



### **PERSPECTIVES**

The What, When & How Much of General Conditions (Overhead) and Markup (Profit)

Our perspectives feature the viewpoints of our subject matter experts on current topics and emerging trends.

### INTRODUCTION

Overhead and profit (or O&P as it is most often referred to) is frequently a misunderstood term. It can often be the subject of misapplication and dispute, and in connection with the alleged custom and practice in the insurance claims world, has become the subject of class action lawsuits against insurers in numerous states.

In the insurance restoration and casualty reconstruction business, overhead and profit is often characterized as a standard by which deviation is not possible. This however is untrue and indeed defies both logic and economic reality. But before we get to the discussion of the insurance custom and practice O&P myth, we must first understand what O&P is, and how it gets applied in the real world.

From a general contractor or construction manager's perspective, there are only two major cost categories associated with the "Cost of the Work" on any project:

- Direct Costs which are the costs necessary to furnish and install the permanent elements of the project, such as structure, exterior envelope, interior finishes, vertical transportation, mechanical electrical and plumbing systems, etc., and
- 2. Indirect Costs which include General Conditions or Overhead, and Markup (Fee or Profit), which are the costs associated with the jobsite management of the project, including items such as project management staff, jobsite trailers, telephones, administrative as well as temporary roads, temporary utilities, permits, fees, general hoisting, safety and cleaning, not specifically associated with individual elements being erected. Indirect costs can be referred to as General Conditions, General Requirements, or Field Office Overhead, and can also include costs associated with and delineated in the General and Supplemental Conditions of the Contract, and (typically) Division 1 of the Specifications. These documents outline the work rules and obligations set forth and required by the Contract. Markup, Fee or Profit is intended to cover a portion of General and Administrative (G&A or Home Office Overhead) costs, and provide profit for the contractor or construction manager. G&A are costs not associated with a specific project, but account for the contractors

business operating expenses including estimating and preconstruction services, accounting, marketing, etc.

#### **OVERHEAD**

Overhead, as it relates to a general contractor or construction manager refers to field office overhead or general conditions/requirements, i.e. project management staff and services. This is the amount by which a direct cost estimate is increased to account for the jobsite services of a general contractor or construction manager, and or for items not specifically aligned with a specific task of work, that may be required in order to allow for an orderly and coordinated installation of materials needed to complete work.

There are many forms of "overhead" type costs, which can broadly be put into the following categories:

- General and Administrative (G&A) or "home office" overhead; or Field office overhead which is generally synonymous with General requirements/Conditions noted above.
- General Requirements, which are the costs associated with Division 1 work rules that a general contractor or construction manager must follow. These are also often referred to as "General Conditions" and include project management staff and supplies, temporary services and utilities, safety and cleanup (among other items).

### **PROFIT**

Profit refers to the mark up applied by the contractor or construction manager to the total of

- 1. The direct cost estimate, plus
- 2. The general conditions/requirements estimate, and certain G&A costs.

### **OVERHEAD & PROFIT**

Together, the Overhead and Profit on a project are costs added to the project's direct cost, to account for

the services of the general contractor or construction manager.

Overhead and Profit will typically fluctuate with the market. When market conditions are not favorable to the contractor, (i.e. few construction projects being started) contractors decrease their profits to become more competitive and may take a job that will at least keep their staff busy. Overhead will be reduced as a contractor may put fewer staff on a job, and will further negotiate to have subcontractors incur more of the indirect costs at no additional cost, thus lowering overhead.

#### **DEFINITIONS**

In order to understand what O&P is, some basic knowledge of construction terms is required. The following is a list of terms (representing costs), which must be accounted for in any construction project, whether it's new construction, insurance restoration, repair, rehabilitation or reconstruction.

- Permanent Materials Materials that will become a permanent part of whatever is being constructed.
- Temporary materials Materials which are necessary to construct a project, but are neither permanent nor reusable. An example of temporary materials might be plywood and framing used to form concrete footings.
- Craft or trade labor Skilled and unskilled labor used to install (and support the installation of) materials.
- Disposable tools and equipment Small tools and Equipment necessary to install materials that may not be reusable (i.e. small tools, saw blades, etc.).
- Re-usable equipment Equipment used to support the installation of materials. These can be as insignificant as a rolling scaffold and as large as a tower crane.
- Subcontractor Trade contractor responsible for handling a single or small number of trades.
   Subcontractors typically hire the skilled and unskilled labor which is required to install materials that they are "contracted" to install. They supply the equipment and supervision necessary to coordinate the installation, direct costs and overhead, and "mark up"

their costs to account for their own risk, and to meet their profit requirements.

