



# HOW CALTRANS BUILDS PROJECTS



*Presented by Nick Saleh, District Division Chief – PPM, South Region*

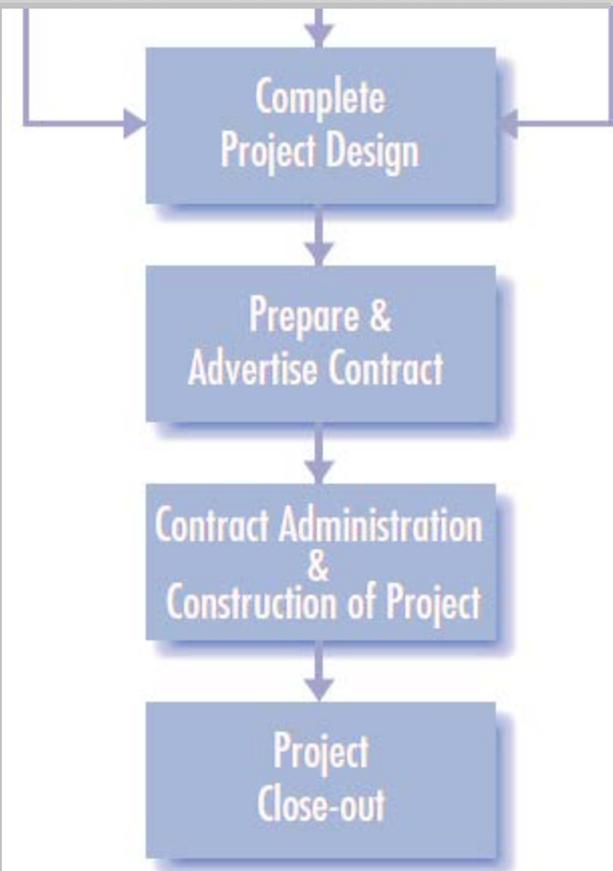
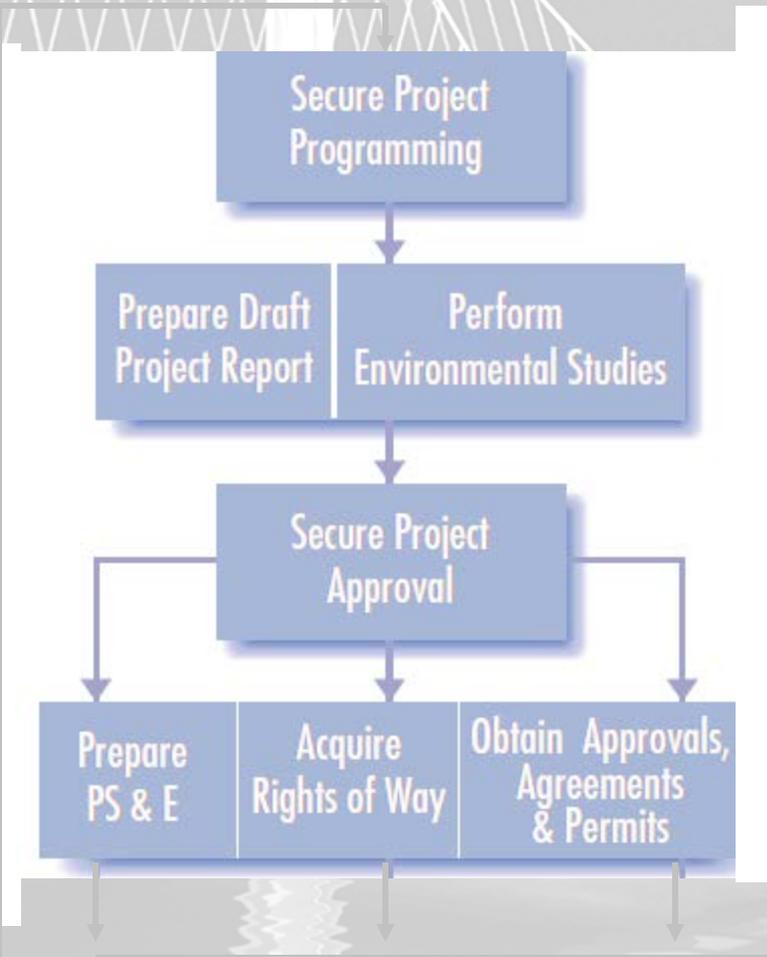
*Our Mission is...*

