November 3, 2022

Cheryl Tubbs, Vice President
LILBURN CORPORATION
1905 Business Center Drive
San Bernardino, California 92408

RE: 27195 Almond Avenue Warehouse Vehicle Miles Traveled Impact Analysis
Project No. 19518

Dear Ms. Tubbs:

Ganddini Group, Inc. is pleased to provide this Vehicle Miles Traveled Impact Analysis for the proposed 27195 Almond Avenue Warehouse in the County of San Bernardino. The purpose of this analysis is to evaluate the level of significance of the project's VMT impact in the context of the California Environmental Quality Act (CEQA) based on the methodology and thresholds established by the County of San Bernardino as the Lead Agency. We trust the findings of this analysis will aid you and the County of San Bernardino in assessing the project.

Project Description

The 9.55-acre project site is located at 27195 Almond Avenue, Redlands, in the unincorporated area known as the "Donut-hole", within the County of San Bernardino, California. The project site is zoned EV/SD East Valley Special Development and is currently developed with one (1) single-family residence which will be removed for the proposed construction. The proposed project involves the construction of a new 208,000 square foot industrial warehouse building with 24 dock-high doors and associated parking and landscaping improvements. Vehicular access is proposed via two driveways on Almond Avenue. The proposed site plan is shown in Attachment A.

Background

California Senate Bill 743 (SB 743) directs the State Office of Planning and Research (OPR) to amend the CEQA Guidelines for evaluating transportation impacts to provide alternatives to Level of Service that "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." In December 2018, the California Natural Resources Agency certified and adopted the updated CEQA Guidelines package. The amended CEQA Guidelines, specifically Section 15064.3, recommend the use of VMT as the primary metric for the evaluation of transportation impacts associated with land use and transportation projects. In general terms, VMT quantifies the amount and distance of automobile travel attributable to a project or region. All agencies and projects State-wide are required to utilize the updated CEQA guidelines recommending use of VMT for evaluating transportation impacts as of July 1, 2020.

The updated CEQA Guidelines allow for lead agency discretion in establishing methodologies and thresholds provided there is substantial evidence to demonstrate that the established procedures promote the intended goals of the legislation. Where quantitative models or methods are unavailable, Section 15064.3 allows agencies to assess VMT qualitatively using factors such as availability of transit and proximity to other destinations. The Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (State of California, December 2018) ["OPR Technical Advisory"] provides technical considerations regarding methodologies and thresholds with a focus on office, residential, and retail developments as these projects tend to have the greatest influence on VMT.

METHODOLOGY

This VMT analysis was prepared in accordance with the procedures and methodologies specified in the *County of San Bernardino Transportation Impact Study Guidelines (July 2019)* ["County TIS Guidelines"], which was established by the County based on guidance from the OPR Technical Advisory.

Screening Assessment

The need to prepare a VMT analysis for the project was determined based on an initial screening assessment in accordance with the County TIS Guidelines. As documented in the *27195 Almond Avenue Warehouse Transportation Study Screening Assessment* (Ganddini Group, Inc., October 2022), included in Attachment B, the proposed project does not satisfy any of the County-established screening thresholds; therefore, further VMT analysis is required evaluate the project VMT impact.

VMT Metric and Methodology for Non-Screening Development

Projects that do not satisfy any of the County-established screening criteria should complete more detailed VMT analysis using the San Bernardino Transportation Analysis Model (SBTAM) to assess project VMT relative to the unincorporated County.

In accordance with County TIA Guidelines, the appropriate VMT metric for employment-based projects, including industrial uses such as the proposed project, is VMT per employee. VMT per employee is calculated based on SBTAM outputs for home-based-work trip attractions. To determine VMT per employee, home-based-work trip attractions are multiplied by the average trip lengths and divided by the employment in the zone.

Travel Demand Modeling Methodology

The project is located within in Traffic Analysis Zone 53824101 [Zone]. The employment population generated by the project was calculated based on a ratio of 1,700 square feet per employee as noted in the SCAG Employment Density Study Summary Report.[5] Based on this data, the proposed project is estimated to generate 122 employees (208,800 square feet x 1 employee/1,700 square feet). The project employment was entered into the project Zone in both the 2016 and 2040 models. VMT for the environmental baseline (existing year 2022) was determined based on linear interpolation between the SBTAM base year and future year model. SBTAM model runs were performed by EPD Solutions, Inc.

Socioeconomic data (SED) in SBTAM is based on demographic and economic data derived for the 2012 SCAG model with applied growth from the SANBAG GIS-based growth model. Since the time that SED for Zone 53824101 was developed, additional land uses have been constructed. The new buildings were identified using aerial imagery and the employment for these existing land uses was corrected in the model. To model accurate conditions in the project area, an additional 740 employees and 160 residents were added to the zone. The resulting SED for the 2016 base model is 1,728 employees and a population of 459 in the project Zone.

[5] *SCAG Employment Density Study Summary Report*, The Natelson Company, Inc., October 31, 2001.

Cumulative VMT was assessed using the SBTAM link level VMT for roadways located within the unincorporated County only. Link VMT per employee was calculated using the employment for zones located in unincorporated County of San Bernardino.

Thresholds of Significance

A project would result in a significant VMT impact if either of the following conditions are satisfied:

- Project VMT Impact: The project VMT per employee is greater than four percent below (-4%) the existing VMT per employee for the unincorporated County of San Bernardino. Based on the SBTAM outputs, the threshold equates to 20.4 VMT per employee for existing (2022) conditions.
- Cumulative VMT Impact: The project increases the unincorporated Countywide VMT per employee relative to VMT generated by the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

The cumulative no project reflets the adopted RTP/SCS. Accordingly, cumulative impacts shall be considered less than significant if a project is consistent with the RTP/SCS, absent substantial evidence to the contrary.

PROJECT VMT IMPACT

The project VMT impact summary is shown in Table 1.

Table 1. Project VMT Impact Summary

Descriptor	2016	2040	2022
Project Zone (TAZ 53824101):			
Home-Based Work VMT	39,808	47,841	41,816
Employment	1,728	2,414	1,900
Project VMT per Employee	**23.0**	**19.8**	**22.0**
Unincorporated County of San Bernardino:			
Home-Based Work VMT	1,437,311	2,421,193	1,683,282
Employment	69,831	107,076	79,142
County VMT per Employee	20.6	22.6	21.3
Threshold of Significance (4% Below Existing County VMT)			**20.4**
Significant Impact?			**YES**

Notes:
1. Source: SBTAM base year 2016 and future year 2040 models. Model runs performed by EPD Solutions, Inc.
2. VMT shown is based on production-attraction (PA) methodology.

As shown in Table 1, project VMT per employee of 22.0 is greater than four percent below the existing unincorporated Countywide VMT of 20.4 VMT per employee; therefore, the proposed project would have a significant impact based on the County-established threshold for project VMT impacts without mitigation incorporated.[7]

[7] The Zone VMT without project is 9.2% over the threshold, whereas Zone VMT with the project is 7.8% over the threshold. Therefore, the project is expected to reduce Zone VMT, but will still exceed the County threshold.

CUMULATIVE VMT IMPACT

Cumulative impacts are evaluated by determining consistency with the adopted RTP/SCS. If a project is included in the RTP/SCA, the project's cumulative impacts would be considered less-than-significant. However, if the project is inconsistent or not included with the RTP/SCS, then the analysis should evaluate the project's effect on VMT and determine if the unincorporated Countywide VMT increases or decreases with the project relative to the VMT generated by the RTP/SCS.

The RTP/SCS land use for the site is "Specific Plan", and the Countywide General Plan Land use designation is "Special Development." The County of San Bernardino defines "Special Development" as a mix of residential, commercial, and industrial uses. The project is consistent with this land use, and consistent with the RTP/SCS assumptions for this area. Therefore, project cumulative impacts may be considered less than significant.

Notwithstanding the above, Table 2 shows the cumulative VMT impact summary.

Table 2. Cumulative VMT Impact Summary

Descriptor	Without Project	With Project
Unincorporated Countywide Roadway VMT	30,768,288	30,771,334
Unincorporated County Employment	106,611	106,733
VMT/Employee	288.60	288.30
Project Related Change in VMT/Employee	-	-0.3
Significant Impact?		**No**

Notes:
1. Source: SBTAM future year 2040 model. Model run performed by EPD Solutions, Inc.
2. VMT shown is based on link-level VMT for roadways located within the unincorporated County only.

As shown in Table 2, unincorporated Countywide VMT per employee is forecast to decrease with the proposed project relative to VMT generated by the RTP/SCS; therefore, the proposed project would have a less than significant impact based on the County-established threshold for cumulative impacts.

