



Figure 1: Survey vehicle on-site first night of rapid mobilization

Challenges of Rapid Mobilization

As a scanning service provider my firm [Architectural Resource Consultants \(ARC\)](#) constantly struggles with the ups and downs of project opportunities coming in the door. It seems that there are either too many or too few, rarely just the right amount to keep our crews going steady. I'm fairly confident that I'm not alone in this. It is not uncommon for me to have conversations with my professional colleagues and hear them say "we could use some more work right now," or "we're going crazy but, I'm not complaining." Getting new projects in the door is the life-blood of every service provider's business. No one ever wants to turn down a new project because they are too busy. After all, you never know when the opportunities will dry up and you'll become desperate for that next job.

Regardless of which situation you find yourself in, it is always a challenge when an opportunity pops up that requires a rapid mobilization.

Typically rapid mobilization projects drop in unannounced. I'll get that unexpected phone call, often at the end of the day, which requires immediate action and boots on the ground quickly, sometimes within a 24 hour period. "Do I want this job?" The first answer is usually "Of course." We don't want to turn down work, right? So begins the quick assessment of risk, available resources and our ability to perform the work.

Risk Assessment

There are many risks one must assess while trying to determine whether or not to pursue a rapid mobilization project. One such risk is **Quote Risk**—Is there

enough time to prepare the quote? Was adequate information provided and how complicated will it be to prepare the quote? Are there lots of options that need to be presented, or is the nature of the project going to be complex requiring a high level of analysis to determine the project costs (i.e. out-of-town travel, use of consultants, multiple phases, etc.)? What are the number of man hours this quote will require, what are the odds of winning the project and will it be worth the cost of pursuing it? Is the project being bid, if so, how many bidders are there, who are they and what is the likelihood bids will be evaluated in a true apples-to-apples manner? Will it all just come down to price, or will qualifications also be considered?

Another type of risk is **Job Risk**. Is the job a familiar job type? How complex is the project itself and is the client's schedule reasonable? Are there access constraints and/or hazardous conditions?

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Figure 2: The Terminator

Can you utilize your own standards or will you be required to use other standards you may not be familiar with? How much professional liability is at stake should something go wrong?

Finally there is **Client Risk**. Is this a new client? If you've worked with them before how quickly do they pay and have they ever defaulted on a payment? How confident are you that this client will treat you fairly? Is the client easy to communicate with, are they open to advice and suggestions; do they seem to understand what they are asking for? Do they understand the technology and processes that may be used to achieve the scope of work they've requested? If not, how willing are they to gain that understanding?

To be ready for quick risk assessments consider developing a systematic scoring system to assign a project risk factor. The higher the risk, the higher the contingency should be. Ultimately, after this assessment is complete, you should be able to know whether the fee and other benefits adequately compensate your firm for the risk it is taking. In addition to financial considerations, it is important to remember that when things go wrong you can also damage relationships and reputations—repairing these can sometimes be more costly than the loss of fee.

Resource Assessment

The first question that needs to be asked when assessing your resources is “are adequate resources available to perform the work in the required timeframe?” If so, how disruptive will it be to your other work if resources must be shifted to this rapid mobilization project? If you don't have adequate resources how will you get them?

If you are lacking resources it might make more sense to refer the job for a referral fee. This way you are more likely to make money on the project and eliminate any associated risk and damage to your reputation for actual or perceived poor-performance.

The other option is to take on the project and hire more staff. This can be difficult to pull off though, on a rapid mobilization project. It usually takes a fair amount of time to find and hire quality staff and you may not have time to go through this process. Nor may it be desirable to staff up for just a single project opportunity. Maintaining a network of independent contractors can be a good alternative strategy. Independent contractors may generally be brought in quickly and released upon completion of the project. While independent contractors are often more expensive than in-house staff, you don't have to maintain them as overhead expense when there is no billable work. However, independent contractors may not always be available when you need them.

