

shopping center is located along several blocks of Market Street just to the west of the Casino site. Finally, Chinatown is located several blocks northwest of the Casino site.

In addition to spending money inside Market8, patrons and gamers will also spend money at local Philadelphia establishments outside the Casino, including restaurants and bars, hotels, retail and general merchandise stores, entertainment venues, and tourist attractions. Similar to annual Casino operational expenditures, this ancillary spending by Casino patrons will also generate significant economic impacts for the City, Region, and State.

### 8.3.1 Direct Impacts of Ancillary Patron Spending

Based on estimates provided by PKF Consulting, Market8 patrons will fall under the following four market segments:

- Primary Residential Market: consists of the residents of Philadelphia County plus residents of New Jersey readily accessed by the Benjamin Franklin, Walt Whitman and Betsy Ross Bridges and the PATCO high-speed line.
- Secondary Residential Market: consists of residents desiring to travel to casinos in the area for an evening or day of dining and/or gaming.
- Visitor Market: consists of hotel patrons, tourists, and day visitors to the Pennsylvania Convention Center.
- Commuter Workforce Market: consists of suburban commuters who work in Center City.

Based on PKF's market segment analysis<sup>25</sup>, Market8 will have more than 4.7 million patrons in its first year of operation. As shown in Figure 8.5, an estimated 2.7 million patrons will originate from the primary residential market, 1.4 million will originate from the secondary residential market, and 0.5 million and 0.2 million will originate from the visitor and commuter workforce markets, respectively. Due to Market8's unique location in the heart of Philadelphia's urban core, no other site in the city would match the ancillary impacts of Market8 patrons shopping and dining at retailers, restaurants, and entertainment venues immediately outside Casino doors.

We estimate that 60% of patrons from the primary residential market will spend money outside of Market8. Average spending will amount to \$40 per patron, resulting in a total of nearly \$65 million in spending by primary residential market patrons at establishments outside the Casino.

We estimate that 80% of patrons from the secondary residential market will spend money outside of Market8. At an average of \$45 per person, total spending by secondary residential market patrons at establishments outside the Casino will amount to nearly \$49 million.

The estimated percentages of the primary and secondary residential markets that will spend money outside the Casino are comparable to the percentages reported in the AGA's 2011 survey of casino patrons. Market8 represents an attractive downtown entertainment destination for patrons originating from the primary and secondary residential markets (2.7 million and 1.4 million patrons, respectively), and

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<sup>25</sup> Please refer to PKF's complete report for a comprehensive analysis and description of the methodology underlying Casino Philadelphia's estimated patron base.

a high percentage of these patrons will spend money outside the Casino, thus generating new business at other downtown establishments that otherwise would not have occurred.

While the majority of Market8 patrons from the visitor market are hotel guests or patrons of the Pennsylvania Convention Center, we assume that their trip to Market8 would generate ancillary spending that otherwise would not have occurred. We estimate that 30% of the visitor market will spend an average of \$25 per person, resulting in total spending of nearly \$4 million at establishments outside the Casino.

Finally, we assume that 30% of the commuter workforce market patrons will spend an average of \$15 outside of Market8, resulting in \$0.9 million in ancillary spending at establishments outside the Casino.

Spending estimates for each market segment represent *net new* spending by Casino patrons that would not have occurred had it not been for their trip to Market8.

Based on research from Tourism Economics and GTPMC (Greater Philadelphia Tourism Marketing Corporation), average spending per person trip to Philadelphia (including day and overnight visitors from domestic and international markets) is \$137, while spending per person trip for domestic overnight visitors is \$163. In addition, according to the Bureau of Labor Statistics' (BLS) Consumer Expenditure Survey, consumers in the Northeast spent an annual average of \$1,835 on dining away from home and entertainment fees and admissions in 2011. Based on these visitor and resident spending averages, the respective per-patron spending estimates, which range from \$15 to \$35 per person, represent reasonable estimates of ancillary spending at nearby retail, dining, and entertainment establishments. Finally, a 2012 study from the Philadelphia Cultural Alliance found that cultural attendees spend an average of \$45 on meals, parking, transportation, and retail goods at local establishments outside cultural/entertainment venues. Compared to these average household and per-visitor spending estimates, the estimates outlined above represent reasonable estimates of average spending of Market8 patrons at nearby establishments.

Based on the estimates outlined above, total ancillary patron spending attributable to Market8 amounts to nearly \$118 million, as shown in in Figure 8.5.

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Figure 8.5: Estimated Market8 Patrons and Ancillary Spending (First Year of Operation), by Market (in 2016 Dollars)

Market	Estimated Patrons	% of Patrons Who Will Spend \$ Outside Market8	Spending per Patron	Total Patron Spending (\$ Millions)
Primary Residential Market	2,700,000	60%	\$40	\$64.8
Secondary Residential Market	1,350,000	80%	\$45	\$48.6
Visitor Market	480,000	30%	\$25	\$3.6
Commuter Workforce Market	190,000	30%	\$15	\$0.9
<b>Total Patrons</b>	<b>4,720,000</b>			<b>\$117.9</b>

Source: PKF Consulting & Tourism Economics (2013)

### 8.3.2 Total Impacts of Ancillary Patron Spending

Total ancillary patron spending attributable to Market8 amounts to \$117.9 million per year, as shown in in Figure 8.5.

Figure 8.6: Ongoing Economic Impacts Attributable to Market8 Ancillary Patron Spending, First Year of Operations (\$ Millions in 2016 Dollars and Total Jobs)

Description	Philadelphia County	5-County Region	PA State
<b>Output Impacts</b>			
Direct Impacts	\$117.9	\$117.9	\$117.9
Indirect & Induced Expenditures	\$69.1	\$128.0	\$140.9
<b>Total Economic Output</b>	<b>\$187.0</b>	<b>\$245.9</b>	<b>\$258.7</b>
Output Multiplier	1.59	2.09	2.20
<b>Job Impacts</b>			
Direct Jobs	1,678	2,313	2,452
Indirect Jobs	302	951	1,124
<b>Total Jobs</b>	<b>1,980</b>	<b>3,264</b>	<b>3,576</b>
<b>Salary &amp; Wage Impacts</b>			
Direct Salaries & Wages	\$24.3	\$33.8	\$35.8
Indirect Salaries & Wages	\$9.3	\$31.8	\$37.5
<b>Total Salaries &amp; Wages</b>	<b>\$33.6</b>	<b>\$65.7</b>	<b>\$73.3</b>

Source: Tourism Economics (2013)

City of Philadelphia

In the City of Philadelphia, \$117.9 million in direct ancillary spending will generate an additional \$69.1 million in indirect and induced expenditures, resulting in a total economic impact of \$187.0 million. This total economic impact includes \$33.6 million in total salaries and wages, supporting nearly 2,000 total jobs throughout the City. The output multiplier for the City of Philadelphia is 1.59, which indicates that each \$1 in direct operational expenditures will generate an additional \$0.59 in indirect and induced expenditures in the City of Philadelphia.

5-County Region

In the 5-County Region, \$117.9 million in direct ancillary spending will generate an additional \$128.0 million in indirect and induced expenditures, resulting in a total economic impact of \$245.9 million. This total economic impact includes \$65.7 million in total salaries and wages, supporting nearly 3,300 total jobs throughout the region. The output multiplier for the 5-County Region is 2.09, which indicates that each \$1 in direct operational expenditures will generate an additional \$1.09 in indirect and induced expenditures in the 5-County Region.

State of Pennsylvania

In the State of Pennsylvania, \$117.9 million in ancillary spending will generate an additional \$140.9 million in indirect and induced expenditures, resulting in a total economic impact of \$258.7 million. This total economic impact includes \$73.3 million in total salaries and wages, supporting nearly 3,600 total jobs statewide. The output multiplier for the State of Pennsylvania is 2.20, which indicates that each \$1 in direct development expenditures will generate an additional \$1.20 in indirect and induced expenditures in the State of Pennsylvania.

## 9 Fiscal (Tax) Impacts

The economic impacts outlined in previous sections will also generate significant fiscal (tax) impacts as they cycle through the local, regional, and statewide economies.

### 9.1 Gaming Taxes

PKF Consulting estimates that Market8 will have a win of \$518.5 million (in 2016 dollars) in its first year of operation, including \$155.5 million in table games revenue and \$362.9 million in slots revenue. Based on these estimates, we estimate that Market8 will generate nearly \$207.0 million in state gaming tax revenues and nearly \$18.0 million in local gaming tax revenues (expressed in 2016 dollars) in its first year of operations. Figure 9.1 provides a detailed breakdown of the various state and local gaming tax components and revenues.

Figure 9.1: State & Local Gaming Tax Revenues Attributable to Market8  
(\$ Millions in 2016 Dollars)

PA State Gaming Tax Revenues					
Tax Description	2016	2017	2018	2019	2020
State Gaming Fund (34% of Slots Revenues)	\$123.4	\$127.1	\$131.0	\$133.6	\$136.2
Horse Racing Industry (12% of Slots Revenues)	\$43.6	\$44.9	\$46.2	\$47.1	\$48.1
Economic Development (5% of Slots Revenues)	\$18.1	\$18.7	\$19.3	\$19.6	\$20.0
General Fund (14% of Tables Revenues, Years 1 & 2) (12% of Tables Revenues, Years 3 to 5)	\$21.8	\$22.4	\$19.8	\$20.2	\$20.6
<b>Total State Gaming Tax Revenues</b>	<b>\$206.9</b>	<b>\$213.1</b>	<b>\$216.2</b>	<b>\$220.6</b>	<b>\$225.0</b>
Local Gaming Tax Revenues					
Tax Description	2016	2017	2018	2019	2020
Local and County Governments (4% of Slots Revenues)	\$14.5	\$15.0	\$15.4	\$15.7	\$16.0
Local County Municipalities (2% of Tables Revenues)	\$3.1	\$3.2	\$3.3	\$3.4	\$3.4
<b>Total Local Gaming Tax Revenues</b>	<b>\$17.6</b>	<b>\$18.2</b>	<b>\$18.7</b>	<b>\$19.1</b>	<b>\$19.5</b>
<b>Total Gaming Taxes</b>	<b>\$224.5</b>	<b>\$231.3</b>	<b>\$235.0</b>	<b>\$239.7</b>	<b>\$244.4</b>

Source: Tourism Economics (2013)

## 9.2 Non-Gaming Taxes

Based on the estimates of total economic impacts outlined in Section 8, Figure 9.2 outlines the various state and local taxes attributable to the one-time construction period impacts and the annual, ongoing impacts of annual casino operations and ancillary patron spending.

Figure 9.2: State & Local Non-Gaming Tax Revenues Attributable to Market8, First Year of Operations (\$ Millions in 2016 Dollars)

Description	PA State Personal Income Tax	PA State Sales and Use Tax	City of Philadelphia Sales Tax	City of Philadelphia Wage Tax	Total Tax Impact
<b>One-Time Tax Revenues</b>					
Construction Period	\$3.76	\$5.01	\$0.43	\$3.46	\$12.65
<b>Total One-Time Tax Revenues</b>	<b>\$3.76</b>	<b>\$5.01</b>	<b>\$0.43</b>	<b>\$3.46</b>	<b>\$12.65</b>
<b>Ongoing Tax Revenues</b>					
Annual Casino Philadelphia Operations (including restaurants)	\$4.11	\$4.77	\$1.59	\$4.31	\$14.79
Annual Ancillary Patron Spending	\$1.67	\$7.82	\$2.30	\$1.35	\$13.14
<b>Total Annual, Ongoing Tax Revenues</b>	<b>\$5.79</b>	<b>\$12.59</b>	<b>\$3.89</b>	<b>\$5.66</b>	<b>\$27.92</b>

Source: Tourism Economics (2013)

As shown in Figure 9.2, Market8's development/construction activities will generate a total one-time impact of nearly \$12.7 million, including \$3.8 million in State personal income tax revenue, \$5.0 million in State sales tax revenue, more than \$0.4 million in City sales tax revenue, and \$3.5 million in City wage tax revenue.

Casino operations and ancillary patron spending will generate nearly \$28.0 million in state and local taxes on an annual, ongoing basis. This total tax impact will include \$6.0 million in State personal income tax revenue, \$12.6 million in State sales tax revenue, \$3.9 million in City sales tax revenue, and \$5.7 million in City wage tax revenue on an annual basis.

## 10 Qualitative & Local Impacts

### 10.1 Positive Qualitative Impacts

As outlined in previous sections, Market8 will be located in the heart of Center City's urban core. Market8's prime location will create synergies and complementary benefits for areas surrounding the Casino. As evidenced by research from the American Gaming Association, the majority of casino patrons travel off-site to explore entertainment and dining options outside casino doors. Market8's proximity to various dining establishments, retailers, historic and cultural tourist attractions, and other center city attractions will provide a unique experience for its gaming (and non-gaming) patrons, providing them a variety of destination options outside Market8's doors.

### 10.2 Local Services

The proposed Casino would directly impact local government service departments, including police, fire, and emergency services. The impacts of the proposed casino should have only minor negative impacts on the neighboring communities and the City government. The areas surrounding the proposed Casino site have sufficient transportation, and there are already a number of parking options, as well as the planned on-site underground parking.

#### 10.2.1 Crime & Police

Research indicates that there is little evidence linking crime rates and gambling and that casinos do not generate increases in the rate of violent crimes in the local community. According to a study from the American Gaming Association, a review of empirical studies found little documentation of a causal relationship between gaming and crime. Much of the literature included in the analysis indicated that communities with casinos are just as safe as communities that don't have casinos<sup>26</sup>. In addition, according to a study that analyzed the impacts of Detroit's downtown casinos, "it appears that Detroit's casinos are effective in contributing to the tourism activity in the community: 1) they are effective in attracting tourists and generating new money in the area. 2) they generate taxes and employment, 3) they contribute to other community tourism-related businesses. On the other hand, crime volume did not increase following casino gaming development in the city. In addition, it was found that bankruptcy filings in Detroit did not increase a year after the casinos opened in the city"<sup>27</sup>.

Grant Stitt's federally funded research, which examined the impacts of new casinos in eight jurisdictions in Illinois, Iowa, and Mississippi, found that casinos did not appear to have any general or

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<sup>26</sup> Casinos and Crime: An Analysis of the Evidence, American Gaming Association

<sup>27</sup> Mufakkir, Omar, and Holecek, Donald. *Impacts of Detroit Casinos on the Local Community*. 2002.

dramatic effect on crime, especially in communities that did not have a high concentration of casinos. The research also found that minor crimes were more likely to increase than major crimes.

While the above references suggest that Market8 would not necessarily lead to an increase in crime rate, there may be increases in overall crime levels. If there is an increase in the number of crimes, Market8's location at 8<sup>th</sup> and Market Streets is in the heart of Philadelphia's urban core and is already well-served by a large police presence. The Philadelphia Police Department is the nation's fourth largest police department, and the headquarters of the Department's 6<sup>th</sup> District is only five blocks away from the site of the proposed Casino. While the presence of a 24-hour casino may require the Police Department to modify staffing and schedules, it would not have negative impacts or degrade the quality of services currently provided by the Police Department.

#### 10.2.2 Fire Department

The Philadelphia Fire Department services Market Street in Center City with crews out of fire houses in the 4<sup>th</sup> Battalion, of the First Division in the Fire Department. The 4<sup>th</sup> Battalion includes engine and/or ladder companies at two locations within five blocks from the proposed Casino site and an additional three companies within 15 blocks. With twelve additional battalions, there are multiple redundancies for servicing the proposed Casino site.

#### 10.3 Traffic Impact

Pennoni Associates, Inc., conducted a comprehensive Traffic Impact Study for the proposed site of Market8. The analysis found that Market8 is in a prime location to access several modes of transit. In addition, the prime location allows easy access to I-95 and I-676 for regional access by vehicular traffic. Delays due to casino vehicular traffic would be limited to less than 10 seconds at all intersections included in Pennoni's analysis. Available parking immediately adjacent to the proposed site, combined with proposed underground parking at the Casino, exceeds the parking requirements of the zoning code.

#### 10.4 Public Transportation

Due to Market8's location in one of the major thoroughfares in the City, there are already a multitude of existing public transportation options, including bus, rail, taxis, and subway. Please refer to the Traffic Impact Study for further details.

### 10.5 Social Costs

Various studies indicate that one clear social impact of casino development is the increase in problem gambling that results<sup>28</sup>. According to a 2010 study, 1.2% of adults are pathological gamblers at any point in their lifetime, while another 1.5% are problem gamblers. The likelihood of being a pathological or problem gambler increases for persons living within 50 miles of a casino.

Current Pennsylvania statutes require slot machine licensees to submit a Compulsive and Problem Gambling Plan to the State. Market8 will create a plan that will include provisions for employee training on identifying and dealing with compulsive gamblers, signage for toll-free help numbers and other helpful information, and other controls to effectively handle any increases in pathological and problem gamblers.

It is not anticipated that Market8 will cause an increased demand for public health care, child care, public transportation, affordable housing or social services

Market8 will be located in downtown Philadelphia, where there is already a well-established business and residential community with existing infrastructure, high concentrations of retailers, companies, and workers, steady levels of pedestrians and foot traffic, and an existing historic/cultural tourism base. Since the proposed site is in one of the major thoroughfares in the City, there will be minimal impacts on the neighboring communities, including Chinatown.

While there have been many studies analyzing the socio-economic impacts of casino development, there have been few studies examining the cultural impacts of casinos. In his 2010 paper, "Casino Development in Gettysburg: Social, Economic and Heritage Impacts", Professor Duarte B. Morais cites a study that argued that "visitors attracted to the (Upper Mississippi River corridor) for gaming, will frequently stay longer to experience other opportunities, such as touring historic, scenic, or recreation sites." In addition, a research firm studying the profile of visitors to Vicksburg, MI found that respondents interviewed in Casinos reported also visiting Vicksburg's historic/cultural attractions. Due to its location within walking distance of many of Philadelphia's famous historical landmarks (including Independence Hall, the Liberty Bell, Independence Visitors Center, and the National Constitution Center), Market8 will generate new visitors to these historic attractions. While these new visits will generate new revenues and economic benefits for the historic attractions, they could also create increased costs and pressures in infrastructure to satisfy the new demand.

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<sup>28</sup> "The Social Impact of Casinos: Literature Review and Cost Estimates", Community Research Partners, 2010.

## 11 Company Background



**TOURISM  
ECONOMICS**

AN OXFORD ECONOMICS COMPANY

**Tourism Economics** is an Oxford Economics company with a singular objective: combine an understanding of tourism dynamics with rigorous economics in order to answer the most important questions facing destinations, developers, and strategic planners. By combining quantitative methods with industry knowledge,

Tourism Economics designs custom market strategies, destination recovery plans, tourism forecasting models, tourism policy analysis, and economic impact studies.

With over four decades of experience of our principal consultants, it is our passion to work as partners with our clients to achieve a destination's full potential.

Oxford Economics is one of the world's leading providers of economic analysis, forecasts and consulting advice. Founded in 1981 as a joint venture with Oxford University's business college, Oxford Economics enjoys a reputation for high quality, quantitative analysis and evidence-based advice. For this, it draws on its own staff of 50 highly-experienced professional economists; a dedicated data analysis team; global modeling tools, and a range of partner institutions in Europe, the US and in the United Nations Project Link. Oxford Economics has offices in New York, Philadelphia, London, Oxford, Dubai, and Singapore.

**Michael Mariano** is a Senior Economist and Director of Geospatial Analytics with Tourism Economics and Oxford Economics. Michael has over 13 years of experience in economic and statistical consulting, and his research interests include economic and fiscal impact modeling, econometric forecasting, retail market studies, and GIS (Geographic Information Systems) modeling and geospatial analytics.

Mr. Mariano has consulted and provided expert testimony for various public, private, and non-profit clients and has managed projects examining public housing, economic development, tax policy, market analysis, and real estate impacts. He has worked on economic impact studies for hotels, casinos, and retail parks nationwide and has extensive experience providing job impact estimates for project funding through the U.S. government's EB-5 immigrant investor program.

Prior to joining Tourism Economics, Michael was Managing Director of Geospatial Analytics and GIS Solutions at Econsult Corporation, an economic consulting firm based in Philadelphia. Michael received a Bachelor of Science in economics and marketing from the Wharton School and a Master of Science in Urban Spatial Analytics from The University of Pennsylvania.

