CALIFORNIA ENVIRONMENTAL QUALITY ACT
STATEMENT OF SUPPORT
CLASS 32 (INFILL DEVELOPMENT) EXEMPTION DETERMINATION (CE19-019)
7575 Carson Boulevard
Application No. 1901-17
August 22, 2019

Section 15300 through 15333 of the California Environmental Quality Act (CEQA) establishes certain classes of projects as categorically exempt from the provisions of CEQA because they do not ordinarily result in a significant effect on the environment. The Project proposes to demolition of approximately 29,667 S.F. of building area to construct a 41,394 S.F. restaurant and a 1,554 S.F. tenant space for a total of 42,948 S.F. of new building area for a total net increase of 13,281 square feet of building area to the existing Long Beach Towne Center (commercial shopping center) located at 7575 Carson Boulevard in the Community-Automobile Oriented (CCA) zoning district

CEQA Section 15300.2 provides specific instance where exceptions to the established Classes of Exemptions included Class 32 -Infill Exemption are superseded; none of those conditions were found to apply to this project. The following analysis provides substantial evidence to support a conclusion that the proposed project qualifies for an exemption under CEQA Guidelines Section 15332 as a Class 32 infill development and would not have a significant effect on the environment.

A. THE PROJECT IS CONSISTENT WITH THE APPLICABLE GENERAL PLAN DESIGNATION AND ALL APPLICABLE GENERAL PLAN POLICIES AS WELL AS WITH APPLICABLE ZONING DESIGNATION AND REGULATIONS.

The project site is zoned Community-Automobile Oriented (CCA) District; a designation that permits retail, restaurant and similar uses. This Zoning designation is consistent with the General Plan Land Use Designation (LUD) of LUD #8 – Major Commercial Corridor District. The project is designed to comply with all development standards and implements the General Plan objectives to provide adequate off-site parking, minimize the number of curb cuts, and designs commercial structures that are sensitive to nearby residential uses through its site configuration.

B. THE PROPOSED DEVELOPMENT OCCURS WITHIN CITY LIMITS ON A PROJECT SITE OF NO MORE THAN FIVE ACRES SUBSTANTIALLY SURROUNDED BY URBAN USES.

The project site is entirely within the city limits of Long beach, on an existing developed site in which the construction of the two new tenant spaces amounts to 0.98 acres in size which is less than maximum five acres specified. The subject site at 7575 Carson Boulevard is located within the Long Beach Towne Center south of Carson Boulevard, north of El Dorado Park, East of the San Gabriel River and West of the San Gabriel River Freeway. The project site is an existing

shopping center. The surrounding street, public park, freeway and river channel separate the project site form a range of urban uses including both commercial and residential land uses.

C. THE PROJECT SITE HAS NO VALUE AS HABITAT FOR ENDANGERED, RARE OR THREATENED SPECIES

The project site is a formerly developed site that that has not value as, a habitat for endangered rare or threatened species.

D. APPROVAL OF THE PROJECT WOULD NOT RESULT IN ANY SIGNIFICANT EFFECTS RELATING TO TRAFFIC, NOISE, AIR QUALITY, OR WATER QUALITY.

The project will not result in any significant effects relating to traffic within the area or on the local streets as detailed in the Traffic Assessment prepared by Linscott Law & Greenspan dated May 15, 2019 and incorporated here by reference. Based on the traffic assessment, the project will not exceed 100 daily vehicle trips per day. The project as a whole would result in 1,144 fewer daily trips compared to the existing development. The overall AM peak hour trips would be result in 11 trips while the PM peak hour trips would result in 33 trips, which is under the City established threshold requiring further review.

The Project's emissions were assessed in a memorandum by Michael Baker International dated May 13, 2019 and is incorporated by reference here. Both emissions for construction and operation were found to be below the thresholds of significance for the pollutants established by the South Coast Air Quality Management District. Therefore, there are not significant effects relating to traffic are anticipated.

The ambient noise environment of the Project site consists primarily of traffic noise from the adjacent street and the 605 Freeway located east of the project site. Short term noise levels associated with construction will comply with the City's Noise ordinance. Operational noise associated with the shopping center would be generated by vehicles, doors, car alarms, and peoples talking as is typical of commercial shopping centers. At the time of operation, the shopping center will not introduce a substantial new noise source relative to existing conditions and the project will operate within the standards of the adopted Noise Ordinance. The project has been conditioned to prohibit noise levels from the project to exceed the noise standards specified in the Long Beach Municipal Code. The proposed project will comply with all requirement of the Long Beach Municipal Code Chapter 18.74 pertaining to low impact development standards and practices for stormwater pollution mitigation. Therefor, there will be no significant effects related to water quality.

E. THE SITE CAN BE ADEQUATELY SERVED BY ALL REQUIRED UTILITIES AND PUBLIC SERVICES.

The project was previously developed and is served by utilities and public services. The Project site that results in a net increase of 13,281 square feet can adequately be served by utilities and public by reestablishing connections for water, sewer, electrically and natural gas, which would be undertaken as part of the building permitting process.

Michael Baker INTERNATIONAL

We Make a Difference

MEMORANDUM

To: Michael Tseng, KTGY

From: Randy Nichols, Michael Baker International
Ryan Chiene, Michael Baker International
Danielle Regimbal, Michael Baker International

Date: May 13, 2019

Subject: Dave & Buster's Long Beach Towne Center Project – Air Quality Technical Memorandum

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PURPOSE

The purpose of this technical memorandum is to evaluate potential short- and long-term term air quality impacts resulting from the construction and operation of the proposed Dave & Buster's project (project), located in Long Beach, California. This memorandum has been prepared to support an exemption from the California Environmental Quality Act (CEQA) in accordance with Section 15332 (In-Fill Development Projects) of the State of California CEQA Guidelines. Specifically, this analysis addresses the air quality impacts referenced in State CEQA Guidelines Section 15332(d).

PROJECT LOCATION

The project site is located within the Long Beach Towne Center at 7575 Carson Boulevard, Long Beach, California. The project site is situated along a main semicircular drive that feeds into outlying parking fields, and near an Edwards Cinemas multi-plex movie theater. The Long Beach Towne Center is of regional scale, comprised of nearly 859,000 square feet of existing building area and over 4,370 parking stalls. The Long Beach Towne Center is bordered by the Interstate 605 (I-605) freeway to the east, Carson Street to the north, El Dorado Regional Park to the south, and the San Gabriel River to the west.

According to the City of Long Beach General Plan, the project site is designated Major Commercial Corridor. The project site is zoned as Community Commercial Automobile-Oriented (CCA).

PROJECT DESCRIPTION

The project proposes to demolish approximately 29,667 square feet of an existing food court building and adjacent outdoor patio spaces, to be replaced with a new Dave & Buster's entertainment/restaurant business consisting of 41,394 square feet of floor area and a new 1,554 square feet retail tenant space. As such, the existing building footprint would expand by approximately 13,281 square feet.

CEQA THRESHOLDS

The proposed project qualifies for exemption from CEQA in accordance with Section 15332 of the State CEQA Guidelines for in-fill development projects. The exemption applies because the project would be located in an urbanized area on a site that has been previously developed.

