Analyzing contract terms: General requirements
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Overview

Today’s topics:

- What are general conditions?
- Auditor’s red flags
- Case studies
Learning objectives

> Comprehend what general conditions are
> Realize why the contractor needs to be paid for general conditions
> Recognize unfavorable contract terms
> Identify contracting red flags
Cost Types

Indirect costs associated with the construction project such as:

> General conditions
> General requirements
> Construction management fee
> Insurance and bonding

Direct costs for constructing the facility. CSI divisions 2-16

> Materials, supplies and equipment
> Subcontractor costs
> Self-performed construction costs
Direct costs are usually supported by third party invoices, time sheets, and receiving tickets.

Indirect costs may be more subject to interpretation and require a thorough analysis to quantify allowable and non-allowable costs.
General conditions or general requirements are the prime contractor’s compensation for overhead, indirect project costs, and direct costs not already accounted for in the schedule of values.
Contractor’s compensation methods

- Percentage of cost of work
- Lump sum value
- Actual cost incurred

Well-defined cost and service coverage is key to minimizing disputed general conditions costs
Lump sum terms:

Advantages
> Sum certain
> Easy to administer
> Reduced risk exposure

Disadvantages
> Masks underlying actual cost structure
> Schedule change impact may be difficult to compute
> More expensive

Auditor’s responsibilities
> Decompose and benchmark underlying costs before agreeing to lump sum terms
> Document what conditions constitute a general conditions change order
Percentage of Cost of Work

Advantages
> Simple in concept
> Easy to compute if Cost of Work is well defined
> Lower costs if project is delivered under budget

Disadvantages
> Not representative of actual costs
> Costs increase if project costs go up, even if the schedule doesn’t change

Auditors responsibilities
> Document allowable “Cost of Work” costs
> Document non-allowable “Cost of Work” costs
Actual cost incurred

Advantages
> Transparency
> Potentially lower cost

Disadvantages
> Requires more administrative time
> Requires additional transaction testing

Auditors responsibilities
> Develop a testing program for general conditions transactions
> Evaluate costs for reasonableness
> Ensure costs are not duplicated or unnecessary
Cost category breakdown of general conditions and general requirements
Non-allowable general conditions items

- Project management software
- Profit sharing
- Home offices expenses
- Company owner/principal labor and burden expense
- Depreciation
- Executive transportation
- Overtime costs for exempt employees
- Bonuses
- Rework resulting from incomplete or unacceptable work product
- Anything with its own line item in the budget
Understanding construction costs

Generally accepted general conditions costs:

> Project manager, assistant and superintendent labor costs (project management personnel)
> Vehicle costs for project management personnel
> Job trailer, utilities and job trailer furniture (not to exceed purchase cost)
> Per diems and project management travel costs
Construction manager reimbursable equipment costs

Contract provisions and guidelines

> Verify general conditions and requirements do not overlap
> Request rate schedules for all equipment rentals
> Request rate schedules for all vehicle rentals
> Verify what is included in the vehicle rental rate
  - Insurance
  - Depreciation
  - Maintenance
  - Repairs
> Fuel costs are usually excluded from rental rates and stated as a flat daily rate or mileage rate
Risk analysis red flags

> Excessive vehicle rental rates. Compare with “Bluebook” rates to assess market pricing.
> Mileage reimbursements in excess of IRS guidelines. IRS guidelines include cost of ownership, reimbursement should be less than IRS guidelines.
> Cost of rentals exceeds FMV of equipment purchase
> Absence of usage guidelines
# Case study: General conditions

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**GENERAL CONDITIONS LISTING**

**GMP PROPOSAL 5/23/2013**

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<th>Item</th>
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<th>Unit</th>
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<td>COPY MACHINE SUPPLIES</td>
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<td>WATER/COFFEE SERVICE</td>
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<td>CORPORATE COMPUTER</td>
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<td>PICKUPS</td>
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<td>FUEL &amp; MAINTENANCE</td>
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<tr>
<td><strong>ADJUSTMENT</strong></td>
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</table>

**TOTAL GENERAL CONDITIONS**

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*Discount carried forward: (389,283)*

*Original: 702,493*

*Adjustment: $252,493*
Which items on the general conditions expense list require further attention?

- Set up telephone and fax
- Telephone usage
- Copy machine rental
- Copy machine supplies
- Server
- Computer video camera
- Cell phones
- Corporate computers
- FedEx budget
Reduce lump sum charges to units of measure that can be benchmarked against market rates

Retail price of commodity goods
> Computers
> Printers
> Copiers
> Cameras

Hours of effort
> Clean up costs
> Hoisting costs
> Security
Lump sum general conditions

Before agreeing to lump sum general conditions be sure to have decomposed the budget.

