Hotel NuLU Development Project

Economic and Fiscal Impact Report

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TABLE OF CONTENTS

I. Executive Summary

The Louisville/Jefferson County Metro Government intends to establish the Hotel NuLu Development Area pursuant to Kentucky statutes, to develop a boutique hotel and associated amenities within the Development Area. This Project will provide unique and heretofore unavailable attractions and support to the east downtown neighborhood more commonly known as NuLu. The hotel will include a new state-of-the-art rooftop conference center venue that will provide facilities for professionals, businesses and universities, as well as the nearby medical center, for conferencing and the exchange of ideas and publications on important subjects.

The total construction costs associated with this project amounts to $34 million. Construction will take place over a sixteen-month period stretching from September 2014 to December 2015. Following the construction, the businesses occupying the properties should realize gross sales of nearly $13.7 million annually in current dollars, divided among the hotel, restaurants, catering, and retail establishments (Table 3).

Economic activity generated directly by the entities occupying the NuLu Project will, in addition to the direct impacts, also affect the local and state economies due to the spending generated by other entities (and workers) who are providing goods and services to the Project. It is possible to estimate this "multiplier" effect (or "ripple effect) using the Regional Input-Output Modeling System (RIMS II) developed by the US Bureau of Economic Analysis. This model may be tailored to fit the economic region of interest down to areas as small as an individual county. For this analysis, we relied on models for Jefferson County and the statewide model for Kentucky.

Total direct and indirect employment associated with the Project will level off at an expected 290 workers in year 3 (2016), with 253 of these workers located in Jefferson County. At that point earnings associated with these workers will total $5.8 million annually, with increases thereafter limited to normal rises in wages and salaries of existing workers (Table 5).

Taxes paid directly by the establishments located within the Project area should total nearly $29.5 million over the 20-year period, with much of that ($18.7 million) coming from the state sales and use tax. About $1.5 million should come from local occupational license taxes, and $4.1 million from local property taxes. Among other state taxes, the individual income tax should reach $4.1 million, with the state property tax just above $1.0 million (Table 6).

Total state and local gross revenues over the lifetime of the estimates, including both direct and indirect, should equal just under $36.2 million. Occupational license tax revenues generated from the employees in the Project and the jobs created indirectly as a result of the Project are estimated to be $1.8 million. Except for relatively minor impacts from earnings generated during the construction phase, most payroll taxes begin accruing after 2016. Gross state revenues consisting of individual income tax (withholding), sales and use tax, and state property tax, over the 20-year period are estimated to total $30.2 million. Individual income taxes should yield $5.6 million and sales and use taxes account for $23.6 million. State property taxes are expected to total $1.0 million in this period. Although it should be expected that successful businesses occupying the facilities in the Project area should add to state corporation income tax and limited-liability entity (LLE) tax, estimating total amounts for these is not feasible at this point (Table 8 and Appendix B).

Due to some expected redirection of spending away from pre-existing establishments to the businesses located within the Project area, net new state and local revenues over the lifetime of the estimates are expected to be significantly lower than the gross revenues. After discounting, total state and local revenue should equal about $21.6 million. Occupational license tax revenues generated from the employees in the Project and the jobs created indirectly as a result of the Project are estimated to be $1.2 million. State revenues consisting of individual income tax (withholding), sales and use tax, and state property tax, over the 20-year period are estimated to total $16.3 million. Individual income taxes should yield $3.3 million and sales and use taxes account for $12.0 million. State property taxes are expected to total $1.0 million in this period. (Table 10 and Appendix C).

II. Description of Project

The Louisville/Jefferson County Metro Government intends to establish the Hotel NuLu Development Area, a new mixed-use project consisting of hospitality, retail, restaurant and office uses, being undertaken by 725 Partnership, LLC, located at 725 E. Market Street, Louisville, Kentucky. The Developer proposes to construct a new 150 room hotel with 10,000 square feet of retail tenant space and a conference center, a new 250 space parking structure along with the rehabilitation of two contributing historic structures to provide approximately 10,000 square of additional retail tenant space on the property located at 725 East Market Street (the "Project").

This Project will provide unique and unavailable attractions and support to the east downtown neighborhood more commonly known as NuLu. The new boutique hotel planned as part of the Project will be one of the first in the United States under the new "AC Hotels by Marriott" Brand roll-out from Marriott International. It will bring a new, professional, educated and inquisitive young traveler to Louisville in search of the quintessential Louisville experience. This hotel will support the burgeoning "Urban Bourbon" Trail rapidly becoming established in the east downtown area of Louisville, which is an economic development priority for Louisville and the State. It will be the hospitality destination of choice for out-of-state tourism focused on the Bourbon-centered experience. This development will stimulate other distillery and culinary related tourism in this vital east downtown area. This hotel will create a "center of gravity" for the NuLu neighborhood and anchor the traditional marketplace corridor of NuLu.

The hotel will include a new state-of-the-art rooftop conference center venue that will provide facilities for professionals, businesses and universities, as well as the nearby medical center, for conferencing and the exchange of ideas and publications on important subjects. Below is a description of all facilities planned for the development area.

Facilities Included in NuLu Project

- 85,000 ft^2 (150 room) boutique hotel with an international brand
- 8,000 ft^2 rooftop conference center with catering kitchen and lounge, as part of hotel
- 10,000 ft^2 ground level class "A" retail shell space, as part of hotel
- 250 space parking structure
- 6,000 ft^2 tenant space in historic funeral home, operated as a restaurant and retail space
- 4,000 ft^2 tenant space in historic carriage house, operated as a restaurant and retail space

III. Economic Impacts

The development of the NuLu Hotel Project will stimulate the local economy of Jefferson County and the Kentucky economy in two ways: through the initial construction activity, and following that, through operations of the establishments in the facilities created. The economic analysis covers a 20-year time period that is equal to the term of the bonds issued to finance the Project. Analysis of the fiscal impact to local government is dependent on the estimation of economic impacts arising from the Project.

