



SCHOOL OF ARCHITECTURE, PLANNING AND PRESERVATION  
*Urban Studies and Planning Program*

# East Frederick's Industrial Land Study

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## **1. Introduction**

The following study examines industrial land use in East Frederick, Maryland and evaluates the implications of converting industrial areas south of Patrick Street to mixed-use space. Figure 1.1 shows the study area. There is adequate vacant industrial land in East Frederick for relocation of existing industrial uses, which could be one option for redevelopment of industrial areas south of Patrick Street. Through analyzing the data from Costar on industrial buildings, the results indicate that industrial buildings in East Frederick have higher vacancy rates and lower rents than the city average, and the industrial land in the areas south of Patrick Street is underutilized. Demographic analysis shows that areas along the North East street corridor have both high residential and job density, which shows a trend to mixed use and should maintain low rent to encourage startups. Areas south of Patrick Street have low to moderate job density. Even though 1,000 – 2,500 jobs might be affected by the redevelopment of industrial areas south of Patrick Street, new mixed use should include sufficient commercial uses to make up the difference.

This study supports the redevelopment of industrial areas south of Patrick Street into mixed use and recognizes the development opportunity for the North East Street corridor north of Patrick Street, which could be potential for an innovation district and suitable for startups.

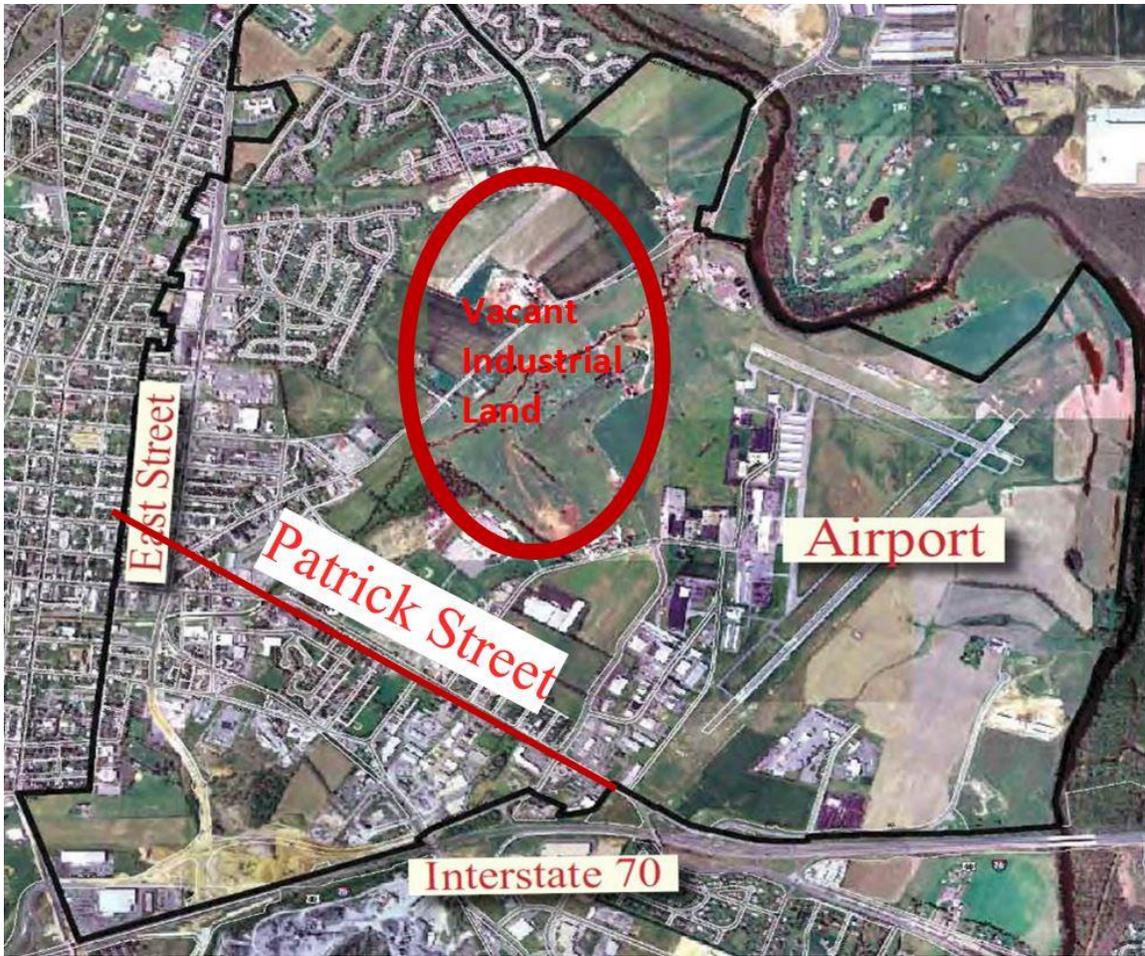


Figure 1.1 Study area: East Frederick

## 2. Background

The study area, East Frederick, is bounded by the Monocacy River to the east, the existing historic downtown to the west, I-70 to the south and neighborhoods to the north (Figure 1.1). There are 2,235 acres total in East Frederick. The municipal airport is located in this area, which will be expanded to increase flights and support larger carriers. Transit stations, including the MARC train, are located in the southern portion along East Street.

East Frederick shows enormous potential for future development and economic growth. It is part of the Small Area Plan; the 2010 Comprehensive Plan identifies East Frederick as a unique area and a strategic opportunity for redevelopment and growth, requiring further and detailed study within the context of a Small Area Plan (Figure 2.1). A report released by the community-based group, East Frederick Rising, states that “East Frederick is one of the keys to Frederick’s future and is the regional job center, technology incubator, transportation hub and next great neighborhood”<sup>1</sup>. Based on public feedback,, East Frederick Rising also suggests that the City should support and provide incentives for mixed-use redevelopment.

