



AV PURCHASING METHODS

The Definitive Guide to AV Delivery Methods

When should you use a design consultant and bid process vs. Design / Build? What are the dangers of each? What is AVaaS? There are actually 5 different ways to procure an AV Project. What is the absolute worst way to bid a project (hint: it's the most commonly used method today)?



This document will outline the best practice guidelines to select an AV delivery method for a given project. You will learn the 5 methods and the real world pros and cons of each.

AV Delivery Methods

There are 5 ways to deliver an AV Project. These methods can be viewed on 2 axis, generally offering increasing upfront cost, but decreasing overall cost. They should be selected, based on project complexity. When the wrong method is selected, the project will be negatively affected.



RFQ & Design / Build

A request for qualifications can produce acceptable results, but requires extreme good faith on the part of the contractor. In this method, a contractor is based on qualifications, then works directly with the owner. Line item costs must be broken out in a very detailed fashion. This type of arrangement is most effective when there is already a track record and basis of trust between parties.



RFP (no criteria)

In this model, the client says “Give me a proposal for 2 boardrooms, 4 conference rooms, and 12 huddle spaces”. This is the worst model, because there will be a variation on every level of quality: materials selection, design, engineering, and contractor capacity (build quality, and project management). Since there is no direct method for comparison (apples to apples) it always produces poor results). Additionally, this often results in AV designer being engaged too late, cause A/E related infrastructure issues.



RFP (with criteria)

In this model, the client provides a functional narrative and equipment list to perform the work. This method can work well, **assuming** the client has completed several of these rooms before and understands their **exact** technical requirements. Otherwise, this model produces a bid mess that bleeds into contingency budgets just like the previous method. Even when the technical requirements are understood, solid contract documents are typically lacking to define performance. This leaves the client exposed to poor workmanship unless companies can be qualified somehow.



Design Criteria

This is the model that we most frequently recommend for projects under \$300k. In this model, we work with the A/E team to fully coordinate infrastructure and assist with criteria for technical spaces. We also provide a full equipment list and functional narrative. These documents may need to be evaluated by an AV engineer, rather than an estimator, but capture the full design intent. This deliverables set is less extensive than a Hard Bid set. The owner is still responsible to select a qualified firm and hold them accountable to perform quality work, per their contracts. This allows us to cut waste and reduce the design fee by half (typically a reduction from 10% to 5% of AV budget)



Hard Bid

In this process, we act as a traditional design consultant and produce an extensive drawing set and CSI Specifications. To avoid a conflict of interest, we typically will not bid on these projects. This doubles the design cost (from 5% to 10% of AV budget), but provides an additional degree of protection to the owner, because the responsibilities and level of performance / quality are specifically defined within the document set. This is often overkill for smaller budget projects, because enforcement generally requires legal action or arbitration, which is cost justified. This is, however, our recommended delivery method for government projects, which are subject to “open bid”. In these cases, the organizations need some level of protection from bidders who will produce inferior quality work, but cannot be restricted from bidding.

General Contractor or Direct to Owner

This brings up an important question regarding AV Installation contracting. During new construction, should the AV Integrator be contracted directly to the owner or as a Sub to the General Contractor? The answer depends on the nature of the project.

If the project requires a high level of interaction with other trades throughout several phases of the project, then AV should absolutely fall under the General Contractor. This is typical for larger facilities like Sports Facilities and Courthouses.

On the other hand, for a project like an office building, this must be carefully considered. In these projects, the equipment can account for 60-70% of the AV budget and the AV Integrator has little or no scope to perform until the very last phases of the construction schedule.

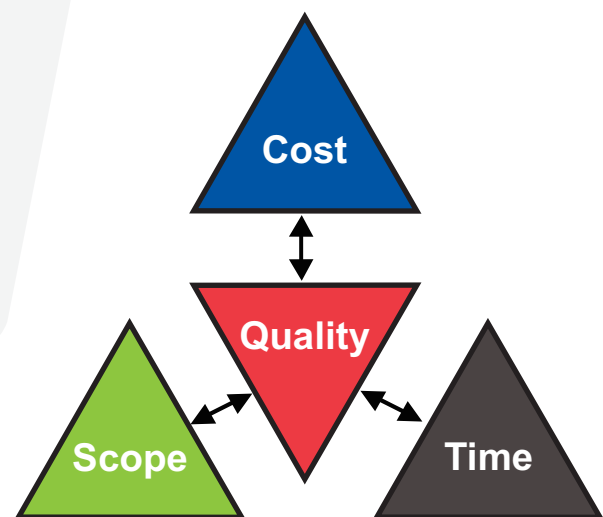
A reasonable hybrid approach is to issue separate contracts for labor and equipment, with the equipment contracted direct to owner and labor subcontracted through the General Contractor managing the project. A majority of AV equipment is frequently FF & E (furniture, fixtures, & equipment) rather than building cost, so this may be appropriate.

It is, however, important to have the AV Integrator in close coordination with the Design Team, as AV tends to have a dramatic impact on related building infrastructure, such as conduit raceways, power, and HVAC.

