

ENVIRONMENTAL IMPACT EVALUATION

*Prepared in accordance with the
Connecticut Environmental Policy Act*

South Windsor Interstate 291 Gateway Zone *South Windsor, Connecticut*

MAY, 2007



Sponsoring Agency:

State of Connecticut

*Department of Economic and Community
Development*



Prepared by:
Baystate Environmental Consultants, Inc.

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LIST OF ABBREVIATIONS

AHS	American Historical Society
a.k.a.	Also known as
AOCs	Areas of Concern
AST	Above ground storage tank
ASTM	American Society for Testing and Materials
ATR	Automatic Traffic Recorder
ATVs	All-terrain vehicles
BG	Billion gallons
BMP	Best Management Practice
CAA	Clean Air Act
CAS	Connecticut Archaeological Survey, Inc.
CD	I-291 Corridor Development Zoning District
C&D Plan	State Plan of Conservation and Development
CDM	Camp, Dresser & McKee
CEPA	Connecticut Environmental Policy Act
CEQ	Council on Environmental Quality
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
CONRAIL	Connecticut Railroad
CFR	Code of Federal Regulations
CGS	Connecticut General Statutes
CL&P	Connecticut Light and Power
CO	Carbon monoxide
ConnDOT	Connecticut Department of Transportation
CPWR	Center to Protect Worker's Rights
CRA	Conestoga-Rovers & Associates
CRRA	Connecticut Resources Recovery Authority
CT	Connecticut
CWA	Clean Water Act
dB	Decibel
dba	A-weighted decibel
DECD	Connecticut Department of Economic and Community Development
DEP	Connecticut Department of Environmental Protection
Detrex	Detrex Chemical Industries, Inc.
DOA	Determination of Adequacy
DPW	Connecticut Department of Public Works
EB	Eastbound
ECD	Economic Classification Document
EGIC	Environmental and Geographic Information Center
EIE	Environmental Impact Evaluation
EPA	Environmental Protection Agency
ERM	Environmental Resources Management
FIRM	Flood Insurance Rate Map
FTE	Full time equivalents

GIS	Geographic Information System
GPD	Gallons per day
GPS	Global Positioning System
GWPC	Groundwater Protection Criterion
I-84	Interstate 84
I-91	Interstate 91
I-291	Interstate 291
ICU	Intersection Capacity Utilization
IPA	Isopropylamine
IPM	Integrated Pest Management
ITE	Institute of Transportation Engineers
IWA/CC	Inland Wetlands Agency/Conservation Commission
IWRD	Inland Water Resources Division
LDF	Land Disposal Facilities
LEED	Leadership in Energy and Environmental Design
LMA	Hartford Labor Market Area
LOS	Level of Service
LUST	Leaking underground storage tank
MDC	Metropolitan District
MGD	Million gallons per day
MLE	Modified Ludzack-Ettinger
mph	miles per hour
msl	Mean sea level
NAAQS	National Ambient Air Quality Standards
NB	Northbound
ND	Non-detect
NDDB	National Diversity Data Base
NEEP	New England Economic Partnership
NO ₂	Nitrogen dioxide
NO _x	Nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRC	National Response Center
NRCS	Natural Resource Conservation Service
O ₃	Ozone
OPM	Office of Policy and Management
OSA	Office of State Archaeology
PAMS	Photochemical Assessment Monitoring Station
PAST	Public Archaeology Survey Team, Inc.
Pb	Lead
PCE	Tetrachloroethene
PGP	Programmatic General Permit
PID	Photoionization detector
PM _{2.5}	Particulate matter with a diameter of 2.5 microns or less
PM ₁₀	Particulate matter with a diameter of 10 microns or less
PPE	Personal protective equipment

