JOHNSON ECONOMICS

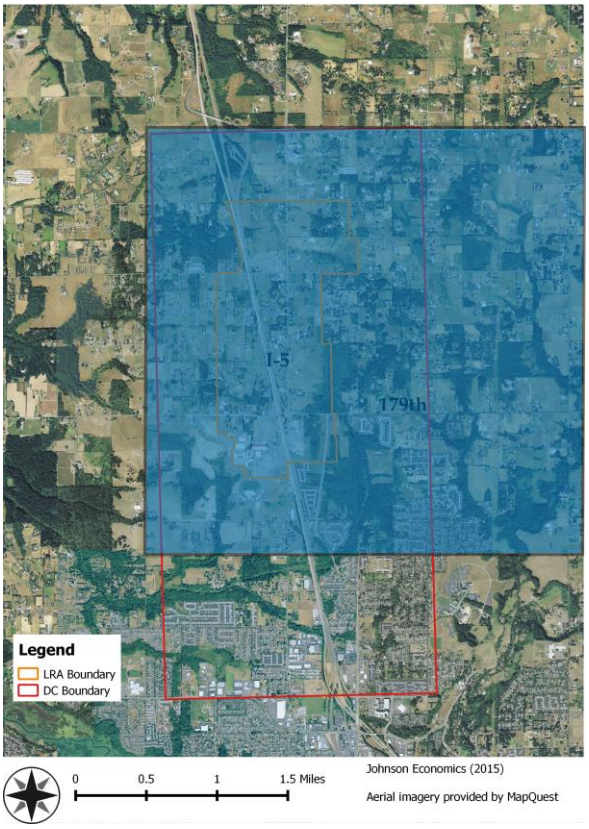
# ECONOMIC IMPACT AND RETURN ON INVESTMENT ANALYSIS FOR NE 179TH STREET IMPROVEMENTS

## SUMMARY OF FINDINGS

**August 2015**

Future development potential in northern Clark County is limited by the capacity of the local infrastructure system to accommodate projected future growth. JOHNSON ECONOMICS was retained to assess the potential return on a series of infrastructure investments along NE 179th Street between NE 15th Avenue and Delfel Road that would address some of the current system's limitations. The proposed project would convert NE 179th from a rural two lane facility to an urban arterial with traffic controls, and include a full reconstruction of the interchange to provide for greater capacity. The proposed improvements and the associated increase in capacity will enhance current function of the road network, as well as provide adequate capacity to meet the expected needs of north Clark County over a 30 to 40 year horizon.

**DEFINED STUDY AREA**




Our analysis evaluated the economic and fiscal implications of marginal anticipated development in the study area outlined in the map to the right. This area ranges from 159th to the south, 219th to the north, NE 50th to the east and NW 11th to the west. The area has seen a significant level of investment over the last few decades, including Legacy's Salmon Creek hospital, Washington State University's Vancouver Campus, the Clark County Event Center, and Clark County Fairgrounds. As Clark County continues to expand, this area's location along the I-5 corridor places it within the path of growth, and the area is expected to attract considerable development activity assuming adequate infrastructure is in place.

The proposed improvements will allow the restrictions on lands designated urban holdings to be removed, significantly increasing the inventory of developable property. In addition, it will support full development of the property in the study area, as well as increasing the likelihood of redevelopment as greater development intensities are allowed.

## DEVELOPMENT CAPACITY

Our analysis evaluated marginal development capacity in the impacted area through an evaluation of the current inventory of developable and redevelopable property.

Our analysis identified almost 2,200 acres of vacant land in the area, including a mix of industrial, commercial and residential property. The analysis also considered the impact of likely redevelopment activity, as properties with relatively low value improvements are redeveloped to more intensive uses over time. In addition, we calculated properties currently designated as urban holdings, and assumed development profiles consistent with fully entitled properties.

The overall assumed development capacity within the study area is summarized in the following table:

**STUDY AREA**

**SUMMARY OF DEVELOPMENT PROGRAM AND TAXABLE SALES ESTIMATE**

| | % of Use | Land (Acres) | Building Area (SF) | Coverage (FAR) | Estimated Development Cost | | |
|---|---|---|---|---|---|---|---|
| | | | | | Cost/SF | Soft % | Taxable Value |
| **COMMERCIAL** | | | | | | | |
| Three Creeks | 1% | 43.3 | 531,600 | 0.28 | $176 | 20% | $112,273,900 |
| Retail Development | 4% | 144.2 | 1,569,963 | 0.25 | $141 | 20% | $265,637,700 |
| Office Development | 2% | 96.1 | 1,255,970 | 0.30 | $158 | 20% | $238,131,900 |
| Infrastructure Allocation | 1% | 42.4 | - | - | | | |
| Subtotal Commercial Zoning | 8% | 326.0 | 3,357,533 | 0.24 | | | $616,043,500 |
| **INDUSTRIAL** | | | | | | | |
| Business Park | 6% | 252.6 | 3,851,112 | 0.35 | $115 | 20% | $531,453,500 |
| Warehouse Industrial | 3% | 123.7 | 2,156,144 | 0.40 | $90 | 20% | $232,863,600 |
| Infrastructure Allocation | 2% | 66.4 | - | - | | | |
| Subtotal Industrial Zoning | 11% | 442.8 | 6,007,257 | 0.31 | | | $764,317,100 |
| **RESIDENTIAL** | | | | | | | |
| Single Family | 75% | 3,074.1 | 36,889,140 | 0.28 | $120 | 20% | $5,312,036,200 |
| Multi Family | 6% | 257.3 | 4,528,216 | 0.40 | $115 | 20% | $624,893,800 |
| Subtotal Residential Zoning | 81% | 3,331.4 | 41,417,356 | 0.29 | | | $5,936,930,000 |
| **Totals All Uses** | 100% | 4,100.1 | 50,782,145 | 0.28 | | | $7,317,290,600 |
| **Annual Sales Estimate** | | | | | | | **$2,049,145,000** |
| Taxable Sales | | | | | | 24% | **$484,500,000** |

Vacant and redevelopable acreage was allocated to a series of assumed development profiles based on comprehensive plan designation. This is inherently speculative, but the assumptions are consistent with current development patterns observed in Clark County.

## IMPACT ANALYSIS OVERVIEW

Our analysis evaluated a range of economic and fiscal impacts associated with the build-out over time of available capacity within the study area. The study area is broad, and the timing of future development is difficult to forecast with certainty. Our analysis addresses impacts at a broad aggregate level, and then looks at the likely economic and fiscal impacts over time based on assumed development timing.

## Construction Related Impacts

The following table summarizes the results of this analysis for impacts related to construction:[1]

| Impact Type | Employment | Labor Income | Total Value Added | Output |
|---|---|---|---|---|
| Direct Effect | 54,357 | $3,009,590,003 | $3,854,088,975 | $7,317,293,688 |
| Indirect Effect | 14,503 | $626,473,872 | $991,264,460 | $1,791,556,902 |
| Induced Effect | 16,073 | $691,293,403 | $1,284,041,778 | $2,126,772,130 |
| Total Effect | 84,933 | $4,327,357,279 | $6,129,395,213 | $11,235,622,720 |

The employment column reflects full time equivalent employment (FTE), which equates to one full time position for a full year. As an example, a drywall contractor employing someone for three months on a local project would equate to 0.25 FTE.

Local construction spending is expected to translate into over 54,000 full-time equivalent jobs over the full build-out of the study area, generating $3.0 billion in labor income and $3.8 billion in value-added output. The overall impact, including Indirect and induced impacts from construction activity, would be expected to support almost 85,000 full time equivalent jobs, $4.3 billion in labor income, and $6.1 billion in value-added output. As would be expected, the industries with the largest economic impact are in the construction sector. Other major industries that are impacted include architectural and engineering, food services, retail stores and medical practices.

While construction-related impacts are addressed in the study as one-time impacts, it should be noted that these impacts are actually likely to be spread over a long-term horizon, as the build-out of the area is expected to take decades. Assuming a twenty-year build out, the 54,000 full time equivalent construction jobs would reflect development supporting an average of 2,700 jobs per year over that time period.

## Impacts of Ongoing Operations

Direct employment in new marginal developments within the corridor is estimated to exceed 23,700 jobs, with an average annual wage of just under $50,000 (2015 Dollars). This yields direct annual wage income of just under $700 million per year. Over 82% of the marginal increase in employment in the area is expected to be in higher wage industrial and office space, with average pay rates 25% higher than the current median wage in Clark County.

Additional impacts are associated with residential development in the area, which is expected to accommodate roughly 24,000 new households. Assuming average annual household wages consistent with current averages in Clark County, residents in these developments would have over $1.8 billion in annual income (2015 Dollars). This level of local income would be expected to drive local sales tax revenues, as well as to provide support to medical and professional services.

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1 ***Value Added Output***: The difference between an industry or establishment's total output and the cost of its intermediate inputs. It equals gross output (sales or receipts and other operating income, plus inventory change) minus intermediate inputs (consumption of goods and services purchased from other industries or imported). Value added consists of compensation of employees, taxes on production and imports less subsidies, and gross operating surplus.
***Labor Income:*** All forms of employment income, including employee compensation (wages and benefits) and proprietor income.

The combined economic impacts of the ongoing operation of tenant businesses, and growth in local household income combines to support on a sustained basis a total of almost 33,000 full time equivalent jobs, with labor income of approximately $1.1 billion per year.

| Impact Type | Employment | Labor Income | Total Value Added | Output |
|---|---|---|---|---|
| Direct Effect | 23,728 | $698,520,728 | $829,549,689 | $1,368,961,248 |
| Indirect Effect | 3,185 | $106,795,804 | $178,375,539 | $320,738,383 |
| Induced Effect | 13,438 | $575,252,029 | $1,046,263,014 | $1,758,484,912 |
| Total Effect | 32,924 | $1,063,202,454 | $1,481,399,137 | $2,480,240,177 |

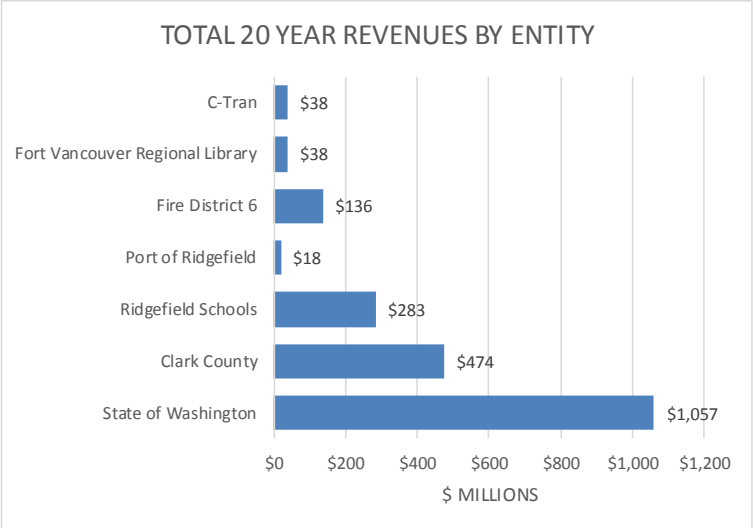
## FISCAL IMPACTS

The fiscal impacts associated with the project are a function of anticipated costs and projected revenues. This section outlines the revenue forecasts associated with marginal development activity that the improvements will accommodate, and then reconciles these with the projected cost of improvements.

### Tax Revenues

The development programs outlined will generate significant tax revenues for local governments. Sales taxes on construction are expected to exceed $629 million in current dollars, while property taxes and sales taxes are expected to generate an ongoing revenue stream of over $127 million per year at full build-out. The study area is quite large, and we expect that full build-out of the area is likely to be completed over a long-term horizon as the market supports incremental new development. Our analysis assumed that build-out of the area would largely take place over the next twenty year. These assumptions were translated into estimated revenues over time by taxing jurisdiction. Tax revenues and development costs were escalated at an average annual rate of 2.0%.