The economic impacts identified and estimated in this report include the “multiplier” or “ripple” effect from initial transaction or direct spending that occurs from the activity created by the Project. For example, initial transactions are payments to suppliers, contractors and subcontractors, and construction workers. The payees will in turn spend part of their money in the Jefferson County region and outward in Kentucky, and the process repeats itself a number of times. The ripples from these initial transactions include indirect spending consisting of re-spending of the initial or direct expenditures. For example, a shopper’s direct expenditure on a retail purchase causes a store to purchase goods and other items from suppliers. The portion of these store purchases that are within the local, regional, or state economies is counted as an indirect economic impact.

Economic impacts are also created by the induced spending, which are changes in local consumption due to the personal spending by employees whose incomes are affected by the project. For example, a waiter at a restaurant may spend more because he/she earns more. The amount of the increased income the waiter spends in the local economy is considered an induced impact.

To estimate indirect economic impacts, this analysis relies on economic multipliers for Jefferson County and the state of Kentucky developed by the U.S. Bureau of Economic Analysis under the Regional Input-Output Modeling System (known as RIMS II). These multipliers are based on 2010 economic data for the U.S., Kentucky, and Jefferson County. (In the RIMS II Input-Output model used for this study the indirect and induced spending effects are combined in a single impact factor.) More detail regarding the application of RIMS II may be found in Appendix E.

a. Construction Impacts

For construction impacts, this analysis relies on estimates of construction costs and the relevant periods of construction provided by the hotel developers. Table 1 below details the distribution of costs across various facilities. Construction is scheduled to begin by September 2014 and will conclude by December 2015.

Table 1

Facilities Included in NuLu Project

Facility	Construction Costs
Boutique Hotel	$19,920,000
Tenant/Retail Space	3,180,000
Parking Structure	7,700,000
Site Infrastructure	3,200,000
TOTAL	**$34,000,000**

The construction at the NuLu Hotel Project will create a one-time influx of spending that will result in indirect and induced spending, leading to increased earnings and employment as well as related tax revenues. There are two key sources of construction impacts. First, the construction itself creates jobs, the income from which is subject to state individual income tax and local occupational license tax. In addition, construction workers will spend money onsite and in the immediate surrounding areas, which will ripple throughout the economy and generate additional earnings and tax revenue. Second, direct construction spending on the Project within Louisville will ripple out and generate indirect spending, induced spending, increased earnings, and employment throughout the economy, as well as state sales and use tax, state corporate income tax, and local occupational license tax revenues.

To calculate fiscal impacts arising from construction, it is first necessary to estimate the total employment and earnings impact within Jefferson County and the entire Commonwealth of Kentucky using the cost figures provided by the developers and RIMS II final demand earnings and employment multipliers. The earnings multiplier is an estimate of the increase in earnings, both direct and indirect, arising from spending associated with a particular economic activity. In this case, the activity identified is the construction or renovation of the facilities included in the project. The earnings multiplier measures the total change in household earnings per dollar of final-demand change (i.e., the total construction spending). Earnings consist of wages and salaries, fringe benefits, and proprietors' income, which is the net earnings of sole proprietors and partnerships. Similarly, employment multipliers provide an estimate of total change in direct and indirect employment within the region arising from spending on the project.

The RIMS II final demand Type II earnings multiplier estimated for Jefferson County in the construction industry is 0.4687. That is, every dollar spent in construction results in an increase in personal earnings by about 47 cents. For the state that same measure is estimated to be 0.6649. Based on this, the earnings impacts of construction are shown in Table 2. The total earnings generated both directly and indirectly from construction is estimated to be $15.9 million within Jefferson County and $22.6 million in Kentucky over an eighteen-month period.

The RIMS II final demand Type II employment multiplier estimated for Jefferson County in the construction industry is 13.2567. That is, every one-million dollars of construction spending, it is expected that about 13 jobs are created. For the entire state of Kentucky that same measure is estimated to be 18.4821. (Jefferson County impacts are included impacts for the state as a whole.) Based on this, the employment impacts of construction are shown in Table 2. (Employment numbers presented in Table 2 represent the maximum employment in the relevant period during construction. They should not be considered to represent the maximum employment over any single time period since timing of construction varies across facilities.) The total maximum employment generated both directly and indirectly from construction is estimated to be 300 jobs in Jefferson County in 2015, and 419 jobs in Kentucky statewide.

Table 2

NuLu Construction Employment and Earnings Impacts

	FY 2015	FY 2016	Project Grand Total
Total Direct and Indirect Earnings			
Local	10,623,867	5,311,933	15,935,800
State	15,071,067	7,535,533	22,606,600
Total Direct and Indirect Employment			
Local	300	150	na
State	419	209	na

NOTE: Employment impacts NOT cumulative across time periods

b. Permanent Impacts from Operations

Following construction of the NuLu Hotel Project, ongoing activities by entities occupying those facilities will create both direct and indirect economic impacts in a similar manner as construction. First, establishments housed within the hotel and associated structures will spend money in the local area, and second, employees of those establishments will spend their paychecks locally, further generating indirect impacts.

