



State of Hawaii

Department of Accounting and General Services

Public Works Division

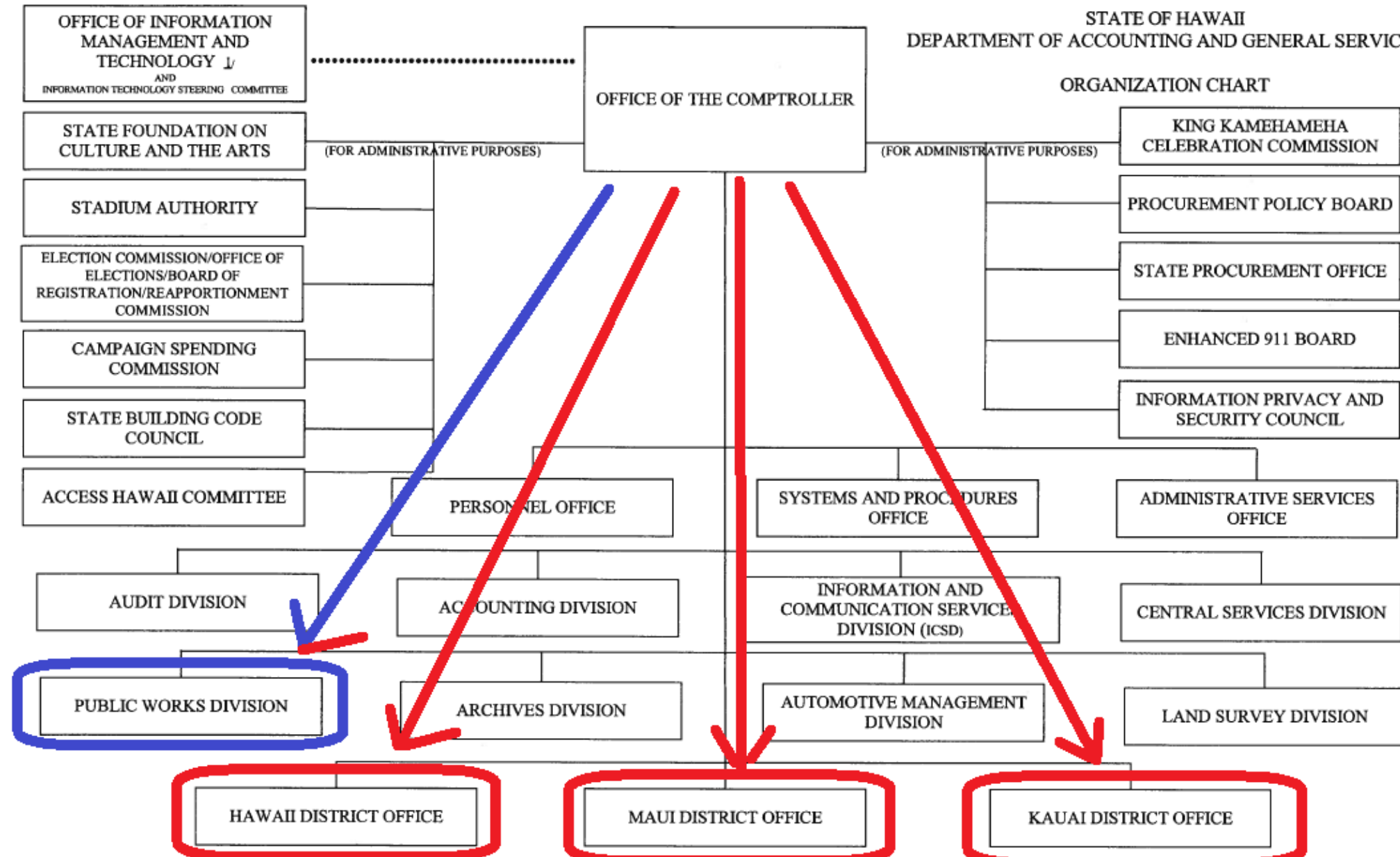
AUGUST 4, 2021

Agenda

- Who Are We?
- What Do We Do?
- Procurement Training
- Procurement Timelines
 - Projects Cradle to Grave
- Protests
- PWD Challenges
- Value Added Focus
- Support
- Bonus Material:
 - Change Orders Profile
 - The Salmon Ladder
- In Conclusion
- Questions and Answers
- Mahalo!

WHO ARE WE?

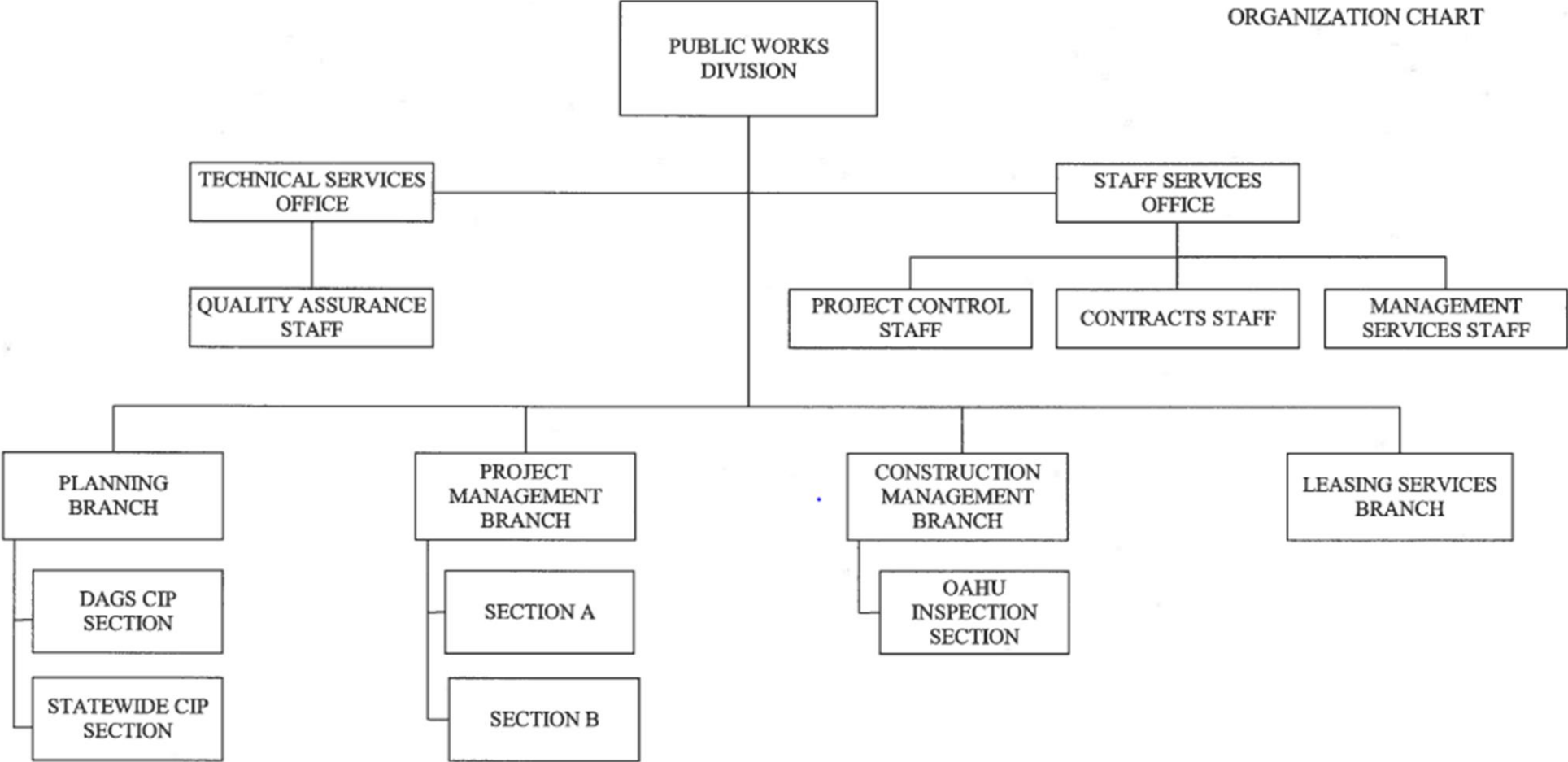
ORGANIZATION CHART



1/ ESTABLISHED PURSUANT TO ACT 84, SLH 2011 AND PLACED IN THE DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES. THE CHIEF INFORMATION OFFICER (CIO) IS APPOINTED BY THE GOVERNOR AND REPORTS DIRECTLY TO THE GOVERNOR. THE CIO IS THE HEAD OF THE OFFICE OF INFORMATION MANAGEMENT AND TECHNOLOGY.

