doesn't address whether the fire access will be adequate, and access via that fire lane would be the only access for the entire east end of the Park. 34-XX cont

Transportation and Traffic

Figure 5.16-5 Project Trip Distribution (Trucks – Outbound) discloses that you assume only 5% of the truck traffic will merge onto the I-215 and SR 60 at Fair Isle Drive while 45% will go northbound on I-215 from Eastridge Ave/Eucalyptus. This is a convenient assumption but we do not think it has a basis in reality as the residents have observed from existing truck traffic. Unless you prohibit access at Fair Isle Drive (which you should) there is nothing to prevent far higher numbers of trucks traversing a residential neighborhood via the Sycamore Canyon Blvd./Fair Isle Drive route. You display similar optimism at Figure 5.16-6 Project Trip Distribution (Trucks – Inbound). We also do not see a basis for your conclusion that 15% of trucks will go to/from Sycamore Canyon Blvd. as opposed to taking Eastridge Avenue to the I-215 south, but this has far less consequences to the most affected residents. 34-YY

As noted earlier, you claim to have relied upon the ITE Trip Generation Manual 9th edition, but your numbers are at odds with those generated by the City of Moreno Valley. *See* NOP Comments, PDF at 24, projecting 1006 truck trips versus the 917 you identify. Also you should have disclosed the number of truck trips in your Transportation and Traffic section but you did not. 34-ZZ

At 5.16-18 Table 5.16-E Trip Generation Rates has Peak Hour trip rates where the numbers do not add up for trucks. This may have led to underestimates for your air quality analysis. 34-AAA

Threshold A: Would the Project conflict with an applicable plan ordinance or policy establishing measures of effectiveness for the circulation system? We believe Table 5.16-J represents an underestimate as to intersections 1 (I-215 Northbound Ramps/Fair Isle Drive/Box Springs Road) and 2 (Sycamore Canyon Blvd./Fair Isle Drive) based on your failure to assign a truly representative number of trips to and from the Project site along this route. 34-BBB

At 5.16-08 you indicate that you identified cumulative projects in the City of Riverside and the City of Moreno Valley. Your failure to identify cumulative projects in unincorporated Riverside County is a major omission. We are aware of at least two distribution center projects that would show up on the cumulative projects map if you had bothered to include them: the Alessandro Commerce Centre (off Alessandro Blvd.) and the Freeway Business Center (between old 215 Frontage Road and the I-215). These projects are highly significant to both traffic and air quality and should have been included. 34-CCC

At 5.16-45 you concede that the Northbound Ramps for I-215 at Fair Isle Drive/Box Spring will be at LOS F under EAC and EAPC conditions and that this is significant. However, for the reasons stated above we believe you have underestimated this impact. 34-DDD

Regarding queuing, you concede that the number of trucks projected to arrive at Building 2 in the AM peak hour may result in queuing by three or four trucks outside the facility. This violates Strategy 1a of the Good Neighbor Guidelines, attached as Attachment B. You claim that this won't result in parking on nearby residential streets because there is designated parking on Sycamore Canyon Blvd. and portions of Box Springs Blvd., and commercial parking elsewhere would violate RMC 10.52.155(a). That doesn't mean it won't happen. It is likely the trucks will stop, and idle, on Dan Kipper Drive and Lance Drive, increasing the pollutant load to which nearby residents are exposed. To the extent they are discouraged from parking on Dan Kipper Drive, they may well park on residential streets. This is a significant impact. 34-EEE

Threshold E: Will the Project result in inadequate emergency access? You acknowledge here that the fire lane will only be 12 feet wide and made of gravel. This is extremely narrow for fire vehicle access. And again you did not address the issue of Fire Station egress raised by SHAG. 34-FFF

Utilities and Service Systems

Threshold D: Would the Project have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new and expanded entitlements required? Here you concede the Project's projected demand is 100 afy and that this demand is "almost double" the planned development for the Project site estimated in Western's 2010 UWMP. Actually, it is over double. You claim nevertheless that it is consistent with the "overall projected increase in commercial water demand within Western's Riverside Retail Area as set forth in the 2010 UWMP." This does not mean Western will have enough water. The projected increase will happen anyway from Western's additional and existing customers. 34-GGG

You say Metropolitan's 2010 UWMP shows it "has supply capabilities to meet expanded demands from 2015 through 2035 under single dry-year and multiple dry-year conditions," however, you then say "Metropolitan's Condition 3 water supply allocation," which you don't identify, and Western's water use reductions represent a more severe shortage condition than what occurred under the single-year or multiple dry-year scenarios identified by Metropolitan's 2010 UWMP. You claim that Western has modeled potential cutbacks under Metropolitan's WSAP in the WSA and that this analysis is more stringent than that required by SB610. You don't specify how. Apparently Western looked at 10-20 % reductions in imported supply, but Western may well experience more than that, based on past experience and future potential conditions in the Bay Delta. You rely on Western to conclude that water supplies "are sufficient," but we believe you have to exercise your independent judgment on the evidence, and you don't have a substantial evidence basis for reaching your conclusion here. 34-HHH

Air Quality

First, as to your discussion of criteria air pollutants and health impacts, we do not think you have adequately acknowledged the significant health impacts from ozone as required under *Bakersfield Citizens for Local Control*. First of all, certainly there are relevant studies that postdate 1993, and those studies have shown that children face a greater risk of asthma. Second, you don't appear to note anywhere that EPA recently adopted a more stringent standard. Third, you haven't admitted that the Basin is expected to take more than 17 years to come into attainment status. 34-III

With respect to Toxic Air Contaminants ("TACs"), you concede there is no safe level for them. You claim that the South Coast Air Quality Management District's ("SCAQMD's") MATES-IV study disclosed a 16 percent reduction from that of MATES-III for the Project area, but you don't address whether MATES-IV evaluated emissions from the many new distribution centers in the area. Meanwhile, CARB has proposed a bright-line limit of not placing a distribution center within 1000 feet of a residential center, and you are disregarding this. 34-JJJ

Table 5.3-B discloses there were 41 days in 2014 that the area violated the older, less stringent federal standard of 0.075 ppm; that number will go up independent of this Project now due to the new federal standard. With respect to PM_{10} there were 17 exceedances and with respect to $PM_{2.5}$ there were 5. 34-KKK

Concerning the Riverside General Plan 2025 you assert that the Project is consistent with the following policies and we disagree as follows: 34-LLL

- *Objective AQ-1: Adopt land use policies that site polluting facilities away from sensitive receptors and vice versa; improve jobs-housing balance; reduce vehicle miles travelled and length of work trips; and improve the flow of traffic*: Here you are not siting polluting facilities away from sensitive receptors and you are not improving the flow of traffic, at a minimum.
- *Policy AQ-1.8: Promote 'Job/Housing Opportunity Zones' and incentives to support . . . jobs in housing-rich areas, where the jobs are located an nonpolluting or extremely low-polluting entities:* You are not following the underlined mandate here, at all.
- *Policy AQ-2.11: Develop ways to incorporate the "Good Neighbor Guidelines for Siting New and/or Modified Warehouse Distribution Facilities" into the Development Review process and Citywide air quality education programs:* You have ignored the Good Neighbor Guidelines with this development.

The Riverside Good Neighbor Guidelines come next.

- *Goal 1: Minimize exposure to diesel emissions to neighbors that are situated in close proximity to the warehouse/distribution center.* You could consider viable alternatives to a distribution center for the site, but you don't. The heavy manufacturing use you posit would, we believe, require a zone change. 34-MMM
- *Strategy 1a:* We already established you have violated Strategy 1a.

- *Strategy 1b: To the extent possible, locate driveways, loading docks, and internal circulation routes away from residential uses.* You could have located the loading docks to face onto Lance Drive only.
- *Strategy 1c* requires a health risk assessment when truck traffic areas of an industrial project are located within 1000 feet of sensitive receptors; your health risk assessment should have addressed impacts from the many other distribution centers in the vicinity as well as this one; it did not.
- *Goal 2, [which you skip but we've included] Eliminate diesel trucks from unnecessarily traveling through residential neighborhoods* – you haven't done this; instead you generated an overly optimistic traffic analysis that assumes only 5% of trucks will enter/exit the I-215 at Fair Isle Drive even though it is the most expeditious exit point for southbound traffic. Particularly since you project so few trucks will use the route it would have been easy to prohibit it.
- *Strategy 2a:* Same.
- *Strategy 2d: Require warehouse/distribution centers to provide signage or flyers that advise truck drivers of the closest restaurants [and] fueling stations.* You could have required food and fueling options on site, particularly since the site is so large. This would have prevented trucks from traversing the neighborhoods.
- *Goal 3: Eliminate trucks from using residential areas and repairing vehicles on the streets.* You have included no enforceable commitment here.

34-MMM cont

At 5.3-17 you note that CARB's Diesel Risk Reduction Program provides that by 2023 nearly all trucks and buses will need to have 2010 model year engines or the equivalent. You ignore that the City and this facility could require compliance with this mandate earlier.

34-NNN

Then you address the CARB Air Quality and Land Use Handbook, which should be a part of the administrative record for this Project since you have referred to it. It suggests prohibiting distribution centers within 1000 feet of residential neighborhoods. You reject this, asserting "These are recommendations, not mandates, and land use decisions will ultimately lie with the local agency which needs to balance other considerations." You are ignoring both the CARB Handbook and your own General Plan in rushing this Project through.

34-OOO

Threshold B: Would the Project violate any air quality standard or contribute substantially to an existing or projected air quality violation? With respect to operations you concede impacts would be significant at 339.39 lbs/day of NO_x emitted versus a daily threshold of 55 pounds. With respect to CO hotspots, you claim that there would have to be traffic like that at Veteran Avenue and Wilshire with an average daily vehicle count of 100,000 or more for there to be a CO violation. This depends on the relative emissions of trucks versus cars, which you have not addressed.

34-PPP

Threshold C: Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment? You acknowledge this impact as significant based solely on the individual Project's NO_x emissions.

34-QQQ

Regarding cumulative impacts, you rely on SCAQMD guidance to conclude that cumulative impacts are not exceeded because the Project does not exceed project-specific thresholds. We do not believe it is appropriate to rely on the SCAQMD guidance as it flies in the face of multiple CEQA Guidelines as well as Pub. Resources Code §21083(b)(2). *See* Guidelines §§ 15130(a), 15064(h)(1), 15065(a)(3), 15355(b). CEQA does not excuse an EIR from evaluating cumulative impacts simply because the project-specific analysis determined its impacts would be less than significant. Gordon & Herson, "Demystifying CEQA's Cumulative Impact Analysis Requirements: Guidance for Defensible EIR Evaluation," *Cal. Env't'l. L. Reporter* 379, 381 (Sept. 2011)(Vol. 2011, Issue 9) (Attachment B). 34-RRR

Threshold D: Would the Project expose sensitive receptors to substantial pollutant concentrations? Here at 5.3-32 you claim your methodology was to split the site up into "eight equal areas of 36,100 square meters . . . each and the average (composite) distances from the centroids of the corresponding volume sources to the nearest residential and worker receptors were determined." If we understand this correctly, you assigned equal amounts of pollutants throughout the site. This is not proper as the pollution will be coming from the docks to the south side of Building 2 and the west side of Building 1 toward the residences to the west. We believe this would result in significant underestimates of exposure as it disperses pollution throughout the site in a way that does not fit with the reality of what will occur. 34-SSS

We also think it is counterintuitive and unlikely that the MICR for construction would be greater than that from operation, and this suggests an error in your modeling. 34-TTT

Biological Resources

It is apparent from your discussion that you did not survey for the SKR, even though the Project site is adjacent to a reserve for this species. Thus, there could well be and likely are SKR on the site that will be killed by the Project, and you have made no plans for their removal to avoid this. 34-UUU

You assert that the DBESP finds that the future drainage is "superior" to the present one because it will continue to convey runoff from the residential areas to the northwest of the Project site, because it will be planted with native riparian and riparian scrub habitat, because it will "meander like a naturally occurring drainage," and because it will supposedly provide better nesting habitat for birds. We find most of these assertions to be doubtful and in any event not convincing grounds for determining that the new, narrow drainage to be placed on a thin strip to the west of a massive trucking facility is going to be "superior" to the naturally occurring blue-line stream that exists now. 34-VVV

Threshold A: Will the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies or regulations or by the CDFW or USFWS? The answer is almost certainly yes as to the SKR and the San Diego black-tailed jackrabbit. Both species should be trapped and relocated. 34-WWW

We also disagree that you have fully mitigated regarding the burrowing owl and nesting birds, as discussed when we get to your mitigation measures. 34-XXX

Threshold B: Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community? We note that you plan for a Habitat Mitigation & Monitoring Program which is not included with the documents for the DEIR. This excludes the public from meaningful review under CEQA. We do not see how the DBESP can determine that the created habitat will be superior in the absence of this HMMP. 34-YYY

Threshold D: Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors? Here you state "Because the site was not contemplated for conservation (i.e., not a Criteria Cell) the Project site is not intended to be a link between the Sycamore Canyon Wilderness Park and the Box Springs Mountains." Whether it is *intended* to be such a linkage is not the issue. The fact that it may be functioning as such a link is substantiated by the presence of a willow flycatcher and a golden eagle on the site when the Project's consultants happened to be looking. 34-ZZZ

Threshold E: Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? You claim here the Project is consistent with Objective LU-7 of the General Plan 2025 "Preserve and protect significant areas of native wildlife and plant habitat, *including endangered species*." We disagree. You haven't surveyed for the SKR and don't plan to. 34-AAAA

Threshold F: Would the Project conflict with the provisions of an adopted HCP or NCCP? Here you assert the Project will comply with Sections 6.1.2, 6.1.3, 6.1.4, 6.3.2, Appendix C, and Section 7.5.3 of the MSHCP. In at least a couple of instances we disagree with you. 34-BBBB

First with regard to Section 6.1.2, you assert that you surveyed for the least Bell's vireo ("LBV") the southwestern willow flycatcher ("SWFL") and the western yellow-billed cuckoo. You did not. The applicants surveyed for the LBV *only*. For that matter, even though there were no protocol level surveys for the other species, the biologist did note a willow flycatcher which he could not identify which was likely a SWFL. With respect to the yellow-billed cuckoo the consultants merely stated that it was "not incidentally detected." These are not protocol-level surveys, and Section 6.1.2 clearly calls for focused surveys for *each species*: "If the mapping noted above identifies suitable Habitat for the species listed below, and the proposed project design does not incorporate avoidance of the identified Habitat, *focused surveys for <u>those</u> species shall be conducted.*" The species identified are the SWFL, the LBV, and the western yellow-billed cuckoo. *See* MSHCP, Section 6.1.2, Final MSHCP, Volume 1, Section 6 at 6-23. This document should be a part of the administrative record on this Project since you are citing to it.

Next you say "None of the Section 6.1.2 riparian bird species were found to be occupying the site." First of all, as noted above, you didn't look properly, and second, it appears you may well have identified a SWFL. 34-CCCC

Next with regard to Section 6.1.4, Guidelines Pertaining to the Urban/Wildlands Interface, you present Table 5.4-B. As discussed in our own table, we don't believe you have complied: 34-DDDD

Avoid discharge of untreated runoff from developed and paved areas into the MSHCP Conservation Area	You say in the "post-Project condition, runoff will leave the Project site via a storm drain" and that it will ultimately enter into the Sycamore Canyon Wilderness Park after going through an "existing water quality basin." (1) It's not clear that you have done anything to prevent incidental runoff from the paved portions on the western part of the site from running into the Mitigation Area, and (2) You have included no provisions of which you speak here for reducing the toxic load from the site going into the water quality basin.
"Land uses proposed in proximity to the MSHCP Conservation Area that use chemicals *or* generate bioproducts such as manure that are potentially toxic or may adversely affect wildlife species" are addressed. Applicants are to "incorporate measures to ensure that application of such chemicals does not result in discharge to the MSHCP Conservation Area."	First, there is apparently no prohibition on the use of pesticides on the landscaping, which would be of concern here. And you have not addressed the toxic load to runoff from the site as addressed above.
"Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting."	You claim the lighting will be directed away from the Park but then you acknowledge that Building 1's lights will be 34 feet up and Building 2's 32 feet up. This effectively acknowledges there will be glow going into the Park. We will address this further immediately below this Table.
"Proposed noise generating land uses affecting the MSHCP Conservation Area shall incorporate setbacks, berms or walls to minimize the effects of noise on MSHCP Conservation Area resources . . . For	You claim that once the Project is completed, it "will include walls surrounding the truck yards and loading/docking areas." With respect to the actual interface between the Park and

34-EEEE
34-FFFF
34-GGGG

34-GGGG

planning purposes, wildlife in the MSHCP Conservation Area *should not be subject to noise that would exceed residential noise standards*."	the Project site, however, there will be no wall, but only a fence, made of wrought iron. This obviously will provide *no sound barrier at all.*[3]

34-HHHH

The impacts of light pollution on species within the Park can be significant. Light pollution is a major problem which can significantly confuse migratory birds and otherwise disrupt wildlife foraging and breeding. *See e.g.,* CNN, "Light Pollution Threatens National Park," 1999. "The cumulative effects of behavioral changes induced by artificial night lighting on competition and predation have the potential to disrupt key ecosystem functions." Longcore & Rich, 2004. Many bird species fly at night and have evolved to migrate in the dark aided by star and moonlight, which will be blocked by artificial light sources. Birds can be attracted to lit structures, including streetlights, and can become disoriented. American Bird Conservancy, 2008. Disorientation often results in collisions with lit structures. *Id.* Bird species can also become entrapped in lit areas, refusing to move for the night, increasing their risk of predation. Longcore & Rich.

34-IIII

Particularly with regard to the SKR, the risk of predation from artificial light is an issue. COSEWIC 2006.

Light pollution need not be extensive to have a major impact on wildlife. Longcore & Rich found that desert rodents reduced foraging activity when exposed to a single camp lantern. And artificial lights over 100 miles away could still affect wildlife. CNN.

34-JJJJ

At 5.4-30 you begin discussing mitigation measures. MM BIO 1 proposes to mitigate impacts to nesting birds. Birds nest from January 1 through September 15, surveys February 1 through August 31 are not sufficient to protect them. *See* Attachments C1, C2, and C3. MM BIO 2 calls for passive relocation of the burrowing owl if it is found outside the nesting season. The DEIR should specify compliance with the 2012 CDFW Burrowing Owl Staff Report to the extent they are found present during the nesting season. MM BIO 3 calls for a HMMP to be developed and approved by USFWS and CDFW prior to grading. It should have been included with the DEIR. MM BIO 4 calls for a conservation easement but you say only "to an approved mitigation entity." The entity should be approved by CDFW pursuant to Gov. Code Section 65967. CDFW has only approved those entities listed at https://www.wildlife.ca.gov/Conservation/CESA/Endowments. MM BIO 5 calls for approval from regulatory agencies prior to disturbance of jurisdictional waters. That approval *must* (not may) come from CDFW, RWQCB and USACE. The mitigation must come from the applicant, not the agencies. MM BIO 6 makes no sense unless there is also provision for trapping and release of SKR offsite.

[3] To the extent that the fence represents a preference by the Riverside Parks Dept. based on graffiti concerns those concerns should not hold sway over the very real risk to the SKR and other species from excessive sound.

Cultural Resources

34-KKKK

Here you assert that no written comments were received regarding Cultural Resources. This is false. You received an extensive comment letter from the Pechanga Tribe. *See* Appendix A, PDF at 33-39.

34-LLLL

Several tribes expressed interest in the site, requesting consultation and monitoring. The Pechanga and the Soboba in particular asserted cogently that the site contained Tribal Cultural Resources, *see* DEIR at 5.5-32 (requesting full avoidance). The City is apparently rejecting these claims on the ground that the integrity of setting has been disturbed by the development of other logistics warehouses in the area. The City should not be able to escape its responsibilities by looking to its past actions inconsistent with these resources. We disagree with your conclusions that there were no significant impacts to identify and that you have reduced these impacts to less than significant.

Greenhouse Gas Emissions

34-MMMM

Your GHG analysis is inadequate on several fronts. First of all, you don't use the CEQA Appendix G thresholds. Second, you fail to measure the significant GHGs you identify against a quantitative threshold, when the emissions you identify, a minimum of 25,509.10 $MTCO_2e$ would be significant via any metric you could choose: whether it is the SCAQMD threshold for its own industrial projects of 10,000 $MTCO_2e$ or the far more appropriate 3,000 $MTCO_2e$ for land use projects. You reject the standard adopted in Executive Order B-30-15 even though it was well on its way to becoming the law (in S.B. 32) when you issued the DEIR, and it is the law now. You apply a CEQA Guideline, Section 15083.5, which to our knowledge does not exist. You conduct a BAU scenario in a manner that the California Supreme Court amended its *Newhall Ranch* decision to specifically reject. Finally, you project a reduction in emissions from "vegetation change" based on trees you are adding though we do not think you are accounting for the vegetation you are removing. You say you have reduced emissions based on factors you can't quantify in CalEEMod when the factors you can quantify show substantial emissions. The DEIR is not based on substantial evidence and should be substantially revised and recirculated to address these flaws.

34-NNNN

We look forward to your responses. Should you choose to prepare one, please notify us of the availability of a Final Environmental Impact Report when it becomes available at collins@blumcollins.com and bentley@blumcollins.com. Thank you.

Sincerely,

Craig M. Collins

attachments: A-C3

Note: The attachments to this Comment Letter can be found at the end of the Responses for this Letter.

Response to Comment Letter 34 – Craig Collins, Blum Collins, LLP

Response to Comment 34-A:

This comment, which generally describes, the Project, does not identify any significant new environmental issues or impacts that were not already addressed in the Draft Environmental Impact Report (DEIR).

Response to Comment 34-B:

The DEIR was initially posted in the wrong order on the City's website, this error has been corrected. This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-C:

Pursuant to the California Environmental Act (CEQA), "A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid decision makers in preparing findings or statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project." CEQA Guidelines Section 15124(b). The objectives prepared for this project meet this requirement.

The proposed logistics center at the Project site is consistent with the land use designation for the site in both the City's General Plan 2025 (GP 2025) and the Sycamore Canyon Business Park Specific Plan (SCBPSP).

This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-D:

The trip generation rates for high-cube warehouses are based on the average weighted average trip generation rate provided in the *Trip Generation Manual (9th Edition)* by the Institute of Traffic Engineers (ITE), 2012. The Project truck trip generation used in the Traffic Impact Analysis (TIA) is based on the ITE 9th Edition Trip Generation Manual's truck trip generation for high-cube warehouse. The Fontana Truck Trip Generation Study, specifically cited as a source for truck axle splits in the ITE Manual, was then used to split the projected number of trucks into different kinds of trucks to estimate the passenger car equivalent (PCE). This use of the Fontana truck study is noted as a footnote under TIA Table 4-1 – Trip Generation Rates in addition to DEIR **Table 5.16-E – Trip Generation Rates**. (DEIR, pp. 5.16-18; DEIR Appendix J, p. 4-1.) The City has accepted the use of the Fontana Study for splitting the types of trucks. Traffic generation used for the study area is based upon the development of 1,433,599 square feet gross floor area high-cube warehouse, which is greater than the 1,375,169 SF of high-cube warehouse proposed at the site; therefore, this represents a conservative estimate (DEIR, p. 5.16-9). Using these assumptions, the Project will generate 917 truck trips total, including 2-axle, 3-axle, and 4-axle trucks. (DEIR, Table 5.16-F.)

According to the information provided by the City of Moreno Valley in the Notice of Preparation (NOP) comment letter (DEIR, Appendix A), it appears they split the office away from the warehouse and did a separate trip generation on the office square footage and the warehouse square footage for each building, which is not appropriate or necessary. The *Revised Traffic Impact Analysis for the Sycamore Canyon Industrial Buildings 1 & 2* (the TIA), which is the basis for the analysis in the DEIR used the trip generation rates for high-cube warehouses/distribution centers from the Institute of Transportation Engineers (ITE) *Trip Generation Manual (9th Edition).* High-cube warehouses/distribution centers, as described in the ITE *Trip Generation Manual (9th Edition)*, are "…used for the storage of materials, goods and merchandise prior to their distribution to retail outlets, distribution centers or other warehouses. These facilities are typically characterized by ceiling heights of at least 24 feet with small employment counts due to a high level of mechanization. High-cube warehouses/distribution centers generally consist of large steel or masonry shell buildings and may be occupied by single or multiple tenants. A *small ancillary office* (emphasis added) use component may be included and some limited assembly and repackaging may occur within these facilities."

This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-E:

The Project site is not located within a designated Core Reserve of the Stephens' Kangaroo Rat Habitat Conservation Plan (SKR-HCP); thus, the site itself is not intended to be used for conservation of this species. Outside of the Core Reserves, the SKR-HCP established a fee assessment area by which individual projects are deemed consistent with the SKR-HCP through payment of fees. (DEIR, pp. 5.4-14.) Although payment of the SKR-HCP fee may not avoid mortality of any SKR at the Project site, the Project is consistent with the SKR-HCP with payment of the SKR-HCP fee when the grading permit is issued.

With regard to the GP 2025 Policy AQ-1.3, it is the City's, and not the Project Applicant's, responsibility to designate land use patterns, including taking steps to separate, buffer, and protect sensitive receptors from significant sources of pollution. The Project is consistent with the land use designation for the site in both the GP 2025 and the SCBPSP and will incorporate several design features to mitigate air quality impacts to the adjacent residences. (DEIR, pp. 5.3-35 – 5.3-39 [**MM AQ1** – **MM AQ 25**].)

The commenter also suggests construction and operation of an office building at the Project site instead of a logistics center; however, an office building would likely not meet the density requirements for the March Air Reserve Base/Inland Port Authority Compatibility Criteria for Zone C1, which limits the site to 100 people/acre on average, or 250 people/acre for a single acre. (DEIR, p. 5.8-21.) Further, the City has zoned the site Business and Manufacturing Park (BMP), which is one of four industrial zones within the City; therefore, use of this site for non-light industrial uses would not make economic sense. (DEIR, Figure 3-5.)

Thus, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-F:

Pursuant to Senate Bill (SB 18) and Assembly Bill (AB) 52 the City had extensive consultation with the Pechanga Band of Luiseño Indians, Soboba Band of Luiseño Indians, and the Morongo Band of Mission Indians. (DEIR, pp. 5.5-18–5.5-20.) The three documented archaeological sites within the Project site represent prehistoric bedrock milling features. (DEIR, Table 5.5-A.) Therefore, there is no rock art at the Project site or in its immediate vicinity. The consultation process included meetings, conference calls, on-site visits (by representatives of the Pechanga Band of Luiseño Indians and Morongo Band of Mission Indians), review of the *Cultural Resources Assessment of the Sycamore Canyon Business Park Buildings 1 & 2, Riverside County, California* (included as Appendix D.1 of the DEIR) and the confidential results of the records search. As a result of the consultation process, the following mitigation measures will be implemented to reduce impacts to tribal cultural resources to less than significant: (DEIR, pp. 5.5-31–5.5-33.)

> **MM CR 1:** Prior to grading permit issuance: If there are any changes to project site design and/or proposed grades, the Applicant shall contact interested tribes to provide an electronic copy of the revised plans for review. Additional consultation shall occur between the City, Applicant and interested tribes to discuss the proposed changes and to review any new impacts and/or potential avoidance/preservation of the cultural resources on the Project. The Applicant will make all attempts to avoid and/or preserve in place as many as possible of the cultural resources located on the project site if the site design and/or proposed grades should be revised in consult with the City. In specific circumstances where existing and/or new resources are determined to be unavoidable and/or unable to be preserved in place despite all feasible alternatives, the developer shall make every effort to relocate the resource to a nearby open space or designated location on the property that is not subject any future development, erosion or flooding.
>
> **MM CR 2:** Archaeological Monitoring: At least 30-days prior to application for a grading permit and before any grading, excavation and/or ground disturbing activities on the site take place, the Project Applicant shall retain a Secretary of Interior Standards qualified archaeological monitor to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources.
>
> 1. The Project Archaeologist, in consultation with interested tribes, the Developer and the City, shall develop an Archaeological Monitoring Plan to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. Details in the Plan shall include:
>
>   a. Project grading and development scheduling;
>
>   b. The development of a rotating or simultaneous schedule in coordination with the applicant and the Project Archeologist for designated Native American

Tribal Monitors from the consulting tribes during grading, excavation and ground disturbing activities on the site: including the scheduling, safety requirements, duties, scope of work, and Native American Tribal Monitors' authority to stop and redirect grading activities in coordination with all Project archaeologists;

c. Plan for the controlled grading within 50 feet of the boundaries of CA-RIV-8750, CA-RIV-8751 and CA-RIV-8752. Grading within 50-feet of these sites shall be conducted using controlled grading techniques. Large indiscriminate grading equipment shall not be used, and the controlled grading technique shall be reviewed by the Project Archaeologist, in consultation with interested tribes, the Developer and the City. The archaeologist and Native Tribal Monitors shall ensure that the grading efforts in these areas are conducted in a manner that allows for the identification of subsurface cultural resources. Any resources observed shall be addressed in accordance with Mitigation Measure CR 3;

d. The determination by the project archaeologist, Developer, City and Native Tribal Monitors as to which features of sites CA-RIV-8750, CA-RIV-8751 and CA-RIV-8752 can be successfully relocated to locations onsite that will be mutually agreed upon. The relocated features will be placed in an area that will be preserved in perpetuity, so that no future disturbances will occur;

e. The protocols and stipulations that the Developer, City, Tribes and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation;

f. The 3D modeling on all the sites located within the Project site, specifically in Areas 1 (CA-RIV-8750), 2 (CA-RIV-8751), and 3 (CA-RIV-8752), as delineated on the Site Plan attached to the Archaeological Monitoring Plan shall take into account the potential impacts to undiscovered buried archaeological and cultural resources and procedures to protect in place and/or mitigate such impacts;

g. The location of the Cottonwood Tree requested by the Morongo Band of Mission Indians for their tribal requirements shall be noted on the Archaeological Monitoring Plan. The Monitoring Plan shall address the timing of the removal of the tree by the Morongo Band of Mission Indians and transfer of the tree to them; and

h. The scheduling and timing of the Cultural Sensitivity Training noted in Mitigation Measure CR 4.

MM CR 3: Treatment and Disposition of Cultural Resources: In the event that Native American cultural resources are inadvertently discovered during the course of grading

for this Project. The following procedures will be carried out for treatment and disposition of the discoveries:

1. Temporary Curation and Storage: During the course of construction, all discovered resources shall be temporarily curated in a secure location onsite or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with tribal monitor oversite of the process; and
2. Treatment and Final Disposition: The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The applicant shall relinquish the artifacts through one or more of the following methods and provide the City of Riverside Community and Economic Development Department with evidence of same:
    a. Accommodate the process for onsite reburial of the discovered items with the consulting Native American tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed;
    b. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79 and therefore would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation;
    c. For purposes of conflict resolution, if more than one Native American tribe or band is involved with the project and cannot come to an agreement as to the disposition of cultural materials, they shall be curated at the Western Science Center or Riverside Metropolitan Museum by default; and.
    d. At the completion of grading, excavation and ground disturbing activities on the site a Phase IV Monitoring Report shall be submitted to the City documenting monitoring activities conducted by the project Archaeologist and Native Tribal Monitors within 60 days of completion of grading. This report shall document the impacts to the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural resources recovered and the disposition of such resources; provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting; and, in a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. All reports

produced will be submitted to the City of Riverside, Eastern Information Center and interested tribes:

i. Information on the location of, up to, 13 protein residue tests on the site and one or more control sites, will be provided in the final report.

MM CR 4: Cultural Sensitivity Training: The County Certified Archaeologist and Native American Monitors shall attend the pre-grading meeting with the developer/permit holder's contractors to provide Cultural Sensitivity Training for all construction personnel. This shall include the procedures to be followed during ground disturbance in sensitive areas and protocols that apply in the event that unanticipated resources are discovered. Only construction personnel who have received this training can conduct construction and disturbance activities in sensitive areas. A sign in sheet for attendees of this training shall be included in the Phase IV Monitoring Report. (DEIR, pp. 5-33–5-36.)**.**

This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-G:

The proposed Project will operate as a logistics center, which is consistent with the land use designations for the site in both the GP 2025 and SCBPSP. Because the site is located between the residences and several further-away warehouses within the SCBPSP area, construction of the Project will reduce some of the impacts from these warehouses to the residences.

