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Questions to Ask When Upgrading/ Building MRI or Radiology Facilities

By MARK BAY

Whether you are planning an upgrade to your existing MRI/Radiology facility or are planning to open a new one, there are extremely important and preliminary questions that should be asked that are often overlooked in the planning stages, and have an enormous effect on overall costs that can even derail the project altogether. We are assuming that you have contacted an experienced general contractor to ask these questions, which brings us to our very first question:

Why should I speak to a General Contractor (GC) first? Isn't he/she just in charge of the construction phase of the project?

While the GC oversees construction of the project, the GC often has the most comprehensive knowledge of all phases of a project from design to estimating to permitting to construction to commissioning of the equipment. Often, the design team, a permit technician, MRI/radiology equipment supplier or real estate broker can only provide information in their area of expertise. A general contractor with previous MRI/Radiology experience will know the ins and outs of the permitting of a project like this, can assist the design team in designing equipment locations and space requirements, ask the proper questions of an existing building owner, the power company and the local authority having jurisdiction and even answer questions and solve issues regarding the equipment itself so large purchases are not made without prior knowledge, which could cause major issues before or worse, after installing equipment. This leads to our second question once we are talking to an MRI/radiology experienced GC.

Do you have a design team in place, and who would make up the design team if I need one?

The answers to these two questions will largely depend on the type of project you are planning. If you have an existing facility and are seeking to upgrade your equipment but not necessarily perform additional construction upgrades, then you



may not need a design team. This will depend on factors including but not limited to if the old equipment can be removed from the building, and the new equipment installed into the building without breaching the building's structure. Some facilities were constructed with future upgrades in the design. Others may require creation of an access for the equipment to be removed and installed which will likely require a structural engineer. If the new equipment requires ancillary equipment, is there enough space inside the existing building to accommodate the new equipment configuration. If not, an architect may be required to design interior room changes. It is possible your power requirements for the new equipment are different and your existing electrical design cannot accommodate the new equipment without an upgrade. This would require an electrical engineer. So, there are many questions that arise regarding the specifics of the facility, the existing physical plant as well the equipment itself that need to be discussed before this question can be answered accurately.

Once it is decided and agreed that a design/construction team is necessary, who do I put on this team and what is the importance of beginning with a good collaborative team?

This will depend on many many factors some of which include the type of project; is this a new building or existing building? Is there existing equipment being replaced? Does the existing infrastructure and engineering fit the requirements of the new equipment? There is a myriad of answers to this question and almost as many

more questions arise from this one as there are a multitude of scenarios that experienced MRI/radiology contractors have encountered. Projects that are a collaboration of the entire design team; architects, engineers, the construction contractor and his key subcontractors, the shielding contractor, the equipment supplier and equipment engineers, the owner, as well as an experienced equipment operator wind up being the smoothest projects with the least number of glitches and cost overruns along the way. With the collaboration of all the team members, many if not most of the typical repeat issues for projects of this type can be eliminated. When one member of this team does not participate from the beginning, nine times out of ten some portion of the work will have to be undone or removed or relocated, and then redesigned and constructed or installed a second time. Collaboration from the beginning eliminates afterthoughts, and afterthoughts equate to cost overruns which equate to a bad experience.

How long can I expect my project to take and who can best inform me?

This is where a general contractor can give a client the most accurate information. Many individuals with some construction knowledge but little actual field experience believe they know how long a project "should" take and this is not always based on fact or field experience, but mostly speculation, theory or comparison to other projects that may appear similar on the outside but once a detailed examination takes place, are vastly different in content and complexity. This question is best and most accurately answered by a contractor who has visited

the site of the project, examined the design plans, collaborated with the major participants of the potential project and is familiar with the jurisdiction in which the project is located. The economy also influences the duration of a project regardless of how large or small it may be. We will explore that variable at another time.

Do I need a permit for my project?

Once again, this answer often depends on the size and type of the project, however it is best to assume that you do. Legally, if a construction project exceeds \$1,000, a permit is required with many exceptions to this listed in detail in the Florida Building Code. As a rule of thumb most projects involving the replacement of, relocation of or installation of new or used MRI or radiology equipment will require a permit issued by the authority having jurisdiction (local building department). Once the parameters of the work are defined, this question can usually be answered quickly.

In the upcoming second part of this article, we'll take a look at contracting for an existing facility or tenant buildout. Questions we'll address are:

How long does design and permitting take?

Is MRI/Radiology construction different or specialized compared to standard commercial office construction?

What type of construction is your existing building?

Do you have an equipment supplier and how well do you know what they supply?

Are you buying or leasing new or used equipment?

Is there a shield in place or do you need one? Copper or Steel?

What about your budget?

What is the access to your building for the equipment?

Do you know if the power requirements for your equipment can be met in the existing building?



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