

# **DRAFT GENERIC ENVIRONMENTAL IMPACT STATEMENT**

## **TECHCITY EAST CAMPUS TOWN OF ULSTER ULSTER COUNTY, NY**

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### **VOLUME I**

**LEAD AGENCY:** TOWN OF ULSTER TOWN BOARD  
ONE TOWN HALL DRIVE  
LAKE KATRINE, NY 12449

**CONTACT PERSON:** HON. JAMES E. QUIGLEY 3<sup>RD</sup>, SUPERVISOR

**SEQRA CLASSIFICATION:** TYPE 1 ACTION

**APPLICANT:** TECHCITY PROPERTIES, INC.  
300 ENTERPRISE DRIVE  
KINGSTON, NY 12401

**AGENCY ACCEPTANCE DATE:**

**PUBLIC HEARING DATE:**

**END OF PUBLIC COMMENT:**

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# INTRODUCTION

## TEHCITY EAST CAMPUS DGEIS

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In February, 2009, the Town of Ulster Town Board received a request from TechCity Properties, Inc. for approval of an amendment to the Town Zoning Code and a Comprehensive Design Plan for the redevelopment of the East Campus of TechCity - the area bounded by Boices Lane, Enterprise Drive, Old Neighborhood Road and the CSX Railroad tracks.

The proposed TechCity Comprehensive Design Plan called for the demolition of approximately 290,000 square feet of obsolete buildings, the reuse of 558,000 square feet of two existing buildings for interior parking facilities, the continued use of 1,318,000 square feet of existing buildings, the introduction of approximately 645,000 square feet of new buildings and approximately 3,875 parking spaces located throughout the East Campus, both in covered facilities and at-grade parking lots. The land uses proposed included 1,646,000 square feet of research and development, industrial, warehouse and office space and 79,000 square feet of retail floor area. Also included were 128 residential dwelling units above retail uses and a 10-screen theatre. This Draft Generic Environmental Impact Statement (DGEIS) was initiated to evaluate that proposed plan.

During preparation of the DGEIS, one of the alternatives being considered in the DGEIS (see Alternative B on page IV-4) was found to be more compatible with the Town's Comprehensive Plan than the original plan. This alternative would remove the theatre use on Parcel E and replace it with additional research and development space and provide a more landscaped frontage on Boices Lane. It is more appropriate since the TechCity site is one of the most suitable in Town for light-industrial use and has the infrastructure to serve such uses in a manner appropriate with community design considerations.

Although the body of this DGEIS is based on the original plan proposed by TechCity, pursuing Alternative B as the preferred plan does not affect the conclusions of the environmental review process for the following reasons:

1. This change adds less than 2% in total floor area to the Comprehensive Design Plan and does not affect three of the five sub-areas of the site, which contain two-thirds of the total floor area.
2. The impacts due to development of Alternate B are very similar to those of the original, in some cases slightly greater, in others slightly less.

## I. SUMMARY

### A. Description Of Proposed Action

The Proposed Action consists of an amendment to the Town Code to add a procedure for Town Board review and approval of a redevelopment overlay plan for certain properties located within the OM-Office Manufacturing Zoning District. The Proposed Action consists of two components, as follows:

1. An amendment of Chapter 190 of the Town Code, Zoning, to establish a Redevelopment Overlay District (ROD) that provides alternative provisions for use and development of certain qualifying sites in Office Manufacturing (OM) District. The Zoning Map will also be revised to designate the portion of the TechCity site east of Enterprise Drive as such a district.
2. Approval of a proposed "Comprehensive Design Plan" ("CDP"), for the redevelopment of the East Campus of TechCity (the former IBM manufacturing property) prepared in accordance with the provisions of the proposed ROD, which establishes the general distribution of uses, location and layout of buildings, parking and interior circulation within the district to be designated.

The entire TechCity property is approximately 258 acres, with the lands to the west of Enterprise Drive totaling approximately 120 acres ("West Campus"), and the lands to the east of Enterprise Drive totaling 138.4 acres ("East Campus") (see Fig. No. II-3). The Proposed Action contemplates the redevelopment of only the East Campus. The East Campus is currently improved with 22 industrial and office buildings totaling approximately 2.16 million square feet, and approximately 4,229 at-grade parking spaces. A Comprehensive Design Plan is proposed to create an integrated, multi-use development to include light-industrial, office, research and development, manufacturing, educational, wellness, neighborhood retail, restaurant, entertainment and multi-family residential uses, along with accessory parking.

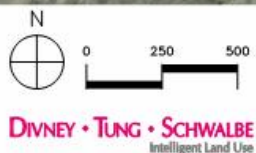
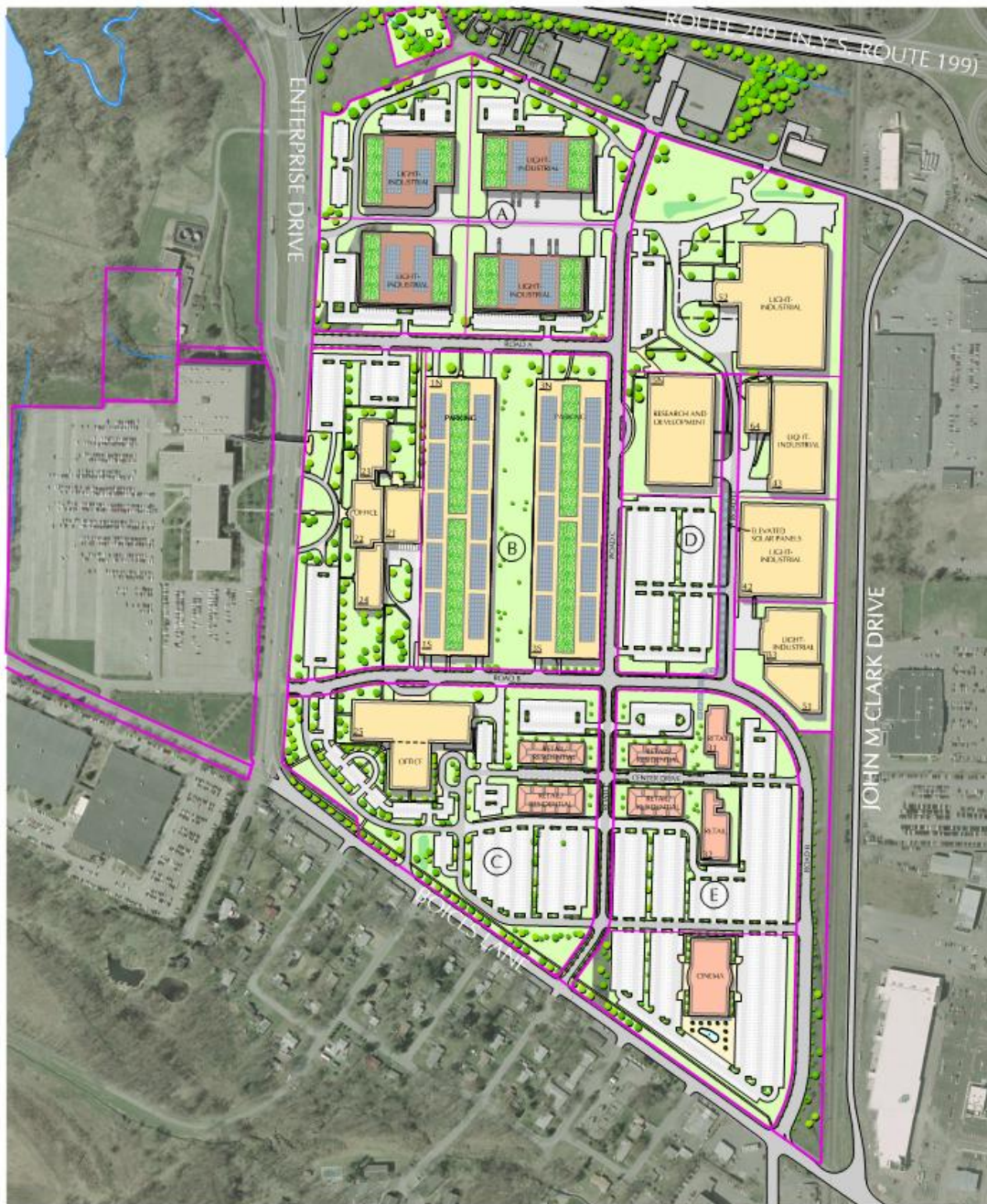
The project will include the demolition of approximately 290,000 square feet (SF) of obsolete buildings, the potential reuse of 558,000 SF of two existing buildings for interior parking facilities, the continued use of 1,318,000 SF of existing buildings, and the introduction of approximately 645,000 SF of new buildings. Approximately 3,875 parking spaces will be located throughout the East Campus, both in covered facilities and at-grade parking lots.

Vehicular access to the center would continue to be provided from the north and west by the Enterprise Drive Exit from Route 199/209 and from the east and south by Boices Lane and Morton Boulevard, incorporating the existing roadway systems surrounding the East Campus. The project also contemplates re-opening the existing driveway connection on the north side of the East Campus to Old Neighborhood Road. An internal street system will be created to provide direct access and identifiable frontage for the development parcels to be created.

# SECTION I • SUMMARY

The proposed action is illustrated in the following exhibit Figure No. I-1.

**Figure I-1**



## East Campus - Comprehensive Design Plan

TECHCITY  
TOWN OF ULSTER, NY

## **B. Involved And Interested Agencies And Required Permits And Approvals**

The following permits and approvals will be required to achieve the initial actions described above or for subsequent site-specific actions to implement the development program.

### **1. Involved Agencies**

#### **a. Town of Ulster Town Board**

- Establishment of Redevelopment Overlay District (ROD) and amendment of Zoning Map
- Approval of specific site plans

#### **b. Town of Ulster Planning Board**

- Approval of subdivisions

#### **c. New York State Department of Environmental Conservation**

- SPDES Permit
- Phase 1 RCRA Permit Modification

#### **d. Ulster County Department of Public Works**

- Highway access approval

### **2. Interested Agencies**

Other agencies that will not grant permits or approvals, but have an interest in the project include:

#### **a. Town of Ulster**

- (1) Building Department
- (2) Sewer Department
- (3) Water Department
- (4) Ulster Hose Company #5

#### **b. Ulster County**

- (1) Planning Department

#### **c. State, Regional Agencies and Local Agencies**

- (1) New York State Department of Transportation
- (2) Hudson River Valley Greenway
- (3) City of Kingston Water Department

### C. Summary Of Anticipated Impacts And Mitigation Measures

Potential significant adverse impacts may relate to additional vehicular traffic generation, future use of water supply and sewage disposal services, and the extent of construction impacts on the environmental remediation of ground water contamination.

### D. Reasonable Alternatives Considered To The Action

The following alternatives to the Comprehensive Design Plan, also described as the “Proposed Action,” were considered during preparation of the DGEIS:

#### **Alternative A - No Action**

The no action alternative would leave the property in its current condition and depend on re-occupancy of the existing East Campus buildings totaling 2,164,000 square feet (SF), less planned demolition of 288,000 SF of these buildings for a net useable area of 1,876,000 SF. -

#### **Alternative B - Enhanced Boices Lane Frontage**

Alternative B involves a change in the land use and building layout on Parcel E from the proposed action by eliminating the theater and replacing it with additional Research & Development and/or light-Industrial space and re-arranging buildings to establish a more landscaped and architectural setting along Boices Lane.

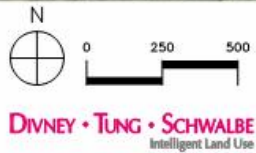
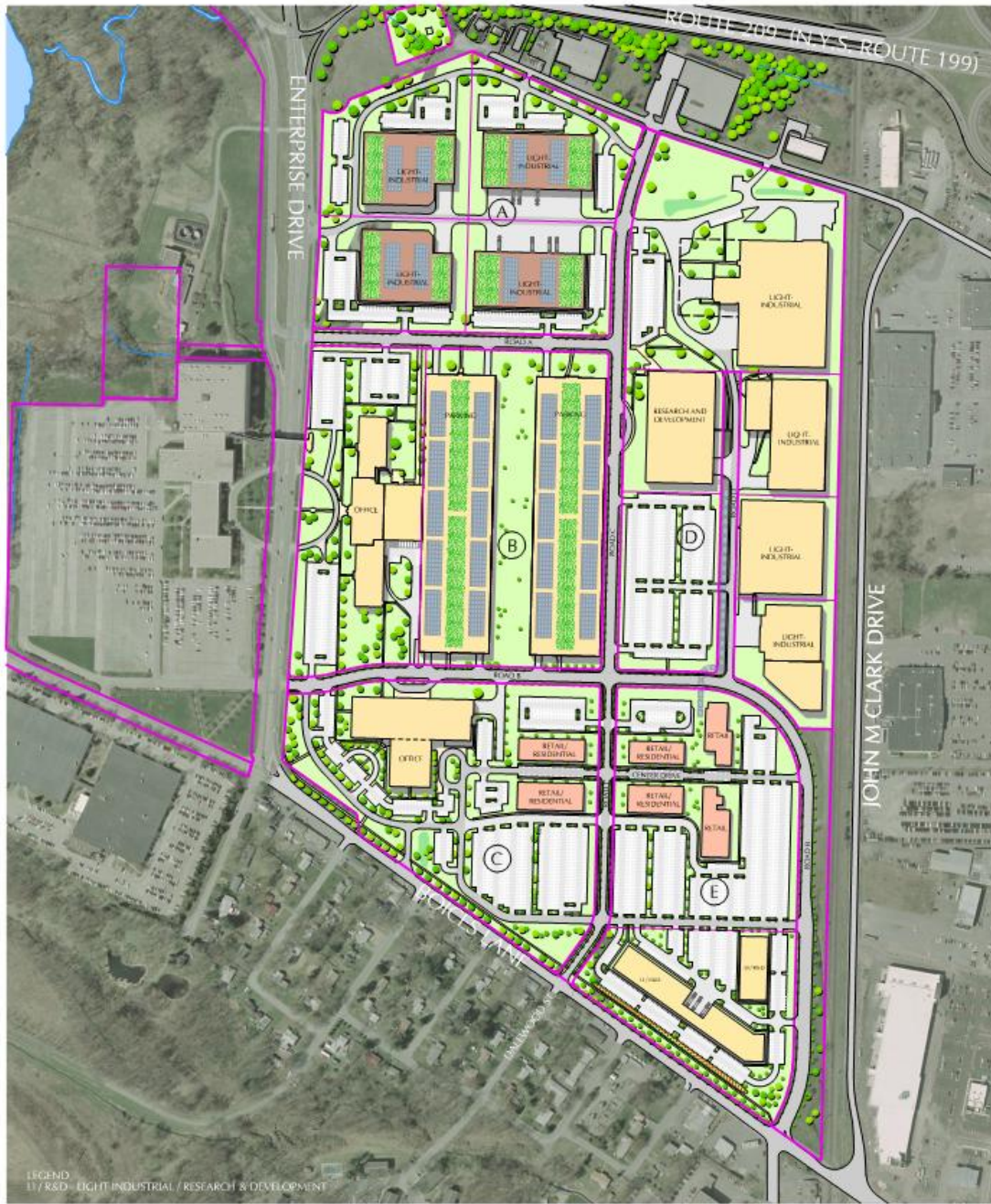
During preparation of the DGEIS, it was observed that the Enhanced **Boices Lane Frontage alternative** provided more benefits to the Town and was more consistent with to the Town’s *Comprehensive Plan*, since the TechCity site is one of the most suitable for light-industrial, office and manufacturing uses in Town and has the infrastructure to serve such uses in a manner appropriate with community design considerations.

Alternate B is illustrated in Exhibit I-2, which follows

### E. Development Thresholds

The conclusions in the DGEIS are based on various assumptions and analysis leading to evaluation of potential impacts due to the Proposed Action. The thresholds established by this process are considered valid, at this time. However, should any threshold upon which projected impacts and proposed mitigation measures are based be exceeded in a significant manner a Supplementary EIS, in accord with SEQR, may be required.

Figure No. I-2



East Campus - Alternative B  
 Enhanced Boices Lane Frontage

TECHCITY  
 TOWN OF ULSTER, NY

## II. DESCRIPTION OF PROPOSED ACTION

### A. Project Location

The Project Site is located in the Town of Ulster, Ulster County, New York and lies a few hundred feet south of New York State Route 209/Route 199 and approximately 800 feet west of NYS Route 9W (Ulster Avenue). The Project Site is bounded to the north by Old Neighborhood Drive; to the east by the CSX Railroad right-of-way; to the south by Boices Lane (County Road 157); to the west by Enterprise Drive (County Road 157). The regional location of the project site is shown on Figure II-1 General Location Map, while the specific project location is shown on Figure II-3 Existing Conditions.

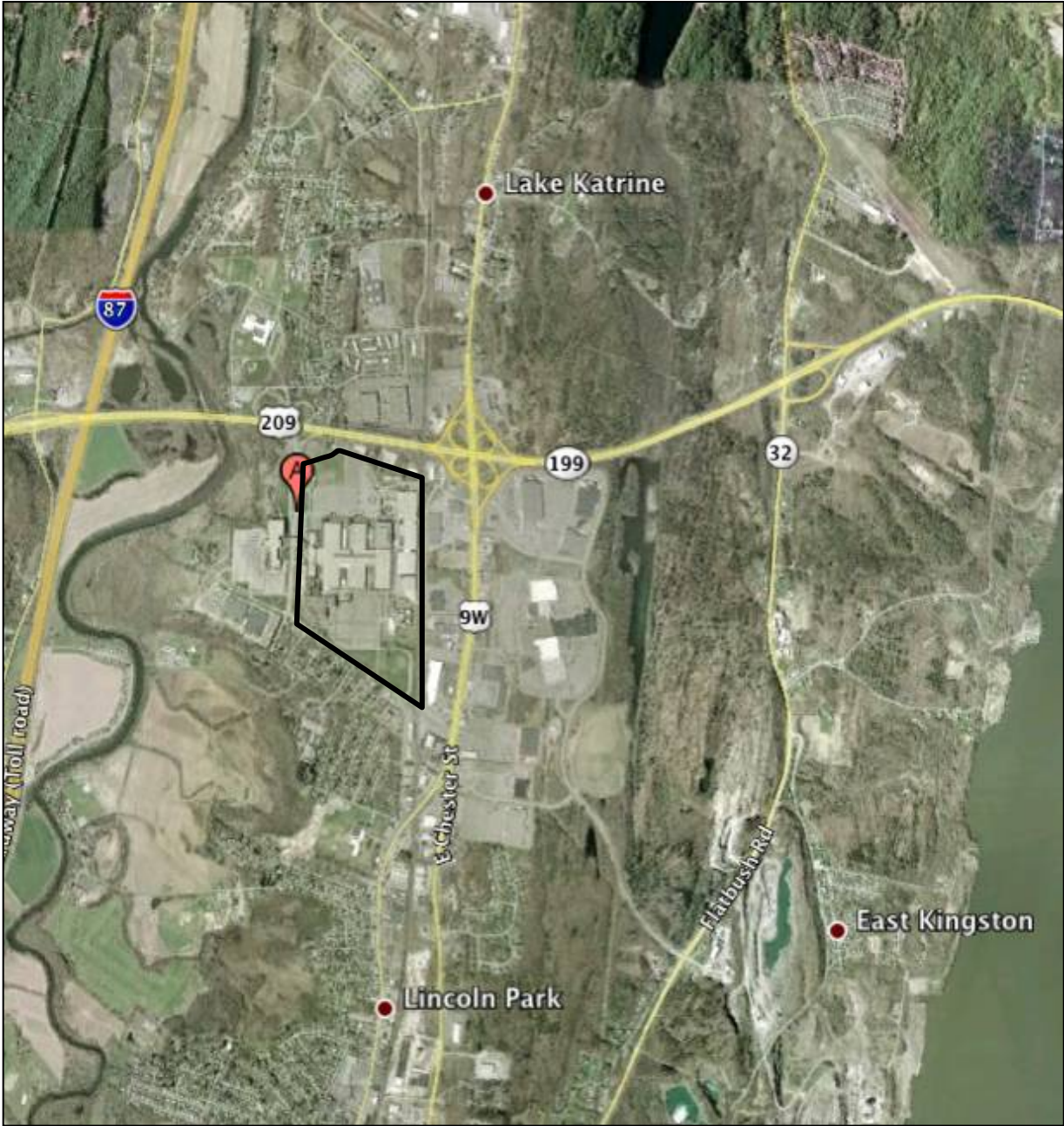
### B. Background

#### 1. Previous Use Of Site

The entire TechCity site is located on approximately 258 acres in the Town of Ulster, Ulster County, New York and consists of over 25 buildings totaling nearly 2.6 million square feet (SF) of floor area with approximately 6,000 parking spaces. IBM operated the TechCity site as a manufacturing and testing facility from approximately 1955 to 1994, primarily to produce typewriters as well as military and commercial computers. IBM's on-site operations included manufacturing, testing and research, office, and support services. The site was developed progressively since its dedication in 1956 and has included various assemblages of parcels, as needed.

The TechCity site is comprised of an East Campus (138.4 acres) and a West Campus (120 acres), bisected by Enterprise Drive. The West Campus includes approximately 395,000 square feet of existing gross floor area, the majority of which is located in one large office building, and 1,750 parking spaces. The remainder of the West Campus, about 94 acres or 78%, is largely undeveloped. The East Campus is developed with approximately 2.16 million square feet of existing gross floor area and 4,229 parking spaces. Approximately 84 acres, or 61% of the East Campus, is occupied by existing buildings, parking areas and the existing access and circulation framework. References to the entire TechCity site or the West Campus are included in order to provide environmental context; however, the Proposed Action includes only the redevelopment of the East Campus portion of TechCity.

Figure No. II-1



GENERAL LOCATION  
TECH CITY  
TOWN OF ULSTER, NY

## 2. Environmental History

Former manufacturing activity by IBM has affected the groundwater under portions of the site, primarily from solvents used on the East Campus. Extensive investigations have been conducted on the site since approximately 1978 to characterize and delineate the extent of groundwater impact. IBM has identified and removed source areas, such as underground tanks, in conjunction with its investigations and overall facility shutdown.

The affected groundwater areas are hydraulically controlled and contained, and a groundwater pump-and-treat system was installed in the 1980's in the north parking lot of the East Campus. A.G. Properties of Kingston LLC and Ulster Business Complex LLC purchased the property from IBM on February 9, 1998. IBM continues its monitoring and remediation activities concurrent with TechCity ownership and site management.

The affected groundwater located under portions of the site, referred to as "the plume", is hydraulically controlled and contained and has been comprehensively analyzed/investigated by IBM under NYSDEC oversight since 1978. The total acreage of the originally affected area was approximately 66 acres. The on-going site cleanup over the past 20+ years has resulted in a diminishment of the affected area, "the plume", to approximately 40 acres of affected groundwater, most of which is centrally located on the East Campus (see Fig. No. II-2).

## 3. Current Use Of Site

The East Campus contains 138.4 acres and contains approximately 2.16 million gross square feet of floor area spread across 22 buildings (see Table No. II-1). Primary access to the East Campus is from Routes 209/199 via Enterprise Drive.

Currently, the East Campus includes a wide array of businesses, including general office, data processing, data warehousing, research and development, light-industry, manufacturing, call centers, internet and e-commerce businesses, and distribution center operations which, as of 2009, occupied a total of 270,000 SF.

SECTION II • DESCRIPTION OF PROPOSED ACTION

**Table No. II-1 Existing Building Inventory**

PROPOSED PARCEL	BLDG No.	YEAR BUILT	BUILDING CONDITION	PRIOR USE OF BLDG	GROSS Sq. FT.	NO. OF FLOORS
B	1N	1955	Poor (Roof)	Testing Offices, Classrooms, Computer Floors	141,691	1
	1S	1955	Poor (Roof)	Testing Offices, Classrooms, Computer Floors	141,691	1
	3N	1955	Poor (Roof)	Offices, Computer Floors	137,145	1
	3S	1955	Poor (Roof)	Offices, Computer Floors	137,145	1
	2	1955	Poor (Roof)	Offices, Computer Floors	48,267	1
	4	1955	Poor (Roof)	Offices, Labs	41,748	1
	21	1955,1985	Fair (Roof)	Offices, Café, Medical	37,314	1
	22	1955	Fair (Roof)	Office	48,804	2
	23	1955	Fair (Roof)	Office	41,764	2
	24	1955	Fair (Roof)	Office	41,764	2
	34	1955,1968,1982	Good	Service Telephone Switchgear	16,496	1
35	1955,'59,'66,'68	Good	Manufacturing	16,931	1	
C	25	1982	Good	Office, Labs, Computer Floors	302,446	3+Penthouse
D	5N	1985	Good	Offices, Labs	350,030	4
	5S	1966	Poor (Roof)	Manufacturing, Offices, Labs	151,280	1
	29	1980	Poor (Roof)	Chemical Storage	13,120	1+Mezzanine
	33	1955	Poor (Roof)	Manufacturing	44,135	1
	42	1965, 1977	Good	Storage, Manufacturing, Lab Office	105,113	1
	43	1966	Good	Computer Floors, Manufacturing	87,502	1
	51	1983	Good	Maintenance Facility Services	32,240	1
	52	1970	Good	Storage	168,000	1
64	1986	Good	Café	17,614	1	
E	26	1990		Service, Backflow Prevention	120	1
	31	1955,1968,1969	Poor (Roof)	Service Utility Plant	20,029	1+Basement
	32	1955,1979,1982	Good	Service Utility Plant	21,699	1
<b>TOTAL</b>				<b>1,605,966</b>		

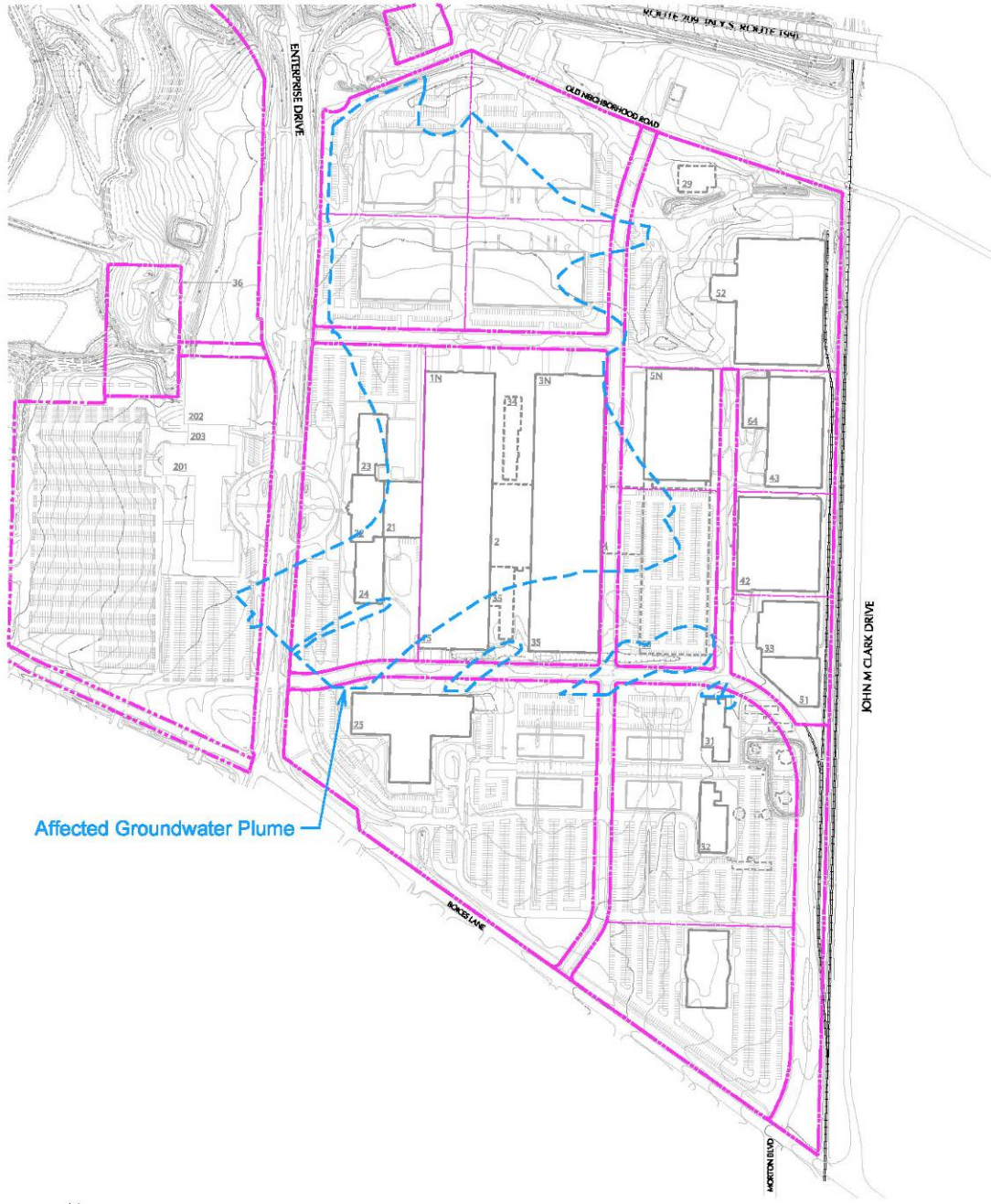
**Editors Note:** A total of 1,876,000 square feet (SF) of the existing 2.16 Million SF of floor space on the East Campus will be reused at Tech City. This is comprised of 1,605,966 SF of unoccupied space cited above plus the 270,034 SF of occupied space at TechCity.  
**Source:** 2009 TechCity Properties, Inc.

**4. Ongoing Environmental Investigations**

With DEC Approval, IBM installed a groundwater collection and treatment system located in the north parking lot of the East Campus. This system collects and withdraws impacted groundwater at down gradient locations in the north parking lot, and treats this groundwater before discharge. This ongoing groundwater treatment has reduced the concentrations and extent of impacted groundwater over time, as documented by environmental monitoring that IBM conducts. IBM has prepared work plans to continue to conduct source investigations as areas become available by building demolition on the East Campus.

In an effort to hasten the remediation and facilitate redevelopment of the site, TechCity also conducted its own investigations in 2009 in connection with modifying the Resource Conservation and Recovery Act (RCRA) permit, a federal program administered by NYSDEC for the USEPA that applies to the site. The two areas that the TechCity investigations focused on were the 25 acres occupied by buildings 201, 202 and 203, and 18 acres that contain buildings 42, 43, 52 and 64. TechCity also completed an initial technical review of accelerating groundwater remediation using advanced technologies; this study identified several remedial techniques appropriate for consideration. Once IBM's source investigations are completed, pilot studies will be completed to confirm which techniques are most effective for full-scale implementation to complete the groundwater clean up in an accelerated timeframe.

Figure No. II-2



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Intelligent Land Use

**AFFECTED GROUNDWATER PLUME**  
TECH CITY  
TOWN OF ULSTER, NY (As of 2009)

**5. Existing Site Plan And Subdivision**

Based on a survey titled "Map of Lands To Be Conveyed to AG Properties of Kingston, LLC & Ulster Business Complex, LLC" prepared by Brinnier and Larios, P.C., and filed in the Ulster County Clerks Office in 1996 the East Campus encompasses 138.4 acres and is currently subdivided into twenty-three separate parcels (currently, known as Parcels 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24 and 25). The boundaries of twenty-two of these parcels are generally coterminous with the footprints of individual buildings and comprise 42.9 acres of the East Campus. The remaining land (currently known as Parcel 27) comprises 95.5 acres. Existing easements grant access over Parcel 27 to the other twenty-two parcels for the parking of vehicles, vehicular and pedestrian circulation, and maintenance of utility lines and facilities within Parcel 27.

