CENTRAL IMPERIAL COUNTY TRAFFIC IMPACT FEE STUDY

Imperial County Planning & Development Services

March 2008





CENTRAL IMPERIAL COUNTY TRAFFIC IMPACT FEE STUDY

MARCH 2008

Prepared for:

Imperial County Planning & Development Services 801 Main street El Centro, CA 92243

> Prepared by KOA Corporation 5095 Murphy Canyon Road, Suite 330 San Diego, CA 92123 (619) 683-2933 Fax: (619) 683-7982 Job No.: JA6488

Table of Contents

CHAPTER 1 INTRODUCTION	1
CHAPTER 2 FEE AREA AND ROADWAY FACILITIES	2
CHAPTER 3 MODELING AND TRAFFIC FORECASTS	7
CHAPTER 4 COUNTY FACILITY STANDARDS AND REQUIRED SYSTEM IMPROVEMENTS	11
CHAPTER 5 FACILITY IMPROVEMENT COSTS	14
CHAPTER 6 FEE CALCULATION AND FEE SCHEDULE	17
CHAPTER 7 PROGRAM IMPLEMENTATION AND MITIGATION FEE ACT	21
CHAPTER 8 OTHER ISSUES	23

List of Figures

Figure 2-1 Project Study Area	4
FIGURE 2-2 EXISTING SEGMENT DAILY TRAFFIC AND LEVEL OF SERVICE	5
FIGURE 2-3 EXISTING INTERSECTION LEVEL OF SERVICE	6
FIGURE 3-1 PROPOSED FUTURE DEVELOPMENT PROJECT	9
FIGURE 3-2 FORECASTED DAILY TRAFFIC	10
FIGURE 4-1 IMPERIAL COUNTY ADOPTED CIRCULATION NETWORK	12
FIGURE 4-2 PROPOSED ROADWAY CLASSIFICATION	13
FIGURE 5-1 TOTAL COST BREAKDOWN	16
FIGURE 6-1 INTERNAL EXTERNAL ADJUSTMENTS	18

List of Tables

Table 3-1 Future Study Area Land Use Summary	7
TABLE 4-1 IMPERIAL COUNTY ROAD STANDARDS	11
TABLE 5-1 FACILITY COSTS FOR SYSTEM IMPROVEMENTS	15
TABLE 5-2 AVERAGE COSTS PER LANE MILE	15
TABLE 6-1 SUMMARY OF FEE CALCULATION	18
TABLE 6-2 TRIP RATES AND EQUIVALENTS	19
TABLE 6-3 TRAFFIC IMPACT FEE PROGRAM SCHEDULE	20

Appendices

APPENDIX A EXISTING CONDITIONS LEVEL OF SERVICE APPENDIX B LAND USE ASSUMPTIONS AND ZONE SYSTEM APPENDIX C ROADWAY CROSS SECTIONS APPENDIX D COST BREAKDOWN APPENDIX E INTERSECTION TURN MOVEMENTS APPENDIX F SENSITIVITY STUDY APPENDIX G SUMMARY OF COMMENTS

CHAPTER 1 INTRODUCTION

This Traffic Impact Fee (TIF) Study has been prepared for the Imperial County Planning Department (the County) by KOA Corporation (KOA). Impact fees will be paid by developers to fund circulation system improvements needed to accommodate new development projects generally located in the area between El Centro and Brawley in Imperial County. This report presents the data, methodology, and results of the study, and it complies with the legal requirements pertaining to the implementation of a fee program. The impact fees developed herein are proportionate and reasonably related to the system improvements that are necessitated by new development. The impact fees that will be paid by developers will be applied to address the cumulative impacts of future developments.

During the past three decades several trends in public finance have reduced the ability of local governments to generate sufficient funds to provide services and to maintain an adequate infrastructure. These trends include tax limitation measures (such as Proposition 13), declining support for local bond measures, and reductions in state and federal assistance to local governments. Accordingly, local governments are adopting a policy that requires new development to pay its own way to fund infrastructure expansion. This can be accomplished through assessments or by means of development impact fees. Assessments require the approval of property owners and are appropriate when the facility expansion that is needed is directly related to developing property. Development impact fees, on the other hand, are an appropriate funding source for facility expansions that will benefit all developments within the local jurisdiction. Development fees require a majority vote of the local legislative body to be adopted.

This TIF Study was performed to determine the potential impacts to traffic facilities from development in a portion of Imperial County. An evaluation was made of the development that is anticipated in the Study Area based on all known and potential development projects in that area, as well as assumptions regarding allowable land uses and expected land use density.

This report develops a TIF program for the County which establishes a fee structure according to land use that will fund the improvements needed to serve future development. The report presents findings that are required by the Mitigation Fee Act (California Government Code, Sections 66000 et seq., hereinafter, the "Mitigation Fee Act") for the adoption of a fee program.

In order to maintain the TIF program, the County should perform a traffic impact study update no less than every five years. This will enable the TIF program to keep pace with changes to the development market, construction industry costs, general inflation and other socio-economic factors. A five year increment for future studies will also keep the TIF program in compliance with statutory requirements for implementing such programs.

CHAPTER 2 FEE AREA AND ROADWAY FACILITIES

The Study Area for this TIF Study encompasses approximately 56 square miles and is shown in Figure 2-1. The Study Area includes both local and regional roadway network facilities. The Study Area is approximately bound by Aten Road to the south, Schartz Road to the north, Forrester Road to the west and State Route 111 to the east. The Study Area includes the Cities of El Centro and Imperial, and is south of the City of Brawley.

The following is a description of the existing roadway network in the Study Area, identifying important State Routes and arterials. The fee program includes all the following facilities whether they are State Routes or local jurisdictional roads. Lesser roadways not on the classified system that serve local access needs are not discussed. Figure 2-2 shows the existing daily traffic and Level of Service (LOS) for roadway segments in the Study Area. Figure 2-3 shows the existing LOS for intersections in the Study Area. Some locations with congestion worse than LOS "C" occur because this represents a delay for the side street stop signs rather than the major roads. Further information regarding existing conditions LOS can be found in Appendix A.

State Route 86 (SR-86) runs in a north-south orientation. Entering Imperial County from Riverside County to the north, the route covers a length of 67.8 miles within Imperial County, ending in the City of Calexico. The northern portion of SR-86 near Riverside County is constructed as a 4 lane expressway, and is constructed as a 2 lane conventional highway in the southern portion near Calexico.

State Route 111 (SR-111) runs in a north-south orientation. Beginning at the Downtown Calexico Port of Entry (POE), the route runs for 65.4 miles within Imperial County. From the Downtown Calexico POE to SR-98/Birch Street, SR-111 is constructed as a 4 lane conventional highway. SR-111 is constructed as a 4 lane expressway from SR-98/Birch Street in Calexico to SR-78 to the north. SR-111 includes a segment of approximately one mile within the City of Brawley that shares alignment with SR-78.

The important *Study Area Arterials* that run in a north-south orientation include (from east to west) Forrester Road, Austin Road, and Dogwood Road. The important Study Area Arterials that run in an east-west orientation include (from north to south) Keystone Road, Worthington Road and Aten Road. The adopted and proposed classifications for the Study Area Arterials are described below along with State Routes 86 and 111. The adopted classifications are based on the existing Imperial County Circulation Element. The proposed classifications reflect the roadway standards that would be required to provide adequate service in the future based on modeling of future conditions as described in this report.

The existing classification for Forrester Road is a 2 lane prime arterial. The adopted classification is a 6 lane prime arterial. The proposed classification is a 6 lane prime arterial between Keystone Road and Larsen Road, and also south of Aten Road. The proposed classification is an 8 lane prime arterial between Larsen Road and Aten Road.

The existing classification for Austin Road is a 2 lane collector between SR-86 and Aten Road and a 2 lane minor arterial south of Aten Road. The adopted classification is a 6 lane prime arterial. The proposed classification is a 6 lane expressway between SR-86 and Keystone Road, and an 8 lane expressway throughout the remainder of the Study Area.

The existing classification for Dogwood Road is a 2 lane prime arterial. The adopted classification is a 6 lane prime arterial. The proposed classification is an 8 lane prime arterial north of Schartz Road and an 8 lane expressway south of Schartz Road.

The existing classification for Keystone Road is a 2 lane prime arterial between Forrester Road and SR-111. The adopted classification is a 6 lane prime arterial. The proposed classification is a 6 lane prime arterial between Forrester Road and Austin Rd, and an 8 lane prime arterial between Austin Road and SR-111.

The existing classification for Worthington Road is a 2 lane collector between Forrester Road and SR-111. The adopted classification is a 4 lane collector. The proposed classifications are a 6 lane minor arterial between SR-86 and SR-111, and a 4 lane collector between Forrester Road and SR-86.

The existing classification for Aten Road is a 2 lane minor arterial between Forrester Road and Austin Road, a 4 lane minor arterial between Austin Road and SR 86, and a 4 lane prime arterial between SR-86 and SR-111. The adopted classification is a 6 lane prime arterial. The proposed classifications are an 8 lane expressway between SR-111 and SR-86, an 8 lane prime arterial between SR-86 and Austin Road, and a 4 lane collector over the remaining portions of the roadway within the Study Area.

The proposed classification of SR-111 is an 8 lane freeway. The proposed classification of SR-86 is an 8 lane expressway north of Harris Road, and south of Harris Road the proposed classification is a 6 lane expressway.







KOA Corporation

CHAPTER 3 MODELING AND TRAFFIC FORECASTS

The TIF schedule proposed herein reflects known and anticipated potential development within the Study Area over a planning horizon that achieves full build-out of the Study Area, but not the balance of the County. All approved, proposed, and probable projects (collectively: "future development projects") within the Study Area were included in the land use analysis. In addition, County Staff provided future land use assumptions for the remainder of the Study Area that is not presently subject to a development proposal. Proposed future development projects are shown in Figure 3-1. Further information regarding land use assumptions and development, as well as the study area zone system, can be found in Appendix B.

The need for system improvements was determined based on the demand that will be generated by future development projects. Traffic from future development projects was determined in terms of total daily traffic using the appropriate trip generation rate for each land use within each project. The trip generation rates take into account alternate modes of transportation (i.e.—transit, bicycle and pedestrian) although they presume modest use or typical suburban patterns. These rates are consistent and reasonable for this purpose. The land use summary for the entire study area is in Table 3-1. The TIF burden may be adjusted for each type of development during the fee apportioning process as described later in the study.

