

Pricing the takeoff

Part III of III: A thorough costing and documentation system will provide a solid base for managing and controlling your business.

by Sylvia Hollman Fee

■ Pricing an estimate is the final step before placing the proposal before your client.

Takeoff lists are prepared for hard construction, site work, plantings, irrigation, and so on. Each major category is kept separate in the methodical takeoff listing.

Fig. A refers to square feet, linear feet and cubic yards because those are the reasonable dollar value units of measurement. These units of measurement will also refer to the corresponding labor required for installation.

In the hard construction takeoff (Fig. A), the estimator's common sense confirms related quantities such as the concrete slab and the surface stone paving. A variance in height of the railroad tie wall has been noted and measured.

Once all the work has been identified and listed, prices are added to the takeoff.

Your most accurate price source is your firm's historical cost data from past projects. Other sources are local suppliers and subcontractors and annual cost data publications.

ing man-hours, crew requirements, material, equipment and total costs. Using one (or all) of the three sources mentioned above, calculate the estimated cost of each item, and fill in the cost in the appropriate column on your estimating sheet.

The next step is creating a summary and total. The summary can be prepared using a pre-printed form. Sales tax, overhead and profit provisions are calculated, and the whole estimate is totalled. Your firm's particular overhead requirements must be the basis for your mark-up.

System costs—It is common for experienced estimators to have an in-house price or system cost for certain kinds of routine work.

For example, if the bluestone terrace noted in Fig. A is a routine application, the contractor may carry a cost of \$14.50/sq.ft. for bluestone terraces. For lawns, a cost per square foot or square yard is a standard practice. In all pricing situations, common sense dictates adjustments in systems costs for any unusual site conditions or specifications.

Pricing formats—

Several formats of bid pricing may be used or required by clients. The methodical takeoff method never varies in spite of the final form the bid price may take. Bid prices for work may be presented (or required) in certain formats. Most common are lump-sum bids and unit-price bids. Also, a combination of these two forms is not unusual.

Unit-price bids: In a unit-price bid, each item listed may be detailed in specifications or drawings to include material or methods that are unique and costly.

Cautions are advised on pricing unit-price

bids (sometimes called line-item bids). A methodical takeoff of all items contained within a unit-price bid list is necessary.

An example of unit prices that could confound your bid for lawns could be seeding as a unit price and loam as a unit price. This calls for an estimator to break up a system often priced as one unit.

Lump sum bids: It's not unusual for the landscaper to propose all site work, construction, planting and so on for one total price.

Padding—Padding (percentage mark-ups dependent on "uncertain events or chance") have no place in a quantity takeoff.

A solid estimate is based on a methodical takeoff list of all items that must be paid to complete the job.

Description	EXTENSIONS BY SLP				CHECKED BY JDM
	Material	Labor	Equipment	Subcontract	
Sidewalk	1180	582		1762	1762
Handrails					
Rip Rap					
Grading					
Hard Construction					
Bluestone Patios	1100	1100	48	1150	1150
RR Tie Steps					
Edging					
Fieldstone Edging					
Crushed Stone Walks					
Plantings					
Trees, Shrubs & Groundcover	510	1100	380		2000
Structural material					
Lawn					
Miscellaneours					
Pruning & Cleanup (6-80 - 1 Day)		100	100		200
Sales Tax 5%					100
Direct Costs Subtotal	7780	4882	1118	1150	14930
Overhead & Profit (15% M, 25% S, 10% E, 10% C)	7780	4882	1118	1150	14930
Total	7780	4882	1118	1150	14930

Fig. B

Irregular areas, deliveries, taxes, overhead and clean-up should be thought out in advance and figured into your prices. They should appear as contingency items. If you don't know it, you can't project it.

If there are circumstances around a bid item that are uncertain, that concern may be handled by listing the item on the estimate with a dollar value attached.

Keep in mind, your cost items form a valuable base for the job budget at the time of installation.

—The author is owner of Sylvia Fee & Associates Inc. in Needham, Mass. and author of "Means Landscape Estimating."

On all of the takeoff worksheets accompanying this article, the arithmetic has been checked for accuracy, and the items have been reviewed.

