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# Site Feasibility Study Liberty Street Industrial Park

UMass Amherst Center Economic Development

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**SITE FEASIBILITY STUDY  
LIBERTY STREET INDUSTRIAL PARK  
SPRINGFIELD, MASSACHUSETTS**

**FALL, 1991**

**Principle Investigator**  
**John R. Mullin, Ph.D., AICP**

The Center for Economic Development would like to thank  
the Technical Assistance Committee for their efforts

Zenia Kotval, Project Coordinator  
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# **LIBERTY STREET INDUSTRIAL PARCEL REUSE AND FEASIBILITY STUDY SPRINGFIELD, MASSACHUSETTS**

## **Introduction**

The purpose of this project is to determine the feasibility of developing the 6.5 acre industrial parcel on Liberty Street in Springfield, Massachusetts. This project has been undertaken at the request of the City of Springfield Office of Community Development. The City is interested in identifying parcels of land that are suitable for encouraging the siting of industry to facilitate economic growth.

## **Site Specific Information**

1. **Location:** The site is located in the central area of the City of Springfield, on Liberty Street. It is bordered on the southern side by an active railroad, the Boston & Maine. It is within a half hour of two airports, Westover to the East and Bradley to the South. It also has immediate access to Interstates 91, 90, and 291.
2. **Surroundings:** The parcel is proxemic to the City of Springfield's downtown area. The immediate area has a mix of residential, industrial, and service economies. There are no disharmonious land uses that would preclude industry.
3. **Access:** The site is easily accessed from the Interstates and Main Street.
4. **Site Character:** The site is currently used to store debilitated vehicles that are being impounded. The site would allow easy development as the parcel is flat and paved, with drainage, lighting, and fences in place. Demolition is minimal. There are no existing permanent buildings. However, in compliance with existing covenants, or protective restrictions, some pavement would need to be excavated to allow a portion of the area to be landscaped.
5. **Zoning:** This land is zoned for Business A: Industrial Park District. However, the Springfield Economic Development Corporation has placed certain covenants, or protective restrictions, on land use for this parcel effective until January 1, 2013. In 1978 it imposed these restrictions on all lands under its ownership in the City of Springfield. Essentially, the lands within the common scheme shall be developed for industry, manufacturing, warehouses,



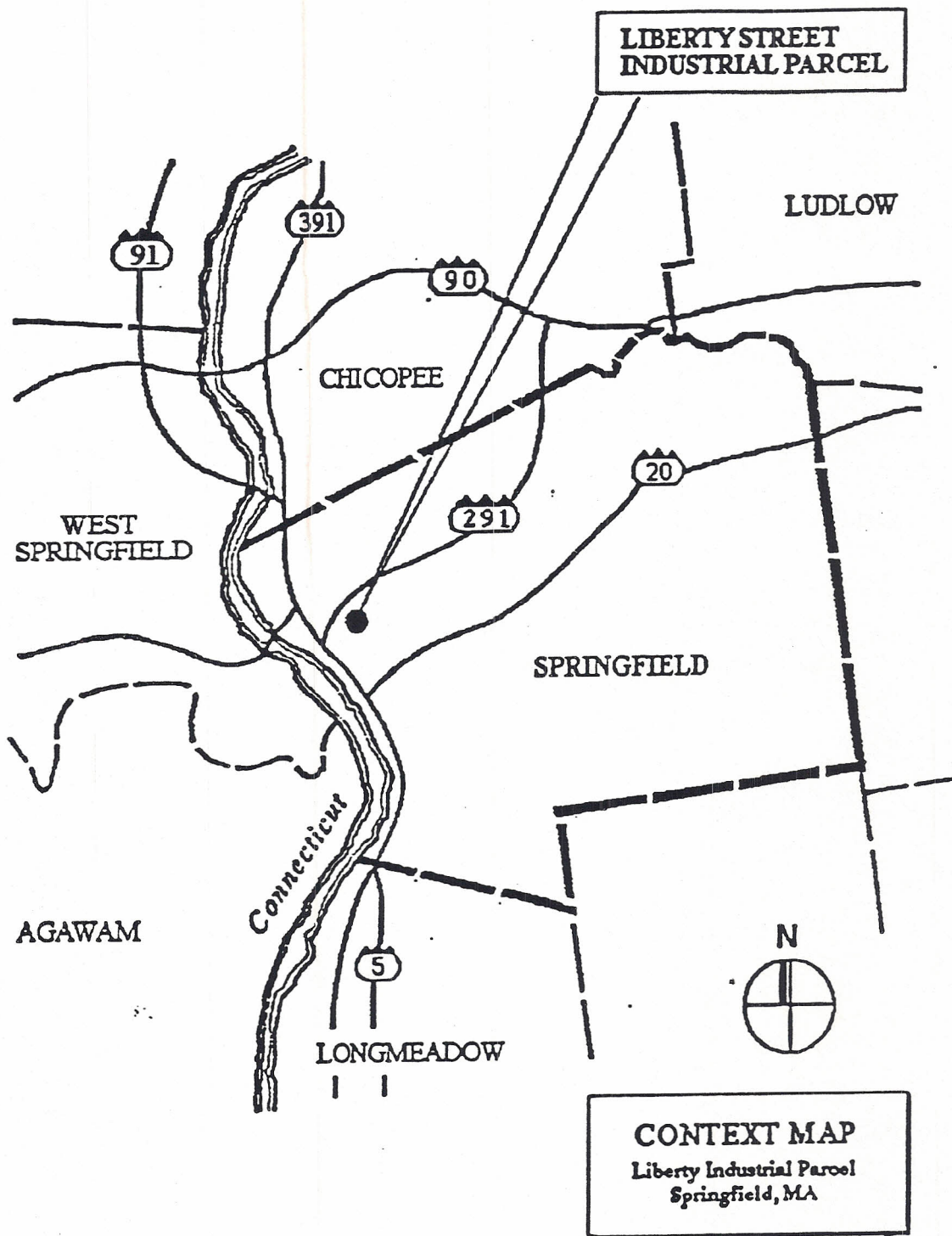
distribution research, offices, and other similar uses compatible with other land uses in the immediate area. S.E.D.C. may exempt certain lands for public ways, recreation, conservation, public ordinance easements, and easements for railroad and public utility lines. Details that apply to benefitted lands may in some cases also be applied to land adjoining, or adjacent to S.E.D.C. lands. There is also a list of prohibited land uses on S.E.D.C. holdings, even in cases where such uses may be allowed by special permits from the City of Springfield. The restrictions further extend to outside storage, parking, loading and unloading, signage, landscaping, and maintenance, and plan approval by the S.E.D.C. If the covenants are not followed, the S.E.D.C. has an option to buy back the land, at the original selling price, after three years have past. (Note: This is a brief summary of the restrictions. It is suggested that a careful reading of these restrictions precede any investment decisions).