Land Use	Unit	Proposed Development Projects	Remainder Area	Total Study Area
Active Park	Acre	520.2	755.8	1,276.0
Agriculture	Acre	0.0	4,178.7	4,178.7
Automotive	Acre	2.6	0.0	2.6
Commercial Retail (specialty)	Acre	196.9	495.5	692.4
Commercial Retail (neighborhood)	Acre	96.1	165.9	262.0
Commercial Retail (community)	Acre	36.0	217.3	253.3
Commercial Retail (regional)	Acre	0.0	212.5	212.5
Golf Course	Acre	142.1	0.0	142.1
Industrial (light)	Acre	555.1	1,037.1	1,592.2
Industrial (medium)	Acre	1,404.3	1,481.1	2,885.4
Industrial (heavy)	Acre	2,107.2	896.2	3,003.4
Open Space / ROW	Acre	2,603.4	4,710.8	7,314.2
Public Facilities	Acre	45.4	354.1	399.5
Residential (single family)	DU	21,130	30,899	52,029
Residential (multi-family)	DU	7,484	11,934	19,418
Residential (senior community)	DU	1,015	0	1,015
School (elementary)	Acre	203.8	0.0	203.8
School (middle)	Acre	94.4	34.0	128.4
School (high)	Acre	47.7	0.0	47.7

Table 3-1Future Study Area Land Use Summary

In order to create projections of traffic volumes on the Study Area facilities, assistance from the Caltrans District 11 Travel Forecasting group was obtained. Their tools for modeling the future land use and socio-economic patterns in the TRANPLAN software were put to use. The TRANPLAN software is used for urban travel demand modeling, and Caltrans, among others, has been responsible for routinely developing forecasts of traffic for Imperial County.

The TRANPLAN models for travel demand include a process to generate Productions and Attractions using the vehicular trip quantities derived from the discrete land use summaries presented earlier. The next step is a gravity model distribution of the travel among all available choices of origins and destinations in the County or beyond as represented by cordon stations at the County line. Next, the highway assignment process is applied to derive the volumes upon the roadways that are available in the network.

Using the Caltrans-developed Imperial County Travel Model as a basis, the land uses defined for the Study Area were input along with edits to the network in the Study Area. The Study Area's zone system was further refined with detail as well. In addition, to provide route continuity of arterials penetrating the Study Area, care was taken to assure that they had connectivity with other regional routes, such as Austin Road. Roadways were also edited in the model for continuity, such as needing to traverse southerly to connect with I-8. Connectivity with SR-111 on the east-west arterials was also assured at appropriate locations.

The traffic volumes obtained through this process were reviewed, and in some instances slightly adjusted to lessen discontinuities or irregularities before applying the LOS standards. See Figure 3-2 for the results of this process.

Project List from the "Master Traffic Study 2006" Prepared By: Planning & Development Services Department



Not To Scale

Figure 3-1 Proposed Future Development Projects



CHAPTER 4 COUNTY FACILITY STANDARDS AND REQUIRED SYSTEM IMPROVEMENTS

The County's roadway facility standards are based on the LOS measure of congestion commonly used in traffic planning. LOS is calculated based on the volume of traffic on a roadway or delay at an intersection, compared to the capacity of the roadway. LOS "A," "B," and "C" suggest that delays are generally not experienced. LOS "D" suggests tolerable delays, though traffic is high and some short-term back-ups occur. LOS "E" and "F" suggest significant to excessive delays as traffic volumes meet or exceed the capacity of the facility. The following policies present the performance standards that are acceptable to the County:

- Strive to maintain LOS "C" or better on arterial and collector streets, at all intersections, and on principal arterials during peak hours. The County has established LOS "C" as the general threshold for acceptable overall traffic operations for both signalized and unsignalized intersections.
- Accept LOS "D" after finding that there is no practical and feasible way to mitigate to LOS "C;" and the development causing the lower level of service provides a clear, overall public benefit.

This TIF Study is based upon maintaining a LOS "C" standard. While this has been achieved for most facilities in the future, there are some exceptions where not providing additional lanes for a relatively small excedence of the LOS "C" standard was assumed to be acceptable. The County's currently adopted Circulation Network is shown in Figure 4-1. Based on the anticipated future traffic volumes (as described in Chapter 3), a proposed roadway classification system has been developed and is shown in Figure 4-2.

Classification	Number of Lanes to Maintain LOS C / Daily Traffic					
Classification	2	4	6	8	10	
Freeway		60,600	90,900	121,200	151,500	
Expressway		40,000	60,000	80,000		
Prime Arterial	14,900	29,700	44,600	59,500		
Minor Arterial	14,800	29,600	44,400	59,200		
Collector	13,700	27,400				
Local Collector	7,100					
Residential Street	1,500					
Industrial Collector	14,000					
Industrial Local Street	7,000					

Table 4-1Imperial County Road Standards

* The shaded volumes are published in the Imperial County 2006 Circulation Element. All other volumes were derived from the published volumes.





CHAPTER 5 FACILITY IMPROVEMENT COSTS

For both traffic analysis and cost estimation purposes, the 108-mile roadway network for the project was divided into 91 study segments. The segments were defined by their common intersection points and given logical segment names to record both their existing and proposed characteristics. Facility cost estimates were developed based on 2007 dollars.

The proposed roadway classifications were established using the traffic model forecast volumes, generally assuming an upper capacity limit of LOS "C" for all segments. Using the current Imperial County Circulation Element as a guide to the roadway classifications, study segments requiring greater capacity were upgraded. Most segments maintained consistent roadway classifications; although, negligible changes in volume may exist. The classifications used in this study are as follows: Freeway (8 lanes), Expressway (8 and 6 lanes), Prime Arterial (8 and 6 lanes), Minor Arterial (6 and 4 lanes), and Collector (4 lanes). No classification of a roadway greater than 8 lanes was suggested in this study. For these reasons, some proposed classifications did not meet the LOS "C" criterion. Cross-sections for the classifications were based upon those provided in the Imperial County Circulation Element. Cross sections for all classifications can be seen in Appendix C. Information on unit prices and tables used in cost development are provided in Appendix D. A summary of facility costs for system improvements is shown in Table 5-1.

The improvements needed to each roadway were put into three basic categories: roadway widening, reconstruction, or new road construction. Widening was assumed for existing roadways that could provide the capacity needs by adding lanes to the outside of the existing facility and minor improvements to the existing lanes. Roadway reconstruction was assumed for existing roads that required substantial geometric changes to meet the proposed cross-sections of their ultimate classifications. New road construction assumptions were used for segments where paved roadways did not exist. Project costs were tallied for existing pavement, concrete removal items, new pavement needs, new medians, new curb, gutter and sidewalks, as well as the relocation of irrigation canals.

In addition to general roadway improvement, costs were estimated for traffic signals and grade separated infrastructure. Costs for interchanges were added for all intersections with SR-111 under the premise that it will become a freeway. However, only 25% of the cost of improvements to SR-111 were included in the total program costs which serve as the basis for the fee schedule. It was assumed that developers subject to program fees would only be responsible for 25% of the costs associated The resulting 75% reduction of SR-111 costs amounted to with improvements to SR-111. approximately \$202 million, and is shown as a program cost reduction in Table 5-1. With high traffic volumes expected for expressways and prime arterials, it was assumed that traffic signals alone would not maintain an acceptable LOS. Therefore, interchanges were generally added to 8 lane expressways at their intersection with other expressways or prime arterials. Actual interchange locations were selected in consultation with the County and are shown in Figure 4-2. All interchanges in our costing exercise were assumed to be typical diamond interchanges. Bridges over railroad crossings at expressway and prime arterial roadways as well as rivers were also added to the cost matrix. Grade separation costs were added to the segment it applied to, or the adjacent segment to the south of the intersection/interchange improvement. Segment improvement costs totaled \$754 million and grade separation costs totaled \$420 million, for a combined cost of \$1,174 million. The cost per lane mile of these improvements without including grade separation improvement was averaged to be approximately \$1.3 million per lane-mile. The component costs per lane mile are shown Table 5-2.

Added to these project costs were estimated costs for environmental mitigation and soft costs for project engineering and construction administration. Environmental mitigation costs were developed simply through using a standard 1% addition to project costs for most segments, 4% for segments with irrigation channels, and 10% for segments crossing the river/flood plane. Engineering design and construction administration costs were considered to be 20% of the project improvements costs. Environmental mitigation costs added about \$24 million to the total cost, and engineering costs figured to almost \$235 million.

Total costs for the 108 miles of segment improvements within the Study Area were approximately \$2,031 million. The breakdown of the total cost is shown in Figure 5-1. After applying the 75% reduction of costs for SR-111, the total program costs total \$1,830 million.

Right of way costs were added last to the project costs. The amount of right-of-way needed was based upon average apparent existing right-of-way width from aerial photography compared to the right-of-way needed from the proposed road classification cross-sections. Segments that were within City limits were considered to be a higher unit price than those in typically undeveloped or rural areas. Using other studies and recent project information, we used a cost of \$14 per square foot for land acquisition for urban or developed areas and \$9 per square foot for other areas. The total cost for right-of-way for the segments totaled to just over \$598 million. Right-of-way costs were added to the project costs and totaled.

Item	Cost (1,000's)
Construction Costs (w/o Grade Separation Improvements)	\$754,246
Grade Separation Improvement Costs	\$420,000
Environmental Mitigation Costs	\$23,776
Design & Construction Administration Costs	\$231,849
Right-of-Way Costs	\$598,345
Total Costs for System Improvements	\$2,031,216
Cost Reduction (75% of SR-111 costs)	(\$201,647)
Total Program Costs	\$1,829,569

Table 5-1Facility Costs for System Improvements

Table 5-2Average Costs Per Lane Mile

Road Classification	Construction Cost (Not including grade separation)	Construction Plus Design, R/W and Environmental
Freeway	\$950,400	\$8,909,333
Expressway	\$1,406,133	\$6,452,218
Prime Arterial	\$1,182,748	\$2,605,725
Minor Arterial	\$1,437,166	\$2,292,976
Collector	\$1,421,271	\$2,506,836
All Classifications	\$1,333,185	\$5,101,287



Figure 5-1 Total Cost Breakdown*

* Total Cost for System Improvements (without considering 75% reduction of SR-111 costs)

CHAPTER 6 FEE CALCULATION AND FEE SCHEDULE

The TIF program fee schedule was determined by dividing the total cost of the improvements necessitated by development by the number of adjusted trips generated by new development, and then determining the appropriate fee for various land uses in terms of Equivalent Dwelling Units, or EDU's. Each EDU represents 10 daily trips, or the amount traditionally associated with a single family dwelling unit. The impact fees that will be paid by developers will be applied to address the cumulative impacts of future developments. Developers will receive credit for constructing improvements that are specifically called for in the TIF program.

A detailed description of the total cost of circulation element improvements is provided in Chapter 5. As is noted below, no adjustment to the total cost of circulation elements is necessary due to costs associated with existing system deficiencies. The determination of the total number of trips generated by future development projects is provided in Chapter 3. This total number of trips was adjusted to determine the cost per trip that was used as the basis for the TIF program fee schedule. The adjustment to the total number of trips is described below. The determination of the fee schedule for various land uses in terms of EDU's is provided in the sections that follow.

To establish the TIF per unit of development within the Study Area, we have considered the effect of several factors. These include the potential for existing deficiencies in the circulation system, the proportional effect of non-study area traffic contributing to the circulation system, and the policy decision to reduce the proportional fee attributable to commercial land uses compared to residential uses. Each is discussed further below.