PSAP	Public safety answering point
PZC	Planning and Zoning Commission
RAP	Remedial Action Plan
RCP	Reinforced concrete pipe
RCRA	Resource Conservation and Recovery Act
RCSA	Regulations of Connecticut State Agencies
RIMSII	Regional Input-Output Modeling System
ROD	Record of Decision
ROW	Right-of-Way
RR	Rural Residential (Zoning District)
RROZ	Rural Residential/I-291 Overlay Zone
SB	Southbound
SCS	Soil Conservation Service
sf	Square feet
SHPO	State Historic Preservation Office
SO ₂	Sulfur dioxide
SQG	Small Quantity Generator
STC	State Traffic Commission
STEAP	State Small Town Economic Assistance
SWPC	Surface Water Protection Criterion
SWPCP	Storm Water Pollution Control Plan
1,1,1-TCA	1,1,1-Trichloroethane
TCE	Trichloroethene
TOSW	Town of South Windsor
TRB	Transportation Research Board
TSD	Treatment, Storage and Disposal
TSS	Total suspended solids
USACE	United States Army Corps of Engineers
USC	United States Code
USDA	United States Department of Agriculture
US F&W	United States Fish and Wildlife Service
USGS	United States Geologic Survey
US GSA	United States General Services Administration
UST	Underground Storage Tank
UV	Ultraviolet
VOCs	Volatile organic compounds
VC	Volatilization Criterion
vpd	Vehicles per day
WB	Westbound
WPCA	Water Pollution Control Authority
WPCF	Water Pollution Control Facility
ZIRO	Zero net increase in peak stormwater runoff

EXECUTIVE SUMMARY

Project Name: South Windsor Interstate 291 Gateway Zone Environmental Impact Evaluation

Location: South Windsor, CT

Sponsoring Agency: Connecticut Department of Economic and Community Development

Date: May, 2007

INTRODUCTION

The Connecticut Department of Economic and Community Development (DECD) is proposing to provide State funding for infrastructure improvements to the Town of South Windsor for the Interstate 291 (I-291) Gateway Zone, an area targeted for mixed industrial and commercial development adjacent to I-291, Route 5 (John Fitch Boulevard) and Route 30 (Ellington Road). The Town will receive State Small Town Economic Assistance (STEAP) grant monies to fund the proposed project.

This Environmental Impact Evaluation (EIE) has been prepared in accordance with the Connecticut Environmental Policy Act (CEPA), as promulgated under Section 22a-1 to 22a-1h of the Connecticut General Statutes (CGS) and as amended by Public Act 02-121. An EIE is required because the Proposed Action involves over \$500,000 in State funding.

On December 6, 2005, the CEPA process was initiated by the placement of a Notice of Scoping in the *Environmental Monitor*, a web site administered by the Connecticut Council on Environmental Quality (CEQ). The purpose of the notice was to inform and solicit comments from agency reviewers and other interested parties of the Proposed Action. A thirty day comment period was specified and the Connecticut Department of Environmental Protection (DEP) provided commentary. A copy of the Notice of Scoping and written comments that were received during the scoping process are included in Appendix A of this EIE.

DESCRIPTION OF THE PROPOSED ACTION

The Proposed Action is the provision of infrastructure improvements to the 164±-acre I-291 Gateway Zone. The infrastructure improvement may include one or more of the following: sanitary sewer, water, stormwater, electrical, telecommunications, roadways, and rail spurs.

Secondary actions which are triggered by the Proposed Action are also identified and evaluated in the EIE, because CEPA requires the evaluation of secondary (a.k.a. indirect) impacts of the Proposed Action. Therefore, the development of the I-291 Gateway Zone has also been evaluated in this document.

Figure ES-1 illustrates the preferred alternative (Alternative 1), depicting a potential development scenario for the site with proposed utility connection locations.

Approximately 812,000 square feet (sf) of development could be accommodated onsite while protecting sensitive environmental resources (i.e., tiger beetle and brown thrasher habitat, wetland/vernal pool complex) through conservation easements or other similar legal mechanisms. Impact to tiger beetle habitat could also be mitigated through the purchase of suitable property offsite for conversion to tiger beetle habitat.

A small (4.5±-acre) area that supported a probable breeding pair of grasshopper sparrow (a State Endangered Species) is present in Development Area B-2, which is depicted on Figure ES-1. Their presence in this relatively small patch (typically, grasshopper sparrow they require a 30-acre grassland area) is unusual and it is possible that they are not consistent breeders on this site, given its suboptimal characteristics. Additional summer surveys would need to be conducted to determine if the site consistently supports grasshopper sparrow.

