Final Report

Cost/Benefit Analysis of the Department of Public Works (DPW) Site

Submitted to

City of Portland
Portland, ME

Submitted by

Economics Research Associates
Washington, DC

In association with

DeLuca Hoffman Associates, Inc.
and
MRLD

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ERA

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I. Executive Summary

Introduction

The City of Portland Department of Planning and Development retained a consultant team headed by Economics Research Associates (ERA) of Washington, D.C. to prepare a detailed analysis of the costs and benefits associated with relocating the City's Department of Public Works (DPW) operations and redeveloping the department's existing site. The DPW site, which is located in the historic Bayside neighborhood adjacent to downtown Portland, contains approximately 4.2 acres of land and is bounded by Hanover, Parris, Portland and Lancaster Streets.

A combination of factors has fueled significant interest in relocating the DPW facilities to a larger, 88-acre site on Outer Congress Street and in planning for the comprehensive redevelopment of DPW's Bayside location. These include:

- Significant attention from City officials and staff on the need to identify specific sites and areas for new (or rehabilitated) housing to accommodate future population growth in order for the City to maintain (and grow) its competitive position in the region;
- Ongoing planning studies, such as the City's draft Housing Plan and the adoption of the *Bayside Vision Plan* by the Portland City Council in December 2000;
- Brownfields studies of the site to assess soil conditions and redevelopment potential; and
- Two previous design workshops, including one that examined general conditions in the Bayside neighborhood in 2000, and a second that focused on the DPW site and opportunities for new housing in 2001.

The second community workshop builds upon efforts identified in the City's draft Housing Plan to identify potential redevelopment sites for new housing as a means of reinforcing opportunities to grow the City's population. In addition, the City retained DeLuca-Hoffman Associates, Inc. to prepare feasibility studies for the existing Bayside facility and to evaluate relocation of DPW operations to an 88-acre site on Outer Congress Street. As part of that study, a series of alternative concept plans were prepared and analyzed to accommodate DPW functions and opinions of probable construction costs were provided.

Scope of Work

The consultant team was comprised of ERA as prime contractor with the City and responsible for the study's overall direction as well as DeLuca Hoffman Associates and MRLD, a design, planning and communications firm based in Yarmouth. DeLuca Hoffman assisted the team in providing cost estimates from its previous studies of the DPW site and in its depth of understanding of DPW requirements and phasing as part of the cost/benefit analysis. MRLD analyzed the site's capacity to accommodate various uses under several redevelopment scenarios and prepared building massing diagrams to assist in illustrating the overall scale of development and its impact on adjacent and nearby areas.

The consultant team's analysis focused on identifying three market-supportable redevelopment scenarios for the DPW site and estimating the direct and indirect benefits and costs in current dollars of these scenarios against the costs associated with relocating DPW's operations to Outer Congress Street. The study incorporated associated costs for demolishing the current facility and preparing the site for redevelopment.

Our scope of work included a series of sequential tasks that built on one another in that one task informed the next. Specific tasks were designed to meet the primary objectives as outlined by the City, including:

- Assessing alternative financing methods for the DPW relocation;
- Defining two redevelopment scenarios (three were evaluated);
- Quantifying costs of site redevelopment to the City;
- Determining the impacts of new development on specific City operations such as schools and on revenue sharing; and
- Quantifying the direct and indirect benefits of redevelopment

Our work was conducted between November 2002 and May 2003. During this time, the team held several meetings with the Project Committee, which included City staff, representatives from the Bayside Neighborhood Association, Maine State Housing Authority, the Bayside Development Committee and the City Council's Housing Subcommittee. The team presented study results and recommendations to the Project Committee and the community-at-large at a final presentation in June 2003.

This Executive Summary highlights our key findings and recommendations. Subsequent sections of this report include:

- Demographic & Economic Profile
- Real Estate Market Conditions
- Redevelopment Opportunities
- Cost/Benefit Analysis

Key Findings & Recommendations

For the past several years, the City of Portland has been debating whether to relocate its Department of Public Works (DPW) facilities from their current location in West Bayside to another location. The reasons for moving the Department of Public Works from its current location are many, and include:

- The need to modernize facilities;
- A lack of expansion space;
- Accessibility and operational efficiencies associated with another location;

- Potentially negative impacts on the surrounding Bayside neighborhood; and
- The value created by redevelopment of the four-acre site on which DPW is presently located.

Despite the strong merits of moving DPW, the move will come at substantial cost. According to estimates prepared by DeLuca Hoffman Associates (see Appendix), **the cost of moving DPW and preparing the West Bayside site for redevelopment would approach $16 million**—a large price tag for the City as it faces significant budget difficulties. Many in the City have expressed concern that, no matter the benefits of relocating DPW, the City simply cannot burden itself with such great expense.

However, the advantages and marketability offered by a site located in a rapidly improving section of Portland and its adjacency to downtown may create the opportunity to recover a substantial share of the costs of relocating DPW. Revenues can be generated for the City both from the property's disposition (by selling or leasing the land) and from future property taxes generated by redevelopment.

Market Findings: Housing

- The net change in households in Portland between 1990 and 2000 far exceeded the net change in the number of new housing units created during this period; this has resulted in declining vacancy rates across the City's housing stock.
- The growth in housing prices has outstripped growth in household incomes; this has exacerbated the difficulties associated with providing affordable housing units for the City's lower- and moderate-income households.
- Beyond the construction of Back Bay Tower in 1992 and Unity Village in 2002, there has been very little multi-family construction in central Portland in recent years; moreover, a wave of apartment-to-condominium conversions has reduced the supply of rental units.
- In general, a typical two-bedroom apartment on the Peninsula rents for $1,000 per month or more.
- Despite an increase in the number of for sale condominium units currently on the market, unit prices continue to rise; for example, brokers report that two-bedroom units in Bayside typically sell in the $140,000-160,000 range.
- Sales price differentials of condominium units located in the West End and Bayside are quite large; for example, West End units typically sell between $225 and $250 per sq. ft., while Bayside units generally command sales prices of $150 per sq. ft.
- In terms of the available product mix, there are few townhouse units on the market. This has fueled sales premiums in the West End; for example, brokers report that three-bedroom townhouses sell for $300,000 or more.

- Brokers further report that demand is strong for loft-style units; professionals, students, and artists comprise the typical market segments for this type of housing. While lofts do not necessarily command higher prices, units are sold as semi- or unfinished; as a result, construction costs are generally lower.

Demand Targets: Housing

A critical mass of housing at the DPW site is extremely important. It serves to strengthen Bayside as a viable, close-in neighborhood, fosters demand for other uses such as on-site or nearby convenience and service retail, and reinforces downtown Portland as a viable business address with a potential supply of labor and consumers with disposable incomes. Obviously, new housing in Bayside must successfully compete in the marketplace, and unit finishes and project amenities are critical.

ERA has estimated potential housing demand at the DPW site under an **Induced Demand** scenario that relies on a series of critical assumptions, among which include:

- The provision of high-quality, market-rate housing that serves to reinforce the competitive position of the DPW site (and Bayside as a whole) in the City's (and the region's) housing market (note: this study has *not* examined options for affordable housing);
- Public policy initiatives designed to strengthen downtown Portland's competitive position in the region that result in continued growth of CBD employment, thus enhancing demand for nearby housing; and
- The provision of incentives such as TIF financing which may be critical in funding certain elements of DPW site redevelopment such as infrastructure.

Table 21 in Section IV of this report illustrates ERA's housing demand model. For purposes of this analysis, we used the **moderate population growth estimates for 2010 from the City's Comprehensive Plan**. The following assumptions were applied in the model:

- The scenarios assume that the City maintains its fair share of the region's population—or roughly 25% by 2010. This results in a population increase of almost **8,100 new residents**.
- Assuming that the number of persons per household citywide remains at 2.08 in 2010 translates into demand for new housing attributable to population growth of approximately **3,900 housing units**.
- In addition, in any given year, there are always households that desire (or require) a change in housing and, hence, turn over, among both renters and owners. Turnover generates *additional* potential demand beyond the creation of new households from population growth and/or in-migration. Assuming 40% annual turnover (always highest among renters) generates additional demand for housing; in this case, almost **1,600 units citywide are attributable to turnover**.

- ERA assumed that household size in Bayside would be slightly smaller—1.8 persons per household—because its proximity to the CBD would be more attractive to single-headed households.
- The model further segments potential demand according to fair share (i.e., Bayside today represents 4.4% of the City's total housing stock), induced, and high capture (i.e., induced plus). The induced estimates assume that redevelopment of Bayside succeeds in enhancing the neighborhood's attractiveness and marketability for new housing, and results in a doubling (to 8%) or tripling (to 12%) of future housing units citywide. Recent redevelopment along Marginal Way—such as the Wild Oats market—can also be expected to help Bayside.
- As noted, the ability to successfully capture demand for new housing on the DPW site is based on critical assumptions related to location, visibility, product quality, amenities and overall project environment, critical mass and other factors.
- This analysis results in potential market support for approximately **280 to 760 housing units** at the DPW site by 2010. This equates to average annual absorption of roughly **40 to 100 units per year depending on market conditions.**

Model	Estimated Capture	Supportable Units
Fair Share	4.4%	280
Moderate (Induced)	8%	510
High (Induced +)	12%	760

- The number of housing units identified in the three redevelopment scenarios (As-of-Right, Break-even and Mixed-use) would require that the DPW site capture 8% of future citywide housing demand.

Market Findings: Office

- In 2002, office vacancy rates in downtown Portland increased and net absorption was negative for the first time since 1995.
- Downtown rental rates are relatively flat and generally do not support the cost of new construction.
- Future office development in Bayside and in other locations of downtown Portland will occur slowly and incrementally. The economics associated with speculative (multi-tenant) buildings are not feasible. No new office development is likely in downtown Portland until at least 50% of any proposed building is pre-leased.
- As with residential development, Class A office rents do not support the costs associated with new office development in downtown Portland. This will necessitate the use of public subsidies to enhance overall feasibility. Moreover, developers are reluctant to pay more than $13 per buildable (FAR) foot for land. Currently, commercial land costs in downtown Portland are in the range of $20 per FAR foot.

- As land values continue to rise, industrial and other non-conforming uses in the Bayside neighborhood are eventually going to be displaced. This could be expected to significantly enhance the overall marketability for redevelopment for such uses as residential and/or commercial office space.

Demand Targets: Office

- ERA estimates that future employment growth in office-using sectors will generate demand for roughly **1.4 million sq. ft.** of office space across Cumberland County between 2000-2015 based on employment projections prepared by the Maine Department of Labor.

- Presuming that downtown Portland maintains its competitive position (i.e., fair share) of the region's office inventory at approximately 44% to 45% (and this is uncertain based on a slight decline in market share between 2000 and 2002), yields future demand for roughly **600,000 sq. ft.** allocated to the CBD. In other words, downtown remains as competitive in 2015 as it is today as compared to other office submarkets in Cumberland County.

- ERA believes that the DPW site could capture a small increment of total demand given its proximity to the core of the CBD, easy access to I-295, and the precedent of new office development such as the AAA Building on nearby Marginal Way. A planning target of roughly **75,000 sq. ft.** appears reasonable.

This planning target assumes adequate visibility and the provision of on-site parking to enhance overall marketability. Depending on site configuration, parking requirements and densities, the office component could include up to two small buildings of 2 to 3 floors with floorplates of 10,000 to 15,000 sq. ft. each.

Market Findings: Retail

- Retail vacancies in Portland remain very low. By comparison, consolidations and bankruptcies among many Big Box tenancies, such as Ames, have fueled an increase in vacant retail space among the region's suburban submarkets.

- The Old Port has very few vacant retail spaces, and rental rates are among the highest in the region—in the range of $30 per sq. ft. on a triple net basis.

- Downtown retail space has been revitalized with an increase in the number of national retailers along Congress Street, near Monument Square.

- Portions of Bayside are emerging as a regional retail destination, in part due to the opening of Wild Oats as well as visibility from and proximity to I-295—particularly along Marginal Way. However, it is unlikely that this will spillover to the remainder of Bayside. As a result, future retail opportunities should be focused on serving the daily needs of neighborhood residents.

Demand Targets: Retail

For a number of reasons, ERA does not believe that the DPW site is an appropriate location for large-scale destination retail or food and beverage uses. It is unlikely that such uses could effectively compete with the re-emerging retail clustered along Congress Street in the CBD or the critical mass of destination retail and restaurants in the Old Port. Moreover, household densities—even with a significant amount of new housing on-site—are insufficient to support large-scale retail uses.

However, new housing, combined with potential demand generated by existing Bayside residents and some increment of on-site employment, could be expected to support a small amount of convenience and service retail uses. Tenant types could include a dry cleaner, bank, coffee shop and other convenience retailers meeting day-to-day needs. Retail tenants will require a highly visible, street-front location on the DPW site.

- Based on limited potential capture on the order of **2.5% to 7.5%** of both on-site and nearby households as well as assumed productivity (i.e., annual sales of $275 per sq. ft.), ERA estimates potential market support for roughly **2,000 to 10,000 sq. ft.** of general retail uses.

Redevelopment Scenarios

The results of ERA's market analysis identified three potential redevelopment plans for the DPW site. These plans reflect buildout over a 10-year projection period, and do not examine the site's potential on a year-by-year basis. The three-redevelopment scenarios include:

- **As-of-Right**—represents a redevelopment program that can be built on the site under current zoning. Total buildout is **145 housing units**.
- **Breakeven**—illustrates the minimum (threshold) amount of residential development necessary in order for the City to *fully* recover the costs of relocating DPW and redeveloping the site. Total buildout in this scenario is **464 housing units.**
- **Mixed-Use**—illustrates a redevelopment program containing a mix of uses that combines residential, retail, and office uses on the DPW site. Total buildout is **256 housing units, 75,000 sq. ft. of office space, and 10,000 sq. ft. of retail space**.

Cost/Benefit Findings

An August, 2001 study by DeLuca Hoffman Associates of the costs of relocating DPW from its present location in Bayside to a site on Outer Congress Street were estimated at $13 million. These costs included *only* the costs to DPW, and did *not* estimate the costs of preparing the current DPW site for redevelopment. A subsequent estimate of site redevelopment costs completed by DeLuca-Hoffman was estimated at $3 million. Therefore, **the total capital costs of relocating DPW and preparing its site for redevelopment are $16 million.**

How to finance these costs is one of the charges of this cost-benefit analysis. In this model, costs were assumed financed by a General Obligation bond issue. This bond is assumed to carry an interest rate of 4.0% and a term of 20 years. The assumption is also made that 10% of the bond issue's total value, or $1.6 million, will be provided in equity at the time of issuance. Thus, total assumed value of bonded debt is $14.4 million.

The exhibit below summarizes the results of ERA's cost-benefit analysis for the three redevelopment scenarios identified for the DPW site. (Detailed analysis is illustrated in Tables 29 through 41 at the end of Section V of the report).

SUMMARY OF COST-BENEFIT ANALYSIS FINDINGS ($000s)
Cost-Benefit Analysis for Portland DPW Site

	Net Present Value @ 10% Discount Rate	Ongoing Costs/ Benefits
AS-OF-RIGHT SCENARIO		
Total Revenue to City of Portland	$ 4,706	$ 908
Total City of Portland Expenditures	9,483	1,462
Total Benefit/Cost:	**$ (4,777.6)**	**$ (553.9)**
Cost/Benefit Ratio:	**0.50**	
BREAK-EVEN SCENARIO		
Total Revenue to City of Portland	$ 7,946	$ 2,282
Total City of Portland Expenditures	10,650	1,944
Total Benefit/Cost:	**$ (2,704.0)**	**$ 337.6**
Cost/Benefit Ratio:	**0.75**	
MIXED-USE SCENARIO		
Total Revenue to City of Portland	$ 8,431	$ 2,008
Total City of Portland Expenditures	10,713	1,901
Total Benefit/Cost:	**$ (2,281.2)**	**$ 106.6**
Cost/Benefit Ratio:	**0.79**	

It is evident that all three scenarios fall short of achieving a one-to-one relationship (i.e., the uses do not generate $1 in revenue for every $1 in costs). Thus, none result in a positive fiscal impact for the City. Notably:

- The As-of-Right model has the lowest Benefit-Cost ratio, at just 0.50
- The ratio of the Break-even scenario is higher, at 0.75, and
- The Mixed-use scenario ratio generates the highest ratio of revenues to costs, at 0.79.

Thus, even in the best case, **for every dollar spent by the City of Portland on the DPW site, the model illustrates vividly that only 79 cents in revenues will be returned to the City for every one dollar in costs.**

On the positive side, however, ongoing annual revenues *after* project completion could be expected to exceed ongoing costs for two of the three scenarios—Break-even and Mixed-use. In the As-of-Right scenario, ongoing revenues do not exceed ongoing costs due to the presence of debt service payments that are used to finance site costs. In fact, the model estimates that debt service represents $1.06 million in costs to the City for each year that repayment is active. Once the debt (assumed to be a General Obligation bond) is retired, all three scenarios could be expected to produce positive fiscal results for the City.

Any number of redevelopment scenarios is possible for the DPW site. This study examined only three that focus on residential uses with some commercial in a mixed-use alternative. While there are, in all likelihood, several reasons to relocate DPW, ERA notes that this study did *not* assess the financial benefits to the City of consolidating Public Works operations. These benefits might include those associated with a new facility in a central location designed specifically as a Public Works site and the possibility of providing regional services with nearby communities.

After the June 2003 presentation, members of the Bayside Development Committee noted that the timing of several other Bayside Plan initiatives could impact redevelopment of the DPW site. Committee members also commented on possible benefits to the City not included in the study, such as rising property values in the area surrounding the DPW site, or how redevelopment might spin-off additional development in adjacent or nearby locations. ERA notes that numerous policy issues and questions were raised in the June presentation that cannot be answered at this time.

The City will need to decide when (or even if) DPW operations should be relocated. Market forces, development in other parts of Portland, and the City's continued willingness to be a catalyst in Bayside, will impact the timing of improvements on this, and other, projects. These include the Chestnut Street extension, Franklin and Forest Avenue intersection improvements, development on City-owned land along Marginal Way and the rail corridor as well as redevelopment of the DPW site.

Regardless, the DPW site is a major City-owned asset that, if developed to its full potential consistent with both the objectives outlined in the Bayside Plan and market demand, will benefit Bayside and the City as a whole.

General & Limiting Conditions

Every reasonable effort has been made to ensure that the data contained in this study reflect the most accurate and timely information possible. These data are believed to be reliable. This study is based on estimates, assumptions and other information developed by Economics Research Associates from its independent research effort, general knowledge of the market and the industry, and consultations with the client and its representatives. No responsibility is assumed for inaccuracies in reporting by the client, its agent and representatives or any other data source used in preparing or presenting this study.

No warranty or representation is made by Economics Research Associates that any of the projected values or results contained in this study will actually be achieved.

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This study is qualified in its entirety by, and should be considered in light of, these limitations, conditions and considerations.

II. Demographic & Economic Profile

Introduction

As the basis for evaluating development opportunities on the DPW site, ERA analyzed demographic and economic conditions across several geographic areas—downtown Portland, Cumberland County, and the Portland Metropolitan Statistical Area (MSA). This section synthesizes key findings and trends as reported by both public and private sources used during the course of our research.

The profile focuses on those variables that affect demand for housing and commercial uses such as office and retail space. These variables include population and household growth, employment growth, distribution and forecasts, and other appropriate economic indices. We note that this analysis informed subsequent testing of specific uses. Data are detailed in the exhibits below and in Tables 1-5 and accompanying graphics at the end of this chapter.

Population & Household Trends (Table 1)

- The **population of the City of Portland remained flat between 1990 and 2000**, with a net change of *only* 0.1%. In fact, the City's population grew by only 91 residents from 64,158 in 1990 to 64,249 in 2000.
- By contrast, the remainder of Cumberland County grew at a rate of 13% during the 1990s, with the balance of the County adding more than 22,000 new residents.
- This disparity in growth illustrates how Portland's share of the regional population has been eroding. In 1960, Portland accounted for 40% of Cumberland County's population. By 2000, however, the **City's share had *declined* to 24% of the County's population,** as growth was focused in outlying communities with developable land such as Cumberland, Scarborough and Falmouth.
- Despite virtually no growth in population, Portland's housing market is facing increasing pressures from ongoing growth in the number of households. In fact, between 1990 and 2000, Portland's **average household size *declined* from 2.21 to 2.08 persons, which produced an additional 1,560 households**—a 6% increase.
- As examined in the Housing Construction section below, the net change in the number of housing units in the City between 1990 and 2000 was only 864, meaning that **only one new housing unit was added for each 1.8 new households created.** This resulted in a sizable decline in the City's vacant housing inventory—to 2.3% according to Census 2000 data, as household growth outpaced construction of new housing units.

EXHIBIT 1
CHANGE IN POPULATION & HOUSEHOLDS, 1990-2000

	CITY OF PORTLAND	CUMBERLAND COUNTY	BALANCE OF COUNTY
Population-2000	64,249	265,612	201,363
Population-1990	64,158	243,135	178,977
Absolute Change	91	22,477	**22,386**
% Change	**0.1%**	9%	**13%**
Households-2000	29,714	107,989	78,275
Households-1990	28,154	94,512	66,358
Absolute Change	**1,560**	13,477	11,917
% Change	6%	14%	18%
HH Size-2000	2.08	2.38	2.49
HH Size-1990	2.21	2.49	2.61
% Change	-6%	-4%	-5%

Wages & Household Incomes (Tables 2-5)

Like many markets nationwide, a fundamental shift in the region's economy away from Manufacturing and to Services and Retail has resulted in a negative affect on wages. In fact:

- The **average weekly wage for all employees in the Portland MSA was $602 in 2002**. Notably, Services and Retail Trade (which account for 62% of all jobs in the Portland MSA), were the only two sectors with average wages *lower* than the overall average. Specifically, Services jobs (which represent 37% of all jobs) reported an average weekly wage of $582, while Retail Trade (which represent 25% of all jobs) reported a weekly wage of $370, nearly 40% less than the average.

- With the exception of Finance/Insurance/Real Estate (FIRE) jobs, wages in every employment sector increased between 1998 and 2000. Those sectors with the highest wages include FIRE (at $875) and Manufacturing (at $781). High wages paid within specific sub-sectors, including Legal, Health and Engineering & Management Services, offset other lower wage job categories in the Services sector.

- The City of **Portland has the lowest median household income in the MSA: $35,650**. This compares to a median household income of $44,707 for the MSA as a whole. Notably, Portland's per capita income is *greater* than 12 of the 21 communities comprising the MSA. The discrepancy between lower median household incomes but higher per capita incomes is reflected by the City's smaller household size.

Employment Trends & Forecasts (Tables 6-9)

A critical barometer in evaluating demand for real estate is employment growth. The following highlights relevant trends and/or projections for the Portland MSA, as provided by various sources, including the state's Department of Labor, the U.S. Census, and Woods & Poole, Inc., a demographic forecasting service.

The Portland MSA is the driving force behind Maine's economy, as more than one quarter of all jobs in the state are located in the region. Portland's economy has also grown at a much faster rate than the state. In fact:

- Employment in the Portland metropolitan area posted a compound *annual* growth rate of **2.6%** between 1980 and 2000. By comparison, employment for the state as a whole increased by only 1.8% per year during this same period.
- As illustrated in Exhibit 2 below, job gains were posted in every major employment sector between 1995 and 2000, as almost **20,000 new jobs were created as a result of the region's expanding economy**. Notably, job growth was strongest in Construction (30%) and Services (21%).
- According to the Maine Department of Labor, the region's economy contained more than **155,000 jobs** in 2000. According to the Maine Department of Labor, the City of **Portland accounts for 47% of the region's total job base**. This has remained roughly constant—in the range of 45% to 47%—since 1990.
- Within the Services sector—which encompasses a broad range of job classifications ranging from accounting and legal to lodging and medical—11 out of 12 major sub-sectors experienced positive growth rates over the past five years. Interestingly, legal services posted a very minor decrease in the number of jobs (40). As a whole, **the number of jobs in Services increased by more than 8,700 between 1995 and 2000**.
- Among other sectors, jobs in the Transportation, Communications and Public Utilities sector increased by 1,200 (19%), Finance/Insurance/Real Estate (FIRE) added 1,600 jobs (13%), Government employment increased by 2,000 jobs (11%), Retail Trade by 3,300 jobs (11%), and Wholesale Trade by 800 jobs (9%). **Overall, the region's job base grew by 15% from 1995 to 2000.**
- As population growth has occurred in Portland's suburbs, so, too, has commercial development to offset the municipal service costs typically associated with new housing. As a result, several communities surrounding Portland have experienced substantial gains in the number of jobs. For example, the number of jobs in Scarborough increased by 69%; Cumberland and North Yarmouth (65% each); Falmouth (41%); and Yarmouth (28%). The only town that lost employment was Freeport, which lost 25% of its job base during the 1990s—primarily the result of the loss of shoe manufacturing concerns.

The Maine Department of Labor prepares forecasts of employment growth for all counties statewide. ERA examined employment forecasts for the Portland MSA for the 2000-2015 period. These forecasts consider a wide range of factors such as proposed transportation

improvements, the availability of land to accommodate jobs-producing commercial development, economic development policies, outward growth from metropolitan Boston, and the like.

- For the Portland MSA, job losses are expected across Manufacturing, Construction and Wholesale Trade. By comparison, job growth in Retail Trade is expected to be flat, with positive job gains expected in Transportation, Communications and Public Utilities.
- Notably, the greatest job gains over the next 15 years are forecast in FIRE (21%), Services (25%) and Government (19%). Overall, the region's employment base is projected to gain more than **16,000 new jobs between 2000 and 2015**, reflecting a growth rate of more than 10% during this period.

EXHIBIT 2
EMPLOYMENT TRENDS & FORECASTS FOR THE PORTLAND MSA, 1995-2015

			CHANGE		
	1995	2000	No.	%	2000-2015
MANUFACTURING	**13,860**	**14,620**	**760**	**5.5%**	**-23.8%**
Durable Goods	6,320	7,730	1,410	22.3%	
Non-Durable Goods	7,530	6,890	-640	-8.5%	
CONSTRUCTION	**5,730**	**7,430**	**1,700**	**29.7%**	**-6.5%**
TRANS. & UTILITIES	**6,110**	**7,280**	**1,170**	**19.1%**	**5.9%**
WHOLESALE TRADE	**8,890**	**9,680**	**790**	**8.9%**	**-12.3%**
RETAIL TRADE	**30,680**	**34,000**	**3,320**	**10.8%**	**-0.1%**
General Merchandise	2,820	2,480	-340	-12.1%	
Food Stores	4,060	5,800	1,740	42.9%	
Apparel & Accessories	2,210	1,890	-320	-14.5%	
Furniture & Furnishings	1,060	1,480	420	39.6%	
F.I.R.E	**11,800**	**13,360**	**1,560**	**13.2%**	**20.6%**
SERVICES	**40,840**	**49,580**	**8,740**	**21.4%**	**25.0%**
Amusement/Recreation	1,400	1,780	380	27.1%	
Legal	1,650	1,610	-40	-2.4%	
Social	3,180	5,790	2,610	82.1%	
Other Services	1,880	2,630	750	39.9%	
GOVERNMENT	**17,470**	**19,420**	**1,950**	**11.2%**	**18.7%**
TOTAL JOBS:	**135,380**	**155,370**	**19,990**	**14.8%**	**10.4%**

SOURCE: MAINE DEPARTMENT OF LABOR; ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.

Housing Construction (Tables 10-13)

ERA also examined changes in the City's housing stock during the 1990s.

- As illustrated in Exhibit 3, the **majority of new housing stock delivered during the 1990s was comprised of multi-family units in larger buildings**. For example, the net change in units in buildings with 10 or more units was 544, while the net change in units located in buildings with 2-9 units was only 80. By comparison, Portland's single-family inventory, which represents about 40% of all housing units in the City, posted more modest growth, with a net gain of 335 units between 1990 and 2000.

EXHIBIT 3
CHANGE IN PORTLAND'S HOUSING STOCK, 1990-2000

	CITY OF PORTLAND			
HOUSING TYPE	**2000**	**%**	**1990**	**%**
SF (Detached)	11,169	35.1%	10,995	35.1%
SF (Attached)	1,508	4.7%	1,347	4.3%
2 to 4 Units	8,935	28.0%	8,617	27.5%
5 to 9 Units	3,650	11.5%	4,048	12.9%
10+ Units	6,526	**20.5%**	5,982	**19.1%**
Mobile Home/Other	76	0.2%	304	1.0%
TOTAL UNITS:	**31,864**	**100.0%**	**31,293**	**100.0%**

- During the 1990s, most of the City's new residential development took place in outlying neighborhoods. For example, the Downtown, East Bayside and West Bayside neighborhoods on the Peninsula collectively *lost* 360 housing units between 1990 and 2000 as a result of demolition of obsolete housing stock. By comparison, the outlying neighborhoods of North Deering, Riverton and Oakdale added 685 housing units through new construction over the past 10 years. In fact, as illustrated in Table 11, almost 400 new units were built in North and East Deering and another 175 units were added in Riverton.

- In spite of the loss of housing units in the City's core neighborhoods, the number of households in Downtown and East Bayside remained fairly stable, contributing to *fewer* vacant units on the Peninsula today than in 1990.

- Notably, of the City's 18 neighborhoods, **West Bayside posted the strongest *rate* of population growth from 1990 to 2000**. According to City data, West Bayside's population increased by 15% over the past 10 years.

- As illustrated in Tables 12 and 13 at the end of this section, the housing market in Portland has also become increasingly expensive over the past 10 years. In fact, about 24% of Portland homeowners pay more than 30% of their wages for housing, and 40% of renters pay as much, according to the 2000 Census. Since 2000, residential brokers

report that multi-family rental rates in the City have reportedly increased even further, putting additional pressure on the ability to provide affordable units.

EXHIBIT 4
CHANGE IN HOUSING UNITS & POPULATION IN SELECTED NEIGHBORHOODS, 1990-2000

	HOUSING UNITS			POPULATION
NEIGHBORHOODS	2000	1990	CHANGE	% CHANGE
Downtown	1,895	2,200	-305	-4%
East Bayside	937	971	-34	-4%
West Bayside	**465**	**486**	**-21**	**15%**
North Deering	4,324	3,982	342	5%
Riverton	1,989	1,814	175	13%
Oakdale	1,690	1,522	168	-2%

Cost/Benefit Analysis: Portland DPW Site

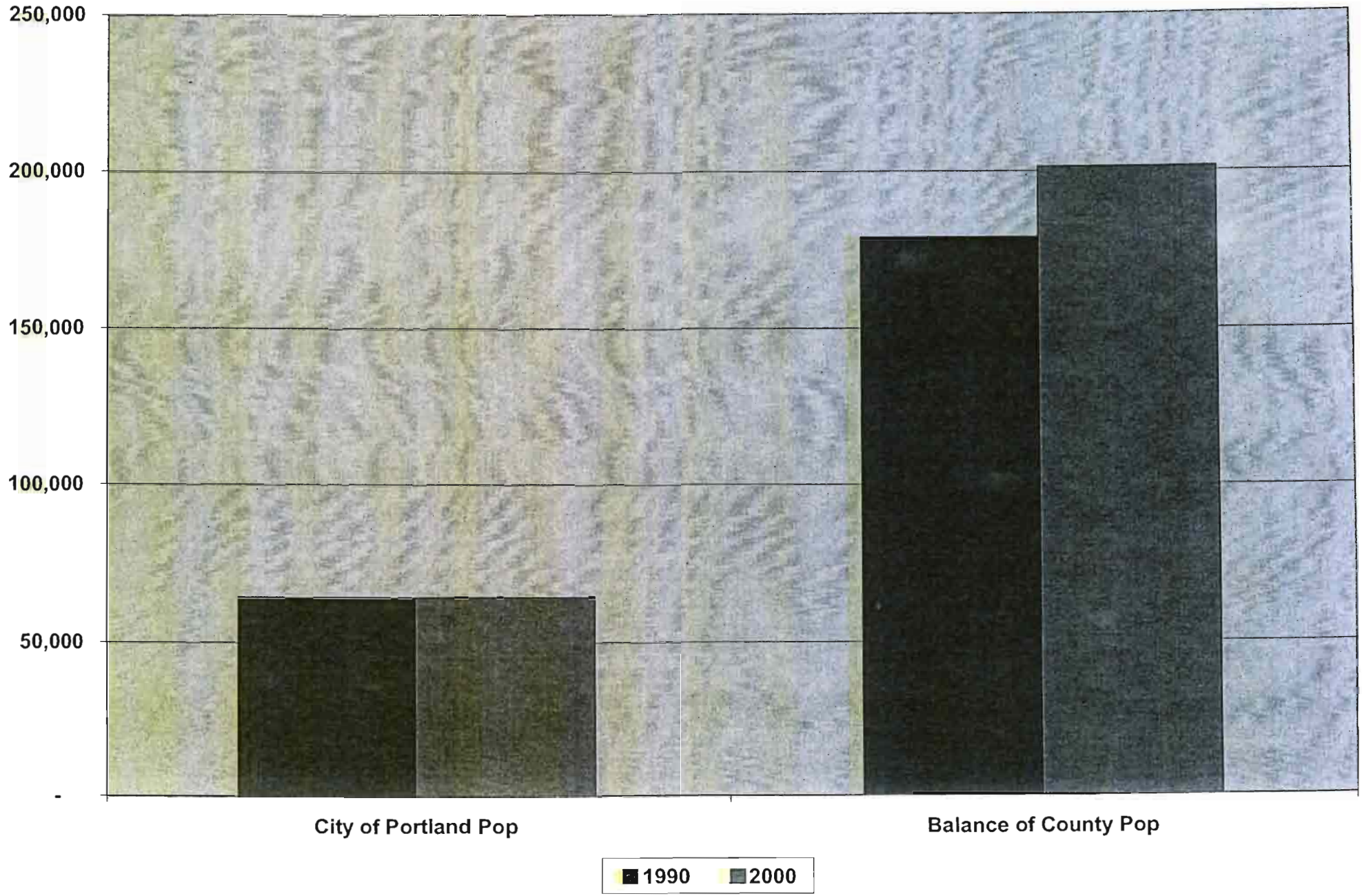
Demographic Profile

TABLE 1
POPULATION AND HOUSEHOLD DATA, 1990-2000
Cost-Benefit Analysis for Portland DPW Site

	1990	2000	CHANGE: 1990-2000 No.	CHANGE: 1990-2000 %
Population				
City of Portland	64,158	64,249	91	0.14%
Cumberland County	243,135	265,612	22,477	9.2%
Balance of County	178,977	201,363	22,386	12.5%
Households				
City of Portland	28,154	29,714	1,560	5.5%
Cumberland County	94,512	107,989	13,477	14.3%
Balance of County	66,358	78,275	11,917	18.0%
Household Size				
City of Portland	2.21	2.08		-5.9%
Cumberland County	2.49	2.38		-4.4%
Balance of County	2.61	2.49		-4.6%

SOURCE: U.S. BUREAU OF THE CENSUS; PORTLAND COMPREHENSIVE PLAN, 2002; ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.

