

Appendix H. Noise Technical Memorandum

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MEMORANDUM

To: Anthony Shute, Director of Community Development, City of El Cajon
From: Sharon Toland, Project Manager, Harris & Associates
RE: Comparison of Weld Boulevard Distribution Center Project Components to Forester Creek Industrial Park Project 2009 Environmental Impact Report Components – Noise Impacts
Date: January 5, 2021
CC: Darin Neufeld, Diane Sandman, Ryan Binns, Harris & Associates
Susan Guerra, Lee Chesnut, Chesnut Properties
Att: 1, Noise Measurement Data; 2, Typical Operation Scenario Vehicle Noise Levels; 3, Peak-Season Scenario Vehicle Noise Levels

Chesnut Properties (project applicant) is proposing the development of the proposed Weld Boulevard Distribution Center Project (project) on approximately 31.7 acres in the City of El Cajon, California (Figure 1, Regional Location). The project site is part of the Gillespie Field airport located directly east of the site and is owned by the County of San Diego (County). The City of El Cajon/City of Santee jurisdictional boundary coincides with the northern and northwestern project site property lines. The project site is bounded by industrial and one residence land uses in the City of Santee to the north and northwest, respectively. The remainder of the site is bounded by land uses in the City of El Cajon, including the County Operations Facility to the southwest, Weld Boulevard to the south, Cuyamaca Street to the east, Prospect Avenue to the north, and a concrete-lined section of the Forester Creek channel to the northeast. The project site is relatively flat and was previously graded. Prior uses included a golf driving range and cement processing facility. Currently, the project site consists of disturbed open space (Figure 2, Project Site).

In compliance with the California Environmental Quality Act (CEQA), an Addendum to the Forester Creek Industrial Park Project Environmental Impact Report (2009 EIR) is being prepared for the project. The 2009 EIR evaluated an industrial park project with approximately 463,000 square feet of industrial development. The project has since changed, and the current project proposes development of an approximately 142,000-square-foot distribution warehouse, office space, parking, and designated product pick-up and drop-off areas (Figure 3, USGS Topographic Map; Figure 4, Proposed Site Plan). The warehouse square footage would include space for an approximately 17,000-square-foot office to be at the southern end of the warehouse. The remainder of the project site would be developed with surface parking, which would contain approximately 967 total parking spaces, including designated spaces for associates, support staff, managers, personal vans, and warehouse delivery vans in the northern, eastern, and western outskirts of the project site. The project would also include a van loading area consisting of approximately 72 spaces directly west of the warehouse and a van staging area for approximately 72 vans immediately next to the van loading area. There would be 15 dock-high doors (above grade) and a trailer and box truck loading area for approximately 13 vehicles north of the proposed warehouse. Access to the site would be via three driveways on Weld Boulevard—one across from Gillespie Way and two between the intersections of Gillespie Way and Cuyamaca Street. A 6-foot-high solid perimeter wall may be required along the western and northern project boundaries. This memorandum presents a conservative analysis that does not include construction of the perimeter wall and does not assume any noise barrier attenuation.

The delivery station would operate 24 hours per day, 7 days a week, to support the delivery of packages to customer locations between 11:00 a.m. and 9:00 p.m. Delivery operations would consist of approximately 230 delivery vans loading and departing from the delivery station at a rate of 75 vans every 20 minutes in the morning



(between 9:50 a.m. and 11:10 a.m.) and returning to the delivery station in the evening (between 7:10 p.m. and 9:10 p.m.). Approximately 21 line-haul trucks would deliver packages to the delivery station each night primarily between the hours of 10:00 p.m. and 8:00 a.m. However, during the holiday season, peak operation may reach up to 600 vans and 48 trucks in a 24-hour period.

An ambient sound level survey was conducted on September 24 and September 25, 2020, to quantify the current noise environment within the project boundary. One short-term (15-minute) and one long-term (24-hour) measurement were taken on the project site (Figure 5, Noise Measurement Locations). A Larson Davis SoundExpert LxT Type I integrating sound level meter calibrated with a Larson Davis CAL200 calibrator was used to record ambient sound levels. The short-term measurement was taken at the western boundary of the project site at approximately 3:00 p.m. on September 25, 2020. The measured noise level was 63.8 A-weighted decibels (dBA) equivalent continuous sound level (Leq). The 24-hour measurement was taken in approximately the middle of the project site between 3:00 p.m. on September 24, 2020, and 3:00 p.m. on September 25, 2020. The measured noise level was 60.8 dBA community noise equivalent level (CNEL). Average hourly daytime noise level (7:00 a.m. to 7:00 p.m.) was 62.3 dBA Leq. The average hourly evening (7:00 p.m. to 10:00 p.m.) noise level was 56.9 dBA Leq. The average hourly nighttime (10:00 p.m. to 7:00 a.m.) noise level was 42 dBA Leq. Noise levels are consistent with the 64 dBA CNEL and daytime 59 dBA Leq measured on the project site in 2009. Measurement data are provided in Attachment 1.

The purpose of this memorandum is to compare the components of the Forester Creek Industrial Park Project (2009 project) in the 2009 EIR to those of the proposed project to determine whether the potential noise impacts of the proposed project are adequately addressed in the certified 2009 EIR. For each issue addressed in Section 4.10, Noise, in the 2009 EIR, the following analysis summarizes the noise impacts of the 2009 project and provides a comparison to the potential impacts of the proposed project.

Issue 1: Exposure to Permanent Increase in Ambient Noise

Based on Appendix G of the CEQA Guidelines, implementation of the project would have a significant impact if it would result in a permanent increase in ambient noise levels in the vicinity of the project in excess of applicable standards. The 2009 EIR used the Federal Interagency Committee on Noise (FICON) recommended standards to determine whether increases in roadway noise would be considered significant, as provided in Table 1. These thresholds are included in the analysis of the proposed project for consistency with the 2009 EIR. However, the FICON standards are not an adopted threshold by the City of El Cajon and are intended to be applied to aircraft noise. The proposed project analysis has been updated to consider the noise compatibility standards of the El Cajon General Plan Noise Element (City of El Cajon 2001), consistent with the analysis of on-site permanent noise sources. The El Cajon General Plan Noise Element establishes at maximum acceptable standard of 65 dBA CNEL for sensitive receptors and incorporates the Airport Noise/Land Use Compatibility Matrix, which establishes noise levels up to 75 dBA CNEL as compatible with industrial land use.

Table 1. Significant Changes in Noise Exposure

Ambient Noise Level Without Project (CNEL)	Significant Impact
<60 dB	+5 dB or more
60–65 dB	+3 dB or more
>65 dB	+1.5 dB or more

Source: FAA 2007.

Notes: CNEL = community noise equivalent level; dB = decibel

Regarding operational noise, an impact would occur if noise would exceed the El Cajon or Santee Noise Ordinance or General Plan, as applicable at the affected receptor. The El Cajon Noise Ordinance (Section 17.60 in the El Cajon Municipal Code) regulates noise by zone and time of day, with residential zones and nighttime hours having stricter requirements and industrial zones and daytime hours having more tolerant requirements. The El Cajon Noise Ordinance includes a maximum 1-hour average sound level of 75 dBA for industrial zoned properties at any



time of day. As previously stated, the El Cajon General Plan Noise Element includes a noise compatibility standard of 75 dBA CNEL for industrial land uses (City of El Cajon 2002). The proposed project would be in the City of El Cajon and would not be subject to the standards of the Santee Noise Ordinance. However, the Santee Noise Ordinance is used to evaluate potential noise compatibility impacts to adjacent sensitive receptors in the City of Santee, which is consistent with the 2009 EIR.

At the time the 2009 EIR was prepared, the Santee Noise Ordinance (previously Chapter 8.12 in the Santee Municipal Code) included similar noise level limits that varied by time of day and land use type. The Santee Noise Ordinance has been updated and is now Section 5.04 in the Santee Municipal Code. Section 5.04.130 of the Santee Municipal Code states that it is unlawful for any person to engage in loading, unloading, opening, idling of trucks, closing, or other handling of boxes, crates, containers, building materials, garbage cans, dumpsters, or similar objects between the hours of 10:00 p.m. and 7:00 a.m. in such a manner as to cause a noise disturbance within or adjacent to a residential district. The Santee Noise Ordinance defines “disturbing noise” as any sound or noise that constitutes a nuisance involving discomfort or annoyance to people of normal sensitivity residing in the area, but does not include quantitative criteria. However, Section 5.04.040 limits noise between 10:00 p.m. and 7:00 a.m. from sources that are not specifically addressed in or are exempted from the Santee Noise Ordinance to levels that do not exceed average conversational levels at a distance of 50 feet from the property line from which the noise is being generated or 50 feet from the source in a public area. The typical noise level for normal conversation is 65 dBA at 3 feet from the source (Caltrans 2013). For this analysis, the typical normal conversation level of 65 dBA is considered the screening level for potentially disturbing noise.

The Santee General Plan Noise Element establishes a normally acceptable noise compatibility standard of 65 dBA CNEL for residential land uses. Where the ambient noise level exceeds the compatibility standard, an increase of 3 dBA or more is considered significant (City of Santee 2003).

Summary of the 2009 EIR Impacts

Impacts related to potential permanent exposure to excessive noise levels as a result of project implementation were divided into transportation and industrial noise sources, as summarized below.

Transportation Noise Sources

Development of the 2009 project was anticipated to increase noise at the site and at neighboring land uses as a result of the projected increase in the amount of vehicle trips to and from the site. Acoustical calculations were performed for existing and near-term future traffic volumes along roadway segments most affected by the 2009 project using the California Department of Transportation California Vehicle Noise Emission Levels and standard noise modeling equations adapted from the Federal Highway Administration noise prediction model and data from the project-specific traffic analysis (PBS&J 2009b). The modeling calculations considered the posted vehicle speed, average daily traffic volume, and the estimated vehicle mix and did not take into account topography or receptor distance.

