A Market and Feasibility Analysis for the American Brewery Rehabilitation Project in Baltimore, Maryland

by

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REHABILITATION PROJECT IN BALTIMORE, MARYLAND

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ABSTRACT

An investigation was made of the market and economic conditions surrounding the American Brewery complex in Baltimore, Maryland. The purpose was to analyze the socio-economic forces which will have a direct impact on the feasibility of rehabilitating the historic buildings on the site. Research was directed toward three areas: 1) analysis of demographic data, 2) evaluation of potential design alternatives, and 3) validation of an industrial use proposal.

The market analysis defined the demographic characteristics of the area surrounding the Brewery site in terms of population, households, employment, and income. The pros and cons of the industrial, commercial, residential, and public-use development alternatives were outlined and each was ranked according to their compatibility with project objectives.

The final part of the market study was targeted toward industrial options for the project. The attributes of the Brewery complexes were matched with possible industry groups which could feasibly locate their activities at the site.
ACKNOWLEDGEMENTS

The information and research data for the market and feasibility study was collected in several different ways. Group meetings were held between students and faculty of the Virginia Tech Baltimore Project Studio to generate new ideas and establish a direction for the project. Correspondence with the Baltimore City Planning Department and various city agencies was essential throughout the study. The Greater Baltimore Committee and the Regional Planning Council helped provide demographic and market data. Without the generous cooperation of members of the above organizations, and other unnamed individuals, this study could not have been undertaken.

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CONCLUSIONS AND RECOMMENDATIONS

Viable Development Options

Many different individuals and organizations have suggested alternative uses for the historic American Brewery complex. Most of these ideas were proposed without the support of quantitative facts about the market and physical conditions of the site. This market study was undertaken to critically evaluate the possible alternatives and establish an information base necessary to make decisions on pertinent issues affecting the project. The analysis considered the full range of residential, commercial, industrial, and public-use alternatives. These alternatives were then ranked according to their compatibility with project objectives.

The market study concluded that residential and commercial alternatives were unfeasible for the Brewery complex. Industrial use was determined to have the greatest potential, and was therefore considered in more detail in Part Two of the report. A vocational skills center emerged later in the market study as another preferable use for the complex. The following pages summarize the objectives for a Brewery development proposal; identify the components necessary to satisfy those objectives; and describe design recommendations which can be made to implement the industrial and vocational skills center alternatives.
Goals and Objectives for the Brewery Development Proposal

The Brewery complex is presently owned by the city of Baltimore which has in turn transferred the development rights to the East Baltimore Community Corporation (EBCC). Because of the depressed economic conditions in East Baltimore, one of the major priorities of EBCC is to enhance economic development in its communities. The American Brewery represents a unique opportunity to promote physical and economic growth in the neighborhoods surrounding it. The market analysis identified the following community objectives for a proposal to rehabilitate the American Brewery complex:

1. promote economic growth and positive income flow;
2. promote employment opportunities;
3. reverse commercial/residential disinvestment;
4. stabilize declining population and households;
5. promote minority business ownership; and
6. promote occupational preparatory programs.

The Brewery project cannot totally accomplish these objectives by itself, but, it can be a vehicle through which positive contributions can be made to these areas.

Profile Matching of Compatible Industries

The physical and locational attributes of the American Brewery were matched against the site selection criteria of
various industries. This "profile matching" determined the manufacturing and nonmanufacturing industry groups which may consider the Brewery as a location for their activities. These groups were then ranked in an "Industry Compatibility Matrix" according to their compatibility with community needs, city objectives, and industrial requirements. The industries most compatible with these project objectives were ranked in this order:

1. printing/publishing;
2. special trade construction;
3. electric and electrical equipment;
4. education (vocational skills center); and
5. apparel/textiles

The industry groups listed above represent broad categories of the "Standard Industrial Classification" (SIC) coding system. More intensive evaluation of these divisions will be necessary to determine the activities of specific business establishments suitable for the complex.

The profile matching process revealed other factors about the industrial nature of the Brewery complex. For instance, subdividing the buildings for multiple-occupancy, rather than renovating the facility for a single company, is the more preferred alternative. A multi-tenant complex would complement community employment objectives, reduce risk through diversification, and increase marketability to prospective companies.
It is also essential to diversify the tenant-mix between manufacturing and nonmanufacturing industries. This will protect the success of the project in future years from the continued decline of manufacturing employment, or other abrupt shifts in Baltimore's economic trends.

**Concept for a Planned Industrial Center**

The idea for a Planned Industrial Center for the Brewery evolved out of the synthesis of the market study data. Although this type of facility is usually found only in large planned communities or industrial parks, the same methods could be applied, on a smaller scale, to the Brewery and surrounding properties. Such a center could be designed to accommodate a variety of small entrepreneurial firms who support and complement each other. Public/private cooperation would be needed to plan and develop the project. An overall employment strategy is critical to coordinate the skills of the community labor force and vocational job training programs, with anticipated job positions.

Other elements for a successful Planned Industrial Center for the Brewery are:

- clear goals and objectives for the project;
- a comprehensive master plan of the Gay Street area integrating residential, commercial, and industrial revitalization;
- selected industries which are compatible to each other;
- selected industries which are compatible to the site;
• effective management and planning by a quasi-public control group;

• joint cooperation by public and private participants;

• an effective marketing strategy using the Brewhouse as a focal point and employment center in the community;

• available tax incentives and other public assistance programs for businesses locating at the center.

**Design Recommendations for an Industrial Proposal**

The elements of a planned industrial center directly influence the architectural design of the facility. The subdivision of the individual buildings should be coordinated with the master plan for the Gay Street area. The design should respond to the particular requirements of the selected industries, yet be flexible enough to accommodate a variety of functional operations.

The Brewhouse building should be used for medium-duty manufacturing and light assembly operations. With proper design these functions can be adapted to the multiple-levels of the Brewhouse. In addition, production activities are generally labor intensive, thus maximizing the employment opportunities within the limited available space.

The buildings behind the Brewhouse are suitable for small repair shops, warehousing, and distribution facilities. These buildings are much more accessible for truck docking, materials handling, and storage of finished goods. Better access to this end of the site could be achieved if several
of the "back buildings" were removed. This would provide additional space for truck maneuvering, parking, and future expansion.

The Office buildings across from the Brewhouse are compatible with "service" industries such as laboratories, testing centers, business services, and social/educational services. These buildings could be designed into smaller spaces accommodating several multi-functional service uses.

The FitzSimmons Mansion could be a daycare, preschool, or community center for area residents and employees. The larger tenants of the industrial center may require administration and office space which could also be incorporated into this building.

The implementation of the planned industrial center would likely occur in phases. The Brewhouse and buildings behind it are the cornerstone for the concept and should be designed, and rehabilitated first. As the marketing of the "units" proceeded the scope and the design of the other buildings could be adjusted for new ideas or types of firms previously unplanned for.

The Offices across from the Brewhouse, and the FitzSimmons Mansion could be completed in Phase Two. These structures would then become more viable, drawing on the strength and linkage of the other completed buildings. They are also the most flexible in their ability to accommodate different types of business and service functions.
Finally, there are a few vacant or underused sites surrounding the Brewery which could be coordinated in Phase Three of the plan. These should be acquired early in the development process by the city to assure control over the land use of these properties. If space in the industrial center is absorbed quickly, the interest in the project by other private investors would increase, thus generating further development and economic revitalization in the community.

Recommendations for a Vocational Skills Center

The "Targeted Industrial Market Study" indicated a deficiency in vocational education for East Baltimore residents. Occupational training is needed to meet existing and projected employment opportunities for youths entering the job market for the first time, and: retraining of those workers whose skills have been rendered obsolete or less in demand by changing economic conditions.

There is currently a proposal to establish the "Eastside Skills Center" on North Gay Street just outside this reports study area. The Brewery's central location in East Baltimore offers an acceptable alternative site for a vocational skills center. The Brewery's proximity to schools, community and industrial districts would facilitate maximum use of occupational and retraining programs. Transportation to the Brewery from area high schools could be efficiently routed.
The Brewery buildings appear, upon a preliminary survey, adaptable to the program requirements of the proposed skills center. The compatible training programs are listed with the individual buildings below:

**Brewhouse:**
- construction trades
- precision metal work
- electronics equipment
- graphics/printing
- classrooms

**Stockhouse and Engine Rooms:**
- vehicle & mobile equipment mechanics
- construction trades

**FitzSimmons Mansion:**
- vocational home economics
- administration/offices

**Offices:**
- specialized secretarial training
- health occupations
- business data processing
- market/distribution
- classrooms
- vocational assessment center

A working relationship with area businesses could be promoted to coordinate specific employment opportunities with graduates of the center. This relationship would also contribute to attracting new industries to East Baltimore, and encouraging workers to remain in the area once a job is found.

The proposal to locate the Eastside Skills Center at the Brewery site is a promising alternative which has just recently been suggested. A detailed architectural and educational program was unavailable during the course of the
market study research. Because of the unique nature of an institutional facility, it is imperative that an indepth feasibility study be undertaken to evaluate the merit of this proposal.
Part One:

Market Analysis for the American Brewery Project
The American Brewery Project

The American Brewery is located at 1700 N. Gay Street in Baltimore, Maryland. The two maps on the following pages show the Brewery's location in East Baltimore and a site plan of the Brewery complex. There are approximately 20 buildings or additions on the Brewery site including the Brewhouse, Engine Room, Electronics Manufacturing Plant, FitzSimmons Mansion, Offices, and Underground Storage Tunnels. Many of these buildings remain in sound structural condition although a few have deteriorated beyond repair. A complete listing of all the buildings and their additions, along with the size, construction date, total square footage, and general physical condition is described in Appendix "A" on page 170.

The style, type of construction and juxtaposition of the buildings on the site varies considerably. Each of the buildings has its own special character and may be more suitable with one kind of use than another. This diversity is one of the reasons it has been hard to agree on a definite reuse for the overall complex. For instance, the buildings on the FitzSimmons side of Gay Street are different in form and character than the buildings on the Brewhouse side of Gay Street. What may be an acceptable use
for several of the structures may be totally inappropriate for the others. Generally speaking, the existing structures on the site are capable of supporting a variety of residential, commercial, industrial, and public-use functions.

Under any proposed development scheme for the Brewery, it will be necessary to consider the coordination of all the existing buildings in order to achieve an integrated, well planned, and successful design.
Figure 1.1

East Baltimore
(For Numbered Descriptions See Page170)
Figure: 1.3
The Brewhouse Building
Gay Street Offices

FitzSimmons Mansion

Stockrooms

Figure: 1.4
Purpose of the Market Study

The feasibility of the adaptive-reuse alternatives for the American Brewery Development Project ultimately depends on the local market conditions and financial climate. The understanding of these market and financial forces is essential to an accurate assessment of potential development options. The purpose of this market study is to analyze these economic forces unique to the East Baltimore area, which will have a direct impact on the feasibility of developing the American Brewery complex. Specifically, this market study will hope to:

1. delineate the location of the competitive market area for residential, commercial and industrial land uses surrounding the Brewery site;

2. evaluate the prevailing economic conditions in the market area surrounding the Brewery site;

3. identify the most critical supply and demand factors which will influence the success of the alternative development concepts;

4. provide the base data for an economic feasibility analysis of proposed development alternatives;

5. provide the evaluation criteria for specifying which design alternatives are appropriate considering market and economic conditions;

6. identify the form, type, size and rent structure of potential space units;

7. approximate the timing and phasing of the project in meeting peak market demand, economic trends, and financial market fluctuations; and

8. suggest possible design recommendations to adapt the Brewery to specific, marketable facility users.

This study will look at the broad categories of
residential, commercial, and industrial use. Within these parameters, there are infinite combinations of potential mixed-use alternatives. The relationships which interact between the three types is considered throughout this report. The essence of the market study, however, is to evaluate the residential, commercial, and industrial capabilities, and to assess whether economic and financial conditions are favorable for developing one particular design concept over another.

The possibility of converting the Brewhouse to residential use is one option that cannot be overlooked. The majority of land use surrounding the Brewery is primarily residential rowhouses. A large number of these existing rowhouses are substandard and overcrowded. The assessment of housing demand in the area is one of the initial steps in determining if a residential development option is viable. The direct consequences, the advantages, and disadvantages can be outlined. Some questions about the residential market which this study will answer are:

1. How do the indirect economic constraints of zoning, topological, physical, neighborhood organization, and demographics affect the project?

2. Does demand for housing exist and what market segment does it encompass?

3. Is a residential design concept the best use in terms of community needs and economic development? In other words, is residential use the most probable and beneficial use?
4. If the Brewery were adapted for residential use, how many units can be absorbed over time and how should the development of the individual buildings be phased for construction?

The Brewery is located along the Gay Street commercial corridor. The business climate has been declining in this area for some time. The Brewery complex has the potential to reverse this trend if a successful combination of retail and commercial mix can be achieved. To define this potential, the market study will assess the conditions under which the Brewery could be successfully adapted for commercial use. Some of the questions involving the commercial marketability of the Brewery are:

1. Do the indirect economic constraints such as zoning, transportation, topo/physical, and demographics favor one type of commercial mix over another?

2. What is the nature of a retail/commercial mix that would locate and achieve a successful sales volume on the site?

3. Will adapting the Brewery into a retail specialty and office complex be compatible with the community's efforts for commercial revitalization?

4. How many square feet can be leased and at what price range?

5. What incentives are needed to attract potential shoppers and merchants to this particular location?

The adaptation of the Brewery complex to a modern industrial or manufacturing plant is also possible. The heavy-duty nature of its construction and the immense interior spaces are tributes to its historic industrial
heritage. There is high unemployment in the area and a plentiful supply of trainable labor. The site is zoned industrial and a manufacturing plant already exists on the site. Several participants in the project favor an industrial "tech park" for the complex. All these factors give the historic buildings enormous potential for industrial recycling. However, the Brewery's physical components must be assessed to determine if a viable industrial development concept is possible. The complex contains advantages and disadvantages inherent in its physical and locational being which favor certain industries and not others. This report will examine the industrial market conditions in Baltimore and attempt to answer the following questions:

1. What effects do transportational linkages, utilities availability, soil conditions, and environmental factors have on a proposal for industrial use?

2. What type of industrial firms would be attracted to the Brewery site?

3. How would the installation of a tech park affect employment and income patterns in the community?

4. How many square feet can be leased and at what price range?

Finally, this market report is designed to "fit" into the context of a more comprehensive feasibility study of the American Brewery Project. This overall process will includes an analysis of current market conditions and an
economic study evaluating the financial performance of the proposed alternatives. Establishing the economic feasibility of the Brewery project may generate the interest of city planners, community officials, investors, and developers in undertaking the project.

The market study will screen potential design alternatives and provide the base data for the economic feasibility evaluation of alternatives, thus setting the stage for the programming and physical design stages of the project. The economic data collected in the market study can be used as input data for the computerized Real Estate Analysis Model (REAL) used within the Department of Architecture at Virginia Polytechnic Institute and State University. Through computer analysis, different economic variables undergo multiple iterations establishing a range of economic performance. The final development proposal can then be 'fine tuned' to achieve the maximum return on investment within other social, political, and physical constraints of the project.

**How The Market Study Was Conducted**

The basic area of analysis for any market study is the region which encompasses the maximum extent of the competitive marketplace. The first section of this market study is, therefore, an overview of the Baltimore Standard
Metropolitan Statistical Area (SMSA) with focus on Baltimore City as a regional unit. The regional overview establishes the parameters of the Baltimore market and sets the basis for comparison between national, regional, and local market dynamics.

The second section delineates the American Brewery competitive market area by analyzing the prevailing conditions and locational attributes of the site. The key determinants of zoning, local demographics, physical features, neighborhoods, and transportation are discussed.

After the local market area has been determined, the direct economic factors which influence demand for space in the area surrounding the Brewery will be explored in detail. Emphasis will be placed on the key determinants of population, households, employment, and income, and their relationship to residential, commercial, and industrial space demands. Information gathered during this process will continually be analyzed for changing trends, future projections, and potential market segmentation. The results will be quantified and compared against the existing supply of residential, commercial, and industrial space units. The supply analysis will also include a synopsis of housing and retail conditions, vacancies, and economic values of location.

At the end of Part I, the potential alternatives for the site will be evaluated on compatibility with various project
goals and objectives. A development matrix chart will screen the nonviable options and rank those with the greatest potential.

In Part II, the study will be targeted toward the most promising development scenario, so that specific elements of that proposal can be studied in greater detail. This final section will propose the most feasible development alternative based on the market and physical conditions revealed throughout in the course of the study.

The American Brewery complex is a vacant industrial site in search of a use. Thus, the potential real estate market is somewhat defined because a particular group of marketable space units exists. The individual physical components of the Brewery complex, and their unique locational characteristics need to be clearly understood before the development process can evolve.

By focusing on a specific concern, such as structural condition of the existing buildings on the site, some possible design solutions can be eliminated. Other concerns, such as economic feasibility, require more detailed analysis before accurate decision making information can be assembled. Thus, the range of potential design alternatives is quite broad until a more detailed evaluation of issues can be made. For this reason, the market study for the Brewery must also be very broad based. The Brewery complex could be adapted into a number of viable
options if physical, social, economic, and political factors are considered. This market study attempts to consider the most critical issues of market demand and assess whether financial conditions are favorable for any particular development alternatives.
2. BALTIMORE REGIONAL OVERVIEW

The regional overview establishes the parameters of the Baltimore economic base and sets the foundation for comparing national, regional, and local market dynamics. Oftentimes, local factors are influenced within regional trends. Regional trends, in turn, are closely correlated with fluctuating national cycles. The data used in the study was available in the following levels:

1. National
2. Regional (Baltimore SMSA)
3. Baltimore City
4. East Baltimore
5. Local Census Tracts

The data analysis which begins on a macro perspective is gradually focused onto the micro level. The regional overview compares the national, Baltimore SMSA, and Baltimore City economic conditions. Later, as the market study examines the communities of East Baltimore, relationships will be made between regional/national trends and the specific conditions surrounding the Brewery.

On a national scale, the key location of the Baltimore/Washington corridor makes it the 4th largest marketplace in the country with buying power of 38.2 billion dollars. These twin cities, often called the "common
market*, complement each other because of Washington's dependence on the federal government, and Baltimore's long history as a port and major manufacturing center. When combined, the common market has the largest concentration of high technology personnel in the nation.

The Baltimore/Washington corridor has shown a modest population growth of 5% over the last 10 years. Although this is not as rapid as some southern and western cities, it still represents positive change. In some northern regions the population has declined up to 9% over the same period.1

Regional Demographic Trends

The Baltimore Standard Metropolitan Statistical Area (SMSA) encompasses the City of Baltimore and the five surrounding counties of Anne Arundel, Howard, Carroll, Baltimore, and Harford. This region is shown in Figure 2.1 on page 18. The SMSA has been sub-divided by the Baltimore Regional Planning Council into smaller regional planning districts as shown in Figure 2.2 on page 19. The total regional population of the SMSA is 2,177,000 (1981) and ranks as the 14th largest metropolitan area in the nation. Baltimore is truly unique:

Baltimore's 2.2 million people are active, young and affluent. The median age is 31 years, with two-thirds of the market's population in the key 25-54 age group. 40% of all Baltimore adults live in households with annual incomes of $20,000
Figure: 2.1

Baltimore Standard Metropolitan Statistical Area (SMSA)
Figure: 2.2

Baltimore SMSA: Regional Planning Districts
or more. Three out of five Baltimoreans work in white collar jobs, with 75% of the market's adults owning their own homes.²

Table 2.3, on the next page, summarizes certain key economic indicators for the Baltimore region. Major growth in population and households is projected to occur in the counties which surround Baltimore City.

Baltimore is the eighth largest city in the United States with a population in 1980 of over 786,000 residents. It is an independent city, that is, one of the few large cities in the country not located within a county. Figure 2.4 shows how Baltimore City has been sub-divided into regional planning districts and highlights section 119 (East Baltimore).