VMT MITIGATION

The County TIS Guidelines identify specific transportation demand management (TDM) measures applicable to the region that may be implemented to reduce VMT impacts. These measures were originally developed based on guidance from the California Air Pollution Control Officers Association (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures* (August 2010), which has been superseded by the CAPCOA *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities and Advancing Health and Equity Designed for Local Governments, Communities and Project Developers* (December 2021) ["CAPCOA GHG Reduction Handbook"]. As noted in the County TIS Guidelines, the following choices are available to mitigate VMT impacts:

- Revisit project design features and or land use to reduce project trips or reduce trips length.
- Consider development in a more efficient area.
- Look for other measures to reduce trip lengths or the number of trips generated through the use of transportation demand management (TDM) measures.

Based on review of transportation emissions reduction measures that are applicable at the project/site level and target employee commute VMT, the following mitigation measures were identified:

Mitigation Measure 1

The project shall implement a commute trip reduction program consisting of the following:

- Commute Trip Reduction Marketing: The project shall implement a marketing strategy to promote the project site employer's commute trip reduction program. The following features (or similar alternatives) of the marketing strategy are essential for effectiveness.
  - Onsite or online commuter information services.
  - Employee transportation coordinators.
  - Onsite or online transit pass sales.
  - Guaranteed ride home service.

- Ridesharing Program: The project shall implement a ridesharing program and establish a permanent transportation management association with funding requirements for employers. Ridesharing must be promoted through a multifaceted approach, such as the following examples:
  - Designating a certain percentage of desirable parking spaces for ridesharing vehicles.
  - Designating adequate passenger loading and unloading and waiting areas for ridesharing vehicles.
  - Providing an app or website for coordinating rides.

Implementation of Mitigation Measure 1 is expected to reduce the project's employee commute VMT by eight percent (8%). Therefore, project VMT would be reduced to 20.2 VMT per employee and would result in a less than significant based on the County-established thresholds with implementation of Mitigation Measure 1.

The VMT reduction associated with Mitigation Measure 1 was quantified based on the reduction formulas established in the CAPCOA GHG Reduction Handbook. Calculation worksheets are provided in Attachment C.

CONCLUSIONS

Project VMT per employee of 22.0 is greater than four percent below the existing unincorporated Countywide VMT of 20.4 VMT per employee; therefore, the proposed project would have a significant impact based on the County-established threshold for project VMT impacts without mitigation incorporated.

Unincorporated Countywide VMT per employee is forecast to decrease with the proposed project relative to VMT generated by the RTP/SCS; therefore, the proposed project would have a less than significant impact based on the County-established threshold for cumulative impacts.

Implementation of Mitigation Measure 1 is expected to reduce the project's employee commute VMT by eight percent (8%). Therefore, project VMT would be reduced to 20.2 VMT per employee and would result in a less than significant based on the County-established thresholds with implementation of Mitigation Measure 1.

It has been a pleasure to assist you with this project. Should you have any questions or if we can be of further assistance, please do not hesitate to call at (714) 795-3100.

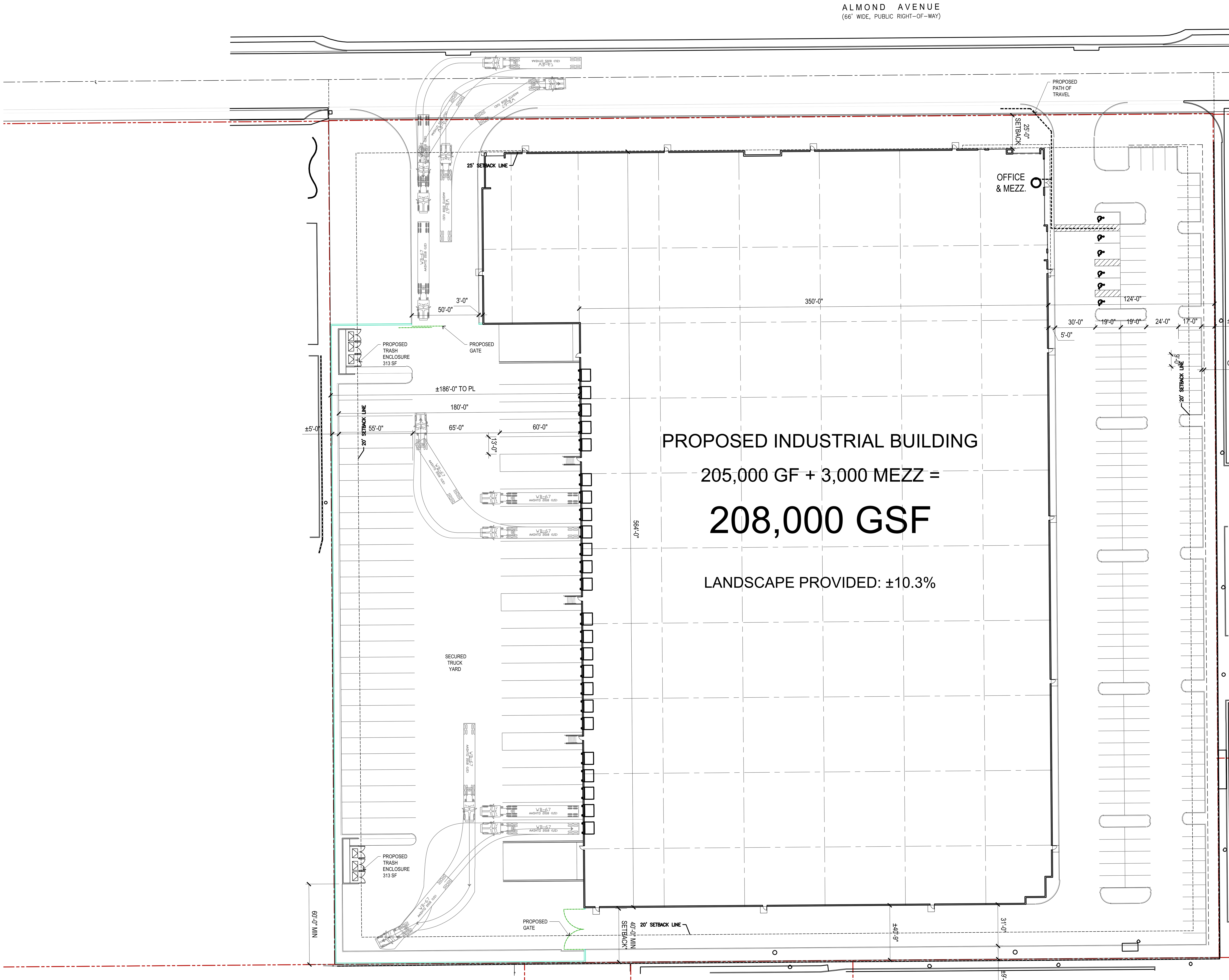
Sincerely,
GANDDINI GROUP, INC.

Perrie Ilercil, P.E. (AZ)
Senior Engineer

Giancarlo Ganddini, PE, PTP
Principal

ATTACHMENT A

SITE PLAN



SITE DATA TABLE

LAND AREA AC	LAND AREA SF	FAR	COVERAGE %	LANDSCAPE AREA SF	LANDSCAPE AREA %	BLDG FOOT PRINT	BLDG MEZZ.	TOTAL BLDG SF	OFFICE SF	WAREHOUSE SF	OFFICE PRKG.	WHSE PRKG. 0-40K	WHSE PRKG. 40K+	PRKG REQ.	PRKG PROV.
9.54 AC	±415,700	50.0 %	59.3 %	42,763	10.3%	205,000	3,000	208,000	6,000	202,000	24	40	41	105	160
											(1/250)	(1/1000)	(1/4000)		(.8/1000)

PROJECT DATA:

APN #: 0292-055-03-0-000; 0292-055-04-0-000

SITE ADDRESS: 77 & 27195 ALMOND AVE REDLANDS, CA 92374

SITE AREA (NET): ± 415,700 SF 9.54 ACRES

JURISDICTION: SAN BERNARDINO COUNTY

DEVELOPMENT STANDARDS:

ZONING: EAST VALLEY PLAN EV/SD - SPECIAL DEVELOPMENT

MAX. F.A.R.: 80%

MAX COVERAGE: N/A

MAX HEIGHT: AS DETERMINED IN ACCORDANCE W/ PART 77 OF FAA REGULATIONS

BUILDING SETBACKS:
FRONT/STREET: 25'

SIDE: 20'

REAR: 20'
WHERE ABUTS RESIDENTIAL: 40'

LANDSCAPE REQUIRED: 15%*
MIN WIDTH: 5'
AT RESIDENTIAL: 35'
SCREENING HAS BEEN PROVIDED ON RESIDENTIAL SIDE & MAY BE WAIVED BY REVIEWING AGENCY.

*THE LANDSCAPE REQUIREMENT MAY BE REDUCED BY A MAXIMUM OF 5% WHERE PUBLIC ART IS TO BE DISPLAYED IN A SETTING WHICH ENHANCES PEDESTRIAN SPACES AND BUILDING ARCHITECTURE. MINIMUM COST OF PUBLIC ART SHALL BE 1% OF THE OVERALL COST OF THE PROJECT AS STATED ON THE BUILDING PERMIT.