Table 2 summarizes the calculated existing and future project levels with and without buildout of the 2009 project. Noise levels are indicated at 50 feet from the centerline of each roadway segment. The highest noise level increase due to the 2009 project was calculated to be approximately 2 dBA along Weld Boulevard between Gillespie Way to Cuyamaca Street. This project-related increase would generally not be audible because differences of less than 3 dBA in noise levels are generally not detected by the human ear. In addition, the calculated change in noise levels did not exceed the thresholds established by FICON in Table 1. Therefore, the 2009 EIR concluded that project-generated traffic would not result in a significant impact at the site or at neighboring land uses, such as the residences on the southern side of Weld Boulevard. Additionally, the 2009 EIR concluded that impacts from area roadways and operation of the San Diego Metropolitan Transit System Trolley to the project site would be less than significant because industrial land uses are generally not considered sensitive to noise.

**Table 2. Near-Term Future Traffic Noise Levels**

Roadway Segment	Existing (dBA CNEL)	Existing + Future Projects (dBA CNEL)	Change in Existing Noise Level Due to Future Projects	Existing + Future + Project (all phases) (dBA CNEL)	Change in Future Noise Level Due to Proposed Project	Significant Impact?
Cuyamaca Street from Prospect Avenue to Weld Boulevard	69	69	0	70	+1	No
Cuyamaca Street from Weld Boulevard to Bradley Avenue	70	70	0	71	+1	No
Weld Boulevard from Fanita Drive to Gillespie Way	65	66	+1	66	0	No
Weld Boulevard from Gillespie Way to Cuyamaca Street	65	65	0	67	+2	No

Source: PBS&J 2009b.

Notes: CNEL = community noise equivalent level; dB = decibel
Noise levels are given at 50 feet from the roadway centerline.

Table 3 summarizes the calculated existing and future project levels for the long-term cumulative scenario with and without buildout of the 2009 project. The highest noise level increase due to the 2009 project was calculated to be approximately 1 dBA along Weld Boulevard between Gillespie Way to Cuyamaca Street and on Cuyamaca Street from Prospect Avenue to Weld Boulevard. This project-related increase would generally not be audible because differences of less than 3 dBA in noise levels are generally not detected by the human ear. In addition, the calculated change in noise levels did not exceed the thresholds established by FICON in Table 1. Therefore, the 2009 EIR concluded that project-generated traffic would not result in a significant impact under the long-term scenario.

Table 3. Long-Term Future Traffic Noise Levels

Roadway Segment	Existing (dBA CNEL)	Existing + Future Projects (dBA CNEL)	Change in Existing Noise Level Due to Future Projects	Existing + Future + Project (all phases) (dBA CNEL)	Change in Future Noise Level Due to Proposed Project	Significant Impact?
Cuyamaca Street from Prospect Avenue to Weld Boulevard	69	71	+2	72	+1	No
Cuyamaca Street from Weld Boulevard to Bradley Avenue	70	71	+1	71	0	No
Weld Boulevard from Fanita Drive to Gillespie Way	65	66	+1	66	0	No
Weld Boulevard from Gillespie Way to Cuyamaca Street	65	66	+1	61	+1	No

Source: PBS&J 2009b.

Notes: CNEL = community noise equivalent level; dB = decibel
Noise levels are given at 50 feet from the roadway centerline.



Operational Noise Sources

Impacts related to operation of the 2009 project were consistent with noise typical of industrial development, including heating, ventilation, and air conditioning (HVAC) equipment; parking lots; and truck deliveries.

Noise sources from parking lots include car alarms, door slams, radios, and tire squeals. Noise from these sources was assumed to range from approximately 54 to 69 dBA at a distance of 50 feet, and noise from new mechanical HVAC equipment on the ground or on rooftops of new buildings was assumed to generate continuous noise levels up to 73 dBA CNEL at a distance of 50 feet. Additionally, noise monitoring conducted as part of the project analysis sampled typical noise levels from an industrial park located off Prospect Avenue. The noise sample included noise from delivery trucks, general parking lot noise, and mechanical equipment. The measured noise level was 68 dBA at approximately 50 feet from the primary source of noise (delivery trucks loading and unloading). Noise levels up to 73 dBA on the project site would not exceed the limit of 75 dBA during daytime hours established in the El Cajon Noise Ordinance for properties zoned as Industrial. Thus, the 2009 EIR determined that no on-site operational noise impact would occur.

However, operational noise from the proposed project was determined to have the potential to be heard at the residences west and north of the project site, which are considered noise sensitive. The primary project operational noise source that the residences west of the site would potentially be exposed to under the 2009 project would be general noise from the central parking lot approximately 157 feet from the nearest residence. At this distance, noise levels from the parking lot would range between 44 and 59 dBA, assuming flat topography. The 2009 EIR determined that parking lot noise would be a less than significant impact because periodic and temporary noise sources from the parking lot would be different from each other in kind, duration, and location, and therefore, the overall effects would be separate and, in most cases, would not affect the receptors at the same time. However, HVAC systems were proposed to be installed on the building rooftops and were anticipated to run continuously. HVAC noise levels could range between 59 and 63 dBA (assuming a distance of 157 feet from the edge of the nearest building to the closest residence).

The residence northwest of the project site was the sensitive receptor with the highest potential to be exposed to truck delivery noise from the loading docks. Taking into consideration the noise attenuation that would be provided by topography, noise levels from delivery trucks were determined to have a potential noise level of up to 59 dBA at the northern residence. The 2009 project included a 6-foot-high noise wall along the northwestern property boundary in the vicinity of this residence; however, it was determined that the wall would not provide additional attenuation beyond the provided by topography. Noise was anticipated to be continuous during daytime hours. Additionally, noise from HVAC systems at the top of the buildings could range between 61 and 65 dBA at the northwestern residence (assuming a distance of 131 feet) and would not be attenuated by the proposed noise wall.

The residences west and northwest of the project site are in the City of Santee. At the time the 2009 EIR was prepared, the Santee Noise Ordinance established a sound level limit of 50 dBA for residential land uses during daytime hours. The Santee Noise Ordinance also stated that, if the measured ambient noise level exceeds the applicable limit, the allowable 1-hour average noise level shall be the ambient level. A 24-hour noise measurement taken at the site as part of the 2009 EIR noise monitoring resulted in a noise level of 64 dBA CNEL, which exceeds the Santee Noise Ordinance limit for residential land use. The Santee Noise Element states that noise increases are considered significant if a proposed development results in increases in ambient noise levels of 3 or more decibels in areas where the noise levels already exceed compatibility standards (0000). Therefore, a threshold of a 3 dBA increase above ambient conditions was applied to the 2009 project.

When the noise from the proposed HVAC system was added to ambient noise level, it was determined that the 2009 project would result in a future noise level that could reach as high as 67 dBA CNEL, which was an increase of 3 dBA. For the residence north of the project site, both the rooftop HVAC system and truck deliveries were added to ambient levels, resulting in future ambient noise levels as high as 68 dBA CNEL. Therefore, the resulting noise level would be more than 3 decibels over the ambient noise level. Thus, the 2009 EIR determined that project

operational noise impacts to the nearby residences would be potentially significant. Mitigation Measure NOI-1 was identified to reduce impacts to a less than significant level.

NOI-1: Noise from HVAC equipment shall be reduced by either the installation of acoustical shielding around all new rooftop HVAC equipment (which would reduce noise by up to 15 dBA), or by placing the HVAC equipment below grade in basement space. The acoustical shielding shall include a parapet wall of sufficient height to fully shield the equipment or acoustical shielding which complements the proposed building elevations and also fully shields the equipment.

Weld Boulevard Distribution Center Project Consistency Evaluation

Transportation and operational impacts of the proposed project compared to those identified in the 2009 EIR are addressed below.

Transportation Noise Sources

As with the 2009 project, development of the proposed project could increase noise on the project site and at neighboring land uses as a result of the projected increase in the amount of vehicle trips to and from the site, which would increase traffic noise on area roadways. Consistent with the methods of the 2009 project, acoustical calculations were performed for existing and future traffic volumes along roadway segments most affected by the project using California Vehicle Noise Emission Levels and standard noise modeling equations adapted from the Federal Highway Administration noise prediction model and data from the project-specific Transportation Impact Analysis (LLG 2020; NV5 2020). The modeling calculations considered the posted vehicle speed, average daily traffic volume, 24-hour distribution of project traffic, and estimated vehicle mix. The model did not take into account topography or receptor distance. The following analysis includes near-term and cumulative long-term scenarios for typical and peak-season project operation. The near-term scenario includes vehicle traffic generated by the cumulative projects listed in the Transportation Impact Analysis (LLG 2020). The long-term scenario also includes assumed regional growth through the horizon year 2050.

Near-Term Scenario

Table 4 summarizes the calculated existing and future project levels with and without the proposed project under typical project operation. Noise levels are indicated at 50 feet from the centerline of each roadway segment. The highest noise level increase due to the proposed project was calculated to be approximately 1.4 dBA along Weld Boulevard from Gillespie Way to Cuyamaca Street compared to 2 dBA under the 2009 project. Similar to the 2009 project, the proposed project-related increase would generally not be audible because differences of less than 3 dBA in noise levels are generally not detected by the human ear. The calculated changes in noise levels do not cause any roadway to exceed the applicable noise compatibility standard for adjacent land uses. Where the noise level would exceed the noise compatibility standard without the proposed project, the calculated change in noise level would not exceed the thresholds established by FICON in Table 1. Project-generated traffic would not result in a significant impact on the project site or at neighboring land uses under the near-term typical operation scenario.