The demographic composition of Baltimore City differs from the other surrounding counties of the SMSA in a number of ways. Population is one of these areas:

As is the case in many large, central urban areas, the population of Baltimore City has been declining over the past twenty years, while that of the surrounding counties has been increasing. Since the number of households in the city has remained constant, it is clear that this population drop has been largely caused by the reduced size of the average city household; the Census Bureau estimates that between 1970 and 1975 the average household declined from 3.1 to 2.8 persons, a reduction of 10 percent.³

Table number 2.5 sets forth the past population trends and future projections for the region. Baltimore County has
# Table 2.3

**SELECT ECONOMIC INDICATORS FOR THE BALTIMORE REGION**

<table>
<thead>
<tr>
<th></th>
<th>Total SMSA</th>
<th>Baltimore City</th>
<th>Baltimore County</th>
<th>Anne Arundel County</th>
<th>Harford County</th>
<th>Howard County</th>
<th>Carroll County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>2,180,600</td>
<td>776,100</td>
<td>657,700</td>
<td>376,800</td>
<td>148,800</td>
<td>123,100</td>
<td>98,600</td>
</tr>
<tr>
<td>Projected Growth by 1985</td>
<td>-4%</td>
<td>+2%</td>
<td>+10%</td>
<td>+17%</td>
<td>+31%</td>
<td>+31%</td>
<td>+18%</td>
</tr>
<tr>
<td>Households</td>
<td>768,000</td>
<td>279,900</td>
<td>241,900</td>
<td>124,600</td>
<td>47,800</td>
<td>42,200</td>
<td>31,600</td>
</tr>
<tr>
<td>Projected Growth by 1985</td>
<td>+3%</td>
<td>+5%</td>
<td>+16%</td>
<td>+28%</td>
<td>+31%</td>
<td>+31%</td>
<td>+31%</td>
</tr>
<tr>
<td>Total Retail Sales</td>
<td>9.4 billion</td>
<td>2.4 b</td>
<td>4.1 b</td>
<td>1.7 b</td>
<td>0.49 b</td>
<td>0.45 b</td>
<td>0.32 b</td>
</tr>
<tr>
<td>Total Effective Buying Income</td>
<td>16.7 billion</td>
<td>5.0 b</td>
<td>6.3 b</td>
<td>2.6 b</td>
<td>1.1 b</td>
<td>1.1 b</td>
<td>0.63 b</td>
</tr>
<tr>
<td>Aver. Household E.B.I.</td>
<td>$21,796</td>
<td>$17,783</td>
<td>$25,972</td>
<td>$20,911</td>
<td>$23,500</td>
<td>$26,514</td>
<td>$19,995</td>
</tr>
</tbody>
</table>

Source: Reflections of Baltimore, The Baltimore Sunpapers
Figure: 2.4

Baltimore City:
Regional Planning Districts

101 Upper Park Heights
102 Mt. Washington
103 Roland Park
104 Chinquapin
105 Govans-Northwood
106 Hamilton
107 Forest Park
108 Lower Park Heights
109 Druid Hill
110 Hampden
111 Waverly
112 Clifton
113 Gardenville

114 Ten Hills
115 Irvington
116 Rosemont
117 West Baltimore
118 Metrocenter
119 East Baltimore
120 Highlandtown
121 Canton
122 Morrell Park
123 Carroll Park
124 South Baltimore
125 Cherry Hill
126 Brooklyn
been statistically separated from the other four counties so that migration trends can be more clearly understood. These figures are graphed on page 25. Interpretation of this graph suggests:

1. a declining Baltimore City population;

2. a very gradual increase in Baltimore County population; and

3. a significant population increase in the remaining four counties.

Not only is population migrating out of Baltimore, but former residents are choosing to live at a much greater distance from the central business district than would be expected. However, Baltimore's major success in the redevelopment of the Metro Center may have a major impact on reducing this trend in years to come.

Household trends are a good indicator of Baltimore's economic vitality. Table 2.7 on page 26 is important because it shows how households in Baltimore City have remained constant over the last ten years despite declining population. Households within the SMSA slightly increased over the same period. Future projections call for a stabilized population in the SMSA with a continued decrease in household size.

The previous tables and graphs show how population and household demographic trends are different between Baltimore City and the surrounding five counties. A report by the Mayor's Task Force on Population Migration titled, "The
Table 2.5

POPULATION TRENDS OF THE BALTIMORE SMSA (thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total SMSA</th>
<th>Baltimore City</th>
<th>Baltimore County</th>
<th>Surrounding Four Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>1,457.2</td>
<td>949.7</td>
<td>270.3</td>
<td>237.2</td>
</tr>
<tr>
<td>1960</td>
<td>1,803.7</td>
<td>939.0</td>
<td>492.4</td>
<td>372.3</td>
</tr>
<tr>
<td>1970</td>
<td>2,071.0</td>
<td>905.8</td>
<td>620.4</td>
<td>544.8</td>
</tr>
<tr>
<td>1975</td>
<td>2,142.4</td>
<td>845.1</td>
<td>639.6</td>
<td>657.6</td>
</tr>
<tr>
<td>1976</td>
<td>2,139.7</td>
<td>818.6</td>
<td>642.3</td>
<td>678.9</td>
</tr>
<tr>
<td>1977</td>
<td>2,145.8</td>
<td>807.3</td>
<td>640.3</td>
<td>698.2</td>
</tr>
<tr>
<td>1978</td>
<td>2,145.2</td>
<td>789.7</td>
<td>638.9</td>
<td>716.5</td>
</tr>
<tr>
<td>1979</td>
<td>2,159.4</td>
<td>788.2</td>
<td>647.2</td>
<td>724.0</td>
</tr>
<tr>
<td>1980</td>
<td>2,174.0</td>
<td>786.8</td>
<td>655.6</td>
<td>731.7</td>
</tr>
<tr>
<td>1981</td>
<td>2,187.0(e)</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>1982</td>
<td>2,197.0(e)</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>1985</td>
<td>&quot;</td>
<td>748.0(e)</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>1990</td>
<td>&quot;</td>
<td>728.0(e)</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>1995</td>
<td>&quot;</td>
<td>712.0(e)</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>2000</td>
<td>&quot;</td>
<td>719.0(e)</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

(See graph of this table on the next page)

Sources:
(1) Economic Indicators - Baltimore Region, Regional Planning Council, 1981
(2) Economic Indicators - Baltimore City, Regional Planning Council, 1981
POPULATION GROWTH - BALTIMORE REGION (SMSA)

POPULATION GROWTH - BALTIMORE CITY & COUNTIES

Source: (See Table on Previous Page)  Figure: 2.6
HOUSEHOLD TRENDS IN THE BALTIMORE REGION
(thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total SMSA</th>
<th>Baltimore City</th>
<th>Baltimore County</th>
<th>Surrounding Four Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>505.3</td>
<td>275.6</td>
<td>134.6</td>
<td>95.3</td>
</tr>
<tr>
<td>1970</td>
<td>623.5</td>
<td>289.0</td>
<td>184.8</td>
<td>149.6</td>
</tr>
<tr>
<td>1975</td>
<td>705.0</td>
<td>291.9</td>
<td>215.9</td>
<td>197.2</td>
</tr>
<tr>
<td>1980</td>
<td>757.0</td>
<td>281.4</td>
<td>237.4</td>
<td>238.1</td>
</tr>
<tr>
<td>1983</td>
<td>805.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1985</td>
<td>827.7¹</td>
<td>282.0²</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: (1) Baltimore Economic Profile, Baltimore Economic Development Corporation, 1979
(2) Economic Indicators - Baltimore City, 1981
(3) Metro Business Facts, Greater Baltimore Committee
Impact of Population Decline on Baltimore", researched the nature of this diversity. The following is a summary of their findings:

1. City wide population decline has been accelerating since 1970; the metropolitan area, in contrast, has been growing during the same period.

2. The number of households in the city has remained almost unchanged since 1970, because average household size has dropped from 3.07 to 2.82 persons per unit.

3. The major factor in population loss is migration out of the city. More recently however, declining birth rates, particularly among non-whites, have reduced the overall population.

4. A survey of city residents who migrated to another location, revealed that one-third expressed negative feelings about the city. Services and safety were major points of dissatisfaction.

5. Little new housing was constructed for middle-upper income residents; most construction was either low income or subsidized, and therefore exempt from taxes.

6. Growth in city property values has been slow, about 1.4% per year.

7. The loss of population and fiscal problems are shared by many older cities throughout the country; Baltimore has been extraordinarily successful in counteracting these trends by progressive renewal programs.

**Baltimore Regional Economic Base**

A survey of land use in the Baltimore region reveals that of the 51,300 total acreage in Baltimore City, 47,400 or 92.4% have already been developed. This is in contrast to
33.5% of Baltimore County and average of 26.6% in the metropolitan region as a whole. Of Baltimore's 47,400 developed acres, 21% is industrial, 52.7% residential, and 4.9% commercial. It is clear Baltimore must reuse its existing land because the supply of undeveloped land is minimal.

The labor force in the region has fluctuated with the national economic condition. During the 1976 and the current 1980 - 1982 recession, employment fell significantly. However, the general trend in the region is for the number of jobs to increase by approximately 2% per year. Regional Planning Council estimates for 1970 - 1985 are shown in table 2.8. Employment is expected to remain stable in Baltimore City and increase in the surrounding five counties. These forecasts expect an upswing in the Baltimore economy during 1983 - 1985.

Unemployment in Baltimore fluctuated between 6.2% and 7.4% between 1975 and 1980. During 1981, unemployment ranged between 7.1% and 9.1%, generally consistent with national averages.

The type of jobs throughout the United States has been changing from manufacturing toward more service oriented professions. Figure 2.9 depicts the type of jobs in the Baltimore Region between 1975 - 1985 and compares the employment types to each other. Manufacturing employment dropped during this period by 18% but is expected to rise
EMployment trends - Baltimore region
(Thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total SMSA</th>
<th>Baltimore City</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>921.6</td>
<td></td>
</tr>
<tr>
<td>1971</td>
<td>930.3</td>
<td></td>
</tr>
<tr>
<td>1972</td>
<td>940.6</td>
<td></td>
</tr>
<tr>
<td>1973</td>
<td>970.7</td>
<td></td>
</tr>
<tr>
<td>1974</td>
<td>982.2</td>
<td></td>
</tr>
<tr>
<td>1975</td>
<td>965.7</td>
<td>459.9</td>
</tr>
<tr>
<td>1976</td>
<td>960.8</td>
<td>446.9</td>
</tr>
<tr>
<td>1977</td>
<td>991.9</td>
<td>450.3</td>
</tr>
<tr>
<td>1978</td>
<td>1,028.6</td>
<td>459.0</td>
</tr>
<tr>
<td>1979</td>
<td>1,049.8</td>
<td>461.5</td>
</tr>
<tr>
<td>1980e</td>
<td>1,058.0</td>
<td>460.6</td>
</tr>
<tr>
<td>1981f</td>
<td>1,047.0</td>
<td>455.0</td>
</tr>
<tr>
<td>1982f</td>
<td>1,029.0</td>
<td>445.0</td>
</tr>
<tr>
<td>1983f</td>
<td>1,040.0</td>
<td>449.0</td>
</tr>
<tr>
<td>1984f</td>
<td>1,064.0</td>
<td>454.5</td>
</tr>
<tr>
<td>1985f</td>
<td>1,090.0</td>
<td>460.0</td>
</tr>
</tbody>
</table>


e - preliminary estimate
f - forecast

Figure: 2.9
slightly as efforts to encourage the production of durable goods are successful. Other employment sectors such as services, government, and trade, are expected to absorb some of the substantial shift in jobs. This reflects the changing yet diversified employment patterns in the Baltimore Region and the balance between government, services, manufacturing, and wholesale/retail trade industries.

The following list of major employers is another indication of the diversified employment base in the region:

**Baltimore's Major Employers**

<table>
<thead>
<tr>
<th>Employer</th>
<th>No. Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bethlehem Steel Corporation</td>
<td>22,000</td>
</tr>
<tr>
<td>Social Security Administration</td>
<td>19,000</td>
</tr>
<tr>
<td>Westinghouse Electric Corporation</td>
<td>14,000</td>
</tr>
<tr>
<td>Baltimore Gas &amp; Electric Company</td>
<td>9,500</td>
</tr>
<tr>
<td>Johns Hopkins University</td>
<td>9,000</td>
</tr>
<tr>
<td>Gino's Incorporated</td>
<td>8,500</td>
</tr>
<tr>
<td>C&amp;P Telephone Company</td>
<td>7,900</td>
</tr>
<tr>
<td>Western Electric Corporation</td>
<td>7,800</td>
</tr>
<tr>
<td>University of Maryland/Baltimore</td>
<td>7,800</td>
</tr>
<tr>
<td>General Motors Corporation</td>
<td>7,000</td>
</tr>
<tr>
<td>U.S. Post Office/Baltimore</td>
<td>6,700</td>
</tr>
<tr>
<td>Johns Hopkins Hospital</td>
<td>5,300</td>
</tr>
<tr>
<td>Montgomery Ward &amp; Company</td>
<td>5,000</td>
</tr>
<tr>
<td>Gleneagles, Incorporated</td>
<td>4,000</td>
</tr>
<tr>
<td>Chessie Systems</td>
<td>4,000</td>
</tr>
<tr>
<td>Giant Food</td>
<td>3,800</td>
</tr>
<tr>
<td>Maryland National Corporation</td>
<td>3,500</td>
</tr>
<tr>
<td>Black &amp; Decker Manufacturing</td>
<td>3,500</td>
</tr>
<tr>
<td>Maryland Cup Corporation</td>
<td>3,000</td>
</tr>
<tr>
<td>A &amp; P</td>
<td>3,000</td>
</tr>
<tr>
<td>McCormick &amp; Company</td>
<td>2,900</td>
</tr>
</tbody>
</table>

Heavy manufacturing, health care, government services and retail firms are all represented in the above list.

In their report on Employment Trends and Projections for 1975 - 1985, the Regional Planning Council cited these
trends for the Baltimore SMSA:

1. Employment in the Baltimore Region increased dramatically, 1975 - 1980 (from 966,000 to 1,058,000, a net increase of 92,000 jobs).

2. Employment growth was greatest in the service sector net increase of 52,000 jobs), and trade (net increase of 19,000 jobs), and construction (net increase of 11,000 jobs).

3. There was little net change in the level of employment in farming, transportation, communications, utilities, or manufacturing.

4. There is likely to be little net change in the level of employment in the manufacturing sector.

5. After the region recovers from the 1980 - 1982 recession, employment is expected to rise to a 1985 total of 1,090,000 jobs.

A review of the household income levels for the Baltimore region reveals that several of the suburban counties around Baltimore have median incomes among the highest in the nation; yet Baltimore City has a substantially lower median income than the other five counties in the region. Table 2.10 lists the median household income trends in the region. The graph of these figures on the same page illustrates the widening gap between Baltimore City income and the other five counties. The Regional Planning Council mentioned this point in their Economic Indicators for the Region:

50% of all households in the Baltimore region now have incomes of more than $22,000, (1981 estimates), but the disparity between incomes in the city and the counties has continued to widen.
Table: 2.10

MEDIAN HOUSEHOLD INCOME TRENDS - BALTIMORE REGION
(Thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total SMSA</th>
<th>Baltimore City</th>
<th>Surrounding Five Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>1959 e</td>
<td>$5,800</td>
<td>$5,100</td>
<td>$6,600</td>
</tr>
<tr>
<td>1969 a</td>
<td>9,378</td>
<td>7,410</td>
<td>10,925</td>
</tr>
<tr>
<td>1975 e</td>
<td>14,000</td>
<td>9,170</td>
<td>17,560</td>
</tr>
<tr>
<td>1976 e</td>
<td>15,400</td>
<td>9,900</td>
<td>18,920</td>
</tr>
<tr>
<td>1977 b</td>
<td>16,807</td>
<td>10,596</td>
<td>20,306</td>
</tr>
<tr>
<td>1978 b</td>
<td>17,968</td>
<td>12,757</td>
<td>21,260</td>
</tr>
<tr>
<td>1979 b</td>
<td>19,500</td>
<td>13,900</td>
<td>23,510</td>
</tr>
<tr>
<td>1980 e</td>
<td>22,000</td>
<td>15,000</td>
<td>25,800</td>
</tr>
</tbody>
</table>

Sources: Economic Indicators - Baltimore Region
Metro Business Facts, Economic Development Council

a - RPC staff estimate, based on 1970 Census of Housing
b - RPC staff estimate, based on survey data
e - RPC staff estimate
3. MARKET AREA DELINEATION

An initial step in estimating the local market conditions is to define the geographical limits of the competitive market area surrounding the Brewery. Once the "study area" has been defined, it can be compared against city and regional trends. In this way, the unique local economic conditions can be more clearly understood. Several key determinants of the local market area are:

1. zoning
2. physical/topographical features
3. neighborhood characteristics
4. demographic/census districts
5. transportation linkages

An analysis of the above elements will reveal much information about the particular area where the Brewery is located, and help to define the extent of the competitive market near the Brewery. This final trade area will be adjusted to correspond with census tract districts to make use of data collected at that level.

Zoning

Zoning is perhaps the most important tool to establish the nature of existing land use. Figure number 3.1 on the
Figure: 3.1

Zoning

- Residential
- Industrial
- Commercial
next page illustrates the diversity of zoning use along the Gay Street corridor. Although the subject site is presently zoned industrial, the surrounding land uses are primarily residential. There are no apparent reasons why the city would not approve a zoning change for the complex. Most of the neighborhoods south and west of Gay street are zoned either R-7 or R-8. Five blocks north of the site the area is zoned R-5; eight blocks to the east is zoned R-6. Although the zoning map indicates a wide diversity of land use, the most predominant aspect is the residential nature of the community.

The Gay Street corridor is almost entirely zoned commercial (B-3-2). In previous years this street was an important retail center for the area. Presently, many of the shops and stores are in a deteriorated or abandoned condition. The City Planning Department is working on a commercial revitalization plan for the intersection on North Avenue and Gay Street.

The Brewery site is zoned industrial (M-2-2), and is one of several isolated pockets of industrial use in East Baltimore. Many of these pockets contain older, light industrial buildings in urgent need of repair. Approximately fifteen blocks to the east is the large East Biddle Industrial Park. The following is an abbreviated description of the Baltimore residential zoning districts, some of which are located near the Brewery site:
Summary of Baltimore Residential Zoning Districts

R-1 -- Single family residences, up to six units per acre, detached housing. No row homes or Multiple Family Dwellings.

R-2 -- General residence, up to six units per acre, with semidetached single family homes and detached MFDS permitted. No row homes.

R-3 -- Single family residences, up to nine units per acre, detached houses only. No MFDS or row homes.

R-4 -- Same as R-2, but with up to nine units per acre, single family semi-detached and multiple family detached housing permitted. No row homes.

R-5 -- General residence, up to 17 units per acre. Presently existing single-family row and group housing cannot be converted to multiple family use. Row houses permitted in groups of no more than six.

R-6 -- Same as R-2, but with 29 units per acre, and row houses in groups of nine.

R-7 -- Same as R-2, but with up to 40 units per acre, and permitting MFDS in row houses in groups of no more than nine.

R-8 -- Same as R-2, but with up to 59 units per acre, and row houses, either single-family or multiple family, in groups of not more than 12.

R-9 -- Up to 79 units per acre, permitting all types of housing including apartment hotels.

R-10 -- Up to 218 units per acre.

B-1 -- Commercial, Office

M-1 -- Light Industrial

M-2 -- Medium Industrial

M-3 -- Heavy Industrial
Physical and Topological Features

The Brewery site rests near the apex of a gently inclining hill. The slope varies between 2% and 6% depending on the direction of approach. This locational advantage is further enhanced by the three tall Brewhouse towers which command a powerful image throughout the community.

The Amtrak/Conrail railroad tracks lie to the South, and the Baltimore and Ohio railroad tracks are to the North. The topo/physical map on the next page shows how these two man-made barriers dissect the Gay Street Corridor, segmenting a nine block long area.

Several large urban open spaces are near the subject site. Thirteen blocks to the West is the Greenmount Cemetery. Moving clockwise from this point the Holy Cross Cemetery, Clifton Park, the Hebrew Cemetery, and the Baltimore Cemetery form a semi-circle around the northern portion of the region (refer to Figure number 3.2). This combination of natural slope, open space, and railroad lines segregates an area which completely surrounds the Brewery site. In fact, the Brewery complex is centrally located within this defined area.

Neighborhood Characteristics

In Baltimore, as in many other American cities, the
Figure: 3.2

Area Physical Constraints
neighborhood is a recognized social and political reality. In a recent study defining various Baltimore neighborhoods, the Center for Metropolitan Planning & Research reported:

... the neighborhood is an important arena for activity patterns and social contacts, although not necessarily for the solidarity [sic] ties of community... These local social contacts may organize around issues of local importance. We also feel that the neighborhood provides some regional identity, and that residents' concept of a neighborhood is fairly stable, although it may expand and contract over time."

