Client Enrichment Series

Welcome to today's presentation on

Cost Estimating and Cost Management Principles

January 18, 2024

The presentation will start at 1:00 pm Eastern

Note: Phones are automatically muted during the presentation. You can send questions to our presentation team via your Q&A pane and team will answer as many questions as possible during the presentation. All questions will be responded to in writing in a formal Q&A document, posted along with the slide deck and session recording, on our website, http://www.gsa.gov/ces

Client Enrichment Series

Cost Estimating and Cost Management Principles

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Office of Design and Construction
Project Delivery
GSA | PBS | Central Office

Poll #1

- *What is your role within the Cost Estimating/Cost Management program in your agency?*
  - *Cost Estimator*
  - *Project Manager*
  - *Project Coordinator/Liaison*
  - *Budget/Finance*
  - *No formal role - general interest in the topic*
  - *Other (please specify in the "Chat" pane*

- *How comfortable are you with the processes of Cost Estimating/Cost Management? (Scale of 1-5)*

  1 = Not comfortable at all - I have little/no experience

  5 = Very comfortable - I have extensive experience/expertise

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Agenda

- *What is Cost Management?*
- *What is the Project Life Cycle, and How Does Cost Management Fit In?*
- *What is Needed for Good Cost Estimating?*
- *Why do Estimates Vary?*
- *What Resources are Available to Support Cost Management?*
- *Q&A*

What is Cost Management?

Cost Management is concerned with the process of planning and controlling the project development to remain in scope and budget.

Cost Estimating	***Project Budgeting***	***Cost Control***
Forecast of financial and other resources needed to complete a project with a defined scope.	Is the sum of all estimated costs. Establishes baseline. Defines the funds authorized to execute the project.	Managing changes to the project that impact time and scope.

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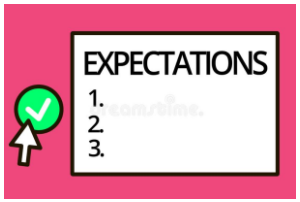
What is Needed for a Reliable Estimate?

A clearly articulated vision of a successful project outcome

A well defined scope



Clear parameters/expectations on constraints

Continuous communication and partnership as needs evolve. Involve the key stakeholders.

Ideal Scope of Work

- ***Should be :***
  - ***Organized***
  - ***Sequential***
  - ***Reviewed for alignment between all parties***

- ***A Scope of Work should tell a concise story with a clear outcome!***

Writing the Scope of Work

- ***In order to be able to adequately estimate a project, the scope has to be developed in adequate detail as possible.***
  - Expectations shall be clear within the scope
  - Where, how, and why should be part of the narrative

- ***These items should be part of the scope***

Existing Conditions	Working Hours	Special Clearances	Period of Performance
Subject Matter Support	Restrictions	Market Conditions	Clear Statement of the Need

Why Do Estimates Vary?

All PBS estimates are prepared in accordance with industry and professional standards and methodologies, but estimates *do* vary...

Project Scope and Scale

Granularity of the Scope of Work

Timing to Market and Prevailing Conditions

Location of Project

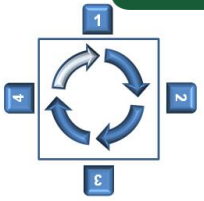
Large Capital vs. Small Projects

Size matters...significant differences in...

How your agency and GSA have to budget for the project

Pre-project analysis, including feasibility studies, are required for large projects