First, it was considered that if the circulation system were operating inadequately at the present time, the cost for improvements to capacity should not all be levied only against future development. The responsibility to help pay for those existing deficiencies should be identified, and this would mean that the pubic agencies responsible for the roadways would need to identify some other public funding source to contribute to correcting the deficiencies. This means that the cost would be divided in some proportional manner between new, future development, and the portion identified as an existing deficiency. However, in our study area there are no roadway segments or intersections that are currently operating at an unacceptable LOS except relatively few side street stop controlled locations that would eventually be signalized. This means that there are no existing deficiencies. Therefore, the increases in capacity necessary to achieve an adequately operating system are all attributable to new development, subject to the following discussion.

The traffic utilizing the roadways within the Study Area (the foundation of the TIF program) includes traffic from several sources. First, there is traffic generated within the Study Area that is destined to other locations entirely within the Study Area. We call these the "internal trips." Secondly, there are origins or destinations for trips within the Study Area that may have their destination or origin outside of the Study Area. These are call "internal to external" trips. Thirdly, there are trips that neither have an origin nor a destination within the Study Area that travel through the Study Area which we shall call "external through trips." Figure 6-1 provides an illustration of internal trips, internal to external trips, and external through trips. For the external through trips we identify 9.9% as the percentage of the traffic they contribute to the Study Area and remove this percentage from the responsibility attributable to developers via the TIF program. This percentage is based on Transportation Plan Modeling performed by Caltrans. It was determined by isolating the Study Area as a district to

examine the resulting trip table using utility programs available in the TRANPLAN suite of programs.





Other adjustments could be developed that would shift more of the proportional burden for the TIF from retail/commercial uses to residential uses. This can be accomplished in several ways, but the rationale is that the support retail uses of an area would be excessively burdened with high fees when the very reason it exists is to provide service and amenities to the residential uses. This occurs because the vehicular trip rates used to develop the resulting volumes are quite high for these uses, especially at driveways. Some of the ways this adjustment can be accomplished are by a policy based reduction of the trip rate for retail, by applying "passerby" discounts to the trip rates, by studying the amount of externally ended travel for these uses, or by a combination of these methods. None of these types of adjustments have been applied to the fee schedule herein.

The total cost, external trip proportionality, and EDU factors were applied to determine a cost of \$8,250.00 per EDU. This is shown in Table 6-1. This would be the cost for a typical single family residence, or EDU, for improvements associated with this program. Other uses would be proportional to their EDU and trip rate equivalence. As mentioned earlier, for uses not defined in this report, County staff would work with applicants to identify appropriate rates based on individual projects.

Total Cost of Improvements (1,000's)	\$1,829,569
Less Proportion for Externally Ended Trips (1,000's)	
Percent trips external-thru	9.9%
Net cost to spread	\$1,648,442
Divided by Total Trips in Study Area	1,999,102
Equals Cost per Trip	\$825.00
Times Trips per EDU	10
Equals Cost per EDU	\$8,250.00

Table 6-1Summary of Fee Calculation

The TIF program fee is determined in terms of EDU's. In this manner a fee can be determined for various land uses. Table 6-2 shows the trip rates for various land uses and the conversion of those trip rates into EDU's. Some of the land uses mentioned in Table 6-2 may not be subject to a fee under the program, such as public office and school land uses. However, these land uses are presented for completeness. Applicants proposing land uses that are not specifically included in the table would be expected to work with the county to determine the appropriate trip rates and EDU's for their proposed projects so that the appropriate fee may be determined. Table 6-3 shows the TIF program fee schedule for various land uses in terms of units of development (Acres and/or Thousand Square Feet (ksf)). These fees were determined by multiplying the number of EDU's for each land use by the rate of \$8,250/EDU (as determined in table 6-1).

Land Lico	Acre/Unit		1,000 s.f. (ksf)		
Laliu Use	Trip Rate**	EDUs*	Trip Rate	EDUs*	
Active Park	50/Acre	5			
Agriculture	2/Acre	0.2			
Commercial (office)	300/Acre	30	20/ksf	2	
Commercial Retail (specialty)	400/Acre	40	40/ksf	4	
Commercial Retail (neighborhood)	1200/Acre	120	120/ksf	12	
Commercial Retail (community)	700/Acre	70	80/ksf	8	
Commercial Retail (regional)	500/Acre	50	50/ksf	5	
Golf Course	7/Acre	0.7			
Industrial Park	90/Acre	9	8/ksf	0.8	
Warehousing	60/Acre	6	5/ksf	0.5	
Manufacturing / Assembly	50/Acre	5	4/ksf	0.4	
Heavy Industrial	6.75/Acre	0.675	1.5/ksf	0.15	
Open Space / ROW	0/Acre	0			
Public Facilities	90/Acre	9	9/ksf	0.9	
Residential (single family)	10/DU	1			
Residential (multi-family)	8/DU	0.8			
Residential (senior community)	4/DU	0.4			
School (elementary)	90/Acre	9	14/ksf	1.4	
School (middle)	50/Acre	5	12/ksf	1.2	
School (high)	60/Acre	6	15/ksf	1.5	

Table 6-2Trip Rates and Equivalents

* Trip rates used in the tables are derived from SANDAG's "San Diego Traffic Generators" publication of 2002 with additional assistance from the I.T.E. Trip Generation manual for the Heavy Industrial land use category.

* Equivalent Dwelling Units

Land Use	Fee			
Land Use	Per Acre or DU	Per 1,000 s.f. (ksf)		
Commercial (Office)	\$247,500	\$16,500		
Commercial Retail (specialty)	\$330,000	\$33,000		
Commercial Retail (neighborhood)	\$990,000	\$99,000		
Commercial Retail (community)	\$577,500	\$66,000		
Commercial Retail (regional)	\$412,500	\$41,250		
Golf Course	\$5,775			
Industrial Park	\$74,250	\$6,600		
Warehousing	\$49,500	\$4,125		
Manufacturing / Assembly	\$41,250	\$3,300		
Heavy Industrial	\$5,569	\$1,238		
Residential (single family)	\$8,250			
Residential (multi-family)	\$6,600			
Residential (senior community)	\$3,300			
Other Uses	\$8,250/EDU or \$825/trip			

Table 6-3Traffic Impact Fee Program Schedule

CHAPTER 7 PROGRAM IMPLEMENTATION AND MITIGATION FEE ACT

This section identifies tasks that the County should complete when implementing the TIF Program. It should be noted that this report has been prepared to address the technical aspects of the implementation of a TIF Program. This chapter is included for informational purposes, and does not provide legal advice. Legal counsel should be obtained to ensure compliance with the process of implementing the TIF Program.

Program Implementation

The County legislative body should adopt an ordinance to implement the TIF Program with the assistance of professional legal counsel.

The County legislative body should authorize the County Planning Department to make factual findings regarding the technical aspects of the TIF Program, and to implement the program by imposing and collecting fees. The ordinance could refer to this TIF Study as a technical reference in support of the TIF Program.

In order to comply with the Mitigation Fee Act (California Government Code Sections 66016 through 66018), the County legislative body should perform the following:

- Send a notice of public hearing regarding the TIF Program.
- Hold the public hearing to consider adoption of the TIF Program.
- Adopt an ordinance to establish the County's authority to impose the proposed fees.

The County should also periodically perform the following tasks on an on-going basis at least every 5 years to maintain the efficacy of the TIF Program:

- Re-evaluate circulation based on new development
- Identify improvement projects necessitated by development.
- Adjust the Fee Schedule to account for inflation.
- Make findings to comply with reporting requirements pursuant to the Mitigation Fee Act.
- Provide credits or reimbursements for developers who dedicate land or construct facilities that are part of the identified improvement projects.

Mitigation Fee Act Findings

The Mitigation Fee Act (California Government Code Sections 66000 through 66025), establishes requirements for local agencies to impose and administer fee programs. The Mitigation Fee Act requires local agencies to document five findings when adopting a fee. These five statutory findings are addressed as follows.

Purpose: The County must identify the purpose of the fee. (§66001(a)(1)).

The policy of the County is that new development will "pay its own way" for the cost of public facilities, including traffic facilities, required to accommodate growth. The purpose of the TIF Program is to implement this policy by providing a funding source from new development for capital improvements to serve those new developments. The TIF advances a legitimate interest by enabling the County to provide traffic facilities to new development.

Use of Fee Revenues: The County must identify the use to which the fee is to be applied.

The County will use the fees to provide traffic facilities that are identified in this report as improvement projects. This report provides the information relating to the improvement projects, including cost estimates for planned facilities.

Benefit Relationship: The County must demonstrate a reasonable relationship between the fee's use and the type of development project on which the fee is imposed. (§66001(a)(3)).

The County will restrict the use of TIF revenues to the acquisition of right-of-way and construction of traffic facilities needed to serve new development. Therefore, there is a reasonable relationship between the use of TIF revenues and the new developments that will pay the fees.

Burden Relationship: The County must demonstrate a reasonable relationship between the need for the public facility and the type of development project on which the fee is imposed. (§66001(a)(4)).

The number of units and building square footage of new development were used to determine the associated new trips and the demand for traffic facilities needed to accommodate growth. The need for the TIF is based on projections of future traffic and the expected traffic impacts of new development. Therefore, there is a reasonable relationship between the need for the public facilities and the type of development project on which the TIF is imposed.

Proportionality: The County must demonstrate a reasonable relationship between the amount of the fee and the cost of the public facility or portion of the public facility attributable to the development on which the fee is imposed. (§66001(b)).

The TIF for a specific development project and the cost of the facilities attributable to that project are based on the estimated vehicle trips the project will add to public roadways. The total TIF for a specific project is based on number of units for residential development and building square feet for nonresidential development. Larger projects of a certain land use type will have a higher trip generation and pay a higher TIF than smaller projects of the same land use type. Accordingly, the Fee Schedule is based on a reasonable relationship between the TIF for a specific development project and the cost of the facilities attributable to that project.

CHAPTER 8 OTHER ISSUES

In response to some of the comments that were made on the initial draft of this report, we have added two appendices. The first, Appendix F, contains the results of a series of "sensitivity" runs that address what effect certain changes in assumptions would make on the ultimate fee per EDU. For instance, if a different cost for urban or rural ROW costs were used, how would that change the resulting fee. This appendix contains the results of those analyses.

Finally, Appendix G contains a summary of the comments received and the responses to them as of the time of publication of this report.

