# Appendix K

Trip Generation and Vehicle Miles Traveled Letter This page intentionally left blank.



July 21, 2021

Ryan Birdseye Birdseye Planning Group 1354 York Drive Vista, CA 92084

Subject: Revised Trip Generation and VMT Assessment for the Jersey Industrial Complex Project

Dear Mr. Birdseye,

Mizuta Traffic Consulting (MTC) is pleased to submit this letter summarizing the estimated trip generation and VMT forecasted by your project, which consists of constructing a 159,580 square foot (sf) warehouse (herein referred to as the "project") on a vacant parcel (APN 0229-111-60-0-000). The warehouse will include areas for storage, offices, and an electrical room. The project is located on the northwest corner of the Milliken Avenue & Jersey Boulevard intersection at 11298 Jersey Boulevard in the City of Rancho Cucamonga, CA.

#### Trip Generation

Trip generation represents the amount of traffic produced by a development. Determining the trip generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be attracted to and produced by the specific land use of a given development. For the project, trip generation rates published by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition were applied to the proposed use in order to determine the traffic generation characteristics of the site. The ITE Trip Generation Manual is a nationally recognized source for estimating site specific trip generation.

After review of all the land use categories contained in the *ITE Trip Generation Manual*, the Warehousing land use (Land Use Code 150) was found to be the most relevant since the project is anticipated to operate in a similar matter. A Warehousing is described as the following:

"A warehouse is primarily devoted to the storage of materials, but it may also include office and maintenance areas.""

A warehouse land use typically has a larger percentage of truck traffic. The ITE Trip Generation Manual, 10<sup>th</sup> Edition Supplement was referenced to identify the vehicle mix for a warehouse land use. A trip rate of 0.60 trucks per 1,000 sf was used to estimate the truck traffic, which resulted in 65.52 percent passenger cars and 34.48 percent trucks. Furthermore, trucks were classified based on the axle-type, which resulted in approximately 17 percent of the truck traffic comprised of 2-axle trucks, 21 percent of 3-axle trucks, and the remaining 62 percent of 4+-axle trucks. The recommended truck mix percentages are based on the South Coast Air Quality Management District's (SCAQMD) Warehouse Truck Trip Study Data Results and Usage.



Additionally, the truck traffic was converted to passenger cars by utilizing a passenger car equivalent (PCE) factor, which accounts for the fact that trucks utilize more capacity on the roadway than a passenger car due to its large size and slower acceleration. A PCE factor of 1.5 was used for 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4+ axle trucks. The PCE factors are based on the data contained in the *San Bernardino County CMP*, 2016 *Update*.

Table I summarizes the new traffic that is estimated to be generated by the project. As shown in the table, the project is estimated to generate 278 daily trips with 28 trips in the AM peak-hour and 31 trips in the PM peak-hour. After applying the PCE rates to the forecasted trucks, the project is estimated to generate 426 daily trips with 44 trips in the AM peak-hour and 48 trips in the PM peak-hour.

		TRIP GEN	ERATIO	N RATE	$S^1$				
	ITE			AM PEAK			PM PEAK		
Land Use	Code	Weekday Daily		Rate	In:Out Ratio		Rate In:Out Ratio		t Ratio
Warehousing	150	1.74 trips / ksf		0.17	0.77	: 0.23	0.19	0.27	: 0.73
TRIP GENERATION CALCULATIONS									
				AM PEAK			PM PEAK		
Land Use		Amount		In	Out	Total	In	Out	Total
Jersey Industrial Complex	159.580 ksf		278	22	6	28	9	22	31
Passenger Cars (65.52%):		182	14	4	18	6	14	20	
Trucks (34.48%) <sup>2</sup> :		96	8	2	10	3	8	11	
2-axle (5.77%, PCE = 1.5) <sup>3, 4</sup> :		24	2	1	3	1	2	3	
3-axle (7.15%, PCE = 2) <sup>3, 4</sup> :		40	3	1	4	1	3	4	
4+ axle (21.57%, PCE = 3) <sup>3, 4</sup> :			180	15	4	19	6	15	21
Subtotal (Trucks with PCE):		244	20	6	26	8	20	28	
Total Trip Generation (Passenger Cars and Trucks with PCE)		426	34	10	44	14	34	48	

#### Table 1: Trip Generation Summary

Notes: ksf: 1,000 square feet

1. The trip rates for the project's land uses are based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition.

2. The truck trip rates for the project's land uses are based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition Supplement.