The zoning map for East Frederick (Figure 2.2) shows that large portions of the study area is light industrial land (M1). Along the East Street, the land is more mixed-use, including light industrial use, residential use, commercial use, and office. East Street corridor shows a trend towards mixed-use and the potential to maintain and increase the degree of mixed-use development.

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<sup>1</sup> East Frederick Rising, 2010 <https://www.cityoffrederick.com/DocumentCenter/Home/View/944>

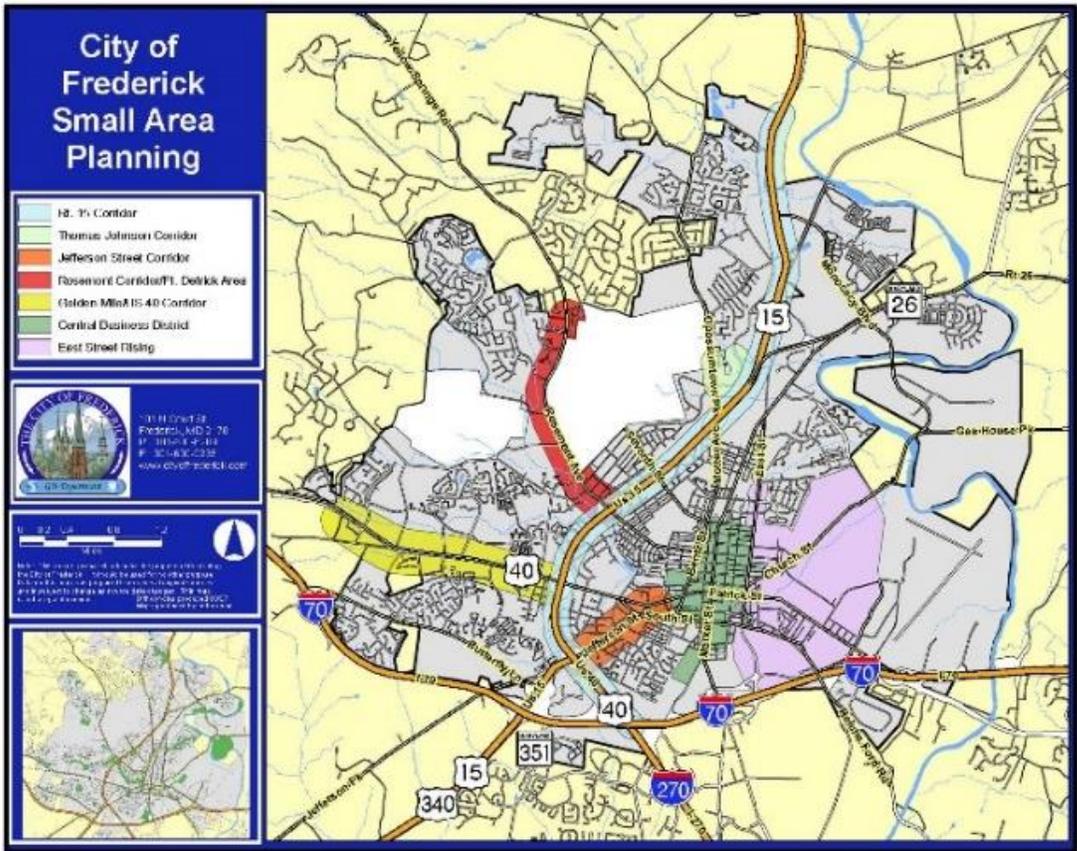


Figure 2.1 Small Area Plan

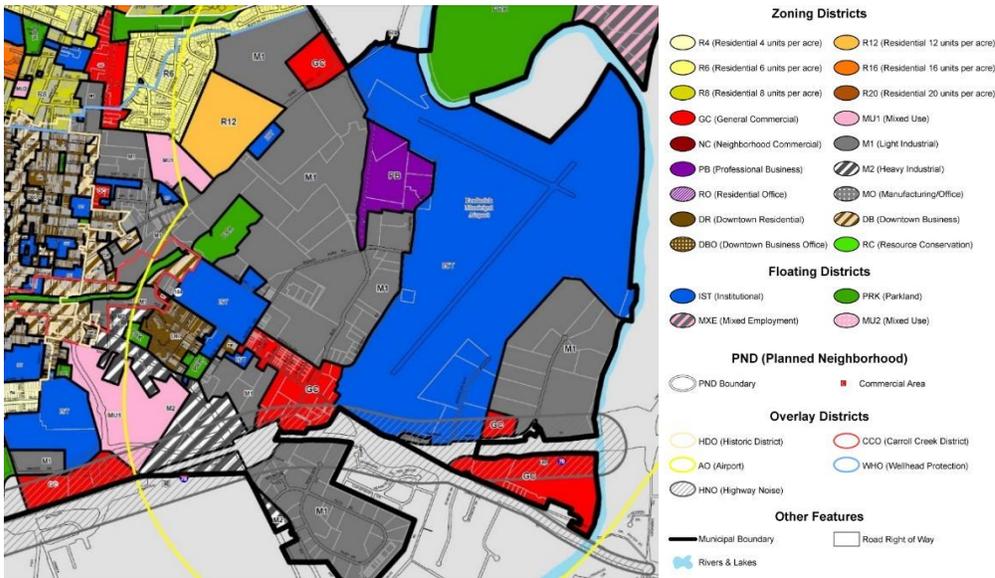
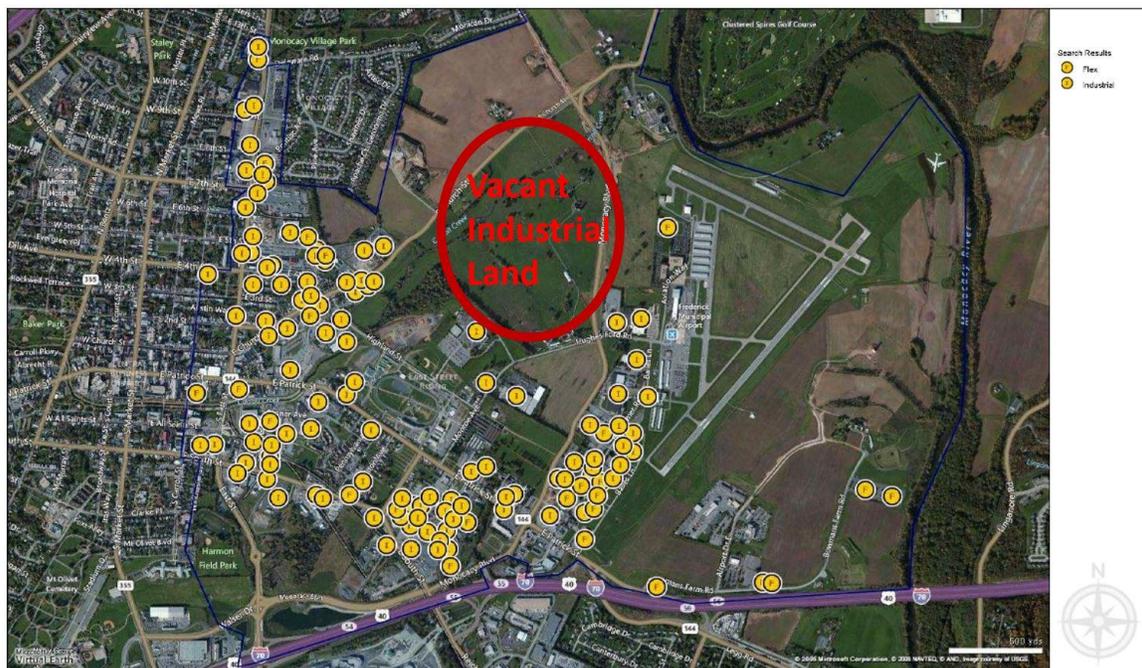