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
PUBLIC WORKS DIVISION

ORGANIZATION CHART



STAFFING – BY 7/01/2021

Program ID	Branch/Office	No. of Authorized Positions	No. of Vacant Positions	No. of Unfunded Positions	Vacancy Rate
AGS-221 PWD	Administration Office	3	0	0	0%
“	Planning Branch	14	5	4	36%
“	Project Management Branch	13	3	2	23%
“	Construction Management Branch	19	3	2	16%
“	Staff Services Office	11	3	1	27%
“	Technical Services Office	8	1	1	13%
“	Neighbor Island Districts – PW Branches*	22	9	4	41%
“	2 To be established positions.	2	2	0	100%
TOTAL AGS-221	PUBLIC WORKS DIVISION	92	26	14	28%
AGS-223 Leasing	Leasing Services Branch	4	3	0	75%
TOTAL AGS-223	LEASING SERVICES BRANCH	4	3	0	75%
	TOTAL PWD & LEASING SERVICES BRANCH	96	29	14	30%

Number or Architect/Engineers: Authorized = 40 Filled = 30 (+7 Branch Chiefs/PWA)

- *Neighbor Island District, Public Work Branch positions are funded by AGS-221 Public Works Division to perform Construction Management Services and report to the Office of the Comptroller.*

STAFFING – BY 7/01/2021

Program ID	Branch/Office	No. of Authorized Positions	No. of Vacant Positions	No. of Unfunded Positions	Vacancy Rate
AGS-221 PWD	Administration Office	3	0	0	0%
"	Planning Branch	1	1	0	36%
"	Project Management Branch	1	1	0	23%
"	Construction Management Branch	2	1	0	16%
"	Staff Services Office	1	1	0	27%
"	Technical Services	1	1	0	13%
"		9	4	0	41%
"		2	2	0	100%
TOTAL AGS-221		92	26	14	28%
AGS-223 Leasing		4	3	0	75%
TOTAL AGS-223	LEASING BRANCH	4	3	0	75%
	TOTAL PWD & LEASING SERVICES BRANCH	96	29	14	30%

By the end of 2021 we will have another 12 staff eligible to retire. This would equate to a 43% vacancy rate!

Number or Architect/Engineers: Authorized = 40 Filled = 30 (+7 Branch Chiefs/PWA)

- Neighbor Island District, Public Work Branch positions are funded by AGS-221 Public Works Division to perform Construction Management Services and report to the Office of the Comptroller.

WHAT DO WE DO?

Plans, coordinates, organizes, directs, and controls a Statewide program of Engineering, Architectural, and Construction Services including:

- Land Acquisition
- Planning
- Designing
- Project Management
- Construction Management & Inspection
- Quality Assurance
- Contracting & Equipping facilities for State & other agencies
- Locates, negotiates, and leases office space for client agencies

- SUPPORTS THE MISSION OF THE DEPARTMENT BY:
 - Directing the expenditure of Capital Improvement Program (CIP) funds and operating funds released to the Department for projects.
 - Representing the Comptroller at various functions, ceremonies, and public hearings on matters concerning public improvements.

Procurement Training

Procurement Processes

Chapter 103D

- Competitive Sealed Bids (Low-Bid Award)
 - Design-Bid-Build
- Competitive Sealed Proposals (RFP)
 - Design-Build
- Professional Services
- Small Purchase
- Sole Source
- Emergency Procurement

HlePRO

Finance Agreements, Chapter 37D

- Design-Build-Finance
- Design-Build-Finance-Maintain
- Design-Build-Finance-Operate-Maintain

Lease Agreements

- Chapter 171, Public Lands
- Exempt from Chapter 171

103D Procurement Training

☐ SPO Mandatory Training for PWD Staff

☐ DAGS Internal Procedures for Ensuring Staff Receive Training Prior to Implementing Procurement

☐ PWD Log for SPO Training

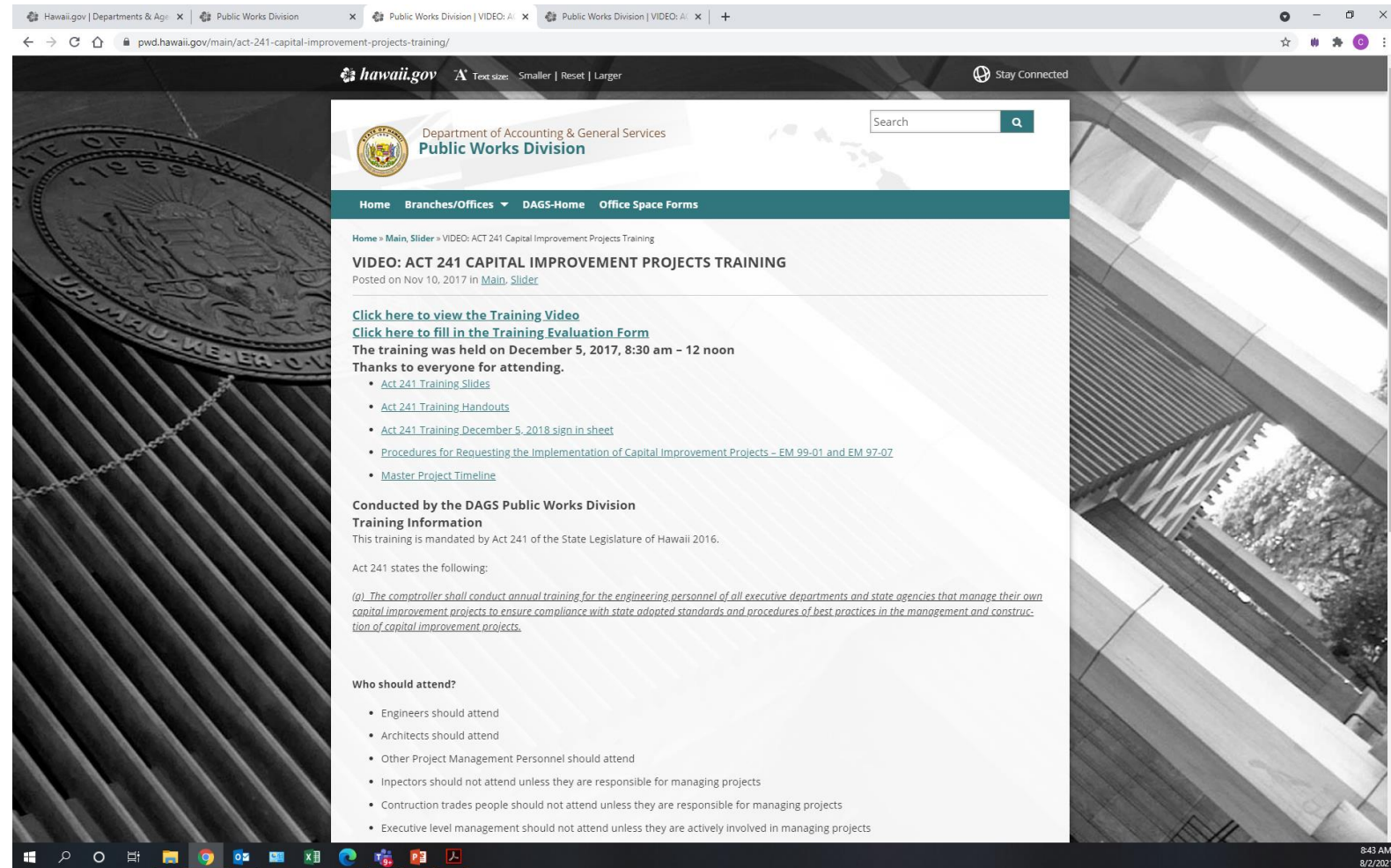
1. Procurement training procedures/certification held by your procurement officer(s) and names								
"X" = Completed training and Procurement Delegation authorized								
"*" = Completed training but Procurement Delegation has not been authorized								
MANDATORY								
RECOMMENDED								
BRANCH	POSITION TITLE	COMPETITIVE SEALED BIDS (CSB)	COMPETITIVE SEALED PROPOSALS (CSP)	PROFESSIONAL SERVICES (PS)	SMALL PURCHASE (SP)	SOLE SOURCE	EMERGENCY	HlePRO
SSO	Account Clerk III				*			
SSO	Account Clerk III				*			
SSO	Account Clerk IV				X			
SSO	Administrative Services Assistant	X	X	X	X	X	X	X
TSO	Architect V	X	X	X	X	*	*	
PMB	Architect V	X	X	X	X	*	*	
PB	Architect V	X	X	X	X	X	X	
PB	Architect V	X	X	X	X	X	X	
CMB	Architect V	X	X	X	X	*	*	
PMB	Architect V	X	X	X	X	*	*	
CMB	Architect VI	X	X	X	X	X	X	
CMB	Building Construction Inspector II	X	X	X	X	*	*	
CMB	Building Construction Inspector II	X	X	X	X	*	*	
CMB	Building Construction Inspector II	X	X	X	X	*	*	
CMB	Building Construction Inspector II	X	X	X	X	*	*	
CMB	Building Construction Inspector II	X	X	X	X	*	*	
CMB	Building Construction Inspector III	X	X	X	X	*	*	
CMB	Building Construction Inspector III	X	X	X	X	*	*	
CMB	Engineer (Buildings) III	X	X	X	X	X	X	
PB	Engineer (Buildings) III	*	*	X	X	X	X	
CMB	Engineer (Buildings) III	X	X	X	X	*	*	
TSO	Engineer (Buildings) V	X	X	X	*	*	X	
PMB	Engineer (Buildings) V	X	X	X	X	*	*	
PB	Engineer (Buildings) V	X	X	X	X	X	X	
TSO	Engineer (Buildings) V	X	X	X	X	X	X	
PMB	Engineer (Buildings) V	X	X	X	X	X	X	
PMB	Engineer (Buildings) V	X	X	X	X	X	X	
PMB	Engineer (Buildings) V	X	X	X	X	X	X	
CMB	Engineer (Buildings) V	X	X	X	X	*	*	
TSO	Engineer (Buildings) V	X	X	X	X	*	*	
CMB	Engineer (Buildings) V	X	X	X	X	*	*	
SSO	Engineer (Buildings) VI	X	X	X	X	X	X	
TSO	Engineer (Buildings) VI	X	X	X	*	*	*	
PB	Engineer (Buildings) VI	X	X	X	X	X	X	

CIP Projects Training: Act 241, SLH 2016

Mandatory Annual Training

For the engineering personnel of all executive departments and state agencies that manage their own capital improvement projects to ensure compliance with state adopted standards and procedure of best practices in the management and construction of capital improvement projects.

