

# The Economic & Fiscal Impacts of Development in the Northwest Corridor Area



# TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY .....</b>	<b>i</b>
<b>INTRODUCTION .....</b>	<b>1</b>
Purpose of the Study .....	1
What is Economic and Fiscal Impact Analysis?.....	1
Study Specifics .....	2
<b>NORTHWEST CORRIDOR COMPLETED IMPACTS.....</b>	<b>4</b>
General Development Assumptions .....	4
Specific Development Assumptions.....	5
Construction Activity Impacts .....	6
Business Operations Impacts .....	7
Employee Spending Impacts .....	9
Resident Spending Impacts.....	11
Total Economic and Fiscal Impacts.....	12
<b>STATUS QUO INFRASTRUCTURE IMPACTS .....</b>	<b>13</b>
General Development Assumptions .....	13
Specific Development Assumptions.....	13
Construction Activity Impacts .....	14
Business Operations Impacts .....	16
Employee Spending Impacts .....	18
Resident Spending Impacts.....	19
Total Economic and Fiscal Impacts.....	20
<b>DEVELOPMENT COMPARISON.....</b>	<b>22</b>
<b>SELECTED REFERENCES .....</b>	<b>24</b>

# EXECUTIVE SUMMARY

The proposed Northwest Corridor would complete Metro Denver’s beltway by connecting the northern end of C-470 with the southern end of the Northwest Parkway in Jefferson County. The study area extends from the freeway systems in the vicinity of State Highway 58, I-70, and C-470 in Jefferson County to the freeway systems in the vicinity of U.S. 36 in the City and County of Broomfield. This area is referred to as the Northwest Corridor area.

The purpose of this study is to highlight the importance of the Northwest Corridor to the existing community and potential new businesses and residents. Completion of the beltway will likely stimulate development along the Northwest Corridor as regional access is significantly improved. While it is expected that development will eventually occur with or without the completion of the beltway because of population growth in the Metro Denver region, the fate of the roadway will impact development patterns in the Northwest Corridor area in terms of use, intensity, and timing.

## Study Specifics

This study estimates the economic and fiscal impacts on Jefferson County over a 20-year period of development with and without the completion of the Northwest Corridor. Economic impacts measure the effect of spending of businesses, employees, and residents on other businesses whereas fiscal impacts measure the effect of this spending on the Jefferson County budget.

This study does not endorse a specific Northwest Corridor alternative but acknowledges that completion of the beltway will result in varying development patterns. Specific alignments may result in better access to commercial and residential sites. However, this study does not attempt to consider individual, micro impacts from completion of the beltway but analyzes the macro-level impacts on development in the corridor with and without completion of the beltway.

This analysis focuses on four key properties totaling 3,345 acres in the Northwest Corridor area, representing the majority of developable land in the study area. These properties include the Rocky Mountain Metropolitan Airport, Vauxmont/ Cimarron, Keller Farms, and a Jefferson County-owned parcel located south of the Keller Farms property on Highway 93 in Golden. Impacts of development outside of these acres are not included.

## Impact Summary

*The economic and fiscal impacts on Jefferson County of development in the Northwest Corridor area with the construction of the roadway is nearly double the impact without the roadway.*

The net economic impact of development in the Northwest Corridor area is expected to reach \$9.0 billion over the 20-year period without the new roadway. If the roadway is constructed, this figure is estimated to increase by 94% to \$17.4 billion. Similarly, the net fiscal impact associated with development in the area is estimated to total \$91.2 million over the 20-year time period without the roadway. If the roadway is constructed, the net fiscal impact is likely to increase by 98% to \$180.5 million.

### Development and Impact Summary

	Build	No Build
<b>Development Summary in Year 20:</b>		
Nonresidential Square Feet	11,482,000	5,635,000
Total Employment	32,181	15,220
Total Payroll (millions)	\$1,420.0	\$674.6
Housing Units	4,645	4,164
Number of Residents	10,884	9,916
<b>Total Impacts over 20 Years (millions):</b>		
Total Economic Benefits	\$17,788.8	\$9,183.9
Total Government Revenues	\$522.5	\$300.3
Total Government Costs	\$342.1	\$209.1
Net Economic Impact	\$17,446.7	\$8,974.7
Net Fiscal Impact	\$180.5	\$91.2

The difference in the economic and fiscal impacts of the two scenarios comes primarily from the shift to more nonresidential development if the roadway is constructed. Without the roadway, new nonresidential development is likely to total about 5.6 million square feet during the 20-year time period. If the Northwest Corridor is constructed, an estimated 11.5 million square feet of nonresidential space will be constructed.

While most of the residential development is likely to occur with or without the roadway, the product mix differs slightly between the two scenarios. Without the roadway, it is likely that about 4,164 residential units will be constructed. With the roadway, the number of new residential units is likely to increase to 4,645.

# INTRODUCTION

The proposed Northwest Corridor would complete Metro Denver's beltway by connecting the northern end of C-470 with the southern end of the Northwest Parkway in Jefferson County. The existing beltway system in Metro Denver consists of C-470 (26 miles, completed 1990), E-470 (toll road, 47 miles, completed 2003), and the Northwest Parkway (toll road, 11 miles, completed 2003). A draft Environmental Impact Statement (EIS) is currently underway, studying options for constructing the last beltway portion referred to as the Northwest Corridor.

The Northwest Corridor EIS study area extends from the freeway systems in the vicinity of State Highway 58, I-70, and C-470 in Jefferson County to the freeway systems in the vicinity of U.S. 36 in the City and County of Broomfield. This area is called the Northwest Corridor area throughout this report.

The draft EIS will evaluate the impact of the proposed Northwest Corridor on numerous natural and human characteristics of the area. Nearly two dozen impacts are considered, including such items as land use, noise, air quality, wetlands, visual quality, energy, and economics. The National Environmental Policy Act requires this study whenever federal funds are used for major transportation projects.

The Northwest Corridor EIS study began in late 2003. The process initially considered 73 build alternatives, many of which were suggested by local communities through the scoping process and public meetings. An EIS studies all options, including "no action." Since then, the project team has diligently analyzed and narrowed the list through several screening steps. It is expected that six alternatives, including the no action alternative, will be discussed in the draft EIS that is expected to be released in fall 2007.

## Purpose of the Study

The purpose of this study is to highlight the importance of the Northwest Corridor to the existing community and potential new businesses and

residents. Completion of the beltway will likely stimulate development along the Northwest Corridor as regional access is significantly improved. While it is expected that development will eventually occur with or without the completion of the beltway because of population growth in the Metro Denver region, the fate of the roadway will impact development patterns in the Northwest Corridor area in terms of use, intensity, and timing.

This study estimates the economic and fiscal impacts on Jefferson County of development with and without the completion of the Northwest Corridor. This study does not explicitly consider roadway improvement options "somewhere in the middle" of these two infrastructure options. Rather, the results of this analysis may be considered as the potential upper and lower bounds of development impacts.

The economic and fiscal impacts to Jefferson County are presented in two sections. The first section describes the impacts of development if the Northwest Corridor is completed or the "Northwest Corridor Completed" scenario. This scenario is alternatively referred to as the "build scenario." The second section describes the impacts of development if the Northwest Corridor is not completed or the "Status Quo Infrastructure" scenario. This scenario is alternatively referred to as the "no-build scenario."

## What is Economic and Fiscal Impact Analysis?

Economic impact analysis is the analytical approach used to assess the measurable direct and indirect, public and private costs and benefits resulting from a project over a specific time period. Only those costs and benefits that can be measured or quantified are included. Intangible costs and benefits, such as enhancement of community character or diversification of the job base, are not included.

Fiscal impact analysis is a narrower concept that measures only the direct, public (governmental) costs and public revenues associated with the project over a specific time period such as sales and use tax, property tax, franchise fees, licenses and permits,

# INTRODUCTION

and other charges for services. In other words, economic impacts measure the effect of spending of businesses, employees, and residents on other businesses whereas fiscal impacts measure the effect of this spending on the local government(s) budget.

## Study Specifics

This study does not endorse a specific Northwest Corridor alternative but acknowledges that completion of the beltway will result in varying development patterns. Specific alignments may result in better access to commercial and residential sites. However, this study does not attempt to consider individual, micro impacts from completion of the beltway but analyzes the macro-level impacts on development in the corridor with and without completion of the beltway.

This analysis focuses on four key properties totaling 3,345 acres in the Northwest Corridor area, representing the majority of developable land in the study area: 1) Rocky Mountain Metropolitan Airport; 2) Vauxmont/Cimarron; 3) Keller Farms; and (4) a Jefferson County-owned parcel located south of the Keller Farms property on Highway 93 in Golden, referred to as the “Jefferson County Property.”