## 12 Addendum

The analysis that follows summarizes the potential impacts generated by the addition of a 168-room hotel (including six penthouse suites) to be built on top of Market8 with direct connection to the Casino. Preliminary plans indicate the hotel will be built, owned, and operated by a third party. The hotel will offer an amenities floor with spa, fitness club, meeting rooms, lobby with registration, lounge for light fare, and a back of house including a buffet kitchen.

Based on a report from PKF Consulting, the hotel will achieve a stabilized level of occupancy of 75 percent and open in 2016 with an ADR (average daily rate) of \$184 (expressed in 2016 dollars). Based on information provided by Mohegan, PKF estimates the following:

- An average of 1.25 adult guests per occupied room
- Approximately 75 percent of all hotel guests will play in Market8 during their visit
- Some 80 percent of the hotel's occupied rooms will be provided on a complimentary basis on Friday and Saturday nights
- Some 25 percent of the hotel's occupied rooms will be provided on a complimentary basis on other nights of the week
- Each comped hotel guest will have a gaming budget of \$500
- Each non-comped hotel guest will have a gaming budget of \$100

### 12.1 One-Time Economic Impacts Attributable to Hotel Development Expenditures

Preliminary estimates indicate the hotel will have a total development budget of \$69.3 million, as shown in Figure 12.1.

Figure 12.1: Estimated Hotel Development Costs (\$ Millions)

Description	Amount
Construction	\$52.4
Furniture, Fixtures, and Equipment	\$3.4
Opening & Soft Costs	\$5.0
Construction Interest & Loan Fees	\$4.5
Contingency	\$4.0
<b>Total</b>	<b>\$69.3</b>

Source: Market East Associates (2013)

Certain line item costs are excluded from the economic impact analysis since they do not represent the transfer of tangible goods and do not generate economic impacts. Expenditures excluded from the economic modeling include \$4.5 million in construction interest and loan fees. We conservatively estimate that 20% of inputs necessary for construction will originate from within the City of Philadelphia,

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60% will originate from within the 5-County Region, and 80% will originate from within the State of Pennsylvania. As shown in Figure 12.2, total direct development expenditures in Philadelphia will amount to \$12.2 million. Total direct development expenditures in the 5-County Region and State will amount to \$36.5 million and \$48.7 million, respectively.

Figure 12.2: One-Time Economic Impacts Attributable to Hotel Development Expenditures (\$ Millions and Total Jobs)

Description	Philadelphia County	5-County Region	PA State
<b>Output Impacts</b>			
Direct Expenditures	\$13.0	\$38.9	\$51.9
Indirect & Induced Expenditures	\$5.4	\$41.6	\$68.9
<b>Total Economic Output</b>	<b>\$18.4</b>	<b>\$80.5</b>	<b>\$120.8</b>
Output Multiplier	1.42	2.07	2.33
<b>Job Impacts</b>			
Direct Jobs	88	327	479
Indirect Jobs	49	355	619
<b>Total Jobs</b>	<b>137</b>	<b>682</b>	<b>1,098</b>
<b>Salary &amp; Wage Impacts</b>			
Direct Salaries & Wages	\$4.5	\$10.9	\$11.7
Indirect Salaries & Wages	\$2.1	\$14.6	\$18.8
<b>Total Salaries &amp; Wages</b>	<b>\$6.6</b>	<b>\$25.5</b>	<b>\$30.5</b>

Source: Tourism Economics (2013)

City of Philadelphia

In the City of Philadelphia, \$13.0 million in direct construction expenditures will generate an additional \$5.4 million in indirect and induced expenditures, resulting in a total economic impact of \$18.4 million. This total economic impact includes \$6.6 million in total salaries and wages, supporting nearly 140 total jobs. The output multiplier for the City of Philadelphia is 1.42, which indicates that each \$1 in direct development expenditures will generate an additional \$0.42 in indirect and induced expenditures in the City of Philadelphia.

5-County Region

In the 5-County Region, \$38.9 million in direct construction expenditures will generate an additional \$41.6 million in indirect and induced expenditures, resulting in a total economic impact of \$80.5 million. This total economic impact includes \$25.5 million in total salaries and wages, supporting more than 680 total jobs. The output multiplier for the 5-County Region is 2.07, which indicates that each \$1 in direct development expenditures will generate an additional \$1.07 in indirect and induced expenditures in the 5-County Region.

State of Pennsylvania

In the State of Pennsylvania, \$51.9 million in direct construction expenditures will generate an additional \$68.9 million in indirect and induced expenditures, resulting in a total economic impact of \$120.8 million. This total economic impact includes \$30.5 million in total salaries and wages, supporting nearly 1,100 total jobs. The output multiplier for the State of Pennsylvania is 2.33, which indicates that each \$1 in direct development expenditures will generate an additional \$1.33 in indirect and induced expenditures in the State of Pennsylvania.

While the impacts attributable to the hotel development/construction expenditures are one-time impacts in the City, region, and State, they represent significant, positive impacts in terms of economic output, total jobs, and salaries and wages.

12.2 Ongoing Economic Impacts Attributable to Incremental Casino Operational Expenditures

Figure 12.3 summarizes the increase in operational expenditures attributable to the proposed hotel. As shown, the hotel leads to an additional \$18.4 million in operational expenditures. In its stabilized year of operations, the hotel will generate approximately \$8.8 million in room revenue.

Figure 12.3: Estimated Casino Operational Expenditures With and Without Hotel (\$ Millions)

Departmental Expenses			
	Without Hotel	With Hotel	Difference
Casino	\$55.3	\$61.0	\$5.7
Food & Beverage	\$0.0	\$2.4	\$2.4
Rooms	\$0.0	\$1.8	\$1.8
Other Operated Departments	\$3.7	\$3.8	\$0.2
Complimentaries & Promotions	\$39.0	\$43.8	\$4.8
<b>Total Departmental Expenses</b>	<b>\$98.0</b>	<b>\$112.8</b>	<b>\$14.8</b>
Undistributed Expenses			
	Year 1	Year 2	Year 1
Administrative & General	\$21.1	\$22.0	\$0.9
Marketing	\$15.7	\$17.0	\$1.3
Property Operation & Maintenance	\$7.1	\$7.5	\$0.4
Utility Costs	\$5.7	\$6.0	\$0.3
<b>Total Undistributed Expenses</b>	<b>\$49.6</b>	<b>\$52.6</b>	<b>\$3.0</b>
Base Management Fee			
	Year 1	Year 2	Year 1
<b>Base Management Fee</b>	<b>\$5.2</b>	<b>\$5.7</b>	<b>\$0.5</b>
Fixed Expenses			
	Year 1	Year 2	Year 1
Property Taxes	\$2.3	\$2.3	\$0.1
Business Privilege Tax	\$0.8	\$0.9	\$0.0
Insurance	\$3.9	\$4.0	\$0.1
Incentive Management Fee	\$6.2	\$6.2	\$0.0
Slot Machine Leases	\$9.0	\$9.0	\$0.0
<b>Total Fixed Expenses</b>	<b>\$22.2</b>	<b>\$22.3</b>	<b>\$0.2</b>
<b>Total Expenses</b>	<b>\$175.0</b>	<b>\$193.4</b>	<b>\$18.4</b>

Source: PKF Consulting (2013)

We conservatively assume that 65% of the incremental operational expenditures will occur in the City of Philadelphia, 80% will occur in the 5-County Region, and 90% will occur in the State of Pennsylvania. As shown in Figure 12.4, total direct impacts in the City, region, and State amount to \$12.0 million, \$14.7 million, and \$16.6 million, respectively.

Figure 12.4: Ongoing Economic Impacts Attributable to Incremental Operational Casino Expenditures Generated by the Hotel (\$ Millions in 2012 Dollars and Total Jobs)

Description	Philadelphia County	5-County Region	PA State
Output Impacts			
Direct Impacts	\$12.0	\$14.7	\$16.6
Indirect & Induced Expenditures	\$6.6	\$15.2	\$18.0
<b>Total Economic Output</b>	<b>\$18.6</b>	<b>\$29.9</b>	<b>\$34.5</b>
Output Multiplier	1.55	2.03	2.09
Job Impacts			
Direct Jobs	33	43	46
Indirect Jobs	25	41	52
<b>Total Jobs</b>	<b>58</b>	<b>84</b>	<b>98</b>
Salary & Wage Impacts			
Direct Salaries & Wages	\$1.5	\$2.0	\$2.1
Indirect Salaries & Wages	\$0.6	\$1.8	\$2.0
<b>Total Salaries &amp; Wages</b>	<b>\$2.1</b>	<b>\$3.8</b>	<b>\$4.1</b>

Source: Tourism Economics (2013)

#### City of Philadelphia

In the City of Philadelphia, \$12.0 million in incremental casino operational expenditures will generate an additional \$6.6 million in indirect and induced expenditures, resulting in a total economic impact of \$18.6 million. This total economic impact includes \$2.1 million in total salaries and wages, supporting 58 total jobs throughout the City. The output multiplier for the City of Philadelphia is 1.55, which indicates that each \$1 in direct incremental operational expenditures will generate an additional \$0.55 in indirect and induced expenditures in the City of Philadelphia.

#### 5-County Region

In the 5-County Region, \$14.7 million in incremental casino operational expenditures will generate an additional \$15.2 million in indirect and induced expenditures, resulting in a total economic impact of \$29.9 million. This total economic impact includes \$3.8 million in total salaries and wages, supporting 84 total jobs throughout the region. The output multiplier for the 5-County Region is 2.03, which indicates that each \$1 in direct incremental operational expenditures will generate an additional \$1.03 in indirect and induced expenditures in the 5-County Region.

#### State of Pennsylvania

In the State of Pennsylvania, \$16.6 million in incremental casino operational expenditures will generate an additional \$18.0 million in indirect and induced expenditures, resulting in a total economic impact of

\$34.5 million. This total economic impact includes \$4.1 million in total salaries and wages, supporting nearly 100 total jobs statewide. The output multiplier for the State of Pennsylvania is 2.08, which indicates that each \$1 in direct incremental operational expenditures will generate an additional \$1.08 in indirect and induced expenditures in the State of Pennsylvania.

### 12.3 Ongoing Economic Impacts Attributable to Hotel Guest Spending

In addition to the positive impacts of increased gaming revenue, the proposed hotel will also generate additional, positive economic impacts as hotel guests spend money at local businesses and establishments outside the casino. As previously outlined, preliminary estimates from PKF indicate the 168-room hotel will achieve a stabilized level of occupancy of 75 percent, with an average occupancy of 1.25 adult guests per room. Based on these estimates, there would be a total of 43,116 adult hotel guests per year. We conservatively assume that each hotel guest will spend an average of \$50 per day outside the casino, resulting in \$2.2 million in total guest spending.

Figure 12.5: Ongoing Economic Impacts Attributable to Hotel Guest Spending  
(\$ Millions in 2012 Dollars and Total Jobs)

Description	Philadelphia County	5-County	PA State
Output Impacts			
Direct Impacts	\$2.2	\$2.2	\$2.2
Indirect & Induced Expenditures	\$1.3	\$2.3	\$2.6
<b>Total Economic Output</b>	<b>\$3.4</b>	<b>\$4.5</b>	<b>\$4.7</b>
Output Multiplier	1.59	2.09	2.20
Job Impacts			
Direct Jobs	31	42	45
Indirect Jobs	6	17	21
<b>Total Jobs</b>	<b>36</b>	<b>60</b>	<b>65</b>
Salary & Wage Impacts			
Direct Salaries & Wages	\$0.4	\$0.6	\$0.7
Indirect Salaries & Wages	\$0.2	\$0.6	\$0.7
<b>Total Salaries &amp; Wages</b>	<b>\$0.6</b>	<b>\$1.2</b>	<b>\$1.3</b>

Source: Tourism Economics (2013)

City of Philadelphia

In the City of Philadelphia, \$2.2 million in hotel guest spending will generate an additional \$1.3 million in indirect and induced expenditures, resulting in a total economic impact of \$3.4 million. This total economic impact includes \$0.6 million in total salaries and wages, supporting 36 total jobs throughout the City. The output multiplier for the City of Philadelphia is 1.59, which indicates that each \$1 in direct hotel guest spending will generate an additional \$0.59 in indirect and induced expenditures in the City of Philadelphia.

5-County Region

In the 5-County Region, \$2.2 million in hotel guest spending will generate an additional \$2.3 million in indirect and induced expenditures, resulting in a total economic impact of \$4.5 million. This total economic impact includes \$1.2 million in total salaries and wages, supporting 60 total jobs throughout the region. The output multiplier for the 5-County Region is 2.09, which indicates that each \$1 in hotel guest spending will generate an additional \$1.09 in indirect and induced expenditures in the 5-County Region.

State of Pennsylvania

In the State of Pennsylvania, \$2.2 million in hotel guest spending will generate an additional \$2.6 million in indirect and induced expenditures, resulting in a total economic impact of \$4.7 million. This total economic impact includes \$1.3 million in total salaries and wages, supporting 65 total jobs statewide. The output multiplier for the State of Pennsylvania is 2.20, which indicates that each \$1 in hotel guest spending will generate an additional \$1.20 in indirect and induced expenditures in the State of Pennsylvania.

#### 12.4 Gaming Tax Impacts Attributable to the Proposed Hotel

Based on preliminary estimates from PKF, there will be \$12.6 million in incremental casino revenue attributable to the proposed hotel in the first year of operation. Assuming 30% of the incremental revenue will be table revenue and 70% will be slots revenue, there will be a total of \$5.5 million in incremental gaming tax revenue in the first year of operation. This \$5.5 million in incremental gaming tax revenue will include \$5.0 million in state gaming tax revenue and \$0.5 million in local gaming tax revenue, as shown in Figure 12.6.

Figure 12.6: Gaming Tax Revenues Attributable to Incremental Gaming Revenues Generated by the Hotel (\$ Millions in 2012 Dollars)

Incremental PA State Gaming Tax Revenues	
Tax Description	Year 1
State Gaming Fund (34% of Slots Revenues)	\$3.0
Horse Racing Industry (12% of Slots Revenues)	\$1.1
Economic Development (5% of Slots Revenues)	\$0.4
General Fund (14% of Tables Revenues, Years 1 & 2) (12% of Tables Revenues, Years 3 to 5)	\$0.5
<b>Total Incremental State Gaming Tax Revenues</b>	<b>\$5.0</b>
Incremental Local Gaming Tax Revenues	
Tax Description	Year 1
Local and County Governments (4% of Slots Revenues)	\$0.4
Local County Municipalities (2% of Tables Revenues)	\$0.1
<b>Total Incremental Local Gaming Tax Revenues</b>	<b>\$0.4</b>
<b>Total Incremental Gaming Taxes</b>	<b>\$5.5</b>

Source: Tourism Economics (2013)

### 12.5 Non-Gaming Tax Impacts Attributable to the Proposed Hotel

Based on the economic impacts attributable to hotel development expenditures, incremental casino operational expenditures, hotel/casino operational expenditures, and hotel guest spending (as outlined in Sections 12.1, 12.2, and 12.3), Figure 12.7 summarizes the non-gaming fiscal (tax) impacts generated by the proposed hotel.

#### One-Time Tax Revenues

We estimate that the hotel construction period will generate nearly \$2.5 million in total tax revenue, including \$0.7 million in PA State personal income tax revenue, nearly \$1.0 million in PA State sales and use tax revenue, and nearly \$0.7 million in City wage tax revenue.

**The Economic & Fiscal Impacts of Market8  
February 2013 (Revised)**

**Annual, Ongoing Tax Revenues**

We estimate that incremental casino operations and hotel guest spending will generate nearly \$2.5 million in total tax revenue on an annual basis, including more than \$1.2 million in PA State sales, use, and hotel occupancy tax revenue, nearly \$0.9 million in City sales and use tax revenue, and 0.2 million in City wage tax revenue<sup>29</sup>.

Figure 12.7: State & Local Non-Gaming Tax Revenues Attributable to Hotel Development Expenditures, Incremental Casino Operational Expenditures & Hotel Guest Spending (\$ Millions in 2012 Dollars)

Description	PA State Personal Income Tax	PA State Sale, Use, & Hotel Occupancy Tax	City of Philadelphia Sales & Use Tax	City of Philadelphia Wage Tax	Total Tax Impact
<b>One-Time Tax Revenues</b>					
Hotel Construction Period	\$0.73	\$0.97	\$0.08	\$0.67	\$2.46
<b>Total One-Time Tax Revenues</b>	<b>\$0.73</b>	<b>\$0.97</b>	<b>\$0.08</b>	<b>\$0.67</b>	<b>\$2.46</b>
<b>Ongoing Tax Revenues</b>					
Incremental Casino Operations	\$0.14	\$0.46	\$0.10	\$0.16	\$0.86
Hotel Guest Spending & Hotel Operations	\$0.03	\$0.76	\$0.79	\$0.04	\$1.62
<b>Total Annual, Ongoing Tax Revenues</b>	<b>\$0.17</b>	<b>\$1.22</b>	<b>\$0.89</b>	<b>\$0.20</b>	<b>\$2.49</b>

Source: Tourism Economics (2013)

<sup>29</sup> PA State Sales, Use & Hotel Occupancy Tax revenue and City of Philadelphia Sales & Use tax revenue includes tax revenues generated by hotel room revenue.

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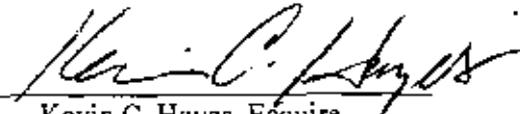


**TOURISM  
ECONOMICS**

PROOF OF SERVICE

I, Kevin C. Hayes, hereby certify that a true and correct copy of the local impact report entitled "The Economic & Fiscal Impacts of Market8 at 8<sup>th</sup> & Market St (Revised)" as prepared by Mr. Michael Mariano and on behalf of Market East Associates, LP, was duly served upon the City of Philadelphia by Hand-Delivering the same on the 7<sup>th</sup> day of February 2013 to the following official at his address of record:

Mr. Duane H. Bumb  
Senior Deputy Director of Commerce  
Philadelphia Department of Commerce  
1515 Arch Street, 12th Floor  
Philadelphia, PA 19102

By:   
Kevin C. Hayes, Esquire  
Doherty Hayes, LLC  
1000 Bank Towers  
321 Spruce Street  
Scranton, PA 18503  
(570) 346-7651 (phone)  
(570) 344-1542 (fax)

**RECEIPT**

I, Kimberly Seamon, of the City of Philadelphia hereby acknowledge receipt of a copy of "The Economic & Fiscal Impacts of Market8 (Revised)" as authored by Michael Mariano of Tourism Economics on behalf of Market East Associates, LP on this 7<sup>th</sup> day of February 2013:

CITY OF PHILADELPHIA

By: Kimberly Seamon

Date: 2-7-13

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# LOCAL INFRASTRUCTURE IMPACT STUDY MARKET8

8<sup>th</sup> and Market Streets / Center City  
Philadelphia, Pennsylvania

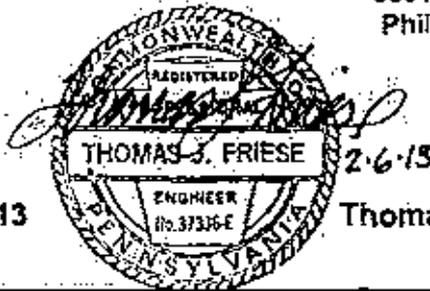
*Prepared For:*

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Updated February 14, 2013  
MEAS 1201



Thomas J. Friese, P.E.

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**Pennoni**

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APPENDICES

- A. Utility Will-Serve Requests/Responses
- B. Emergency Services Investigation Documents
- C. Storm/Sanitary Sewer Exhibit
- D. Water Mains Exhibit

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## INTRODUCTION

Appendix 34 of the Application and Disclosure Information requires a local impact report describing the impact of the proposed development on the municipality. This report describes the potential impacts to City of Philadelphia infrastructure, emergency services and the site in general. Specifically we are providing statements on the following:

- I. Utility Service Availability
- II. Emergency Services
- III. Traffic Impacts (Summary of TIS)
- IV. Public Transportation
- V. Natural Resources
- VI. Adjacent Land Uses

### I. UTILITY SERVICE AVAILABILITY

Will-serve letters requesting confirmation from utility owners that the proposed casino complex can be serviced have been sent to utility owners. Copies of these letters and, where appropriate, attachments are included in Appendix A. To date, the Philadelphia Water Department has responded that existing infrastructure, with minor replacements, is satisfactory to provide sanitary and storm sewer service. Given the project in Center City, we anticipate all utilities will have reserve capacity so can service the proposed casino.