3. The recommended truck mix percentages are based on the South Coast Air Quality Management District's (SCAQMD) Warehouse Truck Trip Study Data Results and Usage.

4. The PCE factors are based on the San Bernardino County CMP, 2016 Update.

The project is estimated to generate fewer than 50 trips during the peak periods, which is the threshold for requiring a traffic study based on the *City's Traffic Impact Analysis Guidelines*, *June 2020.* As a result, the project does not warrant any additional traffic analysis.

#### VMT Screening Assessment

According to the *City's Traffic Impact Analysis Guidelines*, *CEQA Assessment – VMT Analysis*, *June 2020*, there are three types of screening criteria that can be applied to effectively screen projects from VMT project-level assessments. The three types include the following:

- 1. Transit Priority Area (TPA) Screening
- 2. Low VMT Area Screening
- 3. Project Type Screening



If the project meets any of the steps above, they are presumed to not have a significant impact and are screened out from completing additional VMT analysis. The SBCTA VMT Screening Tool was then utilized to determine if the project could be screened out. The project is located in TAZ 53692301. The Metrolink transit station (11208 Azusa Court) is located within a half-mile from the project site. Table 2 summarizes the results of the three screening types.

Screening Type	Criteria Met?
TPA	Yes
Low VMT	No
Project Type	No

#### Table 2: VMT Project Screening

As shown in the table, the project is located within a TPA. Projects located in a TPA may be presumed to have a less than significant impact if it meets all of the following criteria:

- 1. Has a Floor Area Ratio (FAR) of greater than 0.75
- 2. Includes less parking for use by residents, customers, or employees of the project that required by the City
- 3. Is consistent with the applicable Sustainable Communities Strategy
- 4. Does not replace affordable residential units with a smaller number of moderate- or highincome residential units

The FAR was calculated by dividing the total building area by the net buildable lot area. The net buildable area takes into account the undevelopable areas such as setbacks, landscape, and required break area requirements. Additionally, the net buildable area takes into account the minimum drive aisle required for truck and trailers to circulate throughout the site and access the loading docks. Table 3 summarizes the FAR for the project.

#### Table 3: Project FAR

Criteria	Area (sf)
Total lot size (sf)	321,988
Net buildable lot area (sf) <sup>1</sup>	155,777
Total building area (sf)	159,580
FAR	1.02
NI-t	

Notes:

1. The net buildable area was provided by the architect and includes the landscaped and required setback areas.

As shown in the table, the FAR of 1.02 exceeds the 0.75 FAR requirement for Criteria 1.

The parking required for the warehouse (including mezzanine) is 58 parking spaces. The parking required for the offices is 33 parking spaces for a total of 91 parking spaces required for the entire project. The project is providing 91 parking spaces and satisfies Criteria 2.

The project is located in a Minimum Impact Heavy Industrial (MI/HI) zone. No zone change is required by the project. As a result, the project is consistent with the City's Sustainable Community Action Plan and satisfies Criteria 3.



Criteria 4 is not applicable as the project is not a residential project. As a result, Criteria 4 is satisfied.

Since all criteria for the TPA screening was met, the project is presumed to have a less than significant impact and will not require additional VMT analyses.

Please call me at 858-752-8212 or by email at mizutatrafficconsulting@gmail.com if you have any questions.

