# City of Sparks Planning Commission Item

Meeting Date: January 3, 2019

Subject: PCN18-0057 – Consideration of and possible action on a request for a Conditional Use Permit for a Major Recreational Facility (an outdoor concert amphitheater) on a site approximately 2.25 acres in size in the MUD (Mixed Use District – Downtown/Victorian Square) zoning district located at 1040 Victorian Avenue, Sparks, NV. (For Possible Action). This item was continued from the December 6, 2018 Planning Commission meeting

Petitioner: Marnell Gaming, LLC

Recommendation: The Community Services Department recommends approval of PCN18-0057 as submitted and conditioned; see suggested motion below.

Financial Impact: NA

Business Impact (per NRS Chapter 237):

A Business Impact Statement is attached.

- X A Business Impact Statement is not required because
  - X this is not a rule;
    (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A or 278B)

### POSSIBLE MOTION

I move to approve Conditional Use Permit CU18-0013, associated with PCN18-0057, adopting Findings C1 through C5, and the facts supporting these findings as set forth in the staff report, and subject to the **12** Conditions of Approval.

Respectfully submitted,

Armando Ornelas

Karen L. Melby

Armando Ornelas Asst. Community Services Director Karen L. Melby, AICP Development Services Manager

# Planning Case Summary

CASE NUMBER:	PCN18-0057
REQUESTED ACTION(S):	Approval of a Conditional Use Permit to allow a Major Recreational Facility (outdoor concert amphitheater) in the MUD (Mixed Use District – Downtown/Victorian Square) zoning district
PROPERTY OWNER:	Marnell Gaming, LLC
APPLICANT:	Marnell Gaming, LLC
LOCATION:	1040 Victorian Avenue
PARCEL SIZE:	Approximately 2.25 acres
SITE SIZE:	Approximately 2.25 acres
EXISTING ZONING:	MUD (Mixed Use District)
EXISTING LAND USE:	MUD - D/VS (Mixed Use District – Downtown/Victorian Square)
WARD INFORMATION:	Ward 1, Donald Abbott
APPLICABLE REGULATIONS:	SMC 20.05.08 and SMC 20.02.006

# BACKGROUND

This item was continued from the December 6, 2018 Planning Commission meeting.

Only those exhibits that have been revised or newly added to the materials for this case are attached as exhibits to this staff report. Revised or newly added exhibits are identified alphabetically (e.g., "Exhibit A"). The exhibits and attachments provided to the Planning Commission for the December 6, 2018 public hearing for this case are identified numerically (e.g., "Exhibit 1"), and are available on the City of Sparks website at <a href="https://cityofsparks.us/event/sparks-planning-commission-meeting-25/">https://cityofsparks.us/event/sparks-planning-commission-meeting-25/</a>.

This request is for approval of a Conditional Use Permit (CUP) to allow a Major Recreational Facility, specifically an outdoor concert amphitheater, on a site approximately 2.25 acres in size located at 1040 Victorian Avenue (Exhibit 1 - Vicinity Map, 12/6/18 Planning Commission meeting). This site is the former location of the recently demolished Bourbon Square Casino. The site operated as the Silver Club from 1983 to 2001 and as Bourbon Square from 2013 to 2015.

The site is located in the MUD-D/VS (Mixed Use District – Downtown/Victorian Square) zoning district. This zoning district allows Major Recreational Facilities subject to a CUP. Uses that require a CUP are considered permitted uses that may require additional conditions to mitigate possible impacts on surrounding land uses and development.

The definition of a Major Recreational Facility in Sparks Municipal Code (SMC) 20.08.002(A) (Recreational Facility, Major) is:

Large, generally outdoor facilities, such as: outdoor roller or ice-skating rinks, sports stadiums and arenas; amusement and theme parks; racetracks; driving ranges; swimming or wave pools; **entertainment complexes**; **amphitheaters**; drive-in theatres; archery or shooting ranges; riding stables; campgrounds; recreational vehicle parks; miniature golf; golf course, driving ranges, and country clubs, marinas and similar facilities. (Emphasis added.)

The applicant has proposed an 8,598<u>+</u> seat outdoor concert and event venue. Staff determined that this use is substantially similar to the "entertainment complexes" and "amphitheater" uses listed in the Major Recreational Facility definition.

At the December 6, 2018 Planning Commission meeting, City staff recommended that the Planning Commission continue consideration of this agenda item to January 3, 2019, to provide staff time to obtain a review of the acoustic studies submitted by the applicant and Silverwing Development, the owner of adjacent residential property. The review, conducted by Bollard Acoustical Consultants, Inc., is attached (Exhibit B – City's Peer Review of Sound Analyses, referred to hereafter as the "Peer Review").

Following the December 6<sup>th</sup> Planning Commission meeting and subsequent discussions with City staff, the applicant revised its site plan to move the concert stage from the east side to the west side (facing east) of the site. Accompanying this staff report are revised exhibits reflecting this change, as follows:

- Exhibit A.1 Site Layout With Seating Options
- Exhibit A.2 Event Traffic Management Plan
- Exhibit A.3 Applicant's Acoustical Consulting Report

The proposed reorientation of the stage on the site requires the applicant to obtain City approval to use an area of the Victorian Avenue right-of-way situated directly adjacent to the southeast corner of the site. If this request for a CUP is approved, the applicant will have to obtain an exclusive license to occupy City right-of-way (Condition 12). The area covered by the proposed license would be approximately 70 feet by 55 feet, totaling approximately 3,859 square feet (Exhibit C – Site with City Right-of-Way Shown). An Owner's Affidavit is provided as Exhibit D to demonstrate the City's provisional support for use of this portion of City right-of-way.

The proposed Conditions of Approval have also been revised. The most substantial change is to Condition 9 (Perimeter Wall and Landscaping) to require that the exterior fence be solid. This change is intended to address numerous security concerns.

# <u>ANALYSIS</u>

The site is zoned MUD (Mixed Use District) and has a Comprehensive Plan Land Use designation of Downtown/Victorian Square (D/VS) (Exhibit 2 – Land Use, 12/6/18 Planning Commission meeting). Major Recreational Facilities are permitted by CUP in this zoning district and entertainment uses are listed as appropriate primary uses on sites with the Downtown/Victorian Square (D/VS) land use designation.

The MUD has specific design standards for new development. However, because this project does not include the construction of a building, many of these development standards do not apply.

The applicant has stated it plans to hold a maximum number of 10 large events per year, including 4 to 6 concerts during the months of June through October. The proposed concert venue would also be used for existing special events such as the Rib Cook-Off and Hot August Nights. Large concerts would not be held during these special events as

the venue would be used in connection with the events themselves.

As specified in proposed Condition of Approval 9, the site will be bounded on all sides by a 6-foot decorative concrete or masonry wall. The top two feet of the wall may be decorative metal or wrought iron with a metal mesh backing; gates must be constructed of decorative metal or wrought iron with a metal mesh backing. Other materials may be used if approved by the Police Department and (Planning) Administrator. The perimeter of the site has some street trees in the right-of-way and additional landscaping will be added along the west and east sides of the site.

The stage for the venue is now proposed to be on the west side of the site, facing east, with elevated seating on the east side of the site (Exhibit A.1 – Site Layout with Seating Options). Primary access for admission to the venue will be on the south side of the venue along Victorian Avenue. The sidewalk in this area is at least 30 feet wide and is the most suitable location for pedestrian access to the site. Site access for equipment and performers will be from Victorian Plaza Circle and C Street, on the west and north, respectively.

As submitted, primary egress from the site will also be onto Victorian Avenue on the south side of the site. Exiting in the case of an emergency is of specific concern to the Sparks Police Department. Proposed Condition of Approval 7 requires the applicant to submit emergency egress plans for approval of the Police and Fire Chiefs.

Initially, portable restrooms will be provided near each of the four corners of the site. The applicant has expressed an interest in potentially installing permanent restroom facilities on the site. Proposed Condition of Approval 8 requires that a sanitary sewer infrastructure analysis be submitted by the applicant for approval by the City engineer prior to connecting any restroom facilities to the City's sewer system. This analysis is necessary to assess whether the sewer infrastructure can accommodate the intermittent yet high-volume flows that will be generated by this use and to determine what improvements would be necessary to accommodate said flows if the current infrastructure is insufficient. The applicant would also be responsible for constructing any sanitary sewer infrastructure improvements, including off-site improvements, made necessary by this use.

