

**State
of
New York**



**Andrew Cuomo
Governor**

**Development Profile
for
High Technology
Manufacturing Sites**

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Table of Contents

Program Overview	p. 3
Introduction	p. 5
Generic Site Profile	p. 6
Project Profile & Impacts.....	p. 11
Project Musts and Wants	p. 13

BUILD NOW-NY CURRENT PROGRAM

Program Overview

To foster economic growth, New York has developed the Build Now-NY initiative that will strategically prepare and market an inventory of pre-approved, “shovel ready” sites to a wide range of fast growing, job-creating companies.

Empire State Development (ESD) will coordinate this effort and focus on selecting, developing, permitting, and marketing selected sites.

The State will continue to develop its inventory of sites that have undergone the intensive state and local government reviews necessary to accelerate future investment and development. Shovel Ready Certification is an ongoing component of the Build Now-NY program that gives official recognition to sites which have completed this advance work and are truly prepared to offer businesses the opportunity break ground on a new facility in a greatly expedited process.

The development profiles are designed to allow local governments to decide on the appropriate type of development for their individual communities. Municipalities will be able to demonstrate to prospective businesses that their communities support and are prepared for new development, new jobs, and economic growth.

Eligible applicants for Build Now-NY/Shovel Ready Certification include municipalities, local economic development organizations, industrial development agencies, and public authorities. Private sector developers and landowners must partner with one of the above entities to apply on their behalf. Application instruction and forms can be found at: www.esd.ny.gov/

Generic site development profiles have been prepared for three types of economic development projects:

- ◆ High Tech Manufacturing
- ◆ Warehouse/Distribution/Logistics Centers
- ◆ Multi-Tenant Business and Technology Park

The profiles describe features typical for each of the businesses. Intended to serve as “roadmaps”, the profiles include essential information for each business sector, such as: Development Profiles, Project Requirements, Project Profile & Impacts, and a list of Musts and Wants that describe site characteristics either necessary or highly desirable for each project type. Prior to nominating sites, applicants should use these profiles to identify the development type most appropriate for their community

High Technology Manufacturing Sites

Introduction

In 1999, the State of New York, Empire State Development, and the Governor's Office of Regulatory Reform successfully implemented **Build Now-NY**, a program that provides the State's communities and economic developers with an important competitive edge in the highly competitive corporate site selection process. By offering companies shovel ready sites, communities and regions throughout New York are benefiting from economic growth, new development, and new jobs.

Currently, three development types are being promoted and marketed through **Build Now-NY/Shovel Ready Certification**: High Technology Manufacturing Sites, Distribution/Logistics/E-Commerce Sites, and Multi Tenant Business and Technology Parks. All of these are eligible for participation under the Build Now-NY program.

This booklet is a guide for high technology manufacturing site development. Included is generic information for high technology manufacturing development that will be needed to complete State Environmental Quality Review (SEQR), possible zoning changes, and other necessary permitting and site approval requirements. It includes:

- **Generic Site Profile** – Defines and describes the purpose and function of high technology (tech) manufacturing sites and identifies relevant infrastructure, traffic and construction schedule data. Communities, economic development organizations and local stakeholders may use this information to determine if high tech manufacturing development is appropriate for their community. The data will also be useful while completing the SEQR process.
- **Must and Wants** – Lists criteria and features that are either essential or highly desirable for site development.

High Technology Manufacturing Sites Generic Site Profile

General Description

High technology manufacturing facilities are defined as those operations that incorporate computerized, automated, state-of-the-art equipment (e.g., process controls, computer-aided design, and advanced communications and information systems) into some or all of the manufacturing process. High tech manufacturers may or may not produce technology-related products, and can be involved in light, medium, or heavy manufacturing. The type of products produced by high tech manufacturers ranges from chemicals to pharmaceuticals, electronic components to precision instruments, and transportation equipment to consumer goods.

High tech manufacturing facilities vary greatly, depending on the type of manufacturer and its spatial needs, the raw materials being processed, and the end (or final) product. Many manufacturing plants operate 24 hours and three shifts per day for 350 days of the year.

To be considered for Build Now-NY/Shovel Ready Certification, sites with a minimum of **25 contiguous developable acres outside the FEMA 100-year flood plain** are necessary to accommodate the site plan of a high tech manufacturing operation. If land coverage of 25 percent is assumed, the 25 contiguous developable acres could support a manufacturing building of approximately 250,000 square feet. Available land for expansion purposes should also be considered when identifying appropriate sites. (Please note -- within metropolitan areas, the developable acreage may be less if all other Build Now-NY criteria are satisfied.)