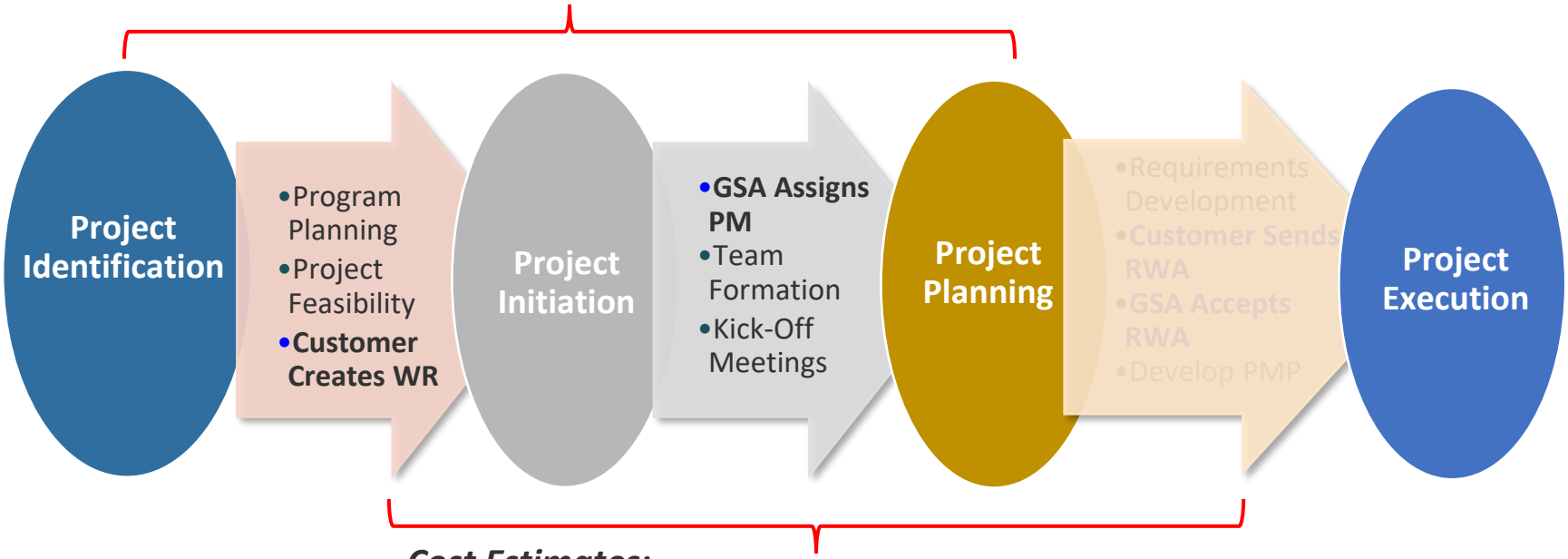
Lifecycle of the project



Cost Management and the Project Lifecycle

Cost Management and the Project Lifecycle – Early Phases

- ***Work Requests (WR) sent via eRETA begin the Project formation***
- ***Work with GSA Project Manager to complete requirements development***
- ***Cost Management - Develop cost estimates at various phases of the project and manage costs within scope***



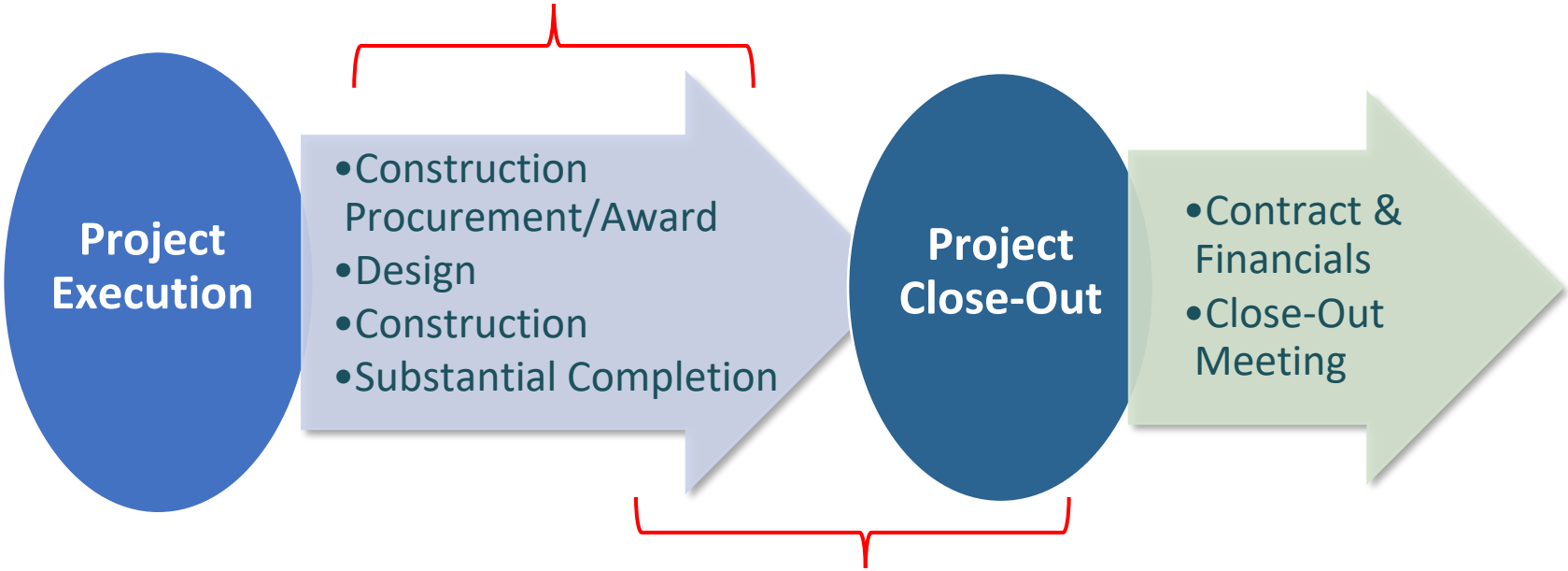
Cost Estimates:

- ***Project Initiation - Order of Magnitude Estimate***
- ***Project Planning - Budget Estimate***

Cost Management and the Project Lifecycle – Later Phases

Cost Estimates:

- ***Project Execution - Construction***
- ***Project Execution - Change Order***



- ***Create inclusive project team***
- ***Share draft & final documents***
- ***Discuss project decisions***

Estimate Types (RWA) - Accuracy Increases as Details Increase

Type of Estimate (Tier)	Purpose	Information Available	Accuracy
Order of Magnitude	To assist client with initial budgeting in order to vet work items and properly scope project	Very little information may be available at this stage. Requirements may be undefined	+75%, -40%
Budgetary	To establish a project budget after the Scope of Work is defined.	Scope-of-Work finalized, blocking plans, existing building conditions verified.	± 30%
Conceptual Design	To check the current project costs against initial budget, scope, design elements	Design Development drawings and project documents typically 25% to 40% complete.	± 20%
Construction Estimate	Final detailed requirements - To be used for construction procurement.	100% complete drawings and specifications and all relevant project information.	+10%, -5%
Contractor Bid/Proposal	To award construction contract	Bids are based on drawings and specifications	Varies based on contractor and market conditions
Change Order Cost Evaluation	To verify costs are fair and reasonable and to verify proper Shell/TI allocation	Varies depending on scope of the change.	+10%, -5%

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Iterations become more refined through Project Life-Cycle

Estimate Accuracy Increase As Details Increase

Example #1 - On ***Aug 25***, you submit an RWA to ***completely remodel*** your office… there's been ***no prior discussion with GSA, no design, requirements are undefined, and there's no opportunity for a site visit before EOY***….what type of estimate should you expect?