Departments & Agencies are responsible for their own compliance using the training material.



The screenshot shows a web browser window displaying the Hawaii.gov website. The page is titled "VIDEO: ACT 241 CAPITAL IMPROVEMENT PROJECTS TRAINING" and is posted on Nov 10, 2017. The page content includes:

- Click here to view the Training Video**
- Click here to fill in the Training Evaluation Form**
- The training was held on December 5, 2017, 8:30 am - 12 noon
- Thanks to everyone for attending.
- Links to training materials:
 - [Act 241 Training Slides](#)
 - [Act 241 Training Handouts](#)
 - [Act 241 Training December 5, 2018 sign in sheet](#)
 - [Procedures for Requesting the Implementation of Capital Improvement Projects - EM 99-01 and EM 97-07](#)
 - [Master Project Timeline](#)
- Conducted by the DAGS Public Works Division**
- Training Information**

This training is mandated by Act 241 of the State Legislature of Hawaii 2016.
- Act 241 states the following:

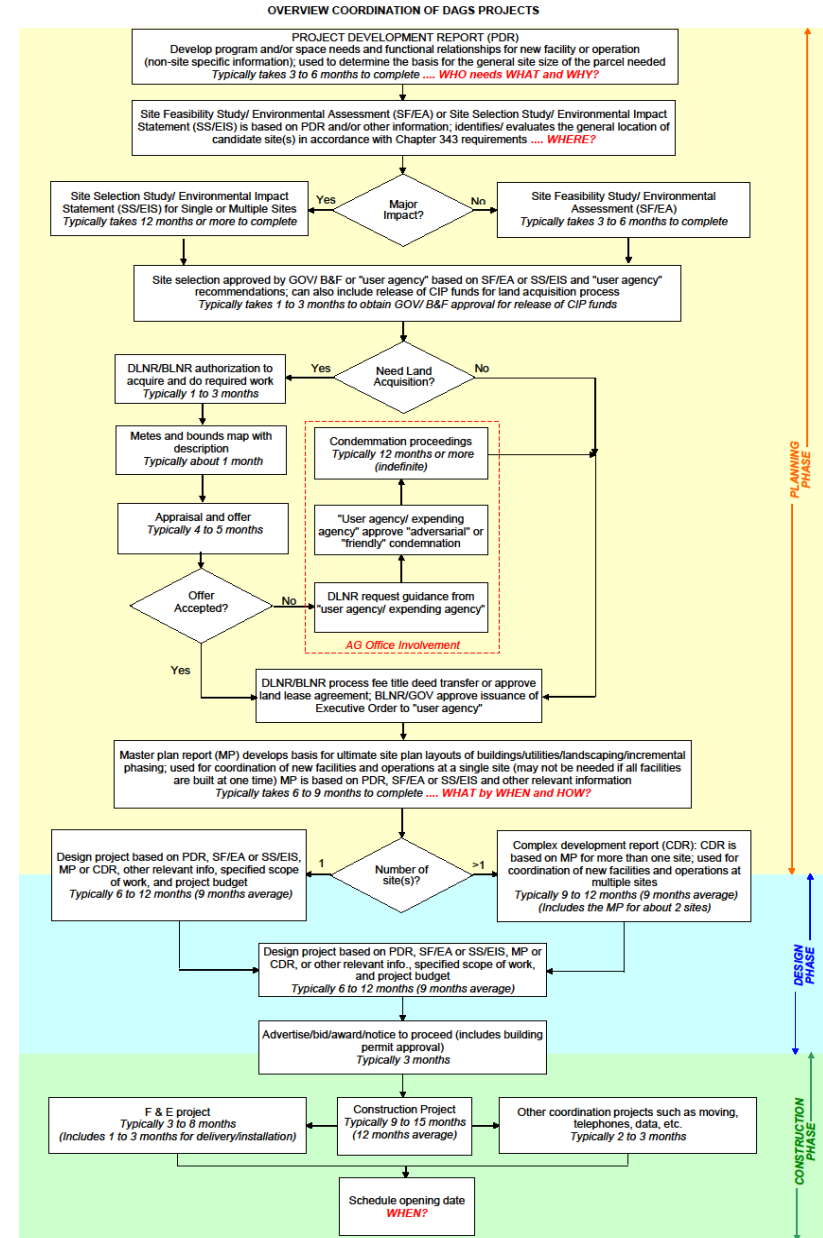
(g) The comptroller shall conduct annual training for the engineering personnel of all executive departments and state agencies that manage their own capital improvement projects to ensure compliance with state adopted standards and procedures of best practices in the management and construction of capital improvement projects.
- Who should attend?**
 - Engineers should attend
 - Architects should attend
 - Other Project Management Personnel should attend
 - Inspectors should not attend unless they are responsible for managing projects
 - Construction trades people should not attend unless they are responsible for managing projects
 - Executive level management should not attend unless they are actively involved in managing projects

Procurement Timelines

Projects Cradle to Grave

THE FOCUSED MISSION

PROJECT DELIVERY PROCESS: SEQUENCE



PROJECT DELIVERY PROCESS: TIMELINE

**Table B1a
Regular Time Requirements**

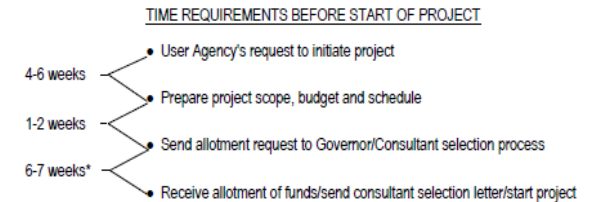
(Derived from Table B1 dated January 1, 1981. This table supplements Table B1.)

Date: 10/10

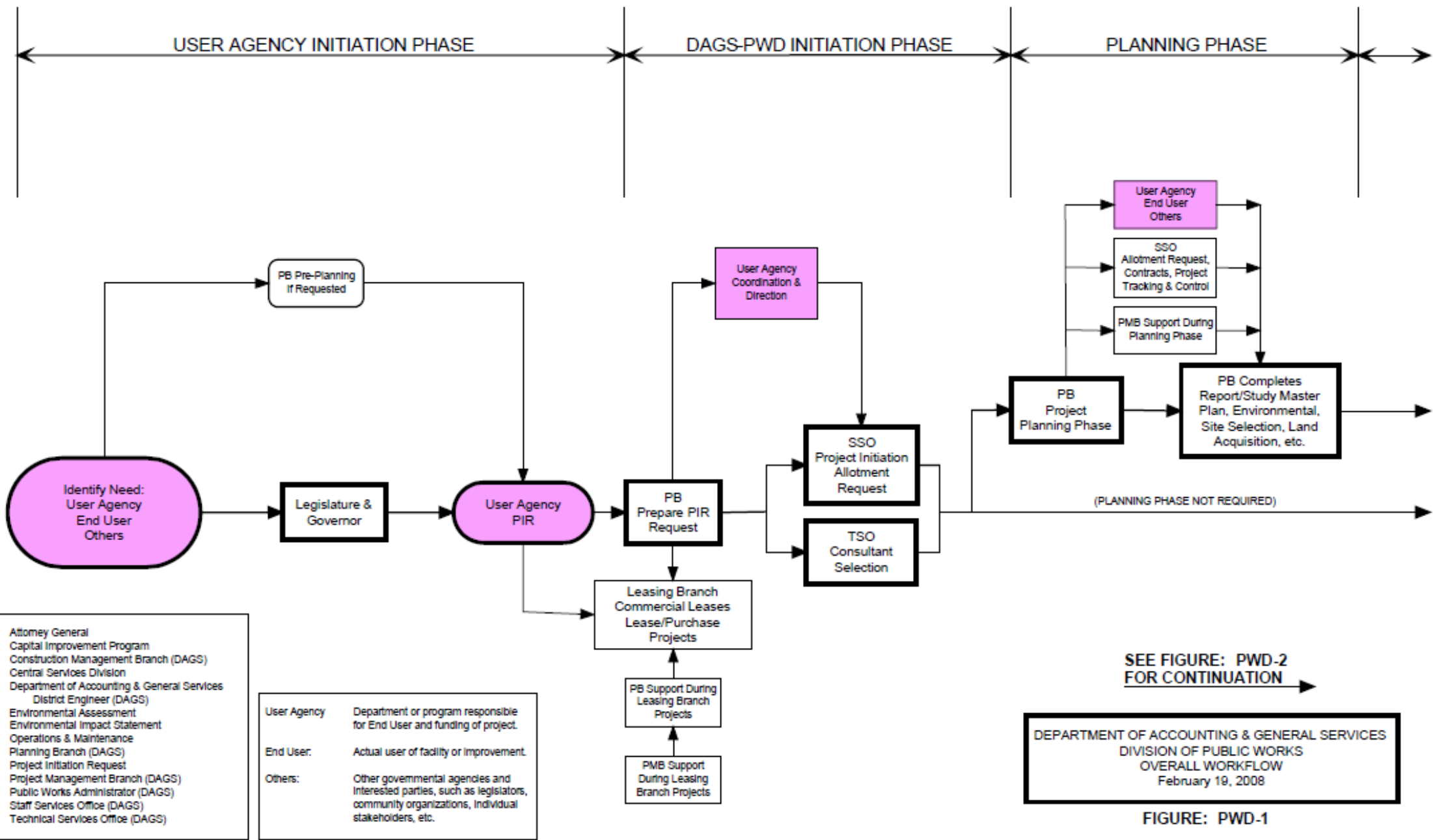
SEE BELOW: TIME REQUIREMENTS BEFORE START OF PROJECT.