Specifics of the various utilities are provided below:

#### A. Sanitary and Storm Sewers

Sanitary and storm sewer service is provided by the City of Philadelphia Water Department (PWD.) The Department provides integrated water, wastewater and stormwater services. The sewers in this area of the City are "combined" in that they collect and convey sanitary effluent and stormwater runoff in the same pipe network.

##### 1. Stormwater Runoff

Runoff from the site has historically been collected and conveyed to a 24" diameter vitrified clay pipe in Ranstead Street, at the southeast corner of the site. The Ranstead sewer connects downstream to the 8<sup>th</sup> Street sewer system, which connects to the Walnut Street system running east. Walnut Street connects to a 9'-6" x 11'-0" reinforced concrete box culvert that extends north on Front Street to an intercepting chamber at Ionic Street. At this point, low flows are directed to a separate intercepting sanitary sewer that runs south to the Southeast Treatment Plant. High flows to the intercepting

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chamber are passed through the structure to a pair of 9'-0"x11'-8" box culverts which outfall at the Delaware River.

The existing site condition is 100% impervious surface draining to a system of pipes and inlets, so runoff during storms is significant, uncontrolled and untreated. Since the parking lot was constructed, the City has adopted stormwater management regulations that require management of stormwater discharge rates, volume and quality. The subject site is in the Delaware South Watershed, Management District Zone A. Therefore, the rate of runoff of all storms must not be exceeded from the pre-construction to post-construction condition, and must be decreased for the 2-year storm to the 1-year post-development condition. Additionally, the project currently proposes a significant green roof area which will help control runoff as well as provide water quality treatment. For these reasons, the proposed project will have a positive impact on the existing stormwater sewer infrastructure. Based on feedback from the PWD, the vitrified clay sewer in Ranstead Street may need to be reconstructed as the condition of the pipe is in question. Also, we anticipate that stormwater discharge will have to be routed to more than one receiving sewer.

## 2. Sanitary Sewer Service

As described above, the sanitary sewer service for this site is through a combined sewer system. The existing use does not include a sanitary sewer discharge. Options for the Casino include the storm sewer conveyance described above, and also discharge to the 30" diameter reinforced concrete pipe in 9<sup>th</sup> Street. This sewer joins the 5'-6"x5'-6" reinforced concrete box culvert following east in Market Street which eventually discharges into an intercepting chamber. As with the stormwater flows, low flow is directed to an intercepting sanitary sewer with eventual discharge to the Southeast Treatment Plant. Higher flows pass through the chamber with discharge to the Delaware River.

The sewer systems designed to handle sanitary effluent as well as stormwater runoff generally have significant excess capacity for the sanitary flows, and the Southeast Treatment Plant has excess capacity. The proposed Casino is expected to generate 150,000 to 200,000 gallons per day of sanitary flow which will not over tax the available sewer systems in this urban environment. Discharges are expected to be standard effluent from entertainment and restaurant venues so special discharge permits are not anticipated. An email from the PWD is attached in Appendix A and indicates that the "existing sewer system should be adequate for anticipated sanitary flow." An exhibit showing the existing sewers adjacent to the site is in Appendix B.

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### 3. Water Service

As stated above, the Philadelphia Water Department is responsible for potable and fire protection water supply and distribution. Water is sourced from the Schuylkill and Delaware Rivers, and treated and distributed from three plants: Belmont, Queen Lane and Baxter. The three systems are interconnected although generally valved off to create separate districts.

The properties along Market Street east of City Hall are supplied directly or indirectly from a 12" main running in Market Street. This 12" main is supplied to the east from a 48" main running north/south in Broad and Juniper Streets, respectively. From the west, the 12" main is interconnected with a 48" main running north/south in 3<sup>rd</sup> Street. Both 48" mains are fed from the Baxter Water Treatment Plant located in Northeast Philadelphia, with an intake from the Delaware River.

With the major interconnections described, and other smaller interconnections at each cross-street along Market Street, the water services have redundancy and capacity to serve the proposed Casino Property. An exhibit showing the existing water mains adjacent to the site is in Appendix C.

## II. EMERGENCY SERVICES

The Philadelphia Fire Department has been serving the City of Philadelphia as a professional fire fighting force since 1870. Market Street in Center City is generally serviced by crews out of fire houses in the 4<sup>th</sup> Battalion, of the First Division in the Fire Department. Battalion 4 includes engine and/or ladder companies at 101 North 4<sup>th</sup> Street and 133 North 10<sup>th</sup> Street, both within five blocks of the proposed Casino, as well as three others within 15 blocks. And with twelve other battalions, there are multiple redundancies for servicing the subject premises.

The extent of firefighting and medic unit facilities would appear to be adequate based on the current ability to service Center City; however, we have reached out to the Fire Department to verify that the proposed casino will not negatively impact "emergency service capabilities." We were asked to provide project information via email to Deputy Fire Commissioner Ernest Hargett of the Department. That correspondence is included in Appendix B.

The Philadelphia Police Department is the nation's fourth largest police department with 6,600 sworn members and 800 civilian personnel. The Department is divided into twenty-two districts which comprise six divisions. The subject property is located in the 6<sup>th</sup> District with headquarters at 235 North 11<sup>th</sup> Street, only five blocks removed from the proposed Casino. The proposed facility is in the heart of the City's retail and commercial business district, so has a large police presence today.

---

The addition of another business on Market Street, one open 24-hours per day will likely require modification to area police staffing and schedules, but would not be expected to impact the quality or otherwise degrade the services provided by the Police Department.

We contacted the 6<sup>th</sup> District Police Headquarters in order to verify that the proposed casino will not have "an adverse impact" on local police service capabilities. We were directed to the office of the City Solicitor, in particular Carlton Cummings, who offered to help ascertain whom we should be contacting from the City. A copy of the email request to Mr. Cummings is in Appendix B.

### III. TRAFFIC IMPACT STUDY

A Traffic Impact Study has been completed for the proposed Casino. Rather than repeat the report at length here, the Executive summary has been copied below.

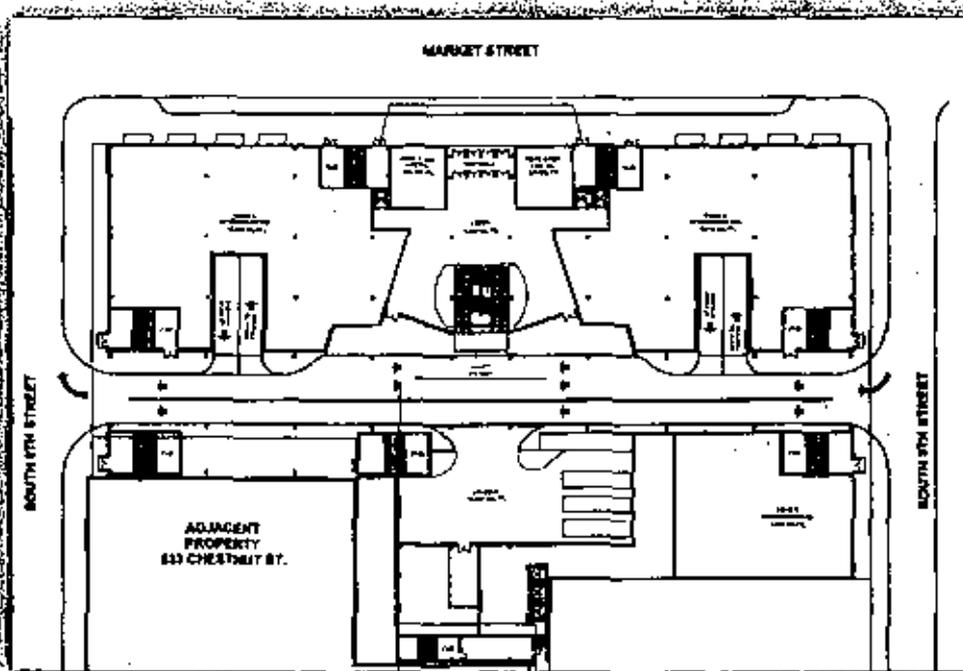
**EXECUTIVE SUMMARY**

Market East Associates, L.P. has plans to construct a casino complex, MARKET8, along the south side of Market Street (SR 2004) between South 8th Street and South 9th Street in the Market East section of City Center, Philadelphia. The MARKET8 casino complex is anticipated to include:

- 2400 slot machines,
- 82 table games,
- 30 poker tables,
- Food/beverage and entertainment venues, and
- 30,000 GSF quality restaurants.

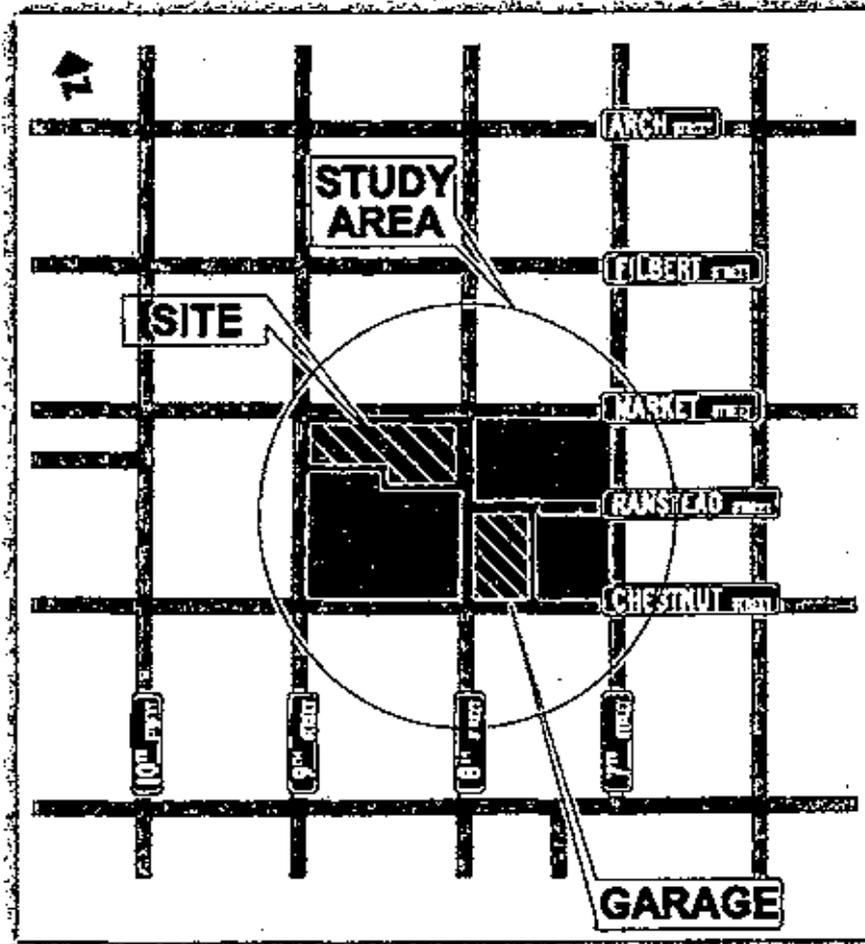
Two floors of gaming (approximately 80,000 GSF), and a 1000 space underground parking garage complete the proposed casino footprint. In addition, MARKET8 will provide 340 parking spaces at 733 Chestnut Street to complement the main casino complex parking.

Figure ES-1. Site Access – Street Level



The ingress access for the proposed main casino complex parking garage will be located on the west side of South 8<sup>th</sup> Street; with the corresponding egress onto 9<sup>th</sup> Street (See Figure ES-1). The ingress and egress point for the additional parking at 733 Chestnut Street will be located on the east side of South 8<sup>th</sup> Street and the north side of Chestnut Street. FIGURE ES-2 indicates the primary study area for this proposed casino complex within Center City, Philadelphia.

Figure ES-2. Study Area



Turning movement counts, including heavy vehicles and buses, pedestrians and bicycles were conducted on a (non-event) Friday (October 19, 2012 and January 11, 2013 with schools in session) from 3:00 PM – 8:00 PM and on Saturday (October 20, 2012 and January 12, 2013) from 3:00 PM - 8:00 PM at the following intersections:

1. Market Street at South 7<sup>th</sup> Street, South 8<sup>th</sup> Street and South 9<sup>th</sup> Street; and
2. Chestnut Street and South 7<sup>th</sup> Street, South 8<sup>th</sup> Street and South 9<sup>th</sup> Street.

These study periods were chosen to coincide with peak traffic periods on the adjacent roadway network (typically 4:00 pm to 6:00 pm) on a typical weekday. The peak hours of trip generation for a casino complex during the weekends are anticipated to occur between the hours of 6:00 pm and 8:00 pm on Friday and Saturday evenings.

---

## FINDINGS & RECOMMENDATIONS

### Findings

- Development trips will be comprised of two main components: the 80,000 GSF Casino (with 3192 gaming positions, buffet, meeting room space) and approximately 30,000 GSF of Quality Restaurants (*ITE Land Use code 931, Trip Generation, 9<sup>th</sup> edition*) as part of the proposed complex. Projected peak hour trips for the casino for Friday and Saturday evening peak periods are based on research and information obtained from other casino traffic studies within the Philadelphia area and nationally.
- The capacity analyses performed herein indicates that the site traffic will have an insignificant impact on those intersections bordering the site. All study intersections operate at an overall and approach LOS of C or better for both the horizon year "No Build" and "Build" conditions.
- The site driveway exiting onto 9th Street (STOP controlled "right-out-only") will operate at LOS B in the Build condition. Subsequently, considering a "diminishing return" of impacts as traffic is distributed farther from the border intersections, these results would indicate that MARKET8 would have similar, nominal impacts at other intersections along primary ingress and egress transportation routes.
- Comparing the net "As-of-Right" vehicle trips to those for the proposed casino shows a significant increase in traffic if the proposed Market East site were to be developed per existing land use development guidelines. Specifically, 79% more traffic would typically be generated during the weekday PM Peak Hour (versus MARKET8 traffic) and 6% more traffic would be generated during the Saturday Peak Hour.
- The City's Zoning Code (*§14-405 SP-ENT Entertainment Special Purpose District - Licensed Gaming Facilities*) requires 4 parking spaces for every 5 slot machine or gaming positions provided for patrons and guests. Accordingly, the proposed complex would thus need to accommodate 2,554 parking spaces within or immediately adjacent to the proposed casino complex site.
- There are currently in excess of 2,800 parking spaces within a 5 minute walk available after 5:00 PM on an average (non-event) Friday and on an average (non-event) Saturday after 6:00 PM. Combined with the 1000 main casino complex parking spaces and the additional proposed 340 spaces at 733 Chestnut Street, the proposed complex can accommodate approximately 4,000 vehicles, immediately adjacent to the site, on an average Friday or Saturday evening.

### Recommendations

The following recommendations will significantly improve the traffic operations within the study area, while allowing safe, unimpeded egress from the casino parking garage.

- Restrict on-street parking along the east side of 9<sup>th</sup> Street 100 feet south of the facility exit drive north to the Market Street intersection to provide a separate northbound right turn lane;
- Optimization of the traffic signal timing at all study area intersections;
- Enhance trail-blazing signage to/from regional transportation routes to ensure "positive guidance" to/from the casino complex and primary travel routes for non-local drivers;

- 
- Encourage greater use of mass transit as an alternative to driving via advertising and/or casino promotions;
  - Work with SEPTA and Center City hotels to increase the frequency of bus and shuttle stops to the casino and/or creating a direct connection to the mass transit hub within the study area ( 8<sup>th</sup> and Market Street);

Finally, the City of Philadelphia's Zoning Codes states that "parking provided in this (Special Purpose) District must be adequately served by high-capacity roads or driveways approved by the Streets Department as being adequate to safely serve the ingress and egress of patrons and guests using the facility." This requirement is clearly met given the close proximity of the proposed casino site to I-95 and the Vine Street Expressway. Suggested parking utilization strategies that would further reduce the need for on-site parking spaces would include:

1. "Real-time" parking management for Casino parking;
2. Shuttle bus service to/from the Casino and Center City Parking, Shopping venues, Hotels;
3. Proposed VIP and/or Valet Parking, and
4. Off-site Parking Accommodation for Casino employees.

### Conclusions

Based on the findings indicated in this study:

- Transit service to the 8th and Market location is extraordinary. The proposed casino is in a prime location to access several modes of transit including: buses, subways, and regional rail. As a regional transit hub, the site is well served as a destination, and functions as one of the region's major points of transfer between transit facilities.
- The proposed casino is in a prime location to access I-95 and I-676 for regional access by vehicular traffic.
- Overall intersection delays due to casino vehicular traffic experience increases of less than 10 seconds beyond "No Build" conditions at all studied intersections. Levels of service (LOS) for the "Build" conditions meet or exceed typical LOS requirements for urban settings.
- If Office and General Retail space were developed at the proposed casino site, per "as-of-right" regulations, significantly more future traffic would be generated.
- The available parking immediately adjacent to the site, combined with the proposed parking within the site, significantly exceeds the parking requirements of the zoning code. The site, located within the City of Philadelphia's urban core, provides excellent flexibility for development program modifications through maximization strategies for on-site parking, or greater utilization rates benefitting nearby, off - site parking facilities.

If those recommendations suggested above are implemented as part of the MARKET8 project, there will be nominal impacts on the surrounding transportation system with the Center City section of Philadelphia.

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#### IV. PUBLIC TRANSPORTATION

The casino is in a prime location to access several modes of transit including buses, subways, and regional rail, all of which are immediately adjacent to the site.

Please refer to Part III, Traffic Impact Study for further information and details.

#### V. NATURAL RESOURCES

The proposed Casino site is located in a very urban area, Center City Philadelphia. The site is currently being used as a parking lot (approximately 280 vehicles) for hourly/daily/weekly/monthly rentals. There are no natural resources on the property which is entirely paved with bituminous and cement concrete. Stormwater runoff, as described above, is unmanaged and conveyed to the City pipe system and infrastructure. The current environmental impacts of the site are air pollution from the vehicles using the facility and the unmanaged stormwater runoff.

The proposed use will entail construction of a building over the entire site. There will be multiple levels of parking below grade in mechanically ventilated garage space, currently estimated to include 1,000 spaces. As there will be an increase in the volume of traffic to the site and parking of vehicles whether by valet or self-parking, some degradation to the air quality can be expected. However, relative to the number of daily vehicular trips experienced along Market and other perimeter streets, and the Center City area, the impact will not be significant. As the project entails construction of parking for more than 250 vehicles in the Central Business District, the project will require "Complex Source" approval and permitting, including submission of a traffic impact study and air quality impacts statement. The Applicant will comply with air quality design criteria.

As the site construction will disturb more than 5,000 SF and one acre, erosion and sediment controls will be necessary and the project will require erosion and sediment control, and stormwater management permits from the City and State Department of Environmental Protection (PADEP). The permits will require design in accordance with PADEP rules and guidelines to ensure no loss of soil and sediment during construction and proper post-construction stormwater management for long term runoff control. The applicant will apply for and receive the required permits prior to beginning construction and adhere to the permit requirements during and post-construction.

As there will be below grade parking proposed for this development, a significant volume of soil will be excavated and disposed of off-site. In accordance with Pennsylvania Clean Fill Law criteria, the soil will be tested and characterized so proper handling and disposal regimes can be designed. All excavated materials will be disposed of as required by law at legally permitted disposal sites.

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**VI. ADJACENT LAND USES**

Adjacent land uses are those that would be expected in an urban, city location. On the same block exists a twelve-story office building with ground floor retail. Recorded easements will require the proposed Casino building to be set-back from some property lines shared with this building, thus minimizing potential impacts. This building has truck loading/service entrance/exit on 8<sup>th</sup> Street which is adjacent to the proposed Casino loading/service driveway, thus consolidating service activities on the block. The loss of parking spaces and some increased traffic is expected; however, the peak traffic generation and parking needs for the two uses occur at different times reducing competition for parking. A more thorough review of traffic and parking conditions is included in the Pennoni Associate's Traffic Impact Study provided with the Casino Application. This study also illustrates the many parking options within a short walking distance of this property, which can off-set the loss of public parking. Across Market Street are building structures ranging from six to twelve stories, again typically with retail on the ground floor and office uses above. The addition of a destination business in the block will increase foot traffic past and potential patrons to area establishments. The 24-hour nature of the Casino enterprise and its high level of security will enliven the block while maintaining a safe corridor. The proposed dining establishments associated with the Casino will also draw patrons to the area.

