is currently deployed in Region 4, where it has logged over 70 miles in its first season in support of a CDOT striping crew. Several maintenance team members have been trained in the operations of the vehicle. The requested amount would enable CDOT to deploy an automated attenuator in each region, training new maintenance team members on the technology, preparing for additional roll out of similar technologies to support mowing and other operations.

## **Asset Management**

### Rest Area Rehabilitation - \$5,000,000

CDOT Rest Areas are aging and in need of significant capital investments. CDOT recently concluded a Rest Area Study that identified approximately \$28 million dollars is needed to rehabilitate CDOT rest areas. This is in addition to the regular yearly maintenance needs. The requested amount will address some of the most critical rest area needs including waste water upgrades at the Vail Pass and Pueblo Rest Areas.

## Noise Walls - \$5,000,000

CDOT completed a noise wall inventory last year, and in prior years investments went primarily to retaining walls. After analyzing the new noise wall inventory, additional needs are becoming more clear. The current performance metric is based on structural deficiency, and does not account for customer experience (such as noise abatement, safety hazards, and NEPA required mitigation) in prioritization of investments. A more robust performance metric is in development with Staff Bridge and DTD; however, there are some high priority needs for noise walls that have been identified now. The requested amount will be dedicated to noise walls, and will allow CDOT to get a start at replacing deficient noise walls as the program continues to mature.

## Statewide Asset Data Collection/LIDAR - \$3,250,000

CDOT requires information about physical assets to inform the management, maintenance, and operations of the highway system. Current data collection practices include annual inventory and inspection of bridges, pavements, and other major asset classes; however, ancillary assets such as signs, runaway ramps, pavement markings, light poles, guardrails, and fences do not have a regular data collection activity. Staff have collected that information about ancillary assets manually. Two separate, but complementary projects are proposed to collect ancillary asset data. The first project will allow staff to immediately acquire and use the data. The second project will take more time to collect, extract, quality check, and produce useable data products for the initial collection.

1. Asset Data Extraction Project (\$750,000) – Leveraging the pavement data collection contract (current contract value = \$900k), staff would like to add-on services that will extract an ancillary asset inventory and condition data set. This process would use roadway images, GIS, and GPS coordinates to deliver a precise dataset based on CDOT needs. Additionally, the project will provide a GIS layer of ramp and frontage roads – this information has never been comprehensively inventoried.
2. Statewide LiDAR Data Collection Project (\$2,500,000) – Other state DOTs, such as UDOT, have been benefitting from the use of LiDAR data collection initiatives. In addition to having the ability to collect inventory and condition data for numerous ancillary assets, the data can be used to support 3-D modeling, engineering design, traffic safety assessments, and permit compliance. Staff recently completed a study on conducting an enterprise statewide LiDAR data collection and found that we could achieve a return on investment of 3.5 – the more we use various LiDAR data products across CDOT, the greater value can be realized. Additionally, the cost will decrease over time as the department moves from an initial data collection effort to just change detection – initial estimates are a 20-40% decrease in costs.

## **Advanced Mobility/Mobility Operations**

### Panasonic Connected/Autonomous Vehicle Partnership - \$20,000,000

The requested funds would fully pay for the FY 19 Phase III (of V) if the Panasonic Data Ecosystem. This phase will deliver up to 1700 connected vehicles along the I-70 corridor, quarterly software updates and rerouting, construction alerts, dynamic weather alerts, along with other basic safety message including crash notification, queue warnings, variable speeds.

### Traffic Data Collection Device Connection to Fiber - \$2,000,000

As part of DTD's ongoing project with the ITS Branch, both groups have been working to connect DTD's approximately 110 automated traffic counters (ATRs) to ITS communications and data management systems. To better accomplish this task and improve communication to DTD devices, it would be beneficial to use the existing ITS fiber networks and connect select ATR's (about 50) to those systems, taking advantage of communications CDOT is already building, extending and maintaining. The fiber connections would enhance efficiency, reliability and consistency as well as produce monetary savings to DTD by eliminating the need for landline/cellular connection that are currently employed to connect to counting devices. Use of CDOT's fiber network also would advance CDOT toward our goal of being able to provide up-to-the-minute data internally and to private sector partners, as CDOT works toward a more actively managed, connected and automated transportation system.

#### I-76 Fiber Expansion - \$3,000,000

The requested funds would be used in conjunction with the P3 on I-76. We will leverage this money to add ITS & Network equipment along I-76 where the P3 gave us fiber for the use of our Right of Way. We will install such ITS devices like VMSs, cameras, RSUs and weather station between Hudson and Sterling. This equipment will improve the safety and operations of I-76 between Hudson and Sterling.

#### \$1.7M ITS Ethernet Conversion Phase III - \$1,700,000

A critical upgrade to legacy ITS infrastructure to support future technology in Denver and Pueblo. Ethernet communication is more reliable and secure than the current legacy systems, therefore providing us a stable communication for operations and safety of our roadways system. This deployment will also help these sites support CDOT's integration of Connected Vehicle Technology in its Internet of Roadways deployment.

#### Region 4 Joint Operations Center - \$10,000,000

The requested funds would support the construction of a Region 4 Joint Operations Center at the Region 4 Headquarters in Greeley. Purpose is to improve the safety and mobility of highways in Region 4, both urban and rural, through enhanced real-time operations focused on traffic incident management, managed lanes operations, public messaging, winter operations and maintenance dispatch. Building will also provide general meeting space for Region 4 for large meetings.

### **Project / Program Development and Other Needs**

#### 811 Utility Compliance - \$5,000,000

Funding for 811 Utility Compliance will provide for more detailed utility work on construction projects required by Senate Bill 18-167. Effective August 9, 2018, a majority of CDOT's projects will require a higher level of utility information, identified in SB 18-167 as a SUE Required Project, and CDOT's Professional Engineer ("PE") designing the project must:

- Notify 811 that there is a SUE Required Project is being designed. This is called a SUE Notification.
- Make sure the utilities/underground facilities in the stamped plans are depicted to meet or exceed the graphic standards of American Society of Civil Engineering (ASCE) 38, OR document the reasons why the stamped plans do not meet or exceed ASCE 38 Quality Level B

- Attempt to achieve ASCE 38 Quality Level B SUE investigation for the project or its successor utility level UNLESS a reasonable rationale by a licensed PE is given for not doing so; and
- Document reasons why any underground facilities depicted in stamped plans do not meet or exceed ASCE 38 utility Quality Level A or its successor level for underground facilities at the point of a potential conflict w/ installation of a gravity-fed system.

HPTE Development Fund - \$10,000,000

When RAMP began, a CDOT \$40m HPTE RAMP development fund was created as incubator funds for the development and implementation stages of projects that were likely to be financed in the future, in whole or in part, by HPTE. These funds were used to advance: Eastbound PPSL (\$4.6m); C-470 (\$20m); I-25 North 7&8 (\$25.1m); I-25 North Segment 3 \$2m); I-25 South Gap (\$22.8m); and the Northwest Parkway bid evaluation (\$1.5m). When the RAMP program ended in 2017 it was agreed that, notwithstanding the \$17.9M balance in the RAMP development, further requests of the fund would not be considered and that the development fund would be reevaluated as part of the FY2019-2020 annual budget process. The development fund concept has been an extremely useful tool, and has kept a number of projects moving forward when they otherwise would have stalled. Creating this development fund as part of the TC budget will mean that CDOT and HPTE will be able to move potential HPTE projects forward in the early stages of development and implementation.