PARKING LOT LANDSCAPE: 7% TOTAL

DOUBLE ROW PARKING:
SEPARATED BY 5' WIDE PLANTER

TREES:
EVERY 3 SPACES THROUGHOUT LOT
EVERY 20' ON PERIPHERY OF LOT
MAY BE CLUSTERED

FINGER ISLANDS: EVERY 20 STALLS

OVERHANG: 2'

OFF-STREET PARKING:
STANDARD: 9'x19'
PARALLEL:
DRIVE AISLE: 24'
FIRE LANE: 26' (30' IF > 2 STORIES)

REQ'D PARKING RATIOS:
WAREHOUSE:
0-40K: 1/1000
40K+: 1/4000
OFFICE: 1/250

AO
Architecture. Design. Relationships.

SEAL

CONSULTANT

XEBEC

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510 S. Hewitt Street, No.115
Los Angeles, CA 90013
562.284.5055
www.xebecrealty.com

XEBEC ALMOND INDUSTRIAL
77 Almond Ave. Redlands, CA

SITE PLAN

Project Number: 2022-022
Plan Check Number:

2022-07-07 1st COUNTY LAND USE SUBMITTAL

SHEET
LU-1.0

Attachment B

VMT Screening Assessment

October 4, 2022

Cheryl Tubbs, Vice President
LILBURN CORPORATION
1905 Business Center Drive
San Bernardino, California 92408

RE: 27195 Almond Avenue Warehouse Transportation Study Screening Assessment
Project No. 19518

Dear Ms. Tubbs:

Ganddini Group, Inc. is pleased to provide this Transportation Study Screening Assessment for the proposed 27195 Almond Avenue Warehouse in the County of San Bernardino. The purpose of this screening assessment is to determine if the preparation of a traffic impact analysis with level of service (LOS) analysis or vehicle miles traveled (VMT) analysis is necessary based on the transportation study guidelines and screening criteria established by the County of San Bernardino. We trust the findings of this analysis will aid you and the County of San Bernardino in assessing the project.

PROJECT DESCRIPTION

The 9.55-acre project site is located at 27195 Almond Avenue, Redlands, in the unincorporated area known as the "Donut-hole", within the County of San Bernardino, California. The project site is zoned EV/SD East Valley Special Development and is currently developed with one (1) single-family residence which will be removed for the proposed construction. The proposed project involves the construction of a new 208,000 square foot industrial warehouse building with 24 dock-high doors and associated parking and landscaping improvements. Vehicular access is proposed via two driveways on Almond Avenue. The proposed site plan is shown in Attachment A.

TRIP GENERATION

REVIEW OF HIGH-CUBE WAREHOUSE RATES

Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021) provides the following land use description for *high-cube warehouse (HCW):*

> *A high-cube warehouse (HCW) is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24 feet or more, and is used primarily for the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. A typical HCW has a high level of on-site automation and logistics management. The automation and logistics enable the highly efficient processing of goods through the HCW. These facilities may contain a mezzanine* which *is a free-standing* area not on the ground floor.

The ITE database further categorizes high-cube fulfillment center warehouse, Land Use Code 155, into sort or non-sort facilities. A sorting facility is defined as a fulfillment center that ships out smaller items, requiring extensive manual sorting, whereas a non-sorting facility ships out large box items that are processed primarily through automation. The trip generation rates for sorting facilities are substantially greater than rates for non-sorting facilities; however, they are based on a limited sample size and may not necessarily represent typical operations. These facilities typically handle smaller packages and quantities than other types of HCWs and often contain multiple mezzanine levels.

Based on a review of the available ITE data, ITE Land Use Code 155 - High-Cube Warehouse Fulfillment Center Warehouse (Non-Sort) was determined to best represent a typical user for the type of building proposed. This use still provides a conservative daily trip estimate compared to a standard warehouse (ITE 150) and high-cube transload warehouse (ITE 154) while avoiding grossly overestimating potential impacts and constructing unnecessary improvements for other types of high-cube warehouses including high-cube parcel hub (ITE 156) and cold-storage warehouses (ITE 157), neither of which are currently contemplated uses for the proposed project. *Should a future potential tenant intend to occupy the building for use as a high-cube fulfillment center sorting facility, parcel hub, or cold-storage warehouse, preparation of a transportation demand management plan and/or further traffic analysis may be necessary to verify consistency with the trip estimates and findings of this study.*

PROJECT TRIP GENERATION

Table 1 shows the proposed project trips based on trip generation rates obtained from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021). Based on a review of the ITE warehouse land use descriptions, trip generation rates for ITE Land Use Code 155 - High-Cube Warehouse Fulfillment Center Warehouse (Non-Sort) were determined to adequately represent the proposed use and were selected for calculation of the project trip generation forecast.

Project vehicle trips are converted to Passenger Car Equivalent (PCE) trips based on truck rates (as a percentage of total vehicle trips) from the ITE *Trip Generation Manual* (11th Edition, 2021) and truck axle mix data recommended by the South Coast Air Quality Management District (SCAQMD) for warehousing facilities without cold-storage. Appendix B includes the truck percentages of total vehicles from the ITE *Trip Generation Manual.*

As shown in Table 1, the proposed project is forecast to generate result in a total of approximately 377 daily vehicle trips, including 31 vehicle trips during the AM peak hour and 33 vehicle trips during the PM peak hour; and 451 PCE daily trips, including 38 PCE trips during the AM peak hour and 37 PCE trips during the PM peak hour.

The existing land use generates approximately 9 daily vehicle trips, including 1 vehicle trip during the AM peak hour and 1 vehicle trip during the PM peak hour. The existing trips to be removed are based on trip generation rates for Land Use Code 210 (Single-Family Detached Housing). As shown in Table 2, the proposed redevelopment project is forecast to generate 368 net daily vehicle trips, including 30 vehicle trips during the AM peak hour and 32 vehicle trips during the PM peak hour; and 442 net PCE daily trips, including 37 PCE trips during the AM peak hour and 36 PCE trips during the PM peak hour.

CRITERIA FOR THE PREPARATION OF TRAFFIC IMPACT ANALYSES

The project has been screened for both level of service (LOS) analysis and vehicle miles traveled (VMT) analysis using the established criteria as specified in the County of San Bernardino *Transportation Impact Study Guidelines*, July 2019 ["County TIA Guidelines"].

LEVEL OF SERVICE SCREENING CRITERIA (NON-CEQA/GENERAL PLAN CONFORMITY)

As specified in the County TIA Guidelines, the requirement to prepare a transportation impact study with level of service (LOS) analysis should be based on one or more of the following criteria:

- If a project generates more than 100 or more trips without consideration of pass-by trip reductions during any peak hour.
- If a project is located within 300 feet of the intersection of two streets designated as Collector or higher on the County's General Plan circulation system or an impacted intersection as determined by the County Traffic Division.
- If the project creates a safety or operational concerns.
- If a project generates less than 100 trips without consideration of pass-by trip reductions during any peak hour, a study may be required if there are special concerns.

The proposed project is forecast to generate fewer than 100 peak hour trips and is located more than 300 feet from the nearest intersection of two streets designated as Collector or higher on the County's General Plan circulation system. Assuming the project shall construct all on-site and off-site improvements (if any) following County design standards, the project should not create any new safety or operational concerns. Therefore, the proposed project does not warrant the preparation of a transportation impact study with LOS analysis based on the County-established screening criteria.

VEHICLE MILES TRAVELED SCREENING CRITERIA (CEQA)

The vehicle miles traveled (VMT) screening assessment has been prepared in accordance with County TIA Guidelines, which were developed based on guidance from the Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (State of California, December 2018). In general terms, VMT quantifies the amount and distance of automobile travel attributable to a project or region. The OPR Technical Advisory provides technical considerations regarding methodologies and thresholds with a focus on office, residential, and retail developments as these projects tend to have the greatest influence on VMT.

The County TIA Guidelines and City VMT Guidelines identify screening criteria for certain types of projects that typically reduce VMT and may be presumed to result in a less than significant VMT impact. To qualify for VMT screening, the project need only satisfy one of the following screening criteria:

- Projects located within a Transit Priority Area (TPA)
  - Projects located within one-half mile radius of a major transit stop[1] or high-quality transit corridor[2]
- Projects located within a low VMT area
  - Site location can be verified with the web-based or map-based VMT Screening Tool[3]
- Project Type Screening
  - Local serving land use

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1 A major transit stop is defined as an existing rail transit station, ferry terminal with bus or rail service, or the intersection of two or more major bus routes with less than 15-minute headways during the peak commute hours (Pub. Resources Code, § 21064.3.).

2 Fixed route bus service with less than 15-minute headways during the peak commute hours (Pub. Resources Code, § 21155).

3 The SBCTA VMT Screening Tool was developed from the San Bernardino Transportation Analysis Model (SBTAM) travel forecasting model to measure VMT performance for individual jurisdictions and for individual traffic analysis zones (TAZs).