Interestingly, the organized Baltimore neighborhoods also seem to conform to the natural and physical boundaries described in the previous section. The neighborhood map on the next page shows that the neighborhoods of Oliver, South Clifton Park, the Neighborhood Planning Commission, the Berea Planning Council, and the Kenwood Neighborhood Association are clearly territorialized within the natural boundaries illustrated on the topo/physical drawing.

Superimposed over the neighborhood map is an outline of the census tract districts. This graphically shows how the census tracts conform somewhat to area physical boundaries, but do not agree at all with the neighborhood divisions. The neighborhood ties are strong in Baltimore and are recognized as an important community unit by the City Planning Department. Census data, on the other hand, is organized mostly by total population distribution and therefore information collected within census tracts may not
Census Tract Districts

Figure: 3.3
Figure: 3.4
Census Tract Districts

Figure: 3.3
Neighborhood Organizations
precisely reflect the demographic characteristics of the
neighborhoods they represent.

**Area Demographics**

At first glance the area of East Baltimore under study
looks demographically homogeneous. Information was
initially collected for tract numbers 803.02, 803.01, 802,
804, 805, 806, 807, 808, 909, 1001, and 801.02. Figure 3.5
on the next page shows the location of the eleven Baltimore
census tracts indicated above. The population and density
of these tracts is very evenly distributed. The number of
persons per housing unit is above the city average of 2.74
with a median of 3.3 persons/unit. Census tract 802, where
the Brewery is located, has the highest density (3.9
persons/unit). The percentage of black residents exceeds
98%.

A closer examination of the census tract data reveals
several areas where the population is very different. The
important points are summarized below:

1. The Brewery is located in census tract 802
   and is surrounded on the North, East, and
   Southeast by generally better neighborhoods.

2. Census tract 801.02 reveals a neighborhood
group entirely different than other tracts
   studied.

3. Census tract 803.02 is homogeneous by race,
   but not by other important economic and
   association factors.
Figure: 3.5

Baltimore City: 1980 Census Tract Map
4. Southwest of the Brewery on Gay Street (census tracts numbers 807, 808, 909, and 1001), the neighborhoods generally have the lowest home values, highest vacancies, and lowest percentage of home ownership.

Transportation Linkages

Gay Street is the major transportational artery across the area under study. Belair Road (which becomes Gay Street at North Avenue) is a major suburban to downtown traffic route. North Avenue is also a major East-West traffic thoroughfare.

The two main entry points to the East Biddle Industrial Park are via Biddle Street and Federal Street. Federal Street is only one block south of the Brewery, providing a direct link to major industrial locations in East Baltimore (See figure 6.4 on page 86 for a map of East Baltimore industrial parks). Linkage to the site is difficult from the Southeast due to one way traffic routes, and the physical obstructions mentioned earlier.
4. AMERICAN BREWERY MARKET AREA (ABMA)

Based on the previous analyses of zoning, physical boundaries, neighborhoods, demographic and census data, and transportation linkages, the market study area which surrounds the Brewery can be proposed. This area is bounded by the Baltimore and Ohio railroad tracks to the North, Edison Highway and Lakewood Avenue to the East, the Amtrak tracks and Preston Street to the South, and Caroline Street to the West. Figure number 4.1 on the next page illustrates these boundaries. The census tract districts included in this area are 802, 803.01, 804, 805, 806 and 807. For purposes of this report, this area will be mentioned as the American Brewery Market Area (ABMA).

Some brief facts about the ABMA:
- The total population of the ABMA is 25,207.
- The total number of households is 6,957.
- The total number of housing units is 7,722.
- The percent of black population is 98.4%.

Previous Studies

Two previous studies were carried out within the ABMA. One is the Montford Neighborhood Plan, which was recently prepared by the Department of Planning of the City of
Baltimore. The Montford Neighborhood Plan includes the area bounded by North Avenue on the North, Milton Avenue on the East, Federal Street on the South, and Gay Street on the West. The neighborhood map on page 42 locates the Montford Study area. The Plan looked at the issues and concerns of the residents and identified the following major problems in the Montford Community:

1. vacant housing
2. declining housing maintenance
3. insufficient housing maintenance
4. sanitation (trash removal)
5. repaving of alleys
6. vacant lots
7. vacant commercial property
8. insufficient open space
9. insufficient recreation area
10. the re-use of the American Brewery.

In their report the Planning Department made a number of recommendations about the acquisition of vacant properties, housing inspections, alleyway repaving, recreation activities, and greater cooperation between the city and the community.

The second study completed in the ABHA looked at the East Baltimore area, and in particular, the Berea neighborhood. The East Baltimore study provided an overview of 1970
demographic data compilations. Overview maps of East Baltimore were produced showing the location of vacant houses, manufacturing, population density, elderly and youth population, and commercial centers. An interpretation of the East Baltimore maps by this author reveals that:

1. vacant homes are concentrated in some neighborhoods more than others;

2. major manufacturing areas are located on the fringe of East Baltimore;

3. population density is fairly uniform throughout East Baltimore (exclusive of public housing projects);

4. many elderly residents are located in the area close to Patterson Park;

5. many young people are concentrated in the Brewery area close to the Berea community; and

6. Gay Street is a major commercial artery dissecting the Berea community.

The above conclusions still remain fairly consistent with current demographic trends in the East Baltimore area.

**Capital Improvements**

The ABMA is located in the second district of Baltimore City. Map 4.2 on the following page shows the location of this district. Map 4.3 on page 51 illustrates the proposed capital improvements planned for the second district between 1982 - 1987. With the exception of the Berea Multi-Purpose Center, there are no capital
Baltimore City: Second Planning District
Map symbol key

- Multi-service centers
- Fire stations
- Education facilities
- Pratt Library facilities
- Recreation and park facilities
- Highways
- Streets
- Bridges
- Sewers and drains
- Off-street parking
- Community Development
- Rapid transit
- Housing Authority, State, Federal
- Other public works
- Other

Figure: 4.3

Second District : Capital Improvement Program 1982-1987
improvements planned over the next 5 years close to the ABHA. The FitzSimons Mansion located within the Brewery site has been suggested as the location of the Berea Multi-Purpose Center although plans are not yet finalized. The estimated cost is $1,500,000 with possible construction in 1985.

Public Services
The location of schools throughout the ABHA provides insight into the dynamics of neighborhood ties. Map number 44 locates all primary/elementary, middle/jr. high, special education, and senior high schools in the ABHA. The location of the proposed East Side Skills Center on Gay Street across from Clifton Park is also noted. The importance of the skills center to attracting business and industry to the area will be discussed later in this report.
Location of Public Schools

Figure: 4.4
5. DIRECT ECONOMIC FACTORS - MARKET DEMAND

The previous section delineated the boundaries of a competitive market area surrounding the American Brewery site. In the course of establishing these market limits, many of the indirect economic constraints which affect the Brewery project were also uncovered. The next step in the market study is an analysis of the Direct Economic Factors of Supply and Demand. Data from the ABMA will be compared with city and regional information to establish local trends. Market space demand will be measured, and a review of the existing supply of space units will follow.

Simply speaking, demand analysis is an organized way to approximate what type of space units to build and how many to build. The most important issues in determining the quantity and quality of space units are:

- population
- households
- employment
- income

The four categories are invariably related. A decrease in population in the ABMA directly affects the formation of new households. Employment and income are obviously dependent on each other. It is from an analysis of these interrelationships that distinct sub-markets of demand begin
to form. Individual consumer groups, with specific needs for housing, shopping, and employment comprise these sub-markets. A review of the above four demand indicators will help to: characterize who the people that live near the Brewery are; describe where they choose to live; and answer what their needs will be in the future.

**Population**

Population growth or decline is one of the key economic indicators of market demand. As discussed earlier in the regional overview, population decline has been accelerating in Baltimore City throughout the 1970's. This population decline is even greater in East Baltimore and worse yet in the ABMA.

Table 5.1 is an overview of the ABMA population make-up with a comparison between East Baltimore, Baltimore City, and the Baltimore Metropolitan Region. The percentage of black population in the ABMA is 98.4% - a sharp contrast to the city and region which have black populations of 54.8% and 27.2%, respectively. The slightly lower proportion of males in all areas is consistent with national trends. A comparison of population trends over previous years will provide insight into the nature of the decline in Baltimore population. Table 5.2 is a comparison between 1970 and 1980 population of several census tracts within the ABMA. In
<table>
<thead>
<tr>
<th>Area</th>
<th>Population</th>
<th>Male</th>
<th>Female</th>
<th>%Male</th>
<th>%Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>802</td>
<td>4784</td>
<td>2262</td>
<td>2252</td>
<td>97.8%</td>
<td></td>
</tr>
<tr>
<td>803.01</td>
<td>4243</td>
<td>2051</td>
<td>2192</td>
<td>98.4%</td>
<td></td>
</tr>
<tr>
<td>804</td>
<td>3327</td>
<td>1506</td>
<td>1821</td>
<td>98.2%</td>
<td></td>
</tr>
<tr>
<td>805</td>
<td>3134</td>
<td>1504</td>
<td>1630</td>
<td>98.2%</td>
<td></td>
</tr>
<tr>
<td>806</td>
<td>5775</td>
<td>2737</td>
<td>3038</td>
<td>98.5%</td>
<td></td>
</tr>
<tr>
<td>807</td>
<td>3944</td>
<td>1906</td>
<td>2038</td>
<td>99.2%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>ABMA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>25207</td>
<td>11966</td>
<td>13241</td>
<td>47.5%</td>
<td>98.4%</td>
</tr>
<tr>
<td>East</td>
<td>Baltimore²</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>71292</td>
<td>34505</td>
<td>36787</td>
<td>48.4%</td>
<td>90.6%</td>
</tr>
<tr>
<td>City of Baltimore³</td>
<td>786775</td>
<td>367398</td>
<td>419377</td>
<td>46.7%</td>
<td>54.8%</td>
</tr>
<tr>
<td>SMSA³</td>
<td></td>
<td>2174023</td>
<td>1057765</td>
<td>1120258</td>
<td>48.7%</td>
</tr>
</tbody>
</table>

Sources:

(1) Census of Population and Housing, 1980 - Summary Tape 1A
(2) Population and Housing Characteristics by Regional Planning Districts, 1980
(3) Economic Indicators - Baltimore Region, October 1981
Table: 5.2

POPULATION COMPARISON 1970 - 1980
CENSUS TRACTS 802, 803.01, 804 BY RACE, AGE

<table>
<thead>
<tr>
<th></th>
<th>Population</th>
<th>Race</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>White</td>
<td>Black</td>
</tr>
<tr>
<td>1970</td>
<td>6323</td>
<td>466</td>
<td>6230</td>
</tr>
<tr>
<td>1980</td>
<td>4784</td>
<td>166</td>
<td>12124</td>
</tr>
<tr>
<td>%Change</td>
<td>-24.3</td>
<td>-62.8</td>
<td>-25.3</td>
</tr>
</tbody>
</table>

Source: Montford Development Plan, Department of Planning, Baltimore, City, 1982.
these areas, the decline in population ranges between 17.3% and 33.0% over a ten year period. The greatest and most dramatic decrease is in white residents, with 62.8% leaving the three tract area over a ten year period. The population actually increased in people over 65 by 27.7%, a possible indication that the resident population is now beginning to coincide with the national trend toward an expanding older population.

There has been a major shift in population migration between white and black residents of Baltimore City over the last 10 years. A look at this demographic change in table 5.3 shows the population net natural increase due to births and deaths. White residents of the city have shown a negative net natural increase of deaths over births; black residents have a fairly stable positive net natural increase of 3652 (median).

At the bottom of table 5.3 the net migration is computed for white and nonwhite groups. The white migration out of Baltimore was 119,940, representing 25% of the white population over ten years. The number of black residents, on the other hand, fell only 22,522 or 5.3% over the same period. This indicates a substantial migration of white residents fleeing the depressed economic conditions both in the city and the AMBA. The Regional Planning Council predicts that population migration out of the city will continue, but at a slower rate of decline, stabilizing
Table: 5.3

DEMOGRAPHIC CHANGE IN BALTIMORE CITY - 1970 - 1980

<table>
<thead>
<tr>
<th>Year</th>
<th>Births Total</th>
<th>Deaths Total</th>
<th>Net Natural Increase</th>
<th>White Net Natural Increase</th>
<th>Non-White Net Natural Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>16,068</td>
<td>11,327</td>
<td>4,741</td>
<td>-384</td>
<td>5,125</td>
</tr>
<tr>
<td>1971</td>
<td>15,070</td>
<td>10,844</td>
<td>4,226</td>
<td>-649</td>
<td>4,875</td>
</tr>
<tr>
<td>1972</td>
<td>13,265</td>
<td>11,081</td>
<td>2,184</td>
<td>-1,551</td>
<td>3,735</td>
</tr>
<tr>
<td>1973</td>
<td>11,794</td>
<td>10,742</td>
<td>1,052</td>
<td>-2,224</td>
<td>3,276</td>
</tr>
<tr>
<td>1974</td>
<td>11,284</td>
<td>10,193</td>
<td>1,091</td>
<td>-2,008</td>
<td>3,099</td>
</tr>
<tr>
<td>1975</td>
<td>11,280</td>
<td>9,870</td>
<td>1,410</td>
<td>-1,848</td>
<td>3,258</td>
</tr>
<tr>
<td>1976</td>
<td>11,199</td>
<td>9,835</td>
<td>1,364</td>
<td>-1,807</td>
<td>3,171</td>
</tr>
<tr>
<td>1977</td>
<td>11,902</td>
<td>9,418</td>
<td>2,484</td>
<td>-1,397</td>
<td>3,881</td>
</tr>
<tr>
<td>1978</td>
<td>11,656</td>
<td>9,652</td>
<td>2,004</td>
<td>-1,564</td>
<td>3,568</td>
</tr>
<tr>
<td>1979</td>
<td>12,195</td>
<td>9,301</td>
<td>2,894</td>
<td>-1,352</td>
<td>4,246</td>
</tr>
<tr>
<td>Total</td>
<td>125,713</td>
<td>102,263</td>
<td>23,450</td>
<td>-14,784</td>
<td>38,234</td>
</tr>
</tbody>
</table>

NET POPULATION MIGRATION - BALTIMORE CITY

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>786,775</td>
<td>905,787</td>
<td>-119,012</td>
<td>23,450</td>
<td>-142,462</td>
</tr>
<tr>
<td>White</td>
<td>345,113</td>
<td>479,837</td>
<td>-134,724</td>
<td>-14,784</td>
<td>-119,940</td>
</tr>
<tr>
<td>Non-White</td>
<td>441,662</td>
<td>425,950</td>
<td>15,712</td>
<td>38,234</td>
<td>-22,522</td>
</tr>
</tbody>
</table>

Source: Economic Indicators - Baltimore City, RPC, 1981.
Table 5.4 on page 61 breaks down the population of the ABMA by age and compares it to city and regional tendencies. This information offers some important clues to the relationship between age and race in the local market. The table shows that in general residents in the area surrounding the Brewery are younger than their city and regional counterparts. There is an especially disproportionate number of black teenagers who comprise 25% of the population. Even more significant is the relatively small percentage of population in the 25 - 34 age group who represent potential first home buyers. The median age for residents within the study area is approximately 26 as compared to 30.2 for the city. The effects of the above are evidenced in East Baltimore by the depressed economic base and the high unemployment of teenage youths. The struggle to overcome the condition of severe housing disinvestment becomes almost impossible under such economic pressures. These trends appear to be occurring in all six census tracts in the ABMA.

Households

One of the major policies of Baltimore's Department of Housing and Community Development is to increase the number of owner-occupied homes in the city. Several of the programs
<table>
<thead>
<tr>
<th>Location</th>
<th>Total</th>
<th>Under 5 %</th>
<th>5-17 %</th>
<th>18-24 %</th>
<th>25-34 %</th>
<th>35-64 %</th>
<th>Over 65 %</th>
<th>Median Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>802</td>
<td>4784</td>
<td>453 9.5</td>
<td>1295 27</td>
<td>806 16.8</td>
<td>593 12.4</td>
<td>1385 29.0</td>
<td>252 5.3</td>
<td>23.4</td>
</tr>
<tr>
<td>803.01</td>
<td>4243</td>
<td>331 7.8</td>
<td>1062 25</td>
<td>622 14.7</td>
<td>591 13.9</td>
<td>1326 31.3</td>
<td>311 7.3</td>
<td>26.6</td>
</tr>
<tr>
<td>804</td>
<td>3327</td>
<td>304 9.1</td>
<td>911 27.4</td>
<td>605 18.2</td>
<td>424 12.7</td>
<td>858 25.8</td>
<td>225 6.8</td>
<td>23.2</td>
</tr>
<tr>
<td>805</td>
<td>3134</td>
<td>182 5.8</td>
<td>799 25.5</td>
<td>487 15.5</td>
<td>389 12.4</td>
<td>981 31.3</td>
<td>296 9.4</td>
<td>27.1</td>
</tr>
<tr>
<td>806</td>
<td>5775</td>
<td>453 7.8</td>
<td>1363 23.6</td>
<td>793 13.7</td>
<td>775 13.4</td>
<td>1755 30.4</td>
<td>636 11.0</td>
<td>28.4</td>
</tr>
<tr>
<td>807</td>
<td>3944</td>
<td>348 8.8</td>
<td>957 24.3</td>
<td>570 14.5</td>
<td>547 13.9</td>
<td>1111 28.2</td>
<td>411 10.4</td>
<td>26.4</td>
</tr>
<tr>
<td>Total ABMA</td>
<td>25207</td>
<td>2071 8.2</td>
<td>6387 25.3</td>
<td>3883 15.4</td>
<td>3319 13.2</td>
<td>7416 29.4</td>
<td>2131 8.5</td>
<td>25.9</td>
</tr>
<tr>
<td>Baltimore City</td>
<td>78675</td>
<td>52345 6.7</td>
<td>159598 20.3</td>
<td>109199 13.9</td>
<td>126114 16.0</td>
<td>238950 30.4</td>
<td>100575 12.8</td>
<td>30.2</td>
</tr>
<tr>
<td>East Baltimore</td>
<td>71292</td>
<td>6087 8.5</td>
<td>17765 24.9</td>
<td>11339 15.9</td>
<td>10748 15.1</td>
<td>19165 26.9</td>
<td>6186 8.7</td>
<td></td>
</tr>
<tr>
<td>Baltimore Region SMSA</td>
<td>2174023</td>
<td>157233 7.2</td>
<td>451593 20.8</td>
<td>329419 15.2</td>
<td>332547 15.3</td>
<td>700097 32.2</td>
<td>203134 9.3</td>
<td></td>
</tr>
</tbody>
</table>

designed to accomplish this are the Urban Homesteading Program, the Home Financing Program, and the Home Ownership Development Division. Since 1970 the number of owner-occupied housing units in Baltimore rose from 128,762 to 132,735 in 1980, an increase of 3.1%. This was so despite a period of declining population and a depressed economy.\textsuperscript{12}

The housing stock in East Baltimore is characterized by a high rate of absentee ownership. Table 5.5 illustrates how critical the problem really is in East Baltimore. The percentage of owner-occupied homes in the ABMA is 33.1% as compared to 47.2% in the city. In East Baltimore white residents live in only 11% of occupied housing units yet own 18% of the total number of occupied housing units.\textsuperscript{13}

In East Baltimore, where much of the housing stock is in the hands of absentee landlords, profits earned from the rents of residents represent a significant outflow of income. These profits are removed from the community for reinvestment elsewhere rather than circulated within the community. A change in ownership patterns whereby the housing stock would be in the hands of residents or managed by a community based organization could affect significantly the income flows in the community.\textsuperscript{13}

A higher rate of home ownership could be stimulated if housing strategies such as those proposed above by the Housing and Community Development Department were concentrated in the area around the Brewery.

