Project Management

Small Business Education Series EDA UNIVERSITY CENTER FOR ECONOMIC DEVELOPMENT

Southern University

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Why Do Projects Fail?

Lack of Planning

Lack of Clear Roles & Responsibilities

Lack of Change Management

Poor Budgeting Poor Scheduling



Topics Agenda

- Introduction
- What is a Project Manager
- Planning the Project
- Project Scheduling
- Project Financial Plan
- Leading the Project Team
- Managing your Clients

- Managing your Clients
- Managing Quality and Risks
- Time Management & Communications
- Controlling the Project
- Getting Out of Trouble



Traits of the Best PMs as Defined by a Major Client

1. Follows through

- 7. Backs decisions of team members
- 2. Good Listener
- 3. Proactive
- 4. On top of every aspect of the job
- 5. Leads by example
- 6. Good Communicator

- 8. Organized
- 9. Handles multiple priorities well
- **10.** Technically proficient
 - **11. Holds people accountable**
 - **12.** Delegates well



The Most Successful PMs

- Manages the proposal effort
- Prepares the fee budget
- Participates in fee negotiation
- Participates in team selection
- Gets non-performers removed
- Controls technical direction
- Controls budget & schedule
- Maintains rapport with client
- Directs fee collection efforts
- Accountable for success or failure
- Little involvement in marketing
- Get fee budgets from others

- Accepts whatever is negotiated
- Relies on department heads for staffing
- Blames department heads for poor performers
- Delegates tech. matters to dept. heads
- Monitors budget and schedule
- Reports status to client
- Lets accounting handle collections
- Keeps records of who is responsible.



How Principals Work with Strong PMs

Issue	Project Manager	Principal
Fee Proposals	Prepares	Approves
Fee Negotiation	Participates	Directs
Team Selection	Requests	Assigns
Removing Non-Performers	Recommends	Approves
Technical Decisions	Controls	Recommends
Client Relations	Maintains	Oversees
Future Work	Secures	Approves
Accountability	Maintains	Rewards



Roles of the Project Management

Traditional Roles

- Planning
- Scheduling
- Organizing
- Directing
- Controlling
- Technical

Marketing Roles

- Expand the Scope of Work
- Get the Client Back
- Actively Secure Referrals
- Close the Deal
- Sell <u>All</u> your Firm's Services
- Passive Marketing/Client touches

Financial Roles

- Earn <u>the</u> Profit
- Bill the Client
- Secure Payment



Passive Marketing/Touching Clients

- Forward an article about a client's business
- Forward info on a new legislation affecting them
- Send a book about strategies in their business
- All phone calls equal one touch
- Send clippings on other projects or industry trends
- Send a handy tool or checklist that makes their job easier

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- Thank you notes
- Lunches and Breakfasts
- Company Newsletters

Tally of Cross-Selling Opportunities

Client	Opportunity	Sales Lead	Prob of Success	Gross Revenue	Weighted Revenue
GA DOT	Enviro Feas	DFR	50%	\$50,000	\$25,000
FL DOT	Bridge Inspect	LRJ	75%	\$550,000	\$410,000
Jax DPW	Paving Recycle	MJU	33%	\$75,000	\$25,000
Orl Water	GIS	JEF	30%	\$100,000	\$30,000
Pens DPW	GIS	JEF	50%	\$100,000	\$50,000
Jax Aviat	Security Assess	PIK	40%	\$50,000	\$20,000
			TOTALS	\$925,000	\$560,000



Accounts Receivables Plan-Contracting

- Push hard for net 30-day clauses in contracts
- Avoid complicated billing and reporting procedures
 Offer discounts for standard formats with no backup
- Bill directly to Client rather than through a prime
- Job Opening forms shall be completed as soon as the contract/invoicing conditions are known
- Special billing requirements must be fully explained to accounting



Accounts Receivables Chase Plan - Invoicing

- Obtain a full explanation of billing procedure from the Project Manager
- Invoices for large accounts should be prepared before those for shall accounts
- Project Managers shall review invoices within one and one-half days of receipt
- Corrections and adjustments shall be minimized and clear instructions shall be minimized and clear instructions shall be given to Accounting



PM's Top 20 Excuses for Project Failure

- 1. The project team was full of incompetents.
- 2. I didn't have enough time.
- 3. The client kept making changes.
- 4. The budget was unrealistic.
- 5. I couldn't get enough help.
- 6. Working for the client is impossible!
- 7. I couldn't get the information I needed from accounting.
- 8. The schedule was unrealistic.
- 9. Everyone kept charging to the job.
- 10. _____ was taken off the job at the worst possible time.