The applicant is proposing concession stands at the north and south edges of the site and under the elevated seating on the east side of the site. Regardless of whether concessions and alcohol are sold by the Nugget or a third-party vendor, all business license, liquor license, Environmental Control, and Washoe County Health District requirements must be satisfied. Site lighting will be focused primarily on the stage and on the back of the elevated seating areas. A photometric study is required pursuant to SMC 20.04.007(B) as part of the building permit process. Laser light shows, spotlights, or other lighting associated with a performance are not permitted to shine onto adjacent buildings (Condition 11).

The applicant has indicated that one or more large video screens are likely to be used during events. Any such screens must comply with SMC 20.04.010(I)(6) (Signs, Freestanding and Monument Signs, Digital Signs). This requirement is intended to reduce the impact on adjacent properties of light emitted from video displays during events on the site. Display screens used in association with an event must be turned off within 30 minutes of the end of any event (Condition 11).

The nature of this use is intermittent. While the impacts associated with each event will be substantial, it is important to note that the number of large events per year is limited to 10, not including the Rib Cook-Off, Hot August Nights, Southern Fare on the Square, and Star-Spangled Sparks (Condition 5).

The minimum parking requirement pursuant to SMC 20.04.009 for this use is 1 space per 200 square feet of event space. The entire 2.25 acre site will be used, which would require 490 parking spaces. However, SMC 20.04.009(C)(1) states:

The Administrator may require spaces in addition to those specified in this section if special circumstances exist.

The amphitheater configuration, as proposed, would have a maximum seating arrangement of 8,598<u>+</u> seats. City staff believes that this number of seats creates a "special circumstance." Therefore, in accordance with SMC 20.04.009(C)(1), staff required the applicant to submit a parking study that analyzed the parking demand that a concert venue of this size would generate and how the demand will be satisfied.

A parking study dated October 25, 2018, was prepared by Traffic Works (Exhibit 4 – Parking Study, 12/6/18 Planning Commission meeting). Traffic Works determined that the proposed concert venue would require 1,422 parking spaces. The parking study indicates that the applicant can accommodate 1,175 parking spaces in existing Nugget parking facilities. This leaves the proposed venue 247 parking spaces short.

SMC 20.04.009(B)(2) allows for parking demand to be met with offsite parking that is within <sup>1</sup>/<sub>4</sub> mile of the site. Not all of the offsite parking proposed for this use by the parking study meets the <sup>1</sup>/<sub>4</sub> mile requirement. As can be seen on the second page of the parking study,

there are 7 parking areas designated. One of the designated parking areas does not fall completely within <sup>1</sup>/<sub>4</sub> mile of the proposed venue and one designated parking area falls completely outside <sup>1</sup>/<sub>4</sub> mile of the proposed site (Exhibit 5 – Parking Buffer, 12/6/18 Planning Commission meeting). The two designated parking areas that do not meet the <sup>1</sup>/<sub>4</sub> mile requirement are labeled in the Parking Study as the "event lot" and the "west lot." The event lot is completely outside of the <sup>1</sup>/<sub>4</sub> mile buffer distance from the site and has 343 parking spaces. Approximately 1/3 of the west lot is within the <sup>1</sup>/<sub>4</sub> mile buffer of the site, leaving approximately 163 of its 248 spaces outside the buffer. The parking study proposes that on event days, Nugget employees will park offsite in a 250-parking-space lot in Reno and be shuttled to the Nugget, as currently occurs during the Rib Cook-Off and other events. Making these additional parking spaces available would satisfy the parking demand identified by the parking study.

The number of parking spaces proposed by the parking study is approximately three times as many as are required by Sparks Municipal Code. For this reason, because the proposed venue will be used for major events relatively few days each year, and because the parking lot in Reno is already used by the Nugget during events, staff believes that the parking plan proposed in the parking study is adequate to meet the needs of this proposed use. Proposed Condition of Approval 4 requires that the operation of the event center comply with the parking plan included in the study performed by Traffic Works.

One of the biggest concerns regarding this proposed use are the impacts of amplified sound on the surrounding properties. The applicant submitted an acoustical study prepared by Paoletti Consulting dated November 16, 2018 (Exhibit 6 – Acoustical Consulting Report, 12/6/18 Planning Commission meeting). This study was based on the previous site plan, which showed the stage on the east side of the site and facing west. The study estimated, based on a volume of 90 dBA at the sound mixing board, that sound levels at the exterior wall of the nearest residential buildings (The Bridges apartments) would be in the 85-90 dBA range and have an impact of 10-20 dB above ambient sound levels within residences in The Bridges. The Paoletti acoustical study stated that this impact will be "noticeable."

As noted in the Background section above, the City hired an acoustical consultant, Bollard Acoustical Consultants, Inc. (Exhibit B – Peer Review), to review the Paoletti acoustical study as well as an acoustic analysis provided as public comment on the project by Silverwing Development. The Peer Review states that a loud rock concert tends to have an average expected sound level of 100 dBA at the sound mixing board with spikes in maximum sound levels ranging from 105-110 dBA, a sound level that is addressed in the original Paoletti study as the "worst case" scenario. At this volume, the Peer Review estimates that the average and maximum sound levels received at the exterior wall of the nearest residence (i.e., The Bridges apartments) would be 92 dBA (average) and 99 DBA (maximum). Inside residences of standard construction, the Peer Review estimates noise levels would average 70 dBA, approximately 25 dBA over an expected baseline noise level of 45 dBA when concerts are not occurring. The Peer Review characterizes a 25 dBA increase during concert events as an approximately 5-fold increase over interior ambient sound levels. The Peer Review concludes that with sound levels inside residences of 70 dBA, occupants will be impacted during concerts, with activities such as verbal communication, watching television and sleeping all substantially and adversely affected.

The applicant submitted a revised acoustical study, also prepared by Paoletti Consulting, dated December 19, 2018 (Exhibit A.3). The revised analysis reflects the change to the site plan orienting the concert stage to face east rather than west. Reorientation of the site is substantially beneficial because it shifts the most pronounced sound impacts towards a building (Silverwing Development's The Deco apartments) that is still under construction, providing its developer an opportunity to further sound-proof these residences. Based on sound levels for amplified music of 100 dBA at the sound mixing board (the recommended sound level assumption in the Peer Review), the updated Paoletti study indicates sound levels at the façade of The Deco structure at 95-100 dBA. Sound levels at the façades of The Bridges buildings would, however, be significantly reduced by the new orientation, to 80-85 dBA for amplified music (100 dBA at the mixing board). Staff has forwarded the applicant's revised acoustical report to the City's consultant so that the consultant may address any questions from the Planning Commission at the January 3<sup>rd</sup> meeting.

Pursuant to SMC 9.42.070(B), the use of amplified sound is limited to the hours of 8 am to 8 pm Monday through Saturday. No amplified sound may be used on Sundays or legal holidays. Additionally, amplified sound is restricted to no more than 15 dBA above ambient sound levels as measured at the property line. These regulations on the use of amplified sound do not apply to authorized special events. Only events permitted through the Special Event Permit process, which is set forth in SMC Chapter 9.34, will be permitted to operate beyond the scope of the regulations on amplified sound described above. A concert event permitted through a Special Event Permit can emit amplified sound until 10 pm.

Special Event Permits will be required for the anticipated closure of portions of Victorian Avenue, Avenue of the Oaks, and/or Victorian Plaza Circle to accommodate pedestrians walking between the proposed arena and the parking for this use, which is located primarily on Nugget property located south of Victorian Avenue. While the applicant has submitted a proposed (and revised) "Event Area Traffic Plan" (Exhibit A-2), a traffic plan must be approved with each Special Event Permit. A Special Event permit may also be required based on anticipated attendance and the nature of individual events (Condition 6).

Special Event Permit applications are submitted to the City of Sparks Parks and Recreation Department. Applications are reviewed at a City service meeting that includes representatives from Parks, Fire, Police, and Community Services. Applications are reviewed to address public safety concerns and to determine the level of City involvement necessary for each proposed event. Once the level of City involvement is established, an estimate of the cost of City services to be provided for the event is prepared to set fees to be paid by the event producer.