The United States Post Office maintains a facility across 9<sup>th</sup> Street from the proposed Casino. The loss of the parking lot immediately adjacent to the facility will likely result in postal employees who use the lot having to park further from their place of employment; however, as discussed in the Traffic Impact Study, there are many alternatives for parking within a short walking distance.

Across 8<sup>th</sup> Street are a pharmacy, Burger King fast food restaurant and a public parking lot. All three of these establishments will be affected positively by the addition of a pedestrian and vehicular traffic generator on the subject premises.

As detailed in the Traffic Impact Study, this Casino location has an extraordinary number of options for mass transit. This results in increased pedestrian traffic as users complete or start their commutes/trips which is one goal of the City to enliven blocks, particularly downtown. The ability to use mass transit also will help reduce any impact to local business from the loss of public parking spaces associated with the Casino operations.

APPENDIX A

**Pennoni**

PENNONI ASSOCIATES INC.  
CONSULTING ENGINEERS

MEAS1201

February 5, 2013

Ms. Nancy Spence  
AT&T  
AT&T Local Services  
2315 Salem Rd F11  
Conyers, GA 30013

**RE: REQUEST FOR CONFIRMATION OF UTILITY AVAILABILITY  
8<sup>TH</sup> STREET AND MARKET STREET, PHILADELPHIA, PA**

Dear Ms. Spence:

Market East Associates, LLP has plans to construct a casino complex – Casino Philadelphia - to be located on the south side of Market Street between 8th Street and 9th Street in the Market East section of City Center, Philadelphia. The Casino Philadelphia casino complex is anticipated to be comprised of a four story building including:

- 2400 slot machines
- 82 table games
- 30 poker tables
- Food/beverage and entertainment venues, and
- 60,000 GSF quality restaurants.

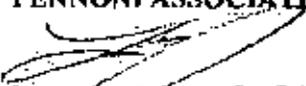
Two floors of gaming (approximately 80,000 GSF), and a 1000 space, four level underground parking garage complete the proposed casino footprint. The facility is anticipated to include a 168-room hotel in an 8 to 10 story structure on the same block. Additional parking will be provided in an existing garage at the northeast corner of 8<sup>th</sup> and Chestnut Streets.

Due to the aggressive nature of the project we are requesting a timely response to this request for confirmation of telecommunications utility service availability.

Thank you for your cooperation in this matter. Should you have any questions or comments, please contact us at 215-222-3000.

Sincerely,

**PENNONI ASSOCIATES INC.**

  
Lawrence E. Leso, Jr., PE, PLS  
CC: Colin Jones

**Pennoni**

PENNONI ASSOCIATES INC.  
CONSULTING ENGINEERS

MEAS1201

February 5, 2013

Ms. Suzette Walker  
Verizon Pennsylvania Inc  
900 Race Street, 6th floor  
Philadelphia, PA 19107

**RE: REQUEST FOR CONFIRMATION OF UTILITY AVAILABILITY  
8<sup>TH</sup> STREET AND MARKET STREET, PHILADELPHIA, PA**

Dear Ms. Walker:

Market East Associates, LLP has plans to construct a casino complex – Casino Philadelphia - to be located on the south side of Market Street between 8th Street and 9th Street in the Market East section of City Center, Philadelphia. The Casino Philadelphia casino complex is anticipated to be comprised of a four story building including:

- 2400 slot machines
- 82 table games
- 30 poker tables
- Food/beverage and entertainment venues, and
- 60,000 GSF quality restaurants.

Two floors of gaming (approximately 80,000 GSF), and a 1000 space, four level underground parking garage complete the proposed casino footprint. The facility is anticipated to include a 168-room hotel in an 8 to 10 story structure on the same block. Additional parking will be provided in an existing garage at the northeast corner of 8<sup>th</sup> and Chestnut Streets.

Due to the aggressive nature of the project we are requesting a timely response to this request for confirmation of telecommunications utility service availability.

Thank you for your cooperation in this matter. Should you have any questions or comments, please contact us at 215-222-3000.

Sincerely,

**PENNONI ASSOCIATES INC.**

  
Lawrence E. Leso, Jr., PE, PLS  
CC: Colin Jones

**Pennoni**

PENNONI ASSOCIATES INC.  
CONSULTING ENGINEERS

MEAS1201

February 5, 2013

Mr. William Lindquist  
Veolia Energy Philadelphia, Inc.  
2600 Christian Street  
Philadelphia, PA. 19146

**RE: REQUEST FOR CONFIRMATION OF UTILITY AVAILABILITY  
8<sup>TH</sup> STREET AND MARKET STREET, PHILADELPHIA, PA**

Dear Mr. Lindquist:

Market East Associates, LLP has plans to construct a casino complex – Casino Philadelphia – to be located on the south side of Market Street between 8th Street and 9th Street in the Market East section of City Center, Philadelphia. The Casino Philadelphia casino complex is anticipated to be comprised of a four story building including:

- 2400 slot machines
- 82 table games
- 30 poker tables
- Food/beverage and entertainment venues, and
- 60,000 GSF quality restaurants.

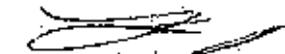
Two floors of gaming (approximately 80,000 GSF), and a 1000 space, four level underground parking garage complete the proposed casino footprint. The facility is anticipated to include a 168-room hotel in an 8 to 10 story structure on the same block. Additional parking will be provided in an existing garage at the northeast corner of 8<sup>th</sup> and Chestnut Streets.

Due to the aggressive nature of the project we are requesting a timely response to this request for confirmation of steam utility service availability.

Thank you for your cooperation in this matter. Should you have any questions or comments, please contact us at 215-222-3000.

Sincerely,

**PENNONI ASSOCIATES INC.**

  
Lawrence E. Leso, Jr., PE, PLS

CC: Colin Jones

**Pennoni**

PENNONI ASSOCIATES INC.  
CONSULTING ENGINEERS

MEAS1201

February 5, 2013

Mr. Jeffery Simmet  
Philadelphia Water Department  
1101 Market Street  
2nd Floor ARA Tower  
Philadelphia, PA. 19107-2994

**RE: REQUEST FOR CONFIRMATION OF UTILITY AVAILABILITY  
8<sup>TH</sup> STREET AND MARKET STREET, PHILADELPHIA, PA**

Dear Mr. Simmet:

Market East Associates, LLP has plans to construct a casino complex – Casino Philadelphia - to be located on the south side of Market Street between 8th Street and 9th Street in the Market East section of City Center, Philadelphia. The Casino Philadelphia casino complex is anticipated to be comprised of a four story building including:

- 2440 slot machines,
- 83 table games which includes 25 poker tables
- Poker and baccarat rooms,
- Food/beverage and entertainment venues, and
- 30,000 GSF quality restaurants.

Two floors of gaming (approximately 80,000 GSF), and a 1000 space, four level underground parking garage complete the proposed casino footprint. The facility is anticipated to include a 150-room hotel in an 8 to 10 story structure on the same block. Additional parking will be provided in an existing garage at the northeast corner of 8<sup>th</sup> and Chestnut Streets.

Due to the aggressive nature of the project we are requesting a timely response to this request for confirmation of water and stormwater sewer utility availability.

Thank you for your cooperation in this matter. Should you have any questions or comments, please contact us at 215-222-3000.

Sincerely,

**PENNONI ASSOCIATES INC.**

  
Lawrence E. Liso, Jr., PE, PLS

CC: Colin Jones

**Frick, Allyson**

---

**From:** Friese, Thomas J.  
**Sent:** Wednesday, February 06, 2013 10:36 AM  
**To:** Frick, Allyson  
**Subject:** FW: Mixed-Use Project- 8th and Market

**From:** Jeffrey.Simmet@phila.gov [mailto:Jeffrey.Simmet@phila.gov]  
**Sent:** Monday, November 05, 2012 2:04 PM  
**To:** Friese, Thomas J.  
**Cc:** Markham, James  
**Subject:** Re: Mixed-Use Project- 8th and Market

Tom,

The existing sewer system should be adequate for anticipated sanitary flow. Site drainage may need to be distributed and may also require reconstruction of the sewer in Ranstead Street.

Jeff

"Friese, Thomas J." <TFriese@Pennoni.com>

11/05/2012 11:05 AM

To "Jeffrey Simmet (jeffrey.simmet@phila.gov)" <jeffrey.simmet@phila.gov>  
cc: "Markham, James" <JMarkham@Pennoni.com>

Subject: Mixed-Use Project- 8th and Market

Jeff- As we discussed, Pennoni is working with a developer for a mixed-use redevelopment of the parking lot on the south side of Market Street, between 8<sup>th</sup> and 9<sup>th</sup> Streets. We would like to determine if there are any know issues with the storm/sanitary sewers that service the property.

Stormwater should remain as-is or be reduced from current flows as the new development will have to comply with PWD stormwater management regulations. The existing development does not provide stormwater management beyond collection and conveyance. Sanitary sewage flows have not been fully determined but are anticipated to be in the area of 150,000 to 200,000 GPD.

Thank you for taking a look at this. We look forward to your email response.

Tom

**Thomas J. Friese, PE**  
Land Development Division Manager  
Pennoni Associates Inc.  
One Drexel Plaza  
3001 Market Street, Suite 200  
Philadelphia, PA 19104  
Office 215-222-3090 x7761 | Direct 215-254-7761  
Fax 215-222-0598 | Mobile 267-693-8048  
<http://www.pennoni.com> | [tfriese@pennoni.com](mailto:tfriese@pennoni.com)

*Consulting Engineers providing...*  
Environmental - Geotechnical - Inspection & Testing - Land Development - MEP  
Landscape Architecture - Structural - Survey - Transportation - Water/Wastewater

**Pennoni**

PENNONI ASSOCIATES INC.  
CONSULTING ENGINEERS

MEAS1201

February 5, 2013

Mr. Eric Ponert  
Philadelphia Water Department  
1101 Market Street  
2nd Floor ARA Tower  
Philadelphia, PA, 19107-2994

**RE: REQUEST FOR CONFIRMATION OF UTILITY AVAILABILITY  
8<sup>TH</sup> STREET AND MARKET STREET, PHILADELPHIA, PA**

Dear Mr. Ponert:

Market East Associates, LLP has plans to construct a casino complex – Casino Philadelphia - to be located on the south side of Market Street between 8th Street and 9th Street in the Market East section of City Center, Philadelphia. The Casino Philadelphia casino complex is anticipated to be comprised of a four story building including:

- 2400 slot machines
- 82 table games
- 30 poker tables
- Food/beverage and entertainment venues, and
- 60,000 GSF quality restaurants.

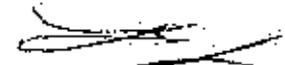
Two floors of gaming (approximately 80,000 GSF), and a 1000 space, four level underground parking garage complete the proposed casino footprint. The facility is anticipated to include a 168-room hotel in an 8 to 10 story structure on the same block. Additional parking will be provided in an existing garage at the northeast corner of 8<sup>th</sup> and Chestnut Streets.

Due to the aggressive nature of the project we are requesting a timely response to this request for confirmation of sanitary sewer capacity availability.

Thank you for your cooperation in this matter. Should you have any questions or comments, please contact us at 215-222-3000.

Sincerely,

**PENNONI ASSOCIATES INC.**

  
Lawrence E. Leso, Jr., PE, PLS

CC: Colin Jones

**Pennoni**

PENNONI ASSOCIATES INC.  
CONSULTING ENGINEERS

MEAS1201

February 5, 2013

Mr. James Bochanski  
Philadelphia Gas Works  
Address: 800 W Montgomery Ave  
Philadelphia, PA. 19122

**RE: REQUEST FOR CONFIRMATION OF UTILITY AVAILABILITY  
8<sup>TH</sup> STREET AND MARKET STREET, PHILADELPHIA, PA**

Dear Mr. Bochanski:

Market East Associates, LLP has plans to construct a casino complex – Casino Philadelphia - to be located on the south side of Market Street between 8th Street and 9th Street in the Market East section of City Center, Philadelphia. The Casino Philadelphia casino complex is anticipated to be comprised of a four story building including:

- 2400 slot machines
- 82 table games
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- Food/beverage and entertainment venues, and
- 60,000 GSF quality restaurants.

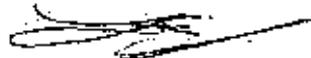
Two floors of gaming (approximately 80,000 GSF), and a 1000 space, four level underground parking garage complete the proposed casino footprint. The facility is anticipated to include a 168-room hotel in an 8 to 10 story structure on the same block. Additional parking will be provided in an existing garage at the northeast corner of 8<sup>th</sup> and Chestnut Streets.

Due to the aggressive nature of the project we are requesting a timely response to this request for confirmation of gas utility service availability.

Thank you for your cooperation in this matter. Should you have any questions or comments, please contact us at 215-222-3000.

Sincerely,

**PENNONI ASSOCIATES INC.**



Lawrence E. Leso, Jr., PE, PLS  
CC: Colin Jones

**Pennoni**

PENNONI ASSOCIATES INC.  
CONSULTING ENGINEERS

MEAS1201

February 5, 2013

Mr. David Milowicki  
PECO Energy Company, Philadelphia Region  
830 S. Schuylkill Avenue  
Philadelphia, PA 19146-2395

**RE: REQUEST FOR CONFIRMATION OF UTILITY AVAILABILITY  
8<sup>TH</sup> STREET AND MARKET STREET, PHILADELPHIA, PA**

Dear Mr. Milowicki:

Market East Associates, L.L.P has plans to construct a casino complex – Casino Philadelphia - to be located on the south side of Market Street between 8th Street and 9th Street in the Market East section of City Center, Philadelphia. The Casino Philadelphia casino complex is anticipated to be comprised of a four story building including:

- 2400 slot machines
- 82 table games
- 30 poker tables
- Food/beverage and entertainment venues, and
- 60,000 GSF quality restaurants.

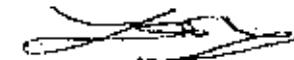
Two floors of gaming (approximately 80,000 GSF), and a 1000 space, four level underground parking garage complete the proposed casino footprint. The facility is anticipated to include a 168-room hotel in an 8 to 10 story structure on the same block. Additional parking will be provided in an existing garage at the northeast corner of 8<sup>th</sup> and Chestnut Streets.

Due to the aggressive nature of the project we are requesting a timely response to this request for confirmation of electric utility service availability.

Thank you for your cooperation in this matter. Should you have any questions or comments, please contact us at 215-222-3000.

Sincerely,

**PENNONI ASSOCIATES INC.**



Lawrence E. Leso, Jr., PE, PLS  
CC: Colin Jones  
Enclosed: Meter Request



# PECO

## Application for Electric Service & Meter

M-24175 (front) Rev. 5/10

### INSTRUCTIONS:

Please complete the front page of this request and return to the PECO Regional Office (listed below) in the area service is required. Incomplete information may result in a delay in processing.

All work must comply with PECO Electric Service Requirements manual and be inspected by an approved inspection agency. (City of Philadelphia requests may be shared with Licenses & Inspections). Not all service voltages are available in all areas. Before purchasing electrical equipment or proceeding with any wiring, information regarding service availability and meter location should be obtained from the company.

A credit application and agreement must be completed if the customer has not had PECO service within the last 60 days. The company reserves the right to cancel this request if no further communication is received from the customer within 90 days of PECO's response date.

### NEW BUSINESS SERVICES (1-800-454-4100) <http://www.peco.com>

**PHILADELPHIA COUNTY**  
830 S. Schuylkill Ave.  
Phila, PA 19146-2395  
(215) 731-2340  
Fax # (215) 731-2327

**DELAWARE & CHESTER COUNTIES**  
1050 W. Swedesford Rd.  
Berwyn, PA 19312  
(610) 725-7160  
Fax # (610) 725-1416

**BUCKS & MONTGOMERY COUNTIES**  
400 Park Ave.  
Warminster, PA, 18974  
(215) 956-3270  
Fax # (215) 956-3240  
\*\* Lower Merion is served by DelChester Region

**NEW RESIDENTIAL CONSTRUCTION**  
(All Counties)  
400 Park Ave.  
Warminster, PA 18974  
(215) 956-3010  
Fax # (215) 956-3380

CUSTOMER NAME <b>Colin A. Jones</b>		Tax ID # or SSN or Driver's License No.		TYPE OF REQUEST <input checked="" type="checkbox"/> New Service <input type="checkbox"/> Temporary Service <input type="checkbox"/> Separation of Wiring <input type="checkbox"/> Load Increase / Decrease <input type="checkbox"/> Upgrade / Changes <input type="checkbox"/> Service Reduction <input type="checkbox"/> Rehabilitation of Service <input type="checkbox"/> Demotion (Remove Service) <input type="checkbox"/> Make-Safe (De-energize / Cover)	
*ADDRESS TO BE SERVED <b>800-838 Market Street</b>		APARTMENT / LOT #		TYPE OF SERVICE: Please include site plan. <input type="checkbox"/> RESIDENTIAL <input checked="" type="checkbox"/> COMMERCIAL <input type="checkbox"/> Single House <input type="checkbox"/> Mobile Home <input type="checkbox"/> Apartment <input type="checkbox"/> Modular Home <input type="checkbox"/> Duplex <input type="checkbox"/> Town House <input type="checkbox"/> Other <input type="checkbox"/> Store <input type="checkbox"/> Industrial <input type="checkbox"/> Restaurant <input type="checkbox"/> Office <input type="checkbox"/> Warehouse <input checked="" type="checkbox"/> Other <b>Casino/Hotel</b>	
POST OFFICE <b>Philadelphia</b>		ZIP CODE <b>19107</b>		Area of Building <b>512,000</b> Sq. Ft.	
UTILITY POLE #	SUBDIVISION / DEVELOPMENT	TOWNSHIP / MUNICIPALITY / WARD #		SERVICE CHARACTERISTICS: <input type="checkbox"/> Underground <input type="checkbox"/> Aerial	
* If Applicable Please use this address when applying for underwriter's inspection.		CUSTOMER'S BILLING ADDRESS <b>350 Sentry Parkway Bldg 60 Ste 300</b>		PHASE VOLTS WIRES 3 240 3 3 120/240 4 3 120/240 4 3 277/480 4 3 13200 3 or 4 3 33000 3 or 4	
PECO ENERGY ACCOUNT #		POST OFFICE <b>Blue Bell, PA</b>		PHASE VOLTS WIRES 1 120 2 1 120/240 3 2 120/240 5	
ZIP CODE <b>19422</b>		TELE. # <b>610-260-1452</b>		METER INFO: <input type="checkbox"/> Single Meter Required <input type="checkbox"/> Two Meters, Commercial (General/Industrial) <input type="checkbox"/> Multiple Meters Total No. _____	
SEND REPLY TO:		ELECTRICIANS OR BUILDER'S NAME <b>Pennoni Associates</b>		HEATING / AIR CONDITIONING: <input type="checkbox"/> Heat Pump <input type="checkbox"/> Central Air <input type="checkbox"/> Radiators <input type="checkbox"/> Baseboard <input type="checkbox"/> Propane <input type="checkbox"/> Natural Gas <input type="checkbox"/> Other	
ADDRESS <b>3001 Market Street, 2nd Floor</b>		Ready Requested by: <b>1 / 1</b>		CHARACTERISTICS OF NEW OR ADDITIONAL LOAD:	
POST OFFICE <b>Philadelphia, PA</b>		ZIP CODE <b>19104</b>		TYPE	
TELE. # <b>215-222-3000</b>		FAX # <b>215-222-0598</b>		CONNECTED LOAD (KW)	
CURRENT CONSTRUCTION STATUS <input checked="" type="checkbox"/> Not Started - One Customer Will Start Work <input type="checkbox"/> In Progress <input type="checkbox"/> Completed		Approximate Date Service Requested: <b>6 / 1 / 14</b>		PECO PREVIOUSLY INSTALLED LOADS	
CUSTOMER COMMENTS / DESCRIPTION OF WORK:  <b>Preliminary Design - Requesting "Will Serve" response at this time.</b>		LARGEST MOTOR SPECIFICATIONS		TOTALIZER LOAD	
		QUANTITY		GENERAL LOAD	
		SIZE (HP)		<b>5,000</b> kw	
		LOCKED ROTOR CURRENT			
		MOTOR CODE LETTER			
		PHASE			
		VOLTAGE			
		FREQ. OF STARTING (per hr.)			
		PURPOSE			
SUBMITTED BY: <b>John C. Medendorp IV</b>		DATE: <b>02/05/2013</b>			
Enclosure: <input checked="" type="checkbox"/> Site Plans <input type="checkbox"/> Single Line Diagram <input type="checkbox"/> Substation Arrangement					

