



Installed Sound Technical Guide

The Big Job

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Every sound contractor at some point gets the opportunity to do a big job. The size of the job may be different for every contractor, but there is always some project larger than any they have done before. It can range from a large church to a complete stadium.

Doing any job entails a risk. There are issues of size that increase that risk. Of course the idea is to also increase the rewards.

When the big job walks in the door. The big question is “Can we do this job?”

Do you have the financial resources? On a large job, money is received in progress payments. Usually an AIA form is used for billing. But every job has some variant of what they want for the monthly bill. Getting the first bill into the right form and approved will take time. Send a pencil copy of the bill early and expect it to be ignored. Thirty-day delays in just getting the first bill properly submitted are not unusual. Sound system work often comes near the end of most projects, so bill everything as early as you can. The last bill almost always takes at least 90 days. Retainage can take a year. Expect to need 25% of the total job billing in working capital before you begin.

Who is going to pay the bill? Are you working for the owner, a construction manager, a general contractor, or an electrical contractor? Is there a payment bond? Do you know how to collect or when to take action? Do you have a construction lawyer without conflicts? Do you know what to do when you get the letter telling you the electrical contractor has gone into bankruptcy? Can you track the profit or loss on a weekly or monthly basis?

Margins will be lower. When you cost out a job you usually mark it up the same percentage. Be sure you know how this markup was established. It should not be the same for jobs that are dramatically larger or smaller. It should not be the same for every item. It is rare to miscount amplifiers; it is easy to miscount wire. **Never bid to meet someone else's number. Never bid to meet someone else's number. Never bid to meet someone else's number. Oh, and by the way, never bid to meet someone else's number.**

Everyone has heard of economies of scale. Unfortunately, on large jobs, there are usually dis-economies of scale. Be sure to allow additional time. On one large church job, there was reportedly a full man-week of labor for every worker added just to get into the Sanctuary from the parking area.

Do you have the professional contacts—structural engineer, banker, accountant?

If you bid on the job, you should have relationships with the suppliers of all of the major gear. But do you know where to get the specialty AV gear or special rigging hardware? Planning to make lots of substitutes is a very bad idea. Where do you buy 70 durometer rubber? Roll an I-beam into a donut? These items have actually appeared on bids.

When you do the take-off, do you have a detailed list of all the assumptions you made? Have you put all of the unclear items in writing to be answered? At the pre-award meeting, do you have a good exceptions list?

Is there an accurate schedule of work available? Have you done a schedule of labor required and when materials are needed? Do you have an onsite secure storage location? Does your insurance cover the materials stored on site? Does the job insurance cover it? At least one contractor has gone out of business when materials stored on the jobsite disappeared.

Do you have the labor to do the work? Do you have a staff to produce complete working drawings? On a stadium, this can take two draftsmen six weeks just for the drawings. Have your engineers actually used or even seen all of the gear specified? Do you have a field supervisor to make sure the wire crews are getting it right? Can two men pull cables, or are the runs so long it will take seven? The maximum efficient crew size is five. How many crews will be needed at maximum push time? How many rental lifts will you need? Will you need a jobsite forklift? When final work push occurs, have you allowed for the loss of productivity?

And then there are meetings. What if the job has eleven coordination meetings scheduled every week. Do you have someone to go to them?

One of the most important items is making the submittal look good. Do you have the binders, colored tabs, and the time to make it complete and pretty? Can you plot full-size prints or do you have to send out? A fist full of data sheets may have once worked, and still does some places, but whiz bang presentation with lots of drawings will get you some slack latter when you need it.

Read the sections (usually one in the general conditions and again in the specific section) as to what must be included in a submittal. Some consultants expect you to take their drawings, change the ID bug, and clean them up. Others expect to see the actual shop drawings and only original work. All consultants will tell you there is only one way drawings are done and every consultant will have a different method. When you are done, be sure the drawings are also useful for you. You needed the drawings and a score sheet just to figure out that amp 161 went on cable 2W130 to speaker 452 and there were two speakers #452! Be sure you use a logical and consistent method to label everything. A competent labeling system should tell you the location of where every amplifier and speaker.

Are you ready for when all the owner change orders come as soon as the drywall is up. That's when the owner can see for the first time what things will actually look like. Have you the flexibility to make major changes late in a job?

If you have answered yes to all of the questions, you should never try to do a large job. Reality and your plane of existence just don't seem to overlap. If you have a handle on three quarters or more of the issues you should weight the risks and rewards. You probably can do the job.