Teaming arrangements can be a good way to rapidly assemble the required resources and spread some of the risk. This requires building relationships with other service providers (potentially competitors). Obviously you have to establish a level of trust in order to partner up in this manner, but it can be one of the best

ways to quickly assemble the resources needed for a rapid mobilization project.

Decision to Proceed

If after performing a quick assessment of your risk and resource availability you determine you have what is needed to perform the work and that the project value is worth the associated risks, you may decide to proceed with the opportunity. Many times in these situations there isn't time to prepare a formal proposal. It is generally not wise to proceed without some form of written authorization to proceed. In some states it may actually be illegal to proceed without a signed contract. Check the requirements of the state you are in. At the very least prepare a quick quote with a general statement describing the scope of work, assumptions, exclusions, timeframe and fee. Don't proceed any further without a written confirmation and authorization. If the client is truly interested in getting their job completed they will authorize you.

Next, you should follow-up quickly with a formal proposal, and get the client to sign it. Of course, time permitting, the safest route to go is just to issue a formal proposal and receive a proper signed authorization.

A Case Study—The Terminator Project

The call came in around 4:30pm on a Tuesday. I was on my way to put in a graveyard shift of scanning a project at the L.A. County Coroner's office. The caller was a past client and contractor who was doing work at Universal Studios Hollywood. They had an urgent need on a project involving renovation of the Terminator 3D attraction. “I need you to be on a job walk at 7:00am tomorrow morning” he said. He needed to have a

team on site scanning the following day. “If you can’t be ready to scan this quickly we’ll have to find another provider who can.” My answer was “of course—where do we meet?”

O.K., here comes our next rapid mobilization project—the project name should have been a clue—‘The Terminator.’ There is going to be a lot to do in order to mobilize quickly and get a team on-site by Thursday. “Is this going to be worth it?” I thought, as my mind raced ahead thinking of all the things we would need to assess and implement on such short notice. The project has to be walked and assessed in the morning, a fee derived, presented to the client and authorized before end of day in order to get our team on-site the following morning.

The client had given us a basic description of the scope of work, but upon walking the job there was a lot of hand waving to further describe what was

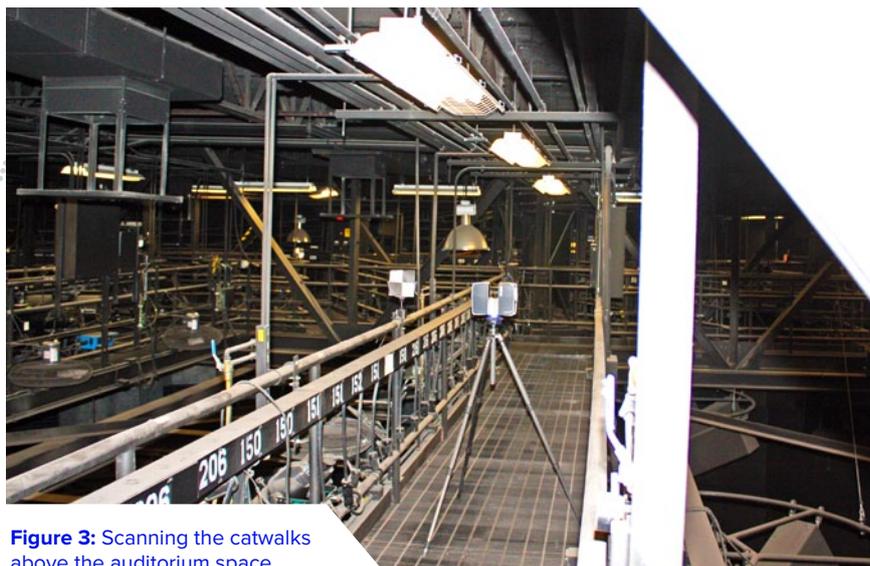


Figure 3: Scanning the catwalks above the auditorium space

needed. The project was moving so fast our client didn’t have the time to prepare a proper description of the work. This, of course, drove both our Project Risk and our Quote Risk up. Basically the client needed accurate 2D floor plans with spot elevations and precise dimensions of specific items of interest. As an option, they wanted a BIM (building information model) of the entire area of interest. Our Client Risk scored low since we had prior experience working with this client and the experience was positive. Still, this project was moving so fast, we wouldn’t have time to issue a formal proposal before we had to have our team on-site.

Timing wasn’t the best. We were already pretty busy with work and running short of resources. All of our lead scan technicians were committed to other projects. We had a junior level tech available, but he wasn’t capable of running this project. None of our contract workers were available so we decided to contact one of our trusted partners [Epic Scan](#) out of Medford, Oregon. Epic is a team member on ARC’s Nationwide Laser Scanning IDIQ contract with the U.S. General Services Administration (GSA) and we have worked successfully together on other past projects—our respective staffs are very compatible and work well together. They were able to commit a highly experienced scan technician to help lead ARC’s on-site scanning operations. We also contacted Dave Woolley of

[D. Woolley & Associates \(DWA\)](#) a professional land surveyor based in Tustin, California to run survey control. ARC has successfully partnered with DWA on many occasions over the years.

Of course, both consultants needed information and an authorization to proceed. Epic had to make travel plans, DWA had to re-arrange their project staffing to free up a survey crew. ARC needed costs from both Epic and DWA in order to put its proposal together. All we’d have time to prepare is a quick quote. Our



Figure 4: Surveying and scanning the auditorium space



Figure 5: DWA's Trevor Rice gives the thumbs up while surveying

plan was then to follow-up “quickly” with our formal proposal once the team was deployed. Our quick quote was presented and an email reply received with the authorization to proceed.

With operations underway, the proposal was quickly formalized and forwarded over to the client for review and approval. Our contract was signed. With a sigh of relief, we could concentrate on delivery of the work. Upon completion of our field operations we felt pretty good. We had somehow managed to mobilize on a moment's notice, pull together all the required resources, successfully complete our field operations and maintain our schedule. All that remained was to process our data into the required deliverables. Then the phone rang... It was the client with instructions to cease all work immediately.

The client had been operating under instructions from the owner to proceed with the work right away regardless of the cost. Timeframe was of the utmost importance. That is until the owner received the client's formal proposal. The owner was not pleased with the fee presented, nor were they in agreement

with the client's approach to create a BIM in order to accomplish the scope of work. We were directed to just send over the 2D deliverables. The problem now was that our data had yet to be processed, and technically we were still on hold. There were a number of man hours required to process our data into deliverables that would be useful to our client. At this point we began to feel very uneasy with the situation. Our client said we'd work out the details of a revised contract, but to send over the data immediately.

To complicate the situation, our client didn't fully understand the processes we had yet to go through in order to deliver our data. The client was still under tremendous pressure from the owner to keep the project moving forward to meet the construction schedule. In the spirit of keeping the project and our client's needs as our top priority, we continued to process our data. Even though we were continuing with the work, our relationship quickly became strained when we were unable to 'immediately' hand over the data they had requested. It was our client's perception that we were holding the data hostage, although this was not

the case. In the end, our client received the data they were looking for, and we got paid for our services.

Conclusion

Rapid mobilization projects carry lots of risk. Whether the risks are related to the quote, the job, and/or the client, it is clear that not factoring adequate time into the process can put the entire team at higher risk. Fast deployments can also cause a lot of chaos for resource planners. Since rapid mobilization opportunities often show up unexpectedly, it is wise to put in place a system to quickly assess your risks in order to determine whether it is worth the time to pursue such opportunities.

As illustrated in the Terminator case study above, you can see that even when things are going well the situation can take a sudden turn in the wrong direction. The root of the problem is often time, or lack thereof. As long as one is familiar with the potential risks and has the systems in place to react quickly to these types of opportunities they can still become successful projects. However, even though we all want to keep new jobs coming in the door, it is important to only take projects that makes sense and don't expose the firm to unnecessary risk and liability. Dave Woolley had a great piece of advice when he told me, “I don't need to drive to Hollywood to lose money.” ■

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