**Table 4. Typical Conditions Near-Term Future Traffic Noise Levels**

Roadway Segment	Existing (dBA CNEL)	Existing + Cumulative Projects (dBA CNEL)	Change in Existing Noise Level Due to Future Projects	Existing + Cumulative + Project (dBA CNEL)	Applicable Threshold (Compatibility Standard (dBA CNEL)/ Increase in dBA CNEL)	Change in Future Noise Level Due to Proposed Project	Significant Impact?
Cuyamaca Street from Prospect Avenue to Weld Boulevard	71.4	71.5	+0.1	71.9	75/≥1.5	+0.4	No
Cuyamaca Street from Weld Boulevard to Bradley Avenue	70.6	70.7	+0.1	71	65 ¹ /≥1.5	+0.3	No
Weld Boulevard from Fanita Drive to Gillespie Way	62.2	62.9	+0.7	63.2	65/≥3	+0.3	No
Weld Boulevard from Gillespie Way to Cuyamaca Street	64	64.4	+0.4	65.8	75/≥3	+1.4	No

Sources: LLG 2020; NV5 2020 (traffic data). See Attachment 2 for model input and output.

Notes: CNEL = community noise equivalent level; dB = decibel

¹ Land uses along this segment are primarily industrial; however, Chaparral High School is at the intersection of Cuyamaca Street and Bradley Avenue. Therefore, the threshold of 65 dBA CNEL for sensitive receptors is applied to this segment.

Noise levels are given at 50 feet from the roadway centerline.

Table 5 summarizes the calculated existing and future project levels with and without the proposed project under peak-season operation. Noise levels are indicated at 50 feet from the centerline of each roadway segment. The highest noise level increase due to the proposed project was calculated to be approximately 2.3 dBA along Weld Boulevard from Gillespie Way to Cuyamaca Street compared to approximately 2 dBA under the 2009 project and would generally not be audible. Additionally, the calculated changes in noise levels would not cause any roadway to exceed the applicable noise compatibility standard for adjacent land uses. Where the noise level would exceed the noise compatibility standard without the proposed project, the calculated change in noise level would not exceed the thresholds established by FICON in Table 1. Project-generated traffic would not result in a significant impact on the project site or at neighboring land uses under the peak-season near-term scenario.

**Table 5. Peak-Season Near-Term Future Traffic Noise Levels**

Roadway Segment	Existing (dBA CNEL)	Existing + Cumulative Projects (dBA CNEL)	Change in Existing Noise Level Due to Future Projects	Existing + Cumulative + Peak Project (dBA CNEL)	Applicable Threshold (Compatibility Standard (dBA CNEL)/ Increase in dBA CNEL)	Change in Future Noise Level Due to Proposed Project	Significant Impact?
Cuyamaca Street from Prospect Avenue to Weld Boulevard	71.4	71.5	+0.1	72	75/≥1.5	+0.5	No
Cuyamaca Street from Weld Boulevard to Bradley Avenue	70.6	70.7	+0.1	71	65 ¹ /≥1.5	+0.3	No
Weld Boulevard from Fanita Drive to Gillespie Way	62.2	62.9	+0.7	63.2	65/≥3	+0.3	No
Weld Boulevard from Gillespie Way to Cuyamaca Street	64	64.4	+0.4	66.7	75/≥3	+2.3	No

Sources: LLG 2020; NV5 2020 (traffic data). See Attachment 3 for model input and output.

Notes: CNEL = community noise equivalent level; dB = decibel

¹ Land uses along this segment are primarily industrial; however, Chaparral High School is at the intersection of Cuyamaca Street and Bradley Avenue. Therefore, the threshold of 65 dBA CNEL for sensitive receptors is applied to this segment.

Noise levels are given at 50 feet from the roadway centerline.

Long-Term Scenario

Table 6 summarizes the calculated existing and future project levels with and without buildout of the proposed project for the long-term cumulative scenario during typical operation. The highest noise level increase due to the proposed project was calculated to be approximately 1.1 dBA along Weld Boulevard from Gillespie Way to Cuyamaca Street compared to 1 dBA under the 2009 project and would generally not be audible. In addition, the calculated change in noise levels would not cause any roadway to exceed the applicable noise compatibility standard for adjacent land uses. Where the noise level would exceed the noise compatibility standard without the proposed project, the calculated changes in noise level would not exceed the thresholds established by FICON in Table 1. Therefore, the proposed project would not result in a significant impact under the long-term scenario during typical operation.

**Table 6. Typical Conditions Long-Term Future Traffic Noise Levels**

Roadway Segment	Existing (dBA CNEL)	Existing + Future (dBA CNEL)	Change in Existing Noise Level Due to Future Projects	Existing + Future + Project (dBA CNEL)	Applicable Threshold (Compatibility Standard (dBA CNEL)/ Increase in dBA CNEL)	Change in Future Noise Level Due to Proposed Project	Significant Impact?
Cuyamaca Street from Prospect Avenue to Weld Boulevard	71.4	71.5	+0.1	71.9	75/≥1.5	+0.4	No
Cuyamaca Street from Weld Boulevard to Bradley Avenue	70.6	70.7	+0.1	71	65 ¹ /≥1.5	+0.3	No
Weld Boulevard from Fanita Drive to Gillespie Way	62.2	66	+3.8	66.4	65/≥1.5	+0.4	No
Weld Boulevard from Gillespie Way to Cuyamaca Street	64	65.9	+1.9	67	75/≥1.5	+1.1	No

Sources: LLG 2020; NV5 2020 (traffic data). See Attachment 2 for model input and output.

Notes: CNEL = community noise equivalent level; dB = decibel

¹ Land uses along this segment are primarily industrial; however, Chaparral High School is at the intersection of Cuyamaca Street and Bradley Avenue. Therefore, the threshold of 65 dBA CNEL for sensitive receptors is applied to this segment.

Noise levels are given at 50 feet from the roadway centerline.

Table 7 summarizes the calculated existing and future project levels with and without buildout of the proposed project for the long-term cumulative scenario during peak-season operation. The highest noise level increase due to the proposed project was calculated to be approximately 1.8 dBA along Weld Boulevard between Gillespie Way to Cuyamaca Street compared to 1 dBA under the 2009 project. The calculated noise level would not cause any roadway to exceed the applicable noise compatibility standard for adjacent land uses. Where the noise level would exceed the noise compatibility standard without the proposed project, the calculated change in noise level would not exceed the thresholds established by FICON in Table 1. Therefore, the proposed project would not result in a significant impact under the long-term scenario during peak-season operation.

**Table 7. Peak-Season Long-Term Future Traffic Noise Levels**

Roadway Segment	Existing (dBA CNEL)	Existing + Future (dBA CNEL)	Change in Existing Noise Level Due to Future Projects	Existing + Future + Peak Project (dBA CNEL)	Applicable Threshold (Compatibility Standard (dBA CNEL)/ Increase in dBA CNEL)	Change in Future Noise Level Due to Proposed Project	Significant Impact?
Cuyamaca Street from Prospect Avenue to Weld Boulevard	71.4	71.5	+0.1	72	75/≥1.5	+0.5	No
Cuyamaca Street from Weld Boulevard to Bradley Avenue	70.6	70.7	+0.1	71	65 ¹ /≥1.5	+0.3	No
Weld Boulevard from Fanita Drive to Gillespie Way	62.2	66	+3.8	66.3	65/≥1.5	+0.3	No
Weld Boulevard from Gillespie Way to Cuyamaca Street	64	65.9	+1.9	67.7	75/≥1.5	+1.8	No

Sources: LLG 2020; NV5 2020 (traffic data). See Attachment 3 for model input and output.

Notes: CNEL = community noise equivalent level; dB = decibel

¹ Land uses along this segment are primarily industrial; however, Chaparral High School is at the intersection of Cuyamaca Street and Bradley Avenue. Therefore, the threshold of 65 dBA CNEL for sensitive receptors is applied to this segment.

Noise levels are given at 50 feet from the roadway centerline.

Project-generated traffic would not result in a significant impact related to vehicle traffic noise. Additionally, the proposed project would have similar less than significant noise impacts from area roadways and operation of the San Diego Metropolitan Transit System Trolley because industrial land uses are generally not considered to be sensitive to noise, and noise levels are not calculated to exceed 75 dBA CNEL. Therefore, impacts related to transportation noise would be the same as those identified in the 2009 EIR.

Operational Noise Sources

Potential noise sources related to operation of the proposed project would be the same as those identified for the 2009 project, including HVAC equipment, parking lots, and truck deliveries.

Parking Lot Noise

Similar to the 2009 project, noise sources from project parking lots, including staff and delivery van parking areas, would include car alarms, door slams, radios, and tire squeals. Consistent with the 2009 EIR, noise from these sources was assumed to range from approximately 54 to 69 dBA at a distance of 50 feet. Periodic and temporary noise sources from the parking lot would be different from each other in kind, duration, and location, and



therefore, the overall effects would be separate and, in most cases, would not affect the receptors at the same time. Thus, consistent with the conclusions of the 2009 EIR, parking lot noise is considered nuisance noise that would not be significant. However, due to the changes in operating hours compared to those identified for the 2009 project, potential parking lot noise at surrounding residences was evaluated for the proposed project in additional detail. Intermittent parking lot noise would not exceed the applicable 75 dBA standard for existing or proposed industrial land uses; therefore, industrial land uses are not further evaluated below.

The proposed delivery van parking lot would be subject to parking lot noise during limited hours when vans are retrieved for the day (primarily between 9:00 a.m. and 11:00 a.m.) and retired for the evening (primarily between 5:00 p.m. and 9:00 p.m.). Van loading would occur in the van loading area in the morning hours (primarily between 9:00 a.m. and 11:00 a.m.) and would potentially result in higher frequencies of typical noise, such as door slams. A staff parking lot would generate parking lot noise primarily during shift changes, which would occur at several points throughout a 24-hour period. Delivery van operation and associated shift changes would generally be staggered, with some overlap anticipated to occur in the afternoon (5:00 p.m. to 6:00 p.m.).