6. **Environmental Clean-up:** When the Liberty Street parcel was sold in 1986 it was environmentally clean. Since then it has been primarily used for storage and a spokesperson from the S.E.D.C. stated that the site is still environmentally clean. However, there have been environmental contamination issues on surrounding lands. These would suggest the need for additional field investigations prior to development. "Sensitive receptor" types of development would probably not be appropriate at this site; however, these kinds of land-use are prohibited by the covenants.

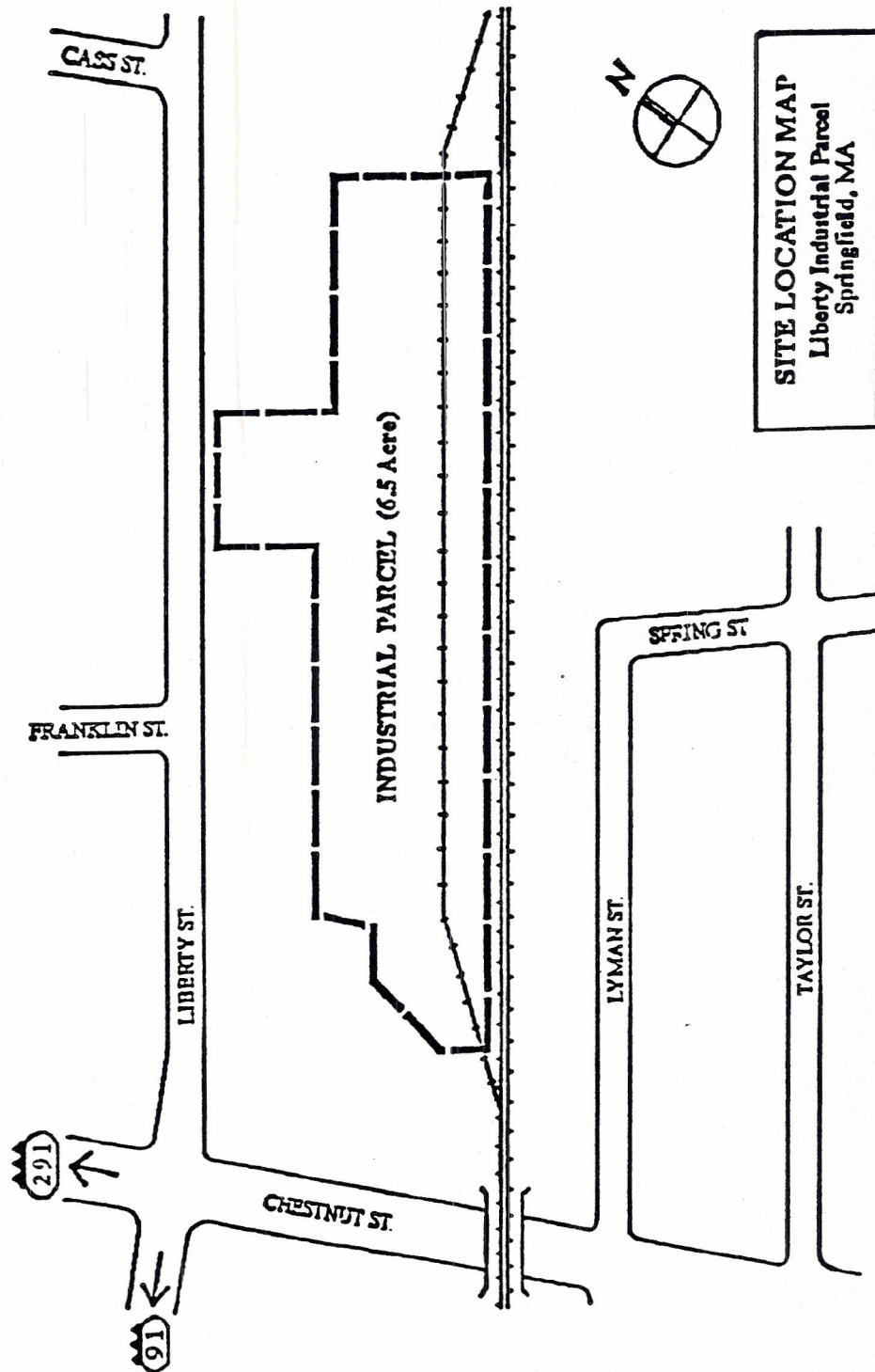
7. **Density:** Based on Springfield's zoning standards, any development would have to meet the following requirements:

1. <b>Maximum Lot Coverage:</b>	50%
2. <b>Minimum Front Setbacks:</b>	25 feet
3. <b>Minimum Side Yard Setbacks:</b>	15 feet
4. <b>Minimum Rear Yard Setbacks:</b>	25 feet .
5. <b>Height:</b>	60 feet.
6. <b>Parking:</b>	1 parking space per 1.5 employees employed in principal shifts during peak hours of operation. 1 space per vehicle operated on the premises in conduct of the business.
7. <b>Lighting:</b>	All lighting, including street lighting, shall be directed in such a way so as not to create a nuisance in a residential district, and in every district all such lighting shall be arranged so as not to create direct glare or hazardous interference with vehicular traffic.

<b>8. Minimum Curb Cuts:</b>	2 access ways to any public street for every 500 feet of footage.
<b>9. Sign Control:</b>	Accessory signage conforms to Business A regulations. Non-accessory signage maximum size not to exceed 700 square feet.
<b>10. Architectural Standards:</b>	Not Applicable.
<b>11. Performance Standards:</b>	Conform to Springfield Zoning Ordinance, section 1511.
<b>12. Materials and Equipment Storage:</b>	Outside storage must be confined by opaque screen or fence not less than 6 feet and not more than 10 feet in height.
<b>13. Fencing:</b>	May be erected to protect property and activities of occupants. No fencing shall be erected beyond the building lines established by section 1304. Fences shall be of substantial materials of wire mesh or chain-link; or other substantial construction of open design in true lines.
<b>14. Landscaping:</b>	Front, side, and rear yards, (EXCEPT those portions paved as driveways, access roads, loading and parking areas, or railroad tracks), shall be loamed and seeded and maintained as lawns, or developed and maintained as gardens. Ornamental shrubs, trees, flowers or ground covers may be planted in these areas.







## Analysis of the Greater Springfield Region

### Industrial Parks in Greater Springfield Area

The following table is an inventory of industrial parks in the Greater Springfield Region.

The table shows rail access and price information if available.

Location / Name	Ttl Acres	Acres Available	Rail	Price per Acre
<b>Amherst:</b>				
Amherst Fields	50	36	No	\$100K
<b>Agawam:</b>				
Agawam Regional				
Industrial Park	326	118	No	\$59-70K
Mass. Conn. Business Park	10	10	No	***
Russo Ind. Park	8	0	No	***
Suffield St. Partnership	717	***	No	***
Hadley Univ. Ind. Park	75	75	No	\$85K
Westfield Ind. Park	265	265	Some	\$50K
<b>Chicopee:</b>				
Cabotville Ind. Park	14	4	Some	***
Chicopee Ind. Park	22	1	No	Negotiable
HWP Land: New Ludlow Rd	90	34	No	***
Westover Airpark West	265	35	Yes	\$55-75K
Westover Airpark North	101	55	Yes	\$62K
<b>East Longmeadow:</b>				
E. Longmeadow Ind. Park	120	0	Some	***
<b>Easthampton:</b>				
Easthampton Ind. Park	40	20	No	\$75K
<b>Greenfield:</b>				
Interstate 91 Ind. Park	300	96	No	\$15-25K