Sincerely,

Mizuta Traffic Consulting

are V

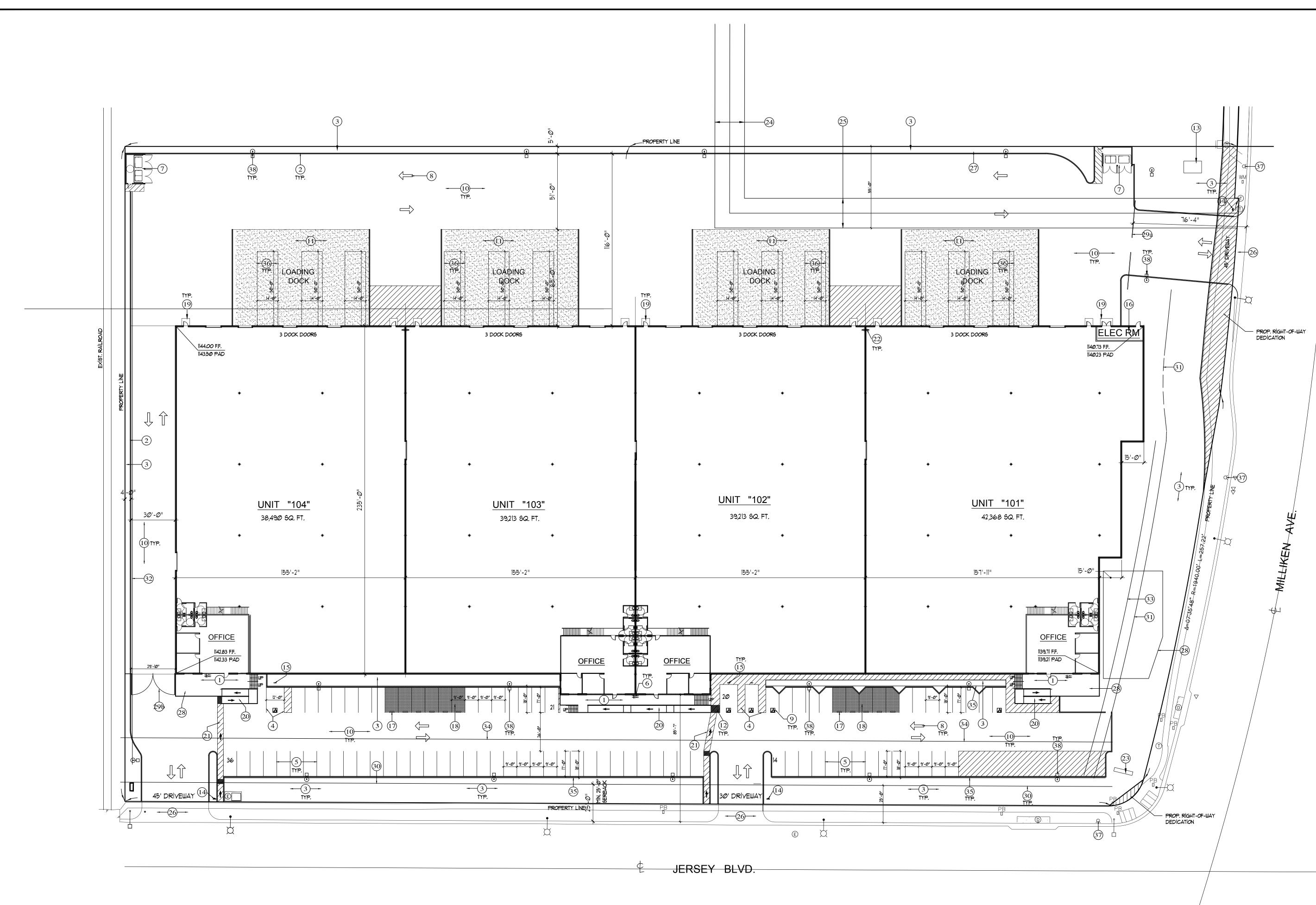
Marc Mizuta, PE, TE, PTOE Principal



7/21/21

# Attachments

- Site Plan
- VMT Screening MapFAR Figure







- A-1 A-1.1 A-1.2 A-1.3 A-1.B A-2 A-3 A-4 L-1 L-2

# SHEET INDEX

- SITE PLAN AND PROJECT INFORMATION FIRE ACCESS PLAN FENCE SITE PLAN
- PHOTOMETRIC SITE PLAN
- ALTERNATE SITE PLAN AND PROJECT INFORMATION FLOOR PLAN
- **ROOF PLAN**
- **BUILDING ELEVATIONS**
- PRELIMINARY LANDSCAPE PLAN
- PRELIMINARY LANDSCAPE NOTES AND CALC
- 1 OF 1 SITE UTILIZATION MAP
- 1 OF 1 CUT & FILL EXHIBIT
- 1 OF 4 PRELIMINARY GRADING PLAN
- 2 OF 4 PRELIMINARY GRADING PLAN
- 3 OF 4 ALTERNATE PRELIMINARY GRADING PLAN
- 4 OF 4 ALTERNATE PRELIMINARY GRADING PLAN
- 1 OF 2 WQMP SITE PLAN
- 2 OF 2 WQMP SITE PLAN

## SITE PLAN KEYED NOTES :

- 1 4" CONC. WALK W/ #4 @ 18" O.C. EA. WAY PROVIDE EXP. JOINTS @ MAX. 12'-Ø" O.C. AND TOOL JOINTS @ MAX. 4'-Ø" O.C. REFER TO CIVIL DUGS FOR ALL SLOPES
- (2) CONC. CURB REFER TO CIVIL DRAWINGS
- (3) LANDSCAPE AREA REFER TO LANDSCAPE DUGS.
- (4) PAINT 4" WIDE BLUE COLOR
- (5) PAINT 4" WIDE PARKING STRIPING
- (6) BIKE RACK FOR 2 BIKES
- (7) TRASH ENCLOSURE
- (8) PAINTED DIRECTIONAL ARROWS
- (9) INTERNATIONAL SYMBOL ACCESSIBILITY.
- (10) concrete paying refer to civil drawings
- (1) 6" THICK CONCRETE PAVING AT LOADING DOCK REFER TO CIVIL DRAWINGS
- 12 TRUNCATED DOMES
- (13) ELECTRICAL TRANSFORMER