- 12. The designers wouldn't stop designing.
- 13. The contractor didn't understand the job.
- 14. This job was unique.
- 15. The building department is full of idiots.
- 16. Principals kept charging to the job.
- 17. The subs would not cooperate.
- 18. The word processing people kept getting pulled off my job.
- 19. _____ quit and left me holding the bag.
- 20. The CADD operations didn't know what



Project Manager Sins

- 4. Letting the job get into trouble
- 3. Not Knowing it's in trouble
- 2. Knowing it's in trouble and not asking for help
- 1. Hiding the fact that it's in trouble



Agreement For Services

• SEE Handout (Flow Chart)



Elements of a Project Mgt Plan

- Goals & Objectives
- Scope Of Work
- Schedule
- Financial Plan
- Team Organization, Resources, Responsibilities
- Quality Control Process
- Change Management Process
- Communication Plan
- Contingency/Risk Management Plan



Communication Plan

Date: Job: Project:

Communication Element	Participants	Frequency	Media	Setting



Contact List

Date: Job #: Project:

Client Participants	Responsibility	Phone	Fax	E-mail
Designer Participants	Responsibility	Phone	Fax	E-mail
Subcontractor Participants	Responsibility	Phone	Fax	E-mail
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Project Management Plan Short Form

General		
Date:	Issue No:	Prepared By:
Approved By/Title:		
Project Name:		
Client:		
Project Location: Type of Contract:		Budget:
Project No:		Project Manager:
Client Manager:		Tech. Director
Client (Organizatio	on Chart Attached)	
Contact:		Title:
Phone:		Fax:
Mail Address		Courier Address:
Project Description (Scope of Work Attached)		
Project Objectives (T a	hese are specific nd measureable)	

Project Management Plan Short Form

	Deliverables, Milestone And	Schedule (Schedule	Attached)
NO	Deliverable/Milestone	Date	Remarks
	SUBCONTRACTORS		
	Name:		
	Contact:	Title:	
	Scope of Work:		
	Budget \$:	Type of Contract:	Phone:
	Fax:	Mail Address:	E-mail:
	SUBCONTRACTORS		
	Name:		
	Contact:	Title:	
	Scope of Work:		
	Budget \$:	Type of Contract:	Phone:
	Fax:	Mail Address:	E-mail:

Project Management Plan Short Form

	Signature Authority	
Document	SIGN. AUTHORITY (Name/Title)	Remarks
Letters to Client		
Transmittals to Client		
Internal Document		
Draft Documents		
Final Document Issues		
Travel Requests		
Progress Reports		

Recipients of PM Plan (Including Dates)



Reasons for Scheduling

- Get Projects Done on Time
- Cash Flow Plan
 - Accelerates Payments
 - Facilitates Client Financing
- Personal Time Planning
- Demonstration of Resource Requirements
- Effective Communication
 - Client
 - Team
 - Management



Characteristics of a Good Schedule

- Easily Communicated
- Flexible Easy to Update and Change
- Has Commitment of Project Team
- Shows Task Interrelationships
- Kept on a Calendar Basis
- Forces Early Deadlines
- Includes Review and Correction Time
- Allows for Slippage
- Has Office-Wide Correlation
- Allows for Activities Beyond Contractual Due Date
- Graphic Presentation



Work Plan for Small Projects

Work Element	Task Lead	Date	Budget	% Complete	Earned Value
Totals				\$ E.V.	\$
				Spent to Date	\$
				Over/Under	\$
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Scheduling Method #2: Bar Charts

ID	Task Name	Start Date	End Date	Duration		2002	
1	Preliminary Design	1/1/2002	1/1/2002	0d	January	February	March
2	Kickoff & Review Char Data	1/1/2002	1/7/2002	5d			
3	Design Calcs	1/5/2002	1/25/2002	15d			
4	Design Criteria	1/10/2002	1/30/2002	15d			
5	Title Sheet	2/15/2002	2/21/2002	5d			
6	Site Plan	2/15/2002	2/28/2002	10d			
7	P&IDs	1/15/2002	2/4/2002	15d			
8	Mechanical Plan	2/15/2002	3/7/2002	15d			
9	Equip List & Outline Spec	2/15/2002	3/7/2002	15d			
10	Client Review	3/15/2002	4/3/2002	14d			
11	Cost Estimate	3/15/2002	3/25/2002	7d			

What is CPM Scheduling?