Location / Name	Ttl Acres	Acres Available	Rail	Price per Acre
<b>Holyoke:</b>				
Springdale Ind. Park	35	6.4	Yes	\$80K
Whittings Farm Road				
Industrial Area	29	29	No	\$120-\$125K
<b>Ludlow:</b>				
Ludlow Ind. Center	117	85	Yes	***
Stony Brook Ind. Area	30	0	Some	***
Westover Airpark East	300	120	Some	\$50-\$55K
<b>Northampton:</b>				
Northampton Ind. Park	88	0	No	***
<b>Palmer:</b>				
Maple Tree Ind. Park	45	0	No	***
Palmer Ind. Park	120	0	Yes	***
<b>South Hadley:</b>				
Old Lyman Road	26	20	No	\$35-\$50K
<b>Springfield:</b>				
Cadwell Drive	30	14	No	\$100K
Carando Ind. Park	55	0	Some	***
Memorial Ind. Park	150	0	Yes	***
North Ctr Ind. Park	23	7.5	Yes	\$35-\$50K
Wason-North Ind. Park	25	0	Yes	***
<b>West Springfield:</b>				
W. Springfield Ind. Park	150	0	No	***
<b>Westfield:</b>				
Summitt Locke	268	208	Yes	\$50K
<b>Wilbraham:</b>				
Wilbraham Ind. Park	30	6	No	***
<b>Enfield, Connecticut:</b>				
Enfield Mem. Ind. Park	300	18.7	No	\$53K
Heritage Ind. Park	110	100	No	\$35-\$100K

\* note these figures do not include the proposed Chicopee River Technology Park

\*\*\* information not available

## Highlights on Available Land and Market Prices in the Region

1. Nearly 55% of the area's Industrial Park land has been sold.
2. There are 1,264.60 acres of land available in these industrial parks.
3. The average price per acre is \$68,000, with the low end being \$15,000 an acre and the high end being \$125,000 an acre.
4. There are 785.9 acres available that could be fully served by rail.
5. The average percent of building coverage allowed is 54.5%.
6. The average price-rent for industrial buildings per square foot is \$5.80.
7. The following communities have Industrial Parks with 25 or more acres available for development: Amherst, Agawam, Chicopee, Greenfield, Holyoke, Ludlow, and Westfield, as well as Enfield, Connecticut.
8. The Communities of Agawam, Chicopee, Ludlow, Westfield, and Enfield, CT have Industrial Parks with 100 or more acres available.
9. Apart from the Industrial Parks, the following areas of 25 or more acres are zoned for industrial use in the City of Springfield: the Smith and Wesson property with frontage on Roosevelt Ave and Rt.291 to the north, and Bay St. to the south; Liberty Plaza, and 1065-1101 Boston Road.

### Highlights on the Labor Force

	SPRINGFIELD	SPRINGFIELD M.S.A.	MASS	U.S.A.
<b>Labor Force</b>				
Jun, 1991	70,104	258,947	3,167,200	127,054,000
Oct, 1991	69,774	259,786	3,132,000	125,568,000
Nov, 1991			3,164,000	125,257,000
<b>Employed</b>				
Jun, 1991	61,753	233,462	2,866,900	118,180,000
Oct, 1991	62,501	237,366	2,874,000	117,555,000
Nov, 1991			2,894,000	116,758,000
<b>Unemployed</b>				
Jun, 1991	8,351	25,485	300,300	8,744,000
Oct, 1991	7,273	22,420	258,000	8,013,000
Nov, 1991			270,000	8,499,000
<b>% Unemployed</b>				
Jun, 1991	11.90 %	9.80 %	9.50 %	6.90 %
Oct, 1991	10.40 %	8.60 %	8.20 %	6.40 %
Nov, 1991			8.50 %	6.80 %

Springfield's unemployment had declined as of October of 1991. The rates for the Springfield MSA, State, and Country had also declined as of October of 1991. However, the reported November, 1991 employment rates are showing some increase. Due to a weakness in the northeastern economy Massachusetts, Springfield, and the Springfield MSA are still showing higher unemployment rates than the Country.

On the other hand, the State employment levels have risen. Non-agricultural wages and salary employment was at 2,894,000, in November of 1991. In September of 1991, the trade sector, wholesale and retail, held 649,300 jobs. The construction industry totaled 77,600 jobs, 1,100 more than in June of 1991. Manufacturing experienced a decline from 490,200 jobs in June to 482,400 in September. The service sector also saw a decline from 906,400 to 896,700 jobs from June to September. Education jobs which usually increase at this time of year were particularly low. Transportation and public utilities accounted for 124,000 jobs in September. Finance, real estate, and insurance contributed 205,700 jobs. Government services accounted for 368,100 jobs in the same period.