- Projects which generate less than net new 110 daily vehicle[4] trips (ADT)

TPA SCREENING

Projects located within a TPA, defined as within one-half mile of a major transit stop or high-quality transit corridor, may be presumed to result in a less than significant VMT impact absent substantial evidence to the contrary. This presumption may not apply, however, if the project:

1. Has a Floor Area Ratio (FAR) of less than 0.75;
2. Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking)
3. Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the County with input from the Metropolitan Planning Organization): or
4. Replaces affordable residential units with a smaller number of moderate or high-income residential units.

Based on a review of the San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool, the proposed project is not located within a TPA; therefore, the project does not satisfy the TPA screening criteria.

LOW VMT AREA SCREENING

Residential and office projects located within a low VMT generating area may be presumed to have a less than significant impact absent substantial evidence to the contrary. In addition, other employment-related and mixed-use land use projects may qualify for the use of screening if the project can reasonably be expected to generate VMT per resident, per worker, or per service population that is similar to the existing land uses in the low VMT area. Based on the County-established thresholds, a project would satisfy the low VMT screening criteria if it is located in a traffic analysis zone (TAZ) that does not exceed four percent below the County average total daily VMT per service population.

To identify if the project is in a low VMT area, the SBCTA VMT Screening Tool was used. The SBCTA VMT Screening Tool was developed from the San Bernardino Transportation Analysis Model (SBTAM) travel forecasting model to measure VMT performance for individual jurisdictions and for individual traffic analysis zones (TAZs). TAZs are geographic polygons similar to census block groups used to represent areas of homogenous travel behavior. Projects located in areas that incorporate similar features of the TAZ will tend to exhibit similar VMT. This presumption may not be appropriate if the project land uses would alter the existing built environment in such a way as to increase the rate or length of vehicle trips.

The proposed project is consistent with existing zoned land uses in the project TAZ and there does not appear to be anything unique about the project that would otherwise be misrepresented utilizing the data from the SBCTA VMT Screening Tool. In this case, the proposed project consists of industrial uses only; therefore, the applicable service population is the worker population, and the project TAZ VMT has been calculated for VMT per worker population.

4 As specified by the OPR Technical Advisory, the term vehicle refers to on-road passenger vehicles, specifically cars and light trucks. Heavy-duty trucks should only be included in a traffic impact analysis for modeling convenience and ease of calculation (e.g., where data provided combine auto and heavy freight VMT) (CEQA Guidelines, § 15064.3, subd. (a)). Therefore, heavy-duty truck trips should not contribute to a finding of significant traffic (VMT) impact.

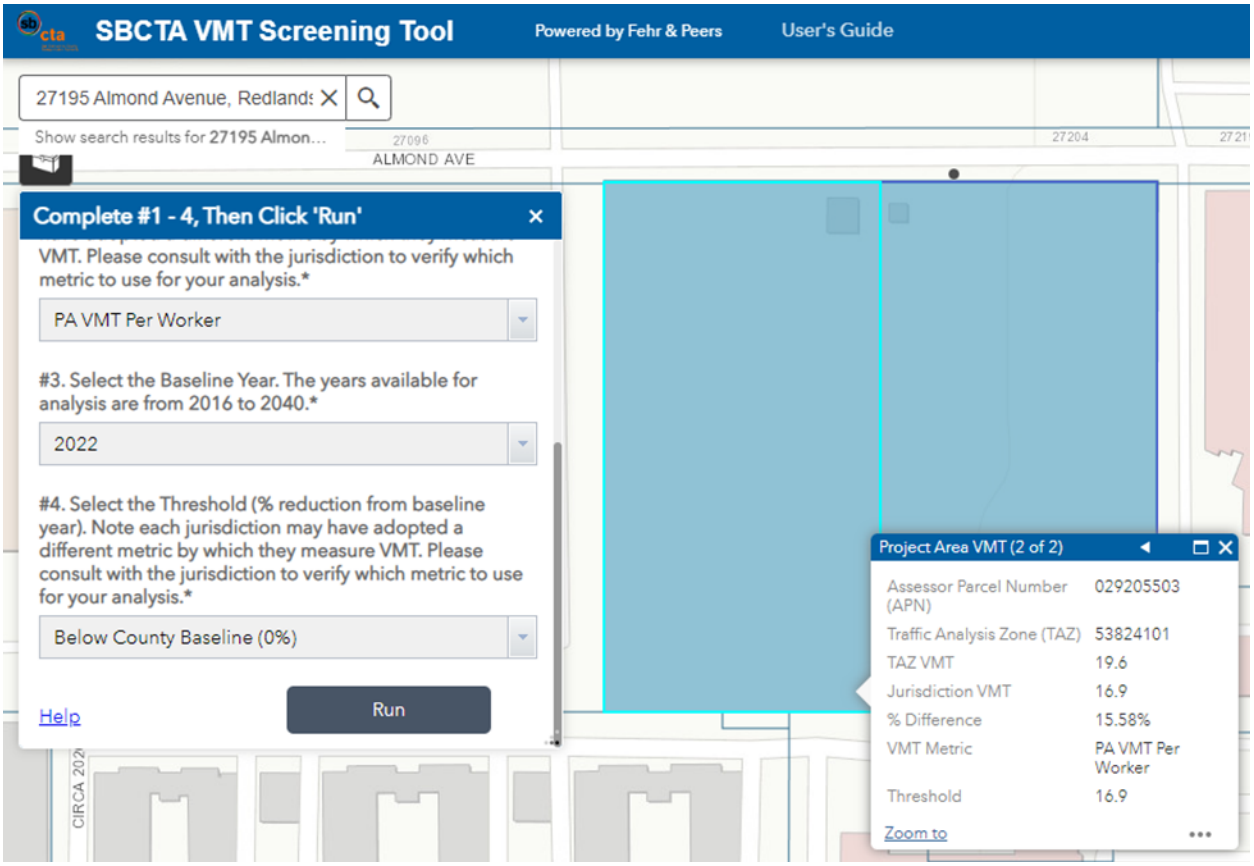


Exhibit A – SBCTA VMT Screening Tool Results

Exhibit A shows the SBCTA VMT Screening Tool results for the project site, which is located within TAZ 53824101. As shown in Exhibit A, the baseline year (2022) VMT per service population for the project TAZ is equal to 19.6 and the County baseline is equal to 16.9. Therefore, the proposed project does not satisfy the County-established screening criteria for projects located in a low VMT area.

PROJECT TYPE SCREENING

The County TIA Guidelines identify the several types of projects that may be presumed to have a less than significant VMT impact as they are local serving and thus can be expected to reduce VMT or they are small enough to have a negligible impact:

- Projects consisting of local servicing land use
  - Local-serving retail less than 50,000 square feet
  - Local-serving K-12 schools
  - Local parks
  - Day care centers
  - Local gas stations
  - Day care banks
  - Student housing projects
  - Local serving community colleges that are consistent with the assumptions noted in the RTP/SCS

- Trip Screening
  - Existing facilities
  - Redevelopment with less than 10,000 square feet increase
  - Projects generating with less than 110 daily vehicle trips (ADT)
    - 11 single-family residential dwelling units
    - 16 multi-family residential dwelling units
    - 10,000 square feet of office
    - 15,000 square feet of light industrial
    - 65,000 square feet of warehousing
    - 79,000 square feet of high-cube transload and short-term storage warehouse
    - 12 hotel rooms

As previously shown in Table 2, the proposed redevelopment project consists of 208,000 square feet of warehouse, which is forecast to generate more than 110 net daily trips after accounting for trips generated by existing uses that will be displaced. Therefore, the proposed project does not satisfy the County-established project type screening criteria.

CONCLUSIONS

The proposed redevelopment project is forecast to generate net trips of 368 daily vehicle trips, including 30 vehicle trips during the AM peak hour and 32 vehicle trips during the PM peak hour; and 442 PCE daily trips, including 37 PCE trips during the AM peak hour and 36 PCE trips during the PM peak hour.

The proposed project s satisfies the County-established level of service (LOS) screening criteria for projects generating fewer than 100 peak hour trips and more than 300 feet from a classified intersection. Therefore, the proposed project does not warrant the preparation of a level of service transportation impact study based on the County-established LOS screening criteria.

The redevelopment project does not satisfy any of the County-established VMT screening criteria; therefore, preparation of a transportation impact study with vehicle miles traveled (VMT) analysis is warranted.

It has been a pleasure to assist you with this project. Should you have any questions or if we can be of further assistance, please do not hesitate to call at (714) 795-3100.

Sincerely,
GANDDINI GROUP, INC.