Description	QUANTITIES BY SHF	PRICES BY RSM	EXTENSIONS BY SLP				CHECKED BY JDM
			MATERIAL	LABOR	EQUIPMENT	SUBCONTRACT	
Concrete 4" Slab	025 178 0810	495 SF					12375
4" Gravel Base	025 178 0810	495 SF					12375
Bluestone Bedding	025 178 0110	495 SF					12375
Bluestone Paving	025 166 1250	453 SF					11500
Bluestone Edging	025 416 0300	25 LF					6375
RR Tie Steps	028 416 0500	96 LF					23520
Edging	028 298 0600	841 LF					21468
Retaining Wall Systems	2' 127 396 5000	25 LF					6375
Fieldstone Edge	4' 127 396 5000	60 LF					15930
Crushed Bluestone Material	2 Labors 4 Hrs	197 LF					5025
Lawn	3' 025 178 1050	1135 SF					28687
Total Hard Construction			495	453	96	25	14930

Fig. A

Fig. B is a sample page from Means Landscape and Site Work Cost Data show-

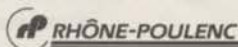


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Tips from the pros on marking athletic fields

by Steve and Suz Trusty

Stripes and lines should be attractive, easy to use and maintain, within the budget, and long-lasting.

■ This is the time of year when you'll be making your choices for striping and lining your baseball, softball, soccer and football fields.

Turf marking equipment includes low-pressure, hand-operated, compressed air sprayers; gas-operated piston pump sprayers; and high-pressure airless sprayers. Attachments include devices for forming soccer circles and arcs and extensions for freehand painting.

Sports Turf Managers Association professionals pass along these tips.

Steve Wightman, Jack Murphy Stadium, San Diego—

1) At the start of the season, measure accurately. Use a triangle to check right angles. Drive nails into the ground around the field perimeter, marking them with orange or yellow flagging. This way, you'll only need to measure once each season.

2) Locate flag points and stretch strings. A good, strong string is necessary. For parks departments and smaller schools, try to keep the lines at least four inches wide. To ensure accuracy, use an attachment to guide the sprayer along the stretched lines. A template can be attached to the sprayer to contain the spray within the desired pattern. Use a similar template for hash marks.

3) The field should be dry for spraying. Have a mixing area close by. Follow paint manufacturer's instructions, thickening the mix ratio as needed when cooler weather slows both drying and turf growth.

4) Make a 1/4-inch plywood template for numbers. To eliminate measuring steps and line up the numbers properly, position the bottom of the number template along the perimeter string.

5) Lower pre-season mower height to 1/16th inch below the normal cutting height. Mow again, on game day or before, to game cut. Alternate the grain in five-yard strips for football fields. Strive for uniformity.

6) Wightman spent 21 years with the Denver Parks System. Instead of painting, they used a special 8-inch-wide mower set to cut lines as a 1/8- to 1/4-inch height. Once lines are established, maintenance is

Painting designs

■ David L. Westerman of Carbit Paint Co., Chicago, says the key difference between natural and artificial turf paints is that natural turf paints are semi-permanent, while the artificial paints are permanent. Because natural turf paints are applied to grass which grows out, they are designed to retain color through a couple of rains, but are destroyed when the grass is cut.

Old paint is removed with sweep brooms and high-pressure water.

On some artificial turf, multi-use fields, where markings must be changed frequently for different events, temporary dyes are applied which can be hosed off right after the games.

Painting can range from the basic lining/stripping to the fancy—for end zone and center-of-the-field decorations. Templates from plastic sheets are made for regularly-used designs.

Spray through dot-to-dot openings in the plastic to mark the outlines of the design. Then remove the template and fill in the dots.

To form the plastic template, project a slide image of the design on a 20-foot high wall. Line up the projector to the desired dimensions and make the cuts. For large decorations, multiple sections of plastic can be used and either fitted or hinged together for spraying.

An alternative method

■ Safety-Line, from Oly-Ola Sales, Villa Park, Ill., is an alternative to athletic field lining/stripping.

It is a permanent marker constructed for player safety, made of soft, ribbed vinyl with a white, non-skid top. The marker is installed below the grass, at ground level, anchored by a 6-inch grooved fin that is further secured by a 9-inch steel anchor stake.