A) Order of Magnitude *(+75% to -40%)*

B) Budgetary Estimate *(+ or - 30%)*

C) Construction Estimate *(+10% to -5%)*

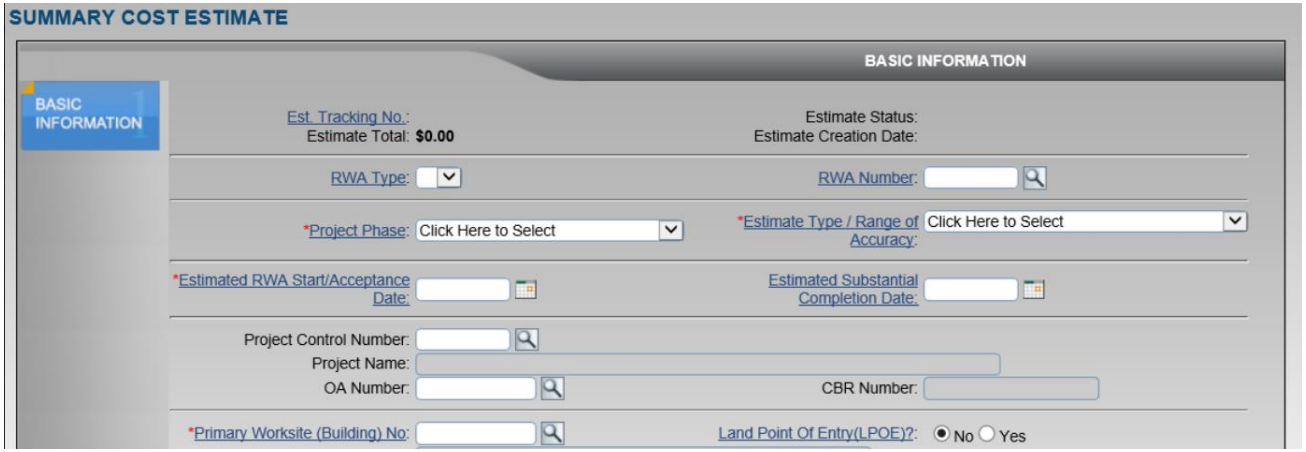
Example #2 - On ***Nov 25***, you submit an RWA for the ***design to completely remodel*** your office..a ***work request has been submitted into eRETA***, ***site visit(s) have occurred, estimates developed, scope of work and requirements development finalized..***….what type of estimate should you expect?

A) Order of Magnitude *(+75% to -40%)*

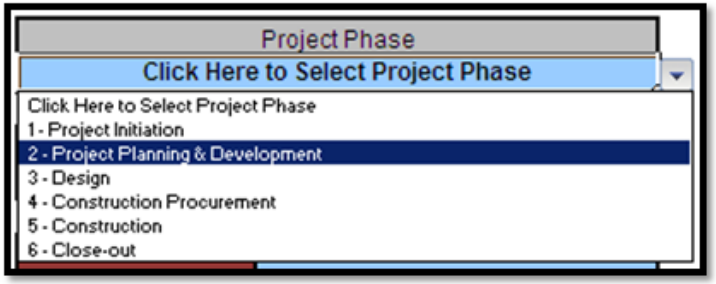
B) Budgetary Estimate *(+ or - 30%)*

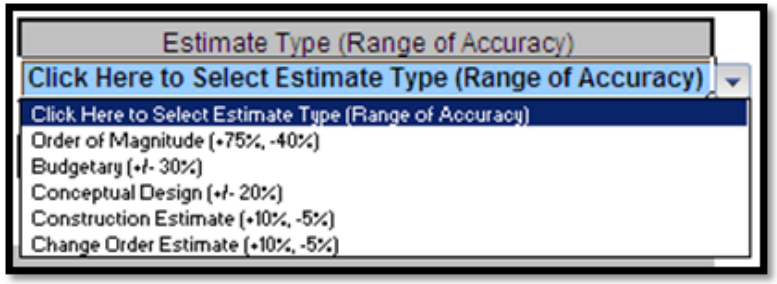
C) Construction Estimate *(+10% to -5%)*

Each RWA Has a Summary Cost Estimate (SCE)