	ACTIVITY	TIME REQUIRED IN WEEKS/MONTHS										START MASTER PLAN, SITE SELECTION, E.A./E.I.S., PDR (For larger or more complex projects)			
		CONSTRUCTION COST IN THOUSANDS (PCL)													
		100	300	500	700	900	1,000	2,500	4,000	6,000	10,000				
Planning Project Initiation	PM REC'D DATE TO START	2	2	2	2	2	3	3	3	4	4				
	FEE NEGOTIATION	8	8	8	8	8	8	12	12	12	12				
Design	PRE-SCHEMATIC	0	0	2	3	3	3	4	4	6	6	START ENVIRONMENTAL ASSESSMENT (E.A.) (For smaller or non-controversial projects)	Environmental Assessment 6-12 months for smaller/non-controversial projects COMPLETE E.A.		
	DAGS	0	0	1	2	3	3	3	4	4	4				
	(USER) ₁	0	0	(1)	(1)	(2)	(2)	(2)	(3)	(3)	(3)				
	SCHEMATIC	2	2	2	3	3	3	4	4	6	6				
	DAGS	1	2	2	3	3	3	3	4	4	4				
	(USER) ₁	(1)	(1)	(1)	(2)	(2)	(2)	(2)	(3)	(3)	(3)				
	PRELIMINARY	2	3	3	3	3	3	5	7	8	10				
	DAGS	1	2	2	2	2	2	3	3	3	3				
	(USER) ₁	(1)	(1)	(1)	(1)	(1)	(1)	(2)	(2)	(2)	(2)				
	PRE-FINAL	3	4	4	4	5	6	7	9	11	15				
	DAGS	3	3	3	3	3	3	4	4	4	4				
	(GOV & USER) ₁	(2)	(2)	(2)	(2)	(2)	(2)	(3)	(3)	(3)	(3)				
FINAL	1	1	1	1	2	2	3	3	3	3	LAND USE PERMITS APPROVED	4-6 months for non-controversial 6-12 months for more significant projects Design time for \$10 million project: 39 weeks or ~10 months			
DAGS	1	1	1	1	1	1	1	1	1	1					
TOTAL (CONSULTANT)	8	10	12	14	16	17	23	27	34	40					
(DAGS)	6	8	9	11	12	12	14	16	16	16					
TOTAL DESIGN TIME (WEEKS)	24.00	28.00	31.00	35.00	38.00	40.00	52.00	58.00	66.00	72.00					
(MONTHS)	6.00	7.00	7.75	8.75	9.50	10.00	13.00	14.50	16.50	18.00					
BIDDING TIME (MONTHS)	1.50	1.50	1.50	1.50	1.50	1.50	2.00	2.00	2.00	2.00			BUILDING PERMIT APPROVED	2-4 months for smaller projects 4-8 months for bigger projects 8-12 months for larger projects	
B/O TO NTP (MONTHS)	1.50	2.00	3.00	3.00	3.00	3.00	4.00	4.00	5.00	6.00					
Building Permit Bid/Award Contract	CONSTRUCTION ₂ (MONTHS)	4.00	5.00	6.00	7.00	8.00	9.00	11.00	13.00	15.00			18.00	BUILDING PERMIT APPROVED	
	TOTAL PROJECT TIME (MONTHS)	13.00	15.50	18.25	20.25	22.00	23.50	30.00	33.50	38.50			44.00		
	PM REC'D DATE TO B/O (MONTHS)	7.50	8.50	9.25	10.25	11.00	11.50	15.00	16.50	18.50			20.00		

NOTE: • Refer to notes on Table B1.
• For priority projects, time requirements should be adjusted accordingly.
₁ User and Governor reviews concurrent with DAGS review.
₂ Verify material long-lead items; includes 10% for inclement weather.



*Based on actual data since 12/15/08 to 2/10/10



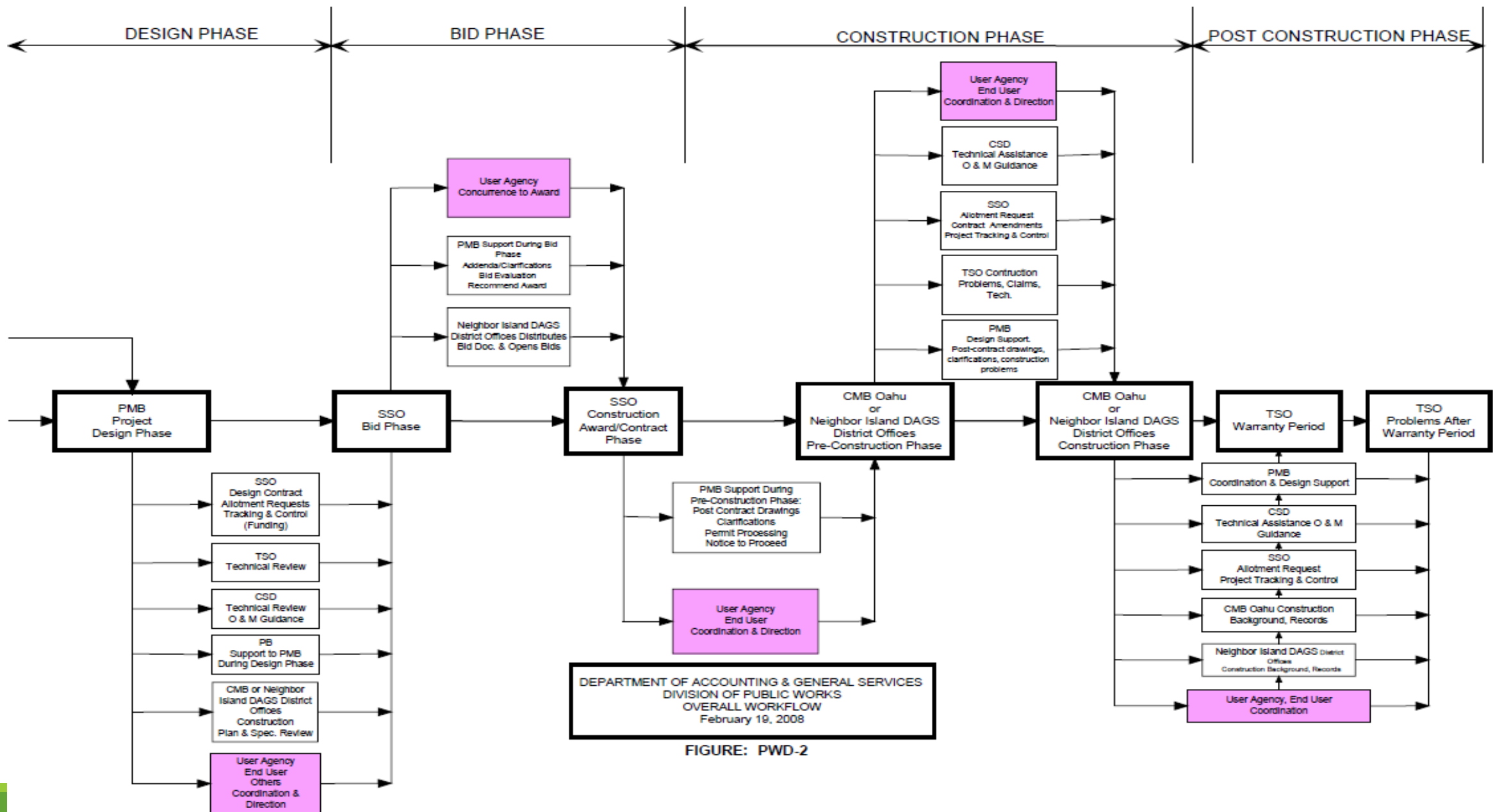


FIGURE: PWD-2

Protests

Protests

Process

- PWD receives protest letter: route to Contracts Engineer (CE) for processing and resolution
 - CE formally stays processing toward award of project
 - Including suspension of analysis of all bids
 - CE analyzes and researches claimed basis or bases of protest
 - As necessary CE request additional information from protestor
 - CE receives protestor's response to request
 - May include additional bases for protest, triggering additional analysis/research/questions
 - CE confers with Deputy AG on matters of law and interpretation thereof
 - CE drafts letter denying or sustaining protest
 - Letter routed for review/approval of BC, PWA, Deputy Comptroller; and Comptroller's signature
 - If denied and no timely receipt of protestor's request for administrative hearing, CE resumes processing toward award of project
- NOTE: This generalized process is shaped to the particulars of each specific protest.

