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LETTER OF TRANSMITTAL

Date:	7/18/2013	Job No.	0284
Attention:			
RE : Wynn Casino Resort Traffic Impact Study			

To: **Francis Hanney**

 PennDOT District 6-0

 7000 Geerdes Boulevard

 King of Prussia, PA 19406

We are Sending You Attached Under Separate Cover Via _____ The Following Items:

Shop Drawings Prints Plans Samples Specifications
 Copy of Letter Change Order Comment Responses, Reports, and Binders

Copies	Date	No.	Description
1	7/18/2013	1	Response to Comments
3	7/18/2013	1	Bound Wynn Casino Traffic Impact Study Report
3	7/18/2013	1	Binder including Appendix A-C, E-K
3	7/18/2013	1	Bound Appendix D - Confidential Safety Study

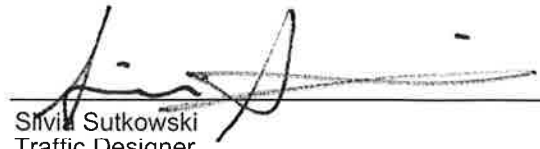
These are Transmitted as Checked Below:

For Approval Approved as Submitted Resubmit _____ Copies for Approval
 For Your Use Approved as Noted Submit _____ Copies for Distribution
 As Requested Returning for Corrections Return _____ Corrected Prints
 For Review and Comment _____
 For Bids Due _____ Prints Returned After Loan to Us

Remarks: Should you need any additional copies of the above or need additional clarification, please call me at (215) 922-8080 x1128.

Copy To: Elaine Elbich, FILE

Route To: _____

Signed 
 Silvia Sutkowski
 Traffic Designer

If enclosures are not as noted, Please notify us at once.



Resolution Summary

Pennsylvania Department of Transportation
Engineering District 6-0
7000 Geerdes Boulevard
King of Prussia, PA 19406-1525
Phone: 610-205-6661



Name of Project: Wynn Casino
Submission: Traffic Impact Study

Designer: Urban Engineers
Submission Date: July 18, 2013

REVIEWER INFORMATION		COMMENTS	DESIGNER RESPONSE
Engineering District 6-0 DATE: April 5, 2013 Is a resubmission required?: YES			
1. GENERAL		A transportation Impact Study (TIS), prepared in accordance with Strike-of-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	Will Comply: See report cover
		b) Include an executive summary	Will Comply See Page 1

	<p>c) All proposed driveways should be evaluated for capacity, sight distance and queuing</p> <p>d) Include detailed traffic circulation within the proposed site</p> <p>e) Provide a traffic signal warrant analysis for any proposed traffic signal locations</p> <p>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 within the appendix with a confidentiality statement on the cover. It is recommended to separate the crash record appendix from the main TIS report.</p> <p>g) Traffic Signal and system permit plans must be included in the traffic impact study</p> <p>h) Street view photographs and/or aerial photos of the study intersections are preferred</p> <p>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</p> <p>j) Include pedestrian distribution to/from venues and provide an access evaluation</p>	<p>Will Comply See sections XI, XII, XIII</p> <p>Will Comply See section VIII</p> <p>Will Comply See section X</p> <p>Will Comply See section VII and Appendix D</p> <p>Will Comply See Appendix C</p> <p>Will Comply See Figures 1 through 15</p> <p>Will Comply See section VIII</p>
		<p>Pedestrian Distribution was based on DVRPC Report "I-95 Expressway Interchanges Sections GIR/VINE and AFC Traffic Study – Supplement Number 2." See Section XIV</p>
	<p>k) Include an analysis of pedestrian activity at the intersections within the project limits, including the Applicants proposed accesses, to determine if pedestrians are present. The determination if pedestrians are present</p>	<p>Will Comply See Section XIV</p>

	<p>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.</p>	
<p>l)</p>	<p>Provide pedestrian capacity analysis following the 2010 HCM guidelines for the 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.</p>	<p>Will Comply See section XIV</p>
<p>m)</p>	<p>Opening year analysis must be performed for the development. Future analysis 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</p>	<p>Will comply See section XII, Appendices B and J</p>
<p>n)</p>	<p>Queue analysis for all signalized intersection and for unsignalized left-turning lanes must be completed and stated in the report.</p>	<p>Will comply See section XIII</p>
<p>o)</p>	<p>Auxiliary lane warrant analysis, in accordance with Strike-off-letter 470-08-07, must be included for the proposed conditions.</p>	<p>Will comply See section IX</p>
<p>p)</p>	<p>Include gravity model (a graphic is preferred)</p>	<p>Following previous guidance, the trip distribution used in this report, is based on the information provided by the PGCB and the DVRPC modeling performed as part of the Girard Avenue Interchange Project in</p>