The city recognizes the importance of owner-occupied homes in maintaining its neighborhoods and battling the
Table: 5.5

RENTER vs OWNER OCCUPIED HOUSING UNITS

<table>
<thead>
<tr>
<th>Location</th>
<th>Total Households</th>
<th>Owner Occupied</th>
<th>Renter Occupied</th>
<th>% Renter</th>
<th>% Owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>802</td>
<td>1,215</td>
<td>305</td>
<td>910</td>
<td>74.9</td>
<td>20.6</td>
</tr>
<tr>
<td>803.01</td>
<td>1,135</td>
<td>426</td>
<td>709</td>
<td>62.5</td>
<td>37.5</td>
</tr>
<tr>
<td>804</td>
<td>875</td>
<td>180</td>
<td>695</td>
<td>79.4</td>
<td>20.6</td>
</tr>
<tr>
<td>805</td>
<td>831</td>
<td>411</td>
<td>420</td>
<td>50.5</td>
<td>49.5</td>
</tr>
<tr>
<td>806</td>
<td>1,726</td>
<td>632</td>
<td>1,094</td>
<td>63.4</td>
<td>36.6</td>
</tr>
<tr>
<td>807</td>
<td>1,175</td>
<td>349</td>
<td>826</td>
<td>70.3</td>
<td>29.7</td>
</tr>
<tr>
<td>Total ABMA</td>
<td>6,957</td>
<td>2,303</td>
<td>4,654</td>
<td>66.9</td>
<td>33.1</td>
</tr>
<tr>
<td>East</td>
<td>5,037</td>
<td>16,152</td>
<td>76.2</td>
<td>23.8</td>
<td></td>
</tr>
<tr>
<td>Baltimore</td>
<td>21,189</td>
<td>5,037</td>
<td>16,152</td>
<td>76.2</td>
<td>23.8</td>
</tr>
<tr>
<td>Baltimore City</td>
<td>281,414</td>
<td>132,735</td>
<td>148,679</td>
<td>52.8</td>
<td>47.2</td>
</tr>
</tbody>
</table>

Sources: Census of Population and Housing, 1980 - Tape 1A.
Population and Housing Characteristics by Regional Planning District, RPC, 1982.
cycle of housing deterioration. On the next page the following key housing issues are graphically illustrated:

- home ownership
- value of homes\(^1\)
- vacancy
- age of residents\(^2\)

Generally, the darker areas on the maps indicate a worse condition. By comparing the four issues, an understanding of the relationship of home ownership to home value, age, and housing vacancy can be seen in East Baltimore. The following conclusions can be drawn from these relationships:

1. As the median age of the residents in a neighborhood increases, so does the percentage of owner-occupied homes.

2. Property values are significantly higher in areas which have a high percentage of owner-occupied homes.

3. Neighborhoods with a high number of housing vacancies, especially boarded-up houses, have a high ratio of renter-occupied homes.

4. Neighborhoods in generally poor physical condition have a low percentage of owner-occupied homes.

The number of households in an area and the future

\(^1\)Housing value was based on median owner-occupied home value and median contract rent of renter-occupied dwellings.

\(^2\)Resident age was based on the percentage of residents in four age groups and the overall median age of all age groups.
Figure: 5.6
The formation of new households is a good indicator of economic condition as well as representing a demand for new housing units. The number of households in Baltimore City remains stable despite declining population. This is due in part to a reduction in the number of persons per housing unit, which has dropped from 3.1 in 1970 to 2.9 in 1980. These figures are summarized in Table 5.7. The number of persons per household is projected to further drop from 2.7 persons/unit to 2.5 persons/unit by 1990.

In East Baltimore the number of households has dropped 11.2% since 1970 to a total of 21,189 units. The ABMA has experienced trends similar to East Baltimore with the number of households dropping to 6,957 total occupied units. This downward trend is expected to continue but at a much slower rate of decline. Estimates by the Regional Planning Council show that throughout the 1980's households in Baltimore City will decline by less than 1% per year.

The type of family composition in an area is an important factor in determining the type and size of housing units. Within the ABMA there are some unique differences which should be pointed out. Table 5.9 and Table 5.10 on the next few pages portray household composition by type and size. There is a high percentage of female heads of household with children. The category, "Female Householder, No Husband Present", shows that an average of 30% of the homes in the ABMA are female-headed with children or
### Table 5.7

**COMPARISON OF PERSONS/HOUSEHOLD SIZE 1970 - 1980**

<table>
<thead>
<tr>
<th>Location</th>
<th>1970</th>
<th>1980</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Brewery Market Area</td>
<td>NA</td>
<td>3.6</td>
</tr>
<tr>
<td>Montford Tract 802</td>
<td>4.5 e</td>
<td>3.9</td>
</tr>
<tr>
<td>East Baltimore</td>
<td>3.7</td>
<td>3.4</td>
</tr>
<tr>
<td>Baltimore City</td>
<td>3.1</td>
<td>2.7</td>
</tr>
<tr>
<td>Baltimore Region SMSA</td>
<td>3.3</td>
<td>2.9</td>
</tr>
</tbody>
</table>

**Sources:**
- Population and Housing Characteristics by Regional Planning District, RPC, 1982.
- Economic Indicators - Baltimore City, RPC, 1981.
- e - estimated from data in the Montford Development Plan.
Table: 5.8

CITY AND LOCAL HOUSEHOLD TRENDS - 1970 - 1980

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Baltimore City</td>
<td>289,003</td>
<td>281,414</td>
<td>(-7,589)</td>
<td>-2.6%</td>
</tr>
<tr>
<td>East Baltimore</td>
<td>23,864</td>
<td>21,189</td>
<td>(-2,675)</td>
<td>-11.2%</td>
</tr>
<tr>
<td>Montford Census Tract 802</td>
<td>1,404</td>
<td>1,215</td>
<td>(-189)</td>
<td>-13.5%</td>
</tr>
</tbody>
</table>

Sources: Economic Indicators - Baltimore City, RPC, 1981.
Montford Development Plan, Department of Planning, City of Baltimore, 1982.
teenagers present. Table 5.11 illustrates the full extent of the single parent problem in the ABHA with 46.5% of all children under 18 years of age living in family units with only one spouse present.

A positive note is the percent of married couple families with two or more persons (34.7%), and "Married Couples with Children" (19.6%) within the ABHA. Both statistics are higher ratios than East Baltimore and are comparable to city percentages.

Employment

There are two reasons for assessing the employment potential in the ABHA. First of all, several methods of calculating industrial space demand are based on employment projections. Different industry groups have varying employee density requirements. By targeting certain manufacturing or nonmanufacturing submarkets and identifying their employment characteristics, the aggregate demand for industrial space can be measured.

The brewery complex contains 3.2 acres of land zoned M-2-2. It has unique physical characteristics and is locationally isolated from other major industrial areas. It would be inappropriate to calculate the quantity of industrial demand (as described above) which could be captured by the site. Such an attempt would not produce an
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
<td>Number</td>
</tr>
<tr>
<td>802</td>
<td>1215</td>
<td>140 11.5</td>
<td>90     7.4</td>
<td>489    40.2</td>
<td>431    35.5</td>
<td>65   5.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>803.01</td>
<td>1135</td>
<td>118 10.4</td>
<td>80     7.0</td>
<td>416    36.7</td>
<td>478    42.1</td>
<td>43   3.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>804</td>
<td>875</td>
<td>106 12.1</td>
<td>63     7.2</td>
<td>412    47.1</td>
<td>256    29.3</td>
<td>38   4.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>805</td>
<td>831</td>
<td>101 12.2</td>
<td>59     7.1</td>
<td>280    33.7</td>
<td>358    43.1</td>
<td>33   4.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>806</td>
<td>1726</td>
<td>298 17.3</td>
<td>138    8.0</td>
<td>627    36.3</td>
<td>558    32.3</td>
<td>105  6.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>807</td>
<td>1175</td>
<td>219 18.6</td>
<td>93     7.9</td>
<td>492    41.9</td>
<td>307    26.1</td>
<td>64   5.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total ABMA</td>
<td>6957</td>
<td>982 14.1</td>
<td>523    7.5</td>
<td>2716   39.0</td>
<td>2388   34.3</td>
<td>348  5.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Baltimore</td>
<td>21189</td>
<td>4976 23.5</td>
<td>1225   5.8</td>
<td>8394   39.6</td>
<td>5514   26.0</td>
<td>1080 5.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baltimore City</td>
<td>281414</td>
<td>78843 28.0</td>
<td>12123  4.3</td>
<td>61529  21.9</td>
<td>114066 40.5</td>
<td>14853 5.3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location</th>
<th>Total Households</th>
<th>Male Householder</th>
<th>Female H.Holder</th>
<th>Married Couple Family</th>
<th>Non-Family Household</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No Wife Present</td>
<td>No Husband Pres.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
<td>Number</td>
</tr>
<tr>
<td>802</td>
<td>1215</td>
<td>48</td>
<td>4.0</td>
<td>404</td>
<td>33.3</td>
</tr>
<tr>
<td>803.01</td>
<td>1135</td>
<td>34</td>
<td>3.0</td>
<td>317</td>
<td>27.9</td>
</tr>
<tr>
<td>804</td>
<td>875</td>
<td>39</td>
<td>4.5</td>
<td>330</td>
<td>37.7</td>
</tr>
<tr>
<td>805</td>
<td>831</td>
<td>34</td>
<td>4.1</td>
<td>203</td>
<td>24.4</td>
</tr>
<tr>
<td>806</td>
<td>1726</td>
<td>77</td>
<td>4.5</td>
<td>462</td>
<td>26.8</td>
</tr>
<tr>
<td>807</td>
<td>1175</td>
<td>44</td>
<td>3.7</td>
<td>370</td>
<td>31.5</td>
</tr>
<tr>
<td>Total ABMA</td>
<td>6957</td>
<td>276</td>
<td>4.0</td>
<td>2086</td>
<td>30.0</td>
</tr>
<tr>
<td>East</td>
<td>21189</td>
<td>608</td>
<td>2.9</td>
<td>6746</td>
<td>31.8</td>
</tr>
<tr>
<td>Baltimore City</td>
<td>281414</td>
<td>5793</td>
<td>2.1</td>
<td>43502</td>
<td>15.5</td>
</tr>
</tbody>
</table>

Sources: Population and Housing Characteristics by Regional Planning Districts, RPC, 1982. Census of Population and Housing, 1980, Tape 1A.
### Table 5.11

**Persons Under 18 Years Old by Household Type and Relationship**

<table>
<thead>
<tr>
<th>Location</th>
<th>Total Persons</th>
<th>Male or Female H.Holder (Own Child of Householder)</th>
<th>Married Couple Fam. Own Child of H.Holder</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No Spouse Present Number</td>
<td>%</td>
</tr>
<tr>
<td>802</td>
<td>1748</td>
<td>808</td>
<td>46.0</td>
</tr>
<tr>
<td>803.01</td>
<td>1393</td>
<td>590</td>
<td>42.4</td>
</tr>
<tr>
<td>804</td>
<td>1215</td>
<td>604</td>
<td>49.7</td>
</tr>
<tr>
<td>805</td>
<td>981</td>
<td>366</td>
<td>37.3</td>
</tr>
<tr>
<td>806</td>
<td>1816</td>
<td>850</td>
<td>46.8</td>
</tr>
<tr>
<td>807</td>
<td>1305</td>
<td>718</td>
<td>55.0</td>
</tr>
<tr>
<td>Total ABMA</td>
<td>8458</td>
<td>3936</td>
<td>46.5</td>
</tr>
<tr>
<td>East Baltimore</td>
<td>23854</td>
<td>12991</td>
<td>54.5</td>
</tr>
<tr>
<td>Baltimore City</td>
<td>211943</td>
<td>79086</td>
<td>37.3</td>
</tr>
</tbody>
</table>

**Sources:**
Population and Housing Characteristics by Regional Planning Districts, RPC, 1982.
Census of Population and Housing, 1980, Tape 1A.
accurate figure applicable to the Brewery's situation.

The second method of assessing the employment base in the ABMA is to examine the attributes of the present labor force, including workers' skill level, trainability, and present employment status. Information of this nature is valuable in estimating the compatibility of business and industrial firms with the ABMA. However, at the present time, detailed 1980 census data on employment and income, which would reveal these statistics, was not available for inclusion in this report.

The number of jobs in Baltimore City is expected to remain stable through 1985, while jobs in the surrounding Metropolitan Region will increase by 3% per year. Table 5.12 on the next page is a comparison of the number of jobs in the region, city, and local sectors. As shown in the table, there are approximately 38,000 full and part-time jobs in East Baltimore. Like Baltimore City, this figure for East Baltimore has remained fairly stable since 1975 and is projected to remain at its present rate through 1985.

Government statistics released in November of 1982 cited National unemployment of black teenagers at approximately 50%. Thus, little improvement has been made on this issue over the last few years. Unemployment is a critical problem in the ABMA, where there are higher percentages of teenagers than in other sections of East Baltimore. Other communities near the ABMA suffer similar high employment problems.
Table: 5.12

Employment Comparison - Full and Part Time Jobs

<table>
<thead>
<tr>
<th></th>
<th>1975</th>
<th>1980</th>
<th>1985</th>
<th>%Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baltimore Region SMSA</td>
<td>965,700</td>
<td>1,058,000</td>
<td>1,090,000</td>
<td>+12.9%</td>
</tr>
<tr>
<td>Baltimore City</td>
<td>459,900</td>
<td>460,600</td>
<td>460,000</td>
<td>no chg</td>
</tr>
<tr>
<td>East Baltimore</td>
<td>39,200</td>
<td>38,750</td>
<td>38,700</td>
<td>-1.3%</td>
</tr>
</tbody>
</table>

While Baltimore's unemployment rate over the past 3 years has been reported at 12% and even higher for certain parts of the labor force, the Hopkins area residents suffer even higher unemployment. More households are without full-time employment for the head of household than in any other sector of East Baltimore and the City as a whole. Regional Planning Council figures in July 1975 indicate a resident labor force of 25,000 persons in the original study area and an employment base of 34,000 jobs. In spite of this, the area adjacent to Hopkins suffers extraordinary unemployment. Serious underemployment problems were also cited by residents in every interview. The average household income was less than $6,000 in 1975 while the average household size of 3.61 persons was third highest in Baltimore. More than half of the families in this area fell below the poverty level income established by the federal government.\textsuperscript{15}

**Income**

There is a wide disparity in median income between Baltimore City and the surrounding five counties. Listed below are the relationships between median income in the regional, city, and local level. There is a large difference between Baltimore City and the SSM\textsuperscript{A}. In the same sense, East Baltimore is far below both the city and region. East Baltimore ranks number 25 out of 26 city regional planning districts in median household income. Income levels in East Baltimore are 1/2 of the median city income and 1/3 of the SSM\textsuperscript{A}:
Clearly there is both unemployment and underemployment in the ABMA. Does this untapped labor supply represent potential for business and industry? In its present condition, probably not. Since many of the unemployed are low skilled and without proper vocational training, few prospective businesses could be persuaded on the quantity of the labor force alone, to locate in the ABMA.

The economic stability of the neighborhoods surrounding the Brewery depends on a number of different factors. Most important of these are the interrelationships between employment, income, population, and households. In an area of high unemployment like East Baltimore, there generally exists an out-migration of population and a corresponding reduction of households. If the situation continues, the disposable income of residents also declines, leading to physical neglect of both rental and owner-occupied housing and businesses. As the cycle of economic disinvestment accelerates, fueled by a diminishing real buying power, more business establishments either close up shop or seek better market conditions in other locations. This pattern of
economic decline, although simply expressed, is presently occurring in the area surrounding the Brewery. A strong employment base would help to stabilize the process described above.
6. DIRECT ECONOMIC FACTORS - MARKET SUPPLY

Housing Supply

The majority of the housing stock surrounding the Brewery are single family rowhouses. As seen in Table 6.1 on the next page, there are 6957 households and 7722 housing units in the ABMA. This leaves a net number of vacant housing units of 761 or 9.9%. East Baltimore has a vacancy rate of 13.4%; Baltimore City has a 7% rate. The percentage of households declined in East Baltimore between 1970 and 1980. If this trend continues throughout the 1980's a substantial number of vacant units will result. The extent to which these vacant units are rehabilitated will largely determine the demand for new residential construction in East Baltimore.

The vacancy rate in the ABMA is high when compared to national standards but the figure can be deceiving. Table 6.2 breaks down the vacancy status into more realistic components. This table shows that vacant for sale units are only 0.5% and vacant for rent units only 2.3% in the study area. In addition, 46% of all vacant units are boarded up indicating they are not on the market for rental use.

This brings to light certain questions about the nature of the housing stock in East Baltimore surrounding the Brewery:
Table: 6.1

VACANT HOUSING UNITS

<table>
<thead>
<tr>
<th>Location</th>
<th>Total Housing Units</th>
<th>Occupied Housing Units</th>
<th>Vacant Housing Units</th>
<th>%Vacant</th>
</tr>
</thead>
<tbody>
<tr>
<td>802</td>
<td>1378</td>
<td>1215</td>
<td>162</td>
<td>11.8</td>
</tr>
<tr>
<td>803.01</td>
<td>1207</td>
<td>1135</td>
<td>72</td>
<td>6.0</td>
</tr>
<tr>
<td>804</td>
<td>985</td>
<td>875</td>
<td>110</td>
<td>11.2</td>
</tr>
<tr>
<td>805</td>
<td>869</td>
<td>831</td>
<td>38</td>
<td>4.4</td>
</tr>
<tr>
<td>806</td>
<td>1952</td>
<td>1726</td>
<td>226</td>
<td>11.6</td>
</tr>
<tr>
<td>807</td>
<td>1331</td>
<td>1175</td>
<td>153</td>
<td>11.5</td>
</tr>
<tr>
<td>Total ABMA</td>
<td>7722</td>
<td>6957</td>
<td>761</td>
<td>9.9</td>
</tr>
<tr>
<td>East Baltimore</td>
<td>24459</td>
<td>21289</td>
<td>3270</td>
<td>13.4</td>
</tr>
<tr>
<td>Baltimore City</td>
<td>302680</td>
<td>281414</td>
<td>21045</td>
<td>7.0</td>
</tr>
</tbody>
</table>

Sources: Population and Housing Characteristics by Regional Planning District, RPC, 1982.
Census of Population and Housing, 1980, Tape 1A.
<table>
<thead>
<tr>
<th>Location</th>
<th>Total Vacant U.</th>
<th>Vacant U. For Sale</th>
<th>Vacant U. For Rent</th>
<th>Vacant U. Other</th>
<th>Vacant U. %Vacant Board-Up</th>
<th>Board-Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>802</td>
<td>162</td>
<td>3</td>
<td>18</td>
<td>141</td>
<td>96</td>
<td>59.3%</td>
</tr>
<tr>
<td>803.01</td>
<td>72</td>
<td>4</td>
<td>30</td>
<td>38</td>
<td>25</td>
<td>34.7</td>
</tr>
<tr>
<td>804</td>
<td>110</td>
<td>3</td>
<td>42</td>
<td>65</td>
<td>56</td>
<td>50.9</td>
</tr>
<tr>
<td>805</td>
<td>38</td>
<td>11</td>
<td>3</td>
<td>16</td>
<td>7</td>
<td>18.4</td>
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<tr>
<td>806</td>
<td>226</td>
<td>13</td>
<td>59</td>
<td>154</td>
<td>94</td>
<td>41.6</td>
</tr>
<tr>
<td>807</td>
<td>153</td>
<td>5</td>
<td>24</td>
<td>124</td>
<td>75</td>
<td>49.0</td>
</tr>
<tr>
<td>Total ABMA</td>
<td>761</td>
<td>39</td>
<td>184</td>
<td>538</td>
<td>353</td>
<td>46.2</td>
</tr>
<tr>
<td>East Baltimore</td>
<td>3370</td>
<td>127</td>
<td>849</td>
<td>2246</td>
<td>1600</td>
<td>47.5</td>
</tr>
<tr>
<td>Baltimore City</td>
<td>21045</td>
<td>1686</td>
<td>8410</td>
<td>10377</td>
<td>5518</td>
<td>26.2</td>
</tr>
</tbody>
</table>

Sources: Population and Housing Characteristics by Regional Planning Districts, RPC, 1982.
Census of Population and Housing - 1980, Tape 1A.
1. Despite the high vacancy rate in East Baltimore, why do overcrowded conditions exist?

2. What is the physical condition of the vacant units and can they be renovated for continued use?

In answering the first question, there is evidence that overcrowding does exist. The Montford Development Plan, prepared by the Department of Planning, cited families that are "doubled-up" in the Montford community. The persons per unit ratio in this neighborhood is 3.9; very high in comparison to other parts of the city. (See table 5.7 on page 67) These conditions exist in the Montford Neighborhood where 11.8% of the housing units are vacant, yet only 1.3% are vacant for rent. Clearly some discrepancies exist.

The answer to the second question about the potential for rehabilitation depends on the extent that the units are substandard. A study conducted by the Department of Housing and Community Development in 1972 cited 51% of the units in East Baltimore are substandard. Although this report is a decade old, the rate of deterioration and housing disinvestment is still a major problem in the area.