Staff received public comment from J. Witt of Silverwing Development regarding this request prior to the December 6<sup>th</sup> Planning Commission meeting (Exhibit 8 – Public Comment, 12/6/18 Planning Commission meeting). Silverwing Development is the developer of the mixed-use The Bridges development located directly to the west of the site and The Deco apartment project located directly east of the site. Mr. Witt expressed concerns about sound levels and how amplified sound and event lighting could impact residents of the Silverwing properties. Mr. Witt's concerns may be mitigated by the reorientation of the arena stage to face east.

# **CONDITIONAL USE PERMIT FINDINGS:**

# FINDING C1:

# The proposal, as submitted and conditioned, is in compliance with the Comprehensive Plan.

The site has a MUD-Downtown/Victorian Square (MUD-D/VS) land use designation. The MUD-D/VS land use designation expressly allows entertainment uses as an appropriate primary use.

The Goals and Policies in the Comprehensive Plan that are relevant to this proposal include:

- Goal MG1: Support economic vitality by providing a non-residential land use base.
- Goal MG2: Foster diversity in the land use mix including residential, commercial, industrial, employment, and recreational areas citywide.

- Goal MG4: Facilitate infill and redevelopment.
- Goal MG5: Prioritize development and enhancement of the Downtown Sparks Center
- Policy MG12: Encourage reinvestment in existing employment centers such as the areas south of Interstate 80 and the Prater Way, Victorian Avenue and Oddie Boulevard corridors.
- Policy CF1: When reviewing new development, the City will not approve an application unless City services can be provided at acceptable levels.
- Policy C4: Require sidewalks for pedestrians on all street networks within the City.
- Policy CC2: Promote a mix of uses, including restaurants and shopping, to create a vibrant downtown district at Victorian Square.
- Goal EV1: Grow and diversify Sparks' economy.

The use of this site as a Major Recreational Facility, particularly as a concert venue, would permit an activity that is not currently available in Sparks at this scale. As a non-residential land use that also diversifies the economy of Sparks, this proposed use supports Goal MG1, Goal MG2, Policy CC2, and Goal EV1. The proposed concert amphitheater will be located in downtown Sparks. The former building has been demolished and would be replaced with a facility that represents considerable reinvestment in the Victorian Avenue corridor in support of Goals MG4 and MG5, and Policy MG12. If this site is redeveloped into a concert venue, the adjacent sidewalks and pedestrian infrastructure will be maintained and enhanced in support of Policy C4.

All required City services necessary for the development of this site as a concert amphitheater are available at the site in conformance with Policy CF1, though improvements to the sewer infrastructure may be required if and when restrooms connected to the City's sewer system are installed. A sewer study will be required at that time and the applicant will be responsible for the required improvements (Condition 8). Both the Police and Fire Departments have expressed concerns about their ability to provide event-specific services. However, those issues will be addressed through the Special Event Permit process for each proposed event (Condition 7).

### FINDING C2:

The application, as submitted and conditioned, is compatible with the existing or permitted uses of adjacent properties.

The existing uses of the adjacent properties are as follows:

Direction	SURROUNDING LAND USES	LAND USE - ZONING
North:	Square One Apartments and	MUD-D/VS
	Graphics Unlimited	
East:	The Deco Apartments (under	MUD-D/VS
	construction) and various	
	commercial uses	
South:	Nugget surface parking	MUD-D/VS
West:	The Bridges Apartments	MUD-D/VS

The proposed project, a Major Recreational Facility (outdoor amphitheater), is planned for a site in downtown Sparks that is surrounded by a mix of commercial and residential uses. The site is located in the Downtown/Victorian Square area of the Mixed-Use District where a high level of activity is encouraged and desired. This area already hosts a number of major special events each year, including events that are of a similar or larger scale (e.g., Rib Cook-off). A concert venue of this size will be a major attraction and the increased activity at concert events should have a positive impact on neighboring businesses on event days, particularly eating and drinking establishments. The neighboring and nearby residential uses, which are also in the MUD-D/VS district, will be within walking distance of a major entertainment venue. As discussed for Finding C1 above, adding an entertainment venue like the one proposed for this site would clearly advance numerous Comprehensive Plan goals and policies.

It is also clear that the the proposed concert venue will generate the noise, light, traffic and parking impacts discussed in the Analysis section above, which the Conditions of Approval are intended to mitigate. The impacts on adjacent residential land uses, specifically sound and noise, are major concerns. The proposed Conditions of Approval seek to reduce these impacts, in particular by imposing a limit of 10 major events per year, exclusive of existing special events such as the Rib Cook-off and Star-Spangled Sparks. In addition, the Special Event Permit process will allow City staff to manage concerns on an iterative, case-by-case basis, refining requirements and mitigation measures as necessary based on previous events.

In response to concerns regarding sound impacts, the applicant has proposed a revised site plan that reorients the concert stage to face east. As discussed in the Analysis section, this proposed reorientation of the site is materially beneficial because it shifts the most pronounced sound impacts to a residential building (The Deco apartments) still

under construction, providing its developer an opportunity to further sound-proof these residences. To the west, sound levels at the façades of the Bridges buildings would be significantly reduced, as would impacts on the Square 1 Apartments to the north of the site.

While the proposed use may result in significant impacts to surrounding properties, particularly with respect to noise, the duration of each concert is limited to a few hours, is subject to either an 8 pm or 10 pm end time for amplified sound (the latter if a Special Event Permit has been approved for the event), and the number of new large events is limited to a maximum of 10 per year. With these proposed constraints and taking into account the reduced noise impacts resulting from reorientation of the concert stage to face east, City staff believes that the proposed events center and concert venue is compatible with other uses located in the City's most intense mixed-use zoning district.

### FINDING C3:

# The potential impairment of natural resources and the total population which available natural resources will support without unreasonable impairment has been considered.

According to Washoe County Assessor records, this site was developed as the Silver Club in 1983. City staff does not believe that approval of this CUP for a Major Recreational Facility as a concert venue would impair the availability of natural resources or the region's ability to support its population.

### FINDING C4:

# The application, as submitted and conditioned, will address identified impacts.

The impacts of development of this site as a Major Recreational Facility will primarily concern parking, lighting, appearance and design, and sanitation, which are addressed by the project's design and the proposed Conditions of Approval. The sound and noise impacts are anticipated to be substantial but are partially mitigated by the revised site plan and operational limitations provided for in the proposed Conditions of Approval.

### Parking:

As discussed in the Analysis section above, the plan submitted for this site provides approximately three times as much parking as is required by the Sparks Municipal Code. Approximately 82 percent of the parking can be provided on Nugget properties. The other 18 percent of the needed parking is located on a 250-space parking lot in Reno where Nugget employees park and then ride a shuttle to the Nugget. This park-andshuttle system is already used by the Nugget during special events. (Condition 4)

# Lighting:

Site lighting shall comply with SMC 20.04.007, which requires that a photometric plan be submitted for review and approval as part of the building permit process. Laser light shows, spotlights, or other specialty lighting associated with a performance cannot shine onto adjacent buildings (Condition 11).

Any video screens must comply with SMC 20.04.010(I)(6) (Signs, Freestanding and Monument Signs, Digital Signs). This requirement is intended to ensure that the light emitted from any display associated with an event on the site will not be overly disruptive to the adjacent properties. Any lights or display screens used in association with an event must be turned off within 30 minutes of the conclusion of any event (Condition 11).

# Appearance and Design:

The site will be bounded on all sides by a 6-foot wall constructed of decorative concrete panels or masonry block. The top two feet of the wall may be decorative metal or wrought iron with a metal mesh backing; gates must be constructed of decorative metal or wrought iron with a metal mesh backing. Other materials may be used if approved by the Police Department and (Planning) Administrator (Condition 9). The perimeter of the site has some street trees in the right-of-way and additional landscaping will be added along the west and east sides of the site.

# Sanitation:

The site will initially be serviced by temporary restrooms. Proposed Condition of Approval 10 would require that temporary restrooms be delivered to the site no more than 3 days prior to an event and be removed no more than 2 days after an event. All trash shall be removed, and the site cleaned within 2 days of an event. Proposed Condition of Approval 8 requires that a sanitary sewer infrastructure analysis be submitted by the applicant for approval by the City engineer prior to connecting any restroom facilities to the City's sewer system.