A number of assumptions are included in this analysis and are described below:

1. The economic and fiscal impacts are extrapolated over a 20-year build-out period, although actual development may occur beyond the 20-year period.
2. The analysis is not expected to simulate any specific year of development. Rather, the estimates presented herein are intended to provide a reasonable estimation of development patterns over a twenty-year period.
3. The development plans used as the basis for estimating economic and fiscal impacts are believed to be consistent with the long-range planning documents for this region.
4. The economic and fiscal impacts are reported in 2007 dollars, with no property value or tax increases and no inflation or cost of living adjustment.
5. The analysis isolates the total economic and fiscal impacts on Jefferson County businesses and the Jefferson County budget only. In actuality, the development impacts extend beyond the Jefferson County borders.
6. The impacts are discussed within the framework of four categories: construction activity, business operations, employee spending, and resident spending. Only direct impacts are included; this analysis does not contain any multiplier impacts.
7. Construction impacts are one-time impacts, in that the impact of construction activity accrues only in the year in which construction activity occurs. If there is no construction activity in a given year, there are no associated economic and fiscal benefits.
8. The impacts of on-going business operations in the Northwest Corridor are analyzed in terms of employment, materials purchases, personal property, and real property expenditures. These impacts are not intended to simulate exactly any single year of company operations. Rather, the impact is discussed as a total impact based on typical operating patterns throughout the study period.
9. Employment of any part-time workers has been reduced to “full-time equivalent” (FTE) positions using a standard workweek and benefits.
10. Employment over the 20-year period is generally described in terms of “work years.” One work year is equal to one FTE employee working for one year.
11. Employee and resident spending impacts are based on the taxable expenditures of employees and residents of the Northwest Corridor area. This study recognizes the reality of retail

# INTRODUCTION

leakage, thus reports specifically on the impacts of retail spending on Jefferson County.

Employee and resident impacts also consider taxes paid to the Jefferson County government.

Data for the study was provided by the Jefferson Economic Council, developers, property owners, and other stakeholders. Development Research Partners made every attempt to collect necessary additional or missing information. Development Research Partners believes that the information used in this report is from sources deemed reliable but is not guaranteed.

# NORTHWEST CORRIDOR COMPLETED

This section describes the economic and fiscal impacts of development to Jefferson County assuming the Northwest Corridor was completed.

The judgment of the Induced Growth Expert Panel, consisting of county and municipal planners and other agency and private experts convened as part of the Northwest Corridor EIS process, was that the construction of the roadway would not significantly influence future population and employment levels in much of the Northwest Corridor area. This conclusion was based on the fact that much of the area is already built out, designated as open space, undevelopable due to topographical or other factors, or is sufficiently remote from the Northwest Corridor.<sup>1</sup>

However, the panel notes that there are three key areas where build alternatives could significantly influence the type, timing, or intensity of development. These key areas include:

- ◆ Rocky Mountain Metropolitan Airport: future planned business park surrounding the airport.
- ◆ Vauxmont/Cimarron: located northwest of CO Hwy 72 and Indiana Blvd.
- ◆ Keller Farms: west of SH 93 at 64th Avenue.

This analysis also incorporates one additional parcel of land whose development potential may be influenced by the Northwest Corridor:

- ◆ Jefferson County Property: located south of the Keller Farms property on Highway 93.

This analysis focuses on the differences in the impact of these four properties based on whether or not the roadway is constructed. While it is likely that all four of these properties will be developed regardless of the Northwest Corridor alternative selected, the type, timing, and intensity of development is likely to differ, resulting in a different economic and fiscal impact.

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<sup>1</sup> Felsburg Holt & Ullevig, "Northwest Corridor Environmental Impact Statement and Supporting Technical Documents, Draft Financial Funding Report," October 2005, page 1-13.

While there may be additional parcels of land whose development patterns would be influenced by the construction of the Northwest Corridor, this analysis only focuses on the impacts of the four properties as a way to demonstrate the degree of difference in construction patterns. Further, the costs and benefits of the roadway may extend beyond just the area focused on in this report. For example, parcels of land further south along C-470 may benefit from enhanced connectivity to the north. These extended costs and benefits from the roadway are not included.

## General Development Assumptions

Development details included in the analysis were based on the most recent development plans for each of the four parcels. This information was supplemented by conversations with the developers and additional real estate market data. The following general assumptions apply to all four properties in both the build and no-build scenarios:

1. This study is not a market feasibility study. There has been no attempt to analyze the area's ability to support the level of development assumed in this study. Rather, it is assumed that the market will successfully support the level of development completed within the 20-year time period based on the developers' information.
2. The four parcels total 3,345 acres of land, including 823 acres of open space.
3. Floor-to-Area Ratios (FARs) were selected consistent with other development in the area.
4. All development generally occurs equally throughout the 20-year period. For example, if 2.0 million square feet of office development is expected over 20 years, the impact analysis is based on 100,000 square feet being built each year.
5. Construction costs for the various development types are based on Marshall & Swift resources, as well as input from the developers.

# NORTHWEST CORRIDOR COMPLETED

6. Residential market values are based on current average home prices, taking into account the anticipated product mix.
7. Multi-family units and the majority of the single-family units are built in increments of 200 or more in order to achieve economies of scale in development. A more limited number of larger, custom homes are developed each year.
6. Office development is anticipated to occur over 50 years. For this 20-year model, it is assumed that half of the total office development occurs.
7. Industrial development is anticipated to occur over 50 years. It is assumed that 75% of the industrial development is completed in 20 years.
8. All retail, hotel, education, and medical space is developed in 20 years.

## **Specific Development Assumptions**

Development details included in the analysis were based on the most recent development plans for each of the four parcels. This information was supplemented by conversations with the developers and additional real estate market data. The following assumptions relate specifically to the development patterns if the Northwest Corridor is constructed:

1. The analysis does not include the economic and fiscal impacts from the planning and construction of the roadway. Only the impacts from the development surrounding the roadway are included in the analysis.
2. This analysis does not include the value of any development incentives that may be associated with potential projects.

## **Rocky Mountain Metropolitan Airport**

3. Development assumptions for the 534-acre site are based on Scenario D-1 described in the *Aviation Market Analysis* and the *Non-Aviation Market and Feasibility Study* completed by CH2M Hill in July 2004.
4. All aviation and non-aviation uses are developed in the 20-year time period.

## **Vauxmont/Cimarron**

5. Development assumptions are based on the October 2006 draft development plan for the 1,487-acre property. The analysis also incorporates July 2007 development plan revisions.

9. All single-family and multi-family units are developed in 20 years.
10. Office, industrial, retail, and hotel development occurs equally throughout the 20-year period.
11. Medical development occurs equally throughout a ten-year period, in years 5-14.
12. Education development occurs in its entirety in year 5.

## **Keller Farms**

13. Commercial and residential development does not begin until year 11 on this 1,183-acre parcel, with build-out of the property occurring in years 11-20. The development timeframe is pushed out because the property is currently in use as a gravel quarry and will continue to be operated as such while the natural resources exist.
14. Development assumptions are based on a September 2003 plan for the property. This plan is the baseline for the no-build scenario, with the build scenario including more intensive commercial development and less residential development than the no-build scenario.
15. Based on drawings, it is estimated that 10% of the 34 commercial acres will be used for office/hotel development. The 80,000-square-foot office/hotel area will be split equally between hotel and office.
16. The hotel development will occur with or without the roadway.

# NORTHWEST CORRIDOR COMPLETED

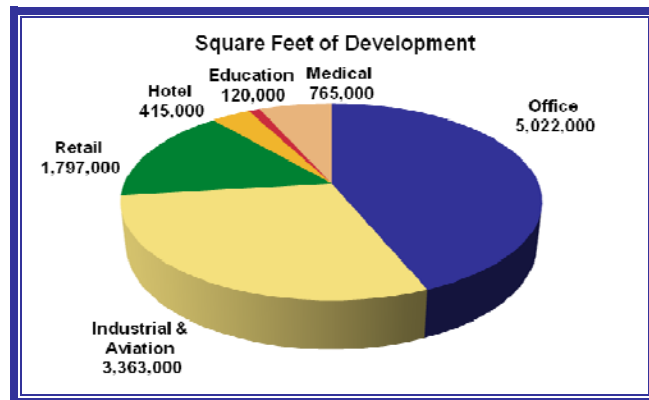
## Jefferson County Property

17. Since Jefferson County purchased this parcel of land with open space funds, only half of the 141-acre property may be developed and the other half must be maintained as open space.
18. No specific development plans for the property exist. Therefore, developable acres are divided equally between office, industrial, and retail uses.
19. Build-out of the property is assumed to occur within the 20-year period.

## Construction Activity Impacts

Construction activity results in an increase in the real property value of residential and nonresidential property within the 3,345-acre area. Construction activity also generates tax revenue for the local government, payroll for construction workers, and sales for construction goods and services vendors. Construction impacts are transitory, occurring only during the construction period.