*to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability*



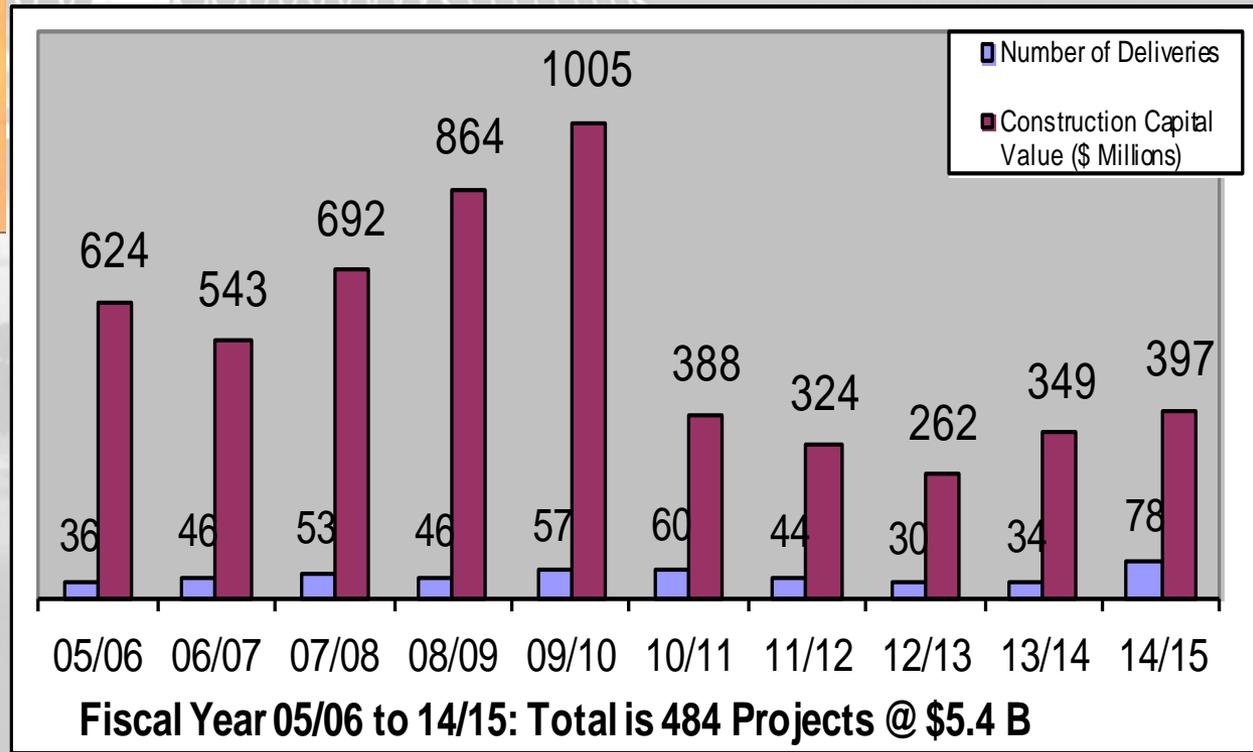
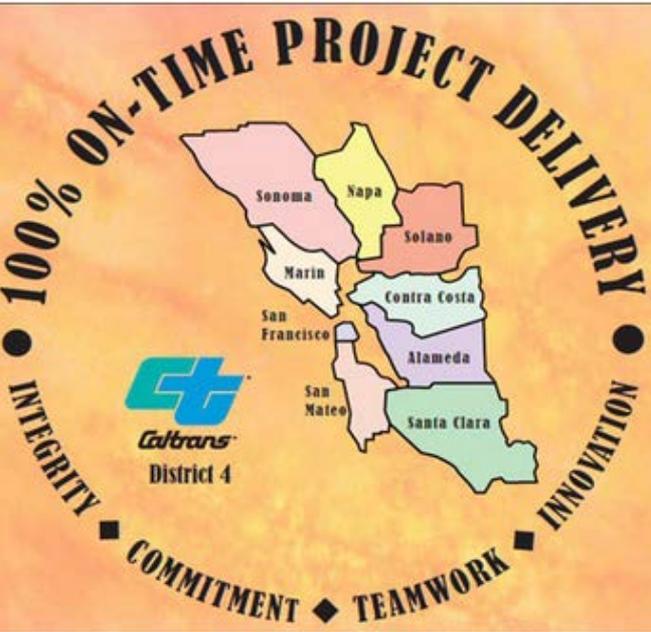