As described previously, due to the operating hours of the proposed facility, it is assumed that parking lot noise would also be generated throughout the day, evening, and night; however, noises would be intermittent. The nearest residences to the proposed parking areas are approximately 60 feet west and north of the proposed delivery van parking lot, which would be active during daytime and evening hours. At these distances, maximum intermittent parking lot noise events would range between 52 and 67 dBA. However, this parking area would surround the proposed building to the west, east, and north so individual noise events would be spread out across the site at varying distances from residences. Van loading would occur during the morning hours. The van loading area would be at least 375 feet from the nearest residence, and noise levels would range from 37 to 52 dBA at the nearest receptors. Maximum parking lot noise associated with delivery vans would generally not exceed measured ambient daytime and evening noise levels of approximately 62 dBA and 57 dBA, respectively, or the Santee Noise Ordinance evening standard of 65 dBA at any individual receptor.

The nearest residence to the staff parking lot proposed at the southern boundary of the project site would be approximately 780 feet northwest from the lot, and intermittent noise would range from 30 to 45 dBA. Parking lot noise would generally not exceed ambient daytime and evening noise levels or measured ambient nighttime noise levels of 42 dBA at any individual receptor and would not exceed the Santee Noise Ordinance standard of 65 dBA at the nearest residences during evening and nighttime hours.

Therefore, intermittent parking lot noise from the proposed project would be similar to noise identified for the 2009 project and would not result in a new source of noise that would violate applicable noise ordinances. Consistent with the 2009 EIR, parking lot noise would result in a less than significant impact.

Heating, Ventilation, and Air Conditioning Equipment

The specifications of the proposed HVAC system are unknown at this time but would be similar to what would be required for the 2009 project because a similar building type is proposed. Noise from new mechanical HVAC equipment was assumed to generate continuous noise levels up to 73 dBA CNEL at a distance of 50 feet. Noise levels up to 73 dBA on the project site would not exceed the limit of 75 dBA during daytime hours established in the El Cajon Noise Ordinance for properties zoned as Industrial. The proposed building would be approximately 530 feet southeast of the nearest sensitive receptor, the single residence north of the project boundary. At this distance, rooftop HVAC noise would be reduced to approximately 53 dBA CNEL compared to 63 dBA CNEL at the nearest residence under the 2009 project and would not exceed the Santee General Plan noise compatibility standard of 65 dBA CNEL for residences.

Truck Delivery

Individual truck deliveries would be similar to the 2009 project; however, due to changes in operating hours compared to the 2009 project, truck deliveries are evaluated in additional detail. There would typically be approximately 21 line-haul trucks delivering packages to the delivery station each night primarily between the hours of 10:00 p.m. and 8:00 a.m. During the holiday season, peak operation may reach up to 48 trucks in a 24-hour period.



During both typical and peak-season operations, a maximum of two truck deliveries would occur per hour during nighttime hours. During typical operation, truck trips would generally be limited to two per hour during daytime and evening hours as well. During the peak season, up to eight deliveries are anticipated in a given hour during daytime hours and up to seven during evening hours. The 2009 EIR calculated that truck deliveries would result in noise levels of approximately 68 dBA at 50 feet. A noise analysis for a facility with similar operation to the proposed project in the County estimated that individual truck deliveries would generate noise levels of 67 dBA at 23 feet (60 dBA at 50 feet) for approximately 15 minutes (Ldn Consulting 2018). Therefore, the 2009 EIR estimate is conservative for the proposed project. The truck docks would be approximately 330 feet southeast of the nearest sensitive receptor, the residence north of the project site. At this distance, noise levels from individual truck deliveries would be reduced to approximately 52 dBA compared to 59 dBA at the nearest residence under the 2009 project. Following project grading, this residence and the project site would be at approximately the same elevation. Topography was not included in this calculation. Combined noise levels from simultaneous operation of seven trucks (the maximum anticipated during evening or nighttime hours) would be approximately 60 dBA at the nearest receptor. This estimate is conservative and represents a worst-case scenario for multiple truck deliveries. It is likely that trucks would be staggered throughout the hour; therefore, the actual simultaneous number of trucks would be less than seven, and combined noise from multiple deliveries would be reduced. Noise from truck deliveries would be perceptible at the nearest receptor but would be short in duration and would not exceed the 65 dBA evening and nighttime screening level for disturbance under the Santee Noise Ordinance. The maximum number of anticipated truck deliveries during a 1-hour period is eight trucks and would occur during daytime hours. Assuming each truck would operate for 15 minutes, which is consistent with the analysis of the County facility, the maximum number of truck deliveries would result in an hourly average noise level of 71 dBA at 50 feet from the truck delivery area. Peak-season truck deliveries would also not exceed the 75 dBA noise level limit for industrial land uses in the El Cajon Noise Ordinance.

Combined Heating, Ventilation, and Air Conditioning and Truck Delivery Noise Sources

The 2009 EIR concluded that combined HVAC and truck delivery noise could result in future noise levels as high as 68 dBA CNEL at nearby residences. As described previously, truck delivery and HVAC noise would result in similar noise level at 50 feet compared to the noise level identified in the 2009 project. However, due to changes in operating hours compared to the hours identified in the 2009 project, a revised CNEL was calculated for project operation that accounts for nighttime truck deliveries. Assuming peak-season operation, with each truck delivery generating peak noise level for 15 minutes, the proposed project would result in a maximum combined future noise level of 75 dBA CNEL at a point 50 feet from the proposed building and 50 feet from the truck docks. Peak-season noise levels would be reduced to below 65 dBA CNEL beyond 175 feet from the proposed noise sources. The nearest residence is approximately 330 feet north of the proposed truck docks. Therefore, noise levels would not exceed the applicable 65 dBA CNEL noise compatibility standard for residences or the 75 dBA CNEL noise standard for industrial land uses. A significant impact would not occur, and Mitigation Measure NOI-1 identified for the 2009 project would not be required for the proposed project.

Summary

The proposed project would modify the 2009 project land uses and the proposed operating hours. However, it would not include any new project components that would result in additional noise sources beyond what was accounted for in the 2009 EIR analysis. Additionally, Mitigation Measure NOI-1 identified for the 2009 project would not be required for the proposed project. Therefore, the proposed project would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects regarding permanent noise impacts.

Issue 2: Temporary Increases in Ambient Noise

Based on Appendix G of the CEQA Guidelines, implementation of the project would result in a significant impact if it would result in a substantial temporary or periodic increase in ambient noise levels in the vicinity of the project site. A substantial increase would occur if project construction would result in a conflict with the El Cajon or Santee Noise Ordinance, as applicable at the receptor.



The City of El Cajon restricts construction activity to daytime hours (between 7:00 a.m. and 7:00 p.m.) in Section 17.115.130(C)(3) in the El Cajon Noise Ordinance. The El Cajon Noise Ordinance does not include a specific noise level standard.

At the time of 2009 EIR preparation, the Santee Noise Ordinance specified that construction noise shall not exceed 75 decibels for more than 8 hours when measured at or within residential land uses. Section 5.04.090 in the Santee Noise Ordinance has been updated. The ordinance makes operation of any construction equipment outside the hours of 7:00 a.m. through 7:00 p.m., Monday through Saturday, except holidays, unlawful unless the operation is expressly approved by the City of Santee's Director of Development Services. Construction equipment with a manufacturer's noise rating of 85 dBA maximum sound level or greater may only operate at a specific location for 10 consecutive workdays. If work in the City of Santee involving such equipment would include more than 10 consecutive workdays, a notice must be provided to all property owners and residents within 300 feet of the site no later than 10 days before the start of construction. The notice must be approved by the City of Santee, describe the proposed project and the expected duration of work, and provide a point of contact to resolve noise complaints.

Summary of the 2009 EIR Impacts

Construction of the 2009 project was anticipated to generate temporary noise that could expose nearby receptors to elevated noise levels that may disrupt communication and routine activities. Construction of the 2009 project was anticipated to be constructed over a 3-year period, including demolition and grading, building construction, and paving. Anticipated project construction equipment included standard equipment, such as scrapers, graders, backhoes, loaders, tractors, cranes, and miscellaneous trucks, that would be used for the construction of most project facilities. Sound levels of typical construction equipment were estimated to range from 60 to 90 dBA at 50 feet from the source. As mentioned earlier, the nearest existing residences to the project site were 44 feet from the western site boundary and 16 feet from the northern site boundary.

The City of El Cajon restricts construction activity to daytime hours (between 7:00 a.m. and 7:00 p.m.) in Section 17.115.130(C)(3) in the El Cajon Noise Ordinance. At the time of 2009 EIR preparation, the Santee Noise Ordinance specified that construction noise shall not exceed 75 decibels for more than 8 hours when measured at or within residential land uses. Because construction noise could reach 90 dBA at the nearest residences north and west of the project site, impacts were determined to be potentially significant. Implementation of Mitigation Measure NOI-2 would reduce temporary noise impacts from construction activities to below a level of significance.

NOI-2: The project applicant shall implement the following measures to minimize short-term noise levels caused by construction activities. Measures to reduce construction/demolition noise to the maximum extent feasible shall be included in contractor specifications and shall include, but not be limited to, the following:

- Construction equipment shall be properly outfitted and maintained with manufacturer recommended noise-reduction devices to minimize construction-generated noise.
- Stationary construction noise sources such as generators or pumps shall be located at least 100 feet from noise-sensitive land uses, to the extent feasible.
- Lay-down and construction vehicle staging areas shall be located as far from noise-sensitive land uses as feasible.
- Construction activity shall be restricted to occur between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, excluding holidays, and 8:00 a.m. and 5:00 p.m. on Saturday.