Perrie Ilercil, P.E. (AZ)
Senior Engineer

Giancarlo Ganddini, PE, PTP
Principal

Table 1
Project Trip Generation

Land Use: High-Cube Fulfillment Center Warehouse (Non-Sort)
Size: 208.000 TSF

TRIP GENERATION RATES PER TSF[1]

Vehicle Type	Source[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Rate	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Rate	Daily Rate
All Vehicles	ITE 155	81%	19%	0.150	39%	61%	0.160	1.810
Trucks Only	ITE 155	50%	50%	0.020	46%	54%	0.010	0.230
Passenger Car (86.7% AM, 93.8% PM, 87.3% Daily)		0.105	0.025	0.130	0.059	0.092	0.151	1.580
Truck (13.3% AM, 6.3% PM, 12.7% Daily)		0.010	0.010	0.020	0.005	0.005	0.010	0.230
Truck Mix:	SCAQMD							
2-Axle Trucks (16.7%)		0.002	0.001	0.003	0.001	0.001	0.002	0.038
3-Axle Trucks (20.7%)		0.002	0.002	0.004	0.001	0.001	0.002	0.048
4+ Axle Trucks (62.6%)		0.006	0.007	0.013	0.003	0.003	0.006	0.144

VEHICLE TRIPS GENERATED

Vehicle Type	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Passenger Car	22	5	27	12	19	31	329
Trucks							
2-Axle Trucks	0.4	0.2	0.6	0.2	0.2	0.4	7.9
3-Axle Trucks	0.4	0.4	0.8	0.2	0.2	0.4	10.0
4+ Axle Trucks	1.2	1.5	2.7	0.6	0.6	1.2	30.0
Truck Subtotal	2	2	4	1	1	2	48
Total Vehicle Trips Generated	**24**	**7**	**31**	**13**	**20**	**33**	**377**

PCE[3] TRIPS GENERATED

Vehicle Type	PCE Factor[4]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Passenger Car	1.0	22	5	27	12	19	31	329
Trucks								
2-Axle Trucks	1.5	1	0	1	1	0	1	12
3-Axle Trucks	2.0	1	1	2	1	0	1	20
4+ Axle Trucks	3.0	4	4	8	2	2	4	90
Truck Subtotal		6	5	11	4	2	6	122
Total PCE Trips Generated		**28**	**10**	**38**	**16**	**21**	**37**	**451**

Notes:
1. TSF = Thousand Square Feet
2. ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = ITE Land Use Code.
   SCAQMD = South Coast Air Quality Management District recommendations for non-cold storage high-cube warehouse.
4. PCE = Passenger Car Equivalent
5. PCE = passenger car equivalent. PCE factors are based on the County of San Bernardino Congestion Management Program (2016 Update), "Appendix B – Summary of Analysis Assumptions for the CMP Traffic Impact Analysis Guidelines"

Table 2
Net (Proposed minus Existing) Trip Generation

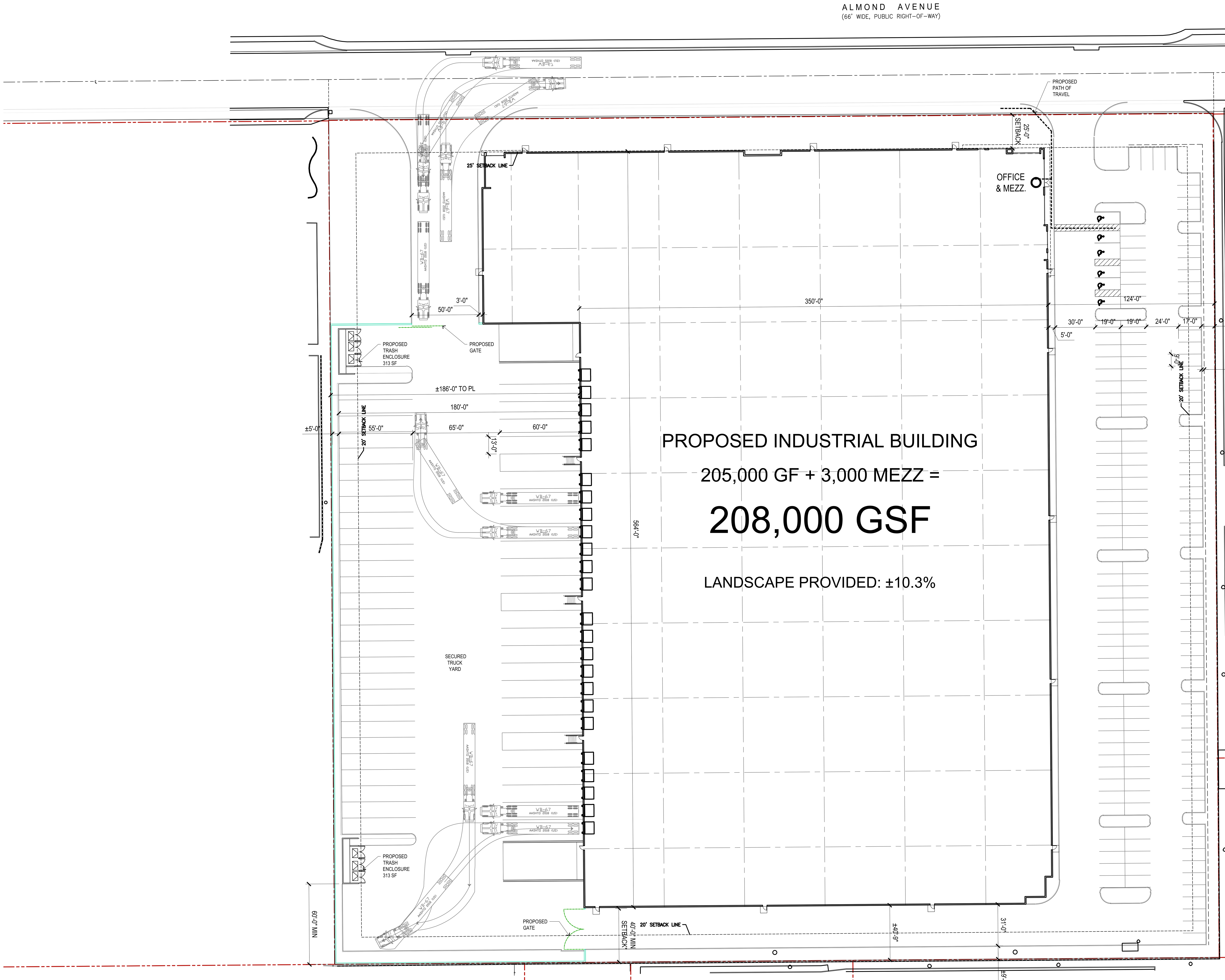
Trips Generated										
				AM Peak Hour			PM Peak Hour			
Land Use	Source[1]	Quantity	Unit[2]	In	Out	Total	In	Out	Total	Daily
Single-Family Detached Housing	ITE 210		DU	26%	74%	0.70	63%	37%	0.94	9.43

Trips Generated										
				AM Peak Hour			PM Peak Hour			
Land Use	Source	Quantity	Unit	In	Out	Total	In	Out	Total	Daily
Total Existing Land Use Trips										
Single-Family Detached Housing	ITE 210	1	DU	0	1	1	1	0	1	9
Total Vehicle Trips Generated				0	1	1	1	0	1	9
Passenger Cars				0	1	1	1	0	1	9
Total PCE Trips Generated				0	1	1	1	0	1	9
Proposed HCW Warehouse Trips[3]	ITE 150	212.800	TSF							
Passenger Cars				22	5	27	12	19	31	329
2-Axle Trucks				0	0	1	0	0	0	8
3-Axle Trucks				0	0	1	0	0	0	10
4+ Axle Trucks				1	2	3	1	1	1	30
Subtotal Trucks				2	2	4	1	1	2	48
Total Vehicle Trips Generated				24	7	31	13	20	33	377
Passenger Cars				22	5	27	12	19	31	329
2-Axle Trucks				1	0	1	1	0	1	12
3-Axle Trucks				1	1	2	1	0	1	20
4+ Axle Trucks				4	4	8	2	2	4	90
Subtotal Trucks				6	5	11	4	2	6	122
Total PCE Trips Generated				28	10	38	16	21	37	451
Difference										
Passenger Cars				22	4	26	11	19	30	320
2-Axle Trucks				0	0	1	0	0	0	8
3-Axle Trucks				0	0	1	0	0	0	10
4+ Axle Trucks				1	2	3	1	1	1	30
Subtotal Trucks				2	2	4	1	1	2	48
Total Vehicle Trips Generated				24	6	30	12	20	32	368
Passenger Cars				22	4	26	11	19	30	320
2-Axle Trucks				1	0	1	1	0	1	12
3-Axle Trucks				1	1	2	1	0	1	20
4+ Axle Trucks				4	4	8	2	2	4	90
Subtotal Trucks				6	5	11	4	2	6	122
Total PCE Trips Generated				28	9	37	15	21	36	442

Notes:
1. ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = Land Use Code.
   All rates based on General Urban/Suburban setting.
2. DU = Dwellingh Units, TSF = Thousand Square Feet.
3. See Table 1.