- (14) ENTRANCE ACCESSIBLE PARKING SIGN
- (15) ACCESSIBLE PARKING SIGN
- (16) ELECTRICAL ROOM
- 17 PROVIDE PERMANENT MARKING ON GROUND AS PER CGBSC SECTION 5.1062.1 TO READ "CLEAN AIR / VANPOOL / EV"
- (18) HATCHED AREA OF TOTAL II PARKING STALLS INDICATES THE FUTURE INSTALLATION OF ELECTRIC VEHICLE SUPPLY EQUIPMENT, SEE ELECTRICAL DRAWINGS FOR RACEWAY BETWEEN SERVICE PANEL AND SUBPANEL
- 19 100"x 60" and 64"x60" conc. Landing at double doors AND SINGLE DOORS RESPECTIVELY WITH MAXIMUM 2% SLOPE
- (20) RAMP WITH MAXIMUM 8.33% SLOPE
- 21) PATH OF TRAVEL
- (22) FIRE SPRINKLER RISER ONE AT EACH UNIT TOTAL OF 4
- 23 FREE STANDING MONUMENT UNDER SEPARATE PERMIT
- 24 EXISTING 20'-0" SEWER EASMENT
- (25) RELOCATED EXISTING 20'-0" SEWER EASMENT
- REFER TO CIVIL DRAWINGS 26 DRIVEWAY REFER TO CIVIL DRAWINGS
- (27) CONC. WHEEL STOP
- (28) OUTDOOR EMPLOYEE AREA SEE LANDSCAPE PLAN
- MOTORIZED (a) SLIDING (b) SWINGING 6'-0" HIGH GATE FOR ELEVATIONS, REFER TO SHEET A-12
- (30) FRONT YARD SETBACK FOR PARKING & LANDSCAPE = 25'-0"
- 31) STREET SIDE YARD SETBACK = 45'-0"
- (32) SIDE YARD SETBACK = 5'-Ø"
- STREET SIDE YARD SETBACK DUE TO 7'-0" INCREASE IN BUILDING HEIGHT = 52'-0"
- STREET SIDE YARD SETBACK DUE TO 10'-0" INCREASE IN BUILDING HEIGHT = 55'-0"
- 35) LINE OF 1'-O" PARKING OVERHANG
- TRAILER SPACE PARKING
- 37) EXISTING PUBLIC FIRE HYDRANT (38) LIGHT POLE SEE PHOTOMETRIC SITE PLAN