**6. Comprehensive Plan Recommendations**

The Town Board adopted the Town of Ulster Comprehensive Plan on July 2, 2007. The Comprehensive Plan specifically recommends that the Town Board "create a mixed use zoning district to encourage residential/commercial development within existing centers." The Plan also has a number of specific goals and policies related to economic development.

The Comprehensive Plan recommends that the Town Board work with the Ulster County Development Corporation and property owners to create shovel-ready sites in order to attract new businesses to the Town of Ulster. The Comprehensive Plan also supports the adaptive reuse of existing buildings or sites. Specifically, the Comprehensive Plan states, "The adaptive reuse of the TechCity buildings and/or site is strongly supported by this Plan."

**7. Existing Zoning Of The Site**

The Project Site lies entirely within the Town of Ulster's OM-Office Manufacturing District. This district permits a wide range of uses including light-industrial, commercial and residential uses. The density and building height allowed are greater than for any other district in the Town.

## **8. Relationship To Surrounding Neighborhood**

The land uses surrounding the site are as follows: north - light industrial and manufacturing; east - regional retail and restaurants; south - local commercial and single-family residential; west - light industrial and campus office development within the TechCity West Campus. Surrounding land uses are compatible with the existing use of the TechCity East Campus.

## **C. Description of Proposed Action**

### **1. Proposed Zoning Amendment**

#### **a. Creation Of Redevelopment Overlay District**

The Town of Ulster Zoning Law will be amended to establish a new zoning district – The Redevelopment Overlay District (ROD). This district will provide an option for redevelopment under existing zoning on certain previously developed sites in the Office Manufacturing OM District upon approval by the Town Board. It is proposed that the 138.4-acre portion of the TechCity site east of Enterprise Drive be designated an ROD on the Town of Ulster Zoning Map.

#### **b. Procedures And Standards For A ROD**

##### **(1) Procedures**

A property owner may apply to the Town Board for designation of an eligible property as a ROD. An eligible property must be located in the existing OM District, be at least 100 acres in area and include existing buildings with an aggregate floor area of at least 500,000 square feet. The application must include a preliminary Comprehensive Design Plan (CDP) that illustrates the proposed uses, density, internal circulation, parking and site design.. Upon receipt of an application, the Town Board will initiate procedures for a zoning amendment including environmental review, referral to the Ulster County Planning Board and conduct a public hearing.

##### **(2) Standards for a ROD**

The ROD standards set forth permitted uses consistent with the purposes of the district. Rather than establishing rigid bulk and density standards, development will be guided by the CDP, which will be approved at the same time as the zoning amendment. This procedure will allow flexibility in design while providing ground rules, which will prevail throughout site development.

## 2. Proposed Comprehensive Design Plan For TechCity

The “Comprehensive Design Plan” (“CDP”), for the redevelopment of the East Campus of TechCity (the former IBM manufacturing property) is proposed to include the demolition of approximately 290,000 square feet (SF) of obsolete buildings, the reuse of 558,000 SF of two existing buildings for interior parking facilities, the continued use of 1,318,000 SF of existing buildings, and the introduction of approximately 645,000 SF of new buildings (see Figure No. II-4). Approximately 3,875 parking spaces will be located throughout the East Campus, both in covered facilities and at-grade parking lots.

Vehicular access to the center would continue to be provided from the north and west by the Enterprise Drive Exit of Route 199/209 and from the east and south by Boices Lane and Morton Boulevard, incorporating the existing roadway systems surrounding the East Campus. The project also contemplates re-opening the existing driveway connection on the north side of the East Campus to Old Neighborhood Road.

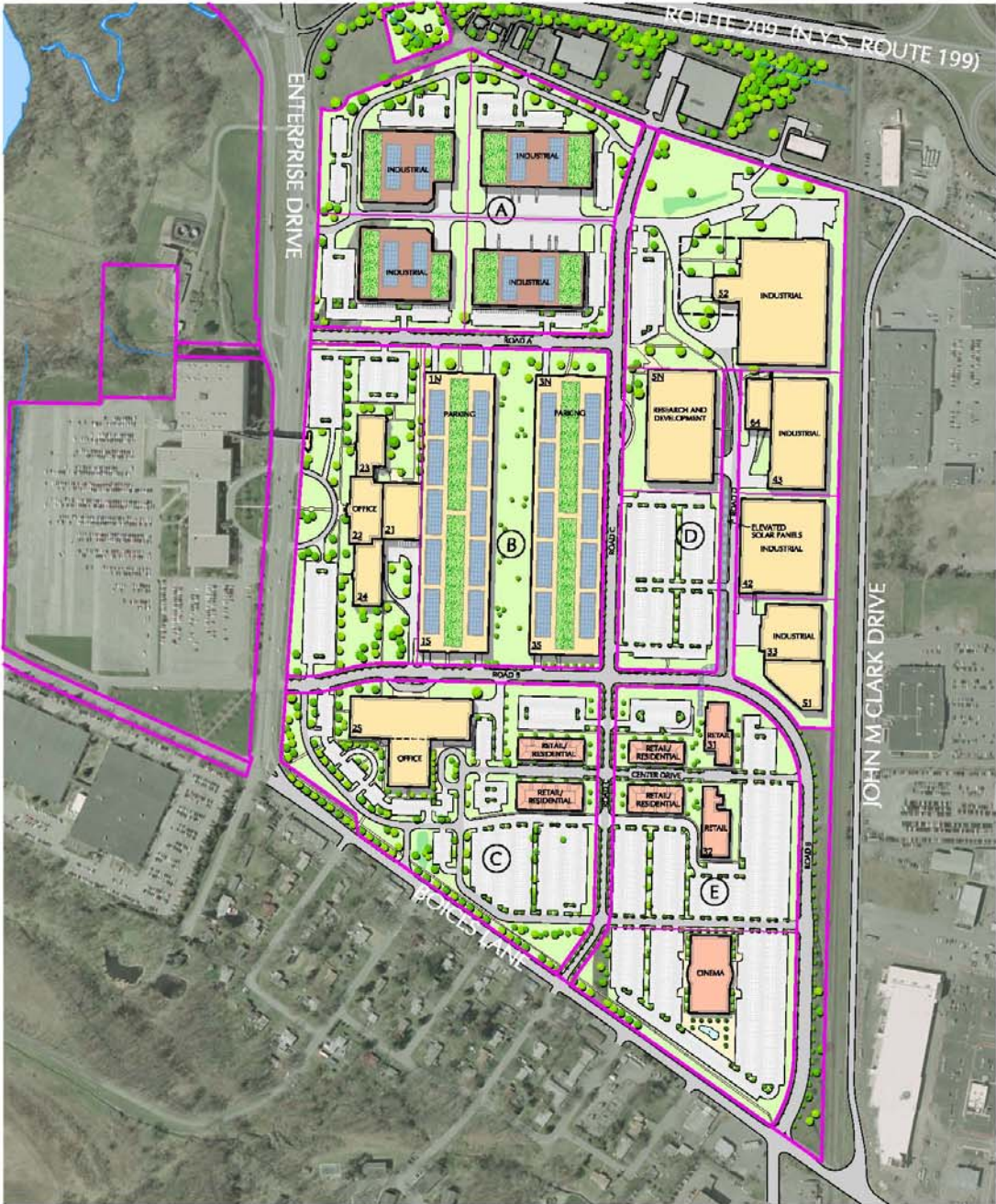
The proposed mixed-use residential-retail buildings within the proposed Town Center are not specifically listed as permitted or special permit uses within the existing OM-Office Manufacturing District. However, such buildings are proposed to be permitted uses within the proposed Redevelopment Overlay District with specific design standards.

The Project Site will be accessed utilizing the existing road system that currently provides access to the site in addition to the construction of a new internal street system within the project site (see Figure No. II-4).

### a. Illustrative Site Plan

Figure No. II-4 East Campus Comprehensive Design Plan (CDP) identifies the East Campus and illustrates the proposed development plan for the Proposed Action. The East Campus Comprehensive Design Plan includes the creation of five primary development parcels. The redevelopment would include approximately 1,963,000 square feet of usable floor area (comprised of 1,318,000 SF of existing floor space that will be reused and the addition of 645,000 SF of new construction). Additionally, 558,000 SF of existing building space will be converted to an enclosed parking garage. There will be a total of 3,875-shared parking spaces on the Proposed Plan (1,065 in covered facilities and 2,810 in at-grade parking lots). The Proposed Plan also includes extensive landscaping and an enhanced pedestrian circulation network.

Figure No. II-4



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0 250 500  
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Intelligent Land Use

East Campus - Comprehensive Design Plan

TECHCITY  
TOWN OF ULSTER, NY

**b. Proposed Future Re-Subdivision Plan**

The East Campus would be parcelized in order to establish units of development containing sufficient acreage to achieve a well-planned and efficient layout of parking, circulation and frontage on new roads. The following five parcels would be created for the East Campus (see Figure No. II-4).

<b>Table No. II-2 Parcel Size Future Re-Subdivision</b>	
Parcel A	23.3
Parcel B	29.2
Parcel C	18.5
Parcel D	32.2
Parcel E	21.2
Road Rights-of-Way	14.0
<b>Total</b>	<b>138.4</b>
<b>Source:</b> TechCity Properties, Inc.	

The overall parcelization plan provides for continued light-industrial and light manufacturing along the eastern edge of the East Campus adjacent to the CSX railroad R.O.W. (Parcel D). Then, from north to south, the parcelization transitions across the property from light-industrial/flex, and manufacturing use in Parcel A with access and visibility from Route 209/199, to the Office and R&D core (with enclosed parking in renovated buildings) at the center of the property in Parcels B and D, to a more community-oriented “town center” concept in Parcels C and E. This parcelization plan and mix of land uses provides for the transition from industrial land uses near the highway and railroad, to a pedestrian oriented mixture of interrelated uses in the southern portion of the East Campus along Boices Lane where the property relates to the existing neighborhood retail and residential uses. The location, characteristics and uses of the proposed Parcels are described in Section II.C.3.e. Further resubdivision of these parcels will take place at a later date.

**c. Internal Circulation**

In order to transform the site from a large, isolated, single purpose complex into a multi-use, easily accessible community, an internal street network will be established. The internal network will consist of a grid comprised of two east/west and two north/south interconnected streets with direct access from the existing streets along the site perimeter. Additional minor streets will provide access to parking lots and other uses. Sidewalks along the major streets and within landscaped open areas will provide an internal pedestrian network.

**d. Site Design**

The East Campus Comprehensive Design Plan provides a strategy for flexible development that can be implemented in phases as market condition or tenant needs evolve. Due to the existing developed nature of the East Campus with approximately 2.16 million square feet of gross floor area associated with previous office and manufacturing uses, as well as approximately 4,229 surface parking spaces, the Proposed Action incorporates many existing buildings and builds upon the logic of the existing access and circulation framework.

The Proposed Action would include the demolition of approximately 290,000 square feet (SF) of obsolete buildings, the conversions of 558,000 SF of two existing buildings for interior parking facilities, the continued use of 1,318,000 SF of existing buildings, and the introduction of approximately 645,000 SF of new buildings, for a total usable floor area of 1,963,000 SF. Approximately 3,875 parking spaces would be located throughout the East Campus; 1,065 in covered facilities and 2,810 in at-grade parking lots. The Proposed Action also introduces the concept of shared parking. Shared parking offers a balance between providing adequate parking for complementary mixed uses with varying peak parking demand and minimizing environmental impacts associated with increased impervious coverage required by extensive parking lots characteristic of single-use development. The shared parking strategy is appropriate for a mixed-use development, such as the Proposed Action, where compatible uses exhibit different periods when parking demand is highest and multiple destinations are within convenient walking distance of the shared parking facilities located on adjacent parcels<sup>1</sup>.

A significant component of the Proposed Action is the reuse of existing building pads and parking areas so as to minimize the amount of new land disturbance and avoid increased impervious area. The East Campus presently contains 53.7 acres of undisturbed and landscaped areas, of which 8.2 acres would be converted to buildings and pavement. However, this would be offset by the conversion of 9.6 acres of existing building pads and pavement areas to landscaped areas, thereby resulting in a net decrease in impervious area of 1.4 acres and an associated decrease in storm water runoff.

**(1) Criteria for Planning and Design of Residential Units**

Residential dwelling units are proposed on the second and third floors of the proposed retail buildings to provide a housing component to the portion of the East Campus adjacent to existing neighborhoods across from Boices Lane. The residential

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<sup>1</sup> Mary S. Smith, et al, *Shared Parking Second Edition*. Washington, D.C.: Urban Land Institute and International Council of Shipping Centers, 2005.

component above the proposed retail along the Town Center Drive will bring activity to this portion of the site and provide an element of evening and weekend activity, in a pedestrian oriented setting. The exterior design of the Town Center area, including the residential uses will be consistent with the design themes established for the Comprehensive Design Plan.

The construction of residential dwelling units shall be phased to permit the occupancy of thirty-two (32) units for every 100,000 SF of gross floor area occupied throughout the East Campus. The total residential development on the East Campus at TechCity shall not exceed 128 dwelling units. The minimum residential dwelling unit size shall be 700 SF to 800 SF for a one-bedroom unit or 850 SF to 1,000 SF for a two-bedroom unit. Elevator service will be provided to each residential level located above the proposed retail uses. Preference to purchase or rent residential housing units at this TechCity development shall be given to individuals employed within TechCity. Residential parking requirements may be waived at a rate of 0.5 spaces per unit for each unit occupied by an individual employed at TechCity. The new units are to provide an additional amenity to companies contemplating locating at TechCity and to provide an added incentive to distinguish TechCity from other locations.

### **(2) Pedestrian System Design Criteria**

The development plan for TechCity has been designed to facilitate safe, convenient, comfortable and efficient traffic and pedestrian circulation. New sidewalks shall be constructed along public and internal roadways in order to provide safe and convenient pedestrian circulation throughout the site and to encourage walkability between the uses on the campus and for visitors and employees from adjacent neighborhoods. The sidewalk layout will be coordinated to interface conveniently with pedestrian movement in parking areas and building entrances.

Planting strips, bus shelters, benches, and similar streetscape elements will be provided in appropriate locations in order to provide areas to encourage human interaction. Appropriate green space and street trees along internal streets will be provided between the sidewalk and roadways to separate vehicular and pedestrian movements. Pedestrian oriented street lighting will be provided to suitably illuminate sidewalks and walking paths. Sidewalks will connect with an existing pedestrian path along Boices Lane to provide an interconnection with adjacent commercial and residential neighborhoods. The entire system shall result in a system of

sidewalks and entrances to buildings and parking to encourage walking both from nearby neighborhoods and within the campus.

### **(3) Design Themes**

The Comprehensive Development Plan provides a strategy for a flexible development plan within the Redevelopment Overlay District (ROD) that can be implemented in phases as market condition or tenant needs evolve. The following design themes establish the framework through which design continuity can be achieved while accommodating varying preferences, materials and building methods for new construction and for remodels or additions.

**Required Yards:** In order to encourage flexible and creative design, except as set forth herein below, no minimum lot or yard requirements are established. Yards shall be provided that are consistent with the existing building configuration and are appropriate to the uses being made of the existing and proposed buildings within the context of the proposed circulation roadways.

**Building Massing and Materials:** Elements and materials that strengthen the development of a cohesive and integrated development site are encouraged in new building design and in renovation of existing structures. The Comprehensive Development Plan recognizes that new construction may include architecturally interesting buildings which will be interspersed with existing structures having an indistinct style or character. New construction should incorporate architectural features such as window proportions and patterns, roof lines, entryway placements, decorative elements and materials and colors that create visual interest. Where practicable, buildings should include articulated facades of architectural interest in order establish a pleasant scale and massing.

**Access and Circulation:** New primary roadways will be designed to provide an organizing framework for the definition of development areas, as well as to provide frontage for many of the existing buildings previously isolated within the site. The internal street and sidewalk network will provide each building with a well-defined compelling “front door” on a new public roadway. The development plan has been designed to facilitate safe, convenient and efficient traffic and pedestrian circulation between buildings and parking. Automobile traffic will be separated from service vehicle and truck traffic by providing service drives and loading areas at the perimeter of the site.

**Landscape and Lighting** Landscaping will consist of a combination of evergreen and deciduous trees, shrubs, groundcover and grasses

with year round interest. Landscaping materials and treatments will be selected to provide attractive streetscapes and to communicate the linkages between the proposed development areas of the Comprehensive Development Plan. Planting strips, bus shelters, benches, and similar streetscape elements will be provided in appropriate locations in order to provide areas for human interaction. The landscape buffer and pedestrian path along Boices Lane shall be retained and enhanced in order to provide a positive visual appearance for the adjacent commercial and residential neighborhoods. Open spaces between buildings and parking will be landscaped to create a cohesive system of interrelated spaces that unify TechCity.

Street lighting will include modern poles and fixtures that complement the landscaping and building treatments throughout the Comprehensive Development Plan. Individual building lighting and pathway lighting will be selected to provide safe and attractive lighting for pedestrians along sidewalks and within parking areas. Proposed lighting fixtures will be provided with cutoff housing designs that limit light spillage to the surrounding area. Proposed streetscape design and materials shall be consistent with a quality business park environment.

Mechanical Equipment: Ground and Roof mounted equipment shall be adequately screened from view from adjacent roads, sidewalks and parking areas.

Signage: Signs shall be designed to achieve a high level of visual compatibility with the building(s) and its surroundings through the use of similar detailing, form, color, lighting, and materials.

### **e. Existing And Proposed Buildings**

The East Campus currently has a total of approximately 2,164,000 square feet (SF) of gross floor area of which approximately 270,000 SF was occupied as of 2009. The Proposed Action would demolish approximately 290,000 SF of existing obsolete buildings (Buildings 2, 4, 5 South, 29, 34, and 35), retain approximately 1,876,000 SF of existing buildings (Buildings 1 North and South, 3 North and South, 5 North, 21, 22, 23, 24, 25, 31, 32, 33, 42, 43, 51, 52, and 64) and construct 645,000 SF of new buildings, as summarized in the following Table No. II-3.

<b>Table No. II -3 Existing and Proposed Building Inventory</b>					
<b>Parcel</b>	<b>Existing Buildings (gsf)</b>	<b>Proposed Demolition (gsf)</b>	<b>Proposed Retained (gsf)</b>	<b>Proposed New (gsf)</b>	<b>Total Proposed (gsf)</b>
A	0	N/A	N/A	320,000	320,000
B	850,760	123,442	727,318	0	727,318*
C	302,446	0	302,446	129,600	432,046
D	968,584	164,400	804,184	50,000	854,184
E	41,848	120	41,728	145,200	186,928
<b>Total</b>	<b>2,163,638</b>	<b>287,962</b>	<b>1,875,676</b>	<b>644,800</b>	<b>2,520,476</b>
* Includes 558,000 sq. ft. of buildings converted to enclosed parking <b>Source:</b> TechCity Properties, Inc.					

The Proposed Action includes the demolition of six entire buildings and a portion of a seventh building, totaling approximately 290,000 SF, primarily located within the central portion of the East Campus. The demolition of obsolete buildings represents only approximately 13% of existing buildings. Nearly 87% of the existing structures would be reused and restored. The demolition of these buildings would provide the opportunity to improve both vehicular and pedestrian circulation throughout the site, create new centrally located parking areas, and establish additional landscaped pedestrian public spaces. Proposed use and development of the five parcels to be created is summarized below:

(1) Parcel A

Parcel A is located in the northwest portion of the East Campus. No buildings currently exist on Parcel A, which presently includes a surface parking lot with approximately 1,802 spaces. The Proposed Action recommends constructing four 80,000 SF Light-Industrial/Flex, Manufacturing buildings, for a total of 320,000 SF. Parcel A was designed with consideration of its visibility from Routes 209/199, and convenient access from Enterprise Drive. The proposed internal truck circulation limits truck traffic through the remainder of the East Campus, and provides efficient loading centrally located between the proposed buildings.

(2) Parcel B

Parcel B is located in the west-central portion of the East Campus and currently contains 850,760 SF of gross floor area located in ten existing buildings (Buildings 1 North and South, 2, 3 North and South, 4, 21, 22, 23, 24, 34, and 35). The Proposed Action would demolish four of these buildings totaling 123,442 SF. Four existing office and R&D buildings would be retained, totaling 169,646 SF. The remaining two existing buildings, totaling 557,672 SF, would be converted to indoor parking. There are no new buildings proposed for Parcel B. The removal of Buildings 2, 4, 34, and 35 would permit road access through the middle of the site, with efficient circulation into the proposed enclosed parking areas, and roadways with street trees and sidewalks. Additional green space would also be created between the parking areas on the footprint of demolished buildings 2, 34 and 35.

(3) Parcel C

Parcel C is located in the southwest portion of the East Campus. Parcel C currently contains 302,446 SF of gross floor area located in one existing office building (Building 25). The Proposed Action would retain the existing office building and construct two new buildings, totaling 129,600 SF. The new buildings would include neighborhood retail on the first level with residential on two levels above and together with the adjacent Parcel E promote the town center concept on the southern portion of the East Campus. The town center would include new roadways that would provide convenient circulation and parking for the new mixed-use buildings. This portion of the site would be pedestrian-oriented and would also include new public gathering spaces.

(4) Parcel D

Parcel D is located in the eastern portion of the site, adjacent to the CSX rail line. Parcel D currently contains 968,584 SF of gross floor area located in eight existing buildings (Buildings 5 North and South, 29, 33, 32, 43, 51, 52, and 64). The Proposed Action would demolish one and a portion of a second existing Light-Industrial/Flex building, totaling 164,400 SF. The seven remaining buildings would include R&D, Light-Industrial/Flex and manufacturing uses located in 454,154 SF. An existing manufacturing building would be expanded by 50,000 SF. Parcel D has been designed to take advantage of truck circulation routes proposed on Parcel A and efficient access to Neighborhood Road and Enterprise Drive.

(5) Parcel E

Parcel E is located in the southeastern portion of the East Campus, adjacent to Boices Lane. Parcel E currently contains 41,848 SF of gross floor area located in three existing service and utility buildings (Buildings 31 and 32). One existing structure, totaling 120 SF, would be demolished. The two remaining buildings would be converted to entertainment uses. Three new buildings would be constructed, including two retail buildings with residential above and a theater, totaling 145,200 SF.

Consistent with the Town of Ulster Comprehensive Plan, Parcel E, and the adjacent Parcel C develop a mixed-use town center. This portion of the East Campus would access Boices Lane and would be compatible with the neighboring commercial and residential uses.

f. **Existing And Proposed Parking**

Existing parking is presently located in three parking areas positioned in the northern, western and southern portions of the East Campus. The Proposed Action would retain parking along the western portion of the East Campus where it connected to Enterprise Drive. The conversion of industrial space to two new indoor parking garages will enable the parking lots in the northern and southern portions of the Site to be re-used as development areas with new parking integrated as part of the development plan.

The two existing buildings (Buildings 1 North and South, and 3 North and South) within the central portion of the Site would be re-used and converted to new enclosed parking areas containing 1,065 spaces centrally-located within the development. An inventory of the existing and proposed parking spaces by proposed parcel is provided in Table No. II-4 and is illustrated on the East Campus Comprehensive Design Plan in Section II-C-3a.

<b>Parcel</b>	<b>Existing Parking (spaces)</b>	<b>Proposed Parking (spaces)</b>
A	1,802	480
B	442	1,345
C	1,509	630
D	476	690
E	N/A	730
<b>Total</b>	<b>4,229</b>	<b>3,875</b>
<b>Source:</b> TechCity Properties, Inc.		

### (1) Existing Parking

The East Campus is presently comprised of twenty-three separate parcels, twenty-two of which contain an individual building. The remaining land (currently known as Parcel 27) makes up the balance of the site. The Second Declaration of Protective Covenants, Conditions and Restrictions for Ulster Business Complex (the "Declaration") grants easements for parking of vehicles within Parcel 27 in favor of the twenty-two other parcels. The Declaration also grants reciprocal easements within the subdivision for vehicular and pedestrian circulation<sup>2</sup>.

The existing parking configuration of the East Campus was laid out as an internally-focused campus for IBM, and it contains a series of buildings and parking lots that represent a single purpose industrial model without a correlation to each other, or to the surrounding community. The existing parking spaces are primarily located in two expansive surface parking lots in the northern (Proposed Parcels A & D) and southern (Proposed Parcel C) portions of the East Campus. Additional parking is located along the western portion of Proposed Parcel B. Currently, there are 4,229 existing parking spaces located on the East Campus. There is little existing pedestrian or vehicular interconnection between the parking lots, and the existing configuration does not afford direct roadway access for existing buildings along the western portion of Parcel D.

### (2) Proposed Parking

The proposed parking configuration eliminates the inward focus of a single campus by introducing public roadways through the interior of the site in order to connect the development parcels to the surrounding neighborhoods. As part of the Proposed Action, Buildings 1 and 3 on Parcel B would be converted to enclose parking structures and would provide over 1,000 parking spaces. In addition to the demolition of Building 5 South on Parcel D for surface parking, the Proposed Action would provide approximately 1,520 new parking spaces conveniently located within the center of the East Campus. The repurposing of those three buildings permits a unique opportunity to reuse two obsolete buildings and to create one additional area for centrally-located parking. By providing substantial parking at the center of the campus, new development can be positioned on the perimeter of the property, where visibility and access are greater and improve the visual quality of the development.

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<sup>2</sup> Second Declaration of Protective Covenants, Conditions and Restrictions for Ulster Business Complex, filed in the Ulster County Clerk's office.

Additionally, the new parking would feature multiple access portals to the adjacent roadway network. On Parcel A, parking would be located in small lots around the perimeter of the proposed Industrial/Flex buildings, leaving the center available for loading spaces. The proposed parking on Parcels C and E would provide convenient parking for the “town center” section of the southern portion of the East Campus. In total the Proposed Action would provide 3,875 enclosed and surface parking spaces.

Given the proposed mix of land uses for the East Campus and the varying peaks in parking demand, it is possible to reduce the total number of parking spaces needed through shared use of parking facilities based on the different time of day of peak parking demand among the proposed mix of uses. The shared parking analysis is described in further detail in Section III.E.1.h.

### **g. Existing And Proposed Landscaping And Lighting Concept**

#### **(1) Existing Landscaping and Lighting**

The East Campus currently includes approximately 54 acres of undeveloped and landscaped areas. Existing perimeter planting and screening exists along Enterprise Drive and Boices Lane. Landscaped areas within the existing parking areas in the northern and southern portions of the East Campus are minimal. Lighting is mainly provided by industrial-type cobra-head style pole lights situated throughout the parking lots.

#### **(2) Proposed Landscaping and Lighting**

The Proposed Action will result in approximately 55 acres of landscaped area, or approximately 40% of the East Campus. The landscape and lighting concept for the East Campus would provide an appealing and pedestrian-friendly experience. The proposed landscaping will consist of a combination of evergreen and deciduous trees, shrubs, groundcover and grasses with year round interest. Landscaping materials and treatments will be selected in order to provide attractive streetscapes and to communicate the linkages between the proposed development areas on the East Campus. The Proposed Action would also retain and enhance the landscape buffer and pedestrian path along Boices Lane to provide a positive visual appearance for the adjacent commercial and residential neighborhoods. The proposed lighting would include modern poles and fixtures that compliment the landscaping and building treatments throughout the East Campus. Individual building lighting and pathway lighting would be selected to provide safe and attractive lighting for pedestrians.

Proposed lighting fixtures would feature cutoff housing designs that limit light spillage to the surrounding area. Proposed streetscape design and materials would be consistent with applicable Town of Ulster standards. Detailed planting and lighting designs will be part of the Site Plan Approval process.

### **h. Existing And Proposed Stormwater Management**

The existing building roofs, internal drives and parking areas produce storm water runoff which is collected by a series of underground storm water mains and directed to the Esopus Creek. The on-site mains extend under Enterprise Drive and storm water flows are discharged to drainage swales on the West Campus prior to entering the Esopus Creek. At the time the project was constructed storm water detention was not provided in a meaningful way and there were no formal water quality measures to remove sediment and associated pollutants from the storm water prior to discharge into the Esopus Creek.

The redevelopment of the East Campus as envisioned in the East Campus Comprehensive Design Plan, will result in the area of impervious surfaces being reduced by 1.4 acres with an associated reduction in storm water flow. A considerable portion of the parking will be provided on the slabs of existing buildings minimizing the land disturbance associated with the construction of this parking. Over the course of the redevelopment of the East Campus, storm water quality devices that remove sediment from parking lots such as hydrodynamic separators will be provided at strategic locations to improve the water quality discharged from the East Campus. To the extent determined technically achievable and financially sustainable, the green roofs for new buildings will be explored as a tool for additional management of storm water quality.

As the campus internal road circulation system and surface parking areas are redeveloped the existing storm water mains will be evaluated and as necessary storm water infiltration and exfiltration will be mitigated.

In selected areas of the East Campus, pervious paving materials and infiltration gardens and trenches will be utilized to reduce off-site storm water discharge. Such materials and strategies will not be used in areas, which are subject to the plume or could influence its condition.

Land disturbance in excess of one acre will be undertaken in accordance with NYSDEC General Permit GP-0-10-001 for redevelopment compliance as defined in Chapter 9 of the NYS Stormwater Management Design Manual.

**i. Off-site Improvements**

Certain off-site measures to mitigate traffic impacts on adjacent streets will be required. These are discussed in Section III E – Traffic and Transportation, hereof.

**j. Construction Plan**

Construction activity for the Proposed Action would be phased over a seven to eight-year period and is outlined in Table No. II-5. The summary schedule outlines four major sequences of activity and an approximate length of time for completion of each sequence.

<b>Table No. II-5 Construction Sequence Summary</b>		
<b>Phase</b>	<b>Location</b>	<b>Time Frame</b>
<b>Demolition</b>	Buildings 2, 4, 5 South, 26, 29, 34, 35	2009 – 2013
<b>Building Renovation</b>	Parcel B	Ongoing to 2012
	Buildings 1N&S/3N&S Conversion to Parking	2011 – 2015
	Parcel C	2010 – 2013
	Parcel D	2010 – 2012
<b>Public Road Construction</b>	Application for Funding	2009 – 2015
	Engineering Design and Bidding	2010 – 2015
	Road Construction	
	Road A	2011 – 2015
	Road B	2011 – 2015
	Road C	2012 – 2015
<b>New Construction</b>	Parcel A	2014 – 2016
	Parcel B	N/A
	Parcel C	2013 – 2015
	Parcel D	N/A
	Parcel E	2013 – 2015
<b>Completion</b>		2016
<b>Source:</b> TechCity Properties, Inc.		