There is evidence that suggests, however, that the degree to which they are substandard is not critical and that, in general, East Baltimore's housing stock is amenable to rehabilitation. Grigsby and Rosenberg (1975) report that in Baltimore as a whole, most substandard units would require minor or moderate levels of expenditure to bring them up to standard.16

The practice of disinvestment, a phenomenon associated with many inner-city neighborhoods, has led to the deterioration of the area's housing stock, creating substandard living conditions for
many residents, as well as undermining an important capital resource, the built environment. This decline in the condition of the area's housing stock and the related decline in property values and in community services represent some of the factors that are responsible for perpetuating the cycle of deterioration and decline.\(^{17}\)

During 1981, 6404 building permits for new dwelling units were issued in the Baltimore Metropolitan Area. Of these permits, 62% or 4,024 were for single family detached units and 38% or 2,380 were for units located in townhouses, garden apartments, or hi-rise developments. Table 6.3 lists the number and type of permits issued during 1981. East Baltimore had only one permit approved during 1981 for a 17 unit townhouse project located in census tract number 1002 using section 235 government assistance.

The majority of multi-family housing for low-moderate incomes is located primarily in census tracts 510 and 1002 near Johns Hopkins Hospital.\(^{18}\)

Except for Oldtown Mall there has been very little private investment in East Baltimore.\(^{19}\)

The Montford Neighborhood Plan indicated a strong desire for better quality housing in the ABNA. Whether or not this desire is translatable into "effective demand", supported by adequate disposable income, is difficult to forecast. The future projection of population, households, and vacancy could fluctuate depending on a number of conditions which could occur. The Brewery development project, is
Table: 6.3

HOUSING PERMITS ISSUED BY TYPE OF UNIT - 1981

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Annapolis</td>
<td>148</td>
<td>38</td>
<td>-</td>
<td>-</td>
<td>186</td>
</tr>
<tr>
<td>Anne Arundel Co.</td>
<td>1944</td>
<td>267</td>
<td>36</td>
<td>-</td>
<td>2247</td>
</tr>
<tr>
<td>Baltimore City</td>
<td>144</td>
<td>141</td>
<td>159</td>
<td>388</td>
<td>832</td>
</tr>
<tr>
<td>Baltimore County</td>
<td>1675</td>
<td>365</td>
<td>324</td>
<td>-</td>
<td>2364</td>
</tr>
<tr>
<td>Carroll County</td>
<td>617</td>
<td>14</td>
<td>-</td>
<td>-</td>
<td>631</td>
</tr>
<tr>
<td>Harford County</td>
<td>451</td>
<td>54</td>
<td>192</td>
<td>-</td>
<td>697</td>
</tr>
<tr>
<td>Howard County</td>
<td>869</td>
<td>402</td>
<td>-</td>
<td>-</td>
<td>1271</td>
</tr>
<tr>
<td>Total</td>
<td>4024</td>
<td>1281</td>
<td>711</td>
<td>388</td>
<td>6404</td>
</tr>
</tbody>
</table>

Sources: Listing of Townhouse and Multi-Family Developments, Regional Planning Council, 1982.
successfully completed, would probably come on line sometime in 1985. Two basic conditions are likely to occur over this three period.

1. the population will remain stable and the number of persons/household will drop from its current high level to around 3.3 persons/unit

2. the population will continue to decline around 1% per year (5% total) and the number of persons/household will drop to around 3.3.

The high vacancy rate which exists in the ABMA can be expected to drop to around 8% as more boarded-up units are inspected by the Housing and Community Development Department and efforts are made to either rehabilitate or demolish these units.

New housing unit demand for the ABMA based on the above two scenarios can be estimated as follows:

<table>
<thead>
<tr>
<th>Scenario #1 - Stable Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
</tr>
<tr>
<td>population</td>
</tr>
<tr>
<td>/ persons/household</td>
</tr>
<tr>
<td>= no. of households</td>
</tr>
<tr>
<td>+ vacancy factor</td>
</tr>
<tr>
<td>= no. of housing units</td>
</tr>
</tbody>
</table>

Additional households by 1985: 681
Additional housing units by 1985: 672

<table>
<thead>
<tr>
<th>Scenario #2 - Population Decline by 5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
</tr>
<tr>
<td>population</td>
</tr>
<tr>
<td>/ persons/household</td>
</tr>
<tr>
<td>= no. of households</td>
</tr>
<tr>
<td>+ vacancy factor</td>
</tr>
<tr>
<td>= housing units</td>
</tr>
</tbody>
</table>

Additional households by 1985: 300
Additional housing units by 1985: 166
The 70,000 square feet of space which exists on the buildings located on the Brewery side of Gay Street could support an additional 60 - 90 housing units depending on the size and type of unit; additional new construction could increase this figure. The mean contract rent for the 6 census tracts located in the ABHA is $137.00. The feasibility of a residential development proposal for the Brewery depends on government rental subsidies, financing assistance, and tax credit incentives.

**Industrial Supply**

The Brewery's industrial competitive market area would include industrial parks located in East Baltimore, and smaller, industrially zoned sites located close to the ABHA. The small size of the Brewery site is more conducive to products and services of a specialty nature. These kind of firms usually require close, customer-oriented contact. The Brewery would probably supply ancillary services and products to larger manufacturers. Many of these large manufacturing companies are located within a small area on the outskirts of East Baltimore. Figure no. 6.4 on the next page locates the major East Baltimore industrial parks. The Brewery is more centrally located in Baltimore City than most of these parks and this distance does impede
Table: 6.5

EAST BALTIMORE INDUSTRIAL PARKS

(Numbers refer to map on previous page)

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Total Acres</th>
<th>Avail. Acres</th>
<th>Cost</th>
<th>Zoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>East Middle Industrial Park</td>
<td>20</td>
<td>NA</td>
<td>NA</td>
<td>M-2/M-1</td>
</tr>
<tr>
<td>2.</td>
<td>Sinclair Lane Indust. Park</td>
<td>44</td>
<td>10</td>
<td>NA</td>
<td>M-1</td>
</tr>
<tr>
<td>3.</td>
<td>Moravia Industrial Park</td>
<td>70</td>
<td>NA</td>
<td>NA</td>
<td>M-2/M-1</td>
</tr>
<tr>
<td>4.</td>
<td>Metropolitan Terminal Center</td>
<td>17</td>
<td>0</td>
<td>NA</td>
<td>B-1</td>
</tr>
<tr>
<td>5.</td>
<td>Quad Avenue Industrial Park</td>
<td>25.2</td>
<td>0</td>
<td>NA</td>
<td>M-2/M-3</td>
</tr>
<tr>
<td>6.</td>
<td>Bayview Avenue Industrial Park</td>
<td>38</td>
<td>33</td>
<td>$40-50,000</td>
<td>M-3</td>
</tr>
<tr>
<td>7.</td>
<td>Reames Industrial Park</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8.</td>
<td>Canton Industrial Area</td>
<td>1000</td>
<td>30</td>
<td>NA</td>
<td>M-3</td>
</tr>
<tr>
<td>9.</td>
<td>Holabird Foreign Trade Zone</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>10.</td>
<td>Holabird Industrial Park</td>
<td>170</td>
<td>149</td>
<td>$40-50,000</td>
<td>M-2/M-3</td>
</tr>
</tbody>
</table>

Key To Zoning Districts:

B-1 - Commercial/Office
M-1 - Light Industrial
M-2 - Medium Industrial
M-3 - Heavy Industrial
NA = Not Available

direct linkage to the major industrial areas. Table 6.5 on page 87 lists the ten East Baltimore industrial parks along with their size, available acres, cost, and zoning.

According to Sam Wahbe of the Greater Baltimore Committee, there is an oversupply of industrial acreage in the Baltimore Metropolitan Region. 20

The Brewery site however, is directly linked to the East Biddle Industrial Park via Federal Street. Many of the companies located in this 20 acre park might require products and services which could be provided by companies located at the Brewery. There are a few other isolated industrial sites, located close to the ABMA, which are similar to the Brewery. These are shown on Figure number 6.6 on page 89. A survey of these areas has not been made to date, and would be valuable to determine the land use, product or service, market area, and site amenities of the industrially zoned land near the Brewery. Appendix "C", on page 174, includes a partial list of the companies located close to the Brewery site, particularly in the East Biddle Industrial Park.

Many of the economic factors of industrial supply such as rental rates, land costs, absorption and vacancy rates, and financing arrangements are elements of an advanced economic feasibility analysis. Accurate data on these factors is critical to establish the ultimate financial feasibility of
Figure: 6.6

Market Area Industrial Sites
proposed alternatives for the Brewery. The research of this study concentrated on screening and delimiting the potential alternatives for the Brewery. Data collection on the above factors can then be more specific.
7. MARKET STUDY CONCLUSIONS AND RECOMMENDATIONS

This final section of "Part I - Market Analysis for the American Brewery", will synthesize the market data generated, establish economic trends and conditions in the study area, and form conclusions about specific development alternatives for the Brewery complex. Five crucial questions will be answered:

1. What are the most critical regional and local trends which will affect the successful implementation of the Brewery project?

2. What are the economic conditions which exist in the ABMA?

3. What are the viable design alternatives based on the market research and economic conditions?

4. How can the potential alternatives be evaluated to determine the most probable and beneficial use?

5. How can the feasibility study be targeted toward specific design options, so that the advanced economic analysis and physical design stages of the project can proceed?

Market Trends

Determining the viable design alternatives for the Brewery involves analyzing East Baltimore's ability to capitalize on changing economic and social trends. There are three important regional and local trends, which over the next few years, will have a direct impact on the project:
1. the continued regional employment base shift from manufacturing to service sectors of the economy;

2. the shift of Baltimore city priorities toward smaller, more localized development projects; and

3. the declining population and households in the study area.

The first trend is particularly meaningful to the Baltimore economy. The national evolution away from an employment sector based on manufacturing toward service activities such as health, education, financial services, and public administration is also continuing in Baltimore:

The long trend away from economic activities focused on the production of goods is accelerating. We are witnessing (in Baltimore), the dislocation of workers from sectors long basic to this area's economic strength. And these dislocations are occurring at a rate likely to outstrip the ability of emerging service and high-technology industries to absorb the newly unemployed...once dominant sectors of our industrial base—steel production, auto manufacturing and ship building and repairing—will have a reduced role as employers of the labor force.21

This economic course is one of the reasons the Brewery has remained vacant. The potential market for recycling older inner-city industrial buildings has been diminished by changing job patterns. Industries which throughout history have preferred the pool of labor provided by inner-city locations now desire to be closer to their competitive market and suburban transportation arteries.

How does this change affect the Brewery project? The
The Regional Planning Council's 1982 Economic Development Draft expressed this concern:

...the challenge for local economic development is to foster the conditions under which growing or emerging industries can replace the lost jobs and production....This will require incentives for capital formation to modernize older physical plants as well as strategic investments in public infrastructure by state and local government.22

Clearly the role of the public sector in initiating rehabilitation projects like the Brewery has been established. But even more important, by understanding the present and future employment trends in Baltimore, public support can be channeled toward the proper direction to reverse the pattern of unemployment in the ABMA.

The second trend which will affect the project is Baltimore City's increasing emphasis on more localized development projects. Much has been accomplished in Metro-Center over the past two decades. "Over 25 years of cooperative public and private efforts focused on redevelopment of the metropolitan core have culminated in the transformation of Baltimore's Inner Harbor from an urban eyesore to an internationally recognized site of revitalization."23 These gains have not been made without some sacrifice in other areas of the city. There seems to be a realization that neglected sections of Baltimore need more positive attention from both public and private interest groups:

...there have been some noticeable changes in
the structure of public/private cooperation over time. In particular, there is an apparent shift of the private leadership role from a few elite "big businesses" to smaller firms and neighborhood organizations. In part, this parallels the maturing of GBC (Greater Baltimore Committee) as an elite organization and its merger with the Chamber of Commerce whose members are less concerned with monumental improvements in the central business district and more concerned with smaller scale improvements in neighborhood commercial opportunities.

The focus of many cooperative revitalization efforts now appears to be on producing a continuous flow of smaller improvements while the fate of such large proposed projects as building a new sports stadium or converting the City's old power plant to a luxury hotel seems more dubious. There may also be some sense that it is time to balance some of these larger successes in the downtown business area with greater visibility for projects that more directly affect the living conditions of City residents in their neighborhoods.

If this shift is in fact a positive commitment of the political leaders in Baltimore to promote neighborhood commercial and economic opportunities, then the Brewery project stands to be recognized as a potentially powerful force for initiating revitalization in the Montford Community.

The final trend occurring in the study area is the continued decline of population and households. As documented in earlier sections of this report, population has been migrating out of East Baltimore and the number of households has subsequently decreased. There is an abnormally high number of vacant housing units, but despite this fact, overcrowding still exists. The lack of housing
opportunities for young families is one of the most important concerns for people in the Montford community.25

How does this condition affect the development of the Brewery complex? The declining population, although not the direct cause, fuels the depressed economic conditions which exist in East Baltimore. A no-growth situation exists with almost no private investment being made in the area. A review of the housing supply section of this report confirms the fact that no building permits for new dwelling units were issued in the study area during 1981.

**Economic Conditions in the ABMA**

The economic condition of the ABMA is distressed, to say the least. Most of the indicators used in this report to measure stability and economic vitality show that East Baltimore has suffered severely from past recessions and the long years of private and public neglect. Based on the market research, there are four local economic conditions which characterize the area surrounding the Brewery and emerge as issues in the ABMA:

- commercial/residential disinvestment;
- low percentage of home ownership;
- high unemployment; and
- low income level of area residents.

There has been significant commercial and residential
disinvestment in the ABMA. "Housing disinvestment is the practice of letting properties run down through undermaintenance and investing the savings produced by undermaintenance in an investment sector which is more profitable.... Disinvestment is perhaps the worst form of income flow out of a community, for it begins and helps to perpetuate a cycle of decline."26

A study on "Income Flow in Urban Poverty Areas" in the Bedford-Stuyvesant Community in New York showed that housing disinvestment was drawing 8-10% of the adjusted gross income out of the community. When all economic outflows were added together, the figure rose to 25%.27 This is a startling amount for an area with a low income to begin with. It is likely that the ABMA is similar to the Stuyvesant area, if not in exact figures, at least in substance. The condition of commercial and residential disinvestment in the study area is likely to continue unless major revitalization programs are initiated.

The current low percentage of owner-occupied homes contributes to the bleak economic conditions mentioned above. As shown on page 64 of this report, there is a direct correlation between the number of owner occupied homes and property value, resident age, and housing vacancy. Pride and neighborhood image could also be improved if the number of people who owned their own homes increased.

High unemployment is a major concern for residents of
East Baltimore. The situation is even more severe in the ABMA because of the high percentage of young adults. National unemployment of black teenagers is approximately 50%. Despite this figure, there are inadequate occupational preparation and job training programs in East Baltimore high schools.

The median income for East Baltimore (RPC district no. 119) residents was $7,120 in 1980. The estimated annual budget for a four person household in the Baltimore Metropolitan area for a low budget family was $14,196. There were 8,436 households, or 40% of the total number of households in East Baltimore, with incomes less than $5,000 per year. This is also in an area with a high ratio (3.6) of persons-per-household. These figures indicate the severe lack of buying power of the residents in the ABMA who are barely affording basic food and shelter items.

The relationship between the physical fabric of East Baltimore, and the problems of unemployment, low median income, and economic disinvestment have been acknowledged in this section of the market study. These issues in one way or another contribute to the current depressed market conditions and physical deterioration of the neighborhoods surrounding the Brewery. If the Brewery project was seriously undertaken by public organizations and private investors, it would represent a positive commitment to ease these conditions and initiate community-wide revitalization.
Goals/Objectives of the Project

There are a number of participants in the Brewery development process who have a stake in the project. The groups include: 1) Community Users, 2) Baltimore City Government, 3) Developers/Investors, and 4) Business and Industrial Firms. Each participant seeks to further their own goals, hopefully in coordination with the others. The requirements for the appropriate use for the Brewery change according to the expectations and viewpoint of the participants involved in the project. For instance, there are several ways a particular development proposal could be selected for the site:

- the most probable use (obvious choice based on physical and locational factors);
- the most beneficial use (social & economic benefit to the community); and
- the most economically feasible use (best choice based on project economic performance, ability to obtain financing, an return for investors).

It is the position here that the proper development proposal for the Brewery should fulfill all of the above requirements. The design concept must be one which assures an adequate return for investors, considers the physical and locational attributes of the site, contributes to the economic and social development of the community, and operates efficiently for the ultimate users of the facility. If the above conditions are met, the risks in undertaking
the project will be outweighed by the benefit to the community and economic returns received.

To date there have been no clear objectives for the Brewery project, and more than likely, it would be difficult to even get the participants themselves to agree on the critical issues which concern them. However, in the course of this study, some obvious goals and objectives can be indentified. These are summarized for the various participants below:

**Community Needs:** Of primary benefit to the community would be the provision of adequate employment opportunities. This would increase the buying power of the residents and contribute to the economic base of the area. The community also needs a cohesive center to carry on activities, services, and other meetings associated with a social center.

**Baltimore City Objectives:** The objectives of Baltimore City are to: initiate growth and development in East Baltimore via public incentives and private investment; promote the rehabilitation of a deteriorated property back on its property tax roles; and to assure the compliance with previously established capital improvement and renewal plans.

**Developer/Investor Requirements:** The primary concern is to assure an adequate return on investment commensurate with the risks and efforts involved in undertaking the project, and to facilitate a smooth and organized rehabilitation process.

**Business/Industrial Firms:** The bottom line objective of a business is to make a profit. "The
primary rule in site selection is that the cost of production, overhead, and distribution of product be held to a minimum. Thus the prime location will be the one which will effect the greatest profit or the lowest cost. Of course, business costs are not the only condition for site selection, but probably the most important.
By analyzing and synthesizing the market data collected to this point, many possible uses for the Brewery can be eliminated. The screening process removes nonviable options from further consideration. The remaining options can then be described in greater detail and evaluated on more important factors such as economic feasibility and compatibility with project goals and objectives. The following sections of this study will describe the viable residential, commercial, public use, and industrial alternatives for the Brewery and list the advantages and disadvantages of each.

**Residential Development Alternatives**

The Brewery could be rehabilitated into good quality housing in an historical atmosphere reminiscent of the neighborhoods past. Two residential development possibilities suggested for the Brewery are to:

1. renovate the upper floors of the Brewhouse building for residential apartments, and
2. remove several of the back buildings to provide space for a new low-mid rise residential structure.

Combinations of the above scenarios have also been suggested. These proposals are based on the fact that the buildings behind the Brewhouse are not large enough or suitable for housing units, and that adequate housing demand
exists to absorb the units.

By removing those non-compatible buildings and constructing a larger building, greater space utilization and economic feasibility can be supported. The advantages of this proposal lie in the provision of better quality housing opportunities for area residents. However, the financing of these proposals would depend heavily on government assistance and rental subsidies.

One question must be asked at this point: Would a residential development proposal maximize the Brewery's potential to aid in the revitalization and economic growth of the surrounding neighborhood? Several reasons suggest that this is not the case:

First: There is a sufficient quantity of housing units in the ABNA to meet future population needs. However, many of these units are substandard and will require substantial renovation. Baltimore City has one of the most effective and well organized Housing and Community Development agencies in the nation. There are many programs encouraging home ownership and rowhouse renovation which could be used in the area to promote better quality housing. The effectiveness of these programs has been demonstrated in other areas of the city. If the ABNA was given a higher priority for these programs and positive support were given by the neighborhood organizations, much could be done to
upgrade the standard of existing housing and relieve the demand for additional housing units.

Second: The physical capability of adapting the Brewhouse into housing units may also pose a problem. Rod Roth (M ARCH, VPI & SU 1982) stated that the physical spaces of the Brewhouse building may not sub-divide easily into residential units due to the high ceiling heights and the nature of the interior spaces on the upper floors. Mary Phillips (B ARCH Candidate, VPI&SU 1983) expressed concern in the certification of the rehabilitation work for the investment tax credit if the floors were reconstructed using standard 10 foot ceiling heights.

Third: The compatibility of residential use with the existing industrial nature of the site is questionable. Several historical buildings would have to be removed and replaced by new construction. These new buildings would not qualify for the investment tax credit for rehabilitation of historic structures. In addition, alternative sites in the area could support new construction and be equally feasible.