- Shortest path thru the schedule logic
- Critical Path Tasks have "Zero Float"
- If any critical task finishes late, the project will finish late

Early Finish = Early Start + Duration

Late Start = Early Start + Total Float

Late Finish = Late Start + Duration

<u>CPM Equations</u>

Late Finish = Early Finish + Total Float



CPM Glossary of Terms

- <u>Duration:</u> Length of time to complete a task
- Early Start: Earliest date that a task can begin
- Early Finish: Earliest date that a task can be completed
- <u>Late Start:</u> Latest date a task can start without impacting overall project completion
- Late Finish: Latest date a task can be completed without impacting overall project completion



Schedule Method #3 Critical Path Method

- 1. Develop the Task Outline
- 2. Develop Task Relationships
- 3. Complete Network Diagram
- 4. Add Task Durations
- 5. Develop CPM Chart



Critical Path Method (CPM) Schedule

SEE Handout

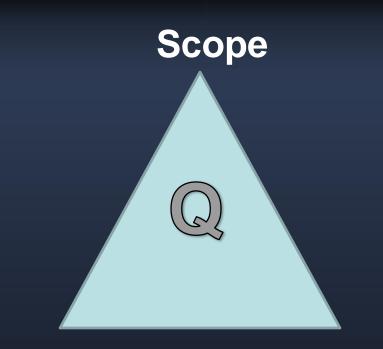


Common Pitfalls in Schedules

- Not allowing time for internal reviews & corrections
- Starting tasks before required prerequisites are complete
- Failure to consider availability
- Failure to delineate client responsibilities
- Excessive complexity
- Lack of contingency planning
- Failure to include activities beyond contract due date
- Failure to identify activities beyond your control
- Forgetting the "Soft Tasks"



SUCCESSFUL PROJECT CHART



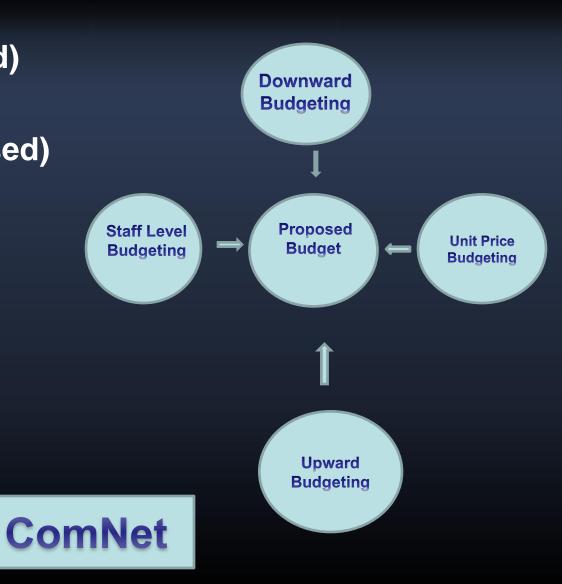
What is the Definition of a Successful Project?

Schedule Budget



Four Methods to Budget a Project

- Upward (Zero-Based)
- Downward (Fee-Based)
- Unit Price Costing
- Staff Level



Budget Method #1 Upward Budgeting

= Total Client Fee

- + Contingency
- + Direct Expenses
- + Profit
- = Total Cost
- + Overhead
- = Direct Labor
- **x** Hourly Rate
 - Staff Hours
 - Task List
 - Initial Scope





Budget Method #2 Downward Budgeting

= Total Client Fee

- Contingency
- Direct Expenses
- Profit
- = Total Cost
- Overhead
- = Direct Labor
- / Hourly Rate
- Staff Hours
 Task List
 Initial Scope





Budget Method #3 Unit Price Budgeting

- Hours/Drawing
- \$/Drawing
- % of Construction Cost
- \$/Square Foot
- \$/Ft of Boring
- \$/Acre of Land
- Others?