Figure 2.2 East Frederick Zoning

### 3. Industrial land Uses in East Frederick

In this section, we identify that the industrial area south of Patrick Street is underutilized and there are adequate vacant industrial land and buildings available for relocation.

Figure 3.1 shows industrial and flex buildings in East Frederick. Based on the zoning map, there is a large area of vacant industrial land west of the Frederick Municipal Airport, which could be the destination for future relocation of existing industries in the area south of Patrick Street.



Source: CoStar, March 18, 2015

**Figure 3.1 Industrial and flex buildings in East Frederick**

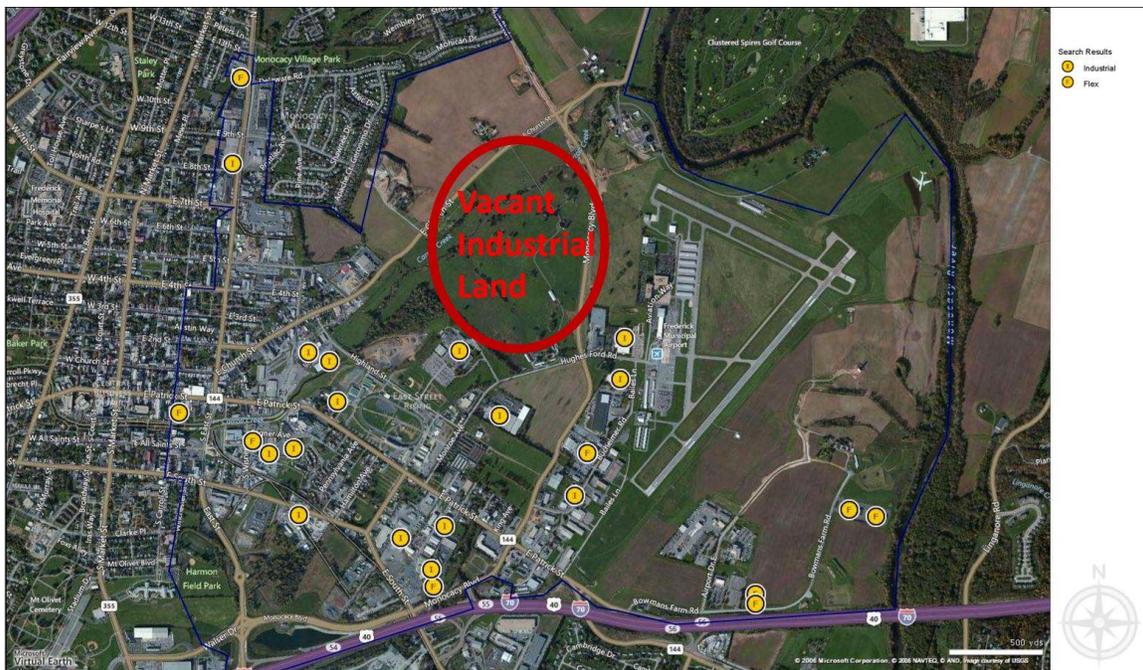
Figure 3.2 shows analytic summary for industrial/flex buildings in East Frederick. There are 130 existing industrial/flex buildings in East Frederick and the vacancy rate is 13.7 percent (Figure 3.2).