# <u>Sound:</u>

Pursuant to SMC 9.42.070, amplified sound is limited to 8 am to 8 pm Monday through Saturday and cannot exceed 15 dB above the ambient noise level at the property line. These regulations on the use of amplified sound do not apply to authorized special events. Only events permitted through the Special Event Permit process, which is set forth in SMC Chapter 9.34, will be permitted to operate beyond the scope of the regulations on amplified sound described above.

As discussed more fully in the Analysis section and for Finding C2 above, while the proposed use will produce adverse sound impacts on surrounding properties, the

duration of each concert is limited to a few hours, is subject to a curfew for amplified sound, and the number of new events is limited to a maximum of 10 per year. In addition, the reorientation of the concert stage to face east will likely reduce the most pronounced sound impacts from this proposed use.

# Finding C5:

# Public notice was given and a public hearing held per the requirements of the Sparks Municipal Code and the Nevada Revised Statutes.

Public notice was published in the Reno Gazette-Journal on November 21, 2018. In addition, 63 notices were mailed to owners of property within 500 feet of the subject property on November 20, 2018. The Planning Commission meeting functions as the public hearing required by Nevada Revised Statutes and the Sparks Municipal Code. After the December 6, 2018 public hearing, this item was continued by the Planning Commission to January 3, 2019.

# CONDITIONS OF APPROVAL PCN18-0057/CU18-00013 Nugget Events Center

### 1. APPROVAL:

THIS CONDITIONAL USE PERMIT IS APPROVED AS SUBMITTED AND CONDITIONED. ANY SUBSTANTIAL CHANGES SHALL REQUIRE REVIEW AND AMENDMENT TO THIS CONDITIONAL USE PERMIT.

### 2. EXPIRATION DATE:

EXPIRATION OF THIS CONDITIONAL USE PERMIT SHALL COMPLY WITH SPARKS MUNICIPAL CODE 20.05.008.

### 3. AMPLIFIED SOUND:

AMPLIFIED SOUND IS LIMITED TO MONDAY THROUGH SATURDAY, FROM 8 AM TO 8 PM; NO AMPLIFIED SOUND IS PERMITTED ON SUNDAYS OR LEGAL HOLIDAYS (SMC 9.42.070(B)). SPECIAL EVENTS AUTHORIZED PURSUANT TO SMC CHAPTER 9.34 ARE NOT SUBJECT TO THESE RESTRICTIONS.

### 4. PARKING:

PARKING SHALL COMPLY WITH THE PARKING PLAN SUBMITTED WITH THE PARKING STUDY PERFORMED BY TRAFFIC WORKS, LLC, DATED OCTOBER 23, 2018.

### 5. NUMBER OF EVENTS:

THE NUMBER OF LARGE EVENTS PER YEAR HELD AT THIS LOCATION SHALL NOT EXCEED 10 EVENTS EXCLUDING THE RIB COOK-OFF, HOT AUGUST NIGHTS, STAR SPANGLED SPARKS, AND SOUTHERN FARE ON THE SQUARE. A LARGE EVENT SHALL BE DEFINED FOR THIS CONDITIONAL USE PERMIT AS ANY EVENT FOR WHICH A SPECIAL EVENT PERMIT IS REQUIRED PURSUANT TO SMC CHAPTER 9.34 AND/OR THIS CONDITIONAL USE PERMIT.

### 6. SPECIAL EVENT PERMITS:

A SPECIAL EVENT PERMIT SHALL BE REQUIRED FOR ANY EVENT HELD AT THIS LOCATION THAT REQUIRES THE CLOSURE OF ANY PUBLIC RIGHT-OF-WAY. A SPECIAL EVENT PERMIT MAY ALSO BE REQUIRED BASED ON ANTICIPATED ATTENDANCE AND NATURE OF THE EVENT. ALL EVENTS, WHETHER A SPECIAL EVENT PERMIT IS REQUIRED OR NOT, MAY REQUIRE AN INSPECTION BY THE FIRE DEPARTMENT.

# 7. PUBLIC SAFETY:

EVENT EMERGENCY EGRESS PLANS OR DESIGNS SHALL BE TO THE APPROVAL OF THE POLICE CHIEF AND THE FIRE CHIEF PRIOR TO THE ISSUANCE OF ANY BUILDING OR FENCE PERMITS OR ANY SPECIAL EVENT PERMIT.

# CONDITIONS OF APPROVAL PCN18-0057/CU18-00013 Nugget Events Center

### 8. SEWER INFRASTRUCTURE IMPROVEMENTS:

A SEWER ANALYSIS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE CITY ENGINEER PRIOR TO CONNECTING ANY RESTROOM FACILITIES TO THE CITY SEWER SYSTEM. IF THE APPROVED SEWER ANALYSIS INDICATES THAT OFF-SITE SANITARY SEWER INFRASTRUCTURE IMPROVEMENTS ARE NECESSARY TO PROVIDE SANITARY SEWER SERVICE TO THE SITE FOR THE TYPE OF USE(S) PERMITTED BY THIS CONDITIONAL USE PERMIT, THE APPLICANT SHALL, AT THE APPLICANT'S EXPENSE, DESIGN AND CONSTRUCT SUCH SANITARY SEWER INFRASTRUCTURE IMPROVEMENTS TO THE APPROVAL OF THE CITY ENGINEER.

CONSTRUCTION OF PERMANENT RESTROOM FACILITIES IS SUBJECT TO AN ADMINISTRATIVE REVIEW.

9. PERIMETER WALL AND LANDSCAPING:

A SIX FOOT (6') TALL PERIMETER WALL SHALL ENCLOSE THE ENTIRE SITE. THE WALL SHALL BE CONSTRUCTED OF DECORATIVE CONCRETE PANELS OR MASONRY BLOCK. UP TO TWO (2) FEET OF THE UPPER PORTION OF THE WALL MAY BE DECORATIVE METAL OR WROUGHT IRON WITH A METAL MESH BACKING. GATES SHALL BE CONSTRUCTED OF DECORATIVE METAL OR WROUGHT IRON WITH A METAL MESH BACKING. OTHER MATERIALS MAY BE USED FOR THE WALL AND GATES ONLY WITH PRIOR APPROVAL OF THE POLICE CHIEF AND THE ADMINISTRATOR.

ANY LANDSCAPING PROVIDED IN THE CITY RIGHT-OF-WAY SHALL BE INSTALLED, IRRIGATED, AND MAINTAINED BY THE PROPERTY OWNER FOR THE LIFE OF THE PROJECT.

# 10. SANITATION:

PORTABLE RESTROOM FACILITIES SHALL BE DELIVERED TO THE SITE NO MORE THAN 3 DAYS PRIOR TO AN EVENT AND SHALL BE REMOVED NO MORE THAN 2 DAYS AFTER AN EVENT.

ALL TRASH SHALL BE REMOVED FROM THE SITE AND THE SITE SHALL BE CLEANED NO MORE THAN 2 DAYS AFTER AN EVENT.

### CONDITIONS OF APPROVAL PCN18-0057/CU18-00013 Nugget Events Center

### 11. LIGHTING:

SITE LIGHTING SHALL COMPLY WITH SMC 20.04.007. A PHOTOMETRIC PLAN SHALL BE SUBMITTED TO THE APPROVAL OF THE ADMINISTRATOR PRIOR TO THE ISSUANCE OF ANY BUILDING PERMIT.

LASER LIGHT SHOWS, SPOTLIGHTS, OR OTHER SPECIALTY LIGHTING ASSOCIATED WITH ANY EVENT ON THE SITE SHALL NOT SHINE ON STRUCTURES THAT ARE NOT ON THE SITE.

DISPLAY SCREENS SHALL COMPLY WITH THE LIGHTING STANDARDS CONTAINED IN SMC 20.04.010(I)(6) FOR DIGITAL SIGNS. ALL DISPLAY SCREENS SHALL BE SHUT OFF WITHIN 30 MINUTES OF THE END OF ANY OF PERFORMANCE.