Budget Method #4 Staffing Level Budgeting

Project Duration = 6 weeks •

– Principal @ ¼ time = – Project Manager @ ½ time = – Project Architect @ full time = – Technical Support @ ½ time = - Administrative Support @ $\frac{1}{2}$ = Total Labor =

60 hours 120 hours 240 hours 120 hours <u>120 hours</u> 660 hours

Labor Budget = 660 hrs @ \$70/hr = \$46,200 Expenses @ 10% = 4,620 Total Budget = \$50,820

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Pricing Government Jobs

FAR 15.903 – "Production and delivery of designs, plans, drawing and specifications shall not exceed 6 percent of estimated construction cost excluding fees.

Non-Allowable Overhead

- Interest paid
- Officer's life insurance
- Charitable donations
- Time of employees in charitable activities
- Auto allowances
- Entertainment
- Bad checks
- Travel costs in excess of federal per diem
- Advertising (except help wanted)
- Public relations expense
- Marketing costs for private sector work

- Legal fees on bad debts or liability lawsuits
- Costs of not reorganizations or mergers
- Bonuses paid of ownership
- Dividends
- Federal income taxes
- Education cost not business-related
- General promotional materials
- Accrued but unpaid leave time
- Rent paid on owned property in excess of actual ownership costs
- Any cost not for the normal conduct of business



What are Project Write – offs?

- Jobs in budget trouble
- Job with potential quality/liability problems
- Charges to jobs w/o contracts
- Delays in getting charges keyed into accounting
- Delays in getting charges billed
- Late payment
- Jobs with unusually high risks

Project Cost that are not:

Billed to a clientPaid by a client

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Why Teams Fail

No Clear Vision

 Lack of Team Purpose

- Poor Team Behavior
- Team Behavior

- Personal Agendas
- Unwilling to Participate

 Focus on Personalities

- Value Conflicts
- Lack of Feedbac ComNet

Characteristics of Effective Teams

- Collective AND Individual
 Accountability
- "Atmosphere" is relaxed
- Lots of discussion
- Objectives well understood
- Members listen to each other

- Most decisions by consensus
- Constructive disagreements
- Criticism is comfortable
- Clear assignments made & accepted
- Leadership shifts from time to time



Project Manager Responsibilities

(L) = Leadership

(M) = Management



Assuring Key Staff at Critical Points in Projects

- Identify team leaders when a lead is identified
- Get involved/committed at proposal time
- Get solid commitments when contract is signed
 - Include people in planning process
 - Establish timing of project reviews
 - Define role of Principal
 - Inform people directly of expected involvement
- Do staff forecasts often and keep simple
- Remind key people of prior commitments
- Constantly communicate with entire project team
- Make people want to work on your project



Ten Steps to Better Delegation

- 1. Select the right person
- 2. Provide all the available information
- 3. Ask what additional information is needed
- 4. Clearly define the product you expect
- 5. Agree on the proper
- 6. Agree on a completion date
- 7. Agree on a level of effort
- 8. Establish control mechanisms (MBWA & MBAQ)
- 9. Expect the product to be 30% different; 10% wrong
- 10. Give credit; take blame



The Assistant Project Manager

- Official or Unofficial?
- Performs specific PM tasks
- Pinch hits during PM's absence
- Allow PM to handle more jobs
- Accelerates development of new PMs
 - Builds a relationship with a targeted client contact
 - Suggest a value added at a client meeting
 - Attend client meetings to observe dynamics
 - Prepare project close-out and lessons-learned



Personality Traits

Driver (Control Taker)		Expressive (Emotional)
Pushy		Manipulative
Severe		Excitable
Tough Minded		Undisciplined
Dominating		Reacting
Harsh		Promotional
Determined		Personable
Requiring		Stimulating
Thorough		Enthusiastic
Decisive		Dramatic
Efficient		Gregarious
Analytic (Data Collector)		Amiable (Friendly)
Critical		Conforming
Indecisive		Retiring
Stuffy		Pliable
Exacting		Dependent
Moralistic		Awkward
Industrious		Supportive
Persistent		Respectful
Serious		Wiling
Vigilant		Dependable
Orderly	ComNet	Agreeable

Battling "Indifference"

Managing your Client

• Superior Client Service

Keeping Relationships Fresh

Proactive Communication



Critical Success Factors In Managing Your Client

<u>Leadership</u>

- Know your client
- Understand your client's business
- Be an equal partner
- Foster trust
- Demonstrate credibility

Management Maintain focus

- Be committed
- Communicate effectively
- Be prepared
- Be persistent when you need input
- Anticipate Don't React NO SURPRISES !!!!!

