



ANNUAL MEETING

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EXPLORE. EMPOWER. ENRICH.

CONSTRUCTION CONTRACT ANALYSIS

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OVERVIEW

- Today's topics:
 - Contract Key Terms
 - Documentation Requirements
 - Red Flags





LEARNING OBJECTIVE

- Deepen management's understanding of construction contract terminology and the financial components of the contract
- Identify contract strengths, weaknesses, and financial risks
- Identify controls or actions necessary to mitigate risk





CONTRACT RISK ANALYSIS

What is a construction contract risk analysis?

Documentation of the construction project financial risks and their respective project controls intended to protect the owner's project interest





CONTRACT RISK ANALYSIS

Why is this important?

- Ensure contract administered per intent
- Identify contract terms that are not beneficial to the owner
- Mitigate potential overcharge risks
- Strengthen weak or undefined contract terms
- Reduce the risk of dispute





CASE STUDY – CONTRACT ADMINISTRATION

Background:

- Medical science building
- Approximately \$30 million GMP construction contract
- Completed on time
- Minimal change orders
- All stakeholders were satisfied with the project





CASE STUDY – CONTRACT ADMINISTRATION

Where is the risk?

- Contractually required cost reconciliation was not performed
- Management did not require cost support
- Both sides treated as a lump sum contract

Result

- Improper administration resulted in an overcharge
- Contractor credited the owner approximately \$300,000





CONTRACT TYPE

Lump Sum:

- Usually less than \$10 million
- Facility is fully designed
- Designs are simple and often a duplicate of another facility
- There are fewer unknowns that lead to change orders

Benefits:

- Known financial commitment
- Less owner's administrative burden
- Less risk of scope creep and budget overrun





CONTRACT TYPE

Guaranteed Maximum Price (GMP)

- Usually used on larger projects
- Project nature is complex with unknowns
- Often coupled with a concurrent design process

Benefits:

- Establishes a not-to-exceed price
- Enables the owner to benefit from value added engineering, price reductions, and well managed procurement
- Enables the owner to select and contract with the contractor while still designing the facility





CONTRACT TYPE

GMP Continued

Disadvantages:

- Requires a more complex contract that specifies as much as possible
- Burdens the owner with more project management and administration
- Project complexity leads to more opportunity for aggressive or abuse behavior
- Contractors like to believe that their budget is the entire maximum price





KEY TERMS

Key Terms that Apply to All Contracts:

- Owner's Responsibilities
- Contractor's Responsibilities
- Allowable and non-allowable reimbursable costs
- Terms for general conditions/general requirements reimbursement
- Payment application documentation requirements
- Change order process for scoping, pricing, and approval
- Process for using and reporting contingency budget
- Process for handling owner allowances and credits
- Substantial completion
- Right to audit





COSTS OF THE WORK

Definition of allowable and non-allowable costs:

- Materials, supplies, and equipment
- Subcontractor costs
- Self-performed construction costs





GENERAL CONDITIONS

General conditions is the contractor's compensation for overhead and indirect project cost.

- Lump sum
- Cost reimbursable





CASE STUDY – LUMP SUM GENERAL CONDITIONS

PROJECT CLARIFICATIONS

PROJECT SCOPE BY TRADE

- **General Conditions**

- Lump Sum per [REDACTED] GC Estimate Form dated [REDACTED]





CASE STUDY – LUMP SUM GENERAL CONDITIONS

Additional Background:

- The lump sum value of general conditions was billed in full
- Savings of approximately \$650,000 were returned to the owner
- Change orders were very detailed and well documented





CASE STUDY – LUMP SUM GENERAL CONDITIONS

Audit Results:

- Approximately \$200,000 in general conditions costs were allocated to other SOV line items and charged to the owner
- Contractor stated the owner approved the charges
- No approval documentation provided





GENERAL CONDITIONS

Costs typically included in General Conditions:

- Job site trailer and utilities
- Winter conditions
- Small tools charge
- Project manager and principal labor charges
- Administrative and overhead costs
- Layout yard and construction material storage
- Value engineering
- Accounting and project reporting





GENERAL CONDITIONS

Costs that are not typically included in General Conditions:

- Insurance
- General foremen and supervisory costs
- Pickup trucks and transportation
- Construction material purchasing and transportation
- Computer and office equipment





GENERAL CONDITIONS – BENCHMARKING

Benchmarking against comparable projects can be an effective analysis tool.

- Cost per square foot
- Cost per contract day
- Percent of total costs





GENERAL CONDITIONS – BENCHMARKING

General Conditions Benchmarking		
	Project 1 - 100% CDs	Project 2 - 75% CDs
Summary of Costs	Amount	Amount
CM Construction Stage Personnel	\$ 4,008,274	\$ 1,372,981
General Conditions	\$ 2,442,122	\$ 1,694,243
Subcontracts	\$ 83,244,444	\$ 25,801,956
Subtotal	\$ 89,694,840	\$ 28,869,180
Contingency	\$ 1,121,186	\$ 577,418
COW + Contingency	\$ 90,816,026	\$ 29,446,598
Fee	\$ 1,135,200	\$ 588,965
GMP	\$ 91,951,226	\$ 30,035,563
		\$ 30,035,494
		\$ 69
General Conditions Analysis		
General Conditions	\$ 2,442,122	\$ 1,694,243
Project Calendar Days	\$ 778	\$ 470
GCs per Day	\$ 3,139	\$ 3,605
Recalculated at Project 1 Daily Rate		\$ 1,475,318
Variance		\$ 218,925