Population Growth
City of Portland vs. Rest of County



Household Growth
City of Portland vs. Rest of County

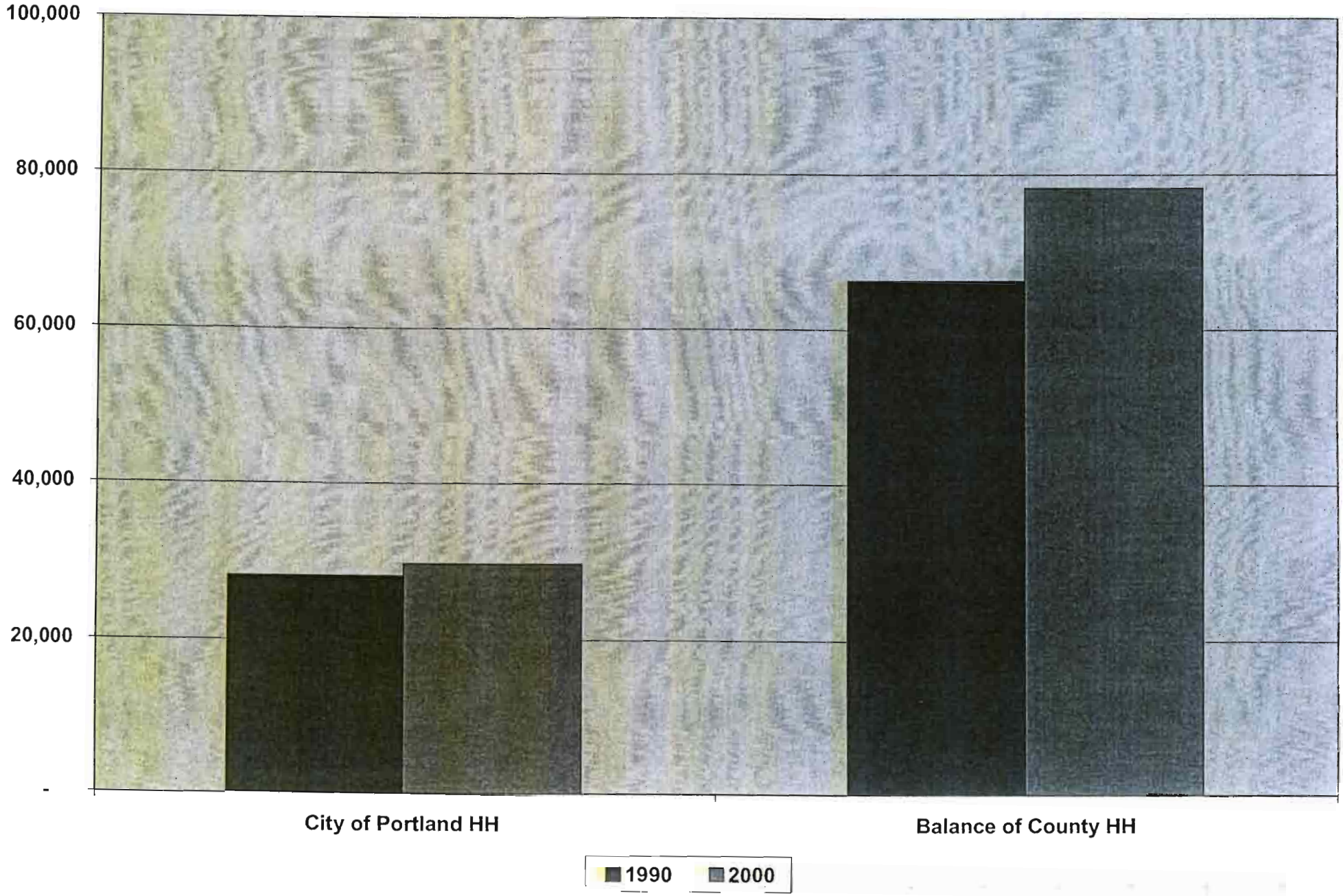
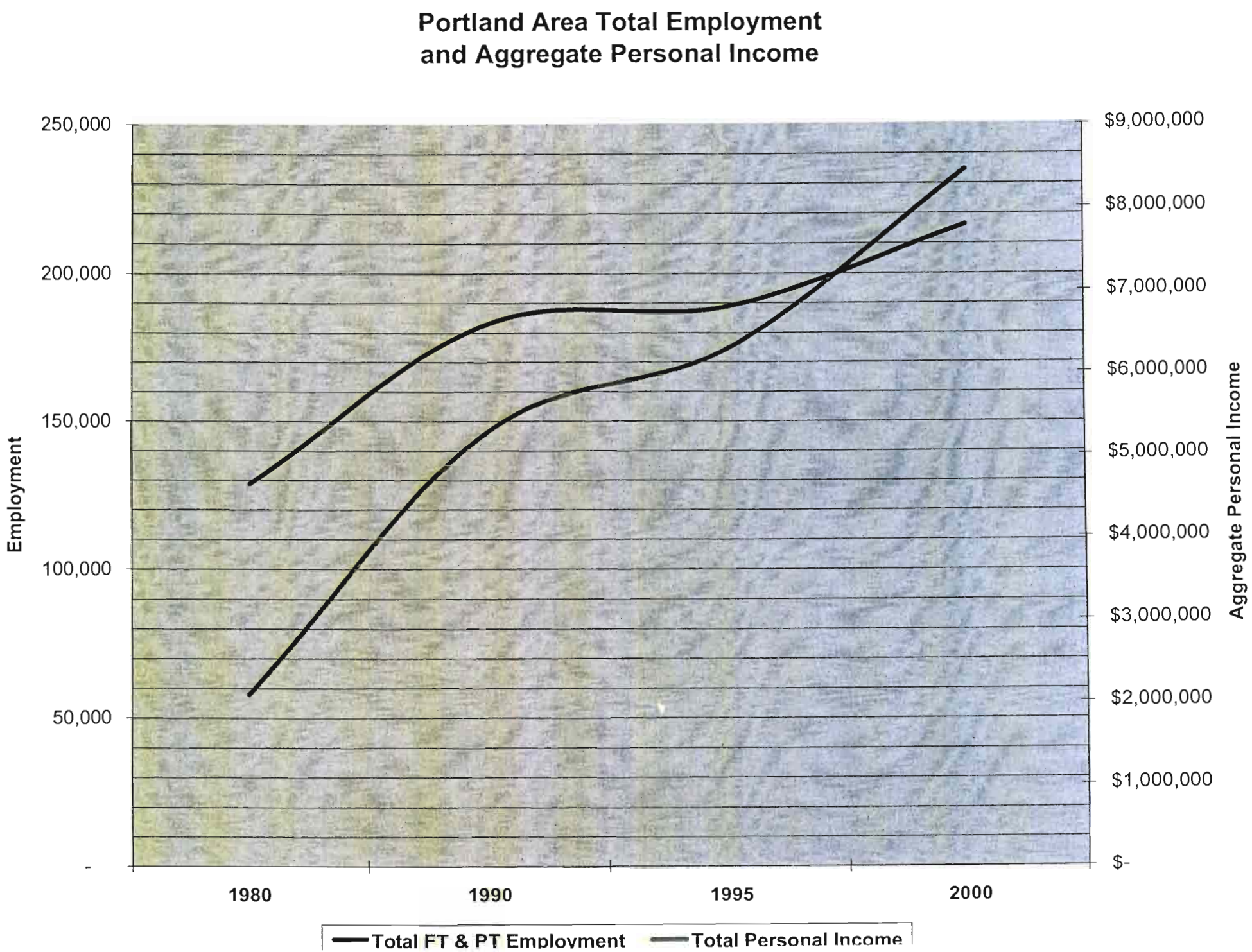


TABLE 2
ECONOMIC PROFILE OF THE PORTLAND MSA
Cost-Benefit Analysis for Portland DPW Site

ITEM	1980	1990	1995	2000	ANNUAL % CHANGE 1980-2000
PLACE OF RESIDENCE PROFILE					
Personal Income ($000s)	**$ 2,081,250**	**$ 5,271,391**	**$ 6,284,483**	**$ 8,447,395**	**7.3%**
Non-farm personal income	2,080,760	5,265,907	6,279,716	8,440,665	7.3%
Farm income	490	5,484	4,767	6,730	14.0%
Derivation of Personal Income					
Net earnings	$ 1,431,015	$ 3,546,738	$ 4,125,063	$ 5,685,204	7.1%
Transfer payments	288,345	576,802	836,623	1,022,045	6.5%
Income maintenance	32,998	54,122	75,268	93,311	5.3%
Unemployment insurance benefit payments	11,109	15,924	13,177	8,603	-1.3%
Retirement and other	244,238	506,756	748,178	920,131	6.9%
Dividends, interest, and rent	361,890	1,147,851	1,322,797	1,740,146	8.2%
Population	216,396	243,865	252,078	265,871	1.0%
Per Capita Incomes					
Per capita personal income	$ 9,618	$ 21,616	$ 24,931	$ 31,773	6.2%
Per capita net earnings	6,613	14,544	16,364	21,383	6.0%
Per capita transfer payments	1,332	2,365	3,319	3,844	5.4%
Per capita income maintenance	152	222	299	351	4.3%
Per capita unemployment insurance benefits	51	65	52	32	-2.3%
Per capita retirement and other	1,129	2,078	2,968	3,461	5.8%
Per capita dividends, interest, and rent	1,672	4,707	5,248	6,545	7.1%
PLACE OF WORK PROFILE					
Earnings by place of work ($000)	**$ 1,673,382**	**$ 4,312,254**	**$ 5,039,385**	**$ 6,868,508**	**7.3%**
Wage and salary disbursements	1,328,171	3,422,186	4,037,525	5,626,474	7.5%
Other labor income	182,883	512,326	599,622	665,714	6.7%
Proprietors' income	162,328	377,742	402,238	576,320	6.5%
Total FT & PT Employment	**128,702**	**182,996**	**188,845**	**216,238**	**2.6%**
Wage and salary jobs	111,578	156,572	159,757	182,673	2.5%
Number of proprietors	17,124	26,424	29,088	33,565	3.4%
Number of nonfarm proprietors	16,553	25,915	28,559	33,072	3.5%
Number of farm proprietors	571	509	529	493	-0.7%
Average Earnings Per Job	**$ 13,002**	**$ 23,565**	**$ 26,685**	**$ 31,764**	**4.6%**
Average wage and salary disbursements	11,904	21,857	25,273	30,801	4.9%
Average nonfarm proprietors' income	9,905	14,480	14,085	17,410	2.9%

SOURCE: U.S. BUREAU OF ECONOMIC ANALYSIS; ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.


Portland Area Total Employment
and Aggregate Personal Income
250,000
200,000
150,000
100,000
50,000
-
Employment
$9,000,000
$8,000,000
$7,000,000
$6,000,000
$5,000,000
$4,000,000
$3,000,000
$2,000,000
$1,000,000
$-
Aggregate Personal Income
1980
1990
1995
2000
Total FT & PT Employment
Total Personal Income

Portland Area Total Employment and Average Earnings

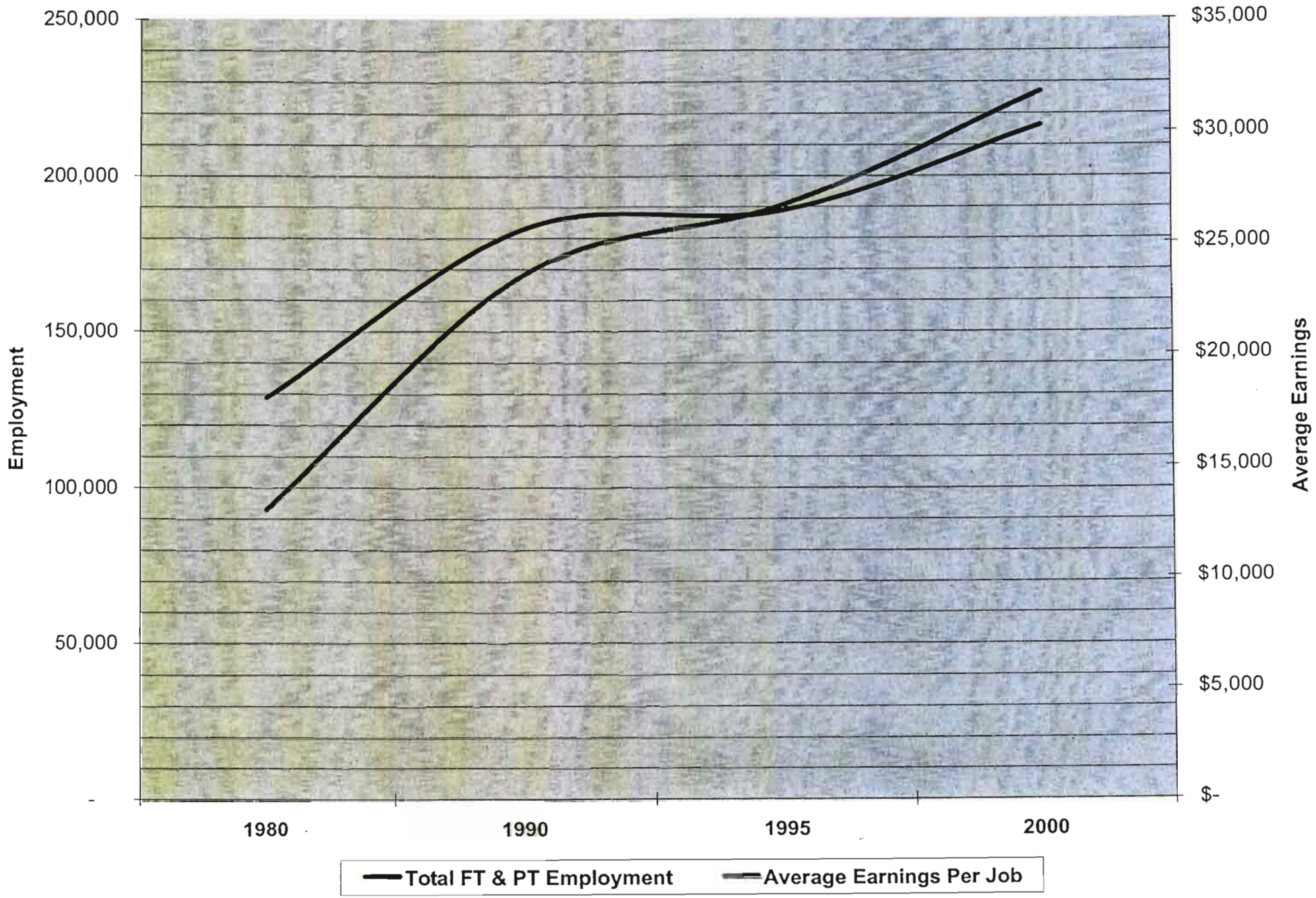


TABLE 3
PER CAPITA PERSONAL INCOME, 1980-2000
Cost-Benefit Analysis for Portland DPW Site

COUNTY	1980	1990	1995	2000	ANNUAL % CHANGE 1980-2000	AS % OF U.S.
Androscoggin	$ 8,456	$ 16,614	$ 19,451	$ 24,045	5.4%	82%
Aroostook	7,210	14,368	16,307	20,837	5.4%	71%
Cumberland	**9,618**	**21,616**	**24,931**	**31,773**	**6.2%**	**108%**
Franklin	7,673	14,835	17,012	21,338	5.2%	72%
Hancock	8,338	18,337	20,636	26,174	5.9%	89%
Kennebec	8,652	18,032	20,536	25,309	5.5%	86%
Knox	8,266	17,616	21,124	26,511	6.0%	90%
Lincoln	9,018	19,279	21,816	26,116	5.5%	89%
Oxford	8,176	14,451	16,655	20,388	4.7%	69%
Penobscot	8,141	15,824	18,624	23,653	5.5%	80%
Piscataquis	7,926	13,428	15,874	19,877	4.7%	67%
Sagadahoc	8,547	18,702	21,253	25,816	5.7%	88%
Somerset	6,859	13,929	15,766	19,561	5.4%	66%
Waldo	6,671	13,952	16,378	21,822	6.1%	74%
Washington	7,105	13,514	16,188	20,541	5.5%	70%
York	8,725	18,264	20,318	25,299	5.5%	86%
TOTAL - STATE:	**$ 8,408**	**$ 17,473**	**$ 20,142**	**$ 25,380**	**5.7%**	**86%**
Metropolitan Portion	$ 8,915	$ 18,838	$ 21,965	$ 27,927	5.9%	95%
Non-metropolitan Portion	8,066	16,551	18,910	23,661	5.5%	80%
TOTAL - U.S.:	**$ 10,183**	**$ 19,572**	**$ 23,255**	**$ 29,469**	**5.5%**	**100%**

SOURCE: U.S. BUREAU OF ECONOMIC ANALYSIS; ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.

TABLE 4
INCOME DATA BY COUNTY, 2000
Cost-Benefit Analysis for Portland DPW Site

COUNTY	HOUSEHOLDS BY INCOME				MEDIAN HH INCOME	PER CAPITA INCOME
	Under $25K	$25-50K	$50-75K	$75K+		
Androscoggin	34.5%	32.6%	19.8%	13.1%	$ 35,793	$ 18,734
Aroostook	43.6%	33.2%	15.3%	7.8%	28,837	15,033
Cumberland	**25.6%**	**30.6%**	**21.2%**	**22.6%**	**44,048**	**23,949**
Franklin	39.5%	34.8%	15.7%	10.0%	31,459	15,796
Hancock	33.5%	33.8%	18.0%	14.6%	35,811	19,809
Kennebec	33.6%	33.7%	19.4%	13.3%	36,498	18,520
Knox	32.1%	34.1%	18.9%	14.8%	36,774	19,981
Lincoln	30.4%	35.3%	18.4%	15.9%	38,686	20,760
Oxford	36.4%	34.6%	17.8%	11.2%	33,435	16,945
Penobscot	36.4%	32.6%	17.8%	13.2%	34,274	17,801
Piscataquis	44.9%	33.6%	14.4%	7.0%	28,250	14,374
Sagadahoc	25.7%	33.6%	23.3%	17.4%	41,908	20,378
Somerset	39.7%	34.9%	15.4%	9.9%	30,731	15,474
Waldo	36.6%	32.7%	17.7%	13.0%	33,986	17,438
Washington	48.4%	30.7%	13.0%	7.8%	25,869	14,119
York	26.2%	31.1%	23.3%	19.4%	43,630	21,225
TOTAL - STATE:	**32.6%**	**32.5%**	**19.4%**	**15.5%**	**$ 37,240**	**$ 19,533**

SOURCE: U.S. BUREAU OF THE CENSUS; ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.

Cumberland County
Households by Income

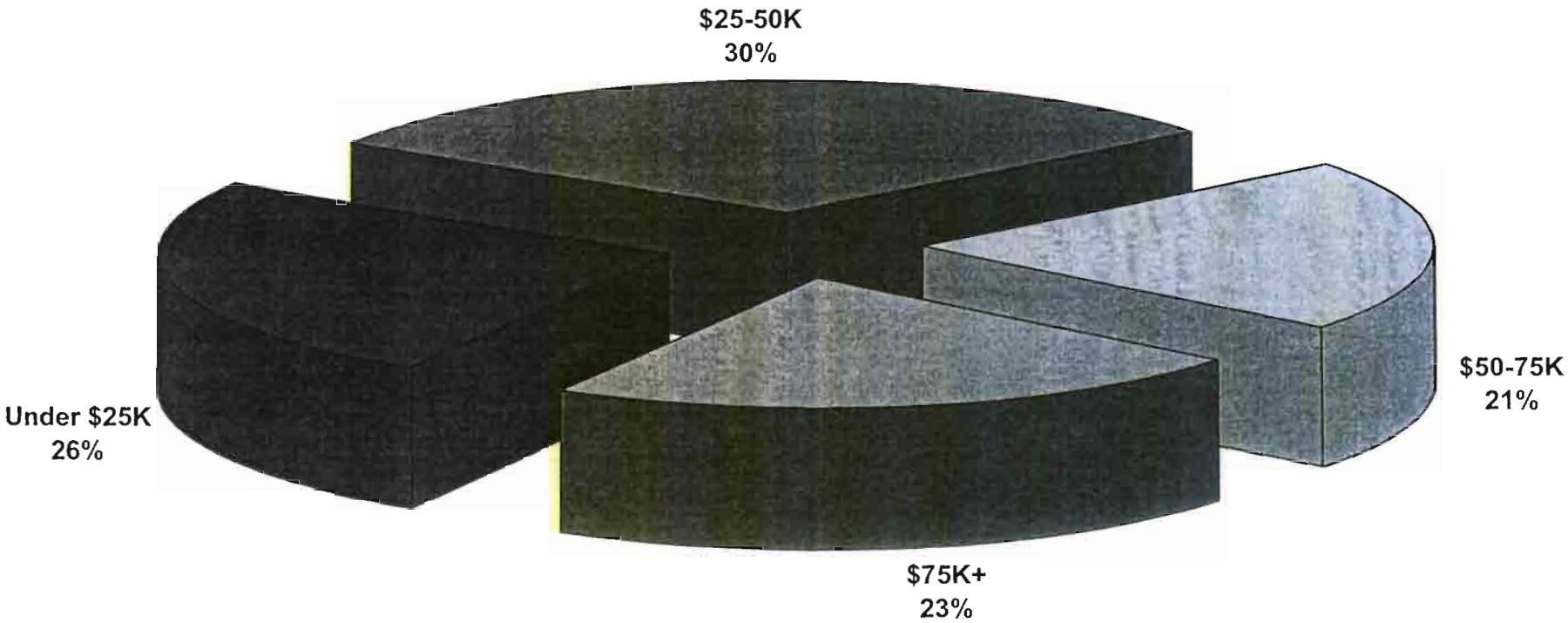
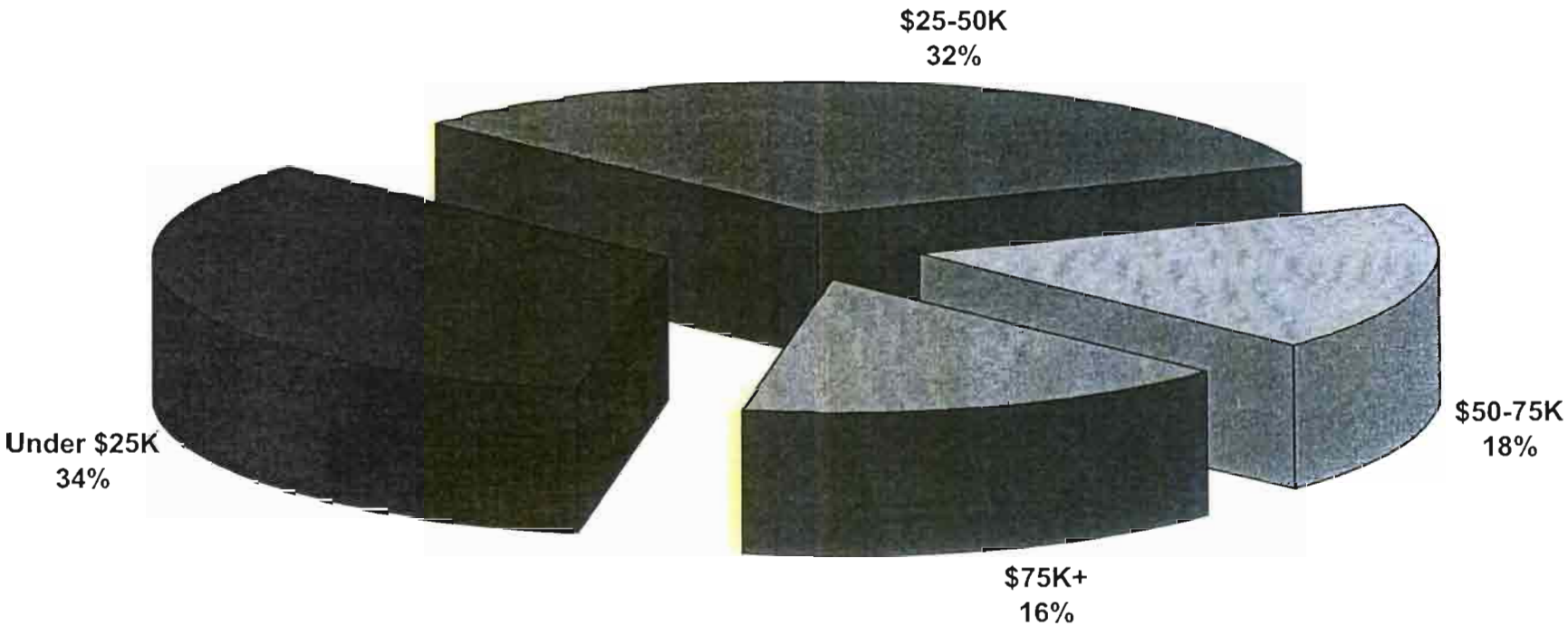


TABLE 5
INCOME DATA BY TOWN, 2000
Cost-Benefit Analysis for Portland DPW Site

JURISDICTION	HOUSEHOLDS BY INCOME				MEDIAN HH INCOME	PER CAPITA INCOME
	Under $25K	$25-50K	$50-75K	$75K+		
Buxton	20.3%	30.8%	28.4%	20.5%	$ 48,958	$ 20,179
Cape Elizabeth	12.5%	22.1%	17.2%	48.3%	72,359	37,983
Casco	25.9%	33.7%	21.0%	19.4%	41,629	19,306
Cumberland	12.7%	21.3%	21.5%	44.5%	67,556	33,644
Falmouth	14.5%	20.5%	19.9%	45.1%	66,855	36,716
Freeport	23.1%	24.0%	24.2%	28.7%	52,023	27,724
Gorham	21.6%	27.9%	24.4%	26.0%	50,316	21,174
Gray	14.6%	35.2%	27.1%	23.1%	50,107	22,050
Hollis	16.9%	34.7%	31.9%	16.5%	48,846	19,065
Limington	27.0%	34.8%	24.0%	14.2%	42,023	17,097
Long Island	34.9%	31.4%	31.4%	2.3%	35,833	15,278
North Yarmouth	10.2%	29.8%	22.3%	37.7%	60,850	25,180
Old Orchard Beach	33.8%	32.6%	22.8%	10.8%	36,568	20,929
Portland	**34.0%**	**32.3%**	**18.1%**	**15.6%**	**35,650**	**22,698**
Raymond	13.6%	32.1%	28.2%	26.1%	52,224	25,193
Scarborough	18.3%	27.4%	19.3%	35.0%	56,491	26,321
South Portland	25.2%	33.0%	24.3%	17.4%	42,770	22,781
Standish	19.1%	30.3%	31.8%	18.8%	50,278	19,504
Westbrook	30.9%	32.6%	22.1%	14.4%	37,873	19,501
Windham	20.6%	33.6%	26.2%	19.5%	46,526	19,890
Yarmouth	19.7%	22.0%	21.7%	36.6%	58,030	34,317
TOTAL - MSA:	**25.2%**	**30.2%**	**22.0%**	**22.5%**	**$ 44,707**	**$ 24,132**

SOURCE: U.S. BUREAU OF THE CENSUS; ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.

City of Portland
Households by Income



Cost/Benefit Analysis: Portland DPW Site

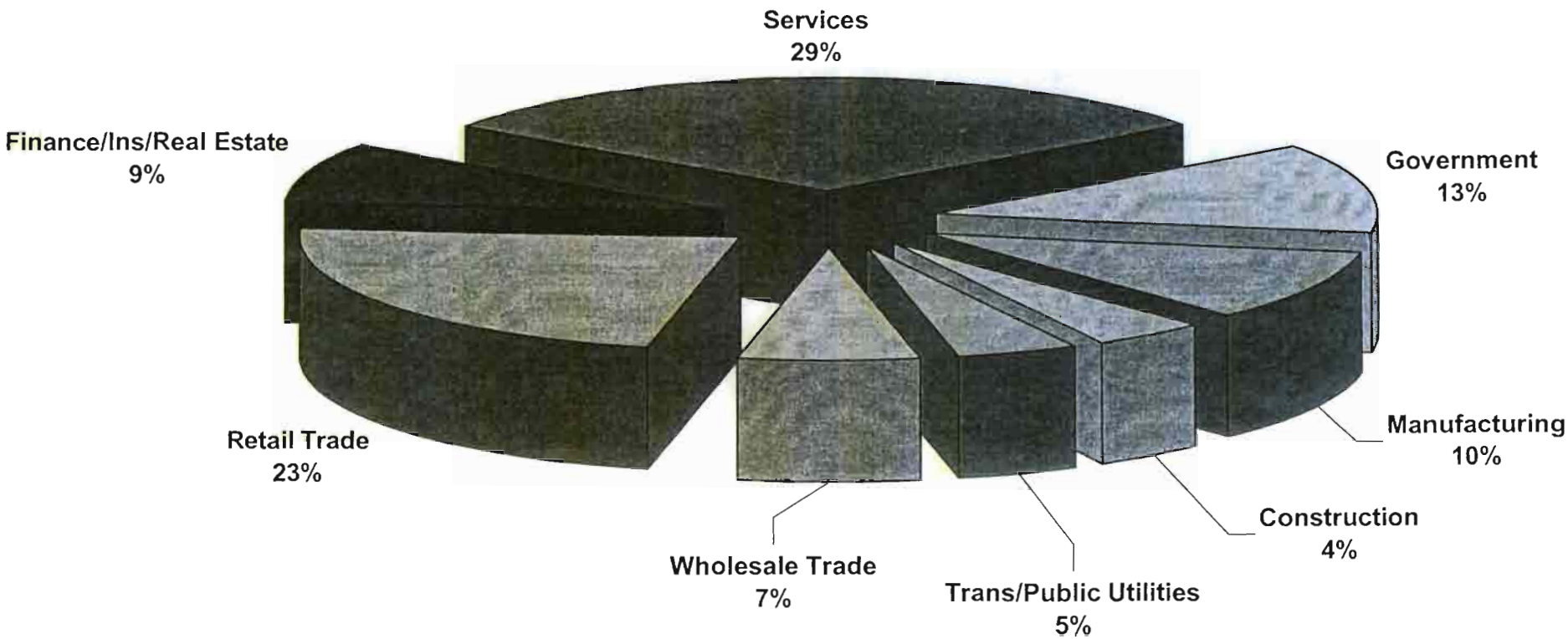
Employment Trends & Projections

TABLE 6
EMPLOYMENT GROWTH IN THE PORTLAND MSA, 1995-2000
Cost-Benefit Analysis for Portland DPW Site

	1995	2000	2000 % Dist.	CHANGE: 1995-2000 No.	CHANGE: 1995-2000 %
Manufacturing					
Durable Goods	6,320	7,730		1,410	22.3%
Non-Durable Goods	7,530	6,890		(640)	-8.5%
Subtotal:	**13,860**	**14,620**	**9.4%**	**760**	**5.5%**
Construction	**5,730**	**7,430**	**4.8%**	**1,700**	**29.7%**
Trans/Public Utilities	**6,110**	**7,280**	**4.7%**	**1,170**	**19.1%**
Wholesale Trade	**8,890**	**9,680**	**6.2%**	**790**	**8.9%**
Retail Trade					
General Merchandise	2,820	2,480		(340)	-12.1%
Food Stores	4,060	5,800		1,740	42.9%
Automotive	2,190	2,410		220	10.0%
Apparel & Accessories	2,210	1,890		(320)	-14.5%
Furniture & Furnishings	1,060	1,480		420	39.6%
Eating & Drinking	8,580	9,440		860	10.0%
Other	9,760	10,500		740	7.6%
Subtotal:	**30,680**	**34,000**	**21.9%**	**3,320**	**10.8%**
Finance/Ins/Real Estate	**11,800**	**13,360**	**8.6%**	**1,560**	**13.2%**
Services					
Hotels/Lodging	2,160	2,520		360	16.7%
Personal	1,520	1,570		50	3.3%
Business	7,380	8,750		1,370	18.6%
Automotive Services	1,540	1,540		-	0.0%
Amusement/Recreation	1,400	1,780		380	27.1%
Health	12,530	14,790		2,260	18.0%
Legal	1,650	1,610		(40)	-2.4%
Educational	1,430	1,650		220	15.4%
Social	3,180	5,790		2,610	82.1%
Membership Orgs.	2,590	3,110		520	20.1%
Engineering & Mgmt	3,580	3,840		260	7.3%
Other Services	1,880	2,630		750	39.9%
Subtotal:	**40,840**	**49,580**	**31.9%**	**8,740**	**21.4%**
Government					
Federal	2,140	2,590		450	21.0%
State	3,740	4,120		380	10.2%
Local	11,600	12,710		1,110	9.6%
Subtotal:	**17,470**	**19,420**	**12.5%**	**1,950**	**11.2%**
TOTAL - MSA:	**135,380**	**155,370**	**100.0%**	**19,990**	**14.8%**

SOURCE: MAINE DEPARTMENT OF LABOR; ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.

Portland MSA Employment by Sector - 1995



Portland MSA Employment by Sector - 2000

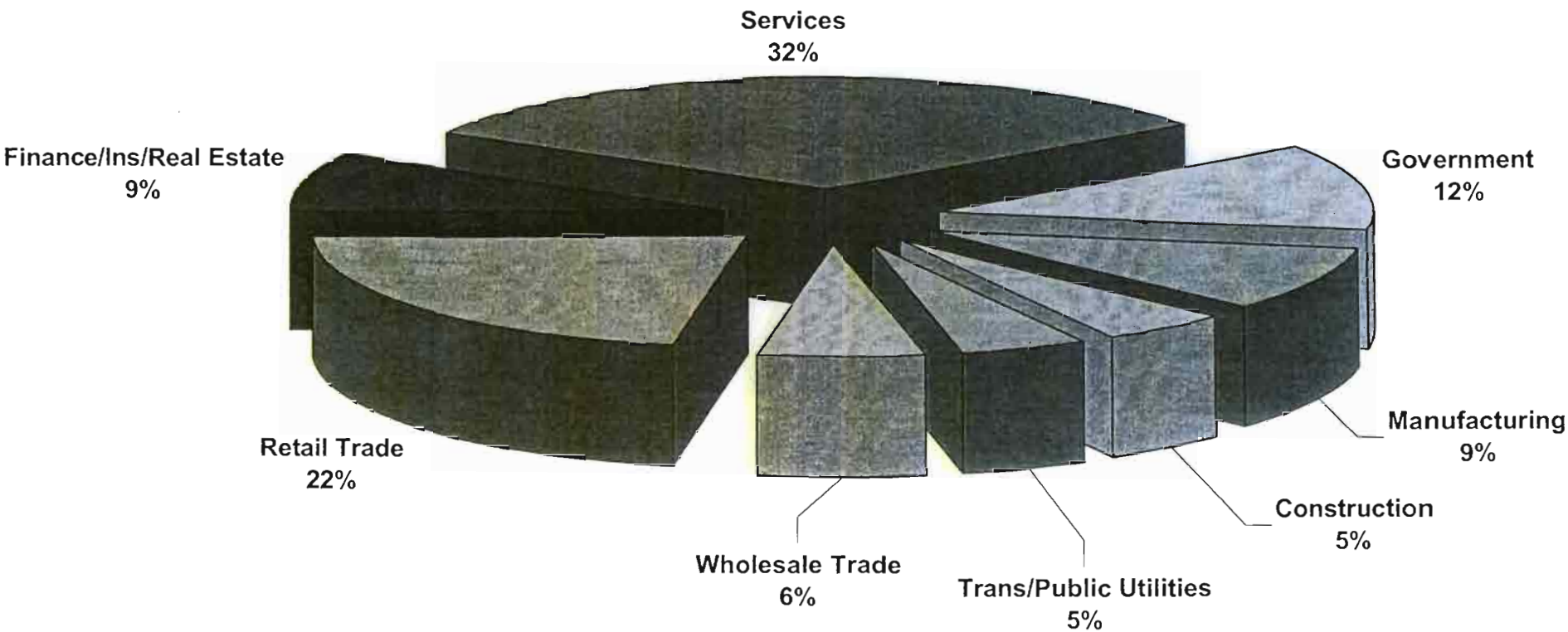


TABLE 7
JOB CHANGE BY TOWN IN PORTLAND MSA, 1990-2000
Cost-Benefit Analysis for Portland DPW Site

				CHANGE: 1990-2000	
	1990	1997	2000	No.	%
Long Island	-	22	30	N/A	N/A
Scarborough	6,307	9,742	10,656	4,349	69.0%
Cumberland	752	1,145	1,245	493	65.6%
North Yarmouth	218	385	359	141	64.4%
Buxton	646	804	998	352	54.5%
Raymond	731	986	1,094	363	49.7%
Hollis	325	319	474	149	45.8%
Falmouth	3,270	3,685	4,618	1,348	41.2%
Standish	1,403	1,872	1,955	552	39.3%
Gray	1,529	2,403	2,032	503	32.9%
Yarmouth	2,844	3,166	3,631	787	27.7%
Casco	575	635	727	152	26.5%
Westbrook	8,717	10,109	10,541	1,824	20.9%
Limington	155	128	181	26	16.8%
South Portland	20,121	22,384	23,315	3,194	15.9%
Portland	**60,883**	**64,048**	**70,382**	**9,499**	**15.6%**
Cape Elizabeth	1,361	1,210	1,395	34	2.5%
Windham	5,228	4,224	5,033	(195)	-3.7%
Old Orchard Beach	1,402	1,767	1,132	(270)	-19.3%
Gorham	4,602	4,863	3,695	(907)	-19.7%
Freeport	8,222	7,024	6,189	(2,033)	-24.7%
TOTAL - MSA:	**129,290**	**140,922**	**149,682**	**20,392**	**15.8%**

SOURCE: MAINE DEPARTMENT OF LABOR; ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.