The developers have offered the following estimates of gross revenues accruing from the Project as shown in Table 3. (For purposes of analysis, gross revenue serves as a substitute for final demand.) Revenues earned from room tariffs are expected to be $5.3 million, based on 150 rooms with an average daily room charge of $139, and expected occupancy of 70 percent. Additional hotel revenue should be realized through charges for events held in the rooftop venue, and from charges at the hotel lounge. The developers have projected that the restaurants planned for the Project could yield a total of $3.6 million in annual sales, based on an industry average of $400 sales per square foot of restaurant space. For retail, this analysis is based on the development of 10,000 square feet of retail space within the hotel facility. To derive revenue figures, an annual average retail sales value of $381 per square foot is used as a starting point in 2016. (Actual figures for Kentucky from the US Census Bureau for 2005 were $279/square foot. These have been adjusted upward to 2016 using projections for retail sales. Beyond 2016, forecasted rises in the US Consumer Price Index are used.)

Table 3
Gross Revenue of NuLu Project Operations

Hotel Room tariff revenue	$5,327,175
Rooftop events	$250,000
Hotel Lounge	$300,000
Restaurants	$3,600,000
Retail	$3,806,076
TOTAL REVENUE FROM OPS	**$13,683,251**

c. Outlook for the Hotel Market

The key to examining a twenty-year time horizon is to focus on long-term factors that will impact the general economy as well as the performance of the hotel market. The economy strengthened substantially in the second half of 2013 and is poised for a strong recovery. In February 2014 the Congressional Budget Office (CBO) released its ten-year forecast for the national economy.[1] Its forecast says "economic growth is projected to be solid in the near term, but weakness in the labor market will persist." The weakness alludes to the changing demographics from the retirement of baby boomers. For the hospitality industry the increase in retirees and leisure time translates into a stronger growth for hotels.

CBO goes on to say, "Between 2018 and 2024, GDP will expand at the same rate as potential output—by an average of 2.2 percent a year... Thus, CBO anticipates that over the 2014–2024 period as a whole, real GDP will increase at an average annual pace of 2.5 percent."

Hotels are expected to report significant RevPar (revenue per available room) growth powered by a more robust outlook for the economy. In examining hotel trends, analysts from NASDAQ concluded, "Owing to gradual economic recovery, the hotel industry continues to witness an upside. With lower supply in the U.S., RevPAR is improving on strong demand and continued higher pricing. System-wide occupancies in North America appear steady and above the prior peak level in 2006.[2]"

Part of the reason for the expected increased demand is the newly implemented *National Travel and Tourism Strategy* of the U.S. government[3]. The U.S. State Department is making a

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[1] U.S. Congressional Budget Office, February 4 2014, *The Budget and Economic Outlook: 2014 to 2024*, Washington, D.C., 2014. Access on-line at: http://www.cbo.gov/publication/45010

[2] Zacks.com, April 9, 2013, "Hotel & Lodging Stock Outlook – April 2013 – Industry Outlook. Accessed on-line at http://www.nasdaq.com/article/hotels-lodging-stock-outlook-april-2013-industry-outlook-cm235228#ixzz2vaB14OmN

[3] U.S. Task Force on Travel and Competitiveness, *National Travel & Tourism Strategy,* 2012, Washington, D.C. Accessed at: http://www.doi.gov/news/pressreleases/loader.cfm?csModule=security/getfile&pageid=295021

concerted effort to introduce a “friendly” tourist visa policy. The ease in tourist visa restrictions is expected to increase tourism not only in traditional tourist centers, but also in cities like Louisville.

PricewaterhouseCooper (PWC) prepared a Hospitality and Leisure outlook for the U.S. market in November 2013.[4] The details of this outlook are presented below in Table 4. PWC anticipates a RevPAR gain of 6.1% in 2014 as the economy strengthens. The 6.1% growth is 4.5 percentage points greater than the estimated inflation of 1.6% for 2014. This signals a return to the pre-recession normal.

Table 4

Upper Upscale Hotel History and Outlook

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Occupancy	68.9%	70.7%	70.7%	70.6%	68.1%	63.2%	67.4%	69.3%	70.9%	71.8%	72.4%
% change from prior year	4.1%	2.6%	-0.1%	-0.1%	-3.5%	-7.2%	6.6%	2.8%	2.3%	1.2%	0.9%
Average daily rate	$131.26	$140.43	$150.60	$159.49	$161.86	$143.55	$142.75	$148.01	$154.36	$161.41	$169.72
% change from prior year	3.8%	7.0%	7.2%	5.9%	1.5%	-11.3%	-0.6%	3.7%	4.3%	4.6%	5.1%
Nominal RevPAR	$90.49	$99.32	$106.44	$112.58	$110.28	$90.76	$96.24	$102.59	$109.41	$115.83	$122.86
% change from prior year	8.1%	9.8%	7.2%	5.8%	-2.0%	-17.7%	6.0%	6.6%	6.6%	5.9%	6.1%
Inflation adjusted RevPar	$111.65	$118.55	$123.08	$126.55	$119.41	$98.58	$102.85	$106.30	$111.06	$115.83	$121.03
% change from prior year	5.3%	6.2%	3.8%	2.8%	-5.6%	-17.4%	4.3%	3.4%	4.5%	4.3%	4.5%
Demand ('000)	345.3	355.8	352.6	354.6	353.0	338.1	366.2	383.2	391.8	399.1	406.7
% change from prior year	5.8%	3.0%	-0.9%	0.6%	-0.5%	-4.2%	8.3%	4.6%	2.2%	1.9%	1.9%
Average room supply ('000)	500.8	503.0	498.9	502.3	518.1	534.8	543.2	552.8	552.7	556.1	561.9
% change from prior year	1.6%	0.4%	-0.8%	0.7%	3.1%	3.2%	1.6%	1.8%	0.0%	0.6%	1.0%

Source: Smith Travel Research; PwC

The Louisville economy has seen a strong uptick in the macroeconomic environment, and is outperforming the state and national economies. Demand for hotel rooms in Louisville is driven not just by the strength of the national economy, but also by the swelling demand of the local economy. At an operational level for NuLu, the alliance with an international brand like Marriott, with its strong guest loyalty, will attract business travelers as well as tourists to Louisville.