Weld Boulevard Distribution Center Project Consistency Evaluation

The proposed project would also generate temporary noise that could expose nearby receptors to elevated noise levels. Similar to the 2009 project, construction of the proposed project would include demolition and grading, building construction, and paving and would use typical construction equipment. The construction period would be reduced compared to the 3-year period assumed for the 2009 project. The 2009 project assumed that cut and fill would be balanced on site. The proposed project would require import of fill material; however, truck trips would not exceed the 96 daily trucks trips assumed for project operation. Issue 1 determined that the increase in traffic would not result in a significant noise increase. The proposed project would not require any unique or unusual



construction practices that were not accounted for in the 2009 EIR. As with the 2009 project, the proposed project would comply with the limits on construction hours of the El Cajon Noise Ordinance. The project applicant would not be subject to the notice requirement of the Santee Noise Ordinance. However, construction would occur throughout the site, particularly during the grading and paving phases that would occur within 300 feet of existing residences. Individual receptors would have limited exposure to heavy construction equipment noise with the potential to generate 85 dBA at 50 feet for more than 10 consecutive days. Consistent with the 2009 EIR, because noise levels from equipment would potentially exceed 85 dBA, the proposed project was determined to result in the same potential construction noise impact as those identified for the 2009 project. Mitigation Measure NOI-2 would reduce temporary noise impacts from construction activities to below a level of significance, including compliance with the limits on construction hours established in the Santee Noise Ordinance.

Issue 3: Exposure to Aircraft Noise

Based on Appendix G of the CEQA Guidelines, implementation of the project would have a significant impact if it would expose people residing or working on the project site to excessive noise levels resulting from aircraft.

Summary of the 2009 EIR Impacts

The project site is within the airport influence area and 65 dBA CNEL noise contour for the Gillespie Field airport. The Gillespie Field Airport Land Use Compatibility Plan (ALUCP) identifies areas likely to be affected by noise and flight activity created by aircraft operations at the airport. According to the 2004 ALUCP cited in the 2009 EIR and the available updated 2010 noise contour map, the proposed project site is within the 65 dBA CNEL noise contour (SDALUC 2010).

The Gillespie Field ALUCP Airport Noise/Land Use Compatibility Matrix identified a range of land uses associated with various projected exterior CNEL values that are either identified as “Compatible,” “Conditionally Compatible,” or “Incompatible.” The matrix is used to determine whether a proposed land use is consistent with the ALUCP policies and guidelines. The 2009 project is considered an industrial land use, and for this use, exterior noise levels up to 70–75 dBA CNEL are considered “Compatible.” At this level, the outdoor CNEL is sufficiently attenuated by conventional construction so that the indoor noise level is acceptable, and activities associated with the land use may be carried out with essentially no interference from aircraft noise. Therefore, the industrial land use was determined to be consistent with the Gillespie Field ALUCP, and no impact with respect to excessive aircraft noise was identified.

Weld Boulevard Distribution Center Project Consistency Evaluation

The project proposes similar light-industrial land uses compared to the 2009 EIR. The Gillespie Field ALUCP was updated in 2010. The project site remains within the 65 dBA CNEL noise contour, and warehousing and industrial land uses are considered compatible with noise levels up to 70 dBA CNEL. Noise levels up to 65 dBA CNEL are considered compatible with office areas of industrial land uses (SDALUC 2010). The project would continue to be outside of the 70–75 dBA CNEL noise contour for Gillespie Field. Therefore, impacts related to aircraft noise would be the same as those identified in the 2009 EIR.

Issue 4: Excessive Groundborne Vibration or Noise

Based on Appendix G of the CEQA Guidelines, implementation of the project would result in the generation of excessive groundborne vibration or groundborne noise levels.

Summary of the 2009 EIR Impacts

The significance of construction vibration was determined using screening distances recommended by the California Department of Transportation. Major construction activity within 200 feet and pile driving within 600 feet were considered to be potentially disruptive to sensitive operations. Construction equipment types expected to be used during project construction included scrapers, graders, backhoes, loaders, tractors, cranes, and miscellaneous trucks. Anticipated equipment did not include pile drivers. There were no known vibration-sensitive land uses within 200 feet of the project site, and the source of the vibration would cease once the 2009 project is constructed. Therefore, the 2009 EIR determined that impacts would be less than significant.



Weld Boulevard Distribution Center Project Consistency Evaluation

The proposed project would require the same type of construction activities and equipment as the 2009 project. No new sensitive receptors have been developed within 200 feet of the construction area. Therefore, impacts related to groundborne vibration would be the same as those identified in the 2009 EIR.

Summary of Noise Impacts

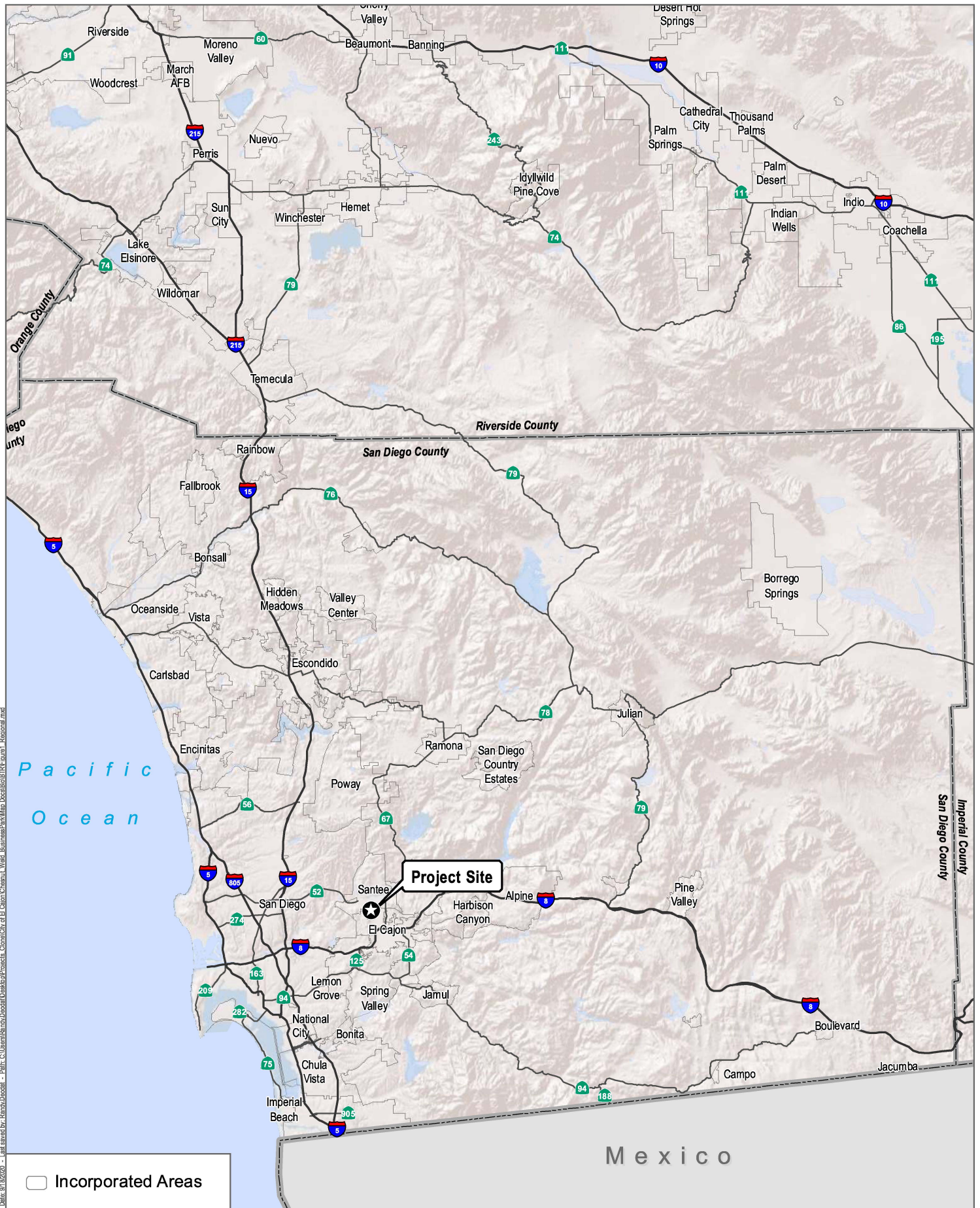
Impacts related to noise and vibration from construction and operation of the proposed project would be similar to those identified in the 2009 EIR. The proposed project does not include any new sources of noise or vibration that were not previously addressed, and no new significant impacts would occur as a result of changes to the assumed operating hours that were not identified in the 2009 EIR. Because no new direct or increased impacts would occur, the proposed project would not result in a new or increased contribution to cumulative impacts. The proposed project would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects related to noise.

References

- Caltrans (California Department of Transportation). 2013. Transportation and Construction Vibration Guidance Manual. September.
- City of El Cajon. 2001. City of El Cajon General Plan 2000. January.
- City of Santee. 2003. City of Santee General Plan 2020: Noise Element. Adopted August 27.
- FAA (Federal Aviation Administration). 2007. "Chapter 17: Noise." In Environmental Desk Reference for Airport Actions. October.
- Ldn Consulting, Inc. 2018. South County Commerce Center Noise Study. October 2.
- LLG (Linscott, Law & Greenspan, Engineers). 2020. Weld Boulevard Distribution Center – Transportation Impact Analysis. December.
- NV5. 2020. Completed Trip Generation Spreadsheet Tool. September 20.
- PBS&J 2009a. Forester Creek Industrial Park Project Environmental Impact Report. March 13.
- PBS&J. 2009b. Noise Technical Report for the Proposed Forester Creek Industrial Park Project. January 23.
- SDALUC (San Diego Airport Land Use Commission). 2010. Gillespie Field Airport Land Use Compatibility Plan. Adopted January 25. Amended December 20.



