

Date:

May 9, 2000

To:

Antonio Gonzalez, Project Manager

CC:

Members of the Planning Commission

512-821-2081

J. Michael Heath, P.E. Alliance Texas Engineering

Company

Reference:

100 Acres Zoning, C14-00-2019

The Transportation Review Section has reviewed the Traffic Impact Analysis for 100 Acres Zoning (a.k.a. Nalle Tract), dated April 5, 2000, and offers the following comments.

#### TRIP GENERATION

100 Acres Zoning is a 100-acre development located in northeast Austin north of US 290 and —east of US 183. The TIA for the project was prepared Alliance Texas Engineering in April of 2000. Previous versions of the TIA were submitted in March and January of 2000.

The proposed development consists of the following land use:

100 acres light industrial uses

The property is zoned Rural Residential (RR) and is currently undeveloped. Completion of the project will be done in 1 phase and is expected in the year 2015.

Based on the standard trip generation rates established by the Institute of Transportation Engineers (ITE), the development will generate approximately 5,874 unadjusted average daily trips (ADT). Of these, 851 trips will occur during the morning peak-hour and 823 will occur in the evening peak-hour.

The table below shows the trip generation by land use for the proposed development

Table 1. Trip Generation									
			AM Peak		PM Peak				
LAND USE	Size	ADT	Enter	Exit	Enter	Exit			
Light Industrial Uses	100 acres	5,874	706	145	181	642			

Please note that the applicant has not identified their proposed uses or square footage for the site. Staff therefore recommends that this site be restricted to 5,874 unadjusted trips per day based on the uses identified in the site plans.

100 ACRES ZONING

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### **ASSUMPTIONS**

- A model was used to determine the travel demand for this area. The model set covers
  the three county areas including Williamson, Travis and Hays counties. This model was
  developed for CAMPO and takes into account existing development and future
  development as well as future thoroughfare plans.
- 2. Trip distribution was based on existing traffic patterns.
- 3. No pass-by, internal capture or transit reductions were taken for this TIA.

#### EXISTING AND PLANNED ROADWAYS

US-290— US 290 is currently a four-lane divided Major Arterial with left turn lane bays at the major intersections. There are two primary through lanes in each directions. Currently the scheduled improvements planned for US 290 include improving it to a six lane freeway with two lane frontage roads from US 183 to Springdale Road by the year 2020. This improvement is assumed to be constructed before the completion of this project, and the future year condition is analyzed with the freeway in place. The 1997 counted volume on US 290 west of Cross Park is 47,670 vpd.

Cameron Road – Cameron Road is currently a six lane major arterial throughout the length of this project. There are three lanes in each directions with a median and left turn bays in the median at major intersections. There are currently no plans to improve this roadway beyond its existing cross section. The 1997 counted volume on US 290 south of Cross Park is 26,630.

Springdale Road – Springdale Road is currently a two lane minor arterial that extends from Rundberg Lane to Cesar Chavez. There is one lane in each direction with no median. This roadway is planned to be improved to a four lane divided major arterial throughout this study areas. The 1997 counted volume on Springdale Road north of US 290 is 6,930 vpd.

Ferguson Lane - Ferguson Lane is currently a two lane collector - that extends from Cameron Lane to just east of Springdale Road. There is one lane in each direction with no median. There are no plans to improve this roadway before the construction of this site. The 1997 counted volume on Ferguson Lane west of Springdale is 2,290 vpd.

Cross Park Drive – Cross Park Drive is currently a five lane industrial collector that extends from Cameron Road to US 290. There are two lanes in each direction with a continuos left turn lane throughout the length of the road. There are currently no plans to improve this roadway beyond its existing cross section. The 1997 counted volume on Cross Park Drive east of Cameron Road is 12,680 vpd.

Sprinkle Road— Sprinkle Road is currently a two lane collector that extends from Ferguson Lane north to Springdale Road. There is one lane in each direction with no median. As part of this site development, Sprinkle Road will be extended south to align with Chartre Drive as it intersects with Cross Park Drive. The 1997 counted volume on Sprinkle north of Ferguson is 1,090 vpd.

Tuscany Way— Tuscany Way is currently an unstriped industrial collector that has an existing cross section of approximately 56 feet. This roadway currently extends from US 290 to Exchange Drive. As part of the Nalle Tract development, Tuscany Way will be extended to intersect the future extension of Sprinkle Road. There were no 1997 counts conducted on Tuscany Way.

#### TRAFFIC ANALYSIS

The impact of site development traffic on the existing area roadways was analyzed. Two time periods and travel conditions were evaluated:

- 2000 Existing Conditions
- 2015 Build-Out Conditions

The TIA assumes the following roadway improvements will be made prior to site build-out:

- 1. Sprinkle Road will be extended south to align with Chartre Drive as it intersects with Cross Park Drive.
- 2. Tuscany Way will be extended to intersect the future extension of Sprinkle Road.
- US 290 will be improved to a six lane freeway with two lane frontage roads from US 183 to Springdale Road.
- 4. Springdale Road will be improved to a four lane divided major arterial throughout this study area.

# INTERSECTION LEVEL OF SERVICE (LOS)

The TIA analyzed 9 intersections, 6 of which are or would be signalized, and 3 which are not. Existing and projected levels of service are as follows, assuming that all improvements recommended in the TIA are built:

Table 4. Level of Service								
Internation	2000		2015					
Intersection	AM	PM	AM	PM				
Cross Park Dr./US 290	F	F	Α	Α				
Springdale Rd./US 290*	D	С						
Springdale Rd./US 290*			D	С				
Springdale/US 290 EB*			D	D				
Tuscany Way/US 290	В	В	Α	Α				
Ferguson Ln./Springdale Rd.*	Α	Α	D	В				
Ferguson Ln./Sprinkle Rd.*	Α	. A	В	В				
Cameron Rd./Cross Park*	В	С	В	С				
Cameron Rd./Ferguson Ln*	В	В	С	В				
Tuscany Way/Exchange Dr.	·		Α	Α				

<sup>\* =</sup> SIGNALIZED

## RECOMMENDATIONS

- 1) The applicant should, prior to final approval of the site plan, post fiscal for:
  - a) 13.3% of the cost of a signal at the intersection of Ferguson Lane and Sprinkle (\$16,013.05).

- 4.3% of the cost of construction of a right turn lane in the eastbound direction at the intersection of Ferguson and Springdale (\$410.12).
- c) 4.3% of the cost of a signal at the intersection of Ferguson and Springdale (\$5,160.00).
- 2) Additional right-of-way will be acquired at the subdivision stage.
- 3) Install stop signs and appropriate pavement markings for site driveways.
- 4) For information: Three copies of the final version of the TIA incorporating all corrections and additions must be submitted prior to final reading of the zoning case.
- 5) Development of this property should be limited to uses and intensities which will not exceed or vary from the projected traffic conditions assumed in the TIA, including peak hour trip generations, traffic distribution, roadway conditions, and other traffic related characteristics.
- 6) A conditional overlay, limited trips to 5,874 per day, should be established for this site.

If you have any questions or require additional information, please contact Rachel K. Everidge at 499-2332.

George Zapalac Principal Planner

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Department of Development Review and Inspections