APPENDIX A EXISTING CONDITIONS LEVEL OF SERVICE

Roadway Segment	1	Without Project		
	Lanes/Class	ADT	V/C	LOS
Forrester Road				
north of Keystone Rd	2 / Prime Arterial	7,396	0.389	A
between Keystone Rd and Larsen Rd	2 / Prime Arterial	6,799	0.358	A
between Larsen Rd and Worthington Rd	2 / Prime Arterial	6,897	0.363	A
between Worthington Rd and Aten Rd	2 / Prime Arterial	7,061	0.372	A
south of Aten Rd	2 / Prime Arterial	5,361	0.282	A
Austin Road		•	•	•
between SR-86 and Keystone Rd	2 / Collector	969	0.057	A
between Keystone Rd and Harris Rd	2 / Collector	1,186	0.069	A
between Harris Rd and Larsen Rd	2 / Collector	1,140	0.067	А
between Larsen Rd and Neckel Rd	2 / Collector	1,261	0.074	A
between Neckel Rd and Worthington Rd	2 / Collector	1,261	0.074	А
between Worthington Rd and Aten Rd	2 / Collector	3,443	0.201	A
south of Aten Rd	2 / Minor Arterial	2,537	0.137	A
State Route 86	I	1	1	1
north of Austin Rd	4 / Prime Arterial	18,237	0.480	В
between Austin Rd and Schartz Rd	4 / Prime Arterial	16.934	0.446	В
between Schartz Rd and Carev Rd	4 / Prime Arterial	17.607	0.463	В
between Carey Rd and Keystone Rd	4 / Prime Arterial	17.757	0.467	В
between Keystone Rd and Harris Rd	4 / Prime Arterial	17.276	0.455	В
between Harris Rd and Larsen Rd	4 / Prime Arterial	17.639	0.464	В
between Larsen Rd and Ralph Rd	4 / Prime Arterial	17,492	0.460	В
between Ralph Rd and Neckel Rd	4 / Prime Arterial	18,164	0.478	В
between Neckel Rd and 15th St	4 / Prime Arterial	19.583	0.515	В
between 15th St and Worthington Rd	4 / Prime Arterial	22,888	0.602	В
between Worthington Rd and Huston Rd	4 / Prime Arterial	28,402	0.747	С
between Huston Rd and Aten Rd	4 / Prime Arterial	28.621	0.753	С
south of Aten Rd	4 / Prime Arterial	21.683	0.571	В
Dogwood Road		,		
north of Schartz Rd	2 / Prime Arterial	3.388	0.178	А
between Schartz Rd and Carey Rd	2 / Prime Arterial	3,710	0.195	А
between Carey Rd and Keystone Rd	2 / Prime Arterial	4.515	0.238	А
between Keystone Rd and Harris Rd	2 / Prime Arterial	4.238	0.223	A
between Harris Rd and Ralph Rd	2 / Prime Arterial	4.307	0.227	A
between Ralph Rd and Neckel Rd	2 / Prime Arterial	4.635	0.244	A
between Neckel Rd and Robinson Rd	2 / Prime Arterial	4.543	0.239	A
between Robinson Rd and Worthington Rd	2 / Prime Arterial	5.055	0.266	A
between Worthington Rd and Huston Rd	2 / Prime Arterial	5,671	0.298	A
between Huston Rd and Aten Rd	2 / Prime Arterial	5 785	0 304	A
south of Aten Rd	2 / Prime Arterial	8 371	0.441	B
Old State Route 111	271 millio Artondi	0,011	0.111	D
north of Schartz Rd	2 / Minor Arterial	404	0.022	А
between Schartz Rd and Carey Rd	2 / Minor Arterial	362	0.020	A
between Carey Rd and Keystone Rd	2 / Minor Arterial	340	0.018	A
between Keystone Rd and Harris Rd	2 / Minor Arterial	417	0.023	A
between Harris Rd and Ralph Rd	2 / Minor Arterial	489	0.026	A
between Ralph Rd and Robinson Rd	2 / Minor Arterial	716	0.039	A
between Robinson Rd and Worthington Rd	2 / Minor Arterial	741	0.037	Δ
between Worthington Rd and Huston Rd	2 / Minor Arterial	1 050	0.057	Δ
between Huston Rd and Aten Rd	2 / Minor Arterial	1,050	0.057	Δ
south of Aten Rd	2 / Minor Arterial	1,000	0.107	A

Existing Roadway Segment Conditions Table – Part A

Dearbarry Comment	Lana (Olara	Without Project		
Roadway Segment	Lanes/Class	ADT	V/C	LOS
State Route 111				
north of Schartz Rd	4 / Expressway	8,429	0.158	А
between Schartz Rd and Keystone Rd	4 / Expressway	9,393	0.176	А
between Keystone Rd and Harris Rd	4 / Expressway	10,706	0.201	А
between Harris Rd and Worthington Rd	4 / Expressway	10,706	0.201	A
between Worthington Rd and Aten Rd	4 / Expressway	11,413	0.214	А
south of Aten Rd	4 / Expressway	14,241	0.267	А
Schartz Road				
between SR-86 and Dogwood Rd	2 / Residential Street	5	0.003	Less than C
between Dogwood Rd and SR-111	2 / Local Collector	317	0.020	А
Carey Road				<u>.</u>
between SR-86 and Dogwood Rd	2 / Local Collector	850	0.052	А
between Dogwood Rd and SR-111	2 / Residential Street	22	0.015	Less than C
Keystone Road				
between Forrester Rd and Austin Rd	2 / Prime Arterial	1.277	0.067	А
between Austin Rd and SR-86	2 / Prime Arterial	1,592	0.084	A
between SR-86 and Dogwood Rd	2 / Prime Arterial	1,528	0.080	A
between Dogwood Rd and SR-111	2 / Prime Arterial	1,085	0.057	А
Harris Road				-
between Austin Rd and SR-86	2 / Residential Street	23	0.015	Less than C
between SR-86 and Dogwood Rd	2 / Collector	410	0.024	A
between Dogwood Rd and SR-111	2 / Collector	425	0.025	A
Larsen Road				
between Forrester Rd and Austin Rd	2 / Collector	210	0.012	Δ
between Austin Rd and SR-86		424	0.012	A
east of SR-86	2 / Local Collector	360	0.022	A
Ralph Road				
west of SR-86	2 / Local Collector	770	0.048	А
between SR-86 and Dogwood Rd	2 / Collector	770	0.045	A
between Dogwood Rd and SR-111		625	0.037	A
Neckel Road	27 001100101	020	01007	
hetween Austin Rd and SR-86	2 / Collector	840	0.049	Δ
between SR-86 and Dogwood Rd		840	0.049	Δ
15th Street	27 00100101	010	0.017	
west of SP-86	2 / Local Collector	/ 177	0.258	C
east of SP 86		5 751	0.250	0 C
Pohinson Road		5,751	0.335	U U
wost of Dogwood Pd	2 / Posidontial Stroot	20	0.012	Loss than C
hetween Degweed Dd and SD 111	2 / Lecal Collector	20	0.013	
Worthington Dood	27 LOCAI COllector	393	0.024	A
hotwaan Enroster Dd and Austin Dd	2 / Collector	1 000	0.070	٨
between Forrester Rd and Austin Rd		1,333	0.078	A
between Auslin Rd and SR-86		7.60	0.694	L D
between Degweed Dd and SD 111		7,009	0.448	В
between Dogwood Ru and SR-TTT	27 Collector	3,412	0.200	A
Huston Road	2 / Desciolential Chronit	101	0.001	Less them O
between SK-86 and DogWood Rd	2 / Residential Street	121	0.081	Less than C
	27 Residential Street	50	0.033	Less than C
Aten Road		4.000	0.070	
between Forrester Rd and Austin Rd	2 / Minor Arterial	1,330	0.072	A
between Austin Rd and SR-86	4 / Minor Arterial	12,452	0.337	A
between SR-86 and Dogwood Rd	4 / Prime Arterial	13,717	0.361	A
between Dogwood Rd and SR-111	4 / Prime Arterial	9,424	0.248	A

	Existing Roadwa	v Segment	Conditions	Table -	Part B
--	------------------------	-----------	-------------------	---------	--------

Existing Intersection Conditions [*] – AM Peak Hour					
Intersection	Delay (Sec)	LOS			
AM Peak Hour					
1. SR-86 & Schartz Rd	9.0	А			

---_ ---

		(000)	
AM P	eak Hour		
1.	SR-86 & Schartz Rd	9.0	А
2.	Dogwood Rd & Schartz Rd	9.0	А
3.	SR-111 & Schartz Rd	13.5	В
4.	SR-86 & Carey Rd	18.5	С
5.	Dogwood Rd & Carey Rd	9.9	А
6.	Old SR-111 & Carey Rd	8.6	А
7.	Forrester Rd & Keystone Rd	9.8	А
8.	Austin Rd & Keystone Rd	9.9	А
9.	SR-86 & Keystone Rd	28.3	D
10. Dogwood Rd & Keystone Rd		8.2	А
11.	SR-111 & Keystone Rd	13.9	В
12.	SR-86 & Harris Rd	29.2	D
13.	Dogwood Rd & Harris Rd	10.4	В
14.	SR-111 & Harris Rd	14.7	В
15.	Austin Rd & Larsen Rd	9.6	А
16.	SR-86 & Ralph Rd	24.4	С
17.	Dogwood Rd & Ralph Rd	10.8	В
18.	Old SR-111 & Ralph Rd	8.5	А
19.	Austin Rd & Neckel Rd	9.3	А
20.	SR-86 & Neckel Rd	25.6	D
21.	Dogwood Rd & Neckel Rd	10.2	В
22.	SR-86 & 15th Street	15.2	В
23.	Dogwood Rd & Robinson Rd	9.9	А
24.	Old SR-111 & Robinson Rd	8.4	А
25.	Austin Rd & Worthington Rd	9.4	А
26.	SR-86 & Worthington Rd	21.3	С
27.	Dogwood Rd & Worthington Rd	9.9	А
28.	SR-111 & Worthington Rd	15.6	В
29.	SR-86 & Huston Rd	29.6	D
30.	Dogwood Rd & Huston Rd	11.1	В
31.	Old SR-111 & Huston Rd	8.7	А
32.	Forrester Rd & Aten Rd	11.7	В
33.	Austin Rd & Aten Rd	10.0	В
34.	SR-86 & Aten Rd	27.6	С
35.	Dogwood Rd & Aten Rd	12.1	В
36.	SR-111 & Aten Rd	18.6	В

* The locations in the table showing LOS worse than "C" are locations where the intersections control is by means of side street stop signs. As such, delays and the resulting LOS are for the side street irrespective of the fact that fairly low volumes are occurring on those side streets. In these cases, the volumes are also too low to warrant signalization. Therefore, no investment would be appropriate to address these conditions, except perhaps closures of the median if a safety problem were to arise and which Caltrans periodically does. Eventually, abutting development will signalize many of these locations as more side traffic is added and warrants are met either as direct mitigation for their projects or as part of a greater improvement envisioned by the TIF.