Construction activity at the four key properties in the Northwest Corridor area is expected to begin in 2010 and continue through 2029. By the end of the 20-year study period, about 11.5 million square feet of nonresidential space will have been added with a market value of about \$1.7 billion. Nonresidential development will include office, industrial, aviation-related uses, retail, medical, educational, and lodging space.



In addition, about 4,645 residential units will have been added to the Northwest Corridor area by the end of the 20-year period. Residential units planned for the area include a broad mix of for-sale homes and rental units. The market value of the residential units is expected to reach \$1.6 billion and be home to about 10,900 people.

### Residential Mix

	No. of Units	Average Price
Single-Family (High End)	1,464	\$480,000
Single-Family (Mid-Range)	997	\$300,000
Single-Family Attached	1,924	\$279,000
Multi-Family	260	\$140,000
<b>TOTAL</b>	<b>4,645</b>	<b>\$1.6 billion</b>

## Construction Materials, Soft Costs, & Payroll

Construction spending is divided as 60% construction materials, 30% construction labor, and 10% soft costs. Therefore, the total construction investment of \$2.7 billion is estimated as including \$1.6 billion in materials, \$268.2 million in soft costs, and \$804.7 million in payroll.

Expenditures on construction materials, soft costs (design & engineering), and construction labor for the projects may occur in Jefferson County as well as outside of the area. Based on a leakage analysis for Jefferson County, an estimated 15.5% of construction materials and 27.7% of soft costs would be purchased from Jefferson County businesses. This results in \$323.8 million in purchases from Jefferson County-based suppliers.

Construction activity would support an average of 969 full-time equivalent (FTE) construction workers each year over the 20-year period. In actuality, the number of construction workers needed on the projects would vary each year from a high of over 1,600 in year 5 to a low of 660 in year 20. Development projects will result in the employment of 19,374 work years over the 20-year period. One work year is equal to one FTE for one year.

# NORTHWEST CORRIDOR COMPLETED

Using the average construction wage for Jefferson County of \$19.97 per hour, the average annual construction worker salary was \$41,538. Further, it is assumed that about 22.1% of the construction workers will also be residents of Jefferson County. Thus, the estimated construction payroll to Jefferson County residents totals \$177.8 million over the 20-year period.

## Local Government Revenues

Jefferson County levies a 0.5% sales tax on construction materials purchases but does not levy a use tax. Based on the 0.5% sales tax rate, it is estimated that the \$249.5 million of construction materials purchased from Jefferson County suppliers will generate \$1.2 million in sales tax revenue over the 20-year period.

In addition, Jefferson County charges development impact fees based on the number of residential units and the total square footage of development. Based on the impact fee schedule, the projects will generate \$48.7 million in impact fees over the 20-year period.

## Construction Impacts Summary

The construction net economic impact includes the local Jefferson County spending and the total local government revenue generated by the construction activity. The construction net fiscal impact is a narrower measure that includes only the local government revenue.

Businesses providing construction materials and services and construction workers located in Jefferson County will earn \$501.6 million in revenue/earnings from the development projects. The result is a net economic impact to Jefferson County of \$551.6 million and a net fiscal impact of \$49.9 million.

## Summary of Construction Impacts Build Scenario, 2010-2029

<b>Local Government Revenue</b>	
Sales Tax on Construction Materials	\$1,247,000
Impact Fees	\$48,703,000
<b>Total Local Government Revenues</b>	<b>\$49,950,000</b>
<b>Construction Spending</b>	
Construction Materials	\$1,609,464,000
Soft Costs	\$268,244,000
Construction Employment (work years)	19,374
Construction Payroll	\$804,732,000
<b>Total Construction Costs</b>	<b>\$2,682,441,000</b>
<i>Total Jefferson County Local Purchases</i>	<i>\$501,616,000</i>
<b>Construction Net Economic Impact</b>	<b>\$551,567,000</b>
<b>Construction Net Fiscal Impact</b>	<b>\$49,950,000</b>

## Business Operations Impacts

The economic and fiscal impacts of businesses located in the Northwest Corridor area as a result of future development are estimated based on employment, occupied real property, business personal property, and operational purchases.

This analysis does not include the economic and fiscal impacts of existing businesses already operating in the Northwest Corridor region but focuses on businesses locating to the study area as a result of new development.

## Employment & Payroll

Employment in the future businesses located in the Northwest Corridor area will increase over time as new construction is completed. By the final year of this analysis, employment is expected to reach an estimated 32,181 workers. Over the course of the 20-year development horizon, businesses in the area will have supported 335,910 work years. One work year is equal to one FTE for one year.

# NORTHWEST CORRIDOR COMPLETED

## Employment Impacts

	Square Feet	Year 20 Employment	Total Work Years	Average Annual Salary
Office	5,022,000	18,479	192,567	\$47,358
Industrial & Aviation	3,363,000	6,255	65,360	\$51,138
Retail & Hotel	2,212,000	5,087	49,929	\$20,342
Education & Medical	885,000	2,360	28,054	\$51,516
<b>TOTAL</b>	<b>11,482,000</b>	<b>32,181</b>	<b>335,910</b>	

Based on current average annual wages from the 2006 Quarterly Census of Employment & Wages for Jefferson County, total payroll throughout the 20-year period will be more than \$14.9 billion. In year 20 alone, total payroll will exceed \$1.4 billion.

Based on the 2005 American Community Survey by the U.S. Census Bureau, it is assumed that 47.4% of the employees working in the 3,345-acre site will also live within Jefferson County. Therefore, an estimated \$7.1 billion of the more than \$14.9 billion in wages were paid to employees that are also residents of Jefferson County.

### Business Spending

Northwest Corridor area businesses purchase a wide variety of goods and services. Spending includes purchases of operational materials, utilities, furniture and fixtures, and computer equipment. This spending creates sales and property tax revenue for Jefferson County as well as revenue for Jefferson County vendors and suppliers.

### Real & Personal Property

The 11.5 million square feet of new nonresidential space will have a market value of over \$1.7 billion by year 20.

Business tenants need to purchase furniture, fixtures, and other equipment to operate their businesses. Businesses also need to purchase new personal property each year to replace deteriorating or obsolete equipment. This study assumes that businesses annually replace 12.5% of their furniture and fixtures, 33.3% of computer equipment, and

8.3% of heavy equipment. Over the 20-year period, Northwest Corridor area businesses will have purchased an estimated \$1.0 billion in furniture, fixtures, and equipment. More specifically, Northwest Corridor area businesses will have purchased \$329.6 million in furniture and fixtures, \$606.5 in computer equipment, and \$63.9 million in manufacturing or industrial-related equipment.

Based on a 2006 leakage analysis for Jefferson County, it is assumed that \$140.2 million of the total business purchases will be transacted with Jefferson County suppliers.

Jefferson County currently levies a 0.5% sales tax on furniture, fixtures, and computer equipment purchases made in the county. Thus, Northwest Corridor area businesses will contribute about \$6.0 million in sales tax revenue to Jefferson County from personal property purchases.

In addition, Jefferson County collects property tax based on the assessed value of the real and personal property of the businesses. It is estimated that the businesses will contribute over \$137.8 million in real and personal property taxes over the 20-year period.

### Operational Purchases & Utilities

Northwest Corridor area businesses will have purchased an estimated \$2.3 billion in operational materials over the 20-year period, of which nearly \$1.1 billion will be purchased in Jefferson County. Additionally, Northwest Corridor area businesses will purchase \$715.3 million in utilities and telecommunications. Local operational purchases and utilities will generate approximately \$13.5 million in utility franchise tax revenue for Jefferson County.

### Retail Sales

The 2.2 million square feet of retail and hotel space in the Northwest Corridor area by year 20 will generate an estimated \$5.0 billion in total retail sales over the 20-year period. Assuming that about 80% of this activity is subject to sales tax, the Northwest Corridor retail and hotel operations will generate

# NORTHWEST CORRIDOR COMPLETED

\$20.0 million in sales tax revenue for the County over the 20-year period.

## Other Local Government Revenues

In addition to sales and property taxes, businesses may contribute various other governmental revenues in the form of other taxes, licenses, fees, and the like. These revenues are offset by the cost of providing governmental services to the businesses. Distributing county governmental service costs and revenues to employees and residents according to an intensity of land use process developed by the Urban Land Institute, it is estimated that businesses will contribute an additional \$68.0 million in other revenue.

The cost of providing governmental services is estimated on a per employee basis, resulting in total governmental services costs of \$112.7 million.

## Business Operations Impacts Summary

The business operations net economic impact includes the local Jefferson County spending, local employee earnings, and the total local government revenues generated by the business activity. The business operations net fiscal impact is a narrower measure that includes only the local government revenue. Businesses providing supplies and services and workers located in Jefferson County will earn \$13.3 billion in revenue and earnings from the development projects over the 20-year period. The result is a net economic impact to Jefferson County of \$13.4 billion and a net fiscal impact of \$132.5 million.

## Summary of Business Operations Impacts Build Scenario, 2010-2029

<b>Local Government Revenue</b>	
Real Property Tax Revenue	\$120,298,000
Personal Property Tax Revenue	\$17,518,000
Sales & Franchise Tax Revenue	\$39,473,000
Total Other Revenue Less Governmental	(\$44,747,000)
<b>Total Local Government Revenues</b>	<b>\$132,543,000</b>
<b>Employment &amp; Earnings</b>	
Total Employment (in work years)	335,910
Total Employee Earnings	\$14,922,845,000
<i>Local Jefferson County Employee Earnings</i>	<i>\$7,073,429,000</i>
<b>Business Activity</b>	
Retail & Hotel Sales	\$4,992,919,000
Business to Business Purchases	\$3,334,614,000
Total Business Activity	\$8,327,533,000
<i>Total Jefferson County Business Activity</i>	<i>\$6,193,004,000</i>
<b>Business Operations Net Economic Impact</b>	<b>\$13,398,975,000</b>
<b>Business Operations Net Fiscal Impact</b>	<b>\$132,543,000</b>

## Employee Spending Impacts

Northwest Corridor area employees receive paychecks and are thus able to purchase goods and services to support their households. This employee spending creates sales and property tax revenue for local governments and generates sales revenue for local goods and services vendors.

However, not all of the workers that are employed by businesses in the Northwest Corridor area are also residents of Jefferson County. Based on the 2005 American Community Survey by the U.S. Census Bureau, it is assumed that 47.4% of employees working in Jefferson County also live in Jefferson County. Further, an estimated 10% of homeowners in the Northwest Corridor area also work in the Northwest Corridor area. To avoid double counting, employees that live and work in the Northwest Corridor are accounted for under the Resident Spending section.

# NORTHWEST CORRIDOR COMPLETED

## Retail Sales Spending

It is assumed that the spending patterns of employees closely mirror typical U.S. household spending patterns described in the *Statistical Abstract of the United States*. Based on this information, an estimated 37.1% of an employee's expenditures are spent on taxable goods and services. For the employees and the other members of their households supported by Northwest Corridor area employers, this represents a total of \$2.4 billion in taxable retail expenditures over the study period.

Based on an analysis of 2006 retail trade sales by category for Jefferson County and the fact that there will always be some leakage outside of the region, it is estimated that Jefferson County will capture an estimated 76.3% of the potential taxable retail sales. Therefore, the employees spent an estimated \$1.8 billion in Jefferson County, generating about \$9.0 million in retail sales tax revenue based on the current 0.5% sales tax rate.

## Employee Residential Real Property

Assuming that each Northwest Corridor area employee supports one household and that 47.4% of the employees reside in Jefferson County, the number of employee households increases from 1,196 in year 2 to 13,728 in year 20. These resident employees supported housing worth approximately \$1.8 billion in year 20. Over the 20-year analysis period, employees paid about \$33.5 million in property tax to Jefferson County.

## Other Local Government Revenues

In addition to sales and property taxes, resident employees may contribute various other governmental revenues in the form of other taxes, licenses, fees, and the like. In addition, various intergovernmental revenues are allocated according to the area's total population. These revenues are offset by the cost of providing governmental services to the resident employees. Distributing county governmental service costs and revenues to employees and residents according to an intensity of land use process developed by the Urban Land

Institute, it is estimated that the Northwest Corridor area employees that are also Jefferson County residents will contribute an additional \$72.0 million in other revenue.

The cost of providing governmental services is estimated on a per resident basis, resulting in total governmental services costs of \$119.3 million.

## Employee Spending Impacts Summary

The employee spending net economic impact includes the local Jefferson County spending and the total local government revenue generated by the employee spending activity. The employee spending net fiscal impact is a narrower measure that includes only the local government revenue.

Businesses providing supplies and services to the employees residing in Jefferson County will earn \$1.8 billion in revenue from the resident employees over the 20-year period. The result is a net economic impact to Jefferson County of \$1.8 billion and a net fiscal impact of -\$4.8 million.

It is not unusual for the cost of governmental services for residents to exceed the revenue received from the residents. This demonstrates that business development often "subsidizes" residential development.

### Summary of Employee Spending Impacts Build Scenario, 2010-2029

<b>Local Government Revenue</b>	
Real Property Tax Revenue	\$33,489,000
Sales Tax Revenue	\$9,010,000
Total Other Revenue Less Governmental Service Costs	(\$47,355,000)
<b>Total Local Government Revenues</b>	<b>(\$4,855,000)</b>
<b>Business Activity</b>	
Employee to Business Purchases	\$2,361,818,000
Total Jefferson County Local Purchases	\$1,802,067,000
<b>Employee Spending Net Economic Impact</b>	<b>\$1,797,212,000</b>
<b>Employee Spending Net Fiscal Impact</b>	<b>(\$4,855,000)</b>

# NORTHWEST CORRIDOR COMPLETED

## Resident Spending Impacts

Northwest Corridor area residents generate economic activity in the region through their spending habits and the payment of sales and property taxes.

About 4,645 residential units will be added to the Northwest Corridor area by the end of the 20-year period. Residential units planned for the area include a broad mix of for-sale homes and rental units. The market value of the residential units is expected to reach \$1.6 billion and be home to about 10,900 people.

### Residential Mix

	No. of Units	Average Price
Single-Family (High End)	1,464	\$480,000
Single-Family (Mid-Range)	997	\$300,000
Single-Family Attached	1,924	\$279,000
Multi-Family	260	\$140,000
TOTAL	4,645	\$1.6 billion

## Retail Sales Spending

The estimated 10,900 Northwest Corridor area residents contribute to the local economy through their spending on goods and services, which in turn generates sales tax revenue.

Residents spend their income on a variety of goods and services. It is assumed that resident spending patterns in the Northwest Corridor closely mirror the typical U.S. household spending patterns described in the *Statistical Abstract of the United States*. Based on this information, an estimated 37.1% of the residents' expenditures are spent on taxable goods and services. This represents a total of \$2.2 billion in taxable retail expenditures over the study period.

Based on an analysis of 2006 retail trade sales by category for Jefferson County and the fact that there will always be some leakage outside of the region, it is estimated that Jefferson County will capture 76.3% of the potential taxable retail sales. Therefore, Northwest Corridor area residents spent an estimated

\$1.7 billion in Jefferson County and consequently generated \$8.5 million in retail sales tax revenue for the County, based on the current 0.5% sales tax rate.

## Residential Real Property

In the final year of this analysis, the 4,645 housing units are valued at \$1.6 billion. Over the 20-year period, residents in the Northwest Corridor area paid \$38.0 million in property tax revenue to Jefferson County.

## Other Local Government Revenues

In addition to sales and property taxes, residents may contribute various other governmental revenues in the form of other taxes, licenses, fees, and the like. In addition, various intergovernmental revenues are allocated according to the area's total population. These revenues are offset by the cost of providing governmental services to the residents. Distributing county governmental service costs and revenues to employees and residents according to an intensity of land use process developed by the Urban Land Institute, it is estimated that the Northwest Corridor area residents will contribute an additional \$66.3 million in other revenue.

The cost of providing governmental services is estimated on a per resident basis, resulting in total governmental services costs of \$110.0 million.

## Resident Spending Impacts Summary

The resident spending net economic impact includes the local Jefferson County spending and the total local government revenue generated by the resident spending activity. The resident spending net fiscal impact is a narrower measure that includes only the local government revenue.

Jefferson County businesses providing supplies and services to the residents will earn \$1.7 billion in revenue from the residents over the 20-year period. The result is a net economic impact to Jefferson County of \$1.7 billion and a net fiscal impact of \$2.8 million.

# NORTHWEST CORRIDOR COMPLETED

## Summary of Resident Spending Impacts Build Scenario, 2010-2029

<b>Local Government Revenue</b>	
Real Property Tax Revenue	\$38,005,000
Sales Tax Revenue	\$8,481,000
Total Other Revenue Less Governmental Service Costs	(\$43,646,000)
<b>Total Local Government Revenues</b>	<b>\$2,839,000</b>
<b>Demographics of the Residents (Year 20)</b>	
Total Number of Housing Units	4,645
Total Value of Housing Units	\$1,576,330,000
Total Number of Residents	10,884
Total Household Income	\$505,790,000
<b>Business Activity</b>	
Resident to Business Purchases	\$2,222,946,000
Total Jefferson County Local Purchases	\$1,696,108,000
<b>Resident Spending Net Economic Impact</b>	<b>\$1,698,946,000</b>
<b>Resident Spending Net Fiscal Impact</b>	<b>\$2,839,000</b>

While it is not unusual for the cost of governmental services for residents to exceed the revenue received from the residents, this is not the case for these residents. The proposed mix of housing options in the Northwest Corridor area will attract residents with relatively high household incomes. The result is that residential development in the Northwest Corridor will generally pay its own way.

