

April 5, 2013

Ms. Orla Pease, PE, PTOE
Urban Engineers
530 Walnut Street
Philadelphia, PA 19106

**RE: Wynn Philadelphia
Traffic Impact Assessment Review**

Dear Ms. Pease:

Orth-Rodgers & Associates, Inc. (ORA) on behalf of the PA Gaming Control Board has reviewed the traffic impact study submitted for the proposed casino Wynn Philadelphia by Wynn PA, Inc. The review has been completed with collaboration and feedback from the Pennsylvania Department of Transportation (District 6-0) and the City of Philadelphia.

This review evaluated completeness, consistency and compliance with applicable Department and City Regulations. The review has identified deficiencies that must be addressed in order for our review to continue.

Once the noted deficiencies have been addressed, please return the revised study with a letter indicating how each of the following comments has been addressed, and where each can be found in the report. All correspondence, calculations and data used for completion of the report must also be included in the report. The review comments are listed below:

GENERAL

1. Transportation Impact Study Guidelines

A Transportation Impact Study (TIS), prepared in accordance with Strike-Off Letter 470-09-04 (Policies and Procedures for Transportation Impact Studies) must be submitted by the Applicant. The information submitted by the Applicant does not fully comply with PennDOT's TIS guidelines. A compliant TIS report will require vehicular/pedestrian counts at potentially impacted locations, additional trip generation/distribution methodology, existing/future capacity analysis and recommendations and conclusions. Below are components related to a TIS report (not limited to) that should be included when applicable.

- a. A transportation impact study must be signed and sealed by a professional engineer registered in Pennsylvania.
- b. Include an Executive Summary.
- c. All proposed driveways should be evaluated for capacity, sight distance and queuing.
- d. Include detailed traffic circulation within the proposed site.
- e. Provide a traffic signal warrant analysis for any proposed traffic signal location.
- f. Provide crash data/history for critical intersections/roadway network. A summary of the crash analysis can be included in the report; however, actual crash records should be included

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within the appendix with a confidentiality statement on the cover. It is recommended to separate the crash record appendix from the main TIS report.

- g. Traffic Signal and System Permit plans must be included in the traffic impact study.
- h. Street view photographs and/or aerial photos of the study intersections are preferred.
- i. The trips generated from other proposed developments that may impact the project site study area must also be included in the projected trip analysis.
- j. Include pedestrian distribution to/from venues and provide an access evaluation.
- k. Include an analysis of pedestrian activity at the intersections within the project limits, including the Applicant's proposed accesses, to determine if pedestrians are present. The determination if pedestrians are present must be based on pedestrian counts, a visual inspection of the site to determine if clearly defined walking paths are provided. The results of this analysis must be utilized to determine if and where pedestrian facilities must be provided.
- l. Provide pedestrian capacity analysis following the 2010 HCM guidelines for intersections that are found to be impacted by the increase of pedestrian traffic generated by the casino. Include mitigation improvements for those areas with high pedestrian traffic.
- m. Opening year analysis must be performed for the development. Future analyses must be performed for the horizon year, i.e. 5 years beyond opening year of the development when the first structure is in use and access is constructed to the State roadway. The report must be modified to reflect the opening year and Horizon year analysis for the development.
- n. Queue analyses for all signalized intersections and for unsignalized left-turning lanes must be completed and stated in the report.
- o. Auxiliary lane warrant analysis, in accordance with Strike-Off Letter 470-08-07, must be included for the proposed conditions.
- p. Include gravity model (a graphic is preferred).
- q. Do not use default values on the traffic analysis inputs (saturation flow rates, utilization rates, etc.). Where existing traffic and pedestrian data is collected, actual values should be used.
- r. A Level-of-Service Matrix per lane group must be provided. Including numerical delay value.
- s. The site accesses must function at a minimum level-of-service D for urban areas. Mitigation measures or restricted movements from deficient operating locations may be required to meet guidelines.
- t. All HCS and/or Synchro analysis worksheets and electronic files must be included for review.
- u. All calculations and methodology must also be included in the report to justify the analysis and results.
- v. The report should include conclusions and recommendations. Please note that the Developer/Applicant is responsible for mitigating all impacts resulting from the proposed development, unless there is another project under construction that will provide mitigation.
- w. If the recommendations include the elimination of existing on-street metered parking spaces, a revenue loss evaluation should also be provided.
- x. Include taxi and bus operation/circulation to/from the site.