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Source: ESRI 2020.



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0 5 10
Miles

Figure 1

Regional Location

Weld Boulevard Distribution Center Project

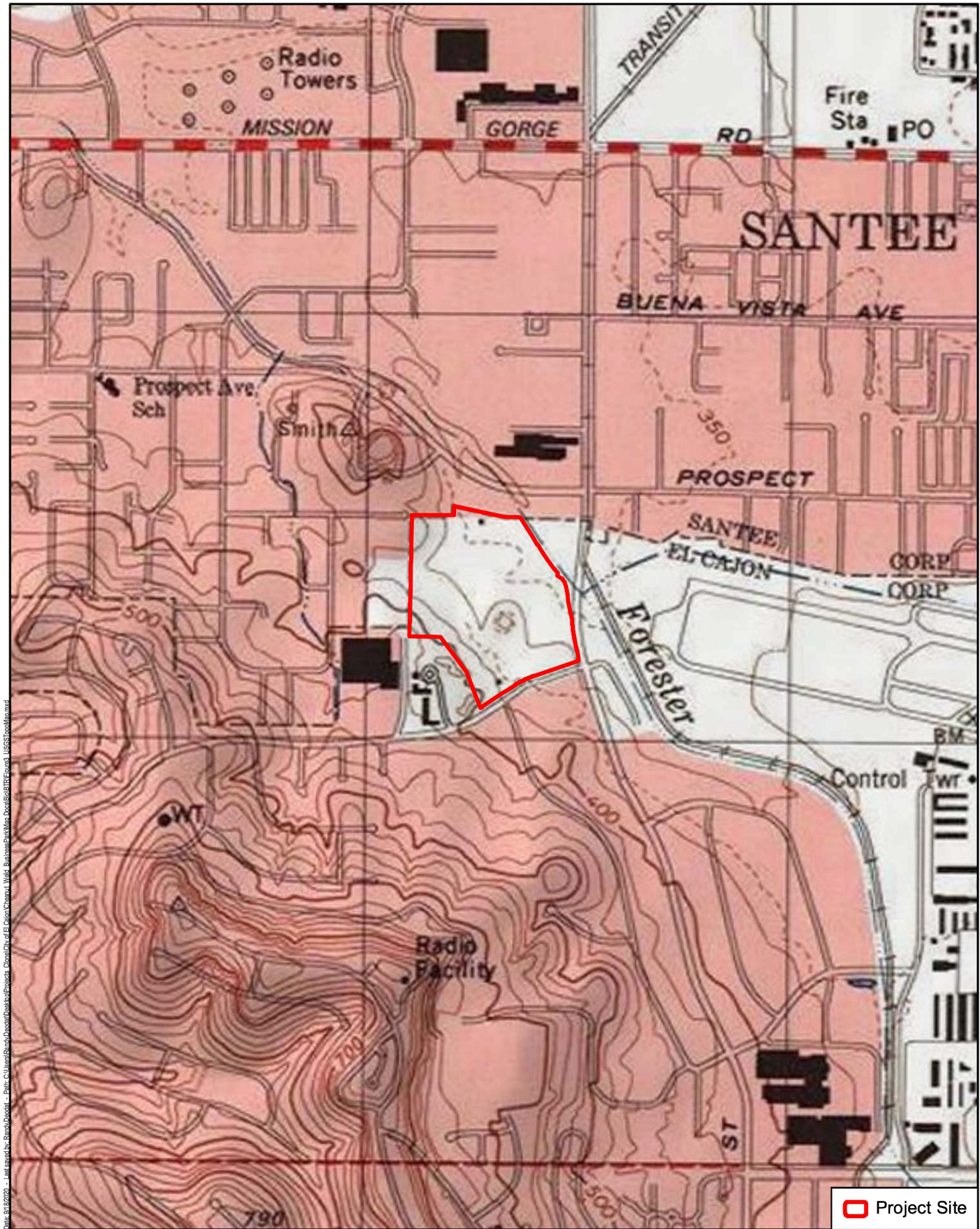


Date: 9/15/2020 - Last saved by: Brock/Donnell - Path: C:\Users\Brock\Documents\Projects - Client\City of El Paso\Channel - Weld - Highway\Brock\Mapa - Donnell\Brock\Figure2 - ProjectSite.mxd

 Project Site

Source: SanGIS Imagery 2017.

Figure 2
 Project Site



Source: USGS 1975; SanGIS Imagery 2017.



Harris & Associates



0 500 1,000
Feet

Figure 3

USGS Topographic Map

Weld Boulevard Distribution Center Project



PROTOTYPE PARKING BREAKDOWN			
	REQUIRED	PROPOSED	GAP
PARKING			
ASSOCIATE SPACES	172	168	-4
ANGL. MANAGEMENT SPACES (Support)	15	15	0
DSP MANAGEMENT SPACES	28	33	+5
VAN PERSONAL VEHICLE SPACES	72	110	+38
CUSTOMER SPACES	6	6	0
GUEST SPACES	3	3	0
TOTAL ASSOCIATE PARKING	296	335	+39
VAN PERSONAL	144	144	0
VAN PARKING	413	451	+48
VAN BUFFER	25	27	+2
TOTAL VAN	582	632	+50
TOTAL PARKING	878	967	+89
ULTRAVAN LOADING	72	72	0
VAN STAGING	72	72	0
LOADING DOCK SPACES	10	15	+5
TRAILER PARKING SPACES	3	13	+10

This conceptual design is based upon a preliminary review of entitlement requirements and on unverified and possibly incomplete site and/or building information, and is intended merely to assist in exploring how the project might be developed.

Boundary Source:
CIVIL CAD FILE



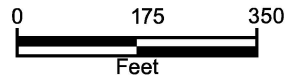
Source: Ware Malcomb 2020.

Figure 4
Proposed Site Plan

Weld Boulevard Distribution Center Project



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Source: SanGIS Imagery 2017.



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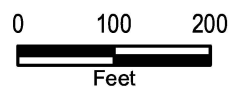
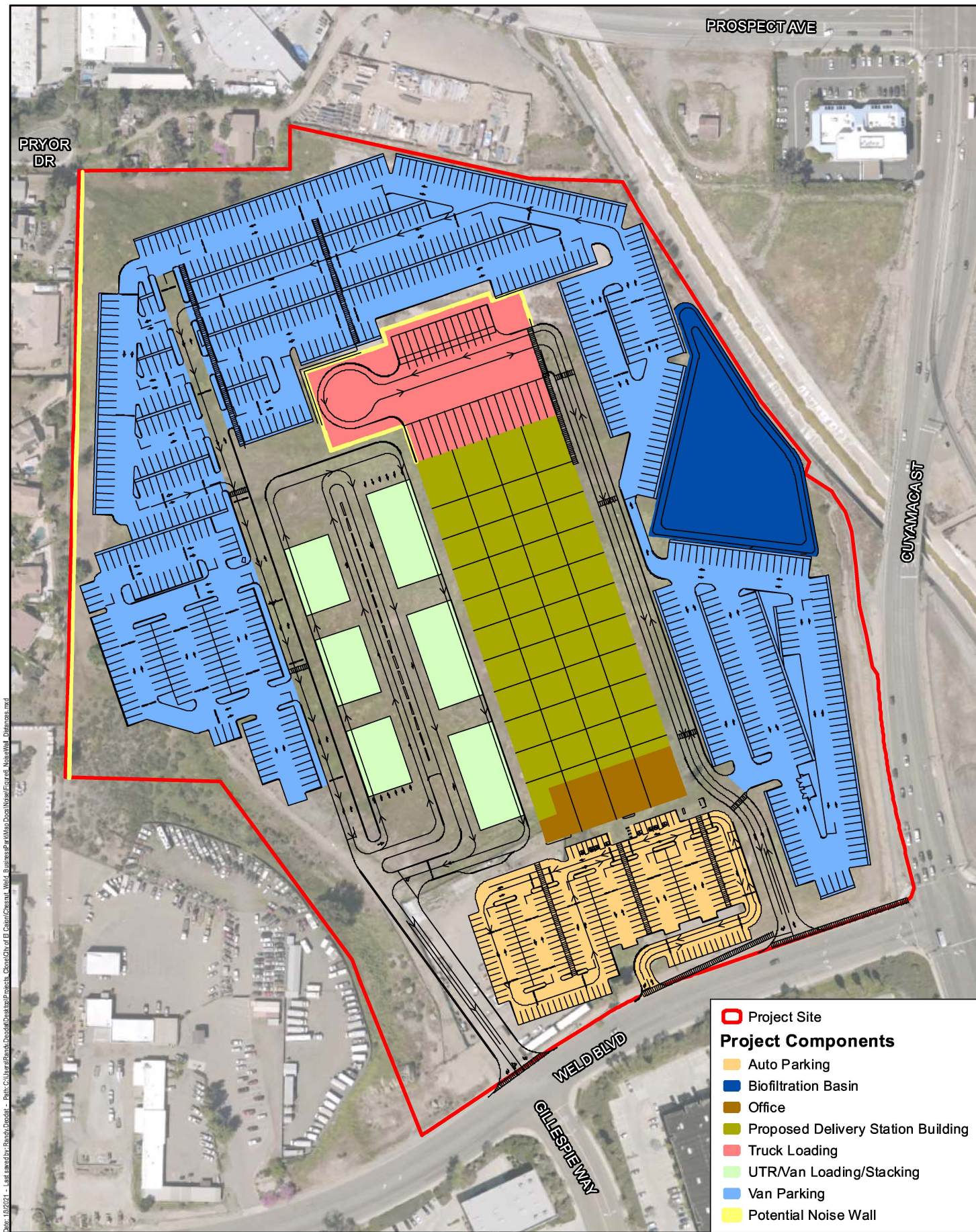


Figure 5

Noise Measurement Locations
Weld Boulevard Distribution Center Project



Source: SanGIS Imagery 2017.