Transparency to these costs provide assurance that the lump sum budget is a cost reimbursement and not a profit center.
Direct reimbursable costs

These are reimbursable administrative costs and other direct costs for the on site construction operation
### General conditions – direct costs

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Cost</th>
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<tr>
<td><strong>FIELD ENGINEERING</strong></td>
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<td>Control Survey (Control Points / Lines)</td>
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<td>Supplies</td>
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<td><strong>SUBTOTAL</strong></td>
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<td><strong>WATCHMAN &amp; JANITORIAL SERVICES</strong></td>
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<td></td>
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<td>Watchman Services</td>
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<td>$ -</td>
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<tr>
<td>Janitorial (Field Offices)</td>
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<td>$15,300</td>
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<td><strong>SUBTOTAL</strong></td>
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<td>$15,300</td>
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<tr>
<td><strong>FIELD OFFICES &amp; SHEDS</strong></td>
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<tr>
<td>Utilities (by owner)</td>
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<tr>
<td>Lunch/Break Area, covered w/ water</td>
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<td>$15,000</td>
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<tr>
<td>Mechanical/Electrical Hook-up (Hunt)</td>
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<td>Pest Control</td>
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<td><strong>SUBTOTAL</strong></td>
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<td><strong>BARRICADES, FENCES &amp; PROTECTION</strong></td>
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<td>OSHA Requirements</td>
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<td>Safety supplies and signs</td>
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<td>Orientation Supplies</td>
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<td>Construction Fence</td>
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<tr>
<td>Gates - Man/Vehicular</td>
<td>in fence</td>
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<td><strong>SUBTOTAL</strong></td>
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<tr>
<td><strong>TEMP. ROAD, DRAINAGE, ETC.</strong></td>
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<tr>
<td>Temporary Crane Roads</td>
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<td>Lay down Area - gravel lot</td>
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<td>Dust Control (w site s/c)</td>
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<tr>
<td>Informational/Directional Signs</td>
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<td>Erosion Control</td>
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<td><strong>SUBTOTAL</strong></td>
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<td><strong>TEMPORARY HEAT</strong></td>
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<tr>
<td>Temporary Cooling</td>
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<td>Temporary Enclosure</td>
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<tr>
<td>Maintenance</td>
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<tr>
<td>Remove Temporary Enclosure</td>
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<td>Ventilation/Circulation Fans</td>
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<td><strong>SUBTOTAL</strong></td>
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<td><strong>CLEANUP</strong></td>
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<td>Dumpsters</td>
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<td>During Construction - (composite crew leaders)</td>
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<td>Final Clean-Up (incl. Glass)</td>
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<td>$236,021</td>
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<td>Trash Chutes</td>
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<td><strong>SUBTOTAL</strong></td>
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<td>$812,783</td>
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</table>
## General conditions – direct costs

### EQUIPMENT RENTAL
- Buck Hoist Communication System: $-  
- Communication Equipment: $12,750  
- Generators: $-  
- Misc. Scaffold: $-  
- Misc. Equipment: $-  
- **SUBTOTAL**: $12,750

### HOISTING
- Hoists: $126,100  
- Initial Install in hoists  
- Install/Remove Gates in hoists  
- Closure at Gates in hoists  
- Dismantle in hoists  
- Maintenance in hoists  
- Tiebacks/Drop Test/Weights/anchors in hoists  
- Dock in hoists  
- Freight In/Out in hoists  
- Operators: $370,240  
- Permanent Elevators (Operated) (2 Pass): $107,668  
- Elevator Maintenance: $23,000  
- **SUBTOTAL**: $627,208

### ROUGH HARDWARE, SMALL TOOLS
- R-H, Small Tools Other Than Concrete: $20,000  
- **SUBTOTAL**: $20,000

### PROGRESS PHOTOS, if req’d
- Aerial Photos and Final photos: $3,600  
- Ground/Interiors: $1,020  
- Final Photos (all bldgs on project): $-  
- **SUBTOTAL**: $4,620

### PROJECT SIGN
- Project & Safety sign: $3,000  
- **SUBTOTAL**: $3,000

### FIRE PROTECTION & FIRST AID
- Fire Extinguishers: $17,000  
- First Aid & OSHA Supplies: $2,550  
- Safety Incentives: $5,100  
- Drug Testing: $2,295  
- Badging Costs: $1,020  
- Orientation Suppkkies: $1,275  
- **SUBTOTAL**: $29,240

### TEMP TOILETS
- Temporary Toilets: $38,760  
- Trailer Holding Tanks: $-  
- **SUBTOTAL**: $38,760
Site clean up case study

Facts:
> $100 million patient tower
> $673,000 site clean up budget
> 51 month construction schedule
> Labor provided by prime contractor
How could a simple clean up budget be a risk area?