## Total Economic and Fiscal Impacts

The 3,345-acre Northwest Corridor area that would potentially be developed if the Northwest Corridor were built would have a total net economic impact of \$17.4 billion on Jefferson County over a 20-year period, including a net fiscal impact of about \$180.5 million.

The total economic and fiscal impact includes all construction activity and the spending patterns of the businesses, employees, and residents of the Northwest Corridor area. This impact only includes the potential new development that would occur on the identified 3,345 acres. It does not include the impact of any existing businesses and residents or

potential new development outside of the four identified parcels of land.

## Total Economic and Fiscal Impacts Build Scenario, 2010-2029

<b>Local Gov't Economic Benefits</b>	
Construction	\$551,567,000
Business Operations	\$13,511,727,000
Off-Site Employees	\$1,916,536,000
On-Site Residents	\$1,808,925,000
<b>Total Local Gov't Economic Benefits</b>	<b>\$17,788,755,000</b>
<b>Local Government Revenues</b>	
Construction	\$49,950,000
Business Operations	\$245,295,000
Off-Site Employees	\$114,469,000
On-Site Residents	\$112,818,000
<b>Total Local Government Revenues</b>	<b>\$522,531,000</b>
<b>Local Government Costs</b>	
Construction	\$0
Business Operations	\$112,752,000
Off-Site Employees	\$119,324,000
On-Site Residents	\$109,979,000
<b>Total Local Government Costs</b>	<b>\$342,055,000</b>
<b>Net Economic Benefit (Gov't Econ Benefits less Gov't Costs)</b>	
Construction	\$551,567,000
Business Operations	\$13,398,975,000
Off-Site Employees	\$1,797,212,000
On-Site Residents	\$1,698,946,000
<b>Total Net Economic Benefit</b>	<b>\$17,446,700,000</b>
<b>Net Fiscal Benefit (Gov't Revenues less Gov't Costs)</b>	
Construction	\$49,950,000
Business Operations	\$132,543,000
Off-Site Employees	(\$4,855,000)
On-Site Residents	\$2,839,000
<b>Total Net Fiscal Benefit</b>	<b>\$180,477,000</b>

# STATUS QUO INFRASTRUCTURE

This section describes the economic and fiscal impacts of development to Jefferson County assuming that the Northwest Corridor is not completed. This represents the current situation, called the Status Quo Infrastructure scenario. In other words, the economic and fiscal impacts presented herein are not influenced by any significant transportation upgrades such as the Northwest Corridor over the 20-year study period.

This analysis also focuses on the projected development of the four properties. Again, these properties include:

- ◆ Rocky Mountain Metropolitan Airport: future planned business park surrounding the airport.
- ◆ Vauxmont/Cimarron: located northwest of CO Hwy 72 and Indiana Blvd.
- ◆ Keller Farms: west of SH 93 at 64th Avenue.
- ◆ Jefferson County Property: located south of the Keller Farms property on Highway 93.

While there may be additional parcels of land whose development patterns would be influenced by the lack of construction of the Northwest Corridor, this analysis only focuses on the impacts of the four properties as a way to demonstrate the degree of difference in construction patterns.

## General Development Assumptions

The following general assumptions apply to all four properties in both the build and no-build scenarios. These assumptions, also included in the Northwest Corridor Completed section, are repeated here for convenience.

1. This study is not a market feasibility study. There has been no attempt to analyze the area's ability to support the level of development assumed in this study. Rather, it is assumed that the market will successfully support the level of development completed within the 20-year time period based on the developers' information.
2. The four parcels total 3,345 acres of land, including 823 acres of open space.
3. Floor-to-Area Ratios (FARs) were selected consistent with other development in the area.
4. All development generally occurs equally throughout the 20-year period. For example, if 2.0 million square feet of office development is expected over 20 years, the impact analysis is based on 100,000 square feet being built each year.
5. Construction costs for the various development types are based on Marshall & Swift resources, as well as input from the developers.
6. Residential market values are based on current average home prices, taking into account the anticipated product mix.
7. Multi-family units and the majority of the single-family units are built in increments of 200 or more in order to achieve economies of scale in development. A more limited number of larger, custom homes are developed each year.

## Specific Development Assumptions

Development details included in the analysis are based on the most recent development plans for each of the four parcels. This information was supplemented by conversations with the developers and additional real estate market data. The following assumptions relate specifically to the development patterns if the Northwest Corridor is not constructed:

1. This analysis does not include the value of any development incentives that may be associated with potential projects.

### Rocky Mountain Metropolitan Airport

2. Development assumptions for the 534-acre site are based on Scenario D-1 described in the *Aviation Market Analysis* and the *Non-Aviation Market and Feasibility Study* completed by CH2M Hill in July 2004.
3. It is assumed that only 75% of the aviation uses and 50% of the non-aviation uses are developed over the 20-year period.

# STATUS QUO INFRASTRUCTURE

## Vauxmont/Cimarron

4. Development assumptions are based on the October 2006 draft development plan for the 1,487-acre property. The analysis also incorporates July 2007 development plan revisions.
5. Office development would take three or four times longer without the roadway. It is assumed that only 1/3 of total development is completed in 20 years.
6. Office, industrial, and retail development occurs equally throughout the 20-year period.
7. Only half of the industrial and fire station space will be developed in 20 years without the roadway.
8. Only about 300,000 square feet of the retail space is developed in 20 years.
9. The hotel and medical (hospital) development does not happen without the roadway.
10. Education development occurs in its entirety in year 5.
11. All single-family and multi-family units are developed in 20 years, although the number of single-family attached units is lower.

## Keller Farms

12. Commercial and residential development does not begin until year 11 on this 1,183-acre parcel, with build-out of the property occurring in years 11-20. The development timeframe is pushed out because the property is currently in use as a gravel quarry and will continue to be operated as such while the natural resources exist.
13. Development assumptions are based on a September 2003 plan for the property. This plan is the baseline for the no-build scenario, with the build scenario including more intensive commercial development and less residential development than the no-build scenario.

14. Based on drawings, it is estimated that 10% of the 34 commercial acres will be used for office/hotel development. The 80,000-square-foot office/hotel area will be split equally between hotel and office.
15. The hotel development will occur with or without the roadway.

## Jefferson County Property

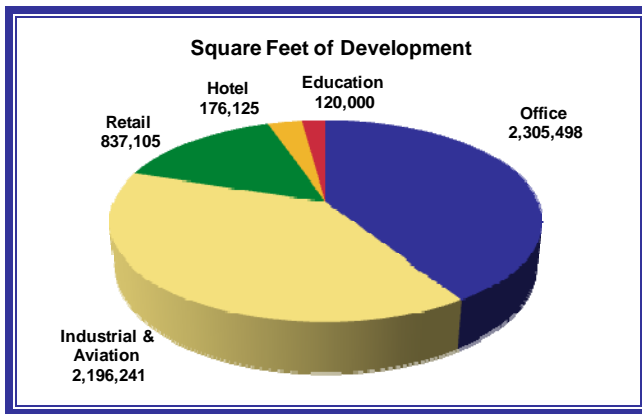
16. Since Jefferson County purchased this parcel of land with open space funds, only half of the 141-acre property may be developed and the other half must be maintained as open space.
17. No specific development plans for the property exist. Therefore, developable acres are divided equally between office, industrial, and retail uses.
18. It is assumed that only 75% of the development occurs within the 20-year period.

## Construction Activity Impacts

Construction activity results in an increase in the real property value of residential and nonresidential property within the 3,345-acre area. Construction activity also generates tax revenue for the local government, payroll for construction workers, and sales for construction goods and services vendors. Construction impacts are transitory, occurring only during the construction period.

Construction activity at the four key properties in the Northwest Corridor area is expected to begin in 2010 and continue through 2029. By the end of the 20-year study period, about 5.6 million square feet of nonresidential space will have been added with a market value of about \$764.0 million. Nonresidential development will include office, industrial, aviation-related uses, retail, educational, and lodging space.

# STATUS QUO INFRASTRUCTURE



In addition, about 4,164 residential units will have been added to the Northwest Corridor area by the end of the 20-year period. Residential units planned for the area include a broad mix of for-sale homes and rental units. The market value of the residential units is expected to reach \$1.4 billion and be home to about 9,900 people.

### Residential Mix

	No. of Units	Average Price
Single-Family (High End)	1,464	\$480,000
Single-Family (Mid-Range)	1,101	\$300,000
Single-Family Attached	1,339	\$270,000
Multi-Family	260	\$140,000
<b>TOTAL</b>	<b>4,164</b>	<b>\$1.4 billion</b>

### Construction Materials, Soft Costs, & Payroll

Construction spending is divided as 60% construction materials, 30% construction labor, and 10% soft costs. Therefore, the total construction investment of \$1.8 billion is estimated as including \$1.1 billion in materials, \$180.5 million in soft costs, and \$541.4 million in payroll.