Existing Intersection Conditions* – PM Peak Hour						
Inters	section	Delay (Sec)	LOS			
PM P	eak Hour	•				
1.	SR-86 & Schartz Rd	9.0	А			
2.	Dogwood Rd & Schartz Rd	9.8	A			

. . - - - -. _ _

PM Pe	ak Hour		
1.	SR-86 & Schartz Rd	9.0	А
2.	Dogwood Rd & Schartz Rd	9.8	А
3.	SR-111 & Schartz Rd	16.0	С
4.	SR-86 & Carey Rd	24.0	С
5.	Dogwood Rd & Carey Rd	10.7	В
6.	Old SR-111 & Carey Rd	8.7	А
7.	Forrester Rd & Keystone Rd	9.6	А
8.	Austin Rd & Keystone Rd	9.7	А
9.	SR-86 & Keystone Rd	37.7	E
10.	Dogwood Rd & Keystone Rd	8.3	А
11.	SR-111 & Keystone Rd	15.3	С
12.	SR-86 & Harris Rd	39.6	E
13.	Dogwood Rd & Harris Rd	12.0	В
14.	SR-111 & Harris Rd	16.6	С
15.	Austin Rd & Larsen Rd	9.5	А
16.	SR-86 & Ralph Rd	31.4	D
17.	Dogwood Rd & Ralph Rd	12.1	В
18.	Old SR-111 & Ralph Rd	8.6	А
19.	Austin Rd & Neckel Rd	8.9	А
20.	SR-86 & Neckel Rd	38.0	E
21.	Dogwood Rd & Neckel Rd	11.8	В
22.	SR-86 & 15th Street	7.2	А
23.	Dogwood Rd & Robinson Rd	11.0	В
24.	Old SR-111 & Robinson Rd	8.4	А
25.	Austin Rd & Worthington Rd	8.1	А
26.	SR-86 & Worthington Rd	21.5	С
27.	Dogwood Rd & Worthington Rd	9.9	А
28.	SR-111 & Worthington Rd	13.9	В
29.	SR-86 & Huston Rd	84.9	F
30.	Dogwood Rd & Huston Rd	12.2	В
31.	Old SR-111 & Huston Rd	8.8	А
32.	Forrester Rd & Aten Rd	13.0	В
33.	Austin Rd & Aten Rd	8.4	А
34.	SR-86 & Aten Rd	26.1	С
35.	Dogwood Rd & Aten Rd	13.5	В
36.	SR-111 & Aten Rd	24.1	С

* The locations in the table showing LOS worse than "C" are locations where the intersections control is by means of side street stop signs. As such, delays and the resulting LOS are for the side street irrespective of the fact that fairly low volumes are occurring on those side streets. In these cases, the volumes are also too low to warrant signalization. Therefore, no investment would be appropriate to address these conditions, except perhaps closures of the median if a safety problem were to arise and which Caltrans periodically does. Eventually, abutting development will signalize many of these locations as more side traffic is added and warrants are met either as direct mitigation for their projects or as part of a greater improvement envisioned by the TIF.

APPENDIX B LAND USE ASSUMPTIONS AND ZONE SYSTEM

LAND USE ASSUMPTIONS

AC AC AC DU DU AC AC	77.8 23.3 160.4 4.8 2,657 1,011 24.2 95.7 72.9	Brawley Gateway Commercial Retail (specialty) Commercial Retail (neighborhood) Commercial Retail (community) Industrial (light) Open Space / ROW Residential (single family) Residential (multi-family) Brookfield 101 Ranch	AC AC AC AC AC DU DU	24.0 7.5 21.0 44.0 53.9 128 182
AC AC AC DU DU AC AC	77.8 23.3 160.4 4.8 2,657 1,011 24.2 95.7 72.9	Commercial Retail (specialty) Commercial Retail (neighborhood) Commercial Retail (community) Industrial (light) Open Space / ROW Residential (single family) Residential (multi-family) Brookfield 101 Ranch	AC AC AC AC AC DU DU	24.0 7.5 21.0 44.0 53.9 128 182
AC AC DU DU AC AC	23.3 160.4 4.8 2,657 1,011 24.2 95.7 72.9	(specialty) Commercial Retail (neighborhood) Commercial Retail (community) Industrial (light) Open Space / ROW Residential (single family) Residential (multi-family) Brookfield 101 Ranch	AC AC AC AC AC DU DU	24.0 7.5 21.0 44.0 53.9 128 182
AC AC DU DU AC AC	23.3 160.4 4.8 2,657 1,011 24.2 95.7 72.9	Commercial Retail (neighborhood) Commercial Retail (community) Industrial (light) Open Space / ROW Residential (single family) Residential (multi-family) Brookfield 101 Ranch	AC AC AC AC DU DU	7.5 21.0 44.0 53.9 128 182
AC AC DU DU AC AC	160.4 4.8 2,657 1,011 24.2 95.7 72.9	(neighborhood) Commercial Retail (community) Industrial (light) Open Space / ROW Residential (single family) Residential (multi-family) Brookfield 101 Ranch	AC AC AC AC DU DU	7.5 21.0 44.0 53.9 128 182
AC DU DU AC AC	4.8 2,657 1,011 24.2 95.7 72.9	Commercial Retail (community) Industrial (light) Open Space / ROW Residential (single family) Residential (multi-family) Brookfield 101 Ranch	AC AC AC DU DU	21.0 44.0 53.9 128 182
DU DU AC AC AC	2,657 1,011 24.2 95.7 72.9	(community) Industrial (light) Open Space / ROW Residential (single family) Residential (multi-family) Brookfield 101 Ranch	AC AC AC DU DU	21.0 44.0 53.9 128 182
DU DU AC AC AC	2,657 1,011 24.2 95.7 72.9	Industrial (light) Open Space / ROW Residential (single family) Residential (multi-family) Brookfield 101 Ranch	AC AC DU DU	44.0 53.9 128 182
DU AC AC AC	1,011 24.2 95.7 72.9	(light) Open Space / ROW Residential (single family) Residential (multi-family) Brookfield 101 Ranch	AC AC DU DU	44.0 53.9 128 182
DU AC AC AC	1,011 24.2 95.7 72.9	Open Space / ROW Residential (single family) Residential (multi-family) Brookfield 101 Ranch	AC DU DU	53.9 128 182
AC AC AC	24.2 95.7 72.9	Residential (single family) Residential (multi-family) Brookfield 101 Ranch	DU DU	128 182
AC AC AC	24.2 95.7 72.9	(single family) Residential (multi-family) Brookfield 101 Ranch	DU DU	128 182
AC AC	95.7 72.9	Residential (multi-family) Brookfield 101 Ranch	DU	182
AC AC	95.7 72.9	(multi-family) Brookfield 101 Ranch	DU	182
AC	72.9	Brookfield 101 Ranch		
AC	72.9			
		Active Park	AC	93.4
		Commercial Retail		
AC	15.9	(specialty)	AC	37.8
		Commercial Retail		
AC	37.7	(neighborhood)	AC	34.3
AC	187.6	Open Space / ROW	AC	438.1
		Public Facilities	AC	19.0
DU	2.093	Residential		
	_,	(single family)	DU	5.400
DU	455	Residential		-,
		(multi-family)	DU	1.600
AC	24.0	School		
		(elementary)	AC	36.0
AC	47.7	School		
		(middle)	AC	16.0
		Castle Arch		
AC	1.6	Active Park	AC	2.8
		Commercial Retail		
DU	81	(neighborhood)	AC	6.5
		Open Space / ROW	AC	30.3
AC	6.2	Public Facilities	AC	1.0
		Residential		
AC	11.3	(single family)	DU	544
AC	25.0	School		
-		(middle)	AC	16.0
DU	426			
	AC AC DU DU AC AC AC AC AC DU	AC15.9AC37.7 187.6DU2,093DU455AC24.0AC47.7AC1.6DU81AC6.2AC11.3 25.0DU426	AC15.9(specialty) Commercial RetailAC37.7(neighborhood)AC187.6Open Space / ROW Public FacilitiesDU2,093Residential (single family)DU2,093Residential (multi-family)DU455Residential (multi-family)AC24.0School (elementary)AC47.7School (middle) Castle ArchAC1.6Active Park Commercial RetailDU81(neighborhood) Open Space / ROWAC6.2Public Facilities ResidentialAC11.3(single family)AC25.0School (middle)AC14.3School (middle)AC14.3School (middle)AC14.3School (middle)AC14.3School (middle)AC14.3School (middle)AC14.3School (middle)AC14.3School (middle)AC14.4	AC15.9(specialty) Commercial RetailACAC37.7(neighborhood)ACAC187.6Open Space / ROW Public FacilitiesACDU2,093Residential (single family)DUDU455Residential (multi-family)DUDU455Residential (multi-family)DUAC24.0School (elementary)ACAC47.7School (middle)ACAC1.6Active Park Commercial RetailACDU81(neighborhood)ACAC6.2Public Facilities ResidentialACAC11.3(single family)DUAC25.0School (middle)ACDU426426AC

Proposed Development Land Use Table – Part A

Γ

٦

	Unit	Amount	Development Name /Land Use	Unit	Amount
Crossroads			Imperial Valley		
Active Park	AC	1.9	Bio-Ethanol Plant		
Open Space / ROW	AC	7.6	Industrial		
Residential			(heavy)	AC	101.9
(single family)	DU	155	Open Space / ROW	AC	25.5
Crown Commercial			La Fuente		
ndustrial			Open Space / ROW	AC	1.9
(light)	AC	34.8	Residential		
Open Space / ROW	AC	15.0	(multi-family)	DU	52
Desert Mirage Estates			La Valencia		
Active Park	AC	11.6	Open Space / ROW	AC	4.6
Open Space / ROW	AC	23.1	Residential		
Residential			(single family)	DU	72
(single family)	DU	194	Latigo Ranch		
Residential			Active Park	AC	3.0
(multi-family)	DU	211	Open Space / ROW	AC	14.8
Encanto Estates			Public Facilities	AC	0.5
Active Park	AC	20.0	Residential		
Commercial Retail			(single family)	DU	210
(neighborhood)	AC	6.5	School		
ndustrial			(elementary)	AC	12.5
(light)	AC	72.9	Mayfield Ranch		
Open Space / ROW	AC	79.7	(Doyle Ranch)		
Residential			Active Park	AC	4.0
(single family)	DU	679	Open Space / ROW	AC	16.0
Residential			Residential		
(multi-family)	DU	866	(single family)	DU	331
School			McFarland Ranch		
(elementary)	AC	31.0	Active Park	AC	31.4
HNR Framing			Open Space / ROW	AC	62.9
(Drewery Farms)			Residential		
Industrial			(single family)	DU	990
(light)	AC	128.6	Residential		
Open Space / ROW	AC	32.1	(multi-family)	DU	768
mperial Business Park			Mesquite Lake		
ndustrial			Industrial		
(light)	AC	47.8	(light)	AC	72.3
Open Space / ROW	AC	12.0	Industrial		
			(medium)	AC	1,404,3
			Industrial		.,
			(heavy)	AC	2,005,3
			(1001)		2,000.0

Proposed Development Land Use Table – Part B

Development Name / Land Use	Unit	Amount	Development Name / Land Use	Unit	Amount
Monterey Park			Rancho Los Lagos		
Active Park	AC	6.8	Active Park	AC	89.7
Open Space / ROW	AC	27.2	Automotive	AC	2.6
Residential			Commercial Retail		
(single family)	DU	574	(community)	AC	15.0
Morning Star			Golf Course	AC	142.1
Active Park	AC	10.0	Industrial		
Open Space / ROW	AC	40.1	(light)	AC	88.9
Residential			Open Space / ROW	AC	202.1
(single family)	DU	598	Public Facilities	AC	10.0
School			Residential		
(elementary)	AC	11.6	(single family)	DU	2,037
Morning Star 2			Residential		
(McMillan)			(multi-family)	DU	778
Open Space / ROW	AC	29.2	Residential		
Residential			(senior community)	DU	1,015
(single family)	DU	500	School		
School			(elementary)	AC	24.0
(middle)	AC	19.6	Sanchez Ranch		
Morningside			Active Park	AC	41.0
Open Space / ROW	AC	4.6	Commercial Retail		
Residential			(specialty)	AC	13.0
(single family)	DU	98	Commercial Retail		
Paseo Del Sol			(neighborhood)	AC	14.1
Active Park	AC	2.2	Open Space / ROW	AC	123.8
Open Space / ROW	AC	9.0	Public Facilities	AC	10.1
Residential			Residential		
(single family)	DU	120	(single family)	DU	1,709
			Residential		
			(multi-family)	DU	900
			School		
			(elementary)	AC	27.0
			School		
			(middle)	AC	20.1
			Sandpoint Estates		
			Industrial		
			(light)	AC	19.5
			Open Space / ROW	AC	14.0
			Residential		
			(single family)	DU	258

Proposed Development Land Use Table – Part C

Development Name / Land Use	Unit	Amount
Sky Ranch		
Active Park	AC	5.4
Industrial		
(light)	AC	8.6
Open Space / ROW	AC	21.7
Residential		
(single family)	DU	380
Springfield		
Active Park	AC	2.8
Open Space / ROW	AC	11.1
Residential		
(single family)	DU	86
Residential		
(multi-family)	DU	175
Victoria Ranch		
Active Park	AC	14.5
Commercial Retail		
(specialty)	AC	25.9
Open Space / ROW	AC	58.0
Residential		
(single family)	DU	891
Residential		
(multi-family)	DU	405
School		
(elementary)	AC	13.5
School		
(middle)	AC	22.7

Proposed Development Land Use Table – Part D
TAZ ID / Land Use	Unit	Amount	TAZ ID / Land Use	Unit	Amount
TAZ 1			TAZ 4		
(unplanned)			(unplanned)		
Active Park	AC	42.5	Active Park	AC	33.1
Agriculture	AC	835.2	Commercial Retail		
Commercial Retail			(specialty)	AC	23.7
(specialty)	AC	24.3	Commercial Retail		
Commercial Retail			(neighborhood)	AC	14.2
(neighborhood)	AC	6.1	Open Space / ROW	AC	118.3
Commercial Retail			Residential		
(community)	AC	18.2	(single family)	DU	1192
Open Space / ROW	AC	227.8	Residential		
Residential			(multi-family)	DU	511
(single family)	DU	1531	TAZ 5		
Residential			(existing residential /		
(multi-family)	DU	656	unplanned)		
TAZ 2			Active Park	AC	2.9
(unplanned)			Open Space / ROW	AC	11.7
Active Park	AC	23.4	Residential		
Commercial Retail			(single family)	DU	262
(specialty)	AC	16.7	TAZ 6		
Commercial Retail			(unplanned)		
(neighborhood)	AC	10.0	Active Park	AC	2.2
Open Space / ROW	AC	83.7	Commercial Retail		
Residential		0011	(specialty)	AC	1.6
(single family)	DU	844	Commercial Retail	110	
Residential	20	011	(neighborhood)	AC.	10
(multi-family)	DU	362	Open Space / ROW	AC	8.0
TA7 3	20	002	Residential	110	0.0
(Brawley Gateway)			(single family)	ווס	80
Commercial Retail			Residential	DO	00
(specialty)	٨C	24.0	(multi-family)	ווס	34
Commercial Retail	710	21.0		DO	51
(neighborhood)	٨C	75	(Latigo Ranch)		
Commercial Retail	10	7.5	Active Park	٨C	3.0
(community)	AC	21.0	Open Space / ROW		14.8
Industrial	10	21.0	Public Facilities		0.5
(light)	AC	44.0	Posidontial	A0	0.5
(light) Onon Space / POW		53.0	(single family)	ווס	210
Residential	AU	JJ.7	School	DU	210
(single family)	ווח	128	(elementary)	۸C	12 5
Rosidontial	00	120	(cicinicinia)	AU	12.0
(multi family)	ווח	100			
(muiu-ranniy)	DO	102			

TAZ Assigned Land Use Table – Part A

TAZ ID / Land Use	Unit	Amount	TAZ ID / Land Use	Unit	Amount
TAZ 8			TAZ 14		
(unplanned)			(Rancho Los Lagos)		
Active Park	AC	33.4	Active Park	AC	89.7
Commercial Retail			Commercial Retail		
(specialty)	AC	23.8	(community)	AC	15.0
Commercial Retail			Golf Course	AC	142.1
(neighborhood)	AC	14.3	Open Space / ROW	AC	151.1
Open Space / ROW	AC	119.2	Residential		
Residential			(single family)	DU	2037
(single family)	DU	1201	Residential		
Residential			(multi-family)	DU	778
(multi-family)	DU	515	Residential		
TAZ 9			(senior community)	DU	1015
(La Valencia)			School		
Open Space / ROW	AC	4.6	(elementary)	AC	24.0
Residential			Automotive	AC	2.6
(single family)	DU	72	TAZ 15		
TAZ 10			(Rancho Los Lagos)		
(existing residential)			Industrial		
Active Park	AC	6.0	(light)	AC	88.9
Open Space / ROW	AC	6.4	Open Space / ROW	AC	51.0
Residential			Public Facilities	AC	10.0
(single family)	DU	122	TAZ 16		
TAZ 11			(unplanned)		
(existing hospital /			Active Park	AC	65.8
unplanned)			Commercial Retail		
Open Space / ROW	AC	21.8	(specialty)	AC	37.6
Public Facilities	AC	21.8	Commercial Retail		
TAZ 12			(neighborhood)	AC	9.4
(unplanned)			Commercial Retail		
Active Park	AC	3.8	(community)	AC	28.2
Open Space / ROW	AC	15.1	Open Space / ROW	AC	234.9
Residential			Residential		
(single family)	DU	284	(single family)	DU	2368
TAZ 13			Residential		
(unplanned)			(multi-family)	DU	1015
Open Space / ROW	AC	19.1	TAZ 17		
Public Facilities	AC	19.1	(unplanned)		
			Agriculture	AC	925.3
			Open Space / ROW	AC	48.7

TAZ Assigned Land Use Table – Part B

TAZ 18TAZ 21(unplanned)(Brookfield 101 Ranch)Active ParkAC22.0Active ParkAC28.7Commercial RetailCommercial RetailCommercial RetailCommercial RetailCommercial Retail(specialty)AC15.7(neighborhood)AC6.5Commercial RetailOpen Space / ROWAC115.0115.0(neighborhood)AC9.4Residential2160Open Space / ROWAC78.4(single family)DU2160ResidentialSchoolSchool115.0115.0115.0(nulti-family)DU339(middle)AC16.0
(unplanned)(Brookfield 101 Ranch)Active ParkAC22.0Active ParkAC28.7Commercial RetailCommercial RetailCommercial RetailCommercial RetailAC6.5(specialty)AC15.7(neighborhood)AC6.5Commercial RetailOpen Space / ROWAC115.0115.0(neighborhood)AC9.4ResidentialVOpen Space / ROWAC78.4(single family)DU2160ResidentialSchoolSchoolSchool115.0115.0(multi-family)DU339(middle)AC16.0
Active ParkAC22.0Active ParkAC28.7Commercial RetailCommercial RetailCommercial RetailCommercial Retail6.5(specialty)AC15.7(neighborhood)AC6.5Commercial RetailOpen Space / ROWAC115.0115.0(neighborhood)AC9.4ResidentialU2160Open Space / ROWAC78.4(single family)DU2160ResidentialSchoolSchoolSchool115.0115.0(multi-family)DU339(middle)AC16.0
Commercial RetailCommercial Retail(specialty)AC15.7(neighborhood)AC6.5Commercial RetailOpen Space / ROWAC115.0(neighborhood)AC9.4Residential115.0Open Space / ROWAC9.4(single family)DU2160ResidentialSchoolSchool115.0115.0(single family)DU790(elementary)AC20.0ResidentialSchoolSchool16.0
(specialty)AC15.7(neighborhood)AC6.5Commercial RetailOpen Space / ROWAC115.0(neighborhood)AC9.4ResidentialTOpen Space / ROWAC9.4ResidentialDU2160ResidentialSchoolSchoolTT20.0ResidentialDU790(elementary)AC20.0ResidentialSchoolSchoolTT(multi-family)DU339(middle)AC16.0
Commercial RetailOpen Space / ROWAC115.0(neighborhood)AC9.4ResidentialOpen Space / ROWAC78.4(single family)DU2160ResidentialSchool20.0(single family)DU790(elementary)AC20.0ResidentialSchool(multi-family)DU339(middle)AC16.0
(neighborhood)AC9.4ResidentialOpen Space / ROWAC78.4(single family)DU2160ResidentialSchoolSchool20.0(single family)DU790(elementary)AC20.0ResidentialSchoolSchoolSchool16.0
Open Space / ROWAC78.4(single family)DU2160ResidentialSchoolSchool20.0(single family)DU790(elementary)AC20.0ResidentialSchoolSchoolSchool16.0
ResidentialSchool(single family)DU790(elementary)AC20.0ResidentialSchoolSchool16.0
(single family)DU790(elementary)AC20.0ResidentialSchool(multi-family)DU339(middle)AC16.0
ResidentialSchool(multi-family)DU339(middle)AC16.0
(multi-family) DU 339 (middle) AC 16.0
TAZ 19 TAZ 22
(Brookfield 101 Ranch) (unplanned)
Active Park AC 48.6 Active Park AC 25.3
Commercial Retail Commercial Retail
(specialty) AC 20.0 (specialty) AC 18.1
Commercial Retail Commercial Retail
(neighborhood) AC 27.8 (neighborhood) AC 10.9
Open Space / ROW AC 194.5 Open Space / ROW AC 90.5
Residential
(single family) DU 2700 (single family) DU 912
Residential
(multi-family) DU 960 (multi-family) DU 391
School TAZ 23
(elementary) AC 16.0 (unplanned)
TAZ 20 Agriculture AC 1884.2
(Brookfield 101 Ranch) Open Space / ROW AC 99.2
Active Park AC 16.1 TAZ 24
Commercial Retail (unplanned)
(specialty) AC 17.8 Active Park AC 79.5
Open Space / ROW AC 128.6 Commercial Retail
Public Facilities AC 19.0 (specialty) AC 45.4
Residential Commercial Retail
(single family) DU 540 (neighborhood) AC 11.4
Residential Commercial Retail
(multi-family) DU 640 (community) AC 34.1
Open Space / ROW AC 283.8
Residential
(single family) DU 2860
Residential
(multi-family) DU 1226