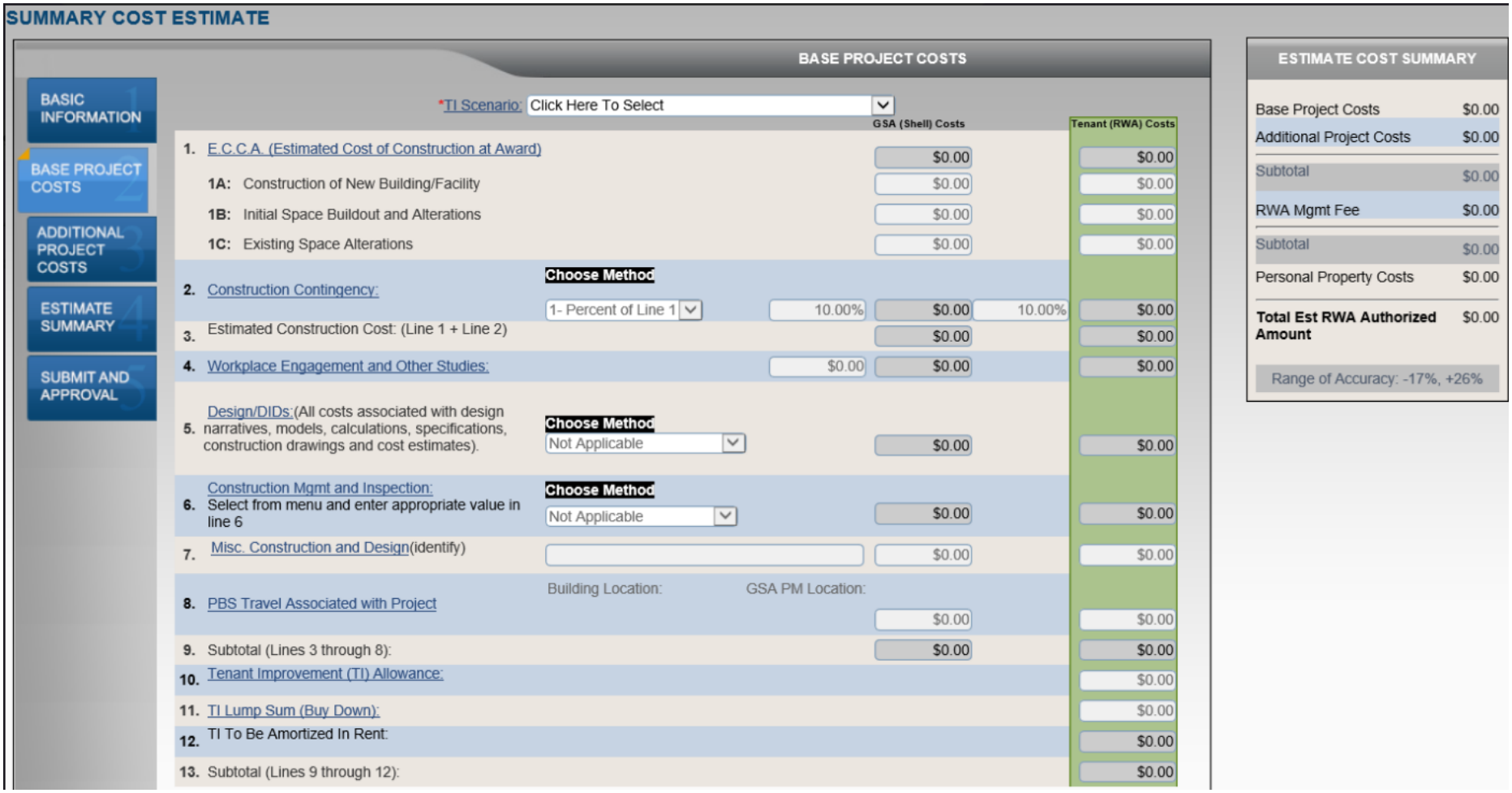
The *SCE* worksheet is required for all nonseverable RWAs.





Updated *SCEs*, with tighter ranges of accuracy, are sent to customers as cost estimates are refined throughout the project lifecycle.

Summary Cost Estimate (SCE)