<b>INFORMATION BELOW WILL BE FILLED IN BY PECO:</b>										Service Request No. _____
USMAJACCT REP		TELEPHONE	DATE RECEIVED	DESIGNER	TELEPHONE	DATE RECEIVED				
POL SUB	RATE	RIDER	CONTRACT LIMITS		S-C NUMBER	T NUMBER	DATE REPLY COMPLETED			
AMPS	WIRES	VOLTAGE	PHASE	CIRCUIT	C-QUAD	T-QUAD	LOAD (KVA) SUMMER _____ WINTER _____			
<b>SERVICE CHARACTERISTICS - Select One from Each</b> <b>SERVICE TYPE</b> <input type="checkbox"/> Aerial <input type="checkbox"/> Underground <input type="checkbox"/> URD <b>RATE:</b> <input type="checkbox"/> Residential <input type="checkbox"/> Comm (Non-Demand) <input type="checkbox"/> Comm (Demand) <input type="checkbox"/> HT/PO <b>GENERATION PROCUREMENT CLASS:</b> <input type="checkbox"/> Class 1 (Residential) <input type="checkbox"/> Class 2 (Commercial, less than 100kW) <input type="checkbox"/> Class 3 (Commercial, 100kW to 500kW) <input type="checkbox"/> Class 4 (Commercial, greater than 500kW) <small>NOTE: The customer's initial Procurement Class will be determined by PECO, based on peak load estimates for the first year of service. The customer's Procurement Class will be adjusted each year, based on actual usage.</small> <b>METER TYPE:</b> <input type="checkbox"/> KW/K <input type="checkbox"/> IND. DEMAND <input type="checkbox"/> RECORDER <input type="checkbox"/> TOU <b>SERVICE PHASING:</b> <input type="checkbox"/> SINGLE PHASE <input type="checkbox"/> TWO PHASE <input type="checkbox"/> THREE PHASE						POLE # / NH # LOCATION		CUT THROUGH DATE		
<b>SERVICE REQUIREMENTS:</b> <input type="checkbox"/> Present Service OK <input type="checkbox"/> Loop Only <input type="checkbox"/> Term Only <input type="checkbox"/> See Job # _____				<b>METERING LOCATION AND REQUIREMENTS:</b> <input type="checkbox"/> Present Location: Meter # _____ <input type="checkbox"/> CTS _____ <input type="checkbox"/> Pts _____ <input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor <input type="checkbox"/> On _____ Wall _____ Fl. From _____ Wall _____ ft. Above Ground						
<b>ADVANCE NOTIFICATIONS:</b> Underwriter's Cert. Required <input type="checkbox"/> Yes <input type="checkbox"/> No Customer to Trench <input type="checkbox"/> Yes <input type="checkbox"/> No Permit Required <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Steps <input type="checkbox"/> Other _____ ACT 222 Cert. Required <input type="checkbox"/> Yes # _____ <input type="checkbox"/> No <input type="checkbox"/> N/A PA One Call # _____ <input type="checkbox"/> Gas <input type="checkbox"/> BTGO <input type="checkbox"/> CATV <input type="checkbox"/> Other _____						<b>CUSTOMER BILLING:</b> Advance Billing Required <input type="checkbox"/> Yes \$ _____ <input type="checkbox"/> No Customer Charges: \$ _____ Cust. # _____ Date _____ BTGO # _____ Date _____ CATV # _____ Date _____ Other _____ Date _____				
<b>SKETCH / INSTRUCTIONS</b>										

**Pennoni**

PENNONI ASSOCIATES INC.  
CONSULTING ENGINEERS

MEAS1201

February 5, 2013

Mr. Pat Lavin  
Comcast Cable  
4400 Wayne Ave  
Philadelphia, PA. 19140

**RE: REQUEST FOR CONFIRMATION OF UTILITY AVAILABILITY  
8<sup>TH</sup> STREET AND MARKET STREET, PHILADELPHIA, PA**

Dear Mr. Lavin:

Market East Associates, LLP has plans to construct a casino complex – Casino Philadelphia - to be located on the south side of Market Street between 8th Street and 9th Street in the Market East section of City Center, Philadelphia. The Casino Philadelphia casino complex is anticipated to be comprised of a four story building including:

- 2400 slot machines
- 82 table games
- 30 poker tables
- Food/beverage and entertainment venues, and
- 60,000 GSF quality restaurants.

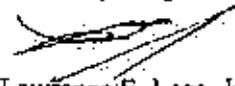
Two floors of gaming (approximately 80,000 GSF), and a 1000 space, four level underground parking garage complete the proposed casino footprint. The facility is anticipated to include a 168-room hotel in an 8 to 10 story structure on the same block. Additional parking will be provided in an existing garage at the northeast corner of 8<sup>th</sup> and Chestnut Streets.

Due to the aggressive nature of the project we are requesting a timely response to this request for confirmation of communications utility service availability.

Thank you for your cooperation in this matter. Should you have any questions or comments, please contact us at 215-222-3000.

Sincerely,

**PENNONI ASSOCIATES INC.**

  
Lawrence E. Leso, Jr., PE, PLS  
CC: Colin Jones

APPENDIX B

**Friese, Thomas J.**

---

**From:** Friese, Thomas J.  
**Sent:** Tuesday, January 29, 2013 3:53 PM  
**To:** carlton.cummings@phila.gov  
**Cc:** francois.dutchie@phila.gov; Markham, James; Colin Jones (cjones@GOLDENBERGgroup.com)  
**Subject:** Casino Philadelphia- 8th and Market

Carlton- I appreciate your taking my call this afternoon and playing the phone tag until we could connect. As we discussed, Pennoni is providing consulting engineering services to the developer who is vying for a casino license for the property at 8<sup>th</sup> and Market Streets in Philadelphia. As part of that license application, applicants are asked to provide all types of information including a report on local infrastructure impacts. In this particular case, we are inquiring to find out the City's opinion as to "any adverse impact" on "local police and emergency service capabilities," from operation of the proposed casino. Specifics of the proposed casino at this location are as follows:

*Market East Associates, LLP has plans to construct a casino complex – Casino Philadelphia - to be located on the south side of Market Street between 8th Street and 9th Street in the Market East section of City Center, Philadelphia. The Casino Philadelphia casino complex is anticipated to be comprised of a four story building including:*

*2440 slot machines,  
83 table games which includes 25 poker tables  
Poker and baccarat rooms,  
Food/beverage and entertainment venues, and  
30,000 GSF quality restaurants.*

*Two floors of gaming (approximately 80,000 GSF), and a 1000 space, four level underground parking garage complete the proposed casino footprint. The facility is anticipated to include a 150-room hotel in an 8 to 10 story hotel on the same block. Additional parking will be provided in an existing garage at the northeast corner of 8<sup>th</sup> and Chestnut Streets.*

Please let us know if you can provide the requested information or if we need to turn to other authorities. As discussed, we have already reached out to the Fire Department, and the call to you resulted from a conversation with someone at the Police Department 6<sup>th</sup> District Station.

Thank you,

Tom

**Thomas J. Friese, PE**  
Land Development Division Manager

**Pennoni Associates Inc.**  
One Drexel Plaza  
3001 Market Street, Suite 200  
Philadelphia, PA 19104  
Office 215-222-3000 x7781 | Direct 215-254-7781  
Fax 215-222-0588 | Mobile 267-693-8048  
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*Consulting Engineers providing...*  
*Environmental – Geotechnical – Inspection & Testing – Land Development – MEP*  
*Landscape Architecture – Structural – Survey – Transportation – Water/Wastewater*

**Friese, Thomas J.**

---

**From:** Friese, Thomas J.  
**Sent:** Tuesday, January 29, 2013 4:03 PM  
**To:** ernest.hargett@phila.gov  
**Cc:** deborah.mannix@phila.gov; Markham, James; Colin Jones (cjones@GOLDENBERGgroup.com)  
**Subject:** Proposed Casino- 8th and Market

Dep. Commissioner Hargett- I spoke yesterday to your assistant Debbie Mannix who said that you might be the right person to talk to about the proposed Philadelphia Casino to be located on the old Gimbals store site at 8<sup>th</sup> and Market Streets.

Pennoni Associates has been retained by the developer to prepare various infrastructure documentation, in particular relating to the application criteria for a casino license. The Pennsylvania Gaming Control Board published an "Application and Public Disclosure Information Form" outlining all the data and information to be submitted with an application. One of the interests of the Board is the impact the proposed casino facility will have on "emergency service capabilities," if any. Given the significant Fire Department presence in Center City, we would not anticipate a degradation in service created by this development, or an inability to service the proposed casino, but of course would like to have that discussion with the Fire Department.

Market East Associates, LLP has plans to construct a casino complex – Casino Philadelphia - to be located on the south side of Market Street between 8th Street and 9th Street in the Market East section of City Center, Philadelphia. The Casino Philadelphia casino complex is anticipated to be comprised of a four story building including:

- 2440 slot machines,
- 83 table games which includes 25 poker tables
- Poker and baccarat rooms,
- Food/beverage and entertainment venues, and
- 30,000 GSF quality restaurants.

Two floors of gaming (approximately 80,000 GSF), and a 1000 space, four level underground parking garage complete the proposed casino footprint. The facility is anticipated to include a 150-room hotel in an 8 to 10 story structure on the same block. Additional parking will be provided in an existing garage at the northeast corner of 8<sup>th</sup> and Chestnut Streets.

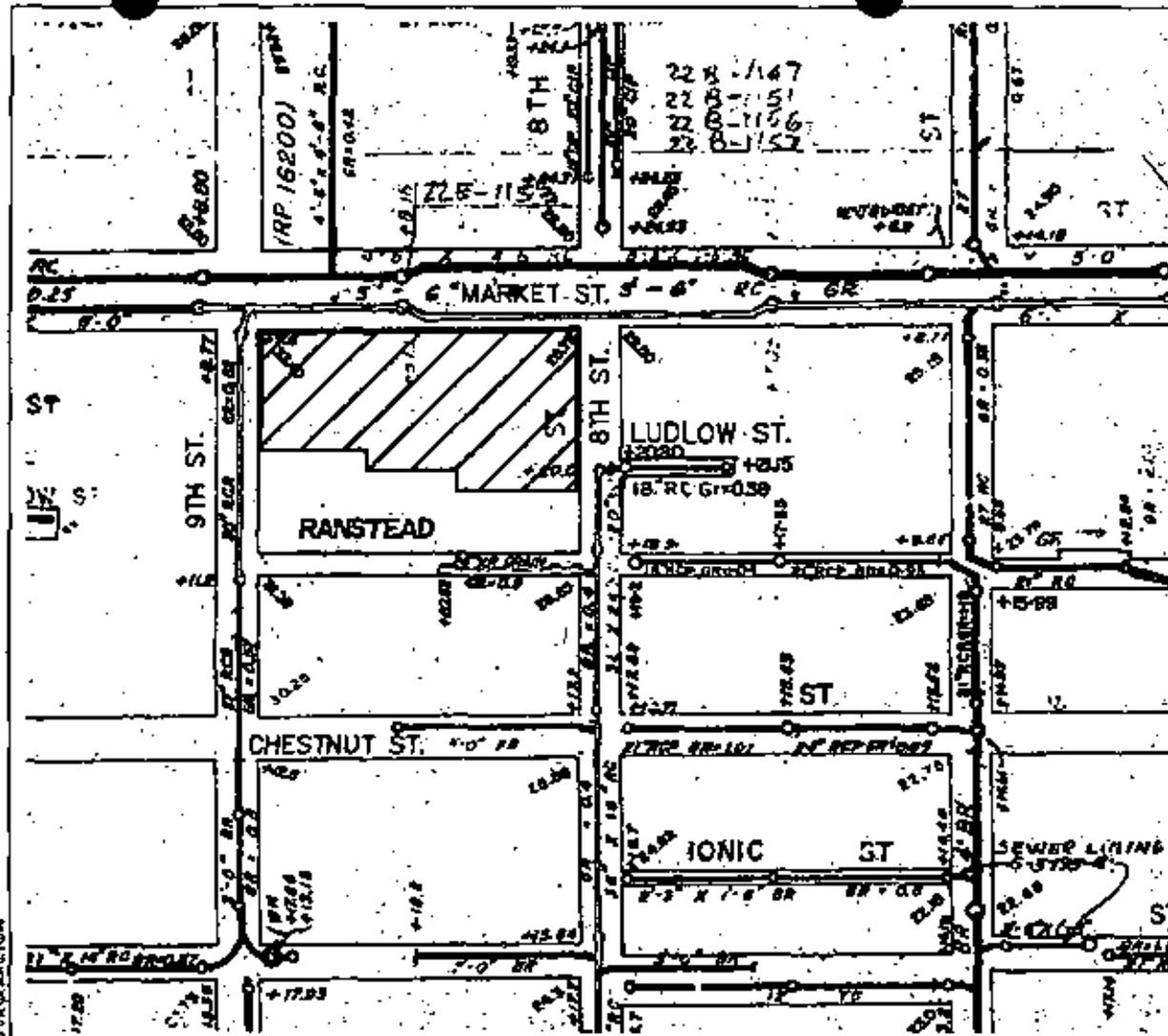
Please let us know your thoughts.

**Thomas J. Friese, PE**  
Land Development Division Manager

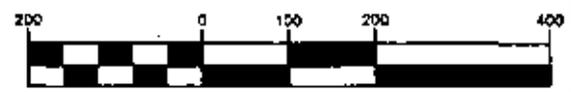
**Pennoni Associates Inc.**  
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APPENDIX C



GRAPHIC SCALE



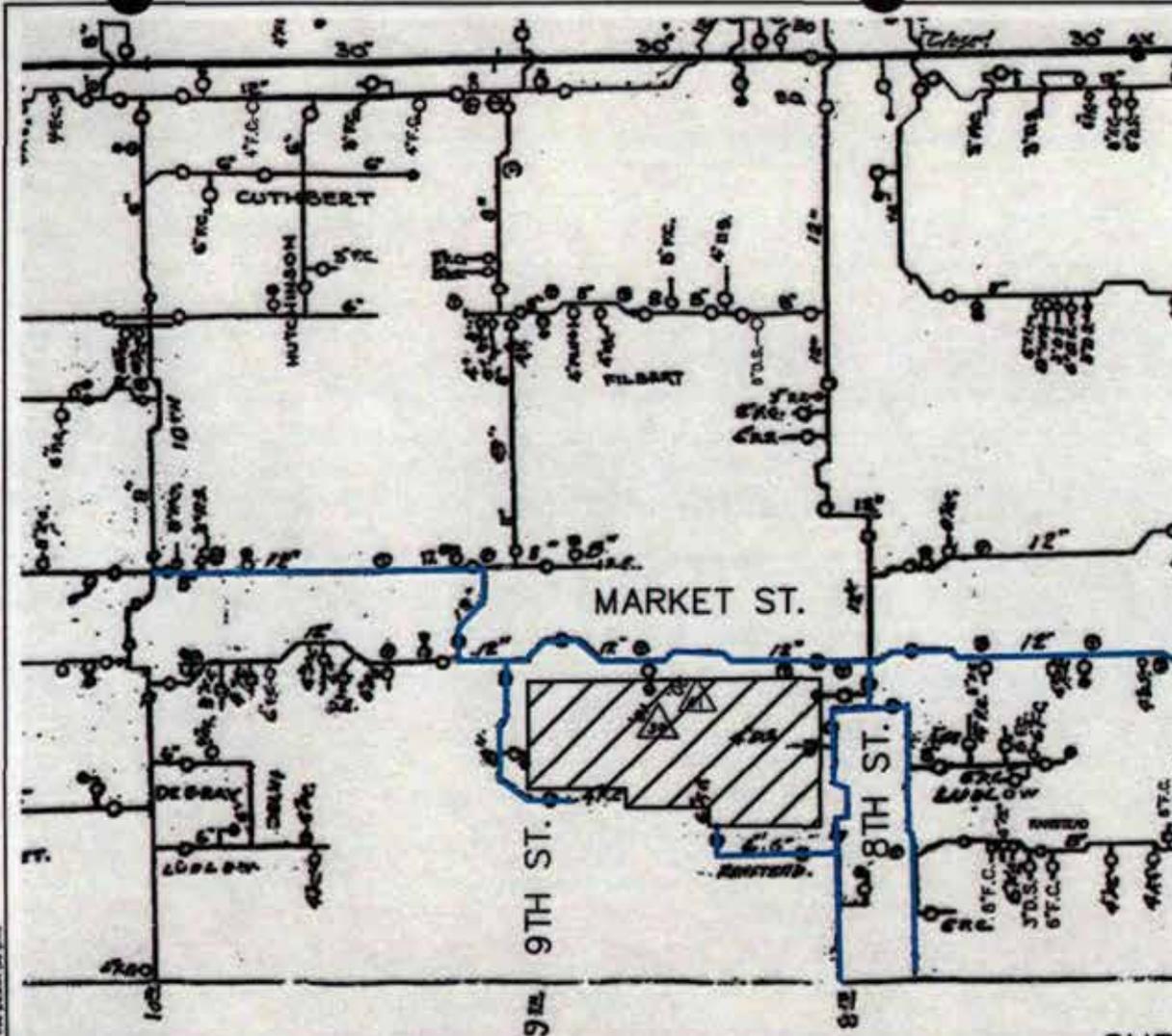
( IN FEET )  
1 inch = 200 ft.