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended and prepared in accordance with the City of Long Beach in order to support the CEQA exemption and demonstrate that the project would not result in air quality impacts. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Conflict with or obstruct implementation of the applicable air quality plan (refer to Impact AQ-1);
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable Federal or State ambient air quality standard (refer to Impact AQ-2);
- Expose sensitive receptors to substantial pollutant concentrations (refer to Impact AQ-3);
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people (refer to Impact AQ-4);

City of Long Beach General Plan

The City of Long Beach General Plan includes the following goals applicable to air quality from the proposed project:

GOAL 6.0: Minimize particulate emissions from the construction and operation of roads and buildings, from mobile sources, and from the transportation, handling and storage of materials.

Policy 6.1: Control Dust. Further reduce particulate emissions from roads, parking lots, construction sites, unpaved alleys, and port operations and related uses.

Air Quality Thresholds

The project site is located in South Coast Air Basin (SCAB), which is currently in nonattainment status with State standards for ozone (O_3), particulate matter 2.5 microns in diameter or less ($PM_{2.5}$), and particulate matter 10 microns in diameter or less (PM_{10}), as well as Federal O_3 and $PM_{2.5}$ standards. The SCAQMD has established methods to guide local agency reviews of land use projects to ensure that they would not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any Federal attainment plan.

State standards are promulgated by CARB as mandated by the California Clean Air Act (CCAA). SCAQMD has developed criteria pollutant emission thresholds for volatile organic compounds (VOCs), nitrogen oxides (NO_X), carbon monoxide (CO), sulfur dioxide (often used interchangeably with sulfur oxides [SO_X]), PM_{10}, and $PM_{2.5}$, which are used to determine whether or not the proposed project would violate an air quality standard or contribute to an existing violation during operations and/or construction. The *CEQA Air Quality Handbook* provides significance thresholds for both construction and operation of projects within the SCAQMD jurisdictional boundaries. If the SCAQMD thresholds are exceeded, a potentially significant impact could result at the project level or cumulatively region-wide. However, ultimately the lead agency determines the thresholds of significance for impacts. The City of Long Beach applies the thresholds recommended by SCAQMD in the CEQA Air Quality Handbook. If a project proposes development that would generate emissions in excess of the established thresholds, as outlined in Table 1, *South Coast Air Quality Management District Emissions Thresholds*, a significant air quality impact may occur and additional analysis is warranted to fully assess the significance of impacts.

Table 1
South Coast Air Quality Management District Regional Emissions Thresholds

Phase	Pollutant (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Construction	75	100	550	150	150	55
Operational	55	55	550	150	150	55
ROG = reactive organic gases; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter up to 10 microns; $PM_{2.5}$ = particulate matter up to 2.5 microns						
Source: South Coast Air Quality Management District, *CEQA Air Quality Handbook,* November 1993.						

Additionally, Table 2, *South Coast Air Quality Management District Land Use Screening Thresholds*, provides land use screening thresholds for determining when a project's construction and operational emissions could exceed the thresholds of significance provided in Table 1. If the land use screening thresholds are exceeded, further analysis would be required to determine whether a potentially significant impact may occur.

Table 2
South Coast Air Quality Management District Land Use Screening Thresholds

Phase	Primary Land Use	Screening Threshold (GFA)
Construction	Restaurant	975,000 sq. ft.
	Shopping Center	975,000 sq. ft.
Operational	Restaurant	23,000 sq. ft.
	Shopping Center (small, 10-500)	22,000 sq. ft.
Notes: sq. ft. = square feet, GFA = gross floor area		
Source: South Coast Air Quality Management District, *CEQA Air Quality Handbook,* November 1993.		

Project Impact Analysis

Impact AQ-1: Would the Project Conflict with or Obstruct Implementation of the Applicable Air Quality Plan?

Less Than Significant Impact. The applicable air quality plan is the 2016 AQMP. Among the land use measures to improve regional air quality that are set forth in the AQMP, is encouragement of more infill development within already established communities and urbanized areas, which substantially reduces emissions related to automobile travel. The proposed small-scale project is located in the interior of a long-established regional commercial center and is readily accessible by nearby elements of the arterial and freeway network. As discussed above, project-related emissions that fall below the established SCAQMD construction and operational screening thresholds would, therefore, be considered less than significant. As discussed in Impact AQ-2 below, the proposed project falls below the land use screening thresholds for both construction and operational emissions; therefore, the project's temporary and long-term air emissions would not exceed SCAQMD thresholds. As such, the proposed project would not conflict with or obstruct implementation of the 2016 AQMP.

Mitigation Measures: No mitigation is required.

Impact AQ-2: Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?

Less Than Significant Impact.

Short-Term Construction Emissions

Construction of the proposed project would demolish 29,667 square feet of the existing food court building area and adjacent outdoor patio spaces to construct the Dave & Buster's structure and associated retail space (approximately 42,948 square feet). Based on the CEQA *Air Quality Handbook* available land use screening thresholds, the project would be categorized as a restaurant and shopping center as the project proposes restaurant/entertainment and retail uses. As such, construction of the project (i.e. 42,948 square feet) would not exceed the construction land use screening thresholds for restaurant and shopping enter land uses of 975,000 square feet; refer to Table 2. Therefore, emissions associated with project construction would be nominal and would not exceed SCAQMD thresholds for any criteria pollutants.

With respect to the proposed project's construction-period air quality emissions and cumulative Basin-wide conditions, the SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the 2016 AQMP pursuant to FCAA mandates. As such, the proposed project would comply with SCAQMD Rule 403 and Rule 1113 requirements. Rule 403 requires that fugitive dust be controlled with the best available control measures in order to reduce dust so that it does not remain visible in the atmosphere beyond the property line of the proposed project. Rule 403 addresses emissions or particulate matter, including the small diameter particulates for which the region is currently in a nonattainment status. Compliance with Rule 403 would also satisfy General Plan Goal 6.0, which aims to minimize particulate emissions though dust control. Additionally, all architectural coatings for the proposed project structure would comply with

SCAQMD Rule 1113 – Architectural Coating.[1] Rule 1113 provides specifications on painting practices as well as regulates the ROG content of paint. Further, the proposed project would comply with adopted 2016 AQMP emissions control measures (e.g. best management practices, low-emission diesel requirement, and best available control technology). Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP construction emissions control measures) would also be imposed on construction projects throughout the Basin.

As previously determined, the project would not exceed SCAQMD construction thresholds for any criteria pollutants. Since SCAQMD construction thresholds indicate whether an individual project's emissions have the potential to affect cumulative regional air quality, it can be expected that the project-related construction emissions would not be cumulatively considerable. Furthermore, the project is located in the interior of an established regional commercial center and located over 700 feet from the nearest receptor. As such, the relatively minor construction activities and associated minor levels of emissions, in combination with local construction projects, would not create a cumulatively considerable net increase of localized emissions for any nonattainment criteria pollutant in the region at nearby sensitive receptors. Therefore, the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (i.e., O_3, $PM_{2.5}$, and PM_{10}) during construction activities, and impacts would be less than significant.