Availability	Survey	5-Year Avg	Inventory	Survey	5-Year Avg
Rent Per SF	\$5.78	\$6.13	Existing Buildings	130	130
Vacancy Rate	13.7%	16.8%	Existing SF	3,080,345	3,080,345
Vacant SF	421,882	516,221	12 Mo. Const. Starts	0	0
Availability Rate	13.6%	17.5%	Under Construction	0	0
Available SF	417,602	539,982	12 Mo. Deliveries	0	0
Sublet SF	0	261			
Months on Market	39.4	17.8			
Demand	Survey	5-Year Avg	Sales	Past Year	5-Year Avg
12 Mo. Absorption SF	135,450	-13,335	Sale Price Per SF	\$23	\$30
12 Mo. Leasing SF	96,934	97,657	Asking Price Per SF	\$86	\$85
			Sales Volume (Mil.)	\$4.6	\$1.4
			Cap Rate	-	-

Source: CoStar, March 18, 2015

**Figure 3.2 Analytic summary for Industrial and flex buildings in East Frederick**

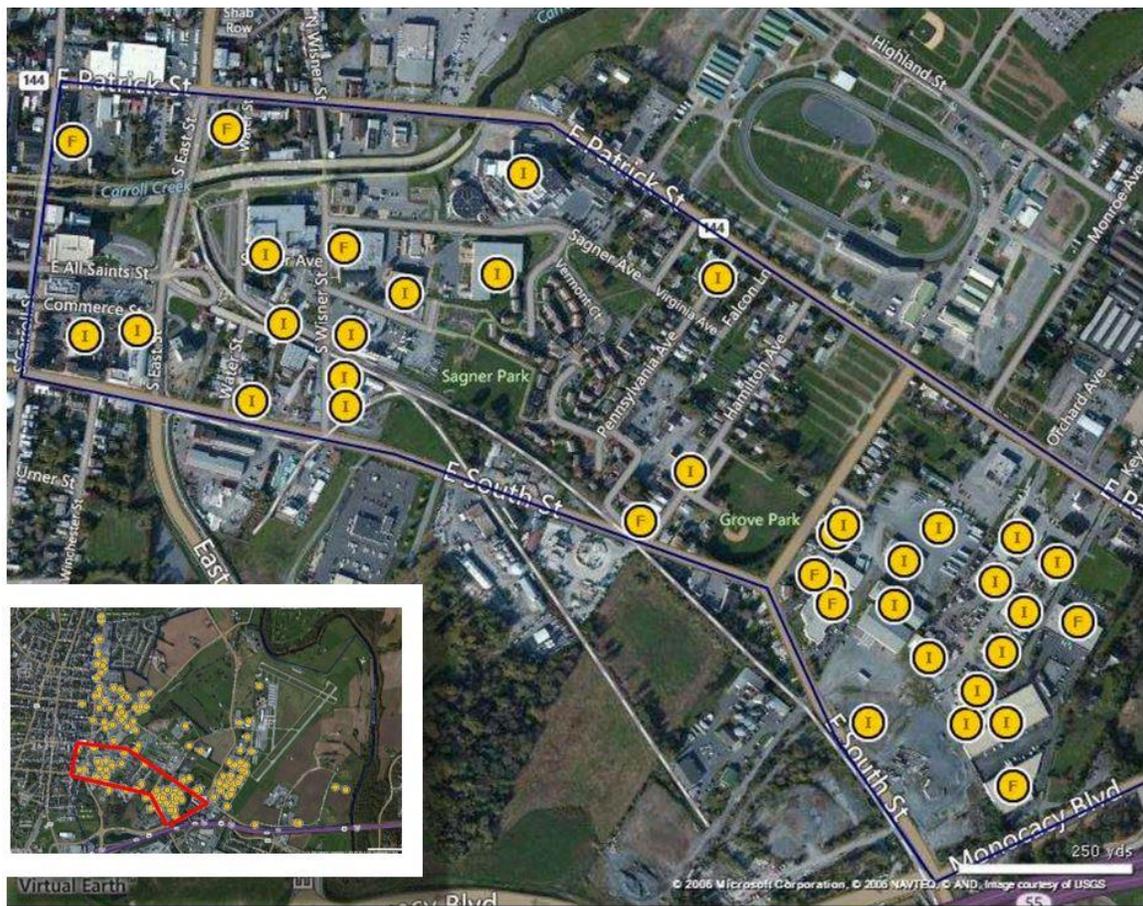
As mentioned above, the industrial areas south of Patrick Street are underutilized. Figure 3.3 shows industrial and flex buildings in East Frederick that are vacant or have vacant space. In total, there are 24 (18 percent of total) industrial/flex buildings with vacant space. There are only two buildings with vacant space along the north part of East Street. Most of the vacant industrial/flex buildings are concentrated in areas south of Patrick Street and near the airport.



Source: CoStar, March 18, 2015

**Figure 3.3 Vacant industrial and flex buildings in East Frederick**

Figure 3.4 -3.5 shows the map and analytic summary for industrial area south of Patrick Street. There are 37 industrial/flex buildings in this area, among which eight buildings have vacant space. The vacancy rate is 14.6percent, which is a little higher than East Frederick. Considering the existing trend and potential for mixed use along East Street Corridor, it would be reasonable to redevelop the underutilized industrial area south of Patrick Street into mixed-use and relocate the existing industrial uses to the vacant industrial land and buildings near the airport.