## Findings and Recommendations

**1. The greatest potential for this property is to sell it as one or two parcels.**

A parcel of this size can be made readily available at its current size. It may also be suitable for two businesses if subdivided. The abutting site across the railroad tracks may also be combined with this parcel, according to the City of Springfield's Office of Economic Development. It would make sense to consider this option to increase use flexibility.

**2. The site should be subdivided into 2-4 acre parcels. This represents the greatest area of demand according to the local industry Realtors.**

According to the local industry Realtors, the greatest current demand is for small parcels. This suggests that the parcel lends itself to a subdivision.

**3. This site seems to be clear of environmental liabilities.**

This site is particularly appealing because it does not have apparent environmental problems. According to the Office of Economic Development the site was given an environmentally clean bill of health when it last changed hands in the late 1980s. Since then the office states that it has just been used for storage. Although this is attractive to developers, it may be prudent for the City to check it again and conduct an environmental analysis of abutting parcels, and the parcels across the railroad tracks from the Liberty Street site. The City should be able to "guarantee" this site before offering it for sale.

**4. All permits and certification should be in place before this site is offered for sale.**

This is another reason to conduct appropriate environmental analysis. This includes adhering to the Massachusetts Environmental Protection Act (MEPA) process of satisfying environmental requirements for an industrial parcel. The City should apply to MEPA using the maximum buildout as the basis. Then MEPA will set the standards for firms interested in the site. The City must be able to certify that the site is clean under 21-E and offer companies free monitoring services.

**5. The site is attractive to heavy industry or light industry.**

This site is attractive for a large variety of industrial uses. Even though it is close to the center of the City it could be used for some heavy industry such as machining or job shops. It would be in the City's best interest to develop the site with an emphasis on utility rather than amenities. It will serve the City's long term interests to protect this parcel for industrial development. Given the

site's proximity to the downtown it also may be attractive as a distribution node, such as a warehouse. It also may be interesting to growth industries in the area seeking to expand their operations.

**6. A careful traffic analysis will be appropriate for this site.**

Based on the proximity to major transportation routes this site is quite attractive. However, the area is mixed among residential, commercial, and industrial uses and it would be useful to have a complete traffic analysis undertaken to gauge the traffic impacts on the area.

**7. The City should expect to take advantage of this parcel when the economy improves.**

The City should take a long term view of this parcel's potential, as the economy is currently in poor shape. However, when the economic conditions improve the parcel should prove attractive as an addition to the City's industrial base. In the meantime careful studies of the immediate area's current disinvestment are recommended. Encouraging uses to revitalize this area would help the City meet its future needs.



<b>PROPERTY BUILD OUT SCENARIO</b>			
			<b>in Acres</b>
1	Gross Acreage		6.5
	Subtract		
	New Roads and Infrastructure	7%	0.455
2	Net Developable Acres		6.045
	Subtract		
	Building Footprint @ 0.5 FAR and an average of 2 stories		1.625
3	Net Developable Acres after Buildings		4.42
	Subtract		
4	Parking Area:		2.197
	2 cars per 1000 sft. of building	283.14	
	multiply by		
	area in sft. at 100% at-grade and incl.	338	
	internal access roads		
<b>NET DISTRIBUTION OF LAND</b>		<b>as a %</b>	<b>in Acres</b>
1	Open Space	34.20%	2.223
2	New Roads and Infrastructure	7.00%	0.455
3	Building Footprint	25.00%	1.625
4	Parking and Internal Access Roads	33.80%	2.197
	<b>TOTAL</b>	<b>100.00%</b>	<b>6.5</b>

## **Financial Feasibility**

### **Financial Feasibility**

When analyzing the feasibility of development options, the investor is primarily concerned with two issues:

- \* Will the projected revenues offset the anticipated fixed and operating expenses?
- \* How much, if any, public assistance is likely to be required to make the project an attractive investment?

The "Pro Forma" is an orderly arrangement of the expenditures and revenues anticipated for the project. It shows income, operating expenses, financial terms, and before-tax cash flows. Use of the typical pro forma as an analytical tool provides a quick first indicator of potential project viability. While cash flow before taxes and return on investment are significant factors governing project attractiveness, a typical year Pro Forma leaves out one extremely important element in determining project feasibility-the element of time. A project such as this may be staged over several years. Changing interest rates, rising construction costs, and potential market shifts will all impact on the project and force periodic assessments of its scope and character.

### **The Financial *Pro Forma***

#### **Revenues and Expenditures**

The typical Pro Forma assumes that there are no unusual expenditures beyond the normal expense of management and maintenance. This static cash flow analysis of a project is commonly used to determine project financing. Investors and developers; however, analyze project viability using a variable cash flow approach. Variable cash flow analysis is discussed in the following section on After-Tax Cash Flow.

Revenue is the most significant variable in the Pro Forma. Estimates of obtainable rent, must therefore be realistic in relation to the prevailing market. In most normal risk projects vacancies and rent loss will probably be less than 5% of potential income, but this figure is commonly used as a conservative estimate.

PROFORMA ANALYSIS FOR SPRINGFIELD	
<b>Total Expenses</b>	
Total Acres	6.50
Expenses: These include site costs, architectural costs, general maintenance legal fees etc. (\$5,000/acre)	\$32,500
<b>TOTAL COSTS</b>	<b>\$32,500</b>
<b>TYPICAL YEAR PROFORMA</b>	
Revenue	
Selling of land @ \$40,000/acre	\$260,000
Total Gross Revenue	260,000
Buildout over 10 years	
Revenue per year	26,000
subtract	
5% contingencies	1,300
Net Operating Income (NOI) before Debt Service	24,700
Maximum Debt Service (NOI/1.3)	19,000
Cash Flow before taxes	5,700
Max. Mortgage 30yrs @ 10% interest (Debt service/mortgage const. 0.1031)	184,287
Maximm mortgage needed	32,500
Maximum Debt Service	3,351



Most lenders use the net operating income (NOI) figure as an underwriting tool to determine the maximum amount of debt service, and thus the maximum mortgage a project can support. Acknowledging the potential for income to fall below projections, lenders obtain an added safety margin by requiring that the NOI be at least 1.3 to 1.4 times the debt service (repayment of principal plus interest). This provides additional assurance that income will be sufficient to cover both operating expenses and debt service. We have used the average figure of 1.3 times debt service in our calculations.

The maximum annual debt service is then used to determine the maximum allowable mortgage for the project. The amount of the mortgage will be influenced by both its length and interest rate. The difference between the total development costs and the obtainable mortgage is the amount of equity or gap financing required.

### **After-Tax Cash Flows**

Real estate investments offer special tax advantages. Real property improvement theoretically decline in value over time. This decline in value depreciation, can be claimed as an expense and deducted from the cash flow of property when computing taxable income.

### **After-Tax Cash Flow Calculation**

Net Operating Income: This is derived from the financial Pro Forma (adjusted revenues minus expenses).

Less Debt Service: Taken from the Pro Forma. Debt service remains constant throughout the mortgage term. It is a fixed expense and is thus subtracted from the cash flow.

Pre-Tax Cash Flow: The difference between NOI and debt service. Projects frequently have a negative cash flow in early years when start-up expenses are heavy and occupancy is low.

Tax Consequence: The amount of taxes to be paid on project income are taken from the last line of taxable income calculations.

After-Tax Cash Flow: The effective profit the property has generated for the investors.

Present Value: As money received tomorrow is worth less than the same amount received today, cash flows from a future year are discounted to give them a present value.

AFTER TAX CASH FLOW: A TEN YEAR ANALYSIS											
	1	2	3	4	5	6	7	8	9	10	
1 Net Operating Income (NOI)	24,700	26,429	28,279	30,259	32,377	34,643	37,068	39,663	42,439	45,410	
2 Less Debt Service	3,351	3,351	3,351	3,351	3,351	3,351	3,351	3,351	3,351	3,351	
3 Pre Tax Cash Flow	21,349	23,078	24,928	26,908	29,026	31,292	33,717	36,312	39,088	42,059	
4 Tax Consequence	-10,725	-11,595	-12,525	-13,521	-14,587	-15,727	-16,948	-18,254	-19,652	-21,149	
5 After Tax Cash Flow	10,624	11,483	12,403	13,387	14,439	15,565	16,769	18,057	19,436	20,910	
6 Discount Factor (12%)	0.89	0.80	0.71	0.64	0.57	0.51	0.45	0.40	0.36	0.32	
7 Present Value	9,455	9,187	8,806	8,567	8,230	7,938	7,546	7,223	6,997	6,691	
NET PROFIT AFTER TEN YEARS											
1 Discounted (PV)	80,641										
2 Not Discounted	153,073										
TAXABLE INCOME CALCULATIONS: TEN YEAR ANALYSIS											
1 Pre Tax Cash Flow	21,349	23,078	24,928	26,908	29,026	31,292	33,717	36,312	39,088	42,059	
plus											
2 Debt Service	3,351	3,351	3,351	3,351	3,351	3,351	3,351	3,351	3,351	3,351	
less											
3 Interest	3,250	3,240	3,229	3,217	3,203	3,188	3,172	3,154	3,134	3,113	
5 Taxable Income (Fed. & St.)	21,450	23,189	25,050	27,042	29,174	31,455	33,896	36,509	39,305	42,297	
Marginal Tax Rate	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	
6 Inv. of Tax Consequence	10,725	11,595	12,525	13,521	14,587	15,727	16,948	18,254	19,652	21,149	
PRINCIPAL AND INTEREST CALCULATIONS											
1 Balance Principal	32,500	32,399	32,288	32,166	32,031	31,883	31,721	31,542	31,345	31,128	
Debt Service	3,351	3,351	3,351	3,351	3,351	3,351	3,351	3,351	3,351	3,351	
Interest Payment	3,250	3,240	3,229	3,217	3,203	3,188	3,172	3,154	3,134	3,113	
Principal Payment	101	111	122	134	148	163	179	197	217	238	