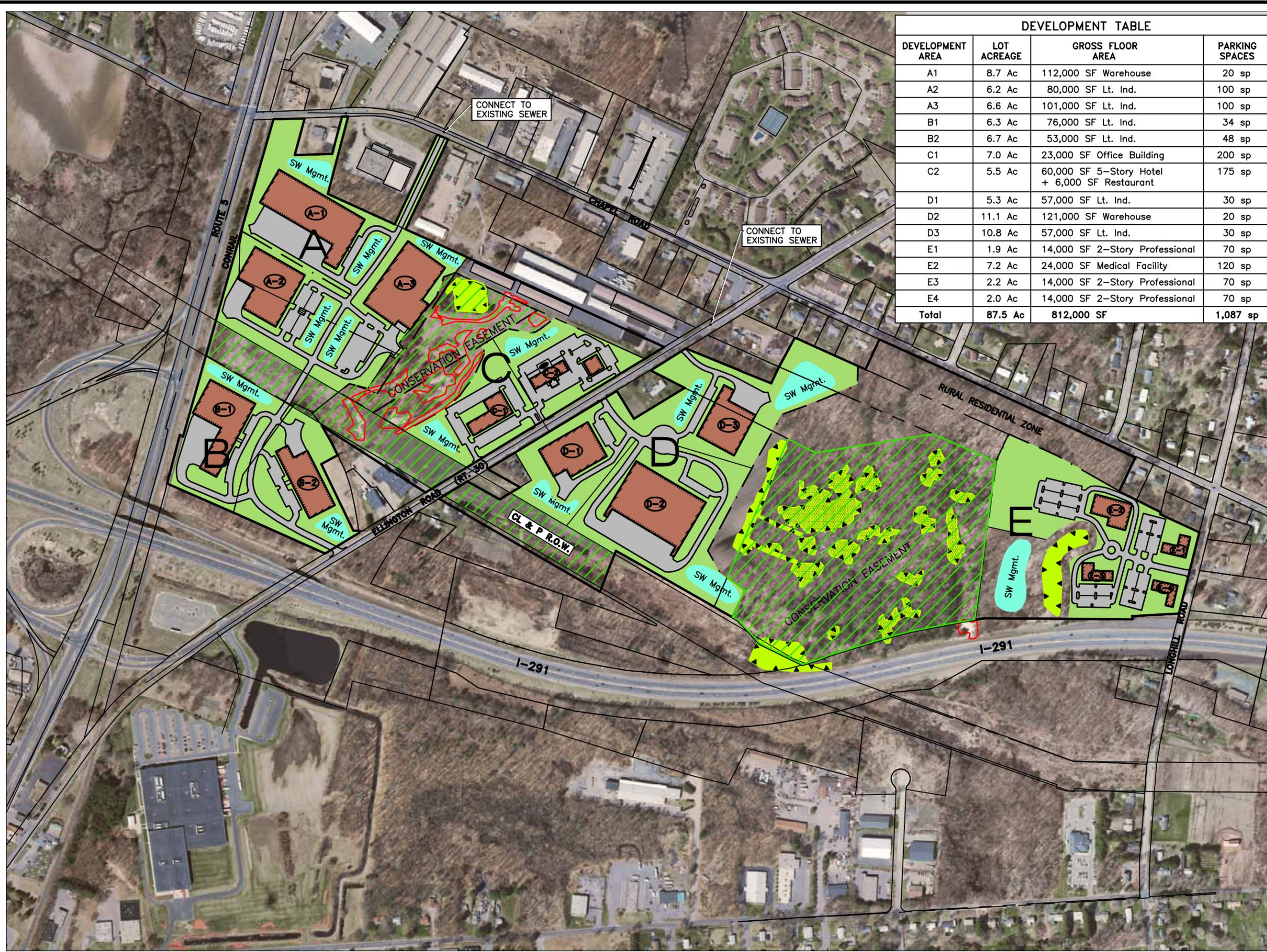
If future surveys confirm the grasshopper sparrow's presence, then offsite mitigation may be required. The Town would coordinate with DEP on a plan to either enhance existing Town-owned open space to support larger populations of grassland birds, including grasshopper sparrow; or purchase existing private property and manage the property for grassland habitat in perpetuity. Another mitigation alternative for the grasshopper sparrow would be to contribute to the new DEP Grassland Habitat Initiative program.

PURPOSE AND NEED

The purpose of the Proposed Action is to provide the infrastructure support necessary for the future development of a 164±-acre area of South Windsor, known as the I-291 Gateway Zone. In order for development to occur, extensions of existing water, sanitary sewer, gas and electrical/telecommunications utilities are required. Also, internal and external roadway improvements and site stormwater management systems would be required to meet the needs of the proposed development.

