



JOHNSON REID
LAND USE ECONOMICS

MEMORANDUM

DATE: September 11, 2009

TO: Don Odermott
CITY OF HILLSBORO

FROM: Chris Blakney
JOHNSON REID

SUBJECT: Narrative of Methodology and Assumptions for Tax Impacts from the Proposed Shute Road Interchange Improvement Project

This memorandum provides the methodological background and basis for JOHNSON REID's Soft-Impact analysis of Tax Revenues associated with the proposed Shute Road/Helvetia Road Interchange improvement project.

METHODOLOGY

The methodology for this section is a simple calculation of fiscal impacts generated from economic activity associated with expanded service capacity at the Helvetia/Shute Road interchange; documented in detail in our Cost-Benefit Analysis¹. Specifically, this memo identifies:

- Property Tax revenues associated with new business investment.
- Trimet Tax revenues associated with new payroll wages.
- State Income Tax revenues associated with new taxable wage creation.

Property Tax Revenues:

Our evaluation of anticipated property tax revenue generation utilizes an assumption of observed property tax revenue generation, per acre, on developed Title IV employment lands within Hillsboro's existing industrial core. This assumption of \$11,261 per developed acre (2009 dollars) was derived from a regional study² commissioned by the Oregon Economic and Community Development Department (OECDD, now Oregon Business Development Department). This method of utilizing an existing profile assumption of economic and property tax impacts was utilized on the basis of:

- 1) The future anticipated economic profile of Hillsboro's future economic development on industrial expansion lands has been identified and targeted to reflect a similar profile on the basis of cluster analysis (OECDD 2009).
- 2) Because future business investment is assumed to reflect recent development patterns, this assumption better reflects the impacts of Hillsboro's Enterprise Zone on assessed values of capital investment.

We further assume a 1.1% average annual real increase in assessed values by adjusting Oregon's 3% annual value cap as mandated by Measure 5 using the GDP deflator.

¹ Johnson Reid, LLC. Narrative of Methodology and Assumptions for a Cost-Benefit Analysis of the Helvetia/Shute Road Interchange Expansion for TIGER Grant Application, September 2009

² Oregon Economic and Community Development Department, Group MacKenzie, and Johnson Reid, "[Industrial Lands Mapping in Hillsboro, Oregon](#)", June 2009



Trimet Tax Revenues:

The Oregon Department of Revenue currently collects a .6718% (\$6.718 per \$1,000) tax on payroll wages paid by employers within Trimet's district boundary for Trimet. In April of 2009, the State Legislature, through Senate Bill-34 approved an increase in Trimet's tax ceiling from 0.7% to 0.8%, with increases capped at .02% annually over a 10-year period. As a result of the current economy, we assumed that Trimet would continue to withhold increase until 2012 with increases trending toward the new ceiling over the next ten years. This rate schedule was applied to payroll wages across the evaluation period.

State Income Tax Revenues:

Calculating the share of gross wages that wind up actually taxable and subject to State Income Taxes after deductions, credits etc. is a difficult task for a specific geography. For this reason, our analysis adopts a **conservative** 75% ratio, indicating that gross wages were revised downward by 25% in the calculation of State Income Tax impacts. We then applied the State of Oregon's standard income tax rates³ to assumed taxable income.

FIGURE 1: CALCULATED TAX REVENUE IMPACTS OF INTERCHANGE CAPACITY DEPENDENT ECONOMIC GROWTH ASSOCIATED WITH EXPANDED CAPACITY AT THE HELVETIA/SHUTE ROAD INTERCHANGE:

Year	GROWTH ASSUMPTIONS 1/			REAL IMPACTS			Discount Factor	DISCOUNTED IMPACTS		
	Jobs	Payroll Wages	Bus. Investment	Trimet Taxes	State Income Tax	Property Taxes 3/		Trimet Taxes	State Income Tax	Property Taxes
2010	38	\$ 1,734,000	\$ -	\$ 12,000	\$ 109,000	\$ -	0.935	\$ 11,000	\$ 102,000.00	\$ -
2011	24	\$ 1,084,000	\$ -	\$ 7,000	\$ 68,000	\$ -	0.873	\$ 6,000	\$ 59,000.00	\$ -
2012	96	\$ 4,335,000	\$ -	\$ 29,000	\$ 272,000	\$ -	0.816	\$ 24,000	\$ 222,000.00	\$ -
2013	1,367	\$ 90,556,000	\$ 74,057,000	\$ 621,000	\$ 5,821,000	\$ 594,000	0.763	\$ 473,000	\$ 4,441,000.00	\$ 453,000
2014	1,364	\$ 177,364,000	\$ 77,196,000	\$ 1,240,000	\$ 11,461,000	\$ 1,227,000	0.713	\$ 884,000	\$ 8,171,000.00	\$ 875,000
2015	1,277	\$ 268,104,000	\$ 80,468,000	\$ 1,911,000	\$ 17,314,000	\$ 1,900,000	0.666	\$ 1,274,000	\$ 11,537,000.00	\$ 1,266,000
2016	1,331	\$ 373,528,000	\$ 83,878,000	\$ 2,716,000	\$ 24,146,000	\$ 2,615,000	0.623	\$ 1,692,000	\$ 15,037,000.00	\$ 1,629,000
2017	1,387	\$ 487,950,000	\$ 87,433,000	\$ 3,619,000	\$ 31,574,000	\$ 3,375,000	0.582	\$ 2,106,000	\$ 18,377,000.00	\$ 1,965,000
2018	1,446	\$ 612,013,000	\$ 91,138,000	\$ 4,630,000	\$ 39,641,000	\$ 4,183,000	0.544	\$ 2,519,000	\$ 21,562,000.00	\$ 2,275,000
2019	1,507	\$ 746,405,000	\$ 95,001,000	\$ 5,760,000	\$ 48,391,000	\$ 5,041,000	0.508	\$ 2,928,000	\$ 24,600,000.00	\$ 2,562,000
2020	1,571	\$ 891,857,000	\$ 99,027,000	\$ 7,020,000	\$ 57,874,000	\$ 5,951,000	0.475	\$ 3,335,000	\$ 27,496,000.00	\$ 2,827,000
2021	1,638	\$ 1,049,153,000	\$ 103,224,000	\$ 8,393,000	\$ 68,143,000	\$ 6,917,000	0.444	\$ 3,727,000	\$ 30,256,000.00	\$ 3,071,000
2022	1,707	\$ 1,219,127,000	\$ 107,599,000	\$ 9,753,000	\$ 79,253,000	\$ 7,942,000	0.415	\$ 4,047,000	\$ 32,887,000.00	\$ 3,296,000
2023	1,780	\$ 1,402,672,000	\$ 112,159,000	\$ 11,221,000	\$ 91,263,000	\$ 9,028,000	0.388	\$ 4,352,000	\$ 35,393,000.00	\$ 3,501,000
2024	1,855	\$ 1,600,741,000	\$ 116,912,000	\$ 12,806,000	\$ 104,237,000	\$ 10,180,000	0.362	\$ 4,641,000	\$ 37,780,000.00	\$ 3,690,000
2025	1,934	\$ 1,803,288,000	\$ 114,246,000	\$ 14,426,000	\$ 117,497,000	\$ 11,332,000	0.339	\$ 4,887,000	\$ 39,800,000.00	\$ 3,838,000
2026	-	\$ 1,844,649,000	\$ -	\$ 14,757,000	\$ 120,289,000	\$ 11,453,000	0.317	\$ 4,672,000	\$ 38,080,000.00	\$ 3,626,000
2027	-	\$ 1,886,959,000	\$ -	\$ 15,096,000	\$ 123,145,000	\$ 11,576,000	0.296	\$ 4,466,000	\$ 36,434,000.00	\$ 3,425,000
2028	-	\$ 1,930,240,000	\$ -	\$ 15,442,000	\$ 126,067,000	\$ 11,700,000	0.277	\$ 4,270,000	\$ 34,858,000.00	\$ 3,235,000
2029	-	\$ 1,974,513,000	\$ -	\$ 15,796,000	\$ 129,055,000	\$ 11,826,000	0.258	\$ 4,082,000	\$ 33,350,000.00	\$ 3,056,000
TOTALS:		\$ 18,366,272,000	\$ 1,242,338,000	\$ 145,255,000	\$ 1,195,620,000	\$ 116,840,000		\$ 54,396,000	\$ 450,442,000	\$ 44,590,000

1/ From Cost Benefit Analysis Impacts

2/ Assumes a conservative ratio of 75% of wages considered taxable at the States 9% tax rate above \$7,600.

3/ Assumes \$11,261 per acre derived from OECD's Economic Mapping Analysis for the Existing Hillsboro Industrial Cluster, Converted to 2009 dollars by Johnson Reid. Also assumes a 1.1% annual real value growth as calculated by Oregon's 3% max and adjusted using the GDP deflator.

- In real terms, the proposed development is likely to create \$123 million in revenues for Trimet over the evaluation period, discounted to NPV, the benefit is roughly \$46.5 million
- Increased payroll wages are expected to translate, **conservatively**, into \$1.2 billion in real State Income Tax revenues, roughly \$620.6 million in NPV.
- Business Investment associated with Interchange Capacity Dependent Economic Growth is estimated to yield \$166 million in property tax revenues over the evaluation period, assuming a realized economic profile consistent with Hillsboro's economic development objectives. When discounted to NPV, the impact is in the vicinity \$44.6 million.

³ Oregon Department of Revenue <https://secure.dor.state.or.us/piti/index.cfm?action=topic&id=0189>