Market Analysis

Today, the driving force behind growth and development around the world is technology. And, technology is the driving force behind growth and development in manufacturing. According to the National Association of Manufacturers, nearly 60 percent of all research and development in the U.S. is occurring in the manufacturing sector.

The impact of technology on manufacturing has resulted in numerous positive and long-lasting changes. These include improved processes, such as lean and agile manufacturing, just-in time inventories and supply chain integration, improved higher quality products, increased productivity rates, and greater customer satisfaction. In today's global marketplace, the U.S. is the world leader in the production of low cost, high quality products and in exports. In addition, the country's workforce is considered one of the most productive in the world.

According to the New York State Department of Labor, 571,000 were employed in manufacturing in December 2005. This was 6.6 percent of the total non-agricultural employment in the state, 8,680,400. Printing and publishing was the dominant sector, followed by industrial machinery and equipment and electronics and electrical equipment.

The state has a business environment that is very conducive for supporting new manufacturing projects and expansions. Evidence of this is its consecutive second place rankings in *Site Selection* magazine's

Governor's Cup competition for *New and Expanded Facilities in the State in 2002 and 2003*. According to the March 2004 issue of *Site Selection*, New York experienced a gain of 552 new and expanded corporate facilities.

There are a number of critical criteria that high tech manufacturers factor into their location decision. These include the availability of a productive, qualified, skilled workforce; labor costs; transportation accessibility; supportive utility and telecommunications (telecom) infrastructure; quality educational institutions with relevant courses, degrees, and programs and training facilities; and proximity to customers and suppliers. Just-in-time manufacturing processes have increased significantly the importance of being within a day's travel time (500 mile maximum) of suppliers and customers.

Minimum Site Acreage

The site must have a minimum of **25 contiguous developable acres**, but in metropolitan areas, the acreage may be less.

Appropriate Topography and Configuration

The topography of the site should generally have little elevation change and the developable acres must be outside the 100-year FEMA flood plain designation. The preferred site configuration is square or slightly rectangular, with few outparcel obtrusions. Sites should not have major elevation changes, valleys, or mountains because uneven site topography greatly increases site preparation costs.

Utility and Telecommunications Infrastructure (minimum criteria for a typical site of 25 developable acres)

Electricity

- Estimated Kilowatt (kW) Demand: 6,750 kW
- Estimated Monthly Kilowatt Hour (kWh) Usage: 3,500,000 kWh
- Connected Load: 7,500 kVA
- Should be on 15 kV line, or preferably larger
- Should be within 3 miles of a substation with minimum available capacity of 25mVa
- Potential for looped electric power (dual substation) preferred
- Dual feed redundant electric is a plus

Natural Gas

- Process Use: Possible
- Heating: Seasonal
- Demand: 9,300 CF/Hr.
- Usage: 194,000 Therms/year
- Minimum available capacity: 4-6 inch high pressure line within 2 miles

Water

- Minimum: 20,000 gallons per day (gpd) potable existing available capacity
- Water distribution line serving the site should be a minimum of 10 inches in diameter
- Municipal system preferred

Sewer/Wastewater

- Minimum available capacity: 20,000 gallons per day (gpd)
- Ability to treat industrial waste a plus

Telecommunications

- T-1 level of service capacity a minimum

Transportation Requirements

Truck access is critical for the delivery of resources, supplies, and other input materials, as well as the distribution of the finished products. High tech manufacturing companies seek locations with truck access from a major state route or Interstate highway. They should be within 20 miles of an interchange of an Interstate, limited access, or other 4-lane highway. Sites within 5 miles from such roadways are preferred. Travel to the highway should avoid congested commercial, retail or residential routes. The site should have dual road access and separate auto and truck access points or entrances, and at least one traffic light should control ingress and egress to the site. Major highway visibility is a plus.

Rail access is desirable, but optional, as less than 15 percent of all U.S. industries rely on rail as a principal form of transportation. However, sites served by rail, or in close proximity to rail that have the capability of access by a spur, have a competitive advantage.

Close proximity to commercial airport is required. Surface access within 60 minutes to a commercial airport with jet service is preferred. Availability of air freight service is desirable.

