

Looking at an Expansion or New Facility? The Initial Feasibility Phase Can Make or Break You

What required items should be considered in this phase and what partners should you add to your team in order to start your project off on the right foot?

■ By Jeff Eriks

You have an opportunity to expand your operation ... now what? Where do you start? This initial phase, whether it is called feasibility, assessment, scoping, preliminary design or any other name, is an important piece to the project and cannot be taken lightly. You must get this right and you only have one chance to do that. No one wants to “go back to the well” for more money or miss their projected open/start date, which pushes back revenue projections and decreases ROI. Getting through this phase with the most knowledgeable team possible to help dial in the need, come up with cost-effective and efficient designs, and accurate budgets and timelines will help a project be more successful from start to finish.

Initial Phase

The initial phase includes many different pieces that must be gathered early on and accurately. Some of the items accomplished in this phase are:

- Operational review and assessment
- Analysis of needs to determine options for expansion/new facility
- Conceptual drawings
- Conceptual schedule
- Conceptual budget
- Initial permit research
- Initial utility availability
- Existing building review/assessment
- Site environmental assessments
- Site zoning and setbacks

During this phase, as the owner, you must be able to truly analyze operations in terms of where it is today and where it is projected to be so that your project partner(s) can come up with solutions that are relevant to your immediate needs as well as considering future growth. To do this properly, the right team members should be included, allowing the right amount of time and setting aside some capital to prepare the necessary items to be used in the business case.

There are several different stakeholders/participants in this phase that have very important roles and must be included in all discussions to get the best results. Not all parties will apply to all projects. The stakeholders could consist of:

- Local Employees/Team Members
- Local Management (GM or equivalent)
- Regionally Based Management
- Corporate Team
- Designer or Design/Builder
- Financing Partner (if required)
- Local Permitting Agencies
- Vendors/Suppliers

Let's walk through the various roles of each stakeholder. Please keep in mind that these roles are different for every organization, so I am using general terms for the purposes of this article.

Potential Owner Team Members/Stakeholders

Local Employees/Team Member

While typically not the decision makers, they are often a valuable resource when discussing the operations of any facility because they live it every day. Typically, the primary owner will identify a couple team members to include in some of the preliminary discussions and layout reviews to gather their feedback.

Figure 1
Project planning.



Photo courtesy of pngtree.com



Figure 2
Feasibility word cloud.

Image courtesy of Cambridge Companies.

Local Management (GM/Operations Manager/Equivalent)

Many facilities typically have a couple of these team members that are very engaged with the entire process from start to completion. They have usually been the ones to bring up the need to upper management, built a preliminary business case and have requested that the project be considered. They know and understand their current operations, the potential for growth and are an absolute must to have as part of the overall project team.

Regionally Based Management

Every company is different, so smaller companies might not have this layer of management, but larger ones do and each call it something different. No matter what you call it, they serve a support function for the local team before going to corporate. They can assist the local team in analyzing the market, identifying the exact need, building the business case, identifying issues with operations or environmental concerns, required permitting and other items.

Corporate Team

Most companies will have some corporate guidance or review of the business case or proforma before any approvals will happen. Corporate's job is to help review it for holes or inconsistencies and evaluate it against other potential projects that would require capital to determine where the best ROI is for their money.

Potential Outside Team Members

Designer or Design/Builder

The critical piece to this whole process is finding the right design partner for your project. They need to have extensive experience in your industry and knowledge of how the facility will operate, the equipment required within the facility (whether stationary or mobile), traffic patterns, employee requirements and safety. My recommendation would be to use a design/builder because they can offer overall expertise

of the structures design/requirements, constructability methods, accurate cost development, timelines and permit agency relationships.

Financing Partner

This is fairly self-explanatory in nature, but some companies will require outside funding. The financing partner needs to be involved in deciding how much funding is available and at what rate. This may drive the options available to the team for expansion.

Local Permitting Agencies

Permitting can come into play from a building permit or an environmental permitting standpoint. With either of these you have to gather the necessary information, build some relationships, make sure you understand the process, know how long it will take and the costs involved with each. This will be the single greatest timeline factor your project will likely encounter before you reach the construction portion of the project.

Vendors/Suppliers

In some cases, the projects will require equipment (like an MRF or sorting facility) and it will be necessary to bring them in to get some feedback on the preliminary designs to properly vet them for compatibility and overall requirements as well as gather some preliminary budgetary numbers for the business case.

Once you have identified the proper team members, you need to start working on your base information for your business case. Each stakeholder will be required to focus on different pieces of the potential project.

Some of the requirements the owner team will need to prepare are:

- What is the specific need and why did it come about?
- What is the reason for the new facility/expansion?
- What is the short-term need?
- What is the long-term need?
- How does it affect operational costs? (Because those will need to be considered.)

- What revenue increase will there be?
- Are there future growth options to consider?
- What equipment will be needed to support the growth?
- What ROI is required to fund the project?
- Are there other internal requirements (as required by each individual company)?
- Is there other site-specific information (as required by the outside project team)?

Design/Builder Requirements and Responsibilities

Once all the items are prepared/gathered by the owner, they will work with the design/builder (D/B) to pass on the necessary information needed to begin an evaluation and assessment. The people and growth information will be needed by the D/B to help determine the facility options for you to review. A short-term and long-term building and staffing plan should be developed, as well as possibly a phasing plan specifically for the site improvements. Site plan options need to be looked at and business interruptions need to be considered. The D/B will be required to assess the current site and facility to determine if it will be adequate for short- or long-term growth and how it may or may not fit into the overall plan. They will also be required to work with the owner to assess outside properties, if that is a requirement. This could involve greenfield sites (new builds), existing buildings and any required modifications or lease options with improvements. It all depends on the type of project and the owner(s).

Once the options are developed, the D/B needs to develop conceptual estimates for each option for the owner to consider in their decision-making process. Along with the budgets, other considerations should include:

- Are there operational considerations (shut downs, interruptions) that need to be evaluated as part of this process?
- What is the total expected timeline of each option from start of design through permits and completion?

The D/B is required to put this information together for the owner to ensure that they make a sound business decision to be included in their business case and proforma. Once the owner makes their final decision on which option they would like to proceed with, the D/B should finalize their preliminary designs, budget and schedule, and provide the owner with a packet of information including:

- All the information gathered during the process
- What led to the final decision
- What assumptions were included in the process
- Any pitfalls or potential issues that may come about as the project moves forward

The owner should acknowledge the potential issues, include some contingency in their budget as well as timelines to accommodate these items in case they become an issue.

At the end of this process, the owner should have a good idea of what the project will consist of if the business case/proforma gets approved. The budget and schedule put together by the D/B partner should be conservative since it is still conceptual. The owner should be comfortable that when they use this information they should not have to go back to corporate or the financing partner later for more capital/funding. As I mentioned earlier, this is one of the reasons that this process is so

important. You do not want to have to “go back to the well” for more money if you do not have to. Nor do you want to miss your projected startup date since that affects your revenue projections and ROI.

One other thing to keep in mind is that you do not have to overpay for this phase of the work. There are some very competent design/build partners out there that can assist you with this phase and have extensive experience within the solid waste industry.





Project Success


Picking your partners for this phase of the project is extremely important from the local team all the way through to the outside vendors and D/B firm. The more knowledgeable all team members are about your operations and the more experience they have with your type of project, the better the designs and budgets will be for use in your business case and the more successful your project can be. | **WA**


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