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Ken Mrock, Chicago Bears—

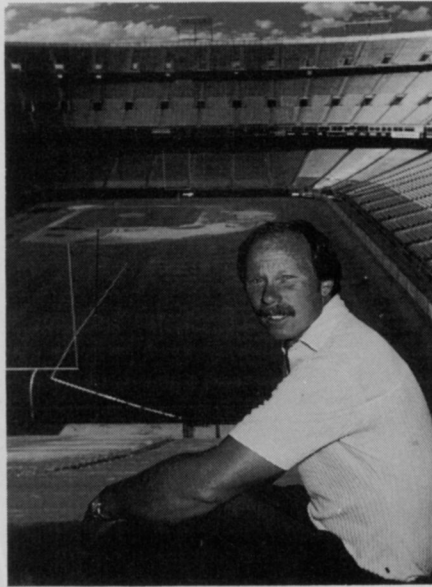
1) Use extremely low pressure when spraying paints. This method cuts drift, uses less paint, and allows the plants to grow before paint is applied again.

2) Lay out the normal football field and mark in white paint. To control turf wear, lay out a second pair of fields perpendicular to the first field and extending beyond it, using the 50-yard line as the divider between the two fields. The two perpendicular fields are marked with orange paint. This gives the team three fields or four separate quadrants for practice and spreads out the wear.

3) With limited budgets, mowing, chalking or glyphosate may replace painting.

Bill Whirly, parks supervisor, Fort Collins, Colo.—

1) Paint fields only in the spring and fall. To cut costs during the rest of the year, apply glyphosate with a sprayer. Mow



Wightman: Strive for uniformity.

the line areas to a height of 1-1/2 inches prior to painting or glyphosate applications. Since normal bluegrass height is

three inches, this leaves less leaf surface to contact.

2) Take care during glyphosate application to ensure the material does not affect turf beyond the desired line width. Whirly paints a 3- to 4-inch-wide line, but applies glyphosate to only one inch of turf to achieve the same result. Wightman suggests treating a 6-inch-wide strip of turf to create an 8-inch-wide line. The staying power of the glyphosate application will vary from one month to season-long, according to seasonal conditions and turf type.

3) For end-of-season playoffs, use semi-permanent paint. If fields still show post-season markings, those using them will play within the marked areas. When markings are not visible, the best sections of turf are chosen for play, reducing continual wear and compaction on the same spots.

—The authors are partners in *Trusty & Associates, consultants to the horticultural trade, headquartered in Council Bluffs, Iowa.*

County extension and YOU

In an attempt to do more with less, extension agents are opting to work more with landscape professionals and less with individual homeowners.

by F. Brian Smith

■ As a landscape manager, you have many resources to choose from when you need help and assistance. You can turn to your local chemical rep, another landscape manager, equipment distributors and written literature like *LANDSCAPE MANAGEMENT*.

But have you ever thought of your local extension service?

Most people think of the county agent as someone who knows a lot about pigs and cows, but very little about horticulture. However, many extension offices have an agent who is very knowledgeable about turf, ornamental plants and their care. This is especially true in the urban areas where the ornamental horticulture industry is strong.

Even if the county agent you deal with does not have a strong horticultural back-

ground, he can access the extension specialist and faculty at your state's land grant college horticulture department. This very fact alone makes the local extension office and your county agent a broker for some of the most important sources of information.

An added plus for using your county agent is when you're dealing with homeowners or managers: they are more likely to believe you when you explain that your information comes from the local extension service.

Many state extension services have a plant problem clinic. This is a service that will take samples from those landscape problems that have you stumped and run them through the diagnostic lab at the college or university. From my own experience as a county agent working with landscape professionals, quite often when we think we have solved a problem, the plant problem clinic will send us results showing it was caused by a problem we hadn't discovered.

Still, these clinics aren't completely able to solve all the problems. They are dependent on the sample you send and the information you provide with the sample. Many times, it has taken the clinic's diagnostic procedures, our site analysis and some imaginative detective work to find

the real cause of the problem, and not just the symptoms we first notice.

If you've never called your extension office and spoken with the county agent, now is a great time. Federal and state budget cuts have severely hampered many state extension services.

Most states are ending their long-standing policy of taking phone calls from homeowners or going to individual homes.

In an attempt to do more with less, they are opting to work with landscape professionals and let them deal with individual homeowners. What this means for you is the people who had been calling the local extension office will now call you.

This situation also means the county agent is not as distracted with homeowners and can work more closely with you.

Lastly, a good working relationship with your county agent can be invaluable when those problems arise that you can't solve on your own, or when the homeowner or manager won't accept your answers.

It makes the county agent's analysis easier when he is already familiar with you and your level of experience and work.

So start working with your county agent today. He might be able to help you solve that problem before it becomes a problem.

—The author is *Beaufort County Extension Agent for agriculture, cooperative extension service for Clemson University in South Carolina.*