- General Contractor Responsible for planning and coordinating the work of tradespeople, General Contractors may self-perform certain work and are contracted directly to the owner. They hold and are responsible to enter into subcontract agreements for trade work.
- Construction Manager Typically provides the same services as a general contractor, does not typically self-perform work, and is the "agent" of the owner. In certain circumstances a "CM"may not hold the subcontract agreements.
- Direct Labor Cost the hourly (or daily) amount paid directly to craft/trade labor.
- Fringe Benefits Costs (which are often applied to each hour worked) that are typically provided by an employer or required by union collective bargaining agreements, to be paid directly to the labor union.
- Labor burden costs borne by the contractor (or subcontractor) for each hour (or day) that a craft/ trade laborer is paid. These include such costs as workers compensation insurance, social security taxes, disability, medicare taxes, etc.
- General & Administrative or Home Office Overhead

   costs of running the sub-contractor's or general
   contractor's or construction manager's business.
- Profit/Fee Usually reflected as a percentage (but sometimes a fixed amount) which represents the subcontractor's or contractor's/construction manager's compensation for completion of the work.
- Construction Contingency A factor, sometimes applied by a subcontractor, contractor or construction manager to account for risk.

Remembering that two elements go into the cost of any construction project (direct and indirect costs), understanding what costs go into each of these categories will help to define exactly what O&P really is. For example, say a subcontractor is to furnish and install the following scope of work:

 Procurement of HVAC air handlers, condensers, controls, ductwork, etc. based on the project requirements. This material may include waste factors for certain materials (wire, sheet-metal, conduit, etc).

The subcontractor will include the cost to furnish, install and deliver equipment and appurtenances, labor including direct, fringe and burden to set and pipe the equipment, supervisory

labor, materials and equipment (i.e. the general conditions and requirements necessary for the sub to complete its work if not provided by the GC/ CM), insurances, certain home office overhead, and profit.

The HVAC subcontractor might express costs as illustrated in Figure 1, below:

ITEM	QUANTITY	иом	UNIT COST	TOTAL
Package Units	4	Each	3,750.00	15,000.00
Controls	4	Each	275.00	1,100.00
Sheet Metal Duct work Subcontracted	1	Lump Sum	8,000.00	8,000.00
Foreman	1	Lump Sum	1,200.00	1,200.00
Subtotal				25,300.00
Tax on Material	16,100	Lump Sum	0.09	1,449.00
Subtotal				26,749.00
Overhead			10%	2,674.90
Subtotal				29,423.90
Profit			10%	2,942.39
Contract Amount				32,366.029

Figure 1 - General Conditions

Note in the above example that sheet-metal ductwork is "subcontracted". A subcontractor can "subcontract" out portions of the work to other contractors, sometimes referred to as "lower tier" or "sub-sub" contractors.

In the case above, the sheet-metal subcontractor will approach pricing for his part of the work in the same fashion that the main sub-contractor did. Therefore, in looking at the sheet-metal cost of \$8,000.00 this subsub contractor includes costs that account for their own overhead and profit. Indeed the sub-sub sheet-metal contractor is no different than the manufacturer of the equipment, the distributor of the equipment, the trucker of the equipment, etc. The entire supply chain is motivated by profit, and all along the way, everything is marked up by an amount sufficient to cover costs, plus an amount beneficial to the entity for being in business.

Now let's add to the hypothetical project and assume that it has numerous trades such as concrete, steel, glass and glazing, drywall, finishes, mechanical, electrical, plumbing and fire protection. Each trade subcontractor and each lower tier sub-sub contractor will have marked up their portion of the project with the cost to cover their general conditions/overhead and profit. When there is a general contractor or construction manager on the project, the subcontract trade costs are added up, and the general contractor/construction manager will add its own costs.

Figure 2 illustrates costs that are typically marked up in a similar fashion by the general contractor or construction manager, wherein they layer their own overhead, plus desired profit margin on top of the direct subcontracted costs:

ITEM		TOTAL	
Trade Sub Contractor No. 1		10,000.00	
Trade Sub Contractor No. 2		5,00.00	
Trade Sub Contractor No. 3		25,00.00	
Trade Sub Contractor No. 4		22,000.00	
Trade Sub Contractor No. 5		12,500.00	
Trade Sub Contractor No. 6		32,000.00	
Trade Sub Contractor No. 7		5,000.00	
Subtotal Trade Costs		111,500.00	
Overhead	9%	10,035.00	
Subtotal		121,535.00	
Profit	5%	6,076.75	
Contract Amount		127,611.75	

Figure 2 - General Conditions

Thus, any construction project can have numerous layers of overhead and profit, from sub-sub-contractors to subcontractors to construction managers.

# INSURANCE REPAIR COSTS AND MARKUPS

In the world of insurance repair, costs for projects that are estimated and agreed generally follow the format that

applies unit costs to a quantified scope of work, then applies costs for overhead and profit where applicable.

The unit cost is typically an expression of the trade subcontractors expected price to perform a scope of work, including all categories of costs noted in Figure 1, herein. A unit cost is typically established as described below in Figure 3, which illustrates how a drywall contractor might price the installation of 10,000 SF of drywall. Note that waste factors and sales tax on material are included in the unit price derived in Figure 3, although this may not always be the case.