12. EXCLUSIVE PERMISSION TO OCCUPY CITY OF RIGHT-OF-WAY THE APPLICANT SHALL OBTAIN FROM THE CITY OF SPARKS EXCLUSIVE PERMISSION TO OCCUPY CITY RIGHT-OF-WAY FOR THE AREA DIRECTLY ADJACENT TO THE SOUTHEAST CORNER OF THE PROJECT SITE AS NECESSARY TO ACCOMMODATE THE PROPOSED IMPROVEMENTS PRIOR TO THE ISSUANCE OF ANY BUILDING PERMIT OR FENCE PERMIT.



MARNELL ARCHITECTURE ARCHITECTURE . PLANNING . DESIGN

EVENT CONFIGURATION "A"

= 20 WHEELCHAIR W/ 20 COMP. SEATS

= 189 BRAVO FLOORTRACK

= 20 WHEELCHAIR W/ 20 COMP. SEATS

= 768 ULTIMATE FLIP-UP SEATS = 1,742 ULTIMATE BENCH SEATS = 13 WHEELCHAIRS & 13 COMPANION SEATS

= 402 ULTIMATE FLIP-UP SEATS = 411 ULTIMATE BENCH SEATS

= 402 ULTIMATE FLIP-UP SEATS = 870 ULTIMATE BENCH SEATS

= 5,014 TOTAL ULTIMATE FLIP-UP SEATS = 2,840 TOTAL ULTIMATE BENCH SEATS TOTAL BRAVO SEATS TOTAL WHEELCHAIR SEATS TOTAL COMP. SEATS TOTAL SUITES





MARNELL ARCHITECTURE ARCHITECTURE . PLANNING . DESIGN

EVENT CONFIGURATION "B"

01 | 03 | 2019

= 189 BRAVO FLOORTRACK

= 768 ULTIMATE FLIP-UP SEATS = 1,742 ULTIMATE BENCH SEATS = 13 WHEELCHAIRS & 13 COMPANION SEATS

= 402 ULTIMATE FLIP-UP SEATS = 411 ULTIMATE BENCH SEATS

= 402 ULTIMATE FLIP-UP SEATS = 870 ULTIMATE BENCH SEATS

- TOTAL ULTIMATE BENCH SEATS TOTAL BRAVO SEATS TOTAL WHEELCHAIR SEATS TOTAL COMP. SEATS TOTAL SUITES MITER SEATS = 2,619 GENERAL ADMISSION
  - VIP GENERAL ADMISSION





MARNELL ARCHITECTURE ARCHITECTURE · PLANNING · DESIGN

EVENT CONFIGURATION "C"

LATION		
GA		
SEATS		
MS		



01 | 03 | 2019



EVENT TRAFFIC MANAGEMENT PLAN





01 | 03 | 2019

# **Paoletti Consulting**

dpaoletti88@gmail.com 415-990-5229

19 December 2018

Chris Schwurack <u>cschwurack@marnellcompanies.com</u> Marnell Companies 222 Via Marnell Way Las Vegas, Nevada 89119

### Subject: Acoustical Consulting Report Proposed Nugget Event Center with Reoriented Stage Sparks, NV

Dear Chris,

This letter will summarize our acoustical consulting report related to your request for an acoustical study of the proposed Nugget Event Center in Sparks Nevada. This study is the result of rotating the Event Center stage 180 degrees from the original study (16 November).

# **PROJECT DESCRIPTION**

The proposed Nugget Event Center is located in downtown Sparks at Victorian Center. It is an open outdoor performance venue with a seating capacity of approximately 8,500. It consists of an open overhead stage structure approx. 60 ft. high that supports a pair of state-of-the-art highly directional loudspeakers that concentrate amplified sound energy onto the audience and minimizes overspill out of the venue. Seating includes flat floor seating in front of the stage and an open steel framed grandstand across from the stage. The top of the grandstand is at 40 ft. The venue, stage and seating is oriented on an east – west axis parallel to and alongside Victorian Dr. between Tenth St. and Victorian Plaza Circle. See Figure SP below for noise model site plan and input geometry



Figure SP Project site plan and nearby residential buildings

We performed our analysis to:

- Illustrate the noise impact/exposure of sound from the proposed Event Center to the surrounding project site during a loud concert
- Determine the expected sound level inside of a residential unit during a concert event

Two major noise sources have been analyzed: amplified sound from a high-performance stagemounted loudspeaker system; and crowd noise from those attending a performance.

Although there are expected to be a wide variety of events held at the venue, we understand there are only five or six celebrity headliners proposed throughout the year at the facility. Our analysis is based on a loud rock concert where the expected sound level at the main mix/control position on the floor approximately 90 ft. in front of the stage is 90-100+ dBA.

# **EXECUTIVE SUMMARY**

Our acoustical analysis indicated that during a concert event in the proposed Nugget Event Center, the sound levels around the Event Center at the facades of the nearest residential buildings are in the range of 85 - 90 dBA.

For occupants of nearby multifamily residences (with direct exposure to the Event Center site), inside of their space with air conditioning operating, music and crowd noise from concert events will be noticeable i.e. approximately 10 - 20 dB above the ambient. The subjective description would be predominantly low frequency in nature and would vary in time, consistent with the beat and sound level of the music.

# BASIC ACOUSTIC INFORMATION RELATIVE TO THIS STUDY

- This study represents a "snapshot" of the acoustic environment at a selected period of time i.e. during a sequence of amplified music and crowd cheering. During the course of a two- hour concert the acoustic environment is dynamic, increasing and decreasing continuously in sound level and frequency content. Also every concert is different. We have selected an example of a "worst-case" scenario i.e. a full capacity amplified rock concert.
- The venue size, layout, and configuration were provided by Marnell Companies. The surrounding buildings were obtained from Google Earth with additional information obtained from architectural drawings of the residential buildings under construction and direct observation from a site visit.
- A subjective description of average sound levels vs. decibels is as follows:

Approximately 85 dB Moderately Loud
 85 - 95 dB Loud
 95 - 105 dB Very Loud
 Peak Levels can be 10 - 15 dB higher than the typical average values above

- General background ambient sounds are typically described as constant, steady-state with only occasional variations above the ambient. These are usually not very noticeable and easily accepted by the general public or lay listener. Concert sound levels can be 20 dB above the ambient; levels of low frequency sound energy, not normally experienced otherwise, are present during a concert, and the temporal nature of the sound is constantly fluctuating during the course of the program.
- It is important to understand some acoustic parameters and technical terminology:

Most technical acoustical information is reported for "typical" sound sources and normal building uses. The dBA (decibels "A" scale) is used most frequently to describe sound levels. This scale closely relates to the sensitivity of human hearing i.e. being most sensitive at 1000 Hz. It is important to realize that the dBA scale rolls off much of the low frequency energy. See Figure AS below. Also see Figure SS below which illustrates the full frequency spectrum of amplified loudspeaker music and crowd noise. Notice how much energy exists in the low frequencies (i.e. between 31 and 500 Hz.



Figure SS Music and crowd noise full spectra



Figure AS The "A" weighting network; low frequency sound energy is rolled off

- Because of the predominance of low frequency energy (noted in the above discussions and graphs) that is present in the two sound sources studied, the thud and bass-heavy beating of low frequency sound will be evident and could be approximately 10 20 dB above the dBA values described in this study unless otherwise noted.
- The effect of sound on buildings

Airborne sound is composed of a series of pressure wave fluctuations (compressions and rarefactions) in the air. When sound energy strikes a surface e.g. a building façade, some of it is absorbed, some of it is reflected and some of it is transmitted through the surface

Airborne sound waves spread out spherically, expanding in all directions, as a function of distance from the sound source with sound intensity decreasing as distance increases the further away from the sound source. Sound impact on a building is measured in decibels or sound pressure levels.

The impact of airborne sound on building facades for occasional high-level sound events has no lasting impact. Aircraft flyovers, train pass-byes, fireworks and thunderstorms have a similar effect. Building facades/shells typically have enough mass to resist the energy forces associated with normal environmental and entertainment sound sources. Even windows, which have much less mass, and are typically the weakest component (acoustically) of a building façade will allow some of the sound energy to pass through into the interior space, depending on how airtight the window is.

Unlike seismic forces (which are generated via the ground) or heavy pounding hurricane wind forces, airborne sound is much lower in level, less pressure and is not repetitive over a continuous period.

There is no history of damage caused by airborne environmental sound in the United States for any buildings constructed within the past two-hundred years.

