Project Delivery Update

by Mike Keever
Phases of Project Development

- **Planning**
- **Program**
- **Capital Outlay Support (COS)**
- **COS Closeout**

**Need & Priority Identified**
- PID
- Programming & Allocation
- PA&ED
- Allocation
- PS&E (Design)
- Allocation
- Construction
- Right of Way

**Risk and Uncertainty**
- Low
- High

- 20% Known
- 80% Unknown

- 80% Known
- 20% Unknown

**Cost Breakdown**
- Preliminary Engineering (15¢)
- Construction (85¢)
Project Cost Risk Management

95-99% of Projects

Supplemental Funding and Greater Than 20% Allocation Requests

CTC

Watch List

Caltrans HQ - Project Change Management

Caltrans District - Project Change Management
More Bidders Equals Lower Costs

- Average Number of Bidders per Project
- Average Percentage Low Bidder was Above or Below Engineer’s Estimate vs. Number of Bidders

Graphs showing the relationship between the average number of bidders per project and the percentage that the low bidder was above or below the engineer’s estimate. The graphs illustrate that more bidders lead to lower costs on average.
FY 17/18 BID RESULTS AND AWARDED PRICE AS % OF EE

Data set is 476 projects awarded in the FY 17/18
Bidding Environment

Construction Cost Index (2002 through 2019)

Rolling 12 month
Quarterly CCI Data
Bidding Environment Through April 2019

LowBid vs Engineer's Estimate
(Monthly Tracking FY 18/19)
Cost Estimating Improvement Initiative

- Improved Estimating Tools
- Identification of Best Practices
- Quantification of Risk
- Training
- Business Intelligence
- Construction Cost Escalation Study
Supplemental and “Greater than 20%” Allocations

May 2019 CTC Meeting

Greater than 20%
Tab # 48

Supplemental to Complete Construction
Tab # 49
Thank You
Bidding Environment

Construction Cost Index (2002 through 2019)

2018 quarter to quarter comparison, shows more drastic changes per quarter
Supplemental and “Greater than 20%” Allocations

Potential Items for June CTC Meeting

Supplemental PAED

Greater than 20%

Supplemental to Re-Advertise

Supplemental to Award
Five-Year Greater Than 120% vs Awarded
FYs 13/14 to 17/18

<table>
<thead>
<tr>
<th>Construction Contracts Awarded¹ (Millions)</th>
<th>Greater Than 120% Construction Capital² (Millions)</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>$8,227.38</td>
<td>$49.35</td>
<td>0.60%</td>
</tr>
</tbody>
</table>

¹ Contract Allotments, July 2013-June 2018
² July 2013-June 2018 Action Items
Five-Year Number of Greater Than 120% vs Awarded FYs 13/14 - 17/18

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<th>Construction Contracts Awarded</th>
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<th>Ratio</th>
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<tbody>
<tr>
<td>1,047</td>
<td>17</td>
<td>1.62%</td>
</tr>
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</table>

FYs 13/14 to 17/18

1. Number of Construction Contracts Awarded, July 2013-June 2018
2. July 2013-June 2018 Action Items
Five-Year Supplementals to Award vs Awarded
FYs 13/14 to 17/18

<table>
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<th>Construction Contracts Awarded(^1) (Millions)</th>
<th>Supplemental to Award(^2) (Millions)</th>
<th>Ratio</th>
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<tbody>
<tr>
<td>$8,227.38</td>
<td>$60.49</td>
<td>&lt;1%</td>
</tr>
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</table>

\(^1\) Contract Allotments, July 2013-June 2018
\(^2\) July 2013-June 2018 CTC Action Items
Five-Year Number of Supplementals to Award vs Awarded
FYs 13/14 to 17/18

Five-Year Number of Supplementals to Award vs Construction Contracts Awarded

<table>
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<th>Number of Construction Contracts Awarded¹</th>
<th>Number of Supplementals to Award²</th>
<th>Ratio</th>
</tr>
</thead>
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<tr>
<td>1,020</td>
<td>27</td>
<td>2.60%</td>
</tr>
</tbody>
</table>

¹ Number of Contracts Awarded, July 2013-June 2018
² Number of Supplementals to Award; July 2013-June 2018 CTC Action Items
Five-Year Supplementals to Complete Construction vs Construction Contracts Completed—FYs 13/14-17/18

<table>
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<tr>
<th>Construction Contracts Completed (Millions)</th>
<th>Supplemental to Complete Construction (Millions)</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>$13,605.50</td>
<td>$86.30</td>
<td>0.63%</td>
</tr>
</tbody>
</table>

1 The Actual Total Cost of Completed Construction Contracts, FYs 13/14-17/18. Construction costs are calculated 6 months after the end of construction.

Five-Year Number of Supplementals to Complete Construction vs Contracts Completed-FYs 13/14-17/18

<table>
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<th>Number of Construction Contracts Completed</th>
<th>Number of Supplementals to Complete Construction</th>
<th>Ratio</th>
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<tr>
<td>985</td>
<td>14</td>
<td>1.4%</td>
</tr>
</tbody>
</table>

1 The Actual Total number of Completed Construction Contracts, FYs 13/14-17/18.

2 Number of Supplementals to Complete Construction Contracts; Historical CTC Action Items (May 2000-August 2018) for the Completed Projects.
Risk Management

- PIDS include Risk
- Training on Quantification of Risk
- Watch List
-
Bidding Environment

Construction Cost Index (2002 through 2018)

2018 quarter to quarter comparison, shows steep growth in CCI.

Rolling 12 month comparison of 2017 Q3 and 2018 Q3 shows

Don't know if you want to have this slide… it is what was presented in January. This shows the yearly average curve and then the 2018 quarter to quarter to show the spike. I think that the new slide covers it. I think you can delete this one.
Bidding Environment

Low Bid vs. Engineer's Estimate

Don’t know if you want to have this slide… it is what was presented in January. Could be used to show “what we were seeing…” then show what happened). Remember this slide is the 12 monthly yearly average… the other slide is a month by month comparison. I vote