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Presenting Bad News – Spin Control

- Get bad news out as early as possible
- Make sure clients heart it from you first
- Take blame immediately
- Present alternatives
- "Your first loss is your last loss"



SOUND ADVICE

When vendors, consultants, and contractors asked President of Intel Corporation how they can get more work from the giant chip manufacturer, he told them:

"Go out and learn how to make chips. Then come back and help us do it better."



How Well Do You Know Your Client?

- Who does your client report to?
- Why are they organized the way they are?
- What are their strategic drivers?
- Where do the decision makers sit?
- What do they value and expect in their relationship with you?
- What do they read?
- What is their career path?
- What are their outside interests?
- What hassles can you remove from their life?



How Satisfied Are Your Clients?

- Solicit feedback (1 page surveys)
- Send clients a piece of paper marked "How Can We Do Better?"
 - Include the pen and postage paid envelope
- Ask clients to keep a sheet entitled "Things Consultants Do That Bug Me"
- Collect, Summarize, Share, Do It Again !!!!

Keeping Client Happy = Keeping Clients



The 5 Be's to Superior Client Service

- Be Accessible: easy to be contacted
- Responsive: adapt to client needs
- Be a Closer: do what you say you will do
- Be Quick to Correct: bad news doesn't get better with age
- Be Passionate: it's contagious



How Do You Kill a Client Relationship?

- Assume there are no problems in the relationship
- Don't listen
- Rotate staff
- Take a client's repeat business for granted
- Leave issues unresolved
- Be defensive
- Don't call unless you have an RFP
- Don't call unless you have a job number

Are you guilty of any of these ?



Proactive Client Communications

All Client Interaction

- You initiate
- Same day and time
- Decide on schedule at kickoff meeting
- You and your client mark the dates/times on your appointment calendars

Written Progress Reports

- Summary of work done last period
- Forecast of activities for next period
- Scope changes/Value Added to Date
- Budget status/Deliverable status
- Schedule status/Percent
 Complete
- Input needed from client
- Other issues/concerns



Time Management and Communications

- Meetings
- Telephone
- Interruptions
- Electronic Communications
- Written Communications
- Prioritizing

What Would You Do with an Extra 2 Hours per Day?



Making Meetings More Effective

- Eliminate the Meeting
- Eliminate Your Attendance
- Start Meetings on Time
- "Stand-up" Meetings
- Consider Time of Day
- Effective Agendas
- "Action" Minutes

Remember the Golden Rule: Praise in Public Criticize in Private

- Don't use peer pressure to logroll conclusions
- Don't hold meetings outside normal business hours
- Kill regular meeting when they no longer serve their purpose



Managing the Telephone

- Answering the phone
- Grouping your calls
- Holding calls
- Getting off the phone



Electronic Communications

Voicemail

- Change your voicemail message everyday
- Tell callers how to reach a human being.
- Leave short messages

<u>E-mail</u>

- Don't use all caps.
- Don't spread off-color humor.
- Do your part to halt e-mail clutter.
- After 3 exchanges, reach out and touch someone!
- Purge messages periodically.
- Remember: e-mail is just like written correspondence expect it's easier for people to spread it around.



Controlling Interruptions

- How much of your day is spent doing what you thought you would do at the start of the day?
- Handling Drop-in Visitors
- Grouping Discussion Items
- Using the Quiet Hour Effectively



Your Personal One-Week Time Log

See Handout



Earned Value/Percent Complete Quiz

- Proposal:
 - \$100,000 Budget
 - 10 Month Schedule
- Present Status:
 - \$40,000 Spent
 - 6 Months Spent

What is the Percent Complete?

- 30%
- 40%
- **50**%
- 60%
- 70%



What is the Real Percent Complete?