Source: CoStar, March 18, 2015

**Figure 3.4 Industrial flex buildings in areas south of Patrick Street**

Availability	Survey	5-Year Avg
Rent Per SF	\$6.05	\$6.70
Vacancy Rate	14.6%	12.9%
Vacant SF	102,606	90,420
Availability Rate	14.3%	12.8%
Available SF	100,526	89,933
Sublet SF	0	0
Months on Market	19.7	12.2

Demand	Survey	5-Year Avg
12 Mo. Absorption SF	25,529	-15,841
12 Mo. Leasing SF	44,719	27,631

Inventory	Survey	5-Year Avg
Existing Buildings	37	37
Existing SF	703,021	703,021
12 Mo. Const. Starts	0	0
Under Construction	0	0
12 Mo. Deliveries	0	0

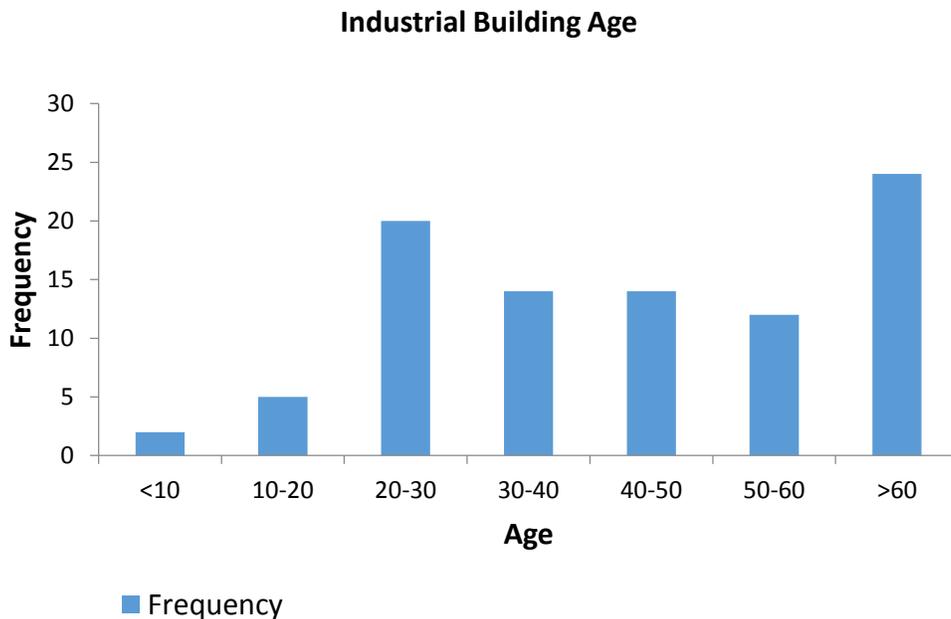
  

Sales	Past Year	5-Year Avg
Sale Price Per SF	-	-
Asking Price Per SF	\$132	\$132
Sales Volume (Mil.)	-	-
Cap Rate	-	-

Source: CoStar, March 18, 2015

**Figure 3.5 Analytic summary for Industrial and flex buildings in areas south of Patrick Street**

There are 104 existing industrial buildings in East Frederick. Around 40 percent of industrial buildings were built more than 50 years ago (Figure 3.6). Five buildings were built more than 100 years ago.



**Figure 3.6 East Frederick’s industrial building age**

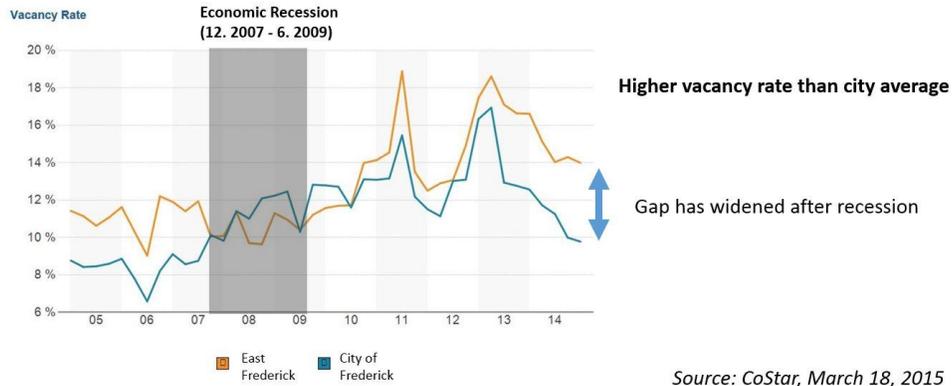
Figure 3.7 shows the vacancy rate and rent for industrial buildings in East Frederick over the past ten years. Industrial buildings in East Frederick have experienced an increased vacancy rate and a decrease in rent in recent years. After the economic recession, the vacancy rate increased by three percentage points and rent decreased \$0.8 per square foot. This might imply the decrease in demand for industrial uses in East Frederick.



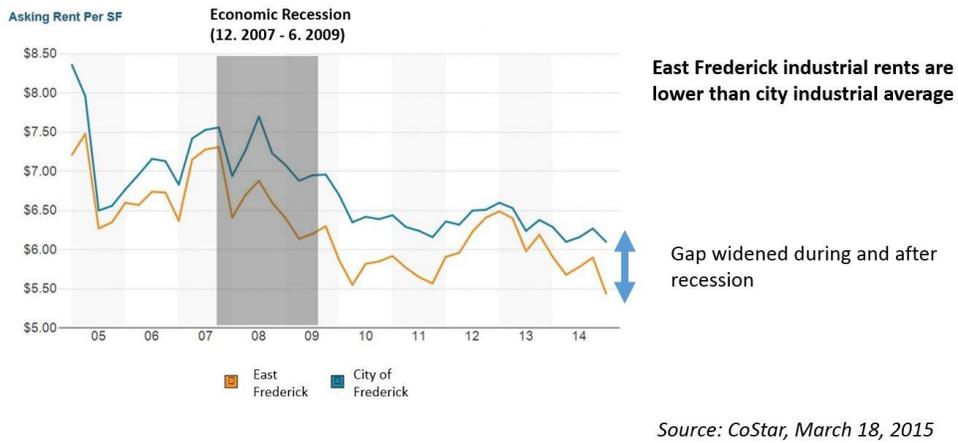
Source: CoStar, March 18, 2015

**Figure 3.7 Industrial buildings’ vacancy rate and rent in East Frederick**

Figure 3.8-3.9 compares vacancy rates and rents for industrial buildings between East Frederick and the city average. Historically, the vacancy rate in East Frederick is higher than the city average and the rent in East Frederick is lower than the city average. In addition, both of the gaps have widened in recent years.