**D. Purpose, Need And Benefit Of Proposed Action**

**1. Proposed Sponsor**

TechCity Properties, Inc., the Project Sponsor, is the managing entity of the TechCity Complex, and is owned by AG Properties of Kingston, LLC, a limited liability company, and Ulster Business Complex, LLC, a limited liability company (owner and managing entity are collectively referred to as TechCity). TechCity purchased the former IBM manufacturing facility, including the 138.4-acre East Campus, in February, 1998 and has offices located at 300 Enterprise Drive, Kingston, New York.

TechCity has a full service real estate leasing, construction, marketing and financing capability to attract both established and incubator companies especially those involved in sustainable and green technology. Since 1973 TechCity owner and chairman Alan Ginsberg has arranged the sale or lease of millions of square feet of commercial space during his real estate and development career. Mr. Daniel Wieneke, the President of TechCity Properties, Inc., with over 30 years of experience is a preeminent economic development executive responsible for implementing the vision for this remarkable property.

**2. Purpose And Need For Proposed Project**

On July 27, 1994 IBM announced the closing of its 2.5 million square foot Kingston Plant. The closing resulted in the loss of thousands of well-paying jobs for area residents - a loss the community still struggles to recover from today. In 1998, developer Alan Ginsberg purchased the former IBM Kingston Plant renaming it "TechCity." While "TechCity" has attracted some tenants such as back offices for Bank of America, most of the campus remains underutilized. There is a need to redesign the East Campus to make it more attractive to prospective businesses and to create well-paying jobs to replace the jobs that were lost at IBM over a decade ago.

The proposed "Comprehensive Design Plan" (CDP) for the TechCity East Campus will remove obsolete buildings; provide the adaptive reuse of 1,318,000 square feet of existing buildings and introduce 645,000 square feet of new building space. The Project also involves the construction of a new internal road system that will improve access to existing buildings and future development sites within the TechCity East Campus - making the attraction of new businesses more likely. The proposed creation of a new mixed-use Town Center is consistent with the recommendations of the Town's Comprehensive Plan.

The Proposed Project will help to re-establish the Project Site as an economically and socially viable mixed-use center that will provide needed employment and housing opportunities for area residents.

### 3. Benefits Of Proposed Project

In terms of job generation, the Project's construction phase will have a direct impact of approximately 2,200 temporary jobs during the multi-year construction phase. At full build-out, the Project is projected to generate 3,860 permanent jobs. As described in Section III.C.2, a fiscal impact analysis calculated that, based upon estimated tax revenue at current rates and demand on municipal services through its development, the Project at full build-out will have an overall positive benefit for the Town of Ulster annually. The Project will also transform an underutilized former industrial complex into a vibrant mixed-use center. It would also further the Town's objective of creating a "Town Center" as described in its recently adopted Town Comprehensive Plan.

In addition, the Project will provide additional housing choices, which are needed on a regional level, to accommodate residents seeking alternatives to single-family housing. The creation of the mixed-use Town Center will include provisions for 128 dwellings units in mixed-use structures.

## E. Permits And Approvals

### 1. Involved And Interested Agencies

Under New York State Environmental Quality Review (SEQR) regulations, an "involved agency" is one that has jurisdiction by law to fund, approve or directly undertake an action. For TechCity, these agencies, and the approvals or reviews they have jurisdiction over, include:

#### a. Town of Ulster Town Board – Lead Agency

Hon. James Quigley, Supervisor  
Town of Ulster Town Hall  
1 Town Hall Drive  
Lake Katrine, NY 12449

- Establishment of Redevelopment Overlay District (ROD) and amendment of Zoning Map
- Approval of specific site plans

#### b. Town of Ulster Planning Board

Renno Budziak, Chairman  
Town of Ulster Town Hall  
1 Town Hall Drive  
Lake Katrine, NY 12449

- Approval of subdivisions

**c. New York State Department of Environmental Conservation**

James Tierney, Assistant Commissioner

Division of Water

625 Broadway, 4th Floor

Albany, New York 12233-3505

- SPDES Permit
- Phase 1 RCRA Permit Modification

**d. Ulster County Department of Public Works**

David Sheeley, Commissioner

Public Works Administration

315 Shamrock Lane

Kingston, NY 12401

- Highway access approval

**2. Interested Agencies**

Other agencies that will not grant permits or approvals, but have expressed an interest in the project include:

**a. Town of Ulster**

(1) Building Department  
Stacey Ostrander, Clerk  
Town of Ulster Town Hall  
1 Town Hall Drive  
Lake Katrine, New York 12449

(2) Sewer Department  
Corey Halwick, Superintendent  
Town of Ulster Town Hall  
1 Town Hall Drive  
Lake Katrine, New York 12449

(3) Water Department  
Paul Vogt, Superintendent  
Town of Ulster Town Hall  
1 Town Hall Drive  
Lake Katrine, New York 12449

(4) Ulster Hose Company #5  
Sam Appa, Chief  
830 Ulster Avenue  
Kingston, NY 12401

**b. Ulster County**

(1) Planning Department  
Dennis Doyle, Director  
244 Fair Street, P.O. Box 1800  
Kingston, New York 12402

**c. State, Regional and Local Agencies**

- (1) New York State Department of Transportation  
Mike Cotton, PE  
Eleanor Roosevelt State Office Building  
4 Burnett Boulevard  
Poughkeepsie, New York 12603
- (2) Hudson River Valley Greenway  
Kevin J. Plunkett, Chairman  
Capitol Building  
Capitol Station Room 254  
Albany, New York 12224
- (3) City of Kingston Water Department  
Judith Hanson, Superintendent  
P.O. Box 1537  
Kingston, New York 12402

DRAFT

**III. EXISTING CONDITIONS, POTENTIAL IMPACTS AND MITIGATION MEASURES****A. Land Use And Zoning****1. Existing Conditions****a. Area Land Use**

The Project Site is currently improved with 22 light-industrial, manufacturing and office buildings totaling approximately 2.16 million square feet, and approximately 4,229 at-grade parking spaces (see Figure II-3). The land uses surrounding the site are as follows: north - light industrial and manufacturing; east - regional retail and restaurants; south - local commercial and single-family residential; west - light industrial and campus office development within the TechCity West Campus. Surrounding land uses are compatible with the existing use of the TechCity East Campus.

**b. Town Comprehensive Plan**

The Town of Ulster Comprehensive Plan, adopted on July 2, 2007, includes specific recommendations for the redevelopment of the TechCity site. The Comprehensive Plan specifically recommends that the Town Board “create a mixed use zoning district to encourage residential/commercial development within existing centers.”

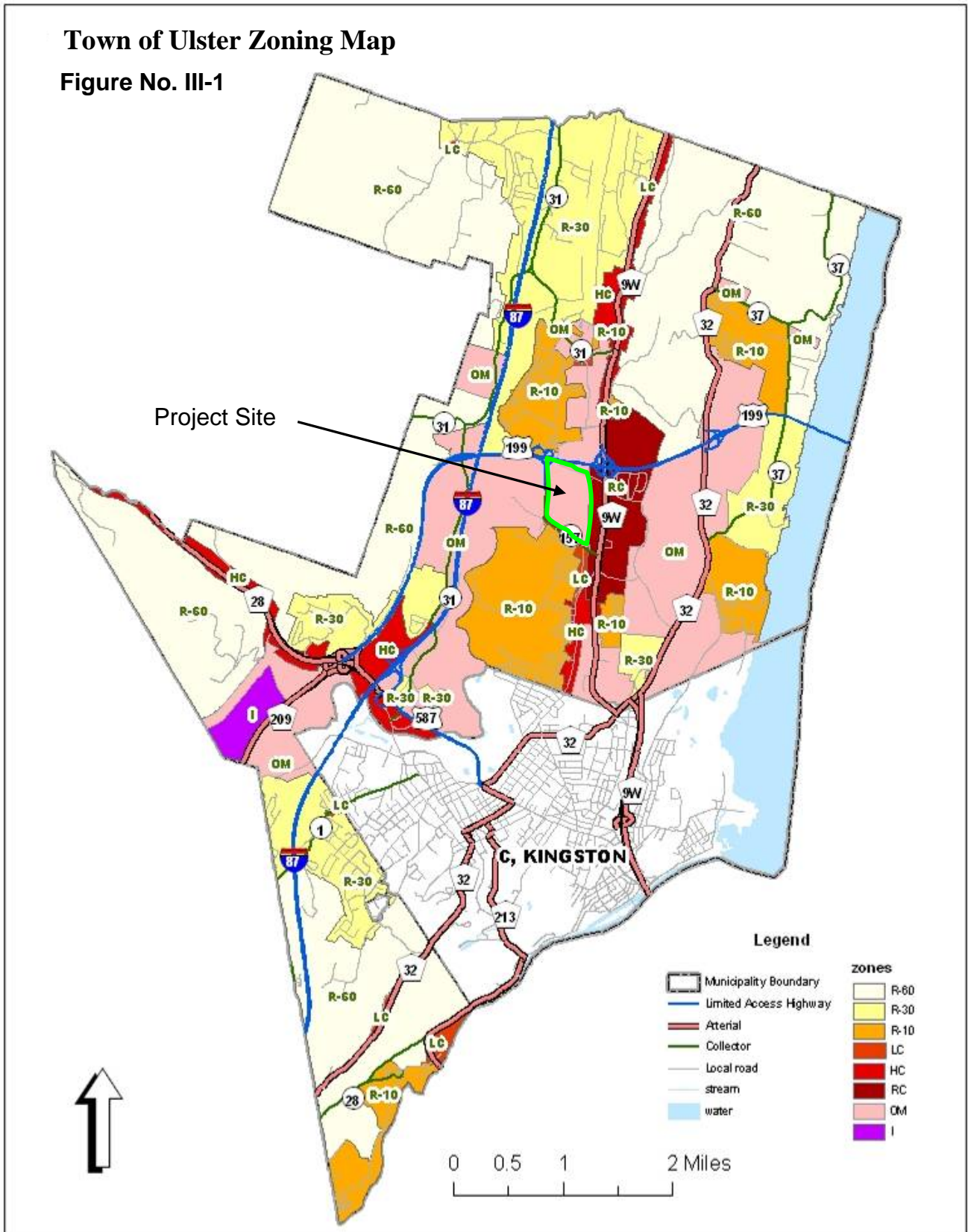
The Comprehensive Plan also has a number of specific goals and policies related to economic development. The Comprehensive Plan recommends that the Town Board work with the Ulster County Development Corporation and property owners to create shovel-ready sites in order to attract new businesses to the Town of Ulster. The Comprehensive Plan also supports the adaptive reuse of existing buildings or sites. Specifically, the Plan states, “The adaptive reuse of the TechCity buildings and/or site is strongly supported by this Plan.”

**c. Zoning Law**

The Project Site lies entirely within the OM-Office Manufacturing Zoning District (see Figure No. III-1). The OM District is the most broadly defined zoning district within the Town of Ulster - allowing a great variety of commercial, light-industrial, manufacturing and residential land uses. The maximum building lot coverage within the OM District is 50%, maximum building height 75 feet and minimum required green space 5% of a project site. As defined in the Town Zoning Law, lot coverage only applies to the percentage of the area of a lot covered by buildings and accessory structures. When building coverage is coupled with paved parking areas, the percentage of impervious surface on sites within the OM-District can be significant.

**Town of Ulster Zoning Map**

**Figure No. III-1**



Permitted uses within the OM District include, but are not limited to: banks, carwashes, contractors storage yards, dwellings - multiple unit, gasoline sales, hospitals, junkyards, kennels, manufacturing, office complexes, recycling yards, restaurants, retail, school of learning, theaters, warehouses and wholesale businesses.

**d. Hudson River Valley Greenway**

The Hudson River Valley Greenway (HRVG) is a state agency created to facilitate the development of a voluntary regional strategy for preserving scenic, natural, historic, cultural and recreational resources while encouraging compatible economic development and maintaining the tradition of home rule for land use decision-making within the Hudson Valley. The Town of Ulster lies within the geographic boundaries of the HRVG. It is thus important to consider the Proposed Action in relation to the HRVG's land use policies.

The stated Mission of the HRVG is to "*Preserve, enhance and develop the world-renowned scenic, natural, historic, cultural and recreational resources of the Hudson River Valley.*" With respect to economic development the HRVG stated "Greenway Criteria" is to "*Encourage economic development that is compatible with the preservation and enhancement of natural and cultural resources with emphasis on agriculture, tourism and the revitalization of existing community centers and waterfronts.*" The Town of Ulster's proposed amendment to the Town Code to add a procedure for the Town Board to establish a Redevelopment Overlay District (ROD) and approve a Comprehensive Design Plan (CDP) for the redevelopment of the TechCity East Campus is consistent with the HRVG policy of revitalizing community centers.

**e. Ulster County Land Use Plan**

The Ulster County Planning Board offers policy guidance for local land use decisions. The first guide that it recommends is that communities "Concentrate development in and around existing centers." This policy creates a pattern of development that is sustainable and reduces sprawl while reducing financial costs and environmental impacts associated with the expansion of infrastructure (roads, water, sewer, etc.) and takes advantage of public investment in this infrastructure. The County Planning Board also recommends that communities create additional opportunities for residences and commercial development through adaptive re-uses, infill development, and mixed use. The Proposed Action - amendment to the Town Code to add a procedure for the Town Board to establish a Redevelopment Overlay District (ROD); designation of the TechCity East Campus as an ROD and approval of a Comprehensive Design Plan (CDP) for the redevelopment of the East Campus of TechCity is consistent with these County land use policies.

## 2. Potential Impacts

### a. Creation Of Redevelopment Overlay District

The Town Code will be amended to add a procedure for the Town Board to establish a Redevelopment Overlay District (ROD). The Redevelopment Overlay District (ROD) will provide alternative provisions for use and development of certain qualifying sites in Office Manufacturing (OM) District within the Town of Ulster. The Zoning Map will also be revised to designate the portion of the TechCity site east of Enterprise Drive (i.e. the TechCity East Campus) as such a district. The proposed Redevelopment Overlay District, will limit permitted uses to those that will enhance the image of the property and be compatible with other uses in order to attract new investment needed to generate a positive tax base, provide employment opportunities, and further the policies and objectives set forth in the Town of Ulster Comprehensive Plan. The impact of establishing the ROD will be positive.

In accordance with the provisions of the proposed ROD, approval of a proposed "Comprehensive Design Plan" ("CDP"), for the redevelopment of the East Campus of TechCity, which establishes the uses, location and design of buildings, parking and interior circulation within the district to be designated is required. Review of the *Comprehensive Design Plan* prior to approval of an ROD will allow the Town to evaluate the impact of development of the entire site before specific site plans are developed and approved. These procedures will help to ensure that cumulative impacts are fully assessed and mitigated to the greatest extent practicable.

### b. Introduction Of Mixed Uses

The ROD will allow a mixture of land uses planned as part of a comprehensive analysis of an entire site. While most of the uses that will be permitted in the ROD are already allowed in the underlying OM District, these could be developed on a piecemeal site-by-site basis. Under the ROD, the relationship of all permitted uses will be considered within the context of the function and design of the entire site.

### c. Consistency With Comprehensive Plan

The Town of Ulster's Comprehensive Plan supports the creation of a mixed-use district to help facilitate the redevelopment of the TechCity site. Specifically, the Plan states, "The adaptive reuse of the TechCity buildings and/or site is strongly supported by this Plan." The creation of the Redevelopment Overlay District and proposed Comprehensive Design Plan for TechCity is consistent with these Comprehensive Plan goals and policy recommendations.

**d. Consistency With Zoning Law**

Many of the proposed uses that are envisioned as part of the TechCity East Campus CDP are already permitted under the OM-District. The only exception is mixed use residential-commercial buildings that the Town's Comprehensive Plan recommends should be permitted on the TechCity Site. The list of permitted uses in the proposed ROD will result in a more compatible and viable mix of uses by ensuring that certain incompatible uses [e.g. junk yards, gas stations, recycling centers] will no longer be permitted on the Project Site.

**3. Mitigation Measures**

The process required for approving the establishment of the Redevelopment Overlay District and its Comprehensive Design Plan provides the method to prevent adverse impacts of development in the District.

**B. Land And Water Resources**

**1. Existing Conditions**

The TechCity site consists of an East Campus and a West Campus, bisected by Enterprise Drive. For the purposes of the Draft Generic Environmental Impact Statement (DGEIS) analysis the description of land and water resources broadly includes both the East Campus and West Campus in order to provide context. However, the Proposed Action only includes the East Campus.

**a. Environmental Conditions Related To On-Site Contamination**

Former manufacturing operations by IBM has impacted the groundwater under portions of the site, primarily from solvents used on the East Campus. The affected groundwater located under portions of the site, referred to as a plume, has been comprehensively analyzed/investigated by IBM under NYS Department of Environmental Conservation (NYSDEC) oversight since 1978. The plume contains approximately 40 acres of affected groundwater, which is primarily located on the East Campus. The principal groundwater contaminants are volatile organic compounds. Numerous investigations have been conducted on the site since approximately 1978 to characterize and delineate the extent of groundwater impact. IBM has identified and removed accessible source areas, such as underground tanks, in conjunction with its investigations and overall facility shutdown. The affected groundwater areas are hydraulically controlled and contained, and a groundwater pump-and-treat system was installed in the 1980's in the north parking lot of the East Campus.

This system collects and withdraws impacted groundwater at down gradient locations in the north parking lot, and treats this groundwater before discharge. Refer to Figure No. II-2 for the location of the affected groundwater plume. Another smaller groundwater extraction and treatment system was operated at the south end of Building 5 South from 1987 to 2007. This on-going groundwater treatment has reduced the concentrations and extent of impacted groundwater over time, as documented by environmental monitoring that IBM conducts under regulatory oversight by NYSDEC.

Soil on portions of the site has also been impacted by historic site usage, again primarily by products used during IBM's operations. Accessible areas have been remediated by IBM, and inaccessible areas (e.g. under building slabs) have been characterized and delineated.

IBM continues its monitoring and remediation activities concurrent with TechCity ownership and site management. TechCity and IBM have been coordinating on recent related activities, including the following;

- IBM completed the fieldwork portion in July 2009 of an investigation on the down gradient plume boundary that is located on the West Campus.
- IBM has prepared work plans to continue to conduct source investigations as areas become available due to on-going and planned building demolition on the East Campus.
- TechCity conducted its own investigations in 2009 in connection with modifying the RCRA permit that applies to the site; the two areas that the TechCity investigations focused on were the 25 acres occupied by Bank of America west of Enterprise Drive and 18 acres that contain buildings 42, 43, 52, and 64.
- TechCity completed an initial technical review of means to accelerate groundwater remediation using advanced technologies in order to advance the redevelopment of the site; this study identified several remedial techniques appropriate for further review. Once IBM's source investigations are completed, pilot studies will be completed to confirm what techniques are effective before full-scale implementation to complete the groundwater clean up in an accelerated timeframe.
- TechCity is currently in the process of modifying the RCRA remedial permit, with NYSDEC, that covers the entire 258-acre site by removing 25 acres on the West Campus and 18+ acres on the East Campus. This permit modification would encourage redevelopment by removing regulatory requirements that mainly apply to the groundwater plume on the East Campus.

**b. Existing Buildings And Parking**

The existing East Campus contains approximately 36.4 acres of building coverage, or 26% of the site. Currently, approximately 48.3 acres of pavement exists on the East Campus, or 35% of the site. In total, the buildings and pavement comprise approximately 85 acres of impervious coverage, which represents 61% of the East Campus.

The existing building footprint and areas of pavement are summarized in Table No. III -1.

<b>Table No. III-1 Existing Buildings and Parking Areas</b>			
<b>Parcel</b>	<b>Existing Building Footprint (AC)</b>	<b>Existing Pavement Area (AC)</b>	<b>Total Existing Impervious Area (AC)</b>
A	0.0	13.6	13.7
B	16.1	5.1	21.1
C	2.1	10.6	12.7
D	16.4	6.5	22.8
E	1.4	6.2	7.6
ROWs	0.5	6.3	6.8
<b>Total</b>	<b>36.4</b>	<b>48.3</b>	<b>84.7</b>
<b>Source:</b> TechCity Properties, Inc.			

**c. Existing Open/Green Space**

The TechCity East Campus currently contains approximately 54 acres of undeveloped or landscaped areas, which represents 39% of the site. These areas are spread throughout the East Campus as shown in the following table.

<b>Table No. III-2 Existing Undeveloped and Landscaped Areas</b>	
<b>Parcel</b>	<b>Existing Undeveloped / Landscaped Areas (AC)</b>
A	9.6
B	8.0
C	5.7
D	9.4
E	13.7
Rights-Of-Ways	7.3
<b>Total</b>	<b>53.7</b>
<b>Source:</b> TechCity Properties, Inc.	

#### d. Existing Soil Conditions

Existing soil types, on the East Campus have been classified by the National Resource Conservation Service (NRCS). Soils in the northwestern portion of the East Campus are primarily mapped as Pompton Fine Sandy Loam (Pt), Riverhead Fine Sandy Loam (3 to 8 percent slopes) (RvB), and Lamson Fine Sandy Loam (Lm). The balance of the East Campus, approximately 90%, consists of Riverhead Fine Sandy Loam (0 to 3 percent slopes) (RvA).<sup>3</sup> Pompton Fine Sandy Loam (Pt) and Lamson Fine Sandy Loam (Lm) comprise approximately 9% of the East Campus and are classified as poorly drained soils that generally exhibit a high water table depth ranging from 0 feet to 24 inches, and have a depth to bedrock of over 80 inches. Riverhead Fine Sandy Loam (RvA, RvB) comprises approximately 91% of the East Campus and are classified as well drained soils that generally exhibit a water table depth of over 80 inches, and have a depth to bedrock also over 80 inches.

#### e. Water Resources

##### (1) Groundwater

Groundwater flows westerly towards the Esopus Creek. Both the overburden water-bearing zones and the bedrock ultimately discharge into the Creek. In the northern and southern portions of the TechCity site, groundwater flow is artificially influenced by subsurface storm water sewers, specifically a 60-inch storm sewer to the north and a 42-inch storm sewer to the south. These two storm sewers were constructed during the initial construction of the Complex in the 1950s. Local groundwater flow is also artificially influenced through two groundwater collection systems that were designed to capture and control the VOC groundwater plumes.

The site's impacted groundwater is located within the upper shallow sand aquifer. This upper aquifer is separated from the lower deeper bedrock aquifer by a varved silt and clay unit.<sup>4</sup> The bedrock unit is under confined conditions, and IBM investigations on the deeper bedrock aquifer have confirmed that affected groundwater has not penetrated through the varved silt and clay into the underlying bedrock. Groundwater flows generally west within the sand aquifer and a perimeter control system consisting of passive collection piping, active groundwater extraction, and natural subsurface geologic units hydraulically contain and/or capture impacted groundwater.

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<sup>3</sup> Soil classifications are based on NRCS Web Soil Survey 2.1 National Cooperative Soil Survey for Soils on East Campus. However, 84.7 AC (61%) of Project Area consists of roads, buildings and other paved surfaces, which are traditionally classified as Urban Land.

<sup>4</sup> A **varve** is an annual layer of sediment or sedimentary rock.

As noted above, the site's groundwater has been impacted with volatile organic compounds from historical manufacturing and testing activities. The primary area of impact is well characterized and located within the shallow sand aquifer on the East Campus, where volatile organic compounds have been detected at varying levels. IBM's on-going groundwater remediation has reduced contaminant concentrations and plume extent, and IBM investigations have demonstrated that there has been no impact to the deeper bedrock aquifer. The impacted areas are hydraulically contained and controlled, and groundwater is not used as a potable source as the site and surrounding properties are served by a public water supply.

**f. Stormwater**

The existing building roofs, internal drives and parking areas produce storm water runoff which is collected by a series of underground storm water mains and directed to the Esopus Creek. The on-site mains extend under Enterprise Drive and storm water flows are discharged to drainage swales on the West Campus prior to their entering the Esopus Creek. At the time the project was constructed storm water detention was not provided in a meaningful way and there are no formal water quality measures to remove sediment and associated pollutants from the storm water prior to discharge into the Esopus Creek. No portion of the East Campus is located in a 100-year flood plain.

**2. Potential Impacts**

**a. Environmental**

Construction and redevelopment of the East Campus may have the potential to disturb impacted soil and groundwater in specific areas. These concerns would be addressed by the preparation of an excavation work plan consistent with regulatory agency requirements for construction in previously identified zones of groundwater and/or soil impacts. This work plan will follow required health and safety plans and a contingency plan to address the potential discovery of previously unidentified contaminant sources. Other components of the excavation work plan include the following:

- Regulatory notifications
- Soil screening methods
- Stockpiling requirements
- Materials excavation, load-out, and off-site transport and disposal
- Fluids management
- Restoration

The construction of enclosed structures over or proximal to groundwater impacted with volatile organic compounds would incorporate mitigation measures in the foundation design. These measures include installing a vapor barrier and sub-slab depressurization system in the building foundation(s) to eliminate potential exposure to vapors.

**b. Demolition Of Existing Buildings**

The Proposed Action includes the demolition of six entire buildings and a portion of a seventh building, totaling approximately 288,000 SF primarily located within the central portion of the East Campus. The demolition of obsolete buildings represents only approximately 13% of existing buildings. Nearly 87% of the structures would be reused in some fashion. The demolition of these buildings would provide the opportunity to improve vehicular and pedestrian circulation, create new centrally located parking areas, and establish additional landscaped public space and a pedestrian circulation network.

Demolition of existing buildings on-site would be conducted after application review and issuance of a demolition permit by the Town of Ulster. The Town application requires that a pre-demolition asbestos survey be completed and submitted unless a certification is included that no asbestos is in the building. Asbestos materials are present in specific on-site buildings, and those materials would be identified and removed before demolition would begin. Other hazardous materials, including mercury switches, PCB ballasts, chemicals, etc, would also be identified and removed before demolition, if present. It should be noted that the solvents formerly used by IBM are no longer used or stored at the site; any chemicals remaining in the buildings are usually of small quantities and connected with site operations.

**c. Earthwork**

All earthwork activity will be managed under the conditions of an Erosion and Sediment Control Management Plan to avoid the discharge of sediment into the storm water system. The East Campus Comprehensive Design Plan does not include significant earthwork operations. Most buildings are scheduled to remain and new roads are to be constructed at or near existing grades, thus limiting the movement of earth to that which is at the surface and includes primarily existing pavement and its stone and earth sub-base. New buildings will also be constructed at or near existing grades. Operations involving earthwork will be limited primarily to the installation of foundations and underground utilities. In the southern portion of the East Campus there is no ground water contamination and the installation of foundations will be performed in a conventional manner. At the time new buildings are constructed in the northern portion of the East Campus each foundation element will be installed to either avoid the plume or the foundation would be installed in such a manner as to avoid

dispersion of the plume in accordance with NYSDEC approval procedures.

**d. Water Resources**

The redevelopment of the TechCity East Campus as envisioned in the Comprehensive Design Plan will result in the area of impervious surfaces being reduced by 2.0 acres with an associated reduction in storm water flow. Over the course of the redevelopment of the site storm water quality devices that remove sediment from parking lot will be provided at strategic locations to improve the water quality discharged from the Site.

To the extent determined to be technically achievable and financially sustainable the green roofs for new buildings will be explored as a tool for improving the management of storm water quality. In selected areas of the site pervious paving materials will be utilized to reduce off-site storm water discharge. Such materials will not be used in areas, which are subject to the plume or could influence its conditions.

**C. Fiscal Impacts**

**1. Existing Conditions**

**a. Real Estate Taxes**

The total assessed value of all land and buildings on the East Campus of TechCity in 2009 was \$33,800,000. The 2009 tax rates for all taxing jurisdictions and the tax revenues generated by the East Campus for each entity are as follows:

<b>Table No. III-3 Estimated Real Estate Taxes</b>		
<b>Jurisdiction</b>	<b>Tax Rate Per \$1,000</b>	<b>Taxes</b>
Town of Ulster		
General	\$4.511640	\$152,493
Highway	2.135240	\$72,171
Special Districts*	4.08	\$137,904
<b>Subtotal</b>		\$362,568
Kingston Consolidated Schools	\$29.725770	\$1,004,731
Ulster County	\$5.047506	\$170,605
<b>Totals</b>		\$1,537,904
*Fire, Water, Sewer, Lighting, Library		
<b>Source:</b> Shuster Associates, Inc.		

**b. Employment**

Approximately 12% of the existing floor area in the TechCity East Campus (270,000 square feet) was occupied as of 2009. In this space, 390 persons are employed – 150 in manufacturing, 230 in office and 10 in warehousing.

**2. Potential Impacts**

Direct economic benefits include on-site employment and earnings generated both during the construction period (temporary) and ongoing operations (permanent) as well as annual real estate taxes. Indirect economic benefits include the ripple effects of the project’s employment and earnings in the local economy at off-site locations.

**a. Employment**

One-Time (Construction Phase) Jobs

During the construction phase, TechCity will create approximately 2,200 temporary FTE jobs, earning an average annual wage of \$54,000 per year, or a total of \$118,800,000 million. The relevant employment and earnings multipliers were applied to the project to estimate secondary employment and earnings (one-time) that would be generated throughout the local economy as a result of the project. One-time employment and earnings impacts during the construction phase are as follows:

<b>Table No. III-4 Construction Phase Employment and Earnings Impact</b>	
Estimated Jobs	2,200
Total Earnings	\$118,800,000
Secondary Employment Multiplier	1.5
Secondary Jobs	3,300
Secondary Earnings	\$178,200,000
Total Earnings	\$297,000,000
<b>Source:</b> Shuster Associates, Inc.	

Annual Recurring (Permanent) Jobs

Anticipated direct employment and earnings estimates were based upon industry standards (per employee space requirements). When fully operational, TechCity will provide approximately 3,860 permanent FTE jobs with annual earnings of \$183,650,000, as follows:

<b>Table No. III-5 TechCity Employment by Category (based on floor area)</b>			
	<b>Square feet</b>	<b>Employment Per 1K SF</b>	<b>Total Employ</b>
Research and Development	440,000	2.25	990
Warehouse	583,000	1	583
Office	472,000	4	1,888
Retail	79,000	1	79
Light Industrial	151,000	1.25	188
Comm Center/Movie/Restaurant	84,000	1.5	126
Residential (128 du)	153,000	---	6
	<b>Total</b>	<b>1,963,000</b>	<b>3,860</b>
<b>Source:</b> Shuster Associates, Inc.			

There were 390 people employed on site as of 2009. Therefore, there will be a net employment increase of 3,290 jobs at full occupancy of the site.