# HOW CALTRANS BUILDS PROJECTS





# Our Success Story



# HOW CALTRANS BUILDS PROJECTS

## Identify Project Need

➤ Planning starts before Project Development

➤ System and Regional Planning (ongoing)

- Identify the NEED for transportation projects
  - ❖ Regional Transportation Plans, (CMA)
  - ❖ Pavement Survey
  - ❖ Bridge Inspection Records Information System (BIRIS)
  - ❖ Traffic Accident Surveillance and analysis System (TASAS)
  - ❖ Input from public and local Agencies
  - ❖ Emergencies

Identify  
Project Need

Decision to Prepare  
Project Initiation  
Document

Form Project  
Development Team

Prepare Project  
Initiation Document

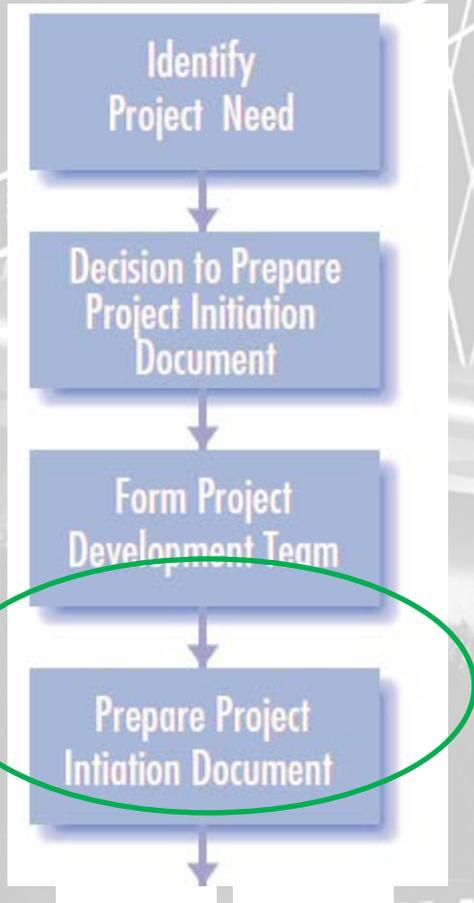
# HOW CALTRANS BUILDS PROJECTS



## Decision to Prepare Project Initiation Document

- Projects selected for further study
  - Program Advisors
  - Caltrans Districts or Regional Agencies
- Project Initiation Proposal (PIP)
  - Short decision document
  - Discusses feasibility
  - Strip Map
  - Planning level cost estimates

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## Form Project Development Team (PDT)

Used throughout PD Process

- Primary functions at Project Initiation Phase (PID):
  - Refines purpose and need
  - Determine logical project limits
  - Determine need for participation level
  - Ensure requirements are met
  - Recommends alternatives, schedule, type of ED
  - Others



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## Prepare Project Initiation Document (PID)

PSR, PSR/PDS, PSR/PR, PSSR, DAF,.....