Long-Term (Operational) Emissions

Project-generated emissions would be associated with mobile source emissions from motor vehicle use, energy emissions from electricity and natural gas consumption, and area sources generated by the use of natural-gas-fired appliances, landscape maintenance equipment, consumer products, and architectural coatings. According to the traffic analysis prepared for this project (LL&G, May 2019), the proposed project would reduce daily trip generation by 1,100 trips, compared to the existing food court and retail spaces that would be removed. This would reduce the volume of air pollutants associated with vehicle exhaust emissions, compared to existing conditions. The proposed project would add approximately 13,281 square feet of operational space to the existing building. As shown in Table 2, operational land use screening thresholds for restaurants and shopping centers are 23,000 square feet and 22,000 square feet, respectively. As such, the project's net increase in operational space (13,281 square feet) would be below the SCAQMD operational land use screening thresholds for restaurants and shopping centers for all criteria pollutants, and thus, would not contribute to a significant increase of nonattainment air pollutants (i.e., O_3, $PM_{2.5}$, and PM_{10}) in the Basin. In addition, cumulative projects throughout the Basin would be required to comply with all SCAQMD rules and regulations and would be subject to CEQA review (if required) to determine local, regional, and cumulative air quality impacts. Cumulative projects would be required to minimize any significant air quality impacts through implementation of feasible mitigation measures. Thus, the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (i.e., O_3, $PM_{2.5}$, and PM_{10}) and impacts would be less than significant.

[1] South Coast Air Quality Management District, *Regulation XI Source Specific Standards,* http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf?sfvrsn=15, accessed on April 10, 2019.

Mitigation Measures: No mitigation is required.

Impact AQ-3: Would the project expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact.

As discussed above, the project would not exceed the SCAQMD's land use screening thresholds during construction or operational activities and would generate negligible emissions from interior operations into the atmosphere through venting of fumes from interior cooking areas. The nearest sensitive receptors are residential uses located over 700 feet to the north of the project site. At this distance, the project's construction and operational air emissions would be negligible and would not impact any sensitive receptors. Further, the project is located in a highly developed area within the Long Beach Towne Center and is surrounded by major transportation routes (i.e. I-605 and Carson Street), El Dorado East Regional Park, and the San Gabriel River. Due to the nature of the project (a commercial infill development within a developed regional shopping center) and distance to sensitive land uses (over 700 feet to the north), the project would not expose sensitive receptors to substantial pollutant concentrations above existing conditions, during construction or over the long-term operating life of this business. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.

Impact AQ-4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact. California Health & Safety Code, Division 26, Part 4, Chapter 3, Section 41700 prohibit the emission of any material which causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of the public. Projects required to obtain permits from SCAQMD, typically industrial and some commercial projects, are evaluated by SCAQMD staff for potential odor nuisance and conditions may be applied (or control equipment required) where necessary to prevent occurrence of public nuisance. The proposed project would not require such a permit from SCAQMD.

According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project does not include any uses identified by the SCAQMD as being associated with odors. Construction activities associated with the project may generate detectable odors from heavy-duty equipment exhaust. Construction-related odors would be short-term in nature and cease upon project completion. Therefore, the project would not emit emissions, including odors, adversely affecting a substantial number of people and impacts would be less than significant.

Mitigation Measures: No mitigation is required.

CONCLUSION

Project implementation would result in less than significant short-term and long-term regional and localized air quality impacts. No mitigation measures would be required.

REFERENCES

City of Long Beach, *General Plan, Air Quality Element*, 1996.

City of Long Beach, *General Plan, Land Use Element*, 1989.

Google Earth, 2018.

LL&G Engineers, 2019. *Traffic Assessment for the Proposed Dave &Buster's at the Long Beach Towne Center.*

South Coast Air Quality Management District, *Final 2016 Air Quality Management Plan*, March 2017, http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15 .

South Coast Air Quality Management District, *CEQA Air Quality Handbook*, November 1993.

Michael Baker INTERNATIONAL

We Make a Difference

MEMORANDUM

To: Michael Tseng, KTGY

From: Randy Nichols, Michael Baker International
Ryan Chiene, Michael Baker International
Danielle Regimbal, Michael Baker International

Date: May 13, 2019

Subject: Dave & Buster's Project at the Long Beach Towne Center – Noise Technical Memorandum

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PURPOSE

The purpose of this technical memorandum is to evaluate potential short- and long-term term noise and groundborne vibration impacts as a result of the proposed Dave & Buster's project (project), located in Long Beach, California. This memorandum has been prepared to support an exemption from the California Environmental Quality Act (CEQA) in accordance with Section 15332 (In-Fill Development Projects) of the State of California CEQA Guidelines. Specifically, this analysis addresses the noise impacts referenced in State CEQA Guidelines Section 15332(d).

PROJECT LOCATION

The project site is located within the Long Beach Towne Center at 7575 Carson Boulevard, Long Beach, California. The project site is situated along a main semicircular drive that feeds into outlying parking fields, and near an Edwards Cinemas multi-plex movie theater. The Long Beach Towne Center is of regional scale, comprised of nearly 859,000 square feet of existing building area and over 4,370 parking stalls. The Long Beach Towne Center is bordered by the Interstate 605 (I-605) freeway to the east, Carson Street to the north, El Dorado Regional Park to the south, and the San Gabriel River to the west.

According to the City of Long Beach General Plan, the project site is designated Major Commercial Corridor. The project site is zoned as Community Commercial Automobile-Oriented (CCA).

PROJECT DESCRIPTION

The project proposes to demolish approximately 29,667 square feet of an existing food court building and adjacent outdoor patio spaces, to be replaced with a new Dave & Buster's entertainment/restaurant business consisting of 41,394 square feet of floor area and a new 1,554

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square feet retail tenant space. As such, the existing building footprint would expand by approximately 13,281 square feet.

ENVIRONMENTAL SETTING AND REGULATORY FRAMEWORK

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air, and is characterized by both its amplitude and frequency (or pitch). The human ear does not hear all frequencies equally. In particular, the ear de-emphasizes low and very high frequencies. To better approximate the sensitivity of human hearing, the A-weighted decibel scale (dBA) has been developed. On this scale, the human range of hearing extends from approximately three dBA to around 140 dBA.

Noise is generally defined as unwanted or excessive sound, which can vary in intensity by over one million times within the range of human hearing; therefore, a logarithmic scale, known as the decibel scale (dB), is used to quantify sound intensity. It is difficult to specify noise levels that are generally acceptable to everyone; noise that is considered a nuisance to one person may be unnoticed by another. Standards may be based on documented complaints in response to documented noise levels, or based on studies of the ability of people to sleep, talk, or work under various noise conditions. However, all such studies recognize that individual responses vary considerably. Standards usually address the needs of the majority of the general population.

Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks, and airplanes, and stationary sources such as construction sites, machinery, and industrial operations. Noise generated by mobile sources typically attenuates (is reduced) at a rate between 3 dBA and 4.5 dBA per doubling of distance. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of 3 dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance. Noise generated by stationary sources typically attenuates at a rate between 6 dBA and about 7.5 dBA per doubling of distance.

There are a number of metrics used to characterize community noise exposure, which fluctuate constantly over time. One such metric, the equivalent sound level (L_{eq}), represents a constant sound that, over the specified period, has the same sound energy as the time-varying sound. Noise exposure over a longer period of time is often evaluated based on the Day-Night Sound Level (L_{dn} or DNL). This is a measure of 24-hour noise levels that incorporates a 10-dBA penalty for sounds occurring between 10:00 p.m. and 7:00 a.m. The penalty is intended to reflect the increased human sensitivity to noises occurring during nighttime hours, particularly at times when people are sleeping and there are lower ambient noise conditions. Typical L_{dn} noise levels for light and medium density residential areas range from 55 dBA to 65 dBA.

State of California

The State Office of Planning and Research Noise Element Guidelines include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The Noise Element Guidelines contain a land use compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the Community Noise Equivalent Level (CNEL). The guidelines also present adjustment factors that may be used to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

City of Long Beach

City of Long Beach General Plan Noise Element

The Noise Element of the City of Long Beach General Plan was adopted on March 25, 1975. The Noise Element identifies an interior noise goal of 45 L_{dn} for residential uses but does not identify standards for other land uses.

Long Beach Municipal Code

Chapter 8.80, Noise, of the Long Beach Municipal Code (LBMC) sets forth all noise regulations controlling unnecessary, excessive, and annoying noise and vibration in the City of Long Beach (City). As outlined in Section 8.80.150 of the LBMC, maximum exterior noise levels are based on land use districts. According to the Noise District Map of the LBMC, the project site is located within Receiving Land Use District One. District One is defined as "predominantly residential uses with other land use types also present". Table 1, *Long Beach Noise Limits*, summarizes the exterior and interior noise limits for District One.

Table 1
Long Beach Noise Limits

Land Use District	Exterior		Interior	
	Exterior Noise Level (Leq) 7 AM to 10 PM	Exterior Noise Level (Leq) 10 PM to 7 AM	Interior Noise Level (Leq) 7 AM to 10 PM	Interior Noise Level (Leq) 10 PM to 7 AM
District One	50	45	45	35

Notes:
1. No person shall operate or cause to be operated any source of sound at any location within the incorporated limits of the City or allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, which causes the noise level when measured from any other property to exceed:
   - The noise standard for that land use district as specified in Table 1 for a cumulative period of more than five (5) minutes in any hour; or
   - The noise standard plus five decibels (5 dB) for a cumulative period of more than one (1) minute in any hour; or
   - The noise standard plus ten decibels (10 dB) or the maximum measured ambient, for any period of time.

Source: City of *Long Beach Municipal Code (LBMC)*, Section 8.80.160 and Section 8.80.170, 1977.

Section 8.80.202, *Construction Activity – Noise Regulations*, of the *LBMC* specifies the following construction-related noise standards:

The following regulations shall apply only to construction activities where a building or other related permit is required or was issued by the Building Official and shall not apply to any construction activities within the Long Beach harbor district as established pursuant to Section 201 of the City Charter.

A. *Weekdays and federal holidays. No person shall operate or permit the operation of any tools or equipment used for construction, alteration, repair, remodeling, drilling, demolition or any other related building activity which produce loud or unusual noise which annoys or disturbs a reasonable person of normal sensitivity between the hours of 7:00 PM and 7:00 AM the following day on weekdays, except*

for emergency work authorized by the Building Official. For purposes of this Section, a federal holiday shall be considered a weekday.

B. *Saturdays. No person shall operate or permit the operation of any tools or equipment used for construction, alteration, repair, remodeling, drilling, demolition or any other related building activity which produce loud or unusual noise which annoys or disturbs a reasonable person of normal sensitivity between the hours of 7:00 PM on Friday and 9:00 AM on Saturday and after 6:00 PM on Saturday, except for emergency work authorized by the Building Official.*

C. *Sundays. No person shall operate or permit the operation of any tools or equipment used for construction, alteration, repair, remodeling, drilling, demolition or any other related building activity at any time on Sunday, except for emergency work authorized by the Building Official or except for work authorized by permit issued by the Noise Control Officer.*

D. *Owner's/employer's responsibility. It is unlawful for the landowner, construction company owner, contractor, subcontractor or employer of persons working, laboring, building, or assisting in construction to permit construction activities in violation of provisions in this Section.*

E. *Sunday work permits. Any person who wants to do construction work on a Sunday must apply for a work permit from the Noise Control Officer. The Noise Control Officer may issue a Sunday work permit if there is good cause shown; and in issuing such a permit, consideration will be given to the nature of the work and its proximity to residential areas. The permit may allow work on Sundays, only between 9:00 AM and 6:00 PM, and it shall designate the specific dates when it is allowed.*

EXISTING CONDITIONS

Stationary Sources

The project is located within the Long Beach Towne Center shopping center. The primary sources of stationary noise in the project vicinity are activities related to commercial, restaurant, and retail uses (i.e., mechanical equipment, pedestrians, and parking areas). The noise associated with these sources may represent a single-event noise occurrence, short-term, or long-term/continuous noise.

Mobile Sources

The majority of the existing mobile noise in the project area is generated from vehicle sources along Carson Street and I-605. Additionally, aircraft overflights from Long Beach Airport are a source of noise in the City of Long Beach. According to the *General Plan Noise Element Update Existing Conditions Report*, the project site is located outside of the Long Beach Airport 65 dBA noise contour.[1]

[1] City of Long Beach, *General Plan Noise Element Update Existing Conditions Report, Figure 4 – Existing Long Beach Airport Noise Contours*, http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=7042, accessed April 8, 2019.

Sensitive Receptors

Certain land uses are particularly sensitive to noise, including schools, hospitals, rest homes, long-term medical and mental care facilities, and parks and recreation areas. Residential areas are also considered noise sensitive, especially during the nighttime hours. The nearest sensitive receptors are residential uses located over 700 feet to the north of the project site, beyond Carson Street, a major arterial roadway and itself a prominent noise source that affects those nearest residential uses more than activities within the Long Beach Towne Center.

CEQA THRESHOLDS

The proposed project qualifies for exemption from CEQA in accordance with Section 15332 of the State CEQA Guidelines for in-fill development projects. The exemption applies because the small-scale project would be located in an urbanized area on a site that has been previously developed.

The environmental analysis in this memorandum is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended and prepared in accordance with the City of Long Beach in order to support the CEQA exemption and demonstrate that the project would not result in noise impacts. Accordingly, a project may have a significant adverse impact related to noise and vibration if it would do any of the following:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies (refer to Impact NOI-1);

- Generation of excessive groundborne vibration or groundborne noise levels (refer to Impact NOI-2);

- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels (refer to Impact NOI-3).

IMPACT ANALYSIS

NOI-1 Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant Impact

Short-term Construction

Construction activities generally are temporary and have a short duration, resulting in periodic increases in the ambient noise environment. Ground-borne noise and other types of construction-related noise impacts would typically occur during the demolition and site grading phases. Generally, these phases have the shortest duration of all construction phases. High groundborne noise levels and other miscellaneous noise levels can be created during this phase due to the operation of graders, tractors, and backhoes. Typical noise levels generated by construction equipment are shown in Table 2, *Maximum Noise Levels Generated by Construction Equipment*.

Table 2
Maximum Noise Levels Generated by Construction Equipment

Type of Equipment	Typical Noise Level (dBA) at 50 Feet from Source			
	Acoustical Use Factor[1]	L_{max} at 50 Feet (dBA)	L_{max} at 100 Feet (dBA)	L_{max} at 700 Feet (dBA)
Concrete Saw	20	90	84	67
Crane	16	81	75	58
Concrete Mixer Truck	40	79	73	56
Backhoe	40	78	72	55
Dozer	40	82	76	59
Excavator	40	81	75	58
Forklift	40	78	72	55
Paver	50	77	71	54
Roller	20	80	74	57
Tractor	40	84	78	61
Water Truck	40	80	74	57
Grader	40	85	79	62
General Industrial Equipment	50	85	79	62

Note: Acoustical use factor (percent): Estimates the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.