Attachment A

Site Plan



PROJECT DATA:

APN #: 0292-055-03-0-000; 0292-055-04-0-000

SITE ADDRESS: 77 & 27195 ALMOND AVE REDLANDS, CA 92374

SITE AREA (NET): ± 415,700 SF 9.54 ACRES

JURISDICTION: SAN BERNARDINO COUNTY

DEVELOPMENT STANDARDS:

ZONING: EAST VALLEY PLAN EV/SD - SPECIAL DEVELOPMENT

MAX. F.A.R.: 80%

MAX COVERAGE: N/A

MAX HEIGHT: AS DETERMINED IN ACCORDANCE W/ PART 77 OF FAA REGULATIONS

BUILDING SETBACKS:
FRONT/STREET: 25'

SIDE: 20'

REAR: 20'
WHERE ABUTS RESIDENTIAL: 40'

LANDSCAPE REQUIRED: 15%*
MIN WIDTH: 5'
AT RESIDENTIAL: 35'
SCREENING HAS BEEN PROVIDED ON RESIDENTIAL SIDE & MAY BE WAIVED BY REVIEWING AGENCY.

*THE LANDSCAPE REQUIREMENT MAY BE REDUCED BY A MAXIMUM OF 5% WHERE PUBLIC ART IS TO BE DISPLAYED IN A SETTING WHICH ENHANCES PEDESTRIAN SPACES AND BUILDING ARCHITECTURE. MINIMUM COST OF PUBLIC ART SHALL BE 1% OF THE OVERALL COST OF THE PROJECT AS STATED ON THE BUILDING PERMIT.

PARKING LOT LANDSCAPE: 7% TOTAL

DOUBLE ROW PARKING:
SEPARATED BY 5' WIDE PLANTER

TREES:
EVERY 3 SPACES THROUGHOUT LOT
EVERY 20' ON PERIPHERY OF LOT
MAY BE CLUSTERED

FINGER ISLANDS: EVERY 20 STALLS

OVERHANG: 2'

OFF-STREET PARKING:
STANDARD: 9'x19'
PARALLEL:
DRIVE AISLE: 24'
FIRE LANE: 26' (30' IF > 2 STORIES)

REQ'D PARKING RATIOS:
WAREHOUSE:
0-40K: 1/1000
40K+: 1/4000
OFFICE: 1/250

30' 0 5' 10' 20' 30' 45' 60'

N

SITE DATA TABLE

LAND AREA AC	LAND AREA SF	FAR	COVERAGE %	LANDSCAPE AREA SF	LANDSCAPE AREA %	BLDG FOOT PRINT	BLDG MEZZ.	TOTAL BLDG SF	OFFICE SF	WAREHOUSE SF	OFFICE PRKG.	WHSE PRKG. 0-40K	WHSE PRKG. 40K+	PRKG REQ.	PRKG PROV.
9.54 AC	±415,700	50.0 %	59.3 %	42,763	10.3%	205,000	3,000	208,000	6,000	202,000	24	40	41	105	160
											(1/250)	(1/1000)	(1/4000)		(.8/1000)

Architecture.
Design.
Relationships.

SEAL

CONSULTANT

XEBEC
510 S. Hewitt Street, No.115
Los Angeles, CA 90013
562.284.5055
www.xebecrealty.com

XEBEC ALMOND INDUSTRIAL
77 Almond Ave.
Redlands, CA

SITE PLAN

Project Number: 2022-022
Plan Check Number:

2022-07-07 1st COUNTY LAND USE SUBMITTAL

SHEET

LU-1.0

bordeer last saved: Jul/7/2022 11:24 AM by: veronicak
dwg last saved: Jul/7/2022 11:24 AM by: veronicak
sheet plotted: Jul/07/2022 @ 11:35 AM
drawing file name: p:\2022-022 xebec - almond ave - redlands\04 dd-cd\land use submittal\lu10-site plan.dwg

ATTACHMENT B

HIGH-CUBE FULFILLMENT CENTER (NON-SORT) WAREHOUSE

TRIP GENERATION INFORMATION

High-Cube Fulfillment Center Warehouse - Non-Sort (155)

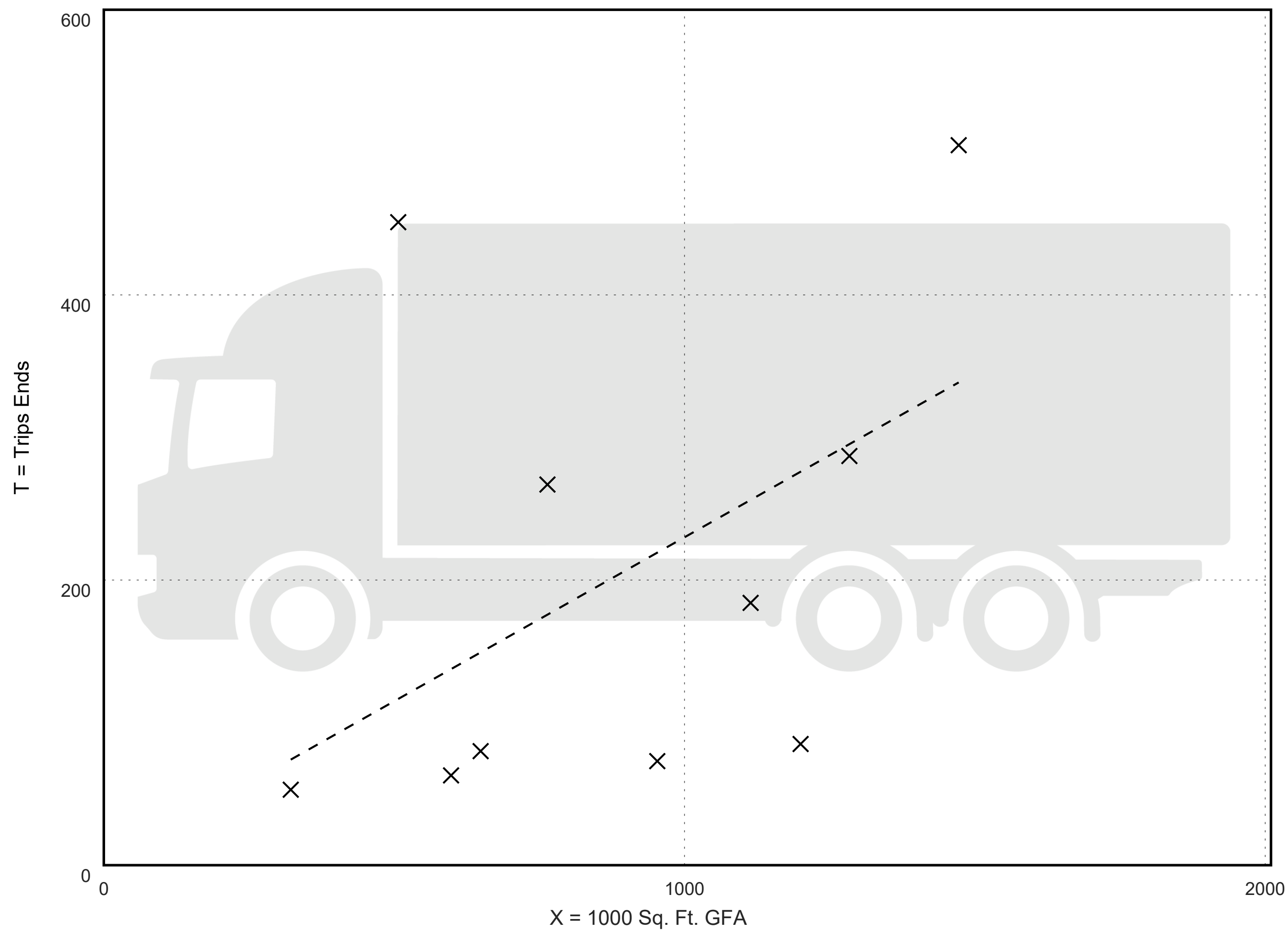
Truck Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 10
Avg. 1000 Sq. Ft. GFA: 886
Directional Distribution: 50% entering, 50% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.23	0.07 - 0.89	0.20