**Pennoni**  
Pennoni Associates Inc.  
Consulting Engineers  
One Dracal Plaza  
3001 Market Street  
Philadelphia, PA 19104

**PROPOSED MIXED-USE DEVELOPMENT**  
8TH AND MARKET STREETS  
PHILADELPHIA, PHILADELPHIA COUNTY, PENNSYLVANIA  
**SEWER EXHIBIT**  
**MARKET EAST ASSOCIATES, L.P.**  
SUITE 300, 350 SENTRY PARKWAY  
BLUE BELL, PENNSYLVANIA 19422

SCALE: 1" = 200'
DATE: 11/06/2012
DWN BY: JCM
REV:
REV BY: T.J.F.
OWG #: EX-2
JOB #: MEAST201
SHEET: 2 OF 2

APPENDIX D



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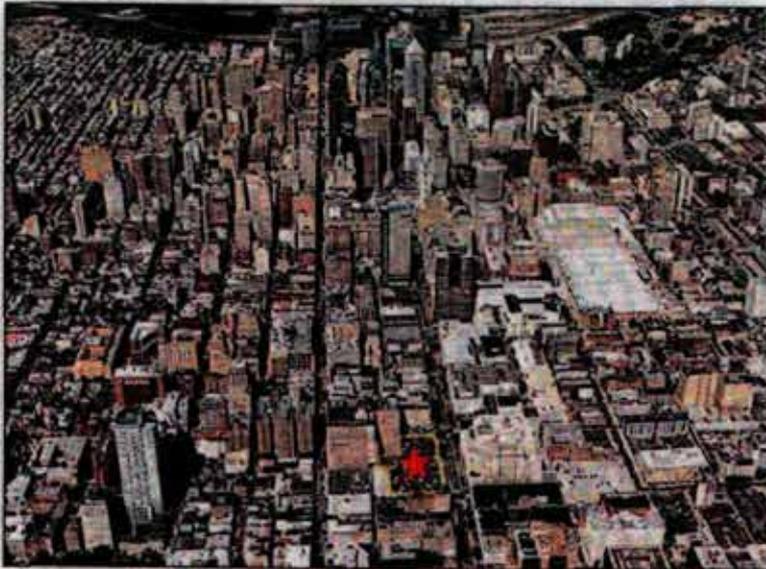
**Pennoni**  
 Pennoni Associates Inc.  
 Consulting Engineers  
 One Drexel Plaza  
 3001 Market Street  
 Philadelphia, PA 19104

**PROPOSED MIXED-USE DEVELOPMENT**  
 8TH AND MARKET STREETS  
 PHILADELPHIA, PHILADELPHIA COUNTY, PENNSYLVANIA  
**WATER EXHIBIT**  
**MARKET EAST ASSOCIATES, L.P.**  
 SUITE 300, 350 SENTRY PARKWAY  
 BLUE BELL, PENNSYLVANIA 19422

SCALE: NTS
DATE: 11/06/2012
DWN BY: JCM
REV:
REV BY: TJF
DWG #: EX-1
JOB #: MEAS1201
SHEET: 1 OF 2

**Pennoni**

# MARKET8 TRAFFIC IMPACT STUDY



Market Street /  
Center City

Philadelphia,  
Pennsylvania

February 2013  
MEAS 1201

*Prepared For:*  
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350 Sentry Parkway  
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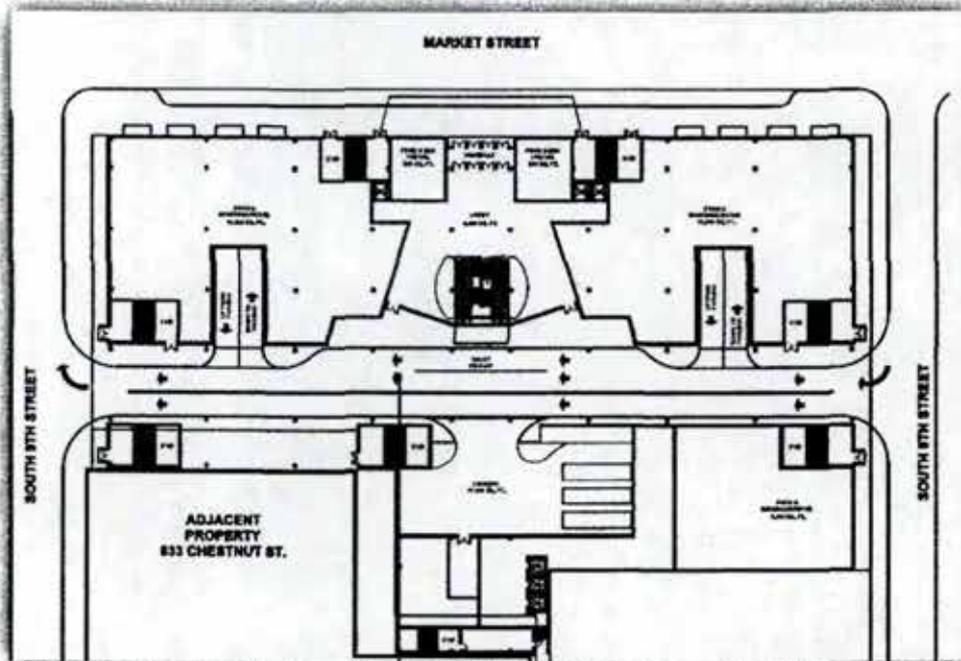
**EXECUTIVE SUMMARY**

Market East Associates, L.P. has plans to construct a casino complex, MARKET8, along the south side of Market Street (SR 2004) between South 8th Street and South 9th Street in the Market East section of City Center, Philadelphia. The MARKET8 casino complex is anticipated to include:

- 2400 slot machines,
- 82 table games,
- 30 poker tables,
- Food/beverage and entertainment venues, and
- 30,000 GSF quality restaurants.

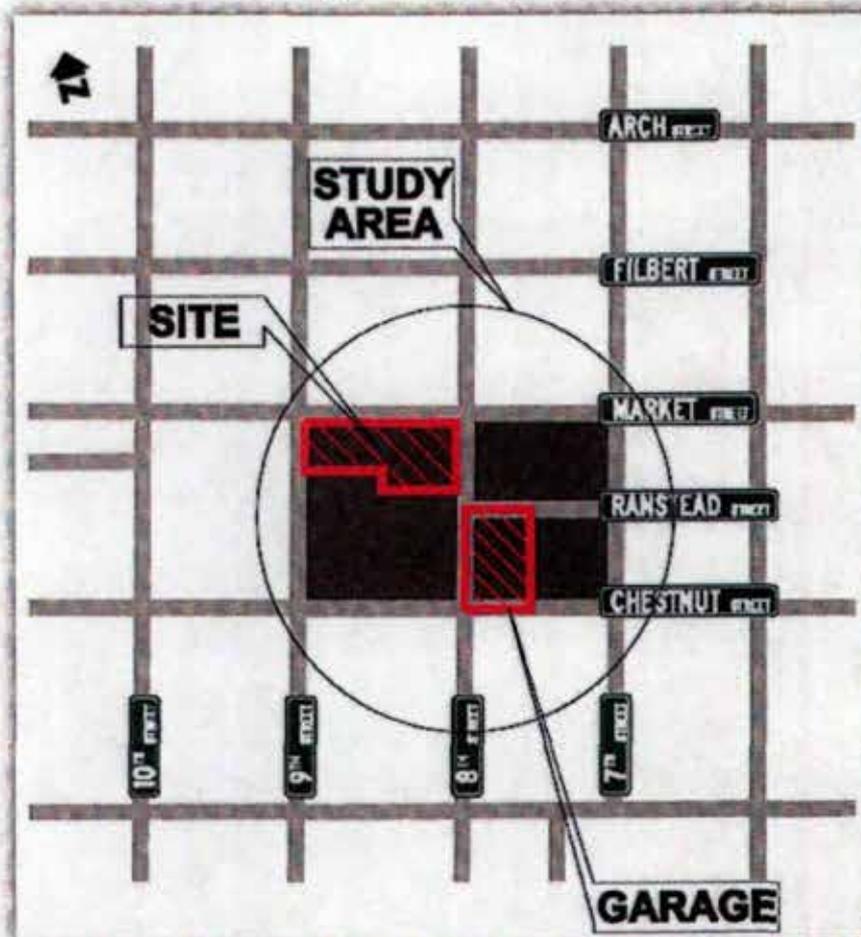
Two floors of gaming (approximately 80,000 GSF), and a 1000 space underground parking garage complete the proposed casino footprint. In addition, MARKET8 will provide 340 parking spaces at 733 Chestnut Street to complement the main casino complex parking.

**Figure ES-1. Site Access – Street Level**



The ingress access for the proposed main casino complex parking garage will be located on the west side of South 8<sup>th</sup> Street; with the corresponding egress onto 9<sup>th</sup> Street (See Figure ES-1). The ingress and egress point for the additional parking at 733 Chestnut Street will be located on the east side of South 8<sup>th</sup> Street and the north side of Chestnut Street. FIGURE ES-2 indicates the primary study area for this proposed casino complex within Center City, Philadelphia.

Figure ES-2. Study Area



Turning movement counts, including heavy vehicles and buses, pedestrians and bicycles were conducted on a (non-event) Friday (October 19, 2012 and January 11, 2013 with schools in session) from 3:00 PM – 8:00 PM and on Saturday (October 20, 2012 and January 12, 2013) from 3:00 PM - 8:00 PM at the following intersections:

1. Market Street at South 7<sup>th</sup> Street, South 8<sup>th</sup> Street and South 9<sup>th</sup> Street; and
2. Chestnut Street and South 7<sup>th</sup> Street, South 8<sup>th</sup> Street and South 9<sup>th</sup> Street.

These study periods were chosen to coincide with peak traffic periods on the adjacent roadway network (typically 4:00 pm to 6:00 pm) on a typical weekday. The peak hours of trip generation for a casino complex during the weekends are anticipated to occur between the hours of 6:00 pm and 8:00 pm on Friday and Saturday evenings.

---

## **FINDINGS & RECOMMENDATIONS**

### **Findings**

- Development trips will be comprised of two main components: the 80,000 GSF Casino (with 3192 gaming positions, buffet, meeting room space) and approximately 30,000 GSF of Quality Restaurants (*ITE Land Use code 931, Trip Generation, 9<sup>th</sup> edition*) as part of the proposed complex. Projected peak hour trips for the casino for Friday and Saturday evening peak periods are based on research and information obtained from other casino traffic studies within the Philadelphia area and nationally.
- The capacity analyses performed herein indicates that the site traffic will have an insignificant impact on those intersections bordering the site. All study intersections operate at an overall and approach LOS of C or better for both the horizon year "No Build" and "Build" conditions.
- The site driveway exiting onto 9th Street (STOP controlled "right-out-only") will operate at LOS B in the Build condition. Subsequently, considering a "diminishing return" of impacts as traffic is distributed farther from the border intersections, these results would indicate that MARKET8 would have similar, nominal impacts at other intersections along primary ingress and egress transportation routes.
- Comparing the net "As-of-Right" vehicle trips to those for the proposed casino shows a significant increase in traffic if the proposed Market East site were to be developed per existing land use development guidelines. Specifically, 79% more traffic would typically be generated during the weekday PM Peak Hour (versus MARKET8 traffic) and 6% more traffic would be generated during the Saturday Peak Hour.
- The City's Zoning Code (*§14-405 SP-ENT Entertainment Special Purpose District - Licensed Gaming Facilities*) requires 4 parking spaces for every 5 slot machine or gaming positions provided for patrons and guests. Accordingly, the proposed complex would thus need to accommodate 2,554 parking spaces within or immediately adjacent to the proposed casino complex site.
- There are currently in excess of 2,800 parking spaces within a 5 minute walk available after 5:00 PM on an average (non-event) Friday and on an average (non-event) Saturday after 6:00 PM. Combined with the 1000 main casino complex parking spaces and the additional proposed 340 spaces at 733 Chestnut Street, the proposed complex can accommodate approximately 4,000 vehicles, immediately adjacent to the site, on an average Friday or Saturday evening.

### **Recommendations**

The following recommendations will significantly improve the traffic operations within the study area, while allowing safe, unimpeded egress from the casino parking garage.

- Restrict on-street parking along the east side of 9<sup>th</sup> Street 100 feet south of the facility exit drive north to the Market Street intersection to provide a separate northbound right turn lane;
- Optimization of the traffic signal timing at all study area intersections;

- Enhance trail-blazing signage to/from regional transportation routes to ensure "positive guidance" to/from the casino complex and primary travel routes for non-local drivers;
- Encourage greater use of mass transit as an alternative to driving via advertising and/or casino promotions;
- Work with SEPTA and Center City hotels to increase the frequency of bus and shuttle stops to the casino and/or creating a direct connection to the mass transit hub within the study area ( 8<sup>th</sup> and Market Street);

Finally, the City of Philadelphia's Zoning Codes states that "parking provided in this (Special Purpose) District must be adequately served by high-capacity roads or driveways approved by the Streets Department as being adequate to safely serve the ingress and egress of patrons and guests using the facility." This requirement is clearly met given the close proximity of the proposed casino site to I-95 and the Vine Street Expressway. Suggested parking utilization strategies that would further reduce the need for on-site parking spaces would include:

- "Real-time" parking management for Casino parking;
- Shuttle bus service to/from the Casino and Center City Parking, Shopping venues, Hotels;
- Proposed VIP and/or Valet Parking, and
- Off-site Parking Accommodation for Casino employees.

## **Conclusions**

Based on the findings indicated in this study:

- Transit service to the 8th and Market location is extraordinary. The proposed casino is in a prime location to access several modes of transit including: buses, subways, and regional rail. As a regional transit hub, the site is well served as a destination, and functions as one of the region's major points of transfer between transit facilities.
- The proposed casino is in a prime location to access I-95 and I-676 for regional access by vehicular traffic.
- Overall intersection delays due to casino vehicular traffic experience increases of less than 10 seconds beyond "No Build" conditions at all studied intersections. Levels of service (LOS) for the "Build" conditions meet or exceed typical LOS requirements for urban settings.
- If Office and General Retail space were developed at the proposed casino site, per "as-of-right" regulations, significantly more future traffic would be generated.
- The available parking immediately adjacent to the site, combined with the proposed parking within the site, significantly exceeds the parking requirements of the zoning code. The site, located within the City of Philadelphia's urban core, provides excellent flexibility for development program modifications through maximization strategies for on-site parking, or greater utilization rates benefitting nearby, off - site parking facilities.

If those recommendations suggested above are implemented as part of the MARKET8 project, there will be nominal impacts on the surrounding transportation system with the Center City section of Philadelphia.

---

## INTRODUCTION

Market East Associates, L.P. has plans to construct a casino complex, MARKET8, along the south side of Market Street (SR 2004) between 8th Street and 9th Street in the Market East section of Center City, Philadelphia. The MARKET8 complex is anticipated to include:

- 2400 slot machines,
- 82 table games,
- 30 poker tables,
- Food/beverage and entertainment venues, and
- 30,000 GSF quality restaurants.

Two floors of gaming (approximately 80,000 GSF), and a 1000 space underground parking garage complete the proposed casino footprint. In addition, MARKET8 will provide 340 parking spaces at 733 Chestnut Street to complement the main casino complex parking. The proposed site plan is shown in **FIGURE 1**.

The ingress access for the proposed casino's parking garage will be located on the west side of 8<sup>th</sup> Street; with the corresponding egress access onto 9<sup>th</sup> Street (See Figure 2). As 8<sup>th</sup> Street and 9<sup>th</sup> Street are one-way pairs, southbound and northbound, respectively, all casino-related traffic, including valet and trucks, will be entering or exiting via the Market Street intersections with 8<sup>th</sup> and 9<sup>th</sup> Streets. Loading docks will be located inside the entrance to the main complex parking garage, opposite the valet pick-up/by-pass. The ingress and egress points for the additional parking at 733 Chestnut Street will be located on the east side of 8<sup>th</sup> Street and the north side of Chestnut Street. As 8<sup>th</sup> Street is one-way southbound, the majority of casino-related traffic using the 8<sup>th</sup> Street/Chestnut Street garage will be entering via the Market Street intersection with 8<sup>th</sup> Street. As Chestnut Street is one-way eastbound, the majority of traffic exiting the 8<sup>th</sup> Street/Chestnut Street garage will be exiting via 8<sup>th</sup> Street and Chestnut Street to 7<sup>th</sup> Street to Market Street.

This Transportation Impact Study (TIS) addresses the anticipated impact of the proposed casino complex along the adjacent roadway system, recommends potential improvements, and evaluates sight distance of the proposed access drive(s) onto the existing roadway system. The TIS will establish existing, baseline ("no build" without casino traffic) and "build" (with casino traffic) conditions. The scope of the TIS was developed to satisfy the requirements of the Pennsylvania Gaming Control Board (PGCB) casino license application, Philadelphia Streets Department (and eventually the Pennsylvania Department of Transportation (PennDOT) Transportation Impact Study Guidelines).

Based on Pennoni's previous casino-oriented TIS experience, including that with the Philadelphia Gaming Advisory Task Force, combined with our knowledge of casino traffic operations, we studied the Friday and Saturday afternoon/evening periods, analyzing a combination of street peak and casino peak hours. Friday and Saturday evenings were identified as the peak casino periods by the Philadelphia Gaming Advisory Task Force, while Friday (late afternoon) and Saturday mid-afternoon periods have the highest street traffic. This Peak Hour selection is critical to our analyses as the Peak Hours of Adjacent Street Traffic and Casino Peak Trip Generation do not typically coincide, and most importantly, the peak parking demands for the casino complex will dovetail nicely with Off-Peak Weekday and Saturday parking availability.

According to Cincinnati's Bridging Broadway Study commissioned to study the impact area of a casino in an urban center, "to achieve the level of connectivity required to create a new downtown destination that positively enhances the surrounding area, it is necessary to avoid isolating the casino site. The streets surrounding the site must not act as barriers, and the casino's architectural design must face outward with non-gaming uses exposing the exterior". This TIS shows that MARKET8 not only address those key connectivity issues noted above, but the proposed venue enhances and complements the vibrant Market East section of Center City, Philadelphia.

## STUDY METHODOLOGY

The analysis contained herein will be conducted in accordance with guidelines presented in Pennsylvania Department of Transportation (PennDOT) *Policies and Procedures for Transportation Impact Studies*, dated January 28, 2009. As required, three analysis years are considered: existing baseline traffic conditions, opening year analysis and design horizon year analysis (5 years after the opening year). The opening year and horizon year analyses include an assessment of the operational conditions of the study intersections under "no build" and "build" scenarios. Mitigation is assessed for intersections that experience an overall level of service drop and delay increase of more than ten (10) seconds from the "no build" to "build" conditions. *Level of service* is a measure of operating conditions discussed in detail on page 19 of this report.

Specific elements included in this study are:

- An inventory of the roadway facilities in the vicinity of this project, including the existing physical and traffic operating characteristics;
- Manual turning movement counts performed at the study intersections during afternoon peak traffic hours;
- Crash analysis of study area intersections;
- Calculation of vehicular trip generation for the proposed casino complex and other planned developments (if applicable) within the study area based on empirical and/or historical data obtained for casino's throughout the United States as well as trip generation rates contained in the Institute of Transportation Engineers (ITE) manual entitled *Trip Generation*, an ITE Information Report (9<sup>th</sup> Edition, 2012).
- Distribution of development-generated traffic onto the study area roadways in accordance with current travel patterns, empirical data obtained from research of similar facilities and anticipated traffic behavior changes
- Assessment of 2012, 2016 and 2021 traffic conditions based on capacity, level of service and queuing analyses performed for the study intersections.

As the Pennoni team is familiar with the Market Street corridor, we already have an understanding of the existing traffic conditions and travel patterns, and we are familiar with City of Philadelphia and PennDOT TIS and HOP permitting requirements.

Initially, this TIS is intended for inclusion in the Market East Associates, L.P.'s PGCB application for a casino license. Pennoni performed an analyses that reflects logical multi-modal trip reduction strategies (based on "Mode of Arrival" assumptions) and anticipated parking utilization within our study area. The analyses also consider trip reduction resulting from internal trips within the multi-use development. The internal trip reductions were applied using ITE internal trip reduction methodology as outlined in the *Trip Generation Handbook*.

The study also evaluates parking through a *Parking Utilization* analysis and distribution assessment that addresses the land-use parking requirements per Philadelphia's Zoning Code. Specifically, the study evaluates available parking through the examination of three adjacent parking facilities (within a 5-minute walking radius of the proposed casino complex).

## STUDY AREA

FIGURE 2 indicates the primary study area within the Center City District of Philadelphia for this TIS.

Turning movement counts, including heavy vehicles and buses, pedestrians and bicycles were conducted on a (non-event) Friday (October 19, 2012 with schools in session) from 3:00 PM – 8:00 PM and on Saturday (October 20, 2012) from 3:00 PM - 8:00 PM at the following intersections:

1. Market Street and 8th Street;
2. Market Street and 9th Street;
3. South 8th Street and Chestnut Street; and
4. South 9th Street and Chestnut Street.

Additional turning movement counts, including heavy vehicles and buses, pedestrians and bicycles were conducted on a (non-event) Friday (January 11, 2013 with schools in session) from 3:00 PM – 8:00 PM and on Saturday (January 12, 2013) from 3:00 PM - 8:00 PM at the following intersections:

5. Market Street and 7<sup>th</sup> Street;
6. South 7<sup>th</sup> Street and Chestnut Street.

These study periods were chosen to coincide with peak traffic periods on the adjacent roadway network (typically 4:00 PM to 6:00 PM) on a typical weekday. The peak hours of trip generation for a casino complex during the weekends are anticipated to occur between the hours of 6:00 PM and 8:00 PM on Friday and Saturday evenings.

The study area also incorporates a Parking Utilization analysis of those parking facilities within a 5-15 minute walking radius of the proposed casino complex. Hotels within this 5-15 minute walking radius of the site will also be identified in order to support vehicular reductions of "new" trips due to alternate modes of arrival to the proposed MARKET8 complex (e.g., Pedestrians, Hotel Shuttles, etc.). A project area map showing a walking radius up to 15-minutes to/from the proposed casino site is shown in FIGURE 3.

Copies of available traffic signal permit plans for the signalized study area intersections were obtained from the City of Philadelphia, and existing traffic signal timings were verified in the field.