Source: Federal Highway Administration, *Roadway Construction Noise Model (FHWA-HEP-05-054),* dated January 2006.

It should be noted that the noise levels identified in Table 2 are maximum sound levels (L_{max}), which are the highest individual sound occurring at an individual time period. Operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be due to random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts).

The nearest sensitive receptors are residential uses located over 700 feet to the north of the project site. At this distance, construction noise levels could range between approximately 54 dBA and 67 dBA; refer to Table 2. Although sensitive receptors may be exposed to increased noise levels during project construction, LBMC Chapter 8.80 permits construction activities between 7:00 a.m. to 7:00 p.m. Monday through Friday, and 9:00 a.m. to 6:00 p.m. on Saturday. Construction activities are not allowed on Sundays or Federal holidays. In addition, it should be noted that construction noise would further be masked by surrounding buildings within the Long Beach Towne Center and traffic noise along Carson Street and I-605. The project would be required to comply with the City's allowable construction hours and noise standards in LBMC Chapter 8.80. Upon compliance with LBMC Chapter 8.80, construction noise impacts would be less than significant.

Long-Term Operational Impacts

The project would replace an existing food court with a new Dave & Buster's and associated retail space within the Long Beach Towne Center. According to the traffic analysis prepared for this project (LL&G, 2019), the proposed project would result in a reduction of approximately 1,100 daily trips, compared to the existing land uses to be removed. As such, the project would not result in an increase in daily traffic noise, compared to existing conditions. Additionally, stationary noise sources (i.e. heating, ventilation, and air conditioning [HVAC] units) would be consistent

with stationary noise sources already occurring within the existing Long Beach Towne Center. As such, project operational noise would not introduce an intrusive noise source compared to existing conditions. Therefore, noise associated with operational impacts would be less than significant.

Mitigation Measures: No mitigation is required.

NOI-2 Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact.

Short-Term Construction

Project construction can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

The Federal Transit Administration (FTA) has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.20 inch/second) appears to be conservative. The types of construction vibration impact include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. The vibration produced by construction equipment is illustrated in Table 3, *Typical Vibration Levels for Construction Equipment*.

The nearest structure would be located approximately 25 feet to the north of the project construction area. Groundborne vibration decreases rapidly with distance. As indicated in Table 3, based on the Federal Transit Administration (FTA) data, vibration velocities from typical heavy construction equipment operation that would be used during project construction ranges from 0.003 to 0.089 inch-per-second peak particle velocity (PPV) at 25 feet from the source of activity. As the nearest existing structure is located approximately 25 feet north of the proposed Dave & Buster's and associated retail space, the proposed construction activities would not be capable of exceeding the 0.2 inch-per-second PPV significance threshold for vibration. Therefore, vibration impacts would be less than significant.

Table 3
Typical Vibration Levels for Construction Equipment

Equipment	Approximate peak particle velocity at 25 feet (inches/second)[1]	Approximate peak particle velocity at 15 feet (inches/second)[1]
Large bulldozer	0.089	0.191
Loaded trucks	0.076	0.164

Small bulldozer	0.003	0.006
Jackhammer	0.035	0.075

Notes:

1. Calculated using the following formula:

$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$

where: PPV (equip) = the peak particle velocity in inch per second of the equipment adjusted for the distance
PPV (ref) = the reference vibration level in inch per second from Table 12-2 of the FTA *Transit Noise and Vibration Impact Assessment Guidelines*
D = the distance from the equipment to the receiver

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Guidelines*, May 2006. Table 12-2.

Long-Term Operational Impacts

The project proposes a Dave & Buster's restaurant/entertainment business and a small retail space that would not generate ground-borne vibration. The proposed project would not involve rail traffic or heavy truck operations, and therefore would not result in vibration impacts at surrounding uses. A less than significant impact would occur is this regard.

Mitigation Measures: No mitigation is required.

NOI-3 For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The proposed project is not located within an airport land use plan. Further, there is no public airport, public use airport, or private airstrip located within two miles of the project site. The nearest airport to the project site is the Long Beach Airport, located over three miles to the west of the project site at 4100 Donald Douglas Drive. The project site is located outside of the Long Beach Airport 65 dBA noise contour.[2] Therefore, no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

CONCLUSION

Project implementation would result in less than significant short- and long-term noise impacts. No mitigation measures would be required.

[2] City of Long Beach, *General Plan Noise Element Update Existing Conditions Report, Figure 4 – Existing Long Beach Airport Noise Contours*, http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=7042, accessed April 8, 2019.

REFERENCES

California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, 2013.

City of Long Beach, *General Plan Noise Element Update Existing Conditions Report, Figure 4 – Existing Long Beach Airport Noise Contours*, http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=7042, accessed April 8, 2019.

City of Long Beach, *General Plan, Noise Element*, 1975, http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=3051, accessed April 5, 2019.

Federal Highway Administration, *Roadway Construction Noise Model (FHWA-HEP-05-054),* dated January 2006.

Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Guidelines*, May 2006. Table 12-2.

Google Earth, 2018.

LL&G Engineers, 2019. *Traffic Assessment for the Proposed Dave & Buster's at Long Beach Towne Center.*

U.S. Environmental Protection Agency, *Noise From Construction Equipment and Operations, Building Equipment, and Home Appliances*, December 1971.

U.S. Environmental Protection Agency, *Protective Noise Levels,* November 1978.

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LLG Reference: 2.19.4124.1

Subject: **Traffic Assessment for the Proposed Dave & Buster's at Long Beach Towne Center**
Long Beach, California

Dear Mr. Axtell,

As requested, Linscott, Law & Greenspan, Engineers (LLG) is pleased to submit the findings of this Traffic Assessment for the proposed Dave & Busters at Long Beach Towne Center (herein after referred to as Project). The Long Beach Towne Center is located at 7575 Carson Boulevard in the City of Long Beach, California. The subject property is located south of Carson Boulevard, north of El Dorado Regional Park, east of the San Gabriel River and west of the I-605 Freeway. Access the Project site is currently provided via three (3) full access signalized intersections and two (2) right-turn in/right-turn out only driveways on Carson Boulevard.

This analysis evaluates the traffic implications associated with the proposed Project in response to the requirements of the City of Long Beach Public Works Department/Traffic and Transportation Technical Advisory Committee (TAC) comments as summarized in the City's memorandum dated April 8, 2019.

PROJECT LOCATION AND DESCRIPTION

The Project site is a part of the Long Beach Towne Center, which is located at 7575 Carson Boulevard in the City of Long Beach, California. The Long Beach Towne Center is located south of Carson Boulevard, north of El Dorado Regional Park, east of the San Gabriel River and west of the I-605 Freeway. ***Figure 1***

presents a Vicinity Map that illustrates the general location of the existing shopping center and surrounding street system. ***Figure 2*** presents the existing aerial of shopping center and the location of the proposed Project within the subject property.