In a static economy the presence of a new hotel would just alter the market share without creating new demand for hotel rooms. But the robust performance of the Louisville economy coupled with the expansion of the U.S. economy have resulted in an increased demand for hotel

[4] PWC, November 2013, *Hospitality Directions US: Hospitality and Leisure*, accessed at : http://www.pwc.com/en_US/us/asset-management/hospitality-leisure/publications/assets/pwc-hospitality-directions-q3-2013.pdf

rooms. The addition of NuLu to the Louisville hotel market will not decrease the market share of the current hotels, but will answer consumer demand for additional hotel rooms.

The Project developers also expect that demand for local hotels will be spurred from the development and expanding popularity of the Kentucky Distillers' Association's Kentucky Bourbon Trail®. In a 2009 study, economists Paul Coomes and Barry Kornstein reviewed the potential tourism impact of the Kentucky Bourbon Trail®, one of the state's most famous tourism attractions. "We are only beginning to see the economic and tourism impact of the Kentucky Bourbon Trail," they said.[5] Distilleries have seen more than 1.5 million visits in the last five years alone, according to Eric Gregory, president of the Kentucky Distillers' Association that owns, manages and operates the Kentucky Bourbon Trail. More than 3,000 people completed the KDA's Kentucky Bourbon Trail in 2009 – a 400 percent increase over 2008.[6] This results in a significant increase in revenue to nearby communities and local hospitality groups that will benefit from the tourists. "Over time, regular interstate travelers may choose to stay overnight in Kentucky rather than Tennessee, Ohio or Indiana because of the Kentucky Bourbon Trail," Coomes and Kornstein reported.

More recently, *Condé Nast Traveler* (2012) and the well-regarded international travel guide *Lonely Planet* have considered Louisville to be one of the top 10 U.S. travel destinations for 2013. In writing specifically about NuLu, *Lonely Planet* says, "Louisville has asserted itself as a lively, offbeat cultural mecca on the Ohio River. New Louisville, also known as the East Market District or NuLu, features converted warehouses used as local breweries, antique shops and the city's coolest restaurants. On Bardstown Rd in the Highlands you'll find a hipster strip of shops and bars, not to mention many 'Keep Louisville Weird' stickers. Bourbon reigns in Louisville. This is the traditional jump-off for the Bourbon Trail; with bourbon's current wave of popularity, new upstart microdistilleries, including some in and around Louisville like the small-batch Angel's Envy, are giving the old names in bourbon a run for their money. Try for the first Saturday in May to witness the 'greatest two minutes in sports,' the Kentucky Derby."[7]

d. Multiplier Effects

Permanent Employment and Payroll Impacts

Following the construction period, economic and fiscal impacts will continue to be realized through ongoing operations of the hotel and associated businesses. Total economic impacts in Jefferson County and Kentucky may be estimated using this data with RIMS II multipliers. Based on the description of the activities intended for the facilities, RIMS II provides industry-

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[5] Paul Coomes and Barry Kornstein*, The Economic and Fiscal Impacts of the Distilling Industry in Kentucky*, December, 2009. Louisville, KY, Kentucky Distillers Association.

[6] Tom Fischer, "What is Bourbon Worth to Kentucky & The World? First-Ever Economic Impact Study of Bourbon Industry", January 20, 2010, accessed on-line at: : http://www.bourbonblog.com/blog/2010/01/20/first-ever-economic-impact-study-bourbon-industry-kentucky-distillers-association/#sthash.sbMridQr.dpuf

[7] Lonely Planet, "Top 10 US Travel Destinations for 2013." http://www.lonelyplanet.com/american-samoa/travel-tips-and-articles/77583

specific multipliers that are applied to the establishments for the following categories. These can be found in Appendix E.

Table 5 details employment and earnings impacts including direct and indirect impacts for the facilities in the Project. For these purposes, only activities expected to yield net new revenue to the economies of Jefferson County and Kentucky are included. Thus, omitted from impacts are the parking activities associated with NuLu.

Table 5
Total Direct and Indirect Earnings and Employment Impacts from NuLu

	Total Employment Impact Per facility (jobs)		**Total Earnings Impact by Facility ($ in 2016)**	
	Jefferson County	Kentucky	Jefferson County	Kentucky
Hotel	85	93	2,304,003	2,576,222
Rooftop	6	6	113,625	136,100
Lounge	7	8	136,350	163,320
Retail	67	79	598,276	723,669
Restaurants	90	104	1,818,000	2,177,600
TOTAL	253	290	4,970,254	5,776,911

Once the facilities envisioned in the NuLu Development Project are fully operational, employment, both direct and indirect full- and part-time, should total 290 jobs in Kentucky. Of these, 253 are expected to be in Jefferson County. Earnings impacts should equal almost $5.8 million statewide, with almost $5.0 million occurring in Jefferson County. Earnings are projected to grow over the 20-year period by the factors presented in Appendix D.

IV. Fiscal Impacts

This report identifies three types of estimated state and local fiscal impacts over 20 years arising from the development of the NuLu Hotel Project:

- Tax revenues directly paid by establishments within the Project.
- Gross tax revenues both direct and indirect arising as a consequence of the project.
- Net tax revenues, i.e., those revenues from the project after accounting for the substitution or displacement of local spending.

Each of these is discussed in detail below.

The fiscal impacts identified in this analysis are based on several assumptions:

- This report assumes that absent the Project development, the area identified would otherwise remain undeveloped, and consequently, economic and fiscal impacts would not be realized.

- No other incentives are offered to create employment for the facilities identified herein within the Project. Furthermore, this assumes that no additional incentives involving local government revenues are made available to induce the establishment or expansion of the enterprises in the TIF area.

- Jobs directly created by the Project are basically export-oriented. "Exports" as identified for this analysis refer to products or services that are delivered primarily to persons or entities located outside Jefferson County and/or Kentucky. Otherwise, it could be argued that these operations replace goods or services produced elsewhere locally to serve local residents, resulting in no net economic gain.

a. Taxes paid by establishments within the Project.

Each of the establishments created within the Project will contribute tax revenues to both state and local governments. The estimates presented here are based on the gross revenues presented above in Table 3. Three types of tax revenues are discussed: property (both local and state), sales and use taxes, and income or occupational taxes.

Table 6 provides summary revenue impacts of the establishments within the Project. Detailed estimates for each year are provided in Appendix A. A total of $29.4 million in tax revenues should be generated over the 20-year time frame of this analysis. Most of this ($18.7 million) comes in the form of sales and use taxes. Another $4.1 million is contributed by state withholding (i.e., individual income) tax, with occupational license taxes adding $1.5 million to local coffers. Property taxes add $1.0 million to state revenues over the 20-year period, and $4.1 million to local government.

Table 6
20-Year Gross State and Local Tax Revenue Generated by Operations Within NuLu Project
(million $)

Tax Type	State	Local	Total
Ind. Income/Occ. License	4.1	1.5	5.6
Sales & Use	18.7	0.0	18.7
Property	1.0	4.1	5.1
Total Tax Revenue	23.8	5.6	29.4

Individual Income and Occupational License Taxes

Individual income tax and occupational license tax revenue estimates flow from the Project total gross revenues shown in Table 3. The Project developers have provided initial estimates of compensation paid to Hotel employees. The Hotel is expected to be fully operational and staffing levels at their permanent level as soon as construction is finished. The wages, salaries, commission, and gratuities paid to hotel employees are projected to total $1,234,100 in 2016. Occupational license tax rate is 1.25 percent of earned income and is assumed to remain at that rate over the 20-year term of analysis. Effective income tax rate on earnings is assumed to be 3.2 percent, based on historical relationships between the two variables. Wages and salaries of those workers are projected to grow at the rate identified in Appendix D.

From the gross receipts of the remaining establishments listed, it is possible to obtain an estimate of the compensation paid to employees of those establishments. The US Bureau of Economic Analysis, the same agency that produces the RIMS II input-output model, also maintains the national input-output tables upon which RIMS II is based. As a part of the national input-output model, BEA provides a table identifying the first round of intermediate inputs required to produce another dollar of output. Within this table, payments to households are listed as a percentage of each dollar of output (gross revenues). In other words, the table identifies the portion of each unit of output that is paid to employees in the form of compensation.

Table 7 below details the calculation of local occupational license and state income tax revenues for a single year (2016). Except for the hotel, for which the developers have offered a payroll estimate, gross revenues of each facility are used as the basis for converting to gross earnings based on the estimated percentage of output dedicated to worker compensation.

Table 7

Total State and Local Income and Occupational License Tax Revenues Paid by Businesses Operating Within NuLu Development Area

(Year 2016, Excludes Construction-related Revenues)

	Gross revenues	Percent compensation from Direct Requirements Table	Caculated Gross Earnings (Payroll)	Local Occupational Revenues	State Income Taxes
Hotel	5,327,175	na	1,234,100	15,426	39,491
Rooftop Conference Center	250,000	34.6%	86,500	1,081	2,768
Lounge	300,000	34.6%	103,800	1,298	3,322
Retail Space	3,806,076	36.5%	1,389,218	17,365	44,455
Restaurants	4,000,000	34.6%	1,384,000	17,300	44,288
TOTAL	**13,683,251**		**4,197,618**	**52,470**	**134,324**

Sales and Use Taxes

Compared to income taxes, state sales taxes are relatively straightforward to estimate. Impacts from sales and use taxes accruing from the project apply only at the state level. Gross receipts of the establishments are presumed to be virtually all within the state sales and use tax base. Consisting of temporary lodging, food and beverages consumed on premises, and catering charges, the receipts of the hotel, conference center, lounge and restaurants will be subject to the 6.0% sales tax. The retail space is assumed to be devoted to items also in Kentucky's sales tax base, i.e., few tax-exempt items are sold and few sales are made to tax-exempt entities.

In 2016, the first year of operations, sales taxes should reach $820,995 based on sales of nearly $13.7 million for all facilities. Over 20 years, if sales grow at the expected growth rate of the U.S. Consumer Price Index, sales tax receipts should yield nearly $18.7 million.

Property Taxes

Property taxes are calculated using construction costs as a starting point for property valuation. Over a 20-year period property tax revenue is expected to increase due not only to inflation, but also the assumption that property taxes would increase to the full extent of 4 percent allowed by state law. The effective local rate of property tax used in this analysis is $0.4921 per $100 of valuation. The equivalent state rate used is $0.122 per $100 of valuation. (School and fire department property taxes are not included in available revenues to finance the bonds.) A two-year lag is assumed between completion of construction and the first collection of property taxes on a facility, to account for timing of assessments and collections. Based on this, total local property tax collections over the 20-year time period should rise from about $111,543 in year 3 (first year of collection) to about $313,376 in year 20. State collections over the same time period grow from about $27,653 to $77,691.

b. Gross State and Local Tax Revenue from Direct and Indirect Impacts

Gross state and local revenues will accrue from the increased earnings within Jefferson County and Kentucky accruing from the NuLu Project. Direct and indirect tax revenues are derived from the estimates of earnings discussed in Section III earlier. Using these as a base, the effective rate of occupational license taxes is 1.25% on income, the income tax effective rate is 3.2% (accounting for exemptions, deductions, and tax-deferred income), and the sales tax rate is 2.8% (considering that much income is spent on items not subject to Kentucky's sales and use tax). Table 8 provides a summary of total expected revenues from development of the Project. Appendix B provides detailed annual revenues from the project.