## EXISTING TRAFFIC CONDITIONS

### Regional Transportation Routes



The proposed site is located in the vicinity of the I-95 corridor, I-676 and I-76 limited access highway that run through Philadelphia. The I-95 corridor is a limited access, multi-lane, major arterial that runs in the general north/south direction. The I-95 corridor runs from the New England States to Florida providing access to the site from New York to the north and New Jersey and Delaware to the south. The Vine Street Expressway (I-676) is a limited access, major arterial that runs in a general east/west and provide a direct connection between I-76 (Schuylkill Expressway) and I-95, as well as the Ben Franklin Bridge into New Jersey.

### Primary Ingress Routes

---

Based on Pennoni's experience with traffic patterns among major corridors within the City of Philadelphia – the result of many traffic impact studies performed – we have determined that the primary inbound routes for casino vehicular traffic would be:

From I-95

- Southbound I-95 to the Callowhill Street exit.
- West on Callowhill Street (6 blocks) to 8<sup>th</sup> Street.
- South on 8<sup>th</sup> Street (6 blocks) to the proposed site.
- Northbound I-95 to the Callowhill Street exit.
- West on Callowhill Street (5 blocks) to 8<sup>th</sup> Street.
- South on 8<sup>th</sup> Street (6 blocks) to the proposed site.

From I-76 via I-676

- Eastbound on I-676 to the 8<sup>th</sup> Street exit.
- South on 8<sup>th</sup> Street (5 blocks) to the proposed site.

From I-676 from New Jersey (Ben Franklin Bridge)

- West on I-676 to the 8<sup>th</sup> Street exit.
- South on 8<sup>th</sup> Street (5 blocks) to the proposed site.

These routes have been driven by Pennoni staff as part of this TIS and the proposed casino facility is located within minutes from each major facility during "off peak" periods.

**Primary Egress Routes**

Alternatively, outbound routes for vehicular traffic would likely be:

To I-95

- From the proposed site, north on 9<sup>th</sup> Street (5 blocks) to Vine Street.
- East on Vine Street to 7<sup>th</sup> Street.
- North on 7<sup>th</sup> Street to I-676 to north bound I-95.
- From the proposed site, north on 9<sup>th</sup> Street (5 blocks) to Vine Street.
- East on Vine Street to 7<sup>th</sup> Street.
- North on 7<sup>th</sup> Street to I-676 to south bound I-95.

To I-76 via I-676

- From the proposed site, north on 9<sup>th</sup> Street (5 blocks) to Vine Street.
- East on Vine Street to Franklin Street.
- North to the West bound I-676 entrance.
- I-676 west to I-76 east or west bound.

To I-676 to New Jersey (Ben Franklin Bridge)

- From the proposed site, north on 9<sup>th</sup> Street (4 blocks) to Race Street.
- East Race Street (3 blocks) to the I-676 entrance and the Benjamin Franklin Bridge.

The ingress and egress routes to the proposed site to and from the regional transportation routes are illustrated on **FIGURE 4** and **FIGURE 5**, respectively.

---

**Public Transportation**

In the vicinity of the site, multiple modes of public transportation can be utilized by casino patrons to access the proposed site. This access is provided by the regional public transportation providers.

**Subway and Light Rail**

South Eastern Pennsylvania Transportation Authority (SEPTA) provides public transportation services to the southeastern portion of Pennsylvania, which included Philadelphia and the surrounding five counties. Service within Philadelphia and to the surrounding counties is provided by SEPTA's regional rail line and light rail lines. Service within Philadelphia is also provided by means of the SEPTA's subway lines and bus routes. The regional rail lines within Center City, Philadelphia are accessible at the three Center City stations, 30<sup>th</sup> Street Station, Suburban Station and Market East Station. There are multiple accesses to the SEPTA subway line along Market Street. Access to the surface bus routes are provided along multiple bus stops along Market Street.

The regional rail lines run in a general east/west direction to and from the three Center City stations, 30<sup>th</sup> Street Station, Suburban Station and Market East Station. Within the study area, access to the regional rail line would be via the Market East Station, located at 11<sup>th</sup> Street and Market Street. Access to the Market East station can also be made through the Gallery Mall (nearest entrance located at 10<sup>th</sup> Street and Market Street) and the 8<sup>th</sup> Street Station, located at 8<sup>th</sup> Street and Market Street.

The Market Frankford Subway Line (MFL) runs in a general east/west direction along Market Street from Front Street to 30<sup>th</sup> Street, and beyond providing service to and from the northern and western sections of the city. Access to the MFL, within in the vicinity of the site can be made at the 8<sup>th</sup> Street and Market Street Station. From this same location access is possible to the Broad-Ridge Spur and the PATCO High Speed Line.

The PATCO high speed line provides regional rail service between Philadelphia, Pennsylvania and Camden, New Jersey via the Benjamin Franklin Bridge. Service runs from the bridge north/south along 8<sup>th</sup> Street to Locust Street and east/west from 8<sup>th</sup> Street to 15<sup>th</sup>/16<sup>th</sup> Street. As provably stated, access to PACTO from the site can be made at the 8<sup>th</sup> Street and Market Street station.

**Surface Transportation**

SEPTA provides bus transportation along Market Street in the east and west bound directions, south bound along 8<sup>th</sup> Street and northbound along 9<sup>th</sup> Street. Addition, north and southbound bus routes are provided on 7<sup>th</sup> Street (northbound), 11th Street (northbound) and 12<sup>th</sup> Street (southbound) within the five to ten walking radii of the proposed site. Chestnut Street and Walnut Street (to the south) and Arch Street (to the north) have bus routes that run in the general east and west bound directions.

While not directly accessible from the site or within walking distance, the Amtrak 30<sup>th</sup> Street Station is located within a mile and a half of the proposed site. Access to the site can be made from the SETPA Market Frankford Subway Line, the Regional Rail Lines, bus and taxi.

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New Jersey Transit also provides surface bus route service to Center City from New Jersey via the Benjamin Franklin Bridge. Service is provided from 6<sup>th</sup> Street along Market Street to Broad Street with multiple stops in the westbound direction only, within the vicinity of the proposed site.

Additionally, sightseeing tour routes are provided by the Philadelphia Phlash bus, Philadelphia Trolley Works (which runs Trolley and the Big Bus tour) through the Center City district. While these tours do not have designed stops along Market Street, there are stops within five and ten minute walking distances to the proposed casino.

The schedules for the surface transportation (buses), subway and light rail (regional rail) were reviewed to obtain the number of transit trips, directional of travel, and frequency (in minutes) that passes directly adjacent to the site or within the 5 and 10 minutes walking radii. The specific public transportation routes that were reviewed are as follows:

**SEPTA**

- Market Street Bus Routes.
- Chestnut Street/Walnut Street Bus Routes.
- 7<sup>th</sup>, 8<sup>th</sup> and 9<sup>th</sup> Street Bus Routes.
- Market Frankford Subway Line.
- Broad Ridge Spur Subway Line.
- Regional Rail Routes.

**New Jersey Transit**

- Market Street Bus Routes.

**PATCO**

- High Speed Line Subway.

From the route schedules it was determined that there are approximately 126 buses during the Weekday PM peak period and 87 buses during the Saturday PM peak period that pass directly adjacent to the proposed site via Market, Chestnut, 8<sup>th</sup> and 9<sup>th</sup> Streets. Accessible from the 8<sup>th</sup> Street Station, located at the corner of Market Street and 8<sup>th</sup> Street, there are approximately 52 subway trains (during the Weekday PM peak period) and 22 subway trains (during the Saturday PM peak period), that run on the Market Frankford Subway, Broad Ridge Spur Subway and PATCO High Speed Lines.

The SEPTA Market East regional rail station is located at Market Street and 11<sup>th</sup> Street and is within the 10 walking radius to the proposed site. There are approximately 40 trains during the weekday PM peak period and 25 trains during the Saturday PM peak periods that pass through the Market East Station to and from the Philadelphia suburbs via the SEPTA regional rail system.

In total there are approximately 218 and 134 transit options, by various modes (surface transportation, subway and light rail) that are directly accessible from the proposed site or within the 10 minute walking radius, during the Weekday PM and Saturday PM peak periods, respectively.

A summary of the Transit Trips are provided in **TABLE 1**. The SEPTA, PATCO, and Amtrak service routes in relation to the proposed site are illustrated in **FIGURE 6**. SEPTA, PATCO, and tour route maps are provided in **APPENDIX A**.

TABLE 1: TRANSIT TRIPS  
PUBLIC TRANSPORTATION SERVICE PROVIDERS

Service Provider	Street / Service Line	Type	Route Number(s)	TRANSIT TRIPS (In vicinity of the proposed Site)				
				Weekday PM Peak Hour		Saturday PM Peak Hour		
				# Of Trips, Direction	Frequency In Minutes	# Of Trips, Direction	Frequency In Minutes	
SEPTA	Market Street	Bus	17	14 EB/14 WB	5	6 EB/6 WB	10	
			33	9 EB/9 WB	6	2 EB/2 WB	34	
			44	5 EB /5 WB	10	2 EB/2 WB	30	
			48	-	-	6 EB/-	10	
			62	-/3 WB	20	-/-	-	
	8th / 9th Streets		47m	3 NB/-	20	-/-	-	
	8th / 7th Streets		61	5 NB/5 SB	10	4 NB/4 SB	20	
	Chestnut / Walnut Streets		47	No Service	-	5 NB/5 SB	10	
			9	5 EB/5 WB	14	2 EB/2 WB	30	
			21	8 EB/8 WB	8	10 EB/10 WB	10	
			38	4 EB/4 WB	17	2 EB/2 WB	30	
	Market Frankford Line Broad Ridge Spur		Subway	42	8 EB/8 WB	8	6 EB/6 WB	10
				NA	10 EB/10 WB	6	6 EB/6 WB	10
PATCO	High Speed Line	Subway	NA	8 NB/8 SB	7	3 NB/3 SB	20	
			NA	10 EB/6 WB	10	4 EB/4 WB	15	
NJ Transit	Market Street	Bus	406	4 WB	30	1 WB	-	
			409, 417, 418	4 WB	40	1 WB	-	
			401, 402, 410, 412	8 WB	10	3 WB	20	
SEPTA	Regional Rail	Light Rail	Varies	20 EB/21 WB	4	13 EB/12 WB	3	

Note: Direction = NB - Northbound, SB - Southbound, EB - Eastbound, WB - Westbound.

#### Existing Roadway Facilities

Market Street (SR 2004) is a two-way, primary arterial that runs in a general east/west direction, with three eastbound and two westbound through lanes. The eastbound and westbound right turn lanes are designated as buses/bicycles and right turns only. There is no on-street parking on Market Street and the posted speed limit is 25 miles per hour. Chestnut Street (SR 3008) is one-way roadway that runs in the general eastbound direction with two travel lanes and one parallel parking lane on the northern side of the roadway. The southern travel lane of Chestnut Street is a dedicated bus/bicycle-only lane. The posted speed limit on Chestnut Street is 25 mph.

**7<sup>th</sup> Street** is a one-way, local roadway that runs in the general northbound direction, with two through lanes. On-street parking is permitted on the west side of 7<sup>th</sup> Street, from Chestnut Street to Market Street. The speed limit on 7<sup>th</sup> Street, in the vicinity of the proposed site, is not posted.

**8<sup>th</sup> Street** is a one-way, local roadway that runs in the general southbound direction, with two through lanes. On-street parking is permitted on the west side of 8<sup>th</sup> Street, from Market Street and Ranstead Street and parking is prohibited from Ranstead Street to Chestnut Street. The speed limit on 8<sup>th</sup> Street, in the vicinity of the proposed site, is not posted.

**9<sup>th</sup> Street** is a one-way, local roadway that runs in the general northbound direction, with two through lanes. On-street parking is permitted on the east side of 9<sup>th</sup> Street, from Chestnut Street to Market Street. The speed limit on 9<sup>th</sup> Street, in the vicinity of the proposed site, is not posted.

The following signalized intersections were analyzed for existing and future capacity as part of this study:

- **Market Street (SR 2004) and 7<sup>th</sup> Street** - At the signalized intersection with Market Street, 7<sup>th</sup> Street has two, one-way northbound travel lanes. There is on-street parking, along the western side of 7<sup>th</sup> Street in the northbound direction. The speed limit on 7<sup>th</sup> Street is not posted.
- **Market Street (SR 2004) and 8<sup>th</sup> Street** - At the signalized intersection with Market Street, 8<sup>th</sup> Street has two, one-way southbound travel lanes. There is no parking along 8<sup>th</sup> Street north of Market Street. South of Market Street there is on-street parking along the western side of 8<sup>th</sup> Street. The speed limit on 8<sup>th</sup> Street is not posted.
- **Market Street (SR 2004) and 9<sup>th</sup> Street** - At the signalized intersection with Market Street, 9<sup>th</sup> Street has two, one-way northbound travel lanes. There is on-street parking, along 9<sup>th</sup> Street in the northbound direction approaching Market Street. There is no on-street parking along 9<sup>th</sup> Street, north of Market Street. The speed limit on 9<sup>th</sup> Street is not posted.
- **Chestnut Street (SR 3008) and 7<sup>th</sup> Street**. The intersection of Chestnut and 7<sup>th</sup> Streets is a two-way signalized intersection. At the intersection with 7<sup>th</sup> Street, the northern travel lane of Chestnut Street operates as a shared through/left turn lane. 7<sup>th</sup> Street is one-way northbound, containing two travel lanes and one parallel parking lane on the western side of the roadway. At Chestnut Street, the eastern travel lane operates as a shared through/right turn lane.
- **Chestnut Street (SR 3008) and 8<sup>th</sup> Street** - The intersection of Chestnut and 8<sup>th</sup> Streets is a two-way signalized intersection. At the intersection with 8<sup>th</sup> Street, the northern travel lane operates as a shared through/left turn lane. 8<sup>th</sup> Street is one-way southbound, containing two travel lanes and one parallel parking lane on the western side of the roadway. At Chestnut Street, the eastern travel lane operates as a shared through/left turn lane.
- **Chestnut Street (SR 3008) and 9<sup>th</sup> Street**. The intersection of Chestnut and 9<sup>th</sup> Streets is a two-way signalized intersection. At the intersection with 9<sup>th</sup> Street, the northern travel lane operates as a shared through/left turn lane. 9<sup>th</sup> Street is one-way northbound, containing two travel lanes and one parallel parking lane on the eastern side of the roadway. At Chestnut Street, the eastern travel lane operates as a shared through/right turn lane.

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### Existing Traffic Volumes

According to Pennsylvania Department of Transportation, 2011 Traffic Volume Map (dated November 2012) for Philadelphia County, the two-directional Annual Average Daily Traffic volume on Market Street (SR 2004) in the vicinity of the site is 16,000 vehicles per day (between 8<sup>th</sup> and 9<sup>th</sup> Streets).

Manual turning movement counts were conducted at the study intersections using hand-held electronic count boards. The counts were conducted during Weekday PM and Saturday PM peak hour periods from 3:00 PM to 8:00 PM on October 19<sup>th</sup> and 20<sup>th</sup>, 2012 and January 11<sup>th</sup> and 12<sup>th</sup>, 2013.

The existing turning movement traffic volumes for the intersections within the study area are illustrated on **FIGURE 7**. Copies of the manual traffic count data are provided in **APPENDIX B**.

### Existing Levels of Service/Queue Analysis

The performance of the study intersections under existing conditions was evaluated through a qualitative measure of operating conditions called Levels of Service. Six levels of Service (LOS) are defined with letter designations from 'A' to 'F'. Level of Service 'C' or better is considered acceptable, with a threshold of Level of Service 'D' in urban areas. Levels of Service are determined through analysis procedures outlined in the 2010 *Highway Capacity Manual* (Transportation Research Board, Washington, D.C.).

Levels of Service for signalized intersections are based on average delay experienced by motorists passing the intersection. The delay is based on the results of the capacity analysis (rate of demand flow to capacity) and other important variables such as quality of progression, cycle length, and ratio of green time. Level of Service Criteria is provided in **APPENDIX C**. It should be noted that all intersections included in this study are signalized intersections. Copies of the existing traffic signal permit plans were obtained from the City of Philadelphia, and are provided in **APPENDIX D**. Field observations were conducted, at the study intersections, to verify the existing traffic signal, phasing, cycle lengths, green times and clearance intervals. The field verified timings were utilized to evaluate the operation of the intersections.

The operational analyses of the study intersections under all conditions were performed using *Synchro* (Version 8.0, build 803) software. Based upon the output of the *Synchro* analyses, all of the study intersections currently operate at an overall intersection level of service of B or better during the Weekday PM and Saturday PM peak periods. The current delays range from 6.3 seconds for the eastbound approach at 8<sup>th</sup> and Market Street in the Saturday PM peak to 25.1 seconds for the northbound approach at 7<sup>th</sup> and Market Street in the Friday PM peak.

A summary Existing Condition Levels of Service data and the 95<sup>th</sup> percentile queue lengths of all the study intersections are provided in **TABLE 2** and illustrated in **FIGURE 8**. Detailed outputs of the 2012 "Existing" conditions analyses are provided in **APPENDIX E**.

**TABLE 2: LEVEL OF SERVICE SUMMARY  
EXISTING 2012 CONDITIONS**

Intersection		FRIDAY PM PEAK HOUR			SATURDAY PM PEAK HOUR			Storage Capacity (Feet)
		Delay (Secs)	LOS	95th % (Feet)	Delay (Secs)	LOS	95th % (Feet)	
7th Street & Market Street	Overall Intersection	18.8	B	-	14.8	B	-	-
	EB Thru	17.5	B	277	14.6	B	213	450
	WB Thru/Right	9.0	A	58	9.0	A	60	450
	NB Left/Thru/Right	25.1	C	196	19.8	B	125	565
7th Street & Chestnut Street	Overall Intersection	15.2	B	-	13.5	B	-	-
	EB Thru/Left	16.7	B	138	14.4	B	128	450
	NB Thru/Right	13.7	B	108	12.5	B	76	285
8th Street & Market Street	Overall Intersection	12.9	B	-	11.1	B	-	-
	EB Thru/Right	8.5	A	83	6.3	A	36	450
	WB Thru	19.8	B	m236	15.8	B	172	450
	SB Left/Thru/Right	14.8	B	115	14.5	B	107	750
8th Street & Chestnut Street	Overall Intersection	8.6	A	-	7.5	A	-	-
	EB Thru/Right	9.4	A	71	7.7	A	41	450
	SB Left/Thru	8.0	A	62	7.3	A	43	565
9th Street & Market Street	Overall Intersection	13.0	B	-	11.9	B	-	-
	EB Thru	16.7	B	202	14.5	B	154	450
	WB Thru/Right	9.8	A	99	11.0	B	77	450
	NB Left/Thru/Right	10.1	B	72	9.2	A	54	565
9th Street & Chestnut Street	Overall Intersection	15.1	B	-	14.0	B	-	-
	EB Thru/Left	16.5	B	170	14.8	B	135	450
	NB Thru/Right	14.0	B	115	13.4	B	101	285

#### Crash Analysis

Crash histories, engineering extracts, summary and resume pages for the length of the affected area were requested from PennDOT's Bureau of Highway Safety and Traffic Engineering and the City of Philadelphia. Both the PennDOT and City data represents the five year period from 2007 to 2011 inclusive and is the most recent data available from both agencies at the time of preparation of this report. The information provided is covers the approaches and intersections of Market Street (SR 2004) and Chestnut Street (SR 3008) with 7<sup>th</sup> Street, 8th Street and 9th Street (6 intersections total).

The engineering extract summary from PennDOT classifies accident data into various categories. Accidents are broken down by year, roadway conditions, time of day, type of vehicle, severity of the accident, month and probable cause among many other categories. For each category, data is presented by number of vehicles per year and by the percentage of total vehicles in the time frame. An itemization of all PennDOT reportable accidents by location, type and severity is provided in APPENDIX G. The engineering extract summaries from the City of Philadelphia provide similar information to PennDOT, but in a different format. Philadelphia

also includes Non-Reportable crashes (minor property damage only – no death, injury or towing required). The non-reportable crashes were not analyzed as part of this study.

The results of the crash analysis for the study period show that the vast majority of crashes involved pedestrians. The analysis also shows that driver error, such as too fast for conditions, running red light, driver distracted and turning from the wrong lane were typically the contributing action. Environmental conditions (daylight/dark, dry/wet etc.) were not reported as contributing factors. Other than generally driver error being the fault, there were no other discernible patterns discovered.