- Main purpose:
  - Define Scope, Cost & Schedule
  - Obtain conceptual approval within Caltrans
  - Used to scope project for programming
  
- PIDs include:
  - Design concepts (alternatives)
  - Environmental consideration
  - Right-of-way needs
  - Preliminary costs

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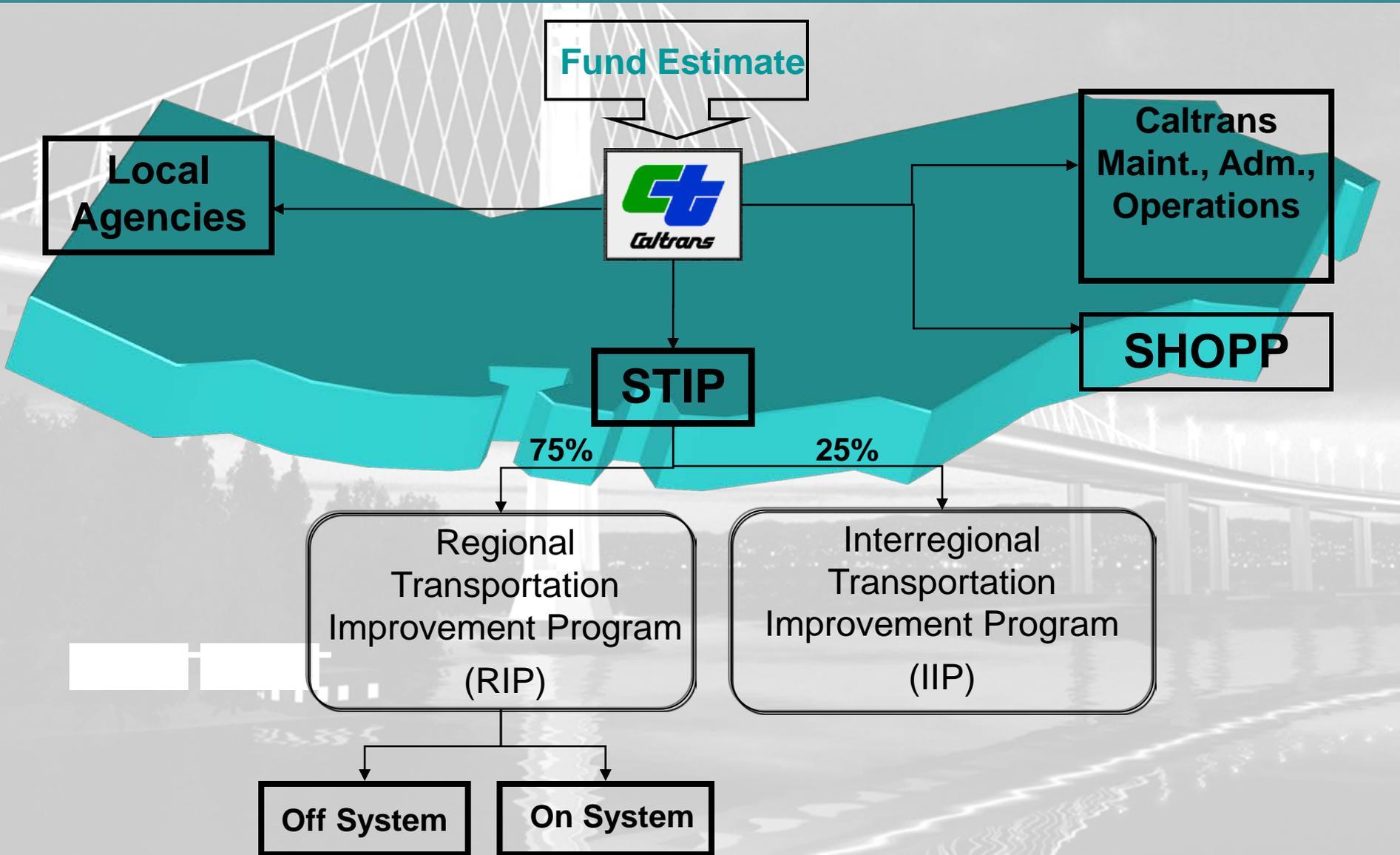
## Secure Project Programming

