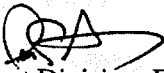




MEMORANDUM

TO: Greg Guernsey, AICP, Director
Planning and Zoning Department

FROM: Don Pitts, Manager 
Music & Entertainment Division, Economic Development Department

DATE: January 5, 2016

SUBJECT: Clarification on Concrete Pouring Recommendations

After reviewing the November 16th Planning and Neighborhoods Committee Report related to the proposed concrete pouring ordinance, I feel that there may be some confusion on what we recommended and the reasons behind them. During the stakeholder process we heard concerns on various aspects of concrete pouring. Our position is purely based on sound and noise issues regulated under Chapter 9-2 Noise and Amplified Sound.

Early tests and limited research of late night concrete pouring by the Music & Entertainment Division indicated that up to 10 dBA above ambient noise levels could be tolerable in some instances. However after further study, consultation with acoustic/noise firms and mapping of downtown ambient noise, a consensus was reached that up to 3 dBA of noise over ambient levels, while detectable, would not be considered impactful to Central Business District (CBD) residents for late night concrete pours. The (3dBA over ambient) metric was determined by industry standards used in numerous applications ranging from oil and gas drilling and hydraulic fracturing, construction, traffic and other sound sources.

Decades of industry research have concluded the following relationships between levels above ambient noise and impact to nearby residents: 3dB increase – No adverse impact ; 3-5dB increase – Minor adverse impact; 5-10dB increase – Moderate adverse impact; 10-15dB increase – Major adverse impact; 15dB increase – Severe adverse impact.

Peak Hours, Late Night Concrete Pour Impact

Mirroring the established CBD amplified sound cut off times, delivery and pouring of concrete during peak hours up to 85 dBA would not be considered impactful to surrounding residents. Delivery and pouring of concrete during late night hours from 12:00 AM to 6:00 AM is considered impactful. As an example from tests conducted by our office in 2015, during the hours of 12:00 AM and 6:00 AM, Monday through Sunday, the ambient level average (in parts of the CBD) was determined to be 63 dBA. In theory, a concrete pour allowed at this hour at the proposed 75dBA could result in a moderate to major adverse impact on nearby residents, due to the 12-15 dBA increase over ambient levels.

In regards to the 2:00 AM proposed cut-off time, there appears to be some misconceptions regarding this allowance. Currently there are two Entertainment Districts identified in Chapter 9-2 that have the ability to operate with amplified sound until 2:00 AM seven nights per week. The reality is that a majority of the venues in these two areas only use this allowance several times per year. A few venues avail themselves

of this allowance seven nights per week; however, they also tend to generate the majority of the sound complaints in these areas Sunday through Wednesday.

Sound Impact Plan Recommendation

Limitation of sound impact on residents should be prescribed through a Sound Impact Plan (SIP) via a third party, board certified acoustic engineering/noise control firm. SIPs should establish ambient noise levels specific to the site, cover all conceivable sound mitigation contingencies projected for the duration of the build, and be required as part of the concrete pouring permit application, pending final approval by City staff. Sound levels should not exceed 3dBA above the predetermined ambient level obtained during the site specific third party sound test. High performing sound mitigation materials and methods as prescribed in the SIP could be used to stay within 3dBA over ambient limit.

In closing, the Music & Entertainment Division appreciates the opportunity to provide assistance in this process by sharing our experience in dealing with urban sound issues as well as mediating numerous situations between venues and residents. The most significant concern regarding concrete pouring in the CBD would be the late/overnight aspect. Allowing a general blanket sound limit of 75dBA between the hours of 12:00 AM and 6:00 AM could result in sound levels reaching between 10-20dBA over ambient level, as some ambient levels were recorded as low as 55dBA during our testing. Each 10dBA increase in sound level is a perceived doubling to the receiver, thus 75dBA overnight pours would produce a significant impact to downtown residents (up to four times over ambient). It is our recommendation that the implementation of site specific Sound Impact Plans by third party firms, sound mitigation measures and a threshold no greater than 3dBA over a predetermined ambient level is the best solution to noise stability with regard to concrete pours that occur beyond the standard cutoff times.

CC: Kevin Johns, Director, Economic Development
Alex Lopez, Deputy Director, Economic Development