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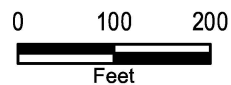


Figure 6

Noise Reduction Options

Weld Boulevard Distribution Center Project

Attachment 1. Noise Measurement Data

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Summary				
File Name on Meter	weld_1_001			
File Name on PC	SLM_0004861_weld_1_001.00.ldbin			
Serial Number	0004861			
Model	SoundExpert* LxT			
Firmware Version	2.301			
User	K. Hawkins			
Location	El Cajon, CA			
Job Description	Weld Noise Survey			
Note	On-site noise survey			

Measurement				
Description	On-site residences			
Start	2020-09-25	03:03:00		
Stop	2020-09-25	03:18:00		
Duration		00:15:00.0		
Run Time		00:15:00.0		
Pause		00:00:00.0		
Pre Calibration	2020-09-25	00:20:00		
Post Calibration		None		
Calibration Deviation		---		

Overall Settings				
RMS Weight	A Weighting			
Peak Weight	A Weighting			
Detector	Slow			
Preamp	PRMLxT1L			
Microphone Correction	Off			
Integration Method	Linear			
OBA Range	Normal			
OBA Bandwidth	None			
OBA Freq. Weighting	C Weighting			
OBA Max Spectrum	Bin Max			
Overload	123.2 dB			
	A	C	Z	
Under Range Peak	79.5	76.5	81.5	dB
Under Range Limit	26.8	24.9	32.8	dB
Noise Floor	15.7	15.8	22.3	dB

Results				
L _{Aeq}	63.8 dB			
L _{AE}	93.4 dB			
EA	240.548 µPa ² h			
L _{Apeak} (max)	2014-12-05	03:18:05	98.3	dB
L _{ASmax}	2014-12-05	03:13:24	80.3	dB
L _{ASmin}	2014-12-05	03:17:11	40.9	dB
SEA	-29.5 dB			
L _{AS} > 85.0 dB (Exceedance Counts / Duration)	0	0.0	s	
L _{AS} > 115.0 dB (Exceedance Counts / Duration)	0	0.0	s	
L _{Apeak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0	s	
L _{Apeak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0	s	
L _{Apeak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0	s	

Community Noise	L _{dn}	L _{Day} 07:00-22:00	L _{Night} 22:00-07:00	L _{den}	L _{Day} 07:00-19:00	L _{Evening} 19:00-22:00	L _{Night} 22:00-07:00
	73.8	69.9	63.8	73.8	69.9	69.9	63.8

L _{Ceq}	70.9 dB			
L _{Aeq}	63.8 dB			
L _{Ceq} - L _{Aeq}	7.1 dB			
L _{Aeq}	65.8 dB			
L _{Aeq}	63.8 dB			
L _{Aeq} - L _{Aeq}	2.0 dB			

	A	C	Z
L _{eq}	63.8	70.9	
L _t (max)	80.3	2014/12/05 3:13:24	
L _t (min)	40.9	2014/12/05 3:17:11	
L _{peak} (max)	98.3	2014/12/05 3:18:05	

# Overloads	0
Overload Duration	0.0 s

Statistics	
L _{AS5.00}	69.5 dB
L _{AS10.00}	65.5 dB
L _{AS33.30}	51.2 dB
L _{AS50.00}	46.1 dB
L _{AS66.60}	44.1 dB
L _{AS90.00}	41.9 dB

Calibration History				
Preamp	Date	dB re. 1V/Pa		
PRMLxT1L	2014-12-05 00:20:44	-29.5		
PRMLxT1L	2014-12-05 06:37:56	-28.7		
PRMLxT1L	2014-12-05 00:08:07	-29.5		
PRMLxT1L	2019-03-29 07:28:50	-30.0		
PRMLxT1L	2019-02-01 03:17:55	-29.2		
PRMLxT1L	2019-02-01 03:17:53	-30.2		
PRMLxT1L	2014-12-05 08:02:25	-30.1		
PRMLxT1L	2018-12-07 14:30:34	-29.8		
PRMLxT1L	2018-04-07 14:02:21	-29.4		
PRMLxT1L	2018-04-06 16:13:45	-29.4		
PRMLxT1L	2018-04-06 10:54:04	-29.4		

Summary	
File Name on Meter	weld_2_001
File Name on PC	SLM_0004861_weld_2_001.00.ldbin
Serial Number	0004861
Model	SoundExpert® LxT
Firmware Version	2.301
User	K. Hawkins
Location	El Cajon, CA
Job Description	Weld Noise Survey
Note	On-site noise survey

Measurement	
Description	24HR
Start	2020-09-24 03:01:00
Stop	2020-09-25 03:01:32
Duration	24:00:00.0
Run Time	24:00:00.0
Pause	00:00:00.0
Pre Calibration	2020-09-24 00:20:00
Post Calibration	None
Calibration Deviation	---

Overall Settings	
RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamp	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	None
OBA Freq. Weighting	C Weighting
OBA Max Spectrum	Bin Max
Overload	123.2 dB
	A C Z
Under Range Peak	79.5 76.5 81.5 dB
Under Range Limit	26.8 24.9 32.8 dB
Noise Floor	15.7 15.8 22.3 dB

Results	
L _{Aeq}	60.0 dB
L _{AE}	109.4 dB
EA	9.595 mPa ² h
L _{Apeak} (max)	2020-09-24 03:01:40 123.9 dB
L _{ASmax}	2020-09-24 03:01:40 90.9 dB
L _{ASmin}	2020-09-24 15:28:10 31.0 dB
SEA	136.9 dB
L _{AS} > 85.0 dB (Exceedance Counts / Duration)	4 12.3 s
L _{AS} > 115.0 dB (Exceedance Counts / Duration)	0 0.0 s
L _{Apeak} > 135.0 dB (Exceedance Counts / Duration)	0 0.0 s
L _{Apeak} > 137.0 dB (Exceedance Counts / Duration)	0 0.0 s
L _{Apeak} > 140.0 dB (Exceedance Counts / Duration)	0 0.0 s

Community Noise	L _{dn} L _{Day} 07:00-22:00 L _{Night} 22:00-07:00 L _{den} L _{Day} 07:00-19:00 L _{Evening} 19:00-22:00 L _{Night} 22:00-07:00
	68.7 56.6 62.8 69.0 51.4 62.4 62.8

L _{Ceq}	70.2 dB
L _{Aeq}	60.0 dB
L _{Ceq} - L _{Aeq}	10.2 dB
L _{Aeq}	63.0 dB
L _{Aeq}	60.0 dB
L _{Aeq} - L _{Aeq}	3.0 dB

	A	C	Z
	dB Time Stamp	dB Time Stamp	dB Time Stamp
L _{eq}	60.0	70.2	
L _t (max)	90.9 2020/09/24 3:01:40		
L _t (min)	31.0 2020/09/24 15:28:10		
L _{peak} (max)	123.9 2020/09/24 3:01:40		

# Overloads	1
Overload Duration	2.0 s

Statistics	
L _{AS5.00}	62.9 dB
L _{AS10.00}	55.3 dB
L _{AS33.30}	47.8 dB
L _{AS50.00}	44.8 dB
L _{AS66.60}	41.9 dB
L _{AS90.00}	36.6 dB

Calibration History	
Preamp	Date dB re. 1V/Pa
PRMLxT1L	2014-12-05 00:20:44 -29.5
PRMLxT1L	2014-12-05 06:37:56 -28.7
PRMLxT1L	2014-12-05 00:08:07 -29.5
PRMLxT1L	2019-03-29 07:28:50 -30.0
PRMLxT1L	2019-02-01 03:17:55 -29.2
PRMLxT1L	2019-02-01 03:17:53 -30.2
PRMLxT1L	2014-12-05 08:02:25 -30.1
PRMLxT1L	2018-12-07 14:30:34 -29.8
PRMLxT1L	2018-04-07 14:02:21 -29.4
PRMLxT1L	2018-04-06 16:13:45 -29.4
PRMLxT1L	2018-04-06 10:54:04 -29.4

Attachment 2. Typical Operation Scenario Vehicle Noise Levels

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Project Number: 1501145
Project Name: Weld Industrial

Model Description:	FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.		
Source of Traffic Volumes:	Linscott, Law, and Greenspan, October 2020		
Community Noise Descriptor:	L _{dn} :	CNEL:	X

	No Project			With Project			
	Day	Evening	Night	Day	Evening	Night	
Assumed 24-Hour Traffic Distribution:							* = contour is located within the roadway right-of-way.
Total ADT Volumes	77.70%	12.70%	9.60%	71.70%	12.96%	15.35%	Distance is from the centerline of the roadway segment to the receptor location.

