

**COUNTY OF SUSSEX**  
**TARGET BUSINESS AND INDUSTRY ANALYSIS**

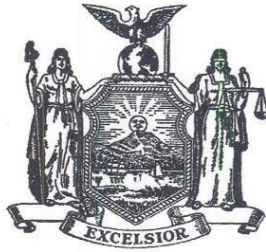
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**APPENDIX E**

**Development Profile for**  
**High Technology Manufacturing Sites**

**Empire State Development Corporation**

State  
of  
New York



George E.  
Pataki  
Governor

Development Profile  
for  
**High Technology  
Manufacturing Sites**

*Build Now-NY*

**Developed by:**

**Empire State  
Development**

**The Governor's  
Office of  
Regulatory Reform**

*Current Program / Round 4*

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## BUILD NOW-NY CURRENT PROGRAM/ROUND 4

### Program Overview

To foster New York's economic growth, Governor George E. Pataki is continuing 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) and the Governor's Office of Regulatory Reform (GORR) will coordinate this effort. ESD will focus on selecting, developing, and marketing selected sites; GORR will assist with permitting.

Through Build Now-NY Round 4, 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.

This initiative is 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 grants 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:

- ◆ <http://www.nylovesbiz.com/default.asp>
- ◆ <http://www.buildnow-ny.com>

Site sponsors selected to participate will receive up to \$100,000 matching grant. The grant must be matched by the applicant organization with an equal amount of funds. Funds must be used to complete the necessary reviews and approvals, including State Environmental Quality Review (SEQR), zoning changes, archaeological and historic surveys, planning, engineering, and other eligible costs as listed below on Page 4. Funds will be made available on a reimbursement basis for eligible costs incurred.

Applicants must demonstrate their ability match the State's grant through the submission of a commitment letter describing the source and availability of the funds.



## DEVELOPMENT PROFILES

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.

An applicant can nominate more than one site, however, a site may be submitted for only one of the three development types. Sites that have been awarded funds through the Chip Fab Initiative or previous rounds of Build Now-NY are **not eligible** for funding under the current solicitation

Funds awarded through the Build Now-NY program **may be used** for the following purposes:

- ◆ Cost of professional services or consulting fees for engineering studies and surveys, environmental assessment, wetlands delineation, surveying, and planning directly related to development of the site.
- ◆ Cost of professional consulting services incurred in the preparation of SEQR reports and studies.
- ◆ Professional services incurred for site plan design and layout work.
- ◆ Cost of professional services incurred for conducting archeological and historic surveys, assessments, studies, and reports.
- ◆ Cost to perform soil sampling, test borings, compaction tests, percolation tests, and related tasks.
- ◆ Professional services for the cost of engineering and designing the installation or upgrading of public infrastructure such as water, sewer, electric and gas service, highway access, interior roads and other improvements.
- ◆ Legal fees for the preparation of industrial/business park covenants, zoning ordinances, or planned district development guidelines.

Funds awarded through the Build Now-NY program **may not be used** for the following expenditures.

- ◆ Reimbursement of in-kind services.
- ◆ Grant administration and personnel costs.
- ◆ The purchase or cost of office supplies, materials or equipment.
- ◆ Travel, per Diem, or entertainment expenses.
- ◆ Purchase or acquisition of real property or other fixed assets.
- ◆ Materials and/or labor costs associated with the construction of roads, infrastructure, or buildings.

# High Technology Manufacturing Sites

## Introduction

In 1999, Governor George E. Pataki, the State of New York, and Empire State Development 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**: 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.

Empire State Development (ESD) and The Governor's Office of Regulatory Reform (GORR) are coordinating Build Now-NY at the state level. ESD's focus will be marketing the selected shovel ready sites while GORR will assist with permitting.



# 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 the Build Now-NY program, 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