## **Taxable Income Calculation**

Pre-Tax Cash Flow: Taken from cash flow calculation (NOI minus debt service).

Plus: Debt Service: Debt service payments include both principal and interest. The portion that represents amortization of principal is not tax deductible. Add the debt service to the cash flow.

Less: Interest: Subtract from the above sum, the amount of debt service paid in interest. This is calculated under Principal Interest Calculations.

Taxable Income: The amount remaining after deducting interest and depreciation from income is the amount on which taxes must be paid. A negative amount may be used to shelter income from other sources.

Corporate Tax Rate: It is assumed that the investors are in the corporate state and federal tax bracket of 46% (state-12.54%; federal-34%). Multiply this times the taxable income to determine the tax due.

Tax Due: This is the amount that must be paid on the income from the project. If this is a negative, it is assumed to represent a tax savings to the investor since it may be used to offset taxes that would normally be due on other income.

### **Net After-Tax Profit**

After ten years, the sum total of all the present values of after-tax gain is \$80,641.

**Gap Financial:** The Massachusetts Industrial Financial Agency (MIFA) is an independent public finance agency which since 1978 has issued over \$5 billion in tax-exempt and taxable bonds to finance over 2200 manufacturing, commercial, and non-profit expansion projects. MIFA has created the structure to provide smaller businesses and institutions with access capital markets normally available only to much larger enterprises.

## Fiscal Impact Analysis

A Fiscal Impact Assessment simply attempts to answer the following question: If the proposed project was fully built today ("at build out"), what would the revenues and costs be to the Town? In order to answer this question, it is essential that the following information be obtained from various parties. It includes the following:

### Base Data for a Fiscal Impact

<u>Information Required</u>	<u>Source</u>
1. The market value of the Project	The Developer
2. Assessment Ratio	Assessors
3. Present Tax Rate Per Thousand	Tax Collector
4. Present School Costs	Superintendent
5. Total Tax Levy	Town Report
6. Present Number of Student in Local Schools	Superintendent
7. Projected Estimated Number of New Students	Calculation
8. Non-School Costs	Tax Collector
9. Residential Proportion of the Tax Levy	Assessor
10. School Aged Children	Superintendent
11. Present Equalized Value of all Property	Assessor

### The Fiscal Impact of the Proposed Industrial Development

#### **Estimated Revenue**

The City of Springfield will receive revenue from the new development by way of property taxes. The market value of the new development can be split into value of land and value of buildings. This market value is then assessed for tax purposes at a 100% assessment ratio. On applying the applicable taxes to this assessed value, the estimated revenue for the City can be projected.

#### **Estimated Costs**

The second part of a fiscal impact assessment is to project the estimated additional costs that the municipalities will have to bear because of this new development. When analyzing industrial or commercial developments, only service costs are calculated as these developments would not have a direct impact on the school system.

Service Costs (also referred to as non-school costs) are costs associated with libraries, health, recreation, police, fire and road maintenance. They are calculated as a percentage change in total Equalized Value, or property.

### **Net Fiscal Gain**

Once the direct revenues and costs associated with the new development are known, the municipality is able to judge whether the development will have a net fiscal loss or gain. Depending on these result the municipality can decide whether or not they want to go through with the proposed development.

The following pages show the Fiscal Impact Analysis for the Springfield Industrial Site proposal.