Impact of PM Triangle on Budget

The image shows a more typical image of the project management triangle. In our process, AV scope has primarily been identified in Stage 2. However, there are many items affecting cost, which do not come into clear view until final contract documents are issued.

These scope items are often included in the General Terms and Conditions of the contract or MSI format specification.



The Problem with Quality

An important point to mention is that “Quality” in the diagram above has two distinct components in AV installations. The one that is referenced by the project management triangle is not the one that people typically think about when it comes to technology.

The First Dimension of Quality

The first dimension of Quality is materials quality. With the proliferation of technology, equipment technology is a problem much less frequently in AV installations (although this is not the perception).

The Second Dimension of Quality

The other component to quality is the soft component. This includes design, engineering, programming, commissioning, and training. These functions are frequently performed poorly. The blame falls on the equipment, but this is typically only a small percentage of the issue.

Never select an AV contractor solely on low bid process. Municipalities who cannot restrict bid lists suffer the largest headaches and associated cost overruns. A flooring contractor follows a simple metric of cost per sq/ft. and a general contractor can easily inspect and monitor their work.

AV is not measured in square footage and the AV contractor is likely the only person on the project with a full understanding of their trade. AV is not like other building trades.

Remember:

AV is not a regulated Building Trade

Unlike other building trades, AV does not fall under the local building department's AHJ (authority having jurisdiction). There is no building inspector who comes out to verify that best practices have been followed. The building department's jurisdiction typically ends with inspecting the cabling to ensure it meets NEC (National Electrical Code) and checking the rack equipment for UL (Underwriter's Laboratory) stickers. In other words, they want to make sure your building doesn't burn down, but they have no stake in whether your equipment works or not.

AV is an unlicensed Profession

Just as the Building Code only marginally touches on AV installation, there is also no licensed and regulated professional designation for AV design. The highest designation held by AV professionals is the CTS-D, but this is not a state regulated license like all of the other engineering professionals on a typical design team.

Evaluating AV Bids and Proposals

Even with a consultant design process and bid documents, expect a 10% variance in cost between offers and be willing to pay the difference if there is a gap between the soft quality factors. It will easily save you twice that amount in project costs. Project Management, in particular, is hugely important in AV and can have a major cost impact on the entire project.

If you decide to utilize an RFP process, you will likely have a wide disparity between not just the quality of the soft factors, but the quality of the equipment. This is not to say the quality of the equipment itself, but the quality of the overall design and the fit between equipment and organizational goals.



Expect 20% deviation or more between experienced AV firms. If you have confidence in an AV Integrator's abilities based on your interactions, give this experience value. You will be well rewarded throughout the construction process. You can always VE a design with line item pricing later. You can't add a good design, solid engineering, or professional project management when it doesn't exist.

If you're paying attention, you can quickly tell in interaction with AV integrator their relative prowess in design, engineering, project management, etc. **Be careful to judge the AV contractor by their actual interactions, rather than their marketing and list of finished projects.** This is especially true of larger firms. Their completed work list can often be entirely made up of projects performed by another office in a different city. This has no bearing on the team that will be serving your project!

Do they ask questions about schedule, construction process, drafting standards, enterprise standards, future proofing, workflows, or organizational goals? Or do they ask a few questions and spit out an equipment list as if the secret is in the list of great equipment they are proposing. Another secret for you... The equipment list is not the quality that will most affect your project outcome.

Conclusion

The best way to procure and deliver an AV project can vary, depending on budget, scope and other factors. AV is different than other building trades and can't be estimated as cost per square foot. Asking for multiple bids without extremely clear criteria is asking for trouble, because there will be no method for fair comparison to determine value. One AV integrator can propose a lesser quality system that will lead to user frustration, while still including a larger profit margin.

Even with an apples-to-apples criteria and project specification, there are “soft components” to AV systems quality that need to be considered. Things like engineering, project management, and service will have a dramatic impact on installation schedule and end-user experience. AV is a solution, not a box of parts.

Paying 10-20% more for a better solution can often produce the best overall ROI. Often this can be worked into a scoring system, along with other factors like experience, so that selection is not linked to price alone, which often produces poor outcomes.

Key Takeaways Regarding AV Budgeting

- A Consultant lead bid process will double the design costs, but is often a good investment on projects over \$500k
- On smaller projects, you can often reduce design costs by simply producing a design criteria package. This is sometimes referred to as a hybrid Design / Build.
- If this design criteria package is issued for competitive quote, it is still the responsibility of the owner to due diligence on the other firms and create binding contract documents that specify quality metrics.
- If you're getting an AV Design for free, unless you already have a relationship with that AV integrator, it's likely that design is worth exactly what you paid for it.
- Carefully consider whether AV should be contracted direct to owner or through a General Contractor.
- If you are comparing finished projects to aid in selection, only allow projects that reflect the experience of the team that will be working on your project. This is especially true for larger firms who will list completed projects from offices on the other side of the country, which often has no bearing on the skills of the team that will be working on your project.
- Try to spend some time interacting with each firm. Do they respond quickly? Are their responses precise or vague? The experience before contract can tell you a lot about what the experience afterwards will look like.