Data Plot and Equation



Fitted Curve Equation: Not Given **R^2= *****

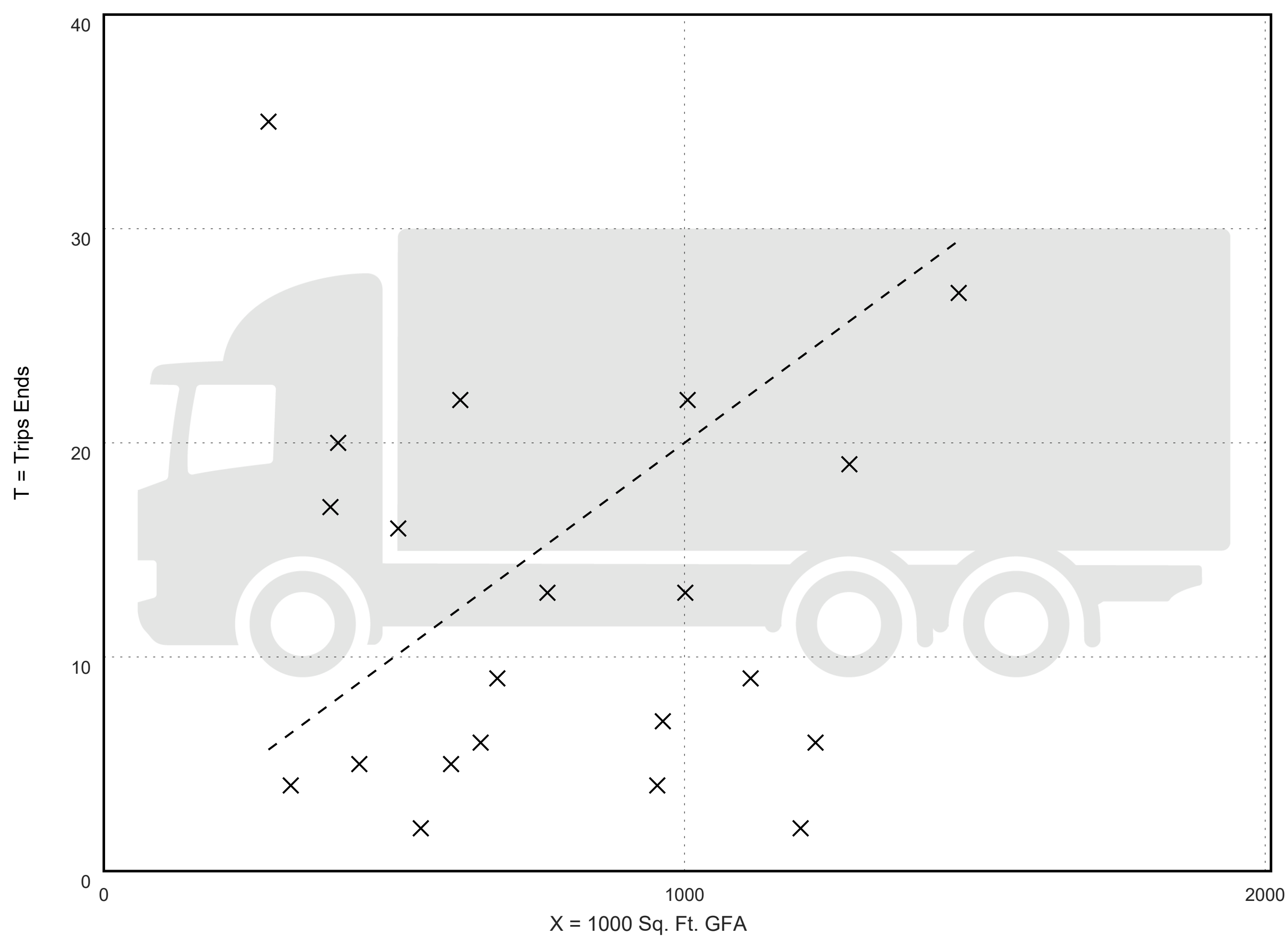
High-Cube Fulfillment Center Warehouse - Non-Sort (155)

Truck Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	21
Avg. 1000 Sq. Ft. GFA:	782
Directional Distribution:	50% entering, 50% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.02	0.00 - 0.12	0.02

Data Plot and Equation



× **Study Site** - - - - - **Average Rate**

Fitted Curve Equation: Not Given **R^2= *****

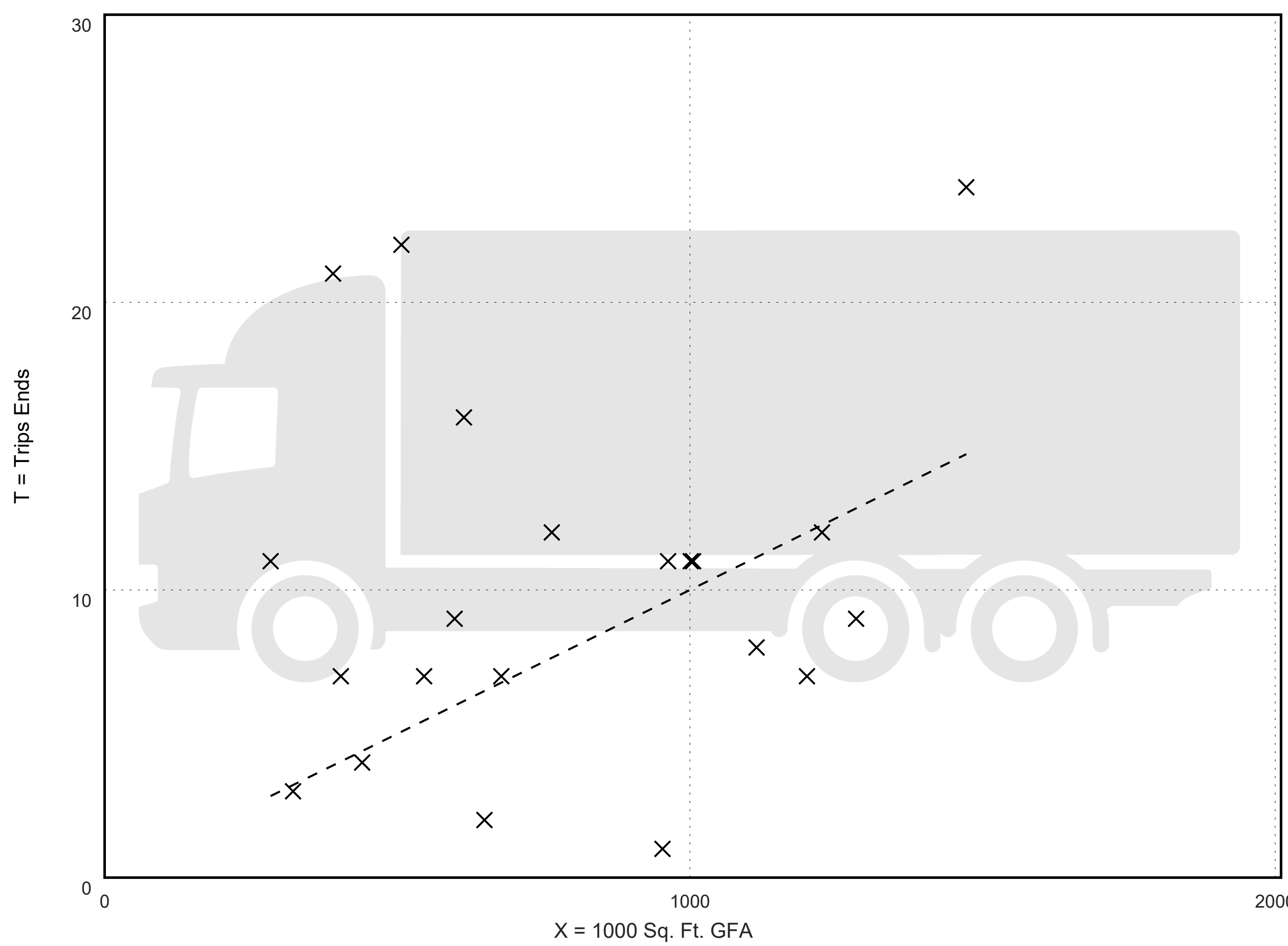
High-Cube Fulfillment Center Warehouse - Non-Sort (155)

Truck Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	21
Avg. 1000 Sq. Ft. GFA:	782
Directional Distribution:	46% entering, 54% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.01	0.00 - 0.05	0.01

Data Plot and Equation



× **Study Site** - - - - - **Average Rate**

Fitted Curve Equation: Not Given **R^2= *****

C | Appendix: Truck Trips as Percent of Total Vehicle Trips

	Truck Trips as Percentage of Total Vehicle Trips				
Land Use Code, Land Use Name, and Time Period	# Sites	Wtd Avg	Lowest	Highest	Std Dev
110 General Light Industrial					
Weekday	28	8%	0%	29%	8%
Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	27	3%	0%	50%	12%
Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	27	2%	0%	20%	4%
Weekday, AM Peak Hour of Generator	28	4%	0%	100%	21%
Weekday, PM Peak Hour of Generator	27	7%	0%	29%	9%
130 Industrial Park					
Weekday	3	15%	10%	16%	3%
Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	3	12%	10%	13%	1%
Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	3	10%	3%	13%	5%
Weekday, AM Peak Hour of Generator	3	6%	4%	8%	2%
Weekday, PM Peak Hour of Generator	3	10%	7%	13%	3%
140 Manufacturing					
Weekday	17	10%	0%	35%	10%
Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	17	8%	0%	50%	17%
Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	16	7%	0%	80%	24%
Weekday, AM Peak Hour of Generator	17	2%	0%	37%	9%
Weekday, PM Peak Hour of Generator	17	6%	0%	42%	14%

