

Alternative Delivery Method Overview

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Agenda

- Delivery Methods
- Benefits
- Project Delivery process
- Challenges
- Project candidates features
- Q&A

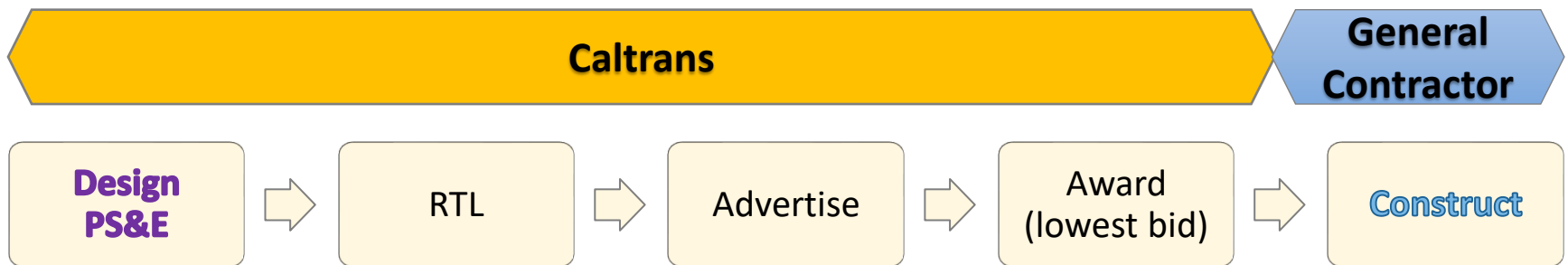


Delivery Methods

- Design-Bid-Build
- Alternative Delivery Methods
 - CMGC
 - Design-Build

Design-Bid-Build (D-B-B)

- Traditional Project Delivery process
- Design must be complete prior to Advertise
- Award to lowest responsible bidder



CMGC Two-Part Contract

PRE-CONSTRUCTION

Construction
Manager

Professional Services

- Cost Estimating
- Subcontracting Plan
- Scheduling
- Material Procurement
- Utility Coordination
- Construction Phasing
- Constructability Review
- Risk Analysis
- Quantity Verification
- Third Party Approval

CONSTRUCTION

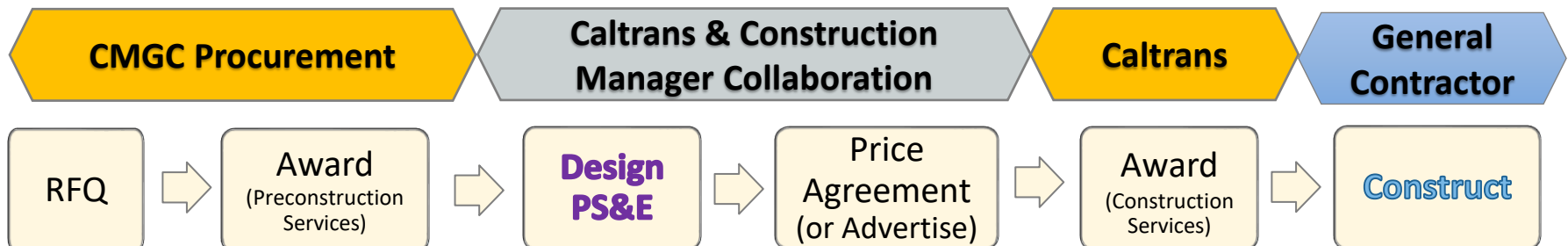
General
Contractor

Construction Services

Price Agreement

CMGC

- Procure a Construction Manager during environmental (recommended) or design phase based on best qualifications
- Construction Manager provides input and services during design phase (aka Preconstruction Services)
- If price is agreed to, Construction Manager becomes the General Contractor
- If the fair and reasonable price is not agreed to, project will be advertised



