Stantec Consulting Services Inc.
1500 Spring Garden Suite 1100
Philadelphia PA 19130
Tel: (215) 665-7000
Fax: (215) 665-7001

August 8, 2013
File: 174811017

Attention: Derrick Kennedy
Orth Rodgers and Associates, Inc
301 Lindenwood Drive, Suite 130
Malvern, PA 19355

Dear Mr. Kennedy,

Reference: Live! Casino and Hotel by Stadium Casino, LLC
Response to Review Letter

Stantec has reviewed the comments regarding the Live! Casino and Hotel traffic impact study (TIS) contained in the review letter dated May 23, 2013. In general, Stantec concurs with the comments and has addressed them by conducting a full TIS in accordance with PennDOT guidelines as well as the guidelines contained in the review letter.

The following responses indicate how each comment was addressed.

1. Transportation Impact Study Guidelines

    a. Included on report cover.

    b. Included.

    c. See Section 2.6 for sight distance assessment. Capacity analysis and queuing results are contained in EXHIBITS 8, 9, 10, and 11. Deficiencies are addressed in Section 4.7.

    d. See Section 4.1.

    e. Not Applicable - no new traffic signals were determined to be needed as part of this project.

    f. Crash data is contained in APPENDIX D. A summary of the crash data is presented in Section 2.5 and EXHIBIT 7.

    g. Traffic signal plans supplied by the City of Philadelphia Streets Department are contained in APPENDIX F. Traffic signal plans showing the recommended improvements have not be developed at this time.

    h. See APPENDIX B.

Reference: Live! Casino and Hotel by Stadium Casino, LLC
Response to Review Letter

i. Based on information obtained from the City of Philadelphia, there are no other developments currently proposed for the study area. A background growth rate of 1% per year was applied to address growth of the Naval Yard.

j. See Section 4.3.2.

k. Existing pedestrian volumes were obtained at each study area intersection during the turning movement counts, and are shown on the peak hour volume diagrams. An assessment of existing pedestrian facilities adjacent to the proposed site is included in Section 2.3.

l. The data that was collected for the TIS indicates very low pedestrian activity within the study area during the non-event periods. Furthermore, the proposed casino is unlikely to generate a large amount of pedestrian traffic. A multimodal trip split of 2%, which includes pedestrians, transit, and bicyclists, was assumed in the TIS based on information contained in *Interim Report of Findings* prepared by the Philadelphia Gaming Advisory Task Force (2007). This multimodal split results in less than 40 new pedestrians on the study area network. Therefore, a pedestrian capacity analysis was not conducted because it was determined that the analysis would not yield a result of significance.

   Pedestrian activity between the proposed casino and the stadiums is likely to increase before and after events. However, based on the analysis presented in the TIS, it is likely that the majority of the additional pedestrian trips would be contained to S 10th Street and S Darien Street, with very little additional pedestrian traffic crossing Packer Avenue. Again, a pedestrian capacity analysis was not conducted because the narrow and missing sidewalks along the site frontage would yield a LOS F.

   In lieu of the pedestrian capacity analysis, Stantec conducted an assessment of pedestrian connections to and from the proposed casino site. As a result, recommendations are presented in the TIS that would address the pre- and post-event pedestrian capacity needs, including improving the sidewalks along the site frontages. Other pedestrian amenities, such as pedestrian signal heads, ADA compliant curb ramps and push buttons, and consistent sidewalk treatments, are also recommended to enhance event and non-event pedestrian activity within the area.

m. 2016 opening year and 2021 horizon year analyses were conducted.

n. Queue analysis results are contained within the capacity analysis result matrices (EXHIBITS 8 – 11).

o. Not applicable - no new auxiliary lanes are proposed in the TIS. However, improvements to existing auxiliary lanes are recommended.

p. A gravity model was developed – see Section 4.3.1 and EXHIBITS 21 – 24.

q. The Synchro 8 analysis models were calibrated with a combination of field data, observations, and factors for urban areas recommended in PennDOT Publication 46.

r. See EXHIBITS 8 – 11.

s. See EXHIBITS 8 – 11 and Section 4.7.

t. Synchro 8 worksheets are included in APPENDIX G. A CD containing the Synchro 8 files is included with the TIS document.

u. See report.

v. See Sections 4.7, 5.0, and 6.0.

w. Not applicable.

x. Taxi and bus access/circulation is described in Section 4.1.

2. Trip Generation/Distribution & Mode of Arrival Methodology

The following three locations were used to determine an average trip generation rate for each peak hour, as well as arrival and departure splits:

- SugarHouse Casino (Philadelphia, PA)
- Casino St. Charles (St. Louis, MO)
- Rivers Casino (Pittsburgh, PA)

Field data was collected in June 2013 at SugarHouse and Rivers, while published ITE data was utilized for the Casino St. Charles.

3. The *Executive Summary of the Interim Report of Findings*, developed by the City of Philadelphia Gaming Advisory Task Force (2007), was utilized to develop modal splits.

4. Time of Day Requirements

Stantec has conducted analyses for the recommended peak hours.

TRAFFIC STATEMENT

1. Stantec has complied with the list of study area intersections.

2. Stantec contacted Richard Montanez via phone on 7/23/2013 regarding the potential impact of casino traffic on travel patterns within the stadium complex area before events. Mr. Montanez verified that the

proposed trip distribution was acceptable and that access to the casino sites, as shown in the trip distribution diagrams, would not be impacted by event related street closures for events at Citizens Bank Park or the Wells Fargo Center. Mr. Montanez also noted the Eagles games would present a larger problem for traffic circulation within the stadium district; however, Eagles games are infrequent and outside the scope of the TIS. Therefore, no additional coordination for event activities was required for the TIS.

3. See Sections 2.3, 4.3.2, and 5.3.

4. Given the extensive nature of the pre-event data collection effort undertaken for this TIS, the Langan Report was not utilized. This TIS includes more recent data regarding traffic volumes and queuing during a pre-Phillies event, which also takes into account recent improvements to signalized intersections within the stadium complex. Furthermore, the long-term recommendations contained within the Langan report were not analyzed from a capacity analysis standpoint. Therefore, integration of the casino volumes within the Langan report for the purposes of assessing the long-term recommendations is not possible.

Regards,

STANTEC CONSULTING SERVICES INC.

George Cressman
Principal
Tel: (215) 665-7146
Fax: (215) 665-7001
George.Cressman@stantec.com

Adam Catherine, PE
Associate
Tel: (856) 234-0800
Fax: (856) 234-5928
Adam.Catherine@stantec.com

c.