Expenditures on construction materials, soft costs (design & engineering), and construction labor for the projects may occur in Jefferson County as well as outside of the area. Based on a leakage analysis for Jefferson County, an estimated 15.5% of construction materials and 27.7% of soft costs will

be purchased from Jefferson County businesses. This results in \$217.8 million in purchases from Jefferson County-based suppliers.

Construction activity would support an average of 652 full-time equivalent (FTE) construction workers each year over the 20-year period. In actuality, the number of construction workers needed on the projects would vary each year from a high of over 1,300 in year 5 to a low of 250 in years 11 and 12. Development projects will result in the employment of 13,034 work years over the 20-year period. One work year is equal to one FTE for one year.

Using the average construction wage for Jefferson County of \$19.97 per hour, the average annual construction worker salary was \$41,538. Further, it is assumed that about 22.1% of the construction workers will also be residents of Jefferson County. Thus, the estimated construction payroll to Jefferson County residents totals \$119.6 million over the 20-year period.

### Local Government Revenues

Jefferson County levies a 0.5% sales tax on construction materials purchases but does not levy a use tax. Based on the 0.5% sales tax rate, it is estimated that the \$167.8 million of construction materials purchased from Jefferson County suppliers will generate \$0.8 million in sales tax revenue over the 20-year period.

In addition, Jefferson County charges development impact fees based on the number of residential units and the total square footage of development. Based on the impact fee schedule, the projects will generate \$28.4 million in impact fees over the 20-year period.

### Construction Impacts Summary

The construction net economic impact includes the local Jefferson County spending and the total local government revenue generated by the construction activity. The construction net fiscal impact is a narrower measure that includes only the local government revenue.

# STATUS QUO INFRASTRUCTURE

## Summary of Construction Impacts No Build Scenario, 2010-2029

Local Government Revenue	
Sales Tax on Construction Materials	\$839,000
Impact Fees	\$28,421,000
<b>Total Local Government Revenues</b>	<b>\$29,260,000</b>
Construction Spending	
Construction Materials	\$1,082,765,000
Soft Costs	\$180,461,000
Construction Employment (work years)	13,034
Construction Payroll	\$541,382,000
<b>Total Construction Costs</b>	<b>\$1,804,608,000</b>
<i>Total Jefferson County Local Purchases</i>	<i>\$337,462,000</i>
<b>Construction Net Economic Impact</b>	<b>\$366,721,000</b>
<b>Construction Net Fiscal Impact</b>	<b>\$29,260,000</b>

Businesses providing construction materials and services and construction workers located in Jefferson County will earn \$337.5 million in revenue/earnings from the development projects. The result is a net economic impact to Jefferson County of \$366.7 million and a net fiscal impact of \$29.3 million.

## Business Operations Impacts

The economic and fiscal impacts of businesses located in the Northwest Corridor area as a result of future development are estimated based on employment, occupied real property, business personal property, and operational purchases.

This analysis does not include the economic and fiscal impacts of existing businesses already operating in the Northwest Corridor region but focuses on businesses locating to the study area because of new development.

## Employment & Payroll

Employment in the future businesses located in the Northwest Corridor area will increase over time as new construction is completed. By the final year of this analysis, employment is expected to reach an estimated 15,220 workers. Over the course of the 20-year development horizon, businesses in the area

will have supported 157,489 work years. One work year is equal to one FTE for one year.

## Employment Impacts

	Square Feet	Year 20 Employment	Total Work Years	Average Annual Salary
Office	2,305,498	8,484	88,300	\$47,358
Industrial & Aviation	2,196,241	4,085	42,688	\$51,138
Retail & Hotel	1,013,230	2,330	21,701	\$20,342
Education & Medical	120,000	320	4,800	\$51,516
<b>TOTAL</b>	<b>5,634,969</b>	<b>15,220</b>	<b>157,489</b>	

Based on current average annual wages from the 2006 Quarterly Census of Employment & Wages for Jefferson County, total payroll throughout the 20-year period will be nearly \$7.1 billion. In year 20 alone, total payroll will be about \$674.6 million.

Based on the 2005 American Community Survey by the U.S. Census Bureau, it is assumed that 47.4% of the employees working in the 3,345-acre site will also live within Jefferson County. Therefore, an estimated \$3.3 billion of the nearly \$7.1 billion in wages were paid to employees that are also residents of Jefferson County.

## Business Spending

Northwest Corridor area businesses purchase a wide variety of goods and services. Spending includes purchases of operational materials, utilities, furniture and fixtures, and computer equipment. This spending creates sales and property tax revenue for Jefferson County as well as revenue for Jefferson County vendors and suppliers.

## Real & Personal Property

The 5.6 million square feet of new nonresidential space will have a market value of \$764.0 million by year 20.

Business tenants need to purchase furniture, fixtures, and other equipment to operate their businesses. Businesses also need to purchase new personal property each year to replace deteriorating or

# STATUS QUO INFRASTRUCTURE

obsolete equipment. This study assumes that businesses annually replace 12.5% of their furniture and fixtures, 33.3% of computer equipment, and 8.3% of heavy equipment. Over the 20-year period, Northwest Corridor area businesses will have purchased an estimated \$450.2 million in furniture, fixtures, and equipment. More specifically, Northwest Corridor area businesses will have purchased \$145.3 million in furniture and fixtures, \$263.2 in computer equipment, and \$41.7 million in manufacturing or industrial-related equipment.

Based on a 2006 leakage analysis for Jefferson County, it is assumed that \$64.0 million of the total business purchases will be transacted with Jefferson County suppliers.

Jefferson County currently levies a 0.5% sales tax on furniture, fixtures, and computer equipment purchases made in the county. Thus, Northwest Corridor area businesses will contribute about \$0.3 million in sales tax revenue to Jefferson County from personal property purchases.

In addition, Jefferson County collects property tax based on the assessed value of the real and personal property of the businesses. It is estimated that the businesses will contribute over \$63.1 million in real and personal property taxes over the 20-year period.

## *Operational Purchases & Utilities*

Northwest Corridor area businesses will have purchased an estimated \$1.2 billion in operational materials over the 20-year period, of which nearly \$535.8 million will be purchased in Jefferson County. Additionally, Northwest Corridor area businesses will purchase \$351.3 million in utilities and telecommunications. Local operational purchases and utilities will generate approximately \$9.6 million in utility franchise tax revenue for Jefferson County.

## Retail Sales

The 1.0 million square feet of retail and hotel space in the Northwest Corridor area by year 20 will generate an estimated \$2.2 billion in total retail sales over the 20-year period. Assuming that about 80%

of this activity is subject to sales tax, the Northwest Corridor retail and hotel operations will generate \$8.7 million in sales tax revenue for the County over the 20-year period.

## Other Local Government Revenues

In addition to sales and property taxes, businesses may contribute various other governmental revenues in the form of other taxes, licenses, fees, and the like. These revenues are offset by the cost of providing governmental services to the businesses. Distributing county governmental service costs and revenues to employees and residents according to an intensity of land use process developed by the Urban Land Institute, it is estimated that businesses will contribute an additional \$31.9 million in other revenue.

The cost of providing governmental services is estimated on a per employee basis, resulting in total governmental services costs of \$52.9 million.

## Business Operations Impacts Summary

The business operations net economic impact includes the local Jefferson County spending, local employee earnings, and the total local government revenues generated by the business activity. The business operations net fiscal impact is a narrower measure that includes only the local government revenue. Businesses providing supplies and services and workers located in Jefferson County will earn \$6.1 billion in revenue and earnings from the development projects over the 20-year period. The result is a net economic impact to Jefferson County of \$6.2 billion and a net fiscal impact of \$60.7 million.

# STATUS QUO INFRASTRUCTURE

## Summary of Business Operations Impacts No Build Scenario, 2010-2029

<b>Local Government Revenue</b>	
Real Property Tax Revenue	\$54,970,000
Personal Property Tax Revenue	\$8,108,000
Sales & Franchise Tax Revenue	\$18,556,000
Total Other Revenue Less Governmental	(\$20,979,000)
<b>Total Local Government Revenues</b>	<b>\$60,655,000</b>
<b>Employment &amp; Earnings</b>	
Total Employment (work years)	157,489
Total Employee Earnings	\$7,053,409,000
Local Jefferson County Employee Earnings	\$3,343,316,000
<b>Business Activity</b>	
Retail & Hotel Sales	\$2,170,116,000
Business to Business Purchases	\$1,630,296,000
Total Business Activity	\$3,800,412,000
Total Jefferson County Business Activity	\$2,769,882,000
<b>Business Operations Net Economic Impact</b>	<b>\$6,173,853,000</b>
<b>Business Operations Net Fiscal Impact</b>	<b>\$60,655,000</b>

## Employee Spending Impacts

Northwest Corridor area employees receive paychecks and are thus able to purchase goods and services to support their households. This employee spending creates sales and property tax revenue for local governments and generates sales revenue for local goods and services vendors.