Process by which funds for project are identified

- Many different type of funding:
  - Federal Aid (CMAQ, STP, HBRR, NHS, IM....)
  - State Funds (SHA, CMIA, Trans Inv. Fund, PTA....)
- State Highway Operational Protection Program (SHOPP)
- State Transportation Improvement Program (STIP)
  - 75% RTPA
  - 25% State
- Local and other Fund



# HOW CALTRANS BUILDS PROJECTS



## Prepare Draft Project Report/Environmental Studies

Happen at the same time

- Draft Project Report includes:
  - Surveys, Mapping, traffic forecasts, modeling, VA, Hydraulic Studies, ROW, Utility need/impact, railroad issues, material and geotechnical information, multiple alternatives, others as needed.

- Environmental Studies
  - CEQA/NEPA (EIR/EIS, ND/FONSI, CE/CE)
  - Technical Studies (Haz-waste, Noise, AQ, Bio, Cultural, Traffic, Relocation Impacts, WQ.....)

- Value Engineering



# HOW CALTRANS BUILDS PROJECTS

## Draft Environmental Document

- **CEQA/NEPA**
  - CE-CE
  - IS/EA – ND/FONSI
  - EIR/EIS
  
- **Draft Project Report**
- **Public Meetings**
- **Final Environmental Document**
- **Final Project Report**



## Secure Project Approval

Final PR and Final ED

➤ Draft Project Report includes:

- Must include ED
- Signed by District Director
- CTC action (if required)

- connection to freeway, Relinquishments, route adoptions

➤ Final Environmental Document

- After public comment period and responses
- Includes preferred alternative (PDT selects)
- Finalize Technical Studies
- Public Meetings

➤ At this point scope is established in enough detail to identify all affects and impacts, including ROW needs



## Plans, Specifications and Estimates (PS&E)

### ➤ Plans:

- Designs refined to greater detail (layouts, cross sections, elevations, etc.)
- Surveys and photo mapping obtained
- Floodplain, Hydraulic plans, geotechnical, pavement, materials, and soundwall designs completed.

### ➤ Issues to consider at this stage:

- Railroads and Utilities, Traffic Operations, TMPs, Floodplains, NPDES....

### ➤ Specifications – How the work is to proceed

### ➤ Estimates – refined estimate of construction cost



# HOW CALTRANS BUILDS PROJECTS

## Acquire Rights of Way

- Acquisitions
  - Normally only after ED is completed (appraisals may and other prelim work may be prior)
  - CT pays Fair Market Value
  - Strives for agreement on purchase (8 months)
  - CT can ask CTC for condemnation action (2 +)
  
- Other ROW considerations:
  - Airspace Lease areas
  - ROW cost data changes



## Obtain Approvals, Agreements & Permits

Other agencies protect resources by requiring mitigations of projects effects or through approvals and permits.

➤ Negotiations done at PA/ED to Final Design Phase

➤ Types:

- Coastal Permit (Coastal Commission)
- Encroachment Permit (Reclam Board, others)
- Stream and Lake Alteration Agreement (F&G)
- Biological Opinion (USFW)
- 404 Permit (US Army Corps of Eng)
- NPDES Permit (Water Board)
- Cooperative Agreement
- Maintenance Agreement
- Others



# HOW CALTRANS BUILDS PROJECTS



## Complete Project Design

- Final design incorporations comments from District reviews
- Includes safety and constructability review
- Environmental re-valuation conducted
- Submitted to District / HQ Office Engineer
- Authority to Advertise District Delegation (AADD)

# HOW CALTRANS BUILDS PROJECTS

## Prepare & Advertise Contract

- All permits must be acquired and restrictions shown on plans
- Funding needs to be in place
  - Approved fund request (CTC)
  - E-76 (Fed authorization to proceed)
  - Board approval for local projects
- Right of Way certification
  - Properties obtained (easement or acquisition)
  - Utility issues resolved
- DES – Office Engineer prepares and advertises
- Bids are received by contractors
- PM & Design recommends award to lowest bidder



# HOW CALTRANS BUILDS PROJECTS

## Contract Admin & Construction of Project

- Building of project as shown on plans commences
- Res Engineer and const. inspectors oversee process
  - Contract change orders
  - Authorizes payment to contractor for completed items