<b>Table No. III-6 Annual Employment Earnings</b>			
<b>Use (Code)</b>	<b>Employees</b>	<b>Average Annual Wage</b>	<b>Total Earnings</b>
R&D (15-0000)	990	\$58,970	\$58,380,300
Warehouse (53-7062)	583	23,210	13,531,430
Office (43-0000)	1,888	30,790	58,131,520
Retail (41-0000)	79	31,600	2,496,400
Light Industrial (51-0000)	188	30,790	5,788,520
Comm. Ctr./Entertainment/ Restaurant/Residential	132	35,000(est)	4,620,000
			<b>\$142,948,170</b>
<b>Source:</b> Occupational and Wage Estimate, Kingston Area, Bureau of Labor Statistics, U.S. Dept. of Labor, May 2008			

#### **b. Property Taxes**

For purposes of estimating the property taxes that will result from the completed TechCity project, the Town Assessor has provided an estimate of assessed value by building size and use (see Table No. III-7). These estimates are based on current values of building types and do not reflect fluctuations which may take place over the course of project completion. The Assessor estimates total assessed value based on the following floor areas and assumed building values:

<b>Table No. III-7 Estimated Assessed Value</b>			
<b>Building Use</b>	<b>Square Feet</b>	<b>Est. Value per SF</b>	<b>Total Value</b>
R&D (15-0000)	440,000	120	\$52,800,000
Warehouse (53-7062)	583,000	45	26,235,000
Office (43-0000)	472,000	110	51,920,000
Retail (41-0000)	79,000	95	7,505,000
Light Industrial (51-0000)	151,000	45	6,795,000
Comm. Ctr.	30,000	85	2,550,000
Movie Theater	42,000	80	3,360,000
Restaurant/.Residential	12,000	120	1,440,000
Apartments	153,000	\$75,000/du	9,600,000
<b>Total</b>			<b>\$162,205,000</b>

**Source:** Shuster Associates, Inc.

TechCity has projected a construction cost of \$237,500,000. If the current equalization rate of 69.1 were applied to this estimate, the assessed value would be \$164,112,500 – virtually the same as the Assessor’s estimate.

When the 2009 tax rates are applied to the above estimated assessed value (\$162,205,000), the following real estate taxes would result. However the projections do not reflect any reductions in taxes due to payment in lieu of tax agreements or similar vehicles.

<b>Table No. III-8 Projected Real Estate Taxes Post Development</b>		
<b>Jurisdiction</b>	<b>Tax Rate Per \$1,000</b>	<b>Taxes</b>
Town of Ulster		
General	\$4.511640	\$731,810
Highway	2.135240	\$346,346
Special Districts*	4.08	\$661,796
<b>Subtotal</b>		<b>\$1,739,952</b>
Kingston Consolidated Schools	\$29.725770	\$4,821,668
Ulster County	\$5.047506	\$818,730
<b>Totals</b>		<b>\$7,380,350</b>

\*Fire, Water, Sewer, Lighting, Library  
**Source:** Shuster Associates, Inc.

The projected real estate taxes generated by the completed TechCity project represent an increase of \$5,842,446 over tax receipts in 2009, or nearly five times the current yield.

**c. Mitigation Measures**

The proposed redevelopment of TechCity will create 3,290 new permanent jobs with an annual payroll (including current employment) of over \$142,000,000 plus a one-time infusion of 2,200 construction jobs with a payroll of \$118,000,000. Furthermore, annual real estate taxes from the site will grow by nearly \$6,000,000. No mitigation is necessary since these impacts are definitely positive.

**D. Community Services**

**1. Existing Conditions**

**a. Educational Services**

The TechCity site lies entirely within the City of Kingston School District. There are four (4) City of Kingston School District buildings physically located within the Town of Ulster. Students from the proposed mixed-use Town Center at TechCity would attend the ER Crosby Elementary School on Neighborhood Road approximately one (1) mile north; the Chambers Elementary School on Morton Boulevard approximately one mile south; the M. Clifford Miller Middle School on Fording Place Road approximately one mile south; or the Kingston High School on Broadway in the City of Kingston, NY - a few miles south of the Project Site. Parents would also have the option of sending their children to the John A. Coleman Catholic High School on Hurley Avenue Extension approximately three (3) miles southwest of the Project Site.

<b>Table No. III-9 School Enrollment - City of Kingston School District</b>		
School	Grades	Enrollment
Chambers ES (945 Morton Boulevard)	K-6	427
E. R. Crosby ES (767 Neighborhood Road)	K-2, 3-5	300
M. Clifford Miller MS (Fording Place Road)	6-8	1,000
Kingston HS (403 Broadway Kingston, NY)	9-12	2,400
John A. Coleman HS (Catholic School)	9-12	158
<b>Source:</b> City of Kingston School District compiled by Planit Main Street, Inc.		

**b. Police Protection**

Police services in the vicinity of the Project Site are provided by the New York State Police, the Ulster County Sheriff's office and the Town of Ulster Police Department. The TechCity East Campus is situated less than a ½ mile from the Town of Ulster Police Department located at One Town Hall Drive, Lake Katrine, NY. The Project Site is approximately three (3) miles from the NYS Police Troop-F Barracks located on NYS Route 209 in the Town of Ulster. The Ulster Police Department includes a Patrol, K-9, Detective Division, DARE Program and Cadet Program. The Ulster Police Patrol Division comprises a force of twenty-five (25) full-time

uniform officers distributed over three shifts, providing twenty-four hour a day service throughout the year in the Town of Ulster. This service includes regular patrols in the vicinity for of the Project Site that is supplemented by State Police and County Sheriff patrols.

**c. Fire Protection**

The Ulster Hose Fire Department provides fire protection services under contract to the Ulster Hose No. 5 Fire District. The TechCity East Campus lies entirely within the service area of the Ulster Hose Fire Department. The main headquarters of the Fire Department is located at 830 Ulster Avenue within a mile of the Project Site. The station houses two engines, an engine tanker, two ladder trucks, a dive command vehicle, dive boat and an EMS vehicle. A second station - Station No. 2 - is located at 2333 NYS Route 9W on the northern end of the fire district. Two engines, a mini pumper and a haz-mat trailer are situated at Station No. 2. Ulster Hose has a corps of over 90 men and women volunteers with calls for service of between 1,000 and 1,200 each year.

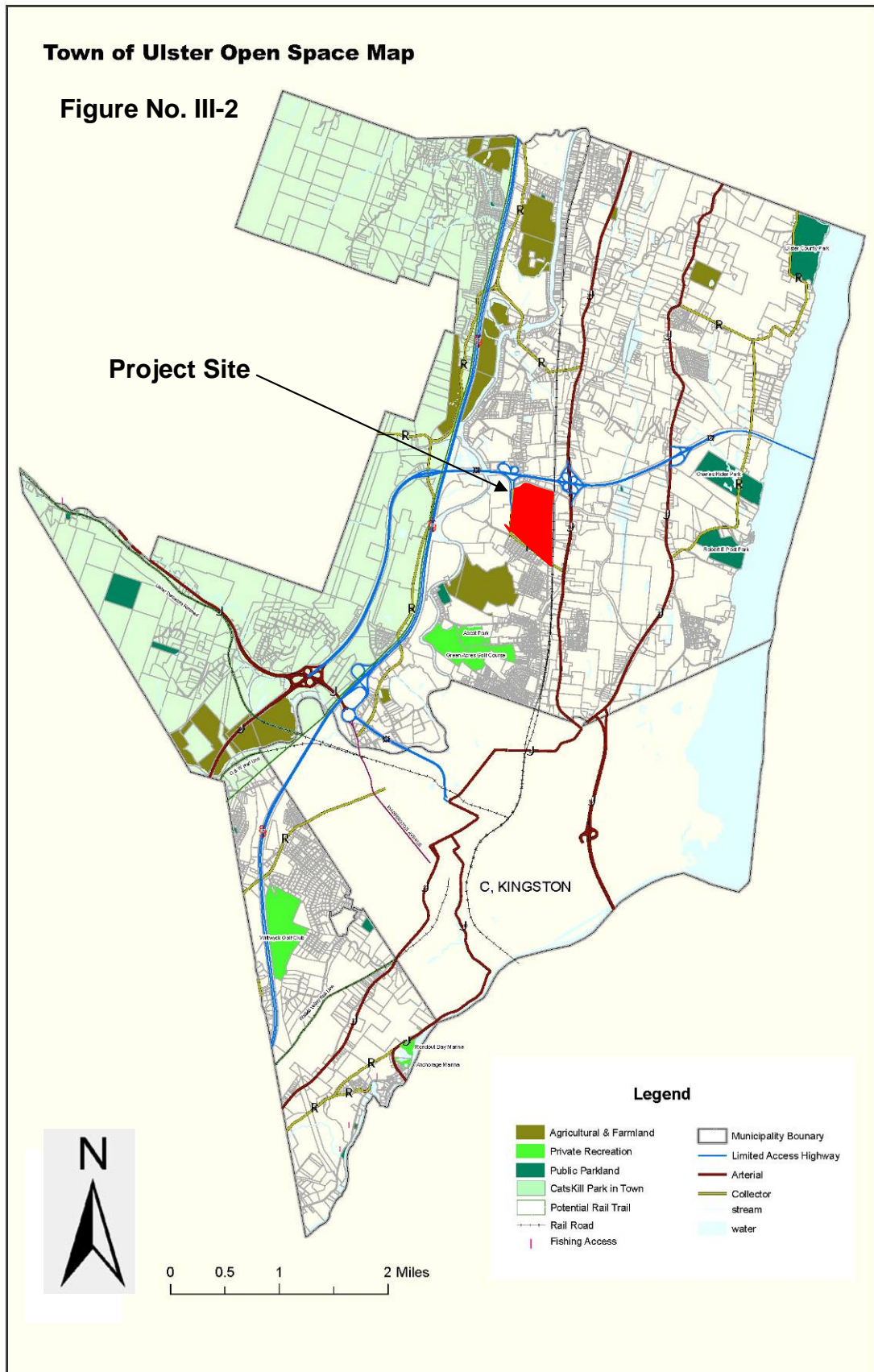
**d. Ambulance And Hospital Service**

Ambulance service is most likely to be provided by *Mobile Life Support Services* - a private for-profit company - that provides emergency ambulance service in the vicinity of the Project Site. Mobile Life Support Services operates a fleet of over fifty (50) paramedic ambulances and emergency response vehicles with a staff of over 350.

Residents living within TechCity are likely to be served by the nearby *Kingston Hospital* or *Benedictine Hospital* (each are approximately four (4) miles south of the project site). The Kingston Hospital is a 160-bed acute care hospital specializing in medical/surgical care, ambulatory surgery, diagnostic imaging, emergency, obstetrics, inpatient and outpatient physical medicine rehabilitation and other medical services. *Benedictine Hospital* is a fully accredited 222-bed acute care facility that has an accredited oncology program and mental health programs. In addition to area hospitals, there are a variety of other health care providers in close proximity of the project site that offer comprehensive programs including walk-in urgent care illness and injury care to the general community.

**e. Recreation And Open Space**

The Town of Ulster has a wide variety of open space that includes private recreational facilities (e.g. golf courses and marinas), DEC fishing access points, State forestland and County and local parklands. The existing recreation and open space resources within the Town are shown on the Open Space Map (see Figure No. III-2).



These recreation and open space resources not only serve local residents, but also residents throughout the mid-Hudson Region. The Town of Ulster operates and maintains three public parks: 1) *Orlando Street Park*, 2) *Robert E. Post Park*, and 3) the *Charles Rider Park*. The *Orlando Street Park* is the smallest of the three parks comprising a total of 10.8 acres. This park contains an outdoor basketball court and two baseball diamonds. The park also has frontage on the Esopus Creek and is located in close proximity to the Project Site. The Town has two parks that front on the Hudson River - the Robert E. Post Park and Charles C. Rider Park.

The *Robert E. Post Park* is 59 acres. This park is where the Town of Ulster's *Children's Summer Day Camp* program is held each year. Facilities at the park include picnic tables, charcoal BBQ stands, a playground, soccer field, volleyball court, bocce courts, horseshoe pit, bathroom facilities and two picnic pavilions. This park is open seasonally from May 15 through October 15 each year. The *Charles C. Rider Park* is also located on the shore of the Hudson River. This 90.2-acre Town Park contains a boat ramp and picnic tables. This park operates seasonally with an attendant on the site from the April 15 weekend through Labor Day. Both of these parks provide access to the Hudson River waterfront as well as recreational opportunities for the local residents during the spring and summer months.

The Ulster County Park is located in the northeastern corner of the Town of Ulster with waterfront access to the Hudson River. The recreational amenities offered at the park include: swimming, kiddy pools, playground and a snack bar. The facility is opened from June through Labor Day.

In addition to these public recreation facilities, the Town of Ulster has two private marinas - the *Anchorage Marina* and the *Roundout Bay Marina* in the hamlet of Eddyville. It is also home to the *Wiltwyck Golf Club* on Lucas Avenue with an 18-hole Robert Trent Jones designed golf course. There is also several golf driving ranges in close proximity to the Project Site within the Town of Ulster.

## **2. Potential Impacts**

### **a. Additional Demand For Educational Service**

In 2006, Robert Burchell of the nationally recognized Rutgers University Center for Urban Policy Research released residential demographic estimates for occupants of new housing in New York State. Multipliers for public school children per household, by household type, were included. Based upon Burchell's findings, a 1-bedroom multi-family dwelling is estimated to generate 0.15 public school children per household. A 2-bedroom unit would generate 0.43 public school children per household.

The 128 multi-family dwelling units within the proposed Town Center will consist of mix of 1-bedroom and 2-bedroom multi-family dwelling units as described in Table No. III-10 below.

<b>Table No. III-10 Anticipated Number School Age Children</b>		
	Number of Units	School Age Children
1-Bedroom Units	77	12
2-Bedroom Units	51	22
<b>Total</b>	<b>128</b>	<b>34</b>
<b>Source:</b> Planit Main Street, Inc,		

It is estimated that 34 school-age children would reside within the proposed TechCity Town Center based upon Burchell's multiplier. This represents less than one percent of the total enrollment of the Kingston City School District.

When the anticipated number of students is distributed over grades (K-12), the TechCity students would add approximately three (3) students per grade. The proposed development will not negatively affect the Kingston School District due to the small number of school-age children that are anticipated. In addition, it is likely that not all school-age children at the TechCity site will attend public schools, further reducing any potential impacts on the school district. Finally, the Kingston School District is presently implementing its Facilities Master Plan for the long-term improvement of the School District's facilities to meet future needs.

Total local expenditures by the District, in 2008, were \$11,186 per student<sup>5</sup>. However, this cost includes many fixed costs, which would not be increased due to the addition of three students per grade. Such fixed costs include administration, maintenance, debt service and capital improvements. Furthermore, such a small increase in enrollment will most likely not require any new personal services and related benefits. Therefore, even if every project-generated child attends public school, the local cost of educating all 34 potential children from the Project, would be far less than the \$380,324 resulting from a mathematical computation of local cost per student (34 X \$11,186). The project will generate \$4,821,668 in real property taxes to the School District annually. Therefore, even with the slight increase in enrollment due to the Project, the additional costs of educating project-generated children will be far more than offset by the increase in property tax revenues generated for the School District.

<sup>5</sup> Total Local Revenues enrollment = \$81,395,678/7,276.

(Source: NYState Comptrollers Office, Financial Data for local Governments, 2008.)

**b. Additional Demand For Police Services**

A meeting was held with Town of Ulster Police Chief Paul Watzka and Deputy Police Chief Joseph Sinagra to review the proposed Comprehensive Design Plan (CDP) for the TechCity East Campus on December 4, 2009.

According to the Town's Police Officials, it is anticipated that the demand for police services will increase slightly as the different phases of the Comprehensive Development Plan come to fruition so that no significant demands would immediately be placed on police services as a result of the Project. Two aspects of the Proposed Action are likely to result in a greater call volume for police services: 1) the multi-family housing within the mixed-use Town Center and 2) the proposed multiplex movie theater.

While the residential component is likely to generate a higher call volume than office or industrial uses, this increase was not deemed to be significant and could be handled with existing police services. The proposed multi-plex theater was deemed to have the potential to generate additional call volume at the TechCity East Campus - mostly during Friday and Saturday evenings. This is based upon the experience the Police Department has had with the multiplex movie theater at the Hudson Valley Mall. Presently, the mall hires two (2) police officers and one (1) police car to provide additional police protection on Friday and Saturday evenings.

At full buildout, the CDP is anticipated to create a slightly higher demand for police protection services. At that point in the project development, there will be a need for one or two additional police officers based on discussion with the Town's Police Officials.

Additionally, the project would generate tax revenues of \$731,000 annually to the Town's General Fund that could be used to aid in funding the Town of Ulster Police Department.

**c. Additional Demand For Fire Services**

On October 28, 2009, a meeting was held with Fire Chief Sam Appa and Deputy Fire Chief Shawn Heppner to review and discuss the proposed Comprehensive Design Plan (CDP) for the TechCity East Campus. Based upon this review, it was determined the current manpower and equipment of Ulster Hose Fire Department is sufficient to provide fire protection services at full buildout. The Ulster Hose Fire Department has two Ladder Trucks that are capable of providing fire protection services to all buildings within the East Campus including the mixed-use residential/commercial buildings that are proposed in the CDP.

The Comprehensive Design Plan will reduce the overall square footage of buildings on the TechCity East Campus and involve renovations to existing buildings so that they are fully compliant with current Fire Prevention and Building Codes. These measures will help to reduce the demand for fire services. The internal road system that is proposed for the TechCity East Campus will make it easier for the Fire Department to gain access to existing and proposed buildings thereby reducing response times.

While the TechCity East Campus has existing water lines and fire hydrants, the fire officials stated that fire hydrants within the project site should be upgraded to provide two (2) 2 ½ inch discharges and one (1) 4 ½ inch discharge. Furthermore, they recommended that extra fire hydrants should be installed along proposed Road "C" so that there is no more than a 500-foot separation between fire hydrants.

The creation of the proposed parking garages will create a unique demand for fire protection services. The fire officials recommended that the parking garages be equipped with sprinklers and dry standpipe connections that can be used by the Fire Department in the event of fire.

**d. Additional Demand For Ambulance Or Hospital Service**

The build out of the Comprehensive Design Plan is not expected to require a significant increase in demand for ambulance services. Mobile Life's current manpower and equipment is sufficient to support the additional residents and employees that would be introduced by the TechCity project. There are no significant impacts anticipated to the ambulance services provided by Mobile Life Support.

Based upon planning standards contained in the Development Impact Assessment Handbook published by the Urban Land Institute (1994), four (4) hospital beds should be provided per 1,000 persons. Based upon this standard, the projected population increase associated with the TechCity residential component (128 units x 2.43 persons per household = 312 persons) has the potential to increase the demand for beds in hospitals serving the Town of Ulster by one to two beds. This small number is of little consequence to area hospitals with a combined total of 384 hospital beds. It is anticipated that the area hospitals and numerous other nearby health care providers will have adequate capacity to serve the site. There are no significant impacts anticipated to area hospitals or health care providers as a result of the build out of the Comprehensive Design Plan.

**e. Impacts To Existing Open Space**

The *National Recreation and Parks Association* (NRPA) establishes standards and development guidelines for community parks and recreational needs. These standards are based upon population size and are used to help municipalities to plan for future parks and recreation needs. The table below provides an overview of recreation facilities that are needed based upon population size.

<b>Table No. III-11 Demand for Parks &amp; Recreation</b>			
<b>Facility Type</b>	<b>Standard per 1000 persons</b>	<b>Town of Ulster Need</b>	<b>Town of Ulster Provided</b>
Neighborhood Park With tot lots & playfield	1 acre	12 acres	10.3 acres
District Park	2 acres	24 acres	59 acres at Robert E. Post Park
Regional Park Should have camping, picnicking and water access.	15	180 acres	Rider Park 90.2 acres UC Park 102 acres
<b>Source:</b> Compiled by Planit Main Street, Inc. based upon NRPA Standards			

Based upon NRPA Standards, the Town of Ulster exceeds the needs for District or Regional Parks based upon its year-round population of 12,566 residents. In terms of Neighborhood Parks, it falls slightly short of the recommended standard. The anticipated 312 residents of the TechCity Town Center would generate a demand for Neighborhood Park Facilities of about 1/3 of an acre based upon the NRPA standards. It will also create an insignificant increase in the demand for District or Regional Parks that already are designed to handle a much higher number of residents.

Based upon the NRPA Standard for District Parks, the Town’s Robert E. Post Park is of sufficient size to accommodate a population of 29,500 persons – more than twice the current population of the Town of Ulster.

**3. Potential Mitigation Measures**

**a. Mitigation Of Educational Service**

Additional school tax revenues generated by the commercial and residential portions of the project will off-set the small additional student load created by the residential portion of the project (see the Fiscal section for a summary of potential tax revenues).

**b. Mitigation Of Police Services Impacts**

The demand for police services on the TechCity East Campus is already partially off-set by private security on the Project Site. The management of the TechCity East Campus will continue to provide on-site security intended to supplement local law enforcement measures.

Upon the opening of the multiplex theater, the developer will work with the Town of Ulster Police Department to assess police protection needs along with appropriate mitigation measures. Specifically, the theater operator may be required to reimburse the Police Department for the cost of providing enhanced police protection on Friday and Saturday evenings.

At full buildout, the Comprehensive Design Plan is anticipated to create a demand for one or two police additional officers based upon our discussion with the Town's Police Officials. However, the Project would generate tax revenues of \$731,000 annually to the Town's General Fund that could be used to aid in funding additional police officer positions within the Town of Ulster Police Department.

**c. Mitigation Of Fire Services Impacts**

Potential impacts on the fire services will be mitigated since the build out of the Comprehensive Design Plan will be designed and built to current Fire Prevention and Building codes, including the installation of sprinklers in the commercial, industrial, manufacturing and mixed use (multi-family residential/commercial) structures, as required by Code.

The demolition of obsolete buildings that were not built to current Fire Prevention and Building Code and the renovation of existing structures so that they comply with current standards will further reduce potential impacts on the fire services.

Fire hydrants within the project site will be upgraded to provide two (2) 2 ½ inch discharges along with one (1) 4 ½ inches discharge and extra fire hydrants will be situated along proposed Road "C" so that there is no more than a 500-foot separation between fire hydrants. The proposed parking garages will be equipped with sprinklers and dry standpipe connections that can be used by the Fire Department in the event of fire.

Finally, the build out of the Comprehensive Design Plan will generate property tax revenues to the Ulster Hose Fire District of approximately \$731,000 annually. This additional revenue could be used to enhance the Fire Department's capabilities as needed.

**d. Mitigation Of Ambulance Or Hospital Service Impacts**

No mitigation is needed as the build out of the Comprehensive Design Plan is not anticipated to have a significant impact on ambulance or hospital services.

**e. Mitigation Of Recreation And Open Space Impacts**

The Comprehensive Design Plan is not anticipated to have a significant impact on the demand for district or regional parks services. The Comprehensive Design Plan includes a variety of common open space areas within the Tech City East Campus. The Applicant will work with the Town to situate a recreation area on the Project Site, if deemed necessary, which will include a tot-lot and other amenities (such as tennis courts) to meet the needs of residents within the Town Center.

**E. Traffic And Transportation**

**1. Existing Conditions**

**a. Intersections And Roadways**

The study area includes the following intersections.

- Enterprise Drive/US Route 209 (NY Route 199) Westbound Ramps
- Enterprise Drive/US Route 209 (NY Route 199) Eastbound Ramps
- Enterprise Drive/North Driveway
- Enterprise Drive/US Route 209 EB Off Ramp/Middle Driveway
- Enterprise Drive/North Loop Driveway
- Enterprise Drive/South Loop Driveway
- Enterprise Drive /West Campus Driveway/South Driveway
- Enterprise Drive/Boices Lane/Mountain View Court
- Boices Lane/Middle Driveway/Dalewood Street
- Boices Lane/Morton Boulevard/East Driveway
- Boices Lane/John Clark Drive/Plaza Driveway

It was agreed during the scoping process that the critical study area intersections would include those located on Enterprise Drive and Boices Lane and that the access provided from Neighborhood Road was incidental. The potential traffic impact of the proposed project was determined by documenting the existing traffic conditions in the area, projecting future traffic volumes, including the peak hour trip generation of the site, and determining the operating conditions of the study area intersections after development of the proposed project.

The following roadways provide access to the site:

- US Route 209/NY Route 199
- Enterprise Drive
- Boices Lane

Intersection turning movement traffic counts were conducted at the study area intersections on Thursday, April 23, 2009, Tuesday, April 28, 2009, and Wednesday, May 6, 2009 during the afternoon peak commuter period from 4:00 to 6:00 p.m. The raw traffic volumes are included in Appendix B. These peak hour traffic counts were balanced where appropriate and provide existing traffic conditions at the study area intersections as summarized on Figure No. III-12 and form the basis for all traffic forecasts.

Automatic traffic recorders (ATRs) were installed on Enterprise Drive and Boices Lane to record hourly traffic volumes from Tuesday, April 28, 2009 through Wednesday, May 6, 2009.

The following observations are evident based on the existing traffic volume data:

- The PM peak hour generally occurred from 4:30 to 5:30 p.m.
- The weekday PM peak hour is the highest traffic volume time period and is the appropriate design hour for this study. Traffic volumes during the weekday AM and weekend mid-day peak hours are less.
- The two-way traffic volume on Enterprise Drive adjacent to the project site is approximately 1,390 vehicles during the PM peak hour. The two-way traffic volume on Boices Lane adjacent to the project site is approximately 1,400 vehicles during the PM peak hour.
- Heavy vehicles on Enterprise Drive account for approximately 1 percent of two-way traffic adjacent to the project site during the PM peak hour.
- Heavy vehicles on Boices Lane account for less than 1 percent of two-way traffic adjacent to the project site during the PM peak hour.

### **b. Transit**

The primary regional transit service provider that operates in the project area is the Ulster County Area Transit (UCAT). The closest UCAT bus route provides year round service and is called the SUNY Ulster-Kingston-Mall Area line that travels from the SUNY Ulster Campus in the Town of Marbletown to the shopping area on Route 9W in the Town of

Ulster located just south of NY Route 199. No service is provided on weekends or on holidays. It is noted that while there are no fixed bus stops in the project area, this line will travel to the existing TechCity Campus on request only.

**c. Pedestrian/Bicycle Accommodations**

A review of the existing road network indicates that a multi-use path is provided on the south and west side of the existing campus located on the north side of Boices Lane starting at the Morton Boulevard intersection and on the east side of Enterprise Drive ending at the Route 209 ramps. Actual pedestrian and bicycle counts conducted at the study area intersections indicate that pedestrian and bicycle traffic is fairly sparse during the PM peak hour and that existing joggers, walkers, and bicyclists use either the available shoulders or multi-use path.

**2. Potential Impacts**

To evaluate the impact of the proposed development, traffic projections were prepared for a 2014 and 2029 Build year (5 and 20 year build-out) and a comparison was made between the future traffic volumes with and without the project.

**a. No-Build Traffic Volumes**

The 2014 and 2029 No-Build traffic volumes are based on an analysis of existing traffic growth trends, other developments in the project area, and discussions with the Ulster County Transportation Council (UCTC). Historical traffic volume data found in the *2007 Traffic Data Reports*, published by the New York State Department of Transportation (NYSDOT), indicates that traffic volumes in the vicinity of the site have been increasing by approximately one percent per year over the last several years. Therefore, a growth rate of one percent per year was applied for to the 2009 existing traffic volumes to calculate the 2014 and 2029 background growth. The Town of Ulster provided information regarding additional development projects proposed within the study area.

Trips associated with these projects were distributed to the study area intersections and were added to the background traffic volumes to develop the 2014 and 2029 No-Build traffic volumes. The No-Build volumes represent the traffic conditions expected at the study area intersection before re-development of the proposed *TechCity Office Park*.

**b. Trip Generation**

Trip generation determines the quantity of traffic expected to travel to/from the site. The Institute of Transportation Engineers (ITE) *Trip Generation, 7<sup>th</sup> edition*, provides trip generation data for various land uses

based on studies of similar existing developments located across the country.

It can be expected that some trips to the proposed project will originate from traffic that is already passing the site on Enterprise Drive and Boices Lane. Pass-by trips are vehicles that will stop at the site before continuing on to their primary destination. It can also be expected that some of the traffic coming to the campus will stop at more than one location. These trips are referred to as multi-use trips and are described as trips that use one or more land uses in the same area. An overall 6 percent internal capture rate was applied to each of the land uses to account for these types of trips. The peak hour trip generation estimate is summarized in below.

Table No. III-12 Trip Generation Summary						
Parcel	Land Use	Size	Land Use Code	PM Peak Hour		
				Enter	Exit	Total
A	Research & Development Space	160,000 SF	760	24	135	159
	Warehousing	160,000 SF	150	13	38	51
B	Office Space	169,646 SF	710	37	181	218
C	Office Space	302,446 SF	710	66	324	390
	Retail Space	43,200 SF	814	51	65	116
	Apartments	72-units (86,400 SF)	220	33	18	51
D	Light Industrial	151,246 SF	110	7	52	59
	Warehousing	422,914 SF	150	33	100	133
	Research & Development Space	280,024 SF	760	42	237	279
E	Apartments	56-units (67,200 SF)	220	24	13	37
	Recreational Community Center	29,728 SF	495	24	41	65
	Multiplex Movie Theater	10-screens (42,000 SF)	445	61	75	136
	Restaurant	12,000 SF	932	82	52	134
	Retail Space	36,000 SF	814	42	54	96
Total Trips		1,962,804 SF		539	1,385	1,924
Multi-Use Credit = 6%				-58	-58	-116
Total Trips – Multi-Use				481	1,327	1,808
Pass-by = 40% of Restaurant Trips				-25	-25	-50
<b>Total New Trips</b>				<b>456</b>	<b>1,302</b>	<b>1,758</b>
<b>Source:</b> Creighton Manning Engineering (CME)						

Accounting for pass-by and multi-use trips, *TechCity Office Park* will generate a total of 1,758 new vehicle trips during the PM peak hour with 456 trips entering and 1,302 trips exiting. The total number of trips expected at the driveways to the site is the sum of the primary trips and pass-by trips (481 entering trips, 1,327 exiting trips, and 1,808 total trips).

**c. Trip Distribution And Assignment**

Trip distribution describes where traffic originates or where traffic is destined. Traffic generated by the proposed project was distributed based on existing travel patterns, the layout of the site and the locations of the proposed driveways, and the locations of population centers and major travel routes in the region.

In general, it is expected that approximately 40 percent of the site-generated traffic will travel to and from the site via Route 9 northbound and southbound. Approximately 25 percent of the site generated traffic is expected to travel to and from the west via Route 209 while approximately 10 percent of the site generated traffic will travel to and from the east on NY Route 199. The remaining 25 percent of site generated traffic will be split between Neighborhood Road to the north and Morton Boulevard to the south, and John Clark Drive to the east. Trip assignment combines the results of the trip generation and trip distribution and determines the specific paths and roadways that will be used between various origin/destination pairs.

**d. Build Traffic Volumes**

The results of the site generated traffic assignment were added to the appropriate No-Build traffic volumes to develop the Build traffic volumes.

**3. Capacity/Level Of Service Impacts And Mitigation Measures**

Intersection Level of Service (LOS) and capacity analysis relate traffic volumes to the physical characteristics of an intersection. Intersection evaluations were made using the Synchro Software (version 6.14) and Highway Capacity Software (HCS+ version 5.3), which automate the procedures contained in the *2000 Highway Capacity Manual*. Levels of service range from A to F with level of service A conditions considered excellent with very little delay while level of service F generally represents conditions with very long delays.

The relative impact of the proposed project can be determined by comparing the level of service during the 2014 and 2029 design years for the No-Build and Build traffic volume conditions. Table No. III-13 shows the results of the Level of Service calculations.