The I-291 Gateway Zone is strategically located near I-291, Route 5, the Connecticut Railroad (CONRAIL) line and Bradley International Airport. As a result, the I-291 Gateway Zone has been targeted by the Town for economic development since the planning and design of the I-291 extension. But since that time, only one development has occurred within the I-291 Gateway Zone, which was accomplished without State financial assistance. The lack of economic development in an area with such excellent visibility and location has been due, in part, to the lack of available basic infrastructure (sanitary sewer and water, primarily), as well as the multiple-owner status of the I-291 Gateway Zone.

The Proposed Action has the potential to stimulate economic development. An economic impact analysis was conducted as part of this EIE (see Section 3.3.3). The study estimated that the construction would generate \$121.8± million in total state and regional economic output, \$31.7± million in earnings, and 685± construction jobs. Once the



DEVELOPMENT TABLE			
DEVELOPMENT AREA	LOT ACREAGE	GROSS FLOOR AREA	PARKING SPACES
A1	8.7 Ac	112,000 SF Warehouse	20 sp
A2	6.2 Ac	80,000 SF Lt. Ind.	100 sp
A3	6.6 Ac	101,000 SF Lt. Ind.	100 sp
B1	6.3 Ac	76,000 SF Lt. Ind.	34 sp
B2	6.7 Ac	53,000 SF Lt. Ind.	48 sp
C1	7.0 Ac	23,000 SF Office Building	200 sp
C2	5.5 Ac	60,000 SF 5-Story Hotel + 6,000 SF Restaurant	175 sp
D1	5.3 Ac	57,000 SF Lt. Ind.	30 sp
D2	11.1 Ac	121,000 SF Warehouse	20 sp
D3	10.8 Ac	57,000 SF Lt. Ind.	30 sp
E1	1.9 Ac	14,000 SF 2-Story Professional	70 sp
E2	7.2 Ac	24,000 SF Medical Facility	120 sp
E3	2.2 Ac	14,000 SF 2-Story Professional	70 sp
E4	2.0 Ac	14,000 SF 2-Story Professional	70 sp
Total	87.5 Ac	812,000 SF	1,087 sp

N

LEGEND

-  POTENTIAL EASEMENT AREA
-  PROJECT AREA
-  EXISTING PROPERTY BOUNDARIES (APPROX.)
-  PROPOSED PROPERTY BOUNDARIES (APPROX.)
-  DEVELOPMENT AREA
-  LOT DESIGNATION
-  TIGER BEETLE HABITAT
-  WETLAND/WATERCOURSE
-  POTENTIAL VERNAL POOL

NOTE: THIS PLAN IS CONCEPTUAL AND FOR PLANNING PURPOSES ONLY. IT WAS DEVELOPED TO DEPICT A POSSIBLE SCENARIO IN THE MDP PROJECT AREA THAT COULD BE ACHIEVED GIVEN EXISTING PHYSICAL AND ENVIRONMENTAL CONSTRAINTS, ZONING PARAMETERS AND REAL ESTATE MARKET CONDITIONS.

NOT FOR DISTRIBUTION

Aerial Photograph: SBC

**SOUTH WINDSOR
I-291 GATEWAY ZONE
ENVIRONMENTAL IMPACT EVALUATION**

SCALE: 1" = 500'
DATE: OCT 2006

**FIGURE ES-1
PREFERRED ALTERNATIVE 1**

DEC BAYSTATE ENVIRONMENTAL CONSULTANTS INC.
Civil Engineers Environmental Scientists
296 North Main Street 290 Roberts Street, Suite 207
East Longmeadow, MA 01028 East Hartford, CT 06108

development was fully operational, there would be 1,970± full time equivalent jobs created, \$90.6± million in total annual earnings and \$154.2± million in total annual economic output.

ALTERNATIVES CONSIDERED

The alternatives considered in this EIE include the No-Build Alternative and two general site development scenarios. The No-Build alternative would involve no provision of state funding for infrastructure extensions to the I-291 Gateway Zone. This would severely limit development in the project area, as the lack of infrastructure to the area has impeded development. The No-Build alternative would result in a loss of approximately \$1.7 million in potential tax revenue to the Town of South Windsor.