The Long Beach Towne Center is an existing mixed-use retail/entertainment center with a total floor area of 858,707 square-feet (SF) that includes a mix of retail/commercial, restaurant/fast-casual food uses, fast-food with drive-through, and a movie theater. Existing major tenants include Regal Cinema, Lowe's, Michaels, Ross Dress for Less, Sam's Club, Walmart, PetSmart, Total Wine, Tilly's, Ashley Furniture, Old Navy, Barnes & Noble, Pier 1 Imports, In-N-Out Burger, Chick-fil-A, and a variety of retail, service retail/commercial, restaurant, and fast food uses, inclusive of a food court.

The proposed Project would be constructed in place of roughly 31,731± SF of floor area that consist of 18,514 SF of retail floor area and 13,217 SF of fast-casual restaurant/food court uses, and existing outdoor dining/patio area. ***Figure 3*** presents the proposed Existing Floor Plan of the Project, prepared by KTGY.

Based on review of the Project site plan, the Project includes development of a 41,394± square-foot (SF) sports bar and restaurant to be occupied by Dave & Buster's, plus a 1,554 SF± retail suite. Subject to confirmation, the Project, typically, would operate Sunday through Wednesday from 11:00 AM to 12:00 AM and Thursday through Saturday, 11:00 AM to 1:00 AM. ***Figure 4*** presents the proposed Project's Floor Plan, prepared by KTGY.

PROJECT TRAFFIC CHARACTERISTICS

Trip Generation Forecast

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation equations and/or rates used in the traffic forecasting procedure are found in the 10th Edition of *Trip Generation*, published by the Institute of Transportation Engineers (ITE) [Washington D.C., 2017].

Table 1 summarizes the trip generation rates used in forecasting the vehicular trips generated by the Existing Development and proposed Project. Given the description of the mix of uses, As shown, the trip generation potential of the Existing Development and proposed Project were forecast using ITE Land Use 820: Shopping Center rates, 930: Fast Casual Restaurant rates and 931: Quality Restaurant rates contained in the 10th Edition of *Trip Generation.*

Since the Project is a part of an existing retail center that is comprised of a mix of uses (including retail, restaurant, and cinema), it was appropriate to account for "internal" tripmaking/interactions that will occur between the various land uses on site, and will not occur by traveling on the external street system. ITE trip generation rates and equations are derived from single-use, stand-alone sites, and do not reflect the potential for interaction among uses in a mixed-use setting. To account for trip interaction between the mix of uses, existing and proposed uses, trip adjustments were applied to the Daily, AM peak hour and PM peak hour for the proposed Project.

Additionally, because of the nature of the Project, "pass-by" reductions were applied to existing and proposed Project-generated trips (after accounting for internal trip reductions). This is typically done to account for conditions when the total number of trips generated by existing and proposed development is not entirely new to the external street system. Retail-oriented developments such as Long Beach Towne Center, which are located along major/busy roadways, attract a portion of their trips from traffic already on the street system for a different purpose (i.e., the subject property is not the primary or ultimate destination). These retail trips do not add new traffic to the surrounding street system. To account for trips that come directly from the everyday traffic stream on the adjoining streets (i.e., Carson Boulevard), applicable pass-by reduction factors were incorporated into the Daily, AM peak hour and PM peak hour traffic forecasts.

Table 2 presents the Project's forecast peak hour and daily traffic volumes. A review of the upper portion of *Table 2* indicates that the existing area to be demolished is forecast to generate approximately 4,160 daily trips, with 37 trips (24 inbound, 13 outbound) produced in the AM peak hour and 145 trips (77 inbound, 68 outbound) produced in the PM peak hour on a "typical" weekday.

The middle portion of *Table 2* summarizes the trip generation forecast for the proposed Project. A review of the lower portion of *Table 2* indicates that the Project is forecast to generate approximately 3,016 daily trips, with 26 trips (14 inbound, 12 outbound) produced in the AM peak hour and 176 trips (117 inbound, 59 outbound) produced in the PM peak hour on a "typical" weekday.

A comparison of trips from proposed Project and the Existing Development to be demolished indicates that the implementation of the proposed Project would result in 1,144 fewer daily trips, 11 fewer AM peak hour trips, and 31 more PM peak hour trips. From a "trip budgeting" point of view, the AM and PM peak hours typically govern as traffic studies focus the potential impact of a development project during the weekday AM peak hour and PM peak hour. While daily traffic is of interest, it is not the

basis of peak hour service level calculations that are conducted during the preparation of traffic studies.

CONCLUSIONS

Per the City of Long Beach *Traffic Impact Analysis (TIA) Guidelines,* a traffic study "should be prepared for every project generating more than 100 vehicle trips per day…", and further, "intersections at which the project contributes a total of 50 or more trips per peak hour should be included" in the traffic study.

Review of *Table 2* indicates that implementation of the proposed Project would not exceed "100 vehicle trips per day" threshold. The proposed Project would actually result in 1,144 fewer daily trips when compared to the Existing Development to be demolished. In addition, the AM peak hour would be reduced by 11 trips while the PM peak hour would have a nominal increase of 31 trips, which is less than the "50-peak hour trip threshold" criteria that would typically require detailed intersection evaluation.

Therefore, due to nominal added Project volumes to the street system no additional analysis is needed and further yet, it can be concluded that the Project's potential impact during the weekday AM peak hour and PM peak hour would be insignificant. Further, the proposed Project will not create any new traffic impacts beyond those already previously identified during the original entitlement and evaluation of the Long Beach Towne Center.