SECTION III • EXISTING CONDITIONS, IMPACTS & MITIGATION MEASURES

**Table No. III-13  
Level of Service Summary**

Intersection		Control	PM Peak Hour						
			2009 Existing	2014 Design Year			2029 Design Year		
				No-Build	Build	Build w/ Imp	No-Build	Build	Build w/ Imp
1	Enterprise Dr/US Route 209/ NY Route 199 WB Ramps	TW							
	Enterprise Dr SB LT		A (8.6)	A (8.7)	A (9.6)	--	A (9.1)	B (10.1)	--
2	Enterprise Dr/US Route 209/NY Route 199 EB Ramps	S							
	Route 209 EB LL		B (18.0)	B (18.3)	C (25.1)	--	B (16.5)	C (24.1)	--
	Enterprise Dr NB TT		A (4.2)	A (4.2)	A (4.5)	--	A (4.5)	A (4.9)	--
	Enterprise Dr SB LTT		A (3.5)	A (3.5)	A (2.9)	--	A (3.6)	A (3.0)	--
	Overall		A (5.3)	A (5.3)	A (5.4)	--	A (5.4)	A (5.7)	--
3	Enterprise Dr/North Drwy	TW							
	Enterprise DR SB L		B (12.8)	B (13.4)	--	--	C (15.2)	--	--
	North Drwy WB L		D (27.9)	D (31.1)	--	--	E (41.8)	--	--
	R		--	--	C (19.4)	--	--	C (22.3)	--
4	Enterprise Dr/US Route 209 EB Off Ramp/Middle Drwy	TW							
	Route 209 EB Off EB LT		D (31.2)	D (34.9)	F (>999)	--	E (48.8)	F (>999)	--
	R		B (11.7)	B (12.3)	B (14.7)	--	B (13.8)	C (17.5)	--
	Middle Drwy WB LR	D (31.9)	E (36.4)	F (>999)	--	F (53.0)	F (>999)	--	
	Route 209 EB Off EB LT	S	--	--	--	B (17.3)	--	--	B (19.2)
	R		--	--	--	A (7.5)	--	--	B (13.2)
	Middle Drwy WB L		--	--	--	B (17.1)	--	--	B (19.1)
	R	--	--	--	C (29.9)	--	--	C (34.2)	
	Enterprise Dr NB TTR	--	--	--	B (15.3)	--	--	B (19.3)	
	Enterprise Dr SB TT	--	--	--	A (7.8)	--	--	A (8.2)	
	Overall		--	--	--	B (15.6)	--	--	B (19.0)
5	Enterprise Dr/North Loop Drwy	TW							
	Enterprise Dr NB LTT North Loop Drwy WB LTR		A (0.1) D (27.6)	A (0.1) D (31.7)	A (0.1) F (146.2)	A (9.4) F (122.2)	A (0.1) E (46.9)	A (0.1) F (382.4)	A (9.8) F (262.3)
6	Enterprise Dr/South Loop Drwy	TW							
	Enterprise Dr SB LTT [L] South Loop Drwy EB LTR		A (0.0) -- D (28.2)	A (0.0) -- D (32.0)	A (0.6) -- F (64.6)	-- C (15.0) F (64.3)	A (0.0) -- E (44.6)	A (0.7) -- F (100.5)	-- C (17.8) F (99.7)
7	Enterprise Dr/West Campus Drwy /South Drwy	S							
	West Campus Drwy EB LT		C (20.5)	C (21.3)	B (12.8)	B (17.7)	C (21.0)	B (15.9)	C (21.0)
	R		B (18.9)	B (19.4)	B (11.2)	B (16.6)	B (18.7)	B (13.2)	B (19.6)
	South Drwy WB LTR		B (19.7)	C (20.4)	B (14.0)	--	B (19.8)	B (18.0)	--
	[LT]		--	--	--	B (17.3)	--	--	C (20.4)
	[R]		--	--	--	B (19.6)	--	--	C (24.0)
	Enterprise Dr NB TTR		A (3.9)	A (3.9)	A (8.9)	B (15.0)	A (4.1)	A (9.0)	C (20.4)
Enterprise Dr SB L	A (2.9)	A (2.8)	B (17.1)	B (14.6)	A (2.8)	C (26.8)	D (37.7)		
TTR	A (3.5)	A (3.5)	A (7.8)	A (9.4)	A (3.6)	A (7.6)	B (12.3)		
	Overall		A (5.6)	A (5.6)	A (9.9)	B (14.0)	A (5.8)	B (10.9)	B (19.0)
8	Enterprise Dr/Boices Ln/ Mountain View Ct	S							
	Boices Ln EB L		D (39.6)	D (52.9)	E (65.8)	D (55.0)	F (113.3)	F (138.4.6)	D (51.5)
	TR		B (19.2)	C (20.4)	C (22.6)	D (37.9)	C (25.7)	C (29.3)	D (42.9)
	Boices Ln WB LT		C (30.2)	C (31.0)	C (33.2)	C (29.1)	C (32.8)	C (35.0)	D (49.2)
	R		A (0.5)	A (0.6)	A (0.7)	A (0.7)	A (0.8)	A (0.9)	A (0.9)
	Mountain View Ct NB LTR		C (31.1)	C (31.7)	C (33.3)	C (34.9)	D (35.1)	D (37.1)	D (44.6)
	Enterprise Dr SB L		B (19.5)	C (21.1)	C (26.4)	C (22.0)	C (27.1)	D (36.2)	D (36.2)
	TR		B (10.1)	A (10.0)	A (9.6)	A (1.8)	A (10.0)	C (34.7)	A (1.6)
								A (9.6)	
			Overall		B (17.3)	C (20.3)	C (23.9)	C (22.8)	C (33.6)

Key: TW, AW, S, R = Two-way stop, All-way stop, Signal, or Roundabout controlled intersection  
 NB, SB, EB, WB = Northbound, Southbound, Eastbound, Westbound intersection approaches  
 L, T, R = Left-turn, through, and/or right-turn movements  
 L[T]R = LR represents the existing geometry, LTR represents the future geometry  
 X (Y.Y) = Level of Service (Average delay in seconds per vehicle)  
 -- = Not applicable

Source: Creighton Manning Engineering

SECTION III • EXISTING CONDITIONS, IMPACTS & MITIGATION MEASURES

**Table No. III-13  
Level of Service Summary (Continued)**

Intersection		Control	PM Peak Hour						
			2009 Existing	2014 Design Year			2029 Design Year		
				No-Build	Build	Build w/ Imp	No-Build	Build	Build w/ Imp
9	Boices Ln/Middle Drwy/ Dalewood St	TW							
	Boices Ln EB L		--	--	A (0.9)	--	--	A (1.1)	--
	Boices Ln WB L		--	--	A (0.5)	--	--	A (0.5)	--
	Dale wood St NB LTR		--	--	D (33.2)	--	--	E (43.9)	--
	Middle Drwy SB LTR		--	--	F (745.5)	--	--	F (>999)	--
	Boices Ln EB LTR	S	--	--	--	A (7.8)	--	--	A (9.7)
	Boices Ln WB LTTR		--	--	--	A (3.8)	--	--	A (3.8)
	Dale wood St NB LTR		--	--	--	C (21.2)	--	--	C (23.8)
	Middle Drwy SB LTR		--	--	--	C (26.3)	--	--	C (30.7)
	Overall		--	--	--	A (7.7)	--	--	A (8.9)
10	Boices Ln/Morton Blvd/East Drwy	S							
	Boices Ln EB LT		D (38.6)	D (52.6)	F (124.9)	--	F (95.1)	F (182.7)	--
	[TT] R		--	--	--	C (25.4)	--	--	C (28.8)
	Boices Ln WB L		A (8.6)	A (8.7)	B (13.7)	C (20.1)	A (8.8)	B (14.5)	C (21.0)
	T		B (15.4)	B (17.9)	B (18.2)	B (16.1)	C (24.9)	D (38.5)	D (35.4)
	Boices Ln WB T		B (10.9)	B (11.5)	B (10.7)	B (14.0)	B (12.6)	B (11.3)	B (18.9)
	R		A (0.0)	A (0.0)	A (8.0)	A (7.3)	A (0.0)	A (8.0)	C (20.5)
	Morton Blvd NB LT		C (22.3)	C (23.8)	F (160.5)	--	C (28.4)	F (230.3)	--
	R		A (9.6)	B (10.2)	B (11.1)	--	B (10.8)	B (11.5)	--
	[L] [TR]		--	--	--	B (18.8)	--	--	C (22.2)
	East Drwy SB L		C (31.8)	C (32.9)	F (777.6)	C (21.4)	C (34.5)	F (879.6)	C (21.6)
	TR		C (30.9)	C (31.9)	D (35.1)	D (44.4)	C (33.3)	D (37.0)	D (47.9)
	Overall		B (19.8)	C (24.2)	F (155.3)	C (21.6)	D (36.9)	F (182.7)	C (25.6)
	11	Boices Ln/John Clark Dr/ Plaza Drwy	S						
Boices Ln EB LTTR			A (4.5)	A (4.7)	A (5.1)	A (4.6)	A (4.9)	A (6.1)	A (4.2)
Boices Ln WB LT			A (4.3)	A (4.4)	A (3.9)	--	A (4.4)	A (3.9)	--
R			A (3.4)	A (3.3)	A (2.6)	--	A (3.2)	A (2.5)	--
[LTTR]			--	--	--	A (2.9)	--	--	A (6.9)
Retail Drwy NB LT			B (14.2)	B (14.9)	B (19.6)	C (27.7)	B (15.7)	C (21.5)	C (30.7)
R			B (13.5)	B (14.1)	B (18.5)	C (26.0)	B (14.7)	B (20.0)	C (27.9)
John Clark Dr SB LT			B (14.0)	B (14.6)	B (19.2)	C (27.1)	B (15.4)	C (21.0)	C (29.6)
R			B (13.9)	B (14.5)	B (18.9)	C (26.6)	B (15.2)	C (20.5)	C (22.1)
Overall			A (6.5)	A (6.6)	A (7.0)	A (7.6)	A (6.9)	A (7.9)	A (8.3)
Key: TW, AW, S, R = Two-way stop, All-way stop, Signal, or Roundabout controlled intersection NB, SB, EB, WB = Northbound, Southbound, Eastbound, Westbound intersection approaches L, T, R = Left-turn, through, and/or right-turn movements L[T]R = LR represents the existing geometry, LTR represents the future geometry X (Y.Y) = Level of Service (Average delay in seconds per vehicle) -- = Not applicable									
<b>Source:</b> Creighton Manning Engineering									

The results of this analysis and the means to mitigate adverse impacts are discussed below.

**a. Enterprise Drive/US Route 209/NY Route 199 Westbound Ramps**

The analysis indicates that the southbound Enterprise Drive left-turn movement operates at a LOS A during the PM peak hour for Existing and No-Build conditions. With construction of the proposed project, this movement will continue to operate at very good levels of service. No mitigation is necessary at this intersection.

**b. Enterprise Drive/US Route 209/NY Route 199 Eastbound Ramps**

The analysis indicates that this signalized intersection operates at an overall LOS A during the PM peak hour for Existing and No-Build conditions with the northbound and southbound Enterprise Drive through movements operating at a LOS A and the eastbound US Route 209 Ramp left-turn movement operating at a LOS B. With construction of the proposed project, this intersection will continue to operate at an overall LOS A during the PM peak hour with the northbound and southbound approaches operating at a LOS A and the eastbound left-turn movement degrading to a LOS C. No mitigation is necessary at this intersection.

**c. Enterprise Drive/North Driveway**

The analysis indicates that the southbound left-turn lane operates at a LOS B during the PM peak hour for Existing conditions and will operate at a LOS B/C during 2014 and 2029 No-Build conditions. The analysis also indicates that the westbound North Driveway left-turn lane currently operates at a LOS D and will operate at a LOS D/E during 2014 and 2029 No-Build conditions. With construction of the proposed project, it is recommended that the bagged traffic signal be removed and that this intersection be converted to a right-in/right-out only driveway. It is recommended that a stop-sign be installed on the westbound approach to control vehicles turning right from the development. It is noted that southbound left-turn vehicles will be served by the adjacent intersection to the south via a modified jug-handle that utilizes the adjacent parallel road for US Route 209 traffic.

**d. Enterprise Drive/US Route 209 Eastbound Off Ramp/Middle Driveway**

The analysis indicates that the eastbound shared left-turn/through lane currently operates at a LOS D during the PM peak hour for Existing conditions and will operate at a LOS D/E for the 2014 and 2029 No-Build condition. The yield controlled right-turn lane operates at a LOS B during the PM peak hour for Existing and both No-Build conditions.

The analysis also indicates that the westbound Middle Driveway approach currently operates at a LOS D during the PM peak hour and will degrade to a LOS E/F during the 2014 and 2029 No-Build conditions. With the construction of the proposed project, the yield controlled eastbound right-turn lane will operate at a LOS B/C during the 2014 and 2029 Build conditions while the stop controlled eastbound and westbound approaches will operate at a LOS F. A preliminary Peak Hour signal warrant analysis was conducted at this intersection to determine if traffic volumes will meet the warrants for the installation of a traffic signal for Build conditions. A review of the 2014 and 2029 Build traffic volumes indicates that a signal is warranted during the PM peak hour. Therefore, it is recommended that this intersection operate under traffic signal control for Build conditions.

As shown in Figure No. 4.1 in Appendix G – TechCity Traffic Study, it is recommended that the southbound left-turns into the site utilize a modified jug handle to access the parallel road and cross Enterprise Drive. It is also recommended that the eastbound yield controlled right-turn lane be reconstructed to utilize the traffic signal at the Middle Driveway so drivers do not have to look back over their shoulders to merge into southbound traffic on Enterprise Drive and that the westbound Middle Driveway approach provide separate left and right turn lanes. The level of service analysis indicates that this intersection will operate at an overall LOS B with all movements operating at a LOS C or better during the 2014 and 2029 Build conditions.

**e. Enterprise Drive/North & South Loop Driveways**

The analysis indicates that the northbound and southbound approaches operate at a LOS A during the PM peak hour for Existing and both No-Build conditions. The analysis also indicates that the eastbound and westbound Loop Driveway approaches will operate at a LOS D during the PM peak hour for Existing and 2014 No-Build conditions and a LOS E for 2029 No-Build conditions. With the construction of the proposed project, the northbound and southbound approaches will continue to operate at a LOS A while the eastbound and westbound Loop Driveway approaches will degrade to a LOS F during both design years.

It is recommended that exclusive northbound and southbound left-turn lanes be constructed on Enterprise Drive to remove all left-turning traffic from the through lanes. The analysis indicates that the northbound and southbound left-turn movements will continue to operate adequately and that the eastbound and westbound approaches will still operate at LOS F. This is reflective of the high through volumes on Enterprise Drive during the PM peak hour. It is noted that the Loop Driveways are ceremonial entrances that will serve low traffic volumes. Motorists exiting the Loop Driveway intersections will have the option of using the adjacent traffic signals so no additional mitigation is necessary.

**f. Enterprise Drive/West Campus Driveway/South Driveway**

The analysis indicates that this signalized intersection operates at an overall LOS A during the PM peak hour for Existing and both No-Build conditions with all movements operating at a LOS C or better. With construction of the proposed project, this intersection will operate at an overall LOS A during the PM peak hour for the 2014 Build condition and an overall LOS B for the 2029 Build condition. However, it is noted that this intersection is located approximately 300-feet north of the traffic signal at the Enterprise Drive/Boices Lane/Mountain View Court intersection. The analysis at this adjacent intersection indicates that the heavy southbound left-turn movement will queue back toward and possibly through the West Campus Driveway/South Driveway intersection. Therefore, it is recommended that these intersections operate under a coordinated signal system to ensure that the southbound queue on Enterprise Drive does not block side street traffic from entering and exiting the West Campus Driveway/South Driveway intersection. It is also recommended that the westbound South Driveway approach provide an exclusive left-turn lane and a shared through/right-turn lane.

The analysis indicates that this intersection will operate at an overall LOS B with these improvements under the 2014 and 2029 build conditions. No additional mitigation is necessary at this intersection.

**g. Enterprise Drive/Boices Lane/Mountain View Court**

The analysis indicates that this signalized intersection currently operates at an overall LOS B during the PM peak hour for Existing conditions and will operate at an overall LOS C during the PM peak hour for the 2014 and 2029 No-Build conditions. It is noted that the eastbound Boices Lane left-turn lane will operate at a LOS F during the 2029 No-Build condition. With construction of the proposed project, this intersection will operate at an overall LOS C/D during the PM peak hour with the eastbound Boices Lane left-turn lane operating at a LOS E/F during the 2014 and 2029 Build conditions. However and as noted above, the heavy southbound left-turn movement will also queue back toward the West Campus Driveway/South Driveway intersection located approximately 300-feet to the north. Therefore, it is recommended that these intersections operate under a coordinated signal system to ensure that the southbound queue on Enterprise Drive does not block side street traffic from entering and exiting the West Campus Driveway/South Driveway intersection.

The analysis indicates that this intersection will continue to operate at an overall LOS C with all movements operating at a LOS D or better. No additional mitigation is necessary at this intersection.

**h. Boices Lane/Middle Driveway/Dalewood Street**

There is an existing site driveway on Boices Lane located between Elmwood Street and Locust Street. It is recommended that this site driveway be shifted to the west opposite Dalewood Street, which is the approximate midpoint between Enterprise Drive and Morton Boulevard, and will improve access along Boices lane and into the residential land uses on the south side of Boices Lane. The analysis indicates that the northbound Dalewood Street approach will operate at a LOS D/E during the 2014 and 2029 design years while the southbound Middle Driveway approach will operate at a LOS F during the PM peak hour under stop sign control. The eastbound and westbound Boices Lane approaches would operate at a LOS A during the PM peak hour under unsignalized control.

A preliminary Peak Hour signal warrant analysis was conducted at this intersection to determine if traffic volumes will meet the warrants for the installation of a traffic signal for Build conditions. A review of the 2014 and 2029 Build traffic volumes indicates that a signal is warranted during the PM peak hour. Therefore, it is recommended that a traffic signal be installed at this intersection for Build conditions. The analysis indicates that this intersection will operate at an overall LOS A with all movements operating at a LOS C or better during the PM peak hour for both Build conditions. No additional mitigation is necessary.

**i. Boices Lane/Morton Boulevard/East Driveway**

The analysis indicates that this signalized intersection currently operates at an overall LOS B during the PM peak hour and will degrade to an overall LOS C/D during the 2014 and 2029 No-Build conditions with the eastbound left-turn/through approach operating at a LOS F during the 2029 No-Build condition.

With construction of the proposed project, this intersection will degrade to an overall LOS F with the eastbound and northbound shared left-turn/through movement and the southbound left-turn movement operating at a LOS F during the PM peak hour for both Build conditions. It is recommended that the existing northbound Morton Boulevard approach be re-stripped to provide an exclusive left-turn lane and a shared through/right-turn lane.

It is also recommended that a second eastbound through lane be constructed on Boices Lane and extended to the John Clark Drive/Driveway intersection and that eastbound left-turns into the site be restricted. It is also noted that it may be desirable to provide an exclusive left-turn lane and two through lanes with a shared right-turn lane on the westbound approach at this location to maximize intersection capacity.

This alternative would require a 5-lane cross-section over the Boices Lane railroad crossing. The need for this additional lane could be addressed during final design including additional analysis of the AM peak hour and railroad pre-emption.

In addition to the proposed geometric improvements, the existing traffic signal should also be coordinated with the traffic signal located at the Boices Lane/John Clark Drive/Driveway intersection located approximately 275-feet to the east. The level of service analysis indicates that this intersection will operate at an overall LOS C with all movements operating at a LOS D or better during the PM peak hour under the 2014 and 2029 Build condition with these improvements.

**j. Boices Lane/John Clark Drive/Plaza Driveway**

The analysis indicates that this signalized intersection operates at an overall LOS A during the PM peak hour for Existing and No-Build conditions. It is recommended that the eastbound approach be re-stripped to provide a shared left-turn/through lane and a shared through/right-turn lane in order to line up with the proposed improvements at the Morton Boulevard/East Driveway intersection.

It is also recommended that this intersection be coordinated with the Boices Lane/Morton Boulevard/East Driveway intersection as noted above and shown in 4.1 in Appendix G – TechCity Traffic Study. With construction of the proposed project, this intersection will continue to operate at an overall LOS A with all movements operating at a LOS C or better.

**k. Threshold Analysis**

A threshold sensitivity analysis was conducted in order to determine when the proposed improvements at the Boices Lane/Morton Boulevard/East Driveway intersection and at the Boices Lane/John Clark Drive/Plaza Driveway intersection would be required to maintain adequate traffic operations at these locations. The level of service analysis is provided for the 2014 design year, as summarized below in Table No. III-14.

The threshold analysis indicates these study area intersections will operate at the same levels of service with the development of up to 25 percent of the proposed project and no improvements. The analysis also indicates that with the development of up to 50 percent of the proposed project, these intersections will experience a level of service degradation on several approaches. It is anticipated that with signal timing improvements, the intersections will operate adequately with up to 50 percent of the development traffic. However, any development above and beyond 50 percent of the *TechCity Office Park* will likely require the geometric improvements detailed in the previous section to increase capacity at these intersections.

Therefore, it is recommended that the signals be monitored and optimized after the occupancy of 25 percent of the proposed project. It is also recommended that the traffic volumes and operations at these intersections be monitored annually and/or coinciding with the development phases of the *TechCity Office Park* to ensure that the signal timings will continue to maintain adequate traffic operations prior to the construction of the proposed geometric improvements.

Table No. III-14 Threshold Level of Service Summary						
Intersection	Control	PM Peak Hour				
		2014 No-Build	2014 Build 25% Threshold	2014 Build 50% Threshold		
10 Boices Ln/Morton Blvd/East Drwy	S	Existing Timing	Existing Timing	Existing Timing	Timing Optimization	
		Boices Ln EB LT	D (52.6)	D (54.4)	E (69.0)	D (46.6)
		R	A (8.7)	A (10.0)	B (12.9)	B (10.4)
		Boices Ln WB L	B (17.9)	B (17.8)	B (17.3)	C (21.9)
		T	B (11.5)	B (11.1)	B (10.4)	B (10.5)
		R	A (0.0)	A (8.4)	A (7.8)	A (7.9)
		Morton Blvd NB LT	C (23.8)	C (27.3)	D (43.5)	D (37.6)
		R	B (10.2)	B (10.7)	B (11.0)	B (12.2)
East Drwy SB	L	C (32.9)	C (34.5)	C (33.5)	D (50.9)	
	TR	C (31.9)	C (30.1)	C (25.8)	C (28.6)	
Overall		C (24.2)	C (25.8)	C (32.6)	C (27.0)	
11 Boices Ln/John Clark Dr/Plaza Drwy	S	Existing Timing	Existing Timing	Existing Timing	Timing Optimization	
		Boices Ln EB LTTR	A (4.7)	A (4.7)	A (4.8)	A (4.7)
		Boices Ln WB LT	A (4.4)	A (4.4)	A (4.2)	A (4.2)
		R	A (3.3)	A (3.2)	A (3.0)	A (3.0)
		Retail Drwy NB LT	B (14.9)	B (15.5)	B (16.5)	B (16.5)
		R	B (14.1)	B (14.7)	B (15.6)	B (15.6)
		John Clark Dr LT	B (14.6)	B (15.2)	B (16.2)	B (16.2)
		SB R	B (14.5)	B (15.1)	B (16.1)	B (16.1)
Overall		A (6.6)	A (6.6)	A (6.7)	A (6.6)	
Key: X (Y.Y) = Level of Service (Average delay in seconds per vehicle)						

**I. Roundabout Analysis**

An alternative intersection evaluation was completed to determine how six of the existing study area intersections would operate under roundabout control. The analysis indicates that the six study area intersections will operate at an overall LOS B or better with all approaches operating at a LOS C or better under roundabout control. In general, two northbound lanes would need to be provided on Enterprise Drive from the Boices Lane intersection to the Route 209/199 Ramp. This analysis indicates that the proposed development would not preclude a roundabout alternative if it were progressed as part of a potential public project along Enterprise Drive and Boices Lane. However, there will be impacts to ROW with the construction of a roundabout at several of the proposed intersections as shown in in Appendix G, which is provided in Volume II of this DGEIS.

In addition, the spacing between the two roundabouts located at the West Campus Driveway/South Driveway and Boices Lane/Mountain View Court intersections could be problematic and will require more detailed analysis. It is noted that signalized control will provide adequate operations at these study area intersections after the construction of the proposed project and is the recommended mitigation.

#### **m. Screen-Line Assessment**

A qualitative intersection evaluation was conducted for several additional intersections located to the east along Route 9W. The assessment was conducted to determine if the proposed development would generate more trips through these intersections than previously anticipated in the EIS prepared for the Frank Sottile Boulevard Extension. Therefore, a screen-line traffic volume comparison was conducted on Boices Lane just west of Route 9W to determine the difference between traffic associated with re-occupancy of the IBM campus and other background traffic growth analyzed in the *Frank Sottile EIS* and traffic associated with the re-development of the site for the proposed *TechCity Office Park*. The evaluation indicates that there are similar volumes on Boices Lane during the Build 2014 design year and the 2028 *Frank Sottile EIS* design year. Therefore, it is not anticipated that the construction of the proposed *TechCity Office Park* will change any of the conclusions found in the *Frank Sottile EIS* in the short term since the original Route 9W corridor analysis evaluated a similar number of trips generated by the re-development of this parcel.

The evaluation also indicates that continued background growth will cause the Build 2029 traffic volumes to exceed the 2028 *Frank Sottile EIS* traffic volume threshold by approximately 142 vehicles per hour (vph). Therefore, it is recommended that traffic volumes and queuing on Boices Lane be monitored to determine the need for a force-off loop detector on the eastbound Boices Lane approach of the Route 9W intersection. This improvement would ensure that the queue would not extend through the John Clark Drive intersection and block the existing railroad crossing.

### **F. Parking**

#### **1. Existing Conditions**

As discussed in Section II.C.3.f.(1) the East Campus is currently comprised of several separate parcels containing individual buildings with easements that grant parking for vehicles on the remaining land. In total, there are 4,229 existing parking spaces located on the East Campus. The existing parking spaces are primarily located in two surface parking lots in the northern (Parcels A & D) and southern (Parcel C) portions of the East Campus. Additional parking is located along the western portion of Parcel B.

The existing parking configuration of the East Campus was laid out as an internally-focused campus for IBM, and it contains a series of buildings and parking lots that represent a single-user industrial model without a correlation to each other, or to the surrounding community. There is little existing interconnection between the parking lots, and the existing configuration does not afford direct roadway access for existing buildings along the western portion of Parcel D (see Figure II-4).

## 2. Potential Impacts

As part of the Comprehensive Design Plan three new parking areas would be centrally located within the core of the East Campus providing over 1,500 new spaces, inclusive of approximately 1,065 enclosed spaces in two structures with multiple access portals to the adjacent roadway network. Walking distances between parking lots and buildings would be generally limited to a maximum of 500 feet, to the extent possible. The redevelopment of Building 1 North and South yields 545 enclosed parking spaces, and Building 3 North and South yields 520 spaces. The total new, enclosed parking would include approximately 1,065 spaces. In addition, the demolition of Building 5 South would provide a new surface parking lot to serve the industrial buildings along the eastern edge of the East Campus and Building 5 North with approximately 550 spaces. In total, the proposed Comprehensive Design Plan includes 3,875 enclosed and surface parking spaces.

In order to optimize the utilization of the parking supply and to take advantage of the differences in parking demand peaking characteristics by time of day and weekday versus weekend periods among the Comprehensive Design Plan's varying land uses a shared parking strategy is planned.

A shared parking analysis has been conducted pursuant to the methodology identified in the Urban Land Institute (ULI) and International Council of Shopping Centers (ICSC) publication *Shared Parking, Second Edition*.<sup>6</sup> The shared parking analysis moderates the total number of parking spaces required to serve a mixed-use project. In addition, the environmental benefits of shared parking include a reduction in impervious coverage and associated stormwater runoff.

The first step in the shared parking analysis is to establish appropriate weekday and weekend parking demand ratios for each land use as presented in Table No. III-15 Parking Demand Ratios without Shared Parking. A review of Table No. III-15 shows that without consideration of shared parking, the Proposed Action would be expected to have total weekday and weekend parking requirement of approximately 4,046 weekday and 1,951 weekend parking spaces, respectively. As Table No. III-15 shows, the total weekday parking requirement without shared parking is the sum of the Office demand of 1,180 spaces at a ratio of 2.5 spaces/1,000 SF; Industrial/Flex demand of 989 spaces at a ratio of 1.2 spaces per 1,000 SF; R&D demand of 735 spaces at a ratio of 2.1 spaces per 1,000 SF; Retail demand of 238 spaces at a ratio of 3.0 spaces per 1,000 SF; Entertainment/Restaurant demand of 712 spaces at a ratio of 8.5 spaces/1,000 SF; and, Residential demand of 192 spaces at a ratio of 1.5 spaces per dwelling unit which are reserved exclusively for the proposed residences.<sup>7</sup>

Without shared parking, the Comprehensive Design Plan would demand 4,046 spaces during the weekday peak (even fewer during the weekend peak) for a mixed-use project. Experience in mixed-use projects indicates it is unlikely that the individual building parking demands would peak at the same time, therefore sharing parking for compatible uses is good land use planning and reduces the environmental impacts associated with increased impervious coverage. The Comprehensive Design Plan proposes a total of parking supply of 3,875 parking spaces with approximately 480 spaces located on Parcel A, 1,345 spaces on Parcel B, 630 spaces on Parcel C, 690 spaces on Parcel D and 730 spaces on Parcel E. At 3,875 spaces, the proposed supply is nearly sufficient to handle the peak weekday parking demand even without adjustments for shared parking, a difference of only 171 spaces.

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<sup>6</sup> Shared parking demand ratios source: Mary S. Smith, et al., *Shared Parking Second Edition*. Washington, D.C.: Urban Land Institute and International Council of Shopping Centers, 2005.

<sup>7</sup> The parking ratios for the Proposed Action have been calculated from various sources including the Urban Land Institute (ULI), the Institute of Transportation Engineers (ITE) and past experience of the GDEIS contributors. The parking ratios vary slightly from the Minimum Required Off-Street Spaces as required by the Town of Ulster Zoning Code, Section 190-28. In total, the Town of Ulster Zoning Code would require 3,751 parking spaces for the Proposed Action, or 124 spaces *fewer* than would be provided. The parking demand based on the Zoning Code is as follows: Office requirement of 944 spaces at 2.0 spaces/1,000 SF; Industrial/Flex requirement of 989 spaces at 2.0/1,000 SF; R&D requirement of 700 at 2.0/1,000 SF; Retail requirement of 261 spaces at 3.3/1,000 SF; Restaurant requirement of 200 spaces at 1.0/4 seats, assumes 200 seats for every 10,000 SF of restaurant space; Residential requirement of 299 spaces at 2.0/DU plus an additional 1.0/3 units. As there is no Cinema use provided in the Zoning Code, the analysis continues to utilize a ratio of 8.5/1,000 SF for a requirement of 357 spaces.