**Figure 3.8 Industrial building vacancy rate, comparison between East Frederick and Frederick City**



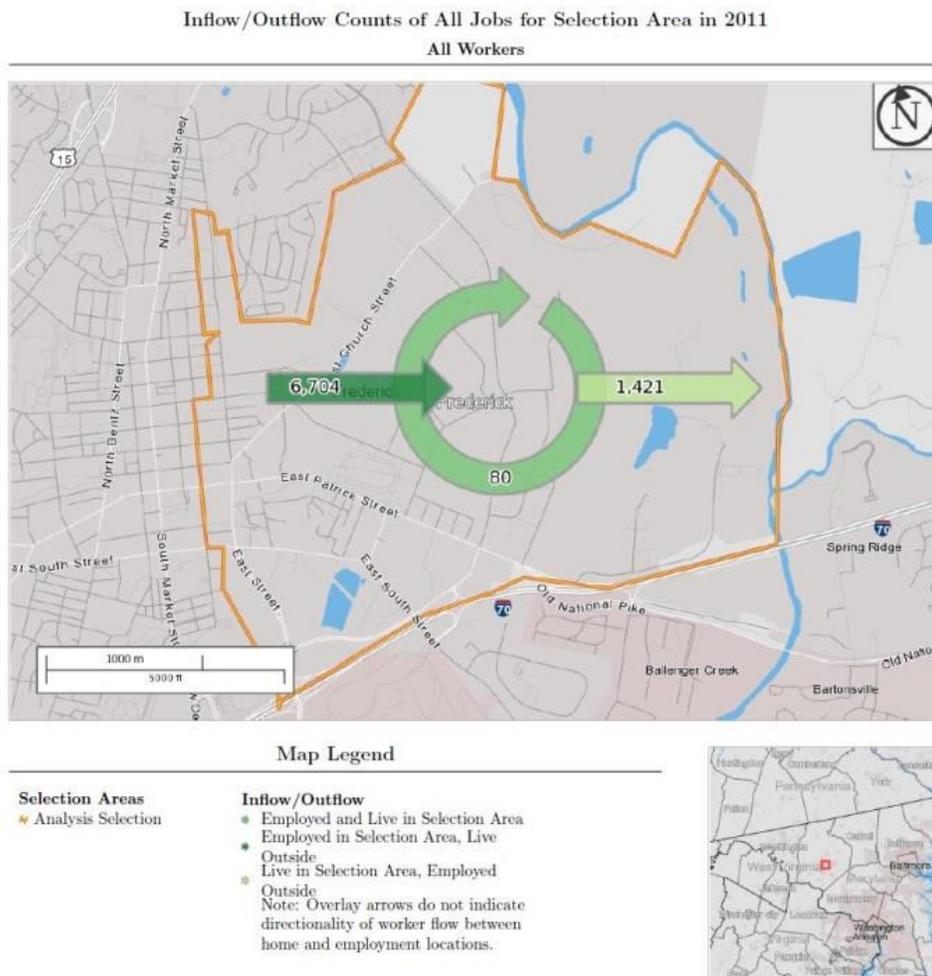
**Figure 3.9 Industrial building rent, comparison between East Frederick and Frederick City**

The analysis of vacancy rate and rent suggests potential surplus of industrial uses in East Frederick, especially in underutilized industrial area south of Patrick Street. Thus, it would be consistent with the overall trend in East Frederick to convert industrial area south of Patrick Street into mixed use and increase retail, office and other commercial uses.



#### 4. Economic Dynamics and Demographic Analysis in East Frederick

East Frederick is an employment center. Figure 4.1 shows that there are 6,704 inflow workers and 1,421 outflow workers. Only 80 residents in East Frederick both work and live there. Since most of the residents work outside of East Frederick, relocation of existing industrial business within East Frederick would have limited impact on current economic dynamics.



Sources: Longitudinal Employer-Household Dynamics Program, U.S. Census Bureau

**Figure 4.1 Inflow/outflow jobs in East Frederick**

Table 4.1 shows the number of jobs by industry based on NAICS code. The home area profile shows the workers by industry for the 1,501 employed residents of East Frederick. Health Care and Social Assistance, Retail Trade, Professional, Scientific and Technical Services, Educational Services, and Accommodation and Food Services are the top five industries where East Frederick residents are employed. Employed residents in industries that might require industrial land, such as manufacturing, transportation and warehousing, only consist of around 8 percent of all workers. In other words, most of the workforce in East Frederick is experienced in areas such as retail and services, which requires mixed-use development planning.

The work area profile shows the jobs by industry for the 6,784 workers who are employed in East Frederick, among which 6,704 workers live outside and 80 workers live in East Frederick. Professional, Scientific, and Technical Services, Retail Trade, Health Care and Social Assistance, Manufacturing, and Construction are the top five industries where businesses in East Frederick hire most workers. Jobs that require industrial land, such as manufacturing and transportation and warehousing, only consist of around 12% of total jobs in East Frederick. Thus, East Frederick shows higher demand for retail, office and mixed land use than industrial land uses.