* * * * * * * * * * * * * * * * * * * *

LINSCOTT LAW & GREENSPAN engineers

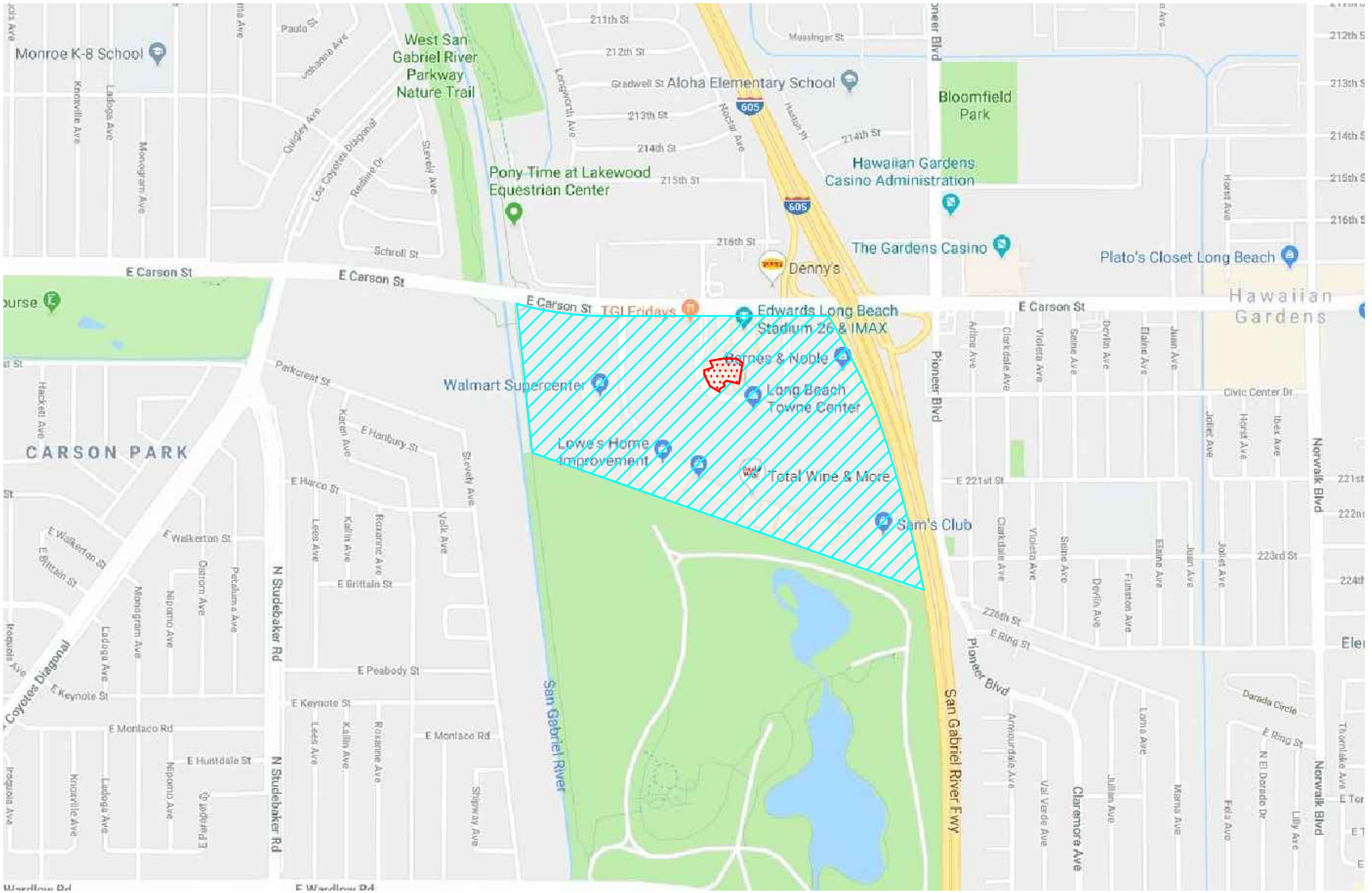
We appreciate the opportunity to be of service on this Project. Should you need further assistance, or have any questions regarding this analysis, please call us at (949) 825-6175.