### GENERAL INFORMATION RELATIVE TO THIS STUDY

- This analysis is focused only on the nearby surrounding multifamily residential buildings.
- A high-level performance sound system typical of many high-quality permanent and traveling sound systems used by touring performing groups was used in the model.
- Weather is not an issue for close-in analysis such as this.
- This analysis assumes no physical barriers affecting acoustics surrounding or enclosing the stage and/or seating areas.
- No attention is devoted to environmental noise codes, ordinances or standards.

### **ACOUSTICAL ANALYSIS**

### Ambient sound levels as a result of a site visit

Representative ambient background sound level measurements were made late on a Friday evening. Rush hour was over and traffic, the main source of sound, was heavy but moving freely on the elevated section of nearby Highway 80. The weather was cold, clear and calm.

Figure SPMP illustrates the measurement positions and Figure SMR illustrates the measured sound levels around the site at the nearby multifamily residential buildings. The stucco clad wood framed buildings typically consisted of 2 - 4 stories of residential living above a few levels

of parking. It should be noted that the upper floors of living units have greater exposure (downward) toward the interior of the Event Center.



Figure SPMP Measurement positions

Figure SMR Measurement results

Ambient sound levels ranged from approximately 54-56 dBA at the closest residences (Positions A, B, and C) behind and alongside the proposed Event Center; and 64 – 66 dBA at Positions C and D in front of the Event Center, closest to the highway. Occasional transient noises that exceed the general ambient include local vehicular traffic i.e. auto, truck and motorcycle passbys, aircraft flyovers, etc.

# Noise impact/exposure of sound from the proposed Event Center to the surrounding project site during a loud concert

Figures in the Appendix illustrate the Sound Contour maps (plan and views) generated by a special computer program for various conditions studied. These include:

- Amplified music at 90 dBA at the mix/control position alone; Figures 1A 1C
- Amplified music at 100 dBA at the mix/control position alone; Figures 2A 2C
- Crowd (50%) noise emission alone; Figures 3A 3C
- Amplified music at 90 dBA Plus 50% crowd noise; Figures 4A 4C
- Amplified music at 100 dBA Plus 50% crowd noise; Figures 5A 5C

Amplified music at 100 dBA Plus 50% crowd noise; Figures 5A - 5D are discussed herein since they represent the worst case. All other Figures are informational only.

It can be seen that the 85 - 90 dBA contours extend to the nearby residential building facades. Sound level contours generally decrease and fall away from the site as a function of distance but are "skewed" based on their interaction of buildings in the path of the reflected sound energy. The sound level on the façade of the Deco structure (the existing parking structure with future levels of residential units above it) from this study is 87.5 dBA.

			A-weighte	ed 1/3 Octav	ve Band Sou	ind Levels			
31.5 Hz	40	50	63	80	100	125	160	200	250
50.0	62.5	71.1	64.8	70.4	66.6	69.4	72.7	71.0	63.7

Detailed sound level data at the façade of the Deco structure:

A-weighted 1/3 Octave Band Sound Levels (continued)									
315 Hz	400	500	630	800	1000	1250	1600	2000	2500
70.1	76.3	79.8	79.0	78.9	72.8	75.2	75.1	69.5	79.1

A-weighted 1/3 Octave Band Sound Levels (continued)								
3150 Hz	4000	5000	6300	8000	10000	12500		
70.5	61.0	56.2	48.3	50.3	44	29.6		

### Expected sound level inside of a residential unit during a loud concert

Using the computer-generated sound level data as seen in Figures 5A - 5C, we made sound attenuation calculations based on the typical wood-frame construction of the nearby residential buildings to assess the interior sound levels expected during a typical rock concert. This was compared to a typical interior space with windows closed and air conditioning operating.

The assumptions made for the multifamily residential building construction (based on a set of architectural drawings for same) include:

- Standard wood framed construction (i.e. wood sheathing and stucco exterior, building insulation, interior gypsum board
- 1" insulated double glazed windows (approximately 30% of the facade)
- Interior ambient sound level of approximately 46 dBA with air conditioning operating.

See Figures MBP and MLF below for examples and key illustrations of some of the key parameters that come into play during this analysis.



Figure MBP Music sound level vs building performance



Figure MLF Music level fluctuations vs time



Figure ISL Interior sound level residential unit

Figure ISL above illustrates the steady-state background ambient sound level (with air conditioning operating) inside a residential unit alongside the exterior window wall. It also indicates the resultant transient sound level therein above the ambient during a concert. At low frequencies, the music sound level can be at least 5-10 dBA above the interior ambient.

If you have any questions, please do not hesitate to call.

Sincerely yours, Damis Paoletti

# Appendix

# **Sound Contour Maps**



Figure 1A Amplified music at 90 dBA at the mix/control position alone



Figure 1B Amplified music at 90 dBA at the mix/control position alone



Figure 1C Amplified music at 90 dBA at the mix/control position alone



Figure 2A Amplified music at 100 dBA at the mix/control position alone



Figure 2B Amplified music at 100 dBA at the mix/control position alone



Figure 2C Amplified music at 100 dBA at the mix/control position alone



Figure 3A Crowd (50%) noise emission alone



Figure 3B Crowd (50%) noise emission alone



Figure 3C Crowd (50%) noise emission alone



Figure 4A Amplified music at 90dBA plus 50% crowd noise



Figure 4B Amplified music at 90dBA plus 50% crowd noise



Figure 4C Amplified music at 90dBA plus 50% crowd noise



Figure 5A Amplified music at 100 dBA plus 50% crowd noise



Figure 5B Amplified music at 100 dBA plus 50% crowd noise



Figure 5C Amplified music at 100 dBA plus 50% crowd noise

December 18, 2018

Ms. Karen L. Melby, AICP Community Services Department City of Sparks 431 Prater Way Sparks, NV 89431

Submitted via email: <a href="mailto:kmelby@cityofsparks.us">kmelby@cityofsparks.us</a>

# Subject: Bollard Acoustical Consultants, Inc. (BAC) Peer Review comments on two (2) noise studies prepared for the proposed Nugget Arena in Sparks, NV.

Dear Mrs. Melby,

Pursuant to your request, Bollard Acoustical Consultants, Inc. (BAC) has reviewed the noise studies prepared by Paoletti and Double Eagle Consulting for the Nugget Arena project. This letter contains our comments on those studies:

### Study 1: Paoletti Consulting Report – November 16, 2018

### **Comment 1: Project Description**

The project description provides an adequate discussion of the proposed use, but Figure SP is of insufficient scale and resolution to make the information contained in the legend readable. See Figure 1 of this letter for a more clear site plan.

The analysis appropriately includes sound from amplified music and crowd noise.

The analysis states that it is based on a loud rock concert where the expected sound level at the mix/control position on the floor approximately 90 feet in front of the stage is 90-100+ dBA. BAC's very recent experience with headliner concerts at venues of this size indicates that concert sound levels at the mixing booth (100 feet from the stage) tend to average 100 dBA with spikes in maximum sound levels ranging from 105-110 dBA. Figure 2 shows a representative graph of measured concert sound levels at a similarly sized venue in Paso Robles, California, which supports BAC's claim. As a result, BAC does not feel that modelling of a concert using an average of 90 dBA at the sound mixing booth would be representative of the sound output of a major headliner act, as doing so would likely understate noise levels in the community by approximately 10 dBA. Therefore, the entire analysis should be based on average noise levels of 100 dBA at the sound mixing booth located approximately 100 feet from the edge of the stage.





### **Comment 2: Executive Summary**

The Paoletti Report states, "Our acoustical analysis indicated that during a concert event in the proposed Nugget Event Center, the sound levels around the Event Center at the facades of the nearest residential buildings are in the range of 85 – 90 dBA". However, Figure 5A of the Paoletti Report indicates that the noise level received at the residential building façade immediately west of the project site would range from 95-100 dBA based on the assumption that music levels would be 100 dBA at the mixing booth with 50% crowd noise added.