Fourth: A residential development proposal may not express the most beneficial use in spurring additional economic development in the area. Referring to an area similar to the ABHA located near the Johns Hopkins University, the American City Corporation concluded:
While there can be no serious argument of the need for low and moderate income housing, it has come to be seen that economic development and income improvement are more effective ways of improving housing conditions. The imbalance between low income housing and other elements of community development in the area adjacent to Hopkins currently constitutes the single most serious obstacle to attracting new private investment.

Fifth: Converting the Brewery for residential units will not help to reduce the flow of housing disinvestment in the ABMA. Rentals will continue to flow out of the community, and long term employment and income levels will not be increased for area residents.

The real "value" of the Brewery lies in its ability to use what it has and foresee what it can become. Its image in the community and historical context contribute to its enormous potential for initiating economic development in the community, and this is probably not served best by a residential alternative.
Commercial Design Alternatives

Of the many possible combinations of commercial and retail uses for the Brewery complex, two general development patterns appear:

1. a commercial/retail specialty center comprised of small shops, stores, restaurants, and offices; and

2. a mixed-use concept of convenience shopping residential units, and community center activities.

The nation-wide concept of a retail specialty center evolved out of the changing trends of consumer spending. The mass retail markets that existed 10 or 15 years ago have divided into two distinct sub-markets: 1) households with high discretionary incomes (generally adult households), and 2) lower income purchaser groups heavily skewed toward child oriented households. Because of this split, consumer demand now exists at both ends of the retail spectrum - high priced specialty retailing and discount moderate priced stores at the other. The demographic data presented in this report clearly shows that East Baltimore falls into the second category.

Usually a retail specialty center includes unique merchandising shops in a theme or historic atmosphere. The Brewery's historical significance would provide an excellent theme for this kind of shopping center. Many of the buildings on the site have architectural potential to become an exciting place for people to shop.
However, previous successful specialty centers have been aimed at specific markets for young professionals, tourists, affluent retirees, or upper to middle income people. The residents which surround the Brewery do not comprise these particular retail submarkets.

The income levels in the ABMA are insufficient to support the high quality product line usually associated with retail specialty centers. Also, the inability of the Brewery to draw from an extended trade area due to safety, parking, and location of the site are serious drawbacks to its commercial success. In short, the Brewery has all the physical/architectural components necessary for re-use as a retail specialty center, but not the locational ones.

The second commercial design scenario calls for a mixed-use concept combining three elements: 1) a major tenant such as a grocery or drug store on the Brewhouse first floor; 2) residential units on the Brewhouse upper floors and the back buildings; and 3) a community based service center across Gay Street on the FitzSimmons grounds.

The major advantage of such a scheme is that it would provide a unique combination of convenience shopping, housing, and community service needs at one location. This neighborhood center could possibly become an anchor for future growth and economic development. However, several disadvantages also exist:
First: The total Brewery complex includes only 3.18 acres of land. A large portion of this is already occupied by the Baltimore Electronics Plant. The site is not large enough to accommodate all of the diverse uses which could blend to create the type of neighborhood center mentioned.

Second: The adaption of the Brewhouse first floor for convenience shopping would be difficult because of building size, floor layout, and parking constraints.

Third: It may be difficult to convince lending institutions to finance the proposal because the success of the project cannot be assured or the economic feasibility estimated with accuracy. The subdivision of the available spaces for multi-use functions reduces the effectiveness of establishing a major impact on the area. In addition, the amount of coordination required between private and public participants to implement this proposal may be unattainable given the political and social climate surrounding the Brewery project.

Fourth: It is uncertain at this point whether a mixed-use neighborhood center would become an anchor to generate new economic growth, or an oasis, competing with and drawing business from the existing commercial districts.
Public-Use Alternatives

There have been suggestions for an institutional or public-use facility for the Brewery such as a community center, police station, or a health facility. Some of these may be viable alternatives, however an evaluation of all public-use proposals is beyond the scope of this study.

One possibility which appears to be well suited to the site is a vocational job training center. In 1976, in a study on an area adjacent to the Johns Hopkins Hospital, the American City Corporation concluded that an "accelerated program for job training in East Baltimore" should be initiated by several city and local interest groups. They concluded that a substantial number of households do not have an adequate income level and job training is needed "almost across the board." The Baltimore City Public Schools, Division of Vocational Education stated that, "In the eastern section of the city, many students are currently unable to enroll in and obtain an adequate occupational preparatory program."

There is currently a proposal for the East Side Skills Center to be constructed on Gay Street across from Clifton Park. The proposed center would consolidate the vocational programs now housed at several high schools in East Baltimore. The Brewery is centrally located in the area and could easily service a facility of this type. The existing offices could be converted for classrooms and study areas.
The lower floors of the Brewhouse could house workshops, labs, and training areas. The upper floors would make an ideal location for faculty offices and administration. There is good conformity between the functions of a vo-tech center and the Brewery site which could make the conversion less expensive. Other advantages of renovating the Brewery as skills center are:

1. The brewery site is located very near to the Lake Clifton High School (school no. 40); facilitating easy transportation by bus to and from the school.

2. Community center and social activities could be conducted at the skills center during night time hours and weekends.

3. A cooperative program between the skills center and area businesses could increase employment opportunities for teenagers and encourage students to remain in East Baltimore after graduation.

4. Additional business and industrial firms could be drawn to the area to tap the available supply of skilled labor.

5. A planned employment center encompassing the Gay Street corridor is possible. The overall plan could incorporate businesses, industrial firms, civic activities, and employment training facilities into the Brewery complex and other available vacant, underused industrial ABSA.
Industrial Design Alternatives

There has been much speculation that the Brewery could be easily rehabilitated back to industrial use.¹ Two proposals appear to be possible given the physical and locational attributes of the site:

1. A "tech park" composed of several light industrial or business companies who adapt the existing buildings to suit their individual storage, office, and equipment needs.

2. An industrial center primarily occupied by one corporation which could expand easily into the existing buildings on the site.

The conversion into a tech park could be an exciting concept providing the opportunity for several minority firms to locate at the Brewery.

The various buildings in the complex could be subdivided, thus creating individual spaces for a variety of light industrial needs. Final design of the interior could be tailored to meet the requirements of individual tenants once leasing agreements were finalized. Thus, much of the major construction work could begin before specific leasing arrangements were secured.

A variety of business related functions could be

¹For a matter of clarity, the term "industrial use" is mentioned throughout this report. The expression is meant to include the wide diversity of establishments that would normally locate within an industrial district. It is not intended to be construed only as "heavy" industrial, which use large scale production processes.
accommodated in the complex because of the diverse nature of
the existing buildings. Storage, administration, manufacturing, and trucking facilities could be designed to
accommodate each company's space requirements.

A second type of industrial conversion would be for a
single corporation to expand its operations into the entire
site. If necessary, some of the existing buildings, not
compatible for rehabilitation, could be removed and replaced
with new construction to suit the requirements of the
industry.

However, with this proposal the final design and
construction work would not proceed until a particular firm
was committed and the architectural program for the site was
established. Part II of this report will explore in detail
the industrial group types which are compatible with the
brewery's unique features.

In general, the advantages of a multi-tenant or single
tenant industrial proposal can be summarized as follows:

First: Industrial use would be compatible with the
existing zoning and present use of the brewery complex.

Second: Industrial use appears to be the most
economically feasible in lieu of the low disposable income
levels in the ABHA.

Third: Employment opportunities for the community would
be increased. The provision of jobs is above all else the most important concern for area residents.

Fourth: New jobs in the community would increase the disposable income and help to reverse the trend of housing and commercial disinvestment. This, of course, would depend on minority ownership of firms occupying the Brewery, hiring community residents as employees, and choosing vendors who are located within the trade area.

Fifth: The Brewery complex would complement the existing commercial strip along Gay Street rather than compete with the existing retail establishments. This is consistent with the City Planning Department's efforts for a mini-commercial revitalization area at the North and Gay Street intersection, and reducing the role of Gay Street as a commercial strip.

The previous sections of this study have analyzed the market and economic conditions in the ABMA. Specific development scenarios have been determined and their advantages and disadvantages outlined. Finally, the market study has provided the base data to quantitatively and qualitatively evaluate many of these proposed alternatives.

The Alternative Matrix Chart on the next page summarizes the possible design alternatives and compares their
## Development Alternative Matrix

### Figure: 7.1

<table>
<thead>
<tr>
<th>Category</th>
<th>GOALS/OBJECTIVES</th>
<th>ECONOMIC REQUIREMENTS</th>
<th>PHYSICAL REQUIREMENTS</th>
<th>Total Score</th>
<th>Ranking</th>
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</thead>
<tbody>
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<td>Residential</td>
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<td>Apartments</td>
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<td>Condominiums</td>
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<td>Commercial</td>
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<tr>
<td>Stores/Retail Spec</td>
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<tr>
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<td></td>
<td></td>
<td>15</td>
<td>6*</td>
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<tr>
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<tr>
<td>Public Use</td>
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</tr>
<tr>
<td>Community Center</td>
<td></td>
<td></td>
<td></td>
<td>20</td>
<td>3</td>
</tr>
<tr>
<td>Fire/Police Station</td>
<td></td>
<td></td>
<td></td>
<td>7</td>
<td>11*</td>
</tr>
<tr>
<td>Museum/Library</td>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td>8*</td>
</tr>
<tr>
<td>Gov./Public Office</td>
<td></td>
<td></td>
<td></td>
<td>7</td>
<td>11*</td>
</tr>
<tr>
<td>Vo. Skills Center</td>
<td></td>
<td></td>
<td></td>
<td>24</td>
<td>1</td>
</tr>
<tr>
<td>Health Facility</td>
<td></td>
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<tr>
<td>Industrial</td>
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<tr>
<td>Single-tenant Manufacturing</td>
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<td>4</td>
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<tr>
<td>Warehouse/Storage</td>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td>8*</td>
</tr>
</tbody>
</table>

* = Tie Rank

**SCALE:**
- Very Compatible (2 points)
- Moderately Compatible (1 point)
- Incompatible (0 points)
compatibility with economic, physical, and social objectives.

The alternatives listed in the matrix chart have been numerically ranked according to their compatibility with economic, social, and physical objectives. The alternatives measured to be most compatible were:

1. job training center;
2. tech park (multi-business);
3. industrial (single industry);
4. community center; and
5. mixed-use (residential, convenience retail, community center activities)

Those uses for the Brewery with only a limited compatibility with the stated objectives were:

6. retail specialty center;
7. residential; and
8. all other public-use alternatives.

The systematic evaluation process presented in this section has reduced the possible alternatives to the select few which appear more viable than others. In order to achieve the level of specificity required to propose definite design proposals, it is appropriate to target the remainder of this report toward those alternatives which appear to have the greatest potential. Based on noneconomic
issues, industrial use appears to have the highest compatibility with development objectives and physical constraints of the site. In part two of this report, the study will be targeted toward the adaptive reuse potential of the Brewery for industrial use.
Part Two:

Targeted Industrial Proposal for the American Brewery
Throughout this report, an attempt has been made to answer the most important questions which will affect the development of the Brewery complex. Part Two, The Targeted Industrial Market Analysis, will attempt to answer the following:

1. What public incentives or assistance programs are available for an industrial proposal at the site?

2. Do the advantages of rehabilitation outweigh the disadvantages?

3. What are the unique physical/locational attributes of the existing buildings and site?

4. What types of industrial firms are compatible with the physical/locational attributes, the goals of the city, and the needs of the community?

5. What design recommendations can be made to assist the implementation of an industrial proposal and contribute to its success in the marketplace?

The answer to these questions will reveal a great deal about the overall development potential of the site, but more important, will zero in on its feasibility as an industrial complex.

In a previous section of this report on Potential Design Alternatives, two main industrial options were described for the site. The following chapters explore the viability of developing these industrial options in detail. Emphasis will be placed on industrial rehabilitation incentives, the Brewery's physical/locational attributes, and the types of industry groups which could expand into the site.
8. REHABILITATION INCENTIVES AND PUBLIC ASSISTANCE PROGRAMS

There are several public assistance programs offered to companies who wish to expand or relocate their business activities. Most of these are sponsored by state and local agencies whose principle desire is to attract new industry to a particular area. There are additional incentives for investing in older buildings rather than new construction. Several of the rehabilitation incentives which could be used for the Brewery are:

- **Tax Credits for Historic Rehabilitation.**
- **Tax Deductions for Historic Preservation Easements.**
- **Reduced Costs on Rehabilitation Construction Work.**
- **Qualitative Hidden Assets of Older Buildings.**
- **State, City Incentives for Business & Industry.**
- **Vocational Training Programs.**

The above benefits can dramatically boost the economic feasibility of the project by reducing taxes and capital expenditures, and assuring favorable labor and market conditions for firms occupying the site. The following is a discussion of these benefits and how they can be employed in an industrial proposal for the Brewery.
Tax Credits for Historical Rehabilitation Work

In 1972 the American Brewery was nominated for the National Register of Historic Places. Because the site is a nationally registered landmark, it qualifies for substantial tax credits as provided by the Economic Recovery Tax Act of 1981 (ERTA). The two key provisions of the act are:

1. a 25% Investment Tax Credit (ITC) for certified historic rehabilitation expenditures, and

2. a 15 year-cost recovery period (depreciation) for rehabilitation costs with a 50% adjustment to the depreciable basis for the ITC credit taken.

These two provisions make investing in historic rehabilitation more profitable than comparable new construction. The increased advantage of adapting older buildings is intended to help revitalize economically distressed neighborhoods and prevent further deterioration in buildings like the American Brewery.

To qualify for the above benefits, the design and construction work must conform to standards set forth by the U.S. Department of the Interior. These "Standards of Rehabilitation" assure that the rehabilitation work is consistent with the historic character of the building. When the design and construction work has been certified to conform to the standards, the costs and construction expenditures are then eligible for the 25% tax credit.

The impact of the ITC is substantial. If the Brewery
complex were adapted for an industrial use, 25% of the cost of rehabilitating the historic buildings can be recovered from future taxes owed.

There are a number of legal devices which can be utilized to assure that the credit can be taken by those most capable of using it. For instance, the Brewery complex, which is presently owned by the City of Baltimore, could be sold to a group of private investors. This syndication could then develop the buildings for lease to industry or back to the city (sale/leaseback). The investors would receive a sizable tax credit and the benefit of a long term tenant. The city would rehabilitate a deteriorated building back onto its property tax roles.

In light of the depressed market conditions which exist in East Baltimore, the tax credit is the most important economic advantage of any alternative proposed for the Brewery. The economic feasibility of the project depends primarily on the Investment Tax Credit.

**Historic Preservation Easements**

Another significant tax benefit which is available to the Brewery because it is an historic building is its ability to donate a preservation easement. "An easement is a legal agreement between a property owner (the grantor) and the holder of the easement (the grantee), which governs the
current and future owners' treatment of the property." A preservation easement helps to protect historically and architecturally significant buildings and their settings against potential adverse development or alterations. 3

In regards to the Brewery, future property owners who choose to donate the easement can now consider the tax advantages of this law as an additional incentive to maintain the historic character of the site, while at the same time obtaining significant tax deductions.

Generally speaking, there are three types of preservation easements:

1. scenic or open space easements;
2. exterior or facade easements;
3. interior easements.

The Brewery could probably qualify for any or all of the above easements, although the restrictions placed on the site would probably outweigh the tax benefits. The most obvious form of easement would be a facade easement on the Brewhouse building. This facade easement would protect the outside appearance, limit alterations to the exterior, and require proper maintenance of the property.

The main advantage of a facade easement would come after the restoration work was complete and the owners of the property would gain an immediate tax deduction for the value of the development rights diminished by the easement
restriction.

The value of a facade easement for the Brewhouse building would be determined by the "before and after" principle: the market value of the property, after the imposed easement, is subtracted from the market value of the property before the donation. The amount left over is the value of the easement. This is usually established by an appraisal of the property.35

A rough estimate of the value of a facade easement on the Brewhouse would be between 10% and 20% of the restoration work on the building. In its study of the Brewhouse, the Virginia Tech Building Science Department estimated the rehabilitation expenses of the Brewhouse to be $1,064,000. With this figure as a guide, a low estimate of the value of a facade easement would be $106,400. For an investor in a 50% tax bracket, this would amount to a net savings of $53,200 on taxes due.

In addition, as a result of the facade easement, the assessed value of the Brewhouse would be reduced. This has the effect of lowering the real estate taxes on the property. In Georgia, a study showed that preservation easements roughly reduced the assessed value of the property by 10%, lowering the property taxes accordingly.36

Finally, although disadvantageous, the depreciable basis of the Brewhouse would be reduced by the amount of the preservation easement taken. This would result in a smaller
depreciation deduction under the Accelerated Cost Recovery System (ACRS).

Comparison of Construction Costs

Much has been written about the comparison between new construction costs and rehabilitation costs of older buildings. Reports range from substantial cost savings to no cost difference, depending on the source of data cited. On an average, barring any unforeseen difficulties, such as major structural repairs, rehabilitation work appears to cost between 10% - 20% less than new construction.

There are several reasons for rehabilitation work costing less: 1) Reduced "hard" construction costs - due primarily due to structural, foundations, site improvements, and the exterior walls already in place; 2) Reduced construction time - because material and labor are already in place, weather conditions are not a factor, and the lengthy development review process can be shortened; and 3) Reduced "soft" construction costs as a result of points 1 and 2 above, the faster construction time shortens the interest cost, carrying charges, and project administration costs. The switch from a high interest construction loan, to a low interest mortgage, occurs sooner than in new construction. The generation of cash flow income begins earlier as the construction work takes less time to complete. In addition,
the property can be marketed more successfully at an earlier point in the construction process, resulting in faster rent-up of the space. Typically, these “soft” construction costs average about 1/3 of the construction budget. Therefore, rehabilitation of older buildings have major cost savings over new construction.

The table on the next page is a comparison of new and rehabilitated construction costs taken from a variety of sources. Although the figures vary considerably it is the percent difference between old and new construction that has the greatest importance. The table shows a range of cost savings between 13% and 43% for rehabilitation construction.

There are also disadvantages to rehabilitation which can incur additional costs over new construction. The uncertainties of working in older buildings can result in higher sub-contractor estimates for work. The building efficiency ratio (gross to net square feet) is usually lower in older buildings due to the higher ceiling heights and more massive construction techniques. The compliance with building codes and fire regulations can also add significantly to the cost of rehabilitation work. Finally, the initial acquisition costs for land and buildings are higher for rehabilitation when compared to construction on undeveloped land.
Table: 8.1

<table>
<thead>
<tr>
<th>Data</th>
<th>New Construction</th>
<th>Rehabilitation</th>
<th>Diff. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980 Chicago North Loop Study¹ (hard costs)</td>
<td>$72.00 sq ft</td>
<td>$57.00</td>
<td>20.8%</td>
</tr>
<tr>
<td>1982 Baltimore School System Estimate</td>
<td>73.00</td>
<td>63.00</td>
<td>13.7%</td>
</tr>
<tr>
<td>1982 VPI &amp; SU Brewhouse² Study (hard costs)</td>
<td>42.00</td>
<td>32.00</td>
<td>23.8%</td>
</tr>
<tr>
<td>1975 Office Building³ Study (15-20 story)</td>
<td>70.75</td>
<td>39.90</td>
<td>43.6%</td>
</tr>
<tr>
<td>Residential Construction⁴ 1982 (hard costs)</td>
<td>42.00</td>
<td>32.00</td>
<td>23.8%</td>
</tr>
</tbody>
</table>

Notes:
¹Minimum hard costs plus an allowance for finishes
²Conducted by the Building Science Department of Virginia Tech
³Taken from "Economics of Preserving Old Buildings", p. 87.
⁴George T. Underhill, Jr., speaker at the conference "Reusing Old Buildings", Baltimore, MD September 22, 1982.
Qualitative Hidden Assets

The quality of the Brewhouse building cannot be duplicated even at premium construction costs. This characteristic goes much deeper than architectural detailing and lies in the historical image the building has in the community. As an employment center at the turn of the century, the American Brewery was typical of a pre-highway, neighborhood industrial center. These buildings usually were vertical, multi-level, masonry construction with high levels of site coverage. As the nature of industrial locations changed over time, these same features which symbolized the building are the ones which contribute to its physical and locational obsolescence.

However, one important fact remains - the Brewhouse commands a prodigious image over the surrounding rowhouses. This image is a hidden asset which can be used to notify area residents that history is being transformed into present day needs for employment and economic development in the community.

It is important for developers to realize that when one buys a building one also buys an image and immediately arouses public interest. Used in combination with the building's history, this can be the beginning of an early marketing program. This image has great value, especially in view of the change in the real estate market, which has become more aware of the values inherent in old structures.

