Parsons Brinckerhoff, Inc.

# Section 5 – Project Work Plan

## Project Delivery Basic Training

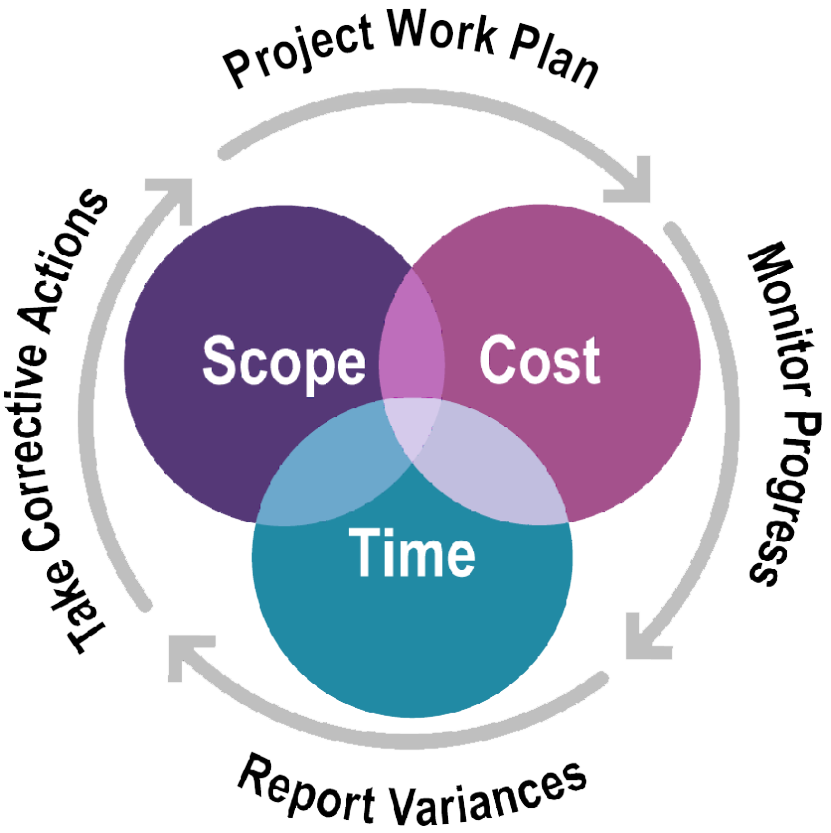
February 2011

# Objectives

- Identify elements of a complete project work plan
- Identify elements of a revenue budget and cost budget
- Calculate margin on a project
- Determine when to update a revenue budget and cost budget

# Project Work Plan

- Composed of the revenue budget and cost budget
  - Aligned with scope and schedule
  - Breakdown by task-- WBS
- Embedded in the project management plan
- Communicated through PBIS
- PM maintains documentation to demonstrate alignment of
  - Scope
  - Schedule
  - Budget



# Work Breakdown Structure (WBS)

- Tool to organize and integrate scope, schedule and budget into manageable components
- Hierarchical structure to
  - Assign accountability
  - Summarize, track and manage scope, schedule and budget
- Multiple levels (example)
  - Level 1 – Defines the entire project
  - Level 2 – Defines the components of the project
  - Level 3 – Defines project tasks

# Revenue Budget and Cost Budget

- Aligned with scope and schedule
- Allocated on a “task by task” basis in accordance with
  - Contract with client (revenue budget)
  - PM cost at completion (cost budget)
- Control project billings and expenditures
- Reviewed each period
- Updated as necessary

# PB Budget

- Three components
  - Revenue budget
  - Cost budget
  - Margin

  - Initial margin goal established by project manager at agreement/ project set-up

# Budget Analysis Workshop

- Workshop Scenario:
  - You have received your contract for a new project, assessed the scope and schedule and developed a detailed budget. The Agreement Set-up requires a margin goal– that you promise to deliver.
    - *How do you develop the goal?*
    - *What are your risks in delivering this margin goal?*
- Case:
  - The project is $500K with bill rates. Some staff are paid more than the allowable bill rates. In addition, travel for assistance from other offices are not billable.
- Handouts:
  - Margin Analysis Case A
  - Margin Analysis Case B
  - Margin Analysis Case C