In establishing the unit cost, the subcontractor makes the following computations some of which require judgment based on experience:

- 1. Total quantity of required materials including waste
- 2. The cost of labor
- 3. The expected productivity rate for the installation of materials which can change job-by-job based on site conditions, complexity of the work, etc.
- 4. The risk factors of estimating errors or unknown conditions.
- 5. The state of the construction market at the time (i.e. how busy is the contractor, how much does he "need" or "want" the job, etc.).

Item	Qty	Unit	Unit cost	Amount
Drywall incl. Delivery	10,000.000	SF	\$0.16	\$1,600.00
Waste-10%	1,000.00	SF	\$0.16	\$160.00
Tape/spackle material	11,000.00	SF	\$0.03	\$330.00
Tax on Material	1,.00	LS	\$174.14	\$174.14
Labor-incl. fringes & burden	20.00	MD	\$320.00	\$6,400.00
Taping and spackling labor	10.00	MD	\$320.00	\$3,200.00
Subtotal				\$11,864.14
Field supervision				\$593.21
Suk	otal			\$12,457.35
Overhead				\$622.87
Sub	otal			\$13,080.21
Profit				\$1,308.02
				\$14,388.24
Total Quantity				10,000.00
Unit Cost per SF				\$1.44

Figure 3 - General Conditions

We have now described what is included in both the establishment of unit costs for construction trades and the costs that a general contractor or construction manager requires to coordinate the trades and make a profit. The next step is to determine two things:

- When is a general contractor or construction manager required?
- 2. How much Overhead and Profit is reasonable?

# THE ORCHESTRA CONDUCTOR

Close your eyes and recall some of the beautiful music you have heard in your lifetime. Now, picture how each of the artists playing the instruments that make the music act in concert with one another to make the sounds you hear. Sometimes the musicians are simply left to play their instruments while at the same time being aware of what their collaborators are doing, and other times, the musicians are being "coordinated" by the person with the baton, who helps them play together in a way that produces the desired sounds. So it is with construction.

A general contractor or construction manager that does not "self-perform" trade work is nothing more than an experienced coordinator of construction projects. They assume the role of planning and scheduling the work, and coordinating the trades in such a manner as to provide for a single source, responsible for a workmanlike and diligent completion of a scope of work.

# APPLICATION TO INSURANCE REPAIR

In the past, insurers were generally left to adjusters and experts to assess damage, determine costs and set the appropriate loss related repair cost for a property. Over the past twenty years, however, several software companies began developing programs, which allowed the user to input a "scope of work" into a computer using a system of codes. The software then applies a unit cost to the scope, and prices the estimate accordingly. Pricing data provided with these programs will often break down the cost of removal of damaged material from the reinstallation. The

basic problems with these programs, of course, is that the user may not have the ability or expertise to "look behind" the unit cost to determine if material costs, waste factors, labor rates, productivity rates and markups are correct for the project in question.

While there is an argument that this has resulted in standardization, and many so called "restoration contractors" have endorsed pricing that accompanies the software, the danger is that the insurer has little ability to objectively determine what may be reasonable on a loss-by-loss basis. Therefore, it should be no surprise that computer programs will essentially "default" to standardized settings when adding overhead and profit (when required).

While there is no "custom and practice" in the insurance industry regarding when overhead and profit is applied (and in what percentages), insurers, adjusters and restoration contractors will often add 10% overhead and 10% profit (sometimes on a cumulative basis) on some losses. Sometimes, however, contractors will add many of the costs for general conditions and requirements as line items in their estimates, then add overhead and profit.

Depending on the number and amount of specified general conditions in the estimate, the overhead and profit may not be considered reasonable. Take for example, a fire to a commercial building that destroys about \$100,000 in building components. One contractor adds \$10,000 in general conditions and another contractor adds no general conditions. Clearly the amount of overhead and profit paid to each contractor should not be the same. For this reason, general conditions, overhead and profit must be objectively determined based on project size and duration, and the state of the market at the date and time of loss. This must be objectively considered on a "loss by loss" basis.

Further, as projects get larger in dollar volume, the amount of overhead and profit should decrease, as is the case in large commercial construction projects. This is essentially because when a larger dollar volume is installed in a project over time, the actual cost of General Conditions/ Requirements expenses, expressed as a percentage of the cost to install materials is often less. For this reason, costs for larger projects must be objectively examined to determine the amount of fair and reasonable markup.

### **SUMMARY**

Overhead and profit is a "catch-all" phrase used to express markup on construction projects. Proper care should be taken to understand the project size, scope and duration so as determine a reasonable and accurate markup to allow the project to be completed in a proper fashion in a reasonable time frame. In the insurance repair world, overhead and profit should be adjusted when appropriate using the same criteria that is used for new construction.

### Overhead vs. Profit

#### Overhead:

- General Conditions
- Jobsite Office Overhead
- Safety
- Small Tools



#### Profit:

- Fee/Margin
- Home Office Overhead
- Home Office Personnel
- General & Administrative



Figure 4 - Overhead vs Profit

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