# NOTE:

ALL PARKING SPACES SHALL BE PAINTED WITH DOUBLE STRIPE, PER RCMC SECTION 17.64.080(A)(1)

# PROJECT SUMMARY

I. OWNER / DEVELOPER

11298 JERSEY BLVD., LLC 1801 SOUTH MOUNTAIN AVE. MONROVIA, CA 91016

## II. PROJECT ADDRESS :

NORTHWEST CORNER OF MILLIKEN AVE. & JERSEY BLVD. RANCHO CUCAMONGA, CA 91730

# III. CODE DATA:

ZONING :	MIHI
TYPE OF CONSTRUCTION :	V-B
OCCUPANCY :	B, S1
STORY :	1

## IV. SITE :

APN's :	0229-111-60-0-000
LOT AREA :	321,988 SQ. FT. (7.39 AC)
TOTAL LANDSCAPE AREA :	35,585 SQ. FT. (11%)
REQUIRED BREAK AREA :	4 x 500 = 2,000 SQFT.
PROVIDED BREAK AREA :	4,023 SQ. FT.

## V. BUILDINGS AREA

TOTAL WAREHOUSE AREA : TOTAL MEZZANINE STORAGE AREA : TOTAL OFFICE AREA : ELECTRICAL ROOM AREA :

TOTAL BUILDING AREA :

## VI. PARKING :

REQUIRED PARKING : WAREHOUSE INCLUDING MEZZANINE : FIRST 20,000 SQ. FT. : SECOND 20,000 SQ. FT. : 0VER 40,000 SQ. FT. : OFFICES :

143,014 SQ. FT. 8,127 SQ. FT. 8,127 SQ. FT. 312 SQ. FT.

159,580 SQ. FT. (49.5% FAR)

### 20,000 @ 1/1000 = 20 STALLS 20,000 a 1/2000 = 1 111,453 @ 1/4000 = 28 8,127 @ 1/25Ø = 33 8

TOTAL REQUIRED : TOTAL PROVIDED :

20 STALLS 10 STALLS 18 STALLS
STALLS
STALLS STALLS

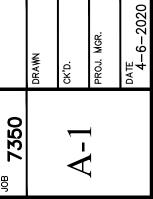
 $\bigcirc$ т Ц BLVD. INTAIN AV A 91016 CAN ∑\_î N H M M M JER 00 တ  $\sim$ 

 $\overline{}$ 

 $\overline{}$ ġ Ы l ⊢ ≻ ≻ COMPL AND 9173 Ч С А INDUSTRIAL Er of Milliken av Cho cucamonga, c CORNER

 $\succ$ Ы S Ц WILLIAM SIMPSON & ASSOCIATES, INC. SULTING STRUCTURAL ENGINEERS ARD, SUITE 250 REST, CA 22630 RE

ORCHARD, SUI (KE FOREST, CA M.V.WSGSe.com Ő 





Within a TPA? Within a low VMT gen Note Yes (Pass) erating TAZ? Yes (Pass) Screening re d map layers to visually review parcel and TAZ boundary