**Table No. III-15  
Parking Demand Ratios without Shared Parking<sup>8</sup>**

Land Use	Size	User Group	Weekday (Typical)		Weekend (Typical)	
			Parking Ratio	# of Spaces	Parking Ratio	# of Spaces
			Per 1,000 GSF		Per 1,000 GSF	
Office	472,092 GSF	Employees	2.25	1062	0.32	151
		Visitors	<u>0.25</u>	<u>118</u>	<u>0.03</u>	<u>14</u>
			2.50	<b>1180</b>	0.35	<b>165</b>
Industrial/Flex/Warehouse	824,154 GSF	Employees	1.10	907	0.22	181
		Visitors	<u>0.10</u>	<u>82</u>	<u>0.03</u>	<u>25</u>
			1.20	<b>989</b>	0.25	<b>206</b>
R&D	350,030 GSF	Employees	2.00	700	0.28	98
		Visitors	<u>0.10</u>	<u>35</u>	<u>0.03</u>	<u>11</u>
			2.10	<b>735</b>	0.31	<b>109</b>
Retail	79,200 GSF	Customer	2.30	182	3.2	253
		Employee	<u>0.70</u>	<u>55</u>	<u>0.8</u>	<u>63</u>
			3.00	<b>238</b>	4.0	<b>317</b>
Entertainment Restaurant	41,728 GSF	Customer	7.00	292	9.0	376
		Employee	<u>1.50</u>	<u>63</u>	<u>2.5</u>	<u>104</u>
			8.50	<b>355</b>	11.5	<b>480</b>
Cinema	42,000 GSF	Customer	7.00	294	9.0	378
		Employee	<u>1.50</u>	<u>63</u>	<u>2.5</u>	<u>105</u>
			8.50	<b>357</b>	11.5	<b>483</b>
			Per Dwelling Unit		Per Dwelling Unit	
Residential (Multi-Family Low Rise)	128 DUS	Resident	1.35	173	1.35	173
		Visitor	<u>0.15</u>	<u>19</u>	<u>0.15</u>	<u>19</u>
			1.50	<b>192</b>	1.5	<b>192</b>
<b>Total Demand by User Group Without Shared Parking</b>						
- Employees				2,850		703
- Customers (Retail)				768		1,007
- Visitors				255		69
- Residential Reserved				<u>173</u>		<u>173</u>
<b>Total Demand w/o Shared Pkg.</b>				<b>4,046</b>		<b>1,951</b>
<b>Parking Supply Provided</b>				<b>3,875</b>		<b>3,875</b>
<b>Net (Space Demand without Shared Parking vs. Provided)</b>				<b>(171)</b>		<b>1,924</b>

Source: Creighton Manning Engineering.

<sup>8</sup> The shared parking analysis is based upon the concept that each land use typically has a peak demand period where it would occupy the maximum amount of spaces that the use requires, and an off-peak period where a lesser percentage of the maximum spaces would be occupied. The parking demand ratios by hour of the day for the various proposed uses and users are provided in Table No. III-16 *Shared Parking Demand Ratios (Weekday Typical Month)* and Table No. III-17 *Shared Parking Demand Ratios (Weekend Typical Month)*. The parking ratios are primarily based on ULI and ICSC ratios with adjustments for the unique characteristic of the site industrial program.

SECTION III • EXISTING CONDITIONS, IMPACTS & MITIGATION MEASURES

**Table No. III-16  
Shared Parking Demand Ratios (Weekday Typical Month)**

Hour of Day	Office			Industrial/Flex/Warehouse			R&D			Retail										
	Employees %	Visitors # Sp.	Total # Sp.	Employees %	Visitors # Sp.	Total # Sp.	Employees %	Visitors # Sp.	Total # Sp.	Customers %	Employees # Sp.	Total # Sp.								
6:00 AM	3%	32	0%	0	32	3%	27	0%	0	27	3%	21	0%	0	21	1%	2	10%	6	7
7:00 AM	30%	319	1%	1	320	30%	272	1%	1	273	30%	210	1%	0	210	5%	9	15%	8	17
8:00 AM	75%	797	20%	24	820	75%	680	20%	16	696	75%	525	20%	7	532	15%	27	40%	22	50
9:00 AM	95%	1009	60%	71	1080	95%	861	60%	49	911	95%	665	60%	21	686	35%	64	75%	42	105
10:00 AM	100%	1062	100%	118	1180	100%	907	100%	82	989	100%	700	100%	35	735	65%	118	85%	47	166
11:00 AM	100%	1062	45%	53	1115	100%	907	45%	37	944	100%	700	45%	16	716	85%	155	95%	53	208
12:00 PM	90%	956	15%	18	974	90%	816	15%	12	828	90%	630	15%	5	635	95%	173	100%	55	228
1:00 PM	90%	956	45%	53	1009	90%	816	45%	37	853	90%	630	45%	16	646	100%	182	100%	55	238
2:00 PM	100%	1062	100%	118	1180	100%	907	100%	82	989	100%	700	100%	35	735	95%	173	100%	55	228
3:00 PM	100%	1062	45%	53	1115	100%	907	45%	37	944	100%	700	45%	16	716	90%	164	100%	55	219
4:00 PM	90%	956	15%	18	974	90%	816	15%	12	828	90%	630	15%	5	635	90%	164	95%	53	217
5:00 PM	50%	531	10%	12	543	50%	453	10%	8	462	50%	350	10%	4	354	95%	173	85%	47	220
6:00 PM	25%	266	5%	6	271	25%	227	5%	4	231	25%	175	5%	2	177	95%	173	70%	39	212
7:00 PM	10%	106	2%	2	109	10%	91	2%	2	92	10%	70	2%	1	71	95%	173	55%	30	204
8:00 PM	7%	74	1%	1	76	7%	63	1%	1	64	7%	49	1%	0	49	80%	146	40%	22	168
9:00 PM	3%	32	0%	0	32	3%	27	0%	0	27	3%	21	0%	0	21	50%	91	25%	14	105
10:00 PM	1%	11	0%	0	11	1%	9	0%	0	9	1%	7	0%	0	7	30%	55	15%	8	63
11:00 PM	0%	0	0%	0	0	0%	0	0%	0	0	0%	0	0%	0	0	10%	18	5%	3	21
12:00 AM	0%	0	0%	0	0	0%	0	0%	0	0	0%	0	0%	0	0	0%	0	0%	0	0

Hour of Day	Entertainment (Restaurant)			Entertainment (Cinema)			Residential			Combined Total (All Land Uses)										
	Customers %	Employees # Sp.	Total # Sp.	Customers %	Employees # Sp.	Total # Sp.	Reserved %	Visitors # Sp.	Total # Sp.	Employees	Customers	Visitors	Resdtl. (Reserved)	Grand Total						
6:00 AM	25%	73	50%	31	104	0%	0	0%	0	0	100%	173	0%	0	173	117	75	0	173	365
7:00 AM	50%	146	75%	47	193	0%	0	0%	0	0	100%	173	10%	2	175	856	155	4	173	1188
8:00 AM	60%	175	90%	56	232	0%	0	0%	0	0	100%	173	20%	4	177	2080	203	51	173	2506
9:00 AM	75%	219	90%	56	275	0%	0	0%	0	0	100%	173	20%	4	177	2633	283	145	173	3234
10:00 AM	85%	248	100%	63	311	0%	0	0%	0	0	100%	173	20%	4	177	2779	367	239	173	3557
11:00 AM	90%	263	100%	63	325	0%	0	0%	0	0	100%	173	20%	4	177	2784	418	110	173	3484
12:00 PM	100%	292	100%	63	355	20%	59	50%	32	90	100%	173	20%	4	177	2551	524	39	173	3287
1:00 PM	90%	263	100%	63	325	45%	132	60%	38	170	100%	173	20%	4	177	2558	577	110	173	3418
2:00 PM	50%	146	100%	63	209	55%	162	60%	38	200	100%	173	20%	4	177	2825	481	239	173	3718
3:00 PM	45%	131	75%	47	178	55%	162	75%	47	209	100%	173	20%	4	177	2818	457	110	173	3558
4:00 PM	45%	131	75%	47	178	55%	162	75%	47	209	100%	173	20%	4	177	2549	457	39	173	3218
5:00 PM	75%	219	95%	59	279	60%	176	100%	63	239	100%	173	40%	8	180	1504	569	31	173	2277
6:00 PM	80%	234	95%	59	293	60%	176	100%	63	239	100%	173	60%	12	184	828	583	23	173	1608
7:00 PM	80%	234	95%	59	293	80%	235	100%	63	298	100%	173	100%	19	192	420	642	24	173	1258
8:00 PM	80%	234	95%	59	293	100%	294	100%	63	357	100%	173	100%	19	192	331	673	22	173	1199
9:00 PM	60%	175	80%	50	225	100%	294	100%	63	357	100%	173	100%	19	192	207	560	19	173	959
10:00 PM	55%	161	65%	41	201	80%	235	100%	63	298	100%	173	100%	19	192	139	451	19	173	781
11:00 PM	50%	146	65%	41	187	65%	191	70%	44	235	100%	173	80%	15	188	88	355	15	173	631
12:00 AM	25%	73	35%	22	95	40%	118	50%	32	149	100%	173	50%	10	182	53	191	10	173	426

SECTION III • EXISTING CONDITIONS, IMPACTS & MITIGATION MEASURES

**Table No. III- 17**  
**Shared Parking Demand Ratios (Weekend Typical Month)<sup>9</sup>**

Hour of Day	Office			Industrial/Flex/Warehouse			R&D			Retail		
	Employees %	Visitors %	Total # Sp.	Employees %	Visitors %	Total # Sp.	Employees %	Visitors %	Total # Sp.	Customers %	Employees %	Total # Sp.
6:00 AM	0%	0%	0	0%	0%	0	0%	0%	0	1%	10%	6
7:00 AM	20%	20%	3	20%	20%	5	20%	20%	2	5%	15%	10
8:00 AM	60%	60%	8	60%	60%	15	60%	60%	6	10%	40%	25
9:00 AM	80%	80%	11	80%	80%	20	80%	80%	8	30%	75%	48
10:00 AM	90%	90%	13	90%	90%	22	90%	90%	9	50%	85%	54
11:00 AM	100%	100%	14	100%	100%	25	100%	100%	11	65%	95%	60
12:00 PM	90%	90%	13	90%	90%	22	90%	90%	9	80%	100%	63
1:00 PM	80%	80%	11	80%	80%	20	80%	80%	8	90%	100%	63
2:00 PM	60%	60%	8	60%	60%	15	60%	60%	6	100%	100%	63
3:00 PM	40%	40%	6	40%	40%	10	40%	40%	4	100%	100%	63
4:00 PM	20%	20%	3	20%	20%	5	20%	20%	2	95%	100%	63
5:00 PM	10%	10%	1	10%	10%	2	10%	10%	1	90%	95%	60
6:00 PM	5%	5%	1	5%	5%	1	5%	5%	1	80%	85%	54
7:00 PM	0%	0%	0	0%	0%	0	0%	0%	0	75%	80%	51
8:00 PM	0%	0%	0	0%	0%	0	0%	0%	0	65%	75%	48
9:00 PM	0%	0%	0	0%	0%	0	0%	0%	0	50%	65%	41
10:00 PM	0%	0%	0	0%	0%	0	0%	0%	0	35%	45%	29
11:00 PM	0%	0%	0	0%	0%	0	0%	0%	0	15%	15%	10
12:00 AM	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	0

Entertainment (Restaurant)			Entertainment (Cinema)			Residential			Combined Total (All Land Uses)										
Customers %	Employees %	Total # Sp.	Customers %	Employees %	Total # Sp.	Reserved (Resident) %	Visitors %	Total # Sp.	Employees	Customers	Visitors	Resdlt. (Reserved)	Grand Total						
10%	38	50%	52	90	0%	0	0%	0	100%	173	0	0	173	58.496	40.0896	0	172.8	271.39	
25%	94	75%	78	172	0%	0	0%	0	100%	173	20%	4	177	173.8223	106.56	13.718	172.8	466.9	
45%	169	90%	94	263	0%	0	0%	0	100%	173	20%	4	177	377	194	33	173	778	
70%	263	90%	94	357	0%	0	0%	0	100%	173	20%	4	177	486	339	43	173	1041	
90%	338	100%	104	442	0%	0	0%	0	100%	173	20%	4	177	546	465	48	173	1231	
90%	338	100%	104	442	0%	0	0%	0	100%	173	20%	4	177	595	503	53	173	1324	
100%	376	100%	104	480	20%	76	50%	53	128	100%	173	20%	4	177	608	654	48	173	1483
85%	319	100%	104	424	45%	170	60%	63	233	100%	173	20%	4	177	575	717	43	173	1509
65%	244	100%	104	348	55%	208	60%	63	271	100%	173	20%	4	177	489	705	33	173	1401
40%	150	75%	78	228	55%	208	75%	79	287	100%	173	20%	4	177	393	612	24	173	1200
45%	169	75%	78	247	55%	208	75%	79	287	100%	173	20%	4	177	306	618	14	173	1111
60%	225	95%	99	324	60%	227	100%	105	332	100%	173	40%	8	180	307	680	13	173	1173
70%	263	95%	99	362	60%	227	100%	105	332	100%	173	60%	12	184	279	692	14	173	1159
70%	263	95%	99	362	80%	302	100%	105	407	100%	173	100%	19	192	255	755	19	173	1202
65%	244	95%	99	343	100%	378	100%	105	483	100%	173	100%	19	192	252	787	19	173	1230
30%	113	80%	83	196	100%	378	100%	105	483	100%	173	100%	19	192	230	617	19	173	1039
25%	94	65%	68	162	100%	378	100%	105	483	100%	173	100%	19	192	201	561	19	173	954
15%	56	65%	68	124	80%	302	70%	74	376	100%	173	80%	15	188	151	397	15	173	736
10%	38	35%	37	74	50%	189	50%	53	242	100%	173	50%	10	182	89	227	10	173	498

<sup>9</sup> The parking ratios are primarily based on Shared Parking Second Edition. Washington, D.C.: Urban Land Institute and International Council of Shopping Centers, 2005, with adjustments for the unique characteristic of the site industrial program.

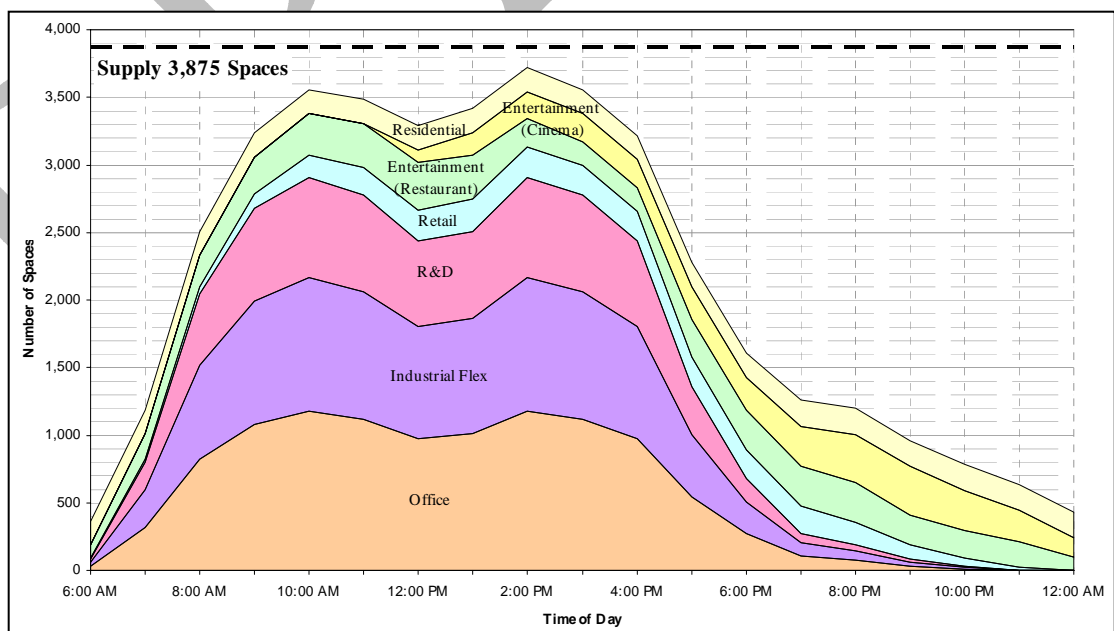
The parking accumulation by hour calculated by the shared parking demand ratios are illustrated in Figures No. III-3 Parking Accumulation Analysis -Typical Weekday and No. III-4. Parking Accumulation Analysis - Typical Weekend.

The results of the weekday parking analysis identify a peak demand of 3,718 spaces at 2:00 PM, representing a 327 space or 8.1 percent reduction in demand in contrast to the peak of 4,046 without shared parking as described above. More significantly, the weekend shared parking analysis results identify a peak demand of 1,509 at 1:00 PM, reflecting the dramatically lower parking demand among the proposed office, industrial/warehouse and R&D land uses on Saturday and Sunday.

The projected peak weekday demand of 3,718 spaces represents 96 percent of available parking supply and provides a 157 space “cushion” in the parking supply which would enable users to find parking space more easily. By contrast, less than 39 percent of the available parking supply would be utilized during the peak weekend period based on the shared parking findings.

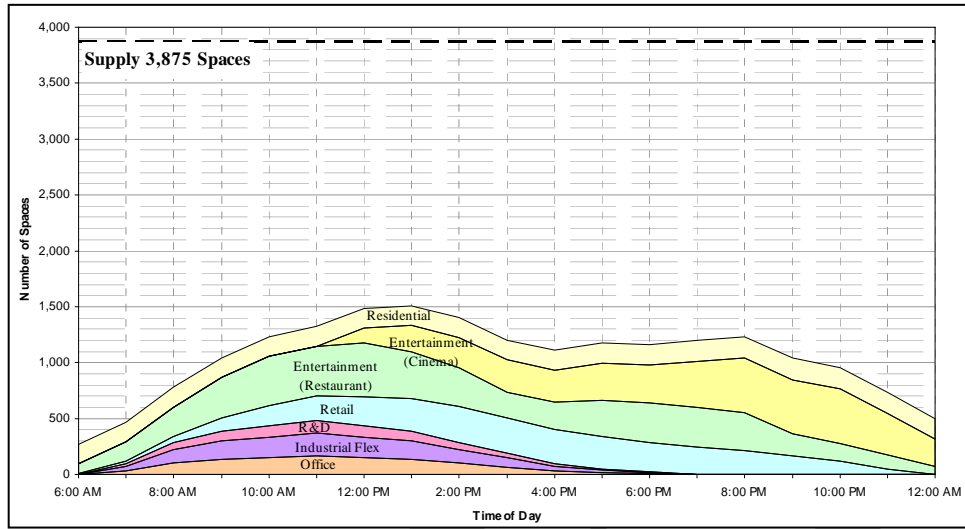
It is noted that no credit has been taken in the shared parking analysis to account for mass transit use and/or other transportation alternatives such as car pooling or company sponsored van pools, which would serve to further reduce on-site parking demands.

**Figure No. III-3  
Parking Accumulation Analysis -Typical**



Source: Creighton Manning Engineering

**Figure No. III -4**  
**Parking Accumulation Analysis -Typical Weekend**



Source: Creighton Manning Engineering

## G. Utilities

### 1. Existing Conditions

#### a. Water Supply

Water supply and treatment for the TechCity project site is currently and proposed to be provided by the City of Kingston Water District (KWD). The KWD owns and maintains land, supply and treatment facilities located in the Towns of Ulster and Woodstock in Ulster County. The KWD's primary source headwaters, the Mink Hollow Stream, originates in Greene County. The following water source and treatment components are included in the KWD's facilities:

**Raw Water Reservoir (Cooper Lake watershed/reservoir system):**

- Capacity: 1.2 Billion Gallons (BG)
- Safe Yield: 6 Million Gallons per Day (MGD)

**Treatment (Edmund T. Cloonan Water Treatment Plant Built in 1899):**

- Capacity: 8 MGD Nominal Capacity Filter Plant

Treatment processes provided at the water treatment plant include direct in-line filtration and disinfection. Based on recent data, the KWD produces approximately 3.5 MGD.

Via an agreement dated May 4, 2007 between TechCity and the Board of Water Commissioners of the City of Kingston, TechCity is allowed to purchase and receive from the Board, its water requirements up to a maximum of 64,000 units of water per year. As per the agreement, TechCity may draw from the KWD up to 1,500 gallons per minute (gpm) of water for the duration of the emergency at a pressure of not less than 50 pounds per square inch (psi). Pressure at the point of delivery shall be 55 psi under normal conditions. A "unit" of water is defined by the City of Kingston Water Department as 100 cubic feet, or 748 gallons. Therefore, 64,000 units of water per year would equate to 47,872,000 gallons of water per year. Based upon a seven day per week operation, 47,872,000 gallons of water per year would equate to an average use of 131,156 gallons per day (gpd).

Current usage data for the period January 2007 through March 2010 indicates that the TechCity facility uses an average of 13,701 gpd of KWD water. The May 7, 2007 agreement TechCity and the Board of Water Commissioners of the City of Kingston is effective until May 31, 2057. There is approximately 47 years remaining in the 50-year agreement. A 12" KWD water main transmits water to the TechCity facility via a 10" meter. Subsequent to the meter, water main infrastructure within the facility includes a combination of domestic water mains (typically 2" to 12") as well as fire protection mains (typically 6" to 12"). This



The facility is permitted for a flow of 1.6 Million Gallons per Day (MGD). Treated effluent from the USDSTP is discharged to the Esopus Creek (see Figure III-5). The Esopus Creek is actively used for recreational purposes, and is a tributary of the Hudson River, which is used as a drinking water source for various communities.

The Ulster Sewer District Sewage Treatment Plant (USDSTP) utilizes the following treatment processes/components: preliminary treatment (influent flow channel, screening, sewage grinding via a channel monster, grit removal), lift pumps, primary clarification (primary clarifiers), secondary biological treatment (submerged biological contactors), secondary clarification (secondary clarifiers), disinfection (ultraviolet disinfection unit), and sludge treatment (sludge thickener, sludge digestors, sludge drying beds and sludge belt press).

The USDSTP daily flow varies seasonally, primarily as a result of inflow and infiltration during precipitation events and wet periods (see Figure III-6).

The plant's collection system experiences inflow during precipitation events, and infiltration during precipitation events and wet periods from low-lying and high groundwater areas within the sewer district. The average daily flow reported on Wastewater Facility Operation Reports for the USDSTP for the period January 2007 through March 2010 is 0.96 MGD based upon a 39 month average of the monthly daily average flows, which is under the permitted capacity of 1.6 MGD. However, inflow and infiltration can increase daily and peak flows substantially. Over this same period, the daily peak flows have averaged 1.29 MGD with peak days ranging from to 0.71 MGD to 3.35 MGD.

According to the Plant Superintendent, the plant effluent monitoring records have indicated that the facility has been able to effectively treat the increased flows associated with peak flow events.

**Figure III-6  
Ulster STP Sewer Flow 2007-2010**

	Monthly Average Flow	Monthly Peak Flow
	(MGD)	(MGD)
March '10	1.2360	1.4983
February '10	0.8746	1.3759
January '10	0.8648	1.3562
December '09	0.8718	1.1735
November '09	0.7559	0.8322
October '09	0.7649	1.0094
September '09	0.8864	1.0751
August '09	1.1488	1.5797
July '09	1.1640	1.7504
June '09	1.0521	1.4986
May '09	0.8941	1.0802
April '09	0.8711	0.9743
March '09	0.9419	1.1479
February '09	0.9337	1.0929
January '09	1.0167	1.3023
December '08	1.1984	1.7114
November '08	0.9077	1.0570
October '08	0.8627	1.1625
September '08	0.8942	1.0243
August '08	0.9749	1.2195
July '08	0.8863	1.1223
June '08	0.9329	1.0137
May '08	1.0670	1.2130
April '08	1.2654	1.5658
March '08	1.7592	2.6843
February '08	1.4697	2.0894
January '08	1.0585	1.2090
December '07	0.8378	1.1838
November '07	0.7238	0.9899
October '07	0.6660	1.0427
September '07	0.6389	0.7183
August '07	0.7186	1.0220
July '07	0.7033	0.7754
June '07	0.7919	1.0493
May '07	0.8449	0.9923
April '07	1.3299	3.3506
March '07	1.0414	1.3974
February '07	0.7151	0.8439
January '07	0.9140	1.1088

Copies of the SPDES permit and effluent limitations for the plant and the DMR records for this period are provided in Appendix E. The USD is currently performing an *inflow and infiltration study* to target collection system areas for future inflow and infiltration mitigation construction. Via an informal extension of National Pollutant Discharge Elimination System Permit No. 001 for A.G. Properties of Kingston, LLC, TechCity is permitted by the Town of Ulster Sewer District to discharge up to 150,000 gpd (30–calendar day average quantity) of untreated sanitary waste or pretreated industrial waste into the Town of Ulster’s north interceptor sewer. Current usage data for the period January 2007 through March 2010 indicates that the TechCity discharges an average flow of 30,552 gpd to the north interceptor with an average peak flow of 41,650 gpd. Sewer collection infrastructure within the facility includes a combination of gravity sewers (typically 4” to 8”) and force mains (typically 4”). This infrastructure traverses the site to provide adequate sewer service to buildings.

**c. Storm Sewer**

Stormwater from the TechCity site is collected on site and is discharged via a series of storm sewer mains that are tributary to the Esopus Creek. Construction of facilities for stormwater infrastructure was performed during the period that the IBM Corporation occupied the site. This construction predates contemporary stormwater practices and therefore, the infrastructure does not provide attenuation, sediment removal, and treatment of associated pollutants. Some of the stormwater facilities handle stormwater from neighboring public roads and surrounding commercial development as well.

A series of storm sewerage collection and transmission mains that vary in size from 4” to 60” traverse the east and west campuses traveling north and west provide collection of stormwater from parking lots, roadways, grounds, roofs, buildings, and other infrastructure, and ultimately provide the conveyance of stormwater to three distinct discharge points. The three discharge points are as follows: a 42” main that discharges into a channel located to the west of Building 202, a 30” main that discharges into a channel located to the northwest of Building 202, and a 60” main that discharges into a channel at the southeast corner of the intersection of N.Y.S. Route U.S. 209 and Enterprise Drive. The channels that carry water from these three discharge points subsequently meander down gradient through low lying and wet areas and then discharge into the Esopus Creek.

**d. Electric and Gas**

Electric and gas supply for the TechCity project site is currently and proposed to be provided by Central Hudson Gas and Electric Corporation (Central Hudson). Central Hudson owns and maintains land and supply facilities located in the Town of Ulster. Central Hudson provides Service Classification 13 – Substation Primary Service to TechCity. The electric meter for TechCity is located across from TechCity's site on Boices Lane at CHGE's "Lincoln Park" substation which is a loop 115 kilovolt transmission substation fed from Central Hudson's LR and HP transmission lines.

The "Lincoln Park" substation was built in the 1950's and has received ongoing maintenance and upgrades including replacement in 2009 of all Siemens substation breakers. The substation is secured with chain link and barbed wire fencing. The substation service is 13.2 kilovolts. There are two circuit feeders providing service to TechCity with two additional feeders, which are in place that can be used for backup or redundant service. Current peak demands for TechCity are approximately 2,500 kilowatts while the capacity of these four circuits is approximately 25 megavolt amperes.

The TechCity electric distribution system including underground cable, unit substations, switchgear and transformers are the property of TechCity.

The following actions and improvements to the TechCity campus have been performed by TechCity:

- The central utility plant was closed.
- TechCity has designed an engineering plan with Town approval to run power down the center (east-west) to Buildings 21, 22, 23 & 24 once the demolition of Building 5S is completed.
- Power has been shut down power to Building 25.
- Outside contractors have been retained to clean & maintain substations & panels in Buildings 5N & 25.
- Modern energy efficient electrical service has been installed to first floor of Building 5N.
- Individual meters have been installed to all buildings and sub meters to individual tenants within the buildings.
- A control source Siemens' alarm system and electrical usage monitor for power use have been installed.
- A new transformer and switches have been installed in Building 24.
- Air handlers, air conditioner, and chilled water units have been replaced with new modern efficient units.
- TechCity is currently working on plans to bury all electrical power lines into the planned road system

Natural gas capacity of approximately 15 million cubic feet per hour exists within the gas distribution system. A 2005 natural gas project was undertaken at TechCity to replace old IBM owned and maintained distribution gas piping with Central Hudson owned and maintained distribution gas main and services. The Central Hudson 60 pounds per square inch gauge “LP” line provides service to the TechCity site. The gas main is primarily 4” plastic with some 2” high-density polyethylene piping. The gas distribution system allowed for the retirement of the central steam plant and for individual gas.

**e. Telephone and Cable**

The TechCity campus has multiple strands of light & dark fiber, which connect to a central hone & IT room that was utilized by the IBM Corporation. IBM Corporation utilized this system with abundant capacity. Appropriate outside service providers have the ability to connect to this system. Currently, Time Warner, Verizon, Light Tower Fiber and Webjoggers provide service to tenants.

**2. Potential Impacts**

**a. Water Demand**

Water flows for the Comprehensive Design Plan are shown in Table III-18 *Design Plan – Sewer and Water Demand*. The water demand of 145,421 gpd, which includes the existing Bank of America operation on the west campus, for the projected water flows is greater than that allowed by the agreement between TechCity and the Board of Water Commissioners of the City of Kingston. TechCity is allowed to purchase and receive from the Board, its water requirements up to a maximum of 64,000 units of water per year (one “unit” of water is 100 cubic feet, or 748 gallons). This equates to 47,872,000 gallons of water per year, or 131,156 gpd, seven days per week.

Overall, the TechCity facility is projected to operate 5 days per week as general office use is on a five-day week schedule. However, in peak tax periods the Bank of America facility on the West Campus currently operates seven days a week for several months. Industrial and R&D uses typically operate five to six days per week with a seventh day in peak production season. Offices that support industrial and R&D uses typically operate on a five-day workweek but often have support personnel on Saturday and Sunday. Retail and Restaurants are typically a seven-day per week operation. Taking into account the various potential uses at the facility and their weekly and annual schedules, the projected 145,421 gpd figure is reasonable. Therefore, the Comprehensive Design Plan will have impacts on water demand if the anticipated water usage is attained.

**b. Sewer Demand**

A sewer flow of 127,005 gpd for the Comprehensive Design Plan is shown in Table III-18 *Comprehensive Design Plan – Sewer and Water Demand*. In addition, 31,570 gpd can be anticipated from the TechCity West Campus for a total flow of 158,575 gpd. This anticipated flow is less than the available capacity at the USDSTP, which is currently greater than 0.5 MGD. However, the flow is greater than the 150,000 gpd USD reserve daily capacity for TechCity. Therefore, although the USDSTP would be expected to operate within its design capacity and existing New York State SPDES permit limits with construction of the proposed project, it could exceed the reserve daily capacity if the total anticipated flow is attained. In addition, full build out of the remaining USD could result in a wastewater flow above the 1.6 MGD USDSTP capacity.

