**DATE:** August 17, 2016
**TO:** Transportation Commission
**FROM:** Joshua Laipply, Chief Engineer
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**SUBJECT:** Asset Management Budget Recommendation for FY2019-20

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Purpose
This memorandum summarizes the FY2019-20 Asset Management Planning Budget Staff Recommendation for consideration by the Transportation Commission. This is the last in a series of workshops that included an overview of the asset management program in February, and deep-dive discussions on the individual asset category programs in March and April.

Action
Department staff is seeking TC guidance on FY2019-20 Transportation Asset Management budgets for planning purposes. The final TAM FY2019-20 budget will be adopted by the Commission during the FY2019-20 annual budget process around September 2018.

Background
In September 2012, the Colorado Transportation Commission formed the Asset Management Committee (TC-AM) to facilitate a more detailed discussion on asset management with a smaller group to develop an asset management program at the Colorado Department of Transportation (CDOT). The initial priorities of the group were to seek alternative surface treatment analysis, improve fleet equipment management and develop a budget tradeoff tool. Commissioners emphasized that asset management must be incorporated into the budget discussion.

The Asset Investment Management System (AIMS) was developed to forecast performance curves for asset programs based on investment, to perform tradeoff analysis among multiple asset classes, and to perform cross-asset optimization; which optimizes funding in assets to get the greatest possible return on investments. AIMS has informed the asset program allocation recommendations since FY2013-14.

During the joint TC-AM and Commission Statewide Plan Committee meeting in January 2015, the performance metrics and targets for the 11 asset programs were approved by the TC-AM Committee. The TC approved incorporating the performance metrics and targets into Policy Directive 14 (PD-14).

The planning budget recommendations for FY2013-14 through FY2018-19 were approved by the committee in the past, please reference Table 1 for the the most recent four years (FY2015-16 through FY2018-19) of recommendations. FY2015-16 and FY2016-17 were also included in the approved Annual Budget. The committee was dissolved in July 2015, and the action of providing guidance and/or concurring on the planning budget recommendations is being brought to the full commission.

In February 2016, the Commission heard a general overview of the asset management program. In March and April the asset managers from the eleven asset classes provided an in-depth review, including information on inventory, condition, performance metrics, and targets. Note that asset management programs must be able to demonstrate

with a quantified performance measure, the benefit of additional investment. Asset management focuses on capital preservation and replacement and does not fund additional capital projects.

In order to provide predictability to the Regions and to the industry, department staff will use the planning budget in the development of a four-year program of projects, which will be published by the Chief Engineer.

Details

On January 22, 2016, Department staff met in a budget setting workshop convened by Executive Director Bhatt to review the projected performance and proposed FY2019-20 Asset Management funding for eleven asset classes. Staff at the workshop considered the TC adopted performance metrics and targets. During the January 2015 Commission Asset Management Committee meeting, guidance was provided that all TransBond debt service retirement would go to asset management for planning purposes. The total available planning budget is $755M for FY2019-20, comprised of $588M of baseline budget and $167M from the retirement of TransBond debt service.  The total request from the asset managers was $890.2M.

Participants included executive management (including the regional transportation directors), region staff, asset managers and staff from the Division of Transportation Development, the Division of Accounting and Finance, and Office of Program Management. The group reviewed information presented by the Performance and Asset Management Branch Manager and asset managers which included data on the funds needed to meet performance targets, and forecasted performance.

AIMS now has the ability to analyze 10 asset classes – new this year are walls, and tunnels (MLOS is not included). AIMS continues to be refined for future budget analyses. Participants reviewed information from the AIMS cross-asset optimization results before considering the requests from asset managers. After all information was presented, participants provided their individual budget recommendations on FY2019-20 funding levels for each asset program. There was variation on staff recommended budgets for all asset programs due in large part because of the $135M shortfall between funding requests and available funding, and the AIMS budget recommendation versus the funding request. However, after 2 rounds of recommendations, there was little variation in the overall average for asset classes.

Department staff requests that, for planning purposes, the TC concur with the staff recommendation for FY2019-20, as detailed in Table 1. Additionally, Chart 1 shows the percent of total FY2019-20 funds by asset class – of note is the Bridge Enterprise, which constitutes a significant portion of funds allocated to asset programs and is the bulk of funds used in the overall bridge program.  For reference, linked in this memo, is detailed information on the asset management program including an overview presented in February, and forecasted performance and deep dive on individual asset programs that were presented in March (buildings, signals, ITS, road equipment, geohazards, MLOS) and April (surface treatment, bridge, culverts, walls, tunnels).