Protests

□ Basis of Protests

□ For the period FY14 thru FY21:

□ **47** protests received and resolved

□ **44** protests prior to award

□ **Subcontractor list: 28**

□ 18 Denied, 9 Sustained, 1 Other

□ **Specifications/Scope of Work: 1** (other)

□ **Procurement Process: 1** (denied)

□ **Noncompliance with Solicitation Requirements: 2**

□ 1 Denied, 1 Sustained

□ **Other: 12**

□ Examples: bid bond question, bid rejection, bid preference, no subcontractor for work exceeding 1% of bid price, licensure compliance, failure to self-perform, improper use of forms

□ 9 Denied, 3 Sustained

□ **3** protests post-award

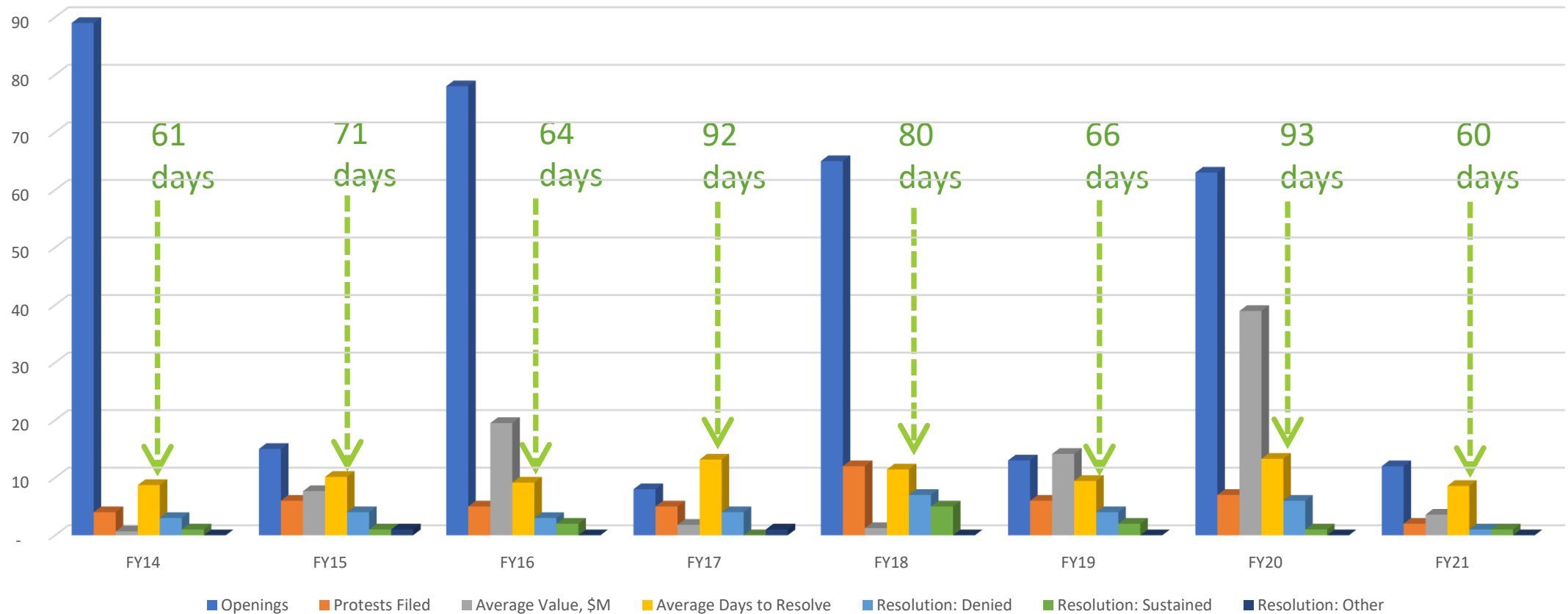
□ **1** alleged **unlicensed subcontractor**: Denied

□ **1** alleged **fraudulent subcontractor credentials**: Denied

□ **1** alleged **improper post-award bid rejection**: Denied

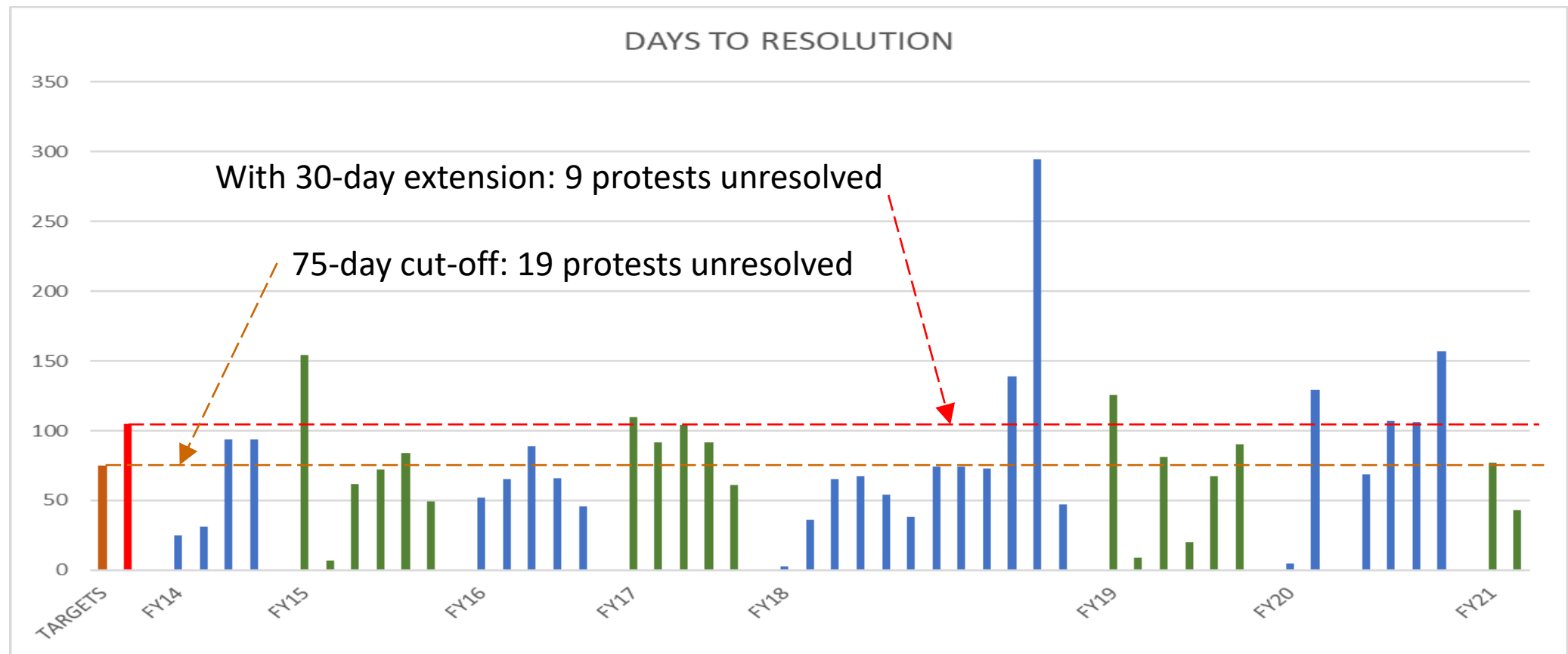
Protests

Historic Timelines



Protests

Historic Timelines



PWD Challenges

Projects Cradle to Grave: The “Silos”

Planning							Design				Construction			Post Construction	
Project Initiation: Scope-Budget- Schedule	PDR	Site Feasibility or Site Selection	EA/EIS	Land Acquisition/ Entitlements	Master Plan	Complex Development Report	Design	Bid	Award	NTP	Construction	Furniture & Equipment	Move-In	Warranty	Maintenance

Projects Cradle to Grave: Actual Functions

Entity/Branch	Planning							Design				Construction			Post Construction	
	Project Initiation: Scope-Budget-Schedule	PDR	Site Feasibility or Site Selection	EA/EIS	Land Acquisition/ Entitlements	Master Plan	Complex Development Report	Design	Bid	Award	NTP	Construction	Furniture & Equipment	Move-In	Warranty	Maintenance
User/Owner	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
TSO								Light Blue				Light Blue			Light Blue	
SSO	Yellow								Yellow	Yellow		Yellow	Yellow			
PB	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Light Blue				Light Blue	Light Blue	Light Blue		
PMB				Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow		Yellow	Yellow		Yellow	
CMB											Light Blue	Blue	Blue	Blue	Light Blue	
LSB											Yellow	Yellow	Yellow	Yellow		
PWA											Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	
Hawaii District											Light Blue	Blue	Blue	Blue	Blue	Blue
Kauai District		Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Maui District		Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue

Projects Cradle to Grave: Planning & More

Entity/Branch	Continuous										Planning													
	DCCM	Special Conditions	Consultant Registry	Administer DAGS CIP Budget	Administer PWD Operating Budget	Legislature	Procurement - Internal & External	Work Requests	Environmental Reviews	TOD	Broadband	SHPD	Industry Collaboration	Planning Budget/Funding	Project Initiation: Scope-Budget-Schedule	Allotment Request	Consultant Selection/Award	Contract Encumbrance	PDR	Site Feasibility or Site Selection	EA/EIS	Land Acquisition/Entitlements	Master Plan	Complex Development Report
User/Owner																								
TSO																								
SSO																								
PB																								
PMB																								
CMB																								
LSB																								
PWA																								
Hawaii District																								
Kauai District																								
Maui District																								

Projects Cradle to Grave: Design

	Design														
Entity/Branch	Design Budget/Funding	Allotment Request	Consultant Selection/Award	Contract Encumbrance	Design	Construction Budget/Funding	F & E Relocation Budget/Funding	Advertise	Bid	Award	Contract Encumbrance	Permits	Move-Out	NTP	
User/Owner	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	
TSO	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	
SSO	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	
PB	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	
PMB	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	
CMB	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	
LSB	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	
PWA	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	
Hawaii District	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	
Kauai District	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	
Maui District	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	

Projects Cradle to Grave: Construction/Post Construction

Entity/Branch	Construction			Post Construction	
	Construction	Furniture & Equipment	Move-In	Warranty	Maintenance
User/Owner	Yellow	Yellow	Yellow	Yellow	Yellow
TSO	Blue			Blue	
SSO	Yellow	Yellow			
PB	Blue	Blue	Blue		
PMB	Yellow	Yellow	Yellow	Yellow	Yellow
CMB	Blue	Blue	Blue	Blue	Blue
LSB	Yellow	Yellow	Yellow		
PWA	Blue	Blue	Blue	Blue	Blue
Hawaii District	Blue	Blue	Blue	Blue	Blue
Kauai District	Yellow	Yellow	Yellow	Yellow	Yellow
Maui District	Blue	Blue	Blue	Blue	Blue

PWD Cradle to Grave

Entity/Branch	Non-Project Related					Unprogrammed Support							
	Leasing Services	Space Authorization	Space Assignments	Grants in Aid	State ESF-3	Governor Requests	Legislative Requests/Inquiries	DOH	PSD	HSPLS	Aloha Stadium	CSD	LSB
User/Owner													
TSO													
SSO													
PB													
PMB													
CMB													
LSB													
PWA													
Hawaii District													
Kauai District													
Maui District													

CAPACITY

- Number of Projects
- Value of Projects
- Complexity
 - Breadth of Project Types
 - Users/Owner's Preparation/Capacity
 - Competing Responsibilities
 - Time
 - Money

Our Internal Clients

□ DAGS Divisions

- Archives
- Automotive Management
- Central Services

□ Occupants of DAGS-Managed Facilities

□ Attached Agencies

- Aloha Stadium
- Office of Enterprise Technology Services
- State Foundation On Culture and the Arts

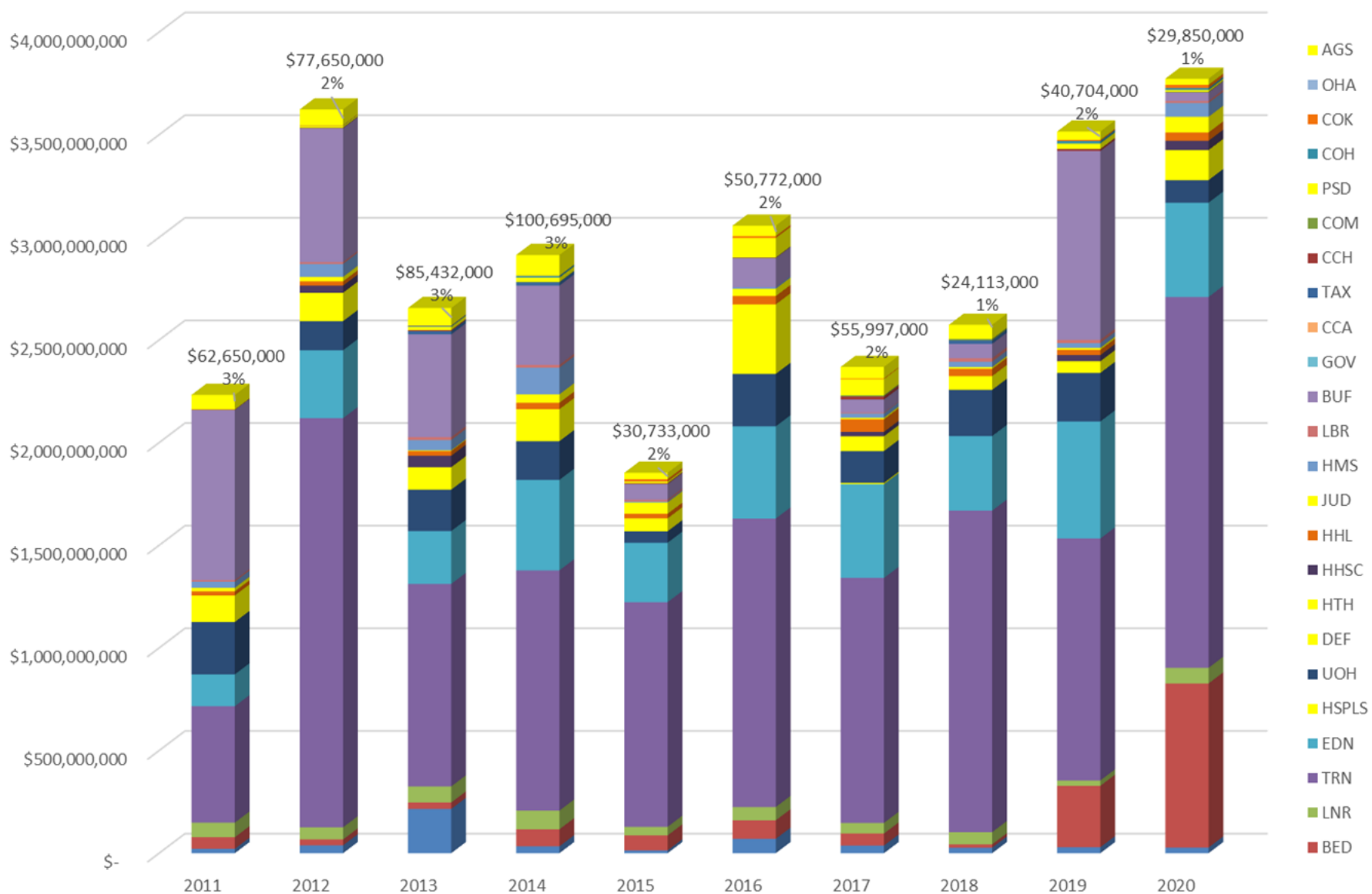
Our External Clients - DAGS Typical Clients

- Dept. of Agriculture
- Dept. of Business, Economic Development, and Tourism
- Hawaii State Public Library System
- State Dept. of Defense (National Guard, OVS, HIEMA)
- Dept. of Health
- Dept. of Human Services
- Judiciary
- Dept. of Public Safety
- Chapter 42F Grants in Aid
- State Museum of Natural History (Bishop Museum)