## Project Close-out

- RE prepares final estimate and const. project records
- Resolve Contract Claims
- Final contract estimate, project history file, as-built plans, final ROW completed, claims are resolved and mitigation is completed

Complete  
Project Design

Prepare &  
Advertise Contract

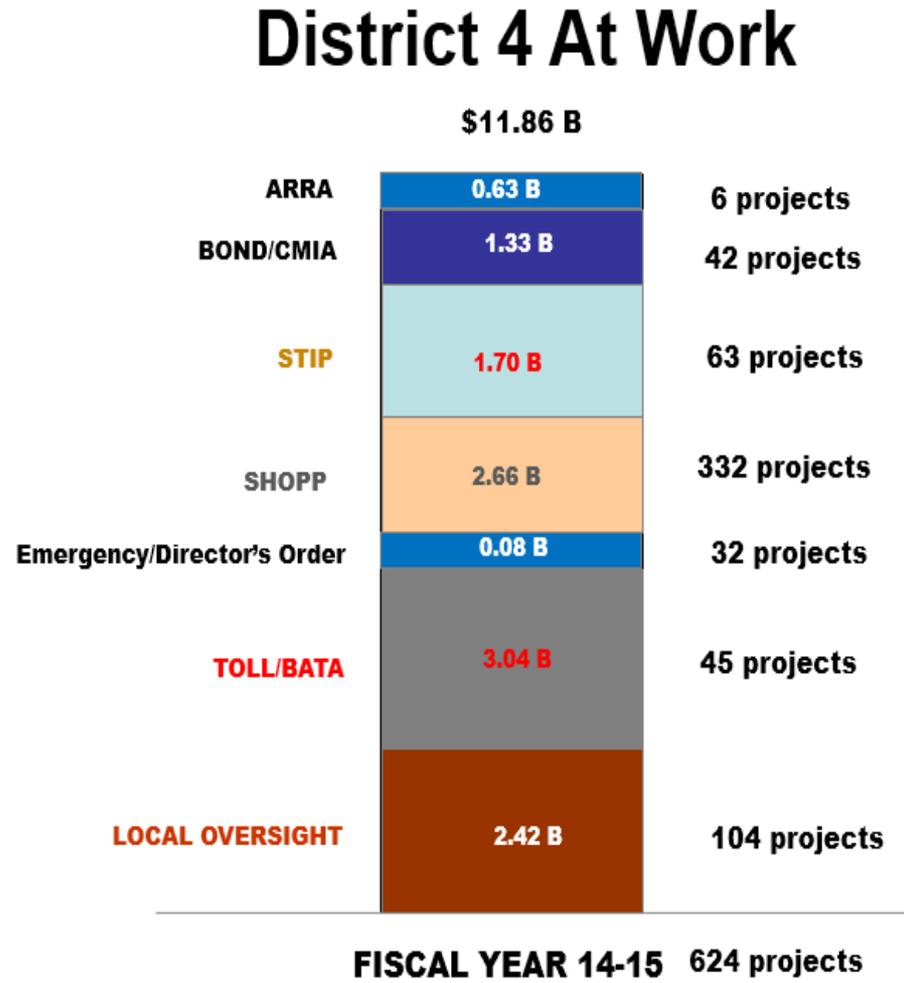
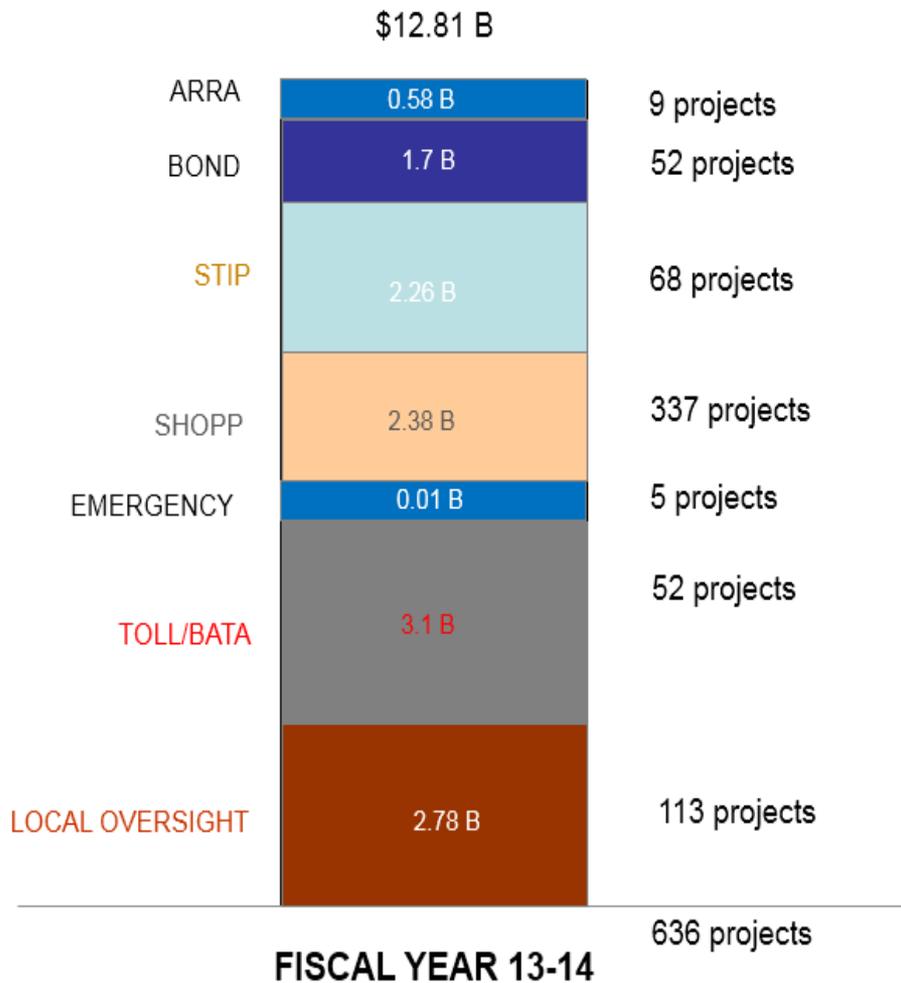
Contract Administration  
&  
Construction of Project