0%100%		
% Complete	Milestone	



How Do You Monitor...

- Actual vs. Budget? Hours or Dollars?
- Schedule Progress vs. Baseline?
- Percent Complete?
- Use of Working Capital?
- Gross Profit or Multiplier Achieved?
- Financial Performance Against As- Sold?



The Integrated Budget & Schedule Method (IBSM)

- **1. Prepare Projected Expenditure Forecast**
- 2. Estimate Progress For Each Task (Percent Complete or Earned Value)
- 3. Compute Overall Progress (Percent Complete or Earned)
- 4. Determine Actual Costs
- 5. Determine Schedule Status (Step 1 vs. Step 3)
- 6. Determine Budget Status (Step 3 vs. Step 4)



Sample Accounting Reports

- Division Time Analysis
- Percent Chargeable
- Detail Verification
- Invalid Transaction Report
- Division Aging Report
- Active Projects w/ completion dates w/in 30 Days
- Unauthorized Expenditure
 Detail Report
- Active Projects w/ unauthorized items
- Authorization Listing

- Items Made Non-Billable during Period X
- Revenue Write-offs During Period X
- Unbilled Receivable/Undistributed Revenue – Audit
- Unbilled Receivable/Undistributed Cost Aging
- Manager's Project Status
- Operating Statement
- Budget & Expense Report
- Budget & Expense Exception
- Near-Term Financial Action



Instructions

- Using the information available, quantify the following:
- 1. What is the overall schedule status?
- 2. What is the overall budget status?
- 3. Are there any problems on this project?
- 4. Is there any good news?



Seven Steps to Managing a Crisis

- 1. Don't react immediately THINK-THINK-IT'S NOT ILEGAL YET
- 2. Define the problem (not just the symptoms)
- 3. Identify <u>all</u> the alternatives
- 4. Don't assess blame
- 5. Select the alternative(s) you believe will work
- 6. Take positive, authoritative action
- 7. When the dust settles, assess the results



Possible Solution-Behind Schedule

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- More Time:
 - Overtime
 - Other Project Staff
 - Other Office Staff
 - Administrative Staff
 - Temporary Staff
- Subcontract
- Scope Review
- Stop Designing
- Standardization

- Past Project Work
- Mix of Staff
- Less Staff (Swat Team)
- Communication
- Absolute Minimum Deliverables
- CPM Perspective (Critical Path & Overlapping Work)
- Final Option = "Ask for More Time"

Possible Solutions – Over Budget

- Subcontract
- Scope Review
- Quality Review
- Stop Designing
- Standardization
- Past Project Work
- Mix of Staff
- Less Staff (Swat Team)
- Communication

- Absolute Minimum
 Deliverables
- Shorten the Schedule
- Final Option = "Ask for More Money"

<u>Do Not:</u>

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Use Unrecorded Time Charge Overhead Charge Another Project

Design Considerations for Construction

- Policy of single statement
- Minimum design necessary to get project built
 - Without excess cost growth during construction
- There is NO hierarchy of documents
- Drawings DO NOT need to stand on their own merit
- DO NOT allow GCs to break-up bid sets for distribution to subs



Construction Change Orders

Only Three Types



Going to the Client for More Money

- Plan early.
- Establish the change order procedure up front.
- Get immediate concurrence from the client of changes.
- Keep good documentation
- Limit small changes (aka, scope creep)
- **Never** agree to do extra work without authorization.
- When in doubt, ask for the money!



Making Money on Construction Service

- Average profits from Construction Admin (CA) are 40% of design profits
- One-third of firms make more on CA than on design
- These firms perform more services:
 - Construction management
 - Resident A/E
 - Equipment procurement
 - Claims Administration
- They also do it smarter:
 - Allocate <u>at least</u> 20% of effort of CA
 - Avoid vague scopes (e.g. "periodic site visits")
 - Minimize use of office personnel for field activities
 - Wait till contractor is selected before negotiating CA fee



Wrapping up the Project

- The last 10% vs. the first 10%
- The importance of a planned approach
- Evaluating the need to make changes
- Making changes efficiently
- Final documentation
- Learning from the experts (contractors)
- Project Completion Analysis (Post-Mortem)



Project Close-Out Form

• See Handouts