Clients for Special Projects

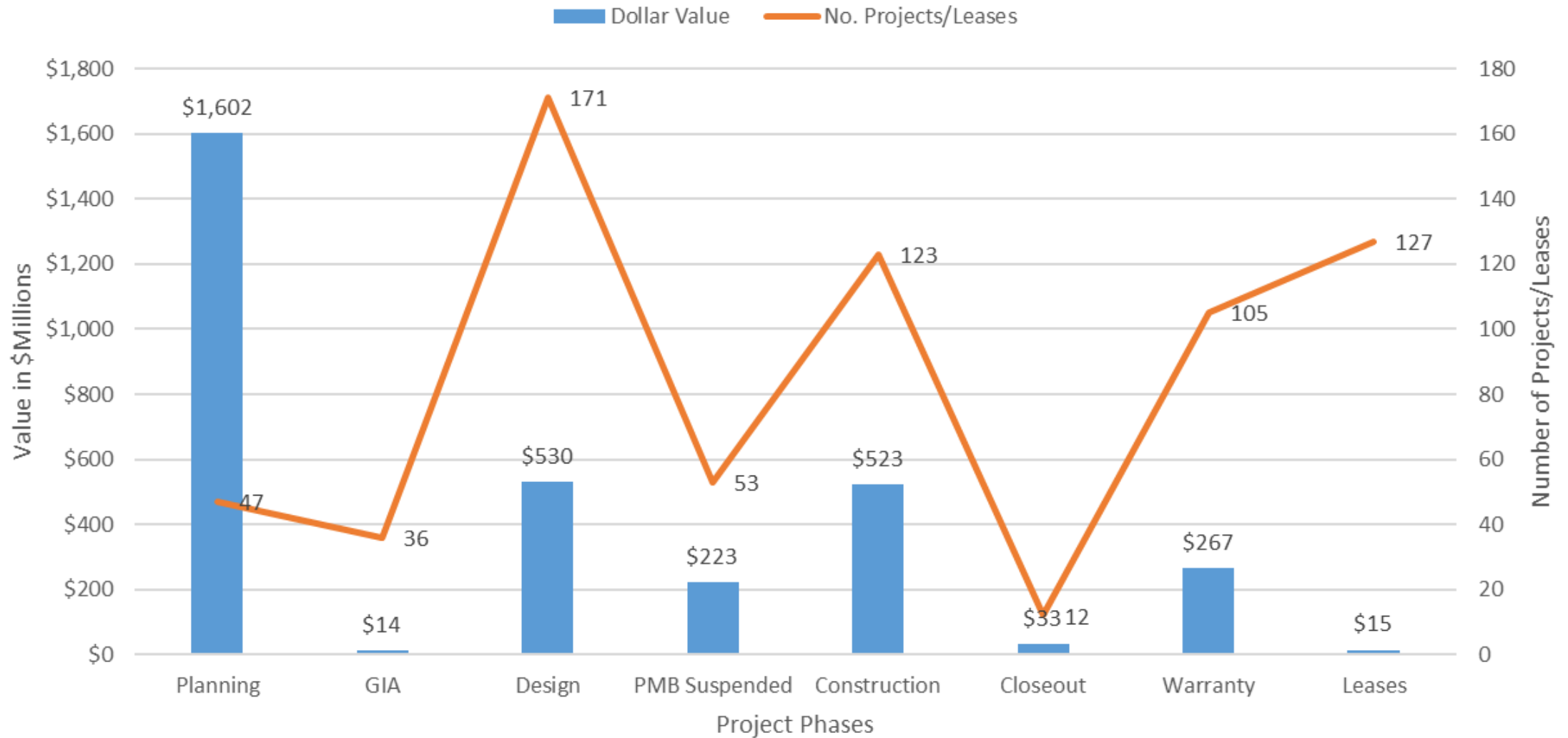
- Dept. of Hawaiian Home Lands
- Dept. of Land and Natural Resources
- Dept. of Transportation
- High Tech Development Corp
- University of Hawaii
- Other

Total CIP Appropriations by User Agency



DAGS' CIP Program Includes Client Agencies

Active Projects



Number or Architect/Engineers: Authorized = 40

Filled = 30 (+7 Branch Chiefs/PWA)

Total \$3.21 Billion

674 Projects

Active Consultant Contracts

- Planning: 60 Contracts \$41 million
- Design: 239 Contracts \$116 million
- CM and Misc.: 8 Contracts \$6.9 million

Value Added Focus

- ❑ Not Change the Procurement Code → Improve Utilization & Understanding of Existing Strengths.
- ❑ Fund and Fill Vacancies → Not Rely on 3rd Party Services
- ❑ Provide Recruitment and Retention Tools
 - ✓ Increased Pay
 - ✓ Increased Benefits – including incentives (e.g. geographic and/or increased shortage differentials)
 - ✓ Flexibility
 - ✓ Reinstate PRO – Agencies Able to Direct Hire
- ❑ Emphasize Succession and Survival Planning for the Brain Drain

SUPPORT

- Recognize the Crisis
- Provide Value Added Support: Focus on the Crisis
- Fund Vacancies Statewide
- Allow Filling of Vacancies
- Implement Direct Hiring
- Provide Incentives to Work for the State: Pay, Benefits, Training, Working Conditions

All the rules in the world won't matter when no one is working.

Bonus Material

Change Orders Profile

BY PROJECT PHASE AND TYPE

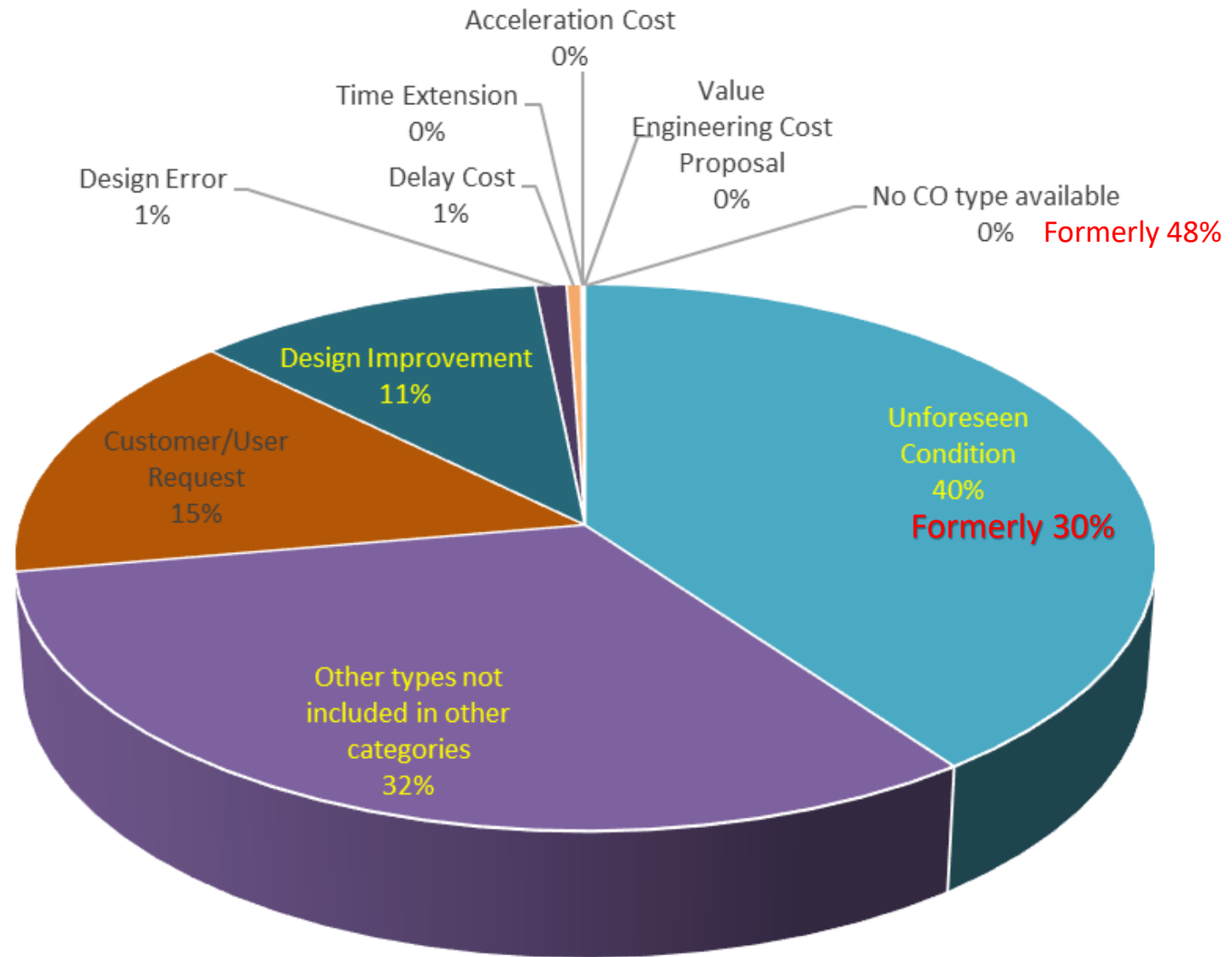
Change Orders

Projects Over \$100K Completed FY 2019 - 2021

Type of Contract	No.	(In \$ Millions)				No. Change Orders	No. Extensions	Average Per Project	
		Original Contract Total	Final Contract Total	Total Increase	Total % Increase			No. Change Orders	No. Extensions
Planning	10	\$4.73	\$5.07	\$0.340	7.2%	1	9	0.1	0.9
Design	35	\$13.8	\$25.7	\$11.9	86.6%	66	0	1.9	0.0
Construction	85	\$277	\$301	\$23.6	8.5%	630	199	7.4	2.3
GIA	8	\$4.59	\$4.59	0	0.0%	0	14	0.0	1.8

Notes on Professional Services Contracts for Planning and Design:

- Change Orders are actually contract amendments
- Most are anticipated from the time of contract execution.
- In general, consultant contracts for planning and design are still quite fluid at the time of award.
- Many are executed as "subject to change" contracts with minimal initial scopes, as final project scope, existing conditions, and cost/funding are unknown.
- As the project progresses through its due diligence steps, work scope becomes more defined and fee negotiations may ensue. As fees are approved, contracts are amended to include the refined scopes and fees.