	<b>FISCAL IMPACT OF DEVELOPMENT</b>	
	<b>FOR THE CITY OF SPRINGFIELD</b>	
	<b>I PROPOSED INDUSTRIAL DEVELOPMENT</b>	
	<b>A. Revenue from Property Tax</b>	
	<b>1. Land Value</b>	
	Total Developable Acres	6.50
	multiply by	
	Value per Acre	\$40,000.00
	<b>Value of Land</b>	<b>\$260,000.00</b>
	<b>2. Building Value</b>	
	Square Feet of Building (FAR = 0.30)	84,942.00
	multiply by	
	Construction Cost per Square Foot	\$25.00
	<b>3. Value of Structures</b>	<b>\$2,123,550.00</b>
	<b>4. Total Market Value of Development</b>	<b>\$2,383,550.00</b>
	multiply by	
	Assessment Ratio	100.00%
	<b>Actual Assessed value</b>	<b>\$2,383,550.00</b>
	multiplied by	
	<b>5. Tax Rate/\$1000 (for industrial property)</b>	<b>\$22.14</b>
	<b>6. Estimated Revenue</b>	<b>\$52,771.80</b>



<b>B. Service Costs due to Industry</b>	
<b>1. Total Tax Levy</b>	<b>\$40,043,424.00</b>
multiply by	
<b>2. Service Percentage of Tax Levy</b>	<b>62.00%</b>
Service Share of Tax Levy	\$24,826,922.88
multiplied by	
Industrial Percentage of all land	10.90%
<b>4. Service Costs due to Industry</b>	<b>\$2,706,134.59</b>
divided by	
<b>5. Industrial Equalized Value</b>	<b>\$649,024,586.00</b>
<b>6. Service Cost per Thousand</b>	
<b>of Equalized Value</b>	<b>\$4.17</b>
multiplied by	
Market Value of development	\$2,383,550.00
<b>7. Service Cost due to new</b>	
<b>Commerce and Industry</b>	<b>\$9,938.31</b>

<b>II Change in Tax Rate Resulting from Development</b>		
	<b>Total Revenue from Industry</b>	<b>\$52,771.80</b>
	<b>Total Costs due to Industry</b>	<b>\$9,938.31</b>
	<b>1. Net Fiscal Gain</b>	<b>\$42,833.49</b>
	Total Tax Levy	\$40,043,424.00
	divided by	
	Tax Rate/thousand (Avg. industrial & Residential)	\$13.93
	<b>2. Amount affecting Tax Rate</b>	
	by one dollar	\$2,874,617.66
	<b>3. Net Fiscal Gain</b>	<b>\$42,833.49</b>
	divided by	
	Amount affecting Tax Rate	
	by one dollar	\$2,874,617.66
	<b>4. Decrease in Tax Rate</b>	<b>\$0.01</b>
<b>III Impact on Average Home Owner</b>		
	Cost of Home	\$200,000.00
	Residential Tax Rate/1000 at Present	\$11.89
	Annual Tax Payment without Further Growth	\$2,378.00
	Cost of Home	\$200,000.00
	Residential Tax Rate/1000 after development	\$11.88
	Annual Tax Payment after development	\$2,375.02
	<b>Tax Benefit after development</b>	<b>\$2.98</b>

## **Appendix**

### **Uses Regulations**

Within any Industrial Park District, as indicated on the Building Map, no building, structure or land shall be used and no building or other structure shall hereafter be erected, altered or enlarged except for the following:

1. Manufacturing.
2. Fabricating.
3. Processing.
4. Packing.
5. Office Buildings.
6. Public Utility uses.
7. Research laboratories and research facilities.
8. Accessory buildings located on the same lot with the main buildings.
9. Accessory uses located on the same lot with the main buildings.
10. Temporary structures on a lot for uses incidental to construction work on that lot or lots abutting, which structures shall be removed immediately upon completion or abandonment of the construction work for which they were erected.
11. Signs in conformance with City of Springfield Zoning Ordinance Article XVIII.
12. Restaurants and banks.
13. Warehousing.
14. As an accessory use to a permitted manufacturing or warehousing use, retail sales shall be permitted, but in no case shall such retail sales exceed twenty-five (25) percent of the total sales of the establishment.
15. Heliport.

### **Prohibitions**

Within any Industrial Park District, NO buildings shall be erected, altered or enlarged and NO land shall be used for the following:

1. Abattoir
2. Asphalt manufacturing or refining
3. Building material manufacturing and distribution where outside storage or manufacturing operations are required.



4. Commercial coal yard or coal storage.
5. Creosote manufacturing.
6. Distillation of coal, wood or bones.
7. Explosives or fireworks manufacturing.
8. Fat rendering.
9. Fertilizer or potash manufacturing or refining.
10. Glue or size manufacturing or process involving recovery from fish or animal offal.
11. Gypsum, cement, plaster, or plaster of paris manufacturing.
12. Incineration except for the destruction of wastes resulting from the primary use of the land and in compliance with the provisions of Article XIII Industrial Park Districts.
13. Motor vehicle repairing.
14. Reduction of or dumping of offal, garbage, or refuse.
15. Junk or salvage yard or junk or salvage storage.
16. Petroleum refining.
17. Sewage disposal plant EXCEPT where controlled by a municipality.
18. Tar distillations.
19. Tar roofing manufacturing.