This comment states that residents were misled about what was to be built on this property, but does not provide any explanation, information, specific examples, or other support for the comment. It is not known where the residents receive such information as the Sycamore Highlands Specific Plan and the Sycamore Canyon Business Park Specific Plan were both created prior to anything being built in either Specific Plan and the land use designation of Project site has not changed since the creation of these Specific Plans. A comment which draws a conclusion without elaborating on the reasoning behind, or the factual support for, those conclusions does not require a response. Under CEQA, the lead agency is obligated to respond to timely comments with "good faith, reasoned analysis" (CEQA Guidelines 15088(c)). These responses "shall describe the disposition of the significant environmental issues raised . . . [and] giv[e] reasons why specific comments and suggestions were not accepted (CEQA Guidelines, 15088(c)). To the extent that specific comments and suggestions are not made, specific responses cannot be provided and, indeed, are not required (*Browning-Ferris Industries of California, Inc. v. City Council of the City of San Jose* [1986] 181 Cal.App.3d 852 [Where a general comment is made, a general response is sufficient]).

The DEIR fully addresses and compares the impacts associated with the Project. The impact analysis and significance conclusions presented in the DEIR are based upon and supported by substantial evidence, including the technical analyses (i.e., traffic, noise, air quality, greenhouse

gas emissions, biology, hydrology, land use consistency, and cultural resources) provided as appendices to the DEIR (DEIR Appendices C-J). The technical information is summarized and presented in the body of the DEIR, thus providing in full the factual basis for the conclusions.

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-H:

State CEQA Guidelines Section 15125 provides that a project's environmental setting is the "baseline" for environmental analysis. The "environmental setting" is defined as the physical conditions in the vicinity of a project as they exist at the time the notice of preparation (NOP) is published or, in the absence of an NOP, at the time environmental analysis is commenced. (CEQA Guidelines, § 15125.) Thus, contrary to the commenter's assertion, it would not have been appropriate to use 2001 as the baseline for the DEIR's evaluation of potential noise impacts from the Project.

A list of cumulative development Projects for consideration in the DEIR was prepared in consultation with the City of Riverside and the City of Moreno Valley to quantify impacts from all related development Projects in proximity to the Project site located within each city. Existing noise levels at the Project site were measured in December 2015, and would have taken into consideration any cumulative noise from the existing warehouses and distribution centers within the SCBPSP.

The commenter's assertion that the NOP was only sent to 18 homes with two days' notice prior to the community meeting is incorrect. The NOP was sent to 639 residents on August 18, 2015 and a scoping meeting was held in the community on August 26, 2015. Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-I:

With respect to the selection of alternatives to be considered in an EIR, State CEQA Guidelines Section 15126.6(b) states "…the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly." That is, each alternative must be capable of avoiding or substantially lessening any significant effects of the proposed Project.

The Project site is zoned BMP on the City's Zoning Map, and is within one of four industrial zones within the City. Therefore, construction and operation of an office building at the Project site would not take full advantage of the unique development opportunities of the site, and would not meet the Project objectives. Additionally, development of an office building would result in higher density employment, which would substantially increase the number of vehicle trips to the Project site. Based on the ITE *Trip Generation Manual (9th Edition)* approximately

1.4 million SF of a general office building office use would generate over 15 million daily trips,[1] which is a substantial increase over the 2,409 daily trips generated by the proposed Project. (DEIR, p. 5.16-28.) Even if only 700,000 SF of office space was constructed on the Project site, this would result in over seven million daily trips. The increased number of trips would result in impacts greater than the proposed Project. This increased traffic would result in greater air quality and circulation impacts in the Project vicinity. Construction noise would be the same as the proposed Project regardless of the ultimate use, because the same type of equipment would be used. Thus, this alternative was not considered in the DEIR.

The "Original Project as Submitted" alternative was rejected from further consideration because it consisted of a total of 1.43 million square feet of logistics center uses at the Project site and would have generated substantially worse impacts on the adjacent residences than the 1.37 million square feet proposed Project. As a result of discussion with the City, the Applicant withdrew this proposal. (DEIR, p. 8-5.) Additionally, due to the location of the blue-line stream running through the center of the Project site, avoidance of this feature is not possible. (DEIR, Figure 5.4-2.) Rather, the Project proposes relocation of this blue-line stream to the Project's approximately 3-acre Mitigation Area, along the western edge of the Project site. The proposed Mitigation Area will vary in total width from 52 feet to 72 feet with a length of 2,008 feet totaling approximately three (3) acres. The Mitigation Area will include a low-flow channel (10- to 25-feet wide) designed to meander; thus creating a natural sinuosity to mimic a naturally occurring drainage. Vegetation within the Mitigation Area will be dominated by willow riparian scrub habitat (0.50 acres) with upland scrub and oaks along the upper banks (an additional approximately 2.5 acres). Based on the findings of the *Determination of Biologically Equivalent or Superior Preservation* (DBESP) for the Project (DEIR Appendix C.4), the habitat that will be created in the Mitigation Area will be superior to the existing drainage and habitat. A Habitat Mitigation Monitoring Program (HMMP) will also be prepared by the Applicant to describe the habitat creation and establish long-term success criteria. (DEIR, pp. 5.4-21.)

Alternative 3 – Reduced Density would reduce development by 30 percent in comparison to the proposed Project; however, it would meet the Project objectives to a lesser degree and due to the scarcity of sites of this size, the attendant land costs of sites of this size, and the low Inland Empire market lease rates for products of this type, the rate of return from the lease would be too low to justify the cost and risk of investment under the reduced density alternative. Further, this alternative would also result in significant and unavoidable impacts to air quality, noise, and transportation/traffic. (DEIR, p. 8-26 – 8-30.)

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-J:

State CEQA Guidelines Section 15126.2(c) identifies, as examples of significant irreversible changes in the environment, such things as use of nonrenewable natural resources, irreversible

[1] ITE generation rate for general office is 11.03 daily trips per 1,000 SF.

changes in land use, and irreversible damage to the environment resulting from environmental accidents associated with a project.

Although the Project site is currently undeveloped, the proposed Project is consistent with the land use designations for the site in both the GP 2025 and the SCBPSP; therefore, construction and operation of the Project will not result in an irreversible change to land use. (DEIR, p. 3-14.) Additionally, the existing blue-line stream will be relocated to the western edge of the Project site, not removed. The existing MSHCP jurisdictional areas at the Project site consist of two drainages (1.65 and 0.02 acres, respectively), as well as 0.24 acres of isolated riparian habitat (DEIR, **Table 5.4-A – Summary of Jurisdictional Areas**). As a result of discussions with the resource agencies during pre-application meetings on December 9, 2015, and February 10, 2016, the Project incorporates an approximately 3-acre Mitigation Area along the western edge of the Project site to mitigate for a proposed 1.91-acre permanent impact to riparian/riverine habitat. The proposed Mitigation Area will vary in total width from 52 feet to 72 feet with a length of 2,008 feet. The Mitigation Area will include a low-flow channel (10- to 25-feet wide) designed to meander; thus creating a natural sinuosity to mimic a naturally occurring drainage. Vegetation within the Mitigation Area will be dominated by willow riparian sage scrub habitat (0.50 acres) with upland scrub and oaks along the upper banks (an additional approximately 2.5 acres). (DEIR, p. 5.4-18.)

A *Determination of Biologically Equivalent or Superior Preservation* (DBESP) was prepared to demonstrate that the habitat created in the Mitigation Area will be considered superior in quality to the existing drainage and habitat. A Habitat Mitigation Monitoring Plan (HMMP) will also be prepared by the applicant to describe the habitat creation and establish long-term success criteria. (DEIR, p. 5.4-18.)

Diesel fuel is not a long-term energy use and, as analyzed in Section 7.0 of the DEIR, the Project will not result in wasteful or inefficient and unnecessary consumption of energy. (DEIR, p. 7-22.) Although solar panels will not be installed at the Project site now, roofing will be solar-ready to accommodate later installation of solar panels, if economically feasible, as included in the Project's design features and mitigation measure **MM AQ 7** listed below.

> **MM AQ 7:** All buildings shall be designed with "solar ready" roofs that can structurally accommodate future installation of rooftop solar panels. Prior to building permit issuance, the City shall verify roofs are "solar ready." If future building operators are providing rooftop solar panels, they shall submit plans for solar panels to the City prior to occupancy.

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-K:

The GP 2025 designates the site as Business/Office Park (B/OP), which allows for development of logistics centers such as the proposed Project. Although the Project includes a

General Plan Amendment, this amendment would modify the circulation plan of the Project vicinity and is not related to land use at the site. (DEIR, p. 3-17.)

Further, the Project site is zoned Business and Manufacturing Park (BMP) on the City's Zoning Map, consistent with the SCBPSP, which is only one of four industrial zones within the City. Additionally, office uses would create more traffic and more frequent trips, which in turn would result in greater air quality and noise impacts than the proposed Project. Manufacturing was evaluated in the DEIR as Alternative 2. Alternative 2 would result in twice as many trips as the proposed Project and none of the environmental impacts would be decreased in comparison to the proposed Project. Impacts would remain significant and unavoidable in relation to air quality, noise, and transportation/traffic. Further, impacts related to air quality, greenhouse gas emissions, noise and transportation/traffic would be greater under this alternative in comparison to the proposed Project due to the increased vehicle traffic associated with Alternative 2. (DEIR, pp. 8-17–8-22.) Development of an office building at the Project site would not meet the Project objectives, and would result in underutilization of the site for its intended use as one of the few industrial areas within the City. Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-L:

The Project includes a General Plan Amendment (P16-0101) to the GP 2025 Circulation Element; Specific Plan Amendment (P16-0101) to the Circulation Plan of the SCBPSP; Tentative Parcel Map No. 36879 to combine 17 existing parcels into two lettered lots; Minor Conditional Use Permit (P14-1082) to allow for warehouses greater than 400,000 square feet; and Grading Exceptions and Variance (P16-0103) to implement the Project's proposed grading plan and reduction of parking. (DEIR, pp. 3-17–3-23.) Once onsite landscaping is mature, only the top of Building 2 will be visible from the residences to the north of the Project site (DEIR, **Figures 5.1-2a, -2b, -2c – Photo Simulations**).

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-M:

Comment noted. The Project Applicant is not required to implement additional sustainability features beyond those required by Green Building Codes. According to the California Air Resources Board's (CARB's) *Air Quality and Land Use Handbook,* CARB recommends to avoid the placement of new sensitive land uses within 1,000 feet of a distribution center (accommodating more than 100 trucks per day, 40 trucks with transport refrigeration units (TRUs), or where TRUs operate more than 300 hours a week) and to take into account the configuration of existing distribution centers and avoid locating residences and other sensitive land uses near entry and exit points. However, these are recommendations, not mandates, and land use decisions ultimately lie with the local agency which needs to balance other considerations. (DEIR, p. 5.3-18.)

At present, electric trucks for distribution are not common in the industry, and the code does not currently require installation of electric truck charging stations. Trucks incapable of using the electrical transport refrigeration unit hookups shall be prohibited from accessing the site, as set forth in the lease agreement and mitigation measure **MM AQ 14.** (DEIR, p. 5.3-22.)

> **MM AQ 14:** Electrical hookups shall be installed at all loading docks to allow transport refrigeration units (TRUs) with electric standby capabilities to plug in when TRUs are in use. Trucks incapable of using the electrical hookups shall be prohibited from accessing the site as set forth in the lease agreement. The City shall verify electrical hookups have been installed prior to occupancy and shall confirm lease agreement includes such language.

As described in DEIR Section 3.2.6 (Sustainability Features), the Project will meet or exceed all applicable standards under California's Green Building Code (CalGreen) and Title 24. (DEIR, pp. 5.3-20-22.) The proposed Project includes mitigation measures that exceed the requirements of the CalGreen Code and Title 24 standards. **MM AQ 1** requires solar or light-emitting diodes (LEDs) to be installed for outdoor lighting. **MM AQ 2** ensures that the site and buildings be designed to take advantage of daylight, such that the use of daylight is an integral part of the lighting systems. **MM AQ 3** requires trees and landscaping to be installed along the west and south exterior building walls to reduce energy use and vegetative or man-made exterior wall shading devices or window treatments shall be provided for east, south, and west-facing walls with windows. **MM AQ 4** requires cool pavement in parking areas. **MM AQ 5** and **MM AQ 6** require the use of Energy Star rated windows, space heating and cooling equipment, light fixtures, and appliances. **MM AQ 8** requires water-efficient landscaping with a preference for xeriscape landscape palette. **MM AQ 18** ensures that at least 10 percent of the construction materials used for the Project be locally produced and/or manufactured. **MM AQ 19** requires that green building materials, or those materials that are resource efficient and recycled and manufactured in an environmentally friendly way, will be used where feasible.

> **MM AQ 1**: Solar or light-emitting diodes (LEDs) shall be installed for outdoor lighting. Prior to building permit issuance, the City shall verify building plans contain these features.
>
> **MM AQ 2**: Indoor and outdoor lighting shall incorporate motion sensors to turn off fixtures when not in use. The site and buildings shall be designed to take advantage of daylight, such that use of daylight is an integral part of the lighting systems. Prior to building permit issuance, the City shall verify building plans contain these features.
>
> **MM AQ 3**: Trees and landscaping shall be installed along the west and south exterior building walls to reduce energy use. Vegetative or man-made exterior wall shading devices or window treatments shall be provided for east, south, and west-facing walls with windows. Landscaping and/or building plans shall contain these features and are subject to City verification prior to building permit issuance.

MM AQ 4: Light colored "cool" roofs shall be installed over office area spaces and cool pavement shall be installed in parking areas. Prior to building permit issuance, the City shall verify building plans contain these features.

MM AQ 5: Energy efficient heating and cooling systems, appliances and equipment, and control systems that are Energy Star rated shall be installed in future office improvement plans. Refrigerants and heating, ventilation, and air conditioning (HVAC) equipment shall also be selected to minimize or eliminate the emission of compounds that contribute to ozone depletion and global warming. The efficiency of the building envelope shall also be increased (i.e., the barrier between conditioned and unconditioned spaces). This includes installation of insulation to minimize heat transfer and thermal bridging and to limit air leakage through the structure or within the heating and cooling distribution system to minimize energy consumption. The City shall verify tenant improvement plans include these features. The City shall verify these features are installed prior to issuance of occupancy permits.

MM AQ 6: Energy Star rated windows, space heating and cooling equipment, light fixtures, appliances, or other applicable electrical equipment shall be installed. Prior to building permit issuance, the City shall verify building plans contain these features.

MM AQ 8: The Project's landscaping plans shall incorporate water-efficient landscaping, with a preference for xeriscape landscape palette. Landscaping plans shall be approved by the City prior to building permit issuance.

MM AQ 18: Locally produced and/or manufactured building materials shall be used for at least 10% of the construction materials used for the Project. Verification shall be submitted to the City prior to issuance of a building permit.

MM AQ 19: "Green" building materials shall be used where feasible, such as those materials that are resource efficient and recycled and manufactured in an environmentally friendly way. Verification of the feasibility or infeasibility of securing these materials shall be submitted to the City prior to issuance of a building permit.

Project-related emissions will not result in a significant elevated cancer or non-cancer risk (see Response to Comment 34-FF), and parking will be provided at the Project site so that employees may elect to ride their bicycle to work. (DEIR, Tables 5.3-I, 5.3-J.) Thus, the Project will comply with the California Green Building Code and this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-N:

Comment noted. This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

The Fire Access/Parks Maintenance Road will consist of a 12-foot wide road with a minimum 10-foot wide, 4-inch thick decomposed gravel surface and 13.5-foot vertical clearance. (DEIR,

p. 3-39.) **Figure 3-11 – Conceptual Landscape Plan** in the DEIR currently shows trees within the Fire Access/Parks Maintenance Road; however, these trees will be moved so that that they are adjacent to the trail and not within the road (DEIR, **Figure 3-11**). Building 1 is setback approximately 235 feet from the southern property line, and there will be sufficient space to accommodate landscaping, the trail, and the Fire Access/Parks Maintenance Road. Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-P:

The Project will introduce new sources of light in the form of security lighting, internal roadway and parking lot lighting within the Project site for public safety and operation of the proposed structures. The proposed lighting at the Project site has been designed in accordance with all applicable City codes and will be appropriately shielded and directed away from the residential and wilderness park areas adjacent to the site to reduce spillover. Impacts with regard to new sources of light and glare were determined to be less than significant through compliance with the City's Zoning Code, mitigation measures **MM AES 10** and **MM HAZ 4**, any other applicable lighting requirements and regulations, and compliance with Staff Recommended Conditions of Approval listed below. (DEIR, pp. 5.1-29–5.1-31.) To ensure that light spill will not take place, **MM AES 10** will be revised in the Final EIR (FEIR) as follows:

> **MM AES 10**: To ~~reduce~~ eliminate light spill and glow into the residential backyards to the north, lighting mounted on the north wall of Building 2 shall be placed on this wall as low as feasible to provide the required security lighting.
>
> **MM HAZ 4:** The following additional MARB-required risk-reduction Project design features shall be incorporated into Project design:
>
> - The Project will not include:
>   - Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light, visual approach slope indicator, or FAA-approved obstruction lighting;
>   - Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport;
>   - Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area;
>   - Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation; or

- Although such uses are not anticipated, in Building 1: Children's schools, day care centers, libraries, hospitals, skilled nursing and care facilities, congregate care facilities, places of assembly, noise sensitive outdoor nonresidential uses and hazards to flight are prohibited.

- Any outdoor lighting that is installed will be hooded or shielded so as to prevent either the spillage of lumens or reflection into the sky. All outdoor lighting will be downward facing;
- March Air Reserve Base must be notified of any land use having an electromagnetic radiation component to assess whether a potential conflict with Air Base radio communications could result;
- No skylights will be included;
- Exterior walls will consist of 8-inch-thick solid grouted, 4-hour rated concrete masonry;
- Building roof will consist of structural steel columns and steel roof structure framing elements, including structural steel decking;
- Use of windows will be limited to only the structures' main entrances;
- The structure will incorporate an enhanced fire sprinkler system to exceed California Fire Code requirements; and
- The structure will include emergency exits that exceed the exit requirements set forth by the Riverside County Fire Code by approximately 15 to 20 percent.
- The applicant will not propose any uses prohibited or discouraged in Compatibility Zones C1 or D. (DEIR, p. 5.1-36.)

With regard to lighting and the height of any light poles adjacent to the residences to the north, the third paragraph uner the subheading "Lighting" will be modified on DEIR page 5.1-10 as follows: :

> The City will require the ~~"Standard lighting Condition"~~ ~~which reads as follows~~ following: An exterior lighting plan shall be submitted ~~for Planning Division~~ to Design Review staff for review and approval. A photometric study ~~with~~ and manufacturer's cut sheets of all exterior lighting on the buildings, in landscaped areas, and in the parking lots shall be submitted with the ~~study~~ exterior lighting plan. All on-site lighting shall provide a minimum intensity of one-foot candle and a maximum of ten-foot candles at ground level throughout the areas serving the public and used for parking, with a ratio of average light to minimum light of four to one (4:1). Light sources shall be hooded and shielded to minimize off-site glare, shall not direct light skyward, and shall be directed away from adjacent properties and public rights-of-ways. No light shall be permitted on the MSHCP Conservation Area (Sycamore Canyon Wilderness Park). If lights are proposed to be mounted on buildings, down-lights shall be utilized. Light poles

shall not exceed ~~twenty feet (20)~~ fourteen (14) feet in height, including the height of any concrete or other base material within the 100-foot setback between Building 2 and the residential properties to the north and shall not exceed twenty (20) feet in height, including the height of any concrete or other base material elsewhere on the property.

For the reasons set forth above, impacts with regard to Project lighting will be less than significant with mitigation. (DEIR, p. 5.1-31.)

The City will also require the Project Applicant to submit exterior lighting plans to the City for approval to ensure that proposed lighting at the site is consistent with City codes and the Sycamore Canyon Wilderness Park Stephens' Kangaroo Rat Management Plan and Updated Conceptual Development Plan (DEIR, p. 5.1-10). Although the Project does not propose any lighting into the Sycamore Canyon Wilderness Park, mitigation measures **MM AES 10** as revised and **MM BIO 7** (listed below) will further ensure that site lighting is designed to eliminate edge effects and other impacts on the Park, consistent with the MSHCP Urban/Wildlands Interface Guidelines (DEIR, **Table 5.4-B – Project Compliance with MSHCP Urban/Wildlands Interface Guidelines**).

MM BIO 7: The Project shall also comply with the following BMPs, not outlined in Volume I, Appendix C of the MSHCP:

- Any night lighting shall be directed away from natural open space areas and directed downward and towards the center of the development. Energy-efficient LPS or HPS lamps shall be used exclusively to dampen glare.
- During construction, equipment storage, fueling, and staging areas will be located on areas of the site with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas will be located in such a manner as to prevent any runoff from entering sensitive habitat. Necessary precautions will be taken to prevent the release of cement or other toxic substances into surface waters. Project related spills of hazardous materials will be reported to appropriate entities including but not limited to applicable jurisdictional City, UFWS, and CDFW, RWQCB regulated areas and will be cleaned up immediately and contaminated soils removed to approved disposal areas.
- To avoid attracting predators of the species of concern during site grading and construction activities, the Project site will be kept clean of debris. All food related trash items will be enclosed in sealed containers and regularly removed from the site(s). This requirement will be addressed by the biologist conducting the training session prior to site grading.

This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-Q:

Because the Project site is located west of the of existing industrial development and south of the majority of the residences adjacent to the Project site, the Project will not block views of the Box Springs Mountains from these locations. Although construction of the buildings may impact views of the lower parts of the Box Springs Mountains from the residences located adjacent to the western boundary of the Project site, this will be a less than significant impact due to the much greater relative height of the mountains compared to the proposed development. (DEIR, p. 5.1-11.) Any construction at the Project site will reduce views of the Sycamore Canyon Wilderness Park and the existing warehouses and distribution centers from residences located north of the Project site; however, the Project site is zoned as Business-Manufacturing Park (BMP) in the City's Zoning Code, thus, it is reasonable to assume that the site will be developed at some point. The Project's proposed Building 1 will be approximately 41 feet in height and Building 2 will be approximately 37 feet in height. Thus, the proposed structures are consistent with the maximum building height allowed and this does not represent a significant change in the viewshed. (DEIR, p. 5.1-11.)

Therefore, development of the Project site will have a less than significant impact on scenic vistas. This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-R:

Comment noted. The discussion in the DEIR is not limited to resources within state scenic highways. The commenter correctly asserts that mature trees will be removed from the site, including red willow (*Salix laevigata*), arroyo willow (*Salix lasiolepis*), Gooding's black willow (*Salix douglasii*), narrow-leaf willow (*Salix exigua*), Fremont cottonwood (*Populus fremontii ssp. fremontii*), and mule fat (*Baccharis salicifolia*) within the riparian area at the Project site. (DEIR, p. 5.4-2.) As a result of discussions with the resource agencies during pre-application meetings on December 9, 2015, and February 10, 2016, the Project incorporates an approximately 3-acre Mitigation Area along the western edge of the Project site to mitigate for a proposed 1.91-acre permanent impact to riparian/riverine habitat. The proposed Mitigation Area will vary in total width from 52 feet to 72 feet with a length of 2,008 feet. The Mitigation Area will include a low-flow channel (10- to 25-feet wide) designed to meander; thus creating a natural sinuosity to mimic a naturally occurring drainage. Vegetation within the Mitigation Area will be dominated by willow riparian sage scrub habitat (0.50 acres) with upland scrub and oaks along the upper banks (an additional approximately 2.5 acres). (DEIR, p. 5.4-18.)

As discussed in the DEIR and the *Determination of Biologically Equivalent or Superior Preservation* (DBESP) prepared for the Project (DEIR, Appendix C.4), vegetation and habitat created within the mitigation area will be superior to the habitat and trees lost onsite. (DEIR, p. 5.4-18.) Vegetation in this mitigation area will consist of native plants, similar to the type that will be removed, and will be maintained and monitored via the Habitat Mitigation Management Plan (HMMP) prepared for the Project to ensure the biological success of this area. Further, the Mitigation Area will be permanently conserved in a conservation easement, or equivalent, and managed in perpetuity with funds from a non-wasting endowment. (DEIR, p. 5.4-18.)

Thus, the assessment that Project implementation will have a less than significant impact to scenic resources is correct. This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-S:

It is also important to note that the riparian feature will not be removed; rather, it will be relocated to the mitigation area along the western edge of the Project site. This recreated habitat will be biologically superior to the existing drainage and habitat and will feature a meandering drainage to mimic natural conditions, and will be planted with a variety of native plants. (DEIR, p. 5-18.)

As a result of discussions with the resource agencies during pre-application meetings on December 9, 2015, and February 10, 2016, the Project incorporates an approximately 3-acre Mitigation Area along the western edge of the Project site to mitigate for a proposed 1.91-acre permanent impact to riparian/riverine habitat. The proposed Mitigation Area will vary in total width from 52 feet to 72 feet with a length of 2,008 feet. The Mitigation Area will include a low-flow channel (10- to 25-feet wide) designed to meander; thus creating a natural sinuosity to mimic a naturally occurring drainage. Vegetation within the Mitigation Area will be dominated by willow riparian sage scrub habitat (0.50 acres) with upland scrub and oaks along the upper banks (an additional approximately 2.5 acres). (DEIR, p. 5.4-18.)

As discussed in the DEIR and the *Determination of Biologically Equivalent or Superior Preservation* (DBESP) prepared for the Project, the habitat that will be created in the proposed Mitigation Area is considered superior in comparison to the existing drainage because it will:

- continue to convey the runoff from the residential development to the northwest of the Project site;
- be planted with native riparian and riparian scrub habitat;
- meander like a naturally occurring drainage; and
- provide better quality habitat for nesting birds.

A Habitat Mitigation Management Plan (HMMP) will be prepared by the Applicant to describe the habitat creation and establish long-term success criteria. The HMMP will be submitted to the resource agencies (i.e., the USFWA and CDFW) for review prior to any ground disturbance. The Mitigation Area will be permanently conserved in a conservation easement, or equivalent, and managed in perpetuity with funds from a non-wasting endowment. (DEIR, p. 5.4-18.) Development of this site will not *significantly* change the visual character of the area because there are already views of industrial areas from the residences to the north and northwest. Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-T:

Although Building 2 will be more visible until landscaping reaches maturity, it is important to note that these visual impacts will continually lessen in time as landscaping grows. All tree

species proposed at the Project site have been strategically selected to mitigate views of the logistics center buildings at maturity and all are anticipated to reach a height of at least 10 feet within the first five to ten years after installation. At full maturity, trees at the Project site will range from 25 to 70 feet in height.[2] The City standard when reviewing landscaping is to require, at a minimum, that 20% of the trees be 24-inch box in size and 10% of the trees at least 36-inch box or larger at the time of planting. The Project will obstruct views of the hills in the distance; however, because these hills already feature a variety of industrial developments, this does not represent a significant change in the visual character of the area.

The topography of the Sycamore Canyon Wilderness Park will limit views of the Project site from the majority of the park. Although views of the logistics center buildings will be available from portions of the Wilderness Park, current views from the park across the Project site are of the existing single family homes and existing industrial development; therefore, this does not represent a significant change. Additionally, although the proposed Building 1 and the truck yard will be somewhat visible from portions of the Sycamore Canyon Wilderness Park that are at the same elevation as the Project site, landscaping at the Project site will screen views of Building 1 and the truck yard. The onsite trail and Mitigation Area along the Project's southern boundary will further buffer views of the buildings at the Project site from users within the Sycamore Canyon Wilderness Park. (DEIR, **Table 5.1-A – Line of Sight Analysis.**) Thus, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-U:

Although the Project site is currently undeveloped, it is designated as BMP in the City's Zoning Code and as a planned Industrial land use in the SCBPSP. Therefore, the Project will not eliminate open space.

Further, because there are already warehouses and distribution centers within the Sycamore Canyon Business Park, the construction of the proposed Project will not introduce a new land use to the area, and will not result in a substantial degradation of the existing visual character of the site or its surroundings.

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-V:

Mitigation measures **MM AES 1** and **MM AES 4** are not intended to block the view of the trucks, which will only be visible by approximately 5 residences to the west of the Project site within an approximately 195-foot gap between Building 2 and Building 1. The visual character of the surrounding area already includes existing industrial uses and views of trailer and truck parking. The City is requiring the Project Applicant to install an 8-foot tall decorative block wall (**MM AES 1**) because the City has determined that 8-feet is sufficient to create a better visual appearance and cut down on noise attenuation. (DEIR, p. 5.1-8.)

[2] From email between WEBB and Project Landscape Architect on 11/28/16.

> **MM AES 1:** To provide separation between the Project site and the adjacent residential uses and to be consistent with the wall constructed on the project located east of the Project site and north of Dan Kipper Drive, the developer shall install an 8-foot tall wall constructed of two-sided decorative masonry material along the Project site's northern property line and that portion of the Project's westerly property line adjacent to existing residential uses. As part of the Design Review process and prior to the issuance of a grading permit, the Project developer shall submit a revised site plan showing the 8-foot tall wall and the proposed materials and decorative treatment for such wall to the City of Riverside Community and Economic Development Department, Planning Division and the Parks, Recreation, and Community Services Department for review and approval.

Fencing, screening views of the parking lot, loading docks, and trailer parking areas from the public right-of-way, in addition to the on-site fencing securing the trailer parking areas and the metal, manual operated gates that permit access to these areas as required by **MM AES 4,** will block views of trucks from the public right-of-way.

> **MM AES 4:** In order to screen views of the parking lot, loading docks, and trailer parking areas from the public right-of-way, the on-site fencing securing the trailer parking areas and the metal, manual operated gates that permit access to these areas shall incorporate an opaque layer (i.e. mesh or screening) that will withstand wind loads of 85 miles per hour. As part of Design Review and prior to the issuance of a grading permit, a revised site plan and materials board showing the proposed screening shall be submitted to the Community and Economic Development Department, Planning Division for review and approval.

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-W:

See Response to Comment 34-P. Glare is caused either by improperly aimed or blocked lighting sources or reflection of a light source against a surface. The building will primarily consist of concrete, which is not a reflective surface; therefore, glare is not anticipated to be a significant issue. Additionally, all lighting installed at the Project site will be subject to the City's "Standard Lighting Condition," mitigation measure **MM AES 10** as revised (see Response to Comment 34-P), as well as the MSHCP Urban-Wildlands Interface Guidelines which require, among other things, light sources to be shielded to minimize off-site glare. (DEIR, pp. 5.1-30 – 5.1-31.)

All lighting at the Project site will be properly shielded, as required by City policy and the Riverside County Airport Land Use Commission (ALUC). This includes a requirement that the Project Applicant submit lighting plans to City Planning staff for review. Lighting spillover onto adjacent properties will be limited to the greatest extent feasible, given economic and technological constraints as well as the necessity to provide sufficient light at the Project site for safety of workers at the site. Mitigation measure **MM HAZ 4** (see Response to Comment

34-P) identifies several March Air Reserve Base-required risk-reduction Project design features, including an additional requirement that lighting is hooded or shielded to prevent spillage of lumens or reflection into the sky.

Mitigation measure **MM AES 10** also requires that light mounted on the north side of Building 2 shall be placed on the building wall as low as feasible to provide the required security lighting and eliminate light spill and glow into the residential backyards to the north (DEIR, p. 5.1-30).

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-X:

See Responses to Comments 34-P and 34-W. As discussed in Response to Comment 34-P. mitigation measure **MM AES 10** will be revised to eliminate any light spillage onto adjacent properties. Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-Y:

See Response to Comments 34-O through 34-X. This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-Z:

The intent of mitigation measure **MM AES 9** is to require articulation to break up the long expanses of wall, and not incorporation of windows in non-office areas of the buildings. To clarify this intent, mitigation measure **MM AES 9** will be revised in the FEIR as follows:

> **MM AES 9**: To offset the long expanses of wall surfaces on Building 1 and Building 2, prior to the issuance of a grading permit as part of the Design Review process, revised architectural plans and elevations shall be submitted for review and approval by the City of Riverside Design Review staff.
>
> a. The revised architectural plans and building elevation for the west elevation of Building 1 shall include some of the same elements used on the front elevation to offset the long (1,394 feet) expanse of wall surface, including providing design techniques like those at the office areas on every corner of Building 1 (excluding windows). The new design shall implement articulation to create pockets of light and shadow.
>
> b. The revised architectural plans and building elevation for the north elevation of Building 2 shall be articulated in the same manner as the front elevation and shall include the same elements used on the east elevation to offset the long (978 feet) expanse of wall surface. The exterior features provided at the office areas shall be provided on every corner of Building 2. The new design shall implement articulation to create pockets of light and shadow.

In particular, mitigation measure **MM HAZ 4** (see Response to Comment 34-P) restricts use of windows to only the structures' main entrances.

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-AA:

See Response to Comment 34-B. This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-BB:

As noted on page 3-22 of the DEIR, A Minor Conditional Use Permit (MCUP) is required to allow for warehouses greater than 400,000 square feet pursuant to City of Riverside Municipal Code, Title 19, Zoning Code, Chapter 19.150, Base Zones Permitted Land Uses. This requirement is to provide for a discretionary review that looks at both the City of Riverside Good Neighbor Guidelines in terms of the proposed use's compatibility and whether the proposed use can provide significant jobs to warrant the number of truck trips a building of such a size will generate." The City adopted *Good Neighbor Guidelines Siting New and/or Modified Warehouse/Distribution Facilities* to provide the City and developers with a variety of strategies that can be used to reduce diesel emissions from heavy-duty trucks that deliver goods to and from warehouse and distribution centers, such as the proposed Project. (DEIR, p. 5.3-16.) As discussed in DEIR Appendix M, the proposed Project is consistent with all of the goals and strategies outlined in the City's *Good Neighbor Guidelines.* (DEIR Appendix M, pp. M-66–M-72.) Because each Project and property have different characteristics and circumstances, the City's *Good Neighbor Guidelines* do not include recommendations regarding setbacks between distribution center buildings and adjacent residential uses. Rather, it recommends that a Health Risk Assessment (HRA) be prepared for any warehouse project within 1,000-feet of residential properties. The HRA should indicate how the project can be designed to limit health risks. The site has been designed in order to minimize impacts on the adjacent residential area, including placement of driveways and onsite parking areas away from the adjacent residential areas, consistent with the policies contained in the City's *Good Neighbor Guidelines.* The results of the HRA prepared for the Project are discussed in Response to Comment 34-FF Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-CC:

This comment does not make any statements or questions regarding the analysis in the DEIR other than to incorrectly assert that Building 1 will have dock doors and truck exhaust directly facing the residences. Only Building 2 interfaces with residential boundaries.

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-DD:

CEQA requires that the data in an EIR not only be sufficient in quantity, but also presented in a manner calculated to adequately inform the public and decision makers, who may not be previously familiar with the details of the project. (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal. 4th 412, 442.) In accordance with CEQA, the Project's compliance with the City 's *Good Neighbor Guidelines* is discussed on page 5.3-16 of the DEIR and in greater depth in Appendix M to the DEIR. (DEIR Appendix M, pp. M-66-M-72). Thus, contrary to the commenter's assertion, this discussion is not "scattered here and there in EIR appendices" or "buried in an appendix," and is fully-compliant with CEQA. (*Id.*; *California Oak Found. v. City of Santa Clarita* (2005)133 Cal.App.4th 1219, 1239.)

This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-EE:

The proposed Project does not change the existing site development of the residential properties and, therefore, will not eliminate pedestrian access between the Very Low Density Residential to the west and the Medium Density Residential to the north because there is not authorized access across the Project site. The Project will not affect access provided on City sidewalks. The Project site is owned by a private developer; therefore, the site is not intended to provide connection between the Very Low Density Residential and Medium Density Residential areas and any pedestrian activity currently occurring at the Project site constitutes illegal trespass. The Project Applicant has the legal authority to develop the site and restrict access between these two areas via their property. Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-FF:

See Response to Comment 34-BB.

The City does not have any designated truck routes, and the Project Applicant is not responsible for establishing these routes. However, pursuant Chapter 10.56 of the City's Municipal Code, commercial vehicles (trucks) over 10,000 pounds are prohibited from using Lochmoor Drive, Fair Isle Drive and Sycamore Canyon Boulevard, between El Cerrito Drive and University Drive. Residents who notice trucks where restrictions are in place can call 311 and their complaint will be routed to the Traffic Department and Police Department so that the appropriate response can be coordinated.

In response to the comment letter received from the South Coast Air Quality Management District (SCAQMD), a Screening HRA was prepared in June 2016 for the Project (included in Appendix B of the DEIR) and a Refined HRA per SCAQMD comments was prepared in November 2016 (included as Attachment A.1 of the FEIR). The Refined HRA is consistent with the requested SCAQMD guidance and methodology. Subsequently, on December 23, 2016, SCAQMD prepared a letter requesting updated modeling (hereinafter referred to as the "New

Modeling"). The New Modeling was prepared following the SCAQMD guidance and the results documented in a January 9, 2017 letter responding to the December 23, 2016 SCAQMD letter (included as Attachment A.2 to the FEIR). According to both the June Screening HRA included as Appendix B of the DEIR, the November Refined HRA, and the New Modeling, none of the cancer or non-cancer thresholds will be exceeded as a result of Project construction or operation for workers or residents within the proposed Project vicinity. In fact, the estimated maximum cancer risk reduced from 5.3 in one million as reported in the Refined HRA (DEIR, **Table 5.3-J**) to 4.87 in one million in the vicinity of the Project as a result of the New Modeling. The New Modeling was transmitted to SCAQMD for review on January 9, 2017. On January 18, 2017, SCAQMD transmitted an email to the City indicating they have no further comments on the HRA analysis. Therefore, the Project will not result in the exposure of sensitive receptors to substantial pollutant concentrations during Project construction or operation. (DEIR, p. 5.3-34; FEIR Attachment A.1; FEIR Attachment A.2.)

The New Modeling does not constitute significant new information that would require recirculation of the DEIR pursuant to CEQA Guidelines, § 15088.5 because there are no new significant impacts identified. In-fact, there is a reduction in the impacts as a result of additional analysis performed at the request of and in accordance with SCAQMD Guidance. Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-GG:

The noise study was conducted to evaluate potential noise impacts associated with the proposed Project not those associated with other projects. The ambient noise measurements were taken near sensitive receptors adjacent to the Project site as these are the most likely to be affected by Project noise. The noise model, SoundPLAN, is a three-dimensional noise model that takes into consideration the acoustic effects of existing and proposed topography as well as existing and proposed buildings. So, any sound reflection associated with the proposed buildings was taken into consideration. It is also important to understand that existing ambient noise levels were taken to document existing ambient noise levels and were not taken as representative noise measurements to be utilized in the noise model. The SoundPLAN noise model has an expansive library with a variety of construction, industrial and recreational noise reference levels. Appropriate assumptions were entered for Project operations, including back-up beeper noise, trailer drop noise, HVAC noise etc. Meteorological effects were taken into account in the noise model. SoundPLAN allows the user to input temperature, humidity and air pressure. The following meteorological parameters were entered: humidity 49%, average annual temperature 66°F, air pressure 985 mbar.

Noise events that occur within the line of sight of the homes on the ridge west of the project site are expected to be more audible than those events that may be closer in distance but not within a direct line of sight.

With regard to the footnote to this comment, the existing fences provide minimal attenuation. However, the ambient noise measurements used for the analysis in the DEIR are those that were taken on the Project site outside the fence.

This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-HH:

The commenter correctly references the GP 2025 Noise/Land Use Compatibility Criteria shown on DEIR **Figure 5.12-2 – Noise/Land Use Compatibility Criteria** and stated on page 5.12-15 of the DEIR. As stated on pages 5.12-13 of the DEIR,

> In compliance with California Government Code Section 65302, the GP 2025 Noise Element identifies noise and land use compatibility criteria that identifies "Normally Acceptable," "Conditionally Acceptable," "Normally Unacceptable," and "Conditionally Unacceptable" noise exposure ranges for various land uses as shown in **Figure 5.12-2 – Noise/Land Use Compatibility Criteria** (Figure N-10 of the GP 2025).
>
> These standards are primarily used for planning purposes such as determining a project's compatibility with a proposed site with regard to existing and future acoustical impacts upon a project site sourced from the surrounding environment. In other words, the noise impacts *from* existing surrounding land uses *to* a proposed project.
>
> The "Normally Acceptable" range is defined as: specific land use is satisfactory, based on the assumption that any building is of normal conventional construction, without any special noise insulation requirements.
>
> The "Conditionally Acceptable" range is defined as: new construction or development should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features included in design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.
>
> The "Normally Unacceptable" range is defined as: new construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in design.
>
> The "Conditionally Unacceptable" range is defined as: new construction or development should generally not be undertaken, unless it can be demonstrated that noise reduction requirements can be employed to reduce noise impacts to an acceptable level. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.

> The City includes industrial uses in two different land use categories as shown on **Figure 5.7-5**, "Industrial, Manufacturing Utilities, Agriculture," and "Freeway Adjacent Commercial, Office, and Industrial Uses." Because the proposed Project is not adjacent to the I-215 freeway, it fits within the "Industrial, Manufacturing Utilities, Agriculture" land use category. Noise levels for industrial uses in this land use category are shown as being "Normally Acceptable" ranging up to 70 dBA CNEL/L_{dn}, "Conditionally Acceptable" ranging from 70 to 80 dBA CNEL/L_{dn} and "Normally Unacceptable" starting from 80 dBA CNEL/L_{dn}.
>
> The highest allowable noise level for the category of "Industrial, Manufacturing Utilities, Agriculture" in the most stringent "Normally Acceptable" range is 70 dBA CNEL/L_{dn}.

Noise impacts projected onto the adjacent properties from the Project are regulated by Sections 7.25.010 and 7.35.010 of the Riverside Municipal Code, not by the GP 2025 land use compatibility criteria. Section 7.25.010 and 7.35.010 of the Riverside Municipal Code provide general regulations with regard to noise that is produced and projected onto surrounding land uses. These limits are applicable to noise generated as a result of the Project's temporary construction and ongoing operational activities. **Table 5.12-E – Riverside Municipal Code Exterior Nuisance Sound Level Limits** from the DEIR, reproduced below, clearly defines the City's noise level limits for applicable land uses in the Project vicinity. (DEIR, pp. 5.12-15–5.12-16.) Section 7.25.010 of the City's Municipal Code also provides criteria that apply to any exceedance of the limits and outlines parameters by which a noise exceedance would be evaluated. (DEIR, p. 5.12-16.) This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Table 5.12-E – Riverside Municipal Code Exterior Nuisance Sound Level Limits[a]

Land Use Category	Time Period	Noise Level Limit
Residential	Night (10 p.m. to 7 a.m.)	45 dBA
	Day (7 a.m. to 10 p.m.)	55 dBA
Office/Commercial	Any Time	65 dBA
Industrial	Any Time	70 dBA
Public Recreation Facility	Any Time	65 dBA

Notes:
[a] Source: City of Riverside, Riverside Municipal Code, Title 7 Noise Control, Table 7.25.010A

Response to Comment 34-II:

Construction and operation at the Project site will be consistent with the noise standards outlined in the City's Municipal Code Section 7.35.010(B), which makes it unlawful to load and unload from 10:00 PM to 7:00 AM (DEIR, pp. 5.12-31, 5.12-37). The Project is consistent with this Code requirement because all loading and unloading will take place inside either Building 1

or Building 2. Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-JJ:

Although mature landscaping will provide more noise reduction, even newly installed immature landscaping will act as a barrier between the Project site and the residences to reduce some noise attenuation from the Project site. Nonetheless, noise impacts will be compliant with City standards for all residences to the north of the Project site with incorporation of all design features and mitigation measures to minimize noise impacts.

The second paragraph of Section 5.12.4 – Project Design Features of the DEIR will be revised as follows:

> "Due to the proximity of the homes north of the Project site, the Project proposes 64-feet of landscaping along the northern boundary. Building 2 does not propose any dock doors or parking on the north side of the building, so as to locate those activities away from the Sycamore Highlands neighborhood. As shown on **Figure 3-10 – Site Plan**, all of docks and truck parking associated with Building 2 are located south of the building. Vehicular parking is located on the east and west of Building 2. The proposed Project will be designed to allow for ~~right-in,~~ right-out only turns at all Project driveways in order to ~~limit~~ prevent outbound ~~the amount of~~ vehicles (both cars and trucks) ~~from~~ using Dan Kipper Drive."

The Project will allow for right-out only at all Project driveways to direct traffic away from the residential area to the north of the Project site. Traffic will be allowed to make left-in turns from all driveways along Lance Drive. This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-KK:

The comment accurately summarizes the construction impacts as discussed on pages 5.12-21–5.12-24.

With regard to operational noise at receptor nos. 3 and 4, as shown on DEIR **Figure 5.12-6 – Operational Noise Levels (Leq) with Mitigation**, noise at the residences will be equal to or less than 45 dBA, which is the City's nighttime exterior noise standard. Noise at the property line between the Project site the residences (receptor nos. 31, 32, and 33 as shown on DEIR **Figure 5.12-6**) will also be less than 45 dBA. As discussed in the DEIR, because the noise barrier would be installed on private property, neither the City nor the Project Applicant can ensure that mitigation measure **MM NOI 16** is actually implemented and therefore impacts remain significant and unavoidable. (DEIR, pp. 5.12-28, 5.12-34.)

> **MM NOI 16:** Prior to finalization of building permit, the temporary 12-foot noise barrier shall be removed and the Project applicant shall work with City Design Review staff and the property owners of receptor location 3 (6063 Bannock) and

receptor location 4 (6066 Cannich) to determine the design and materials for a noise barrier that is mutually acceptable to the Project Applicant, City Design Review staff, and the property owners. The noise barrier shall be ten-foot high installed at the top of the slope of the residential properties west of the Project site. The designed noise screening will only be accomplished if the barrier's weight is at least 3.5 pounds per square foot of face area without decorative cutouts or line-of-site openings between the shielded areas and the project site. Noise control barrier may be constructed using one, or any combination of the following materials: masonry block; stucco veneer over wood framing (or foam core), or 1-inch thick tongue and groove wood of sufficient weight per square foot; glass (1/4 inch thick), or other transparent material with sufficient weight per square foot; or earthen berm.

Prior to the issuance of a Certificate of Occupancy for the Project, the Project applicant shall construct said noise barrier provided all of the property owners upon whose property the barrier is proposed to be constructed provide written authorization for such construction. The Project applicant shall provide written notice to the property owners of its intent to commence wall construction at least 90-days prior to the anticipated construction date. If all of the property owners do not authorize the construction of the wall in writing, including providing the applicant with all requisite legal access to the affected properties, within 60 days of applicant's written notice, the applicant shall instead pay to the property owners the equivalent cost to construct the wall, based on applicant's good faith estimate.

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-LL:

The DEIR accurately interprets and applies the City's Noise Code. The Project's operational noise levels shown on DEIR **Figure 5.12-5 – Project Operational Noise Levels (Leq) No Mitigation** and **Figure 5.12-6 – Project Operational Noise Levels (Leq) with Mitigation** includes all noise associated with Project operations including: vehicles arriving, trucks and trailers moving around the Project site, back-up beepers, hitching and unhitching of trailers, and the movement of trailers into the loading docks averaged over a one hour period. During any given one hour period, there will be a maximum noise level (L_{max}). The L_{max}, generally results from an impulsive noise event, which is why the City's Municipal Code places time limits for noise events exceeding the exterior noise standard as discussed below.

Section 7.25.010 of the Riverside Municipal Code outlines exterior and interior nuisance sound level limits and provides criteria that apply to any exceedance of the designated noise nuisance limits (DEIR, **Table 5.12-E – Riverside Municipal Code Exterior Noise Sound Level Limits** and **Table 5.12-F – Riverside Municipal Code Interior Noise Sound Level Limits**). These criteria are primarily used for the purposes of code enforcement, but are provided below to

outline the parameters by which a noise exceedance would be evaluated. The applicable exterior noise criteria state:

A. Unless a variance has been granted as provided in this chapter, it shall be unlawful for any person to cause or allow the creation of any noise which exceeds the following:

   1. The exterior noise standard of the applicable land use category, up to 5 decibels, for a cumulative period of more than 30 minutes in any hour; or

   2. The exterior noise standard of the applicable land use category, plus 5 decibels, for a cumulative period of more than 15 minutes in any hour; or

   3. The exterior noise standard of the applicable land use category, plus 10 decibels, for a cumulative period of more than 5 minutes in any hour; or

   4. The exterior noise standard of the applicable land use category, plus 15 decibels, for the cumulative period of more than 1 minute in any hour; or

   5. The exterior noise standard for the applicable land use category, plus 20 decibels or the maximum measured ambient noise level, for any period of time.

B. If the measured ambient noise level exceeds that permissible within any of the first four noise limit categories, the allowable noise exposure standard shall be increased in five decibel increments in each category, as appropriate, to encompass the ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

C. If possible, the ambient noise level shall be measured at the same location along the property line with the alleged offending noise source inoperative. If for any reason the alleged offending noise source cannot be shut down, then the ambient noise must be estimated by performing a measurement in the same general area of the source but at a sufficient distance that the offending noise is inaudible. If the measurement location is on the boundary between two different districts, the noise shall be the arithmetic mean of the two districts.

Likewise, the applicable interior noise sound level limits and criteria for exceedance state:

A. No person shall operate or cause to be operated, any source of sound indoors which cause the noise level, when measured inside another dwelling unit, school or hospital, to exceed:

   1. The interior noise standard for the applicable land category area, up to five decibels, for a cumulative period of more than five minutes in any hour;

   2. The interior noise standard for the applicable land use category, plus five decibels, for a cumulative period of more than one minute in any hour;

3. The interior noise standard for the applicable land use category, plus ten decibels or the maximum measured ambient noise level, for any period of time.

B. If the measured interior ambient noise level exceeds that permissible within the first two noise limit categories in this section, the allowable noise exposure standard shall be increased in five decibel increments in each category as appropriate to reflect the interior ambient noise level. In the event the interior ambient noise level exceeds the third noise limit category, the maximum allowable interior noise level under said category shall be increased to reflect the maximum interior ambient noise level.

C. The interior noise standard for various land use districts shall apply, unless otherwise specifically indicated, within structures located in designated zones with windows opened or closed as is typical of the season.

The noise levels disclosed on page 5.12-31 of the DEIR for back-up beepers and trash compactors are the maximum noise, the L_{max}, not the L_{eq}. Thus, because refrigeration units, back-up warning beepers, and trash compactors would not be in use continuously at the Project site, noises associated with these activities would be subject to the short-term decibel exceedance limits outlined in Section 7.25.010 of the City's Municipal Code. For instance, if a trash compactor were to operate for one-half hour within any hour, noise associated with operation could be up to 5 decibels greater than the City's exterior noise standard without being in violation of the City's Noise Code.

With regard to transportation refrigeration units (TRUs), electrical hookups will be provided at the Project site, and only TRUs with electric standby capabilities will be allowed at the Project site, as set forth in the lease agreement and mitigation measure **MM AQ 14** (listed previously in Response to Comment 34-M). (DEIR, pp. 5.12-28, 5.12-46.) Similarly, noise associated with back-up beepers will be reduced through implementation of mitigation measure **MM NOI 13** listed below, which requires the use of ambient-sensitive self- or manual-adjusting back up alarms. (DEIR, pp. 5.12-31, 5.12-46.)

> **MM NOI 13:** To reduce noise associated with the use of back-up alarms, either ambient-sensitive self-adjusting backup alarms or manually adjustable alarms shall be used on all equipment in use on the Project site that requires a backup alarm. Ambient sensitive self-adjusting backup alarms increase or decrease their volume based on background noise levels. The alarm self-adjusts to produce a tone that is readily noticeable over ambient noise levels (a minimum increment of 5 decibels is typically considered readily noticeable), but not so loud as to be a constant annoyance to neighbors. Close attention shall be given to the alarm's mounting location on the machine in order to minimize engine noise interference, which can be sensed by the alarm as the ambient noise level. These alarms shall be mounted as far to the rear of the machine as possible. An alarm mounted directly behind a machine radiator will sense the cooling fan's noise and adjust accordingly.

> If manually-adjustable alarms are used, each alarm shall be set at the beginning of each day and night shift. The manual setting feature eliminates the machine mounting location problem of the ambient-sensitive self-adjustable backup alarms. Alternatively, back-up movements can be supervised with a guide and flagging system.

Noise associated with operation of trash compactors onsite will not exceed the daytime noise standard of 75 dBA L_{max} or the nighttime maximum noise standard of 65 dBA L_{max} at the top of the slope west of the Project site. For the two residences at receptors 3 and 4, noise will not exceed the City's standard, contingent on construction of the 10-foot noise barrier outlined in mitigation measure **MM NOI 16** (listed in Response to Comment 34-G). (DEIR, pp. 5.12-32, 5.12-47.) However, because the noise barrier would be installed on private property, neither the City nor the Project Applicant can ensure that mitigation measure **MM NOI 16** is actually implemented. Therefore, impacts remain significant and unavoidable. (DEIR, pp. 5.12-28, 5.12-34.)

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-MM:

Trash compactors will not operate continuously, and so noise associated with their operation is subject to the City's 65 dBA nighttime instantaneous noise standard as discussed in Response to Comment 34-MM.

However, because the noise barriers outlined in mitigation measure **MM NOI 16** (listed in Response to Comment 34-G) would require installation on private property and neither the Project proponent nor the City have the authority to require implementation of this mitigation measure, the DEIR appropriately concluded that impacts would be significant and unavoidable. (DEIR, pp. 5.12-34, 5.12-44, 5.12-48.) This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-NN:

Noise modeling prepared for the Project takes into account noise associated with operation of both of the proposed buildings. Further, although Building 1 has 72 dock doors, many of these doors will not be directly adjacent to the residences, which will reduce noise impacts from these dock doors on the residences.

Although the Noise Impact Analysis (NIA) prepared for this Project included a single back-up beeper to determine the L_{max}; however, the L_{eq} for Project operations included the back-up beepers, and hitching/unhitching anticipated to be associated with normal operation of the Project site averaged over a one-hour period. Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-OO:

Operational noise impacts on the Sycamore Canyon Wilderness Park were analyzed in the Draft Environmental Impact Report as receptor no. 34 in the noise study (DEIR, **Figure 5.12-5 – Operational Noise Levels (Leq) No Mitigation,** and **Figure 5.12-6 – Operational Noise Levels (Leq) with Mitigation**). The operational noise level at the property line between the Project site and the Sycamore Canyon Wilderness Park is 55 dBA L_{eq}. Because this noise level is less than the Municipal Code noise standard for public recreational facilities (65 dBA L_{eq}), operational noise impacts to the Sycamore Canyon Wilderness Park are less than significant.

Thus, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-PP:

There is a distinction between exposure of persons to excessive groundborne vibration and exposure to structures to excessive groundborne vibration. The Federal Transit Administration (FTA) has two different criteria depending on whether the receiver is a structure or a person.

With regard to impacts to persons (annoyance) as noted in the comment, the *Federal Transit Administration Transit Noise and Vibration Impact Assessment* (May 2006) has guidance on how to assess noise and vibration impacts of proposed mass transit projects. Vibration impact criteria are presented in Chapter 8 (Table 8-1) of this document. This criterion is in relation to annoyance of affected persons and is not applicable to impacts to structures. The criteria are based on the maximum root-mean-square (rms) vibration levels for repeated events of the same source.

Table 8-1 in the *Federal Transit Administration Transit Noise and Vibration Impact Assessment* presents criteria based on land use type and event frequency. The sensitive receptors that may be affected by the proposed Project would fall into Category 2, (residential land uses). The criteria is divided based upon the number of expected events per day to take into account that the community is likely to be more tolerant of vibration events that occur with less frequency in any given day. Specifically, frequent events are defined as more than 70 events per day, occasional events range between 30 and 70 events per day, and infrequent events are fewer than 30 events per day. Impact criteria for residential land uses is 72 VdB for frequent events; 75 VdB for occasional events, and 80 VdB for infrequent events.

Table 1 in the *Sycamore Canyon Business Park Warehouse Noise Impact Analysis* (DEIR Appendix I) (the "NIA") presents "Vibration Source Levels for Construction Equipment" (Federal Transit Administration 2006). DEIR **Table 5.12-I – Vibration Source Levels for Construction Equipment** includes the same information**.** NIA Table 2 and DEIR **Table 5.12-H – Typical Human Reaction and Effect on Buildings Due to Groundborne Vibration** includes "Typical Human Reaction and Effect on Buildings due to Groundborne Vibration (Caltrans 2002). The NIA acknowledges that vibratory construction equipment may annoy persons within 100 feet of on-site Project construction.

Use of a vibratory roller, which may occur within 25 feet of an adjacent receptor could generate up to 0.21 PPV (94 VdB) at a distance of 25 feet; and operation of a large bulldozer (0.089 PPV (87 VdB) at a distance of 25 feet (two of the most vibratory pieces of construction equipment) for a few days. Groundborne vibration at sensitive receptors associated with this equipment would drop off as the equipment moves away. For example, as the vibratory roller moves further than 100 feet from the sensitive receptors, the vibration associated with it would drop below 75 VdB. Considering that use of vibratory construction equipment will be short term and temporary the use of a threshold intended to evaluate annoyance related to train pass-bys (permanent) is not appropriate.

Further, any annoyance would only occur during site grading and preparation activities as trailer trucks are prohibited from use of the driveway located between the sensitive receptors located north of the Project site and the proposed building and sensitive receptors upslope and to the west of the Project site are too far away to be affected.

With regard to structural damage, NIA Table 2 and DEIR **Table 5.12-H** identifies PPV levels between 0.4 and 0.6 as vibration levels greater than normally expected from traffic, but would cause "architectural" damage and possible minor structural damage. As shown in NIA Table 1 and DEIR **Table 5.12-H**, a vibratory roller could produce a PPV of 0.21 inch per second at 25 feet and a large bulldozer could produce up to 0.089 PPV at 25 feet. Page 23 of the NIA acknowledged that the use of vibratory equipment within 25 feet of adjacent residential dwelling units could result in structural damage. The DEIR includes mitigation measures **MM NOI 6** and **MM NOI 9** to minimizing vibration impacts.

> **MM NOI 6:** All equipment staging during all phases of construction shall be located in areas that will create the greatest distance between construction-related noise/vibration sources and the residences to the north and west and the Sycamore Canyon Wilderness Park to the west. (DEIR, p. 5.12-45.)
>
> **MM NOI 9:** It is acknowledged that some soil compression may be necessary along the Project boundaries; however, the use of heavy equipment or vibratory rollers and soil compressors along the Project site's north and western boundaries shall be limited to the greatest degree feasible. (DEIR, p. 5.12-46.)

Thus, according to the Federal Transit Agency's (FTA) *Transit Noise and Vibration Impact Assessment* guidance document, reinforced concrete, steel, or timber buildings can tolerate groundborne vibration levels of 0.5 peak particle velocity (PPV) without experiencing structural damage. The proposed Project will use this type of construction; therefore, the fact that some buildings are more fragile is irrelevant to this Project. (DEIR, p. 5.12-37.)

With respect to human response, the FTA asserts that individuals can experience vibration levels up to 80 decibel (VdB) root mean squared (RMS) before being adversely affected by vibration from infrequent events. "Infrequent event" is defined by the FTA as fewer than 30 vibration events of the same kind per day; therefore, it is reasonable to apply this standard because it is likely that groundborne vibration-generating activities will not be used

continuously at the site.[3] Thus, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-QQ:

Groundborne vibration attenuates quickly with distance. Therefore, although use of heavy construction equipment generates vibration levels of 87 RMS at a distance of 25 feet, this vibration will be reduced to below the 80 RMS threshold for human annoyance at the nearest residences located approximately 81 feet from the area to be graded to the nearest residential structure to the west of the Project site and 46 feet from the area to be graded to the nearest residential structure to the north.

Groundborne vibration attenuates quickly with distance and the PPV level from heavy equipment would be approximately 0.44 PPV at 40 feet, which is equivalent to 30.8 RMS, based on FTA and Caltrans methodologies.[4] As stated in Section 5.12 of the DEIR, the majority of construction activity will be more than 40 feet from these residential structures and would not be considered annoying. (DEIR, pp. 5.12-37.) Contrary to the commenter's assertions, the DEIR's analysis and conclusions related to the Project's potential impacts from groundborne construction vibration are adequate, supported by substantial evidence and consistent with the requirements of CEQA.

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-RR:

This comment is in reference to the information presented in DEIR **Table 5.12-J – Pre- and Post Project Noise Levels in CNEL** on pages 5.12-39–5.12-40 of the DEIR. Noise impacts at several of the receptors, particularly the receptors north of the Project site are anticipated to decrease in part because the buildings proposed at the Project site will cut down on the amount of noise reaching the residences from the other warehouses and distribution centers in the Sycamore Canyon Business Park, and the Project includes mitigation measure **MM NOI 16** (listed in Response to Comment 34-G). If implemented, **MM NOI 16** will place a noise barrier at the top of the slope for the residences identified as receptor nos. 3 and 4 on DEIR **Figure 5.12-6 – Operational Noise Levels (L_{eq}) with Mitigation**.

However, because the implementation of mitigation measure **MM NOI 16** is uncertain, post-Project Community Noise Equivalence Level (CNEL) was determined for receptor nos. 3 and 4 as shown in the table below. The mitigated operational noise levels for receptor nos. 3 and 4 with mitigation measure **MM NOI 15** (listed below) only (i.e., no noise barrier as required by **MM NOI 16**) is shown in Figure A, which is attached to this response.

[3] Federal Transit Agency, *Transit Noise and Vibration Impact Assessment Guidelines*, Table 8-1. Available at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf

[4] According to Caltrans, RMS value is approximately 70 percent of PPV. Source: http://www.dot.ca.gov/hq/env/noise/pub/TCVGM_Sep13_FINAL.pdf, p. 7.

Monitored Location[a]	Measured Noise Level (CNEL[b]) In dBA	Receptor No.[c]	Mitigated Operational Noise Level (with MM NOI 15 only) (CNEL) In dBA	Difference In dBA	Substantial Increase?	Mitigated Operational Noise Level (includes MM NOI 15 and MM NOI 16) (CNEL) In dBA	Difference In dBA	Substantial Increase?
ST2/LT2	52	4 (1st floor)	52	0	No	46	-6	No
		4 (2nd floor)	54	2	No	51	-1	No
		3 (1st floor)	51	-1	No	46	-6	No
		3 (2nd floor)	54	2	No	50	-2	No

Thus, as indicated in the above table, even if the noise barrier identified in mitigation measure **MM NOI 16** is not constructed, with implementation of mitigation measure **MM NOI 15** (listed below), there will be a less than substantial increase (i.e., less than 5 dBA) from the Project's operational noise on receptor nos. 3 and 4.

> **MM NOI 15:** A restriction of nighttime use between the hours of 10:00 PM to 7:00 AM shall be implemented for the portion of the loading area and trailer parking located just south of Building 2 and within 360 feet of the western property line as shown on **Figure 5.12-6 – Operational Noise Levels (L_{eq}) with Mitigation**. (DEIR, p. 5.12-46.)

This amplification of the noise analysis to exclude implementation of mitigation measure **MM NOI 16** on two receptors does not constitute significant new information that would require recirculation of the DEIR. (CEQA Guidelines, § 15088.5.)

This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR

Response to Comment 34-SS:

Although Sycamore Canyon Wilderness Park is categorized as a reserve/open space park by the City, the GP 2025 does not contain specific CNEL standards for this type of parkland. (DEIR, p. 5.15-1, **Figure 5.12-2**.) Therefore, the CNEL standard for neighborhood parkland was used because it represents the most similar land use to the Sycamore Canyon Wilderness Park. Additionally, sensitive receptors consist of structures, people, and equipment that may be sensitive to noise for CEQA purposes. Thus, the Park is not considered a sensitive receptor and so although it will experience an increase in noise levels above 5 dBA; this is not a significant impact. (DEIR, pp. 5.12-43–5.12-44.)

The SoundPLAN model was used to quantify anticipated noise impacts as a result of Project construction and operation. Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-TT:

The off-site noise (traffic) analysis applies to off-site receptors along road segments affected by Project-generated off-site traffic. Off-site traffic would not noticeably increase noise levels at sensitive receptors located adjacent to the Project site that would be affected by on-site operational noise. Therefore, it is appropriate that these impacts were modeled separately. This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-UU:

The intent of mitigation measure **MM NOI 8** is to ensure that haul truck deliveries only occur during the times approved for construction equipment operation, which will reduce the amount of noise at the site. (DEIR, p. 5.12-24.) At the time the Notice of Preparation was released for the DEIR, the Riverside Municipal Code Section 7.35.010 prohibited construction, drilling, repair, alteration, grading, or demolition work that would result in sound creating a noise disturbance across a residential or commercial property line between the hours of 7:00 PM and 7:00 AM on weekdays, between 5:00 PM and 8:00 AM on Saturdays, and at any time on Sunday or a federal holiday (DEIR, pp. 5.12-37 – 5.12-38). On August 18, 2016 (taking effect 30-days later), the City Council of the City of Riverside adopted Ordinance 7341 amending the Noise Code to exempt construction noise between the hours of 7:00 a.m. and 7:00 p.m. on weekdays and between the hours of 8:00 a.m. and 5:00 p.m. on Saturdays from the standards of the Noise Code. Nevertheless, the DEIR continued to use the previous version of the Noise Code and associated standards throughout the DEIR. Thus, haul truck deliveries will also be limited to these hours pursuant to mitigation measure **MM NOI 8.**

> **MM NOI 8:** Haul truck deliveries shall be limited to the same hours specified for construction equipment.

This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-VV:

Project-related traffic impacts were analyzed at several intersections along Sycamore Canyon Boulevard in the Traffic Impact Analysis (TIA) prepared for the Project (DEIR, Appendix J). All of the study intersections will continue to operate at an acceptable Level of Service with the addition of Project traffic along with traffic associated with ambient growth in the area (DEIR, pp. 5.16-57). Therefore, it can be reasonably assumed that emergency responders stationed at the firehouse on Sycamore Canyon Boulevard will be able to exit their facility and traverse Sycamore Canyon Boulevard when responding to an emergency. This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-WW:

The commenter's assertion that calling Sycamore Canyon Wilderness Park a "reserve/open space park" obfuscates its true role is not accurate. Per the GP 2025, Parks and Recreation

Element, the City's park system consists of three park classifications (local parks, regional / reserve parks and signature parks) plus County/Other Parks and Joint Use Facilities. The local park classification includes four park types (Pocket Parks, Neighborhood Parks, Community Parks and Special Use). Some parks fall under multiple categories, such as Fairmount Park which is a Signature Regional/Reserve Park but also serves as a local park (with neighborhood and community park amenities). Sycamore Canyon Wilderness Park is classified as a Regional/Reserve park which includes natural open space parks and Wilderness Reserve Parks.

The park classifications are designations that put each of the parks in broader categories identifying ownership and development impact categories; e.g. – Parks designated as regional/reserve parks are eligible for Regional/Reserve funds collected to mitigate development impact to the park system vs. improvements to local parks, signature parks or parks not owned by the City wouldn't be eligible to use Regional/Reserve funds collected.

The Sycamore Canyon Wilderness Park Stephens' Kangaroo Rat Management Plan and Updated Conceptual Development Plan (the SKR Management Plan) calls for installation of *either* a 7-foot high masonry wall or fence constructed per City of Riverside Parks, Recreation, and Community Services Department Standard Detail No. 5520 and specifications with a 100-foot wide stubble management zone, or firebreak, on the park side of the fence to be maintained by the City. (DEIR, p. 5.15-6.) The SKR Management Plan indicates that the masonry wall acts as a heat deflector from wildfires and eliminates any need for fuel management along the boundary of the Park. The wall also serves to screen the adjacent industrial/commercial service areas. The SKR Management Plan also allows for the possible substitution of the wall with a 6-foot high open iron fence. If the City permits an open iron fence, a 100-foot wide stubble management zone shall be maintained in between the industrial property and wilderness park. The City elected to condition the alternative iron fence for the following reasons: (i) the development includes a Mitigation Area in between the park and development which will provide an effective screen and buffer, (ii) the fence is not subject to constant graffiti, and (iii) as a whole the City's Parks, Recreation, and Community Services Department felt it would be more visually pleasing than the block wall. Also, the City already maintains a large stubble management area which would meet the 100-foot wide zone.

The Project will implement mitigation measure **MM AES 2**, to ensure that the fence between the Project site and the Wilderness Park is consistent with the Plan.

> **MM AES 2:** For consistency with the Sycamore Canyon Wilderness Park Management Plan, the Project developer shall install fencing along the western boundary of the Project site. The fence and gate shall be constructed per the specifications of the City of Riverside Parks, Recreation, and Community Services Department Standard Detail No. 5520 and specifications. If the developer chooses to install a taller fence, a maximum 8-foot high fence is permitted. Note that increased fence height may require increased post, footing and rail sizes, which shall be engineered and stamped approved by a structural engineer. As part of Design Review and prior to the issuance of a grading permit, the developer shall submit a revised site plan showing this fence, the

modified standard detail (if a fence taller than 8 feet is proposed), and specifications to the City of Riverside Community and Economic Development Department, Planning Division and the Parks, Recreation, and Community Services Department for review and approval.

This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-XX:

The Conceptual Landscape Plan will be revised to remove the landscaping currently shown within the Fire Access/Parks Maintenance Road shown on **Figure 3-11** of the DEIR pursuant to mitigation measure **MM AES 7** (listed below).

The previously planned Kangaroo Court was intended to serve as a Trailhead, emergency vehicle access, and that it would be used to access a future interpretive center. The nature center was constructed at an alternate site off of Central Avenue and no longer requires road access at this location. The proposed trailhead access with parking lot to be constructed as detailed in mitigation measure **MM AES 5** is adequate and meets the needs of the City's Parks, Recreation, and Community Services Department. The emergency vehicle access has been reviewed and approved as adequate access by the City's Fire Department as long as mitigation measures are implemented.

MM AES 5: To provide safe and controlled pedestrian and bicycle access to the Sycamore Canyon Wilderness Park in a manner consistent with the design and materials of the fence in mitigation measure **MM AES 2**, the Project developer shall:

a. Construct the proposed trail consistent with the City of Riverside Parks, Recreation, and Community Services Department trail standards. As part of Design Review and prior to the issuance of a grading permit, a revised site plan that identifies this standard and shows the Parks, Recreation, and Community Services Department Standard Trail Construction detail shall be submitted to the Parks, Recreation, and Community Services Department for review and approval.

b. Install a galvanized steel swing arm gate access gate that locks in the open and closed positions at the trail and parking lot driveway entry. As part of Design Review and prior to the issuance of a grading permit, a revised site plan that shows the detail for this gate and Standard Detail No. 5110 shall be submitted to the City of Riverside Community and Economic Development Department, Planning Division and the Parks, Recreation, and Community Services Department for review and approval.

c. Install pedestrian/bicycle gates between the trail and parking lot and the beginning of the trail and between the western terminus of the trail and the Sycamore Canyon Wilderness Park per the City's standard pedestrian/bicycle

gate. These gates shall be minimum 4-feet wide and constructed of material to match Standard Detail No. 5520 identified in mitigation measure **MM AES 2**. The pedestrian/bicycle gates shall be lockable in the open and closed position. As part of Design Review and prior to the issuance of a grading permit, a revised site plan that shows the detail for these gates shall be submitted to the City of Riverside Community and Economic Development Department, Planning Division and the Parks, Recreation, and Community Services Department for review and approval.

d. Install Parks, Recreation, and Community Services Department Standard PVC trail fence along the northern side of the trail in-between the Fire Access/Parks Maintenance Road and along those portions of the southern side of the trail where the grade drops 3 feet or more. As part of Design Review and prior to the issuance of a grading permit, a revised site plan that references the Standard 3-rail PVC fence detail only and includes Parks, Recreation, and Community Services Department Standard PVC trail fence shall be submitted to the Parks, Recreation, and Community Services Department for review and approval.

e. Install Parks, Recreation, and Community Services Department standard trail sign at the Project's western property line and at the proposed parking lot on Lot B of Tentative Parcel Map 36879. As part of Design Review and prior to the issuance of a grading permit, a revised site plan that includes a note that states "PRCSD standard trail sign" and Parks, Recreation, and Community Services Department standard trail sign detail 12 shall be submitted to the Parks, Recreation, and Community Services Department for review and approval.

Specifically, the fire access road will be 12-feet wide with a minimum 10-foot wide, 4-inch thick decomposed gravel surface and 13.5-foot vertical clearance as required by City of Riverside Parks, Recreation, and Community Services Department and the City Fire Department and mitigation measures **MM AES 6** and **MM AES 7**.

MM AES 6: To provide access for fire and parks maintenance vehicles consistent with the intent of the Sycamore Canyon Wilderness Park Stephens' Kangaroo Rat Management Plan and Updated Conceptual Development Plan, the Project developer shall:

a. Design and construct the Fire Access/Parks Maintenance Road per the City of Riverside Fire Department requirements, including but not limited to, providing a 36,000 pound wheel load. As part of Design Review and prior to the issuance of a grading permit, the Fire Access/Parks Maintenance Road detail shall be submitted to the Community and Economic Development Department, Planning Division, the Parks, Recreation, and Community Services Department, and the City Fire Department for review and approval.

b. Install vehicular gates between the vehicular access road on the south end of the Project site and the eastern terminus of the Fire Access/Parks Maintenance

Road and between the western terminus of the Fire Access/Parks Maintenance Road and the Sycamore Canyon Wilderness Park. The vehicular gates shall be double galvanized steel swing arm gates a minimum of 12-feet in width and provided with a Knox padlock. The gates shall lock in the open and closed positions per Park Standard Detail No. 5110. The gate at the western property line shall be constructed to match Standard Detail No. 5520. As part of Design Review and prior to the issuance of a grading permit, a revised site plan that shows the details of these gates and Park Standard Detail No. 5110 shall be submitted to the Community and Economic Development Department, Planning Division and the Parks, Recreation, and Community Services Department for review and approval.

MM AES 7: To ensure there is adequate clearance for the fire vehicles, prior to building permit issuance the landscape plans shall be revised to relocate the trees shown on the trail and the Fire Access/Parks Maintenance Road such that all trees shall be setback from the trail and Fire Access/Parks Maintenance Road easements a minimum of 5 feet. Once planted, the developer shall maintain all trees such that a minimum 13.5-feet vertical clearance over the Fire Access/Parks Maintenance Road and a minimum 8.5-feet vertical clearance over the trail is provided and maintained. The revised landscape plans shall be designed per the City's Water Efficient Landscape and Irrigation Ordinance adopted on December 1, 2015 (http://aquarius.riversideca.gov/clerkdb/0/doc/215696/Page1.aspx). The revised landscape plans shall be reviewed and approved by City Design Review staff and Western Municipal Water District as part of Design Review prior to the issuance of a grading permit.

Therefore, fire access to the eastern portion of the Sycamore Canyon Wilderness Park will be adequate and this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-YY:

With regard to the trip distribution (i.e. the trip directional orientation of Project-generated traffic) used in the *Revised Traffic Impact Analysis for the Sycamore Canyon Industrial Buildings 1 & 2* (the TIA) and the DEIR, the TIA was prepared by a registered professional traffic engineer with local experience and expertise in traffic modeling. The trip distribution used in the TIA is based on professional engineering judgement and was approved by the City as part of the scoping agreement. (See Appendix A of the TIA.) Factors taken into consideration in developing the trip distribution model include: the existing roadway system, existing traffic patterns, and existing and future land uses. The Project will prevent passenger car and truck egress onto Dan Kipper Drive by installing small barriers (referred to as "pork chops") at all three Project driveways that will limit left-out turns onto Lance Drive. (DEIR pp. 5.16-26.) This will force both outbound (i.e. leaving the Project site) passenger cars and trucks to turn south onto Lance Drive to Sierra Ridge Drive and then east on Sierra Ridge Drive to Sycamore Canyon Boulevard (see **DEIR Figure 5.16-3 – Project Trip Distribution (Passenger Cars –**

Outbound), and DEIR Figure 5.16-5 Project Trip Distribution (Trucks – Outbound)). From the intersection of Sierra Ridge Drive and Sycamore Canyon Boulevard, outbound vehicles will either turn north or south to travel to I-215 or other surrounding roadways. (DEIR, pp. 5.16-26.) From the intersection of Sierra Ridge Drive/Sycamore Canyon Road, it is approximately 0.7 miles to the Eastridge-Eucalyptus interchange and approximately 0.9 miles to the Fair-Isle/Box Springs interchange. Additionally, the Eastridge-Eucalyptus interchange is geometrically easier for trucks to turn at than the Fair Isle-Box Springs interchange. The Eastridge-Eucalyptus interchange is a single point interchange (SPI) which has large sweeping radii for all turning movements. The Fair Isle-Box Springs interchange is a partial diamond/partial hook ramp design with relatively small radii for many turning movements. For these reasons, it is reasonable to expect that more trucks will use the Eastridge-Eucalyptus interchange.

This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-ZZ:

With regard to the differences between the City of Moreno Valley's trip generation and the trip generation rates used in the TIA and the DEIR, please refer to Response to Comment 34-D.

The number of truck trips was disclosed in in the DEIR's Project Description on page 3.43 and on page 5.16-28 of the DEIR in **Table 5.16-F – Project Trip Generation Rates**. A total of 917 truck trips will be generated by the Project, including: 156 2-axle truck trips, 208 3-axle truck trips, and 553 4-axle truck trips. Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-AAA:

There was a typographical error in the daily trip generation rate for 4+ axle trucks in the DEIR; however, this does not impact the analysis because the TIA did not have a typo and all of the analysis presented in the DEIR is based off of the TIA.

Nonetheless, the 4+ axle trip rates will in DEIR **Table 5.16-E – Trip Generation Rates** will be revised in the FEIR as follows:

Table 5.16-E – Trip Generation Rates

Land Use	Unit	Peak Hour Trip Rates						Daily
		AM			PM			
		Total	In	Out Total	Total	In	Out	
High-Cube Warehouse Land Use Category: 152	TSF[b]							
Trucks (4+ Axle)		0.018	0.013	0.013	0.024	0.007	0.007	0.~~0~~386

This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-BBB:

With regard to the trip distribution used in the TIA and DEIR, please refer to Response to Comment 34-YY. This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-CCC:

With regard to traffic-related cumulative impacts as a result of the Alessandro Commerce Center and the Freeway Business Center, traffic from these proiects would be accounted for as part of the 2 percent ambient growth rate used in the TIA. To account for ambient growth in the Project area, a two percent per year ambient growth rate was applied to existing traffic volumes to account for area-wide growth that is not reflected by cumulative development project.[5] Ambient growth was added to daily and peak hour traffic volumes on surrounding roadways in addition to traffic generated by the Project. (DEIR, pp. 5.16-9, 5.16-29.)

Response to Comment 34-DDD:

With regard to trip distribution, refer to Response to Comment 34-YY. As described below, counts were conducted in July 2015 and adjusted per the independent professional judgement of the City's Traffic Engineer to more accurately reflect anticipated Project conditions when the schools in the Project vicinity are in session. Additionally, trucks over 10,000 pounds are already prohibited from traveling on Fair Isle Drive, Lochmoor Drive, and Sycamore Canyon Boulevard, between El Cerrito Drive and University Drive pursuant to Chapter 10.56 of the City's Municipal Code.

Existing AM and PM peak period intersection turning movement counts were conducted in July 2015 and are included in Appendix C to the TIA. The counts were increased per agreement with the City of Riverside since counts were taken during the off-school period of July 2015. (DEIR, p. 5.16-17; DEIR Appendix J, p. 3-2.) The following are the edits to the counts listed by intersection number. The counts used in the TIA were increased (based on older counts taken when school was in session) to simulate vehicles travelling through the intersections from residential neighborhoods to nearby schools.

Intersection	Increase in Counts
1. I-215 Northbound Ramps (NS) / Fair Isle Drive-Box Springs Road (EW)	+200 WBR in AM
2. Sycamore Canyon Boulevard (NS) / Fair Isle Drive (EW)	+200 NBT in AM
3. Sycamore Canyon Boulevard (NS) / I-215 Southbound Ramps (EW)	+200 NBT in AM

[5] A two percent per year ambient growth rate is considered the industry standard for estimating growth in the region and was agreed upon during the traffic study scoping process. (DEIR, p. 5.16-33.)

Intersection	Increase in Counts
4. Sycamore Canyon Boulevard (NS) / Dan Kipper Drive (EW)	+200 NBT in AM
5. Sycamore Canyon Boulevard (NS) / Box Springs Boulevard (EW)	+200 NBT in AM
6. Sycamore Canyon Boulevard (NS) / Sierra Ridge Drive (EW)	+200 NBT in AM
7. Sycamore Canyon Boulevard (NS) / Eastridge Avenue (EW)	+200 NBT in AM +300 WBL in PM
8. Box Springs Boulevard (NS) / Eastridge Avenue (EW	+300 WBT in PM
9. I-215 Ramps (NS) / Eastridge Avenue-Eucalyptus Avenue (EW)	+300 SBR in PM

Therefore, because the existing traffic was accurately quantified, and the trip distribution is appropriate, the projections in the TIA accurately quantified the significant impacts to the Northbound Ramps for Interstate-215 at Fair Isle Drive/Box Springs Road. Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-EEE:

The DEIR evaluates the Project assuming 24-hour a day, seven days a week operations. This means trucks arriving at the Project site would be able to enter and not have to wait for the operator to open the gates. If the Project was not a 24/7 operation, the potential for truck queuing on public streets is the highest in the morning when it is expected that multiple trucks arrive at the Project site prior to the gates opening. The queuing capacity for Building 1 is approximately 32 to 35 trailer trucks, which is greater than the anticipated number of trucks expected to arrive at Building 1 during AM Peak Hours. Therefore, the queuing capacity of Building 1 will not be exceeded as shown in the DEIR on **Figures 5.16-10 – Site Queuing Analysis with 53' Trailer Trucks** and **5.16-11 – Site Queuing Analysis with 48' Trailer Trucks**. Although it is possible that during the AM Peak Hours the queuing capacity for Building 2 will be exceeded by three to four trailer trucks, this should not result in trucks queuing or parking on the residential streets in proximity to the Project site because there is designated commercial vehicle parking on portions of Box Springs Boulevard. (DEIR, p. 5.16-49.)

The second full paragraph on page 5.16-49 of the DEIR incorrectly described commercial vehicle parking on Sycamore Canyon Boulevard. This paragraph will be revised in the FEIR as follows:

> "The queuing capacity for Building 2 is approximately five to six trailer trucks, which is less than the anticipated number of trucks expected to arrive at

> Building 2 during AM Peak Hours (9 trailer trucks). Although it is possible that during the AM Peak Hours the queuing capacity for Building 2 will be exceeded by three to four trailer trucks, this should not result in trucks queuing or parking on the residential streets in proximity to the Project site because there is designated commercial vehicle parking on ~~Sycamore Canyon Boulevard and~~ portions of Box Springs Boulevard. Per Riverside Municipal Code 10.52.155(a), it is unlawful to park commercial vehicles (with a gross vehicle weight of 10,000 pounds or more) and all commercial trailers or semi-trailers on any public street, highway, road or alley within the City except in specific locations designated by the City Traffic Engineer and identified by signs indicating commercial vehicle parking is allowed. There are only five ~~six~~ streets in the City were commercial vehicle, commercial trailers, and semi-trailers may be parked: Atlanta Avenue, Box Springs Boulevard, Marlborough Avenue, Northgate Street, and Palmyrita Avenue~~, and Sycamore Canyon Boulevard~~. Parking on Lance Drive and Sierra Ridge Drive is not permitted." (DEIR, p. 5.16-49.)

Per Riverside Municipal Code 10.52.155(a), it is unlawful to park commercial vehicles (with a gross vehicle weight of 10,000 pounds or more) and all commercial trailers or semi-trailers on any public street, highway, road or alley within the City except in specific locations designated by the City Traffic Engineer and identified by signs indicating commercial vehicle parking is allowed. Residents who notice trucks where restrictions are in place can call 311 and will be routed to both Traffic and the Police Department so that these agencies can coordinate the appropriate response. Residents are encouraged to call 311 because it is a centralized system that ensures that staff can be efficiently dispatched to mitigate the situation without creating duplication among City staff responses.

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-FFF:

See Responses to Comments 34-VV and 34-XX. The Fire Access/Parks Maintenance Road will be designed and constructed pursuant to the City of Riverside Fire Department Requirements to ensure that it provides sufficient access for fire emergency vehicles to access the Sycamore Canyon Wilderness Park in the event of an emergency, in accordance with mitigation measure **MM AES 6** (listed in Response to Comment 34-XX). (DEIR, p. 5.8-28.) Impacts to fire station egress will be less than significant because the traffic study area intersections in the vicinity of the fire station will continue to operate at an acceptable level of service. Thus, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-GGG:

A *Water Supply Assessment* was prepared by Western Municipal Water District and approved on February 17, 2016. The water provider for the site determined that the demand associated with development of the Project site is consistent with the overall projected increase in

commercial water demand within Western's Riverside Retail Area as set forth in Western's 2015 Urban Water Management Plan (DEIR, Appendix K). Thus, Western has determined that there will be enough water to serve the Project and this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-HHH:

The Metropolitan Water District of Southern California (Metropolitan) has adopted a Water Supply Allocation Plan (WSAP) to provide guidance on managing regional water supply actions. When the WSAP is in effect, Metropolitan member agencies, including Western, do not lose their ability to receive imported water but instead are limited in the amounts that they can purchase without being assessed a surcharge.

The *Water Supply Assessment* (WSA) prepared for this Project by Western Municipal Water District (Western) accounts for potential cutbacks under Metropolitan's WSAP, which represent a more severe shortage condition than the single-dry year or multiple-dry year scenarios presented in Metropolitan's 2010 Regional Urban Water Management Plan. Thus, the analysis contained in the WSA is more in-depth and updated than is required by State Bill 610.

"An EIR for a land use project must address the impacts of *likely* future water sources, and the EIR's discussion must include a reasoned analysis of the circumstances affecting the likelihood of the water's availability. [Citation.]" (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 432.) As the water provider to the site, it is acceptable to utilize and rely on Western's detailed assessment of water supply to determine the availability of sufficient supplies to serve the Project site. Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-III:

The comment claims that health impacts from ozone (O_3) have not been adequately acknowledged. However, Section 5.3 of the DEIR adequately analyzes the health effects of ozone. The DEIR's air quality analysis evaluates Oxides of Nitrogen (NO_x) and Volatile Organic Compounds (VOC), which are precursors to ozone formation. The analysis of NO_x and VOC is consistent with South Coast Air Quality Management District (SCAQMD) guidance and established significance thresholds. The Project does not have sources of direct ozone emissions that are of sufficient levels to be reportable.

The formation of ozone from NO_x and VOC is an intricate atmospheric process and requires sophisticated modeling that is more suitably assessed on a regional basis. The SCAQMD performs regional ozone modeling as part of the Air Quality Management Plan (AQMP) process, which requires detailed regional emission inventories. Since the correlation between emissions increases and health effects is complex and the science is imprecise, it would be speculative to attribute even a portion of the health impacts that could potentially be associated with the regional NO_x and VOC concentrations as being a result of a single Project.

The comment also notes that the DEIR does not acknowledge a recently adopted more stringent ozone standard. In 2015, the Environmental Protection Agency (EPA) revised the primary and secondary ozone standard levels to 0.070 parts per million (ppm) (70 parts per billion (ppb)), and retained their indicators (O_3), forms (fourth-highest daily maximum, averaged across three consecutive years) and averaging times (eight hours). The Basin continues to be designated as nonattainment for ozone with this more stringent standard. Since the Basin's attainment status remains unchanged, this does not affect the results of the analysis of the DEIR. The most recent published data for the Project site is presented in **Table 5.3-B – Air Quality Monitoring Summary from 2012-2014 (SRA 23)**. Data for 2015 to replace the data in **Table 5.3-B** of the DEIR is not yet available. Therefore, the new standard was not noted in the DEIR.

The SCAQMD prepares the Air Quality Management Plan (AQMP). The purpose of an AQMP is to bring an air basin into compliance with federal and state air quality standards and is a multi-tiered document that builds on previously adopted AQMPs.

The DEIR determined that the Project was consistent with the AQMP and thus would not interfere with attainment implementation. (DEIR, pp. 5.3-22-23.)

The comment also notes that the DEIR does not mention the year of the attainment goal for ozone in the Basin. According to the most recent adopted 2012 AQMP, the Basin is expected to reach attainment for the 2008 ozone standard in 2023 (to attain the 80 ppb National Ambient Air Quality Standards (NAAQS)) and 2032 (to attain 75 ppb NAAQS)[6]. The draft 2016 AQMP, which has not yet been adopted, identifies an attainment deadline of 2037 for the 2015 8-hour ozone NAAQS (70 ppb)[7]. Since the Project is consistent with the AQMP, the Project will not interfere with Basin attainment and the impacts from ozone and its related health impacts were adequately analyzed in the DEIR.

In accordance with State CEQA Guidelines Section 15126.2, subdivision (a), and consistent with the decision in *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1219-1220, the DEIR adequately discloses and analyzes "health and safety problems caused by the physical changes" that the proposed Project will precipitate, including correlating identified Project-related adverse air quality impacts to resultant adverse health effects.

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-JJJ:

The comment alleges that the DEIR concedes that there is no safe level for Toxic Air Contaminants (TACs). As explained in Section 5.3 of the DEIR, a TAC is defined as an air

[6] http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2012-air-quality-management-plan/final-2012-aqmp-(february-2013)/main-document-final-2012.pdf

[7] http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/2016aqmp_factsheet.pdf?sfvrsn=8

pollutant which may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health. TACs are generally present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at very low concentrations. For those TACs that cause cancer, there is no concentration that does not present some low-level risk. In other words, there is no threshold below which adverse health impacts are not expected to occur. (DEIR, p. 5.3-6.)

The comment also notes that the DEIR did not explain whether or not the Multiple Air Toxics Exposure Study IV (MATES-IV) includes new distribution centers in the area in its emission evaluation. The cancer risk level in the MATES-IV program results is approximately 16 percent lower than the background cancer risks based on the MATES-III study that used the toxics emission inventory for the year 2005, which illustrates the trend of declining health risk from TACs. (DEIR, p. 5.3-8.) The measurements and modeling for MATES IV spanned July 1, 2012, to June 30, 2013, which accounts for new development in the region at that time, including new distribution centers, since the MATES-III study.

The comment also incorrectly refers to the CARB recommendation to not place a distribution center within 1,000 feet of a residential center as a bright-line limit. According to CARB's *Air Quality and Land Use Handbook,* CARB recommends to avoid the placement of new sensitive land uses within 1,000 feet of a distribution center (accommodating more than 100 trucks per day, 40 trucks with transport refrigeration units (TRUs), or where TRUs operate more than 300 hours a week) and to take into account the configuration of existing distribution centers and avoid locating residences and other sensitive land uses near entry and exit points. However, these are recommendations, not mandates, and land use decisions ultimately lie with the local agency which needs to balance other considerations. (DEIR, p. 5.3-18.) The distance-based guidelines and recommendations contained in CARB's *Air Quality and Land Use Handbook* are not regulatory or binding on local agencies and were developed with a more qualitative approach than the uniform, quantified risk thresholds typically shown in air quality permitting programs. The 1,000 foot recommendation is advisory and should not be interpreted as a strictly defined buffer zone[8].

As discussed in Response to Comment 34-FF, since the Project involves the construction of a logistics center approximately 100 feet (30 meters) from the property line of the nearest sensitive receptor, a HRA was prepared for the Project. Refer to Response to Comment 34-FF for a discussion regarding SCAQMD's review and the results of the HRA. The analysis in the June Screening HRA, the November Refined HRA, and the New Modeling indicate that none of the cancer or non-cancer thresholds will be exceeded as a result of Project operation for workers or residents within the proposed Project vicinity. Therefore, the Project will not result in the exposure of sensitive receptors to substantial pollutant concentrations during Project operation. (DEIR, p. 5.3-34; FEIR Attachment A.1; FEIR Attachment A.2.)

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

[8] https://www.arb.ca.gov/ch/handbook.pdf

Response to Comment 34-KKK:

The comment again brings up the issue of the older federal ozone standard being evaluated in **Table 5.3-B** of the DEIR. As discussed in Response to Comment 34-III, the EPA revised the primary and secondary ozone standard levels to 0.070 parts per million (ppm) (70 ppb) in 2015. However, **Table 5.3-B** discloses the number of days exceeding standards in effect at the time the data was collected and published. Data for 2015 is not yet available from SCAQMD.

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-LLL:

The comment disputes that the Project is consistent with a number of policies in the Riverside General Plan 2025. Appendix M of the DEIR identifies applicable City of Riverside General Plan 2025 objectives and policies and evaluates the Project's consistency level with those objectives and policies. In regards to Objective AQ-1, or adopting land use policies that site polluting facilities away from sensitive receptors and vice versa; improve job-housing balance; reduce vehicle miles traveled and length of work trips; and improve the flow of traffic, the Project was found to be consistent with this Objective through consistency with GP 2025 Policies AQ-1.1 through AQ-1.4 and AQ-1.21 and AQ-1.22. (DEIR Appendix M, pp. M-58-60.)

GP 2025 Policy AQ-1.8 aims to promote "Job/Housing Opportunity Zones" and incentives to support housing in job-rich areas and jobs in housing-rich areas, where the jobs are located at nonpolluting or extremely low-polluting entities. This is a Policy and not a mandate, as asserted by the comment. This is also a municipal measure that is not directly applicable to the proposed Project. Nevertheless, as outlined in the Project's consistency level with Policy AQ-1.1, the Project site is designated for Light Industrial in the City's General Plan 2025. The currently proposed Project involves construction and operation of two logistics center buildings at the Project site, which is consistent with the site's land use designation. Further, as discussed in Section 5.3.14 of the DEIR (p. 5.3-40), neither the short-term nor long-term Project-related emissions will exceed the localized significance thresholds for air quality impacts to sensitive receptors for NO_x, CO, PM-10, or PM-2.5. The Project will also not expose workers or residents in the immediate Project vicinity to cancer or non-cancer risks in excess of SCAQMD thresholds. (DEIR Appendix M, p. M-58.) Appendix M has been clarified to include analysis of Policy AQ-1.8:

Applicable City of Riverside General Plan 2025 Objectives and Policies		Relationship of the Project to the Policy	Consistency Level
Policy AQ-1.8	Promote "Job/Housing Opportunity Zones" and incentives to support housing in job-rich areas and jobs in housing-rich areas, where the jobs are located at nonpolluting or extremely low-polluting entities.	This is a municipal measure that is not directly applicable to the proposed Project. Nevertheless, the Project site is designated for Light Industrial in the City's 2025 General Plan. The currently proposed Project involves construction and operation of two logistics center buildings at the Project site, which is consistent with the site's land use designation. Further, as discussed in Section 5.3.14 of the DEIR (p. 5.3-40), neither the short-term nor long-term Project-related emissions will exceed the localized significance thresholds for air quality impacts to sensitive receptors for NO_x, CO, PM-10, or PM-2.5. The Project will also not expose workers or residents in the immediate Project vicinity to cancer or non-cancer risks in excess of SCAQMD thresholds.	Consistent

As discussed in Appendix M of the DEIR, General Plan 2025 Policy AQ-2.11 aims to develop ways to incorporate the "Good Neighbor Guidelines for Siting New and/or Modified Warehouse/Distribution Facilities" into the Development Review process and City-wide air quality education programs. Building 2 does not propose any dock doors or parking on the north side of the building, so as to increase distance and locate those activities away from the Sycamore Highlands neighborhood and to minimize impacts to these neighbors. Operational NO_x emissions are anticipated to exceed the SCAQMD regional significance threshold and, due to proximity to existing residences, a HRA was prepared the Project. Refer to Response to Comment 34-FF for a discussion of the HRA and SCAQMD's review. As discussed in Response to Comment 34-FF, none of the cancer or non-cancer thresholds will be exceeded as a result of Project operation for workers or residents within the proposed Project vicinity. Therefore, the Project will not result in the exposure of sensitive receptors to substantial pollutant concentrations during Project operation. (DEIR, p. 5.3-34.) Although cancer and non-cancer risks are predicted to be less than the thresholds set by SCAQMD, the City will be required to adopt a Statement of Overriding Considerations for the proposed Project due to operational NO_x emissions. Further, the Project will exceed CARB requirements by limiting truck idling to three (3) minutes rather than five (5) minutes at the Project site, consistent with Goal 4 of the Good Neighbor Guidelines. (DEIR Appendix M, p. M-61.) As discussed in Response to Comment 34-PPP, mitigation measures **MM AQ 13** and **MM AQ 22** have been modified to reflect the reduced idling time. Thus, the Project is consistent with the "Good Neighbor Guidelines" as discussed in detail in Appendix M of the DEIR. (DEIR Appendix M, pp. 66-77.)

This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-MMM:

The comment disputes that the Project is consistent with a number of policies in the Riverside Good Neighbor Guidelines.

Goal 1: The Project is consistent with Goal 1 of the City of Riverside Good Neighbor Guidelines that entails minimizing exposure to diesel emissions to neighbors that are situated in close proximity to the warehouse/distribution center as described in Appendix M of the DEIR. In accordance with State CEQA Guidelines Section 15126.6, an EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. Section 8 – Alternatives of the DEIR evaluates three alternatives and found the alternatives to be infeasible due to a failure to meet the Project objectives or similar, increased, or reduced but still significant and unavoidable environmental impacts when compared with the proposed Project. (DEIR, pp. 8-34-35.) Additionally, the logistics center use proposed by the Project is consistent with the current General Plan 2025 land use designation of B/OP – Business Office Park and is zoned BMP-SP – Business Manufacturing Park and Specific Plan (Sycamore Canyon Business Park Specific Plan) Overlay Zones. The proposed Project will be consistent with both the existing land use designation of the General Plan 2025 and the Sycamore Canyon Business Park Specific Plan and would not require a change of zone. (DEIR, p. 5.10-10.)

Goal 1a: The Project is consistent with Good Neighbor Guideline Strategy 1a in that the Project is expected to be a 24/7 operation and there are queuing areas on site and designated commercial vehicle parking areas in proximity to the Project site. Refer to Response to Comment 34-EEE. Because the Project operator is unknown at this time and it has been noted that similar logistics uses in the City have resulted in trucks queuing on public streets, the potential for the Project to result in trucks queuing onto public streets while waiting for the operator to open the gates in the morning to accept deliveries was analyzed in Section 5.16 of the DEIR. If the Project was not a 24/7 operation, the potential for truck queuing on public streets is the highest in the morning when it is expected that multiple trucks arrive at the Project site prior to the gates opening. As shown on **Figures 5.16-10 – Site Queuing Analysis with 53' Trailer Trucks** and **5.16-11 – Site Queuing Analysis with 48' Trailer Trucks,** the queuing capacity of Building 1 will not be exceeded. Although it is possible that during the AM Peak Hours the queuing capacity for Building 2 will be exceeded by three to four trailer trucks, this should not result in trucks queuing or parking on the residential streets in proximity to the Project site because there is designated commercial vehicle parking on portions of Box Springs Boulevard. (DEIR, p. 5.16-49.) Therefore, traffic and neighborhood compatibility issues resulting from the three or four trucks that may have to queue are not anticipated and the Project is consistent with this Strategy. (DEIR Appendix M, p. M-67.)

Goal 1b: The Project is consistent with Good Neighbor Guideline Strategy 1b in that the Project has been designed such that no parking is provided along the northern side of Building 2, nearest the residential uses. Building 2 has also been designed to have no cross-dock

facilities. Site access will be taken via Lance Drive to the east of the Project site and Sierra Ridge Drive to the south of the Project site, with limited access from Dan Kipper Drive (exit only), north of the Project site. Thus, access will be located away from residential uses to the extent feasible. All driveways exiting the site will be limited to right turn only movements to avoid traffic headed east on Dan Kipper Drive, closest to the residential uses. (DEIR Appendix M, p. M-67.)

Goal 1c: The Project is consistent with Good Neighbor Guideline Strategy 1c in that a HRA was performed for receptors in vicinity of the Project site. As discussed in Response to Comment 34-FF, according to the June Screening HRA, the November Refined HRA, and the New Modeling, none of the cancer or non-cancer thresholds will be exceeded as a result of Project operation for workers or residents within the proposed Project vicinity. Therefore, the Project will not result in the exposure of sensitive receptors to substantial pollutant concentrations during Project construction or operation. (DEIR, p. 5.3-34, FEIR Attachment A.1, FEIR Attachment A.2.)

As stated in the Refined November HRA, the SCAQMD has not established a significance threshold for ambient cumulative TAC impacts affecting the Basin. The SCAQMD has established a significance threshold for incremental project-level TAC impacts. This same significance threshold (10 in one million) is applied by SCAQMD in determining whether a given project's incremental contribution to ambient TAC-source cancer risks is cumulatively considerable. (Attachment A.1, p. 26.)

Nonetheless, the November Refined HRA provided context for, and the Refined HRA and New Modeling quantified cumulative TAC effects within the Project area. The Project-specific cancer risk and the cancer risks from the related projects were added to the total background risk derived by the MATES IV study, yielding a maximum potential cumulative TAC-source risk affecting the Project area. The maximum potential cumulative cancer risk within the Project area is estimated at 712.58 in one million. (FEIR Attachment A.1, p. 31.)

The MATES-IV ambient background plus related cumulative project TAC impact represents approximately 99 percent of the total cumulative impact; and due to its magnitude when compared to project-level TAC impact significance thresholds, is presumed to be cumulatively significant. The Project would incrementally contribute to this presumably significant cumulative impact. However, the Project's maximum incremental contribution of 4.87 incidents per million population as shown in the New Modeling does not exceed the established SCAQMD threshold (10 incidents per million population) at which Project-level TAC contributions would be determined cumulatively considerable. On this basis, the Project TAC emissions impacts are not considered cumulatively considerable. (FEIR Attachment A.1, p. 31; FEIR, Attachment A.2.)

Goal 2 and 2a: The Project was evaluated for consistency with Good Neighbor Guideline Goal 2 in Appendix M of the DEIR. In terms of Good Neighbor Guideline Strategy 2a, the Project has an established specific truck distribution between the Project site and the freeways in that the Project site is accessed from Sycamore Canyon Boulevard, a 4-lane divided major arterial.

Further, the "urban intersect" as described in the Sycamore Canyon Business Park Specific Plan at the Interstate 215 and Eastridge Avenue has since been constructed, allowing for a direct connection to Interstate 215. Therefore, the Project is consistent with this Strategy. (DEIR Appendix M, p. M-70.) In the City of Riverside, trucks are generally not restricted to specific roadways; however, the majority of trucks will use the I-215 Ramps at Eastridge Ave-Eucalyptus Ave since it utilizes the "urban intersect". Trucks are not anticipated to travel into residential neighborhoods given the existing freeway access. Additionally, as discussed in Response to Comment 34-FF, pursuant to Chapter 10.56 of the City's Municipal Code, commercial vehicles (trucks) over 10,000 pounds are prohibited from using Lochmoor Drive, Fair Isle Drive and Sycamore Canyon Boulevard, between El Cerrito Drive and University Drive. Residents who notice trucks where restrictions are in place can call 311 and their complaint will be routed to the Traffic Department and Police Department so that the appropriate response can be coordinated.

Goal 2d: The Project is consistent with Good Neighbor Guideline Strategy 2d in that mitigation measure **MM AQ 25** (listed below) was included in the Air Quality Section of the DEIR requiring both building operators to provide flyers that advise truck drivers of the closest restaurants, fueling stations, truck repair facilities, lodging and entertainment. (DEIR Appendix M, p. M-70.) The Project is consistent with this Strategy and no further analysis is required.

> **MM AQ 25:** The building operator shall provide signage or flyers that advise truck drivers of the closest restaurants, fueling stations, truck repair facilities, lodging, and entertainment.

Goal 3: The Project was evaluated for consistency with Good Neighbor Guideline Goal 3 in Appendix M of the DEIR. The Project is required to comply with the City Municipal Code which codifies the strategies of Goal 3. Specifically, the Project will adhere to Sections 10.52 pertaining to stopping, standing, or parking on streets, Section 10.52.155[9] pertaining to prohibited parking of certain commercial vehicles, trailers, and semi-trailers, and Section 10.52.160 pertaining to prohibited parking of certain commercial vehicles in residential districts. (DEIR Appendix M, p. M-71.) Therefore, the Project is consistent with Good Neighbor Guideline Goal 3. Additionally, **MM AQ 22** will be implemented which requires that, within six months after operations commence, signs will be posted informing truck drivers about the health effects of diesel particulates, the CARB diesel idling regulations, and the importance of being a good neighbor by not parking in residential areas. Mitigation measure **MM AQ 22** will be revised in the FEIR as shown below:[10]

> **MM AQ 22**: The Project shall implement the following measures to reduce emissions from on-site heavy duty trucks within six months after operations commence:
>
> a) Post signs informing truck drivers about the health effects of diesel particulates, the requirement that ~~CARB diesel~~ idling times cannot exceed

[9] https://www.riversideca.gov/parking/pdf/boxspringtruckparking.pdf

[10] Deletions are shown with strikethrough text (~~example text~~) and additions are shown with double underline text (example text).

three minutes ~~regulations~~, and the importance of being a good neighbor by not parking in residential areas.

b) Tenants shall maintain records on its fleet equipment and vehicle engine maintenance to ensure that equipment and vehicles serving the building are in good condition, and in proper tune pursuant to manufacturer's specifications. The records shall be maintained on site and be made available for inspection by the City.

c~~b~~) The facility operator will ensure that site enforcement staff in charge of keeping the daily log and monitoring for excess idling will be trained/certified in diesel health effects and technologies, for example, by requiring attendance at California Air Resources Board approved courses (such as the free, one-day Course #512).

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-NNN:

The comment alleges that the DEIR ignores that the City and the Project can require compliance with CARB's Diesel Risk Reduction Program earlier than 2023. Regulations adopted by CARB in December 2008 and last amended in December 2014 ensure that, by 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent. (DEIR, p. 5.3-18.) Nonetheless, the Project has incorporated a design feature that requires all medium- and heavy-duty trucks entering the Project site to meet or exceed 2010 engine emissions standards. To clarify this, the bottom of DEIR page 5.3-21 will be modified as follows:

Transportation and Motor Vehicles

- Limit idling time for commercial vehicles to no more than three~~five~~ minutes.
- All medium and heavy duty diesel trucks that enter the Project site shall that meet or exceed 2010 engine emission standards as specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025 or be powered by natural gas, electricity, or other diesel alternative shall be permitted to enter the Project site. Facility operators shall maintain a log of all trucks entering the facility to document that the truck usage meets these emission standards. This log shall be available for inspection by City staff at any time.
- Provide up to three electric vehicle charging facilities to encourage the use of low or zero-emission vehicles.

Because the Project will require all medium and heavy duty vehicles entering the Project site to meet or exceed 2010 engine emissions standards, this feature has also been included as a mitigation measure for consistency with other project design features that were also included

as mitigation. Accordingly, mitigation measure **MM AQ 17** will be renumbered to **MM AQ 17a** and **MM AQ 17b** will be added to DEIR page 5.3-37. The addition of this mitigation does not raise any new significant environmental effects of the project but merely clarifies and makes an insignificant modification to the EIR to include a project design feature that the Project will require the use newer truck engines than is currently required by law.

> **MM AQ 17b**: All medium and heavy duty diesel trucks entering logistics sites shall meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025 or be powered by natural gas, electricity, or other diesel alternative. Facility operators shall maintain a log of all trucks entering the facility to document that the truck usage meets these emission standards. This log shall be available for inspection by City staff at any time.

The addition of a new project design feature does not constitute significant new information that would require recirculation of the DEIR pursuant to CEQA Guidelines, § 15088.5 because there are no new significant impacts identified. Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-OOO:

The comment again claims that the DEIR disregards the CARB recommendation to not place a distribution center within 1000 feet of a residential center and states that the DEIR is ignoring the General Plan 2025. As discussed in Response to Comment 34-JJJ, the DEIR discloses (and thus, includes in the administrative record) CARB recommendations. However, the DEIR also states that these are recommendations, not mandates, and land use decisions ultimately are the responsibility of the local agency which needs to balance other considerations. (DEIR, p. 5.3-18.)

Since the Project involves the construction of a logistics center approximately 100 feet (30 meters) from the nearest sensitive receptor, a HRA was prepared for the Project Refer to Response to Comment 34-FF for a discussion of the results of the HRA and SCAQMD review.

As stated previously, the CARB recommends, but does not mandate that new sensitive land uses should not be placed within 1,000 feet of a distribution center. Furthermore, Appendix M of the DEIR identifies applicable City of Riverside General Plan 2025 objectives and policies and the Project's consistency level with those objectives and policies. The Project was found to be consistent with the General Plan 2025 Air Quality Element Objectives and Policies. (DEIR Appendix M, pp. M-58-65.)

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-PPP:

The comment is in regards to the analysis in Threshold B in Section 5.3 of the DEIR (pp. 5.3-23-30). As adequately disclosed in the DEIR, long-term Project operational emissions will

exceed the threshold for NO_x, even with the incorporation of proposed Project design features (which are also listed as mitigation measures **MM AQ 1** through **MM AQ 15**, **MM AQ 18**, and **MM AQ 19**, as well as additional **MM AQ 22** through **MM AQ 25**). Mitigation measures **MM AQ 1 through MM AQ 8**, **MM AQ 14**, **MM AQ 18**, and **MM AQ 25** were previously listed in Response to Comment 34-M. Mitigation measures **MM AQ 22** and **MM AQ 25** were previously listed in Response to Comment 34-MMM. Mitigation measures **MM AQ 8** through **MM AQ 12**, **MM AQ 15** through **MM AQ 21**, **MM AQ 23**, and **MM AQ 24** are listed below. **MM AQ 13** and **MM AQ 23** will be revised in the FEIR as shown below.[11]

MM AQ 8: The Project's landscaping plans shall incorporate water-efficient landscaping, with a preference for xeriscape landscape palette. Landscaping plans shall be approved by the City prior to building permit issuance.

MM AQ 9: All building owners shall provide education about water conservation and available programs and incentives to building operators to distribute to employees.

MM AQ 10: Interior and exterior waste storage areas shall be provided for recyclables and green waste. Prior to occupancy permits, the City shall verify interior and exterior storage areas are provided for recyclables and green waste. The property operator will also provide readily available information provided by the City for employee education about reducing waste and available recycling services.

MM AQ 11: Up to three electric vehicle charging stations shall be provided to encourage the use of low or zero-emission vehicles. Prior to building permit issuance, the City shall verify building plans contain electric vehicle charging stations.

MM AQ 12: Adequate bicycle parking near building entrances shall be provided at the site. Facilities that encourage bicycle commuting (e.g., locked bicycle storage or covered or indoor bicycle parking) shall be provided. Prior to building permit issuance, the City shall verify building plans contain adequate bicycle parking.

MM AQ 13: All facilities shall post signs informing users of requirements limiting idling to <u>three</u> ~~five~~ minutes or less <u>in excess of</u> ~~pursuant to~~ Title 13 of the California Code of Regulations, Section 2485. The City shall verify signage has been installed prior to occupancy.

MM AQ 15: Service equipment (i.e., forklifts) used within the site shall be electric or compressed natural gas-powered.

MM AQ 18: Locally produced and/or manufactured building materials shall be used for at least 10% of the construction materials used for the Project. Verification shall be submitted to the City prior to issuance of a building permit.

MM AQ 19: "Green" building materials shall be used where feasible, such as those materials that are resource efficient and recycled and manufactured in an

[11] Deletions are shown with strikethrough text (~~example text~~) and additions are shown with double underline text (<u>example text</u>).

environmentally friendly way. Verification of the feasibility or infeasibility of securing these materials shall be submitted to the City prior to issuance of a building permit.

MM AQ 23: In order to promote alternative fuels, and help support "clean" truck fleets, the developer/successor-in-interest shall provide building occupants with information related to SCAQMD's Carl Moyer Program, or other such programs that promote truck retrofits or "clean" vehicles and information including, but not limited to, the health effect of diesel particulates, benefits of reduced idling time, CARB regulations, and importance of not parking in residential areas. ~~If trucks older than 2007 model year will be used at a facility, the developer/successor-in-interest shall require, within one year of signing a lease, future tenants to apply in good-faith for funding for diesel truck replacement/retrofit through grant programs such as the Carl Moyer, Prop 1B, VIP, HVIP, and SOON funding programs, as identified on SCAQMD's website (http://www.aqmd.gov). Tenants will be required to use those funds, if awarded.~~

MM AQ 24: Any yard trucks used on-site to move trailers in or around the loading areas shall be electric in place of traditional diesel powered yard trucks.

Because long-term operation of the proposed Project will exceed the SCAQMD threshold for NO_x, impacts are considered to be significant and unavoidable after implementation of mitigation, and a Statement of Overriding Considerations will be required should the City choose to approve the Project. (DEIR, p.5.3-30.)

The Project was evaluated for Carbon Monoxide (CO) hotspots based on SCAQMD's 2003 Air Quality Management Plan and the Revised 1992 Federal Attainment Plan for Carbon Monoxide by comparing the Wilshire Boulevard and Veteran Avenue intersection daily traffic (100,000 vehicles per day) and Project-related traffic (20,213 average daily trips). This comparison does not differentiate between cars and trucks which have differing emissions factors because information on truck percentage was not provided. Considering existing traffic, plus 2018 ambient traffic, plus cumulative traffic plus Project-related traffic, the Traffic Impact Analysis (TIA) prepared for this Project calculated that the highest average daily trips would be 20,213 on Eastridge Avenue between Box Springs Boulevard to the I-215 Ramps, which is lower than the values studied by SCAQMD in their 1992 CO Plan and 2003 AQMP, as described above (DEIR, Appendix J). Therefore, none of the roadway segments in the vicinity of the proposed Project site would have daily traffic volumes exceeding those at the intersections modeled in the 2003 AQMP, nor would there be any reason unique to the meteorology to conclude that this intersection would yield higher CO concentrations. Since the Wilshire Boulevard and Veteran Avenue intersection daily traffic is almost five times higher than the cumulative Project-related traffic on Eastridge Avenue between Box Springs Boulevard to the I-215 Ramps, the comparison of project CO hot-spot impacts support the analogy, regardless of unknown truck percentages. (DEIR, p. 5.3-29-30.)

This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-QQQ:

The comment is in regards to the analysis in Threshold C in Section 5.3 of the DEIR (pp. 5.3-30-31). The portion of the Basin within which the Project is located is designated as a non-attainment area for PM-10 under State standards, and for ozone and $PM_{2.5}$ under both State and federal standards. Ozone is not directly emitted into the atmosphere; rather, it forms via a reaction of VOC and NO_x in the atmosphere. (DEIR, p.5.3-30.)

As stated in the DEIR, SCAQMD considers the thresholds for project-specific impacts and cumulative impacts to be the same. Therefore, projects that exceed project-specific significance thresholds are considered by SCAQMD to be cumulatively considerable. Based on SCAQMD's regulatory jurisdiction over regional air quality, it is reasonable to rely on its thresholds to determine whether there is a cumulative air quality impact. None of the SCAQMD mass daily significance thresholds are exceeded during Project construction; however, the mass daily significance threshold for NO_x would be exceeded during Project operation. Thus, the Project would have a cumulatively considerable increase in emissions due to operational NO_x. In terms of localized air quality impacts, none of the SCAQMD LST thresholds are exceeded. Thus, the Project would not have a cumulatively considerable impact due to criteria pollutant emissions. Because the Project would have a cumulatively considerable increase in emissions due to operational NO_x, even with implementation of mitigation measures **MM AQ 1** through **MM AQ 25** (listed previously), the impact is significant and unavoidable after implementation of mitigation, and a Statement of Overriding Considerations will be required should the City choose to approve the Project. (DEIR, p.5.3-31.)

Since none of the other criteria pollutants exceed SCAQMD thresholds, the Project is considered to have a cumulatively considerable increase due to criteria pollutant emissions based on the exceedance of NO_x during Project operations.

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-RRR:

As discussed in Section 5.3 of the DEIR, SCAQMD considers the thresholds for project-specific impacts and cumulative impacts to be the same. Therefore, projects that exceed project-specific significance thresholds are considered by SCAQMD to be cumulatively considerable. Based on SCAQMD's regulatory jurisdiction over regional air quality, it is reasonable to rely on its thresholds to determine whether there is a cumulative air quality impact. (DEIR, pp. 5.3-31.)

Additionally, cumulative impacts were analyzed in Section 6 – Other CEQA Topics of the DEIR (pp. 6-1-29). In terms of localized air quality impacts, construction of the Project would not have a cumulatively considerable impact due to criteria pollutant emissions. However, because the Project's emissions exceed applicable SCAQMD thresholds during operation due to Project-related NO_x, the Project will result in significant and unavoidable cumulative impacts to air quality. (DEIR, pp. 6-9-10.) Therefore, the DEIR adequately analyzed cumulative air quality impacts based on significant and unavoidable impacts.

The DEIR's analysis cumulative impacts analysis and reliance upon SCAQMD's guidance for thresholds is adequate and complies with CEQA, including State CEQA Guidelines Sections 15130(a), 15064(h)(1), 15065(a)(3), and 15355(b) referenced in the comment. The commenter's citation to Public Resource Code section 21083.2(b)(2) appears to be misplaced as that provision relates to the treatment of unique archaeological resources and, more specifically, ensuring the protection of such resources by leaving them in place through the deeding of conservation easements.

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-SSS:

The comment is in regards to the Screening HRA analysis in Threshold D in Section 5.3 of the DEIR (pp. 5.3-31-34). SCAQMD's *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis* (SCAQMD guidance) states that volume or area source characterizations are most appropriate for modeling emissions associated with truck idling and movement.[12] To be conservative, the Screening HRA divided the Project site into eight equal areas (each 8.92 acres). The 8.92 acre area closest to existing sensitive (residential) and worker receptors was modeled concentrating all of the Project's mobile source emissions in one area. This is conservative because the Project's mobile source emissions will be generated across the entirety of the Project site, which provides more distance between the loading bays and on-site truck movement associated with Building 1 and the nearest residences and would reduce the concentration of diesel particulate matter (DPM).

As discussed in Response to Comment 34-FF, a Refined HRA and subsequent New Modeling were prepared in November 2016 and January 2017, respectively, to address specific comments from SCAQMD (included in the Final EIR as Response to Comment Letter 36). The Refined HRA and New Modeling are included as Attachments A.1 and A.2 of the Final EIR. Both the Refined HRA and New Modeling are consistent with the requested SCAQMD guidance and methodology and individually modeled the on-site roadways, loading bays, and truck travel on off-site roadways leading to and from the Project site and freeways. According to the Refined HRA and New Modeling, none of the cancer or non-cancer thresholds will be exceeded as a result of Project operation for workers or residents within the Project vicinity. In fact, as stated in Response to Comment 34-FF, the estimated maximum cancer risk reduced from 5.3 in one million (DEIR, **Table 5.3-J**) to 4.87 in one million in the vicinity of the Project site (FEIR Attachment A.2). Thus, the Screening HRA included in the DEIR conservatively overestimated exposure from mobile source emissions and did not underestimate cancer or non-cancer risk resulting from the proposed Project.

[12] http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis

Further, the Project has incorporated a design consideration that requires all medium- and heavy-duty trucks entering the Project site meet or exceed 2010 engine emission standards. Specifically, the bottom of DEIR page 5.3-21 will be modified in the FEIR as follows:

Transportation and Motor Vehicles

- Limit idling time for commercial vehicles to no more than three~~five~~ minutes.
- All medium and heavy duty diesel trucks that enter the Project site shall that meet or exceed 2010 engine emission standards as specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025 or be powered by natural gas, electricity, or other diesel alternative shall be permitted to enter the Project site. Facility operators shall maintain a log of all trucks entering the facility to document that the truck usage meets these emission standards. This log shall be available for inspection by City staff at any time.
- Provide up to three electric vehicle charging facilities to encourage the use of low or zero-emission vehicles.

Because Project Design Features are also listed as mitigation measures in the DEIR (DEIR, p. 5.3-35), as discussed in Response to Comment 34-NNN mitigation measure **MM AQ 17b** will be included in the FEIR and Mitigation Monitoring and Reporting Program (MMRP).

The New Modeling and addition of a project design feature does not constitute significant new information that would require recirculation of the DEIR pursuant to CEQA Guidelines, § 15088.5 because there are no new significant impacts identified. In-fact, there is a reduction in the impacts as a result of additional analysis performed at the request of and in accordance with SCAQMD guidance. therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-TTT:

The commenter disagrees with the Air Quality Report's finding that the Maximum Individual Cancer Risk (MICR) would be greater than that from operation and suggests a modeling error.

As outlined in the Air Quality Report, or Appendix B of the DEIR, a project's construction phase produces many types of emissions, but PM-10 (including PM-2.5$_{2.5}$) in fugitive dust and diesel engine exhaust are the pollutants of greatest concern. Fugitive dust emissions can result from a variety of construction activities, including excavation, grading, demolition, vehicle travel on paved and unpaved surfaces, and vehicle exhaust. Construction-related emissions can cause substantial increases in localized concentrations of PM-10, as well as affecting PM-10 compliance with ambient air quality standards on a regional basis. Particulate emissions from construction activities can lead to adverse health effects as well as nuisance concerns such as reduced visibility and soiling of exposed surfaces. The use of diesel-powered construction equipment emits ozone precursors NO_x and Reactive Organic Gas (ROG), diesel total organic gases (DTOG), and diesel particulate matter (DPM), the latter being a composite toxic air

contaminant (TAC) containing a variety of hazardous substances. Large construction projects using multiple, large earth-moving equipment are evaluated to determine if operations may exceed the SCAQMD's daily threshold for NO_x emissions and could temporarily expose area residents to hazardous levels of DPM. Use of architectural coatings and other materials associated with finishing buildings may also emit ROG and TACs. CEQA significance thresholds address the impacts of construction activity emissions on local and regional air quality. Thresholds are also provided for other potential impacts related to project construction, such as odors and TACs. (DEIR Appendix B, pp. 2-3.)

The term "project operations" refers to the full range of activities that can or may generate criteria pollutant, Greenhouse Gas (GHG), and TAC emissions when the project is functioning in its intended use. For projects such as office parks, shopping centers, residential subdivisions, and other indirect sources, motor vehicles traveling to and from the project represents the primary source of air pollutant emissions. For industrial projects and some commercial projects, equipment operation and manufacturing processes, i.e., permitted stationary sources, can be of greatest concern from an emissions standpoint. CEQA significance thresholds address the impacts of operational emission sources on local and regional air quality. Thresholds are also provided for other potential impacts related to project operations, such as odors. (DEIR Appendix B, p. 3.)

Construction – particularly the site preparation and grading phases – utilizes heavy, powerful off-road equipment such as bulldozers, scrapers, and front-end loaders. Off-road diesel engines emit more DPM than on-road engines (e.g., trucks) of similar size due to 1) less stringent emission standards, 2) generally older fleets due to long equipment life and high replacement costs, and 3) cyclic operation (i.e., frequent throttle-up & throttle down). Thus, construction can have a higher time-weighted impact than the on-site fraction of operational emissions. This is because the OEHHA residential risk calculations incorporate a tenfold early-in-life potency factor adjustment for the third trimester and ages zero to less than two, and a threefold adjustment factor for ages two to less than sixteen. Since construction would occur for about one year, the early-in-life potency factor adjustment dominates the cancer risk calculation.

Since construction of the Project will result in earth moving and large, higher-emitting construction equipment operating concurrently on-site and many operational emissions would occur off-site due to truck travel to and from the ports, it is reasonable to conclude that the Maximum Individual Cancer Risk (MICR) for construction would be greater than that from operation. Refer to Response to Comment 34-FF for a discussion regarding the Project's HRA. (DEIR Appendix B, p. 6.)

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-UUU:

Although the Project site is located within the boundary of the adopted Stephens' Kangaroo Rat Habitat Conservation Plan (SKR-HCP), it is not within the Core Reserve and so impacts to

this species are offset through payment of SKR-HCP fees. The SKR-HCP does not require surveys for this species outside the Core Reserve and impacts to any SKR that may occur at the Project site will be offset via payment of fees. The SKR-HCP is available online at: http://www.skrplan.org/skr.html.

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-VVV:

The existing drainage that runs through the project site is currently unprotected and unmaintained. While it has some native vegetation, the existing drainage also has numerous invasive species and is subject to degradation, trespass and illegal dumping. The DEIR included an analysis of the loss of this natural drainage feature per Section 6.1.2 of the MSHCP, Riparian and Riverine Policy. (DEIR, p. 5.4-24.) Following the requirements of Section 6.1.2 of the MSHCP, the City had a Determination of Biologically Equivalent or Superior (DBESP) prepared to analyze the quality of habitat on the Project site and provided an analysis of the mitigated area proposed to recreate a drainage along the western edge of the site. (DEIR, Appendix C.4.) Prior to development of the DBESP document, the City met with the Regional Conservation Authority (RCA), the agency responsible for determining MSHCP compliance, the California Department of Fish and Wildlife (CDFW) and the US Fish and Wildlife Service (USFWS) on December 9, 2015, and February 10, 2016. (DEIR, Appendix C.4, p. 5-7.) The purpose of these meetings was to discuss the location and the characteristics of the drainage and proposed Mitigation Area that would fulfill the requirements of Section 6.1.2 of the MSHCP.

The DBESP was reviewed by the CDFW and USFWS for 60 days per the MSHCP requirements. As of November 22, 2016, CDFW determined that the habitat that will be created in the Project's Mitigation Area is considered biologically superior in comparison to the existing drainage. (DEIR, pp. 5.4-21.) Because the relocated drainage will be protected in perpetuity, it will be maintained and kept free of invasive. The relocated drainage into the Mitigation Area also provides habitat and buffering between the proposed development and the MSHCP Conservation Area (i.e. Sycamore Canyon Wilderness Park) to the west. Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-WWW:

See Response to Comment 34-UUU. Species trapping is neither required nor necessary because there is an SKR HCP (http://www.skrplan.org/skr.html#004), of which the Project will pay fees and the Project site is not located in a Core Reserve of the HCP. (DEIR pp. 5.4-14 – 5.4-15.) Regarding the San Diego black-tailed jackrabbit, this species is a Covered Species under the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) (http://wrc-rca.org/about-rca/multiple-species-habitat-conservation-plan/). The Covered Species status means that as long as the Project pays MSHCP fees and is compliant with Section 6.0 of the MSHCP (namely Sections 6.1.2, 6.1.3, 6.1.4 and 6.3.2), then the Project can obtain take

authorization for the San Diego black-tailed jackrabbit. Per Section 6.1.1 of the MSHCP, impacts to this species are mitigated fully under CEQA through the City's payment of MSHCP fees, which is required of the Project Applicant under the MSHCP and pursuant to City Ordinance No. 6709, as well as compliance with the MSHCP. (DEIR, p. 5.4-19.) Therefore, trapping and relocation of the San Diego black-tailed jackrabbit is not necessary or required as a result of the Project.

This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-XXX:

See Response to Comment 34-JJJJ. This comment does not provide any substantial evidence that changes the analysis and determinations in the DEIR. This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-YYY:

It is not common practice for the Habitat Mitigation Monitoring Plan (HMMP) to be prepared concurrently with the DEIR because HMMPs are drafted in response to regulatory permitting requirements related to the details of how the Mitigation Area will be monitored for success. The HMMP does not provide the plan for how the Mitigation Area is to be created, that document is the DBESP, which is the appropriate level document to have in the DEIR, and is also the requirement to show compliance with the MSHCP. An HMMP is not a requirement of the MSHCP. An HMMP would be required by any of the regulatory agencies responsible for issuing permits per the Clean Water Act and Streambed Alteration Agreement which can only happen after the CEQA document is approved. A draft of the HMMP success criteria has been included in the DBESP which was addressed in the DEIR analysis. For instance, the DBESP states that the Mitigation Area, when complete, should have 85 percent coverage of the existing riparian habitat, no more than 10 percent cover of non-native species, and reduction of supplemental watering during the last two years of monitoring. (DEIR, Appendix C.4, p. 6-1.)

The HMMP will be prepared once detailed discussions related to the regulatory permitting process is underway. The HMMP would not include any more details or analysis that would change the determination of the DBESP nor the determination that the Project will have a less than significant impact related to biological resources. The HMMP document would also not include any details that would change the MSHCP compliance determinations utilized in the DEIR.

Additionally, the Wildlife Agencies (CDFW and USFWS) were given an opportunity to review and comment on the DBESP from May 20, 2016, through June 20, 2016. None of the agencies requested changes to the text of the DBESP, and the DBESP determined that the habitat that will be created in the Mitigation Area is considered biologically superior in comparison to the existing drainage.

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-ZZZ:

There is no "link" (i.e. connectivity) between the Sycamore Canyon Wilderness Park and the Box Springs Mountains through the Project Site. Existing development has eliminated any such link or connections. Further, the MSHCP which is the guiding document used to identify locations of linkages and/or corridors through the identification of the MSHCP Conservation Area does not identify any conservation or "links" (i.e. the Criteria Area) on the Project Site (http://wrc-rca.org/about-rca/multiple-species-habitat-conservation-plan/). Thus, even if the Project site currently provides natural habitat that may be used by species in the vicinity, the site is not within an MSHCP Criteria Cell. During the biological resources assessment conducted by AMEC, a golden eagle was observed flying over the Project site; however, the Project site contains low quality raptor foraging habitat, the loss of which is not considered a significant impact (DEIR, p. 5.4-19). One willow flycatcher was observed flying through the site; however, the Project site does not present suitable breeding habitat for this species and the bird was not detected during any subsequent surveys and this individual was determined to have been a transitory individual that happened to be passing through at the time of the survey. (DEIR, Appendix C.2, pp. 1 – 2.) Once the Mitigation Area and the perimeter landscaping is complete, trees such as pines, sycamores and oaks will provide raptor habitat (DEIR, **Figure 3-11 – Conceptual Landscape Plan**). Additionally, the riparian vegetation proposed in the Mitigation Area (willows, mulefat) could provide habitat for southwestern willow flycatchers that may stray over from the Wilderness Park.

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-AAAA:

See Response to Comment 34-UUU. Impacts to Stephens' Kangaroo Rat are mitigated through payment of fees pursuant to the Stephens' Kangaroo Rat Habitat Conservation Plan; further, the SKR-HCP does not have a survey requirement for areas outside of the designated Core Reserve.[13]

Therefore, the Project is consistent with Objective LU-7 of the City's General Plan 2025 because it will adequately mitigate any potential impacts to Stephens' Kangaroo Rat through payment of fees as required by the SKR-HCP. This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-BBBB:

The DEIR fully evaluated compliance with the MSHCP, in particular Sections 6.1.2, 6.1.3, 6.1.4 and 6.3.2. (DEIR, pp. 5.4-23 – 5.4-28.) Pursuant to Section 6.1.2 of the MSHCP, focused surveys for riparian birds are required when suitable habitat is identified on the site that cannot be avoided. Per the Biological Assessment (DEIR, Appendix C.1, p. iii), the Project site supports suitable habitat for least Bell's vireo and southwestern willow flycatcher.

[13] Stephens' Kangaroo Rat Habitat Conservation Plan, Section 5.C.1.O.6; Available at http://www.skrplan.org/skr.html#004, Accessed October 24, 2016.

During the least bell's vireo (LBVI) presence/absence surveys, the biologists also focused on the potential presence of southwestern willow flycatcher and yellow-billed cuckoo, as well as to other special-status species known to occur in the area. The willow flycatcher detected during the surveys was recorded with a GPS and mapped per the requirements of the survey protocol. However, no suitable habitat for willow flycatcher was identified on the site (DEIR, Appendix C.2, p. 1) during these focused surveys. As noted in Response to Comment 34-ZZZ, the southwestern willow flycatcher observed passing through the Project site was determined to be a transitory individual passing through the site, as the site does not present suitable breeding habitat for this species. No LBVI or yellow-billed cuckoos were detected during any of the focused surveys. (DEIR, Appendix C.2, p. 4.)

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-CCCC:

See Responses to Comments ZZZ and BBBB. Special attention was given to the presence of southwestern willow flycatcher and yellow-billed cuckoo during the LBVI protocol surveys. One southwestern willow flycatcher was observed passing through the site, and this observation was recorded pursuant to survey protocols for this species. Biologists determined that because the Project site does not possess suitable breeding habitat for this species and because surveys were conducted during the migration period of this species, it is very likely that this individual was passing through. Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-DDDD:

The Mitigation Area along the western edge will be designed so that it will not receive untreated stormwater flows. Further, all runoff from the Mitigation Area will also drain into the onsite detention basin for treatment before reaching the offsite storm drain system and regional marsh.

The Project proposes 10.69 acres of "self-treating" areas, which include a component of Low Impact Development (LID) principles. In general, self-treating areas include no impervious areas, unless very small, and slopes are gentle enough to ensure runoff from impervious areas will be absorbed into the vegetation and soil. More than 10 percent of the developed site area will be designated self-treating areas that meet the requirement for LID Best Management Practices (BMPs). (DEIR, p. 5.9-22.) These self-treating areas will reduce the creation or severity of potential pollutant sources and will reduce the toxic load from the site going into the regional water quality basin.

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-EEEE:

Source Control Best Management Practices (BMPs), such as onsite storm drain inlet markings as well as interior floor drains, and regular maintenance of refuse areas, will limit the contact

between pollutant sources and stormwater at the Project site. In particular, one of the Operational Source Control BMPs includes landscape maintenance with minimal pesticide use and providing Integrated Pest Management information to new occupants (DEIR, pp. 5.9-21).

Additionally, as described in Response to Comment 34-DDDD, the Project site incorporates self-treating areas to limit the creation of potential pollutant sources and to limit the amount of runoff from the Project site. Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-FFFF:

Although lighting at the Project site will be installed 34 feet high on Building 1 and 32 feet high on Building 2, all Project lighting will be shielded to minimize offsite glare, will not direct light skyward, and will be directed away from adjacent properties and public rights-of-way. In addition, the Project will introduce new sources of light in the form of security lighting, internal roadway and parking lot lighting within the Project site for public safety and operation of the proposed structures. The proposed lighting at the Project site has been designed in accordance with all applicable City codes to minimize spillover. Impacts with regard to new sources of light and glare were determined to be less than significant through compliance with the City's Zoning Code, mitigation measures **MM AES 10** (as revised per Response to Comment 34-P)**, MM HAZ 4**, and **MM BIO 7** (listed in Response to Comment 34-P), any other applicable lighting requirements and regulations, and compliance with Staff Recommended Conditions of Approval listed below: (DEIR, pp. 5.1-29–5.1-31.) In addition, the height of any freestanding light poles in the parking areas etc. are subject to the design called out in the Section 3 – Project Description (DEIR, pp. 3-34-35.) and as conditioned under Staff Recommended Condition of Approval 20:

> An exterior lighting plan shall be submitted to Design Review staff for review and approval. A photometric study and manufacturer's cut sheets of all exterior lighting on the building, in the landscaped areas and in the parking lots shall be submitted with the exterior lighting plan. All on-site lighting shall provide a minimum intensity of one foot-candle and a maximum of ten foot-candles at ground level throughout the areas serving the public and used for parking, with a ratio of average light to minimum light of four to one (4:1). The light sources shall be hooded and shielded to minimize off-site glare, shall not direct light skyward and shall be directed away from adjacent properties and public rights-of-ways. No light spill shall be permitted on the MSHCP Conservation Area (Sycamore Canyon Wilderness Park). If lights are proposed to be mounted on buildings, down-lights shall be utilized. Light poles shall not exceed 14 feet in height, including the height of any concrete or other base material, within the 100-foot setback between Building 2 and the residential property lines to north ~~property line~~ and shall not exceed 20 feet in height, including the height of any concrete or other base material, elsewhere on the property.

Therefore, with implementation of **MM AES 10**, as revised in Response to Comment 34-P, and the Project's Condition of Approval 20, there will be no lighting spillover into the Sycamore

Canyon Wilderness Park. This comment does not does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-GGGG:

Although the Sycamore Canyon Wilderness Park is not classified as a neighborhood park land use by the City, this is the closest land use CNEL standard, and can be used to determine the significance of noise impacts to the park. The Project's mitigated noise levels are within the City's General Plan 2025 "Normally Acceptable" compatibility criteria for neighborhood park land uses. (DEIR, p. 5.12-40.) Therefore, because noise levels within the park will not exceed the threshold, no additional noise barriers will be required to minimize impacts to the Sycamore Canyon Wilderness Park.

DEIR **Table 5.4-B – Project Compliance with MSHCP Urban/Wildlands Interface Guidelines** incorrectly indicates there will be a wall surrounding the truck yards and loading/docking areas and will be revised in the FEIR as follows:

MSHCP Guidelines	Project Features
Noise	
Proposed noise generating land uses affecting the MSHCP Conservation Area shall incorporate setbacks, berms or walls to minimize the effects of noise on MSHCP Conservation Area resources pursuant to applicable rules, regulations and guidelines related to land use noise standards. For planning purposes, wildlife within the MSHCP Conservation Area should not be subject to noise that would exceed residential noise standards.	As discussed in Section 5.13 – Noise, the Project will install a temporary construction noise barrier along its western boundary to minimize the effect of noise on the Sycamore Canyon Wilderness Park. Once the Project is operational, noise at the boundary between the Park and the Project site will not exceed the City's "Normally Acceptable" compatibility criteria for neighborhood parks land uses. ~~Once completed, the Project will include walls surrounding the truck yards and loading/docking areas.~~ Therefore, the Project is consistent with the MSHCP Urban/Wildlands Interface Noise Guidelines.

The above correction does constitute significant new information that would require recirculation of the DEIR. Therefore, this comment does not does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-HHHH:

As described in Response to Comment 34-GGGG, lighting at the Project site will be properly shielded and arranged so as to minimize spillover onto adjacent properties. However, to ensure no light spillover occurs, mitigation measure MM AES 10 will be revised as described in Response to Comment 34-P.

Additionally, the Project vicinity is generally developed with a variety of warehouse and residential uses and so construction and operation of the Project will not create a new source of light in a previously unlit, rural area, nor will it substantially alter the lighting environment of

the Project vicinity. Furthermore, the Project site does not currently provide a link between the Sycamore Canyon Wilderness Park and Box Springs Mountain and no significant wildlife movement or corridor areas were documented on the site during the biological habitat assessment. (DEIR, p. 5.4-22.)

Therefore, this comment does not does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-IIII:

See Response to Comment 34-GGGG. Except for the Sycamore Canyon Wilderness Park, the area surrounding the Project site is generally developed and is already incrementally impacted by night lighting at each of these developments. Project lighting will be designed to minimize spillover and the Project's lighting plans will be subject to approval by the City Planning Department prior to installation. Therefore, lighting impacts to the park will be less than significant and this comment does not does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-JJJJ:

The following documents were provided and referenced in this comment: Attachment C1, *A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher*, US Fish and Wildlife Service dated 2010; Attachment C2, *Final Report – NCCP/MSCP Raptor Monitoring Project (January 1, 2001 – December 31, 2003)*, Wildlife Research Institute dated 2005; Attachment C3, *Least Bell's Vireo*, Michael Patten, undated. Although not explained in the comment, these documents are provided to presumably refute the nesting season referenced in the DEIR (February 1 to August 31) per MM BIO 1. (DEIR, p 5.4-30.) These documents do not provide substantial evidence that February 1 to August 31 is an inappropriate breeding season for all of the birds that could be expected to nest on the site. C1 documents the background and survey protocol for the southwestern willow flycatcher which outlines the type of habitats associated with southwestern willow flycatcher (i.e. standing and slow moving water/saturated soils and dense riparian vegetation with canopy) none of which are located on the Project site. Additionally, C1 reports the breeding season as being from early May to August, depending on migration patterns. The breeding season discussed in the DEIR matches this time period.

Document C2 provided by the Commenter relates to raptor monitoring that took place in San Diego County, south of State Route 78. The area monitored is over 50 miles south of the Project site and does not represent the same habitat and regional conditions found on the Project site. Additionally, this report was prepared for the sole purpose of monitoring the success of the Multiple Species Conservation Program (MSCP). Specifically, this study utilized its own established seasons (p. 6) based on the latitude of the survey area. This report acknowledges "…raptor nesting activities can start as early as December and run into August. However, wintering raptors are commonly observed in this region December through February, with some remaining (or migrating through) into mid-March. Therefore, we have, somewhat arbitrarily, called the filed observations made December through February 'winter' survey data.

However, 'breeding' season data are not limited to a specific timeframe….." (C2, Attachment p. 6). Hence, this report acknowledges that it utilized arbitrary timeframes for breeding seasons. As such, Document C2 does not provide substantial evidence that the breeding season of February 1 to August 31 is incorrect.

Lastly, Attachment C3 to this comment is a paper from a biology professor at the University of California on least Bell's vireo (LBV). This paper is a generic summary of the LBV and its habitats, history, population status and threats analysis. The breeding season referenced in this document is mid-March to September. This time period is consistent with the DEIR's breeding season of February 1 to August 31.

> **MM BIO 1:** To comply with the provisions of the MBTA and the California Fish and Game Code, potential impacts to nesting habitat (i.e., site grading or removal of trees) shall be limited to the times when birds are less likely to be nesting (i.e., the non-breeding season, approximately September to February) to the extent feasible. The period from approximately February 1 to August 31 covers the breeding season for most birds that may occur in the Project area. If construction is conducted during breeding season, a qualified biologist shall check potential nesting sites no more than three (3) days prior to any Project related ground disturbance or tree removal activities. If nesting birds are present, the area shall be avoided until young have fledged (as determined by a qualified biologist). Avoidance will involve prescribed 500-foot buffer zone for birds of prey and 100- to 300-foot buffer zone for songbirds from sensitive locations.

Regarding **MM BIO 2**, relocation of burrowing owls shall be conducted pursuant to the requirements outlined in the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Burrowing Owl Survey Protocols. Because of the existence of the MSHCP, the CDFW 2012 Burrowing Owl Guidelines do not need to be followed as long as the MSHCP guidelines are being fulfilled. Thus, because **MM BIO 2** cites the requirement laid out in the MSHCP, no change to the language mitigation measure is required.

Mitigation measure **MM BIO 2** reads as follows in the DEIR:

> **MM BIO 2**: Per MSHCP Species-Specific Objective 6, preconstruction presence/absence surveys for burrowing owl shall be conducted on the Project site and within 150 meters (500 feet) 30 days by a qualified biologist prior to any ground disturbance. Take of active nests shall be avoided. Passive relocation (use of one-way doors and collapse of burrows) will occur when owls are present outside the nesting season. If feasible, the owls will be relocated to the Sycamore Canyon Wilderness Park or to property owned by the California Department of Fish and Wildlife in proximity to the Project site.

As outlined in response to Comment 34-YYY, above, it is not common practice for the Habitat Mitigation Monitoring Plan (HMMP) to be prepared concurrently with DEIR. Thus, a HMMP will

be prepared at a later date pursuant to mitigation measure **MM BIO 3**. Nonetheless, as explained in Response to Comment 34-YYY, the requirements for the HMMP are clearly outlined in the DBESP prepared for the Project, and include "85 percent coverage of the existing riparian habitat, no more than 10 percent cover of non-native species, and reduction of supplemental watering during the last two years of monitoring. (DEIR, Appendix C.4, p. 6-1.)

Mitigation measure **MM BIO 3** reads as follows in the DEIR:

> **MM BIO 3:** As required by the Project's DBESP, prior to issuance of grading permits the Project proponent shall provide evidence to the City Planning Division that a Habitat Mitigation and Monitoring Plan (HMMP) has been approved by the USFWS and CDFW for the Mitigation Area. Success criteria for the HMMP will include: 85% percent coverage of the existing riparian habitat, no more than 10% cover of non-native species, and reduction of supplemental watering during the last two years of monitoring. The Mitigation Area shall be monitored by a qualified biologistffigure retained by the Project proponent for a minimum of five (5) years and monitoring reports shall be provided to the City, RCA, USFWS, and CDFW.

With regard to mitigation measure **MM BIO 4**, Government Code Section 65967 does not require the mitigation entity to be approved by the California Department of Fish and Wildlife (CDFW); nonetheless, entities on the CDFW approved list will be considered when this measure is implemented.

Mitigation measure **MM BIO 4** reads as follows in the DEIR:

> **MM BIO 4:** Prior to the issuance of any occupancy permit, the Project proponent shall provide evidence to the City Planning Division that the Mitigation Area has been placed under a conservation easement and dedicated to an approved mitigation entity to be managed in perpetuity.

Mitigation measure **MM BIO 5** reads as follows in the DEIR:

> **MM BIO 5:** Prior to any ground disturbing activities within jurisdictional waters, the Project proponent shall obtain the necessary authorization from the regulatory agencies for proposed impacts to jurisdictional waters. Impacts to jurisdictional waters shall require authorization by the corresponding regulatory agency. Authorization may include, but is not limited to, a Section 404 permit from the USACE, a Section 401 Water Quality Certification from the RWQCB, and a Section 1602 Streambed Alteration Agreement from CDFW. Project-specific impacts to jurisdictional waters shall be mitigated by the USACE, CDFW, and the RWQCB where applicable.

The Project Applicant will obtain necessary approvals from the United States Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife for impacts to waterways under the jurisdiction of each corresponding agency which

occurs after the CEQA document is approved by the City. Any mitigation requirements that arise out of the regulatory process referenced in MM BIO 5 will be the responsibility of the Project Applicant.

The commenter takes issue with the lack of requirement for trapping and release of Stephens' Kangaroo Rat offsite, and suggests that full compliance with mitigation measure **MM BIO 6** cannot be attained without this requirement. However, as discussed in Response to Comment 34-UUU, the Project site is not within the SKR-HCP Core Reserve area and impacts to this species are mitigated through payment of SKR-HCP fees. Thus, no revisions to mitigation measure **MM BIO 6** are necessary.

Mitigation measure **MM BIO 6** reads as follows in the DEIR:

> **MM BIO 6:** The Project shall be required to comply with the following standard best management practices (BMPs) outlined in Volume I, Appendix C of the MSHCP:
>
> - A condition shall be placed on grading permits requiring a qualified biologist to conduct a training session for project personnel prior to grading. The training shall include a description of the species of concern and its habitats, the general provisions of the Endangered Species Act (Act) and the MSHCP, the need to adhere to the provisions of the Act and the MSHCP, the penalties associated with violating the provisions of the Act, the general measures that are being implemented to conserve the species of concern as they relate to the project, and the access routes to and project site boundaries within which the project activities must be completed.
> - Projects that cannot be conducted without placing equipment or personnel in sensitive habitats should be timed to avoid the breeding season of riparian species identified in MSHCP Global Species Objective No. 7.
> - The qualified project biologist shall monitor construction activities for the duration of the project to ensure that practicable measures are being employed to avoid incidental disturbance of habitat and species of concern outside the project footprint.
> - Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the project and shall be specified in the construction plans. Construction limits will be fenced with orange snow screen. Exclusion fencing should be maintained until the completion of all construction activities. Employees shall be instructed that their activities are restricted to the construction areas.
> - The Permittee, City of Riverside, shall have the right to access and inspect any sites of approved projects including any restoration/enhancement area for compliance with project approval conditions including these BMPs.

No revisions to the mitigation measures referenced by the commenter are necessary because this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-KKKK:

Although it is true that the Pechanga Band of Luiseño Indians submitted a comment letter in response to the Notice of Preparation time line, the letter restated legislative requirements for government-to-government consultation and provided a general history of the Pechanga Band of Luiseño Indians' Tribal activities in the Project vicinity. The City engaged in consultation with both the Pechanga Band of Luiseño Indians, the Soboba Band of Luiseño Indians and the Morongo Band of Mission Indians pursuant to Assembly Bill 52 (AB 52) and Senate Bill 18 (SB 18). (DEIR, pp. 5.5-18–5.5-20.) The consultation process included meetings, conference calls, on-site visits (by representatives of the Pechanga Band of Luiseño Indians and Morongo Band of Mission Indians), review of the *Cultural Resources Assessment of the Sycamore Canyon Business Park Buildings 1 & 2, Riverside County, California* (included as Appendix D.1 of the DEIR) and the confidential results of the records search. As a result of the consultation process, the following mitigation measures will be implemented to reduce impacts to tribal cultural resources to less than significant: (DEIR, pp. 5.5-31–5.5-33.)

> **MM CR 1:** Prior to grading permit issuance: If there are any changes to project site design and/or proposed grades, the Applicant shall contact interested tribes to provide an electronic copy of the revised plans for review. Additional consultation shall occur between the City, Applicant and interested tribes to discuss the proposed changes and to review any new impacts and/or potential avoidance/preservation of the cultural resources on the Project. The Applicant will make all attempts to avoid and/or preserve in place as many as possible of the cultural resources located on the project site if the site design and/or proposed grades should be revised in consult with the City. In specific circumstances where existing and/or new resources are determined to be unavoidable and/or unable to be preserved in place despite all feasible alternatives, the developer shall make every effort to relocate the resource to a nearby open space or designated location on the property that is not subject any future development, erosion or flooding.
>
> **MM CR 2:** Archaeological Monitoring: At least 30-days prior to application for a grading permit and before any grading, excavation and/or ground disturbing activities on the site take place, the Project Applicant shall retain a Secretary of Interior Standards qualified archaeological monitor to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources.
>
> 1. The Project Archaeologist, in consultation with interested tribes, the Developer and the City, shall develop an Archaeological Monitoring Plan to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. Details in the Plan shall include:
>
>   a. Project grading and development scheduling;

b. The development of a rotating or simultaneous schedule in coordination with the applicant and the Project Archeologist for designated Native American Tribal Monitors from the consulting tribes during grading, excavation and ground disturbing activities on the site: including the scheduling, safety requirements, duties, scope of work, and Native American Tribal Monitors' authority to stop and redirect grading activities in coordination with all Project archaeologists;

c. Plan for the controlled grading within 50 feet of the boundaries of CA-RIV-8750, CA-RIV-8751 and CA-RIV-8752. Grading within 50-feet of these sites shall be conducted using controlled grading techniques. Large indiscriminate grading equipment shall not be used, and the controlled grading technique shall be reviewed by the Project Archaeologist, in consultation with interested tribes, the Developer and the City. The archaeologist and Native Tribal Monitors shall ensure that the grading efforts in these areas are conducted in a manner that allows for the identification of subsurface cultural resources. Any resources observed shall be addressed in accordance with Mitigation Measure CR 3;

d. The determination by the project archaeologist, Developer, City and Native Tribal Monitors as to which features of sites CA-RIV-8750, CA-RIV-8751 and CA-RIV-8752 can be successfully relocated to locations onsite that will be mutually agreed upon. The relocated features will be placed in an area that will be preserved in perpetuity, so that no future disturbances will occur;

e. The protocols and stipulations that the Developer, City, Tribes and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation;

f. The 3D modeling on all the sites located within the Project site, specifically in Areas 1 (CA-RIV-8750), 2 (CA-RIV-8751), and 3 (CA-RIV-8752), as delineated on the Site Plan attached to the Archaeological Monitoring Plan shall take into account the potential impacts to undiscovered buried archaeological and cultural resources and procedures to protect in place and/or mitigate such impacts;

g. The location of the Cottonwood Tree requested by the Morongo Band of Mission Indians for their tribal requirements shall be noted on the Archaeological Monitoring Plan. The Monitoring Plan shall address the timing of the removal of the tree by the Morongo Band of Mission Indians and transfer of the tree to them; and

h. The scheduling and timing of the Cultural Sensitivity Training noted in Mitigation Measure CR 4.

MM CR 3: Treatment and Disposition of Cultural Resources: In the event that Native American cultural resources are inadvertently discovered during the course of grading for this Project. The following procedures will be carried out for treatment and disposition of the discoveries:

1. Temporary Curation and Storage: During the course of construction, all discovered resources shall be temporarily curated in a secure location onsite or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with tribal monitor oversite of the process; and
2. Treatment and Final Disposition: The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The applicant shall relinquish the artifacts through one or more of the following methods and provide the City of Riverside Community and Economic Development Department with evidence of same:
    a. Accommodate the process for onsite reburial of the discovered items with the consulting Native American tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed;
    b. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79 and therefore would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation;
    c. For purposes of conflict resolution, if more than one Native American tribe or band is involved with the project and cannot come to an agreement as to the disposition of cultural materials, they shall be curated at the Western Science Center or Riverside Metropolitan Museum by default; and.
    d. At the completion of grading, excavation and ground disturbing activities on the site a Phase IV Monitoring Report shall be submitted to the City documenting monitoring activities conducted by the project Archaeologist and Native Tribal Monitors within 60 days of completion of grading. This report shall document the impacts to the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural resources recovered and the disposition of such resources; provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting; and, in a confidential appendix,

include the daily/weekly monitoring notes from the archaeologist. All reports produced will be submitted to the City of Riverside, Eastern Information Center and interested tribes:

i. Information on the location of, up to, 13 protein residue tests on the site and one or more control sites, will be provided in the final report.

MM CR 4: Cultural Sensitivity Training: The County Certified Archaeologist and Native American Monitors shall attend the pre-grading meeting with the developer/permit holder's contractors to provide Cultural Sensitivity Training for all construction personnel. This shall include the procedures to be followed during ground disturbance in sensitive areas and protocols that apply in the event that unanticipated resources are discovered. Only construction personnel who have received this training can conduct construction and disturbance activities in sensitive areas. A sign in sheet for attendees of this training shall be included in the Phase IV Monitoring Report. (DEIR, pp. 5-33–5-36.)

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-LLLL:

See Response to Comment 34-KKKK. Through the Senate Bill 18/Assembly Bill 52 consultation process, the Pechanga Band of Luiseño Indians Tribe requested full avoidance of all three archaeological sites at the Project site, but acknowledges that the current design of the proposed Project will entail removal of all the known archaeological resources at the Project site (DEIR, p. 5.5-32). Thus, at the Tribe's request, the Project will implement mitigation measures **MM CR 1** through **MM CR 4** listed under Response to Comment 34-KKKK above to reduce impacts to the known archaeological resources.

The tribes recognize that full avoidance of these resources is not feasible due to site design; however, mitigation measures **MM CR 1** through **MM CR 4** will ensure that impacts to these resources are less than significant and ensure that any newly discovered resources are properly handled. Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-MMMM:

The comment alleges that the Greenhouse Gas (GHG) analysis is inadequate on the basis of failing to use the CEQA Appendix G thresholds. Significance Thresholds used are discussed in Section 5.7.3 of the DEIR (pp. 5.7-28-31) Consistent with CEQA Guidelines Appendix G, the three factors identified in CEQA Guidelines Section 15064.4 and the California Supreme Court opinion in *Ctr. for Biological Diversity v. California Dep't of Fish & Wildlife* (2015) 62 Cal.4th 204(*Newhall Ranch*), the following thresholds were considered in determining the significance of impacts from GHG in the DEIR:

- Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHGs (see Threshold A).

Analysis under Threshold A involved both a qualitative and quantitative analysis of the Project's compliance with the City of Riverside's Climate Action Plan ("CAP"). The CAP is a geographically specific plan that was adopted by the City of Riverside for the purpose of reducing GHG emissions under the control or influence of the City consistent with Assembly Bill 32 (AB 32) and subsequent state legislation and state agency action to address climate change.

- Would the Project conflict with the CARB Scoping Plan and regulations adopted for the purpose of reducing emissions of greenhouse gases (see Threshold B)?

Analysis under Impact Threshold B involved a qualitative analysis of the Project's consistency with the CARB's Scoping Plan and with GHG emission reducing regulations. The Scoping Plan (and its adopted regulations) are considered a statewide plan, policy, or regulation adopted by a public agency to reduce GHG emissions that may be used to assess consistency with AB 32.

The comment also questions why the GHG analysis did not make use of the SCAQMD thresholds. The City further determined that each of the above thresholds is considered to be a separate and independent basis upon which to substantiate the significance of the Project's GHG impact. (DEIR, p. 5.7-31.) Therefore, it is appropriate for the Project to not make use of the SCAQMD draft threshold for its own industrial projects of 10,000 MTCO2e or the 3,000 MTCO2e for land use projects, and instead use the City's CAP.

The comment objects to the rejection of the standard adopted in Executive Order B-30-15. As explained in Section 5.7 – Greenhouse Gas Emissions of the DEIR (pp. 5.7-44-45), the executive goals set by EO B-30-15 and EO S-3-05 are presently inappropriate significance criteria in analyzing impacts related to GHG emissions and climate change under CEQA because they do not establish any binding mandates. (DEIR, p. 44) The recent passing of Senate Bill 32 (SB 32) makes EO B-30-15 part of California's overall climate change law by adding a new section to the California Global Warming Solutions Act of 2006. Additional action at the state and subregional level is critical to the City's ability to attain its long-term GHG targets, as the City cannot meet the goals without altering land uses. Additionally, the proposed Project will be operational prior to 2020, and is consistent with the City's CAP and AB 32 reduction targets. Moreover, as buildings, roads, or other components of the Project are updated or replaced over time, they will be subject to the then-existing requirements for GHG emissions reductions, including those set forth to ensure compliance with EOs S-3-05, 05 and B-30-15, and will use then-existing technologies employed to achieve deep reductions in GHG emissions. (DEIR, p. 5.7-44-45.)

Additionally, the comment points out that the DEIR applies CEQA Guideline Section 15083.5, which does not exist. The DEIR inadvertently identified the CEQA Section and has been clarified on page 5.7-35 to read CEQA Guideline Section 15183.5 as follows.

> The following from CEQA Guidelines Section <u>15183.5(b)</u> ~~15083.5(b)~~ lists the requirements for greenhouse gas reduction plans used for this purpose:

The comment asserts that the Project conducted a Business as Usual (BAU) scenario in a manner that the California Supreme Court amended its *Newhall Ranch* decision to specifically reject. However, *Newhall Ranch* provides that a lead agency may assess consistency with AB 32's goal in whole or in part by looking to compliance with regulatory programs designed to reduce GHG emissions from particular activities. (DEIR, p. 5.7-45; *Ctr. for Biological Diversity v. California Dep't of Fish & Wildlife, supra,* 62 Cal.4th at p. 229.) Specifically, the Court advised that, in regards to compliance with GHG Reduction Plans or Climate Action Plans (CAPs), a lead agency may utilize "geographically specific GHG emission reduction plans" such as climate action plans or greenhouse gas emission reduction plans to provide a basis for the tiering or streamlining of project-level CEQA analysis. (DEIR, p. 5.7-30; *Ctr. for Biological Diversity v. California Dep't of Fish & Wildlife, supra,* 62 Cal.4th at p. 230.) The City's CAP is a geographically specific plan that was adopted by the City of Riverside for the purpose of reducing GHG emissions under the control or influence of the City consistent with AB 32 and subsequent state legislation and state agency action to address climate change. Therefore, conducting a BAU analysis consistent with the City's CAP is an appropriate method of assessing the Project's consistency with AB 32's goals and is consistent with the *Newhall Ranch* decision.

The comment also voices concern over the reduction in GHG emissions calculated due to vegetation change. In terms of vegetation change, SCAQMD's Model CalEEMod estimates the GHG emissions associated with the one-time change in vegetation resulting from development and the GHG emissions sequestered as a result of planting new trees on a project site. Planting trees as part of the Project will sequester CO_2 while they are actively growing. (DEIR, p. 5.7-40.) Additionally, according to Section 5.4 of the DEIR, disturbed non-native grassland dominates the site with an ephemeral drainage traversing the site. The Project site also appears to be regularly mowed for weed abatement and fire control purposes. (DEIR, p. 5.4-1.) The existing vegetation community is desiccated for a majority of the year and thereby has limited carbon storage potential. CalEEMod estimates vegetation change from a pre-construction condition within the parameters of forest land, cropland, grassland, and wetlands. The Project's existing land use does not adequately fit into any of these parameters, and therefore land use related vegetation change was not included in the GHG modeling. Any potential impact from including the land use change with the limited carbon storing potential of the existing vegetation community would be negligible, and would not affect the results of the analysis.

A comparison of the Project's estimated GHG emissions in 2020 (23,541.61 $MTCO_2E$ /year) to the estimated BAU GHG emissions (28,778.85 $MTCO_2E$/year) corresponds to a 18.2 percent reduction, which achieves the 15 percent reduction target to meet the goal of the City's CAP pursuant to AB 32 reduction targets. (DEIR, p. 5.7-43.) Even if the 17.49 $MTCO_2E$ annual net-reduction was not included in the analysis, the Project would continue to meet and exceed the goal of the City's CAP and be consistent with the reduction targets of AB 32 as the sequestration-related reduction is not substantial.

Therefore, this comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

Response to Comment 34-NNNN:

Comment noted. The public will have an opportunity to comment on the merits of the Project itself at the December 15, 2016, City Planning Commission hearing and the following City Council hearing. Notice of these hearings on this Project will be published at least 10 days prior to the hearing date. The agenda for City Planning Commission and City Council hearings can be found at: http://riversideca.legistar.com/Calendar.aspx

This comment does not identify any significant new environmental issues or impacts that were not already addressed in the DEIR.