	Truck Trips as Percentage of Total Vehicle Trips				
Land Use Code, Land Use Name, and Time Period	# Sites	Wtd Avg	Lowest	Highest	Std Dev
150 Warehousing					
Weekday	12	27%	0%	65%	21%
Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	21	13%	0%	71%	22%
Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	23	15%	0%	87%	20%
Weekday, AM Peak Hour of Generator	24	22%	0%	100%	26%
151 Mini-Warehouse					
Weekday	6	6%	0%	8%	3%
Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	5	0%	0%	0%	0%
Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	6	0%	0%	0%	0%
Weekday, AM Peak Hour of Generator	6	4%	0%	15%	6%
Weekday, PM Peak Hour of Generator	6	5%	0%	50%	20%
154 High-Cube Transload and Short-Term Storage Warehouse					
Weekday	57	16%	3%	52%	11%
Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	90	20%	0%	90%	21%
Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	91	16%	0%	65%	17%
Weekday, AM Peak Hour of Generator	12	12%	4%	39%	12%
Weekday, PM Peak Hour of Generator	13	14%	2%	25%	7%
155 High-Cube Fulfillment Center Warehouse (Non-Sort)					
Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	11	9%	1%	49%	18%
Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	11	7%	2%	100%	31%

	Truck Trips as Percentage of Total Vehicle Trips				
Land Use Code, Land Use Name, and Time Period	# Sites	Wtd Avg	Lowest	Highest	Std Dev
155 High-Cube Fulfillment Center Warehouse (Sort)					
Weekday	1	3%	—	—	N.A.
Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	2	2%	1%	2%	N.A.
Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	2	2%	1%	6%	N.A.
156 High-Cube Parcel Hub Warehouse					
Weekday	1	9%	—	—	N.A.
Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	1	5%	—	—	N.A.
Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	1	1%	—	—	N.A.
157 High-Cube Cold Storage Warehouse					
Weekday	4	35%	32%	39%	3%
Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	5	27%	18%	46%	13%
Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	5	23%	0%	45%	16%
170 Utility					
Weekday	13	2%	0%	17%	5%
Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	12	0%	0%	0%	0%
Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	12	1%	0%	2%	1%
Weekday, AM Peak Hour of Generator	13	1%	0%	22%	6%
Weekday, PM Peak Hour of Generator	13	2%	0%	50%	16%

ATTACHMENT C

VMT REDUCTION WORKSHEETS

Table C-1
Summary of CAPCOA Transportation Measures for VMT Reduction

Subsector	Measure		Scale of Application	Potential	Project
LAND USE	T-1	Increase Residential Density	Project/Site	30.0%	n/a
	T-2	Increase Job Density	Project/Site	30.0%	n/a
	T-3	Provide Transit-Oriented Development	Project/Site	31.0%	n/a
	T-4	Integrate Affordable and Below Market Rate Housing	Project/Site	28.6%	n/a
	T-17	Improve Street Connectivity	Plan/Community	30.0%	n/a
		Subsector Maximum/Subtotal	*Project/Site*	*65.0%*	*0.0%*
		Subsector Maximum/Subtotal	*Plan/Community*	*30.0%*	*n/a*
TRIP REDUCTION PROGRAMS	T-5	Implement Commute Trip Reduction Program (Voluntary)	Project/Site	4.0%	n/a
	T-6	Implement Commute Trip Reduction Program (Mandatory Implementation and Monitoring)	Project/Site	26.0%	n/a
	T-7	Implement Commute Trip Reduction Marketing	Project/Site	4.0%	-4.0%
	T-8	Provide Ridesharing Program	Project/Site	8.0%	-4.0%
	T-9	Implement Subsidized or Discounted Transit Program	Project/Site	5.5%	n/a
	T-10	Provide End-of-Trip Bicycle Facilities	Project/Site	4.4%	n/a
	T-11	Provide Employer-Sponsored Vanpool	Project/Site	20.4%	n/a
	T-12	Price Workplace Parking	Project/Site	20.0%	n/a
	T-13	Implement Employee Parking Cash-Out	Project/Site	12.0%	n/a
	T-23	Provide Community-Based Travel Planning	Plan/Community	2.3%	n/a
		Subsector Maximum/Subtotal	*Project/Site*	*45.0%*	*-8.0%*
		Subsector Maximum/Subtotal	*Plan/Community*	*2.3%*	*n/a*
PARKING OR ROAD PRICING/MANA GEMENT	T-14	Provide Electric Vehicle Charging Infrastructure	Project/Site	11.9%	n/a
	T-15	Limit Residential Parking Supply	Project/Site	13.7%	n/a
	T-16	Unbundle Residential Parking Costs from Property Cost	Project/Site	15.7%	n/a
	T-24	Implement Market Price Public Parking (On-Street)	Plan/Community	30%	n/a
		Subsector Maximum/Subtotal	*Project/Site*	*35.0%*	*0.0%*
		Subsector Maximum/Subtotal	*Plan/Community*	*30.0%*	*n/a*
NEIGHBORHOO D DESIGN	T-18	Provide Pedestrian Network Improvement	Plan/Community	6.4%	n/a
	T-19A	Construct or Improve Bike Facility	Plan/Community	0.80%	n/a
	T-19B	Construct or Improve Bike Boulevard	Plan/Community	0.20%	n/a
	T-20	Extend Bikeway Network	Plan/Community	0.50%	n/a
	T-21A	Implement Conventional Carshare Program	Plan/Community	0.15%	n/a
	T-21B	Implement Electric Carshare Program	Plan/Community	0.18%	n/a
	T-22A	Implement Pedal (Non-Electric) Bikeshare Program	Plan/Community	0.02%	n/a
	T-22B	Implement Electric Bikeshare Program	Plan/Community	0.06%	n/a
	T-22C	Implement Scootershare Program	Plan/Community	0.07%	n/a
		Subsector Maximum/Subtotal	*Plan/Community*	*10.0%*	*0.0%*
TRANSIT	T-25	Extend Transit Network Coverage or Hours	Plan/Community	4.60%	n/a
	T-26	Increase Transit Service Frequency	Plan/Community	11.30%	n/a
	T-27	Implement Transit-Supportive Roadway Treatments	Plan/Community	0.60%	n/a
	T-28	Provide Bus Rapid Transit	Plan/Community	13.80%	n/a
	T-29	Reduce Transit Fares	Plan/Community	1.20%	n/a
		Subsector Maximum/Subtotal	*Plan/Community*	*15.0%*	*0.0%*
VEHICLES AND FUELS	T-30	Use Cleaner-Fuel Vehicles	All	100%	~

Source: *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* , California Air Pollution Control Officers Association (CAPCOA), December 2021.

T-7. Implement Commute Trip Reduction Marketing

Range of Effectiveness
up to 4.0%

Measure Description
This measure will implement a marketing strategy to promote the project site employer's CTR program. Information sharing and marketing promote and educate employees about their travel choices to the employment location beyond driving such as carpooling, taking transit, walking, and biking, thereby

Locational Context
Urban, suburban

Scale of Application
Project/Site

Implementation Requirements
The following features (or similar alternatives) of the marketing strategy are essential for effectiveness.
- Onsite or online commuter information services.
- Employee transportation coordinators.
- Onsite or online transit pass sales.
- Guaranteed ride home service.

Cost Considerations
Employer costs include labor and materials for development and distribution of survey and marketing materials to promote the program and educate potential participants.

Reduction Formula

% VMT Reduction = B x C x D		output:	**-4.0%**
where:			
B =	Percent of employees eligible for program	input:	100%
C =	Percent reduction in employee commute vehicle trips		-4%
D =	Adjustment from vehicle trips to VMT		1

Source: *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* , California Air Pollution Control Officers Association (CAPCOA), December 2021.

Note: This measure may be implemented with other individual CTR measures, but not combined with Measure T-5 or T-6.

T-8. Provide Ridesharing Program

Range of Effectiveness

up to 8.0%

Measure Description

This measure will implement a ridesharing program and establish a permanent transportation management association with funding requirements for employers. Ridesharing encourages carpooled vehicle trips in place of single-occupied vehicle trips, thereby reducing the number of trips, VMT, and GHG emissions.

Locational Context

Urban, suburban

Scale of Application

Project/Site

Implementation Requirements

Ridesharing must be promoted through a multifaceted approach. Examples include the following.

- Designating a certain percentage of desirable parking spaces for ridesharing vehicles.
- Designating adequate passenger loading and unloading and waiting areas for ridesharing vehicles.
- Providing an app or website for coordinating rides.

Cost Considerations

Costs of developing, implementing, and maintaining a rideshare program in a way that encourages participation are generally borne by municipalities or employers. The beneficiaries include the program participants saving on commuting costs, the employer reducing onsite parking expenses, and the municipality reducing cars on the road, which leads to lower infrastructure and roadway maintenance costs.

Reduction Formula

% VMT Reduction = B x C		output:	**-4%**
where:			
B =	Percent of employees eligible for program	input:	100%
C =	Percent reduction in employee commute VMT		-4%
	(-8% Urban, -4% Suburban)	input:	Suburban

Source: *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* , California Air Pollution Control Officers Association (CAPCOA), December 2021.

Note: This measure may be implemented with other individual CTR measures, but not combined with Measure T-5 or T-6.