Because of the proximity of the speaker arrays relative to the mixing booth and nearest residential building façade to the west, the sound level decay rate between the mixing booth and nearest residential building façade would likely be less than 6 dB per doubling of distance between the noise source and receiver (6 dB per doubling of distance is the standard attenuation rate for a fixed, point-source of noise). Assuming a 5 dB decrease of sound per doubling of distance from the mixing booth 100 feet from the speakers to the nearest residential building façade located 300 feet from the speakers, a noise level decrease of approximately 8 dB would be expected between the mixing booth and nearest residences. As a result, if the average sound level at the mixing booth is 100 dBA, with maximum sound levels to 107 (See Figure 2), the average and maximum sound levels received at the building façade of the nearest residence can be expected to be 92 dBA L<sub>eq</sub> (average) and 99 dBA L<sub>max</sub> (maximum).

Using the BAC projections of noise from a typical headliner act (100 dBA average at mixing booth), the noise levels at the nearest residential building façade to the west are predicted to be closer to the Figure 5A results than the results presented in the Executive Summary. Specifically, it is BAC's professional opinion that average and maximum noise levels at the nearest building façade will be 92 and 99 dBA, respectively, which is 7 to 9 dB louder than the levels presented in the Paoletti Executive Summary.

The Paoletti Report should be revised to reflect that noise levels at the nearest residential building facades to the west would be more representative of the noise levels reported in Figure 5A of the Paoletti Report.

The Paoletti Report goes on to state that music and crowd noise would be "...noticeable i.e. 10-20 dB above the ambient" within the nearest multi-family residences to the immediate west of the project site.

Standard new residential construction in accordance with typical building code requirements results in exterior to interior noise attenuation of approximately 25 dB with windows closed, and approximately 10-15 dB with windows open. For sound sources with considerable low-frequency content (such as concerts with sub-woofers), the noise attenuation of the building façade would likely be even lower.

Noise levels within residences varies depending on the type of activities occurring within the residence. Sources of noise which typically define background levels within residences include air conditioning systems, refrigerators, etc. Absent considerable other noise-generating activities occurring within the residence, typical residential interior noise levels would be expected to be approximately 45 dBA.

Assuming a building façade noise reduction of 25 dBA with windows closed and an exterior average noise level of 92 dBA at the building façade during concerts at the Nugget Event Center, the interior noise level within those residences resulting from the concert would compute to approximately 67 dBA. After accounting for the low-frequency content of the music, interior noise levels could more likely average 70 dB inside the residence with music levels of 92 dBA at the exterior façade.

Given a realistic projection of 70 dBA inside the nearest residences during concerts and a realistic baseline level of 45 dBA inside the residences when the concerts are not occurring, the increase in interior noise levels within the residences during the concerts would be approximately 25 dBA. Because the intruding noise source would consist of frequencies different than the baseline frequency spectrum inside the residences, the intrusive noise would be even more pronounced within the residence.

A 25 dB increase represents a 300-fold increase in sound energy within the nearby apartments during concert events. Typically, a 3-5 dB increase is considered a substantial increase in noise levels, particularly when the intrusive noise source differs in frequency content from baseline conditions. A 25 dB increase dramatically exceeds all standards of significance BAC's Principal Consultant (Bollard) has come in contact with over the past 31 years of working as a noise consultant. A noise level increase of 25 dB goes well beyond "noticeable", as the increase in loudness would be approximately 5-fold within the nearby apartment during concert events. As a result, there is no question that the nearby residences would be adversely impacted by increased sound levels during concert events held at the Nugget Arena.

The Paoletti report should clearly identify an adverse noise impact for the nearby residential uses during concerts to be held at the Nugget Event Center, but such a finding is not included in the Executive Summary.

### **Comment 3: Basic Acoustic Information Relative to This Study**

While BAC agrees with the Paoletti statement that "every concert is different", it is BAC's finding that the Paoletti report is not based on a "worst-case" scenario, or even a typical scenario. As noted previously, typical sound levels at a major headliner concert average 100 dBA at the mixing booth, with periodic spikes in maximum noise levels between 105-110 dBA. Although not specifically stated in this section, the Project Description section of the Paoletti Report stated that levels of 90-100+ were used to model concert noise levels.

BAC disagrees with the Paoletti assertion in the first bullet point on Page 3 that, "Concert sound levels can be 20 dB above the ambient", as they are anticipated to be at least 25 dBA above ambient conditions within the nearest apartments.

Figure AS of the Paoletti report is illegible and should be presented as a full page graphic. While BAC agrees that concert sound systems generate sound with considerably more low-frequency content than ambient conditions, the source of the data presented in Figure AS should be provided.

In the last bullet point on page 3 of the Paoletti Report, it is recognized that, "...the thud and bass-heavy beating of low-frequency sound will be evident approximately 10-20 dB above the dBA values described in this study unless otherwise noted." As stated previously, the actual increase over ambient is realistically expected to be approximately 25 dBA above ambient conditions within the nearest apartments during major concert events. Nonetheless, despite the Paoletti Report stating that increase would be 10-20 dBA over ambient, no finding of adverse noise impact is presented in the Paoletti report. Clearly, an increase of 10-20 dBA would constitute a significant increase in ambient noise levels. And with interior noise levels of approximately 70 dBA inside the nearby apartments with windows in the closed positions, effective communication or even watching television inside those affected apartments would be extremely difficult and sleep would be nearly impossible. This information should have been disclosed in the Paoletti report.

### Comment 4: General Information Relative to This Study

BAC agrees with each of the bullet points in this section with the exception of the last bullet point. The final bullet point states that "No attention is devoted to environmental noise codes, ordinances, or standards."

While it is true that the Paoletti report did not address any codes, ordinances or standards, the City of Sparks does have such standards which would be applicable to this venue. Section 9.42.070 of the City of Sparks Municipal Code states the following:

### Section 9.42.070 - Regulations.

The commercial and noncommercial use of sound-amplifying equipment shall be subject to the following regulations:

- A. The only sounds permitted shall be either music or human speech, or both.
- B. The operation of sound-amplifying equipment shall only occur between the hours of eight a.m. and eight p.m. each day except on Sundays and legal holidays. No operation of sound-amplifying equipment for commercial purposes shall be permitted on Sundays or legal holidays. The operation of sound-amplifying equipment for noncommercial purposes on Sundays and legal holidays shall only occur between the hours of ten a.m. and eight p.m. The sound-amplifying equipment shall be operated only on the date(s) and place(s) specified in the approved registration statement.

- 1. For sound permits approved within Special Event permits located in Victorian Square, the commercial operation of sound-amplifying equipment shall only occur between the hours of eight a.m. and ten p.m. or at the discretion of the city manager or his designee. The sound-amplifying equipment shall be operated only on the date(s) and place(s) specified in the approved permit.
- C. No sound emanating from sound-amplifying equipment shall exceed fifteen dbA above the ambient as measured at any property line.
- D. It is unlawful to operate any sound-amplifying equipment within three hundred feet of churches, schools, hospitals, or city or county buildings.
- E. In any event, the volume of sound shall be so controlled that it will not be unreasonably loud, raucous, jarring, disturbing, or a nuisance to reasonable persons of normal sensitiveness within the area of audibility.
- F. The speech or music amplified shall not be profane, lewd, obscene or slanderous.

It is unclear why the local noise standards were omitted in the Paoletti report, but review of Municipal Code section 9.42.070.C clearly establishes a threshold of 15 dB over ambient for amplified music events. Both the Paoletti analysis and BAC's independent analysis indicate that noise levels generated during concert events would exceed this standard.

Absent addressing specific codes, ordinances or standards, the Paoletti report does not provide a reasonable threshold for determining whether or not persons residing in the nearby apartments would be adversely affected by noise from concert events. It is insufficient to simply provide projections of sound levels from a project without addressing the impacts of those sound levels upon noise-sensitive land uses in the project vicinity. Such criteria and the associated impact assessment should have been included in the Paoletti Study.

### **Comment 5: Acoustical Analysis**

### Ambient Sound Levels:

Figures SPMP and SMR are difficult to read due to low resolution. In addition, it is unclear if the ambient noise measurement results shown in Figure SMR are presented in terms of A-weighted or linear levels. Given the reported levels of 54-56 dBA in the first paragraph on Page 5, it appears that the ambient surveys were conducted to capture A-weighted sound levels (as is appropriate). However, the frequency data shown on Figure SMR indicates linear levels. A simple table depicting the time, duration, and measured  $L_{eq}$ ,  $L_{max}$ , and  $L_n$  values of the ambient noise surveys would be helpful.

