

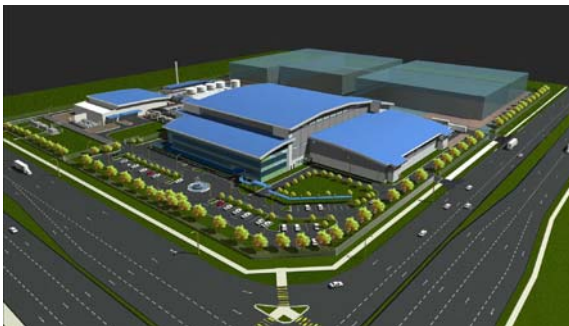
## Site Selection Guidelines

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The purpose of this document is to provide insight for clients considering a site evaluation to develop a Greenfield site, assess an existing developed site or a Brownfield site to meet future expansion requirements. There are no established standards for guidance because of the variables involved, such as site location with respect to local governing authority along with client objectives and purpose in developing a site. This document is meant to provide a general guideline to define some of the issues and concerns to be addressed when considering a site for development.

There are several categories of criteria to be considered when evaluating a site for selection; these can be defined as Governing Authority Factors, Environmental Concerns, Site Location and Development, Infrastructure and proposed Building. These categories are further expanded below as check list of items for consideration within each category.

### GOVERNING AUTHORITY FACTORS



The location of a perspective site will have a governing body with the oversight of development and planning approval for that site. Depending on the location, the local government may have economic development incentives in the form of tax abatements for development or training programs available within their jurisdiction. There will most likely be a public planning board approval process of the proposed development. This process could be schedule critical depending on

the extent of documents to be prepared and submitted for review, the planning board review time and cycling on the docket for public approval hearing.



This planning board approval process is critical to any site development and should be confirmed early on what the expected duration of this process well be along with the other concerns listed below.

- Local government support for project.
- Local community support for project.
- Economic incentives available, tax abatements or training programs available.
- Public transportation, incentives for location approximate to local commuter bus or train stations.
- Development of documents and submission to planning board for approval.
- Duration of planning board approval process including a public hearing.

### ENVIRONMENTAL CONCERNS

Each site is subject to environmental concerns regarding past history of the site and impact of future site development to air quality, water usage, water quality, site drainage and detention factors as well as the impact to local and regional natural resources. Consideration should be given to the listed concerns and the cost impact in a site evaluation as some of these issues will require testing or reports from consultants to be issued for approval.

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- Determine if the site has wetland boundaries or buffer areas delineated which would restrict development.
- Determine if there is hazardous material restrictions applied to the site above and beyond the model code requirements.
- Determine if there are existing EPA issues regarding contaminated soils or underground storage tanks to be addressed.
- Determine if there are any reports required identifying or eliminating existence of endangered species or archeological findings on site.
- Determine if a traffic report is required analyzing existing traffic patterns and capacity.
- Determine if an environmental discharge permit is required for the site for air, waste and water quality.
- Determine if there are any noise abatement restrictions for the proposed site to adjacent properties.

### SITE LOCATION AND DEVELOPMENT



Each site has its unique characteristics and land use regulations affecting the net usage upon the property as to what and how much can be developed. When evaluating a single site or multiple sites, the

development issues and concerns listed below will affect the allowable buildable site.

- Evaluate the average industrial land cost or rental cost for location of proposed site.
- Evaluate the local housing availability / affordability, quality of local school systems and the general quality of life for employees in surrounding neighborhoods.
- Determine if site has a history of natural disasters such as earthquakes, flooding or mudslides.
- Determine if the proposed site is accessible to public transportation.
- Consider the demographics of the proposed site regarding skilled labor force and employee wage structure from neighboring communities, industry and universities.
- Determine if desired site is zoned for intended occupancy use or will a variance be required?
- Determine if the proposed site is accessible to major roadways for personnel access and truck deliveries.

- Determine if accessibility to railway and airport either local or regional an important client criteria.
- Are there any site access restrictions or curb cut limitations from adjacent roadways?
- Consider property line setbacks for proposed building and structures proposed on site.
- Determine if there are any restrictions such as covenants, easements or right of ways on property or buildings that would limit site development.
- Determine what the buildable site to open space ratio limits are and how this ratio will affect proposed building or future development.
- Determine site parking requirements. (Usually based on building area, building use or proposed number of personnel working on site).
- Fire department site access and building access requirements, if any for site development.

### SITE INFRASTRUCTURE

Each site location will usually have varying degrees of public utilities and infrastructure for potable water, waste, power and gas available to the site. A manufacturing facility may require much greater quantities and capacities than are available from public sources and may have to be supplemented and generated on site to meet capacity and redundancy requirements.

- Determine capacity of public utilities to site for water, power, gas and waste treatment capabilities and service rate for these utilities.
- Estimate the capacities and peak loads required for project and determine if public infrastructure services available can handle demands for water, power, and gas.
- Determine local requirements and capacity for handling solid waste separation and liquid waste discharge, monitoring and treatment.
- Water usage to be estimated for process, mechanical and plumbing needs. An estimate for number of personnel working on site will be beneficial in determining required number of fixture counts for water quantity calculations.
- Determine current energy code requirements, as some jurisdictions have upgraded requirements recently by adopting local amendments to the standard model codes.
- Depending on the scale of proposed project, consider where process utilities such as clean steam, water for injection, process gases and

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process air along with plant utilities of plant steam, chilled water, cooling water, firewater and compressed gas will be generated. Determine if the proposed site development will require a separate utilities building.

- Consider the source for emergency power and what critical systems require backup.

### BUILDING

As well as the site development and infrastructure requirements listed above, each site location will have varying criteria and requirements for the design and construction of buildings. Due to unique planning and zoning codes on the local level as well as the national model building codes with local code amendments, these requirements can vary from site to site. When evaluating a single site or multiple sites for development the issues and concerns listed below will affect the allowable construction type and size of a building.

- Determine allowable building footprint area and allowable building height from the local planning and model building codes.
- A topographical analysis of the site grade configurations will determine building construction limitations and natural site drainage conditions.
- A geotechnical survey and analysis of the site soils will determine support capability for the building foundations and structure.



- Determine building occupancy type and construction classification per model building code which will define allowable building size.
- Determine if building will be sprinklered, allowing for additional building area bonuses.

- The model building code will determine building setback to other buildings on the site depending on building construction type and wall fire rating stipulated in the code.
- Should the proposed site be located in a mixed use zoning classification, there may be stipulations in the local planning requirements regarding proposed material approval or aesthetic restrictions on the property.
- Determine what seismic zone classification and flood plane restrictions, if any, apply to building on the site.
- Recently, some jurisdictions have or will be adopting sustainable design objectives to the current codes as a local amendment. Determine if this is in agreement with client objectives for a proposed site

This summary of concerns should be beneficial for clients who are considering site selection and development to meet their future development objectives. The owner may also have specific site requirements additional to the guideline above such as site security, how can it be achieved and are there any restrictions by governing authority.

Depending upon the site location, the concerns and issues could be fewer or greater; however one important aspect for any site under consideration is to validate with the approving authority requirements for submission and the duration for the approval process.

### CONTACT US

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