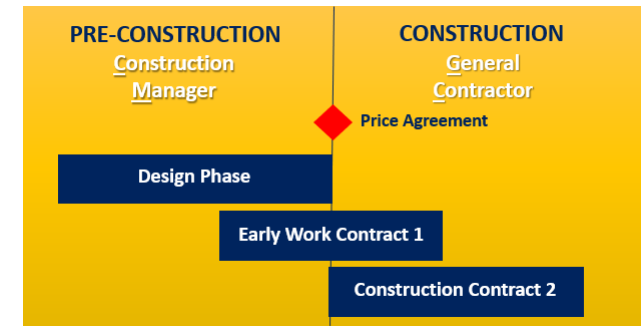
Preconstruction Services

- Open and transparent
 - CT share plans, specs, drawings, etc.
 - Contractor details pricing assumptions including software used
- Partnering and collaboration
 - Contractor needs to assist and **develop solutions**
 - Analyze risk impacts and cost **before** the final schedule and cost of the project is determined
 - **Jointly** analyze, allocate, and mitigate risk
 - **Manage** risk that can adversely impact schedule and budget

Early Work Packages

Commonly used for:

- Securing long lead material
- Utility/early work packages
- Constructing an independent portion of the project
- Streamline Delivery



Key Considerations:

- Clearly define scope and schedule
- Establish independent utility among other work
- Maintain severability option
- Define package size that maintains CMGC engagement in remainder of project

CMGC “Bid” Process

When design of project or portion is complete:

Three Estimates:

1. Engineer’s Estimate
2. Construction Manager’s Cost Estimate
3. Independent Cost Estimate (ICE)

Two Possible Outcomes:

1. Caltrans gets fair price – Proceed with build
2. Caltrans doesn’t get fair price – Proceed to bid

Allocation

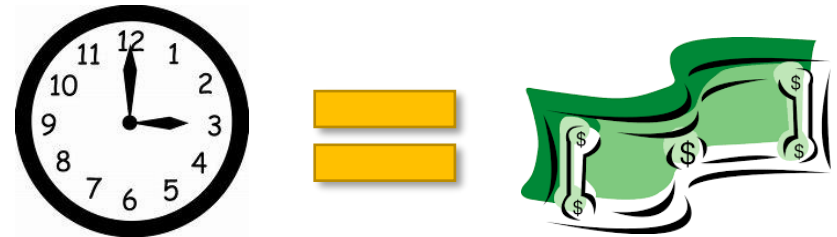
Support Cost for Design Phase

- Develop PS&E
- Construction Manager
- Independent Cost Estimator

Construction Capital Cost

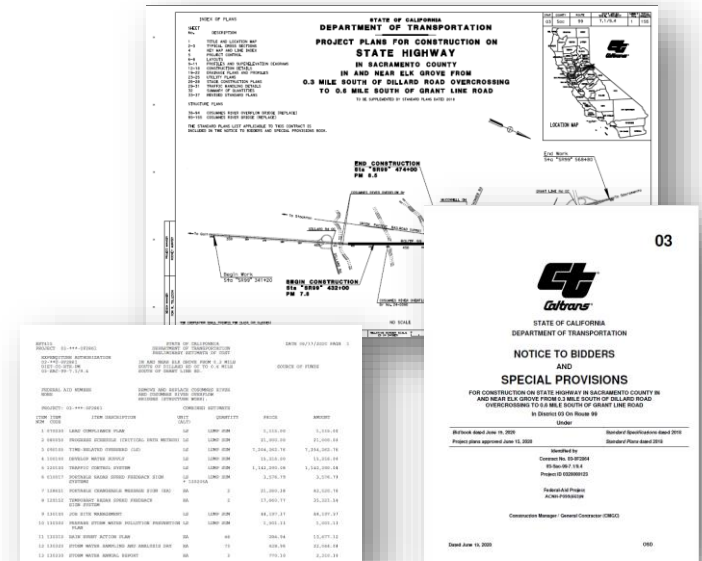
CMGC Benefits

- Cost certainty
- Schedule optimization
- Assist with permits/3rd party approvals
- Streamline delivery to Construction



CMGC Benefits (Cont.)

- Design quality
- Innovation opportunities
- Specialized qualifications
- Risk mitigation



CMGC Challenges

- Estimate reconciliation (bid-based vs. cost-based estimates)
- Higher support costs (Contractor and ICE)
- Redesign to implement contractor suggestions
- Negotiating price with a single “bidder”

CMGC Project Candidate Features

- Construction Capital over \$10M
- Well defined project scope
- High level of technical complexity
- Opportunities for innovation
- Schedule acceleration