Table 8
20-Year Gross State and Local Tax Revenue by Tax Type
(million $)

Tax Type	State	Local	Total
Ind. Income/Occ. License	5.6	1.8	7.5
Sales & Use	23.6	-	23.6
Property	1.0	4.1	5.1
Total Tax Revenue	30.2	5.9	36.2

For Jefferson County, expected tax receipts from occupational license taxes and property taxes should reach $5.9 million over the 20-year period. Roughly $1.8 million of this is from occupational license tax revenue, and the remainder from an increase in local property taxes. Following construction (year 3), expected occupational license tax revenues will rise from $64,339 in initial stages to $120,924 in year 20.

Meanwhile, Kentucky state government should experience a rise in revenues totaling $30.2 million over the same time period. The largest impacts will be felt in as well as sales and use tax revenues, and to a lesser extent individual income tax receipts. Relatively minor impacts will be realized in property taxes. State income tax receipts are projected to grow from $191,423 in year 3 following construction to reach $359,268 annually by year 20. Sales taxes are projected to rise from just above $1.0 million in year three to about $1.5 million in year 20. Estimation of corporation income taxes and limited-liability entity taxes accruing from this project are not calculated due to significant uncertainties regarding the impacts on the bases of these taxes, although one should ordinarily expect a positive impact.

c. Net State and Local Tax Revenue from Direct and Indirect Impacts

In this analysis, the addition of a hotel in the Louisville market is expected to serve an expanded tourism market, and thus is not expected to replace a demand already being served by existing facilities in the Louisville area. However, it is realized that some of the demand will come from within the market area, so an adjustment of impacts is offered to account for expected redirection of purchases from pre-existing establishments to those within the Project.

Table 9 below details the percentage of each facility/operation that counts as net "new" spending in Louisville and Kentucky. According to Coomes and Kornstein, 82 percent of the visitors who completed the Kentucky Bourbon Trail in 2008 were out-of-state residents. Since the NuLu project is expected to serve this expanded tourist market, it is presumed here that the same percentage applies to guests at the Project hotel. As a result, the revenue estimates resulting from the application of effective tax rates to the estimated earnings impacts are discounted to this percentage at the state and local level. For the rooftop facility, the assumption is that half of the events would have taken place at another facility in Kentucky (including the Louisville area), and 40 percent would have occurred outside of the Louisville area. (By inference, this means that 10 percent of the events would have occurred otherwise in Kentucky but outside of Jefferson County.) For the Lounge, it is assumed that all business will come from hotel guests, so net new spending is set equal to that of hotel rooms.

For the eating establishments the process is more detailed. The developers of the Project believe that based on an annual revenue rate of $400 per square foot in an eating establishment, the total gross revenues of the restaurants is $3.6 million. Our estimate of the share of this originating from out-of-state hotel guests is just over $958,508, or 24 percent. This was determined by calculating the number of room/nights sold each year as the product of number of rooms, percent occupancy, and rooms available per year. (150 * 70% * 365). This yields 38,325 room/nights sold. Of this amount, 82 percent originates from out of state. Statistics on average daily restaurant spending by hotel guests is not available, but using the 2014 federal government per-diem meal allowance for Louisville of $61 per each room-night as a proxy, total spending at restaurants by out-of-state hotel guests is $1.9 million. It is further assumed that only 50 percent of average daily restaurant spending will occur in the Project restaurants, leading to total net new spending of 24 percent.

The effect of redirected spending for the retail establishments is assumed to be the same as for area restaurants. Shoppers at the facilities should be divided similarly by residence as for the eating establishments.

Table 9
Substitution Rate (% indicates amount NOT replacing other activity)

	State	Local
Hotel rooms	82%	82%
Rooftop events	50%	60%
Lounge	82%	82%
Retail	24%	24%
Restaurants	24%	24%

Net state and local revenues will accrue from the increased earnings within Jefferson County and Kentucky accruing from the NuLu Project. Table 10 provides a summary of total net new expected revenues from development of the Project. The estimates for net new tax revenues is based on the same methodology used to determine gross impacts, with the adjustments discussed above for substitution/redirection of existing spending.

Table 10
20-Year Net New State and Local Tax Revenue by Tax Type
(million $)

Tax Type	State	Local	Total
Ind. Income/Occ. License	3.3	1.2	4.5
Sales & Use	12.0	-	12.0
Property	1.0	4.1	5.1
Total Tax Revenue	16.3	5.2	21.6

Following construction, expected occupational license tax revenues will rise from $34,286 in initial stages to $65,660 in year 20.

For Jefferson County, expected tax receipts from occupational license taxes and property taxes should reach $5.2 million over the 20-year period. Roughly $1.1 million of this is from occupational license tax revenue, and the remainder from an increase in local property taxes.

Meanwhile, Kentucky state government should experience a rise in revenues totaling $16.3 million over the same time period. By far, the largest impacts will be felt in as sales and use tax revenues, due not only to taxes collecting by Project establishments, but those generated by subsequent rounds of spending in Kentucky. Sales taxes should grow from $495,443 in year 3 to total $737,389 in year 20. State income tax receipts are projected to grow from $99,745 in year 3 following construction to reach $190,832 annually by year 20. Relatively minor impacts will come from property taxes, just totaling over $1.0 million in the 20-year period. Estimation of corporation income taxes and limited-liability entity taxes accruing from this project are not calculated due to significant uncertainties regarding the impacts on the bases of these taxes, although one should ordinarily expect a positive impact. Detailed estimates of net new state and local revenues are provided in Appendix C.