The traffic signals are timed correctly for vehicular volumes and pedestrian crossings. Pavement markings and pavement are in adequate condition. Continued enforcement, driver education and pedestrian education are the only recommended actions to improve safety and reduce crash rates at these locations.

## **FUTURE NO BUILD TRAFFIC CONDITIONS**

### **Programmed Roadway Improvements**

For the purposes of this study, and based on recent traffic studies performed by Pennoni in close proximity of the proposed casino site, it is our assumption for this TIS that there are no Programmed Roadway Improvements projects within the study area.

### **No Build Traffic Volumes**

In order to account for general traffic growth in the area, an annual background growth rate is typically applied to existing traffic volumes on the study area roadways. An annual background growth rate of 0% per year has been established by PennDOT's *Bureau of Planning and Research* for urban, non-interstate roadways in the study area. A copy of the documentation on annual growth rates is provided in **APPENDIX F**.

Traffic volumes associated with specific developments in the study area are typically added to the background traffic to determine the opening year (2016) and horizon (2021) "pre-development" traffic volumes. According to information from the Philadelphia Planning Commission, there are no planned developments within the study area. Therefore, given PennDOT's 0% annual growth rate, results for analysis of the 2016 and 2021 No Build conditions are identical and are reported concurrently.

The 2016 and 2021 No Build peak hour traffic volumes are illustrated in **FIGURE 9**.

### **No Build Levels of Service/Queue Analysis**

Operations of the study intersections during the peak hours were evaluated for the No Build traffic scenario. **TABLE 3** provides a summary of the results of the No Build analyses which is illustrated in **FIGURE 10**. It should be noted that because of the 0% growth within the City of Philadelphia, the outputs for the 2016 No Build condition are the same as the 2021 No Build condition.

Based upon the output of the *Synchro* analyses, all of the study intersections will operate at an overall intersection level of service of B or better during the Weekday PM and Saturday PM peak periods under future no build conditions. The delays range from 6.3 seconds for the eastbound approach at 8<sup>th</sup> and Market Street in the Saturday PM peak to 25.1 seconds for the northbound approach at 7<sup>th</sup> and Market Street in the Friday PM peak.

Detailed outputs of the 2016 and 2021 "No Build" conditions analyses are provided in **APPENDIX H**.

TABLE 3: LEVEL OF SERVICE SUMMARY  
2016, 2021 NO BUILD CONDITIONS

Intersection		FRIDAY PM PEAK HOUR			SATURDAY PM PEAK HOUR			Storage Capacity (Feet)
		Delay (Secs)	LOS	95th % (Feet)	Delay (Secs)	LOS	95th % (Feet)	
7th Street & Market Street	Overall Intersection	18.8	B	-	14.8	B	-	-
	EB Thru	17.5	B	277	14.6	B	213	450
	WB Thru/Right	9.0	A	58	9.0	A	60	450
	NB Left/Thru/Right	25.1	C	196	19.8	B	125	565
7th Street & Chestnut Street	Overall Intersection	15.2	B	-	13.5	B	-	-
	EB Thru/Left	16.7	B	138	14.4	B	128	450
	NB Thru/Right	13.7	B	108	12.5	B	76	285
8th Street & Market Street	Overall Intersection	12.9	B	-	11.1	B	-	-
	EB Thru/Right	8.5	A	83	6.3	A	36	450
	WB Thru	19.8	B	m236	15.8	B	172	450
	SB Left/Thru/Right	14.8	B	115	14.5	B	107	750
8th Street & Chestnut Street	Overall Intersection	8.6	A	-	7.6	A	-	-
	EB Thru/Right	9.4	A	71	7.7	A	41	450
	SB Left/Thru	8.0	A	62	7.3	A	43	565
9th Street & Market Street	Overall Intersection	13.0	B	-	11.9	B	-	-
	EB Thru	16.7	B	202	14.5	B	154	450
	WB Thru/Right	9.8	A	99	11.0	B	77	450
	NB Left/Thru/Right	10.1	B	72	9.2	A	54	565
9th Street & Chestnut Street	Overall Intersection	15.1	B	-	14.0	B	-	-
	EB Thru/Left	16.5	B	170	14.8	B	135	450
	NB Thru/Right	14.0	B	115	13.4	B	101	285

**FUTURE BUILD TRAFFIC CONDITIONS**

The ingress access for the proposed casino's parking garage will be located on the west side of 8<sup>th</sup> Street, with the corresponding egress access onto 9<sup>th</sup> Street (See Figure 1). As 8<sup>th</sup> Street and 9<sup>th</sup> Street are one-way pairs, southbound and northbound, respectively, all casino-related traffic, including valet and trucks, will be entering or exiting via the Market Street intersections with 8<sup>th</sup> and 9<sup>th</sup> Streets. Loading docks will be located inside the entrance to the main complex parking garage, opposite the valet pick-up/by-pass. The ingress and egress points for the additional parking at 733 Chestnut Street will be located on the east side of 8<sup>th</sup> Street and the north side of Chestnut Street. As 8<sup>th</sup> Street is one-way southbound, the majority of casino-related traffic using the 8<sup>th</sup> Street/Chestnut Street garage will be entering via the Market Street intersection with 8<sup>th</sup> Street. As Chestnut Street is one-way eastbound, the majority of traffic exiting the parking at 733 Chestnut Street will be exiting via 8<sup>th</sup> Street and Chestnut Street to 7<sup>th</sup> Street to Market Street.

**Trip Generation**

Development trips were generated for the site based on two main components: the 80,000 GSF Casino (with 3192 gaming positions, buffet, meeting room space) and approximately 30,000 GSF of Quality Restaurants. The number of gaming positions for the Casino is broken down as follows:

- 2400 slot machines
- 30 poker tables (10 seats/table) = 300 gaming positions
- 82 table games (6 seats/table) = 492 gaming positions
- **Total Gaming Positions = 3192**

Projected peak hour trips (per gaming position) for the casino's Friday and Saturday evening peak periods are based on research and information obtained from other casino traffic studies; both within the Philadelphia area and nationally. We have also compared these rates to ITE's latest Trip Generation manual for Casino/Video Lottery Establishments (Land Use Code 473); however, ITE's Land Use description does not exactly match that of this development. For this project, Pennoni recommends using the "SugarHouse" Trip Generation Rates for each proposed gaming position. Projected peak hour trips for the Quality Restaurant uses are based on data provided in ITE's *Trip Generation*, 9<sup>th</sup> edition. (See REFERENCES).

A summary of empirical trip generation data and research for various casinos is shown in TABLE 4.

**TABLE 4: CASINO TRIP GENERATION COMPARISONS**

Source	CASINO TRIP GENERATION / GAMING POSITION					
	WEEKDAY PM PEAK			SATURDAY PM PEAK		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Penn National Hollywood Casino (East Hanover Twp, PA)	45%	55%	0.336	59%	41%	0.424
SugarHouse Casino (Philadelphia, PA)*	43%	57%	0.282	52%	48%	0.282
Philadelphia Park (Bucks County, PA)	52	48	0.358	53	47	0.477
Foxwoods (Philadelphia, PA)	54%	46%	0.55	51%	49%	0.65
Hollywood Casino (Columbus, OH)	53%	47%	0.49	62%	38%	0.56
Mohegan Sun (Connecticut)	-	-	0.35	-	-	0.45
Casino St Charles (St. Louis, MO)	54%	46%	0.54	53%	47%	0.64
ITE Land Use #473 (Adjusted from GSF)**	56%	44%	0.306	n/a	n/a	n/a
<b>USE:</b>	<b>43%</b>	<b>57%</b>	<b>0.282</b>	<b>52%</b>	<b>48%</b>	<b>0.282</b>

\* Based on actual count data obtained by Pennoni, October 2010      \*\*n/a = Not Available

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**Multi-Use Development Internal Trip Reductions**

The overall trip generation for the site considers trip reduction resulting from internal trips within the multi-use development. The internal trip reductions were applied using ITE internal trip reduction methodology as outlined in the *Trip Generation Handbook*. In particular, this study has considered the internal trip generation between the Casino gaming and Quality Restaurant uses. These internal trips will thus reduce the number of external trips entering and exiting the proposed site. Results of the internal trip reduction analysis yields internal capture rates of 9% for the Friday peak hour, and 11% for the Saturday peak hour. The multi-use internal trip reduction calculations and applicable ITE *Trip Generation Handbook* data is included in **REFERENCES**.

**Multi-Modal Trip Reductions**

A reduction in trips was applied to account for increased multi-modal accessibility due the site's Center City location. Based on the research of other casino establishments, the "SugarHouse" casino would most emulate projected trips for MARKET8 when compared to the other casinos listed in **TABLE 4**; casino's that for the most part are outside of Central Business District limits, within suburban locations and/or have limited multi-modal accessibility. Subsequently, the following Multi-Modal splits occur during Weekday PM Peak periods:

- 56% Auto/Limo
- 20% Public Transit (Subway, Light Rail, Bus)
- 11% Taxi
- 8% Private Charter + Casino/Hotel Shuttle
- 5% Pedestrian Traffic (Hotels, Local Venues).

These splits are consistent with those projected "Modes of Arrival" contained within the Philadelphia Gaming Advisory Task Force's "Interim Report of Findings" (See **REFERENCES**). For Saturdays, Pennoni suggests a slightly lower non-vehicular trip reduction as more patrons would tend to drive into the City for leisure activities and transit service is typically less frequent during weekends. For Saturday, the multi-modal split will be assumed to be:

- 65% Auto/Limo
- 10% Public Transit (Subway, Light Rail, Bus)
- 10% Private Charter + Casino/Hotel Shuttle
- 10% Taxi
- 5% Pedestrian Traffic (Hotels, Local Venues).

These rates represent an approximate 15% and 10% reduction in overall vehicular Trip Generation for Weekday PM and Saturday PM Peaks, respectively, when compared to empirical Trip Generation data collected by Pennoni for Sugarhouse Casino (See **REFERENCES**). Note, a reduction in modes of arrival for a Penn's Landing versus a Center City casino site reflects a 15% decrease in Auto traffic for Center City; according to the aforementioned Philadelphia Gaming Advisory Task Force's interim report. These vehicular trip reduction assumptions are reflected in **TABLE 5**.

These reductions account for an assumed increase in pedestrian and subway traffic due to the CBD location of the proposed facility and closer proximity to Transit hubs and hotels. As noted in a recent *Transportation & Access* study commissioned by the Center City District and Central Philadelphia Development Corporation, "The combined average weekday number of passengers traveling to and from Center City by SEPTA, PATCO and NJ Transit in 2011 increased to the highest number in over a decade". Again, as noted in the aforementioned "Existing Conditions" section of this study:

- There are approximately 126 bus and 87 buses that pass directly adjacent to the proposed site, via Market, Chestnut, 8<sup>th</sup> and 9<sup>th</sup> Streets, during the Weekday PM and Saturday PM peak periods, respectively.
- Transit accessibility from the 8<sup>th</sup> Street Station, located at the corner of Market Street and 8<sup>th</sup> Street, is robust given the approximately 52 subway trains (during the Weekday PM peak period) and 22 subway trains (during the Saturday PM peak period), that run on the Market Frankford Subway, Broad Ridge Spur Subway and PATCO High Speed Lines.
- Within a 10 minute walking radius to the proposed site, there are 72 and 80 trains that pass through the Market East station to and from the Philadelphia suburbs via the SEPTA regional rail system, during the Weekday PM and Saturday PM peak periods, respectively.
- In total there are approximately 218 and 124 transit options, by various modes (surface transportation, subway and light rail) that are directly accessible from the proposed site or within the 10 minute walking radius, during the Weekday PM and Saturday PM peak periods, respectively.

Similar modal split assumptions noted above were utilized for a proposed City of Pittsburgh casino location and reviewed by the PA Gaming Control Board; however this location was not in the Central Business District. While the proposed location in Pittsburgh included Light Rail access, HOV lane access/parking, Taxi, Incline (Pedestrians) and vehicular access, the proposed Market East location for MARKET8 is a Transit hub and includes 16 hotels within a fifteen-minute walking distance of the complex (See REFERENCES). Subsequently, these trip reduction assumptions are conservative and less "new" vehicle trips will actually be generated for the proposed casino complex.

TABLE 5 summarizes the anticipated peak hour trips to/from the proposed casino during the Weekday PM and Saturday PM peaks and outlines the reduction in trips due to internal capture and multi-modal transportation use.

**TABLE 5: SITE TRIP GENERATION**

LAND USE DESCRIPTION	TRIP GENERATION					
	WEEKDAY PM PEAK			SATURDAY PM PEAK		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Casino (3192 Gaming Positions @ 0.282 Trips per Gaming Position)	387	513	900	468	432	900
ITE Land Use #931 Quality Restaurants @ 30,000 GSF	168	103	271	191	134	325
<i>Total Estimated Casino Complex Trip Generation</i>	<i>555</i>	<i>616</i>	<i>1171</i>	<i>659</i>	<i>566</i>	<i>1225</i>
Multi-Use Internal Trip Reductions (-9% Friday PM / -11% Saturday PM)	-55	-55	-110	-65	-65	-130
<i>Total External Trips After Internal Trip Reductions</i>	<i>500</i>	<i>561</i>	<i>1061</i>	<i>594</i>	<i>501</i>	<i>1095</i>
Trip Reduction due to Non-Vehicular Modes of Travel (-15% Friday PM / -10% Saturday PM)	-75	-84	-159	-59	-50	-110
<b>NET Estimated MARKET8 External Vehicle Trips</b>	<b>425</b>	<b>477</b>	<b>902</b>	<b>535</b>	<b>451</b>	<b>986</b>

**As - Of - Right Trip Generation Comparison**

In order to assess the potential traffic impact from a trip generation perspective in comparison to the proposed casino use, we have generated trips for the site based on the current zoning and potential build out. Given the allowable land uses for this zoning, this site would have the potential to develop approximately 1,250,000 SF of office space and 60,000 SF of retail space. Table 6 below shows potential site trip generation if the site was developed with office and retail uses instead of the proposed Casino.

**TABLE 6: AS - OF - RIGHT TRIP GENERATION COMPARISON**

LAND USE DESCRIPTION	TRIP GENERATION					
	WEEKDAY PM PEAK			SATURDAY PM PEAK		
	IN	OUT	TOTAL	IN	OUT	TOTAL
ITE Land Use #710 - General Office (1,250,000 sf)	251	1227	1478	290	246	538
ITE Land Use #620 - Shopping Center (60,000 sf)	204	221	425	326	301	627
<i>Total Estimated As-of-Right Trip Generation</i>	455	1448	1903	616	549	1165
Trip Reduction due to Non-Vehicular Modes of Travel (-15% Friday PM / -10% Saturday PM)	-68	-217	-285	-62	-55	-117
<b>NET Estimated As-of-Right External Vehicle Trips</b>	<b>387</b>	<b>1231</b>	<b>1618</b>	<b>554</b>	<b>494</b>	<b>1049</b>

Note: No reduction was applied for internal trips as internal capture rate is negligible for these uses/size ratios per ITE methodology.

Comparing the net "As-of-Right" vehicle trips to those for the proposed casino shows a significant increase in traffic if the proposed Market East site were to be developed per existing land use development guidelines. Specifically, 79% more traffic would typically be generated during the weekday PM Peak Hour (versus MARKET8 traffic) and 6% more traffic would be generated during the typical Saturday Peak Hour.

**Trip Distribution and Assignment**

The new vehicle trips generated by the site development were distributed and assigned to the roadway network based on a review of existing count data, regional traffic routes, and existing travel patterns. Detailed traffic distribution percentages and volumes for the proposed development are illustrated in FIGURE 11. A generalized summary of the anticipated distribution of site traffic is shown in TABLE 7.

TABLE 7: ENTER/EXIT DISTRIBUTION OF SITE TRAFFIC

Direction of Approach	
From the North on 8 <sup>th</sup> Street	67%
From the West on Market Street	16%
From the West on Chestnut Street	5%
From the East on Walnut Street	5%
From the South on 9 <sup>th</sup> Street	5%
Direction of Departure	
To the North on 9 <sup>th</sup> Street	67%
To the West on Market Street	16%
To the East on Market Street	5%
To the East on Chestnut Street	5%
To the South on 9 <sup>th</sup> Street	5%

#### Build Traffic Volumes

The traffic volumes generated by the proposed site were added to the 2016 and 2021 No Build traffic volumes to provide the Build traffic volumes. These traffic volumes are illustrated on FIGURE 12 for the weekday morning and afternoon peak hours, respectively. As PENNDOT has established a 0% per year growth rate in Philadelphia County, volumes for the 2016 and 2021 Build conditions are identical and are reported concurrently.

#### Build Levels of Service/Queue Analysis

Based upon the output of the Synchro 8.0 analysis, it is predicted that all of the study intersections will operate at an overall intersection level of service of B or better during the 2016 and 2021 Build, Weekday PM and Saturday PM peak period conditions. Analysis results show only minor increase in approach delays with additional site traffic.

In order to offset the impact of the proposed site and mitigate any queuing issues, we recommend the following mitigation measures.

- Traffic signal timing optimization (adjustments to the split times, no offset or cycle length timing changes are recommended to maintain traffic progression).
- Restrict on-street parking along the east side of 9<sup>th</sup> Street to provide a separate north bound right turn lane at the intersection with Market Street for approximately 100 feet.

Results of the 2016 and 2021 Build conditions analysis are summarized in TABLE 8 and illustrated in FIGURE 13. Results of the 2016 and 2021 Build conditions "with mitigation" analysis are summarized in TABLE 9 and also illustrated in FIGURE 13. Detailed outputs of the 2016 and 2021 "Build" conditions analyses are provided in APPENDIX I. Detailed outputs of the 2016 and 2021 "Build w/Mitigation" conditions analyses are provided in APPENDIX J.

TABLE 8: LEVEL OF SERVICE SUMMARY - 2016, 2021 BUILD CONDITIONS

Intersection		FRIDAY PM PEAK HOUR			SATURDAY PM PEAK HOUR			Storage Capacity (Feet)
		Delay (Secs)	LOS	95th % (Feet)	Delay (Secs)	LOS	95th % (Feet)	
7th Street & Market Street	Overall Intersection	14.2	B	-	15.8	B	-	-
	EB Thru	15.3	B	104	15.5	B	221	450
	WB Thru/Right	11.6	B	68	9.6	A	62	450
	NB Left/Thru/Right	13.9	B	152	20.1	C	135	565
7th Street & Chestnut Street	Overall Intersection	15.4	B	-	13.5	B	-	-
	EB Thru/Left	10.8	B	180	11.3	B	165	450
	NB Thru/Right	21.2	C	134	16.6	B	90	285
8th Street & Market Street	Overall Intersection	14.0	B	-	13.7	B	-	-
	EB Thru/Right	11.1	B	m129	9.7	A	m85	450
	WB Thru	13.3	B	129	18.9	B	185	450
	SB Left/Thru/Right	18.8	B	193	15.6	B	186	750
8th Street & Chestnut Street	Overall Intersection	10.9	B	-	10.5	B	-	-
	EB Thru/Right	9.2	A	61	8.2	A	42	450
	SB Left/Thru	12.1	B	133	11.8	B	116	565
9th Street & Market Street	Overall Intersection	17.6	B	-	16.6	B	-	-
	EB Thru	19.9	B	236	15.8	B	182	450
	WB Thru/Right	11.3	B	107	12.9	B	117	450
	NB Left/Thru/Right	18.9	B	#175	19.5	B	#163	565
9th Street & Chestnut Street	Overall Intersection	15.8	B	-	14.7	B	-	-
	EB Thru/Left	13.8	B	161	13.5	B	136	450
	NB Thru/Right	17.4	B	138	15.6	B	121	285
8th Street & Site Entrance	SB Thru/Right	0.0	A	0	0.0	A	0	-
8th Street & Parking Garage	WB Left	29.8	D	103	32.0	D	107	-
	SB Left/Thru	1.3	A	8	1.5	A	10	-
9th Street & Site Exit	WB Right	12.3	B	57	11.7	B	50	-
	NB Thru	0.0	A	0	0.0	A	0	-

Notes: m - Volume for 95<sup>th</sup> percentile queue is metered by upstream signal.# - 95<sup>th</sup> percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.