> Subcontractors may be responsible for site clean up
> No clean up activities are being performed
> Lump sum budget doesn’t show how many hours of clean up are budgeted
> Contractor may be back charging subcontractors and billing the owner for clean up services
Clean up cost case study

- Day laborer billing rate $20 per hour
- Projected clean up budget 33,650 hours
- 224 weeks of construction
- Average 150 hours per week
- Approximately 4 FTE budgeted for clean up

Some construction weeks, early and late in construction, require minimal clean up and fewer resources
General conditions high risk areas

- Communications equipment
- Project labor and personnel
- Hoisting
- Signage (often under budgeted)
- Temporary heat
- Site clean up
- Winter conditions surcharge

We recommend that general conditions expenses be billed at cost with supporting documentation
### General Conditions Staffing

<table>
<thead>
<tr>
<th>Position</th>
<th>Average Monthly Cost</th>
<th>Extended Months</th>
<th>Extended Costs</th>
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Construction manager direct labor

These are the labor costs incurred by the CM for managing the construction project. The contract or addendums should be very specific to calculating these costs. Provision should include:

> Each staff position with billing rate, field or office designation and exempt status
> Exempt personnel billing may not exceed 40 hours per week
> Overtime must be owner authorized
> Annual increases should be defined and not exceed the local CPI
> Billing rates should be verified with the market to ensure that they are not excessive
> Billing rates should be all inclusive of the labor cost. Labor burden should be defined with a list of each burden component
Price checking labor rates

> Assume a labor burden of 45 percent
> Divide each rate in the labor table by 1.45 to estimate the raw labor rate
> Compare the raw labor rate with published staff rates:
  – McCormick & Dodge
  – Collective bargaining agreements
  – HR surveys
  – CFMA surveys
> Excessive raw labor rates are a red flag that
  – Labor burden may be too high
  – Billing rate may be too high and includes undisclosed profit margin
Risk analysis red flags

> Labor rates are too high or too low
> No weekly billable hours cap on exempt employees
> No adjustments for vacation and holiday hours
> No estimated staff budgets
> No definition of roles and responsibilities
> Lump sum line item budgets
  – Lump sum project management budget
  – Lump sum burden rates
Risk mitigating controls

> Verify exempt employees only bill 40 hours per week
> Verify labor rates on monthly pay applications
> Compare direct labor hours billed with schedule progress
> Confirm any overtime billed has been owner authorized
> Document why overtime was necessary and if it will lead to a change order
Risk mitigating controls

> Reconcile travel costs with days on site
> Verify all billing rates and per diems
> Self-provide equipment instead of renting
  – Computers
  – Job trailer
  – Maintenance equipment
> Reconcile equipment rental charges with FMV
> Reconcile equipment rental with operator time
> Verify fuel surcharges
Usage guidelines

Contract allows for:
> Housing and meals per diem
> Mileage reimbursement
> Travel time to job site

Control challenge

How do you prevent the PM who drives two hours every day to the site from collecting per diem, mileage and travel time?
Unfavorable scenarios

> Personnel billing fully loaded rates and billing for holiday and vacation hours
> Budgeting for site clean up without backcharges to subcontractors to offset the duplicate charges
> Computer charges that exceed the actual cost by 500 percent
> Budgeting for more vehicles than project personnel
Suspended projects are projects due to circumstances that are stopped for an extended period of time until further notice.

General conditions costs like

> Personnel and consumables should not be incurred
> Site infrastructure: job trailers, security, utilities will be an on-going cost until final resolution is reached
Schedule changes are the product of:

> Added scope requiring more construction days
> Weather delays
> Reduced scope
> Accelerated schedule
> Project suspension
> Catastrophic event
> Regulatory compliance
All changes to the schedule impact the general conditions budget.

> Increased days usually results in additional costs
  – Job trailer days, utility costs, office equipment rental
  – Additional personnel days, vehicle charges
> Suspension has associated shut down and restart costs
Auditor’s red flags

> Identify fixed and variable general conditions costs. Fixed costs are not going to increase with schedule changes.
>  - Equipment purchases for the job like copies, computers, and office equipment
>  - Layout yards, temporary roads, and small tools

> Identify 100 percent completed costs that will not change with the schedule:
>  - Preliminary site engineering
>  - Relocation costs
>  - Fire protection and safety
>  - Hoisting
Schedule changes

Auditor’s red flags

> What are the reasons for the schedule change?
> Who has ownership of the schedule change?
  – Owner
  – Contractor
  – Third party event
> Who is responsible for the cost or savings?
  – Owner
  – Contractor
  – Insurance company
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