TAZ	Assigned	Land	Use	Table -	Part	С
						_

TAZ ID / Land Use	Unit	Amount	TAZ ID / Land Use	Unit	Amount
TAZ 25			TAZ 29		
(unplanned)			(unplanned)		
Industrial			Active Park	AC	41.5
(light)	AC	128.3	Commercial Retail		
Industrial			(specialty)	AC	23.7
(medium)	AC	192.5	Commercial Retail		
Industrial			(neighborhood)	AC	5.9
(heavy)	AC	320.8	Commercial Retail		
Open Space / ROW	AC	160.4	(community)	AC	17.8
TAZ 26			Open Space / ROW	AC	148.4
(unplanned)			Residential		
Industrial			(single family)	DU	1496
(light)	AC	78.2	Residential		
Industrial			(multi-family)	DU	641
(medium)	AC	117.4	TAZ 30		
Industrial			(unplanned)		
(heavy)	AC	195.6	Industrial		
Open Space / ROW	AC	97.8	(light)	AC	102.8
TAZ 27			Industrial		
(unplanned)			(medium)	AC	154.1
Industrial			Open Space / ROW	AC	64.2
(light)	AC	151.9	TAZ 31		
Industrial			(Mesquite Lake)		
(medium)	AC	227.9	Industrial		
Industrial			(heavy)	AC	510.9
(heavy)	AC	379.8	Open Space / ROW	AC	127.7
Open Space / ROW	AC	189.9	TAZ 32		
TAZ 28			(Mesquite Lake)		
(unplanned)			Industrial		
Commercial Retail			(heavy)	AC	533.8
(regional)	AC	113.9	Open Space / ROW	AC	133.5
Open Space / ROW	AC	48.8	TAZ 33		
1 1			(Mesquite Lake)		
			Industrial		
			(heavy)	AC	779.7
			Open Space / ROW	AC	194.9
			TAZ 34		
			(Mesquite Lake)		
			Industrial		
			(heavy)	AC.	349.7
			Open Space / ROW	AC	87.4
			Spon Space / NOT		57.1

TAZ Assigned Land Use Table – Part D

TAZ ID / Land Use	Unit	Amount	TAZ ID / Land Use	Unit	Amount
TAZ 35			TAZ 41		
(unplanned)			(Mesquite Lake)		
Agriculture	AC	1086.1	Industrial		
Open Space / ROW	AC	57.2	(medium)	AC	326.0
TAZ 36			Open Space / ROW	AC	81.5
(unplanned)			TAZ 42		
Active Park	AC	36.4	(unplanned)		
Commercial Retail			Active Park	AC	16.9
(specialty)	AC	20.8	Commercial Retail		
Commercial Retail			(specialty)	AC	12.1
(neighborhood)	AC	5.2	Commercial Retail		
Commercial Retail			(neighborhood)	AC	7.2
(community)	AC	15.6	Open Space / ROW	AC	60.4
Open Space / ROW	AC	130.0	Residential		
Residential			(single family)	DU	609
(single family)	DU	1310	Residential		
Residential			(multi-family)	DU	261
(multi-family)	DU	562	TAZ 43		
TAZ 37			(Imperial Valley		
(unplanned)			Bio-Ethanol Plant)		
Industrial			Industrial		
(light)	AC	71.3	(heavy)	AC	101.9
Industrial			Open Space / ROW	AC	25.5
(medium)	AC	106.9	TAZ 44		
Open Space / ROW	AC	44.6	(Barioni Lakes)		
TAZ 38			Commercial Retail		
(Mesquite Lake)			(specialty)	AC	17.4
Industrial			Commercial Retail		
(light)	AC	72.3	(neighborhood)	AC	7.4
Industrial			Open Space / ROW	AC	18.0
(medium)	AC	108.5	School		
Industrial			(high)	AC	47.7
(heavy)	AC	180.9	TAZ 45		
Open Space / ROW	AC	90.4	(unplanned)		
TAZ 39			Agriculture	AC	223.2
(Mesquite Lake)			Open Space / ROW	AC	11.7
Industrial			TAZ 46		
(medium)	AC	560.8	(Barioni Lakes)		
Open Space / ROW	AC	140.2	Active Park	AC	15.9
TAZ 40			Open Space / ROW	AC	29.1
(Mesquite Lake)			Residential		
Industrial			(single family)	DU	490
(medium)	AC	735.0			
Open Space / ROW	AC	183.8			

TAZ Assigned Land Use Table – Part E

TAZ ID / Land Use	Unit	Amount	TAZ ID / Land Use	Unit	Amount
TAZ 47			TAZ 50		
(Barioni Lakes)			(unplanned)		
Active Park	AC	6.1	Active Park	AC	65.8
Commercial Retail			Commercial Retail		
(specialty)	AC	55.5	(specialty)	AC	37.6
Open Space / ROW	AC	30.7	Commercial Retail		
Residential			(neighborhood)	AC	9.4
(single family)	DU	273	Commercial Retail		
Residential			(community)	AC	28.2
(multi-family)	DU	130	Open Space / ROW	AC	234.8
TAZ 48			Residential		
(unplanned)			(single family)	DU	2367
Active Park	AC	10.5	Residential		
Commercial Retail			(multi-family)	DU	1014
(specialty)	AC	7.5	TAZ 51		
Commercial Retail			(unplanned)		
(neighborhood)	AC	4.5	Agriculture	AC	927.1
Open Space / ROW	AC	37.5	Open Space / ROW	AC	48.8
Residential			TAZ 52		
(single family)	DU	378	(unplanned)		
Residential			Agriculture	AC	934.6
(multi-family)	DU	162	Open Space / ROW	AC	49.2
TAZ 49			TAZ 53		
(unplanned)			(Barioni Lakes)		
Active Park	AC	68.3	Active Park	AC	51.3
Commercial Retail			Commercial Retail		
(specialty)	AC	39.0	(neighborhood)	AC	8.5
Commercial Retail			Open Space / ROW	AC	62.7
(neighborhood)	AC	9.8	Residential		
Commercial Retail			(single family)	DU	840
(community)	AC	29.3	Residential		
Open Space / ROW	AC	244.0	(multi-family)	DU	120
Residential			School		
(single family)	DU	2459	(elementary)	AC	12.2
Residential			TAZ 54		
(multi-family)	DU	1054	(Morning Star 2 /		
			McMillan)		
			Open Space / ROW	AC	29.2
			Residential		
			(single family)	DU	500
			School		
			(middle)	AC	19.6

TAZ Assigned Land Use Table – Part F

TAZ ID / Land Use	Unit	Amount	TAZ ID / Land Use	Unit	Amount
TAZ 55			TAZ 60		
(Barioni Lakes)			(unplanned)		
Active Park	AC	14.3	Active Park	AC	37.9
Industrial			Commercial Retail		
(light)	AC	37.7	(specialty)	AC	21.7
Open Space / ROW	AC	30.9	Commercial Retail		
Residential			(neighborhood)	AC	5.4
(single family)	DU	268	Commercial Retail		
Residential			(community)	AC	16.3
(multi-family)	DU	205	Open Space / ROW	AC	135.5
School			Residential		
(elementary)	AC	11.8	(single family)	DU	1366
TAZ 56			Residential		
(HNR Framing /			(multi-family)	DU	585
Drewery Farms)			TAZ 61		
Industrial			(unplanned)		
(light)	AC	128.6	Active Park	AC	66.1
Open Space / ROW	AC	32.1	Commercial Retail		
TAZ 57			(specialty)	AC	37.8
(Morning Star)			Commercial Retail		
Active Park	AC	3.8	(neighborhood)	AC	9.4
Open Space / ROW	AC	15.3	Commercial Retail		
Residential			(community)	AC	28.3
(single family)	DU	239	Open Space / ROW	AC	236.0
TAZ 58			Residential		
(Morning Star)			(single family)	DU	2379
Active Park	AC	6.2	Residential		
Open Space / ROW	AC	24.8	(multi-family)	DU	1020
Residential			TAZ 62		
(single family)	DU	359	(unplanned)		
School			Agriculture	AC	1393.8
(elementary)	AC	11.6	Open Space / ROW	AC	73.4
TAZ 59			TAZ 63		
(existing residential)			(Barioni Lakes)		
Open Space / ROW	AC	11.2	Active Park	AC	8.1
Residential			Open Space / ROW	AC	16.2
(single family)	DU	216	Residential		
			(single family)	DU	222
			TAZ 64		
			(unplanned)		
			Open Space / ROW	AC	7.6
			Residential		
			(single family)	DU	121

TAZ Assigned Land Use Table – Part G

TAZ ID / Land Use	Unit	Amount	TAZ ID / Land Use	Unit	Amount
TAZ 65			TAZ 71		
(Springfield)			(existing residential /		
Active Park	AC	2.8	unplanned)		
Open Space / ROW	AC	11.1	Active Park	AC	7.0
Residential			Open Space / ROW	AC	26.1
(single family)	DU	86	Residential		
Residential			(single family)	DU	410
(multi-family)	DU	175	Residential		
TAZ 66			(multi-family)	DU	176
(existing residential)			TAZ 72		
Open Space / ROW	AC	2.4	(Morningside)		
Residential			Open Space / ROW	AC	4.6
(single family)	DU	10	Residential		
TAZ 67			(single family)	DU	98
(unplanned)			TAZ 73		
Agriculture	AC	902.1	(Sanchez Ranch)		
Open Space / ROW	AC	47.5	Active Park	AC	17.0
TAZ 68			Open Space / ROW	AC	28.5
(existing residential /			Residential		
unplanned)			(single family)	DU	427
Open Space / ROW	AC	120.1	Residential		
Residential			(multi-family)	DU	141
(single family)	DU	360	TAZ 74		
TAZ 69			(McFarland Ranch)		
(existing residential /			Active Park	AC	31.4
unplanned)			Open Space / ROW	AC	62.9
Open Space / ROW	AC	120.2	Residential		
Residential			(single family)	DU	990
(single family)	DU	361	Residential		
TAZ 70			(multi-family)	DU	768
(existing residential /			TAZ 75		
unplanned)			(existing water		
Active Park	AC	5.0	treatment plant)		
Commercial Retail			Agriculture	AC	9.1
(specialty)	AC	10.0	Open Space / ROW	AC	9.1
Industrial					
(light)	AC	10.0			
Open Space / ROW	AC	94.0			
Public Facilities	AC	5.0			
Residential					
(single family)	DU	233			
Residential					
(multi-family)	DU	100			