Construction Change Orders by Type

Other Types of Change Orders

<u>Change Order Type</u>	<u>Total No.</u>	<u>Total Amount</u>	<u>Percentage</u>
No CO type available	0	\$0.00	0.00%
Unforeseen Condition	289	\$7,208,704.00	40.04%
Other types not included in other categories	41	\$5,814,547.00	32.29%
Customer/User Request	108	\$2,711,961.10	15.06%
Design Improvement	96	\$1,999,141.00	11.10%
Design Error	19	\$178,866.00	0.99%
Delay Cost	5	\$83,802.00	0.47%
Time Extension	34	\$7,960.00	0.04%
Acceleration Cost	1	\$7,138.00	0.04%
Value Engineering Cost Proposal	1	-\$6,763.00	-0.04%
	594	\$18,005,356.10	

Other Types of Change Orders

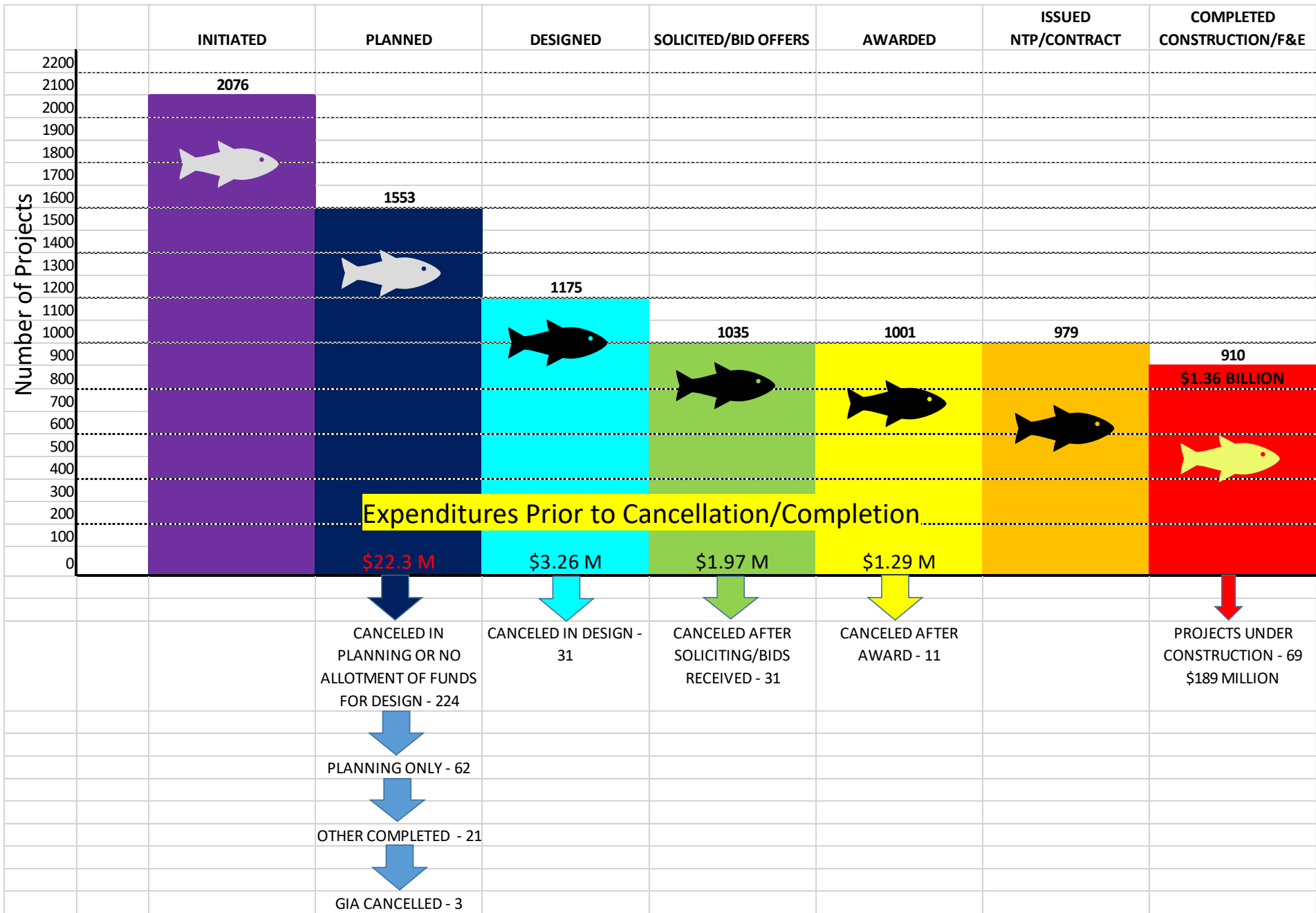
- ❑ The number of change orders is relatively small, but the dollar value is large.
- ❑ When DPP, HECO, DCAB, etc., make comments on the project after bid and changes are required, these changes are marked as “Other”. These types of changes may be major so the dollar values may be large.
- ❑ At times, CMB or the District Offices may “package” multiple Authorizations For Change (AFCs) into a single change order. While each of the individual AFCs may have different “causes/types” identified, “Other” is entered so that the percentages are not skewed toward any one “cause/type”. This “package” of change orders usually has a high dollar value, appears to occur at the very end of construction when the project is being closed, and is more prevalent in areas that are short-staffed.
- ❑ Work is underway to encourage better break-down recordation of all change orders.

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A significant number of projects initiated within PWD do not survive through construction completion. This may be due to:

- ✓ Lack of Funding at multiple stages
- ✓ Lack of Commitment
- ✓ Lack of Support
- ✓ Change in Direction
- ✓ Entitlements
- ✓ Permit Requirements Exceed Project Capacity
- ✓ Rarely: Environmental / Community Impacts





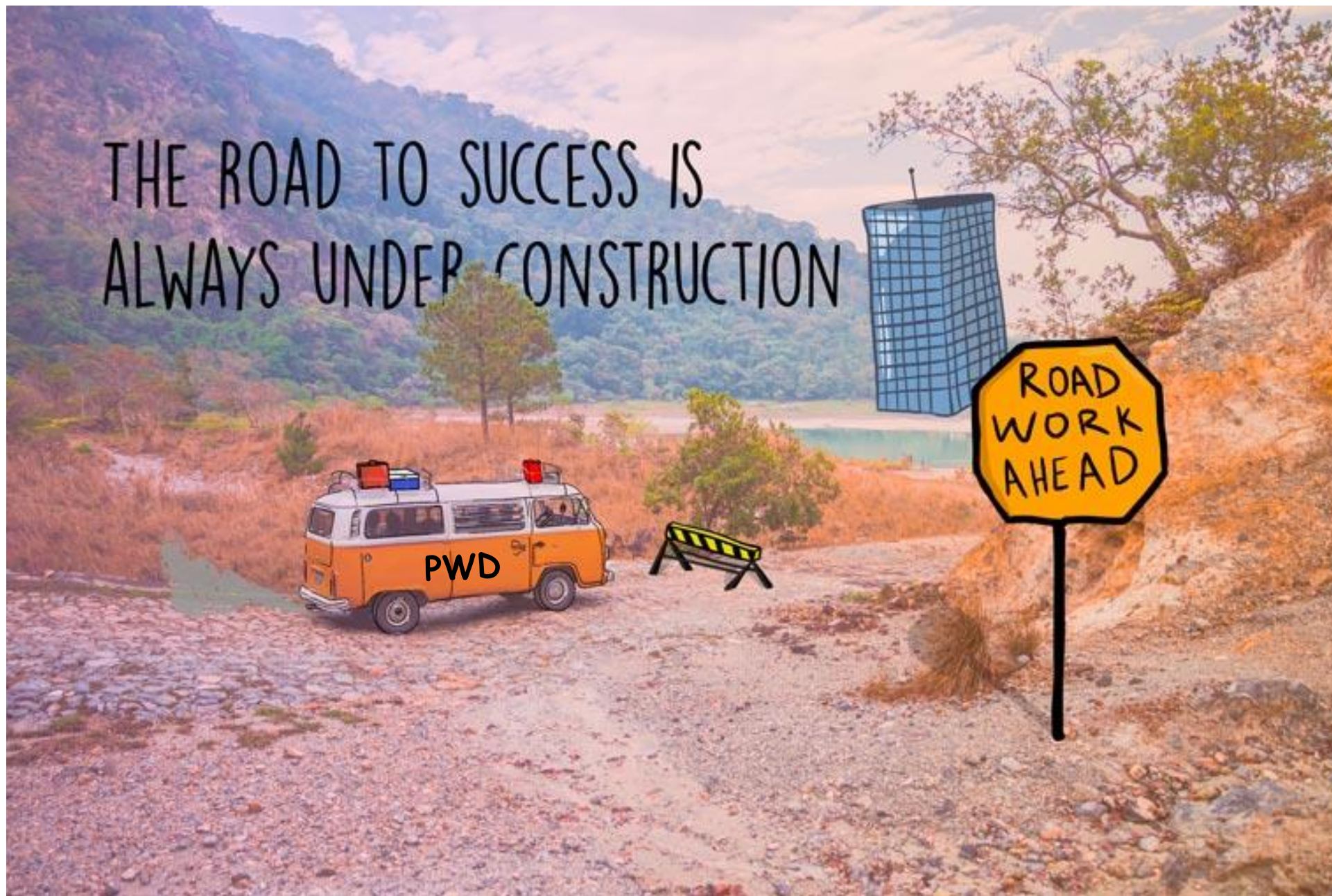
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IN CONCLUSION...

Continuous Improvement is the Key

But Having a Capable Team is Essential

THE ROAD TO SUCCESS IS
ALWAYS UNDER CONSTRUCTION



DISCUSSION

MAHALO!