2. Trip Generation/Distribution & Mode of Arrival Methodology

Trip Rate (trip per gaming position) should be based on the average of no less than three existing casinos of comparable design and location. The three casinos listed below are valid examples of existing casinos located in metropolitan areas. If trip rates are based on a different methodology please provide justification.

- a) SugarHouse Casino (Philadelphia, PA)
- b) Casino St. Charles (St. Louis, MO)
- c) Hollywood Casino (Columbus, OH)

3. The “Executive Summary of the Interim Report of Findings” by the Philadelphia Gaming Advisory Task Force document should be utilized as a guide to develop trip methodologies. Data is provided for casino visitation patterns by time of day (Page 15, Table 3) and mode of arrival splits (Page 16, Graph 2). All analysis, calculations and back up data must be included in the report.

4. Time of Day Requirement

The Philadelphia Gaming Advisory Task Force document states that a casino’s Friday visitation peak time is different from the Friday evening rush hour time (commuter peak). The TIS report should analyze both critical weekday and weekend peak time periods. Therefore, the following should be analyzed:

- a) Friday evening commuter peak hour (between 4 – 6 PM)
- b) Friday casino peak hour (between 7 - 10 PM)
- c) Saturday casino peak hour

TRAFFIC IMPACT STUDY

1. With efforts underway to significantly change the existing infrastructure in the area, it will be necessary to use the DVRPC traffic model data to evaluate the major changes in traffic patterns that will occur from the I-95 Infrastructure Projects. The Applicant will be required to demonstrate the impact of the proposed site on the I-95/ Girard Avenue interchange project.

2. In addition to utilizing the DVRPC model (due to the changes in the future traffic patterns based on the I-95 Infrastructure Projects), the applicant should also include the following intersections in the study due to their proximity to the site and potential impacts:

- 1) N. Delaware Avenue and E. Columbia Avenue
- 2) N. Delaware Avenue and E Montgomery Avenue
- 3) N. Delaware Avenue and Richmond Street/Aramingo Avenue
- 4) Richmond Street and E. Girard Avenue
- 5) Richmond Street and E. Cumberland Street
- 6) Richmond Street and E. Lehigh Avenue
- 7) Richmond Street and E. Somerset Street

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- 8) Richmond Street and E. Allegheny Avenue
 - 9) Aramingo Avenue and E. York Street
 - 10) Aramingo Avenue and E. Cumberland Street
 - 11) Aramingo Avenue and I-95 SB On/Off Ramp
 - 12) Any site access points from Richmond Street and N. Beach Street
3. Provide a detail coordination plan for the I-95/ Girard Avenue Project and the proposed Casino site. All intersections studied on this report must include an evaluation with and without the Girard Avenue Project based on the construction schedule for the proposed casino site.
 4. Provide details on any traffic calming measures that might be required or proposed on residential streets (such as Cumberland Street) that are located in the vicinity of the site.
 5. Due to the fact the proposed site and the adjacent neighboring properties share limited access and travel patterns between the Delaware River and I-95, a site access plan in coordination with the neighboring properties should be developed for the proposed site and the area between Richmond Street and North Beach Street (i.e. Barry Homer Digital Printing, Liberty Supply Company and ICS Corporation). No adjacent properties shall be land locked and proper access must be maintained. Evaluate and research future uses and development of these adjacent sites. If other sites are projected to be developed or there are additional plans proposed, the information must be included in the report.
 6. Provide details for a bus terminal area that would be suitable to serve the propose site (similar to the Sugarhouse area terminal). Document any needed pedestrian accommodations linking to the bus terminal area. All Pedestrian facilities will need to meet current ADA regulations.
 7. Provide at least two vehicular access points to the proposed site.

Please note that a response letter is required indicating how each of the following comments has been addressed, and where each can be found in the report. All correspondence, calculations and data used for completion of the report must also be included in the report.

Additional comments may follow upon review of the resubmitted report. If you have any questions pertaining to the technical aspects of this review, or if you are uncertain about how to address any portion of the indicated comments, please contact Francis Hanney, Traffic Services Manager at PA Department of Transportation District 6-0 at 610-205-6560 or at ghanney@state.pa.us for assistance or comment clarification.

Respectfully,



Derrick Kennedy
Senior Project Manager

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cc:

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