The unmeasurable hidden assets of the Brewery's image,
history, and character can greatly influence its development potential. The increased marketability can result in a faster rent-up period and easier development approvals. This in turn has positive economic advantages on cash flow and interest charges paid during the construction period. In pure financial terms, these qualitative assets can be utilized to increase the facilities economic performance in the marketplace.

Public Development Incentives

Oftentimes private development requires assistance or incentives from the public sector. These act to reduce funds necessary for construction, speed up the development process, and reduce the risks involved in undertaking the project. There are many ways these initiatives are formulated and a complete description of each is not possible. Basically, these incentives can be grouped into the following categories:

Direct Economic Aid
Industrial revenue bonds, direct business loans, mortgage guarantees, federal/state funding and grants, tax incentives, property tax abatement, interest rate subsidies, discounted property acquisition costs, sale/leaseback agreements.

Physical Amenities
public utilities/infrastructure improvements, public transportation improvements, landscaping.
Assistance Programs
development approval processes, zoning changes, code waivers, vocational job training programs, feasibility studies, technical assistance, neighborhood organization assistance.

Traditionally, Baltimore has played an active role in public/private participation for development planning. "There is no doubt that Baltimore owes much of her current shape and vitality to the results of cooperative public/private partnership." This joint planning is important, as the complexity of major revitalization projects requires mutual partners to combine the assets and abilities of both public and private sectors to initiate projects that neither could do alone.

Table 8.2 on the next page lists the assistance programs offered by Maryland to provide incentive for industrial expansion in the state. These incentives are designed to reduce the costs of operations and construction, and to assist in the smooth transition of establishing a business location. At the bottom of this table are the financial, development, and investment organizations in Maryland who provide these programs to business and industry.

As can be seen, Baltimore has considerable quasi-public resources available to assist industry in their expansion and location efforts.

MIDFA was established by the State of Maryland to help finance business enterprises seeking to locate or expand
Table: 8.2  
State, Local Business Incentives

- Tax exemption on pollution controls, equipment  
- Sales/use tax, partial exemption on new equipment  
- Tax incentives on raw materials used in manufacturing  
- Federal and State funds for city development projects  
- Public works projects and improvements to utilities  
- State law prohibiting compulsory union shops  
- Proposed tax exemption on goods in transit (free trade)  
- Inventory tax exemption on manufacturer's inventories  
- Partial tax exemption on research and development equipment  
- Industrial development authority  
- Privately sponsored development credit corporation  
- Accelerated depreciation on industrial equipment

Business Development Assistance Organizations

- Maryland Industrial Development Financing Authority (MIDFA)  
- Development Credit Corporation of Maryland (DCCM)  
- Private Industry Council  
- Maryland Department of Economic and Community Development  
- Minority Enterprise Small Business Investment Company (MESBIC)  
- Small Business Loan Company (SBLC)  
- Industrial Revenue Bonds (for financing)  
- Small Business Administration (SBA)  
- Greater Baltimore Committee (GBC)  
- Baltimore Economic Development Corporation (BEDCO)

Source: Baltimore Metro Business Facts, June 1981
their operations in the state. It primarily insures and approves loans made by private lenders.

DCCM was established to stimulate business and industry by making loans when they are not available from banks or conventional sources.  

**Vocational Job Training**

Job training in a high unemployment area like East Baltimore is an fundamental component for enhancing economic growth, and is critical to attracting new business into the ABMA. The plight of the area residents in finding work is portrayed below:

The prevailing pattern of job opportunities in central cities offers less and less escape from either poverty or the ghetto. Low paid, temporary, unskilled, and service jobs remain for the inhabitants of poverty areas. The new industries, employing higher percentages of technical and skilled employees, locate in outlying districts, often beyond the reach of public transportation, and in neighborhoods where housing is strictly segregated.

The availability of a trained work force is a primary factor in the business decision to choose one location over another. The Regional Planning Council cited in its 1982 Economic Development Plan (Draft) areas of vocational training needed in Baltimore. Attention must be given to the unskilled new entrant to the job market. Basic skill development and job retraining will be important to
experienced workers whose skills have become redundant as a result of changing employment trends. Three principle groups towards which public policy must be directed are:

1. those now acquiring basic skills within the educational system;

2. those entering the work force, with emphasis on those - e.g. high school dropouts - requiring special assistance to deal with job market competition; and

3. those displaced workers, whose skills have been devalued by the marketplace.

There are two vocational-technical high schools in Baltimore City and a new Westside Skills Center offering vocational education programs. There is also an Eastside Skills Center proposed for North Gay Street across from Clifton Park. This center would be a incentive for industries considering the Brewery as a location for their business. If training programs are coordinated with area business firms, specific courses can be designed to meet the requirements of particular job openings.

The Maryland Industrial Training Program (MITP) is another way unskilled workers and those desiring to learn new skills can receive vocational training. This program offers training and recruitment assistance to those businesses just getting started, those relocating from other areas, or those expanding in Maryland. The MITP has coordinated training with financial support from programs
such as VA and CETA.\textsuperscript{42}

The previous section has examined many of the programs and methods in Maryland and Baltimore City used to initiate business and industrial growth in the area. Many of these methods can be utilized to generate private investment on the American Brewery site because it is an historic industrial landmark located in an urban poverty area.

Without rehabilitation incentives there is no market or economic reason for developing the Brewery site. With public assistance, the Brewery can achieve the economic support and financial backing necessary to implement the project.
9. PHYSICAL/LOCATIONAL ATTRIBUTES OF THE BREWERY SITE

The Brewery complex is an agglomeration of several different types of buildings all with a different size, shape, and character. Because of this unique industrial character, the analysis required to determine its adaptive-reuse potential is atypical of traditional real estate analysis techniques. Market segmentation, through supply/demand analysis, is not appropriate for the Brewery. What is needed is to profile the types of industries which could successfully complement the positive advantages the Brewery has to offer.

This section of the report helps to facilitate this procedure by documenting the physical condition of the existing buildings and describing their special characteristics. The advantages and disadvantages of the site will also be listed. These physical/locational features will provide information which can be matched against specific industrial requirements in future sections of this targeted study.

Building Conditions

Some of the structures in the Brewery complex are unsuitable for rehabilitation because they are structurally unsound, or have no reuse potential. The site plan on the
next page indicates the buildings which have deteriorated beyond repair and should not be considered reusable for a design proposal.¹

The buildings which appear to have the most reuse potential are the Brewhouse, FitzSimmons Mansion, Stockhouse, Engine Room, and Gay Street Office building.² These buildings are indicated on the site plan on the next page. In Appendix "A" of this report is a listing of the buildings which comprise the Brewery complex. Generally, the buildings that can be reused are in fair condition and will require extensive renovation to return them to a state of utility.

The ratio of land-to-building area is a good indication of the amount of land available for expansion, parking, and truck docking. The most common land-to-building ratios of suburban buildings is between 3:1 to 4:1 (33% - 25%). The Brewery site has a land-to-building ratio of 2.2:1 or 45%. This is considered quite acceptable compared to many inner city industrial facilities which have densities as high as 80%.

¹This determination was made on the basis of a visual survey only. To ultimately establish the structural feasibility of these buildings will require a comprehensive engineering study testing materials and floor loading capacity.

²A more detailed description of these buildings is included in the Baltimore Project Interim Report completed in October, 1982, by the author.
Figure: 9.1

- AMERICAN BREWERY COMPLEX
- Private Ownership
- Baltimore Electronics Plant Facilities
- Main Buildings Suitable for Reuse
- Bldgs. Deteriorated Beyond Repair
- (For Numbered Descriptions See Page 170)
Nevertheless, the availability of on-site parking is very limited. This could be improved if several of the deteriorated "back buildings" were removed and no new construction was added. There is also a vacant lot beside building number 20 which could be used for parking if necessary.

The present facilities for loading and unloading materials are inadequate. A reassessment of the access to the individual buildings should be made to determine the best solution to this problem. Truck docking facilities could also be designed to provide adequate clearance and maneuverability to all the buildings.

Although the site appears to have little room for expansion or new construction, there are several options which could be considered in this regard. If several of the structures located behind the Brewhouse were removed, (particularly building number 8), several thousand square feet of building area would result. A second way to plan for future growth would be to acquire the rowhouses adjoining the site. These could be renovated or demolished to provide space for additional expansion. Finally, there are several sites near the Brewery which could be acquired and used for parking in the short run, or coordinated with the planned employment center as mentioned previously.
Building Characteristics

The building components of the Brewery complex evolved out of the functional requirements of beer brewing and malt production processes. This type of special purpose facility is more difficult to adapt for a new use than a more general purpose building.

The Brewhouse is the most important and influential building in the complex. Its vertical multi-story construction is characteristic of the many inner city industrial buildings of this period. These types of buildings were rendered nearly obsolete by more efficient methods of handling materials used in single story facilities. Multi-story buildings like the Brewhouse do restrict the variety of possible occupants as well as their operational processes.

The obsolescence of multi-story industrial buildings is especially critical. The design of the building often makes it difficult to remodel the structure to the needs of the occupant, especially if those needs are now expressed in terms of one-level goods and process flows. Multiple-story buildings were generally constructed between 1890 and 1920 in the United States. These buildings were constructed to accommodate industry that used processes, machinery, and techniques considered obsolete today.43

However, the multi-story Brewhouse does have potential. It is necessary to identify the industrial establishments that can adapt to its loft nature and benefit from the
linkages of nearby business activities. One of the objectives of the Targeted Industrial Study is to identify these opportunities.

Another feature which distinguishes the Brewery complex is the variation and juxtaposition of the individual buildings on the site. Each building has its own special attributes and therefore may be more suitable for one kind of reuse than another. It is this diversity of style, size, and quality which complicates a homogeneous adaptive-use solution. For instance, the FitzSimmons Mansion is a distinctly residential structure. The adjacent offices have a different function more oriented to administration or commercial uses. The Brewhouse with its five story height deserves special consideration in planning its adaptive-reuse. The remaining back buildings behind the brewhouse are more suitable for light repair, machinery, and warehousing activities.

The following summarizes the advantages and disadvantages of the building and site for conversion to industrial use.

**Physical Advantages of the buildings for Industrial Use**

- diversity of building style and type capable of adapting to many kinds of industrial activities

- floor loading capacity of the Brewhouse capable of supporting heavy machinery

- high ceiling heights of the Brewhouse suitable for
industrial uses

- image and historic character of the site can be used as an effective marketing tool

- vertical and horizontal division of space units of production processes

- Brewhouse and site suitable for either single or multiple occupancy.

Disadvantages of the Buildings for Industrial Use

- limited space for future expansion

- inadequate truck docking facilities

- limited parking area for employees and customers

- environmental conflict of some industry's with the site

- compatibility conflict of some industry's with the existing electronics plant

- limited adaptability of the Brewhouse building to modern industrial processes

- extensive renovation required to bring the buildings on the site up to fire and building codes

- inadequate linkage to major transportation routes
10. TARGETED INDUSTRY GROUPS COMPATIBLE WITH THE BREWERY PROJECT OBJECTIVES

Introduction

This section of the targeted industrial market study is the most complicated because it requires synthesizing all the information collected to date with the addition of new information about specific types of industrial firms. By integrating industrial space requirements with the physical characteristics of the Brewery buildings, the locational attributes of the site, and the community needs, a "fit" between site, function, and environment can be achieved.

The diagram on the next page illustrates four types of data which are involved in the synthesis process described above: 1) Design Possibilities; 2) Site Information; 3) Community/City Goals; and 4) Industrial Firm Types. The first three categories have been discussed in previous chapters of this report. In the ensuing pages, the 4th category, describing various types of industries, will be explored in depth. An Industrial Compatibility Matrix will then be used to summarize the findings and to rank the industry groups in order of compatibility.

The result of the data synthesis process is a detailed profile of the types of business/industrial firms which could successfully locate at the Brewery site while at the
- Physical Constraints
- "Character" of the Bldgs.
- Space Design & Planning
- Site Linkages
- Locational Attributes
- Gay Street Corridor Potential
- Economic Conditions

- Community Needs
- City Objectives
- Developers Objectives
- Business Firm Requirements
- Types of Products
- Multi-Firm Business
- Single Tenant Industrial
- Site Selection Criteria

Figure: 10.1 Development Proposal Data Synthesis
same time complementing community needs and city objectives. Space and functional requirements of the industries will also be examined thus influencing the architectural design program for the project.

Profile Matching of Industry Requirements

The matching of the Brewery complex to a particular industry group that can utilize the existing spaces is theoretically possible. However, it is difficult to accurately forecast the specific types of firms for the Brewery site.

Many industries, although classified as producing a certain product, may in fact perform a wide variety of functions and services in the production of that product. Oftentimes, two businesses producing a similar item in the same geographical area, and even using the same production process, have very different criteria for selecting a location for their activities.

The criteria for site selection will vary considerably depending on the nature of the industry, management, type of product, and economic conditions. In general, these factors can be divided into two distinct groups – direct cost factors and non-cost intangible factors. Any business considering the Brewery as a location will probably consider the following site selection criteria:
1. size, shape, floor area, column spacing of the buildings;
2. transportation, access, truck docking facilities;
3. proximity to markets, competitors;
4. availability of trained labor;
5. site expansion capability;
6. public assistance and tax incentives;
7. parking for customers and employees;
8. storage capacity for raw and finished materials;
9. construction costs for renovation;
10. rental or acquisition costs of the site;
11. long term facility operations costs; and
12. adaptability of production process to the existing buildings.

Most industry group comparisons are made using the Standard Industrial Classification (SIC) coding system. Use of this information and other current statistical data can sometimes increase the accuracy of forecasting methods, but they also have limitations:

The possibility of designing a reliable method for identifying prospects by matching an area's assets with an industry's needs has tantalized marketers from the earliest days of organized area promotion.... For most industry groups, many locations are possible. Hundreds of areas have potential for a large variety of industry groups. Systematic approaches to area/industry matching can thus become very complicated.***

It is apparent that industry compatibility studies, no
matter how sophisticated, have to be perceived with a clear understanding of their limitations. This is not to say that such a study will not be useful for the Brewery. Obviously there are compatible characteristics which can be carefully selected and documented. Suggestions of target groups can be made based on general factors of site and industry matchups. In the Brewery's case, these suggestions could help to establish the full industrial potential of the site which may otherwise go unnoticed. The site may be designed to accommodate proven or implied preferences which may increase the marketability of the facility as an industrial center. Imagination and flexibility, backed by careful research, can be a valuable asset for identifying solutions to physical deficiencies which may restrict certain industries from seriously considering the Brewery as a location.

One system which may be useful in an industry search is profile matching. Profile matching involves determining the attributes or profile of the site and matching them with the requirements of compatible industry groups. The components of a Brewery facility profile would include:

- density of the site;
- labor characteristics;
- product of service;
- production process;
An analysis of the Brewery's relationship to these components follows on the next few pages.

Density: The Brewery may be more attractive to several small entrepreneurial tenants than to one large industrial firm. This is due to several reasons:

1. There is approximately 90,000 square feet of usable space in the complex, of which 16,000 or 18% is primarily office/commercial in nature. Much of this space is fragmented into various buildings throughout the site. It is unlikely that a particular establishment could use such a large portion of the site for its administration or office needs, or could adapt its operation in such a fragmented manner.

2. The multi-story nature of the Brewhouse is more conducive to horizontal or vertical division of space units usually associated with multi-tenant occupancy.

3. There has been a continuing decline in manufacturing employment in the Baltimore area. Many large firms which could occupy the whole site as a single tenant simply are not expanding operations or are unwilling to commit large amounts of capital expenditures to such a project.

4. The desire to diversify the employment base to provide as many different types of jobs and skill levels as possible.

5. The desire to promote minority ownership of businesses in the area.

For these reasons, it appears that a proposal calling for several smaller industrial tenants can utilize the complex more efficiently.
Labor. The acquisition of labor intensive industries utilizing the existing community labor force is a fundamental objective for the project. A labor intensive industry is one which employs a large number of people in relation to the size of the facility. Typically, a labor intensive industry has about 200 square feet of floor area per employee or less, including multiple shift employees. The average floor area per main shift employee for manufacturing plants in Baltimore is 670 square feet.

However, this number will vary depending on the use of the building. For example, the average floor area/employee of several Baltimore manufacturing groups are listed below:

<table>
<thead>
<tr>
<th>Industry</th>
<th>Floor Area (sq. ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Printing</td>
<td>381</td>
</tr>
<tr>
<td>Furniture</td>
<td>835</td>
</tr>
<tr>
<td>Fabricated Metals</td>
<td>835</td>
</tr>
<tr>
<td>Apparel</td>
<td>264</td>
</tr>
<tr>
<td>Primary Metal</td>
<td>1,311</td>
</tr>
</tbody>
</table>

If a labor intensive industry located at the Brewery site, its employee density could be expected to be between 300 - 400 square feet per employee. Using this figure, the total available space in the Brewery complex could result in an employment potential of 225 - 300 people. The economic benefit to the community in wages alone would then exceed three million dollars annually.

The relatively unskilled labor force in the study area
can only be useful if properly trained with marketable new skills. Even so, new or expanding firms that would be attracted to the site would probably be those who want low to medium skilled labor for their activities.

**Product** The type of product or service provided by an establishment located at the Brewery would more than likely be of a specialty or custom nature. This is partially due to the small size of the complex which would be more conducive to a small scale assembly or production process.

The specialty products would therefore be primarily non-basic in their distribution. That is, the goods would be marketed for local consumption, as opposed to export goods. These goods tend to be nondurable in nature. Central city manufacturing facilities have traditionally produced a greater percentage of nondurable goods than their suburban counterparts. Nondurable goods include food, textiles, apparel, paper, printing, chemicals, and leather. It is possible that durable products could also be assembled in the complex but, considering the size of the Brewery site, only limited quantities could be produced. The cost effectiveness of this would be questionable. Those Durable goods include lumber and wood products, furniture, stone and glass, primary and fabricated metals, machinery, and precision instruments.
Production Process. The multi-story nature of the Brewhouse controls the type of production process suitable for the facility. Generally a process where non-continuous flow of materials is required would be compatible for the site. Gravity-feed processes would also work quite well in the existing Brewhouse building.

A process layout, rather than a product layout method of operation, is congruous to the Brewhouse. A "process layout" is one where production activities are grouped by function rather than by production line. Generally this occurs where several products require treatment or assembly by the same operation, such as metal grinding or chemical treatment. A process controlled layout could easily be separated both vertically and horizontally among the buildings in the complex.

Special-purpose industrial buildings are more difficult to adapt to new uses than more general purpose buildings. The Brewery complex evolved out of a very special purpose function of beer and malt production. However, that activity also required a variety of storage, materials handling, production, and distribution functions. The buildings which housed these activities now have great potential for reuse if modern process layout methods can be adapted to them.
Market Area. The market distribution by a company located at the Brewery would probably be intra-regional, as opposed to inter-regional or national. Therefore, close linkage to the local and city market base would be valuable in facilitating customer-oriented personal contact with nearby business or industrial establishments. The external economies of locating close to their market demand could certainly influence a business to locate within the ABMA. The linkages to the East Biddle Industrial Park and commercial areas north and south of the site are other important considerations.

Most firms contemplating an expansion or relocation at the Brewery would be from already existing Baltimore based companies. The Regional Planning Council predicted that future growth in the Baltimore region would come primarily from existing or new branches of present firms in the city. This would certainly apply to the Brewery site. For this reason, marketing efforts should be concentrated toward existing Baltimore firms, preferably from outside the ABMA.
Compatibility of Specific Industry Groups

This section will explore the types of industrial facilities which are compatible with the issues mentioned previously. James Boykin, in "Industrial Potential of the Central City", presented a detailed comparison of selected suburban and central city manufacturing industries in Baltimore. A major topic of discussion in his book was the adaptive-reuse of multi-story Baltimore industrial buildings. The study compared the site selection tendencies of central city and suburban industrial firms using the following factors:

- Industrial Site Size
- Site Utilization
- Employee Density
- Multi-story Space Utilization
- Building Age
- Type of Occupancy
- Parking

Using these and other criteria, Boykin established an Industrial Location Rating Grid for Centralizing and Decentralizing Industry Groups. Those manufacturing groups found to be more adaptable to central city locations were ranked in the following order:

1. Printing
2. Furniture
3. Machinery
4. Apparel
5. Transportation

Those manufacturing industry groups found to be better accommodated with suburban locations were ranked in this order:

1. Chemicals
2. Paper
3. Stone Products
4. Primary Metal
5. Food
6. Lumber
7. Rubber
8. Fabricated Metal.

Boykin rationalized that, on a broad scale, some industry groups preferred to locate where the balance between internal and external economies was to their best advantage. Those industries which had a particular plant size, production process, employment, or product distribution requirements chose their facility location accordingly.

Those manufacturing groups which are more compatible to central city locations can be used as a starting point to explore suggestive uses for the Brewery. His study generates two key questions:

1. How do the manufacturing groups suggested for central city locations compare with the current Regional market conditions in Baltimore in terms of employment, size, sales volume, growth potential, and facilities expansion?
2. What nonmanufacturing industry groups are also appropriate for central city multi-story buildings?

The first question deals with current manufacturing market conditions in Baltimore. Manufacturing employment in the Baltimore region declined 18% between 1970 and 1980 for both durable and nondurable goods. The Regional Planning Council, in its Economic Development Report, could only cite the growth of high technology and defense related firms in an otherwise bleak manufacturing picture in Baltimore. High technology firms typically employ highly skilled research and development personnel and are generally located in middle-upper income suburban areas or selected industrial parks -- certainly not indicative of the ABMA or the Brewery complex.

As indicated in the Baltimore Regional Overview of this report, manufacturing employment as a percentage of total Baltimore employment has dropped from 24.3% in 1970 to 15.3% in 1980. This is concurrent with the overall national shift away from manufacturing toward service sectors of the economy.

The answer to the second question has to do with the relationship between manufacturing and nonmanufacturing industries. As expected, there are advantages and disadvantages to targeting a manufacturing industry for the Brewery site:
Manufacturing fosters the growth of ancillary industrial business and service establishments, provides the foundation for commercial vigor in a metropolis, and stimulates the demand for housing construction by swelling the labor force and reducing unemployment. 

At face value, manufacturing appears to be the cure-all for East Baltimore's problems. Unfortunately, the issue is much more complex. With manufacturing industries experiencing tough economic times, they are extremely careful in planning their facilities for present and future expansion. The competition for new industrial firms is fierce, with each state and locality offering comprehensive packages of business and tax incentives. It may not be easy to convince a particular manufacturer that East Baltimore is a good location for growth. The future trend of the manufacturing sector has been expressed by the Regional Planning Council in the Employment Trends and Projections for 1975 - 1985. A net loss of as much as 15,000 manufacturing jobs between the high in 1979 and the low in 1982 shows how vulnerable this sector is to changes in the business cycle. The prospective level of employment in 1985 is not likely to be much higher than the actual level in 1975. There is likely to be little net change in manufacturing employment during the next five years. In the Baltimore region, growth in employment will occur in the non-manufacturing sectors of the economy. 

Manufacturing is becoming less and less a portion of the
Baltimore economy. It would be wise to examine some of the nonmanufacturing sectors which could be drawn to the Brewery site. Nonmanufacturing employment rose 30% in the period between 1970 -1980. Of the nine nonmanufacturing divisions listed in the SIC coding system, four offer potential for the Brewery site: 1) Construction; 2) Services; 3) Wholesale Trade; and 4) Government. The following is a brief description of these groups:

**Construction** Three broad types of construction activity are included under this heading: 1) general building contractors, 2) heavy construction contractors, and 3) special trade contractors. Of these three, special trade contractors would be most likely to Small entrepreneurial building contractors and tradesmen may be inclined to locate in the AMBA, especially if the building construction outlook improves or if Federal funds support any major construction work in East Baltimore. Those which did not require a great deal of outside storage for materials and equipment could accommodate their activities to several buildings on the site. Surely in a multi-occupancy scheme, these type of tenants should be considered for the Brewery. Nevertheless, it must be noted that construction firms can adapt to a wide variety of industrial space configurations. A prime location, with external linkages to a product market, is not
imperative for most firms. In addition, the rents that would be received would not be as great as could be charged if the site was optimally utilized.

One advantage of using the site for construction firms would be the substantial employment opportunities for skilled tradesmen. In addition, those employees would be performing their work off the site in other areas of the city. Many construction companies typically employ large numbers of employees with relatively small administrative or office personnel.

What are the present and future trends for the construction industry? There has been a significant decline in residential construction activity due to the current recession. This loss has been offset by a relatively strong showing in the non-residential sector. There should be some rebound in residential construction in 1983. In the future there will not be as much activity in the non-residential sector due to unfavorable market conditions. Renovation work for contractors should increase significantly as more and more individuals take advantage of recent favorable tax legislation for rehabilitating older buildings.

To capsulize, construction companies at the Brewery could adapt well to some areas of the site, and could also provide employment. However, they would not generate the optimum rental level which could be achieved by other industries.
Services The Standard Industrial Classification coding system lists fourteen two-digit groups in the "service" category. Five of these groups list service establishments whose function could locate at the Brewery: 1) Business Services, 2) Automotive Repairing, 3) Miscellaneous Repairing, 4) Educational Services, 5) Social Services. Examples of the wide variety of listings in these groups are blueprinting/photography, commercial testing laboratories, electronic repair, vocational training schools, and non-commercial research and development organizations.

Much of the growth in total employment during the past five years has been in service industries which have increased from 250,000 jobs (1975) to an estimated 302,000 in 1980. The upward trend is expected to continue, increasing to a total of 335,000 service jobs by 1985. Almost all service types will experience growth during this period.51

Most of the establishments in the service category are commercial in nature and as a result depend on business and market linkages for economic success. It is not within the scope of the "Targeted Industrial Study" to review all of the service firm types. It is relevant to acknowledge that many smaller semi-industrial firms are listed under this category, and under appropriate conditions, many of these
may be desirable tenants for a multi-occupant industrial proposal.

*Wholesale Trade* The chief function of establishments included in "Wholesale Trade" is selling goods to trading establishments or to industrial, commercial, institutional and professional business users. Functions frequently performed by wholesale trade establishments include maintaining inventories of goods, physical assembling, sorting and grading goods in large lots, breaking bulk and redistributing it in smaller lots, and delivery of products.

Wholesale trade is roughly classified into durable and nondurable goods. It is more relevant to examine the nature of wholesaling, rather than elaborate on the many individual groups or establishments. The most characteristic trait of wholesale trade is storage and delivery of goods. These two facts are major disadvantages toward locating at the Brewery because:

1. The multi-story nature and floor loading capacity of the Brewhouse do not lend themselves to extensive warehousing and materials handling functions.

2. The transportation access to and from the site is inadequate for major truck transportation services.

The linkages to product/sales market are a primary factor in the site selection decision of a company distributing
products wholesale. It is unlikely that the ABMA could provide these positive market linkages. Finally, the wholesale trade industry is very labor extensive, thus contrary to community needs for employment opportunities.

Many types of wholesale trade and warehousing activities could be accommodated within the existing buildings on the site. Once again, however, the external objectives of the project override the physical attributes of the individual buildings.

The development proposal for the Brewery must consider the present and future consequences of targeting the facility toward a certain industry group. Marketing the facility toward growth industries would add stability to the goal of long term economic development in the community.

Table 10.2 on the next page summarizes the current growth trends of the selected industry groups discussed in this section. The table shows the dichotomy between manufacturing groups which are projected to remain stable through 1985, and nonmanufacturing groups which are projected to increase 13.4% by 1985.

Previously it was noted that it would be beneficial to the local economy to match the Brewery site with an existing inner city firm from outside East Baltimore. Appendix "B" includes a list of Baltimore City manufacturing firms in the selected categories who employ 100 or more persons.
Table: 10.2

Selected Industry Groups for the American Brewery Project

Baltimore Region - Thousands of Full & Part Time Jobs

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Printing &amp; Publishing</td>
<td>407</td>
<td>11.9</td>
<td>13.4</td>
<td></td>
</tr>
<tr>
<td>Furniture</td>
<td>59</td>
<td>3.0</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>Machinery</td>
<td>223</td>
<td>11.5</td>
<td>12.7</td>
<td></td>
</tr>
<tr>
<td>Apparel/Textiles</td>
<td>171</td>
<td>11.7</td>
<td>10.2</td>
<td></td>
</tr>
<tr>
<td>Electric/Elect. Equip.</td>
<td>92</td>
<td>17.4</td>
<td>21.4</td>
<td></td>
</tr>
<tr>
<td>Wood/Lumber</td>
<td></td>
<td>1.8</td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>Fabricated Metals</td>
<td>9.2</td>
<td>8.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Manufacturing (all industries)</td>
<td>165</td>
<td>162</td>
<td>165</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesale Trade</td>
<td>51</td>
<td>56</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>Construction:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Building</td>
<td>48</td>
<td>59</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>Heavy Construction</td>
<td></td>
<td>7.0</td>
<td>8.6</td>
<td></td>
</tr>
<tr>
<td>Special Trade Contrac.</td>
<td>27.1</td>
<td>34.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Services:</td>
<td>250</td>
<td>302</td>
<td>335</td>
<td></td>
</tr>
<tr>
<td>Auto Repair &amp; Service</td>
<td>6.3</td>
<td>9.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Misc. Repair</td>
<td>4.5</td>
<td>4.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private Education</td>
<td>16.5</td>
<td>20.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Services</td>
<td>5.7</td>
<td>8.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Nonmanufacturing (all industries)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: 1977 Figures
This final section of the report has dealt with selecting targeted industry groups which could be compatible to the Brewery site and which could contribute to the achievement of city and community goals for the project. The Industry Compatibility Matrix on page 161 summarizes these issues. The manufacturing, construction, services, and wholesale trade industry groups are ranked on a scale of 1 to 5 according to their compatibility with stated project objectives. The assigned values are the author's subjective evaluation based on the knowledge and sensitivity of the project that matured over the course of the study.

Firms which achieved the highest rating indicate areas where more intensive study should be directed. The ranked order of compatible uses for the Brewery complex are:

1. printing/publishing;
2. special trade construction
3. electric and electrical equipment;
4. education (vocational skills center); and
5. apparel/textiles.
<table>
<thead>
<tr>
<th>Wholesale Trade</th>
<th>Services</th>
<th>Construction</th>
<th>Manufacturing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesale Trade</td>
<td>Auto Repair/Service</td>
<td>Miscellaneous Repair</td>
<td>General Building</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Printing/Publish.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Scales:**
- 1: Incompatible
- 2: Slightly Incompatible
- 3: Compatible
- 4: Slightly Compatible
- 5: Highly Compatible

* = tie ranking


3 *Baltimore Metro Business Facts*, p. 15.


8 Regional Planning Council, *Economic Indicators - Baltimore Region 1981*, Table B-1.


11 *Economic Indicators - Baltimore City*, table 21.


14 *Economic Indicators - Baltimore City*, table 21.

16 Miller, p. 20.

17 Miller, p. 3.


19 American City Corporation, pp. 10, 11.


23 General Economic Development Plan, p. 2.


26 Miller, p. 6.


28 Economic Indicators - Baltimore City, Table 8.


30 American City Corporation.


32 American City Corporation.


"Establishing an Easement Program to Protect Historic, Scenic, and Natural Resources, p. 3.


*Economic Benefits of Preserving Old Buildings*, p. 76.

Lyall, p. 66.


Kinnard, p. 383.


Kinnard, p. 81.


1982 *General Economic Development Plan*,

boykin, p. 35.


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HISTORIC REHABILITATION CASE STUDIES


**ADAPTIVE - USE**


**PRESERVATION ECONOMICS**


1975.

INDUSTRIAL REAL ESTATE


### Appendix "A" - Schedule of Existing Buildings

<table>
<thead>
<tr>
<th>No.</th>
<th>Bldg./Construction</th>
<th>Size</th>
<th>Gross Area</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Brewhouse</td>
<td>43x110</td>
<td>31,764 sq. ft.</td>
<td>* built 1887</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 story w/basement</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>brick and frame</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>steel and wood frame</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>stone foundation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Boiler and Engine Room</td>
<td>high 1 story and 32x142</td>
<td>5,750</td>
<td>* built 1885</td>
</tr>
<tr>
<td></td>
<td></td>
<td>part. basement</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>brick, wood frame</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>conc. floor</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>exposed wooden truss roof</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Stock House</td>
<td>28,937</td>
<td>* built 1880</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 story w/basement</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>and sub-basement,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>brick and stone,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>steel columns, wood frame</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>wooden truss roof</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>stone foundation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Sternewirt</td>
<td>17'-8&quot;x22'</td>
<td>873</td>
<td>* built 1906, 1919</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 and part. 2 story</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>brick walls</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>steel and wood frame</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Recreation Room</td>
<td>21'-6&quot;x53'-3&quot;</td>
<td>1,140</td>
<td>* built 1934</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 story, brick walls, wood frame</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>steel and wood frame</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>New Boiler House</td>
<td>26'-6&quot;x46'-10&quot;</td>
<td>1,244</td>
<td>* built 1935</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 high story</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>corrugated metal clad siding</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>steel frame</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Maintenance Shop</td>
<td>25'-6&quot;x60'-6&quot;</td>
<td>4,186</td>
<td>* built 1938</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 story metal frame</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>corrugated metal clad siding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Stock Cellars</td>
<td>4,243</td>
<td>* built 1941</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 story</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>brick walls</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>no interior structure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Cooperage Shop</td>
<td>5,127</td>
<td>* built 1912</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 story</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>brick walls</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>steel and wood frame</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10. Keg Wash Room
   1 high story
   brick walls
   steel and wood frame
   4,243
   * built 1941
   * presently being renovated for manufac. plant

11. Baltimore Electronics Plant
    3 story
    brick walls
    steel, reinforced conc.
    62,203
    * built 1948
    * recently renovated

12. Toilet Rooms
    2 story
    steel and wood frame
    552
    * built 1934

13. Old Bottling House
    2 story
    brick and stone
    steel, wood frame
    3,765
    * built 1873

14. Old Bottling House
    2 story w/part. basement
    brick and stone
    steel, wood frame
    5,857

15. FitzSimmons Mansion 24'-0"x84'-8"
    3 story w/ basement
    brick walls
    wood frame
    9,282
    * built 1887
    * proposed site of Multi-Purpose Center

16. Office Building
    2 story w/ basement
    brownstone exterior walls
    wood frame
    * built 1892
    * private owner

17. Office Building
    2 story w/ basement
    brick exterior walls
    wood frame
    * built 1896
    * private owner

18. Office Building
    2 story
    brick walls, wood frame
    6,648
    * built 1896
    * occupied by EBCC

19. Garage
    1 high story
    brick walls
    wood frame
    34'x35'
    1,190
    * built 1896

20. Carpenter Shop
    2 story
    brick walls, wood frame
    32'x68'
    5,678
    * built 1896
Appendix B

Selected Baltimore City Manufacturing Firms
(100 or more employees)

### Printing, Publishing, and Allied Industries (SIC 27)

<table>
<thead>
<tr>
<th>Company</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art Litho Company</td>
<td>130</td>
</tr>
<tr>
<td>Abell, A. S., Co.</td>
<td>1,787</td>
</tr>
<tr>
<td>Afro-American Co.</td>
<td>153</td>
</tr>
<tr>
<td>Baltimore News American</td>
<td>1,105</td>
</tr>
<tr>
<td>Diamond Press Co.</td>
<td>115</td>
</tr>
<tr>
<td>Graphics Arts Finishing Co.</td>
<td>225</td>
</tr>
<tr>
<td>Hoen, S., &amp; Co.</td>
<td>100</td>
</tr>
<tr>
<td>Lucas, John D., Printing Co.</td>
<td>120</td>
</tr>
<tr>
<td>Crocker, K.S., Co.</td>
<td>140</td>
</tr>
<tr>
<td>International Paper</td>
<td>378</td>
</tr>
<tr>
<td>Monarch Services</td>
<td>140</td>
</tr>
<tr>
<td>Publication Press, Inc.</td>
<td>140</td>
</tr>
<tr>
<td>Sheet Metal Coating and Litho Co.</td>
<td>130</td>
</tr>
<tr>
<td>Waverly Press, Inc., Div. of Williams &amp; Wilkens Co.</td>
<td>958</td>
</tr>
</tbody>
</table>

### Furniture and Fixtures (SIC 25)

<table>
<thead>
<tr>
<th>Company</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chamber, H. Co.</td>
<td>100</td>
</tr>
<tr>
<td>Globe Products Corporation</td>
<td>153</td>
</tr>
</tbody>
</table>

### Machinery (SIC 35)

<table>
<thead>
<tr>
<th>Company</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Elements</td>
<td>800</td>
</tr>
<tr>
<td>John D. Local Printing Co.</td>
<td>120</td>
</tr>
<tr>
<td>MRC Corporation</td>
<td>120</td>
</tr>
<tr>
<td>Koppers Company, Inc.</td>
<td>3,000</td>
</tr>
<tr>
<td>Middlestadt Machine Co.</td>
<td>110</td>
</tr>
<tr>
<td>A.K. Robins &amp; Co., Inc.</td>
<td>89</td>
</tr>
<tr>
<td>Universal Machine</td>
<td>126</td>
</tr>
</tbody>
</table>

### Apparel and Textiles (SIC 22, 23)

<table>
<thead>
<tr>
<th>Company</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blind Industries &amp; Services of Maryland</td>
<td>549</td>
</tr>
<tr>
<td>Hooper, William E., &amp; Sons Co.</td>
<td>120</td>
</tr>
<tr>
<td>American Golfer</td>
<td>200</td>
</tr>
<tr>
<td>Acme Pad Corporation</td>
<td>189</td>
</tr>
<tr>
<td>Bank, Joseph A., Manufacturing Co.</td>
<td>409</td>
</tr>
<tr>
<td>G &amp; G Uniform Co., Inc.</td>
<td>115</td>
</tr>
<tr>
<td>Haas Tailoring Co., Inc.</td>
<td>259</td>
</tr>
<tr>
<td>Howard Uniform Co.</td>
<td>170</td>
</tr>
<tr>
<td>Isaacs, L.C., &amp; Co., Inc.</td>
<td>269</td>
</tr>
<tr>
<td>English American Tailoring Co.</td>
<td>210</td>
</tr>
<tr>
<td>Grief &amp; Co.</td>
<td>240</td>
</tr>
</tbody>
</table>
Apparel and Textiles (cont.)
Rombro Brothers, Inc. 370
Classic Uniform Corporation 225
Katzenburg Bros., Inc. 100
Baltimore Sportswear 125
Butfaw Manufacturing Co. 212
Johnson Manufacturing Co. 264
Land, Bernard & Sons, Inc. 137
Maryland Clothing Manufacturing, Inc. 140
Lebow Brothers, Inc. 400
Misty Manufacturing Co. 375
Modern Manufacturing Co. 490
Moss Sportswear & Moss Shorthakers 100
Rubin, Max, Co., Inc. (Hellburn) 300
Schreter, A., & Sons Co. Inc. 110
Swartz, T.I. & Sons 150
Westgate Clothes Company 194
Oakloom Clothes Inc. 110

Electrical Machinery, Equipment & Supplies (SIC 36)
H. K. Porter Co. Inc. 143
C.G.R. Medical Corporation 1,100
Enterprise Electric Co. 156
Reid Avery Co. 160
Western Electric Co. Inc. 6,204
Superior Fireplace Co. 140
MTD Research & Development Corporation 100

Lumber and Wood Products (SIC 24)
Atlantic International Corp. 550
Gilbralter Industries, Inc. 122
Morgan Millwork Co. 100

Fabricated Metals (SIC 34)
Jed, Leonard, Co. 106
Maryland Bolt & Nut Company 110
American Can Company 500
Anchor Post Products, Inc. 420
Bethlehem Steel Corporation, Buffalo Tank Division 140
Crown Cork & Seal Co., Inc. (2 plants) 1,584
Dietrich Brothers 99
Heat & Power Corporation 200
National Can Corp. 184
Southern Galvanizing Co. 98
Continental Can Co., USA 350
Metal Masters Co. 130
Roper Eastern 1,660
Appendix C

Partial List of East Baltimore Industrial Firms

Food Fair Warehouse
Continental Can Co.
Hinde Bouche Co.
H.U. Newelu Co.
Lord Baltimore Press
Mahoney Bros. Co.
Hyster Co.
N. C. Chapman & Sons
Paturza Bros. & Sons
Armco Steel Co.
Steel & Co.
United Iron and Metal Co.
A.E. Castle & Co.
Esskay Meat Packaging Plant
Pennsylvania Water & Power Co.
American Cooperage & Steel Drum Co.
Paul Jones Co.
Monarch Rubber Co.
Pratt & Lambert Branch No. 13
Arrow Oil Co.
C.J. Roush
Crown Cork & Steel Co.
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