The resulting estimates reflect a steady pace of construction and associated sales taxes, as well as ongoing revenues from sales and property taxes. Over the twenty-year period, overall revenues to Clark County are projected at $472 million, while Ridgefield Schools are projected at 282 million. Projected revenues to the State of Washington would exceed $1.0 billion during this period.

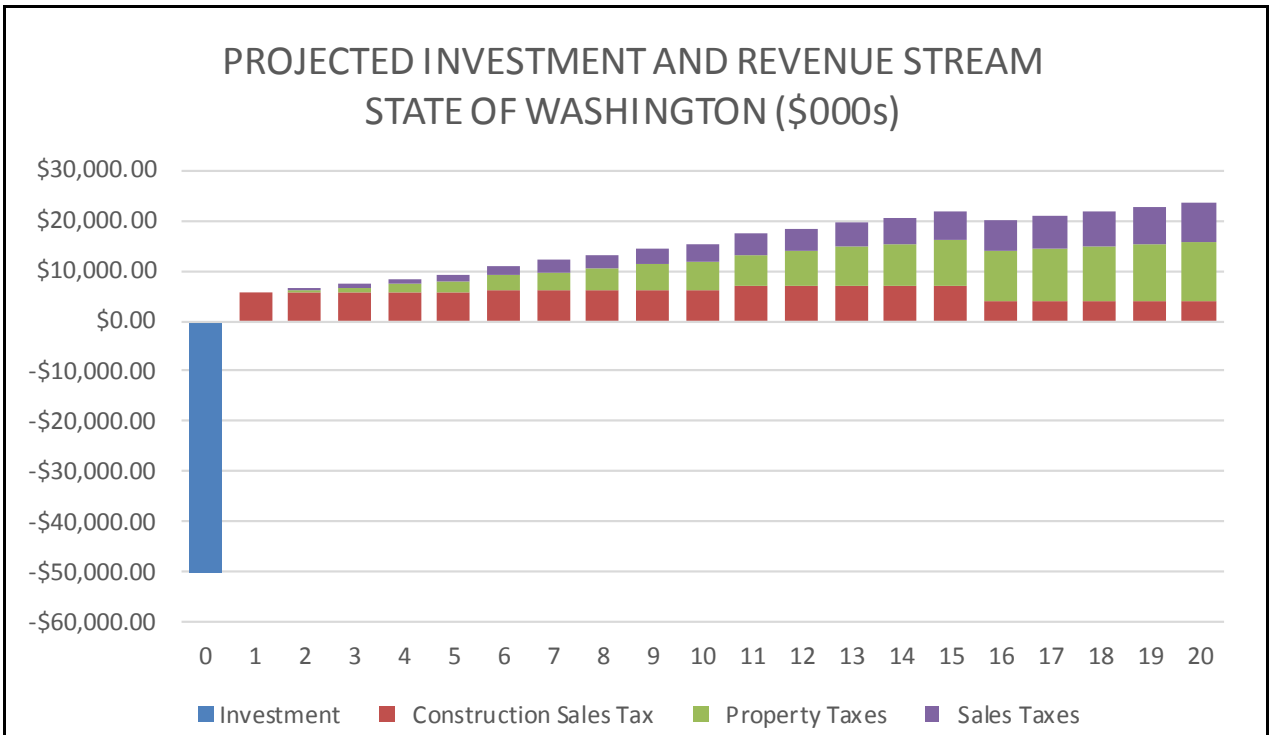



These figures do not reflect system development charge revenues, which are assume to reflect an offset against marginal costs associated with new development.

## RETURN ON INVESTMENT

The anticipated revenue streams associated with the development of capacity made available by the infrastructure improvements provide for a strong return on investment.

The projected revenues for the State of Washington were compared to the expected investments, assuming a $50 million series of improvements. If the cost of the project for the State is $50 million, the revenue streams return a 20% internal rate of return over the next twenty years, with a net present value of over $148 million.




| | |
|---|---|
| **INVESTMENT** | **$50,000,000** |
| **IRR** | **20%** |
| **NPV at 3.5%** | **$148,408.8** |

The discounted net present value of cash flows to the County approaches $686 million over the next twenty years.