Under the No-Build alternative, the site would remain as-is (a mixture of abandoned drive-in theater, cropland, forest, wetland, and shrub/scrub land). With no utility connections, the site could support agricultural use and sporadic, relatively small-scale light industrial or commercial uses that could function with well water and septic systems.

The development of alternatives for the Proposed Action is inherently linked to the layout and configuration of specific development projects for the site. At this time, no specific development plans have been identified. Therefore, a site planning exercise was conducted in order to devise a potential development scenario that would serve as the basis for the impact analyses in this EIE.

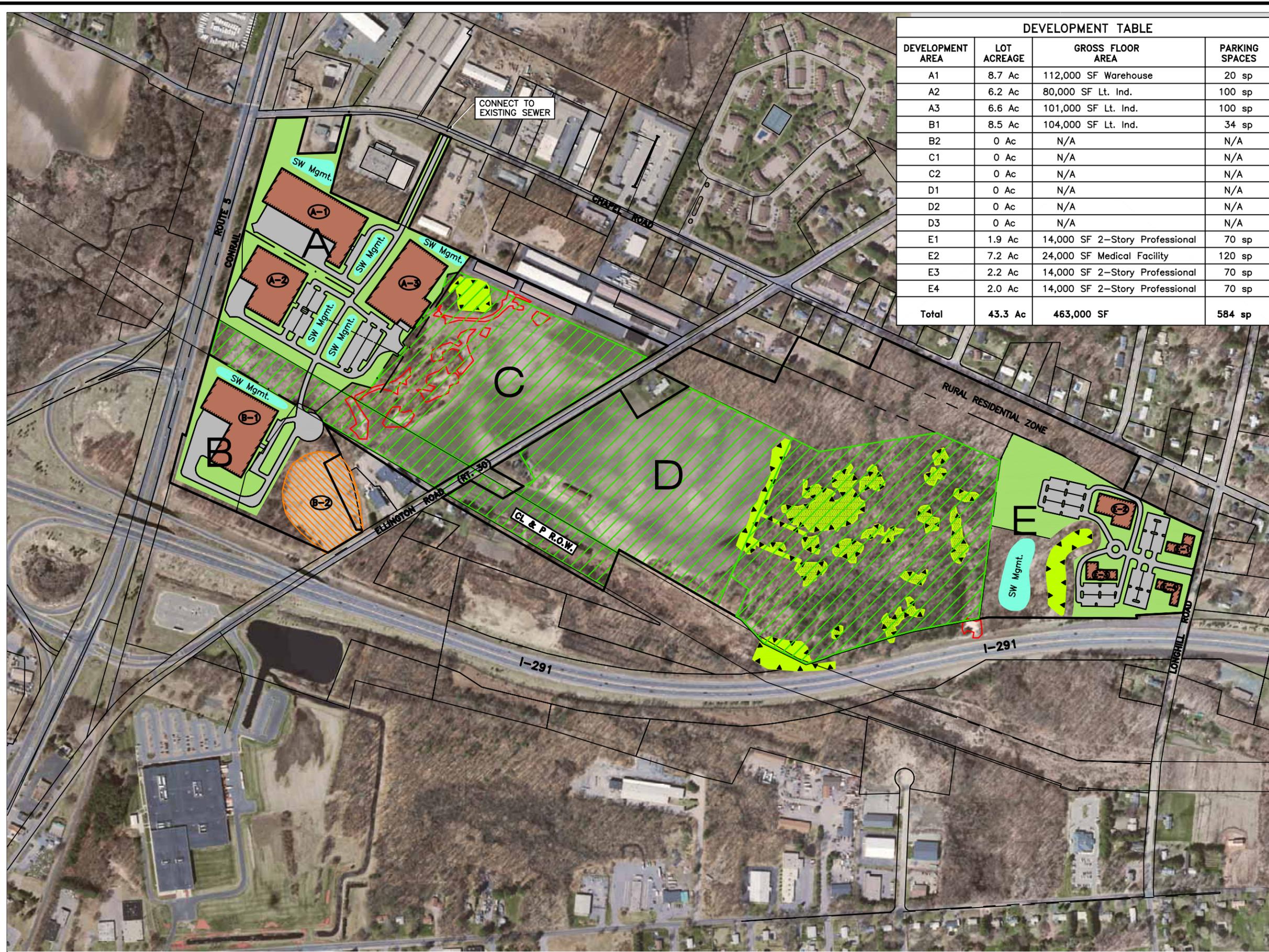
Using existing zoning parameters, results of a recent market assessment and the environmental and physical constraints of the site, a potential development scenario was constructed (i.e., the preferred alternative, Alternative 1). Alternative 1 is depicted on Figure ES-1. The infrastructure needed to support the development under this scenario constitutes the Proposed Action.