Property Tax Impacts

Impacts from property taxes are identical in this section as the gross revenues described in the previous section. No substitution or displaced spending applies to property tax revenues.

Individual Income and Occupational License Tax Impacts

Individual income tax and occupational license tax revenue estimates flow from the total earnings impacts as shown above in Table 5. Occupational license tax rate is 1.25 percent of earned income and is assumed to remain at that rate over the 20-year term of analysis. Effective income tax rate on earnings is assumed to be 3.2 percent, based on historical relationships between the two variables. Following construction, expected occupational license tax revenues will rise from $34,286 in initial stages to $65,660 in year 20. State income tax receipts are projected to grow from $99,745 in year 3 following construction to reach $190,832 annually by year 20.

Sales and Use Tax Impacts

Impacts from sales and use taxes accruing from the project apply only at the state level. The effective rate of sales taxes, using earnings as a base, is 2.8 percent based on historical ratios. Sales tax increases associated with the increase in personal earnings will rise from $495,443 in year 3 to about $737,389 in year 20.

Appendix A
Detail of State and Local Tax Revenues Directly Paid by Establishments Within the Project

This appendix contains detailed state and local tax revenue estimates paid directly by establishments created by/located within the NuLu Project. This table provides the timing of the state and local government revenue stream annually by tax type.

Estimated Gross State and Local Tax Revenue Generated Within NuLu TIF District

	Local Taxes			State Taxes				**Total All Taxes**
Year	**Occupational License Tax**	**Local Property Tax**	**Total Local Taxes**	**State Income Tax**	**State Sales Tax**	**State Property Tax**	**Total State Taxes**	
2015	102,000	-	102,000	261,120		-	261,120	363,120
2016	103,470	-	103,470	264,884	820,995	-	1,085,879	1,189,349
2017	54,517	111,543	166,059	139,428	835,773	27,653	1,002,854	1,168,914
2018	56,588	167,314	223,902	144,726	850,817	41,480	1,037,023	1,260,925
2019	58,739	174,007	232,745	150,515	867,833	43,139	1,061,488	1,294,233
2020	61,088	180,967	242,055	156,536	885,190	44,865	1,086,591	1,328,646
2021	63,532	188,205	251,737	162,797	902,894	46,659	1,112,350	1,364,088
2022	66,073	195,734	261,807	169,309	920,952	48,526	1,138,787	1,400,593
2023	68,716	203,563	272,279	176,082	939,371	50,467	1,165,919	1,438,198
2024	71,464	211,706	283,170	183,125	958,158	52,485	1,193,768	1,476,938
2025	74,323	220,174	294,497	190,450	977,321	54,585	1,222,356	1,516,853
2026	77,296	228,981	306,277	198,068	996,868	56,768	1,251,704	1,557,980
2027	80,388	238,140	318,528	205,991	1,016,805	59,039	1,281,835	1,600,362
2028	83,603	247,666	331,269	214,230	1,037,141	61,401	1,312,772	1,644,041
2029	86,947	257,572	344,520	222,800	1,057,884	63,857	1,344,540	1,689,060
2030	90,425	267,875	358,300	231,712	1,079,042	66,411	1,377,164	1,735,464
2031	94,042	278,590	372,632	240,980	1,100,622	69,067	1,410,670	1,783,302
2032	97,804	289,734	387,538	250,619	1,122,635	71,830	1,445,084	1,832,622
2033	101,716	301,323	403,039	260,644	1,145,087	74,703	1,480,435	1,883,474
2034	105,785	313,376	419,161	271,070	1,167,989	77,691	1,516,750	1,935,911
Grand Tota	**1,496,516**	**4,076,468**	**5,674,984**	**4,095,086**	**18,683,375**	**1,010,626**	**23,789,087**	**29,464,072**

Appendix B
Detail of Gross State and Local Tax revenues Both Direct and Indirect as a Consequence of the Project

This appendix contains detailed state and local tax revenue estimates both direct and indirect that should accrue from the NuLu Project. The estimates on this page have not been adjusted for any anticipated redirection of spending away from existing establishments. This table provides the timing of the state and local government revenue stream annually by tax type.

Detailed 20-Year Revenue Estimates from NULU Operations

Year	Occupational License Tax	Local Property Tax	State Income Tax	State Sales Tax	State Property Tax	Total All Taxes
2015	132,798	-	482,274	421,990	-	1,037,062
2016	101,202	-	345,146	1,122,998	-	1,569,347
2017	64,339	111,543	191,423	1,003,268	27,653	1,398,226
2018	66,632	167,314	198,225	1,024,264	41,480	1,497,915
2019	69,142	174,007	205,674	1,047,798	43,139	1,539,761
2020	71,750	180,967	213,412	1,071,925	44,865	1,582,918
2021	74,459	188,205	221,449	1,096,661	46,659	1,627,434
2022	77,273	195,734	229,797	1,122,024	48,526	1,673,354
2023	80,196	203,563	238,470	1,148,032	50,467	1,720,727
2024	83,232	211,706	247,479	1,174,702	52,485	1,769,604
2025	86,387	220,174	256,837	1,202,054	54,585	1,820,037
2026	89,665	228,981	266,559	1,230,107	56,768	1,872,080
2027	93,070	238,140	276,659	1,258,882	59,039	1,925,790
2028	96,607	247,666	287,152	1,288,399	61,401	1,981,225
2029	100,282	257,572	298,053	1,318,680	63,857	2,038,445
2030	104,101	267,875	309,379	1,349,748	66,411	2,097,513
2031	108,068	278,590	321,145	1,381,624	69,067	2,158,495
2032	112,191	289,734	333,370	1,414,333	71,830	2,221,458
2033	106,043	301,323	346,071	1,447,900	74,703	2,276,041
2034	120,924	313,376	359,268	1,482,349	77,691	2,353,609
Grand Total	**1,838,362**	**4,076,468**	**5,627,844**	**23,607,739**	**1,010,626**	**36,161,040**

Appendix C
Detail of Net tax revenues after accounting for the substitution or displacement of local spending

This appendix contains detailed state and local tax revenue estimates both direct and indirect that should accrue from the NuLu Project. The estimates on this page have been adjusted for anticipated redirection of spending away from existing establishments. This table provides the timing of the state and local government revenue stream annually by tax type.