Table III-18 Comprehensive Design Plan – Sewer and Water Demand							
LAND USE	AMOUNT	UNIT	SEWER DEMAND		WATER DEMAND		
			UNIT FLOW <sup>1</sup>	AVERAGE DAILY FLOW (gpd)	AVERAGE DAILY FLOW <sup>2</sup> (gpd)	ADJUSTED DAILY FLOW (Adjusted to Operation) (gpd)	
<b>East Campus</b>							
Office	472,092	sq. ft.	0.08	gal/sqft	37,767	41,544	31,653
Industrial R&D	1,483	employees	20.00	gal/emp	29,660	32,626	26,023
Office	140,012	sq. ft.	0.08	gal/sqft	11,201	12,321	9,094
Industrial	378	employees	20.00	gal/emp	7,561	8,317	6,634
Sub-Total					18,762	20,638	15,728
Residential	179	bedrooms	120.00	gal/br	21,480	23,628	23,628
Restaurant <sup>3</sup>	400	seats	22.00	gal/seat	8,800	9,680	9,680
Entertainment	1,750	seats	2.40	gal/seat	4,200	4,620	4,620
Retail	79,200	sq. ft.	0.08	gal/sqft	6,336	6,970	6,804
<b>Total East Campus</b>					<b>127,005</b>	139,706	<b>118,135</b>
<b>West Campus</b>							
Office	394,631	sq. ft.	0.08	gal/sqft	31,570	34,728	27,286
<b>Total TechCity</b>					<b>158,575</b>	174,433	<b>145,421</b>

<sup>1</sup> Unit flow values based on NYSDEC Design Standards for Wastewater Treatment Works, pp. 10-12, 1988; and, best engineering projections. 20% has been subtracted from daily flow for use of water savings plumbing fixtures per NYSDEC Design Standards for Wastewater Treatment Works p. 10, 1988. New plumbing fixtures will be low flow, and existing plumbing have been or will be retrofitted with low flow fixtures.

<sup>2</sup> 10% added to NYSDEC Design Standards for Wastewater Treatment Works unit flow rate to obtain water demand flow rate. Additional unit flow assumed not to enter sewer system.

<sup>3</sup> Represents a 50% / 50% blend of Ordinary Restaurant (35 gpd/seat) and Tavern (20 gpd/seat).

Source: Divney-Tung-Schwalbe with Brinnier & Larios Engineering

**c. Storm Sewer Demand**

The redevelopment of the East Campus as envisioned in the Comprehensive Design Plan, will result in the total area of existing impervious surfaces being reduced by 1.4 acres with an associated reduction in stormwater flow. A considerable portion of the parking area will be provided on the slabs of existing buildings thus minimizing the land disturbance associated with the construction of this parking.

Although the Comprehensive Design Plan results in a net decrease in impervious area on the site, New York State Stormwater Management Design Manual standards for redevelopment projects would be applied on the project via following applicable redevelopment project practices, as well as other applicable site engineering stormwater practices and technologies.

Redevelopment of the site that results in the reduction in area of impervious surfaces and application of appropriate site engineering stormwater practices and technologies will be an improvement over the existing site stormwater management that consists solely of collection, conveyance and discharge. Over the course of the redevelopment of the East Campus, storm water quality devices that remove sediment from parking lots such as hydrodynamic separators will be provided at strategic locations to improve the water quality discharged from the East Campus. To the extent determined technically achievable and financially sustainable, the green roofs for new buildings will be explored as a tool for additional management of storm water quality.

As the campus internal road circulation system and surface parking areas are redeveloped the existing storm water mains will be evaluated and as necessary storm water infiltration and exfiltration will be mitigated. In selected areas of the East Campus, pervious paving materials and infiltration gardens and trenches will be utilized to reduce off-site storm water discharge. Such materials and strategies will not be used in areas, which are subject to the plume or could influence its condition. Land disturbance in excess of one acre will be undertaken in accordance with NYSDEC General Permit GP-0-10-001 for redevelopment compliance as defined in Chapter 9 of the NYS Stormwater Management Design Manual.

**d. Electric And Gas Demand**

Extensive information noted previously regarding the existing electric and gas infrastructure and capacity has been supplied by Central Hudson. The existing electric and gas infrastructure and capacity were adequate for the previous use by the IBM Corporation. The Comprehensive Design Plan represents a net decrease in site occupancy from 2,163,638 square feet (SF) to 1,962,804 SF, a 200,834 SF reduction from the previous

occupancy by the IBM Corporation. In addition, several improvements have been made on site as noted previously. Sufficient electric and gas capacity exists for the Comprehensive Design Plan. Therefore, no adverse impacts are anticipated.

**e. Telephone And Cable Demand**

The existing telephone and cable infrastructure and capacity were adequate for the previous use by the IBM Corporation. The Comprehensive Design Plan for the redevelopment of the TechCity East Campus represents a net decrease in site occupancy of 200,834 SF from the previous occupancy by the IBM Corporation. Sufficient telephone and cable capacity exist for the Comprehensive Design Plan. Therefore, no adverse impacts are anticipated.

**3. Potential Mitigation Measures**

**a. Water**

The water demand of 145,421 gpd, which includes the existing Bank of America operation on the west campus, for the Comprehensive Design Plan, is greater than that allowed by the agreement between TechCity and the Board of Water Commissioners of the City of Kingston which equates to 131,156 gpd, seven days per week. There are several available mitigation measures available to address potential capacity issues if they should occur. TechCity could renegotiate the agreement between TechCity and the Board of Water Commissioners of the City of Kingston to allow an increase beyond the 64,000 units per year current agreement cap. TechCity could also pursue additional water from the Town of Ulster Water District. This additional water could be used for supplying specific buildings or specific sections of the complex, but separate from those areas serviced by Kingston Water District (KWD) water. It should be noted that the TechCity complex is located entirely within the Town of Ulster Water District.

The TechCity project could be redeveloped to achieve a similar site build out to that proposed in the Comprehensive Design Plan by purchasing additional water from the Town or allocating flows to less intensive water uses on the east campus via various alternatives. One alternative would be to install all one-bedroom units as opposed to the proposed units that are a combination of one and two bedroom units. Reuse of greywater could be instituted for non-potable uses through greywater reclamation on certain portions of the site where viable, utilizing treatment and separate piping systems which would result in a lower water demand. Finally, ultra-low flow fixtures (e.g. 1.0 gpd flush toilets) or dual flush toilets could be installed on both east and west campus sites to reduce the water flow.

**b. Sewer Demand<sup>10</sup>**

The anticipated sewer demand of 158,575 gpd is less than the available capacity at the USDSTP, which is currently greater than 0.5 MGD, but the flow is greater less than the 150,000 gpd USD reserve daily capacity for TechCity. Although, the USDSTP would be expected to operate within its design capacity and existing New York State SPDES permit limits with construction of the proposed project, it could exceed the reserve daily capacity in the future, and full build out of the remaining USD could result in a wastewater flow above the 1.6 mgd USDSTP capacity.

Similar to water use mitigation measures, there are several available mitigation measures available to address potential capacity issues if they should occur. The Town of Ulster could perform a current build out analysis of the existing USD to determine if additional future flow could be allotted to the TechCity campuses. This would permit TechCity to renegotiate the agreement between TechCity and the Town of Ulster beyond the 150,000 gpd current agreement cap as the cap is approached. The TechCity project could be redeveloped to achieve a similar site build out to that proposed in the Comprehensive Design Plan but allocating flows to less intensive water uses on the east campus. This could include constructing all one- bedroom units as opposed to the proposed units that are a combination of one and two bedroom units. Reuse of greywater could be instituted, as well as installation of ultra-low flow fixtures or dual flush toilets.

It should be reiterated that the USD is currently performing an inflow and infiltration study to target collection system areas for future inflow and infiltration mitigation construction. Through successful mitigation construction significant capacity could be reacquired.

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<sup>10</sup> Wastewater flow analysis presented was performed using the New York State Department of Environmental Conservation Design Standards for Wastewater Treatment Works (1988) and best engineering projections. Water flow analysis presented was performed utilizing a factor of an additional 10% water flow beyond calculated wastewater flows. It should be noted that the flows calculated are based upon conservative design values which may not actually be achieved long term as the various portions of the project are developed thus resulting in a flow which is less than anticipated. The reasons for this could include: lower water impact tenants, water conservation measures, installation of lower flow plumbing fixtures than anticipated, diligence in tracking and repairing of water distribution system and wastewater collection system leaks, etc. It is anticipated that the Town of Ulster and TechCity will actively monitor water use and wastewater production via tracking of these flows on a monthly basis and will meet on an annual basis to review these flows. Therefore, some of the potential mitigation measures proposed for the proposed redevelopment plan such as renegotiating flow agreements, modifying build-out proposals and additional water conservation measures may be found to be unnecessary in the future. As indicated, water flows were calculated based upon a seven (7) day per week operation since water allocation via the City of Kingston and TechCity agreement is based upon an annual allocation. Sewer flows were based upon a five (5) day per week operation since sewer capacity allocation via the Town of Ulster and TechCity agreement is based upon a 30-day calendar day quantity.

**c. Storm Sewer**

Although the redevelopment plan results in a net decrease in impervious area on the site, New York State Stormwater Management Design Manual standards for redevelopment projects would be applied on the project via following applicable redevelopment project practices. Land disturbance in excess of one acre will be undertaken in accordance with NYSDEC General Permit GP-0-10-001 for redevelopment compliance as defined in Chapter 9 of the New York State Stormwater Management Design Manual. Redevelopment of the site that results in the reduction in area of impervious surfaces and application of appropriate site engineering stormwater practices and technologies will be an improvement over the existing site stormwater management that consists solely of collection, conveyance and discharge. The various mitigation measures proposed and/or conceived for the project include storm water quality devices, green roofs, storm water infiltration and exfiltration, pervious paving materials, and infiltration gardens and trenches.

Over the course of the redevelopment of the East Campus, storm water quality devices that remove sediment from parking lots such as hydrodynamic separators will be provided at strategic locations to improve the water quality discharged from the East Campus. To the extent determined technically achievable and financially sustainable, the green roofs for new buildings will be explored as a tool for additional management of storm water quality. As the campus internal road circulation system and surface parking areas are redeveloped, the existing storm water mains will be evaluated, and as necessary, storm water infiltration and exfiltration will be mitigated.

In selected areas of the East Campus, pervious paving materials and infiltration gardens and trenches will be utilized to reduce off-site storm water discharge. Such materials and strategies will not be used in areas which are subject to the existing contamination plume or that could influence its condition. These practices would serve as appropriate mitigation measures.

**d. Electric And Gas Demand**

Sufficient electric and gas capacity exists for the Comprehensive Design Plan. Therefore, no mitigation measures are necessary.

**e. Telephone And Cable**

Sufficient telephone and cable capacity exist for the Comprehensive Design Plan. Therefore, no mitigation measures are necessary.

## **H. Aesthetic Resources**

### **1. Existing Conditions**

The image of the TechCity site is currently that of a developed research/office/manufacturing park. Large-scale multi-story office structures face the “front door” on Enterprise Drive, parking lots and lawns face the two sides, Boices Lane and Old Neighborhood Road, while industrial buildings abut the railroad line at the rear. The site includes appropriate landscaping, especially at the front. The building architecture reflects the style of Post World War II industrial building and also the various functions of the buildings. Large parking lots are visible from many vantage points and create a distinct separation between buildings and surrounding streets, except at the Enterprise Drive entrance.

### **2. Potential Impacts**

The preliminary Comprehensive Design Plan submitted with the application introduces new buildings to replace some of the large parking lots. This design will serve to create a closer relationship between the site and its surroundings and integrate the mixed use into the community as opposed to an isolated facility. Entrances to the new internal street system will provide focal points along the site perimeter.

### **3. Mitigation Measures**

The Comprehensive Design Plan to be submitted as part of the rezoning application will include guidelines for architectural treatment, landscaping, lighting and other elements of the visual environment.

## **I. Historic, Archaeological & Cultural Resources**

### **1. Existing Setting**

A walkover of the project area found no locations where natural occurring rock faces or bedrock outcrops break the surface that would be large enough to permit use as prehistoric rockshelters or windbreaks. Most of the project area is a flat glacial outwash terrace. Previous use of the project area has probably included clear cutting several times, as well as use for hay, corn or pastureland. Based on the walkover and the kind of soils that are found there, it is suggested that the majority of this project area was plowed and used for agricultural purposes in the 17<sup>th</sup> – early 20<sup>th</sup> centuries. The bedrock geology consists of the Lower to Middle Devonian Onondaga Limestone and Ulster Group (Fisher et al. 1970; Lower Hudson Sheet). A thorough walkover of the project area revealed no exposed portions of limestone. Limestone exposures occur about 400-500 feet to the east of the project area and extend from Glenerie almost to Port Ewen.

**a. Prehistoric Archaeological Sites**

A search of the site files at the Office of Parks, Recreation and Historic Preservation (OPRHP), including the New York State Museum's prehistoric site files on May 12, 2009 by Croshier Archaeological Associates located 19 prehistoric sites within a one-mile linear radius of the project area. Additionally, two nearby sites that are located along the Bear Cat Kill, but did not occur in the site files, are included here. These are a sporadic find along Morton Boulevard (Diamond 2008), and a site form submitted c.1976-77 that was never recorded. The former was an isolated find along the Bear Cat Kill, a small stream to the south of the project area. The latter was a garden area, also located along the Bear Cat Kill, which produced numerous projectile points and petaloid blades.

The one-mile radius was evaluated to examine which sites shared the same landforms as the project area, and also to determine how close previous sites had been found. Of the 21 total pre-contact (or prehistoric) sites, six are probably small flake scatters, with no temporally or culturally diagnostic artifacts, representing small activity areas.

Within a one-mile radius are several large sites. One is a quarry, one is a quarry/workshop, and several have been subjected to Phase 2 Evaluations and Phase 3 Mitigations. Of particular note are forms sent in for the Boice Farm, which shares the same landform. None of the sites listed in the site files are within the project area. Slightly to the south of the one-mile radius, but sharing the same soils is the Kingston Armory Site, a large multi-component site, which was subjected to Phase 3 Mitigation in 2007.

**b. Historic Archaeological Sites**

The OPRHP files list one historic archaeological site within a one-mile radius of the project area. This is the Freer's Hotel Midden located by Hartgen Archaeological Associates in 2002.

Three historic maps of the vicinity were consulted to determine if there were any earlier indications of historic structures in the project area. The 1853 Brink and Tillson Map of Ulster County (Map 6 in Appendix F), shows no structures within the project area. The 1875 Beers Map of Ulster County (Map 7 in Appendix F) shows the basic outline of present day Boices Lane with the house of "H.S. Burhans" just to the west of the project area. This was probably destroyed by the construction of IBM in the 1960's. The 1891 Beers Map (Map 8), likewise shows the "Mrs. H. Burhans" structure to the west of the project area.

The closest historic structures were several along the northern side of Old Neighborhood Road. These were investigated on May 24, 2009, and found to have been destroyed, mostly for recent industrial buildings. A graveyard just to the north of Old Neighborhood Road is evident on the 1875 Beers (Map 7 in Appendix F) as a “G Yd”. This is shown again on the 1891 Beers (Map 8 in Appendix F) as a larger dark rectangle. A cursory examination of the graveyard shows its early stones at c.1820, and its latest stones in the 1980’s. Most of the headstones are from local families in the area, many having Dutch surnames.

Because the historic structures north of Old Neighborhood Road have been destroyed, no OPRHP Historic Structure forms have been completed for this project. The areas to the east, west, and south are all either recent commercial buildings or 1960’s houses fronting on Boices Lane.

## **2. Potential Impacts**

### **a. Prehistoric**

A total of 21 pre-contact sites were identified within a one-mile radius of the site. Most of these are on the well-drained soils characterized by the Riverhead series, and a number are small lithic scatters, quarries and workshops to the east of the project area. Based on the frequency of known nearby prehistoric sites occupying similar soils, particularly those south of the project area such as the Kingston Armory Site on Manor Avenue, the project vicinity could be considered as having a high sensitivity to the presence of prehistoric archaeological resources.

### **b. Historic**

Based on an examination of historic maps of the project area, combined with a walkover, the possibility of having encountered buried historic archaeological resources in the majority of the project area is considered very low. There is the possibility of a house being in the northwest corner near Old Neighborhood Road.

## **3. Mitigation Measures**

Since it is possible that the construction activities associated with future redevelopment of the TechCity East Campus could disturb potential prehistoric sites, testing in sensitive and previously undisturbed areas should follow guidelines developed by NYAC and outlined in the OPRHP 1994 *Standards*, as well as the recently produced OPRHP 2005 *Guidelines*.

It should be noted that portions of the existing TechCity East Campus have had severe and deep disturbances, most notably the northeast corner, where

excavations by IBM have in the past dropped parking areas approximately 6 feet below grade, and other locations where entry ramps into buildings were provided with similar excavations.

In other locations, landscaping has dropped original grades approximately 4 feet. These areas need not be tested. In the event further deep excavations area proposed two forms of testing are suggested depending on existing conditions within the TechCity Campus where additional disturbance is proposed.

### **a. Undisturbed Areas**

These are open areas of mowed lawn that have not been impacted either by general earthwork, parking lot construction or sub-surface utility construction activity. These are locations that may be remnant portions of the plowed fields that preceded the IBM complex. Where new construction is proposed involving excavation, it is recommended that hand-excavated, hand-screened shovel tests be placed at 50 foot (15.2m) intervals within the Area of Proposed Effect (APE), a procedure recommended by OPRHP. All excavated soils should be screened through ¼ inch mesh and examined for prehistoric and historic artifacts.

### **b. Previously Disturbed Areas**

Previously disturbed areas, most notably parking lots where there has not been previous earthwork activity or sub-surface utility construction, should be cleared with an excavator down to the interface between parking lot fill and the subsoil in locations where additional disturbance such as for footings and foundations is proposed. This will allow for the inspection and testing of the subsoil for such archaeological features as hearths, earth ovens, storage pits, and post molds. At the Kingston Armory Site on Manor Avenue, approximately 8,300ft or 2530 meters away and on the same landform, Late Archaic occupations were below the plow zone and extended in a stratified fashion to a depth of 60+cm. It is possible that similar buried horizons still exist under the parking lots at TechCity although there has been significant earthwork, utility construction, electrical, communication distribution, storm water and foundation construction as part of the original IBM construction activity.

## J. Noise & Air Quality

### 1. Air Quality

#### a. Existing Conditions (CME)

The project site is located in Ulster County, which is classified as an area that meets the National Ambient Air Quality Standards for carbon monoxide and ozone. New York State collects air quality data for numerous pollutants at monitoring stations in each county through a program operated by the Bureau of Air Quality Surveillance. The data from each monitoring station is recorded and summarized in the *New York State Air Quality Report, Air Monitoring System*. The latest data tables available are for the year 2007. There is one monitoring station located in Ulster County at Belleayre Mountain that monitors sulfur dioxide and ozone. Based on a review of the latest available data this station was in compliance with the three-hour and 24-hour standards for sulfur dioxide in 2007. The station was also in compliance with the one-hour average and 4<sup>th</sup> highest daily maximum 8-hour average for ozone in 2007. The closest station monitoring carbon monoxide is located north of Ulster County in Loudonville, Albany County. This station was in compliance with the one-hour average and running eight-hour average for 2007.

#### b. Potential Impacts

The existing study area, known as the East Campus of TechCity, consists primarily of office and industrial space totaling 2,164,000 SF. The East Campus is serviced by six driveways along Mountain View Court and Boices Lane. Due to existing low occupancy in the Campus, the site currently generates approximately 90 vehicle trips during the PM peak hour. The GEIS outlines a plan to rebuild the East Campus of TechCity. The plan consists of demolition of obsolete buildings, re-use or continued use of some existing buildings, and construction of new buildings. The new development will include a combination of office, industrial, residential, recreational, retail and restaurant type land uses to be spread out over 5 parcels totaling 1,963,000 square feet (SF). The re-development of the East Campus will increase both passenger and heavy vehicle traffic in the study area.

It is not expected that development within the study area will have a regional impact on traffic and therefore will not require a mesoscale analysis. However, potential developments in the study area may require microscale analysis and particulate matter analysis based on the procedures outlined in the New York State Department of Transportation Environmental Procedures Manual (EPM).

The EPM provides a screening methodology for determining the need for a detailed microscale air quality analysis for carbon monoxide. Part of the procedures include screening out from further analysis any signalized intersection operating at an overall level of service C or better. Unsignalized intersections do not typically require a detailed microscale air analysis since the mainline traffic operates at free flow conditions. Based on a review of the results presented in the traffic study prepared for the GEIS, the seven signalized intersections in the study area will operate at an overall LOS C or better under the 2014 and 2029 Build with Improvement conditions (Table 4.1 of the traffic study).

Based on the level of service results, these intersections screen out from requiring a detailed microscale air quality analysis. Therefore, an air quality analysis is not necessary since this project will not increase traffic volumes, reduce source-receptor distances, or change other existing conditions to such a degree as to jeopardize attainment of the National Ambient Air Quality Standards. The traffic study includes an alternative improvement plan with roundabout at six of the study area intersections. It is noted that roundabouts are considered unsignalized intersections and therefore would screen out from requiring a detailed microscale air quality analysis.

There are currently no screening procedures for particulate matter outlined in the EPM. Based on the good levels of service experienced at the study area intersections in the build conditions, it is not expected that particulate matter violations will occur. However, as individual projects develop on the Campus, particulate matter should be addressed during permitting to ensure that the standards are maintained.

**c. Mitigation Measures**

Possible air quality pollution associated with the potential industrial land uses will be regulated through criteria by the New York State Department of Environmental Conservation (NYSDEC) and the United States Environmental Protection Agency (USEPA). Individual applicants will be required to acquire the proper permits and any other requirements from these agencies during the approval process to maintain acceptable operations.

The air quality within the project area may experience short-term impacts due to the construction of individual projects and during construction of roadway mitigation projects. During construction, airborne particulates will increase as construction vehicles in motion raise dust. This increase is expected to be sporadic and short-term in nature and will be most noticeable in the area immediately adjacent to the construction. The impacts should be minimized by the use of dust inhibitors, such as calcium chloride and other dust-control provisions found in the NYSDOT Standard Specifications for construction.

2. Noise

a. Existing Conditions

Noise can be generally defined as unwanted sound in and around our environment. When speaking of noise in relation to sound, any activity may be referred to as *noisy*. Aircraft, neighbors playing loud music, a conversation, a child crying, or traffic can also be considered noise if the receptor (person) does not want to hear the sound. Sound waves contain energy in the form of pressure and are measured along a scale in units called decibels (dB). On this scale, the normal range of human hearing extends from about 0 dB (roughly the sound of a mosquito flying approximately 10 feet away) to about 140 dB. Zero (0) dB is not an absence of sound, and it is possible for people with exceptionally good hearing to hear sounds at -10 dB, however, this is rare and the 0 to 140 dB range is what is used in acoustical (or noise) studies related to human hearing.

Table No. III-19 presents examples of typical noise levels in our environment.

Table No. III-19 Common Noise Levels		
Common Outdoor Noise Levels	Noise Level (dBA)	Common Indoor Noise Levels
Jet Fly over at 1000 Ft.	----- 110 -----	Rock Band
Gas Lawn Mower at 3 Ft.	----- 100 -----	Inside Subway Train (New York)
Heavy Truck @ 50 Ft., (50 mph)	----- 90 -----	Food Blender at 3 Ft.
Noisy Urban (Daytime)	----- 80 -----	Garbage Disposal at 3 Ft. Shouting at 3 Ft.
Gas Lawn mower at 100 Ft.	----- 70 -----	Vacuum Cleaner at 10 Ft.
Commercial Area Heavy Traffic Car 300 Ft.	----- 60 -----	Normal Speech at 3 Ft.
Quiet Urban (Daytime)	----- 50 -----	Large Business Office
Quiet Urban (Nighttime)	----- 40 -----	Dishwasher Next Room
Quiet Suburban (Nighttime)	----- 30 -----	Small Theatre (Background) Library
Quiet Rural (Nighttime)	----- 20 -----	Bedroom at Night Concert Hall (Background)
	----- 10 ----- 0 -----	Broadcast and Recording Studio
		Threshold of Hearing

**Source:**

Noise sources in the project study area include traffic noise associated with US Route 9W, US Route 209/NY Route 199, Enterprise Drive and Boices Lane. Noise from Interstate 87 approximately 0.7 miles west of the project site and the railroad traffic along the east side of the project site also affect the background noise at the project site. It is noted that the constant traffic noise associated with US Route 9W, US Route 209/NY Route 199, Enterprise Drive and Boices Lane, all of which are located less than 2,000 feet from the site, are the dominant noise sources in the project area.

**b. Potential Impacts**

The proposed project includes reoccupation of the East Campus of TechCity, which consists of demolition of obsolete buildings, re-use or continued use of some existing buildings, and construction of new buildings. The new development will include a combination of office, industrial, residential, recreational, retail and restaurant type land uses to be spread out over 5 parcels totaling 1,963,000 square feet (SF) of development. The project site is primarily surrounded by commercial and mixed land uses, with some residential areas to the north of US Route 209 and south of Boices Lane. It is expected that both passenger and heavy vehicle traffic will increase in the study area due to reoccupation of the site, thereby increasing the traffic related noise levels in the project study area.

Traffic noise studies have shown that a 20-25% increase in traffic volumes will result in a 1 dBA increase of noise levels while a 50% increase in traffic can result in a 2 dBA increase. Table 2 quantifies increases in traffic volumes as they relate to traffic noise levels.

<b>Table No. III-20                      Potential Increase in Traffic Noise with Increase in Traffic Volumes</b>	
<b>Traffic Volume Increase</b>	<b>Increase in                      Traffic Noise Level                      (dBA)</b>
0 -25%	0 to 1
26 - 50%	1 to 2
51 - 100%	2 to 3
100 - 200%	3 to 4
200 – 300 %	4 to 5
<b>Source:</b>	

A review of PM peak hour traffic volumes in the study area indicates that the volumes on Boices Lane and Enterprise Drive have the potential to increase by approximately 17% and 40%, respectively, in the 2014 Build conditions when compared to existing volumes. Based on the data in Table 2, traffic increases of this magnitude have the potential to increase noise levels by approximately 0 to 1 dBA on Boices Lane and 1 to 2 dBA on Enterprise Drive through 2014 Build conditions.

A comparison of existing volumes to 2029 Build volumes results in an increase of approximately 35% on Boices Lane, which corresponds to a 1 to 2 dBA increase in noise. Traffic volumes on Enterprise Drive are expected to increase by approximately 57% through 2029 Build conditions, corresponding to a 2 to 3 dBA increase in noise. Data published by the New York Department of Environmental Conservation (NYSDEC) indicates that noise increases of 0 to 3 dBA are not noticeable, while increases of 3 to 5 dBA have the potential for an impact at sensitive locations. NYSDEC, the Federal Highway Administration (FHWA) and NYSDOT consider an increase in traffic noise of 6 dBA a substantial increase and a level where noise impacts may occur. Based on a review of the traffic increases expected with the redevelopment of the East Campus, substantial noise impacts are not expected to occur. However, since the exact uses on the site have not been identified, it is important that the Town require individual land development proposals to address noise impacts during the site plan approval process.

When fully re-developed it is likely that the noise levels experienced will be similar to those when the site was previously developed with 2,164,000 SF of office and industrial space.

### **c. Construction Impacts and Mitigation**

Noise levels are expected to increase during construction activities during land development and the implementation of the traffic related mitigation outlined in the traffic study. It is noted that construction noise is short-term in nature, typically takes place during daylight hours, and may be intermittent depending on the type of operation. Construction activities that may cause noise impacts include earthwork, paving, structure construction, land clearing, and blasting. Exact noise levels due to construction cannot be determined at specific sites since the number and types of construction equipment is unknown at this time. Mitigation measures should be incorporated into the contract documents to reduce the construction noise and perceived disturbances in the project area. Example mitigation strategies for construction include the following:

- Public notification of construction operations.
- Methods to handle to complaints.
- Use of properly designed and well-maintained mufflers for all construction equipment.
- Regular equipment maintenance.

- Placement of equipment and supplies as far away from possible to sensitive receptors.
- Strategic choice of waste disposal sites.
- Time constraints on construction activities.
- Coordinate work during time periods when people will least likely be affected.
- Reduction of backing up procedures for equipment with back-up alarms.

Implementation of these types of mitigation strategies will help reduce the noise impacts during construction in the study area.

DRAFT

#### IV. ALTERNATIVES

Section 617.9(b)(5) of the regulations implementing the New York State Environmental Quality Review Act (SEQRA) requires that a DEIS include a description and evaluation of the range of reasonable alternatives to the proposed action which are feasible, considering the objectives and capabilities of the project sponsor. The range of alternatives must include the “No Action” alternative.

##### **Alternative A - No Action**

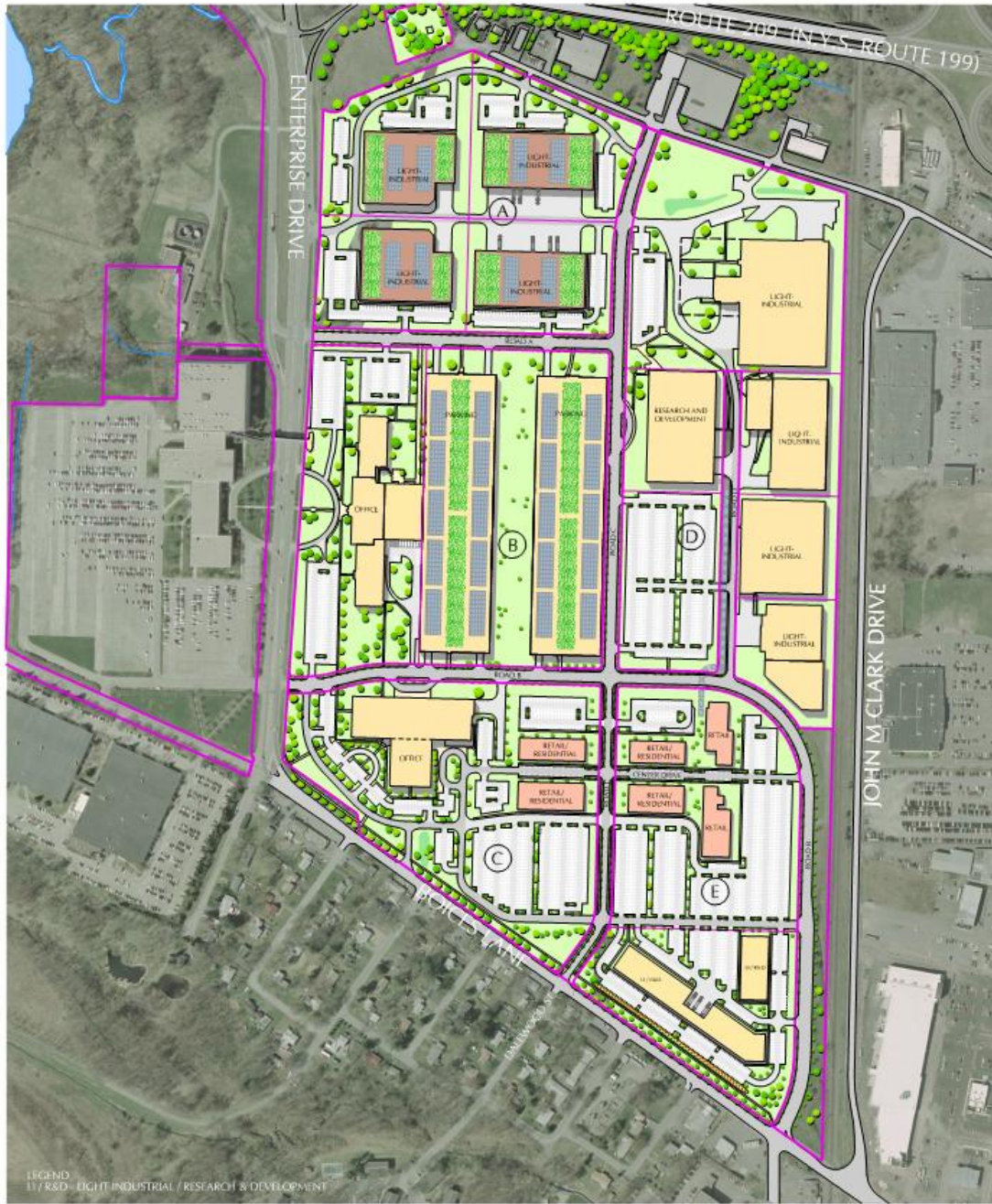
The no action alternative would leave the property in its current condition and depend on re-occupancy of the existing East Campus buildings totaling 2,164,000 square feet (SF), less planned demolition of 288,000 SF of these buildings for a net useable area of 1,876,000 SF. It would be impossible to create the internal street system and enhanced access necessary to market individual sites. Although re-occupancy of the remaining industrial/office buildings within the TechCity East Campus is permitted under the existing Zoning Law subject to Site Plan Review, many of these buildings in this current configuration are either unsuitable or inappropriate for many uses and, therefore, difficult to market. The no action alternative would fail to increase municipal revenues that would result from an increase in real property, mortgage recording and sales tax revenues related to the proposed mixed-use retail, entertainment and multi-family housing development on the project site. The no action alternative would fail to achieve the Town Comprehensive Plan goal of creating a Town Center on the TechCity site through adaptive reuse of the site for mixed-use activities.