Very truly yours,
Linscott, Law & Greenspan, Engineers

Richard E. Barretto, P.E.
Principal

cc: Shane S. Green, P.E. LLG

Attachments



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N NO SCALE

SOURCE: GOOGLE

KEY

= PROJECT SITE

= LONG BEACH TOWNE CENTER

FIGURE 1

VICINITY MAP

DAVE & BUSTER'S AT LONG BEACH TOWNE CENTER, LONG BEACH

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N NO SCALE

SOURCE: GOOGLE

KEY

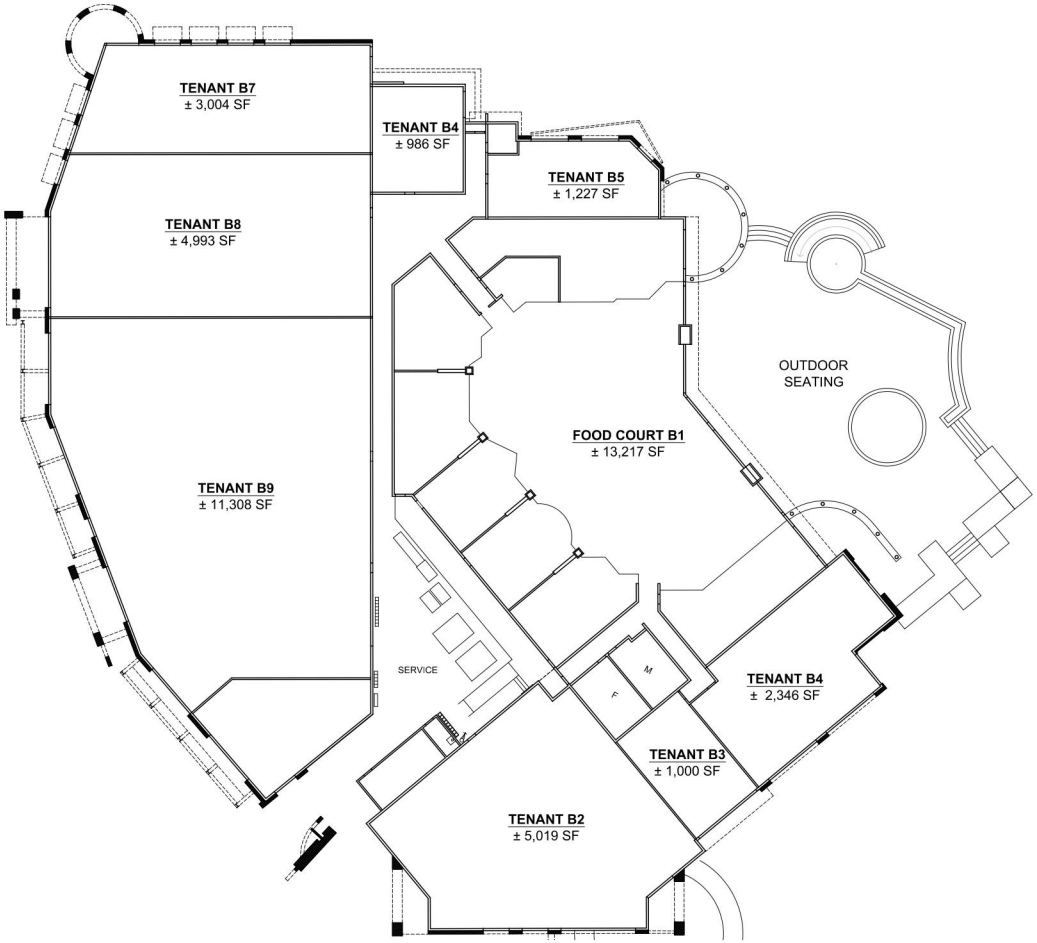
= PROJECT SITE

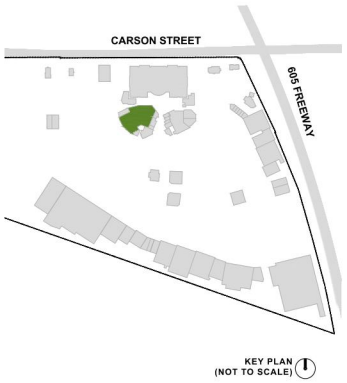
= LONG BEACH TOWNE CENTER

FIGURE 2

EXISTING AERIAL PHOTOGRAPH

DAVE & BUSTER'S AT LONG BEACH TOWNE CENTER, LONG BEACH





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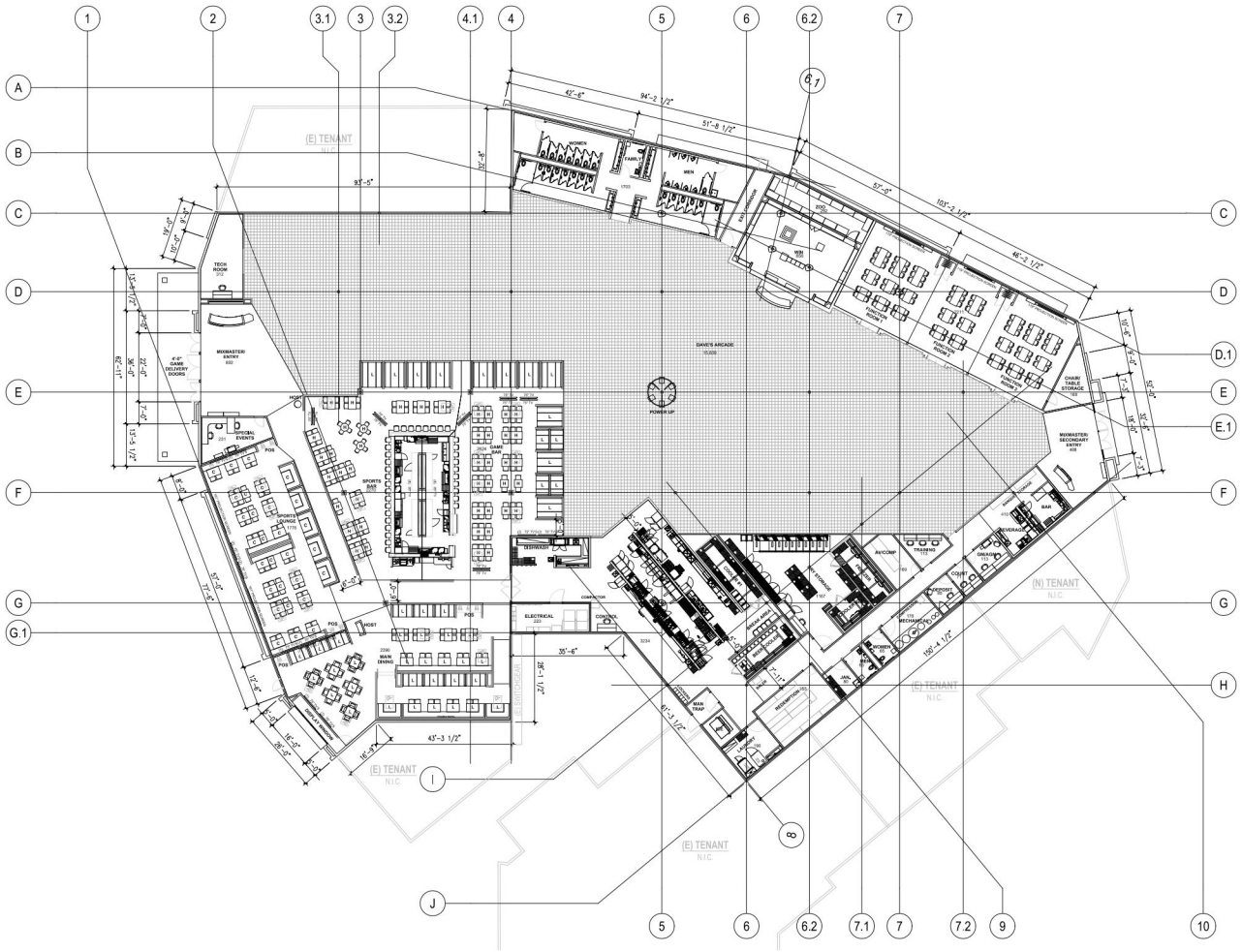
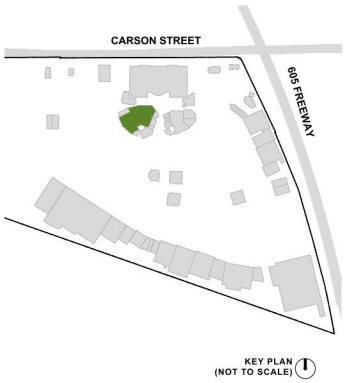
SOURCE: KTGY

FIGURE 3

EXISTING SITE PLAN

DAVE & BUSTER'S AT LONG BEACH TOWNE CENTER, LONG BEACH





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SOURCE: KTGY

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FIGURE 4

PROPOSED SITE PLAN

DAVE & BUSTER'S AT LONG BEACH TOWNE CENTER, LONG BEACH

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TABLE 1
PROJECT TRAFFIC GENERATION RATES[1]
DAVE & BUSTER'S AT LONG BEACH TOWNE CENTER

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Trip Generation Factors:							
▪ 820: Shopping Center (TE/1,000 SF)	37.75	62%	38%	0.94	48%	52%	3.81
▪ 930: Fast Casual Restaurant (TE/1,000 SF)	315.17	67%	33%	2.07	55%	45%	14.13
▪ 931: Quality Restaurant (TE/1,000 SF)	83.84	50%	50%	0.73	67%	33%	7.80

Notes:

▪TE/Student = Trip ends per student

[1] Source: *Trip Generation*, 10th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2017). Average rates used.

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TABLE 2
PROJECT TRAFFIC GENERATION FORECAST[2]
DAVE & BUSTER'S AT LONG BEACH TOWNE CENTER

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Trip Generation Forecast (Existing to be Demolished):							
▪ Retail (18,514 SF)	699	11	6	17	34	37	71
Intern Capture Reduction (5%)	-35	-1	0	-1	-2	-2	-4
Subtotal	*664*	*10*	*6*	*16*	*32*	*35*	*67*
Pass-by Reduction (10% Daily, 10% AM, 34% PM)	-66	-1	-1	-2	-11	-12	-23
Subtotal	*598*	*9*	*5*	*14*	*21*	*23*	*44*
▪ Food Court (13,217 SF)	4,166	18	9	27	103	84	187
Intern Capture Reduction (5%)	-208	-1	0	-1	-5	-4	-9
Subtotal	*3,958*	*17*	*9*	*26*	*98*	*80*	*178*
Pass-by Reduction (10% Daily, 10% AM, 43% PM[3])	-396	-2	-1	-3	-42	-35	-77
Subtotal	*3,562*	*15*	*8*	*23*	*56*	*45*	*101*
Total Trips (Existing to be Demolished)	***4,160***	***24***	***13***	***37***	***77***	***68***	***145***
Trip Generation Forecast (Proposed Project):							
▪ Retail (1,554 SF)	59	1	0	1	3	3	6
Intern Capture Reduction (5%)	-3	0	0	0	0	0	0
Subtotal	*56*	*1*	*0*	*1*	*3*	*3*	*6*
Pass-by Reduction (10% Daily, 10% AM, 34% PM)	-6	0	0	0	-1	-1	-2
Subtotal	*50*	*1*	*0*	*1*	*2*	*2*	*4*
▪ Dave & Buster's (41,394 SF)	3,470	15	15	30	216	107	323
Intern Capture Reduction (5%)	-174	-1	-1	-2	-11	-5	-16
Subtotal	*3,296*	*14*	*14*	*28*	*205*	*102*	*307*
Pass-by Reduction (10% Daily, 10% AM, 44% PM)	-330	-1	-1	-3	-90	-45	-135
Subtotal	*2,966*	*13*	*12*	*25*	*115*	*57*	*172*
Total Trips (Proposed Project)	***3,016***	***14***	***12***	***26***	***117***	***59***	***176***
Net Trips	**-1,144**	**-10**	**-1**	**-11**	**40**	**-9**	**31**

[2] Source: *Trip Generation*, 10th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2017). Average rates used.

[3] The PM peak hour pass-by factor from high turnover restaurant was applied.