Detailed 20-Year Revenue Estimates from NULU Operations

Year	Occupational License Tax	Local Property Tax	State Income Tax	State Sales Tax	State Property Tax	Total All Taxes
2015	132,798	-	482,274	421,990	-	1,037,062
2016	150,227	-	292,012	656,460	-	1,098,699
2017	34,286	111,543	99,745	495,443	27,653	768,671
2018	35,552	167,314	103,423	506,008	41,480	853,777
2019	36,937	174,007	107,445	517,837	43,139	879,365
2020	38,377	180,967	111,625	529,972	44,865	905,805
2021	39,873	188,205	115,970	542,420	46,659	933,128
2022	41,429	195,734	120,487	555,191	48,526	961,366
2023	43,046	203,563	125,182	568,294	50,467	990,552
2024	44,727	211,706	130,062	581,740	52,485	1,020,720
2025	46,474	220,174	135,135	595,537	54,585	1,051,905
2026	48,290	228,981	140,409	609,697	56,768	1,084,145
2027	50,178	238,140	145,890	624,351	59,039	1,117,598
2028	52,141	247,666	151,588	639,148	61,401	1,151,944
2029	54,181	257,572	157,512	654,461	63,857	1,187,583
2030	56,302	267,875	163,669	670,182	66,411	1,224,439
2031	58,507	278,590	170,070	686,322	69,067	1,262,557
2032	60,799	289,734	176,724	702,894	71,830	1,301,982
2033	63,182	301,323	183,641	719,912	74,703	1,342,762
2034	65,660	313,376	190,832	737,389	77,691	1,384,948
Grand Total	**1,152,967**	**4,076,468**	**3,303,698**	**12,015,249**	**1,010,626**	**21,559,009**

Appendix D
Earnings Growth Rates Used in Analysis

Employment is projected to remain stable for the period of estimation, although the following wage growth rates were applied to the payrolls to account for ordinary expected increases in hiring costs.

Year	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019 onward**
Wage Growth Rate (%)	3.4	3.6	3.7	3.9	3.8	3.8	4.0

These growth rates were estimated by the Kentucky Office of State Budget Director in their publically released five-year planning forecast dated August 15, 2013.

Appendix E
Multiplier Concept and RIMS II

Effective planning for public- and private-sector projects and programs at the State and local level requires a systematic analysis of the economic impacts of projects and programs on the affected regions. In turn, systematic analysis of economic impacts must take into account inter-industry relationships within regions because these relationships largely determine how regional economies are likely to respond to project and program changes. Thus, regional input-output (I-O) multipliers which account for inter-industry relationships within regions are useful tools for regional economic impact analysis.

In the mid-1970s, the U.S. Department of Commerce, Bureau of Economic Analysis (BEA) developed a method for estimating regional I-O multipliers known as RIMS (Regional Industrial Multiplier System). In the mid-1980s, BEA completed an enhancement of RIMS, known as RIMS II (Regional Input-Output Modeling System II) and published a handbook for RIMS II users.

RIMS II is based on an economic accounting framework. For each industry, an I-O table shows the distribution of inputs purchased and outputs sold. A typical I-O table in RIMS II is derived from BEA's national I-O table and BEA's regional economic accounts, which are used to adjust the national I-O table to show a particular region's industrial structure and trading patterns. RIMS II has several advantages for use in impact analysis. RIMS II multipliers can be estimated for any region composed of one or more counties and for any of the 473 industries or 60 industry aggregates in the national I-O table. The accessibility of the main data sources for RIMS II keeps the cost of estimating regional multipliers relatively low. Empirical tests show that the estimates based on the RIMS II modeling system and estimates based on relatively expensive surveys are similar in magnitude.

All multipliers used in this report were constructed using the 2010 US Annual Input-Output Tables, adjusted for the relevant geographic region with 2010 employment earnings estimates as provided by BEA. These multipliers are available for 62 aggregated economic sectors. Type II multipliers were used based on the assumption that most earnings generated within the region would remain in the region, i.e., the recipients are residents of Jefferson County and/or Kentucky. Relevant industries and multipliers are detailed below.

RIMS II Multipliers Used In Analysis

Industry Classification	Source and Notes (i.e., type, region and year)	Earnings Multiplier	Employment Multiplier (Jobs)
Construction	RIMS II Jeff Co, 2010/2010 Type II	0.4687	13.2567
Construction	RIMS II KY, 2010/2010 Type II	0.6649	18.4821
Accommodations	RIMS II Jeff Co, 2010/2010 Type II	0.4325	15.8629
Food Services and drinking places	RIMS II Jeff Co, 2010/2010 Type II	0.4545	22.4825
Accommodations	RIMS II KY, 2010/2010 Type II	0.4836	17.4877
Food Services and drinking places	RIMS II KY, 2010/2010 Type II	0.5444	25.8787

Effective use of the multipliers for impact analysis requires that users provide geographically and industrially detailed information on the initial changes in output, earnings, or employment which are associated with the project or program under study. The multipliers can then be used to estimate the total impact of the project or program on regional output, earnings, and employment.

For more information please refer to U.S. Bureau of Economic Analysis, *RIMS II: An Essential Tool for Regional Developers and Planners*, available on-line at: http://www.bea.gov/regional/rims/