However, not all of the workers that are employed by businesses in the Northwest Corridor area are also residents of Jefferson County. Based on the 2005 American Community Survey by the U.S. Census Bureau, it is assumed that 47.4% of employees working in Jefferson County also live in Jefferson County. Further, an estimated 10% of homeowners in the Northwest Corridor area also work in the Northwest Corridor area. To avoid double counting, employees that live and work in the Northwest Corridor are accounted for under the Resident Spending section.

## Retail Sales Spending

It is assumed that the spending patterns of employees closely mirror typical U.S. household spending patterns described in the *Statistical Abstract of the United States*. Based on this information, an estimated 37.1% of an employee's expenditures are spent on taxable goods and services. For the employees and the other members of their households supported by Northwest Corridor area employers, this represents a total of \$1.1 billion in taxable retail expenditures over the study period.

Based on an analysis of 2006 retail trade sales by category for Jefferson County and the fact that there will always be some leakage outside of the region, it is estimated that Jefferson County will capture an estimated 76.3% of the potential taxable retail sales. Therefore, the employees spent an estimated \$851.8 million in Jefferson County, generating about \$4.3 million in retail sales tax revenue based on the current 0.5% sales tax rate.

## Employee Residential Real Property

Assuming that each Northwest Corridor area employee supports one household and that 47.4% of the employees reside in Jefferson County, the number of employee households increases from 591 in year 2 to 6,493 in year 20. These resident employees supported housing worth approximately \$863.3 million in year 20. Over the 20-year analysis period, employees paid about \$15.8 million in property tax to Jefferson County.

## Other Local Government Revenues

In addition to sales and property taxes, resident employees may contribute various other governmental revenues in the form of other taxes, licenses, fees, and the like. In addition, various intergovernmental revenues are allocated according to the area's total population. These revenues are offset by the cost of providing governmental services to the resident employees. Distributing county governmental service costs and revenues to employees and residents according to an intensity of land use process developed by the Urban Land

# STATUS QUO INFRASTRUCTURE

Institute, it is estimated that the Northwest Corridor area employees that are also Jefferson County residents will contribute an additional \$33.7 million in other revenue.

The cost of providing governmental services is estimated on a per resident basis, resulting in total governmental services costs of \$55.9 million.

## Employee Spending Impacts Summary

The employee spending net economic impact includes the local Jefferson County spending and the total local government revenue generated by the employee spending activity. The employee spending net fiscal impact is a narrower measure that includes only the local government revenue.

Businesses providing supplies and services to the employees residing in Jefferson County will earn \$851.8 million in revenue from the resident employees over the 20-year period. The result is a net economic impact to Jefferson County of \$849.6 million and a net fiscal impact of -\$2.1 million.

It is not unusual for the cost of governmental services for residents to exceed the revenue received from the residents. This demonstrates that business development often “subsidizes” residential development.

### **Summary of Employee Spending Impacts No Build Scenario, 2010-2029**

<b>Local Government Revenue</b>	
Real Property Tax Revenue	\$15,821,000
Sales Tax Revenue	\$4,259,000
Total Other Revenue Less Governmental Service Costs	(\$22,202,000)
<b>Total Local Government Revenues</b>	<b>(\$2,123,000)</b>
<b>Business Activity</b>	
Employee to Business Purchases	\$1,116,333,000
Total Jefferson County Local Purchases	\$851,762,000
<b>Employee Spending Net Economic Impact</b>	<b>\$849,640,000</b>
<b>Employee Spending Net Fiscal Impact</b>	<b>(\$2,123,000)</b>

## **Resident Spending Impacts**

Northwest Corridor area residents generate economic activity in the region through their spending habits and the payment of sales and property taxes.

About 4,164 residential units will be added to the Northwest Corridor area by the end of the 20-year period. Residential units planned for the area include a broad mix of for-sale homes and rental units. The market value of the residential units is expected to reach \$1.4 billion and be home to about 9,900 people.

### **Residential Mix**

	<b>No. of Units</b>	<b>Average Price</b>
Single-Family (High End)	1,464	\$480,000
Single-Family (Mid-Range)	1,101	\$300,000
Single-Family Attached	1,339	\$270,000
Multi-Family	260	\$140,000
<b>TOTAL</b>	<b>4,164</b>	<b>\$1.4 billion</b>

## Retail Sales Spending

The estimated 9,900 Northwest Corridor area residents contribute to the local economy through their spending on goods and services, which in turn generates sales tax revenue.

Residents spend their income on a variety of goods and services. It is assumed that resident spending patterns in the Northwest Corridor closely mirror the typical U.S. household spending patterns described in the *Statistical Abstract of the United States*. Based on this information, an estimated 37.1% of the residents’ expenditures are spent on taxable goods and services. This represents a total of \$2.1 billion in taxable retail expenditures over the study period.

Based on an analysis of 2006 retail trade sales by category for Jefferson County and the fact that there will always be some leakage outside of the region, it is estimated that Jefferson County will capture 76.3% of the potential taxable retail sales. Therefore, Northwest Corridor area residents spent an estimated

# STATUS QUO INFRASTRUCTURE

\$1.6 billion in Jefferson County and consequently generated \$7.9 million in retail sales tax revenue for the County, based on the current 0.5% sales tax rate.

## Residential Real Property

In the final year of this analysis, the 4,164 housing units are valued at \$1.4 billion. Over the 20-year period, residents in the Northwest Corridor area paid \$35.3 million in property tax revenue to Jefferson County.

## Other Local Government Revenues

In addition to sales and property taxes, residents may contribute various other governmental revenues in the form of other taxes, licenses, fees, and the like. In addition, various intergovernmental revenues are allocated according to the area's total population. These revenues are offset by the cost of providing governmental services to the residents. Distributing county governmental service costs and revenues to employees and residents according to an intensity of land use process developed by the Urban Land Institute, it is estimated that the Northwest Corridor area residents will contribute an additional \$60.5 million in other revenue.

The cost of providing governmental services is estimated on a per resident basis, resulting in total governmental services costs of \$100.3 million.

## Resident Spending Impacts Summary

The resident spending net economic impact includes the local Jefferson County spending and the total local government revenue generated by the resident spending activity. The resident spending net fiscal impact is a narrower measure that includes only the local government revenue.

Jefferson County businesses providing supplies and services to the residents will earn \$1.6 billion in revenue from the residents over the 20-year period. The result is a net economic impact to Jefferson County of \$1.6 billion and a net fiscal impact of \$3.4 million.

## Summary of Resident Spending Impacts No Build Scenario, 2010-2029

<b>Local Government Revenue</b>	
Real Property Tax Revenue	\$35,290,000
Sales Tax Revenue	\$7,906,000
Total Other Revenue Less Governmental Service Costs	(\$39,815,000)
<b>Total Local Government Revenues</b>	<b>\$3,380,000</b>
<b>Demographics of the Residents (Year 20)</b>	
Total Number of Housing Units	4,164
Total Value of Housing Units	\$1,444,061,000
Total Number of Residents	9,916
Total Household Income	\$475,545,000
<b>Business Activity</b>	
Resident to Business Purchases	\$2,072,263,000
<i>Total Jefferson County Local Purchases</i>	<i>\$1,581,137,000</i>
<b>Resident Spending Net Economic Impact</b>	<b>\$1,584,517,000</b>
<b>Resident Spending Net Fiscal Impact</b>	<b>\$3,380,000</b>

While it is not unusual for the cost of governmental services for residents to exceed the revenue received from the residents, this is not the case for these residents. The proposed mix of housing options in the Northwest Corridor area will attract residents with relatively high household incomes. The result is that residential development in the Northwest Corridor will generally pay its own way.

## Total Economic and Fiscal Impacts

*The 3,345-acre Northwest Corridor area that would potentially be developed even if the Northwest Corridor were not built would have a total net economic impact of \$9.0 billion on Jefferson County over a 20-year period, including a net fiscal impact of about \$91.2 million.*

The total economic and fiscal impact includes all construction activity and the spending patterns of the businesses, employees, and residents of the Northwest Corridor area. This impact only includes the potential new development that would occur on the identified 3,345 acres. It does not include the impact of any existing businesses and residents or

# STATUS QUO INFRASTRUCTURE

potential new development outside of the four identified parcels of land.