SUMMARY COST ESTIMATE

BASE PROJECT COSTS

BASIC INFORMATION
BASE PROJECT COSTS
ADDITIONAL PROJECT COSTS
ESTIMATE SUMMARY
SUBMIT AND APPROVAL

*TI Scenario: Click Here To Select

				GSA (Shell) Costs		Tenant (RWA) Costs
1.	E.C.C.A. (Estimated Cost of Construction at Award)			$0.00		$0.00
	1A: Construction of New Building/Facility			$0.00		$0.00
	1B: Initial Space Buildout and Alterations			$0.00		$0.00
	1C: Existing Space Alterations			$0.00		$0.00
2.	Construction Contingency:	Choose Method: 1- Percent of Line 1	10.00%	$0.00	10.00%	$0.00
3.	Estimated Construction Cost: (Line 1 + Line 2)			$0.00		$0.00
4.	Workplace Engagement and Other Studies:		$0.00	$0.00		$0.00
5.	Design/DIDs:(All costs associated with design narratives, models, calculations, specifications, construction drawings and cost estimates).	Choose Method: Not Applicable		$0.00		$0.00
6.	Construction Mgmt and Inspection: Select from menu and enter appropriate value in line 6	Choose Method: Not Applicable		$0.00		$0.00
7.	Misc. Construction and Design(identify)			$0.00		$0.00
8.	PBS Travel Associated with Project	Building Location: GSA PM Location:		$0.00		$0.00
9.	Subtotal (Lines 3 through 8):			$0.00		$0.00
10.	Tenant Improvement (TI) Allowance:					$0.00
11.	TI Lump Sum (Buy Down):					$0.00
12.	TI To Be Amortized In Rent:					$0.00
13.	Subtotal (Lines 9 through 12):					$0.00

ESTIMATE COST SUMMARY

Base Project Costs	$0.00
Additional Project Costs	$0.00
Subtotal	$0.00
RWA Mgmt Fee	$0.00
Subtotal	$0.00
Personal Property Costs	$0.00
Total Est RWA Authorized Amount	$0.00

Range of Accuracy: -17%, +26%

GSA Cost Management Process Enhancements

- ***The Forward Looking approach***

  - **Escalation method** - Instead of looking at the past data, we are leveraging a strategic calculation that assumes escalation will gradually go down over the next years.

  - **Current Data vs Historical Data** - We are stressing out the use of updated data to build our estimates, that will align better with current market conditions.

GSA Cost Management Process Enhancements, con't

- Contingency Rates and Locality Market Adjustments
  - Labor adjustments for increased rates and labor shortages
  - Material supply chain premiums

  - Project Labor Agreements
  - Low Embodied Carbon Materials
  - Sustainability/Net Zero requirements

GSA Cost Management Process Enhancements

- Participation in an Interagency Forum for Knowledge Exchange on Best Practices

- Contingency Determination tool pilot using Risk Model
  - Leveraging project uncertainty to determine adequate contingency
  - Implementing pilot in GSA funded projects
    - Studying Feasibility of applying to Customer projects

Case Study - Market Volatility

CASE 1 - TENANT PROJECT IN DETROIT	CASE 2 - PROJECT IN USVI
Estimated Cost Of Construction - **$2,463,000** - April 2021	Went Out To Bid 2 Times - Budget - **$3,500,000**
Sole Bidder Amount -**$3,750,000** - June 2021	First Bid Round - **$5,900,000** - March 2021
Interview Discoveries - Trade Shortage, Commodity Market Spikes, Market Uncertainty, Estimate Pricing Point	Second Bid Round - **$8,800,000** - October 2021
Awarded At A Negotiated **$3,500,000**	Currently Pivoted Delivery Method To Design Build And De-Scoped.

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Managing Volatility - Lessons Learned

- **Estimate current costs** based on the latest data.
  - Blanket percentages can wildly over/undershoot the potential risks.
- **Encourage early purchase** of materials on long delivery timelines
- **Design to 90% of ECCA**; Create options for the remaining 10%. *Minimize number of total options provided to GC and ensure they do not impact quality.*

