



Foodservice Equipment & Supplies
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Consultant's Viewpoint

Streamlining the Process

Constructing commercial kitchens is a rather complex process. Kitchens are one area within any building where all of the trades and the kitchen equipment contractor, or KEC, have to work within the same space in a coordinated manner. As a result, the KEC has a responsibility to provide timely and accurate documentation in the form of a submittal prior to the commencement of work to prevent costly errors and ensure that the end-product meets the needs of the owner. Without accurate submittal documents, there is a lot of room for miscommunication that can result in costly mistakes and a breakdown of trust between all the players involved. On a recent project we tried a new approach to the submittal process, one that has the potential to save time, improve accuracy and lower costs.

Traditionally, the submittal process requires the KEC to generate an equipment brochure containing a cover sheet (indicating item number, equipment description, quantity, accessories, etc.) and specification sheets for every buy-out item for the project along with a full set of drawings. The drawing set usually includes an overall layout of the foodservice equipment, a plumbing rough-in drawing, an electrical rough-in drawing, a special conditions drawing indicating block-outs, slab depressions and wall openings required along with shop drawings for walk-ins, exhaust systems, utility distribution systems, serving counters and all fabricated equipment to be supplied under the contract. The KEC then assembles eight complete sets of the equipment brochure and drawings into a submittal package. The KEC then sends the submittal package to the general contractor, or GC. The GC in turn forwards it to the architect who forwards it to us, the foodservice consultant. This delivery process takes several days and incurs shipping expenses between each office. The benefit of this approach is that the GC and architect are kept apprised of where the process stands in its cycle.

Upon receiving the submittal package, we conduct an item-by-item review of each piece of equipment to ensure that the correct make, model and accessories will be supplied per the contract documents. We also review every drawing for accuracy and completeness. On a large project, the submittal package can include eight equipment brochures (each more than 2 inches thick) and eight sets of drawings (each including up to 20 sheets).

For each piece of equipment, we indicate whether it is "approved" or note what needs to be changed. This information is typed onto a Submittal Review Comment Form. Each drawing within one of the sets is reviewed and stamped "approved" or handwritten comments are included and the drawing is stamped "approved as noted." Once one set of the drawings is



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reviewed, all of the comments are transferred by hand to all of the other sets of drawings. Finally, a copy of the Submittal Review Form is bound into each equipment brochure and stapled to each set of drawings. One set of documents is retained at our office and the remaining seven sets are returned to the architect. The architect usually retains one set and returns the remaining sets to the GC who, in turn, distributes the sets to all of the trades.

The submittal packages we see tend to fall into one of three general quality categories. The fairly "clean ones" take 8-to-12 man-hours to review and mark up. At the opposite end of the spectrum, some submittals are so deficient that they are marked "rejected, resubmit." These only take an hour or so to review, although they must be resubmitted so the review process is actually made much longer in this case. The third type of submittal falls in between the first two — these drawings and brochures are not bad enough to reject outright, but require so many comments that it can take 20-to-25 hours to review and mark them up.

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On a broad level, the submittal process described above is fairly common in today's industry and serves the industry effectively. But this submittal process can be costly and slow and, at times, comes with some risk. For example, there is always an opportunity to miss comments when transferring them by hand from drawing to drawing. And you can bet that when this happens, the set of drawings makes its way to the job site, which opens the door for confusion and errors.

Here's where our industry has a great opportunity, I believe, to streamline our process, reduce costs and potentially lower the risks of errors in the field. Rather than submit multiple sets of paper-based drawings, the KEC could submit drawings electronically using a DWF file format (DWF stands for design web format). Any currently supported version of AutoCAD can publish drawings as a DWF file and anyone can download the free DWF viewer software directly from Autodesk's web site. We tried this approach on a recent project and found it was easy and successful.

In this instance, submittal drawings were e-mailed directly to us as a DWF file. Basically, a DWF file is like an electronic piece of paper that allows us to see the drawings and plot them if we want. It is important to note that the information contained within the file cannot be changed. Similar to a PDF file in this respect, but DWF file sizes are much smaller in size. We can open the document in the DWF Composer software, view the drawings, annotate them and type comments on them much like we do by hand on paper drawings. The DWF Composer software is available from Autodesk for about \$200.

This submittal process allowed us to mark up the electronic drawings with our comments and annotations in color without changing the original information. We e-mailed the file back to the KEC and copied all of the other parties in the process to keep them informed. Due to the extensive comments, we went back and forth several times until finally the KEC printed the "approved" set of drawings, which were then sent to the architect and the GC for distribution to the trades. The best part about this process was that incorrect drawings were never distributed and nobody incurred undue shipping charges.

Of course, this by no means replaces the need for paper drawings entirely. When in the field, we are still knee-deep in mud and need to look at paper. But what we can do is reduce expenses and shorten the submittal process by not transporting paper to multiple offices over

time. We can also reduce the risk of having "rejected" drawings on the job site.

Some trade-offs come with these potential benefits. This idea is relatively new to the foodservice industry and requires a change in method of operation. This change may be difficult until all of the wrinkles are worked out. For example, when transmitting the shop drawings electronically, it is vitally important that the architect and GC remain part of the process to see how things are transpiring. There is a chance that someone might be excluded in the process or that an e-mail is lost or misdirected. However, there are steps that we can take to ensure that everyone is included and that e-mails are transmitted successfully.

While this submittal process is far from foolproof and is in its early stages, I believe it is worthwhile for us as an industry to explore it further. The whole idea is to see if we can streamline our processes, keep costs in check, build brand equity and trust among channel partners and reduce potential for errors. Anything we can do along these lines is something worth considering.