	Home Area Profile		Work Area Profile	
	Count	Share	Count	Share
<b>Agriculture, Forestry, Fishing and Hunting</b>	7	0.50%	28	0.40%
<b>Mining, Quarrying, and Oil and Gas Extraction</b>	2	0.10%	0	0.00%
<b>Utilities</b>	3	0.20%	95	1.40%
<b>Construction</b>	78	5.20%	555	8.20%
<b>Manufacturing</b>	75	5.00%	648	9.60%
<b>Wholesale Trade</b>	33	2.20%	466	6.90%
<b>Retail Trade</b>	180	12.00%	1,049	15.50%
<b>Transportation and Warehousing</b>	41	2.70%	170	2.50%
<b>Information</b>	47	3.10%	520	7.70%
<b>Finance and Insurance</b>	64	4.30%	169	2.50%
<b>Real Estate and Rental and Leasing</b>	17	1.10%	40	0.60%
<b>Professional, Scientific, and Technical Services</b>	166	11.10%	1,092	16.10%
<b>Management of Companies and Enterprises</b>	14	0.90%	3	0.00%
<b>Administration &amp; Support, Waste Management and Remediation</b>	90	6.00%	531	7.80%
<b>Educational Services</b>	162	10.80%	87	1.30%
<b>Health Care and Social Assistance</b>	209	13.90%	679	10.00%
<b>Arts, Entertainment, and Recreation</b>	20	1.30%	16	0.20%
<b>Accommodation and Food Services</b>	125	8.30%	190	2.80%
<b>Other Services (excluding Public Administration)</b>	64	4.30%	423	6.20%
<b>Public Administration</b>	104	6.90%	23	0.30%
<b>Total</b>	<b>1,501</b>	<b>100%</b>	<b>6,784</b>	<b>100%</b>

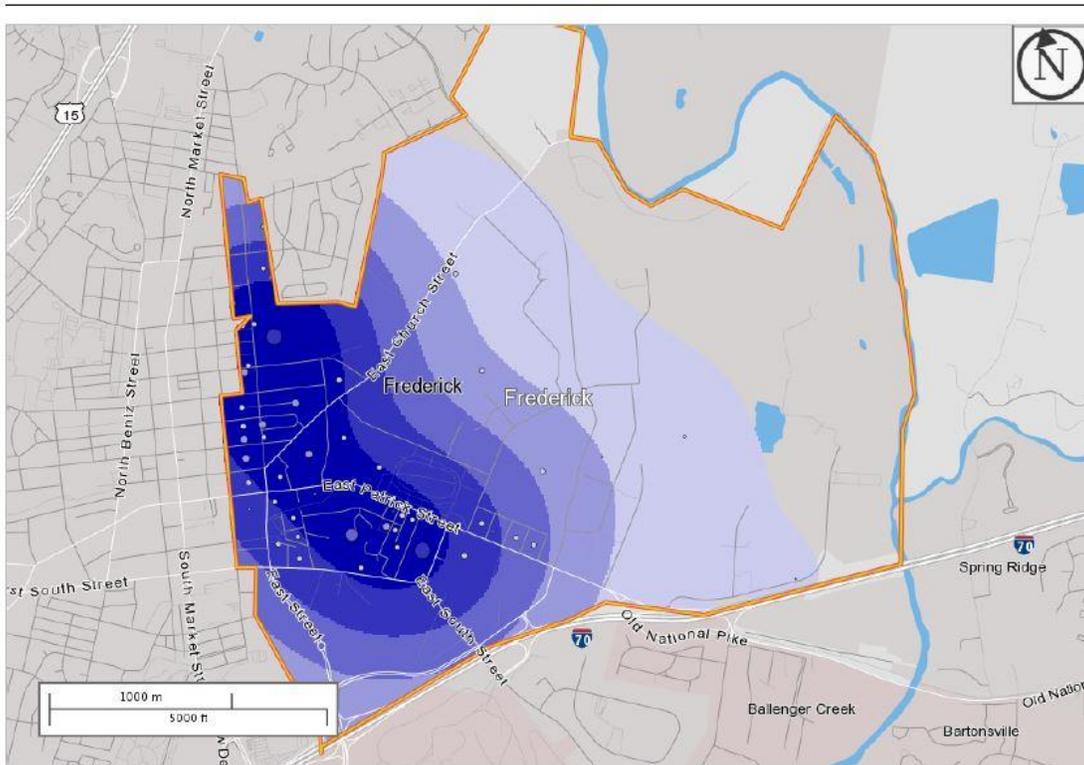
**Table 4.1 Jobs by NAICS Industry Sector**

*Sources: Longitudinal Employer-Household Dynamics Program, U.S. Census Bureau*

Figure 4.2 shows the residential density in East Frederick. There are a total of 1,501 employed residents. The residents in East Frederick are characterized as middle-aged and middle-income workers. 54.7 percent of employed residents are between 30 to 54 years old and 44 percent earn more than \$3,333 per month (Table 4.2). As Figure 4.2 shows, the residential density is high along the East Street corridor in the west part of

East Frederick and gradually decreases to the east. The areas along North East Street and the industrial area south of Patrick Street are the places where residents are highly concentrated (highlighted by red circles). Thus, these two areas have potential for mixed-

Counts and Density of All Jobs in Home Selection Area in 2011  
All Workers



Map Legend

- |                                    |                                      |
|------------------------------------|--------------------------------------|
| <b>Job Density [Jobs/Sq. Mile]</b> | <b>Job Count [Jobs/Census Block]</b> |
| ■ 5 - 71                           | ● 1 - 4                              |
| ■ 72 - 271                         | ● 5 - 27                             |
| ■ 272 - 604                        | ● 28 - 90                            |
| ■ 605 - 1,069                      | ● 91 - 212                           |
| ■ 1,070 - 1,669                    | ● 213 - 415                          |
|                                    | <b>Selection Areas</b>               |
|                                    | ★ Analysis Selection                 |



use development.