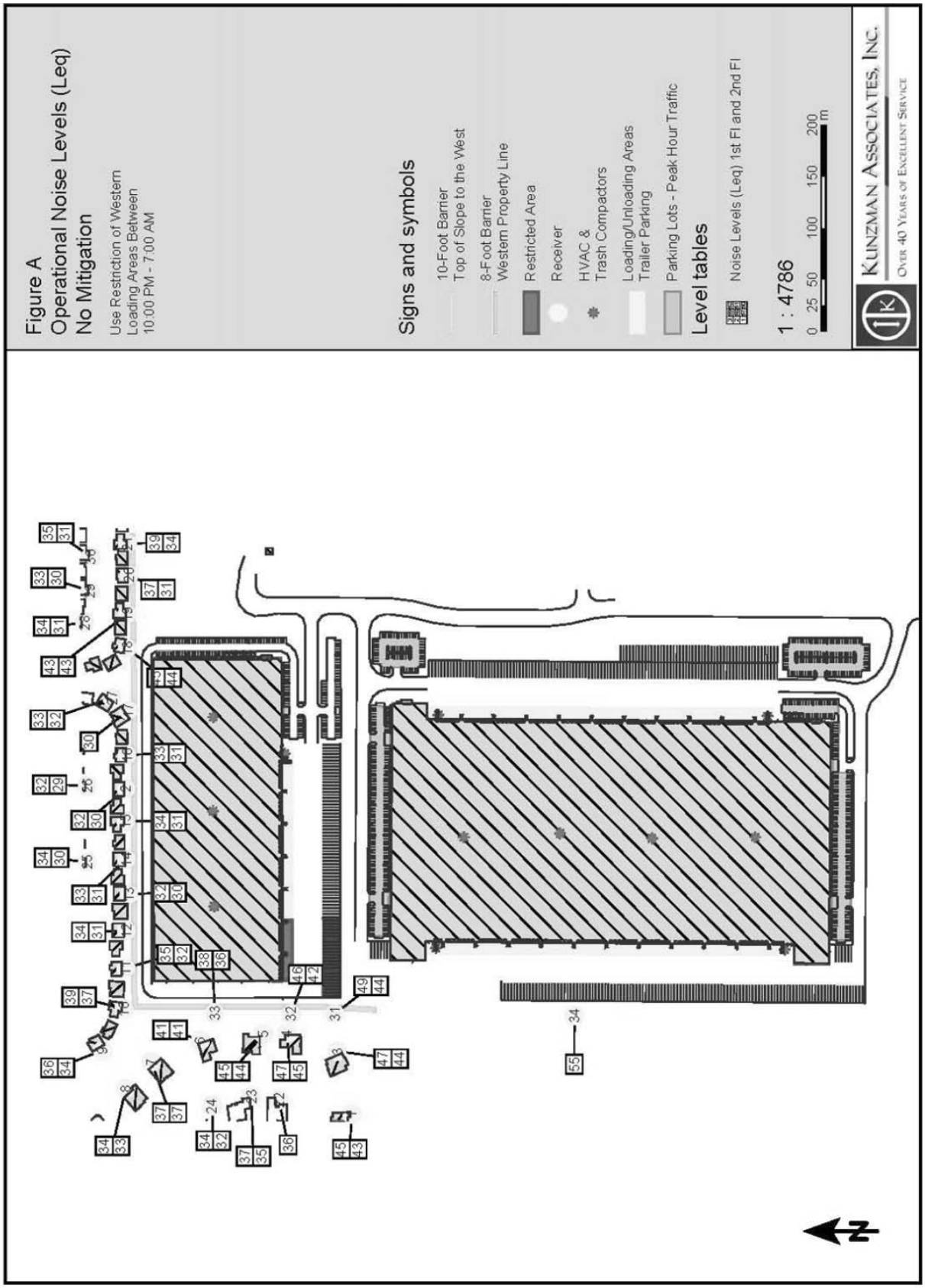
Figure A
Operational Noise Levels (Leq)
No Mitigation
Use Restriction of Western
Loading Areas Between
10:00 PM - 7:00 AM
Signs and symbols
10-Foot Barrier
Top of Slope to the West
8-Foot Barrier
Western Property Line
Restricted Area
Receiver
HVAC &
Trash Compactors
Loading/Unloading Areas
Trailer Parking
Parking Lots - Peak Hour Traffic
Level tables
Noise Levels (Leq) 1st Fl and 2nd Fl
1 : 4786
0 25 50 100 150 200 m
KUNZMAN ASSOCIATES, INC.
OVER 40 YEARS OF EXCELLENT SERVICE

7. BASIC GROUND-BORNE VIBRATION CONCEPTS

Ground-borne vibration can be a serious concern for nearby neighbors of a transit system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard. In contrast to airborne noise, ground-borne vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of ground-borne vibration are trains, buses on rough roads, and construction activities such as blasting, pile-driving and operating heavy earth-moving equipment.

The effects of ground-borne vibration include feelable movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings. Building damage is not a factor for normal transportation projects, with the occasional exception of blasting and pile-driving during construction. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by only a small margin. A vibration level that causes annoyance will be well below the damage threshold for normal buildings.

The basic concepts of ground-borne vibration are illustrated for a rail system in Figure 7-1. The train wheels rolling on the rails create vibration energy that is transmitted through the track support system into the transit structure. The amount of energy that is transmitted into the transit structure is strongly dependent on factors such as how smooth the wheels and rails are and the resonance frequencies of the vehicle suspension system and the track support system. These systems, like all mechanical systems, have resonances which result in increased vibration response at certain frequencies, called natural frequencies.

The vibration of the transit structure excites the adjacent ground, creating vibration waves that propagate through the various soil and rock strata to the foundations of nearby buildings. The vibration propagates from the foundation throughout the remainder of the building structure. The maximum vibration amplitudes of the floors and walls of a building often will be at the resonance frequencies of various components of the building.

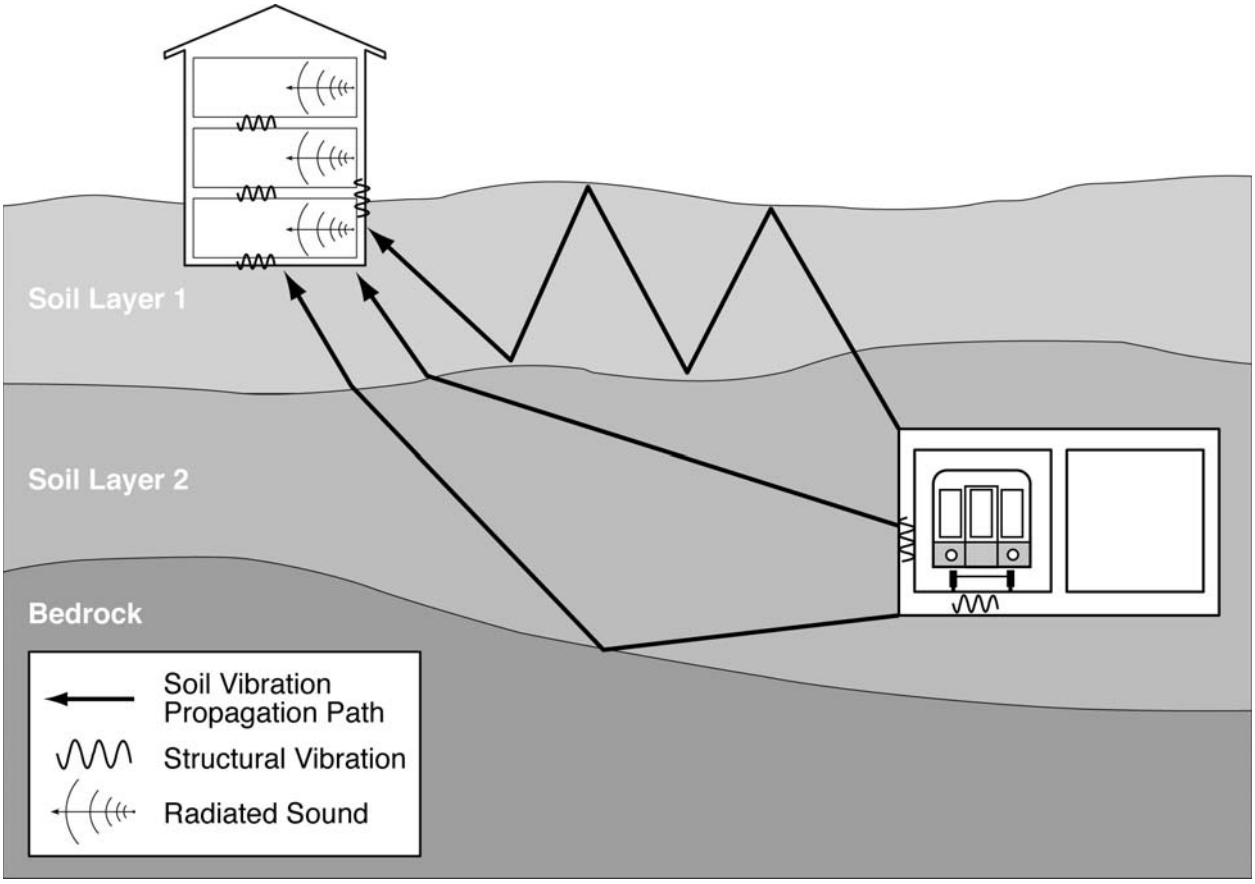

Figure 7-1. Propagation of Ground-Borne Vibration into Buildings

The vibration of floors and walls may cause perceptible vibration, rattling of items such as windows or dishes on shelves, or a rumble noise. The rumble is the noise radiated from the motion of the room surfaces. In essence, the room surfaces act like a giant loudspeaker causing what is called ground-borne noise.

Ground-borne vibration is almost never annoying to people who are outdoors. Although the motion of the ground may be perceived, without the effects associated with the shaking of a building, the motion does not provoke the same adverse human reaction. In addition, the rumble noise that usually accompanies the building vibration is perceptible only inside buildings.

7.1 DESCRIPTORS OF GROUND-BORNE VIBRATION AND NOISE

7.1.1 Vibratory Motion

Vibration is an oscillatory motion which can be described in terms of the displacement, velocity, or acceleration. Because the motion is oscillatory, there is no net movement of the vibration element and the average of any of the motion descriptors is zero. Displacement is the easiest descriptor to understand. For a vibrating floor, the displacement is simply the distance that a point on the floor moves away from its static position. The velocity represents the instantaneous speed of the floor movement and acceleration is the rate of change of the speed.

Although displacement is easier to understand than velocity or acceleration, it is rarely used for describing ground-borne vibration. Most transducers used for measuring ground-borne vibration use either velocity or acceleration. Furthermore, the response of humans, buildings, and equipment to vibration is more accurately described using velocity or acceleration.

7.1.2 Amplitude Descriptors

Vibration consists of rapidly fluctuating motions with an average motion of zero. Several descriptors can be used to quantify vibration amplitude, three of which are shown in Figure 7-2. The raw signal is the lighter-weight curve in the top graph. This curve shows the instantaneous vibration velocity which fluctuates positive and negative about the zero point. The peak particle velocity (PPV) is defined as the maximum instantaneous positive or negative peak of the vibration signal. PPV is often used in monitoring of blasting vibration since it is related to the stresses that are experienced by buildings.

Although peak particle velocity is appropriate for evaluating the potential of building damage, it is not suitable for evaluating human response. It takes some time for the human body to respond to vibration signals. In a sense, the human body responds to an average vibration amplitude. Because the net average of a vibration signal is zero, the root mean square (rms) amplitude is used to describe the "smoothed" vibration amplitude. The root mean square of a signal is the square root of the average of the squared amplitude of the signal. The average is typically calculated over a one-second period. The rms amplitude is shown superimposed

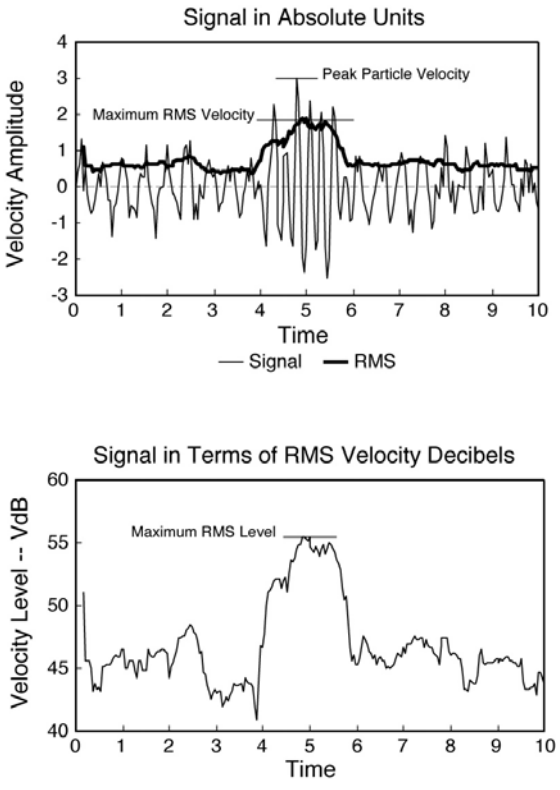

Figure 7-2. Different Methods of Describing a Vibration Signal

on the vibration signal in Figure 7-2. The rms amplitude is always less than the PPV* and is always positive.

The PPV and rms velocity are normally described in inches per second in the USA and meters per second in the rest of the world. Although it is not universally accepted, decibel notation is in common use for vibration.

Decibel notation acts to compress the range of numbers required to describe vibration. The bottom graph in Figure 7-2 shows the rms curve of the top graph expressed in decibels. Vibration velocity level in decibels is defined as:

$$L_v = 20 \times \log_{10}\left(\frac{v}{v_{ref}}\right)$$

where "L_v" is the velocity level in decibels, "v" is the rms velocity amplitude, and "v_{ref}" is the reference velocity amplitude. A reference must always be specified whenever a quantity is expressed in terms of decibels. The accepted reference quantities for vibration velocity are $1x10^{-6}$ inches/second in the USA and either $1x10^{-8}$ meters/second or $5x10^{-8}$ meters/second in the rest of the world. Because of the variations in the reference quantities, it is important to be clear about what reference quantity is being used whenever velocity levels are specified. ***All*** *vibration levels in this manual are referenced to* $1x10^{-6}$ *in./sec.* Although not a universally accepted notation, the abbreviation "VdB" is used in this document for vibration decibels to reduce the potential for confusion with sound decibels.

7.1.3 Ground-Borne Noise

As discussed above, the rumbling sound caused by the vibration of room surfaces is called ground-borne noise. The annoyance potential of ground-borne noise is usually characterized with the A-weighted sound level. Although the A-weighted level is almost the only metric used to characterize community noise, there are potential problems when characterizing low-frequency noise using A-weighting. This is because of the non-linearity of human hearing which causes sounds dominated by low-frequency components to seem louder than broadband sounds that have the same A-weighted level. The result is that ground-borne noise with a level of 40 dBA sounds louder than 40 dBA broadband noise. This is accounted for by setting the limits for ground-borne noise lower than would be the case for broadband noise.

*The ratio of PPV to maximum rms amplitude is defined as the **crest factor** for the signal. The crest factor is always greater than 1.71, although a crest factor of 8 or more is not unusual for impulsive signals. For ground-borne vibration from trains, the crest factor is usually 4 to 5.

7.2 HUMAN PERCEPTION OF GROUND-BORNE VIBRATION AND NOISE

This section gives some general background on human response to different levels of building vibration, laying the groundwork for the criteria for ground-borne vibration and noise that are presented in Chapter 8.

7.2.1 Typical Levels of Ground-Borne Vibration and Noise

In contrast to airborne noise, ground-borne vibration is not a phenomenon that most people experience every day. The background vibration velocity level in residential areas is usually 50 VdB or lower, well below the threshold of perception for humans which is around 65 VdB. Most perceptible indoor vibration is caused by sources within buildings such as operation of mechanical equipment, movement of people or slamming of doors. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If the roadway is smooth, the vibration from traffic is rarely perceptible.

Figure 7-3 illustrates common vibration sources and the human and structural response to ground-borne vibration. The range of interest is from approximately 50 VdB to 100 VdB. Background vibration is usually well below the threshold of human perception and is of concern only when the vibration affects very sensitive manufacturing or research equipment. Electron microscopes and high-resolution lithography equipment are typical of equipment that is highly sensitive to vibration.

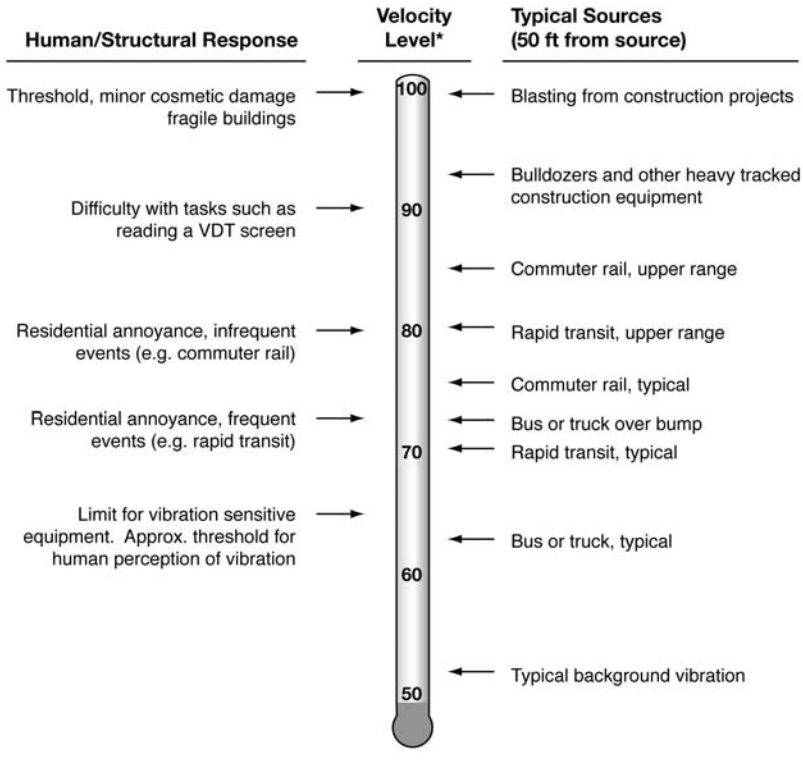

Figure 7-3. Typical Levels of Ground-Borne Vibration

Although the perceptibility threshold is about 65 VdB, human response to vibration is not usually significant unless the vibration exceeds 70 VdB. Rapid transit or light rail systems typically generate vibration levels of 70 VdB or more near their tracks. On the other hand, buses and trucks rarely create vibration that exceeds 70 VdB unless there are bumps in the road. Because of the heavy locomotives on diesel commuter rail systems, the vibration levels average about 5 to 10 decibels higher than rail transit vehicles. If there is unusually rough road or track, wheel flats, geologic conditions that promote efficient propagation of vibration, or vehicles with very stiff suspension systems, the vibration levels from any source can be 10 decibels higher than typical. Hence, at 50 feet, the upper range for rapid transit vibration is around 80 VdB and the high range for commuter rail vibration is 85 VdB. If the vibration level in a residence reaches 85 VdB, most people will be strongly annoyed by the vibration.

The relationship between ground-borne vibration and ground-borne noise depends on the frequency content of the vibration and the acoustical absorption of the receiving room. The more acoustical absorption in the room, the lower will be the noise level. For a room with average acoustical absorption, the unweighted sound pressure level is approximately equal to the average vibration velocity level of the room surfaces.* Hence, the A-weighted level of ground-borne noise can be estimated by applying A-weighting to the vibration velocity spectrum. Since the A-weighting at 31.5 Hz is -39.4 dB, if the vibration spectrum peaks at 30 Hz, the A-weighted sound level will be approximately 40 decibels lower than the velocity level. Correspondingly, if the vibration spectrum peaks at 60 Hz, the A-weighted sound level will be about 25 decibels lower than the velocity level.

7.2.2 Quantifying Human Response to Ground-Borne Vibration and Noise

One of the major problems in developing suitable criteria for ground-borne vibration is that there has been relatively little research into human response to vibration, in particular, human annoyance with building vibration. The American National Standards Institute (ANSI) developed criteria for evaluation of human exposure to vibration in buildings in 1983[(1)] and the International Organization for Standardization (ISO) adopted similar criteria in 1989[(2)] and revised them in 2003 [(3)]. The 2003 version of ISO 2361-2 acknowledges that "human response to vibration in buildings is very complex." It further indicates that the degree of annoyance can not always be explained by the magnitude of the vibration alone. In some cases the complaints are associated with measured vibration that is lower than the perception threshold. Other phenomena such as ground-borne noise, rattling, visual effects such as movement of hanging objects, and time of day (e.g., late at night) all play some role in the response of individuals. To understand and evaluate human response, which is often measured by complaints, all of these related effects need to be considered. The available data documenting real world experience with these phenomena is still relatively sparse. Experience with U.S. rapid transit projects represents a good foundation for developing suitable limits for residential exposure to ground-borne vibration and noise from transit operations.

*The sound level approximately equals the average vibration velocity level *only* when the velocity level is referenced to 1 micro-inch/second. When velocity level is expressed using the international standard of $1x10^{-8}$ m/sec, the sound level is approximately 8 decibels lower than the average velocity level.

Figure 7-4 illustrates the relationship between the vibration velocity level measured in 22 homes and the general response of the occupants to the vibration. The data shown were assembled from measurements performed for several transit systems along with subjective ratings by the researchers and residents. These data were previously published in the "State-of-the-Art Review of Ground-borne Noise and Vibration."[4] Both the occupants and the people who performed the measurements agreed that floor vibration in the "Distinctly Perceptible" category was unacceptable for a residence. The data in Figure 7-4 indicate that residential vibration exceeding 75 VdB is unacceptable for a repetitive vibration source such as rapid transit trains that pass every 5 to 15 minutes. Also shown in Figure 7-4 is a curve showing the percent of people annoyed by vibration from high-speed trains in Japan.[5] The scale for the percent annoyed is on the right-hand axis of the graph. The results of the Japanese study confirm the conclusion that at a vibration velocity level of 75 to 80 VdB, many people will find the vibration annoying.

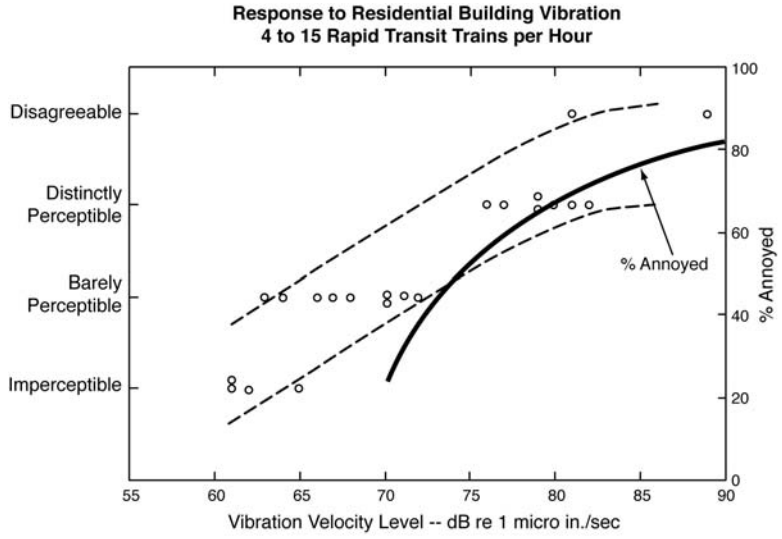

Figure 7-4. Response to Transit-induced Residential Vibration

Table 7-1 describes the human response to different levels of ground-borne noise and vibration. The first column is the vibration velocity level, and the next two columns are for the corresponding noise level assuming that the vibration spectrum peaks at 30 Hz or 60 Hz. As discussed above, the A-weighted noise level will be approximately 40 dB less than the vibration velocity level if the spectrum peak is around 30 Hz, and 25 dB lower if the spectrum peak is around 60 Hz. Table 7-1 illustrates that achieving either the acceptable vibration or acceptable noise levels does not guarantee that the other will be acceptable. For example, the noise caused by vibrating structural components may be very annoying even though the vibration cannot be felt. Alternatively, a low-frequency vibration could be annoying while the ground-borne noise level it generates is acceptable.

Table 7-1. Human Response to Different Levels of Ground-Borne Noise and Vibration			
Vib. Velocity Level	**Noise Level**		**Human Response**
	Low Freq1	**Mid Freq2**	
65 VdB	25 dBA	40 dBA	Approximate threshold of perception for many humans. Low-frequency sound usually inaudible, mid-frequency sound excessive for quiet sleeping areas.
75 VdB	35 dBA	50 dBA	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find transit vibration at this level annoying. Low-frequency noise acceptable for sleeping areas, mid-frequency noise annoying in most quiet occupied areas.
85 VdB	45 dBA	60 dBA	Vibration acceptable only if there are an infrequent number of events per day. Low-frequency noise annoying for sleeping areas, mid-frequency noise annoying even for infrequent events with institutional land uses such as schools and churches.
Notes: 1. Approximate noise level when vibration spectrum peak is near 30 Hz. 2. Approximate noise level when vibration spectrum peak is near 60 Hz.			

7.3 GROUND-BORNE VIBRATION FOR DIFFERENT TRANSIT MODES

This section provides a brief discussion of typical problems with ground-borne vibration and noise for different modes of transit.

- **Steel-Wheel Urban Rail Transit:** This category includes both heavy rail transit and light rail transit. Heavy rail is generally defined as electrified rapid transit trains with dedicated guideway, and light rail as electrified transit trains that do not require dedicated guideway. The ground-borne vibration characteristics of heavy and light rail vehicles are very similar since they have similar suspension systems and axle loads. Most of the studies of ground-borne vibration in this country have focused on urban rail transit. Problems with ground-borne vibration and noise are common when there is less than 50 feet between a subway structure and building foundations. Whether the problem will be perceptible vibration or audible noise is strongly dependent on local geology and the structural details of the building. Complaints about ground-borne vibration from surface track are more common than complaints about ground-borne noise. A significant percentage of complaints about both ground-borne vibration and noise can be attributed to the proximity of special trackwork, rough or corrugated track, or wheel flats.

- **Commuter and Intercity Passenger Trains:** This category includes passenger trains powered by either diesel or electric locomotives. In terms of vibration effects at a single location, the major difference between commuter and intercity passenger trains is that the latter are on a less frequent schedule. Both often share track with freight trains, which have quite different vibration characteristics as discussed below. The locomotives usually create the highest vibration levels. There is the potential of vibration-related problems anytime that new commuter or intercity rail passenger service is introduced in an urban or suburban area.

- **High-Speed Passenger Trains:** High-speed passenger trains have the potential of creating high levels of ground-borne vibration. Ground-borne vibration should be anticipated as one of the major environmental impacts of any high-speed train located in an urban or suburban area. The Amtrak trains on the Northeast Corridor between Boston and Washington, D.C., which attain moderate to high speeds in some sections with improved track, fit into this category.

- **Freight Trains:** Local and long-distance freight trains are similar in that they both are diesel-powered and have the same types of cars. They differ in their overall length, number and size of locomotives, and number of heavily loaded cars. Locomotives and rail cars with wheel flats are the sources of the highest vibration levels. Because locomotive suspensions are similar, the maximum vibration levels of local and long-distance freights are similar. It is not uncommon for freight trains to be the source of intrusive ground-borne vibration. Most railroad tracks used for freight lines were in existence for many years before the affected residential areas were developed. Vibration from freight trains can be a consideration for FTA-assisted projects when a new transit line will share an existing freight train right-of-way. Relocating the freight tracks within the right-of-way to make room for the transit tracks must be considered a direct impact of the transit system which must be evaluated as part of the proposed project. However, vibration mitigation is very difficult to implement on tracks where trains with heavy axle loads will be operating.

- **Automated Guideway Transit Systems (AGT):** This transit mode encompasses a wide range of transportation vehicles providing local circulation in downtown areas, airports and theme parks. In general, ground-borne vibration can be expected to be generated by steel-wheel/steel-rail systems even when limited in size. Because AGT systems normally operate at low speeds, have lightweight vehicles, and rarely operate in vibration-sensitive areas, ground-borne vibration problems are very rare.

- **Bus Projects:** Because the rubber tires and suspension systems of buses provide vibration isolation, it is unusual for buses to cause ground-borne noise or vibration problems. When buses cause effects such as rattling of windows, the source is almost always airborne noise. Most problems with bus-related vibration can be directly related to a pothole, bump, expansion joint, or other discontinuity in the road surface. Smoothing the bump or filling the pothole will usually solve the problem. Problems are likely when buses will be operating inside buildings. Intrusive building vibration can be caused by sudden loading of a building slab by a heavy moving vehicle or by vehicles running over lane divider bumps. A bus transfer station with commercial office space in the same building may have annoying vibration within the office space caused by bus operations.

7.4 FACTORS THAT INFLUENCE GROUND-BORNE VIBRATION AND NOISE

One of the major problems in developing accurate estimates of ground-borne vibration is the large number of factors that can influence the levels at the receiver position. This section gives a general appreciation of which factors have significant effects on the levels of ground-borne vibration. Table 7-2 is a summary of some of the many factors that are known to have, or are suspected of having, a significant influence on the levels of ground-borne vibration and noise. As indicated, the physical parameters of the transit facility, the geology, and the receiving building all influence the vibration levels. The important physical parameters can be divided into the following four categories:

- **Operational and Vehicle Factors:** This category includes all of the parameters that relate to the vehicle and operation of the trains. Factors such as high speed, stiff primary suspensions on the vehicle, and flat or worn wheels will increase the possibility of problems from ground-borne vibration.
- **Guideway:** The type and condition of the rails, the type of guideway, the rail support system, and the mass and stiffness of the guideway structure will all have an influence on the level of ground-borne vibration. Jointed rail, worn rail, and wheel impacts at special trackwork can all cause substantial increases in ground-borne vibration. A rail system guideway will be either subway, at-grade, or elevated. It is rare for ground-borne vibration to be a problem with elevated railways except when guideway supports are located within 50 feet of buildings. For guideways at-grade, directly radiated noise is usually the dominant problem, although vibration can be a problem. For subways, ground-borne vibration is often one of the most important environmental problems. For rubber-tired systems, the smoothness of the roadway/guideway is the critical factor; if the surface is smooth, vibration problems are unlikely.
- **Geology:** Soil and subsurface conditions are known to have a strong influence on the levels of ground-borne vibration. Among the most important factors are the stiffness and internal damping of the soil and the depth to bedrock. Experience with ground-borne vibration is that vibration propagation is more efficient in stiff clay soils, and shallow rock seems to concentrate the vibration energy close to the surface and can result in ground-borne vibration problems at large distances from the track. Factors such as layering of the soil and depth to water table can have significant effects on the propagation of ground-borne vibration.
- **Receiving Building:** The receiving building is a key component in the evaluation of ground-borne vibration since ground-borne vibration problems occur almost exclusively inside buildings. The train vibration may be perceptible to people who are outdoors, but it is very rare for outdoor vibration to cause complaints. The vibration levels inside a building are dependent on the vibration energy that reaches the building foundation, the coupling of the building foundation to the soil, and the propagation of the vibration through the building. The general guideline is that the heavier a building is, the lower the response will be to the incident vibration energy.

Table 7-2. Factors that Influence Levels of Ground-Borne Vibration and Noise	
Factors Related to Vibration Source	
Factors	**Influence**
Vehicle Suspension	If the suspension is stiff in the vertical direction, the effective vibration forces will be higher. On transit cars, only the primary suspension affects the vibration levels, the secondary suspension that supports the car body has no apparent effect.
Wheel Type and Condition	Use of pneumatic tires is one of the best methods of controlling ground-borne vibration. Normal resilient wheels on rail transit systems are usually too stiff to provide significant vibration reduction. Wheel flats and general wheel roughness are the major cause of vibration from steel wheel/steel rail systems.
Track/Roadway Surface	Rough track or rough roads are often the cause of vibration problems. Maintaining a smooth surface will reduce vibration levels.
Track Support System	On rail systems, the track support system is one of the major components in determining the levels of ground-borne vibration. The highest vibration levels are created by track that is rigidly attached to a concrete trackbed (e.g. track on wood half-ties embedded in the concrete). The vibration levels are much lower when special vibration control track systems such as resilient fasteners, ballast mats and floating slabs are used.
Speed	As intuitively expected, higher speeds result in higher vibration levels. Doubling speed usually results in a vibration level increase of 4 to 6 decibels.
Transit Structure	The general rule-of-thumb is that the heavier the transit structure, the lower the vibration levels. The vibration levels from a lightweight bored tunnel will usually be higher than from a poured concrete box subway.
Depth of Vibration Source	There are significant differences in the vibration characteristics when the source is underground compared to surface level.
Factors Related to Vibration Path	
Factor	**Influence**
Soil Type	Vibration levels are generally higher in stiff clay-type soils than in loose sandy soils.
Rock Layers	Vibration levels are usually high near at-grade track when the depth to bedrock is 30 feet or less. Subways founded in rock will result in lower vibration amplitudes close to the subway. Because of efficient propagation, the vibration level does not attenuate as rapidly in rock as it does in soil.
Soil Layering	Soil layering will have a substantial, but unpredictable, effect on the vibration levels since each stratum can have significantly different dynamic characteristics.
Depth to Water Table	The presence of the water table may have a significant effect on ground-borne vibration, but a definite relationship has not been established.
Factors Related to Vibration Receiver	
Factor	**Influence**
Foundation Type	The general rule-of-thumb is that the heavier the building foundation, the greater the coupling loss as the vibration propagates from the ground into the building.
Building Construction	Since ground-borne vibration and noise are almost always evaluated in terms of indoor receivers, the propagation of the vibration through the building must be considered. Each building has different characteristics relative to structureborne vibration, although the general rule-of-thumb is the more massive the building, the lower the levels of ground-borne vibration.
Acoustical Absorption	The amount of acoustical absorption in the receiver room affects the levels of ground-borne noise.