Managing Volatility - Lessons Learned, con't

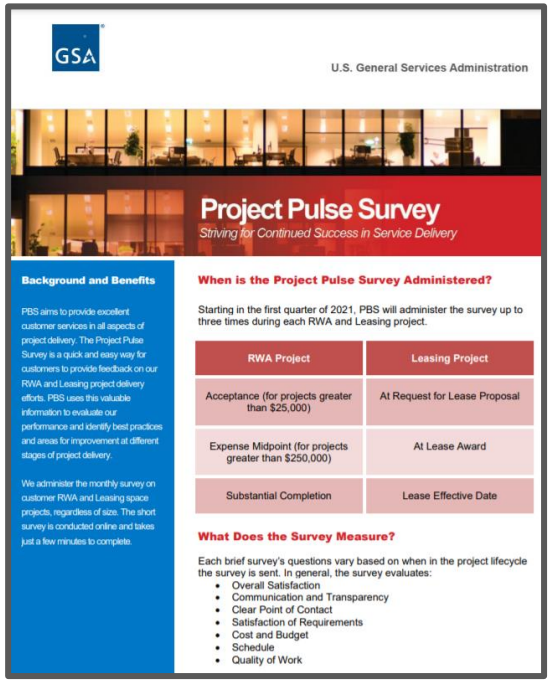
- **Active budget management**, The final cost estimate must include a list of cost-saving items that would collectively reduce the project cost to approximately 10 percent below budget.
- **Competition:** Many regions have been experiencing up to 30-40% cost increases when procurement does not include competition.
- **Value Management:** For projects over prospectus utilize value management studies to reduce construction and life cycle costs
- **Funding Timing:** The shorter timeframe from funding to execution the less risk the market bears on the project

Project Pulse Survey - Seeking Your Feedback

- Quick and easy way to provide RWA project feedback
- Used to improve GSA performance
- Sent at key points during the RWA lifecycle (depending on $)
  - Issued at RWA Acceptance – after an SCE is provided
- **RWA Project Customer POCs** are asked to
  - Rate your Overall Satisfaction
  - Weigh in on specific project attributes
    - Scope/Schedule/Budget/Quality
    - Communications/Transparency
  - Offer comments about your GSA project experience

Sender email - projectpulsesurveys@research.gsa.gov

Subject line - How did GSA do?...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Project Pulse Survey

Striving for Continued Success in Service Delivery

Background and Benefits

PBS aims to provide excellent customer services in all aspects of project delivery. The Project Pulse Survey is a quick and easy way for customers to provide feedback on our RWA and Leasing project delivery efforts. PBS uses this valuable information to evaluate our performance and identify best practices and areas for improvement at different stages of project delivery.

We administer the monthly survey on customer RWA and Leasing space projects, regardless of size. The short survey is conducted online and takes just a few minutes to complete.

When is the Project Pulse Survey Administered?

Starting in the first quarter of 2021, PBS will administer the survey up to three times during each RWA and Leasing project.

RWA Project	Leasing Project
Acceptance (for projects greater than $25,000)	At Request for Lease Proposal
Expense Midpoint (for projects greater than $250,000)	At Lease Award
Substantial Completion	Lease Effective Date

What Does the Survey Measure?

Each brief survey's questions vary based on when in the project lifecycle the survey is sent. In general, the survey evaluates:

- Overall Satisfaction
- Communication and Transparency
- Clear Point of Contact
- Satisfaction of Requirements
- Cost and Budget
- Schedule
- Quality of Work

Summary

- *Early planning helps improve scope development*
- *A well defined scope leads to a more accurate estimation of costs*
- *Current Market data should be used when doing cost management exercise*
- *Communication through the project life cycle is key to success*

Poll #2

A. *What topics within Cost Management would you be interested in learning more about? (Choose all that apply)*
   a. *Definitive/Detailed Estimating*
   b. *How to build Cost Breakdown Structures*
   c. *Understanding Market Volatility*
   d. *Other (please contribute in the "Chat" pane)*

A. *After attending this session, how comfortable are you now with the process of PBS Cost Estimating/Cost Management? (Scale of 1-5)*
   1 = I still am not comfortable at all
   5 = I am now significantly more comfortable with this process

Questions?

Presented by

Richard Robert-Santiago
National Cost Management Program Manager

Jason Cook
Construction Analyst

Jesse Peragine
Program Analyst for Reimbursable Services

Q&A SMEs

Cost Management
Brandon Duffy, Greg Fowler and Mike Bohlmann

Reimbursable Services
Ashlee Carlson, Rachel Bichsel and Laura Beth Hawkins

Upcoming Client Enrichment Series Sessions

Water Quality Management in GSA Buildings

Thursday, February 15, 2024 1pm-3pm eastern

Register Today!

RWA Policy and Processes Fundamentals

Thursday, February 22, 2024 1pm-3pm eastern

Register Today!

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