# Noise Impact/exposure of sound from the proposed Event Center to the surrounding project site during a loud concert:

The statement that the amplified music at 100 dBA plus 50% crowd noise is discussed in the Paoletti report since they represent worst-case is incorrect. It is BAC's professional

City of Sparks December 18, 2018 Page 8

> opinion that a level of 100 dBA at the sound mixing booth represents typical, not worstcase, concert noise generation for a venue of this proposed size.

### Expected sound level inside of a residential unit during a loud concert:

BAC agrees with the assumptions cited in the bullets on Page 5 of the Paoletti report with the exception of the use of a 1-inch insulated double glazed window. Typical thermal windows used in most new residential construction consist of dual 1/8 inch panes of glass separated by a ¼ inch airspace. The sound transmission class of this standard assembly is expected to be approximately 27-28. The use of a 1-inch thick window for this analysis would result in an understatement of interior noise levels within residences if they were actually constructed with a standard STC 27 window.

The Paoletti Report assumption that interior ambient noise levels within the nearby apartments would be approximately 46 dBA with air conditioning operating is consistent with BAC's expectations of interior ambient conditions, as noted previously.

Figures MBP and MLF are labeled as "conceptual illustrations...". As a result, their utility to the Paoletti study or its conclusions is unclear.

Figure ISL indicates that the estimated noise level due to music would be approximately 85-90 dBA at the exterior façade. As noted previously, however, exterior noise levels at the nearest residential building façades would be 92 to 99 dBA, which is considerably higher than the levels shown in Figure ISL. In addition, there is insufficient support for the conclusions reached in the Paoletti report from the use of Figure ISL. For example, at 500 Hertz, Figure ISL appears to indicate that interior noise levels resulting from exterior music would essentially equal interior ambient noise levels resulting from air conditioning systems. This conclusion is incorrect.

As noted previously, based on an exterior average noise level of 92 dBA at the building façade (100 dBA at the mixing booth), and a building façade noise reduction of 22 dB with windows closed, the interior noise levels within residences with windows closed would be approximately 70 dBA during concert events. This level is 25 dB above the baseline ambient level of 45 dBA inside those apartments with the air conditioner running. This is in direct contradiction of the final sentence of the Paoletti report which states that sound levels due to music can be at least 5-10 dB above the interior ambient.

### **Comment 6: Appendices**

The sound contour mapping provided in the Paoletti report appendices appear to have been prepared using a programs such as SoundPlan or Cadna. Given the input levels indicated in these figures, it appears that the contours provide a reasonable representation of the sound levels which could be expected in the immediate project vicinity during a concert event. It remains BAC's professional opinion, however, that Appendix Figure 5A is most representative of actual conditions which will result from headliner acts.

### Comment 7: Paoletti Letter Prepared in Response to City Comments

In response to City of Sparks questions on the Paoletti November 16 report, Paoletti prepared a response letter dated November 30, 2018. In that response letter, Paoletti dismisses the possibility of implementing two potential noise mitigation measures put forth by the City of Sparks.

BAC tends to agree with the Paoletti response that the two mitigation options identified by the City of Sparks would likely be infeasible or mostly ineffective. That said, the Paoletti report does not offer any form of noise mitigation options for this venue even though there is sufficient information contained within the Paoletti report and BAC's independent analysis to indicate that the nearby residences will be significantly impacted by noise during concerts held at this venue.

### Conclusions Regarding the Paoletti Study

Overall, the noise modelling results presented in the Paoletti report appear to have been professionally prepared and seem reasonable for the given inputs. BAC does not have any substantive issues with the actual modelling. However, BAC does disagree with the model *inputs* used by Paoletti to predict building façade noise levels, and the degree by which ambient noise levels within the nearby apartment will increase during concerts.

Industry standards for noise study preparation include presentation of any pertinent, locally-adopted, noise standards, and would compare predicted noise levels resulting from the project against those standards. Neither was included in the Paoletti report.

In conclusion, it is BAC's professional opinion that the Paoletti report both understates the level of noise impact which will result from concerts at the Nugget Event Center and fails to provide any options for noise mitigation. While it may be true that many options of noise control would be either infeasible or ineffectual, the study should nonetheless have presented such a discussion and analysis of potential options.

### Study 2: Double Eagle Consulting Acoustical Analysis – Report not dated.

### **Comment 1: Overall Impression of Noise Study**

The Introduction section of this study clearly presents the objectives of the analysis.

The criteria section of this study clearly presents Section 9.42.070 of the City of Sparks Code of Ordinances.

The section on the Existing Noise Environment appropriately presents the conditions present during the ambient noise survey, and presents the results of both the interior and exterior noise level measurements.

Based on the measured average exterior ambient patio noise exposure of 65 dBA  $L_{eq}$ , the projected building façade noise level of 92 dBA  $L_{eq}$  during a concert event would

City of Sparks December 18, 2018 Page 10

constitute a 27 dBA increase in ambient noise levels at the exterior patios of the apartments.

Based on the measured average interior ambient noise exposure of 42 dBA  $L_{eq}$  (with air conditioning turned off – likely 45 dBA with air conditioning on), the projected interior noise level of 70 dBA  $L_{eq}$  during a concert event would constitute a 28 dBA increase in ambient noise levels at the interior living areas of the apartments. Both of these increases in sound level resulting from the project would be considered significant by application of any reasonable industry standards. These findings are consistent with BAC's independent analysis.

In the paragraph immediate preceding Table 3, the statement, "Studies show that rock concerts can be over 120 dBA with peaks exceeding 135 dBA", is not consistent with industry standards unless these levels are in reference to a position directly in front of the speakers, but the source of this statement is not provided. It is BAC's professional experience that, at a distance of 100 feet from the stage speakers, sound levels can be expected to average approximately 100 dBA for headliner act in a venue of this size, with maximums rising between 105 and 110 dBA.

Regarding the mitigation options cited in the Double Eagle Consulting report, BAC agrees that the reorienting of the amphitheater so the musicians face south, could provide an appreciable decrease in sound levels at the nearest apartments to the north and west of the site. However, the planting of mature trees will be essentially ineffectual in appreciably reducing concert sound levels at the nearest residences. The installation of temporary sound absorbing walls in close proximity to the speakers during major concerts could also provide a clearly noticeable decrease in sound levels at the nearby apartments, but likely only if used in conjunction with the reorientation of the amphitheater to the south. Finally, the installation of additional sound proofing materials for each window in the 194 apartment units could result in an appreciable decrease in interior noise levels within the nearby apartments. However, the feasibility of this measure and who would ultimately be responsible for its implementation is unclear at this point.

This concludes BAC's comments on the Nugget Arena noise studies. Please contact BAC at (916) 663-0500 or <u>PaulB@bacnoise.com</u> with any comments or questions regarding this letter.

Sincerely,

Bollard Acoustical Consultants, Inc.

Kollan

Paul Bollard President, INCE Board Certified



#### **DEAR APPLICANT:**

#### THE CITY OF SPARKS APPLICATION PROCESS REQUIRES THAT THE PROPERTY OWNER AUTHORIZE THE APPLICANT TO REQUEST DEVELOPMENT RELATED APPLICATIONS. DEVELOPMENT APPROVALS REMAIN WITH THE LAND; THEREFORE, THE PROPERTY OWNER IS ALWAYS RESPONSIBLE FOR ANY ACTIVITY ON THE PROPERTY.

14

car - rahe

OWNER AFFIDAVIT
STATE OF NEVADA )
) SS. COUNTY OF WASHOE )
I, <u>Stephen W. Driscoll</u> being duly sworn, depose and say that I am an owner of property/authorized agent involved in this petition and that I authorize to request development related applications on my property. I also give permission for site visitation by the Planning Commission, City Council and City Staff.
Name: Stephen W. Driscoll
Subscribed and sworn to before me this 28 Day of Dec. 2018.
Notary Public in and for faid County and State My commission expires: 8 8-222 Notary Public - State of Nevada Appointment Recorded in Washoe County No: 98-4185-2 - Expires Aug. 06, 2022
APPLICANT AFFIDAVIT
STATE OF NEVADA)) SS.COUNTY OF WASHOE)
I,
Name:
Title:
Signed:
Subscribed and sworn to before me this Day of, 20
Notary Public in and for said County and State
My commission expires: