

Cost-Benefit Model Results: 1101/1115 Indiana Street

Scenario 1: Stand-Alone IRB + 12Y-95% NRA/20Y Evaluation Period

Project Summary

Capital Investment in Plant:	\$67,968,008
Annual Local Expenditures by Firm:	\$1,688,055
Retained Jobs:	17
Average Wage per Retained Job:	\$28,242
Indirect Jobs Created:	15
Economic Value per Indirect Job:	\$12,982
Total New Households:	13
Discount Rate:	6.24%
Cost and Revenue Escalation:	1.00%
Number of Years Evaluated:	20

Incentives

IRB Offered	Yes
Value of IRB Construction Sales Tax:	\$2,564,066
Tax Rebate:	0% annually over 10 years
Length of Tax Abatement/s:	0 Years
Value of Tax Abatements, Total:	\$0
Other Incentives	
Site Infrastructure:	\$0
Facility Construction:	\$0
NRA Rebates:	\$3,911,997

Value of All Incentives Offered: \$6,476,062

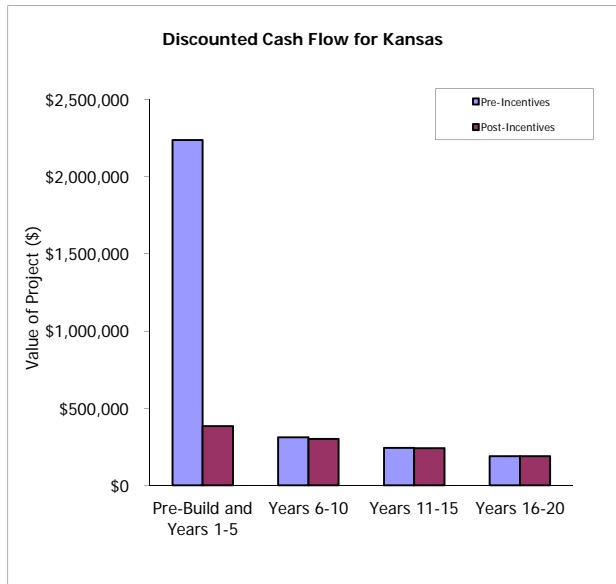
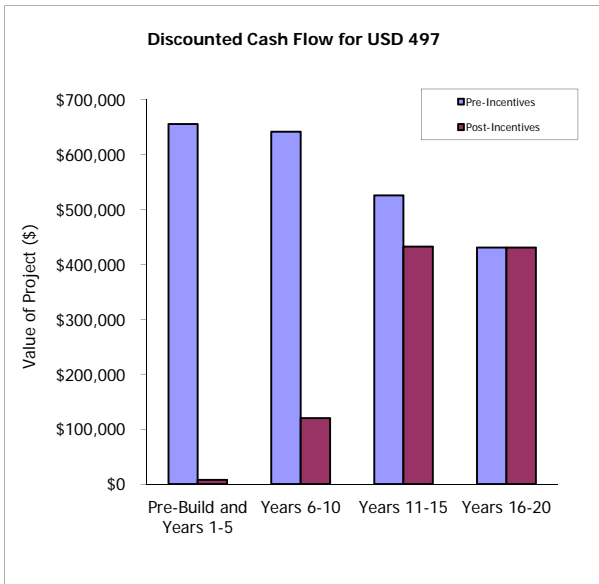
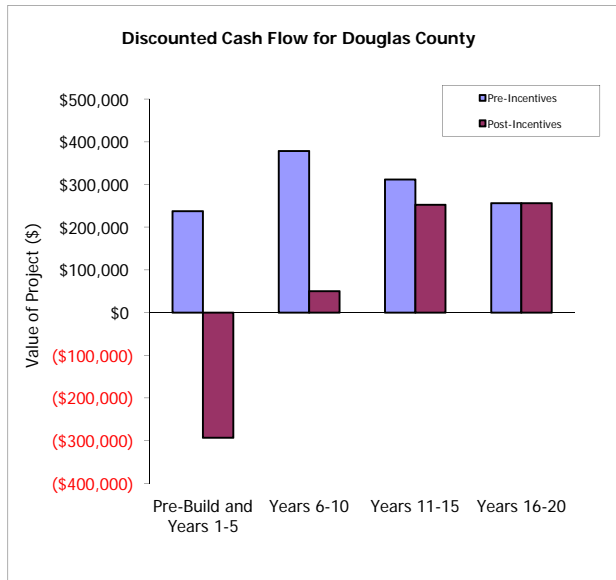
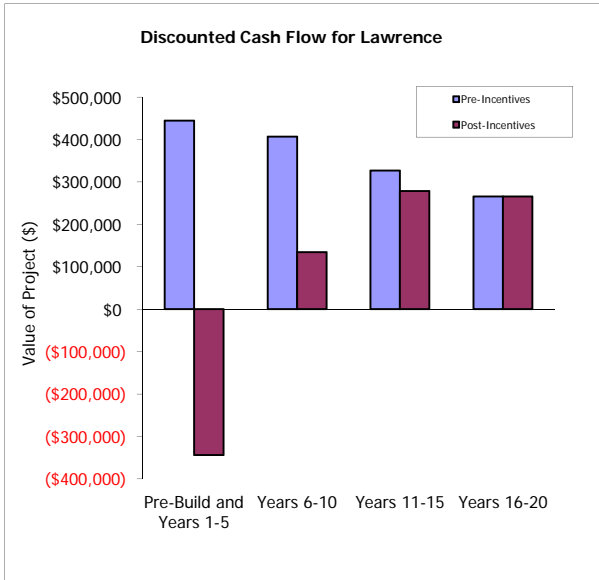
Value of All Incentives per Job per Year:	\$19,047
Value of Incentives in Hourly Pay:	\$9.16
Value of Incentives per Dollar Invested:	\$0.10

Summary of Results				
Returns for Jurisdictions	Lawrence	Douglas County	USD 497	State of Kansas
Revenues	\$3,799,828	\$2,973,674	\$4,399,162	\$4,030,467
Costs	\$1,091,057	\$600,059	\$122,437	\$0
<i>Revenue Stream, Pre-Incentives</i>	<i>\$2,708,771</i>	<i>\$2,373,615</i>	<i>\$4,276,725</i>	<i>\$4,030,467</i>
Value of Incentives Offered	\$1,417,915	\$1,264,793	\$1,799,518	\$1,993,836
Revenue Stream with Incentives	\$1,290,856	\$1,108,822	\$2,477,206	\$2,036,631
Returns for Jurisdictions, Discounted	Lawrence	Douglas County	USD 497	State of Kansas
Discount Rate	6.24%			
Discounted Cash Flow, Without Incentives	\$1,444,885	\$1,183,859	\$2,253,569	\$2,981,770
<i>Benefit/Cost Ratio, Without Incentives</i>	<i>2.84</i>	<i>3.68</i>	<i>33.69</i>	<i>#DIV/0!</i>
Discounted Cash Flow, With Incentives	\$335,314	\$265,290	\$991,087	\$1,114,479
Benefit/Cost Ratio, With Incentives	1.43	1.60	15.38	#DIV/0!

Cost-Benefit Model Results: 1101/1115 Indiana Street

Scenario 1: Stand-Alone IRB + 12Y-95% NRA/20Y Evaluation Period

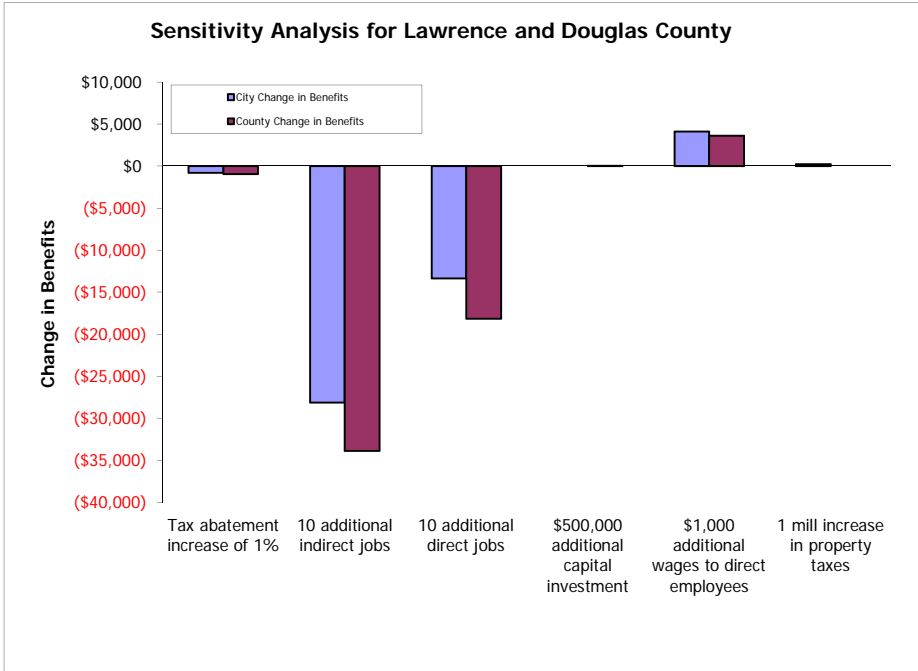
Graphs of Benefits and Costs by Time Period, with and Without Abatement



Cost-Benefit Model Results: 1101/1115 Indiana Street

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Sensitivity Analysis



Cost-Benefit Model Results: 1101/1115 Indiana Street

Scenario 1: Stand-Alone IRB + 12Y-95% NRA/20Y Evaluation Period

APPENDIX 1: Annual Results Not Discounted

Lawrence: Annual Results (not discounted)					
Year	Revenues	Costs	Incentives	Net	Cumulative
Pre-Operation	\$0	\$0	(\$11,115)	(\$11,115)	(\$11,115)
1	\$549,755	(\$490,674)	(\$553,615)	(\$494,534)	(\$505,648)
2	\$148,890	(\$43,136)	(\$76,407)	\$29,348	(\$476,301)
3	\$151,424	(\$28,410)	(\$78,274)	\$44,740	(\$431,560)
4	\$154,006	(\$28,694)	(\$80,182)	\$45,130	(\$386,430)
5	\$156,637	(\$28,981)	(\$82,132)	\$45,524	(\$340,906)
6	\$159,318	(\$29,270)	(\$84,125)	\$45,923	(\$294,983)
7	\$158,853	(\$29,563)	(\$86,161)	\$43,129	(\$251,854)
8	\$160,529	(\$29,859)	(\$88,241)	\$42,429	(\$209,425)
9	\$163,323	(\$30,157)	(\$90,367)	\$42,799	(\$166,626)
10	\$166,170	(\$30,459)	(\$92,539)	\$43,172	(\$123,454)
11	\$169,072	(\$30,764)	(\$94,758)	\$43,550	(\$79,904)
12	\$172,030	(\$31,071)	\$0	\$140,959	\$61,056
13	\$175,045	(\$31,382)	\$0	\$143,663	\$204,719
14	\$178,118	(\$31,696)	\$0	\$146,422	\$351,142
15	\$181,250	(\$32,013)	\$0	\$149,237	\$500,379
16	\$184,444	(\$32,333)	\$0	\$152,111	\$652,490
17	\$187,699	(\$32,656)	\$0	\$155,043	\$807,533
18	\$191,017	(\$32,983)	\$0	\$158,035	\$965,568
19	\$194,400	(\$33,312)	\$0	\$161,087	\$1,126,655
20	\$197,847	(\$33,646)	\$0	\$164,201	\$1,290,856

Douglas County: Annual Results (not discounted)					
Year	Revenues	Costs	Incentives	Net	Cumulative
Pre-Operation	\$0	\$0	(\$13,430)	(\$13,430)	(\$13,430)
1	\$166,932	(\$295,523)	(\$220,431)	(\$349,021)	(\$362,451)
2	\$122,435	(\$17,335)	(\$92,325)	\$12,775	(\$349,676)
3	\$124,922	(\$14,642)	(\$94,581)	\$15,699	(\$333,978)
4	\$127,461	(\$14,789)	(\$96,887)	\$15,786	(\$318,192)
5	\$130,054	(\$14,936)	(\$99,243)	\$15,875	(\$302,317)
6	\$132,701	(\$15,086)	(\$101,651)	\$15,965	(\$286,352)
7	\$135,404	(\$15,237)	(\$104,111)	\$16,057	(\$270,295)
8	\$138,164	(\$15,389)	(\$106,624)	\$16,151	(\$254,144)
9	\$140,982	(\$15,543)	(\$109,193)	\$16,246	(\$237,899)
10	\$143,859	(\$15,698)	(\$111,818)	\$16,343	(\$221,556)
11	\$146,796	(\$15,855)	(\$114,500)	\$16,441	(\$205,115)
12	\$149,796	(\$16,014)	\$0	\$133,782	(\$71,333)
13	\$152,858	(\$16,174)	\$0	\$136,684	\$65,351
14	\$155,984	(\$16,336)	\$0	\$139,649	\$205,000
15	\$159,176	(\$16,499)	\$0	\$142,677	\$347,677
16	\$162,435	(\$16,664)	\$0	\$145,771	\$493,448
17	\$165,762	(\$16,831)	\$0	\$148,931	\$642,379
18	\$169,158	(\$16,999)	\$0	\$152,159	\$794,538
19	\$172,626	(\$17,169)	\$0	\$155,457	\$949,995
20	\$176,167	(\$17,341)	\$0	\$158,826	\$1,108,822

Cost-Benefit Model Results: 1101/1115 Indiana Street

Scenario 1: Stand-Alone IRB + 12Y-95% NRA/20Y Evaluation Period

APPENDIX 1: Annual Results Not Discounted (Continued)

USD 497: Annual Results (not discounted)					
Year	Revenues	Costs	Incentives	Net	Cumulative
Pre-Operation	\$0	\$0	(\$21,303)	(\$21,303)	(\$21,303)
1	\$53,605	(\$6,727)	(\$142,943)	(\$96,065)	(\$117,368)
2	\$189,089	(\$8,133)	(\$146,446)	\$34,510	(\$82,858)
3	\$192,983	(\$5,485)	(\$150,025)	\$37,473	(\$45,385)
4	\$196,959	(\$5,539)	(\$153,683)	\$37,737	(\$7,648)
5	\$201,020	(\$5,595)	(\$157,420)	\$38,005	\$30,357
6	\$205,166	(\$5,651)	(\$161,239)	\$38,276	\$68,633
7	\$209,400	(\$5,707)	(\$165,141)	\$38,552	\$107,185
8	\$213,724	(\$5,764)	(\$169,129)	\$38,831	\$146,015
9	\$218,139	(\$5,822)	(\$173,203)	\$39,114	\$185,129
10	\$222,647	(\$5,880)	(\$177,366)	\$39,401	\$224,530
11	\$227,252	(\$5,939)	(\$181,620)	\$39,692	\$264,223
12	\$231,953	(\$5,998)	\$0	\$225,955	\$490,178
13	\$236,754	(\$6,058)	\$0	\$230,696	\$720,873
14	\$241,656	(\$6,119)	\$0	\$235,537	\$956,410
15	\$246,661	(\$6,180)	\$0	\$240,481	\$1,196,891
16	\$251,772	(\$6,242)	\$0	\$245,530	\$1,442,421
17	\$256,990	(\$6,304)	\$0	\$250,686	\$1,693,107
18	\$262,319	(\$6,367)	\$0	\$255,951	\$1,949,059
19	\$267,759	(\$6,431)	\$0	\$261,328	\$2,210,387
20	\$273,315	(\$6,495)	\$0	\$266,820	\$2,477,206

State of Kansas: Annual Results (not discounted)					
Year	Revenues	Costs	Incentives	Net	Cumulative
Pre-Operation	\$0	\$0	(\$463)	(\$463)	(\$463)
1	\$2,044,913	\$0	(\$1,957,823)	\$87,089	\$86,626
2	\$94,981	\$0	(\$3,184)	\$91,797	\$178,423
3	\$95,974	\$0	(\$3,261)	\$92,713	\$271,136
4	\$96,978	\$0	(\$3,341)	\$93,637	\$364,773
5	\$97,993	\$0	(\$3,422)	\$94,571	\$459,344
6	\$99,020	\$0	(\$3,505)	\$95,515	\$554,859
7	\$100,057	\$0	(\$3,590)	\$96,467	\$651,326
8	\$101,106	\$0	(\$3,677)	\$97,430	\$748,756
9	\$102,167	\$0	(\$3,765)	\$98,402	\$847,158
10	\$103,239	\$0	(\$3,856)	\$99,384	\$946,542
11	\$104,323	\$0	(\$3,948)	\$100,375	\$1,046,917
12	\$105,419	\$0	\$0	\$105,419	\$1,152,336
13	\$106,528	\$0	\$0	\$106,528	\$1,258,864
14	\$107,648	\$0	\$0	\$107,648	\$1,366,512
15	\$108,781	\$0	\$0	\$108,781	\$1,475,292
16	\$109,926	\$0	\$0	\$109,926	\$1,585,218
17	\$111,084	\$0	\$0	\$111,084	\$1,696,302
18	\$112,255	\$0	\$0	\$112,255	\$1,808,557
19	\$113,439	\$0	\$0	\$113,439	\$1,921,996
20	\$114,636	\$0	\$0	\$114,636	\$2,036,631

Cost-Benefit Model Results: 1101/1115 Indiana Street

Scenario 1: Stand-Alone IRB + 12Y-95% NRA/20Y Evaluation Period

APPENDIX 2: Discounted Annual Results

Lawrence: Annual Results (discounted)					
Year	Revenues	Costs	Incentives	Net	Cumulative
Pre-Operation	\$0	\$0	(\$11,115)	(\$11,115)	(\$11,115)
1	\$517,448	(\$461,839)	(\$521,081)	(\$465,472)	(\$476,587)
2	\$131,905	(\$38,215)	(\$67,690)	\$26,000	(\$450,587)
3	\$126,267	(\$23,690)	(\$65,270)	\$37,307	(\$413,280)
4	\$120,873	(\$22,520)	(\$62,932)	\$35,421	(\$377,859)
5	\$115,713	(\$21,409)	(\$60,674)	\$33,630	(\$344,229)
6	\$110,777	(\$20,352)	(\$58,494)	\$31,931	(\$312,298)
7	\$103,964	(\$19,348)	(\$56,389)	\$28,227	(\$284,071)
8	\$98,886	(\$18,393)	(\$54,357)	\$26,136	(\$257,934)
9	\$94,695	(\$17,485)	(\$52,395)	\$24,815	(\$233,120)
10	\$90,684	(\$16,622)	(\$50,501)	\$23,560	(\$209,559)
11	\$86,846	(\$15,802)	(\$48,674)	\$22,370	(\$187,189)
12	\$83,172	(\$15,022)	\$0	\$68,150	(\$119,039)
13	\$79,657	(\$14,281)	\$0	\$65,376	(\$53,663)
14	\$76,292	(\$13,576)	\$0	\$62,716	\$9,053
15	\$73,071	(\$12,906)	\$0	\$60,165	\$69,218
16	\$69,989	(\$12,269)	\$0	\$57,720	\$126,938
17	\$67,039	(\$11,663)	\$0	\$55,375	\$182,314
18	\$64,215	(\$11,088)	\$0	\$53,127	\$235,440
19	\$61,511	(\$10,541)	\$0	\$50,971	\$286,411
20	\$58,923	(\$10,020)	\$0	\$48,903	\$335,314

Douglas County: Annual Results (discounted)					
Year	Revenues	Costs	Incentives	Net	Cumulative
Pre-Operation	\$0	\$0	(\$13,430)	(\$13,430)	(\$13,430)
1	\$157,122	(\$278,156)	(\$207,477)	(\$328,511)	(\$341,941)
2	\$108,468	(\$15,358)	(\$81,793)	\$11,318	(\$330,623)
3	\$104,168	(\$12,209)	(\$78,868)	\$13,091	(\$317,533)
4	\$100,039	(\$11,607)	(\$76,043)	\$12,390	(\$305,143)
5	\$96,076	(\$11,034)	(\$73,314)	\$11,727	(\$293,416)
6	\$92,271	(\$10,490)	(\$70,680)	\$11,101	(\$282,315)
7	\$88,617	(\$9,972)	(\$68,137)	\$10,509	(\$271,806)
8	\$85,109	(\$9,480)	(\$65,681)	\$9,949	(\$261,857)
9	\$81,742	(\$9,012)	(\$63,311)	\$9,419	(\$252,438)
10	\$78,508	(\$8,567)	(\$61,022)	\$8,919	(\$243,519)
11	\$75,404	(\$8,144)	(\$58,814)	\$8,445	(\$235,074)
12	\$72,423	(\$7,742)	\$0	\$64,680	(\$170,394)
13	\$69,560	(\$7,360)	\$0	\$62,200	(\$108,194)
14	\$66,811	(\$6,997)	\$0	\$59,815	(\$48,379)
15	\$64,172	(\$6,652)	\$0	\$57,520	\$9,141
16	\$61,637	(\$6,323)	\$0	\$55,314	\$64,455
17	\$59,204	(\$6,011)	\$0	\$53,192	\$117,647
18	\$56,866	(\$5,715)	\$0	\$51,152	\$168,799
19	\$54,622	(\$5,433)	\$0	\$49,189	\$217,988
20	\$52,466	(\$5,164)	\$0	\$47,302	\$265,290

Cost-Benefit Model Results: 1101/1115 Indiana Street

Scenario 1: Stand-Alone IRB + 12Y-95% NRA/20Y Evaluation Period

APPENDIX 2: Discounted Annual Results (Continued)

USD 497: Annual Results (discounted)					
Year	Revenues	Costs	Incentives	Net	Cumulative
Pre-Operation	\$0	\$0	(\$21,303)	(\$21,303)	(\$21,303)
1	\$50,455	(\$6,331)	(\$134,543)	(\$90,420)	(\$111,722)
2	\$167,518	(\$7,205)	(\$129,740)	\$30,573	(\$81,149)
3	\$160,921	(\$4,573)	(\$125,100)	\$31,247	(\$49,902)
4	\$154,585	(\$4,348)	(\$120,619)	\$29,618	(\$20,284)
5	\$148,500	(\$4,133)	(\$116,292)	\$28,075	\$7,792
6	\$142,657	(\$3,929)	(\$112,113)	\$26,614	\$34,406
7	\$137,044	(\$3,735)	(\$108,079)	\$25,231	\$59,636
8	\$131,654	(\$3,551)	(\$104,184)	\$23,920	\$83,556
9	\$126,478	(\$3,376)	(\$100,424)	\$22,678	\$106,235
10	\$121,506	(\$3,209)	(\$96,794)	\$21,502	\$127,737
11	\$116,730	(\$3,051)	(\$93,291)	\$20,388	\$148,125
12	\$112,144	(\$2,900)	\$0	\$109,244	\$257,369
13	\$107,738	(\$2,757)	\$0	\$104,981	\$362,350
14	\$103,506	(\$2,621)	\$0	\$100,886	\$463,236
15	\$99,442	(\$2,492)	\$0	\$96,950	\$560,186
16	\$95,537	(\$2,369)	\$0	\$93,169	\$653,355
17	\$91,787	(\$2,252)	\$0	\$89,535	\$742,890
18	\$88,184	(\$2,141)	\$0	\$86,044	\$828,934
19	\$84,724	(\$2,035)	\$0	\$82,689	\$911,622
20	\$81,399	(\$1,934)	\$0	\$79,465	\$991,087

State of Kansas: Annual Results (discounted)					
Year	Revenues	Costs	Incentives	Net	Cumulative
Pre-Operation	\$0	\$0	(\$463)	(\$463)	(\$463)
1	\$1,924,742	\$0	(\$1,842,771)	\$81,972	\$81,508
2	\$84,145	\$0	(\$2,820)	\$81,325	\$162,833
3	\$80,029	\$0	(\$2,720)	\$77,309	\$240,143
4	\$76,114	\$0	(\$2,622)	\$73,492	\$313,635
5	\$72,391	\$0	(\$2,528)	\$69,863	\$383,498
6	\$68,851	\$0	(\$2,437)	\$66,414	\$449,912
7	\$65,484	\$0	(\$2,350)	\$63,134	\$513,046
8	\$62,282	\$0	(\$2,265)	\$60,017	\$573,063
9	\$59,237	\$0	(\$2,183)	\$57,054	\$630,117
10	\$56,341	\$0	(\$2,104)	\$54,237	\$684,353
11	\$53,587	\$0	(\$2,028)	\$51,559	\$735,912
12	\$50,968	\$0	\$0	\$50,968	\$786,880
13	\$48,477	\$0	\$0	\$48,477	\$835,357
14	\$46,108	\$0	\$0	\$46,108	\$881,465
15	\$43,855	\$0	\$0	\$43,855	\$925,320
16	\$41,713	\$0	\$0	\$41,713	\$967,032
17	\$39,675	\$0	\$0	\$39,675	\$1,006,707
18	\$37,737	\$0	\$0	\$37,737	\$1,044,444
19	\$35,894	\$0	\$0	\$35,894	\$1,080,338
20	\$34,141	\$0	\$0	\$34,141	\$1,114,479

This analysis utilized the City of Lawrence's Cost-Benefit Model. The City's cost-benefit model provides a framework for estimating the fiscal impacts of a project, assuming it were in existence and in use today, through the examination of costs and benefits to various taxing jurisdictions (City, County, School District, State).

The Cost-Benefit model is one tool that government decision makers can incorporate in their decision-making process. However, as with most models, it does have limitations.

Limitations of model:

- **Does not consider intangible effects**

The model does not speak to the effects of intangible costs or benefits resulting from the project, since intangible effects are difficult, if not impossible to assign a dollar value.

- **Does not consider private effects**

The model only seeks to quantify the cumulative effect on public revenues and expenses and not the effect on private interests that may be affected by the project. Thus, the model only considers public, or governmental, costs and revenues.

Logic would dictate that any development will also have a fiscal impact on the private sector. For example, if one were analyzing a proposal to build a new baseball stadium, the new tax revenue from the building and property – as well as the costs for providing additional public security and emergency services (police, fire, ambulance, etc.) – would factor into the analysis. However, the effect of the stadium on neighboring property values or the impact on business at local restaurants would not be accounted for.

- **The model considers direct effect economic impacts**

Multipliers used within the model are applied to direct effects such as the number of jobs created by the project and associated wages. The model does not attempt to measure all indirect effects such as capturing visitor spending associated with the project, nor the economic effects of that spending as outside dollars circulate through the community over time.

- **Model assumes current effects**

The model is run on assumptions and estimations provided at the time of analysis. The current effects aspect of the model means that the analysis provides a means of estimating the financial impact of a development as if the project were in existence and in use today, given estimated costs and assumptions that are usually defined prior to the project being constructed or operational. Given that it may be difficult to predict future costs and benefits accurately, there is an implicit assumption that future changes affect both revenues and costs.

In addition, the model does not reflect any changes in economic adjustments over time due to macroeconomic conditions, regional industrial structure, public policies, and technological advances.

- **Does not consider fiscal impacts of temporary or part-time employment**

Employment analyzed is for full-time, permanent positions related to the project and does not consider temporary jobs created due to project construction or part-time positions created during project operation.

Other considerations for decision making:

It is important to remember that there could be several important considerations that fall outside of the realm of municipal budgets. For example, fiscal impacts of development on abutters, local businesses and natural resources are not accounted for in the cost-benefit model.

The model also does not consider issues of equity and social responsibility. For instance, while it may be easy to identify the fiscal downsides of low-income housing on municipal and school budgets, municipalities may also bear some level of responsibility for ensuring access to affordable housing, as is dictated by the Fair Housing Act. Finally, communities maintain certain values that cannot be assigned a price tag, such as the intrinsic value of nature, cultural heritage, and aesthetics.

Depending on the project, it may be prudent to employ other analytical models or studies (e.g. economic impact analysis; pro forma/but-for analysis; trade area analysis; tourism impact, market demand and other studies; etc.) in conjunction with the cost-benefit model, as well as non-quantifiable elements, to gain insight into the project's overall value to the community.