Alternative 2 is depicted on Figure ES-2. Alternative 2 would involve the development of a smaller area that includes only Development Areas A, B-1 and E. No infrastructure would be provided to support development of Areas B-2, C and D. This alternative would avoid impacts to existing farmland and would minimize impact to grasshopper sparrow habitat.

There are numerous other potential development scenarios that could be constructed for the site, but without a specific development proposal in place, other potential development scenarios were not considered. The preferred conceptual development plan on Figure ES-1 constitutes a reasonably foreseeable development scenario for this site.

ENVIRONMENTAL IMPACTS AND MITIGATION

The potential environmental impacts of the Proposed Action and the secondary action of site development have been addressed in this EIE. The following is a summary of the most relevant items:



DEVELOPMENT TABLE			
DEVELOPMENT AREA	LOT ACREAGE	GROSS FLOOR AREA	PARKING SPACES
A1	8.7 Ac	112,000 SF Warehouse	20 sp
A2	6.2 Ac	80,000 SF Lt. Ind.	100 sp
A3	6.6 Ac	101,000 SF Lt. Ind.	100 sp
B1	8.5 Ac	104,000 SF Lt. Ind.	34 sp
B2	0 Ac	N/A	N/A
C1	0 Ac	N/A	N/A
C2	0 Ac	N/A	N/A
D1	0 Ac	N/A	N/A
D2	0 Ac	N/A	N/A
D3	0 Ac	N/A	N/A
E1	1.9 Ac	14,000 SF 2-Story Professional	70 sp
E2	7.2 Ac	24,000 SF Medical Facility	120 sp
E3	2.2 Ac	14,000 SF 2-Story Professional	70 sp
E4	2.0 Ac	14,000 SF 2-Story Professional	70 sp
Total	43.3 Ac	463,000 SF	584 sp


LEGEND

-  POTENTIAL EASEMENT AREA
-  PROJECT AREA
-  GRASSHOPPER SPARROW HABITAT, 2006
-  EXISTING PROPERTY BOUNDARIES (APPROX.)
-  PROPOSED PROPERTY BOUNDARIES (APPROX.)
-  DEVELOPMENT AREA
-  LOT DESIGNATION
-  TIGER BEETLE HABITAT
-  WETLAND/WATERCOURSE
-  POTENTIAL VERNAL POOL

NOTE: THIS PLAN IS CONCEPTUAL AND FOR PLANNING PURPOSES ONLY. IT WAS DEVELOPED TO DEPICT A POSSIBLE SCENARIO IN THE MDP PROJECT AREA THAT COULD BE ACHIEVED GIVEN EXISTING PHYSICAL AND ENVIRONMENTAL CONSTRAINTS, ZONING PARAMETERS AND REAL ESTATE MARKET CONDITIONS.

NOT FOR DISTRIBUTION

Aerial Photograph: SBC

**SOUTH WINDSOR
 I-291 GATEWAY ZONE**
 ENVIRONMENTAL IMPACT EVALUATION

SCALE
 1" = 500'
 DATE
 AUGUST 2008

**FIGURE ES-2
 CONCEPTUAL DEVELOPMENT PLAN
 ALTERNATIVE 2**

 **BAYSTATE ENVIRONMENTAL CONSULTANTS INC.**
 Civil Engineers Environmental Scientists
 296 North Main Street 290 Roberts Street, Suite 207
 East Longmeadow, MA 01028 East Hartford, CT 06108

Grassland Bird Habitat

The Proposed Action would result in impact to a 4.5±-acre grassland patch (of which 3.5± acres are located with the project area, and would be lost) that, at least in 2006, supports a probable breeding pair of grasshopper sparrow, a State Endangered bird. Additional annual surveys would be conducted to determine if the birds consistently use this area. Given the relatively small size of suitable habitat, it is possible that it does not consistently support grasshopper sparrow on an annual basis.