	<p>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</p> <p>r) A level of service Matrix per lane group must be provided. Including numerical delay value</p> <p>s) The site accesses must function at a minimum level of service D for Urban areas. Mitigation measures or restricted movements from deficient operations locations may be required to meet guidelines.</p> <p>t) All HCS and/or Synchro analysis worksheets and electronic files must be included for review</p> <p>u) All calculations and methodology must also be included in the report to justify the analysis and results.</p> <p>v) The report should include conclusions and recommendations. Please note that the Developer/Applicant is responsible for mitigating all impact resulting from the proposed development, unless there is another project under construction that will provide mitigation</p> <p>w) If the recommendations include the elimination of existing on-street metered parking spaces, a revenue loss evaluation should also be provided</p>	<p>place of a separate gravity model as the DVRPC model accounted for the development of a Casino on Delaware Avenue. See section VIII</p> <p>Will comply See section XII and Appendix B</p> <p>Will comply See section XII and XV</p> <p>Will comply See section XII</p> <p>Will comply See Appendix B</p> <p>Will comply Throughout the report</p> <p>Will comply See section XV</p> <p>Will comply – there are no metered parking spaces in the project area</p>
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	x) Included taxi and bus operation/circulation to/from the site.	Taxis will use the main driveway to drop off at a main Porte Cochere then circulate off-site. Transit operations are shown in Section XIV of the report.
2. Trip Gen/Dist.	<p>Trip rate (trip per gaming positions) 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 location in metropolitan areas. If trip rates are based on a different methodology please provide justification.</p> <ul style="list-style-type: none"> a) Sugarhouse Casino (Philadelphia, PA) b) Casino St. Charles (St. Louis, MO) c) Hollywood Casino (Columbus, OH) 	<p>Will comply. Actual count data for post construction of the Hollywood Casino was not available. Counts for Parx Casino in Bensalem were used to identify trip generation for a third location. See section VIII for details</p>
3. Phila. Gaming Ad.	<p>The "Executive Summary of the Interim Report of Findings" by the Philadelphia Gaming Advisory Task Force documents 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.</p>	<p>Will comply See Appendix F</p>
4. Time of day requirement	<p>The Philadelphia Gaming Task Force document states that a casino's Friday visitation peak time is different from the Friday rush hour time (commuter peak). The TIS reports should analysis both critical weekday and weekend peak time periods. Therefore, the following should be analyzed:</p> <ul style="list-style-type: none"> a) Friday evening commuter peak hours (between 4-6PM) b) Friday Casino peak hour (between 7-10PM) c) Saturday casino peak hour 	<p>Will comply See sections V, VIII, XII, XIV</p>

<p>Traffic Impact Study</p> <p>1.</p>	<p>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</p>	<p>Will Comply. The DVRPC Traffic reports and supplements were used to generate the 2021 scenario traffic volumes for five years beyond opening day. See sections III, VIII, XII and Appendix K</p>
<p>2.</p>	<p>In addition to utilizing the DVRPC model (due to the changes in the future traffic patterns based on the I-95 infrastructure projects), the application should also include the following intersections in the study due to their proximity to the site and potential impacts:</p> <ol style="list-style-type: none"> 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 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 on/off ramp 12) Any site access points from Richmond Street and N. Beach Street 	<p>Will Comply Throughout he report</p>

<p>3.</p>	<p>Provide a detail coordination plan for the I-95 Girard Avenue Project and the proposed Casino site. All intersection 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</p>	<p>Will comply Conference calls and e-mail correspondence were held with the GIR project team to coordinate project schedules, and planned improvements. The GR3 and GR4 conditions were incorporated in the report. 2016 opening day scenario included the current improvements already underway but without GR4.</p>
<p>4.</p>	<p>Provide details on any traffic calming measures that might be required or proposed on residential streets (such as Cumberland Street) that are location in the vicinity of the site</p>	<p>Traffic calming measures are not being included at this time. If requested by the neighborhood and approved by the city they will be incorporated into the design.</p>
<p>5.</p>	<p>Due to the fact the proposed site and adjacent neighboring properties share limited access and travel patterns between the Delaware's 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).</p> <p>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</p>	<p>These properties have since been acquired and will be part of the project.</p>

<p>6.</p>	<p>Provide details for a bus terminal area that would be suitable to serve the proposed 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.</p>	<p>Information related to Bus stop and Trolley stop accommodations, along with pedestrian facilities is provided in the report. See section XIII</p>
<p>7.</p>	<p>Provide at least two vehicular access points to the proposed site.</p>	<p>Will comply Two driveways are planned for the development, along with an additional entrance for employees and deliveries.</p>