##### **Alternative B – Enhanced Boices Lane Frontage**

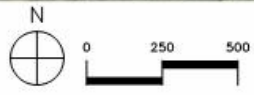
Alternative B will change the intended land use on Parcel E by eliminating the theater use and replacing it with additional Research & Development and/or Light-Industrial space (see Figure Nos. IV-1 and Table IV-1). During preparation of the DGEIS, it ***became apparent that this alternative*** provided more benefits to the Town and was more compatible with the Town’s Comprehensive Plan than the Proposed Action originally submitted. This alternative is more appropriate since the TechCity site is one of the best in Town that is suitable for light-industrial use and has the infrastructure to serve such uses in a manner appropriate with community design considerations.

The following supplemental analysis was conducted to better understand potential environmental impacts associated with the preferred Alternative B. Based upon this analysis, the conclusion was reached that the impacts due to Alternative B are essentially the same as those of the original Comprehensive Design Plan.

Figure No. IV-1



LEGEND  
Light Green - R&D - LIGHT INDUSTRIAL / RESEARCH & DEVELOPMENT



**DIVNEY • TUNG • SCHWALBE**  
Intelligent Land Use

East Campus - Alternative B  
Enhanced Boices Lane Frontage

TECHCITY  
TOWN OF ULSTER, NY

<b>TABLE IV-1 COMPARATIVE FLOOR AREAS</b>						
<b>COMPREHENSIVE DESIGN PLAN (PROPOSED ACTION) SF BY USE BY PARCEL</b>						
<b>Use</b>	<b>Parcel A</b>	<b>Parcel B</b>	<b>Parcel C</b>	<b>Parcel D</b>	<b>Parcel E</b>	<b>Total</b>
Office	0	169,646	302,446	0	0	<b>472,092</b>
Light-Industrial/Flex	320,000	0	0	504,154	0	<b>824,154</b>
R&D	0	0	0	350,030	0	<b>350,030</b>
Restaurant	0	0	0	0	41,728	<b>41,728</b>
Retail	0	0	43,200	0	36,000	<b>79,200</b>
Residential	0	0	86,400	0	67,200	<b>153,600</b>
Cinema	0	0	0	0	42,000	<b>42,000</b>
	<b>320,000</b>	<b>169,646</b>	<b>432,046</b>	<b>854,184</b>	<b>186,928</b>	<b>1,962,804</b>
<b>ALTERNATIVE B SF BY USE BY PARCEL</b>						
<b>Use</b>	<b>Parcel A</b>	<b>Parcel B</b>	<b>Parcel C</b>	<b>Parcel D</b>	<b>Parcel E</b>	<b>Total</b>
Office	0	169,646	302,446	0	0	<b>472,092</b>
Light-Industrial/Flex	320,000	0	0	504,154	0	<b>824,154</b>
R&D	0	0	0	350,030	80,000	<b>430,030</b>
Restaurant	0	0	0	0	41,728	<b>41,728</b>
Retail	0	0	43,200	0	36,000	<b>79,200</b>
Residential	0	0	86,400	0	67,200	<b>153,600</b>
Cinema	0	0	0	0	0	<b>0</b>
	<b>320,000</b>	<b>169,646</b>	<b>432,046</b>	<b>854,184</b>	<b>224,928</b>	<b>2,000,804</b>
<b>Source: TechCity Properties, Inc.</b>						

**1. Potential Impacts of Alternative B****a. Water Demand**

A water demand of 144,396 gpd, which includes the existing Bank of America operation on the west campus, is anticipated from the Alternative Plan. Water flows for the Alternative Plan are shown in *Table IV-2 Alternative Plan – Sewer and Water Demand*. This water demand is greater than that allowed by the agreement between TechCity and the Board of Water Commissioners of the City of Kingston. TechCity is allowed to purchase and receive from the Board, its water requirements up to a maximum of 64,000 units of water per year (one “unit” of water is 100 cubic feet, or 748 gallons). This equates to 47,872,000 gallons of water per year, or 131,156 gpd, seven days per week. Overall, the TechCity facility is projected to operate 5 days per week as general office use is on a five-day week schedule. However, in peak tax periods the Bank of America facility on the West Campus currently operates seven days a week for several months. Industrial and R&D uses typically operate five to six days per week with a seventh day in peak production season. Offices that support industrial and R&D uses typically operate on a five-day workweek but often have support personnel on Saturday and Sunday. Retail and Restaurants are typically a seven-day per week operation. Taking into account the various potential uses at the facility and their weekly and annual schedules, the projected 144,396 gpd figure is reasonable. Therefore, the Comprehensive Design Plan will have impacts on water demand if the anticipated water usage is attained.

**b. Sewer Demand**

Sewer flows of 127,093 gpd for the Alternative Plan are shown in *Table IV-2 Alternative Plan – Sewer and Water Demand*. In addition, 31,570 gpd can be anticipated from the TechCity West Campus for a total flow of 158,663 gpd. This anticipated flow is less than the available capacity at the USDSTP, which is currently greater than 0.5 MGD. However, the flow is greater than the 150,000 gpd USD reserve daily capacity for TechCity. Therefore, although the USDSTP would be expected to operate within its design capacity and existing New York State SPDES permit limits with construction of the proposed project, it could exceed the reserve daily capacity if the total anticipated flow is attained. In addition, full build out of the remaining USD could result in a wastewater flow above the 1.6 MGD USDSTP capacity.

**Table IV-2**  
**Alternative Plan B - Sewer and Water Demand**

LAND USE	AMOUNT	UNIT	SEWER DEMAND		WATER DEMAND		
			UNIT FLOW <sup>1</sup>	AVERAGE DAILY FLOW (gpd)	AVERAGE DAILY FLOW <sup>2</sup> (gpd)	ADJUSTED DAILY FLOW (Adjusted to Operation of Land Uses) (gpd)	
<b>East Campus</b>							
Office	472,092	sq. ft.	0.08	gal/sqft	37,767	41,544	31,653
Industrial R&D	1,483	employees	20.00	gal/emp	29,660	32,626	26,023
Office	172,012	gal/sqft	0.08	gal/sqft	13,761	15,137	11,173
Industrial	464	gal/emp	20.00	gal/emp	9,289	10,218	8,150
Sub-Total					23,050	25,355	19,322
Residential	179	bedrooms	120.00	gal/br	21,480	23,628	23,628
Restaurant <sup>3</sup>	400	seats	22.00	gal/seat	8,800	9,680	9,680
Retail	79,200	sq. ft.	0.08	gal/sqft	6,336	6,970	6,804
<b>Total East Campus</b>					<b>127,093</b>	139,802	<b>117,110</b>
<b>West Campus</b>							
Office	394,631	sq. ft.	0.08	gal/sqft	31,570	34,728	27,286
<b>Total TechCity</b>					<b>158,663</b>	174,530	<b>144,396</b>

<sup>1</sup> Unit flow values based on NYSDEC Design Standards for Wastewater Treatment Works, pp. 10-12, 1988; and, best engineering projections. 20% has been subtracted from daily flow for use of water savings plumbing fixtures per NYSDEC Design Standards for Wastewater Treatment Works p. 10, 1988. New plumbing fixtures will be low flow, and existing plumbing have been or will be retrofitted with low flow fixtures.

<sup>2</sup> 10% added to NYSDEC Design Standards for Wastewater Treatment Works unit flow rate to obtain water demand flow rate. Additional unit flow assumed not to enter sewer system.

<sup>3</sup> Represents a 50% / 50% blend of Ordinary Restaurant (35 gpd/seat) and Tavern (20 gpd/seat).

Source: Divney-Tung-Schwalbe with Brinnier & Larios Engineering

### c. Storm Sewer Demand

The redevelopment of the East Campus as envisioned in the Comprehensive Design Plan, will result in the total area of existing impervious surfaces being reduced by an additional 2.0 acres with an associated reduction in stormwater flow. The Alternative Plan is similar in scope and size to the Comprehensive Design Plan (2.0 acres impervious reduction versus 1.4 acres impervious reduction) from the perspective of stormwater collection, treatment and disposal. Therefore, no mitigation measures beyond those proposed for the Comprehensive Design Plan are necessary.

**d. Electric And Gas Demand**

Sufficient electric and gas capacity exists for the Comprehensive Design Plan. The Alternative Plan is similar in scope and size to the Comprehensive Design Plan from the perspective of electric and gas demand. The Alternative Plan represents a net decrease in site occupancy from 2,163,638 square feet (SF) to 2,000,804 SF, a 162,834 SF reduction from the previous occupancy by the IBM Corporation. Therefore, no mitigation measures are necessary.

**e. Telephone And Cable Demand**

Sufficient telephone and cable capacity exist for both the Alternative Plan and Comprehensive Design Plan. The Alternative Plan represents a net decrease in site occupancy of 162,834 SF from the previous occupancy by the IBM Corporation. Therefore, no mitigation measures are necessary.

**f. Traffic**

The total number of PM peak hour trips generated by the original Comprehensive Design Plan and Alternative B are virtually the same – 1,924 versus 1,939 – a difference of less than 1% (See Table IV-3). Entering trips are 6.8% less and exiting trips are 3.7% greater. These minor differences are within the normal variation of traffic as evidenced by scatter plots in the trip generation manual. It is noted that the New York State Department of Transportation (NYSDOT) guidance on the requirements of a TIS indicate that the addition of less than 100 vehicles per hour per approach will not typically impact traffic operations or require analysis. It is noted that the entire increase in traffic for Alternative B will generate less than a total of 15 new vehicle trips during the PM peak hour for the entire surrounding road network. Therefore, the amount of traffic added to the road network for Alternative B will not result in noticeable changes to the traffic operations reflected in the original traffic study.

## SECTION IV • ALTERNATIVES

TABLE IV-3

## TECH CITY TRIP GENERATION SUMMARY (ORIGINAL)

PARCEL	LAND USE	SIZE (SF)	LAND USE CODE	PM PEAK HOUR		
				ENTER	EXIT	TOTAL
A	Research & Development Space	160,000	760	24	135	159
	Warehousing	160,000	150	13	38	51
B	Office Space	169,646	710	37	181	218
C	Office Space	302,446	710	66	324	390
	Retail Space	43,200	814	51	65	116
	Apartments	72-units 86,400	220	33	18	51
D	Light Industrial	151,246	110	7	52	59
	Warehousing	422,914	150	33	100	133
	Research & Development Space	280,024	760	42	237	279
E	Apartments	56-units 67,200	220	24	13	37
	Recreational Community Center	29,728	495	24	41	65
	Multiplex Movie Theater	10-screens 42,000	445	61	75	136
	Restaurant	12,000	932	82	52	134
	Retail Space	36,000	814	42	54	96
<b>TOTAL TRIPS</b>		<b>1,962,804</b>		<b>539</b>	<b>1,385</b>	<b>1,924</b>

## TECH CITY TRIP GENERATION SUMMARY (ALTERNATIVE B)

PARCEL	LAND USE	SIZE (SF)	LAND USE CODE	PM PEAK HOUR		
				ENTER	EXIT	TOTAL
A	Research & Development Space	160,000	760	23	132	155
	Warehousing	160,000	150	13	38	51
B	Office Space	169,646	710	36	175	211
C	Office Space	302,446	710	82	402	484
	Retail Space	43,200	814	51	65	116
	Apartments	72-units 86,400	220	33	18	51
D	Light Industrial	151,246	110	7	52	59
	Warehousing	422,914	150	33	100	133
	Research & Development Space	280,024	760	40	230	270
E	Apartments	56-units 67,200	220	24	13	37
	Recreational Community Center	29,728	495	24	41	65
	Research & Development Space	80,000	760	12	65	77
	Restaurant	12,000	932	82	52	134
	Retail Space	36,000	814	42	54	96
<b>TOTAL TRIPS</b>		<b>2,000,804</b>		<b>502</b>	<b>1,437</b>	<b>1,939</b>

Source: Creighton Manning Engineers, Shuster Associates

## 2. Potential Mitigation Measures

### a. Water

The water demand of 144,396 gpd, which includes the existing Bank of America operation on the west campus, for the Alternative Plan, is greater than that allowed by the agreement between TechCity and the Board of Water Commissioners of the City of Kingston which equates to 131,156 gpd, seven days per week. There are several available mitigation measures to address potential capacity issues if they should occur. TechCity could renegotiate the agreement between TechCity and the Board of Water Commissioners of the City of Kingston to allow an increase beyond the 64,000 units per year current agreement cap. TechCity could also pursue additional water from the Town of Ulster Water District. This additional water could be used for supplying specific buildings or specific sections of the complex, but separate from those areas serviced by Kingston Water District (KWD) water. It should be noted that the TechCity complex is located entirely within the Town of Ulster Water District.

The TechCity project could be redeveloped to achieve a similar site build out to that proposed in the Alternative Plan but allocating flows to less intensive water uses on the east campus via various alternatives. One alternative would be to install all one-bedroom units as opposed to the proposed units that are a combination of one and two bedroom units. Reuse of greywater could be instituted for non-potable uses through greywater reclamation on certain portions of the site where viable, utilizing treatment and separate piping systems which would result in a lower water demand. Finally, ultra-low flow fixtures (e.g. 1.0 gpd flush toilets) or dual flush toilets could be installed on both east and west campus sites to reduce the water flow.

### b. Sewer Demand

The anticipated sewer demand of 158,663 gpd is less than the available capacity at the USDSTP, which is currently greater than 0.5 MGD, but the flow is greater less than the 150,000 gpd USD reserve daily capacity for TechCity. Although, the USDSTP would be expected to operate within its design capacity and existing New York State SPDES permit limits with construction of the proposed project, it could exceed the reserve daily capacity in the future, and full build out of the remaining USD could result in a wastewater flow above the 1.6 mgd USDSTP capacity.<sup>11</sup>

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<sup>11</sup> Wastewater flow analysis presented was performed using the New York State Department of Environmental Conservation Design Standards for Wastewater Treatment Works (1988) and best engineering projections. Water flow analysis presented was performed utilizing a factor of an additional 10% water flow beyond calculated wastewater flows. It should be noted that the flows calculated are based upon conservative design values which may not actually be achieved long term as the various portions of the project are developed thus resulting in a flow which is less than

Similar to water use mitigation measures, there are several available mitigation measures available to address potential capacity issues if they should occur. The Town of Ulster could perform a current build out analysis of the existing USD. This analysis would determine if additional future flow could be allotted to the TechCity campuses to permit TechCity to renegotiate the agreement between TechCity and the Town of Ulster beyond the 150,000 gpd current agreement cap as the cap is approached. The TechCity project could be redeveloped to achieve a similar site build out to that proposed in the Alternative Plan but allocating flows to less intensive water uses on the east campus. This could include constructing all one-bedroom units as opposed to the proposed units that are a combination of one and two bedroom units. Reuse of greywater could be instituted, as well as installation of ultra-low flow fixtures or dual flush toilets. It should be reiterated that the USD is currently performing an inflow and infiltration study to target collection system areas for future inflow and infiltration mitigation construction. Through successful mitigation construction significant capacity could be reacquired.

**c. Storm Sewer**

Although the alternative plan results in a net decrease in impervious area on the site, New York State Stormwater Management Design Manual (NYSSMDM) standards for redevelopment projects would be applied on the project via following applicable redevelopment project practices. Land disturbance in excess of one acre will be undertaken in accordance with NYSDEC General Permit GP-0-10-001 for redevelopment compliance as defined in Chapter 9 of the NYSSMDM.

Redevelopment of the site that results in the reduction in area of impervious surfaces and application of appropriate site engineering stormwater practices and technologies will be an improvement over the existing site stormwater management that consists solely of collection, conveyance and discharge. The various mitigation measures proposed and/or conceived for the project include storm water quality devices, green roofs, storm water infiltration and exfiltration, pervious paving materials, and infiltration gardens and trenches.

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anticipated. The reasons for this could include: lower water impact tenants, water conservation measures, installation of lower flow plumbing fixtures than anticipated, diligence in tracking and repairing of water distribution system and wastewater collection system leaks, etc. It is anticipated that the Town of Ulster and TechCity will actively monitor water use and wastewater production via tracking of these flows on a monthly basis and will meet on an annual basis to review these flows. Therefore, some of the potential mitigation measures proposed for the Alternative Plan such as renegotiating flow agreements, modifying build-out proposals and additional water conservation measures may be found to be unnecessary in the future. As indicated, water flows were calculated based upon a seven (7) day per week operation since water allocation via the City of Kingston and TechCity agreement is based upon an annual allocation. Sewer flows were based upon a five (5) day per week operation since sewer capacity allocation via the Town of Ulster and TechCity agreement is based upon a 30-day calendar day quantity.

Over the course of the redevelopment of the East Campus, storm water quality devices that remove sediment from parking lots such as hydrodynamic separators will be provided at strategic locations to improve the water quality discharged from the East Campus. To the extent determined technically achievable and financially sustainable, the green roofs for new buildings will be explored as a tool for additional management of storm water quality. As the campus internal road circulation system and surface parking areas are redeveloped the existing storm water mains will be evaluated, and as necessary, storm water infiltration and exfiltration will be mitigated.

In selected areas of the East Campus, pervious paving materials and infiltration gardens and trenches will be utilized to reduce off-site storm water discharge. Such materials and strategies will not be used in areas which are subject to the existing contamination plume or that could influence its condition. These practices would serve as appropriate mitigation measures.

**d. Electric and Gas Demand**

Similar to the Comprehensive Design Plan, sufficient electric and gas capacity exists for the Alternative Plan. Therefore, no mitigation measures are necessary.

**e. Telephone and Cable**

Similar to the Comprehensive Design Plan, sufficient telephone and cable capacity exist for the Alternative Plan. Therefore, no mitigation measures are necessary.

**f. Traffic**

No mitigation is required beyond that identified in Section III.

**V. ADVERSE IMPACTS THAT CANNOT BE AVOIDED**

It is anticipated that the development of TechCity site will have some impacts on the environment that cannot be avoided. Many of these are short-term impacts that will occur primarily during construction phases. Other long-term environmental impacts may arise from the alteration of existing site conditions and are an unavoidable consequence of the land development process. However, it must be recognized that the site was previously used by IBM many years at an intensity greater than now proposed.

The impacts that cannot be avoided are identified below:

**Topography and Slope:** Although the site is fairly level, some topography and slope will be irreversibly altered as a result of construction and is an unavoidable impact. Short-term potential impacts resulting from site grading will be minimized and/or eliminated through proper erosion and sediment control techniques, as well as best management practices (BMPs) during and after construction.

**Soils and Geology:** Disturbance to soils and geology is an unavoidable impact as a result of construction. However, the extent of these potential impacts can be minimized and/or eliminated through proper erosion and sediment control techniques, as well as best management practices during and after construction.

**Hydrogeology:** Continued monitoring and development of groundwater remediation technologies will be pursued to complete groundwater clean up and minimize adverse impacts.

**Surface Water Resources and Stormwater Management:** Minor alteration of stormwater runoff patterns is an unavoidable impact of construction. However, there will be no increase as a result of new impervious areas. With a conveyance system and a network of treatment devices including wet ponds and detention ponds, runoff will be captured and treated. The implementation of BMPs, and adherence to *Stormwater Pollution Prevention Plans* will mitigate any potential impacts and will not result in off-site impacts.

**Cultural Resources:** Phase 2 and/or Phase 3 Data Recovery Plans will be developed in consultation with OPRHP, if deemed necessary, based on investigation of individual sites prior to construction.

**Land Use and Zoning:** No unavoidable adverse impacts are anticipated.

**Visual Character:** Some change in visual character is an unavoidable impact, although the character of the single use industrial site will be made more compatible with the adjacent land uses.

**Traffic:** Re-occupancy of the TechCity site will generate an increase in traffic by employees and service vehicles on adjacent streets. Such traffic is an unavoidable

result of increased economic activity on the site but the impacts will be mitigated to the maximum extent practicable by the measures discussed in Section III hereof.

**Noise:** Construction related noise is an unavoidable adverse impact of development; however, construction related noise is short-term in duration and will be limited to certain hours. Additional mitigation measures as identified in Section III of the DEIS will be implemented to further reduce any potential noise impacts associated with the development of the site.

**Air:** The potential for emissions from construction vehicle exhaust is an unavoidable adverse impact but will be reduced by proper maintenance of engines and air pollution controls.

**Utilities:** The project will result in an unavoidable increase in water usage, as well as the amount of treated wastewater discharged, as compared to the present under utilized state of the site. However, water utilization will actually be less than the site generated at previous full occupancy.

**Community Services:** The project will result in an unavoidable increase in solid waste and recyclable material generated at the site in its present state. The increase in sold waste generated by the development will be minimized through recycling efforts. A small increase in demand to police, fire and EMS services will result.

**Fiscal Conditions:** Development will result in significantly increased revenues and no unavoidable adverse impacts were identified.

**Energy Consumption:** Development will result in an unavoidable increase in energy usage, specifically electricity, natural gas, and heating fuels over current usage in the site's significantly unoccupied state. Electrical energy is undoubtedly the primary source of energy consumption and a broad variety of energy conservation strategies will be employed. However, Central Hudson has sufficient energy supplies and the provision of energy to the local area will not be adversely affected.

**VI. GROWTH INDUCING IMPACTS**

The purpose of this GEIS is to provide a vehicle to encourage and facilitate renewed economic activity at this presently under-utilized site, which is served by adequate infrastructure designed for such use. Upon complete re-occupancy under the proposed development program, the floor area and employment will be significantly less than during the site's previous full occupancy.

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**VII. CONSERVATION OF ENERGY****A. Reuse Of Existing Structures**

The reuse of 87% of the existing buildings comprising 1,876,000 SF will significantly diminish the natural resources required to construct new buildings to provide for future business and employment on the property. Substantial transportation energy consumption and cost to manufacture and deliver materials for new buildings is eliminated enabling a substantial portion of the site to begin tenant preparation work on an immediate cost effective and sustainable basis. The impact on local and regional landfills is diminished and with careful planning the steel in the few existing structures to be demolished can be sold for salvage. The limited demolition activity provides for an improved business environment for the existing tenants and the adjacent community with less noise, dust and truck traffic normally associated with major demolition activities.

**B. Building Mechanical, Electrical And Plumbing (MEP) Systems**

The renovation of existing buildings and the construction of new buildings will follow a high standard of sustainable design consistent with strategies involved in achieving a LEED Certification level of sustainability. All new building lighting will be of improved efficiency and controlled so that unoccupied spaces and those with adequate daylight will not use powered lighting unnecessarily. Exterior wall and roof insulation will be supplemented to increase the thermal efficiency of the building envelopes. To the extent possible with the current window wall the design of interior spaces will maximize the use of natural daylight for occupied spaces. Plumbing systems will be retrofitted to provide for new and more efficient fixtures to reduce the consumption of water on the site. Building heating and air conditioning systems will be retrofitted to provide for efficient air handling equipment and controls to limit the amount of outside air requiring heating and cooling based upon actual building occupancy.

**C. Recycling Program**

TechCity will administer a site-wide recycling program as well as in each building. Paper, cardboard, bottle and cans will have designated areas in each building set aside for the storage and retrieval of these products. On a regular basis these recycled materials will be collected and sent to appropriate facilities. As the site is redeveloped, areas of existing pavement, which are reconstructed, will be recycled to the extent possible to reuse the materials as part of new pavement operations.

**D. Solar Energy**

The unique building design of the existing one-story rectangular industrial buildings with their extensive roof area makes them ideal candidates for either green roofs or solar panel arrays or, subject to structural consideration, both. Converting two of these buildings to indoor parking will result in a 558,000

SF roof substantially free of mechanical equipment that can accommodate solar panel with the capacity to generate electric power for use on the site or returning to the grid. An elevated pipe rack structure over 500 feet in length is located along the service road to the eastern industrial buildings. Originally constructed to provide utility services to the IBM manufacturing operations, this pipe rack structure is no longer required. It has a design that is well-positioned and oriented to also provide the structural support for additional solar panel arrays which can become the initial step in bringing solar energy to the site.

The openness of the site and the absence of tall buildings around the perimeter will maximize the unobstructed transmission of the sun's rays to the site. Each proposed location of the solar panels is either directly above or adjacent to buildings, enabling the power generated to be used by the adjacent buildings or returned to the power grid. As energy storage mediums become more advanced, excess power generated in daylight hours can be stored for evening use for site roadway and parking lighting, garage lighting and standby power for critical site functions. The deployment of solar panels will be subject to the availability of grants and incentives to enable these important initiatives to compete with conventional energy systems.

### **E. Green Roofs**

The presence of existing building with substantial flat roof areas provides a unique opportunity to retrofit certain of these buildings with green roofs to reduce the surface temperature of the roofs, where they can be supported by the existing structural system. In the case of the buildings being converted to indoor parking this will provide for improved summer comfort in these building with out the need for mechanical ventilation. In the case of new industrial buildings constructed in the northern portion of the site these new roofs will also reduce the mechanical ventilation and cooling requirements for these new buildings making them more energy efficient.

The conversion of the Buildings 1 and 3 North and South and 3 North and South to indoor parking is a potential candidate for green roofs in that they require limited mechanical system which often clutter roofs and are both unsightly to adjacent building occupants but the diminish the extent of roof area available for an effective green roof vegetation program. The structural capacity of the building roofs will be evaluated to determine the extent to which they can accommodate the green roof elements. New buildings are candidates for green roofs in that the required structural capacity can be part of the original design and the marginal cost for increased roof is modest. The green roof will have both a storm water detention benefit but effectively diminish the amount of impervious are on the site reducing peak storm water flows and absorbing pollutants.

## VIII. IRREVOCABLE COMMITMENT OF RESOURCES

All types of development result in short-term and long-term losses of environmental resources. Human development creates potential impacts on natural resources that are considered irreversible, and these potential impacts result in losses that are irretrievable. Since this site is already developed and was previously occupied at a higher level in the past, such losses will be minimal.

Upon completion of development, additional land will be committed to buildings, parking areas, and landscaped areas. Some existing soils will be altered and replaced with paving, while other areas will be reclaimed with landscaping.

Resources consumed during construction will be committed for the life of the project. Such resources include fossil fuels, electricity, and construction materials. In addition, non-renewable fossil fuels will be irretrievably lost during construction through the use of gasoline and diesel powered construction equipment. Commitments will also be made for the use of renewable and/or recyclable resources such as construction and building materials including timber, copper, ductile iron, concrete, and glass. The need for construction jobs will require temporary commitment of labor resources. Development causes the short-term and long-term loss of environmental resources, and creates potential impacts on natural resources that are considered irreversible, and these potential impacts result in losses that are irretrievable. The following measures will be implemented to reduce the loss of resources.

- Recycled materials will be utilized to the greatest extent possible to reduce the use of raw materials and divert material from landfills.
- Local and regional materials will be utilized to the greatest extent possible.
- Use of energy and water will be monitored during construction.
- Construction waste management and recycling will be implemented.
- Energy-efficient equipment will be utilized.

**IX. SOURCES**

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# **DRAFT GENERIC ENVIRONMENTAL IMPACT STATEMENT**

## **TEHCITY EAST CAMPUS TOWN OF ULSTER ULSTER COUNTY, NY**

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### **VOLUME II – APPENDICES A-H**

**LEAD AGENCY:** TOWN OF ULSTER TOWN BOARD  
ONE TOWN HALL DRIVE  
LAKE KATRINE, NY 12449

**CONTACT PERSON:** HON. JAMES E. QUIGLEY 3<sup>RD</sup>, SUPERVISOR

**SEQRA CLASSIFICATION:** TYPE 1 ACTION

**APPLICANT:** TECHCITY PROPERTIES, INC.  
300 ENTERPRISE DRIVE  
KINGSTON, NY 12401

**AGENCY ACCEPTANCE DATE:**

**PUBLIC HEARING DATE:**

**END OF PUBLIC COMMENT:**

## APPENDICES

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**APPENDIX A**  
**REDEVELOPMENT OVERLAY DISTRICT**

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**APPENDIX B**  
**INTERESTED AND INVOLVED AGENCY LIST**

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## **Involved And Interested Agencies And Required Permits And Approvals**

The following permits and approvals will be required to achieve the initial actions described above or for subsequent site-specific actions to implement the development program.

### **1. Involved Agencies**

#### **a. Town of Ulster Town Board**

- Establishment of Redevelopment Overlay District (ROD) and amendment of Zoning Map
- Approval of specific site plans

#### **b. Town of Ulster Planning Board**

- Approval of subdivisions

#### **c. New York State Department of Environmental Conservation**

- SPDES Permit
- Phase 1 RCRA Permit Modification

#### **d. Ulster County Department of Public Works**

- Highway access approval

### **2. Interested Agencies**

Other agencies that will not grant permits or approvals but have an interest in the project include:

#### **a. Town of Ulster**

- (1) Building Department
- (2) Sewer Department
- (3) Water Department
- (4) Ulster Hose Company #5

#### **b. Ulster County**

- (1) Planning Department

#### **c. State, Regional Agencies and Local Agencies**

- (1) New York State Department of Transportation
- (2) Hudson River Valley Greenway
- (3) City of Kingston Water Department

**APPENDIX C**  
**SEQRA DOCUMENTATION**  
FINAL SCOPE  
FULL EAF PART 1 & 2

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**APPENDIX D  
CORRESPONDENCE**

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**APPENDIX E  
SPDES DISCHARGE PERMIT  
FOR ULSTER WWTP**

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**APPENDIX F**  
**PHASE 1A – ARCHEOLOGICAL STUDY**  
**BY JOE DIAMOND**

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**APPENDIX G  
TRAFFIC STUDY  
BY  
CREIGHTON MANNING ENGINEERING**

DRAFT