Nevertheless, if the site was found to be a consistent habitat for the grasshopper sparrow, the Town would work with DEP to provide suitable mitigation. This mitigation may include: the enhancement and management of existing Town-owned open space; the purchase of private property for conversion/management of grassland habitat; or participation in the DEP Grassland Habitat Initiative program.

Tiger Beetle Habitat

A portion of the site contains confirmed habitat for the pine barrens tiger beetle, a State Species of Special Concern. This area would either be mitigated offsite or be preserved in perpetuity through a conservation easement or some other type of legal mechanism.

Rare Plants

DEP has stated that the project area has the potential to contain three State-listed plant species, two sedges and an evergreen fern. Surveys were conducted during the appropriate time-frames to determine the presence/absence of these species. During the 2006 surveys, none of the plant species in question were observed.

Brown Thrasher Habitat

Several brown thrashers, which are a State Species of Special Concern, were observed primarily in the Connecticut Light & Power (CL&P) electrical transmission line corridor during the 2006 bird surveys. The brown thrasher prefers shrub habitat adjacent to open grasslands, a habitat that exists within the powerline corridor. With the exception of a potential road crossing through the powerline corridor, habitat for this species would not be significantly affected by the Proposed Action or its associated secondary site development.

Wetlands/Vernal Pool Complex

A large wetland/vernal pool complex on the eastern portion of the site would be preserved in perpetuity through a conservation easement or some other type of legal mechanism. The exact dimensions of the easement will be determined at a later date following a formal wetlands delineation which will be presented to the Town Inland Wetlands Agency/Conservation Commission (IWA/CC). This complex also includes upland forested areas that provide the necessary habitat for amphibious species which frequent the vernal pools.

Traffic

The Proposed Action and the ensuing site development would cause an increase in traffic

to the surrounding roadway network. All six intersections studied within the site vicinity would operate at acceptable levels of service (LOS D or better) with the proposed site development in place by 2010. Excessive queuing of vehicles at the I-291 Eastbound off-ramp at Route 5/Ellington Road could cause vehicles to back up onto I-291 mainline; therefore, an additional through-lane may be required at the intersection under the Alternative 1 scenario. An additional through-lane may be needed at the eastbound approach which would follow through onto Ellington Road if the site traffic distribution changed to include more vehicles coming from the west. No significant impacts to natural resources or properties are expected as a result of these traffic improvements.

Economic Benefits

An economic impact analysis conducted as part of this EIE (Section 3.3.3) indicates that the development of the I-291 Gateway Zone has the potential for significant economic benefits to the State and the Town. Infrastructure and building construction would be expected to generate approximately 685 full time equivalent jobs. During construction, \$121.8± million in total state and regional economic output and \$31.7± million in earnings would be realized.

Once the site was fully developed, there would be approximately 1,971 jobs onsite which would generate \$90.6± million in total annual earnings and \$154.2± million in total annual economic output.

POTENTIAL CERTIFICATES, PERMITS AND APPROVALS

This EIE considers the potential impacts of the Proposed Action and its associated site development on a macro scale level. During the design phase of the project(s) more detailed analyses would be required in order to obtain one or more of the following approvals:

- State Traffic Certificate – Connecticut Department of Transportation (ConnDOT) State Traffic Commission (STC)
- Site Plan Approval - Town Planning and Zoning Commission (PZC)
- Inland Wetlands Permit - Town IWA/CC
- Sewer Connection Permit - Town Public Works Department
- Stormwater Permit for Construction - DEP
- Stormwater Permit for Commercial Activity - DEP
- Stormwater Permit for Industrial Activity - DEP

EIE REVIEW PERIOD AND COMMENTS

The 45-day review period will begin on Friday, May 11, 2007. Comment on this EIE should be directed via letter, email or fax by 4:00 PM on Wednesday, June 27, 2007 to:

Dimple Desai, Community Development Specialist
State of Connecticut
Department of Economic and Community Development
Office of Infrastructure and Real Estate
505 Hudson Street
Hartford, CT 06106-7106

Fax: 860-270-8157
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Responses to substantive comments received will be provided in the Record of Decision (ROD) which will be submitted to the Office of Policy and Management (OPM). In accordance with CEPA, OPM will review the Draft EIE and the comments and responses and make a Determination of Adequacy (DOA). A positive determination will enable the release of state funding for the Proposed Action.

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