For projects involving water-based shipping, there should be direct access to a navigable waterway or express access to a coastal port within 240 miles.

Proximity of Support Facilities

High tech manufacturing operations prefer locations that have businesses and facilities that can support and respond to their needs. Basic support facilities include, but are not limited to, tool and die and machine shops; technology, computer and telecom specialists; temporary staffing services; office supply stores; maintenance and janitorial contractors; and waste disposal facilities.

Site Development Barriers and Issues

Access to environmental information about the site is critical. Environmentally sensitive sites or those with ecological, archeological, historical or cultural resources that significantly limit use or require continued monitoring should be avoided. In addition, sites where air and water emissions standards that exceed federal requirements should be avoided. Plant operating parameters should not be adversely impacted by undesirable emissions from offsite activities; worker health and welfare must be protected.

Site Ownership vs. Lease

Most high tech manufacturing operations prefer to own the property on which they are located. However, some, like automotive component manufacturers, lease their facilities because it provides greater flexibility. When it comes to site acquisition and ownership, companies prefer properties with one landowner, or if not appropriate, a limited number of landowners without known property transfer objections or legal impediments that adversely affect transfer.

Surrounding Land Use Issues

High tech manufacturers prefer locations that have an appealing, positive image. The site should be attractively buffered from nearby commercial, retail and residential areas. Proximity to wastewater treatment plants, landfills, sewage lagoons, and other such land uses should be avoided.

Other Criteria Critical to Site Selection

Please see the project list of Musts and Wants.

Project Profile & Impacts

(for a typical site with 25 developable acres)

Type of Facility

- Manufacturing – production and assembly

Capital Investment

- Buildings and improvements: \$15 million
- Machinery and Equipment: \$50.0 million

Building Size

- 250,000 square feet

Site Requirement

- 25 contiguous developable acres

Utility and Telecom Infrastructure Requirements

Electricity

- Estimated Kilowatt (kW) Demand: 6,750 kW
- Estimated Monthly Kilowatt Hour (kWh) Usage: 3,500,000 kWh
- Connected Load: 7,500 kVA

Natural Gas

- Demand: 9,300 CF/Hr.
- Usage: 194,000 Therms/year

Water

- Minimum: 20,000 gallons per day (gpd) potable existing available capacity

Sewer/Wastewater

- Minimum available capacity: 20,000 gallons per day (gpd)

Telecommunications

- T-1 level of service capacity a minimum

Transportation Access

Automobile and Truck Access

- Must be within 20 miles of an interchange of an Interstate, limited access, or other 4 lane highway
- Dual road access to separate auto and truck traffic, and at least one traffic light controlling ingress and egress to the park

Air Access

- Surface access within 60 minutes to a commercial airport with jet service and air freight is preferred

Rail Access

- Optional, but desirable.

Construction and Facility Peak Traffic Estimates

- Construction Peak Traffic: 200 vehicle trips/day
- Facility Peak Traffic: 600 vehicle trips/day

High Technology Manufacturing Sites

Project Musts and Wants

Site Musts

- **Must** have a minimum of 25* developable contiguous acres, configured to support the site development plan.
- **Must** be within 20 road miles of an interchange of an Interstate, limited access, or other 4-lane highway.
- **Must** be zoned for manufacturing, or be able to demonstrate the ability and likelihood to rezone the property.
- The 25 developable acres **must** be located in an area outside the FEMA 100-year flood plain.
- The 25 developable acres **must** be free of wetlands, protected species, and environmental issues, or have mitigations plans in place that can be enacted in 90 days.
- **Must** have electric, natural gas, and municipal water and sewer/wastewater services properly sized and with adequate system capacities to meet the needs as shown in the Project Profile, or must demonstrate the ability to upgrade services to meet the Project Profile requirements.

**In metropolitan areas (MSA), sites with less acreage will be considered if all other criteria are satisfied.*

Site Wants

<u>Weight</u>	<u>Factor</u>
10	Quality and available workforce
10	EPA air quality status
8	Highway access
8	Favorable site characteristics (<i>i.e.</i> size, configuration, topography, surrounding uses, image, ownership)
7	Telecom accessibility (<i>i.e.</i> , T-1 line, fiber optic)
6	Additional adjoining, contiguous, available acres
5	Rail service
5	Airport access