Program Success

Implemented innovations at award were reported as SB1 Efficiencies

- FY 17/18 - \$47.7M
- FY 18/19 - \$14.4M
- FY 19/20 - \$36.4M
- FY 20/21 - \$59.6M
- FY 21/22 - \$47.3M

Total reported \$205.4M

Program Success

Cosumnes River Bridge Replacement Project

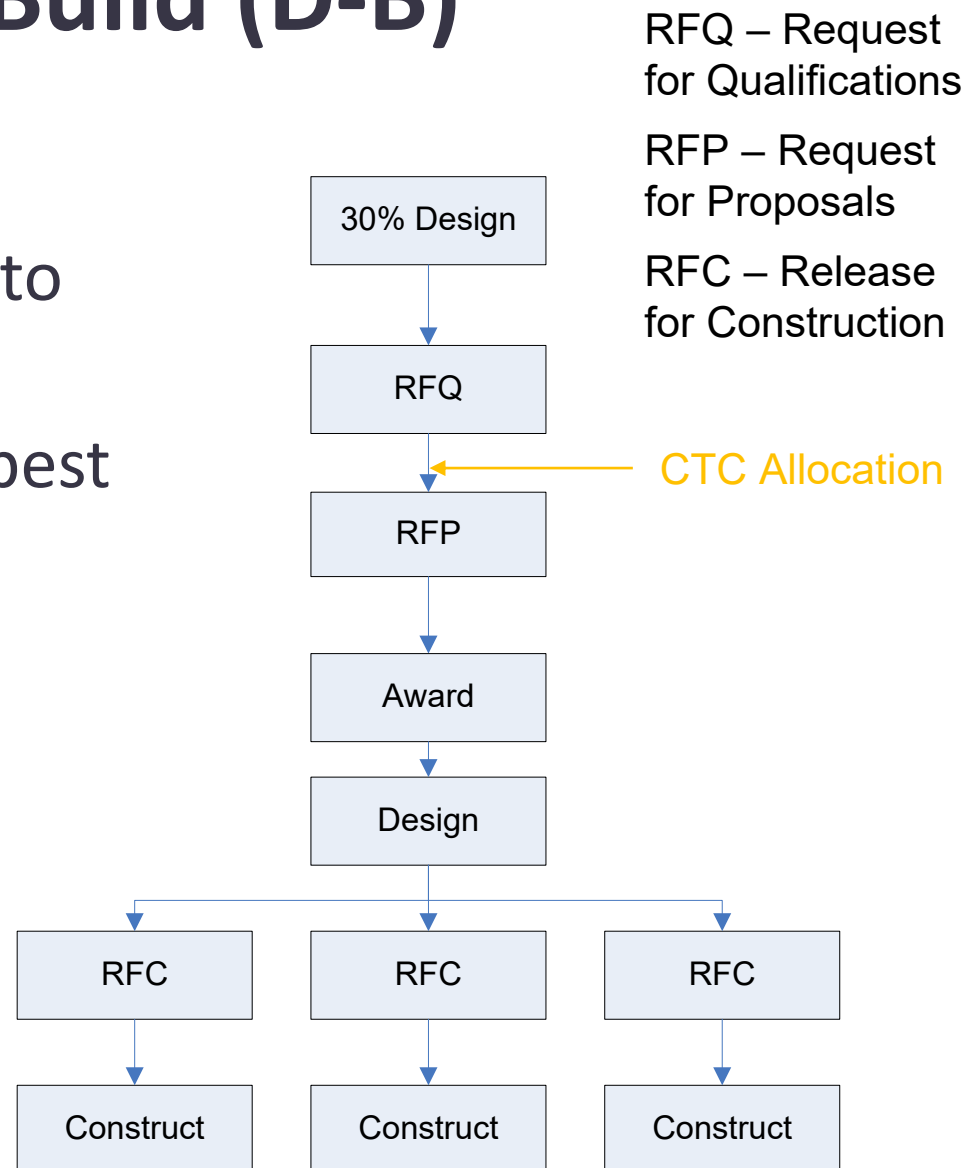
	Design Bid Build	CMGC
Begin Construction	10/15/2020	9/16/2019
End Construction	11/1/2024	8/3/2023 (T)

American River Bridge Deck Replacement Project

	Design Bid Build	CMGC
Begin Construction	6/1/2023	1/26/2022
End Construction	12/1/2027	6/30/2026 (T)

Design-Build (D-B)

- Awarded design and construction of project to single entity
- Awarded to low bid or best value proposer



