Overhead Compensation
TRO – Caltrans’ Innovative Approach

AASHTO Construction Subcommittee
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Overhead Compensation Outline

- Overhead (OH) on a construction project.
- Traditional OH compensation methods.
- Other home office OH compensation approaches.
- Challenges with traditional methods.
- TRO – What is it, and what are the benefits?
- Continuing OH challenges.
- Recommendations and a view to the future.
**Overhead on a Construction Project**

**Overhead**: the general cost of constructing the project that can’t be directly attributed to the work operations.

- **Cost-related OH**:
  licenses, permits, bonding, liability insurance, profit, etc.

- **Time-related OH**:
  FOOH: salaries/benefits of staff, rent, utilities, maintenance, security, supplies, office equipment, etc.
  HOOH: general administration, insurance, purchasing, accounting, project engineering, estimating, etc.
Project Overhead
Typical Breakdown

Direct Costs: 79%
Cost-related OH: 8%
Time-related HOOH: 9%
Time-related FOOH: 4%

Typical OH Percentages
Direct Costs (not OH): 79%
Overhead (including profit): 21%
Traditional OH Compensation

• **Original Contract Work:** OH incorporated in the various items of work.

• **Changes:** markups applied to the direct costs of the contract change order work.

• **“Unreasonable” State-caused Delay:** Contractor submits claim for adjustment in compensation.
HOOH Compensation Approaches
NCHRP Synthesis 315

- Avoidance Model
- Compliance Model
- Proactive Model
Never paid for unabsorbed home office OH as part of a claim for delay. (AR, MN, NE, ND, WI)

Arkansas and Wisconsin have used sovereign immunity as an effective defense. Others indicated a proactive attitude by dealing with claims early.

**Strengths** – Fewer personnel resources required & stable project budgets.

**Weaknesses** – Possibly higher bid prices as contractors protect against potential loss.
• Respond to a contractor’s claim in accordance with precedents set by state courts or boards. (13 of 26 state survey respondents)

• Potentially requires accounting or auditing support.

**Strengths** – Few strengths for owners. (keeps all options open for contractors)

**Weaknesses** – Leaves owner at the mercy of courts and boards. Also demands significant levels of personnel resources dedicated to claims evaluation.
• Address the payment of home office OH explicitly in their specifications. (CA, CO, CT, FL, GA, NJ, NY, VA)
• Recognize home office OH as a legitimate business cost.
• CA uses bid item for daily field and home office OH costs. Others use formula for home office OH.

**Strengths** – Simple to apply; Reduced personnel for claims administration; Often resolved at field level, resulting in fewer claims.

**Weaknesses** – Unstable project budget; Formulas may not provide sufficient full recovery of costs, thereby not resolving all claims
General Challenges

Traditional OH Compensation

- OH costs are primarily a function of time, not cost.
- Markups rarely reflect contractor’s actual OH costs.
- Markups only compensate for change order delays.
- Project management difficult when daily OH not known.
- Led to many claims. CT overruled by arbitrators when did not pay home office OH – “You delay, you pay!”
Caltrans’ Challenges
Traditional OH Compensation

Caltrans needed innovative approach because:

- Urban areas – more state-caused delays;
- Claims savvy & sophisticated contractors;
- Size of program – dealing with many claims.
Bid Time-related Overhead (TRO)

What is it?

- Bid item approach to obtain a daily field & home OH amount (cost/working day). Other item costs reduced.
- Initial TRO quantity based upon original working days.
- TRO paid on each progress estimate based upon the number of charged working days during the month.
- TRO item quantity is changed by suspensions or adjustments of time which revise the contract completion date.
### Bid Time-related Overhead (TRO) Payment Example

<table>
<thead>
<tr>
<th>Description</th>
<th>Calculation</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Contract Cost:</td>
<td>$10 million</td>
<td>$10 million</td>
</tr>
<tr>
<td>Original Working Days:</td>
<td>400 working days</td>
<td>$2,500 per working day</td>
</tr>
<tr>
<td>Daily TRO Bid Amount:</td>
<td>$2,500 per working day</td>
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</tr>
<tr>
<td>Original TRO Cost:</td>
<td>$1.0 million</td>
<td>(400 days x $2,500)</td>
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<tr>
<td>Average WD’s per Month:</td>
<td>20 working days</td>
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<tr>
<td>Average TRO Paid per Month:</td>
<td>$50,000 (20 days x $2,500)</td>
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<tr>
<td>Original TRO Payments:</td>
<td>$1.0 million</td>
<td>(20 months x $50,000)</td>
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<tr>
<td>Time Extension Days:</td>
<td>40 working days</td>
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<tr>
<td>Additional TRO Payments:</td>
<td>$100,000 (40 days x $2,500)</td>
<td></td>
</tr>
<tr>
<td>Final TRO Payments:</td>
<td>$1.1 million</td>
<td>($1.0 million + $100,000)</td>
</tr>
</tbody>
</table>
**Bid Time-related Overhead (TRO) Payment Example – Early Completion**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Contract Cost</td>
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<tr>
<td>Original Working Days</td>
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</tr>
<tr>
<td>Daily TRO Bid Amount</td>
<td>$2,500 per working day</td>
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<tr>
<td>Original TRO Cost</td>
<td>$1.0 million (400 days x $2,500)</td>
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<tr>
<td>Time Extensions Granted</td>
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<td>Final Working Days</td>
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<td>Approved Baseline Schedule</td>
<td>350 days</td>
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<td>Actual Working Days Charged</td>
<td>380 days</td>
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<tr>
<td>TRO Paid During Work</td>
<td><strong>$950,000</strong> (380 days x $2,500)</td>
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<tr>
<td>TRO Paid After Work Accepted</td>
<td><strong>$150,000</strong> (60 days x $2,500)</td>
</tr>
<tr>
<td>Final TRO Payments</td>
<td><strong>$1.1 million</strong> (440 days x $2,500)</td>
</tr>
</tbody>
</table>
Bid Time-related Overhead (TRO)

What are the benefits?

• OH paid costs are paid correctly – TRO payments based upon time and cost-related OH based upon cost.

• Payments are more accurate - costs supplied by contractor through competitive bidding.

• Improved “real-time” project management.

• When and how much TRO will be paid defined up front.

• LESS OVERHEAD CLAIMS!
TRO Benefits
Low OH Costs Through Bidding
Overhead Compensation
Continuing Challenges

Contract Time:
• Staff should be well trained in time administration and CPM.
• Need clear spec’s regarding types of delays & responsibility.
• Weekly Statement of Working Days should track information.

Other Specifications:
• All indirect cost specifications need to be harmonized.
• Battle now over cost-related markup amounts. Bid markups?!
• Subcontractor OH compensation challenging – non-critical delays.

New Claims Arena
• TRO upheld by DRB’s – now claiming change in character.
• A+B bidding works well – eliminates float ownership debate.
• The more clearly specifications define OH and how paid, the better for DOT’s.

• Don’t leave it up to boards, arbitrators & courts to interpret contracting laws for you!

• TRO has been helpful in defining OH and its payment, but more improvements needed.

• OH is nebulous and challenges with sophisticated contractors will always exist. Enjoy the battle!