GENERAL CONDITIONS

Labor burden:

Labor burden is the incremental cost employers cost to carry an employee on the crew. Typical labor burden costs are:

- Employee benefits
- Employers social security
- Workman's compensation insurance
- Health and safety
- Federal and state unemployment tax
- Union assessments (pension, training, etc)





GENERAL CONDITIONS

Labor burden should not include:

- Contractor markup or profit margin
- Overhead allowance
- Vehicle allowance
- Tool allowance
- Union dues





GENERAL CONDITIONS

Labor burden risks:

- Overcharging for allowable burden costs
- Charging for non-allowable costs
- Double charging for costs also covered by general conditions
- Double charging for costs that are specific pass through expenses





PAY APPLICATION DOCUMENTATION

Pay Application (Invoice) Documentation:

Each month the pay application should be accompanied by:

- > Job cost detail
- > Material invoices and receiving tickets
- > Time sheets for self-performed work
- > Subcontractor invoices
- > Equipment logs for contractor provided equipment
- > Lien waivers
- > Equipment rental invoices





PAY APPLICATION DOCUMENTATION

~~§ 7.1.4 With each Application for Payment, the Construction Manager shall submit payrolls, petty cash accounts, receipted invoices or invoices with check vouchers attached, and any other evidence required by the Owner or Architect to demonstrate that cash disbursements already made by the Construction Manager on account of the Cost of the Work equal or exceed progress payments already received by the Construction Manager, less that portion of those payments attributable to the Construction Manager's Fee, plus payrolls for the period covered by the present Application for Payment. Work shall be billed against a schedule of values, prepared by the Construction Manager and approved by the Owner, on a percent complete basis. Periodically, and at the end of the Project, the Owner, upon request, shall be entitled to a full accounting of all costs and any overbilling or underbilling shall be adjusted to reflect such final costs. Upon request, the Construction Manager will provide a monthly lien waiver to the Owner covering prior payments made to the Construction Manager.~~





RECONCILIATION OF PROJECT EXPENDITURES

Job cost detail should include all hard and soft costs, and should be reconciled to the pay application.

- Soft costs are the indirect costs associated with the construction project, such as:
 - General conditions
 - Construction management fee
 - Insurance and bonding
 - Hard costs (the direct costs for constructing the facility)
 - Materials, supplies, and equipment
 - Subcontractor costs
 - Self-performed construction costs





CHANGE ORDER CONTRACT PROVISIONS

Change order provisions should include the following:

- Definition of major and minor change order
- Authority for approving each type of change order
- Authority for using contingency budget
- Change order documentation requirements





CHANGE ORDER CONTRACT PROVISIONS

Change order documentation should include:

- Who is performing the work
- Cost breakdown of materials and labor with quantities and rates for each
- Contractor markup
- Clear description of the scope of work
- Clear description of why the change order is necessary





CHANGE ORDER RISKS

Change order risk categories

- Unauthorized change orders
- Unnecessary change orders
- Redundant or duplicate change orders
- Overpriced change orders





CONTRACTOR'S CONTINGENCY

Contingency provisions should include the following:

- Allowable use
- Approval authority
- Documentation and reporting requirements
- Treatment of unused funds





CONTRACTOR'S CONTINGENCY

The Contract Sum includes a Design/Bidding/Construction Coordination Factor. Contractor shall routinely update Owner on expenses charged to that item.

The Design/Bidding/Construction Coordination Factor will be used to resolve coordination issues, incomplete work sections, remediation of ambiguities, inconsistencies or deficiencies in the plans and specifications, and miscellaneous non-scope changes/issues. In the event that the Design/Bidding/Construction Coordination Factor is exhausted, [REDACTED] will replenish the factor. Scope changes will not apply against the coordination factor and will be administered through the issuance of a change order.





PROJECT CLOSEOUT

- Substantial completion
- Documentation requirements
- Cost savings





SUBSTANTIAL COMPLETION

Substantial completion

- Defined
- How verified
- Owner's remedies if not met





LIQUIDATED DAMAGES

Liquidated damages are an amount of money that contracting parties agree on as the amount of damages one of them can recover if the party breaches the contract.

- Typically for work not completed on time
- Defined
- Enforceable
- Realistic





LIQUIDATED DAMAGES

6.7.1.1 The Construction Manager understands that if the Date of Substantial Completion established by this Agreement, as may be amended by subsequent Change Order, is not attained, the Owner will suffer damages which are difficult to determine and accurately specify. The Construction Manager agrees that if the Date of Substantial Completion is not attained, the Construction Manager shall pay the Owner Four Thousand Five Hundred and No/100 Dollars (\$4,500.00) per Day as liquidated damages and not as a penalty for each Day that is beyond a 21 calendar day grace period after the Date of Substantial Completion. In no event or circumstance shall the liquidated damages exceed \$135,000.00. The liquidated damages provided herein shall be in lieu of all liability for any and all extras costs, losses, expenses, claims, penalties, and any other damages of whatsoever nature incurred by the Owner which are occasioned by any delay in achieving the Date of Substantial Completion.





GMP ANALYSIS

Shared Savings Calculation

This is an incentive program mutually agreed upon between the owner and contractor to share in savings that arise from:

- Value engineering
- Aggressive purchasing strategies
- Contractor's supplier relationships

Shared savings risks:

- Inflated GMP
- Materials that are commodity priced should be excluded from the shared savings calculation.





Questions?





CONTACT INFORMATION

Thank you for participating today!

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