# Revenue Budget

- Revenue budget is equal to the authorized client contract amount
- Reimbursable by the client through billings
- At project completion, equal to total collected amount

# Cost Budget

- Cost budget is equal to the anticipated cost to complete the scope of services
- Actual costs incurred for the project (billable or non-billable)
- PM's cost at completion estimate
- At project completion, equal to total costs incurred on project

# Budget Component Categories

- Labor
- Overhead
- Subcontractor
- Expense
- Contingency
- Margin (revenue budget only)

# Revenue vs. Cost Budget

| Revenue Budget | Cost Budget |
|---|---|
| Based on contract value | Based on PM's cost at completion |
| Includes contracted margin | Does not include margin |
| Calculated based on raw bill rates or limited to contracted position rates and salary caps | Calculated based on actual raw pay rates |
| Does not include nonbillable costs | Includes PM's estimated nonbillable costs |
| May include client controlled contingency | Includes PM's estimated contingency as part of estimated cost at completion – based on contract requirements and project risk |
| O/H allowance based on contracted rate | O/H allowance based on contracted rate |

# Margin Analysis for Agreement Set-up

- Roll up from each task detail

## Margin Analysis

### Summary Sheet

**Project Number:**
**Project Title:**
**Date:**

| Category | | Revenue Budget Contract Revenue | Cost Budget PB Estimated Cost | (Revenue Budget-Cost) Budget=Margin |
|---|---|---|---|---|
| Labor | | $ - | $ - | $ - |
| Contract Overhead at Percent (%) | | $ - | $ - | $ - |
| Contract FCC at Percent (%) (1) | | $ - | $ - | $ - |
| Margin on Labor & Overhead (as stated in contract) | | $ - | | $ - |
| Expenses - (Vendor) | | $ - | $ - | $ - |
| Expenses - (Internal) | | $ - | $ - | $ - |
| Non-Reimbursable | | | $ - | $ - |
| Work Sharing (Travel) | | | $ - | $ - |
| Subcontractors | | $ - | $ - | $ - |
| Fee on Subs if allowed | | $ - | $ - | $ - |
| Subtotal | | $ - | $ - | $ - |
| Contingency (2) | | | $ - | $ - |
| Total | | $ - | $ - | $ - |
| Margin / Total Contract | | | | 0.00% |
| Margin / PB Labor and Overhead | | | | 0.0% |
| Labor Multipler | | 0.000 | | 0.000 |

# Workshop Task

1. Which case has a cost budget that indicates the forecast non-reimbursable travel costs on the project?
2. Which case has a cost budget that indicates salary breakage? (Where the actual labor cost paid exceeds the amount PB is allowed to bill the client.)
3. Why is it important to include these items in the original project budgeting?

# Updates

- Initial cost budget is the PM's cost at completion estimate for the contract scope
- Cost budget adjustment
  - Cost budgets should be reviewed each period and updated as appropriate
  - PM's revised cost at completion estimate
- New PM provides an updated estimate at completion and proposed new margin goal

# Updates

- Contract Modifications
  - If funding amount is added, removed or reallocated, the revenue budget will need to be updated
  - If the mod requires the PM to provide a revised estimate of cost at completion or reallocation of estimate among tasks, the cost budget will need to be updated
  - Pre-approval is required to perform out-of-scope work in advance of a contract mod
    - PD201-05
    - Cost budget should be adjusted to reflect PM's estimated cost at completion that includes the cost to complete the work

# Updates

- Inception to date cost exceed cost budget
  - Cost budget = actual costs to date plus the PM's estimated cost to complete the project = PM's estimated cost at completion
  - Identify if true erosion (erosion from planned project margin goal) or mod pending
    - If true erosion
      - What is causing?
      - What is total erosion anticipated?
      - What is being done to mitigate the impact?
    - If mod is pending
      - Was approval given to work in advance?
      - What is the anticipated amount of mod & will it cover costs incurred?
      - What is the status of mod execution?
  - Update with PM's revised estimated cost at completion

# Budget Updates

- Changes occur that would impact cost at completion estimate
  - Overrun
  - Pending modification
  - Change in personnel
  - Overhead adjustment
  - Not accounted for in the cost budget that established the margin goal
    - Nonbillable cost
    - Escalation
  - Out-of-Scope work
    - Requires pre-approval by area manager
    - BMS Form PD201-05
- Closeout