TABLE 8
LARGEST EMPLOYERS IN SOUTHERN MAINE
Cost-Benefit Analysis for Portland DPW Site

EMPLOYER	LOCATION(S)	CATEGORY	EST. EMPLOYMENT
L.L. Bean	Freeport/Portland	Manufacturing/Retail	5,500
Maine Medical Center	Portland	Health Services	4,700
UnumProvident	Portland	Financial Services	3,500
Hannaford Bros. Company	Scarborough	Food Stores	2,400
Peoples Heritage Bank	Portland	Financial Services	2,000
Verizon	Portland	Communications	1,600
SAPPI International	Westbrook	Manufacturing	1,500
Pratt & Whitney Aircraft Group	Sanford	Manufacturing	1,500
Fairchild Semiconductor	S. Portland	Manufacturing	1,300
Anthem Blue Cross Blue Shield	S. Portland	Health Services	1,300
Mercy Hospital	Portland	Health Services	1,000
Shaws Supermarkets	Multiple Sites	Food Stores	1,000
Key Bank of Maine	Portland	Financial Services	900
IDEXX Laboratories	Westbrook	Research/Testing Services	850
Southern Maine Medical Center	Biddeford	Health Services	850
National Semiconductor	S. Portland	Manufacturing	750
Blethen Maine Newspapers	Portland	Printing & Publishing	750

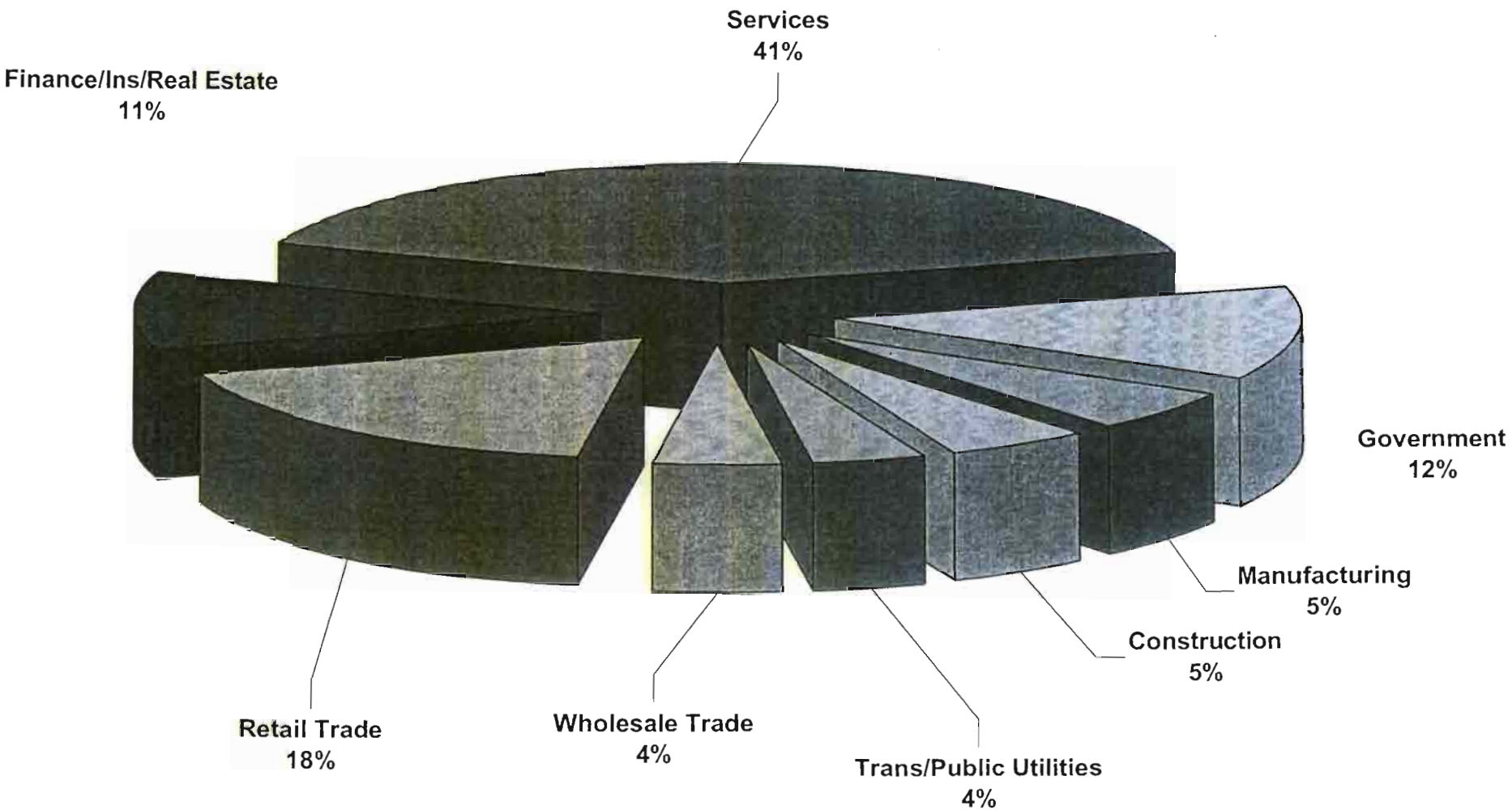
SOURCE: MAINE DEPARTMENT OF LABOR; ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.

TABLE 9
CUMBERLAND COUNTY EMPLOYMENT PROJECTIONS, 2000-2015
Cost-Benefit Analysis for Portland DPW Site

	2000	2005	2010	2015	CHANGE: 2000-2015 No.	CHANGE: 2000-2015 %
Manufacturing	16,912	14,302	13,455	12,895	(4,017)	-23.8%
Construction & Mining	13,033	12,936	12,550	12,184	(849)	-6.5%
Trans/Public Utilities	8,788	8,936	9,178	9,310	522	5.9%
Retail Trade	41,842	41,609	41,869	41,798	(44)	-0.1%
Wholesale Trade	11,812	10,833	10,497	10,364	(1,448)	-12.3%
Finance/Ins/Real Estate	20,934	23,266	24,558	25,238	4,304	20.6%
Services	77,248	82,047	90,747	96,527	19,279	25.0%
Government	24,838	27,418	28,734	29,489	4,651	18.7%
TOTAL:	**215,407**	**221,347**	**231,588**	**237,805**	**22,398**	**10.4%**

SOURCE: UNIVERSITY OF SOUTHERN MAINE CENTER FOR BUISNESS AND ECONOMIC RESEARCH; ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.

Portland MSA Projected Employment by Sector - 2015



III. Real Estate Market Conditions

Introduction

ERA examined historic and current market conditions and characteristics across a variety of real estate, including housing, office and retail uses in downtown Portland and surrounding submarkets. This section of the report analyzes inventory, rental and vacancy rates, historical development and absorption trends, major tenant relocations or expansions, and other appropriate potential supply and demand factors as they affect redevelopment opportunities at the DPW site.

Relevant real estate data are illustrated in Tables 14 through 18 and accompanying graphics at the end of this chapter.

Residential Market Conditions (Tables 14-15)

There has been significant discussion about the City's "housing crunch" over the past several years. According to the 2000 Census, the **housing vacancy rate in Portland is 3.6%**. Moreover, vacancy rates in residential buildings containing three or more units were reported at only one percent. As noted in Section II of this report, **only 350 new rental units were built in the City between 1990 and 2000** despite sizable growth in the number of households.

Across the region, growth in household incomes has not kept pace with the substantial rise in housing prices. As a result, the gap between income and housing prices has increased in recent years. According to the Maine State Housing Authority (MSHA), the ratio of median home sales prices to median household income in the Portland MSA was 2.87 in 1997. By 2002, this ratio had increased to 3.11. Like many markets nationwide, **the gap between incomes and housing prices in the Portland MSA has widened despite major gains in household incomes**. In fact, median household incomes increased 33% between 1997 and 2002, increasing from $40,000 per year to more than $53,000 per year.

The following highlights some of the recent key trends for both multi-family (rental) and for sale housing as they inform a potential redevelopment strategy for the DPW site for new housing. Following that is a review of trends in downtown Portland's office and retail markets. We note that market data for this analysis is current as of the fourth quarter 2002 and, as available, early 2003.

Multi-family Rental

In the City of Portland, the lack of new multi-family housing construction has been amplified by a wave of conversions of multi-family units to fee simple condominiums. Part of the motivation for condominium conversions in Portland is that investors can acquire multi-unit apartment buildings for $75,000 to $100,000 per unit, and "flip" (i.e., sell) individual units under a condominium regime for $150,000 or more without significant investment in renovations or unit upgrades. In turn, this has exacerbated the tight rental market—particularly during the economic boom of 1997-2001.

At the same time, demand for home ownership in Portland (and across the country) has increased primarily as a result of record-low interest rates. This has generated upward pressure on demand for condominium units, townhouses, and single-family homes, thus "freeing up" multi-family apartment units for newly created households. Nonetheless, apartment rents in Portland rose considerably during the late 1990s and early 2000s, and brokers report that, in general, a typical two-bedroom unit that rented for around $600 per month in the mid-1990s now rents for $1,000 or more per month.

- As illustrated in Table 12, according to 2000 Census data, median monthly rents for all multi-family units in the City were **$598 per month**, as compared to $615 in Cumberland County and $497 across the state.
- ERA compiled information on two housing developments in Bayside—*Back Bay Tower* and *Unity Village*. These profiles are illustrated in Table 12-A. As noted, Back Bay Tower, built in 1992, contains 116 market-rate rental units. It was the City's largest, new residential project in many years. Almost all of the project's units are two or three bedrooms. The building is reportedly fully occupied. The weighted average monthly rent—the typical measurement for multi-family residential—is reported at **$1.04 per sq. ft.**
- *Unity Village* is a 33 unit, mixed-income rental project completed in 2002 in Bayside. It contains a mix of one-, two- and three-bedroom units ranging in size from 700 to 1,200 sq. ft. It is reportedly 95% occupied. Rents are on a sliding scale based on household incomes, with a minimum annual income of $16,000 per year required for eligibility. Thus, the calculation of a weighted average rental rate is not possible. In terms of design, the project's architecture and overall density levels are appropriate for Bayside and blend well

For Sale

Residential realtors report that a typical two-bedroom **condominium unit in the Bayside neighborhood currently sells in the range of $140,000 to $160,000**. Notably, Bayside remains a more affordable location than more upscale areas such as the City's West End, where similar condominium units sell for $175,000 or more—or generally **$225 to $250 per sq. ft.** Due to the wave of conversions of multi-family rentals to for sale units over the past several years, approximately 100 condominium units were available for sale as of this writing (Spring 2003) across Portland. Brokers also report that the for sale inventory has increased substantially from two years ago, when there were fewer than 50 condominium units available for sale. This is consistent with the slight weakening of the national and local economies, although in general many housing markets—including Portland's—remain buoyed by record-low interest rates.

Moreover, despite a slight bump in available supply, prices continue to rise, as many buyers are "refugees" from Massachusetts, Connecticut, New York, and other more urbanized locations. Importantly, these buyers—coming from higher-priced housing markets—expect to pay more for housing. This has reinforced price escalations in the Portland area.

Another factor contributing to higher housing prices is the increasing cost of construction, as **development costs for new "stick-built", multi-family buildings fall in the range of $100 per sq. ft., exclusive of land and site preparation costs**. At this level, a typical 1,200 sq. ft. unit would cost out in the range of $120,000 exclusive of land, site preparation, marketing and developer profit.

Realtors also report that pent-up demand exists in the Portland market for higher-end townhouse units, as there are few units available in the City's for sale inventory. Over the past several years, these units have reportedly sold quickly and many typically have multiple bids. Brokers also indicated that while a new, upscale three-bedroom townhouse unit on the Peninsula could easily sell for $300,000 in certain neighborhoods, it would be more likely to sell for $200,000 in Bayside because of the transitional nature of the neighborhood. There is also substantial demand for single-family housing, but a limited amount of product on the market.

Specific market trends are highlighted below and illustrated in Table 15. According to Port Island Realty and the MRERC:

- Prices of single-family homes in the City of Portland increased more than 26% between 1998 and 2000—to an average price of almost **$158,000**;
- The average price of townhouses and condominium units citywide also increased 24% during this period—to **$126,000**; and
- The average price of all multi-family units increased by 30%—to **$190,000**—in 2000.

(Sales data for 2001 and 2002 were not available as of this writing).

Although there have been few residential land sales on the Peninsula because of the general lack of vacant/developable lots, there have been a few recent sales of smaller lots in scattered locations. For example:

- A 5,000 sq. ft. residential building lot recently sold in the West End for $65,000, or **$13 per sq. ft. of land**; and
- A similarly sized lot with a dilapidated house on it was recently sold in Bayside for about $45,000, or **$9 per sq. ft. of land**.

Loft & Artist Housing

Another market niche for new housing in Portland's downtown neighborhoods is loft housing. For example, a new loft project containing eight units on Anderson Street in East Bayside sold out in *less than* two months. These largely unfinished (i.e., semi-raw) units were sold exclusively to working artists, with prices ranging from $120,000 to $150,000 for units sized from 1,000 to 1,300 sq. ft. This equates to **$120 per sq. ft**. ERA notes that these prices are considerably lower than sales prices for standard, finished units in the West End, which generally sell for $225 to $250 per sq. ft.

It is important to note that the developer of this loft project reported that, despite a lack of marketing, substantial interest in his loft project came from professionals, students, and artists. Moreover, he believes that the construction of new loft units in Bayside would definitely succeed, and he estimates that new loft-style units on the DPW site could easily command sales prices of $150,000 or more. Interestingly, the developer also commented that loft buyers are not nearly as concerned with security issues as are buyers of standard condominium units.

Key Findings: Residential Market

- The net change in households in Portland between 1990 and 2000 far exceeded the net change in the number of new housing units created during this period; this has resulted in declining vacancy rates across the City's housing stock.
- The growth in housing prices has outstripped growth in household incomes; this has exacerbated the difficulties associated with providing affordable housing units for the City's lower- and moderate-income households.
- Beyond the construction of Back Bay Tower in 1992 and Unity Village in 2002, there has been very little multi-family construction in central Portland in recent years; moreover, a wave of apartment-to-condominium conversions has reduced the supply of rental units.
- In general, a typical two-bedroom apartment on the Peninsula rents for $1,000 per month or more.
- Despite an increase in the number of for sale condominium units currently on the market, unit prices continue to rise; for example, brokers report that two-bedroom units in Bayside typically sell in the $140,000-160,000 range.
- Sales price differentials of condominium units located in the West End and Bayside are quite large; for example, West End units typically sell between $225 and $250 per sq. ft., while Bayside units generally command sales prices of $150 per sq. ft.
- In terms of the available product mix, there are few townhouse units on the market. This has fueled sales premiums in the West End; for example, brokers report that three-bedroom townhouses sell for $300,000 or more.
- Brokers further report that demand is strong for loft-style units; professionals, students, and artists comprise the typical market segments for this type of housing. While lofts do not necessarily command higher prices, units are sold as semi- or unfinished; as a result, construction costs are generally lower.

Office Market Conditions (Tables 16 & 17)

As part of our analysis of commercial development opportunities on the DPW site, ERA examined market conditions across the region's office market. These findings are presented below and detailed in Tables 16 and 17.

Inventory

Currently, the region's office inventory contains **8.6 million sq. ft. of net leasable space** according to Ram Harnden Commercial Real Estate Services, Inc. This includes owner/user buildings such as the UNUM/Provident Building on Outer Congress Street. Approximately **4.0 million sq. ft. (47%) of the region's office inventory are located in downtown Portland** with the remaining 4.6 million sq. ft. located across several suburban submarkets.

- Notably, the proportion of the region's office space located in downtown Portland has *declined* over the past several years, as new development in outlying locations such as Westbrook has increased the suburban inventory.
- Between 2000 and 2002, **670,000 sq. ft. of office space was added to the region's supply—roughly 200,000 sq. ft.—or 30%, was built downtown**. New construction in downtown includes a number of smaller buildings for owner/users or "boutique" multi-tenant properties. The most recent new office project includes the *AAA Building* on Marginal Way in Bayside. This building, which was completed in 2002, contains 55,000 sq. ft. of Class A office space; it is typical of recent new office buildings in Portland, as 60% of the building was pre-leased prior to construction.

Absorption

A key barometer of the health of any office market is annual *net absorption*, that is, the amount of net new office space absorbed (leased) in a marketplace in any given year. Reported trends are noted below:

- From 2000 to 2002, net absorption in the regional office market totaled **560,000 sq. ft.**—somewhat less than the amount of new construction.
- In 2002, the region's net absorption was 260,000 sq. ft. Notably, however, downtown Portland actually experienced *negative* absorption, largely due to People's Heritage Bank/BankNorth shifting its employees from downtown to a new facility at Exit 10 in West Falmouth.
- Since 1995, brokers report that office absorption in downtown Portland has been positive every year except 2002. Brokers further expect the downtown office market to recover as the economy strengthens and job growth enhances overall demand for office space beyond 2003.

Vacancy Rates

Office vacancy rates in both downtown Portland and suburban submarkets rose slightly in 2002. Nonetheless, **overall vacancy rates remain very low**. To wit:

- Downtown Portland's office vacancy rate as of December 2002 was only 4.4% as compared to a regional vacancy rate of just 3.7%. In effect, the region's office market remains in stabilization.

- If sublease space is included in the equation, real vacancy is actually slightly higher. For example, there are 70,000 sq. ft. of downtown office space leased but actually vacant. This would translate into an effective (i.e., real) vacancy rate of 6.2% for the downtown submarket.

Rental Rates

As compared to larger cities and other metropolitan areas, as a whole, rental rates in downtown Portland are relatively low. Commercial brokers report that rental rates have not increased much in recent years.

- Brokers report that rental rates in Class A office buildings are in the range of **$15 to $17 per sq. ft**. on a modified gross basis (meaning that tenants pay for some expenses such as utilities or common area maintenance).
- Tenant improvement allowances (i.e., whereby the landlord pays for improvement to the demised premises) vary, but usually are in the range of $20 to $25 per sq. ft.
- For lease renewals, rental rates in Class A office buildings can be as high as $21 or $22 per sq. ft.; however, tenant improvement allowances are typically much lower—on the order of $0 to $15 per sq. ft.

Commercial Land Values

Given the high value of land in downtown Portland (which is reportedly in the range of $20 per buildable foot of space), **current rents do not justify new office development**. To develop an office building in downtown Portland today, all-in development costs (including land and soft costs), are generally between **$145 and $160 per sq. ft.** These reflect costs that would mandate office lease rates of at least $21 per sq. ft. on a triple net basis (i.e., whereby the tenant pays for all operating expenses typically on a pro rata share of occupied space) to produce adequate rates of return

Obviously, in the current market, office rents in downtown Portland fall short of these minimum required lease rates. Therefore, land or other subsidies are typically necessary to support new office construction in downtown Portland.

Key Findings: Office Market

- In 2002, office vacancy rates in downtown Portland increased and net absorption was negative for the first time since 1995.
- Downtown rental rates are relatively flat and generally do not support the cost of new construction.
- Future office development in Bayside and in other locations of downtown Portland will occur slowly and incrementally. The economics associated with speculative (multi-tenant) buildings are not feasible. No new office development is likely in downtown Portland until at least 50% of any proposed building is pre-leased.

- As with residential development, Class A office rents do not support the costs associated with new office development in downtown Portland. This will necessitate the use of public subsidies to enhance overall feasibility. Moreover, developers are reluctant to pay more than $13 per buildable (FAR) foot for land. Currently, commercial land costs in downtown Portland are in the range of $20 per FAR foot.

- As land values continue to rise, industrial and other non-conforming uses in the Bayside neighborhood are eventually going to be displaced. This could be expected to significantly enhance the overall marketability for redevelopment for such uses as residential and/or commercial office space.

Retail Market Conditions (Table 18)

Conditions in the Greater Portland retail market are noted below:

- The Greater Portland retail market contains approximately 4.3 million sq. ft. of retail space across a range of product types.

- Vacancy at the end of 2001 was 3.8%, according to Malone Commercial Real Estate. **Retail vacancy rates in the City of Portland were very low at the end of 2001, as just 1.6%** of all space in the City was vacant.

- Most of the region's vacant retail space was in Westbrook, where a number of Big Box spaces are currently empty. Since then, there have been Big Box spaces vacated in South Portland and Falmouth by the closing of Ames.

- Retail conditions in the Old Port, Portland's strongest destination retail area, remain strong despite a weakened economy. Old Port rents are in the range of $30 per sq. ft. on a triple net basis (whereby the tenant pays all operating expenses such as utilities and real estate taxes). Notably, the Old Port has many upscale, niche retailers, and rental rates are significantly above retail space in Bayside. Compared with suburban submarkets in Portland, where rents are mostly flat, the City's retail market remains healthy.

- Interest in Portland among national chains has increased over the past several years. A number of national tenants such as *L.L. Bean*, *Olympia Sports*, and *North Face* have leased space on Congress Street west of Monument Square.

- In January 2003, *Wild Oats*, a national natural foods grocer, opened a new store at Preble Street and Marginal Way in Bayside. This store's location was greatly influenced by the site's visibility and easy access from Interstate 295.

Key Findings: Retail Market

- Retail vacancies in Portland remain very low. By comparison, consolidations and bankruptcies among many Big Box tenancies, such as Ames, have fueled an increase in vacant retail space among the region's suburban submarkets.

- The Old Port has very few vacant retail spaces, and rental rates are among the highest in the region—in the range of $30 per sq. ft. on a triple net basis.
- Downtown retail space has been revitalized with an increase in the number of national retailers along Congress Street, near Monument Square.
- Portions of Bayside are emerging as a regional retail destination, in part due to the opening of Wild Oats as well as visibility from and proximity to I-295—particularly along Marginal Way. However, it is unlikely that this will spillover to the remainder of Bayside. As a result, future retail opportunities should be focused on serving the daily needs of neighborhood residents.

Cost/Benefit Analysis: Portland DPW Site

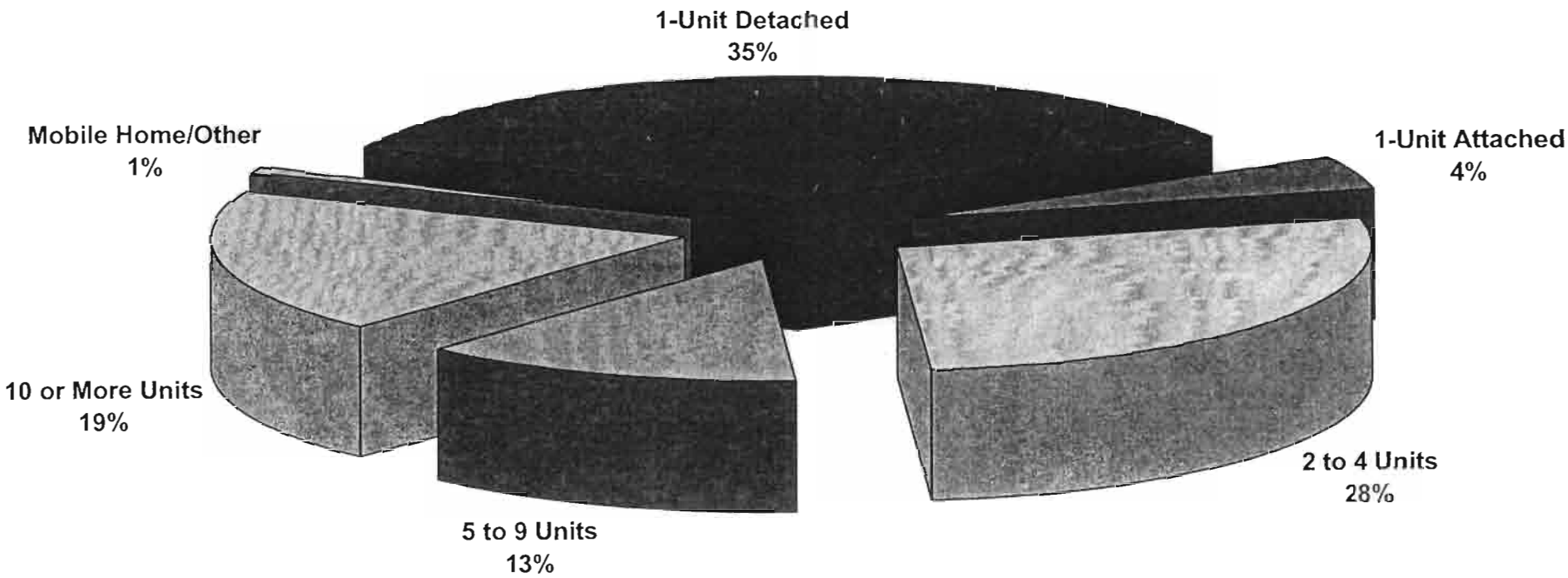
Housing Market

TABLE 10
HOUSING UNITS BY STRUCTURE TYPE IN PORTLAND, 1990-2000
Cost-Benefit Analysis for Portland DPW Site

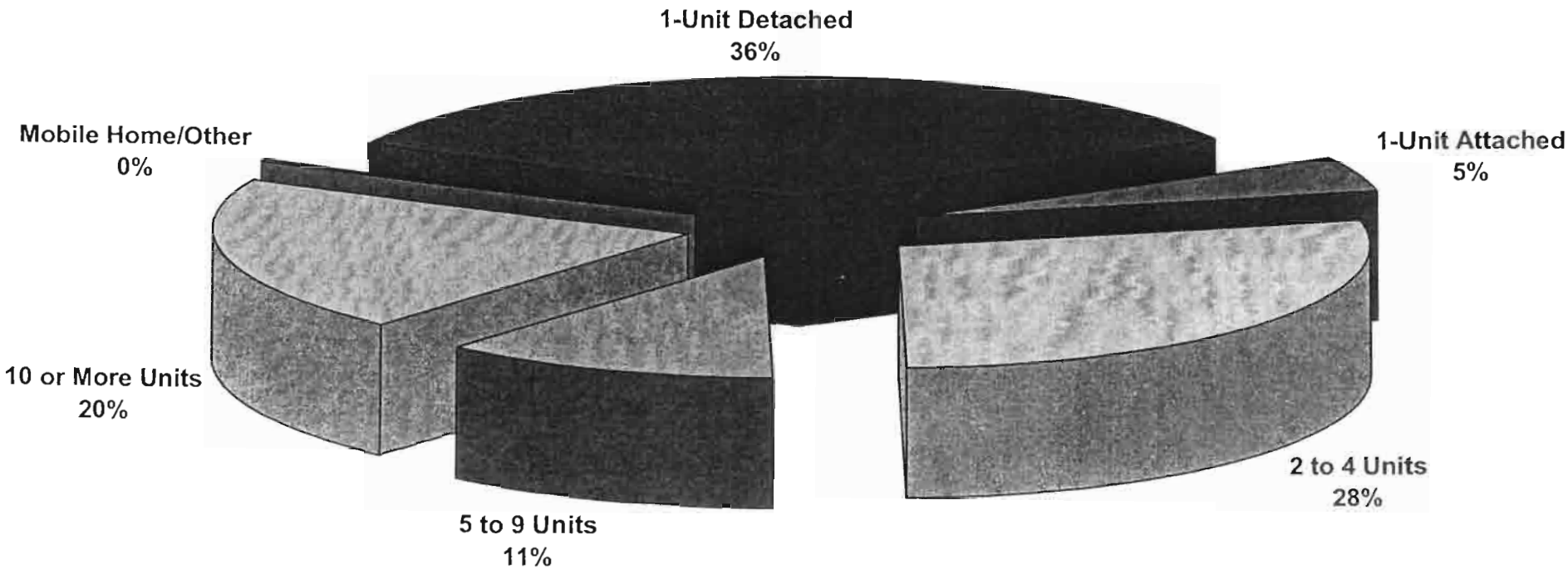
HOUSING TYPES	1990 No.	1990 % of Total	2000 No.	2000 % of Total	CHANGE
Single-family					
1-Unit Detached	10,995	35.1%	11,169	35.1%	174
1-Unit Attached	1,347	4.3%	1,508	4.7%	161
Subtotal:	**12,342**	**39.4%**	**12,677**	**39.8%**	**335**
Multi-family					
2 to 4 Units	8,617	27.5%	8,935	28.0%	318
5 to 9 Units	4,048	12.9%	3,650	11.5%	(398)
10 or More Units	5,982	19.1%	6,526	20.5%	544
Subtotal:	**18,647**	**59.6%**	**19,111**	**60.0%**	**464**
Other					
Mobile Home/Other	**304**	**1.0%**	**76**	**0.2%**	**(228)**
TOTAL:	**31,293**	**100.0%**	**31,864**	**100.0%**	**571**

SOURCE: U.S. BUREAU OF THE CENSUS; PORTLAND COMPREHENSIVE PLAN, 2002; ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.

City of Portland
Housing Units by Type - 1990



City of Portland
Housing Units by Type - 2000



Change in Housing Units by Type 1990 - 2000

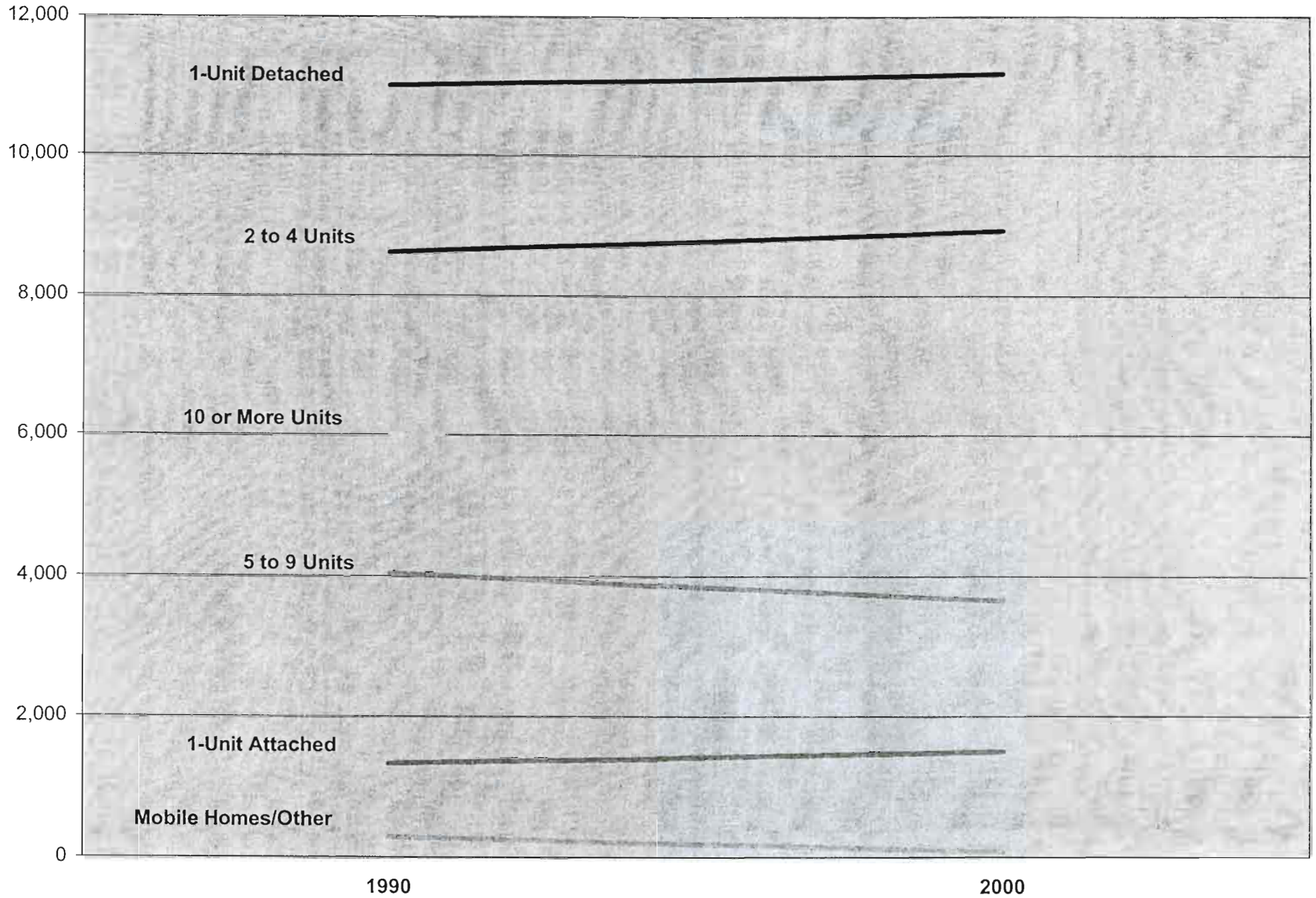
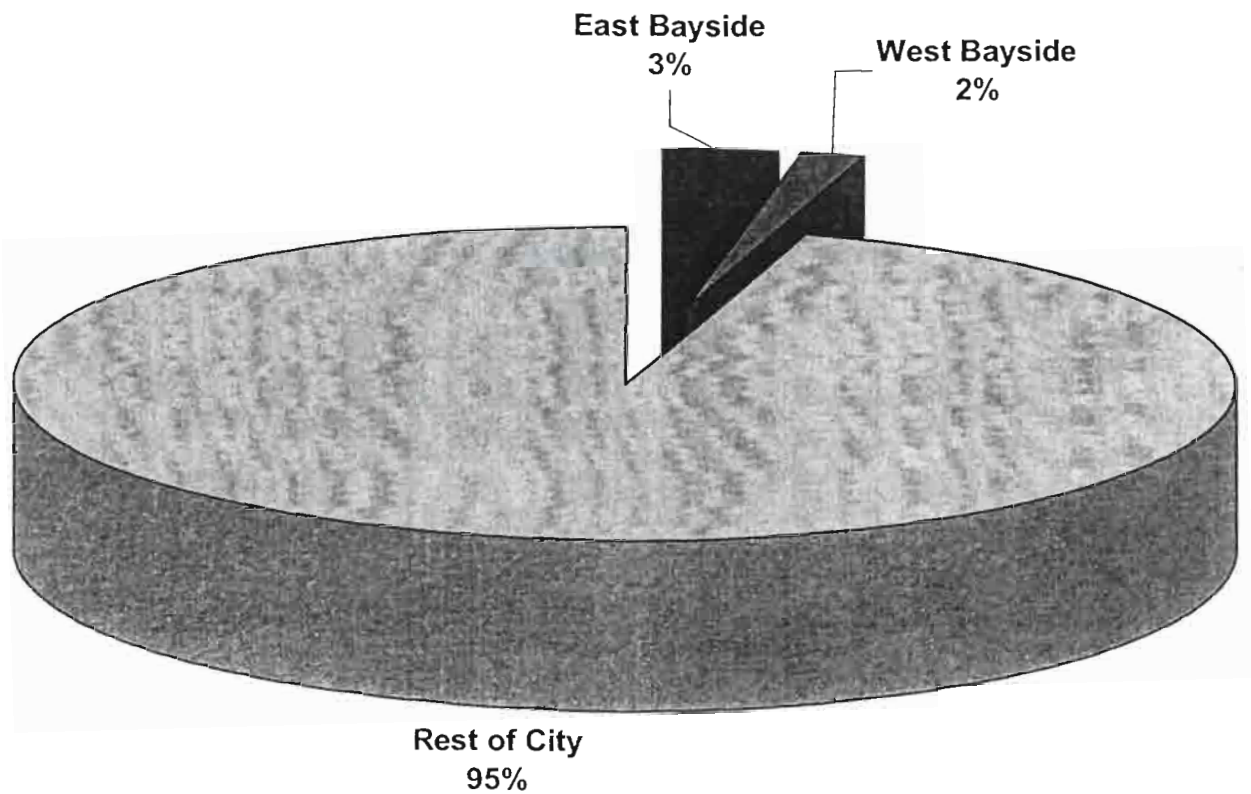


TABLE 11
HOUSING UNITS BY NEIGHBORHOOD, 1990-2000
Cost-Benefit Analysis for Portland DPW Site

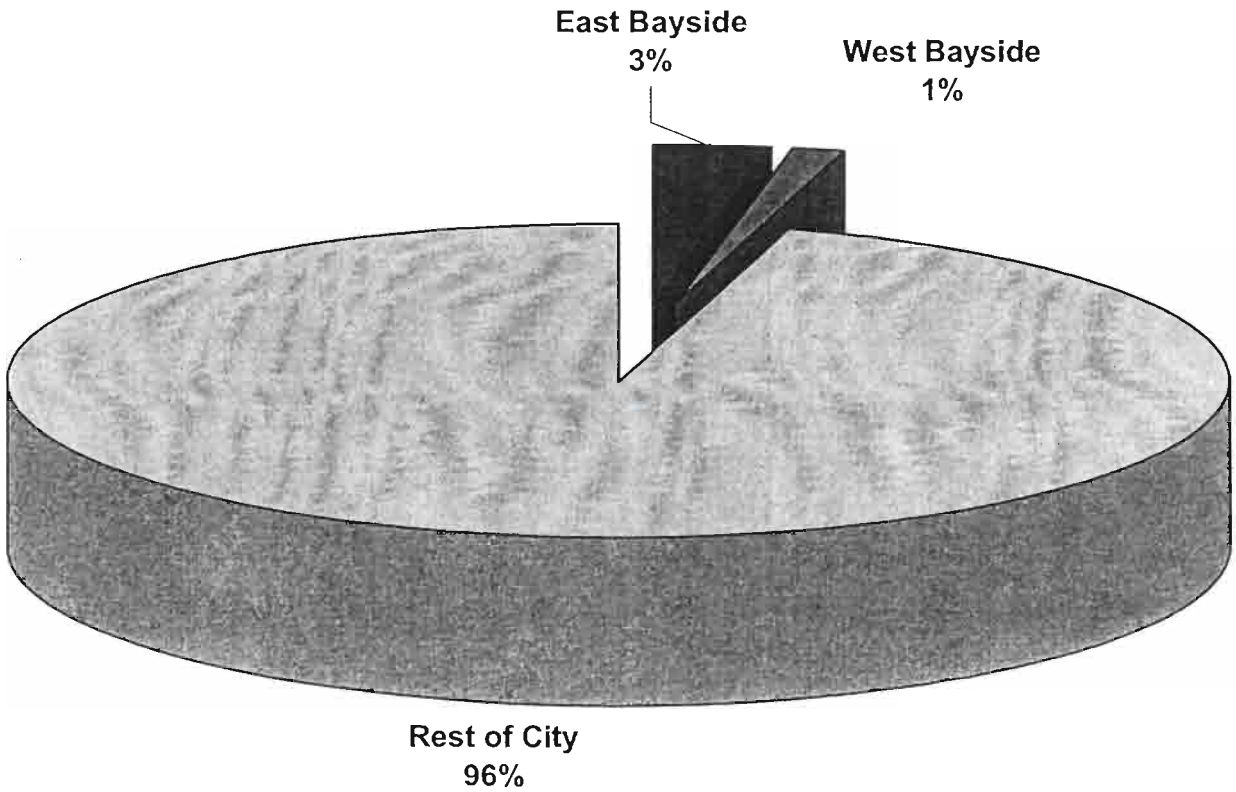
NEIGHBORHOOD	1990	2000	As % of Total	CHANGE
In Order By Size				
North Deering	3,982	4,324	13.6%	342
West End	3,531	3,549	11.1%	18
Parkside	2,634	2,676	8.4%	42
East End	2,545	2,579	8.1%	34
Deering Center	2,015	1,997	6.3%	(18)
Riverton	1,814	1,989	6.2%	175
Rosement	1,888	1,952	6.1%	64
Downtown	2,200	1,895	5.9%	(305)
Ocean Avenue	1,728	1,885	5.9%	157
Oakdale	1,522	1,690	5.3%	168
East Deering	1,456	1,500	4.7%	44
Nasons Corner	1,399	1,412	4.4%	13
Islands	1,081	1,219	3.8%	138
East Bayside	**971**	**937**	**2.9%**	**(34)**
Valley Street	766	779	2.4%	13
Libbytown	751	747	2.3%	(4)
West Bayside	**486**	**465**	**1.5%**	**(21)**
Stroudwater	239	267	0.8%	28
TOTAL:	**31,008**	**31,862**	**100.0%**	**854**

SOURCE: U.S. BUREAU OF THE CENSUS; PORTLAND COMPREHENSIVE PLAN, 2002; ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.

East Bayside and West Bayside
Share of City Housing Units - 1990



East Bayside and West Bayside
Share of City Housing Units - 2000



Housing Units in East Bayside, West Bayside and Remainder of City 1990 - 2000

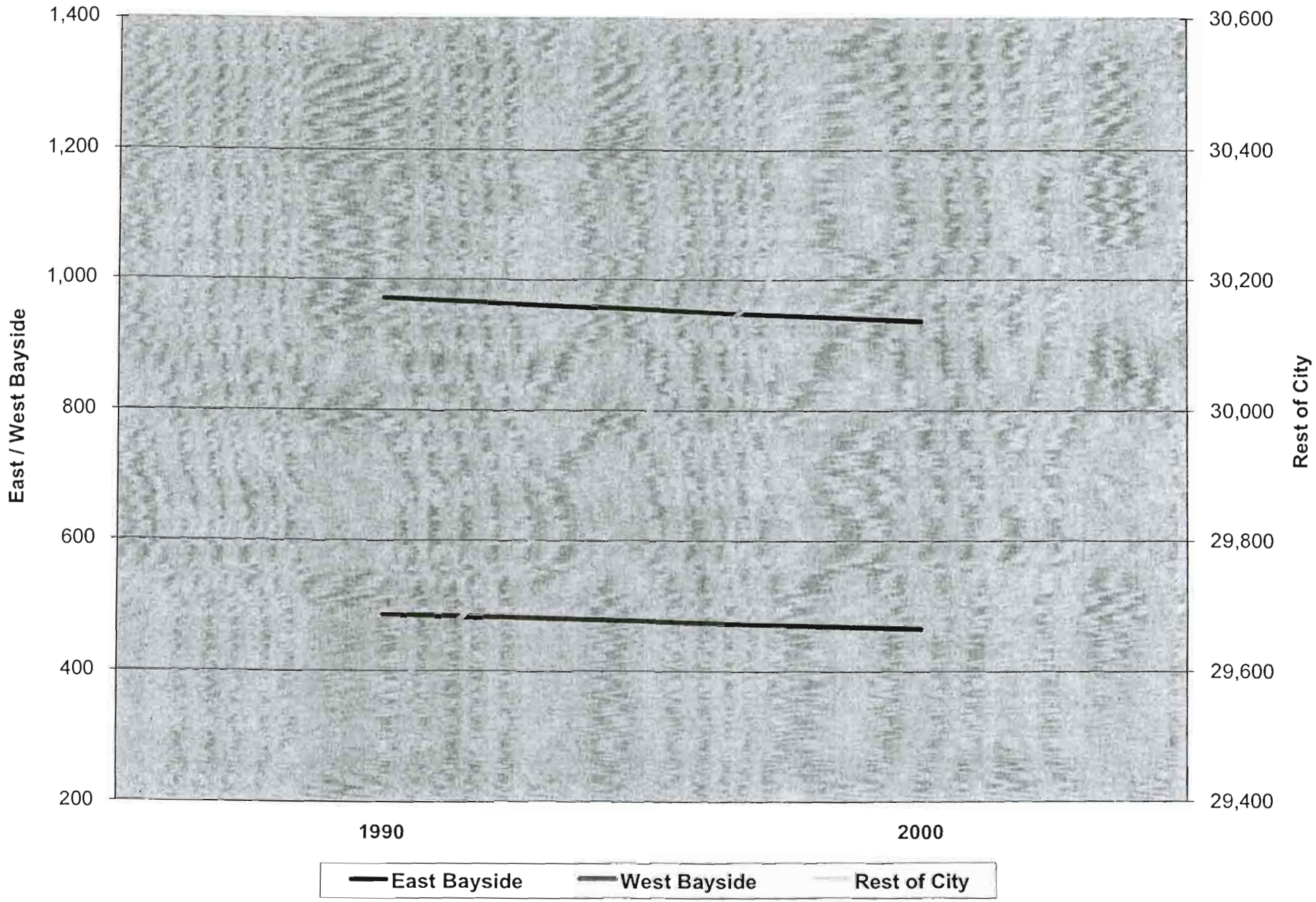
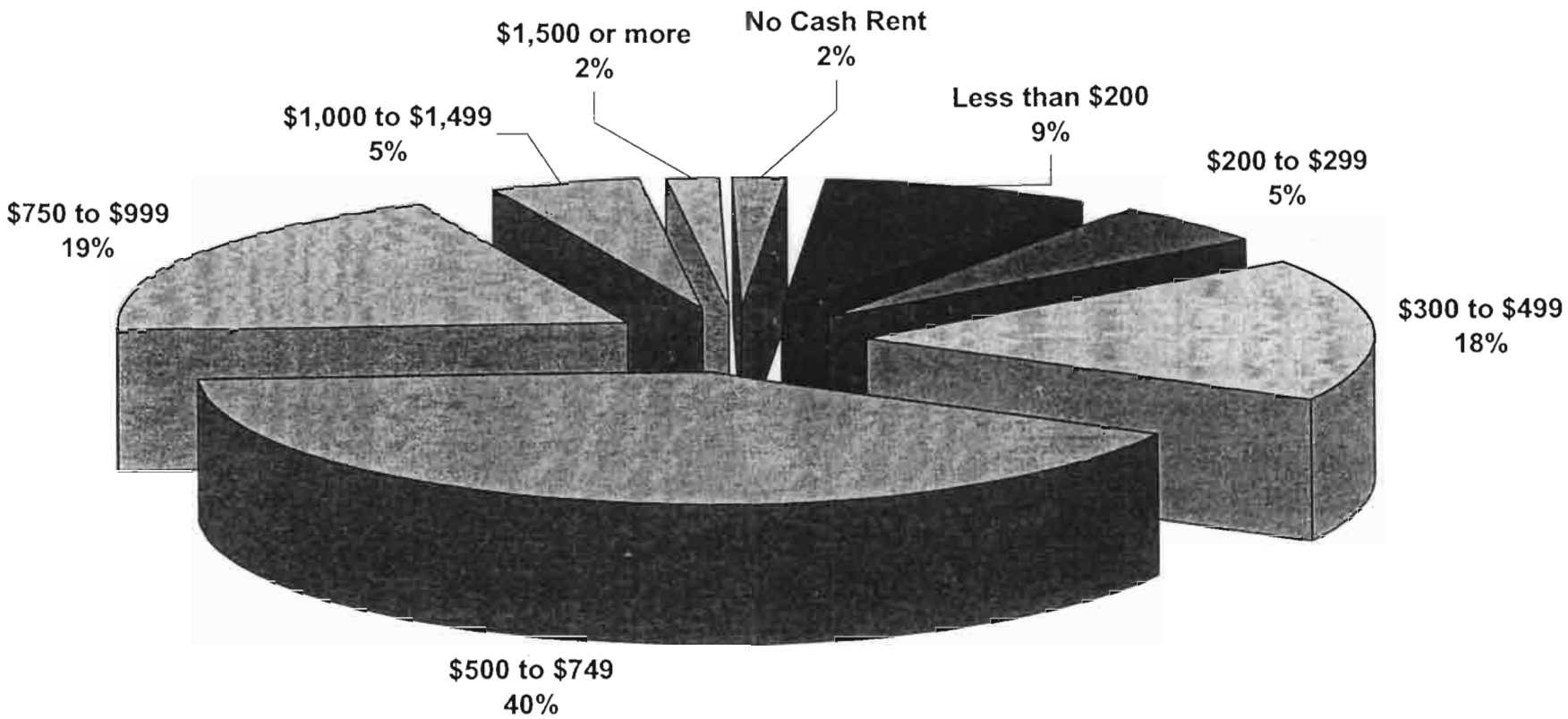


TABLE 12
RENTAL COSTS IN PORTLAND & CUMBERLAND COUNTY, 2000
Cost-Benefit Analysis of Portland DPW Site

	City of Portland	%	Cumberland County	%	State of Maine	%
Renter Occupied Units	**17,103**		**35,591**		**143,727**	
Units By Monthly Rent						
Less than $200	1,464	8.6%	2,500	7.0%	12,806	8.9%
$200 to $299	902	5.3%	1,685	4.7%	10,512	7.3%
$300 to $499	3,073	18.0%	5,921	16.6%	44,055	30.7%
$500 to $749	7,007	41.0%	14,388	40.4%	46,780	32.5%
$750 to $999	3,294	19.3%	6,945	19.5%	14,428	10.0%
$1,000 to $1,499	804	4.7%	1,983	5.6%	3,764	2.6%
$1,500 or more	274	1.6%	506	1.4%	999	0.7%
No Cash Rent	285	1.7%	1,663	4.7%	10,383	7.2%
Median Monthly Rent:	**$ 598**		**$ 615**		**$ 497**	
Median HH Income	$ 35,650		$ 44,048		$ 37,240	
Affordable Monthly Rent As 25% of Median Income:	**$ 743**		**$ 918**		**$ 776**	

SOURCE: U.S. BUREAU OF THE CENSUS; PORTLAND COMPREHENSIVE PLAN, 2002; ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.

City of Portland
Renter Occupied Units by Monthly Rent



Cumberland County
Renter Occupied Units by Monthly Rent

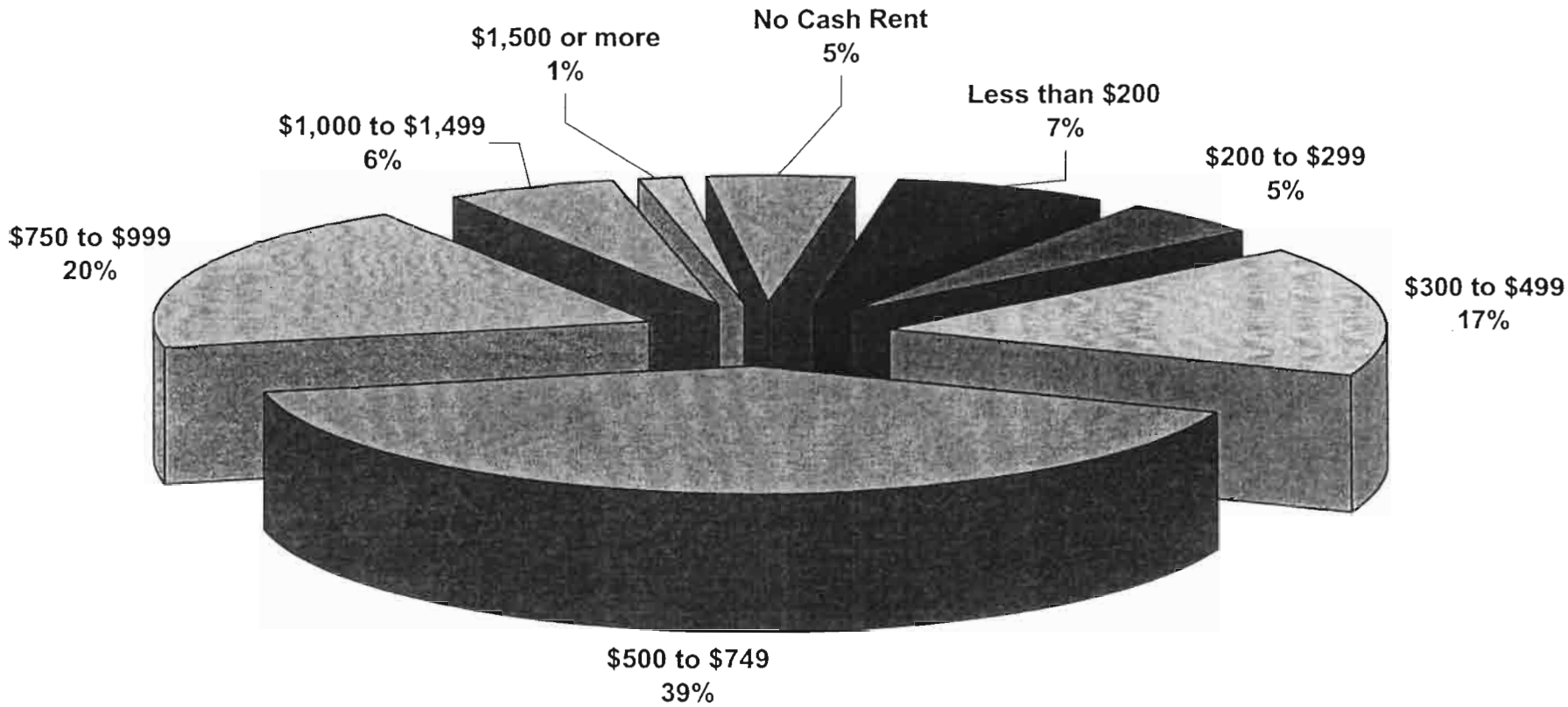


TABLE 12-A

PROFILE OF SELECTED MULTI-FAMILY PROJECTS IN PORTLAND
Cost-Benefit Analysis of Portland DPW Site

			UNIT INFORMATION				RENTAL RATES	
PROPERTY	NO. OF UNITS	YEAR BUILT & OCCUPANCY	BR	No.	% Dist.	Avg. Size (Sq. Ft.)	Avg. Rent	Rent/Sq. Ft
Back Bay Tower	116	1992	1	4	3.4%	700	$ 900	$ 1.29
	Rental	100.0%	2	55	47.4%	1,125	$ 1,225	$ 1.09
			3	57	49.1%	1,500	$ 1,500	$ 1.00
			Total:	116			Wgtd. Avg.:	$ 1.04
Unity Village	33	2002	1	4	12.1%	700	Sliding scale rents are based	
	Rental	95.0%	2	12	36.4%	850	on household incomes, with a	
			3	17	51.5%	1,200	minimum annual income of	
			Total:	33			$16,000 per year required	

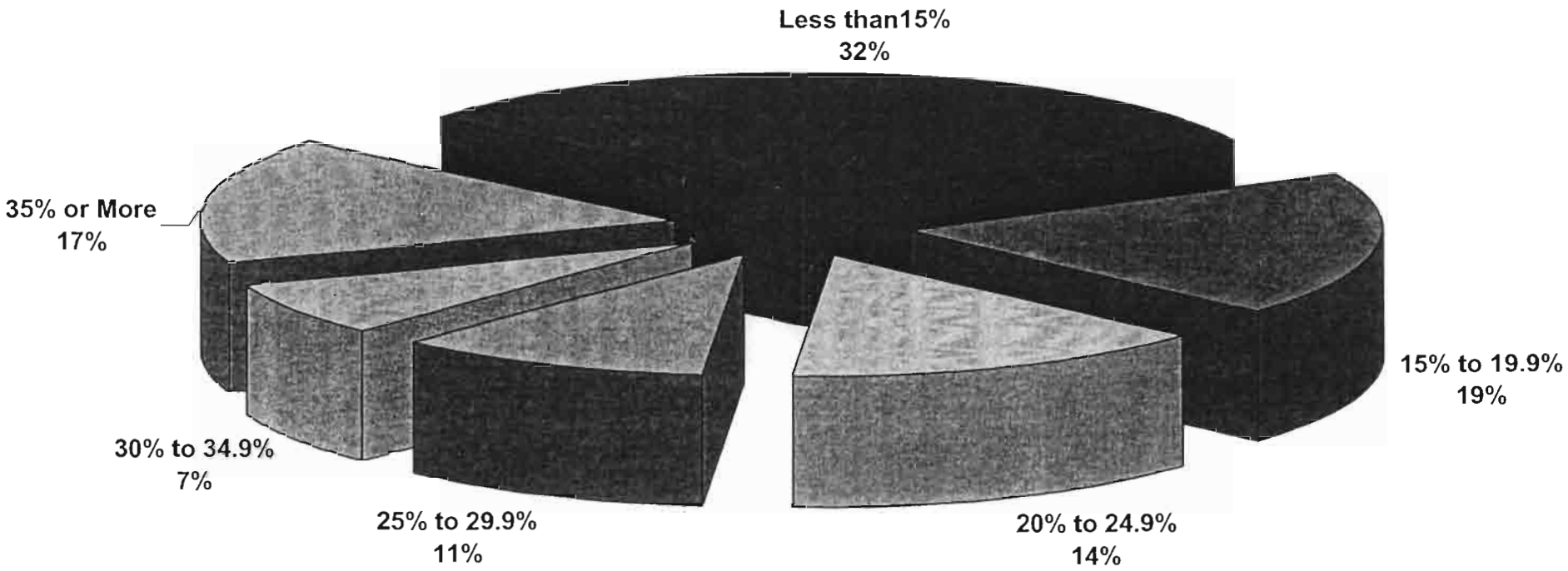
SOURCE: ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.

TABLE 13
RENTAL COSTS IN PORTLAND & CUMBERLAND COUNTY, 2000
Cost-Benefit Analysis for Portland DPW Site

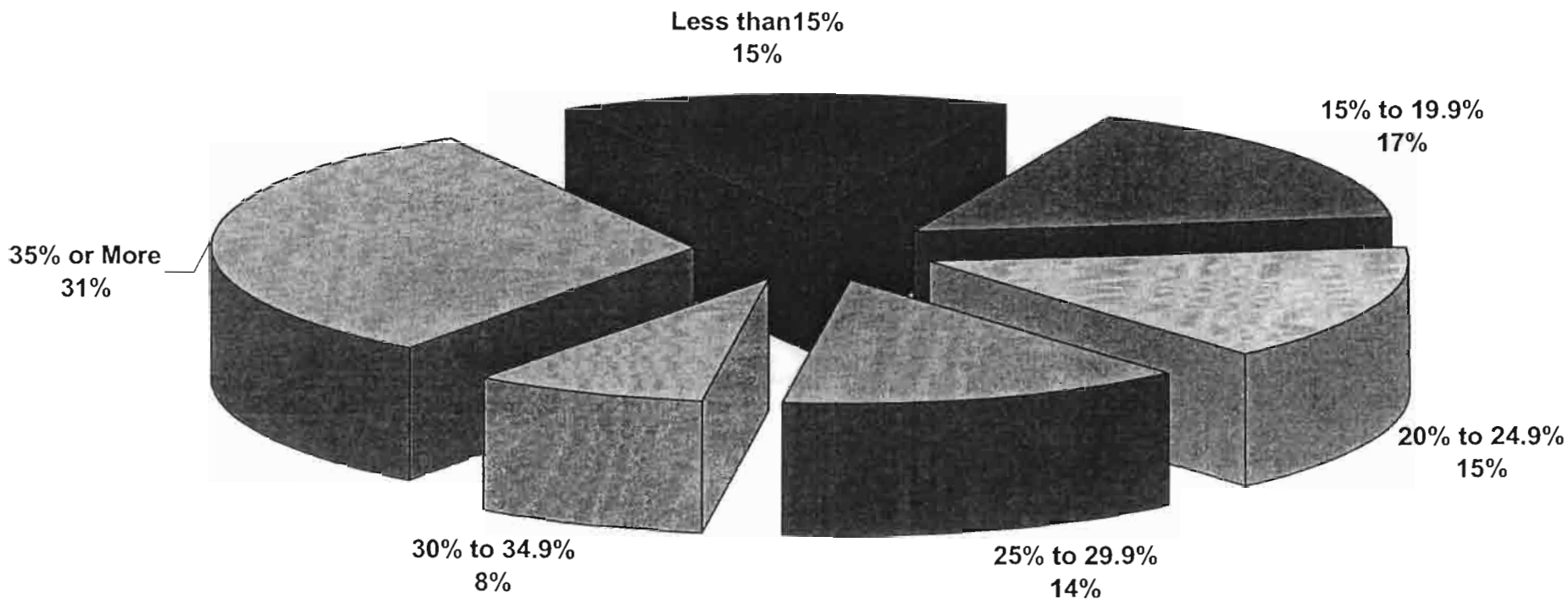
% OF INCOME	CITY OF PORTLAND		CUMBERLAND COUNTY	
	Owners	Renters	Owners	Renters
Less than15%	31.6%	15.1%	31.9%	15.5%
15% to 19.9%	19.2%	16.5%	19.3%	17.5%
20% to 24.9%	14.5%	15.3%	15.8%	15.8%
25% to 29.9%	10.9%	13.6%	10.9%	12.9%
30% to 34.9%	7.2%	7.9%	6.1%	8.3%
35% or More	16.7%	31.6%	16.0%	30.0%

SOURCE: U.S. BUREAU OF THE CENSUS; PORTLAND COMPREHENSIVE PLAN, 2002; ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.

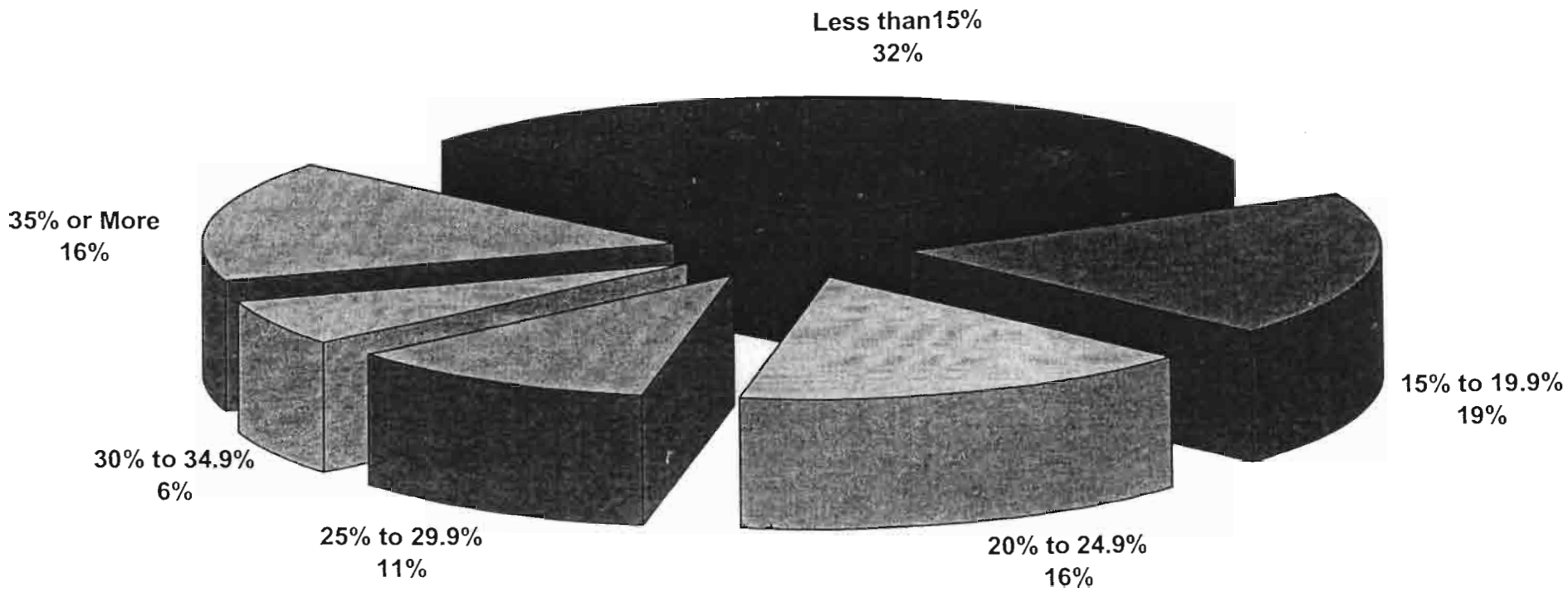
City of Portland
Proportion of Income Spent on Housing - Owners



City of Portland
Proportion of Income Spent on Housing - Renters



Cumberland County
Proportion of Income Spent on Housing - Owners



Cumberland County
Proportion of Income Spent on Housing - Renters

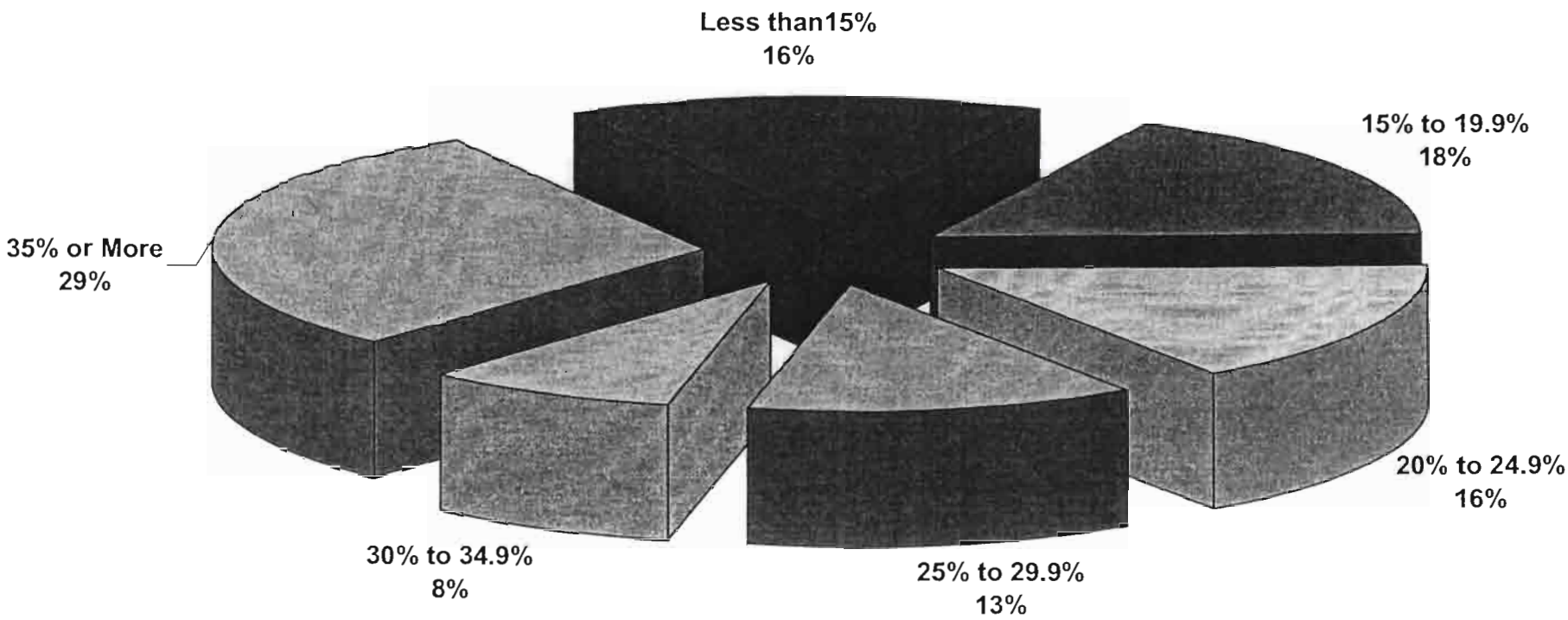


TABLE 14
RESIDENTIAL SALES TRENDS FOR SELECTED COMMUNITIES
IN GREATER PORTLAND, 1998-2000
Cost-Benefit Analysis for Portland DPW Site

COMMUNITY	1998 Sales	1998 Average Price	1999 Sales	1999 Average Price	2000 Sales	2000 Average Price	CHANGE IN PRICE 1999-2000
Single-family Units							
Biddeford			163	$ 149,895	145	$ 159,590	6.5%
Cape Elizabeth			129	245,569	129	305,351	24.3%
Cumberland			109	248,158	105	300,182	21.0%
Falmouth			201	274,936	139	299,653	9.0%
Portland	**480**	**124,787**	**542**	**134,439**	**474**	**157,468** *(1)*	**26.2%**
Scarborough			222	187,257	219	213,539	14.0%
South Portland			249	126,548	233	138,892	9.8%
Yarmouth			79	254,226	106	282,360	11.1%
Townhouse/Condominium Units							
Biddeford			7	$ 98,586	11	$ 67,955	-31.1%
Cape Elizabeth			23	136,926	11	163,936	19.7%
Cumberland			5	177,000	2	118,500	-33.1%
Falmouth			11	172,400	11	198,359	15.1%
Portland	**170**	**102,032**	**182**	**103,561**	**165**	**126,074** *(1)*	**23.6%**
Scarborough			38	138,220	29	170,780	23.6%
South Portland			88	87,359	50	98,090	12.3%
Yarmouth			14	191,393	24	184,721	-3.5%
Multi-family Units							
Biddeford			56	$ 110,850	54	$ 119,071	7.4%
Cape Elizabeth			-	-	1	263,500	N/A
Cumberland			-	-	-	-	N/A
Falmouth			2	180,000	-	-	N/A
Portland	**173**	**146,332**	**173**	**164,805**	**188**	**189,943** *(1)*	**29.8%**
Scarborough			2	129,750	2	400,000	208.3%
South Portland			15	138,590	24	152,521	10.1%
Yarmouth			7	174,629	2	157,250	-10.0%

(1) Change in average price for Portland reflects 1998-2000 period.

SOURCE: MRERC; PORT ISLAND REALTY; ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.

TABLE 15
SALES TRENDS FOR RESIDENTIAL PROPERTIES IN PORTLAND, 1998-2002
Cost-Benefit Analysis for Portland DPW Site

	PROPERTY TYPE	Single-family	THs/Condo-miniums	Multi-family	Residential Lots
1998	No. of Sales	480	170	173	32
	Average Price	$ 124,787	$ 102,032	$ 146,332	$ 64,269
1999	No. of Sales	542	182	173	36
	Average Price	$ 134,439	$ 103,561	$ 164,805	$ 58,244
2000	No. of Sales	474	165	188	31
	Average Price	$ 157,468	$ 126,074	$ 189,943	$ 48,516
2001	No. of Sales	472	168	155	N/A
	Average Price	N/A	N/A	N/A	N/A
2002	No. of Sales	491	220	176	N/A
	Average Price	N/A	N/A	N/A	N/A
CHANGE IN PRICE - 1998-2000:		**26.2%**	**23.6%**	**29.8%**	**-24.5%**

(1) Change in average price for Portland reflects 1998-2000 period.

SOURCE: MRERC; PORT ISLAND REALTY; ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.

Cost/Benefit Analysis: Portland DPW Site

Office & Retail Market

TABLE 16
GREATER PORTLAND OFFICE MARKET TRENDS, 2000-2002
Cost/Benefit Analysis for Portland DPW Site

YEAR	RENTABLE SQ. FT.	AVAILABLE SQ. FT.	VACANCY RATE	NET ABSORP-TION SQ. FT.	SUBLEASE SPACE	UNDER CONST. SQ. FT.	CLASS A RENTS Low	CLASS A RENTS High
Downtown								
2000	3,833,996	85,098	2.2%	43,587	7,726	64,440	$ 15.00	$ 18.50
2001	3,982,671	65,127	1.6%	103,173	15,415	53,000	17.50	22.50
2002	4,033,660	178,755	4.4%	(62,639)	70,882	N/A	15.00	17.00
% Change:	*5.2%*	*110.1%*	*99.7%*		*817.4%*		*0.0%*	*-8.1%*
Suburban								
2000	4,116,693	159,346	3.9%	65,629	24,302	87,800	$ 18.00	$ 22.00
2001	4,347,408	223,878	5.1%	82,116	29,000	248,800	16.50	22.25
2002	4,586,608	136,787	3.0%	326,291	101,401	N/A	17.50	21.00
% Change:	*11.4%*	*-14.2%*	*-23.0%*		*317.3%*		*-2.8%*	*-4.5%*
Total - Region								
2000	7,950,689	244,444	3.1%	109,216	32,028	152,240		
2001	8,330,079	289,005	3.5%	185,289	44,415	301,800		
2002	8,620,268	315,542	3.7%	263,652	172,283	N/A		
% Change:	*8.4%*	*29.1%*	*19.1%*		*437.9%*			
ANNUAL AVERAGE (SQ. FT.):				**186,052**				

SOURCE: RAM HARNDEN COMMERCIAL REAL ESTATE SERVICES; ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.

TABLE 17
GREATER PORTLAND OFFICE MARKET TRENDS, BY SUBMARKET, 2000-2001
Cost-Benefit Analysis for Portland DPW Site

SUBMARKET	Year-End 2000 RENTABLE SQ. FT.	Year-End 2000 AVAILABLE SQ. FT.	Year-End 2000 VACANCY RATE	Year-End 2001 RENTABLE SQ. FT.	Year-End 2001 AVAILABLE SQ. FT.	Year-End 2001 VACANCY RATE
Order By Size						
Downtown						
Class A	1,574,531	3,765	0.2%	1,574,531	4,250	0.3%
Class B	2,341,903	56,659	2.4%	2,341,903	57,903	2.5%
Subtotal:	**3,916,434**	**60,424**	**1.5%**	**3,916,434**	**62,153**	**1.6%**
As % of Region	*45.0%*			*44.4%*		
Maine Mall Area						
Class A	1,225,493	-	0.0%	1,241,293	38,698	3.1%
Class B	441,936	7,700	1.7%	441,936	17,279	3.9%
Subtotal:	**1,667,429**	**7,700**	**0.5%**	**1,683,229**	**55,977**	**3.3%**
As % of Region	*19.2%*			*19.1%*		
Outer Congress/County Road						
Class A	942,371	17,060	1.8%	942,371	12,760	1.4%
Class B	85,746	16,000	18.7%	85,746	13,000	15.2%
Subtotal:	**1,028,117**	**33,060**	**3.2%**	**1,028,117**	**25,760**	**2.5%**
As % of Region	*11.8%*			*11.7%*		
Medical Office						
Class A	621,708	10,292	1.7%	648,958	27,788	4.3%
Class B	287,146	1,100	0.4%	287,146	7,500	2.6%
Subtotal:	**908,854**	**11,392**	**1.3%**	**936,104**	**35,288**	**3.8%**
As % of Region	*10.4%*			*10.6%*		
Miscellaneous Suburban						
Class A	163,161	-	0.0%	163,161	-	0.0%
Class B	569,143	2,100	0.4%	637,343	84,436	13.2%
Subtotal:	**732,304**	**2,100**	**0.3%**	**800,504**	**84,436**	**10.5%**
As % of Region	*8.4%*			*9.1%*		
Falmouth						
Class A	113,600	-	0.0%	113,600	2,848	2.5%
Class B	125,676	11,265	9.0%	125,676	7,865	6.3%
Subtotal:	**239,276**	**11,265**	**4.7%**	**239,276**	**10,713**	**4.5%**
As % of Region	*2.7%*			*2.7%*		
Maine Tpke Exit 8						
Class A	61,425	-	0.0%	61,425	-	0.0%
Class B	152,921	13,218	8.6%	152,921	42,342	27.7%
Subtotal:	**214,346**	**13,218**	**6.2%**	**214,346**	**42,342**	**19.8%**
As % of Region	*2.5%*			*2.4%*		
TOTAL:	**8,706,760**	**139,159**	**1.6%**	**8,818,010**	**316,669**	**3.6%**

(1) Excludes available sublease space of 13,270 sq. ft. in 2000 and 87,870 sq. ft. in 2001.

SOURCE: CB RICHARD ELLIS, THE BOULOS COMPANY; ECONOMICS RESEARCH ASSOCIATES, JANUARY 200

TABLE 18
GREATER PORTLAND RETAIL MARKET TRENDS, 2001-2002
Cost/Benefit Analysis for Portland DPW Site

YEAR	TOTAL SQ. FT.	OCCUPIED SQ. FT.	VACANCY RATE	SQ. FT. ABSORBED	AVERAGE LEASE RATE
2000	4,272,800	4,120,384	3.7%	569,000	*N/A*
2001	4,322,800	4,164,549	3.8%	44,165	$ 12.86
% Change	*1.2%*	*1.1%*	*2.7%*		
Vacancy By Age					
All Centers			3.7%		
1996-Present			2.3%		
1986-1995			0.6%		
1976-1985			1.5%		
1966-1975			6.6%		
Before 1965			2.3%		
Vacancy By Size (In Sq. Ft.)					
All Centers			3.7%		
1,000,000+			2.0%		
200,000-999,999			1.2%		
100,000-199,999			0.0%		
50,000-100,000			6.4%		
Under 50,000			6.2%		
Vacancy By Location					
All Cities			3.7%		
Westbrook			44.3%		
South Portland			1.7%		
Scarborough			0.4%		
Portland			1.6%		
Falmouth			2.8%		
Cape Elizabeth			12.0%		

SOURCE: MALONE COMMERCIAL REAL ESTATE; ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.

Cost/Benefit Analysis: Portland DPW Site

Cost/Benefit Model

INPUT WORKSHEET 1: GENERAL FUND BUDGET ASSUMPTIONS

Cost-Benefit Analysis for Portland DPW Site

GENERAL FUND BUDGET ASSUMPTIONS

Real Property Tax Rate per $1,000	
General Fund	$10.63
School Department	$13.42
Total City Rate	**$24.05**
Homestead Exemption	
Exemption per Unit	$6,290
Percent of Units Qualifying	75%
Resident/Employee Population	
City of Portland Population	64,249
Persons Employed in City	70,382
Total Residents + Employees	**134,631**

REVENUES/EXPENDITURES	**Total**	**Per Res+ Emp**	**% Affected by New Growth**	**Per Res+Emp Model Assump.**
Revenues				
Property Taxes	$48,341,500	$359.07	0%	$0.00
Excise Taxes and Penalties	9,870,000	73.31	60%	43.99
Licenses and Permits	2,278,566	16.92	120%	20.31
Intergovernmental	7,012,783	52.09	100%	52.09
Charges for Services	18,743,991	139.22	0%	0.00
Fines, Forfeits, Penalties	973,000	7.23	100%	7.23
Uses of Money & Property	4,448,516	33.04	100%	33.04
Other Financing Resources	23,177,045	172.15	0%	0.00
Total Revenues	**$114,845,401**	**$853.04**		**$156.65**
Expenditures				
General Government	$28,334,099	$210.46	75%	$157.84
Public Safety	22,346,960	165.99	80%	132.79
Public Works	9,785,416	72.68	90%	65.41
Parks & Recreation	4,685,080	34.80	80%	27.84
Health & Human Services	16,296,105	121.04	100%	121.04
Library	2,626,397	19.51	100%	19.51
County Tax	3,578,518	26.58	0%	0.00
Metro	2,080,090	15.45	0%	0.00
Long Term Debt	25,112,736	186.53	100%	186.53
Total Expenditures	**$114,845,401**	**$853.04**		**$710.97**

INPUT WORKSHEET 2: SCHOOL FUND BUDGET ASSUMPTIONS

Cost-Benefit Analysis for Portland DPW Site

SCHOOL FUND BUDGET ASSUMPTIONS

Public School Enrollment 7,743

REVENUES/EXPENDITURES

Revenues	**Total**	**Per Student**	**% Affected by New Growth**	**Per Student Model Assump.**
Non-Categorical	$3,639,670	$470.06	75%	$352.54
Adult Education	861,060	111.20	0%	0.00
Food Service	2,079,300	268.54	100%	268.54
State Subsidy-GPA	12,256,569	1,582.92	0%	0.00
State Subsidy-ESL	1,161,000	149.94	0%	0.00
Applied Surplus	0	0.00	0%	0.00
Total Revenues	**$19,997,599**	**$2,582.67**		**$621.08**
Expenditures				
Salaries-Regular	$47,378,323	$6,118.86	20%	$1,223.77
Salaries-Temporary	3,055,121	394.57	20%	78.91
Benefits	9,002,870	1,162.71	20%	232.54
Contractual Services	5,112,256	660.24	50%	330.12
Supplies	4,255,589	549.60	100%	549.60
Other Costs	5,241,623	676.95	50%	338.47
Capital Equipment	282,998	36.55	20%	7.31
Total Expenditures	**$74,328,780**	**$9,599.48**		**$2,760.74**

INPUT WORKSHEET 3: BUILDOUT, REVENUE & BONDING ASSUMPTIONS

Cost-Benefit Analysis for Portland DPW Site

	Scenario 1	Scenario 2	Scenario 3
Name of Scenario	As-of-Right	Breakeven	Mixed-Use
BUILDOUT ASSUMPTIONS			
Residential Buildout Assumptions			
Number of Housing Units	145	464	256
Residential Density per Acre	36	116	80
Average Square Footage per Unit	1,250	1,000	1,100
Persons per Unit	2.2	1.8	2.0
Public School Students per Unit	0.4	0.2	0.3
Off-Street Parking Spaces per Unit	1.5	1.0	1.3
Commercial Buildout Assumptions			
Square Feet Developed			
Office	0	0	75,000
Retail	0	0	10,000
Development Density (FAR)	2.0	2.0	2.0
Square Feet of Space per Employee			
Office	250	250	250
Retail	350	350	350
Parking Spaces per 1,000 SF			
Office	2.5	2.5	2.5
Retail	4.0	4.0	4.0
BASE YEAR PROJECT REVENUE ASSUMPTIONS			
Inflation Rate per Year	3.0%	*same for all scenarios*	
Base Year Land Values per SF			
Residential	$12.00	$20.00	$15.00
Office/Retail	$25.00	$25.00	$25.00
Average Residential Sales Price	$175,000	$140,000	$150,000
Commercial Lease Rates per SF			
Office	$18.00	$18.00	$18.00
Retail	$25.00	$25.00	$25.00
Net Annual Income/Parking Space	$1,200	$1,200	$1,200

BONDING ASSUMPTIONS *(Same for All Scenarios)*	
Capital Costs of Redevelopment	
DPW Relocation Costs	$13,000,000
Site Redevelopment Costs	$3,000,000
Total Capital Costs	**$16,000,000**
Percentage in Equity	10.0%
Percentage Financed	90.0%
Interest Rate	4.0%
Bond Term (years)	20

INPUT WORKSHEET 4: YEAR-BY-YEAR BUILDOUT ASSUMPTIONS

Cost-Benefit Analysis for Portland DPW Site

IF TOTALS ARE RED, PERCENTAGES DO NOT EQUAL 100%

	Scenario 1 As-of-Right	Scenario 2 Breakeven	Scenario 3 Mixed-Use
RESIDENTIAL BUILDOUT BY YEAR			
Year 1	0.0%	0.0%	0.0%
Year 2	20.0%	10.0%	15.0%
Year 3	20.0%	15.0%	20.0%
Year 4	30.0%	15.0%	20.0%
Year 5	30.0%	20.0%	20.0%
Year 6	0.0%	20.0%	25.0%
Year 7	0.0%	20.0%	0.0%
Year 8	0.0%	0.0%	0.0%
Year 9	0.0%	0.0%	0.0%
Year 10	0.0%	0.0%	0.0%
TOTAL	**100.0%**	**100.0%**	**100.0%**
OFFICE BUILDOUT BY YEAR			
Year 1	0.0%	0.0%	0.0%
Year 2	0.0%	0.0%	0.0%
Year 3	33.3%	33.3%	33.3%
Year 4	0.0%	0.0%	0.0%
Year 5	33.3%	33.3%	33.3%
Year 6	0.0%	0.0%	0.0%
Year 7	0.0%	0.0%	0.0%
Year 8	33.3%	33.3%	33.3%
Year 9	0.0%	0.0%	0.0%
Year 10	0.0%	0.0%	0.0%
TOTAL	**100.0%**	**100.0%**	**100.0%**
RETAIL BUILDOUT BY YEAR			
Year 1	0.0%	0.0%	0.0%
Year 2	0.0%	0.0%	0.0%
Year 3	50.0%	50.0%	50.0%
Year 4	0.0%	0.0%	0.0%
Year 5	50.0%	50.0%	50.0%
Year 6	0.0%	0.0%	0.0%
Year 7	0.0%	0.0%	0.0%
Year 8	0.0%	0.0%	0.0%
Year 9	0.0%	0.0%	0.0%
Year 10	0.0%	0.0%	0.0%
TOTAL	**100.0%**	**100.0%**	**100.0%**

TABLE 23
TAX RATES PER $1,000 IN ASSESSED VALUATION
FISCAL YEARS 2002 AND 2003
Cost-Benefit Analysis for Portland DPW Site

		CITY OF PORTLAND			OTHER TAXING JURISDICTIONS				
	TOTAL TAX RATE	General Fund	School Dept	TOTAL	Enterprise Funds	County	Metro	Regional Waste Systems	TOTAL
FY 03	$ 25.72	$ 10.63	$ 13.42	$ 24.05	$ (0.13)	$ 0.88	$ 0.51	$ 0.41	$ 1.67
FY 02	24.33	9.75	12.86	22.61	0.02	0.75	0.54	0.41	1.72
Increase	$ 1.39	$ 0.88	$ 0.56	$ 1.44	$ (0.15)	$ 0.13	$ (0.03)	$ -	$ (0.05)
% Increase	5.7%	9.0%	4.4%	6.4%	-750.0%	17.3%	-5.6%	0.0%	-2.9%

SOURCE: CITY OF PORTLAND MUNICIPAL BUDGET, JULY 1, 2002-JUNE 30, 2003; ECONOMICS RESEARCH ASSOCIATES, MARCH 2003.

TABLE 24
COMPARATIVE TAX LEVY BY BUDGET CATEGORY
Cost-Benefit Analysis for Portland DPW Site

	TAX LEVY				FY 02 SUMMARY		FY 03 SUMMARY	
	FY 02	FY 03	$ CHANGE	% CHANGE	Tax Rate	% of Taxes	Tax Rate	% of Taxes
Education	$ 51,314,378	$ 54,331,181	$3,016,803	5.9%	$ 12.86	52.9%	$ 13.42	52.2%
Public Safety	14,623,495	16,557,002	1,933,507	13.2%	3.67	15.1%	4.09	15.9%
Debt	10,938,685	9,835,296	(1,103,389)	-10.1%	2.74	11.3%	2.43	9.4%
Public Works	5,352,615	5,341,705	(10,910)	-0.2%	1.34	5.5%	1.32	5.1%
Gen. Government	3,808,863	4,551,353	742,490	19.5%	0.95	3.9%	1.12	4.4%
County Tax	2,990,980	3,578,518	587,538	19.6%	0.75	3.1%	0.88	3.4%
Library	2,974,193	3,222,293	248,100	8.3%	0.75	3.1%	0.80	3.1%
Metro	2,065,659	2,080,090	14,431	0.7%	0.52	2.1%	0.51	2.0%
Regional Waste Systems	1,641,504	1,643,840	2,336	0.1%	0.41	1.7%	0.41	1.6%
Parks & Recreation	2,702,691	2,939,218	236,527	8.8%	0.68	2.8%	0.73	2.8%
Health & Human Services	(1,484,146)	601,642	2,085,788	N/A	(0.37)	-1.5%	0.15	0.6%
Enterprise Funds	65,939	(533,130)	(599,069)	-908.5%	0.02	0.1%	(0.13)	-0.5%
TOTAL:	**$ 96,994,856**	**$104,149,008**	**$7,154,152**	**7.4%**	**$ 24.31**	**100.0%**	**$ 25.72**	**100.0%**

SOURCE: CITY OF PORTLAND MUNICIPAL BUDGET, JULY 1, 2002-JUNE 30, 2003; ECONOMICS RESEARCH ASSOCIATES, MARCH 2003.

TABLE 25
GENERAL FUND BUDGET SUMMARY, FISCAL YEAR 2003
Cost-Benefit Analysis for Portland DPW Site

City of Portland Population	64,249
Persons Employed in City	70,382
Total Population & Employment:	**134,631**

	FY2003 BUDGET		BUDGET AMOUNT PER RESIDENT AND EMPLOYEE
	Estimated Revenues	Percent of Total	
REVENUES			
Property Taxes			
Real Property Assessment	$ 104,149,008		
Less: TIF Refunds	(1,476,327)		
Less: School Tax Allocation	(54,331,181)		
Subtotal:	**$ 48,341,500**	42.1%	$ 359.07
Excise Taxes and Penalties	9,870,000	8.6%	73.31
Licenses and Permits	2,278,566	2.0%	16.92
Intergovernmental	7,012,783	6.1%	52.09
Charges for Services	18,743,991	16.3%	139.22
Fines, Forfeits, Penalties	973,000	0.8%	7.23
Uses of Money & Property	4,448,516	3.9%	33.04
Other Financing Resources	23,177,045	20.2%	172.15
TOTAL REVENUES:	**$ 114,845,401**	**100.0%**	**$ 853.04**
Excluding Property Taxes:	**$ 66,503,901**		**$ 493.97**
EXPENDITURES			
General Government	$ 28,334,099	24.7%	$ 210.46
Public Safety	22,346,960	19.5%	165.99
Public Works	9,785,416	8.5%	72.68
Parks & Recreation	4,685,080	4.1%	34.80
Health & Human Services	16,296,105	14.2%	121.04
Library	2,626,397	2.3%	19.51
County Tax	3,578,518	3.1%	26.58
Metro	2,080,090	1.8%	15.45
Long Term Debt	25,112,736	21.9%	186.53
TOTAL EXPENDITURES:	**$ 114,845,401**	**100.0%**	**$ 853.04**

SOURCE: CITY OF PORTLAND MUNICIPAL BUDGET, JULY 1, 2002-JUNE 30, 2003; ECONOMICS RESEARCH ASSOCIATES, MARCH 2003.

TABLE 26
GENERAL FUND REVENUE TRENDS, FISCAL YEARS 2001-2003
Cost-Benefit Analysis for Portland DPW Site

	BUDGET TOTALS BY YEAR			
	ACTUAL FY2001	PROJECTED FY2002	ESTIMATED FY2003	ANNUAL % CHANGE
REVENUES				
Property Taxes				
Real Property Assessment	$ 88,325,332	$ 94,640,175	$ 104,149,008	8.6%
Less: TIF Refunds	(1,652,023)	(1,401,094)	(1,476,327)	-5.5%
Less: School Tax Allocation	(47,228,325)	(51,000,000)	(54,331,181)	7.3%
Subtotal:	**$ 39,444,984**	**$ 42,239,081**	**$ 48,341,500**	**10.7%**
Excise Taxes and Penalties	11,243,068	11,336,250	9,870,000	-6.3%
Licenses and Permits	2,347,930	2,425,387	2,278,566	-1.5%
Intergovernmental	9,717,719	8,999,516	7,012,783	-15.1%
Charges for Services	15,538,804	16,816,311	18,743,991	9.8%
Fines, Forfeits, Penalties	888,648	1,005,713	973,000	4.6%
Uses of Money & Property	5,268,332	5,176,078	4,448,516	-8.1%
Other Financing Resources	21,761,051	22,549,452	23,177,045	3.2%
TOTAL REVENUES:	**$ 106,210,536**	**$ 110,547,788**	**$ 114,845,401**	**4.0%**
Excluding Property Taxes:	**66,765,552**	**68,308,707**	**66,503,901**	**-0.2%**

SOURCE: CITY OF PORTLAND MUNICIPAL BUDGET, JULY 1, 2002-JUNE 30, 2003; ECONOMICS RESEARCH ASSOCIATES, MARCH 2003.

TABLE 27
SCHOOL DEPARTMENT BUDGET SUMMARY, FISCAL YEAR 2003
Cost-Benefit Analysis for Portland DPW Site

City of Portland Population	64,249
Persons Employed in City	70,382
Total Population & Employment:	**134,631**
Total Public School Enrollment:	**7,743**

	FY 03 BUDGET		BUDGET AMOUNT PER PUBLIC SCHOOL STUDENT
	Budget Estimates	% of Total	
REVENUES			
Non-Categorical	$ 3,639,670	18.2%	$ 470.06
Adult Education	861,060	4.3%	111.20
Food Service	2,079,300	10.4%	268.54
State Subsidy-GPA	12,256,569	61.3%	1,582.92
State Subsidy-ESL	1,161,000	5.8%	149.94
Applied Surplus	-	0.0%	-
TOTAL REVENUES:	**$ 19,997,599**	**100.0%**	**$ 2,582.67**
EXPENDITURES			
Salaries-Regular	$ 47,378,323	63.7%	$ 6,118.86
Salaries-Temporary	3,055,121	4.1%	394.57
Benefits	9,002,870	12.1%	1,162.71
Contractual Services	5,112,256	6.9%	660.24
Supplies	4,255,589	5.7%	549.60
Other Costs	5,241,623	7.1%	676.95
Capital Equipment	282,998	0.4%	36.55
TOTAL EXPENDITURES:	**$ 74,328,780**	**100.0%**	**$ 9,599.48**
SUMMARY			
Total Revenues	$ 19,997,599		$ 2,582.67
Total Expenditures	74,328,780		9,599.48
Difference:	**$ (54,331,181)**		**$ (7,016.81)**
Property Tax Levy:	**$ 54,331,181**		**$ 7,016.81**
NET BUDGET DEFICIT:	**$ -**		**$ -**

SOURCE: CITY OF PORTLAND MUNICIPAL BUDGET, JULY 1, 2002-JUNE 30, 2003; MAINE DEPARTMENT OF EDUCATION; ECONOMICS RESEARCH ASSOCIATES, MARCH 2003.

TABLE 28
UNIT REVENUE AND COST ASSUMPTIONS BY CATEGORY
Cost-Benefit Analysis for Portland DPW Site

CATEGORY	Budget Amount per Resident/ Employee or Public School Student	% Calculated on Per Cap Basis from New Growth	Cost-Benefit Assumptions per Resident/ Employee or Public School Student
REVENUES			
General Fund			
Property Taxes	$ 359.07	0%	$ -
Excise Taxes and Penalties	73.31	60%	43.99
Licenses and Permits	16.92	120%	20.31
Intergovernmental	52.09	100%	52.09
Charges for Services	139.22	0%	-
Fines, Forfeits, Penalties	7.23	100%	7.23
Uses of Money & Property	33.04	100%	33.04
Other Financing Resources	172.15	0%	-
TOTAL:	**$ 853.04**		**$ 156.65**
School Fund			
Non-Categorical	$ 470.06	75%	$ 352.54
Adult Education	111.20	0%	-
Food Service	268.54	100%	268.54
State Subsidy-GPA	1,582.92	0%	-
State Subsidy-ESL	149.94	0%	-
Applied Surplus	-	0%	-
TOTAL:	**$ 2,582.67**		**$ 621.08**
EXPENDITURES			
General Fund			
General Government	$ 210.46	75%	$ 157.84
Public Safety	165.99	80%	132.79
Public Works	72.68	90%	65.41
Parks & Recreation	34.80	80%	27.84
Health & Human Services	121.04	100%	121.04
Library	19.51	100%	19.51
County Tax	26.58	0%	-
Metro	15.45	0%	-
Long Term Debt	186.53	100%	186.53
TOTAL:	**$ 853.04**		**$ 710.97**
School Fund			
Salaries-Regular	$ 6,118.86	20%	$ 1,223.77
Salaries-Temporary	394.57	20%	78.91
Benefits	1,162.71	20%	232.54
Contractual Services	660.24	50%	330.12
Supplies	549.60	100%	549.60
Other Costs	676.95	50%	338.47
Capital Equipment	36.55	20%	7.31
TOTAL:	**$ 9,599.48**		**$ 2,760.74**

SOURCE: CITY OF PORTLAND MUNICIPAL BUDGET, JULY 1, 2002-JUNE 30, 2003; ECONOMICS RESEARCH ASSOCIATES, MARCH 2003.

TABLE 29
PROJECT ASSUMPTIONS AT BUILDOUT
Cost-Benefit Analysis for Portland DPW Site

	DEVELOPMENT SCENARIOS		
	As-of-Right	Break-even	Mixed-Use
HOUSING DEVELOPMENT			
Number of Units	145	464	256
Square Feet per Unit	1,250	1,000	1,100
Average Residents per Unit	2.20	1.80	2.00
Average Public School Students per Unit	0.40	0.20	0.30
Off-Street Parking Spaces per Unit	1.50	1.00	1.25
Summary Data:			
Total Sq. Ft.	181,250	464,000	281,600
Total Residents	319	835	512
Total Public School Students	58	93	77
Total Parking Spaces	218	464	320
OFFICE DEVELOPMENT			
Square Footage Developed	-	-	75,000
Square Feet per Employee	250	250	250
Off-Street Parking Spaces per 1,000 SF	2.5	2.5	2.5
Summary Data:			
Total Sq. Ft.	-	-	75,000
Total Employees	-	-	300
Total Parking Spaces	-	-	188
RETAIL DEVELOPMENT			
Sq. Ft. Developed	-	-	10,000
Sq. Ft. per Employee	350	350	350
Off-Street Parking Spaces per 1,000 SF	4.0	4.0	4.0
Summary Data:			
Total Sq. Ft.	-	-	10,000
Total Employees	-	-	29
Total Parking Spaces	-	-	40
PROJECT SUMMARY			
Total Built Sq. Ft.	181,250	464,000	366,600
Total Residents	319	835	512
Total Public School Students	58	93	77
Total Employees	-	-	329
Total Parking Spaces	218	464	548

SOURCE: ECONOMICS RESEARCH ASSOCIATES, MARCH 2003.

TABLE 30
YEAR-BY-YEAR DEVELOPMENT STATISTICS BY SCENARIO
Cost-Benefit Analysis for Portland DPW Site

	YEAR									
	1	2	3	4	5	6	7	8	9	10
AS-OF-RIGHT SCENARIO										
New Residential Units Built	-	29	29	44	44	-	-	-	-	-
Total Residential Units Built	-	29	58	102	145	145	145	145	145	145
Res. Parking Spaces Built	-	44	87	153	218	218	218	218	218	218
Residents	-	64	128	224	319	319	319	319	319	319
Public School Students	-	12	23	41	58	58	58	58	58	58
BREAK-EVEN SCENARIO										
New Residential Units Built	-	46	70	70	93	93	93	-	-	-
Total Residential Units Built	-	46	116	186	279	372	464	464	464	464
Res. Parking Spaces Built	-	46	116	186	279	372	464	464	464	464
Residents	-	83	209	335	502	670	835	835	835	835
Public School Students	-	9	23	37	56	74	93	93	93	93
MIXED-USE SCENARIO										
New Residential Units Built	-	38	51	51	51	64	-	-	-	-
Total Residential Units Built	-	38	89	140	191	255	255	255	255	255
New Office Sq. Ft. Built	-	-	25,000	-	25,000	-	-	25,000	-	-
Total Office Sq. Ft. Built	-	-	25,000	25,000	50,000	50,000	50,000	75,000	75,000	75,000
New Retail Sq. Ft. Built	-	-	5,000	-	5,000	-	-	-	-	-
Retail Sq. Ft. Built	-	-	5,000	5,000	10,000	10,000	10,000	10,000	10,000	10,000
Res'l Parking Spaces Built	-	48	111	175	239	319	319	319	319	319
Comm'l Parking Spaces Built	-	-	83	83	165	165	165	228	228	228
Residents	-	76	178	280	382	510	510	510	510	510
Public School Students	-	11	27	42	57	77	77	77	77	77
Employees	-	-	114	114	229	229	229	329	329	329

SOURCE: ECONOMICS RESEARCH ASSOCIATES, MARCH 2003.

TABLE 31
LAND SALE REVENUE ASSUMPTIONS
Cost-Benefit Analysis for Portland DPW Site

Annual Inflation @	3.0%	1.00	1.03	1.06	1.09	1.13	1.16	1.19	1.23	1.27	1.30
	Base Year Values	YEAR									
		1	2	3	4	5	6	7	8	9	10
LAND SALE PRICES PER SQ. FT.											
As-of Right Scenario											
Residential Land	**$ 12.00**	$ 12.00	$ 12.36	$ 12.73	$ 13.11	$ 13.51	$ 13.91	$ 14.33	$ 14.76	$ 15.20	$ 15.66
Break-Even Scenario											
Residential Land	**$ 20.00**	20.00	20.60	21.22	21.85	22.51	23.19	23.88	24.60	25.34	26.10
Mixed-Use Scenario											
Residential Land	**$ 15.00**	15.00	15.45	15.91	16.39	16.88	17.39	17.91	18.45	19.00	19.57
Office/Retail Land	**$ 25.00**	25.00	25.75	26.52	27.32	28.14	28.98	29.85	30.75	31.67	32.62
AS-OF-RIGHT SCENARIO											
Residential Units Added by Year		-	29	29	44	44	-	-	-	-	-
Density (Units per Acre)		36	36	36	36	36	36	36	36	36	36
Sq. Ft. of Land Sold by Year		-	35,090	35,090	53,240	53,240	-	-	-	-	-
TOTAL-Land Sale Revenues ($000s):		**$ -**	**$ 433.7**	**$ 446.7**	**$ 698.1**	**$ 719.1**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
BREAK-EVEN SCENARIO											
Residential Units Added by Year		-	46	70	70	93	93	93	-	-	-
Density (Units per Acre)		116	116	116	116	116	116	116	116	116	116
Sq. Ft. of Land Sold by Year		-	17,274	26,286	26,286	34,923	34,923	34,923	-	-	-
TOTAL-Land Sale Revenues ($000s):		**$ -**	**$ 355.8**	**$ 557.7**	**$ 574.5**	**$ 786.1**	**$ 809.7**	**$ 834.0**	**$ -**	**$ -**	**$ -**
MIXED-USE SCENARIO											
Residential Sales											
Units Added by Year		-	38	51	51	51	64	-	-	-	-
Density (Units per Acre)		80	80	80	80	80	80	80	80	80	80
Sq. Ft. of Land Sold by Year		-	20,691	27,770	27,770	27,770	34,848	-	-	-	-
Subtotal ($000s):		**$ -**	**$ 319.7**	**$ 441.9**	**$ 455.2**	**$ 468.8**	**$ 606.0**	**$ -**	**$ -**	**$ -**	**$ -**
Commercial Sales											
Sq. Ft. of Space Added by Year		-	-	30,000	-	30,000	-	-	25,000	-	-
Density (FAR)		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Sq. Ft. of Land Sold by Year		-	-	15,000	-	15,000	-	-	12,500	-	-
Subtotal ($000s):		**$ -**	**$ -**	**$ 397.8**	**$ -**	**$ 422.1**	**$ -**	**$ -**	**$ 384.3**	**$ -**	**$ -**
TOTAL-Land Sale Revenues ($000s):		**$ -**	**$ 319.7**	**$ 839.7**	**$ 455.2**	**$ 890.9**	**$ 606.0**	**$ -**	**$ 384.3**	**$ -**	**$ -**

SOURCE: ECONOMICS RESEARCH ASSOCIATES, MARCH 2003.

TABLE 32
PROJECT REVENUE ASSUMPTIONS BY YEAR
Cost-Benefit Analysis for Portland DPW Site

Annual Inflation @	3.0%	1.00	1.03	1.06	1.09	1.13	1.16	1.19	1.23	1.27	1.30
	Base Year Values	YEAR									
		1	2	3	4	5	6	7	8	9	10
AS-OF-RIGHT SCENARIO											
Res'l Unit Prices	**$ 175,000**	$175,000	$180,300	$185,700	$191,200	$197,000	$202,900	$209,000	$215,200	$221,700	$228,300
BREAK-EVEN SCENARIO											
Res'l Unit Prices	**$ 140,000**	$140,000	$144,200	$148,500	$153,000	$157,600	$162,300	$167,200	$172,200	$177,300	$182,700
MIXED-USE SCENARIO											
Res'l Unit Prices	**$ 150,000**	$150,000	$154,500	$159,100	$163,900	$168,800	$173,900	$179,100	$184,500	$190,000	$195,700
Net Office Rent/SF	**$ 18.00**	$ 18.00	$ 18.50	$ 19.10	$ 19.70	$ 20.30	$ 20.90	$ 21.50	$ 22.10	$ 22.80	$ 23.50
Net Retail Rent/SF	**$ 25.00**	$ 25.00	$ 25.80	$ 26.50	$ 27.30	$ 28.10	$ 29.00	$ 29.90	$ 30.70	$ 31.70	$ 32.60
Net Income Per Comm'l Parking Space	**$ 1,200**	$ 1,200	$ 1,240	$ 1,270	$ 1,310	$ 1,350	$ 1,390	$ 1,430	$ 1,480	$ 1,520	$ 1,570

SOURCE: ECONOMICS RESEARCH ASSOCIATES, MARCH 2003.

TABLE 33
TOTAL PROJECT VALUE BY YEAR ($000s)
Cost-Benefit Analysis for Portland DPW Site

	YEAR									
	1	2	3	4	5	6	7	8	9	10
AS-OF-RIGHT SCENARIO										
Cumulative Residential Units Built	-	29	58	102	145	145	145	145	145	145
Average Value of Residential Units	$175,000	$180,300	$185,700	$191,200	$197,000	$202,900	$209,000	$215,200	$221,700	$228,300
Cumulative Value by Year:	**$ -**	**$ 5,229**	**$ 10,771**	**$ 19,502**	**$ 28,565**	**$ 29,421**	**$ 30,305**	**$ 31,204**	**$ 32,147**	**$ 33,104**
BREAK-EVEN SCENARIO										
Cumulative Residential Units Built	-	46	116	186	279	372	464	464	464	464
Average Value of Residential Units	$140,000	$144,200	$148,500	$153,000	$157,600	$162,300	$167,200	$172,200	$177,300	$182,700
Cumulative Value by Year:	**$ -**	**$ 6,633**	**$ 17,226**	**$ 28,458**	**$ 43,970**	**$ 60,376**	**$ 77,581**	**$ 79,901**	**$ 82,267**	**$ 84,773**
MIXED-USE SCENARIO										
Annual Income By Use										
Cumulative Residential Units Built	-	38	89	140	191	255	255	255	255	255
Average Value of Residential Units	$150,000	$154,500	$159,100	$163,900	$168,800	$173,900	$179,100	$184,500	$190,000	$195,700
Cumulative Residential Value	-	5,871	14,160	22,946	32,241	44,345	45,671	47,048	48,450	49,904
Office Rent	-	-	454	468	964	993	1,021	1,575	1,625	1,674
Retail Rent	-	-	126	130	267	276	284	292	301	310
Parking Revenues	-	-	105	109	223	229	236	337	347	358
Project Value By Use *(1)*										
Residential	$ -	$ 5,871	$ 14,160	$ 22,946	$ 32,241	$ 44,345	$ 45,671	$ 47,048	$ 48,450	$ 49,904
Office	-	-	4,536	4,679	9,643	9,928	10,213	15,746	16,245	16,744
Retail	-	-	1,259	1,297	2,670	2,755	2,841	2,917	3,012	3,097
Parking	-	-	1,054	1,087	2,228	2,294	2,360	3,374	3,466	3,580
Cumulative Value by Year:	**$ -**	**$ 5,871**	**$ 21,009**	**$ 30,009**	**$ 46,780**	**$ 59,321**	**$ 61,083**	**$ 69,085**	**$ 71,172**	**$ 73,324**

(1) Value of office, retail, and parking is determined by capitalizing annual income at 10%. Residential value is based on the cumulative value of land sales, inflated by 3.0% annually.

SOURCE: ECONOMICS RESEARCH ASSOCIATES, MARCH 2003.

TABLE 34
SUMMARY OF PROPERTY TAX REVENUE GENERATION ($000s)
Cost-Benefit Analysis for Portland DPW Site

City Property Tax Rate:	**$ 24.05**	*per $1,000 of Assessed Valuation*
Homestead Exemption:	**$ 6,290**	*per unit*

	YEAR									
	1	2	3	4	5	6	7	8	9	10
AS-OF-RIGHT SCENARIO										
Total Property Valuation	$ -	$ 5,229	$ 10,771	$ 19,502	$ 28,565	$ 29,421	$ 30,305	$ 31,204	$ 32,147	$ 33,104
Less Homestead Exemption	-	-	137	274	481	684	684	684	684	684
Net Property Valuation	-	5,229	10,634	19,229	28,084	28,736	29,621	30,520	31,462	32,419
Property Tax Revenues:	**$ -**	**$ 125.8**	**$ 255.7**	**$ 462.5**	**$ 675.4**	**$ 691.1**	**$ 712.4**	**$ 734.0**	**$ 756.7**	**$ 779.7**
BREAK-EVEN SCENARIO										
Total Property Valuation	$ -	$ 6,633	$ 17,226	$ 28,458	$ 43,970	$ 60,376	$ 77,581	$ 79,901	$ 82,267	$ 84,773
Less Homestead Exemption	-	-	217	547	877	1,316	1,755	2,189	2,189	2,189
Net Property Valuation	-	6,633	17,009	27,911	43,093	59,059	75,826	77,712	80,078	82,584
Property Tax Revenues:	**$ -**	**$ 159.5**	**$ 409.1**	**$ 671.3**	**$ 1,036.4**	**$ 1,420.4**	**$ 1,823.6**	**$ 1,869.0**	**$ 1,925.9**	**$ 1,986.1**
MIXED-USE SCENARIO										
Total Property Valuation	$ -	$ 5,871	$ 21,009	$ 30,009	$ 46,780	$ 59,321	$ 61,083	$ 69,085	$ 71,172	$ 73,324
Less Homestead Exemption	-	-	179	420	660	901	1,203	1,203	1,203	1,203
Net Property Valuation	-	5,871	20,830	29,589	46,120	58,419	59,880	67,882	69,969	72,121
Property Tax Revenues:	**$ -**	**$ 141.2**	**$ 501.0**	**$ 711.6**	**$ 1,109.2**	**$ 1,405.0**	**$ 1,440.1**	**$ 1,632.6**	**$ 1,682.8**	**$ 1,734.5**

Notes on Homestead Exemption:

Percentage of Residents Qualifying for Exemption i: 75%

Effects of homestead exemption are delayed by one year, as residents must live on-site for 12 months to qualify.

SOURCE: ECONOMICS RESEARCH ASSOCIATES, MARCH 2003.

TABLE 35
UNIT REVENUES AND EXPENDITURES BY SCENARIOS ($000s)
Cost-Benefit Analysis for Portland DPW Site

	UNIT VALUES	YEAR 1	2	3	4	5	6	7	8	9	10
AS-OF-RIGHT SCENARIO											
Residents & Employees		-	64	128	224	319	319	319	319	319	319
Public School Students		-	12	23	41	58	58	58	58	58	58
Unit Revenues											
General Fund	$ 156.65	$ -	$ 10	$ 20	$ 35	$ 50	$ 50	$ 50	$ 50	$ 50	$ 50
School Fund	$ 621.08	-	7	14	25	36	36	36	36	36	36
Subtotal:		**$ -**	**$ 17.5**	**$ 34.3**	**$ 60.6**	**$ 86.0**	**$ 86.0**	**$ 86.0**	**$ 86.0**	**$ 86.0**	**$ 86.0**
Unit Expenditures											
General Fund	$ 710.97	$ -	$ 46	$ 91	$ 159	$ 227	$ 227	$ 227	$ 227	$ 227	$ 227
School Fund	$ 2,760.74	-	33	63	113	160	160	160	160	160	160
Subtotal:		**$ -**	**$ 78.6**	**$ 154.5**	**$ 272.4**	**$ 386.9**	**$ 386.9**	**$ 386.9**	**$ 386.9**	**$ 386.9**	**$ 386.9**
BREAK-EVEN SCENARIO											
Residents & Employees		-	83	209	335	502	670	835	835	835	835
Public School Students		-	9	23	37	56	74	93	93	93	93
Unit Revenues											
General Fund	$ 156.65	$ -	$ 13	$ 33	$ 52	$ 79	$ 105	$ 131	$ 131	$ 131	$ 131
School Fund	$ 621.08	-	6	14	23	35	46	58	58	58	58
Subtotal:		**$ -**	**$ 18.6**	**$ 47.0**	**$ 75.5**	**$ 113.4**	**$ 150.9**	**$ 188.6**	**$ 188.6**	**$ 188.6**	**$ 188.6**
Unit Expenditures											
General Fund	$ 710.97	$ -	$ 59	$ 149	$ 238	$ 357	$ 476	$ 594	$ 594	$ 594	$ 594
School Fund	$ 2,760.74	-	25	63	102	155	204	257	257	257	257
Subtotal:		**$ -**	**$ 83.9**	**$ 212.1**	**$ 340.3**	**$ 511.5**	**$ 680.6**	**$ 850.4**	**$ 850.4**	**$ 850.4**	**$ 850.4**
MIXED-USE SCENARIO											
Residents & Employees		-	76	292	394	611	739	739	839	839	839
Public School Students		-	11	27	42	57	77	77	77	77	77
Unit Revenues											
General Fund	$ 156.65	$ -	$ 12	$ 46	$ 62	$ 96	$ 116	$ 116	$ 131	$ 131	$ 131
School Fund	$ 621.08	-	7	17	26	35	48	48	48	48	48
Subtotal:		**$ -**	**$ 18.7**	**$ 62.5**	**$ 87.8**	**$ 131.1**	**$ 163.6**	**$ 163.6**	**$ 179.3**	**$ 179.3**	**$ 179.3**
Unit Expenditures											
General Fund	$ 710.97	$ -	$ 54	$ 208	$ 280	$ 434	$ 525	$ 525	$ 597	$ 597	$ 597
School Fund	$ 2,760.74	-	30	75	116	157	213	213	213	213	213
Subtotal:		**$ -**	**$ 84.4**	**$ 282.1**	**$ 396.1**	**$ 591.8**	**$ 738.0**	**$ 738.0**	**$ 809.1**	**$ 809.1**	**$ 809.1**

NOTE: Property tax revenues are not included on this table, as they are calculated directly from the value of the project itself. These revenues are illustrated on the Cost-Benefit Summary for each scenario (Tables 14-16).

SOURCE: ECONOMICS RESEARCH ASSOCIATES, MARCH 2003.

TABLE 36
DEBT FINANCING OF SITE REDEVELOPMENT COSTS ($000)
Cost-Benefit Analysis for Portland DPW Site

FINANCING ASSUMPTIONS		
Total Capital Costs of Redevelopment		
DPW Relocation Costs		$13,000,000
Site Redevelopment Costs		$3,000,000
Subtotal		$16,000,000
Equity Payment @	10%	$1,600,000
Financed Capital Costs		**$14,400,000**
Interest Rate for Bond		**4.0%**
Years of Bond Repayment		**20**

	YEAR										
	1	2	3	4	5	6	7	8	9	10	Ongoing
Bond Principal Remaining	$14,400	$13,916	$13,414	$12,890	$12,347	$11,781	$11,192	$10,581	$ 9,944	$ 9,282	
Equity Payment	$ (1,600)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Annual Principal Payment	(484)	(503)	(523)	(544)	(566)	(588)	(612)	(636)	(662)	(688)	
Annual Interest Payment	(576)	(557)	(537)	(516)	(494)	(471)	(448)	(423)	(398)	(371)	
Total Annual Bond Payment:	**$ (2,660)**	**$ (1,060)**	**$ (1,060)**	**$ (1,060)**	**$ (1,060)**	**$ (1,060)**	**$ (1,060)**	**$ (1,060)**	**$ (1,060)**	**$ (1,060)**	**$ (1,060)**

SOURCE: ECONOMICS RESEARCH ASSOCIATES, MARCH 2003.

TABLE 37
COST-BENEFIT SUMMARY
AS-OF-RIGHT SCENARIO
Cost-Benefit Analysis for Portland DPW Site

	YEAR										
	1	2	3	4	5	6	7	8	9	10	Ongoing
REVENUES GENERATED FOR CITY OF PORTLAND ($000s)											
Land Sale Revenue	$ -	$ 434	$ 447	$ 698	$ 719	$ -	$ -	$ -	$ -	$ -	$ -
Property Taxes	-	126	256	462	675	691	712	734	757	780	819
Other General Fund Rev.	-	10	20	35	50	50	50	50	50	50	52
Other School Fund Rev.	-	7	14	25	36	36	36	36	36	36	37
TOTAL REVENUES:	**$ -**	**$ 576.9**	**$ 736.8**	**$ 1,221.1**	**$ 1,480.5**	**$ 777.1**	**$ 798.4**	**$ 820.0**	**$ 842.7**	**$ 865.7**	**$ 908.1**
CITY OF PORTLAND EXPENDITURES ($000s)											
Bond Payment for Redev. Costs	$ 2,660	$ 1,060	$ 1,060	$ 1,060	$ 1,060	$ 1,060	$ 1,060	$ 1,060	$ 1,060	$ 1,060	$ 1,060
General Fund Expenditures	-	46	91	159	227	227	227	227	227	227	236
School Fund Expenditures	-	33	63	113	160	160	160	160	160	160	167
TOTAL EXPENDITURES:	**$ 2,659.6**	**$ 1,138.2**	**$ 1,214.1**	**$ 1,332.0**	**$ 1,446.5**	**$ 1,446.5**	**$ 1,446.5**	**$ 1,446.5**	**$ 1,446.5**	**$ 1,446.5**	**$ 1,462.0**
SUMMARY OF COSTS AND BENEFITS											
Total Revenues	$ -	$ 577	$ 737	$ 1,221	$ 1,480	$ 777	$ 798	$ 820	$ 843	$ 866	$ 908
Total Expenditures	2,660	1,138	1,214	1,332	1,446	1,446	1,446	1,446	1,446	1,446	1,462
NET ANNUAL COST/BENEFIT:	**$ (2,659.6)**	**$ (561.3)**	**$ (477.3)**	**$ (110.9)**	**$ 34.0**	**$ (669.4)**	**$ (648.1)**	**$ (626.5)**	**$ (603.8)**	**$ (580.8)**	**$ (553.9)**

Benefit-Cost Ratio:	*Discount Rate: 10%*
Net Present Value of Benefits	**$4,705.7**
Net Present Value of Costs	**$9,483.3**
Total NPV	**($4,777.6)**
Benefit-Cost Ratio:	**0.50**

NOTE:
Ongoing property tax revenues are inflated by 5% over Year 10 totals.
Other ongoing revenues and expenditures are inflated by 4% over Year 10 totals.

SOURCE: ECONOMICS RESEARCH ASSOCIATES, MARCH 2003.

TABLE 38
COST-BENEFIT SUMMARY
BREAK-EVEN SCENARIO
Cost-Benefit Analysis for Portland DPW Site

	YEAR										
	1	2	3	4	5	6	7	8	9	10	Ongoing
REVENUES GENERATED FOR CITY OF PORTLAND ($000s)											
Land Sale Revenue	$ -	$ 434	$ 447	$ 698	$ 719	$ -	$ -	$ -	$ -	$ -	$ -
Property Taxes	-	160	409	671	1,036	1,420	1,824	1,869	1,926	1,986	2,085
Other General Fund Rev.	-	13	33	52	79	105	131	131	131	131	136
Other School Fund Rev.	-	6	14	23	35	46	58	58	58	58	60
TOTAL REVENUES:	**$ -**	**$ 611.8**	**$ 902.8**	**$ 1,444.8**	**$ 1,868.9**	**$ 1,571.3**	**$ 2,012.2**	**$ 2,057.5**	**$ 2,114.5**	**$ 2,174.7**	**$ 2,281.6**
CITY OF PORTLAND EXPENDITURES ($000s)											
Bond Payment for Redev. Costs	$ 2,660	$ 1,060	$ 1,060	$ 1,060	$ 1,060	$ 1,060	$ 1,060	$ 1,060	$ 1,060	$ 1,060	$ 1,060
General Fund Expenditures	-	59	149	238	357	476	594	594	594	594	617
School Fund Expenditures	-	25	63	102	155	204	257	257	257	257	267
TOTAL EXPENDITURES:	**$ 2,659.6**	**$ 1,143.4**	**$ 1,271.7**	**$ 1,399.9**	**$ 1,571.1**	**$ 1,740.2**	**$ 1,910.0**	**$ 1,910.0**	**$ 1,910.0**	**$ 1,910.0**	**$ 1,944.0**
SUMMARY OF COSTS AND BENEFITS											
Total Revenues	$ -	$ 612	$ 903	$ 1,445	$ 1,869	$ 1,571	$ 2,012	$ 2,058	$ 2,114	$ 2,175	$ 2,282
Total Expenditures	2,660	1,143	1,272	1,400	1,571	1,740	1,910	1,910	1,910	1,910	1,944
NET ANNUAL COST/BENEFIT:	**$ (2,659.6)**	**$ (531.6)**	**$ (368.9)**	**$ 44.9**	**$ 297.8**	**$ (168.9)**	**$ 102.2**	**$ 147.6**	**$ 204.5**	**$ 264.7**	**$ 337.6**

Benefit-Cost Ratio:	*Discount Rate: 10%*
Net Present Value of Benefits	**$7,945.8**
Net Present Value of Costs	**$10,649.7**
Total NPV	**($2,704.0)**
Benefit-Cost Ratio:	**0.75**

NOTE:
Ongoing property tax revenues are inflated by 5% over Year 10 totals.
Other ongoing revenues and expenditures are inflated by 4% over Year 10 totals.

SOURCE: ECONOMICS RESEARCH ASSOCIATES, MARCH 2003.

TABLE 39
COST-BENEFIT SUMMARY
MIXED-USE SCENARIO
Cost-Benefit Analysis for Portland DPW Site

	YEAR										
	1	2	3	4	5	6	7	8	9	10	Ongoing
REVENUES GENERATED FOR CITY OF PORTLAND ($000s)											
Land Sale Revenue	$ -	$ 356	$ 558	$ 574	$ 786	$ 810	$ 834	$ -	$ -	$ -	$ -
Property Taxes	-	141	501	712	1,109	1,405	1,440	1,633	1,683	1,735	1,821
Other General Fund Rev.	-	12	46	62	96	116	116	131	131	131	137
Other School Fund Rev.	-	7	17	26	35	48	48	48	48	48	50
TOTAL REVENUES:	**$ -**	**$ 515.8**	**$ 1,121.2**	**$ 1,373.9**	**$ 2,026.4**	**$ 2,378.3**	**$ 2,437.7**	**$ 1,811.8**	**$ 1,862.0**	**$ 1,913.8**	**$ 2,007.7**
CITY OF PORTLAND EXPENDITURES ($000s)											
Bond Payment for Redev. Costs	$ 2,660	$ 1,060	$ 1,060	$ 1,060	$ 1,060	$ 1,060	$ 1,060	$ 1,060	$ 1,060	$ 1,060	$ 1,060
General Fund Expenditures	-	54	208	280	434	525	525	597	597	597	620
School Fund Expenditures	-	30	75	116	157	213	213	213	213	213	221
TOTAL EXPENDITURES:	**$ 2,659.6**	**$ 1,144.0**	**$ 1,341.7**	**$ 1,455.6**	**$ 1,651.3**	**$ 1,797.6**	**$ 1,797.6**	**$ 1,868.7**	**$ 1,868.7**	**$ 1,868.7**	**$ 1,901.0**
SUMMARY OF COSTS AND BENEFITS											
Total Revenues	$ -	$ 516	$ 1,121	$ 1,374	$ 2,026	$ 2,378	$ 2,438	$ 1,812	$ 1,862	$ 1,914	$ 2,008
Total Expenditures	2,660	1,144	1,342	1,456	1,651	1,798	1,798	1,869	1,869	1,869	1,901
NET ANNUAL COST/BENEFIT:	**$ (2,659.6)**	**$ (628.2)**	**$ (220.5)**	**$ (81.8)**	**$ 375.1**	**$ 580.7**	**$ 640.1**	**$ (56.8)**	**$ (6.6)**	**$ 45.1**	**$ 106.6**

Benefit-Cost Ratio:	*Discount Rate: 10%*
Net Present Value of Benefits	**$8,431.4**
Net Present Value of Costs	**$10,712.7**
Total NPV	**($2,281.2)**
Benefit-Cost Ratio:	**0.79**

NOTE:
Ongoing property tax revenues are inflated by 5% over Year 10 totals.
Other ongoing revenues and expenditures are inflated by 4% over Year 10 totals.

SOURCE: ECONOMICS RESEARCH ASSOCIATES, MARCH 2003.

TABLE 40
SUMMARY OF COST-BENEFIT ANALYSIS FINDINGS ($000s)
Cost-Benefit Analysis for Portland DPW Site

	YEAR										
	1	2	3	4	5	6	7	8	9	10	Ongoing
AS-OF-RIGHT SCENARIO											
Total Revenue to City of Portland	$ -	$ 577	$ 737	$ 1,221	$ 1,480	$ 777	$ 798	$ 820	$ 843	$ 866	$ 908
Total City of Portland Expenditures	2,660	1,138	1,214	1,332	1,446	1,446	1,446	1,446	1,446	1,446	1,462
NET ANNUAL COST/BENEFIT:	**$ (2,659.6)**	**$ (561.3)**	**$ (477.3)**	**$ (110.9)**	**$ 34.0**	**$ (669.4)**	**$ (648.1)**	**$ (626.5)**	**$ (603.8)**	**$ (580.8)**	**$ (553.9)**

Total Benefits/Costs @ 10% Discount Rate	
Total Benefits	$ 4,706
Total Costs	9,483
Total Benefit/Cost:	**$ (4,777.6)**
Cost-Benefit Ratio:	**0.50**

BREAK-EVEN SCENARIO											
Total Revenue to City of Portland	$ -	$ 612	$ 903	$ 1,445	$ 1,869	$ 1,571	$ 2,012	$ 2,058	$ 2,114	$ 2,175	$ 2,282
Total City of Portland Expenditures	2,660	1,143	1,272	1,400	1,571	1,740	1,910	1,910	1,910	1,910	1,944
NET ANNUAL COST/BENEFIT:	**$ (2,659.6)**	**$ (531.6)**	**$ (368.9)**	**$ 44.9**	**$ 297.8**	**$ (168.9)**	**$ 102.2**	**$ 147.6**	**$ 204.5**	**$ 264.7**	**$ 337.6**

Total Benefits/Costs @ 10% Discount Rate	
Total Benefits	$ 7,946
Total Costs	10,650
Total Benefit/Cost:	**$ (2,704.0)**
Cost-Benefit Ratio:	**0.75**

MIXED-USE SCENARIO											
Total Revenue to City of Portland	$ -	$ 516	$ 1,121	$ 1,374	$ 2,026	$ 2,378	$ 2,438	$ 1,812	$ 1,862	$ 1,914	$ 2,008
Total City of Portland Expenditures	2,660	1,144	1,342	1,456	1,651	1,798	1,798	1,869	1,869	1,869	1,901
NET ANNUAL COST/BENEFIT:	**$ (2,659.6)**	**$ (628.2)**	**$ (220.5)**	**$ (81.8)**	**$ 375.1**	**$ 580.7**	**$ 640.1**	**$ (56.8)**	**$ (6.6)**	**$ 45.1**	**$ 106.6**

Total Benefits/Costs @ 10% Discount Rate	
Total Benefits	$ 8,431
Total Costs	10,713
Total Benefit/Cost:	**$ (2,281.2)**
Cost-Benefit Ratio:	**0.79**

SOURCE: ECONOMICS RESEARCH ASSOCIATES, MARCH 2003.

TABLE 41
SUMMARY OF COST-BENEFIT ANALYSIS FINDINGS ($000s)
Cost-Benefit Analysis for Portland DPW Site

	Net Present Value @ 10% Discount Rate	Ongoing Costs/ Benefits
AS-OF-RIGHT SCENARIO		
Total Revenue to City of Portland	$ 4,706	$ 908
Total City of Portland Expenditures	9,483	1,462
Total Benefit/Cost:	**$ (4,777.6)**	**$ (553.9)**
Cost/Benefit Ratio:	**0.50**	
BREAK-EVEN SCENARIO		
Total Revenue to City of Portland	$ 7,946	$ 2,282
Total City of Portland Expenditures	10,650	1,944
Total Benefit/Cost:	**$ (2,704.0)**	**$ 337.6**
Cost/Benefit Ratio:	**0.75**	
MIXED-USE SCENARIO		
Total Revenue to City of Portland	$ 8,431	$ 2,008
Total City of Portland Expenditures	10,713	1,901
Total Benefit/Cost:	**$ (2,281.2)**	**$ 106.6**
Cost/Benefit Ratio:	**0.79**	

SOURCE: ECONOMICS RESEARCH ASSOCIATES, MARCH 2003.

IV. Redevelopment Opportunities

Introduction

This section of the report highlights the findings from ERA's analysis of development opportunities for the DPW site. Various methodologies were used to estimate prospective market support for specific uses—housing, office, and supporting uses such as retail. Using available data gathered and analyzed in previous tasks and selected primary and secondary research, these findings and recommendations reflect a set of assumptions that guide what may reasonably occur on the DPW site, and forecasts of demand are intended as a reasonable, third-party examination of overall redevelopment opportunities.

Market Demand Analysis by Use

The following details the various methodologies used in order to estimate potential market support for specific uses on the DPW site.

Office (Tables 19 & 20)

From a regional perspective, future employment levels and market demand for office space are closely linked. In addition, a critical determinant of both future employment and market demand is the degree to which a community or specific site is competitive. Factors defining this competitive positioning include local and regional access, overall physical characteristics such as highway frontage and visibility, proximity to economic activity such as job creation, business costs such as property taxes and the like.

As a rule, office uses require access to a qualified labor pool, contemporary floorplates/building configurations, adequate (and oftentimes the provision of extra) parking, nearby convenience and supporting retail and services and pedestrian-scale amenities.

- ERA estimates that future employment growth in office-using sectors will generate demand for roughly **1.4 million sq. ft.** of office space across Cumberland County between 2000-2015 based on employment projections prepared by the Maine Department of Labor.
- Presuming that downtown Portland maintains its competitive position (i.e., fair share) of the region's office inventory at approximately 44% to 45% (and this is uncertain based on a slight decline in market share between 2000 and 2002), yields future demand for roughly **600,000 sq. ft.** allocated to the CBD. In other words, downtown remains as competitive in 2015 as it is today as compared to other office submarkets in Cumberland County.
- ERA believes that the DPW site could capture a small increment of total demand given its proximity to the core of the CBD, easy access to I-295, and the precedent of new office development such as the AAA Building on nearby Marginal Way. A planning target of roughly **75,000 sq. ft.** appears reasonable.

- This planning target assumes adequate visibility and the provision of on-site parking to enhance overall marketability. Depending on site configuration, parking requirements and densities, the office component could include up to two small buildings of 2 to 3 floors each with floorplates in the range of 10,000 to 15,000 sq. ft. Target tenants could include owner/users.

Housing (Table 21)

A critical mass of housing at the DPW site is extremely important. It serves to strengthen Bayside as a viable, close-in neighborhood, fosters demand for other uses such as on-site or nearby convenience and service retail, and reinforces downtown Portland as a viable business address with a potential supply of labor and consumers with disposable incomes. Obviously, new housing in Bayside must successfully compete in the marketplace, and unit finishes and project amenities are critical.

ERA has estimated potential housing demand at the DPW site under an **Induced Demand** scenario that relies on a series of critical assumptions, among which include:

- The provision of high-quality, market-rate housing that serves to reinforce the competitive position of the DPW site (and Bayside as a whole) in the City's (and the region's) housing market (note: this study has *not* examined options for affordable housing);
- Public policy initiatives designed to strengthen downtown Portland's competitive position in the region that result in continued growth of CBD employment, thus enhancing demand for nearby housing; and
- The provision of incentives such as TIF financing which may be critical in funding certain elements of DPW site redevelopment such as infrastructure.

Table 21 illustrates ERA's housing demand model. For purposes of this analysis, we used the **moderate population growth estimates for 2010 from the City's Comprehensive Plan**. The following assumptions were applied in the model:

- The scenarios assume that the City maintains its fair share of the region's population—or roughly 25% by 2010. This results in a population increase of almost **8,100 new residents**.
- Assuming that the number of persons per household citywide remains at 2.08 in 2010 translates into demand for new housing attributable to population growth of approximately **3,900 housing units**.
- In addition, in any given year, there are always households that desire (or require) a change in housing and, hence, turn over, among both renters and owners. Turnover generates *additional* potential demand beyond the creation of new households from population growth and/or in-migration. Assuming 40% annual turnover (always highest among renters) generates additional demand for housing; in this case, almost **1,600 units citywide are attributable to turnover**.

- ERA assumed that household size in Bayside would be slightly smaller—1.8 persons per household—because its proximity to the CBD would be more attractive to single-headed households.
- The model further segments potential demand according to fair share (i.e., Bayside today represents 4.4% of the City's total housing stock), induced, and high capture (i.e., induced plus). The induced estimates assume that redevelopment of Bayside succeeds in enhancing the neighborhood's attractiveness and marketability for new housing, and results in a doubling (to 8%) or tripling (to 12%) of future housing units citywide. Recent redevelopment along Marginal Way—such as the Wild Oats market—can also be expected to help Bayside.
- As noted, the ability to successfully capture demand for new housing on the DPW site is based on critical assumptions related to location, visibility, product quality, amenities and overall project environment, critical mass and other factors.
- This analysis results in potential market support for approximately **280 to 760 housing units** at the DPW site by 2010. This equates to average annual absorption of roughly **40 to 100 units per year depending on market conditions.**

Model	Estimated Capture	Supportable Units
Fair Share	4.4%	280
Moderate (Induced)	8%	510
High (Induced +)	12%	760

- The number of housing units identified in the three redevelopment scenarios (As-of-Right, Break-even and Mixed-use) would require that the DPW site capture 8% of future citywide housing demand.

Retail (Table 22)

For a number of reasons, ERA does not believe that the DPW site is an appropriate location for large-scale destination retail or food and beverage uses. It is unlikely that such uses could effectively compete with the re-emerging retail clustered along Congress Street in the CBD or the critical mass of destination retail and restaurants in the Old Port. Moreover, household densities—even with a significant amount of new housing on-site—are insufficient to support large-scale retail uses.

However, new housing, combined with potential demand generated by existing Bayside residents and some increment of on-site employment, could be expected to support a small amount of convenience and service retail uses. Tenant types could include a dry cleaner, bank, coffee shop and other convenience retailers meeting day-to-day needs. Retail tenants will require a highly visible, street-front location on the DPW site.

- Based on limited potential capture on the order of **2.5% to 7.5%** of both on-site and nearby households as well as assumed productivity (i.e., annual sales of $275 per sq. ft.), ERA estimates potential market support for roughly **2,000 to 10,000 sq. ft.** of general retail uses.

Redevelopment Scenarios

The three-redevelopment scenarios include:

- **As-of-Right**—represents a redevelopment program that can be built on the site under current zoning. Total buildout is **145 housing units**.
- **Breakeven**—illustrates the minimum (threshold) amount of residential development necessary in order for the City to *fully* recover the costs of relocating DPW and redeveloping the site. Total buildout in this scenario is **464 housing units.**
- **Mixed-Use**—illustrates a redevelopment program containing a mix of uses that combines residential, retail, and office uses on the DPW site. Total buildout is **256 housing units, 75,000 sq. ft. of office space, and 10,000 sq. ft. of retail space**.

As presented on a preliminary basis in the January 2003 workshop and, in final form at the June 2003 presentation, MRLD prepared a series of massing diagrams, elevations, and site plans to illustrate what redevelopment of the DPW site might look like. Reduced versions of these illustrations are included in the Appendix to this report.

Preliminary Alternative Financing Options

ERA examined—on a preliminary basis—a series of alternative financing methods for DPW relocation to Outer Congress Street. We profiled selected options for capital funding, including:

- Land sale or land lease proceeds;
- Conventional debt financing;
- Municipal/state grants such as the Maine State Housing Authority or others
- Special below-market rate second mortgages;
- Industrial revenue bonds;
- Tax Increment Financing (TIF) approaches;
- Special assessment districts;
- Revolving loan funds;
- State-designated enterprise zones;
- Other financial initiatives such as pooled loan reserves, tax abatements, bank community development corporations and the like.

Our initial review of financing options is summarized below.

Land Sale/Lease Proceeds

Proceeds from sale of the DPW property will be a key part of the City's revenue stream for financing site redevelopment. These revenues were figured into ERA's cost-benefit model already. Two unresolved issues remain—whether to or sell or lease the property and, if the land is sold—whether to sell it all at once or in pieces. The latter may be wiser, as higher prices could potentially be achieved in subsequent land sales if early phases prove successful.

Bond Financing

Given the City of Portland's budgetary difficulties at this time, the City is not likely to approve a bond issue for a project of this nature, even as a revenue bond. As a result, ERA does not believe that this option is worthy of serious consideration at this time.

Grants or Loans

A number of different sources of capital could be brought to bear on this project, particularly if it includes an affordable housing component. The Maine State Housing Authority has a number of grant and loan programs for both owner- and renter-occupied housing developments in projects containing up to 19 units. Portions of DPW redevelopment could occur in this fashion. Also, Portland is a CDBG entitlement community, and some of the City's funding through this program could be invested in the project.

Moreover, non-profit funding sources such as the Portland Housing Authority, People's Regional Opportunity Program (PROP) or Coastal Enterprises, Inc. may be other sources of consideration. Most grant or loan programs would require local matching funds and lending commitments from lending institutions in the area.

Below-Market Rate Second Mortgages

Below-market rate mortgages and forgivable second mortgages have been successful financing tools for affordable housing in Maine and elsewhere across the country. For example, PROP has used this tool as part of its developments in Portland and Westbrook. In addition, a number of other developments, including one overseen by the Town of Cumberland, have used these so-called "silent second mortgages" as a means of attracting or retaining moderate-income families to communities with tight housing markets. This tool should be given serious consideration as part of the financing options for DPW site redevelopment.

Tax-Increment Financing

TIFs have been widely used in Portland and elsewhere in Maine, and have generally proved successful. However, there are two general criticisms of TIFs:

- First, TIFs are considered risky as they bet public monies today against returns on investment tomorrow; and
- Second, TIFs do not spend public resources equitably.

The first argument is easily overcome for a publicly owned site like DPW, as its current taxable value is zero. Simply transferring it to private ownership would increase its value substantially. As for the equity issue, this development potentially fills a number of legitimate public purposes, including adding affordable housing, cleaning up a derelict site, and potentially creating new public spaces and uses.

Special Assessment Districts

This tool is typically used for commercial districts under centralized management, like a Business Improvement Districts (BID), such as Portland's own downtown organization. While the DPW site is proximate to downtown district boundaries, it is a fundamentally different area, with significantly less commercial space. Thus, it is not likely to generate a sizable funding increment and, therefore, establishing a special assessment district does not appear to be appropriate.

Pine Tree Development Zones

This new program was recently approved by the state legislature in this session. The program is intended to create a statewide network of areas/locations that are specifically granted the use of tax abatements for business attraction. The first phase of this program will only designate eight such zones across the state. In light of the fact that Portland is, in general, more prosperous than the rest of Maine, competition for these zones is expected to be intense. However, if such a zone were designated in Portland, Bayside would be among the most likely locations, as this area of the City has substantial redevelopment potential and could use additional economic incentives.

Cost/Benefit Analysis: Portland DPW Site

Market Demand Models

TABLE 19
NON-AGRICULTURAL EMPLOYMENT PROJECTIONS
FOR CUMBERLAND COUNTY, 1995-2015
Cost-Benefit Analysis of Portland DPW Site

CATEGORY	*Maine Dept. of Labor* 1995	*Maine Dept. of Labor* 2000	*University of So. Maine* 2000	*University of So. Maine* 2015	CHANGE: 2000-2015 %	CHANGE: 2000-2015 Amount
Manufacturing	13,860	14,620	16,912	12,895	-23.8%	(4,017)
Construction	5,730	7,430	13,033	12,184	-6.5%	(849)
Transp/Comm/Public Utilities	6,110	7,280	8,788	9,310	5.9%	522
Wholesale & Retail Trade	39,570	43,680	53,654	52,162	-2.8%	(1,492)
Finance/Insurance/Real Estate	11,800	13,360	20,934	25,238	20.6%	4,304
Services	40,840	49,580	77,248	96,527	25.0%	19,279
Government	17,470	19,420	24,838	29,489	18.7%	4,651
TOTAL - CUMBERLAND COUNTY:	**135,380**	**155,370**	**215,407**	**237,805**	**10.4%**	**22,398**
Annual % Change	-	*1.5%*	-	*10.4%*		
Difference:			**60,037** *(1)*			

(1) This includes part-time and self employment (i.e., employees that do not contribute to state unemployment insurance).

SOURCE: MAINE DEPARTMENT OF LABOR; UNIVERSITY OF SOUTHERN MAINE; ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.

TABLE 20
OFFICE DEMAND & FAIR SHARE ANALYSIS
CITY OF PORTLAND, 2000-2015
Cost-Benefit Analysis of Portland DPW Site

CATEGORY	% OF OFFICE USERS	SQ. FT. PER OFFICE USER	DEMAND FOR NEW SPACE (In Sq. Ft.) *Actual* 1995-2000	*Estimates* 2000-2015
DEMAND ANALYSIS		*(1)*		
Manufacturing	20%	150	22,800	-
Construction	10%	150	25,500	-
Transp/Comm/Public Utilities	40%	225	105,300	46,980
Wholesale & Retail Trade	15%	175	107,888	-
Finance/Insurance/Real Estate	80%	200	249,600	688,640
Services	20%	200	349,600	771,160
Government	50%	175	170,625	406,963
TOTAL DEMAND:	**36%**	**188**	**1,031,313**	**1,913,743**
	Estimates			
Plus				
Vacancy Adjustment		*(2)*	51,566	95,687
Cumulative Replacement Demand		*(3)*	103,131	191,374
Less				
Self Employment @		***38.6%***		(850,419)
		(4)		
TOTAL OFFICE SPACE DEMAND (IN SQ. FT.):			**1,186,009**	**1,350,384**
Average Annual			**237,202**	**90,026**
FAIR SHARE ANALYSIS				
Capture to Downtown Portland				
Fair Share		*(5)*		**44.4%**
Total Demand (In 000s Sq. Ft.)				**599,760**

(1) Reflects office-using employees in each employment sector requiring office space.
(2) This allows for a 5% "frictional" vacancy rate in new space delivered to the market.
(3) This represents new space required by existing businesses to replace obsolete or otherwise unusable space. This is assumed to represent 10% of total demand.
(4) Reflects the difference between 2000 employment estimates prepared by the Maine Department of Labor and the University of Southern Maine.
*(5) This represents Downtown Portland's **fair share** of office space demanded by future employment growth. This analysis assumes that the CBD's fair share is held constant over time (i.e., Downtown is no more or less competitive in 2015 as compared to other locations in Cumberland County than it is today).*

SOURCE: ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.

TABLE 21
HOUSING DEMAND POTENTIAL
Cost-Benefit Analysis of Portland DPW Site

	2000		Moderate Growth 2010	
AREA	**Population**	**HHs**	**Population**	**HHs**
Demographic Forecasts				
Cumberland County	265,612	107,989	289,517	
Persons Per HH		2.38		
City of Portland	64,249	29,714	72,379	34,798
Persons Per HH		2.08		2.08
As % of County	**24.2%**		**25.0%**	

Housing Demand Potentials		
To City of Portland		**Units**
Demand for New Housing Attributable to Population Growth:		3,909
Plus Assumed Turnover Factor @	40.0%	1,563
Citywide Total (2000-2010):		**5,472**
To Bayside		
Assumed Average HH Size		1.8
HH Size Adjustment Factor		116%
New Housing Units to Bayside		
Current (Fair Share) @	***4.4%***	**280**
Moderate (Induced) @	***8.0%***	**510**
High (Induced +) @	***12.0%***	**760**

SOURCE: PORTLAND COMPREHENSIVE PLAN, 2002; ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.

TABLE 22

Cost-Benefit Analysis of Portland DPW Site

		2010		
		Fair Share	Induced @ 8.0%	Induced @ 12.0%
RESIDENT EXPENDITURE POTENTIALS				
Households				
Existing		1,402	1,402	1,402
To Bayside		280	510	760
Subtotal:		**1,682**	**1,912**	**2,162**
Median HH Income (In Constant $)	*(1)*	$ 54,871	$ 54,871	$ 54,871
Household Expenditure Potentials (As % of Household Income)				
(1) GAFO Retail	**20.2%**	$ 18,616,214	$ 21,161,832	$ 23,928,808
Food & Beverage	**7.0%**	6,437,801	7,318,119	8,274,986
Resident Expenditure Potentials:		**$ 25,054,015**	**$ 28,479,950**	**$ 32,203,793**
SUPPORTABLE SPACE: RETAIL AND FOOD & BEVERAGE				
Households				
In Bayside		$ 25,054,015	$ 28,479,950	$ 32,203,793
Estimated Capture Rate @		***2.5%***	***5.0%***	***7.5%***
Captured Expenditures:		**$ 626,350**	**$ 1,423,998**	**$ 2,415,284**
Required Productivity	*(2)*	**$ 275**	**$ 275**	**$ 275**
Subtotal - Households:		**2,278**	**5,178**	**8,783**
Plus Inflow Factor @	*(3)*	***0.0%***	***5.0%***	***10.0%***
Subtotal - Inflow:		**-**	**259**	**878**
Supportable Space - All Retail:		**2,278**	**5,437**	**9,661**

(1) Assumes growth in average household incomes of 2% per year.
(2) Required productivity is the estimated minimum annual performance (in sales per sq. ft.) required by all retailers. This is a blended rate to reflect both general retail and restaurants.
(3) Represents potential expenditures from other market segments to Bayside, such as nearby daytime employees, visitors to the area, etc.

SOURCE: ECONOMICS RESEARCH ASSOCIATES, JANUARY 2003.

V. Cost/Benefit Analysis

Introduction

For the past several years, the City of Portland has been debating whether to relocate its Department of Public Works (DPW) facilities from their current location in West Bayside to another location. The reasons for moving the Department of Public Works from its current location are many, and include:

- The need to modernize facilities;
- A lack of expansion space;
- Accessibility and operational efficiencies associated with another location;
- Potentially negative impacts on the surrounding Bayside neighborhood; and
- The value created by redevelopment of the four-acre site on which DPW is presently located.

Despite the strong merits of moving DPW, the move will come at substantial cost. According to estimates prepared by DeLuca Hoffman Associates (see Appendix), **the cost of moving DPW and preparing the West Bayside site for redevelopment would approach $16 million**—a large price tag for the City as it faces significant budget difficulties. Many in the City have expressed concern that, no matter the benefits of relocating DPW, the City simply cannot burden itself with such great expense.

However, the advantages and marketability offered by a site located in a rapidly improving section of Portland and its adjacency to downtown may create the opportunity to recover a substantial share of the costs of relocating DPW. Revenues can be generated for the City both from the property's disposition (by selling or leasing the land) and from future property taxes generated by redevelopment.

In order to measure the potential for cost recovery, the City asked ERA to conduct a cost-benefit analysis of the redevelopment of the DPW site. Working with a committee of City staff and neighborhood representatives, ERA created a cost-benefit model for the DPW site to analyze the costs and benefits to the City of three redevelopment scenarios.

The model, which is illustrated in Tables 23 through 41 at the end of this section, was constructed to allow many of its variables to be easily edited. At the beginning of the model, a series of four input worksheets are included, with variable inputs illustrated as shaded (yellow in color) boxes. Any changes to the model made by City staff can be completed only in the shaded boxes; cells in the remainder of the model are locked to avoid unintended changes.

The following outlines information regarding the cost-benefit analysis, model assumptions, and the results of the analysis:

- Definition of Terms

- Property tax rate
- Year-by-year development plan
- Calculations of population, employment, student generation, and parking
- Calculations of property value, including land sale prices, project revenues, and total project valuation
- Assumptions regarding public revenues and costs
- Capital costs of relocating DPW and debt financing assumptions
- Cost-benefit results

Definition of Terms

Before outlining the assumptions and findings of the cost-benefit analysis, it is first important to understand key terminology used in the report. This section provides brief definitions of a number of terms used throughout the course of this chapter of the report.

- **Affected Budget Amount** – The percentage of revenues or costs in a budget category that will be impacted by new residential or commercial growth. For example, if the City currently spends $1,000 per resident and employee for a given budget category, and must spend 75% as much per new resident and employee, the affected budget amount would be $750.
- **Benefit-Cost Ratio** – The relationship between revenues and costs generated by a policy decision or project. If a given project produces $1 million in revenues and $2 million in costs, its benefit-cost ratio is 0.50.
- **Capital Costs** – One-time expenditures for major public improvements. In this case, the investments being made by the City in moving DPW and redeveloping the site are considered capital costs.
- **Debt Service** – A periodic payment made to pay off the principal and interest on a public bond, similar to a mortgage payment made by a homeowner. Debt service payments are typically made on an annual basis.
- **Density (Units per Acre, or Floor Area Ratio)** – The relationship between the amount of development and the land on which it is located. For example, residential densities are typically measured by the number of dwelling units per acre. Commercial density is usually measured by floor area ratio (FAR) which compares the amount of built square feet to the land area on which it is built. For example, a five-story building with 10,000 sq. ft. per floor (50,000 gross sq. ft.), located on a 25,000 sq. ft. lot has an FAR of 2.0.
- **Discount Rate** – The annual compound interest rate by which future revenues and costs are reduced in order to measure them in present-day dollars. (See Net Present Value).

- **General Fund** – The "bank account" of a municipal government. All revenues used to pay for the general functions of government are collected in the General Fund and then budgeted to expenditure categories. Revenue categories in the General Fund include property and excise taxes, licenses and permits, charges for services, and the use of public money and property. Expenditure categories include general government, public safety, public works, parks & recreation, and health & human services.

- **Homestead Exemption** – The amount by which property tax assessments are reduced for property owners who use their properties as primary residences. Portland residents who qualify for the homestead exemption presently receive a deduction of $6,290 from their annual assessments.

- **Net Present Value** – A measure of how much future revenues and costs are worth in present-day dollars. These future amounts are reduced each year by the discount rate (see above), with money worth less and less with each passing year.

- **Ongoing Impacts** – The annual benefits and costs that accrue from a project in subsequent years following the end of the period of analysis (see below).

- **Per Resident and Employee** – A measure used to estimate incremental revenues and costs for the General Fund. Portland receives revenue from its residents and businesses and outlays expenses to provide them with public services. Since it is difficult to separate how much money comes in and goes out from residential versus commercial properties, the aggregate measure per resident and per employee is used. For example, if a community with 20,000 residents and 15,000 who work within its boundaries spends $1 million per year on a given budget item, it spends $28.57 per resident and employee.

- **Per School Pupil** – A measure used to estimate incremental revenues and costs for the School Fund, as the school budget is tied directly to the number of pupils in a given district. If a district with 5,000 students spends $1 million per year on a given budget item, it spends $200 per school pupil.

- **Period of Analysis** – The timeframe for which costs and benefits are measured. In this model, the period of analysis is 10 years.

- **School Fund** – The school department's "bank account," similar to the General Fund. Revenue categories include state subsidies, adult education fees, and food service charges. Expenditure categories include salaries and benefits, supplies and equipment, and contractual services.

- **Student Generation Factor** – The relationship between the number of housing units and the number of public school students living in those units. For example, if 40 public school students live in a housing development with 100 units, the student generation factor for that development is 0.40.

Property Tax Rate (Tables 23 & 24)

The property tax rate used in this model includes only those revenues that go directly to the City of Portland General Fund and to the Portland School Department. As a result, tax revenues levied by the City's Enterprise Fund, Cumberland County, Metro, and Regional Waste Systems are excluded from this model. The assumption is that these revenues go directly to those funds and jurisdictions, and can therefore not truly be counted as benefits to the City.

The Municipal Budget for July 1, 2002 through June 30, 2003 states that the City's total tax rate is $25.72 per $1,000 in assessed valuation. Of this amount, $1.67 is for uses other than the City's General Fund and the school department. Thus, **the amount of property tax earmarked for the city is $24.05 per $1,000 in assessed valuation.**

Annual Development Program

The results of ERA's market analysis identified three potential redevelopment plans for the DPW site. These plans reflect buildout over a 10-year projection period, and do not examine the site's potential on a year-by-year basis.

The three-redevelopment scenarios include:

- **As-of-Right**—represents a redevelopment program that can be built on the site under current zoning. Total buildout is **145 housing units**.
- **Breakeven**—illustrates the minimum (threshold) amount of residential development necessary in order for the City to *fully* recover the costs of relocating DPW and redeveloping the site. Total buildout in this scenario is **464 housing units.**
- **Mixed-Use**—illustrates a redevelopment program containing a mix of uses that combines residential, retail, and office uses on the DPW site. Total buildout is **256 housing units, 75,000 sq. ft. of office space, and 10,000 sq. ft. of retail space**.

The exhibit below illustrates the projected year-by-year development plans for each of these three scenarios. (The total number of housing units in the mixed-use scenario is shown as 255—this is due to rounding. The actual total buildout is 256 units).

YEAR-BY-YEAR DEVELOPMENT PLAN BY SCENARIO
Cost-Benefit Analysis for Portland DPW Site

	YEAR									
	1	2	3	4	5	6	7	8	9	10
AS-OF-RIGHT SCENARIO										
New Residential Units Built	-	29	29	44	44	-	-	-	-	-
Total Residential Units Buil	-	29	58	102	145	145	145	145	145	145
BREAK-EVEN SCENARIO										
New Residential Units Built	-	46	70	70	93	93	93	-	-	-
Total Residential Units Buil	-	46	116	186	279	372	464	464	464	464
MIXED-USE SCENARIO										
Residential										
New Residential Units Built	-	38	51	51	51	64	-	-	-	-
Total Residential Units Buil	-	38	89	140	191	255	255	255	255	255
Office										
New Office Sq. Ft. Built	-	-	25,000	-	25,000	-	-	25,000	-	-
Total Office Sq. Ft. Built	-	-	25,000	25,000	50,000	50,000	50,000	75,000	75,000	75,000
Retail										
New Retail Sq. Ft. Built	-	-	5,000	-	5,000	-	-	-	-	-
Total Retail Sq. Ft. Bulit	-	-	5,000	5,000	10,000	10,000	10,000	10,000	10,000	10,000

Population, Employment & Student Generation

The calculations of most of the ongoing benefits and costs of the DPW site redevelopment are based directly on the number of on-site residents and employees as well as the number of on-site children enrolled in Portland's public schools. This is discussed below.

Project Population

The average number of residents per unit varies by scenario, as the density and housing types are different in each one.

- The **As-of-Right** scenario has the fewest number of housing units of the three, and could therefore allow a mix of single- and multi-family units. For this reason, the citywide average household size figure of 2.20 persons was used.
- In the **Breakeven** scenario, extremely high densities translate to smaller multi-family units throughout the project. An average household size of 1.80 persons was used.
- The **Mixed-use** scenario would have a density in between the other two, and thus has an assumed average household size of 2.0 persons per household.

With these average household sizes, total project population at build-out is:

As-of-Right:	**319 residents**
Breakeven:	**835 residents**

Mixed-Use: **512 residents**

Project Employment

Of the three scenarios, only the Mixed-Use scenario will have any on-site commercial development, office and retail. Industry-standard relationships between occupied space (per sq. ft.) and employment were used. For office space, the typical relationship is 250 sq. ft. of occupied space per employee. For urban retail space fronting on the street, 350 sq. ft. of occupied space per employee is the usual relationship.

At these ratios, total project employment is:

Mixed-Use: **329 employees**

Student Generation

Student generation measures the relationship between new housing units and the number of public school students living in those units. In a typical growing suburban area, each new housing unit built results in an average of 0.9 new public school students. In central urban areas like Portland, the number of students per new housing units is usually considerably lower. There are three reasons for cities having lower student generation rates:

- Housing in urban settings is usually more attractive to households without children (i.e., young, unmarried, gay residents, empty nesters, retirees, etc.).
- Families with children usually seek school districts with the best reputations. While the Portland school district is certainly strong, it does not hold the appeal of some suburban districts. In these districts, student generation per new housing unit is far higher than in Portland.
- A large share of new housing units built in central cities are multi-family units with two or fewer bedrooms, compared with single-family units of four or more bedrooms usually found in suburban markets. For this reason, not as many people are able to live in many urban housing units.

With these variables in mind, different student generation rates are used for each scenario. For the As-of-Right scenario, it is assumed that there will be 0.4 students for each new housing unit; 0.2 students in the Break-even scenario; and 0.3 students in the Mixed-use scenario. Based on these assumptions, student generation is:

As-of-Right: **58 students**
Break-even: **93 students**
Mixed-Use: **77 students**

Parking Demand

The demand for off-street parking is tied to the amount of residential and commercial development in each scenario, as well as the density of development:

- For the As-of-Right scenario, ERA assumed that each housing unit would have 1.5 spaces per unit.
- The Break-even scenario, with smaller units, assumes an average of 1.0 space per unit.
- The Mixed-use scenario assumes 1.25 spaces per housing unit. For its commercial elements, 2.5 spaces per 1,000 sq. ft. of office space and 4.0 per 1,000 sq. ft. of retail space are provided.

Using these assumptions, the amount of off-street parking needed is:

As-of-Right:	**218 spaces**
Breakeven:	**464 spaces**
Mixed-Use:	**548 spaces**

Calculations of Property Value

In order to measure the revenue impacts from land sales and property value increases resulting from the redevelopment of the DPW site, it is necessary to calculate the expected property values for each scenario. Three calculations were completed: land sale prices, project revenues and total property values. These are described below.

Land Sale Price Assumptions

Land sale prices for each scenario were estimated from data collected from realtors and developers during the market analysis. The differences in values per square foot of land in each scenario are a result of denser development that enhances the land value per unit. The base year land sale price assumptions for the project are:

As-of-Right:	**$12/SF**
Break-even:	**$20/SF**
Mixed-use:	**$15/SF for residential land**
	$25/SF for commercial land

All base year figures in the model were increased at a rate of 3% per year in real value (i.e., above inflation).

Project Revenue Assumptions

As with land sale prices, revenues for each scenario were estimated from data collected in previous phases. The variations in unit revenues are again tied to the development programs for each scenario, as the less dense As-of-Right scenario has larger housing units

and, by extension, higher prices per unit than the other two scenarios. Base-year unit revenue assumptions are as follows:

As-of-Right:

Average residential sale price:	$175,000

Break-even:

Average residential sale price:	$140,000

Mixed-use:

Average residential sale price:	$150,000
Net office rent per sq. ft.:	$18.00
Net retail rent per sq. ft.:	$25.00
Annual income per parking space:	$1,200

Again, these base year figures are increased in the model at a rate of 3% annually in real value (i.e., above inflation).

Estimating Property Values

The following methodology was used to estimate property values for the proposed residential and commercial uses in the model:

- **Residential** – Residential value was estimated by inflating the base year values by 3% each year, and then applying these inflated values to the total number of units built in a given year. For example, in Year 4 of the As-of-Right scenario, the average unit value is $191,200 and there are 102 units completed, resulting in a total value of $19.5 million. These values are then adjusted to account for the homestead exemption. It is assumed that 75% of units in all scenarios are owner-occupied and thus eligible for this exemption after one year of occupancy. Portland's homestead exemption is presently $6,290 per unit.
- **Commercial** – Commercial value was estimated by using the income approach to valuation. This approach derives value by capitalizing the annual income from a property. For this model, the capitalization rate used is 10%. In this method, in Year 6, when the project generates $993,000 in net office rental income, the estimated property value of the office component is $9.93 million. This approach is used to determine value for the office, retail, and commercial parking uses in the Mixed-use scenario.

Public Revenue & Cost Assumptions (Tables 25-28)

Background

The basis for estimating the bulk of revenues and costs resulting from redevelopment of the DPW site is the City of Portland's Municipal Budget for July 2002-June 2003. ERA carefully reviewed the budget document in order to inform our assumptions regarding ongoing revenues and costs expected from this project.

For both revenues and costs, the starting point was to determine unit amounts of revenues and expenditures. The unit amounts used for the General Fund are tied to population and employment. New residents and employees alike affect both sides of the budget, but it is very difficult to separate public costs generated by residential versus commercial properties. For this reason, the per capita effects on the budget cannot be accurately separated out for residential development versus the per employee effects for commercial development.

An argument could be made that employees have little impact—either positive or negative—on municipal spending. However, the operation of commercial properties does impact both sides of the budget. On the revenue side, occupied commercial space generates property tax dollars, businesses pay licensing fees, patrons of businesses pay parking meters, garage fees, and even parking tickets. On the expenditure side, the City must provide garbage pickup, and police, fire, and emergency services for commercial properties. As a result, accounting for both residential and commercial properties in estimating revenues and costs is critical.

By comparison, the process is much simpler for the School Fund, as its non-property tax revenues and expenses can be tied directly to student enrollment. Thus, revenue and cost amounts for schools are calculated on a per school pupil basis. These findings are highlighted below:

Population, Employment & Enrollment

As of 2000 (the most recent data available), the City of Portland's population was 64,249 and there were 70,382 persons employed within the City limits. Therefore, the **aggregate number of residents and employees in the City is estimated at 134,631.**

Assumptions for the School Department budget are tied to public school enrollment. As of the 2001-2002 school year, there were 7,743 students enrolled in the Portland's public schools.

Revenue Assumptions

The Municipal Budget divides revenues into eight major categories: Property Taxes; Excise Taxes and Penalties; Licenses and Permits; Intergovernmental; Charges for Services; Fines, Forfeits, and Penalties; Uses of Money and Property; and Other Financing Resources. Of these eight, Property Taxes is by far the largest category, representing 42% of total revenue. For the School Department, there are six major categories of revenue, and all are calculated by using the averages per student.

Total revenue expected in the current fiscal year is $114.85 million, or $853.04 per each resident/employee in the City. In the cost-benefit model, property taxes are calculated separately, so they will not be estimated using the per capita/employee method. Subtracting property taxes from total revenues, Portland takes in an average of $493.97 each year from all residents and employees in the City.

This average figure represents what the City currently collects from residents and employees today. It is likely that new residents will have different effects on each major category of the budget. The table below illustrates current budget amounts for the revenue categories and how the project would affect them.

UNIT REVENUE ASSUMPTIONS BY CATEGORY

CATEGORY	Budget Amount per Resident/ Employee or Public School Student	% Calculated on Per Cap Basis from New Growth	Cost-Benefit Assumptions per Resident/ Employee or Public School Student
REVENUES			
General Fund			
Property Taxes	$ 359.07	0%	$ -
Excise Taxes and Penalties	73.31	60%	43.99
Licenses and Permits	16.92	120%	20.31
Intergovernmental	52.09	100%	52.09
Charges for Services	139.22	0%	-
Fines, Forfeits, Penalties	7.23	100%	7.23
Uses of Money & Property	33.04	100%	33.04
Other Financing Resources	172.15	0%	-
TOTAL:	**$ 853.04**		**$ 156.65**
School Fund			
Non-Categorical	$ 470.06	75%	$ 352.54
Adult Education	111.20	0%	-
Food Service	268.54	100%	268.54
State Subsidy-GPA	1,582.92	0%	-
State Subsidy-ESL	149.94	0%	-
Applied Surplus	-	0%	-
TOTAL:	**$ 2,582.67**		**$ 621.08**

Aside from property tax revenues, **each new on-site resident and employee could be expected to produce $156.65 in annual revenues to the City of Portland**, as two major categories—Charges for Services and Other Financing Resources—are not likely to be directly affected by new development. While Charges for Services may increase, they are assessed to cover additional costs to the City, and are therefore left out of both sides of the equation.

For the Portland School Department, ERA estimates that **each new public school student will generate $621.08 in revenues**. The largest revenue category for Portland's public schools, State General Purpose Aid, is not affected by growth in enrollment, as the Maine Department of Education's funding formula for the City contains a "hold harmless" clause. This clause, taking into account Portland's substantial commercial property tax base and its available school capacity, states that enrollment growth in Portland does not "harm" the City's school budget.

Cost Assumptions

On the cost side, there are nine major categories. All but two of these, Metro and County Tax, will be affected by DPW site redevelopment. These categories are excluded as their revenue comes from separate tax assessments. For a number of cost categories, ERA assumed that each new on-site resident/employee would have less of an impact than current averages. This assumes that many government costs are either fixed or require a tremendous amount of growth to demand increases. Costs that are either fixed or not very flexible include salaries of department heads and most staff, parks maintenance costs, police and fire equipment, and salaries of school administrators. The exhibit below illustrates cost assumptions for the cost-benefit model:

UNIT COST ASSUMPTIONS BY CATEGORY

CATEGORY	Budget Amount per Resident/ Employee or Public School Student	% Calculated on Per Cap Basis from New Growth	Cost-Benefit Assumptions per Resident/ Employee or Public School Student
EXPENDITURES			
General Fund			
General Government	$ 210.46	75%	$ 157.84
Public Safety	165.99	80%	132.79
Public Works	72.68	90%	65.41
Parks & Recreation	34.80	80%	27.84
Health & Human Services	121.04	100%	121.04
Library	19.51	100%	19.51
County Tax	26.58	0%	-
Metro	15.45	0%	-
Long Term Debt	186.53	100%	186.53
TOTAL:	**$ 853.04**		**$ 710.97**
School Fund			
Salaries-Regular	$ 6,118.86	20%	$ 1,223.77
Salaries-Temporary	394.57	20%	78.91
Benefits	1,162.71	20%	232.54
Contractual Services	660.24	50%	330.12
Supplies	549.60	100%	549.60
Other Costs	676.95	50%	338.47
Capital Equipment	36.55	20%	7.31
TOTAL:	**$ 9,599.48**		**$ 2,760.74**

In total, the average new resident and employee will demand $710.97 in annual spending by the City of Portland, and the average new school pupil will require $2,761 in spending. These figures are far higher than their counterparts on the revenue side. As stated before, the reason for this gap is that property tax revenues are calculated separately from other revenues. When property tax revenues are added back into the equation, the gap either narrows or disappears entirely.

The figure for additional school spending per new student is much lower than current spending levels of nearly $9,600 per student. The reason for this disparity is that many of the school department's costs are fixed and that the district's schools are under capacity. Therefore, new students will not necessarily require hiring additional teachers and other staff, nor will they require the expansion of facilities.

Moreover, Portland's status as a stable urban school district sets it apart from rapidly growing suburban districts that are at or over-capacity. In these schools, each new student is likely to have a far greater impact on school spending, as additional capital and operating expenses are necessary to increase capacity.

Capital Costs of Relocating DPW & Debt Financing Assumptions (Table 36)

An August, 2001 study by DeLuca Hoffman Associates of the costs of relocating DPW from its present location in Bayside to a site on Outer Congress Street were estimated at $13 million. These costs included *only* the costs to DPW, and did *not* estimate the costs of preparing the current DPW site for redevelopment. A subsequent estimate of site redevelopment costs completed by DeLuca-Hoffman was estimated at $3 million. Therefore, **the total capital costs of relocating DPW and preparing its site for redevelopment are $16 million.**

How to finance these costs is one of the charges of this cost-benefit analysis. In this model, costs were assumed to be financed by a General Obligation bond issue. This bond is assumed to carry an interest rate of 4.0% and a term of 20 years. The assumption is also made that 10% of the bond issue's total value, or $1.6 million, will be provided in equity at the time of issuance. Thus, total assumed value of bonded debt is $14.4 million.

The exhibit on the next page illustrates the first 10 years of the debt-financing model.

ERA

DEBT FINANCING OF SITE REDEVELOPMENT COSTS ($000)
Cost-Benefit Analysis for Portland DPW Site

FINANCING ASSUMPTIONS	
Total Capital Costs of Redevelopment	
DPW Relocation Costs	$13,000,000
Site Redevelopment Costs	$3,000,000
Subtotal	$16,000,000
Equity Payment @ 10%	$1,600,000
Financed Capital Costs	**$14,400,000**
Interest Rate for Bond	**4.00%**
Years of Bond Repayment	**20**

	YEAR										
	1	2	3	4	5	6	7	8	9	10	Ongoing
Bond Principal Remaining	$14,400	$13,916	$13,414	$12,890	$12,347	$11,781	$11,192	$10,581	$9,944	$9,282	
Equity Payment	($1,600)	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Annual Principal Payment	(484)	(503)	(523)	(544)	(566)	(588)	(612)	(636)	(662)	(688)	
Annual Interest Payment	(576)	(557)	(537)	(516)	(494)	(471)	(448)	(423)	(398)	(371)	
Total Annual Bond Payment	**(2,660)**	**(1,060)**	**(1,060)**	**(1,060)**	**(1,060)**	**(1,060)**	**(1,060)**	**(1,060)**	**(1,060)**	**(1,060)**	**(1,060)**

Given the above assumptions, the annual debt service payment on this bond is estimated at $1.06 million. After 10 years of debt repayment, the remaining principal on the bond would be $9.3 million.

Preliminary Results of Cost-Benefit Analysis (Tables 29-41)

The exhibit below summarizes the results of ERA's cost-benefit analysis for the three-redevelopment scenarios for the DPW site. (Detailed analysis is illustrated in Tables 29 through 41 at the end of this section of the report).

SUMMARY OF COST-BENEFIT ANALYSIS FINDINGS ($000s)

Cost-Benefit Analysis for Portland DPW Site

	Net Present Value @ 10% Discount Rate	Ongoing Costs/ Benefits
AS-OF-RIGHT SCENARIO		
Total Revenue to City of Portland	$ 4,706	$ 908
Total City of Portland Expenditures	9,483	1,462
Total Benefit/Cost:	**$ (4,777.6)**	**$ (553.9)**
Cost/Benefit Ratio:	**0.50**	
BREAK-EVEN SCENARIO		
Total Revenue to City of Portland	$ 7,946	$ 2,282
Total City of Portland Expenditures	10,650	1,944
Total Benefit/Cost:	**$ (2,704.0)**	**$ 337.6**
Cost/Benefit Ratio:	**0.75**	
MIXED-USE SCENARIO		
Total Revenue to City of Portland	$ 8,431	$ 2,008
Total City of Portland Expenditures	10,713	1,901
Total Benefit/Cost:	**$ (2,281.2)**	**$ 106.6**
Cost/Benefit Ratio:	**0.79**	

It is evident that all three scenarios fall short of achieving a one-to-one relationship (i.e., the uses do not generate $1 in revenue for every $1 in costs). Thus, none result in a positive fiscal impact for the City. Notably:

- The As-of-Right model has the lowest Benefit-Cost ratio, at just 0.50
- The ratio of the Break-even scenario is higher, at 0.75, and
- The Mixed-use scenario ratio generates the highest ratio of revenues to costs, at 0.79.

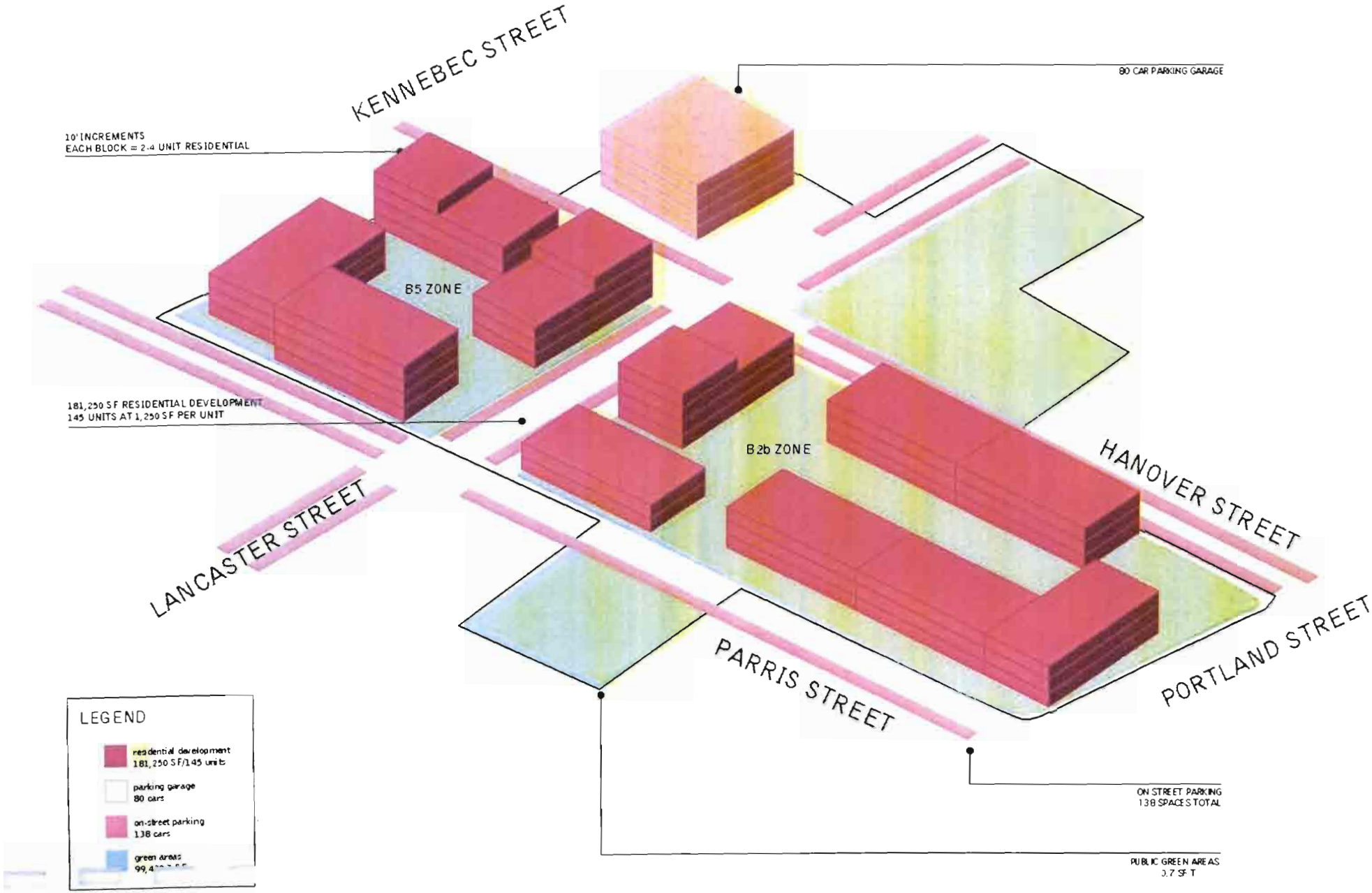
Thus, even in the best case, **for every dollar spent by the City of Portland on the DPW site, the model illustrates vividly that only 79 cents in revenues will be returned to the City for every one dollar in costs.**

On the positive side, however, ongoing annual revenues *after* project completion could be expected to exceed ongoing costs for two of the three scenarios—Break-even and Mixed-use. In the As-of-Right scenario, ongoing revenues do not exceed ongoing costs due to the presence of debt service payments that are used to finance site costs. In fact, the model estimates that debt service represents $1.06 million in costs to the City for each year that repayment is active. Once the debt (assumed to be a General Obligation bond) is retired, all three scenarios could be expected to produce positive fiscal results for the City.

AS-OF-RIGHT PLAN 1&2

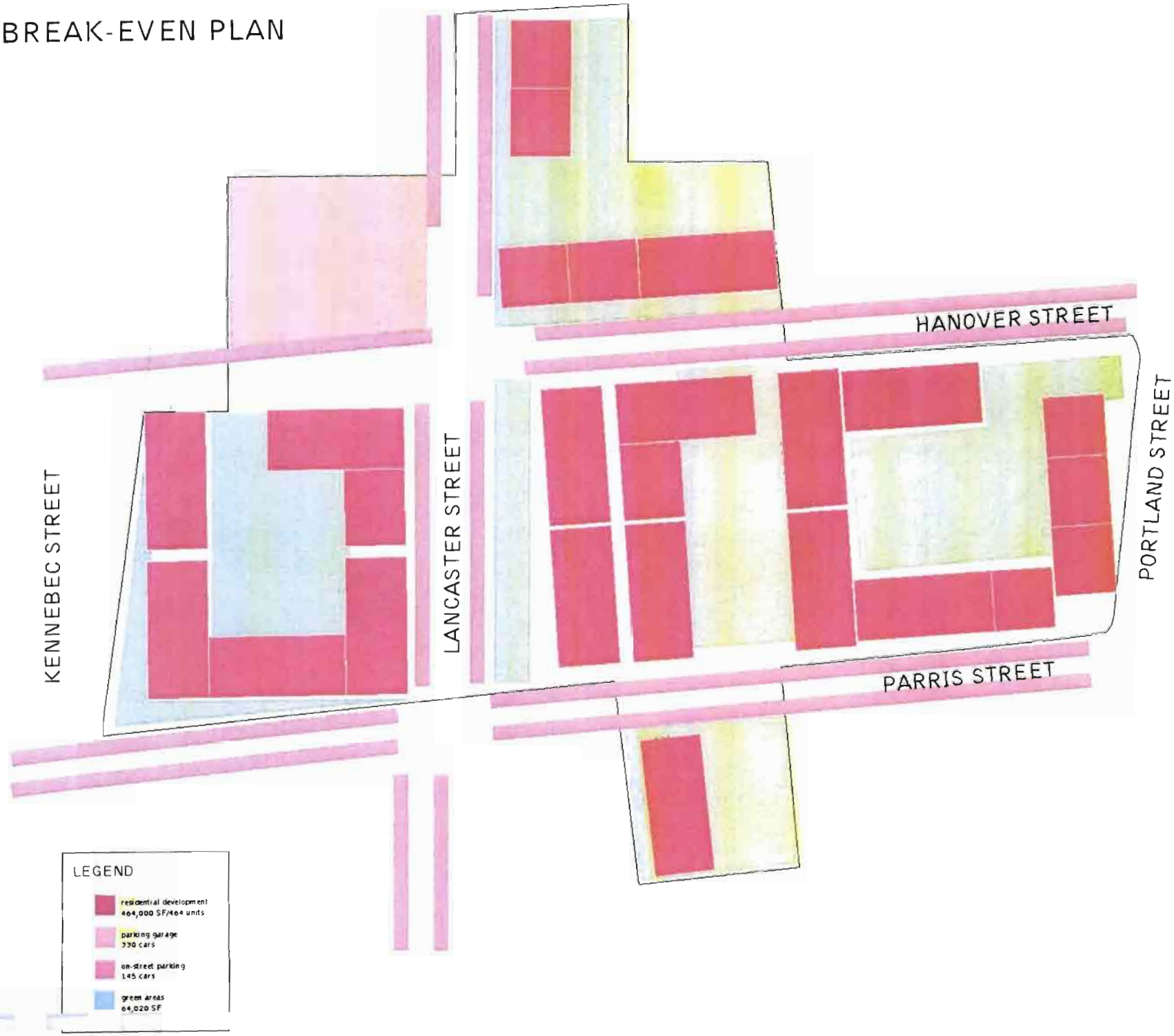
AS-OF-RIGHT PLAN

MASSING DIAGRAM



BREAK - EVEN PLAN 1&2

BREAK-EVEN PLAN



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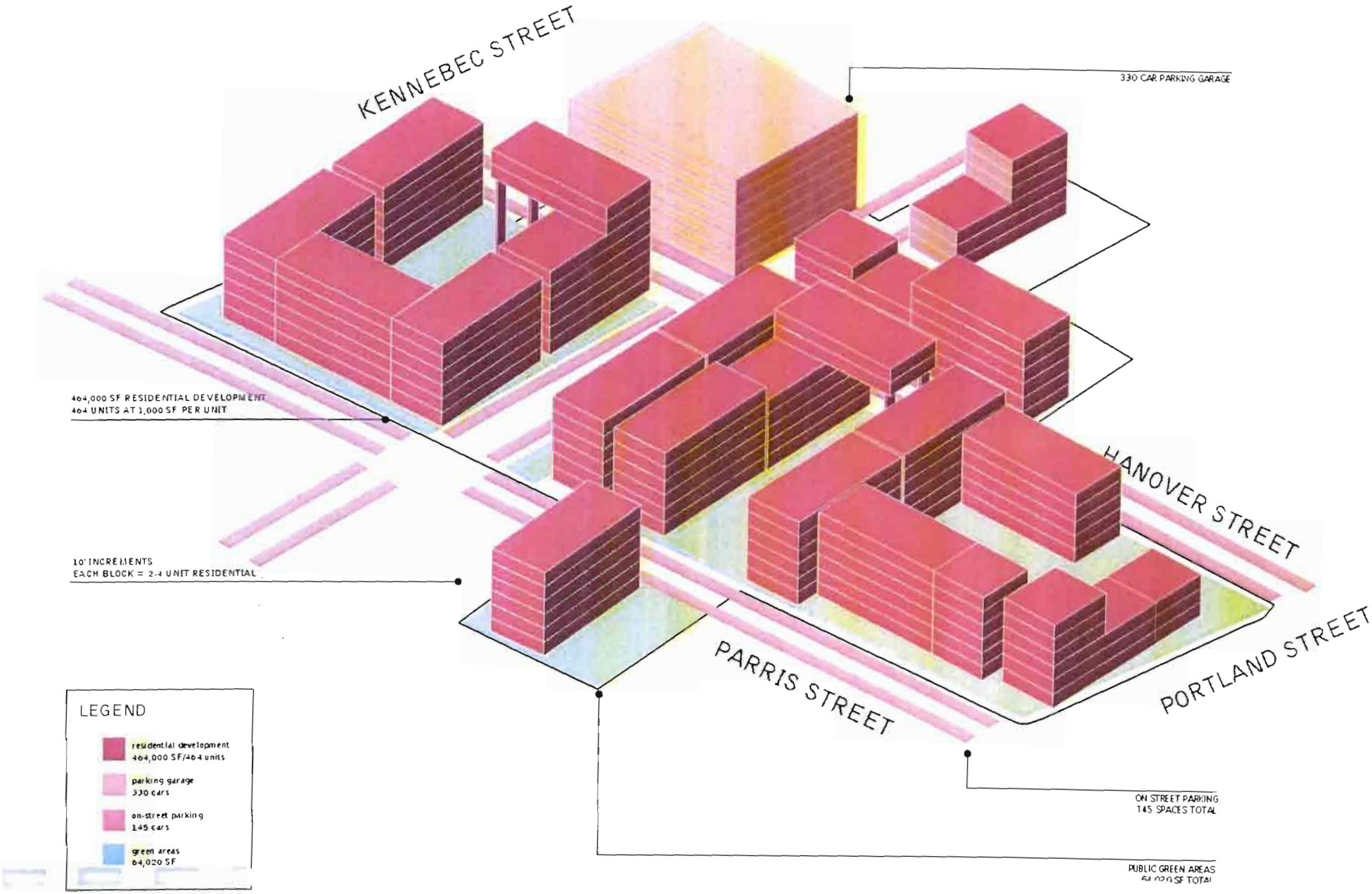
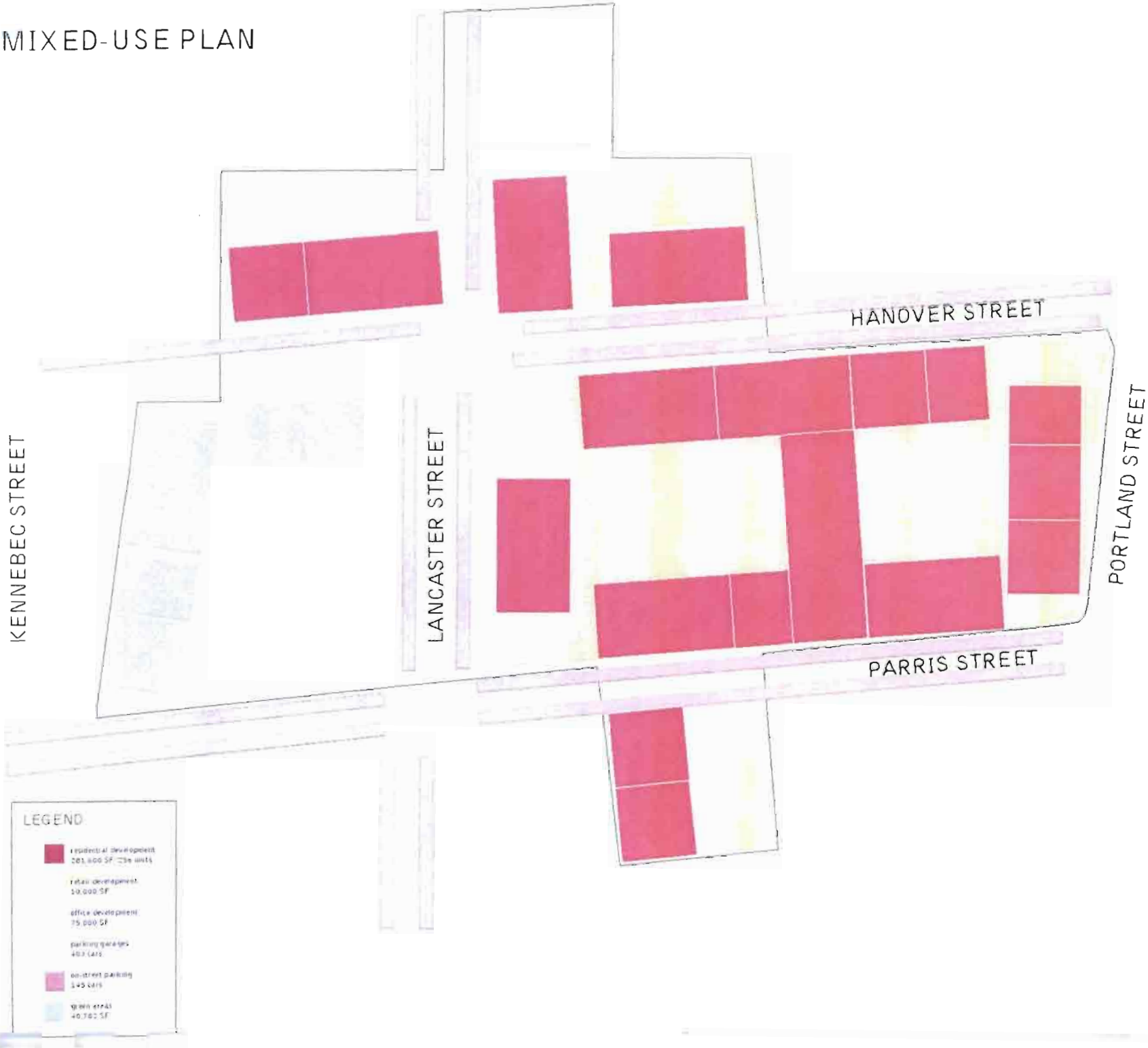


MIXED – USE PLAN 1

MIXED-USE PLAN



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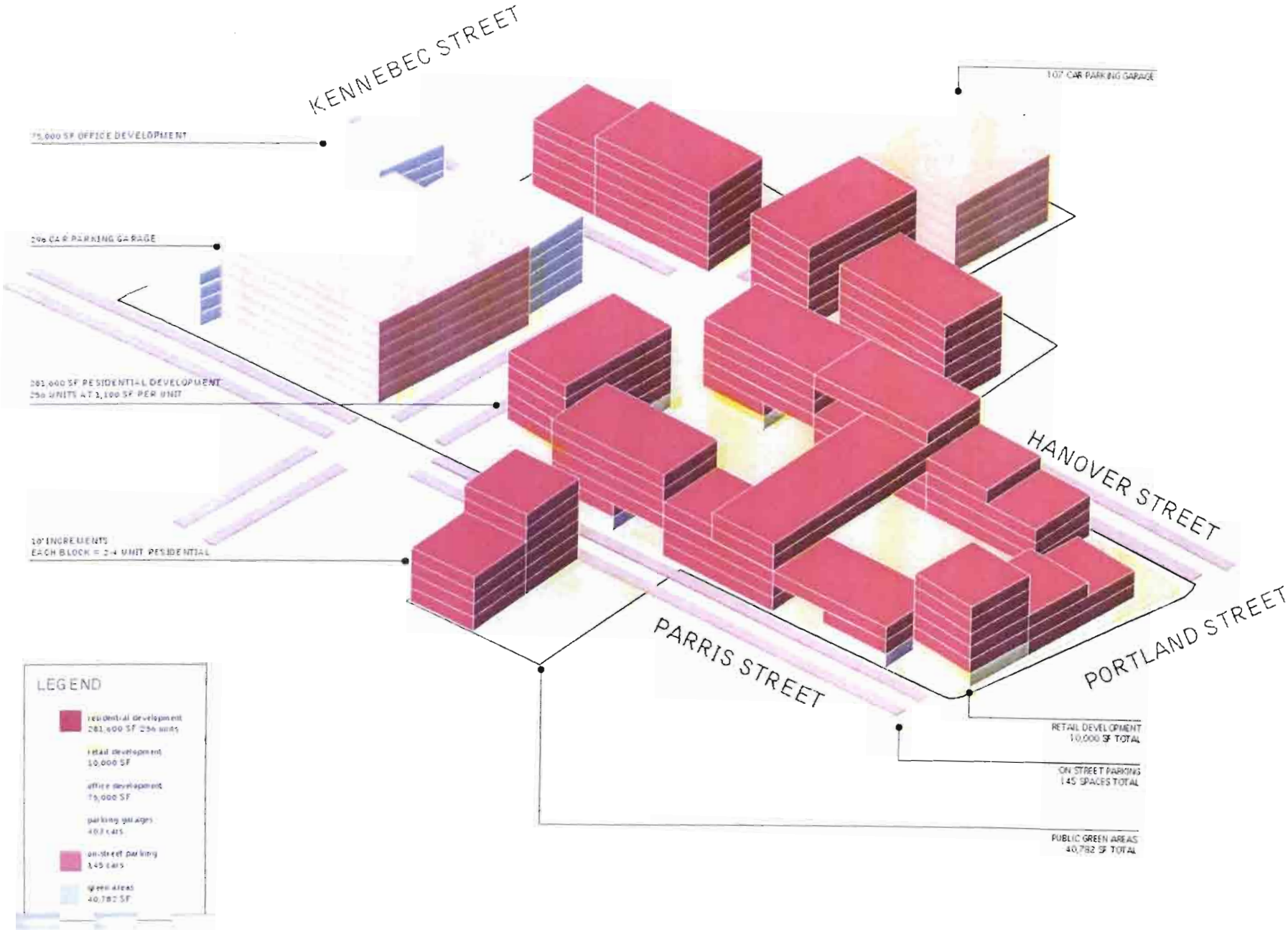
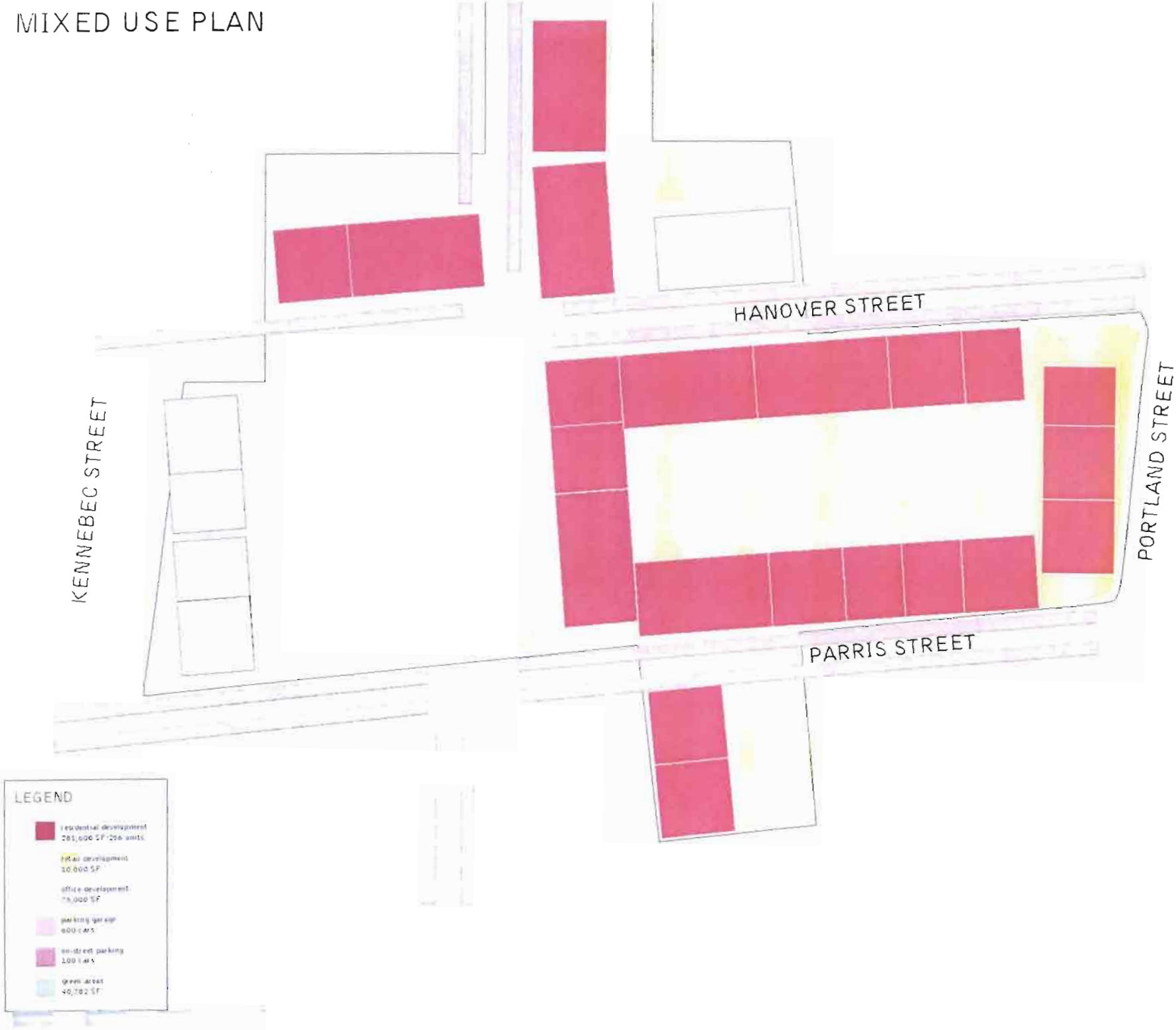


MIXED – USE PLAN 2

MIXED USE PLAN



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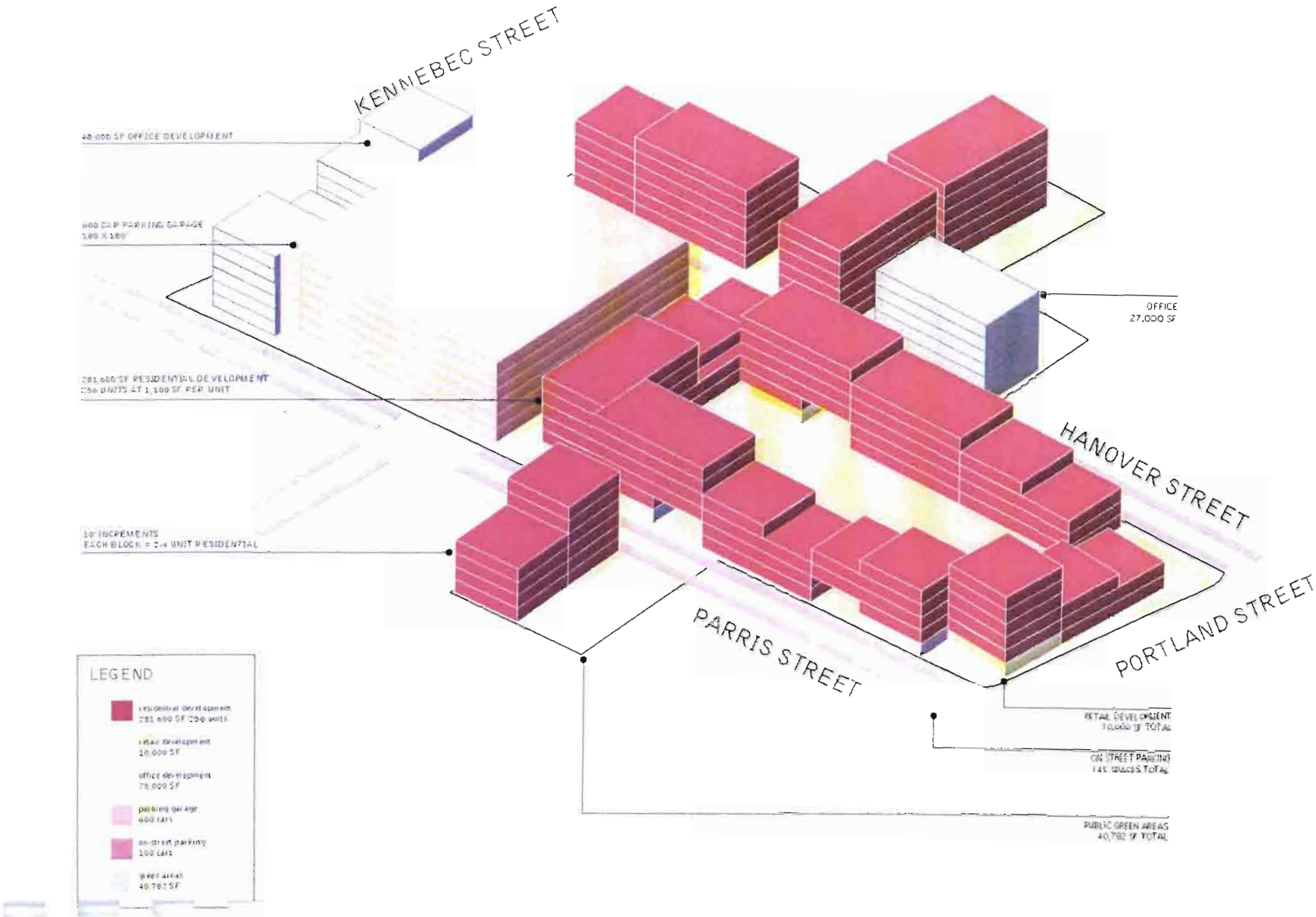
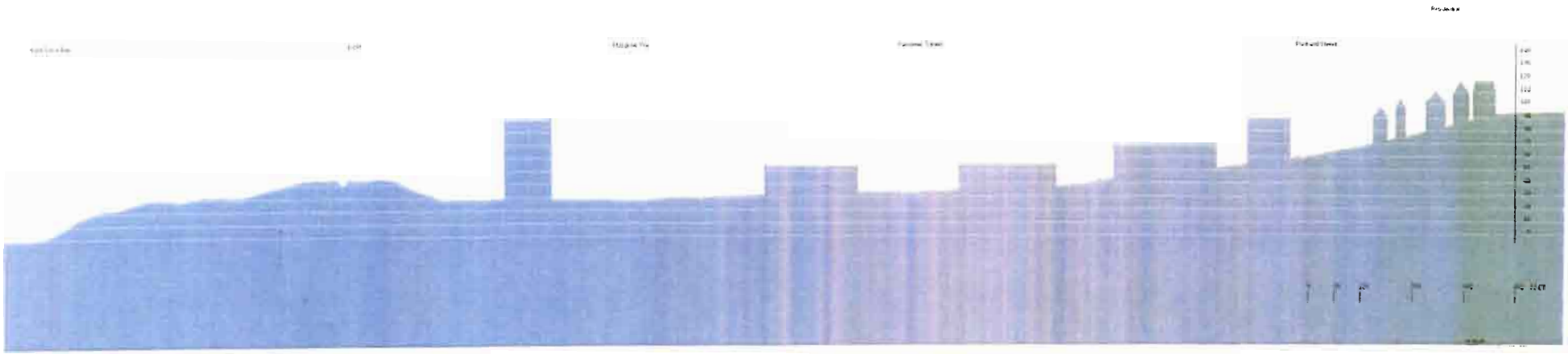
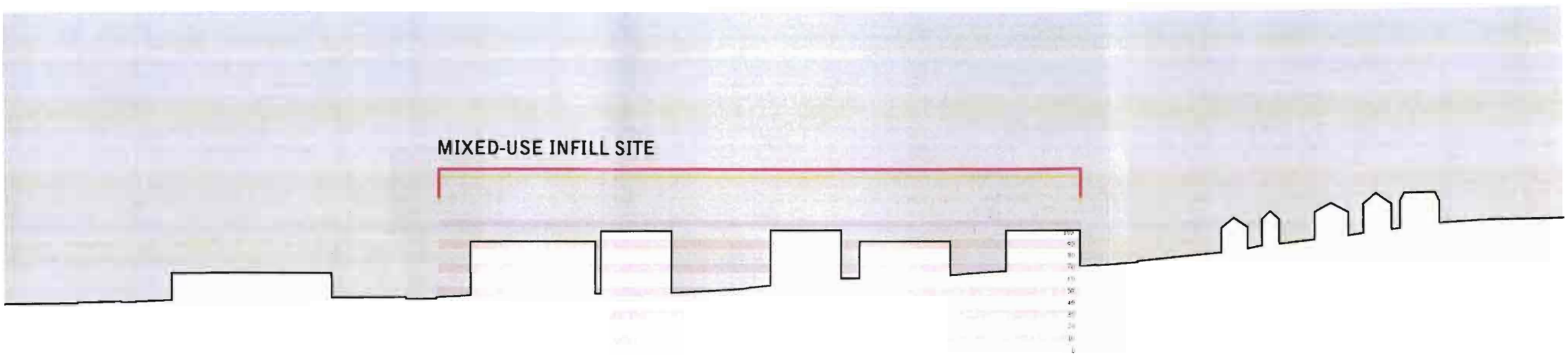


CORRIDOR SECTION 1&2

DPW View Corridor Section





/ay Post Office Parking/Warehouse Kennebec Street Lancaster Street Portland Street Residential

Cost/Benefit Analysis: Portland DPW Site

Other Supporting Data

DeLUCA-HOFFMAN ASSOCIATES, INC.
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- TRAFFIC STUDIES AND MANAGEMENT
- PERMITTING
- AIRPORT ENGINEERING
- SITE PLANNING
- CONSTRUCTION ADMINISTRATION

MEMORANDUM

DATE: May 29, 2003

TO: Economics Research Associates

FROM: Stephen R. Bushey, P.E.

SUBJECT: Cost Analysis for City of Portland Public Works Site

OVERVIEW

DeLuca-Hoffman Associates, Inc. has prepared the following discussion of costs related to the relocation of the Portland Public Works facilities from their present location off Hanover Street to a new location on outer Congress Street. DeLuca-Hoffman Associates, Inc. has previously completed a Feasibility Study report that provided a review of the City's existing facilities. The report also provided technical information related to the feasibility of relocating the Portland Public Works facility to the existing stockyard/snow dump site on Outer Congress Street. This report, entitled, "Feasibility Study – Portland Public Works Department, Outer Congress Street Site", dated August 2001, has been previously provided to City Staff for their review.

Briefly, DeLuca-Hoffman Associates, Inc. was engaged in the Public Works Feasibility Study review by then Public Works Director, William Bray, PE. The purpose of the study was to evaluate the existing conditions at both the existing Public Works facilities off Hanover Street and the conditions at the City property off outer Congress Street. The outer Congress Street site is an approximately 88-acre lot (exclusive of an access easement) that hosts an existing 79,000 +/- square foot building currently owned by the Portland Water District. This is also the site of the City's snow dump. The study was completed over a period of several months, during which DeLuca-Hoffman Associates, Inc. staff met regularly with Mr. Bray and other City Staff to review conceptual plans and ongoing findings related to the facilities. This work culminated in the Feasibility Report preparation.

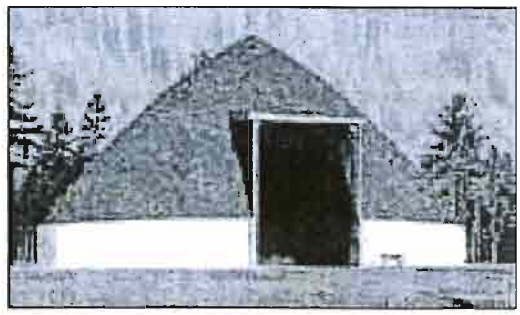
Part of the work completed for the Feasibility Report included a Preliminary Engineer's Opinion of Costs for the relocation activities. Concept 7, which is attached to this memorandum, was prepared to meet Mr. Bray's objectives, and formed the basis on which our preliminary opinion of costs was prepared.

SUMMARY OF CONCEPT 7 OPINION OF COST

DeLuca-Hoffman Associates, Inc has prepared a preliminary Engineer's Opinion of Probable Construction Costs based on the available information and Concept Plan Number 7. A copy of the Opinion of Cost Spreadsheet #1 is appended to this memorandum. Most of the unit prices were calculated on the basis of 2001 dollars. We have since adjusted several unit prices to reflect more current data.

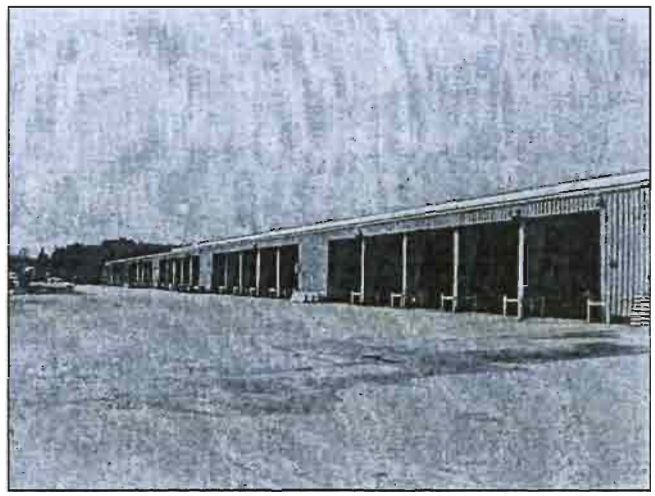
As part of the Report's narrative discussion, DeLuca-Hoffman Associates, Inc. presented the following information regarding the basis of the opinion of cost:

- The new Public Works Development is to consist of the following components:
  - A two-story Administration building totaling 29,750 SF in floor area
  - A three-story Administration wing totaling 20,400 SF in floor area
  - A new 40,000 SF Metal Framed Maintenance Garage building
  - A new 4,000 SF metal framed Plow Bay structure
  - A new 9,600 SF wood framed Salt Storage building
  - A new 5,400 SF wood framed Sand Storage building
  - Rehabilitation of the existing 79,300 SF metal framed building
  - Site development including parking areas, utilities, drainage and other infrastructure improvements



- The unit costs for the proposed administration, vehicle maintenance, plow bay, salt storage, and sand storage buildings were calculated on a square foot basis for each facility and did not benefit from a formal plan design for each facility. Approximately 188,450 SF of building space was considered for development. Approximately 109,150 SF would be new building space and 79,300 SF would be existing space to be re-fitted. It is important to note that the building costs represent the highest percentage of the overall opinion of costs. The opinion of costs attributed approximately $9.5 million for the buildings of the total estimated cost of approximately $13 million. This amount equates to a per-unit cost of approximately $50 per square foot. Building costs can be variable, depending upon the style and internal fit out; therefore, this cost factor should be considered closely, as it relates to the overall conclusions of the cost benefit analysis.

- The unit cost for renovating the existing Portland Water District building at the outer Congress Street site considers such items as providing roll-up doors at the front of the building, providing insulation, providing an HVAC system, and the rehabilitation of the easterly end of the building for storage and restroom facilities. It needs to be recognized that a complete structural assessment of this building was not performed for the Feasibility Report. A unit cost of $15.00 per square foot was assumed for the rehabilitation of this building.



- Public utilities are available in the vicinity of the Congress Street site. The Opinion of Cost includes quantities for the anticipated extensions and new installations.

- To obtain quantities for the stormwater system, a preliminary layout of drainage measures was prepared. This preliminary system is comprised of a new network of pipes (approximately 3,700 feet), ditches (approximately 800 feet), a long and narrow detention facility, and incorporation of water quality.

- An asphalt overlay of 1.5" was incorporated into the Engineer's Opinion of Probable Construction Costs for areas that are currently paved on the site (including the Jetport's temporary overflow parking area that was constructed on the property). The unit price for asphalt pavement has increased over the past several years; therefore, an adjustment to the Opinion of Cost spreadsheet has been made to reflect this increase. For budgeting, we are currently using a unit price in the mid $50 range, which represents a 10% to 15% increase over the period.

- A new access road was included on Concept Plan 7 that runs along the northerly property boundary and behind the existing Portland Water District building. This road will be primarily used for the purpose of loading salt and sand during winter operations. A width of 26' was used for the road.

- Two areas for the outdoor storage of vehicles and equipment are included in the Cost Opinion for Concept Plan 7. These two areas, approximately 30,000 square feet each, are to be paved with an asphalt surface over gravel.

- While final contours have yet to be determined, the earthwork was given an approximate quantity value on a per-cubic-yard basis.

- The site work component of the Opinion of Cost amounts to approximately $1.73 million. As previously stated, the latest spreadsheet contains several adjustments to unit costs from

those presented in the original 2001 study. Asphalt pricing has incurred a significant increase during the period and thus we have adjusted the Opinion of Cost accordingly.

- The Opinion of Cost contains a 20% contingency for construction and miscellaneous items.

- The Opinion of Probable Construction Costs does not include soft costs for architectural fees, engineering fees, legal and permitting fees, land acquisition costs, environmental costs, or equipment. A typical figure for soft cost is 6% to 10% of the construction costs.

SITE REDEVELOPMENT PREPARATION COSTS

DeLuca-Hoffman Associates, Inc. has prepared an Engineer's Opinion of Construction costs for the work necessary to prepare the City's Hanover Street properties for redevelopment. The following work components have been considered as part of this cost preparation:

- Building demolition of the existing facilities. There is approximately 70,000 SF of existing building area that will be demolished and pad area prepared in advance of new construction. The existing buildings consist of both metal frame and brick structures with slab on grade floor and concrete foundations. The demolition costs for these facilities includes complete removal, disposal or reuse of all building materials and foundations. Foundations to be removed will be backfilled with clean material. The City's work during this phase would culminate in pad-ready building areas. Building demolition represents the largest component of the construction costs necessary to prepare the area for redevelopment.

- It is assumed that the existing brick building at 55 Portland Street will remain and will continue to be used by the City. We assume that this land area has not been factored into the redevelopment programming scenarios.

- The Hanover Street/Parris Street corridors contain numerous existing underground utilities. These include sanitary sewer, water, drainage and natural gas. For the purposes of the cost-benefit analysis, DeLuca-Hoffman Associates, Inc. has assumed that all utilities infrastructure will be replaced as part of the Public Works site redevelopment. We have made this assumption due to the age of the existing infrastructure and the likelihood that increased capacity will be necessary for such services as water and sanitary sewer.

- DeLuca-Hoffman Associates, Inc. has assumed that Hanover Street, Parris Street and a portion of Kennebec Street will be reconstructed as part of the redevelopment program. Each of these streets is in fair condition currently, however, upon redevelopment it is assumed that reconstruction will be necessary for all sidewalks, curblines and the street section.

- The Opinion of Costs includes amounts related to improvements for the electric service in the area under consideration. DeLuca-Hoffman Associates, Inc. has not contacted Central Maine Power to determine the capacity availability for the area, although we understand that the power grid on the Portland Peninsula requires significant improvements that CMP is currently considering. As a conservative measure, DeLuca-Hoffman Associates, Inc. has included a significant allowance for power utility improvements in the site vicinity.

- The Opinion of Costs does not contain any significant allowance for hazardous materials or environmental remediation of the Hanover Street Properties. It is our understanding that the City of Portland has retained an Environmental Engineer as part of the ongoing Bayside Area redevelopment studies to evaluate the environmental issues in the project area. We understand that the preliminary findings for the Hanover Street sites are that remediation measures will be very modest and are subsequently sufficiently covered by the unit prices carried in our Opinion of Costs.

- DeLuca-Hoffman Associates, Inc. has prepared Opinion of Cost Spreadsheet 2, attached to this memorandum, that outlines the line items and unit costs associated with reconstruction activity contemplated for the redevelopment of the Public Works sites. An Existing Conditions & Inventory Plan has also been prepared to depict the approximate areas that have been included as part of the Opinion of Cost.

- The redevelopment preparation costs have been assumed as the City's responsibility and have therefore been included in the overall cost side of the current analysis. It may be beneficial to consider options whereby the City transfers these cost burdens onto prospective developers. However, it is acknowledged that this may then offset the financial benefit to be realized by the sale or redevelopment of the land.

FINDINGS

DeLuca-Hoffman Associates, Inc. has prepared preliminary Opinions of Cost associated with the relocation of the City of Portland Public Works facilities from their present location to a new location on outer Congress Street. The outer Congress Street location consists of a large land area within the Portland International Jetport boundary. Based on a Feasibility Study completed by DeLuca-Hoffman Associates, Inc. in 2001, the new site was determined to be technically suitable for the relocation and construction of new Public Works facilities, meeting the City's Public Works programming needs, as defined during the study. The site suitability is, however, dependent upon the costs necessary to complete the move, as well as the benefits achieved by the redevelopment opportunity created by the vacated land area in the Bayside area. DeLuca-Hoffman Associates, Inc. quantification of costs is solely tied to the construction aspects of the relocation program and does not account for any impacts, temporary or permanent, to operational costs, staff acceptance or overall Public Works administration. The effect of these factors as they relate to the overall acceptance of the relocation proposal must be weighed by City representatives and the Project Committee.

The Opinions of Costs for the Public Works facilities at the outer Congress Street location consist substantially of two major components; building costs and site development costs. The Opinion of Costs associated with the existing property off Hanover Street principally relates to the demolition and land preparation necessary to prepare the area for redevelopment. DeLuca-Hoffman Associates, Inc. has not contemplated any building costs associated with the redevelopment scenarios analyzed by ERA. This would include costs for new foundations, structures or parking facilities within the study area.

Based on the conceptual work completed to date the following cost findings have been prepared:

Description	Preliminary Opinion of Costs	Cost Percentage
Outer Congress Street Public Works Facility		
Buildings	$ 9,528,750.00	60%
Site Development	$ 1,738,960.00	11%
Contingency	$ 2,253,542.00	14%
Subtotal	**$13,521,252.00**	**85%**
Prepare Hanover Street Properties for Redevelopment		
Site Development	$ 1,980,741.00	12%
Surcharge for Location	$ 297,111.00	2%
Contingency	$ 198,074.00	1%
Subtotal	**$ 2,475,926.00**	**15%**
Grand Total	**$15,997,178.00**	**100%**

The critical variable that must be considered in the overall cost-benefit analysis is the cost associated with the proposed Public Works Building construction. At an average cost of $50.00 per square foot of new building, it is DeLuca-Hoffman Associates, Inc.'s opinion the building costs have been satisfactorily projected. However, these costs are obviously subject to more detailed architectural considerations and firm building design. Variation of these building costs, as well as any reconsideration of the overall Public Works programming and space needs, could substantially impact, positively or negatively, the Public Works Facility relocation costs. Furthermore, other cost impacts that have not been quantified for this analysis include the following:

- Street and roadway improvements in the Bayside area that may be necessary to address increased traffic demand resulting from any of the redevelopment scenarios.

- Parking costs associated with the construction of new off-street parking facilities to serve the redevelopment scenarios and/or the Bayside area in general. It is assumed that the cost for a new parking structure to serve the office building under the Mixed-Use Scenario, for example, would be borne by the developer and not the City.

- Programming costs or benefits associates with the acquisition of up to eight additional acres of land currently owned by the Maine Turnpike Authority bounded by Congress Street, the MTA Exit 7A connector, and the access road to the City property. This land may be desirable for the positioning of some of the conceptual plan elements or new additional City building or space programming needs. City staff are aware of this property and the MTA's potential consideration for participating in a land swap exchange.

Attachments

COST/BENEFIT ANALYSIS
HANOVER AND PARRIS STREET - PORTLAND, ME
SPREADSHEET #2

Item	Description	Quantity	Unit	Unit Price	Cost
Clearing and Removal					
1	Building Demo-includes structure and foundation demo	69516	SF	$10.00	$ 695,160.00
2	Remove Existing Bituminous Concrete Pavement	11730	SY	$4.00	$ 46,920.00
3	Sawcut Pavement	215	FT	$3.00	$ 645.00
4	Remove Existing Fuel Storage Tanks	1	LS	$50,000.00	$ 50,000.00
	Subtotal				**$ 792,725**
Earthwork					
1	Common Excavation	4,311	CY	$10.00	$ 43,110.00
2	Rock Excavation	-100 *	CY	$100.00	$ 10,000.00
3	Common Borrow	1000 *	CY	$8.00	$ 8,000.00
4	Granular Borrow	100 *	CY	$14.00	$ 1,400.00
5	Protective Systems for Excavation	1	LS	$10,000.00	$ 10,000.00
	Subtotal				**$ 72,510**
Sanitary Sewer					
1	12" Sanitary Main	1629	LF	$60.00	$ 97,740.00
2	Replace 42" Sanitary Sewer	536	LF	$110.00	$ 58,960.00
3	4' Dia. Manhole	8	EACH	$2,800.00	$ 22,400.00
4	6' Dia. Manhole	2	EACH	$3,500.00	$ 7,000.00
5	Boot Into Exist. MH	4	EACH	$500.00	$ 2,000.00
6	Adjust Existing Manhole or Catch Basin to Grade	6	EACH	$400.00	$ 2,400.00
7	Protect Sanitary Sewer	1	LS	$5,000.00	$ 5,000.00
	Subtotal				**$ 195,500**
Water					
1	2" Main	65	LF	$20.00	$ 1,300.00
2	8" Water Main	1945	LF	$55.00	$ 106,975.00
3	8"x8" Tapping sleeve and Valve	2	EACH	$2,500.00	$ 5,000.00
4	12"x8" Tapping Sleeve and Valve	2	EACH	$2,800.00	$ 5,600.00
5	Fire Hydrant Assembly w/Valve	2	EACH	$2,500.00	$ 5,000.00
	Subtotal				**$ 123,875**
Gas					
1	6" Gas Main	1310	LF	$45.00	$ 58,950.00
2	16" Gas Main	320	LF	$60.00	$ 19,200.00
3	Gas Valves	3	EACH	$1,800.00	$ 5,400.00
	Subtotal				**$ 83,550**
Paving & Sidewalks					
1	Aggregate Base Course Type A	755	CY	$20.00	$ 15,100.00
2	Aggregate Subbase Type D	3010	CY	$15.00	$ 45,150.00
3	Hot Bituminous 19.0mm Binder	835	TONS	$50.00	$ 41,750.00
4	Hot Bituminous 9.5 mm surface	730	TONS	$54.00	$ 39,420.00
5	Bituminous Tack Coat	100 *	GAL	$5.00	$ 500.00
6	Brick Sidewalk	1300	SY	$100.00	$ 130,000.00
7	Reclaim Pavement (4" Depth)	0	SY	$4.00	$ -
	Subtotal				**$ 271,920**
Drainage					
1	Area Drains with 12" x 12" square inlet	10	EA	$1,200.00	$12,000.00
2	4' Diameter Catch Basin	6	EA	$2,500.00	$15,000.00
3	MDOT Type F Catch Basin	4	EA	$1,500.00	$6,000.00
4	4' Diameter StormDrain Manhole	60	VF	$250.00	$15,000.00
5	6" Diameter Underdrain (Street)	1600	LF	$24.00	$38,400.00
6	10" Diameter Storm Drain	200	LF	$32.00	$6,400.00
7	12" Diameter Storm Drain	600	LF	$35.00	$21,000.00
8	18" Diameter Storm Drain	200	LF	$42.00	$8,400.00
	Subtotal				**$ 122,200**
Site Features					
1	Vertical Granite Curb Type 1	1623	LF	$32.00	$ 51,936.00
2	Terminal Curb - 7' Minimum	52	EACH	$300.00	$ 15,600.00
	Subtotal				**$ 67,536**
Landscaping					
3	Sidewalk Tree Openings	20	EA	$75.00	$1,500.00
4	Trees	33	EA	$600.00	$19,800.00
5	Shrubs	62	EA	$75.00	$4,650.00
6	Loam and Seed	3	UNIT	$350.00	$1,050.00
7	Pine Bark Mulch	20	CY	$50.00	$1,000.00
8	Filter Fabric for VRAP (landscaped areas)	500	SY	$8.00	$4,000.00
9	Filter Fabric for VRAP (utilities)	900	LF	$18.00	$16,200.00
	Subtotal				**$ 48,200**

COST/BENEFIT ANALYSIS
HANOVER AND PARRIS STREET - PORTLAND, ME
SPREADSHEET #2

Erosion Control & Misc.					
1	Water for Dust Control	1	UNIT	$1,000.00	$ 1,000.00
2	Calcium Chloride	1	TON	$500.00	$ 500.00
3	Maintenance of Traffic Control	1	LS	$5,000.00	$ 5,000.00
4	Trench Density Tests	35	EACH	$60.00	$ 2,100.00
5	Mobilization	1	LS	$40,000.00	$ 40,000.00
6	Primary Power	1	LS	$150,000.00	$ 150,000.00
7	Secondary Power	1	LS	$30,000.00	$ 30,000.00
	Subtotal				**$ 228,600**
				Subtotal	**$ 2,006,616**
				5% Surcharge for location/confined nature of the site:	**$ 100,331**
				10% Soft Costs Contingency	**$ 200,662**
				Total	**$ 2,307,608**

Notes:

1 It is understood that DeLuca-Hoffman Associates, Inc. (DHAI) has no control over the cost of labor, equipment or materials, market conditions, or the Contractor's method of pricing, and that the Engineer's Opinion of Probable Construction Costs are made on the basis of DHAI's professional judgement and experience. DHAI makes no warranty, express or implied, that the bids or negotiated cost of the Work will not vary from the Engineer's Opinion of Probable Construction Costs.

2 This Engineer's Opinion on Probable Site Construction Costs is based on Existing Conditions/Inventory Plan dated 12/2002 in 2003 dollars.

3 The onsite pavement and granular material quantities for access drive areas and parking areas are based upon the following sections:

Description	Thickness
Hot Bituminous Asphalt Surface	1.5"
Hot Bituminous Asphalt Surface (Sidewalk)	2.0"
Hot Bituminous Asphalt Binder	2.0"
Base Course Gravel MDOT Type A	3"
Base Course Gravel MDOT Type A(Sidewalk)	6"
Subbase Course Gravel MDOT Type D	15"

4 Opinion of costs does not include any cost for the following items:

a) Utility service surcharge for connections

b) Building, underslab utilities, building foundation or special gravel materials to be placed under the building slab or foundation

c) Land Acquisition , legal fees and engineering fees

d) Environmental Assessment and remediation costs as required.

OPINION OF COST
SPREADSHEET #1

Item No.	Description	Units	Unit Price	Quantity	Cost
9	26' Wide New Access Road				
	Clearing	acre	$3,000.00	0.9	$2,700.00
	Earthwork	cy	$10.00	1,265	$12,650.00
	Rock Excavation	cy	$95.00	600	$57,000.00
	19.0mm Asphalt (2.5")	tons	$50.00	530	$26,500.00
	9.5 mm Asphalt (1.5")	tons	$54.00	320	$17,280.00
	Type A Gravel - Crushed (3")	cy	$20.00	320	$6,400.00
	Type D Gravel (15")	cy	$15.00	1,580	$23,700.00
	5" Granite Curb	lf	$25.00	2,620	$65,500.00
	Stripping	lf	$3.00	1,310	$3,930.00
	New Access Road Subtotal				**$215,660.00**
10	Equipment Storage Area A (36,000 sq ft)				
	Clearing	acre	$3,000.00	0.95	$2,850.00
	Earthwork	cy	$10.00	1,335	$13,350.00
	Rock Excavation	cy	$95.00	330	$31,350.00
	19.0mm Asphalt (2.5")	tons	$50.00	560	$28,000.00
	9.5 mm Asphalt (1.5")	tons	$54.00	340	$18,360.00
	Type A Gravel - Crushed (3")	cy	$20.00	335	$6,700.00
	Type D Gravel (15")	cy	$15.00	1,670	$25,050.00
	Stripping	sy	$0.60	4,000	$2,400.00
	Equipment Storage Area A Subtotal				**$128,060.00**
11	Equipment Storage Area B (30,000 sq ft)				
	Clearing	acre	$3,000.00	0.8	$2,400.00
	Earthwork	cy	$10.00	1,115	$11,150.00
	Rock Excavation	cy	$85.00	280	$23,800.00
	19.0mm Asphalt (2.5")	tons	$50.00	470	$23,500.00
	9.5 mm Asphalt (1.5")	tons	$54.00	280	$15,120.00
	Type A Gravel - Crushed (3")	cy	$20.00	280	$5,600.00
	Type D Gravel (15")	cy	$15.00	1,390	$20,850.00
	Stripping	sy	$0.60	3,350	$2,010.00
	Equipment Storage Area B Subtotal				**$104,430.00**
12	Salvage Area				
	Clearing	acre	$3,000.00	1.75	$5,250.00
	Earthwork	cy	$10.00	2,410	$24,100.00
	Salvage Area Subtotal				**$29,350.00**
13	Site/Others				
	Mobilization	ls	$10,000.00	1	$10,000.00
	Demolition & Earth Borrow Pile Removal	ls	$25,000.00	1	$25,000.00
	Electrical	ls	$40,000.00	1	$40,000.00
	Telephone	ls	$15,000.00	1	$15,000.00
	8' Chain Link Fence	lf	$12.00	5,470	$65,640.00
	8' Chain Link Gates	each	$800.00	8	$6,400.00
	Offsite Traffic Improvements	allow	$150,000.00	1	$150,000.00
	Landscaping	allow	$25,000.00	1	$25,000.00
	Exterior Lighting	allow	$25,000.00	1	$25,000.00
	Fuel Depot	allow	$80,000.00	1	$80,000.00
	Remove existing underground tank, then fill	cy	$12,000.00	1	$12,000.00
	Clearing	acre	$3,000.00	1	$3,000.00
	General Earthwork	cy	$10.00	500	$5,000.00
	Rock Excavation	cy	$95.00	130	$12,350.00
	6" Rigid Underdrain	lf	$30.00	300	$9,000.00
	Loam and Seed	unit	$300.00	25	$7,500.00
	Erosion Control	unit	$100.00	25	$2,500.00
	Site/Others Subtotal				**$493,390.00**
				Subtotal	**$11,267,710.00**
				20% Miscellaneous & Contingency	**$2,253,542.00**
				Total	**$13,521,252.00**

OPINION OF COST
SPREADSHEET #1

Notes:

(1) It is understood that DeLuca-Hoffman Associates, Inc. (DHAI) has no control over the cost of labor, equipment or materials, market conditions, or the Contractor's method of pricing, and that the Engineer's Opinion of Probable Construction Costs are made on the basis of DHAI's professional judgement and experience. DHAI makes no warranty, express or implied, that the bids or negotiated cost of the Work will not vary from the Engineer's Opinion of Probable Construction Costs.

(2) This Engineer's Opinion on Probable Site Construction Costs is based on Conceptual Plan Number 7 in 2003 dollars.

(3) The cost of rehabilitating the existing Public Works building does not include an asphalt overlay of the floor. The probable construction cost of providing a 2.5" asphalt overlay will add $48,510.00 to the cost.

(4) The costs for the salt and sand sheds do not include a pavement floor in the sheds. Should this be desired, it will cost an additional $3.30 per square foot (1.5" 9.5 mm Asphalt, 2.5" 19.0 mm Asphalt, 3" Type A Gravel - Crushed, and 15" Type D Gravel. This will add $17,820.00 to the sand storage shed cost and $31,680.00 to the salt shed cost.

(5) The High Arch Gambrel by AST includes a wood crib wall. Use of a 10' high concrete wall would likely add $45,000.00 to the sand storage shed cost and $60,000.00 to the salt storage shed cost. (2001 dollars)

(6) The Portland Fire Department is considering locating a new facility to the south of the proposed site. This may alter the costs by being able to potentially provide shared facilities such as, but not limited to a pump station and stormwater management areas.

(7) The cost opinion was developed without the aid of geotechnical information for most of the site. The rock excavation quantities as well as the thickness of pavement materials used in this cost opinion have not benefitted from this knowledge. The figures for the quantities of these items are at best, rough estimates.

(8) The cost opinion was developed without the aid of a thorough structural assessment being made for the existing building owned by the Portland Water District.

(9) The cost opinion assumes cooperation with the Jetport in acquiring/leasing the property and overflow parking area.