Sources: Longitudinal Employer-Household Dynamics Program, U.S. Census Bureau



**Figure 4.2 Residential density (employment by place of residence) in East Frederick**

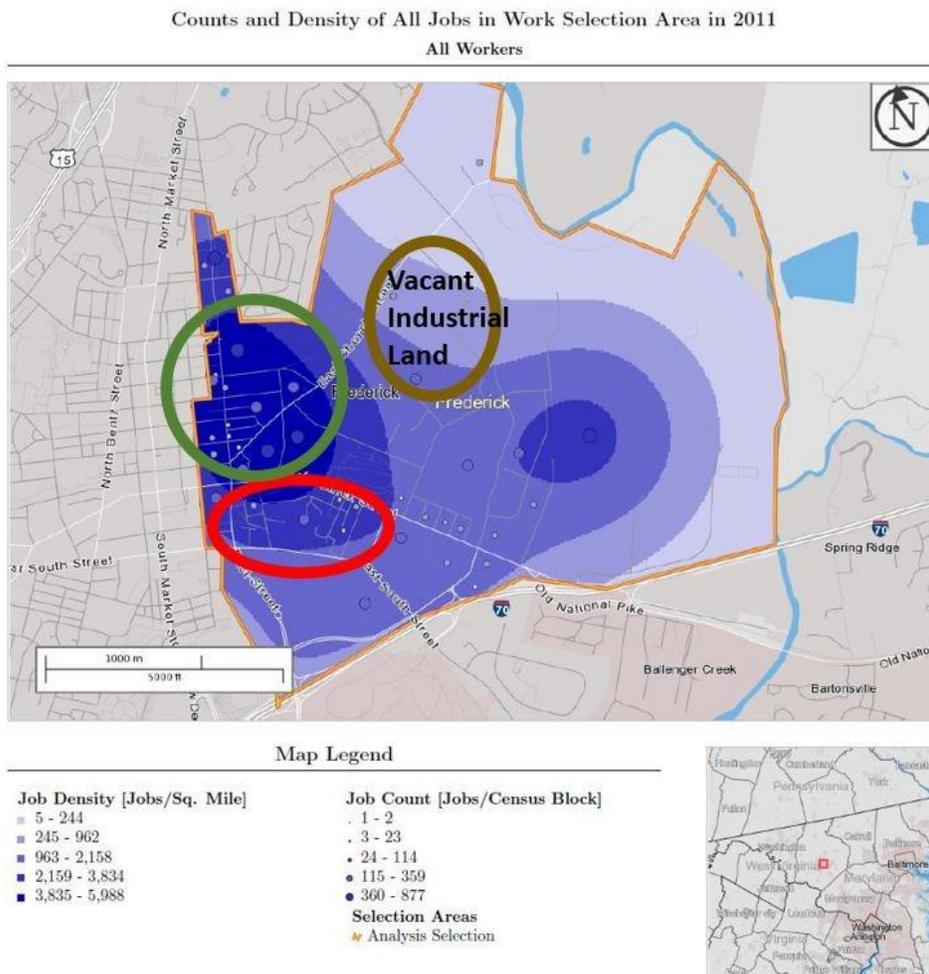
<b>Employment by place of residence</b>		
	Count	Share
<b>Total All Jobs (by place of residence)</b>	1,501	100.0%
<b>Jobs by Worker Age</b>		
	Count	Share
<b>Age 29 or younger</b>	379	25.2%
<b>Age 30 to 54</b>	821	54.7%
<b>Age 55 or older</b>	301	20.1%
<b>Jobs by Earnings</b>		
	Count	Share
<b>\$1,250 per month or less</b>	349	23.3%
<b>\$1,251 to \$3,333 per month</b>	491	32.7%
<b>More than \$3,333 per month</b>	661	44.0%

Sources: Longitudinal Employer-Household Dynamics Program, U.S. Census Bureau  
**Table 4.2 Residential Characteristics**

<b>Employment by place of work</b>		
	Count	Share
<b>Total All Jobs (by place of residence)</b>	6,784	100.0%
<b>Jobs by Worker Age</b>		
	Count	Share
<b>Age 29 or younger</b>	1,468	21.6%
<b>Age 30 to 54</b>	3,930	57.9%
<b>Age 55 or older</b>	1,386	20.4%
<b>Jobs by Earnings</b>		
	Count	Share
<b>\$1,250 per month or less</b>	1,337	19.7%
<b>\$1,251 to \$3,333 per month</b>	2,121	31.3%



Figure 4.3 shows the job density in East Frederick. There are 6,784 jobs in East Frederick, which are characterized as middle-aged and middle-income jobs. 57.9% of workers employed in East Frederick are between 30 to 54 years old and 49% earn more than \$3,333 per month (Table 4.3). As Figure 4.3 shown, the job density is high along North East Street corridor (green circle). North East Street corridor exhibits both high residential and job density, which implies high degree of mixed-use and potential for an innovation district.



Sources: Longitudinal Employer-Household Dynamics Program, U.S. Census Bureau

**Figure 4.3 Job density (employment by place of work) in East Frederick**

The industrial area south of Patrick Street (red circle) shows moderate or low job density, which implies this area is underutilized by industrial uses. Considering the potential for mixed-use development along East Street, converting the industrial area south of Patrick Street into mixed-use would make better use of this area and is more consistent with the economic environment both along the East Street Corridor and in East Frederick. Although there are around 1,000-2,500 industrial jobs in this area that would be affected by the redevelopment, the new mixed use development would bring in sufficient retail, services or commercial jobs to make up the difference.

## **5. Conclusion**

As a regional employment center, East Frederick has potential for mixed-use development, especially along East Street corridor. The demographic and economic structure would support future growth in retail, services and other commercial sectors. The North East Street corridor shows potential for an innovation district and the low-rent industrial properties would accommodate and encourage startups.

Compared with the city average, the industrial land is underutilized in East Frederick, especially in the industrial area south of Patrick Street (South East Street corridor). Thus, mixed-use redevelopment in this area makes sense. In addition, there are adequate vacant industrial land and properties near the Municipal Airport for relocation of existing industrial businesses south of Patrick Street. Although the redevelopment or relocation is likely to lead to some job loss in the industrial area south of Patrick Street, new mixed-use development should include sufficient employment opportunities to make up the difference.