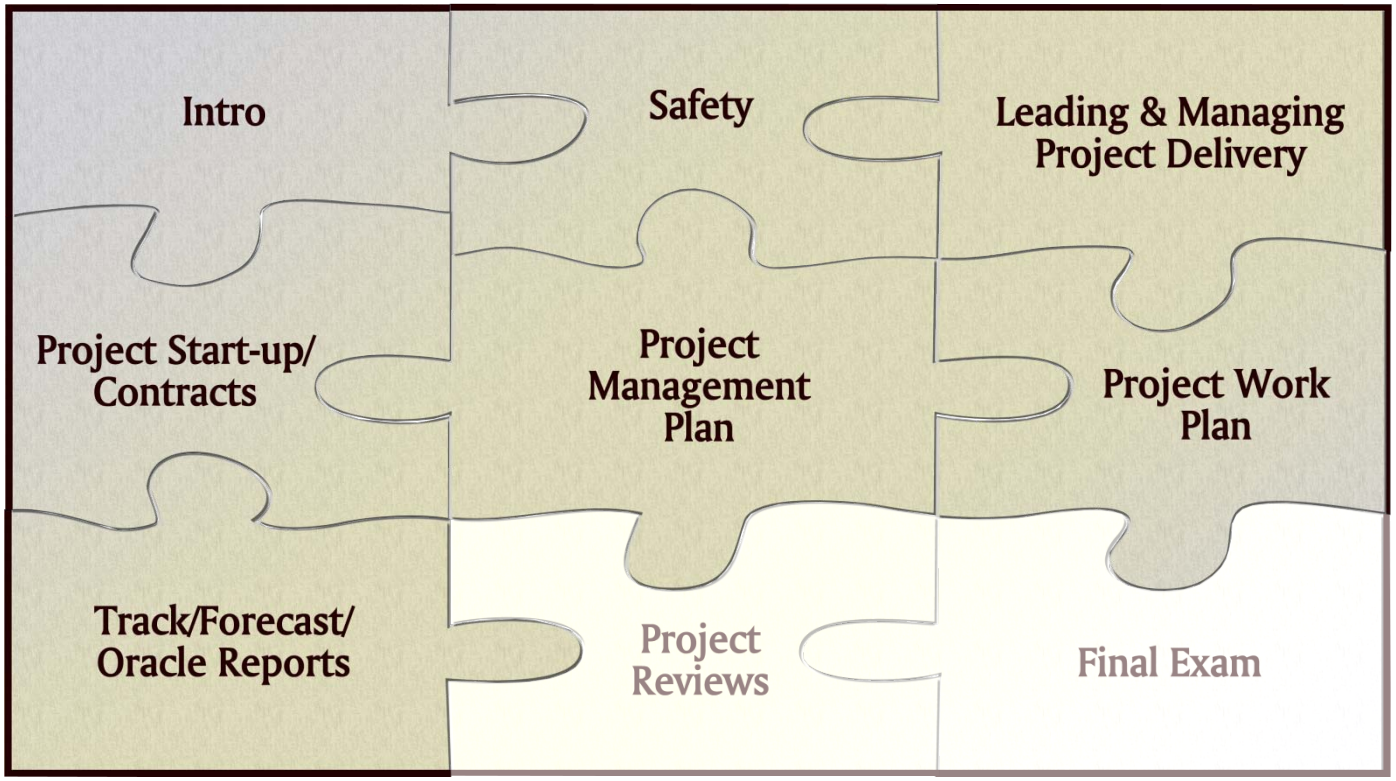
# Summary

- Project work plan – budgets
  - PM accountable for margin goal
  - Aligned with scope and schedule
  - Input in PBIS
    - Revenue budget
    - Cost budget
    - Margin goal

# Reference Documents and Additional Training

- BMS
  - PD 200 – Project Delivery
  - PD 201 – Project Start-up
  - PD 202 – Project Controls
- PB University
  - Estimating and Budgeting Project Costs (proj_09_a01_bs_enus)
  - Controlling Costs (proj_09_a02_bs_enus)
- PB Café
  - Budgeting

# Agenda


Intro
Safety
Leading & Managing Project Delivery
Project Start-up/ Contracts
Project Management Plan
Project Work Plan
Track/Forecast/ Oracle Reports
Project Reviews
Final Exam