REFERENCES

1. American National Standards Institute, Guide to the Evaluation of Human Exposure to Vibration in Buildings. ANSI S3.29-1983

2. International Organization for Standardization, “Evaluation of Human exposure to whole body vibration: Part 2 – Continuous and shock-induced vibration in buildings (1 – 80 Hz), ISO 2361-2-1989

3. International Organization for Standardization, “Mechanical Vibration and Shock : Evaluation of human exposure to whole body vibration: Part 2 – Vibration in buildings (1 to 80 Hz), ISO 2631-2-2003.

4. J. T. Nelson, H. J. Saurenman, "State-of-the-Art Review: Prediction and Control of Groundborne Noise and Vibration from Rail Transit Trains," U.S. Department of Transportation, Urban Mass Transportation Administration, Report Number UMTA-MA-06-0049-83-4, DOT-TSC-UMTA-83-3, December 1983.

5. Y. Tokita, "Vibration Pollution Problems in Japan," In Inter-Noise 75, Sendai, Japan, pp. 465-472, 1975.

CITY OF RIVERSIDE GOOD NEIGHBOR GUIDELINES FOR SITING NEW AND/OR MODIFIED WAREHOUSE DISTRIBUTION FACILITIES

CITY OF RIVERSIDE
COMMUNITY DEVELOPMENT DEPARTMENT
PLANNING DIVISION

3900 MAIN STREET
RIVERSIDE, CA 92522

ADOPTED OCTOBER 14, 2008
RESOLUTION No. 21734

In September, 2005, the Western Riverside Council of Governments (WRCOG) and the Regional Air Quality Task Force (RAQTF) approved the *Good Neighbor Guidelines For Siting New and/or Modified Warehouse/Distribution Facilities*. The Good Neighbor Guidelines that follow, adopted by the City Council on October 14, 2008, are a modified version of the WRCOG's RAQTF Guidelines, and include goals and strategies tailored to the unique characteristics and specific needs of the City of Riverside.

These "Good Neighbor Guidelines for Siting New and/or Modified Warehouse/Distribution Facilities," (referred to as "Good Neighbor Guidelines") focus on the relationship between land use, permitting, and air quality, highlighting strategies that can help minimize the impacts of diesel emissions associated with warehouse/distribution centers. These Guidelines are intended to assist developers, property owners, elected officials, community organizations, and the general public address some of the complicated choices associated with siting warehouse/distribution facilities and understanding the options available when addressing environmental issues. The Guidelines will help to minimize the impacts of diesel particulate matter (PM) from on-road trucks associated with warehouses and distribution centers on existing communities and sensitive receptors located in the City. Sensitive receptors include residential neighborhoods, schools, parks, playgrounds, day care centers, nursing homes, hospitals, and other public places where residents are most likely to spend time.

For the purpose of these Guidelines, warehouse/distribution center means a building used for the storage, receiving, shipping, or wholesaling of goods and merchandise, and any incidental or accessory activities that is greater than 400,000 square feet. This shall be cumulative to include multiple warehouse buildings exceeding a total combined building area of 400,000 square feet, including phased projects. For the purpose of these Guidelines, a warehouse and distribution center is not intended to include "big box" discount or warehouse stores that sell retail goods, merchandise or equipment, or storage and mini-storage facilities that are offered for rent or lease to the general public.

PURPOSE

The purpose of the Good Neighbor Guidelines is to provide the City and developers with a variety of strategies that can be used to reduce diesel emissions from heavy-duty trucks that are delivering goods to and from warehouse and distribution centers.

In 1998, the South Coast Air Quality Management District (SCAQMD) conducted its second Multiple Air Toxics Emissions Study (MATES II)[1]. Considered the nation's most comprehensive study of toxic air pollution to date, the study found that:

- Diesel exhaust is responsible for about 70 percent of the total cancer risk from air pollution;
- Emissions from mobile sources -- including cars and trucks as well as ships, trains and planes -- account for about 90 percent of the cancer risk. Emissions from businesses and industry are responsible for the remaining 10 percent; and
- The highest cancer risk occurs in south Los Angeles County -- including the port area--and along major freeways[2].

Implementation of the recommended guidance for proposed facilities is technically more feasible than a retroactive application to existing warehouse/distribution centers. However, there is an educational component of these Guidelines aimed at existing facilities. As well, there are mechanisms in the planning process that will encourage developers to incorporate the recommended guidelines upfront in the design phase of a project.

These Guidelines are intended to be considered when issuing permits such as conditional use permits, or zoning permits. In addition, the recommended Guidelines can be used to mitigate potentially significant adverse environmental impacts that are identified under the California Environmental Quality Act (CEQA). The recommended Guidelines are intended to be used for new warehouses and can be incorporated in the design phase of the proposed warehouse or distribution center.

The recommended Guidelines format identifies the overall goal and the recommended strategies that can be implemented to achieve the goal. The Guidelines include a series of strategies that can be implemented in part or whole, or tailored to

[1] For more information on the MATES II Study visit http://www.aqmd.gov/matesiidf/matestoc.htm.
[2] Taken from the MATES II Fact Sheet found at http://www.aqmd.gov/news1/2005/matesiiifactsheet.html.

the specific needs of a project. They will provide a general framework for planners and developers regarding how to achieve a specified goal.

It should be noted that the California Air Resources Board (CARB) has adopted two airborne toxic control measures that will reduce diesel particulate materials (PM) emissions associated with warehouse/distribution centers. The first will limit nonessential (or unnecessary) idling of diesel-fueled commercial vehicles, including those entering from other states or countries[3]. This measure prohibits idling of a vehicle for more than five minutes at any one location. The second measure requires that transport refrigeration units (TRUs) operating in California become cleaner over time[4]. The measure establishes in-use performance standards for existing TRU engines that operate in California, including out-of-state TRUs. The requirements are phased-in beginning in 2004, and extend to 2019.

CARB also operates a smoke inspection program for heavy-duty diesel trucks that focuses on reducing truck emissions in California communities. Areas with large numbers of distributions centers are a high priority.

While CARB has these measures in place, local agencies need to acknowledge that the enforcement of these measures is through the California Highway Patrol and do not provide a swift resolve to local air quality issues.

ACRONYMS USED THROUGOUT THIS DOCUMENT

CARB	California Air Resources Board
CEQA	California Environmental Quality Act
EMFAC	EMission FACtors (EMFAC) Model for On-Road Vehicle Emissions
PM	Particulate Matter
RAQTF	Regional Air Quality Task Force
SCAQMD	South Coast Air Quality Management District
TRU	Transportation Refrigeration Unit
URBEMIS	Urban Emissions Software
WRCOG	Western Riverside Council of Governments

[3] For more information visit http://www.arb.ca.gov/regact/idling/idling.htm.
[4] For more information visit http://www.arb.ca.gov/diesel/tru.htm.

CITY OF RIVERSIDE GOOD NEIGHBOR GUIDELINES

GOAL 1: Minimize exposure to diesel emissions to neighbors that are situated in close proximity to the warehouse/distribution center.

Recommended Strategies:

1a. Design facilities to allow for the queuing of trucks on-site and away from sensitive receptors. Conversely, prevent the queuing of trucks on streets or elsewhere outside of facility in compliance with Title 10 – Vehicles and Traffic – Chapter 10.44 – Stopping, Standing and Parking.

1b. To the extent possible, locate driveways, loading docks and internal circulation routes away from residential uses or any other sensitive receptors.

1c. In compliance with CEQA, conduct SCAQMD URBEMIS and EMFAC computer models, as appropriate, to initially evaluate warehouse and distribution projects on a case by case basis to determine the significance of air quality impacts and whether air quality thresholds would be exceeded as a result of a project. Where thresholds are exceeded, a more detailed air quality analysis/health risk assessment prepared by an air quality specialist is required to be prepared and submitted by the project applicant. As a general rule, the following guidelines can be used to determine whether a proposed project will be required to prepare additional technical analyses:

i. An air quality study for an industrial project is required when the proposed project has the potential to exceed established thresholds as noted by URBEMIS and EMFAC computer models provided by SCAQMD. If these models indicate the project will exceed thresholds due to existing or proposed site conditions, intensity of development, location of nearest sensitive receptor, or any other exceptional circumstance warranting the need for

additional review the preparation of an air quality study will be required.

ii. A health risk assessment is required when the truck traffic areas of an industrial project are located within 1,000 feet of sensitive receptors, in accordance with SCAQMD guidelines and/or practices.

1d. Enforce compliance with Riverside Municipal Code Section 19.880 – "Transportation Demand Management Regulations". This section of the Code requires trip reduction plans to be submitted for all businesses, including warehouses, with over one hundred employees to reduce work-related vehicle trips by six and one half percent from the number of trips related to the project.

GOAL 2: Eliminate diesel trucks from unnecessarily traversing through residential neighborhoods.

Recommended strategies:

2a. Require warehouse/distribution centers to establish a specific truck route between the warehouse/distribution center and the SR-60 and I-215 freeways for City approval as part of the Design Review process. In addition, a haul route plan for construction activities should also be provided as part of the Design Review process.

2b. Require warehouse/distribution centers to clearly specify all entrance and exit points on the site plan submitted for City review and approval.

2c. Require warehouse/distribution centers to provide on-site signage for directional guidance to trucks entering and exiting the facility

2d. Require warehouse/distribution centers to provide signage or flyers that advise truck drivers of the closest restaurants, fueling stations, truck repair facilities, lodging and entertainment.

GOAL 3: Eliminate trucks from using residential areas and repairing vehicles on the streets.

Recommended Strategies:

3a. Enforce compliance with Riverside Municipal Code Section 10.44.155 – "Parking of certain commercial vehicles, trailers and semi-trailers prohibited; exceptions".

3b. Enforce compliance with Riverside Municipal Code Section 10.44.160 – "Parking of certain commercial vehicles prohibited in residential districts".

3c. Enforce compliance with Section 10.44.040 Parking for certain purposes prohibited.

GOAL 4: Reduce and/or eliminate diesel idling within the warehouse/distribution center.

Recommended Strategies:

4a. Promote the installation of on-site electric hook-ups to eliminate the idling of main and auxiliary engines during loading and unloading of cargo and when trucks are not in use – especially where TRUs are proposed to be used.

4b. Implement General Plan 2025 Program Final Program Environmental Impact Report, Mitigation Measure MM Air 12. This Mitigation Measure requires that all new truck terminals, warehouses and other shipping facilities requiring the use of refrigerated trucks and with more than 50 truck trips per day shall provide electrical hookups for the refrigerated units to reduce idling and its associated air quality pollutants. Additionally, future tenant improvements involving conversion of a warehouse for refrigeration storage shall include electrical hookups for refrigerated units.

4c. Require signage (posted inside and outside of the warehouse facility) to inform truck drivers of CARB regulations, idling limits, authorized truck routes, and designated truck parking locations. Post signs requesting truck drivers to turn off engines when not in use and restrict idling within facilities to less than 5 minutes.

DEFINITIONS

Buffer Zone:	An area of land separating one parcel or land from another that acts to soften or mitigate the effects of one land use on the other.
DPM - Diesel Particulate Matter:	Refers to the particles found in the exhaust of diesel-fueled CI engines. DPM may agglomerate and absorb other species to form structures of complex physical and chemical properties (identified in 1998 as a toxic air contaminant).
Idling:	The operation of the engine of a vehicle while the vehicle is not in motion.
Mobil Source:	Sources of air pollution such as automobiles, motorcycles, trucks, off-road vehicles, boats, trains and airplanes.
PM - Particulate Matter:	Refers to the particles found in the exhaust of CI engines, which may agglomerate and absorb other species to form structures of complex physical and chemical properties.
Risk:	For cancer health effects, risk is expressed as an estimate of the increase chances of getting cancer due to facility emissions over 70-year lifetime. The increase in risk expressed as chances in a million (e.g., 1,400 in a million)
TRU:	A Transport Refrigeration Unit refers to refrigeration systems powered by integral internal combustion engines designed to control the environment of temperature sensitive products that are transported in trucks and refrigerated trailers. TRUs may be capable of both cooling and heating.

Warehouse/Distribution Center:	For the purpose of these Guidelines, a warehouse/distribution center means a building used for the storage, receiving, shipping, or wholesaling of goods and merchandise, and any incidental or accessory activities that is greater than 400,000 square feet. This shall be cumulative to include multiple warehouse buildings exceeding a total combined building area of 400,000 square feet including phased projects. For the purpose of these Guidelines, a warehouse and distribution center is not intended to include "big box" discount or warehouse stores that sell retail goods, merchandise or equipment, or storage and mini-storage facilities that are offered for rent or lease to the general public.
WRCOG:	Western Riverside Council of Governments

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Prepared in cooperation with the Bureau of Reclamation and the U.S. Fish and Wildlife Service

A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher

Chapter 10 of
Section A, Biological Science
Book 2, Collection of Environmental Data

Techniques and Methods 2A-10

U.S. Department of the Interior
U.S. Geological Survey

Cover: Southwestern Willow Flycatcher. Photograph taken by Susan Sferra, U.S. Fish and Wildlife Service.

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U.S. Department of the Interior
KEN SALAZAR, Secretary

U.S. Geological Survey
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U.S. Geological Survey, Reston, Virginia: 2010

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Conversion Factors

Multiply	By	To obtain
centimeter (cm)	0.3937	inch (in.)
gram (g)	0.03527	ounce, avoirdupois (oz)
hectare (ha)	2.471	acre
kilometer (km)	0.6214	mile (mi)
meter (m)	3.281	foot (ft)
millimeter (mm)	0.03937	inch (in.)

Abbreviations and Acronyms

GPS	Global Positioning System
NDVI	Normalized Difference Vegetation Index
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher

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Background

The Southwestern Willow Flycatcher (*Empidonax traillii extimus*) has been the subject of substantial research, monitoring, and management activity since it was listed as an endangered species in 1995. When proposed for listing in 1993, relatively little was known about the flycatcher's natural history, and there were only 30 known breeding sites supporting an estimated 111 territories rangewide (Sogge and others, 2003a). Since that time, thousands of presence/absences surveys have been conducted throughout the historical range of the flycatcher, and many studies of its natural history and ecology have been completed. As a result, the ecology of the flycatcher is much better understood than it was just over a decade ago. In addition, we have learned that the current status of the flycatcher is better than originally thought: as of 2007, the population was estimated at approximately 1,300 territories distributed among approximately 280 breeding sites (Durst and others, 2008a).

Concern about the Southwestern Willow Flycatcher on a rangewide scale was brought to focus by Unitt (1987), who described declines in flycatcher abundance and distribution throughout the Southwest. *E. t. extimus* populations declined during the 20th century, primarily because of habitat loss and modification from activities, such as dam construction and operation, groundwater pumping, water diversions, and flood control. In 1991, the U.S. Fish and Wildlife Service (USFWS) designated the Southwestern Willow Flycatcher as a candidate category 1 species (U.S. Fish and Wildlife Service, 1991). In July 1993, the USFWS proposed to list *E. t. extimus* as an endangered species and to designate critical habitat under the Act (U.S. Fish and Wildlife Service, 1993). A final rule listing *E. t. extimus* as endangered was published in February 1995 (U.S. Fish and Wildlife Service, 1995); critical habitat was designated in 1997 (U.S. Fish and Wildlife Service, 1997). The USFWS Service released a Recovery Plan for the Southwestern Willow Flycatcher in 2002 (U.S. Fish and Wildlife Service, 2002), and re-designated critical habitat in 2005 (U.S. Fish and Wildlife Service, 2005).

In addition to its federal status, the Southwestern Willow Flycatcher is listed as an endangered species or species of concern in Arizona (Arizona Game and Fish Department, 2006), New Mexico (New Mexico Department of Game and Fish, 1996), California (California Department of Fish and Game, 1991), and Utah (Utah Division of Wildlife Resources, 1997).

Sound management and conservation of an endangered species like the Southwestern Willow Flycatcher requires current, detailed information on its abundance and distribution. This requires, among other things, identifying where flycatchers are and are not breeding, and annual monitoring of as many breeding areas as possible. Such efforts require effective, standardized survey protocols and consistent reporting, at both local and regional levels. However, the Willow Flycatcher is a difficult species to identify and survey for. Moreover, inconsistent or ineffective surveys are of limited value, can produce misleading information (including "false positives" and "false negatives"), hinder regional and rangewide analyses, and waste limited resources.

We developed this document to provide a standardized survey protocol and a source of basic ecological and status information on the flycatcher. The first section summarizes the current state of knowledge regarding Southwestern Willow Flycatcher natural history, based on a wide array of published and unpublished literature. Emphasis is given to information relevant to flycatcher conservation and management, and to conducting and interpreting surveys. The second section details a standard survey protocol that provides for consistent data collection, reporting, and interpretation. This protocol document builds on and supersedes previous versions, the most recent of which was Sogge and others (1997a). In this update, we incorporate over a decade of new science and survey results, and refine the survey methodology to clarify key points. Further, we update the standard survey data sheets and provide guidelines on how to fill in the requested information. Amidst these revisions, the basic approach of the survey protocol has remained unchanged—multiple surveys at each survey area within the same breeding season, the use of the call-playback technique using flycatcher vocalizations to increase the probability of detection, and verification of species identity through its diagnostic song.

Section 1. Natural History

Breeding Range and Taxonomy

The Willow Flycatcher is a widespread species that breeds across much of the conterminous United States (Sedgwick, 2000). Four subspecies commonly are recognized in North America, with each occupying a distinct breeding range (fig. 1): *E. t. adastus*, ranging across the northern Rocky Mountains and Great Basin; *E. t. brewsteri*, found west of the Sierra Nevada and Cascade Mountains along the Pacific Slope; *E. t. extimus*, the Southwestern Willow Flycatcher, which breeds across the Southwest; and *E. t. traillii*, ranging east of the northern Rocky Mountains. Although the overall subspecies' ranges are distinct, Sedgwick (2001) and Paxton (2008) noted interbreeding/gradation zones in the boundary area between *E. t. extimus* and *E. t. adastus*.

The breeding range of the Southwestern Willow Flycatcher includes southern California, Arizona, New Mexico, southwestern Colorado, and extreme southern portions of Nevada and Utah: specific range boundaries are delineated in the subspecies' recovery plan (U.S. Fish and Wildlife Service, 2002). Unitt (1987) included western Texas in the subspecies' range, but recent breeding records from western Texas are lacking. Records of probable breeding Southwestern Willow Flycatchers in Mexico are few and restricted to extreme northern Baja California and Sonora (Unitt, 1987; Wilbur, 1987). Although recent data are lacking, the USFWS does include parts of northern Mexico in its description of *E. t. extimus* breeding range (U.S. Fish and Wildlife Service, 2002).

Although they appear very similar to most observers, experienced taxonomist or those using specialized equipment (for example, an electronic colorimeter) can differentiate among the subspecies by subtle differences in color and morphology (for example, Unitt, 1987; Paxton, 2008). Despite the subtle level of differences, the taxonomic status of *E. t. extimus* has been critically reviewed and confirmed multiple times based on morphological, genetic, and song data (Hubbard, 1987; Unitt, 1987; Browning, 1993; Paxton, 2000; Sedgwick, 2001).

The Southwestern Willow Flycatcher was described by Phillips (1948) from a specimen collected along the San Pedro River in southeastern Arizona. The Southwestern Willow Flycatcher generally is paler than other Willow Flycatcher subspecies, although this difference is indistinguishable without considerable experience and training, and study skins as comparative reference material. The southwestern subspecies differs in morphology (primarily wing formula) but not overall size. The plumage and color differences between the Willow Flycatcher subspecies are so subtle that they should not be used to characterize birds observed in the field (Unitt, 1987; Hubbard, 1999; U.S. Fish and Wildlife Service, 2002).

Migration and Winter Range, Habitat, and Ecology

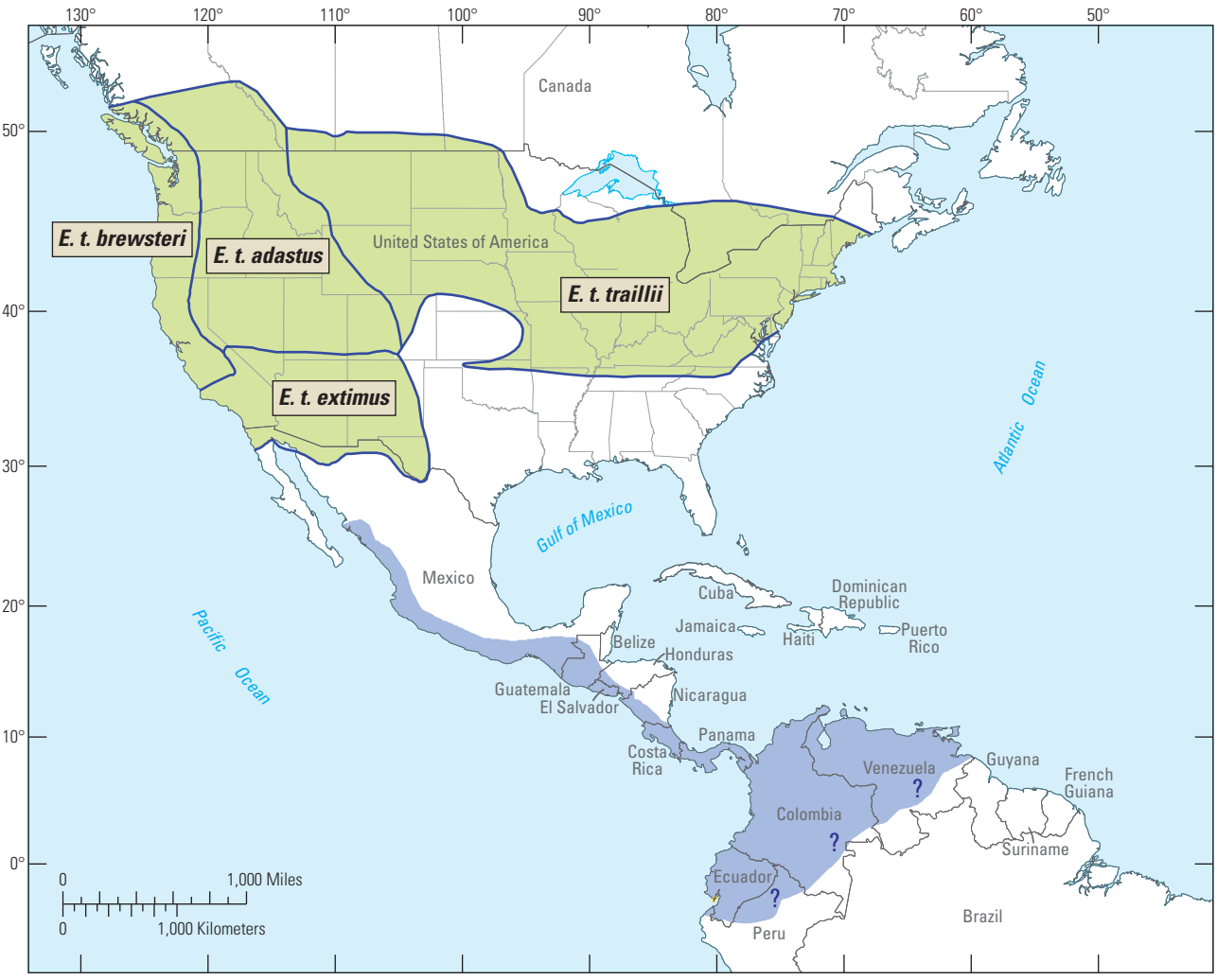
All Willow Flycatcher subspecies breed in North America but winter in the subtropical and tropical regions of southern Mexico, Central America, and northern South America (Sedgwick, 2000; Koronkiewicz, 2002; fig. 1). Most wintering birds are found in the Pacific slope lowlands in Mexico and Central America, and Caribbean slope lowlands in Mexico and Guatemala.

Because all Willow Flycatcher subspecies look very similar, determining specific wintering sites for the southwestern race has been challenging. However, recent genetic analysis of wintering birds (Paxton, 2008) suggests that the four subspecies occupy finite areas of the wintering grounds, but with overlapping ranges. The Southwestern Willow Flycatcher appears to be largely restricted to the center of the winter range (in the vicinity of Costa Rica), although Paxton (2008) suggests more research is needed to address this question.

On the wintering grounds, flycatchers primarily are found in habitats that have four main components: (1) standing or slow moving water and/or saturated soils, (2) patches or stringers of trees, (3) woody shrubs, and (4) open areas (Koronkiewicz and Whitfield, 1999; Koronkiewicz and Sogge, 2000; Lynn and others, 2003; Nishida and Whitfield, 2007; Schuetz and others, 2007). Based on surveys to date, the presence of water or saturated soils is almost universal, although tree heights and configurations, the presence of woody shrubs, and the amount of open space surrounding winter territories can vary considerably (Schuetz and others, 2007).

Male and female flycatchers hold separate, individual non-breeding territories, and defend those territories throughout the winter by using song, calls, and aggression displays. Fidelity to wintering territories and sites is high, as is survivorship over the wintering period (Koronkiewicz and others, 2006b; Sogge and others, 2007).

Willow Flycatchers travel approximately 1,500–8,000 km each way between wintering and breeding areas. During migration, flycatchers use a wider array of forest and shrub habitats than they do for breeding, although riparian vegetation may still be a preferred migration habitat type (Finch and others, 2000). Migration requires high energy expenditures, exposure to predators, and successful foraging in unfamiliar areas. Therefore, migration is the period of highest mortality within the annual cycle of the flycatcher (Paxton and others, 2007). Willow Flycatchers of all subspecies sing during northward migration, perhaps to establish temporary territories for short-term defense of food resources.



Basemap modified from U.S. Geological Survey and other agency digital data, various scales. Projection Mercator, World Geodetic System1984 datum.

EXPLANATION

Approximate range distribution of the Willow Flycatcher (*Empidonax traillii*)—Adapted from Unitt (1987), Browning (1993), and Paxton (2008)

Breeding range, including boundaries of the Willow Flycatcher subspecies

? Wintering range—Question marks reflect uncertainty of the location of the eastern boundary of the winter range

Figure 1. Approximate ranges of the Willow Flycatcher (*Empidonax traillii*) during breeding and non-breeding seasons.

Southwestern Willow Flycatchers typically arrive on breeding grounds between early May and early June (Ellis and others, 2008; Moore and Ahlers, 2009). Because arrival dates vary annually and geographically, northbound migrant Willow Flycatchers of multiple subspecies pass through areas where Southwestern Willow Flycatchers have already begun nesting. Similarly, southbound migrants in late July and August may occur where Southwestern Willow Flycatchers are still breeding (Unitt, 1987). This can make it challenging for an observer to differentiate local breeders from migrants. Other than timing, we still know relatively little about Southwestern Willow Flycatcher migratory behavior, pathways, or habitat use.

Breeding Habitat

Breeding Southwestern Willow Flycatchers are riparian obligates, typically nesting in relatively dense riparian vegetation where surface water is present or soil moisture is high enough to maintain the appropriate vegetation characteristics (Sogge and Marshall, 2000; U.S. Fish and Wildlife Service, 2002; Ahlers and Moore, 2009). However, hydrological conditions in the Southwest can be highly variable within a season and between years, so water availability at a site may range from flooded to dry over the course of a breeding season or from year to year.

The Southwestern Willow Flycatcher breeds in dense riparian habitats across a wide elevational range, from near sea level in California to more than 2,600 m in Arizona and southwestern Colorado (Durst and others, 2008a). Vegetation characteristics of Southwestern Willow Flycatcher breeding habitat generally include dense tree or shrub cover that is ≥ 3 m tall (with or without a higher overstory layer), dense twig structure, and high levels of live green foliage (Allison and others, 2003); many patches with tall canopy vegetation also include dense midstory vegetation in the 2–5 m range. Beyond these generalities, the flycatcher shows adaptability in habitat selection, as demonstrated by variability in dominant plant species (both native and exotic), size and shape of breeding patch, and canopy height and structure (U.S. Fish and Wildlife Service, 2002).

Southwestern Willow Flycatcher breeding habitat can be quantified and characterized in a number of ways, depending on the level of detail needed and habitat traits of interest. For many sites, detailed floristic composition, plant structure, patch size, and even characteristics such as Normalized Difference Vegetation Index (NDVI) have been described in agency reports and scientific journal articles (Allison and others, 2003; Hatten and Paradzick, 2003; Koronkiewicz and others, 2006a; Hatten and Sogge, 2007; Moore, 2007; Schuetz and Whitfield, 2007; Ellis and others, 2008). For purposes of this survey protocol, we take a relatively simple approach and broadly describe and classify breeding sites based on plant species composition and habitat structure. Clearly, these are not the only important components, but they are conspicuous to human perception and easily observed and recorded. Thus, they have proven useful in conceptualizing, selecting and evaluating suitable survey habitat, and in predicting where breeding flycatchers are likely to be found.

Breeding habitat types commonly used by Southwestern Willow Flycatchers are described below. The general categories are based on the composition of the tree/shrub vegetation at the site—native broadleaf, exotic, and mixed native/exotic. In the field, breeding habitats occur along a continuum of plant species composition (from nearly monotypic to mixed species) and vegetation structure (from simple, single stratum patches to complex, multiple strata patches). The images in figures 2–7 illustrate some of the variation in flycatcher breeding habitat, and other examples can be found in numerous publications and agency reports, and on the USGS photo gallery web site (http://sbsc.wr.usgs.gov/SBSCgallery/). The intent of the descriptions and photographs is to provide a general guide for identifying suitable habitat in which to conduct surveys.

Native broadleaf.—Southwestern Willow Flycatchers breed across a great elevational range, and the characteristics of their native broadleaf breeding sites varies between high elevation sites and those at low and mid-elevation sites.

High elevation sites (fig. 2) range from nearly monotypic dense stands of willow to mixed stands of native broadleaf trees and shrubs, 2–7 m in height with no distinct overstory layer; often associated with sedges, rushes, nettles, and other herbaceous wetland plants; usually very dense structure in lower 2 m; live foliage density is high from the ground to the canopy. Vegetation surrounding the patch can range from open meadow, to agricultural lands, to pines or upland shrub.

At low and mid-elevations (fig. 3), flycatcher breeding sites can be composed of single species (often Goodding's willow (*Salix gooddingii*), *S. exigua*, or other willow species) or mixtures of native broadleaf trees and shrubs including (but not limited to) cottonwood, willows, boxelder (*Acer negundo*), ash (*Fraxinus* spp.), alder (*Alnus* spp.), and buttonbush (*Cephalanthus* spp.), height from 3 to 15 m; characterized by trees of different size classes; often a distinct overstory of cottonwood, willow or other broadleaf tree, with recognizable subcanopy layers and a dense understory of mixed species; exotic/introduced species may be a rare component, particularly in the understory.

Monotypic exotic.—(fig. 4) Breeding sites also can include nearly monotypic, dense stands of exotics such as saltcedar (*Tamarix* spp.) or Russian olive (*Elaeagnus angustifolia*), 4–10 m in height forming a nearly continuous, closed canopy (with no distinct overstory layer); lower 2 m commonly very difficult to penetrate due to dense branches, however, live foliage density may be relatively low 1–2 m above ground, but increases higher in the canopy; canopy density uniformly high.

Aerial view of Little Colorado River near Greer, Arizona. Photograph by USGS, 1995.

Little Colorado River near Greer, Arizona. Photograph courtesy of Arizona Game and Fish Department, 1996.

Parkview Fish Hatchery, New Mexico. Photograph by USGS, 2000.

Rio Grande State Wildlife Area, Colorado. Photograph by USGS, 2002.

Tierra Azul, New Mexico. Photograph by USGS, 2005.

McIntyre Springs, Colorado. Photograph by USGS, 2002.

Figure 2. Examples of Southwestern Willow Flycatcher breeding habitat in native broadleaf vegetation at high-elevation sites.

Hassayampa River, Arizona. Photograph by USGS, 2003.

Santa Ynez River, California, Photograph by USGS, 1996.

San Luis Rey River, California. Photograph by USGS, 2005.

Kern River, California. Photograph by USGS, 1995.

Bosque del Apache, Rio Grande, New Mexico. Photograph courtesy of Bureau of Reclamation, 2008.

Kern River, California. Photograph by USGS, 1995.

Figure 3. Examples of Southwestern Willow Flycatcher breeding habitat in native broadleaf vegetation at low and mid-elevation sites.