*Table 1*

| FY2019-20 TAM Budget Setting Recommendations (Millions) | | FY2015-16 | FY2016-17 | FY2017-18 | FY2018-19 | FY 2019-20 Asset Program Request | FY 2019-20 Staff Recommendation |
|---|---|---|---|---|---|---|---|
| Surface Treatment | | $235.9 | $242.1 | $231.4 | $225.4 | $260.0 | $222.0 |
| Bridge | Staff Bridge | $40.0 | $36.6 | $26.8 | $12.0 | $27.4 | $18.6 |
| | Bridge Enterprise | $124.1 | $126.6 | $128.6 | $130.5 | $132.6 | $132.6 |
| MLOS | | $254.4 | $262.6 | $263.5 | $272.8 | $288.9 | $265.7 |
| Road Equipment | | $18.4 | $26.4 | $23.0 | $26.8 | $30.0 | $22.1 |
| ITS (includes $7m salaries/pass thrus) | | $21.4 | $24.5 | $23.0 | $23.5 | $41.0 | $29.2 |
| Geohazards | | $9.2 | $10.0 | $8.5 | $8.4 | $15.0 | $9.7 |
| Buildings | | $12.9 | $21.4 | $17.5 | $20.2 | $26.0 | $17.6 |
| Tunnels | | $5.2 | $7.6 | $6.4 | $8.4 | $20.0 | $10.3 |
| Culverts | | $8.2 | $11.0 | $9.1 | $7.6 | $8.1 | $7.5 |
| Walls | | $2.4 | $5.8 | $4.6 | $4.6 | $6.2 | $5.1 |
| Traffic Signals | | $5.7 | $16.9 | $12.6 | $14.8 | $35.0 | $14.6 |
| TOTAL | | $737.8 | $791.5 | $755.0 | $755.0 | $890.2 | $755.0 |

*Chart 1: FY2019-20 Recommendations – Asset Class Percent of Total*
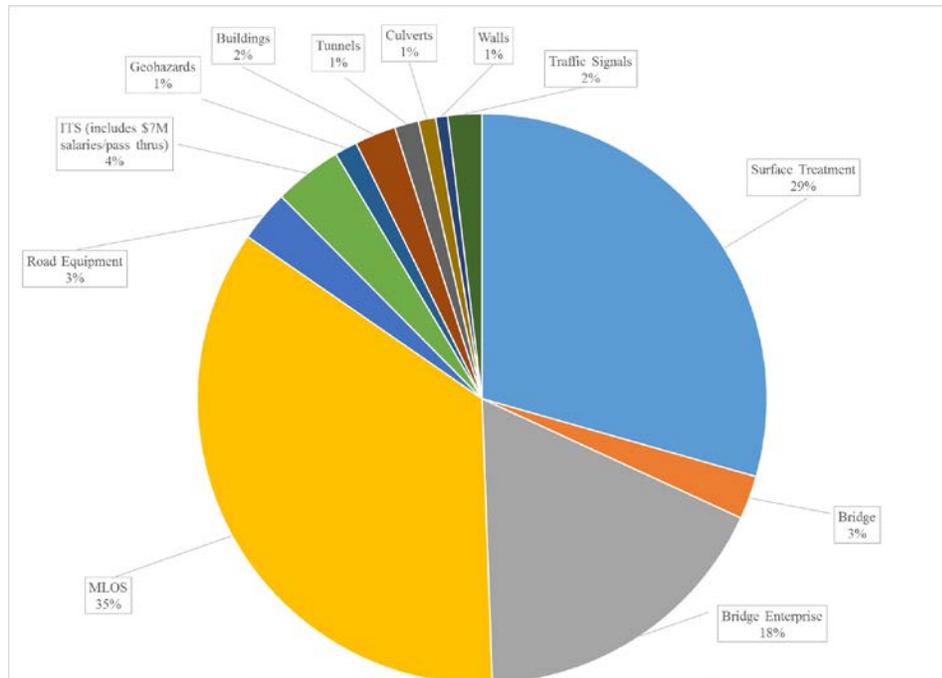


## Next Steps

*FY2019-20 Planning Budget:*

- Upon concurrence on the FY2019-20 planning budget recommendation, staff will use the information to continue planning and development of the next year of the rolling four-year Program of Projects.

*FY2017-18 Annual Budget:*

- As part of the FY2017-18 Annual Budget setting process, TC will be asked for approval of the FY2017-18 Asset Management budget. As discussed at previous Commission workshops, not all assets will meet their targets; therefore, as part of the FY2017-18 budget discussion next month, a request for additional funds for specific assets may be included for discussion.
- Beginning with the FY2017-18 Budget process, staff will also be asking for approval to use all retired TransBond debt service funds ($167M) as part of the overall allocation for asset management. Previously under program distribution (the 20-year plan approved by TC), the retired TransBond debt service funds were allocated to asset management and a small portion to TC contingency.