Design-Build Benefits

- Risk Transfer
- Need to accelerate the schedule
- Cost certainty
- Alternative Technical Concepts

Design-Build Challenges

- Less control over final design
- Quality may be subordinate to cost
- Defining the project at 30% design
- Setting proper stipends

D-B Project Candidates Features

- High level of technical complexity
- Opportunities for innovation
- Schedule acceleration

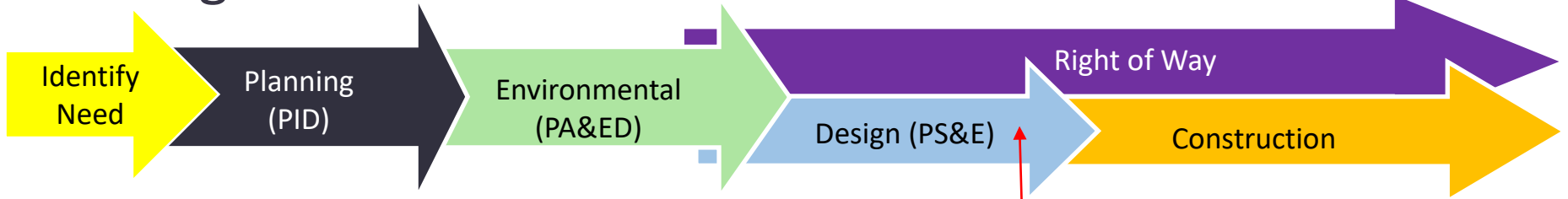
Program Success

Design-Build projects under the Demonstration Program (SBX2 4) – Caltrans delivered 8 projects

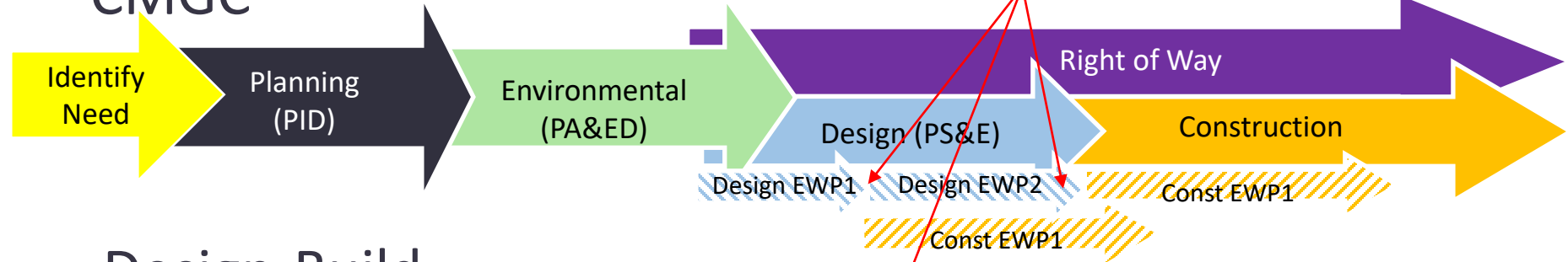
- No Claims
- \$59.85M construction capital saving due to innovation
- Construction contract award

Recap

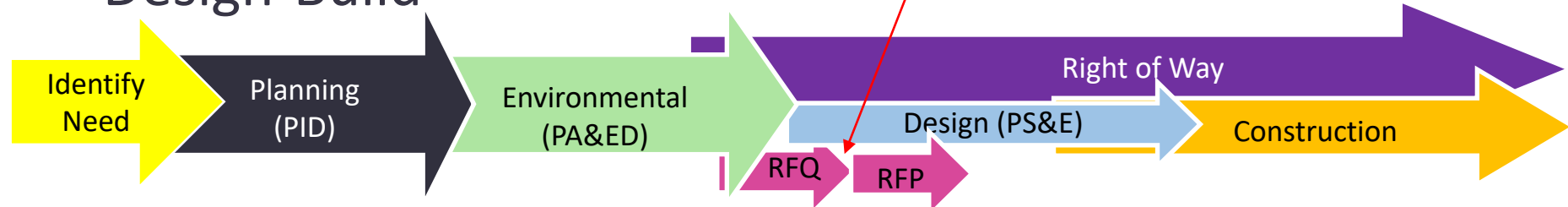
Design Bid Build



CMGC



Design-Build





Thank you!