2 Weld Traffic Noise Worksheet V2.xls

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Attachment 3. Peak-Season Scenario Vehicle Noise Levels

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TRAFFIC NOISE LEVELS AND NOISE CONTOURS

Project Number: 1501145									
Project Name: Weld Industrial									
Background Information									
Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.									
Source of Traffic Volumes: Linscott, Law, and Greenspan, October 2020									
Community Noise Descriptor: L _{dn} : CNEL: X									
Assumed 24-Hour Traffic Distribution:									
	No Project			With Project			"		
	Day	Evening	Night	Day	Evening	Night	= contour is located within the roadway right-of-way.		
Total ADT Volumes	77.70%	12.70%	9.60%	76.44%	13.78%	9.80%	Distance is from the centerline of the roadway segment to the receptor location.		
Medium-Duty Trucks	87.43%	5.05%	7.52%						
Heavy-Duty Trucks	89.10%	2.84%	8.06%	84.36%	4.06%	11.58%			

															Traffic Volumes										Ref. Energy Level Dist										La										Ln										DISTANCE TO CONTOUR (2)																																																																																																																																																																																																																																																																												
Analysis Condition		Roadway Segment		Distance from Centerline of Roadway										Distance to Contour										Calc										Day										Eve										Night										MTd										HTd										MTe										HTe										MTn										HTn										A										MT										HT										Adj										A										MT										HT										Total										A										MT										HT										Total										A										MT										HT										Total										70 CNEL										85 CNEL										60 CNEL										55 CNEL									
				Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix Medium Trucks Heavy Trucks	CNEL at 50 Feet	70 CNEL	65 CNEL	60 CNEL	55 CNEL	Day	Eve	Night	MTd	HTd	MTe	HTe	MTn	HTn	A	MT	HT	Adj	A	MT	HT	Total	A	MT	HT	Total	A	MT	HT	Total	70 CNEL	85 CNEL	60 CNEL	55 CNEL																																																																																																																																																																																																																																																																																								
Cuyamaca Street																																																																																																																																																																																																																																																																																																																																			
Prospect Ave to Weld, existing		4	0	26,120	45	0.5	2.0%	2.0%	71.4	62	134	288	621	50	20,295	3,317	2,508	457	465	26	15	39	42	69.3	77.6	82.1	0.3	69.9	61.9	66.5	72.0	67.0	54.3	56.4	67.6	54.0	52.5	57.3	59.8	62	134	288	621																																																																																																																																																																																																																																																																																								
Prospect Ave to Weld, existing + cumulative		4	0	26,680	45	0.5	2.0%	2.0%	71.5	63	136	292	630	50	20,730	3,388	2,561	467	475	27	15	40	43	69.3	77.6	82.1	0.3	70.0	62.0	66.6	72.1	67.1	54.4	56.5	67.7	54.1	52.6	57.4	59.9	63	136	292	630																																																																																																																																																																																																																																																																																								
Prospect Ave to Weld, existing + cumulative + project		4	0	27,507	45	0.5	2.0%	2.0%	71.9	67	144	311	669	50	21,027	3,785	2,695	481	484	28	22	41	64	69.3	77.6	82.1	0.3	70.1	62.2	66.5	72.1	67.6	54.6	58.1	68.2	54.0	52.7	59.1	61.0	67	144	311	669																																																																																																																																																																																																																																																																																								
Prospect Ave to Weld, existing + long-term		4	0	26,640	45	0.5	2.0%	2.0%	71.5	63	136	292	629	50	20,699	3,383	2,557	466	475	27	15	40	43	69.3	77.6	82.1	0.3	70.0	62.0	66.6	72.1	67.1	54.4	56.5	67.7	54.1	52.6	57.4	59.9	63	136	292	629																																																																																																																																																																																																																																																																																								
Prospect Ave to Weld, existing + long-term + project		4	0	27,467	45	0.5	2.0%	2.0%	71.9	67	144	310	669	50	20,996	3,779	2,691	480	463	28	22	41	64	69.3	77.6	82.1	0.3	70.1	62.1	66.5	72.1	67.6	54.6	58.1	68.2	54.0	52.7	59.1	61.0	67	144	310	669																																																																																																																																																																																																																																																																																								
Cuyamaca Street																																																																																																																																																																																																																																																																																																																																			
Weld to Bradley, existing		4	20	18,070	45	0.5	2.0%	2.0%	70.6	55	118	254	547	50	14,040	2,295	1,735	316	322	18	10	27	29	69.3	77.6	82.1	1.1	69.1	61.1	65.7	71.2	66.2	53.5	55.5	66.8	53.2	51.7	56.5	59.0	55	118	254	547																																																																																																																																																																																																																																																																																								
Weld to Bradley, existing + cumulative		4	20	18,410	45	0.5	2.0%	2.0%	70.7	55	119	257	554	50	14,305	2,338	1,767	322	328	19	10	28	30	69.3	77.6	82.1	1.1	69.2	61.2	65.8	71.3	66.3	53.6	55.6	66.8	53.3	51.7	56.6	59.1	55	119	257	554																																																																																																																																																																																																																																																																																								
Weld to Bradley, existing + cumulative + project		4	20	18,764	45	0.5	2.0%	2.0%	71.0	58	126	271	584	50	14,344	2,582	1,838	328	317	19	15	28	43	69.3	77.6	82.1	1.1	69.2	61.3	65.6	71.2	66.7	53.7	57.3	67.4	53.1	51.8	58.2	60.1	58	126	271	584																																																																																																																																																																																																																																																																																								
Weld to Bradley, existing + long-term		4	20	18,430	45	0.5	2.0%	2.0%	70.7	55	119	257	554	50	14,320	2,341	1,769	322	328	19	10	28	30	69.3	77.6	82.1	1.1	69.2	61.2	65.8	71.3	66.3	53.6	55.6	66.8	53.3	51.7	56.6	59.1	55	119	257	554																																																																																																																																																																																																																																																																																								
Weld to Bradley, existing + long-term + project		4	20	18,784	45	0.5	2.0%	2.0%	71.0	58	126	271	585	50	14,359	2,585	1,840	328	317	19	15	28	44	69.3	77.6	82.1	1.1	69.2	61.3	65.6	71.2	66.7	53.7	57.3	67.4	53.1	51.8	58.2	60.1	58	126	271	585																																																																																																																																																																																																																																																																																								
Weld Boulevard																																																																																																																																																																																																																																																																																																																																			
Fanita Dr to Gillespie Way, existing		4	12	3,640	40	0.5	2.0%	2.0%	62.2	-	-	70	151	50	2,828	462	349	64	65	4	2	5	6	67.4	76.3	81.2	0.8	60.3	53.0	57.9	62.8	57.4	45.4	47.7	58.1	44.4	43.5	48.7	50.9	15	33	70	151																																																																																																																																																																																																																																																																																								
Fanita Dr to Gillespie Way, existing + cumulative		4	12	4,230	40	0.5	2.0%	2.0%	62.9	-	-	77	167	50	3,287	537	406	74	75	4	2	6	7	67.4	76.3	81.2	0.8	61.0	53.6	58.6	63.4	58.0	46.0	48.4	58.7	45.0	44.2	49.3	51.6	17	36	77	167																																																																																																																																																																																																																																																																																								
Fanita Dr to Gillespie Way, existing + cumulative + project		4	12	4,304	40	0.5	2.0%	2.0%	63.2	-	-	82	177	50	3,290	592	422	75	73	4	3	6	10	67.4	76.3	81.2	0.8	61.1	56.8	61.7	66.6	61.2	49.2	51.6	61.9	48.2	47.4	52.5	54.7	18	38	82	177																																																																																																																																																																																																																																																																																								
Fanita Dr to Gillespie Way, existing + long-term		4	12	8,800	40	0.5	2.0%	2.0%	66.0	-	59	126	272	50	6,838	1,118	845	154	157	9	5	13	14	67.4	76.3	81.2	0.8	64.1	56.8	61.7	66.6	61.2	49.2	51.6	61.9	48.2	47.4	52.5	54.7	27	59	126	272																																																																																																																																																																																																																																																																																								
Fanita Dr to Gillespie Way, existing + long-term + project		4	12	8,874	40	0.5	2.0%	2.0%	66.4	-	62	133	286	50	6,783	1,221	869	155	150	9	7	13	21	67.4	76.3	81.2	0.8	64.1	56.8	61.5	66.5	61.6	49.3	53.2	62.4	48.0	47.4	54.1	55.8	29	62	133	286																																																																																																																																																																																																																																																																																								
Weld Boulevard																																																																																																																																																																																																																																																																																																																																			
Gillespie Way to Cuyamaca Street, existing		4	12	5,520	40	0.5	2.0%	2.0%	64.0	-	-	93	199	50	4,289	701	530	97	98	6	3	8	9	67.4	76.3	81.2	0.8	62.1	54.8	59.7	64.6	59.2	47.2	49.5	59.9	46.2	45.3	50.5	52.7	20	43	93	199																																																																																																																																																																																																																																																																																								
Gillespie Way to Cuyamaca Street, existing + cumulative		4	12	6,040	40	0.5	2.0%	2.0%	64.4	-	-	98	212	50	4,693	767	580	106	108	6	3	9	10	67.4	76.3	81.2	0.8	62.5	55.2	60.1	65.0	59.8	47.6	49.9	60.3	46.6	45.7	50.9	53.1	21	46	98	212																																																																																																																																																																																																																																																																																								
Gillespie Way to Cuyamaca Street, existing + cumulative + proje		4	12	7,413	40	0.5	2.0%	2.2%	65.8	-	56	121	251	50	5,666	1,020	726	130	138	7	7	11	19	67.4	76.3	81.2	0.8	63.3	56.1	61.2	65.9	60.8	48.5	52.8	61.7	47.2	46.6	53.7	55.2	26	56	121	251																																																																																																																																																																																																																																																																																								
Gillespie Way to Cuyamaca Street, existing + long-term		4	12	8,600	40	0.5	2.0%	2.0%	65.9	-	58	124	268	50	6,662	1,092	826	150	153	9	5	13	14	67.4	76.3	81.2	0.8	64.0	56.7	61.6	66.5	61.1	49.1	51.5	61.8	48.1	47.3	52.4	54.6	27	58	124	268																																																																																																																																																																																																																																																																																								
Gillespie Way to Cuyamaca Street, existing + long-term + projec		4	12	9,973	40	0.5	2.0%	2.1%	67.0	-	68	146	314	50	7,623	1,372	977	174	177	10	9	15	24	67.4	76.3	81.2	0.8	64.6	57.4	62.3	67.1	62.1	49.8	53.9	62.9	48.5	47.9	54.8	56.4	31	68	146	314																																																																																																																																																																																																																																																																																								

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