## Total Economic and Fiscal Impacts No Build Scenario, 2010-2029

<b>Local Gov't Economic Benefits</b>	
Construction	\$366,721,000
Business Operations	\$6,226,716,000
Off-Site Employees	\$905,584,000
On-Site Residents	\$1,684,842,000
<b>Total Local Gov't Economic Benefits</b>	<b>\$9,183,863,000</b>
<b>Local Government Revenues</b>	
Construction	\$29,260,000
Business Operations	\$113,518,000
Off-Site Employees	\$53,822,000
On-Site Residents	\$103,705,000
<b>Total Local Government Revenues</b>	<b>\$300,305,000</b>
<b>Local Government Costs</b>	
Construction	\$0
Business Operations	\$52,863,000
Off-Site Employees	\$55,944,000
On-Site Residents	\$100,325,000
<b>Total Local Government Costs</b>	<b>\$209,132,000</b>
<b>Net Economic Benefit (Gov't Econ Benefits less Gov't Costs)</b>	
Construction	\$366,721,000
Business Operations	\$6,173,853,000
Off-Site Employees	\$849,640,000
On-Site Residents	\$1,584,517,000
<b>Total Net Economic Benefit</b>	<b>\$8,974,730,000</b>
<b>Net Fiscal Benefit (Gov't Revenues less Gov't Costs)</b>	
Construction	\$29,260,000
Business Operations	\$60,655,000
Off-Site Employees	(\$2,123,000)
On-Site Residents	\$3,380,000
<b>Total Net Fiscal Benefit</b>	<b>\$91,172,000</b>

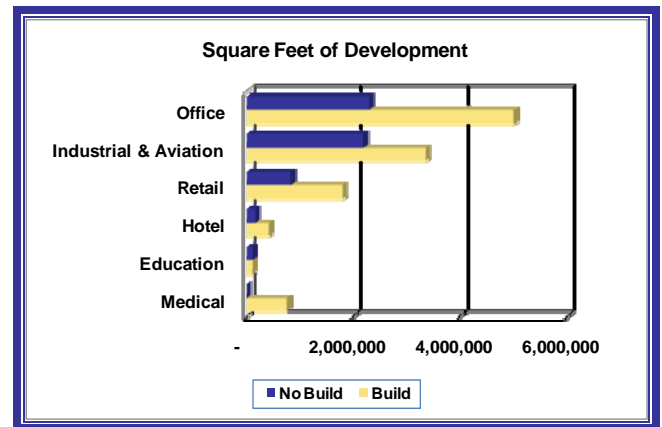
# DEVELOPMENT COMPARISON

Development in the Northwest Corridor area will likely occur with or without the proposed roadway. However, the timing, intensity, and product mix of development is likely to differ. Based on the assumptions of this analysis, the economic and fiscal impacts on Jefferson County of development in the Northwest Corridor area with the construction of the roadway is nearly double the impact without the roadway. It should be noted that both scenarios included in this analysis focus only on the development impacts associated with the four key parcels totaling 3,345 acres. Impacts of development outside of these acres are not included.

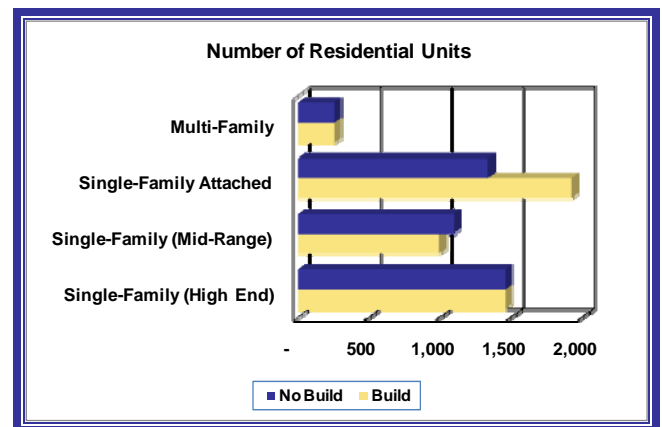
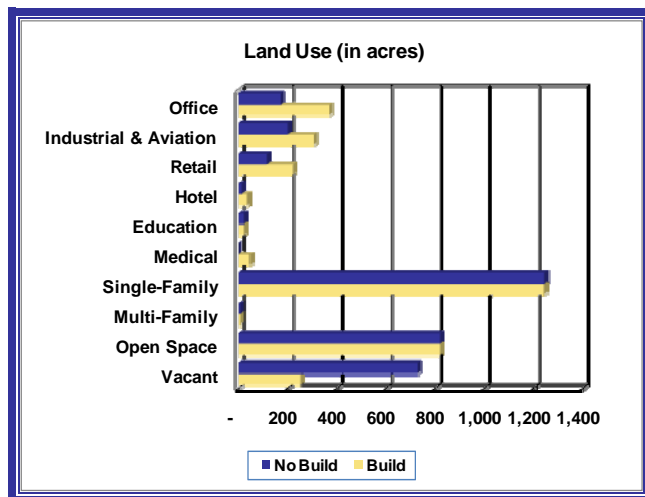
The net economic impact of development in the Northwest Corridor area is expected to reach \$9.0 billion over the 20-year period without the new roadway. If the roadway is constructed, this figure is estimated to increase by 94% to \$17.4 billion. Similarly, the net fiscal impact associated with development in the area is estimated to total \$91.2 million over the 20-year time period without the roadway. If the roadway is constructed, the net fiscal impact is likely to increase by 98% to \$180.5 million.

The difference in the economic and fiscal impacts of the two scenarios comes primarily from the shift to more nonresidential development if the roadway is constructed. In addition, the development time period is shortened if the roadway is constructed.

If the roadway is constructed, nonresidential development is likely to nearly double. Without the roadway, new nonresidential development is likely to total about 5.6 million square feet during the 20-year time period. If the Northwest Corridor is constructed, an estimated 11.5 million square feet of nonresidential space will be constructed.



While most of the residential development is likely to occur with or without the roadway, the product mix differs slightly between the two scenarios. Without the roadway, it is likely that about 4,164 residential units will be constructed. With the roadway, the number of new residential units is likely to increase to 4,645.



The following table provides a comparison of the impacts of development with and without construction of the Northwest Corridor.

# DEVELOPMENT COMPARISON

## Total Economic and Fiscal Impacts Comparison of the Build and No Build Scenarios, 2010-2029

	Build	No Build	Difference (Build-No Build)	Percent Change
<b>Local Gov't Economic Benefits</b>				
Construction	\$551,567,000	\$366,721,000	\$184,846,000	50.4%
Business Operations	\$13,511,727,000	\$6,226,716,000	\$7,285,011,000	117.0%
Off-Site Employees	\$1,916,536,000	\$905,584,000	\$1,010,952,000	111.6%
On-Site Residents	\$1,808,925,000	\$1,684,842,000	\$124,083,000	7.4%
<b>Total Local Gov't Economic Benefits</b>	<b>\$17,788,755,000</b>	<b>\$9,183,863,000</b>	<b>\$8,604,892,000</b>	<b>93.7%</b>
<b>Local Government Revenues</b>				
Construction	\$49,950,000	\$29,260,000	\$20,690,000	70.7%
Business Operations	\$245,295,000	\$113,518,000	\$131,777,000	116.1%
Off-Site Employees	\$114,469,000	\$53,822,000	\$60,647,000	112.7%
On-Site Residents	\$112,818,000	\$103,705,000	\$9,113,000	8.8%
<b>Total Local Government Revenues</b>	<b>\$522,531,000</b>	<b>\$300,305,000</b>	<b>\$222,226,000</b>	<b>74.0%</b>
<b>Local Government Costs</b>				
Construction	\$0	\$0	\$0	NA
Business Operations	\$112,752,000	\$52,863,000	\$59,889,000	113.3%
Off-Site Employees	\$119,324,000	\$55,944,000	\$63,380,000	113.3%
On-Site Residents	\$109,979,000	\$100,325,000	\$9,654,000	9.6%
<b>Total Local Government Costs</b>	<b>\$342,055,000</b>	<b>\$209,132,000</b>	<b>\$132,923,000</b>	<b>63.6%</b>
<b>Net Economic Benefit (Gov't Econ Benefits less Gov't Costs)</b>				
Construction	\$551,567,000	\$366,721,000	\$184,846,000	50.4%
Business Operations	\$13,398,975,000	\$6,173,853,000	\$7,225,122,000	117.0%
Off-Site Employees	\$1,797,212,000	\$849,640,000	\$947,572,000	111.5%
On-Site Residents	\$1,698,946,000	\$1,584,517,000	\$114,429,000	7.2%
<b>Total Net Economic Benefit</b>	<b>\$17,446,700,000</b>	<b>\$8,974,730,000</b>	<b>\$8,471,970,000</b>	<b>94.4%</b>
<b>Net Fiscal Benefit (Gov't Revenues less Gov't Costs)</b>				
Construction	\$49,950,000	\$29,260,000	\$20,690,000	70.7%
Business Operations	\$132,543,000	\$60,655,000	\$71,888,000	118.5%
Off-Site Employees	(\$4,855,000)	(\$2,123,000)	(\$2,732,000)	128.7%
On-Site Residents	\$2,839,000	\$3,380,000	(\$541,000)	-16.0%
<b>Total Net Fiscal Benefit</b>	<b>\$180,477,000</b>	<b>\$91,172,000</b>	<b>\$89,305,000</b>	<b>98.0%</b>

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