Project  
Close-out



# HOW CALTRANS BUILDS PROJECTS

## District 4 at Work

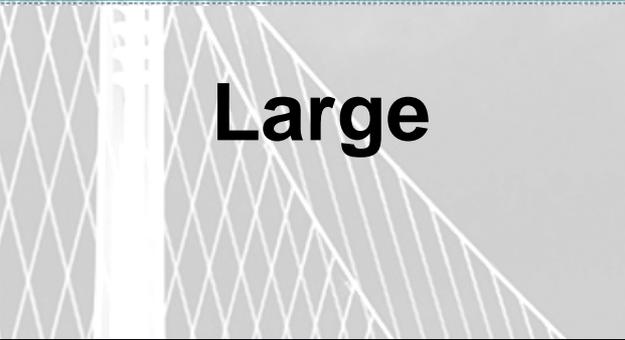




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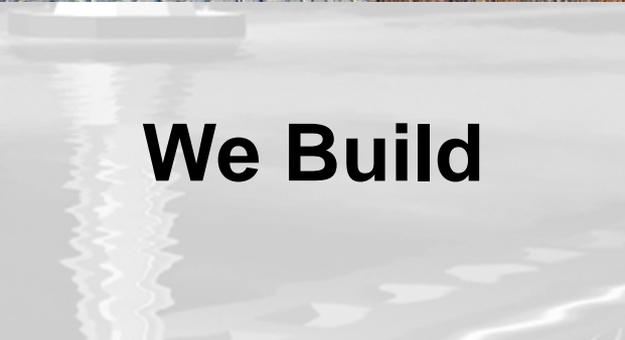
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**Small**



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**We Build**



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