TAZ Assigned Land Use Table – Part H

TAZ ID / Land Use	Unit	Amount	TAZ ID / Land Use	Unit	Amount
TAZ 76			TAZ 79		
(existing mixed use)			(unplanned)		
Industrial			Industrial		
(light)	AC	34.4	(light)	AC	155.1
Industrial			Industrial		
(medium)	AC	51.6	(medium)	AC	232.7
Open Space / ROW	AC	41.3	Open Space / ROW	AC	97.0
Public Facilities	AC	10.0	TAZ 80		
Residential			(existing mixed use)		
(single family)	DU	15	Commercial Retail		
Residential			(specialty)	AC	10.0
(multi-family)	DU	15	Industrial		
TAZ 77			(light)	AC	10.0
(Sanchez Ranch)			Open Space / ROW	AC	26.4
Active Park	AC	4.0	Residential		
Commercial Retail			(single family)	DU	151
(neighborhood)	AC	5.0	Residential		
Open Space / ROW	AC	31.8	(multi-family)	DU	65
Public Facilities	AC	10.1	School		
Residential			(middle)	AC	16.0
(single family)	DU	427	TAZ 81		
Residential			(unplanned)		
(multi-family)	DU	320	Agriculture	AC	1384.9
School			Open Space / ROW	AC	72.9
(elementary)	AC	12.0	TAZ 82		
TAZ 78			(existing residential)		
(Sanchez Ranch)			Open Space / ROW	AC	0.4
Active Park	AC	20.0	Residential		
Commercial Retail			(single family)	DU	10
(specialty)	AC	13.0	TAZ 83		
Commercial Retail			(Desert Mirage Estates)		
(neighborhood)	AC	9.1	Active Park	AC	11.6
Open Space / ROW	AC	63.5	Open Space / ROW	AC	23.1
Residential			Residential		
(single family)	DU	855	(single family)	DU	194
Residential			Residential		
(multi-family)	DU	439	(multi-family)	DU	211
School			-		
(elementary)	AC	15.0			
School					
(middle)	AC	20.1			

TAZ Assigned Land Use Table – Part I

TAZ ID / Land Use	Unit	Amount	TAZ ID / Land Use	Unit	Amount
TAZ 84			TAZ 87		
(existing residential /			(Encanto Estates)		
unplanned)			Active Park	AC	4.0
Open Space / ROW	AC	36.6	Commercial Retail		
Public Facilities	AC	10.0	(neighborhood)	AC	6.5
Residential			Open Space / ROW	AC	15.8
(single family)	DU	477	Residential		
Residential			(single family)	DU	136
(multi-family)	DU	204	Residential		
TAZ 85			(multi-family)	DU	173
(existing mixed use)			TAZ 88		
Active Park	AC	2.4	(Encanto Estates)		
Commercial Retail			Active Park	AC	16.0
(specialty)	AC	10.0	Industrial		
Industrial			(light)	AC	72.9
(light)	AC	10.0	Open Space / ROW	AC	63.9
Open Space / ROW	AC	40.6	Residential		
Public Facilities	AC	5.0	(single family)	DU	543
Residential			Residential		
(single family)	DU	330	(multi-family)	DU	693
Residential			School		
(multi-family)	DU	141	(elementary)	AC	31.0
TAZ 86			TAZ 89		
(existing mixed use)			(unplanned)		
Commercial Retail			Active Park	AC	22.7
(specialty)	AC	10.0	Commercial Retail		
Industrial			(specialty)	AC	16.2
(light)	AC	27.0	Commercial Retail		
Industrial			(neighborhood)	AC	9.7
(medium)	AC	40.5	Open Space / ROW	AC	81.2
Open Space / ROW	AC	33.7	Residential		
Public Facilities	AC	5.0	(single family)	DU	819
Residential			Residential		
(single family)	DU	66	(multi-family)	DU	351
Residential					
(may alt formally)					
(muiu-iamiiy)	DU	28			

TAZ Assigned Land Use Table – Part J

TAZ ID / Land Use	Unit	Amount	TAZ ID / Land Use	Unit	Amount
TAZ 90			TAZ 96		
(unplanned)			(Monterey Park)		
Active Park	AC	14.3	Active Park	AC	6.8
Commercial Retail			Open Space / ROW	AC	27.2
(specialty)	AC	10.2	Residential		
Commercial Retail			(single family)	DU	574
(neighborhood)	AC	6.1	TAZ 97		
Open Space / ROW	AC	51.1	(unplanned)		
Residential			Active Park	AC	3.8
(single family)	DU	515	Open Space / ROW	AC	15.0
Residential			Residential		
(multi-family)	DU	221	(single family)	DU	338
TAZ 91			TAZ 98		
(unplanned)			(Sandpoint Estates)		
Commercial Retail			Industrial		
(regional)	AC	45.0	(light)	AC	19.5
Open Space / ROW	AC	19.3	Open Space / ROW	AC	14.0
TAZ 92			Residential		
(unplanned)			(single family)	DU	258
Agriculture	AC	1023.7	TAZ 99		
Open Space / ROW	AC	53.9	(existing mixed use)		
TAZ 93			Industrial		
(Mayfield Ranch /			(medium)	AC	0.3
Doyle Ranch)			Open Space / ROW	AC	0.3
Active Park	AC	4.0	Residential		
Open Space / ROW	AC	16.0	(single family)	DU	2
Residential			TAZ 100		
(single family)	DU	331	(Andalusia)		
TAZ 94			Active Park	AC	77.8
(existing airport)			Commercial Retail		
Open Space / ROW	AC	199.4	(specialty)	AC	23.3
Public Facilities	AC	199.4	Open Space / ROW	AC	160.4
TAZ 95			Public Facilities	AC	4.8
(existing industrial /			Residential		
unplanned)			(single family)	DU	2657
Industrial			Residential		
(light)	AC	53.8	(multi-family)	DU	1011
Industrial			School		
(medium)	AC	80.7	(elementary)	AC	24.2
Open Space / ROW	AC	33.6			

TAZ Assigned Land Use Table – Part K

TAZ ID / Land Use	Unit	Amount	TAZ ID / Land Use	Unit	Amount
TAZ 101			TAZ 106		
(unplanned)			(Bratton)		
Active Park	AC	45.4	Active Park	AC	6.2
Commercial Retail			Commercial Retail		
(specialty)	AC	26.0	(neighborhood)	AC	11.3
Commercial Retail			Open Space / ROW	AC	25.0
(neighborhood)	AC	6.5	Residential		
Commercial Retail			(single family)	DU	426
(community)	AC	19.5	TAZ 107		
Open Space / ROW	AC	162.3	(unplanned)		
Residential			Open Space / ROW	AC	78.8
(single family)	DU	1636	Public Facilities	AC	78.8
Residential			TAZ 108		
(multi-family)	DU	701	(Sky Ranch)		
TAZ 102			Active Park	AC	5.4
(unplanned)			Industrial		
Active Park	AC	27.7	(light)	AC	8.6
Commercial Retail			Open Space / ROW	AC	21.7
(specialty)	AC	19.8	Residential		
Commercial Retail			(single family)	DU	380
(neighborhood)	AC	11.9	TAZ 109		
Open Space / ROW	AC	98.9	(existing industrial /		
Residential			unplanned)		
(single family)	DU	997	Industrial		
Residential			(light)	AC	34.9
(multi-family)	DU	427	Industrial		
TAZ 103			(medium)	AC	52.3
(unplanned)			Open Space / ROW	AC	21.8
Commercial Retail			TAZ 110		
(regional)	AC	53.6	(Imperial Business Park)		
Open Space / ROW	AC	23.0	Industrial		
TAZ 104			(light)	AC	47.8
(Crown Commercial)			Open Space / ROW	AC	12.0
Industrial			TAZ 111		
(light)	AC	34.8	(existing industrial /		
Open Space / ROW	AC	15.0	unplanned)		
TAZ 105			Industrial		
(unplanned)			(light)	AC	26.4
Industrial			Industrial		
(light)	AC	20.0	(medium)	AC	39.6
Open Space / ROW	AC	5.0	Open Space / ROW	AC	16.5

TAZ Assigned Land Use Table – Part L

TAZ ID / Land Use	Unit	Amount	TAZ ID / Land Use	Unit	Amount
TAZ 112			TAZ 118		
(Paseo Del Sol)			(existing industrial /		
Active Park	AC	2.2	unplanned)		
Open Space / ROW	AC	9.0	Industrial		
Residential			(light)	AC	41.5
(single family)	DU	120	Industrial		
TAZ 113			(medium)	AC	62.3
(unplanned)			Open Space / ROW	AC	25.9
Agriculture	AC	1612.2	TAZ 119		
Open Space / ROW	AC	84.9	(existing industrial /		
TAZ 114			unplanned)		
(existing residential)			Industrial		
Open Space / ROW	AC	55.2	(light)	AC	30.3
Residential			Industrial		
(single family)	DU	1013	(medium)	AC	45.4
School			Open Space / ROW	AC	18.9
(middle)	AC	18.0	TAZ 120		
TAZ 115			(existing industrial /		
(existing 13			unplanned)		
Public Facilities)			Industrial		
Agriculture	AC	2.1	(light)	AC	12.3
Open Space / ROW	AC	2.1	Industrial		
TAZ 116			(medium)	AC	18.5
(existing industrial /			Open Space / ROW	AC	7.7
unplanned)			TAZ 121		
Industrial			(Victoria Ranch)		
(light)	AC	24.9	Active Park	AC	14.5
Industrial			Commercial Retail		
(medium)	AC	37.4	(specialty)	AC	25.9
Open Space / ROW	AC	15.6	Open Space / ROW	AC	58.0
TAZ 117			Residential		
(existing mixed use /			(single family)	DU	891
unplanned)			Residential		
Commercial Retail			(multi-family)	DU	405
(specialty)	AC	10.0	School		
Industrial			(elementary)	AC	13.5
(light)	AC	14.0	School		
Industrial			(middle)	AC	22.7
(medium)	AC	21.0			
Open Space / ROW	AC	17.5			
Residential					
(single family)	DU	19			
Residential					
(multi-family)	DU	19			

TAZ Assigned Land Use Table – Part M

TAZ ID / Land Use	Unit	Amount	TAZ ID / Land Use	Unit	Amount
TAZ 122			TAZ 128		
(Castle Arch)			(Crossroads)		
Active Park	AC	2.8	Active Park	AC	1.9
Commercial Retail			Open Space / ROW	AC	7.6
(neighborhood)	AC	6.5	Residential		
Open Space / ROW	AC	30.3	(single family)	DU	155
Public Facilities	AC	1.0	TAZ 129		
Residential			(unplanned)		
(single family)	DU	544	Industrial		
School			(light)	AC	36.7
(middle)	AC	16.0	Industrial		
TAZ 123			(medium)	AC	55.1
(unplanned)			Open Space / ROW	AC	91.8
Active Park	AC	10.1	Residential		
Commercial Retail			(single family)	DU	1156
(specialty)	AC	7.2	Residential		
Commercial Retail			(multi-family)	DU	496
(neighborhood)	AC	4.3	TAZ 130		
Open Space / ROW	AC	36.2	(existing commercial /		
Residential			unplanned)		
(single family)	DU	365	Commercial Retail		
Residential			(regional)	AC	121.6
(multi-family)	DU	156	Open Space / ROW	AC	52.1
TAZ 124			TAZ 131		
(unplanned)			(existing mixed use /		
Agriculture	AC	598.9	unplanned)		
Open Space / ROW	AC	31.5	Commercial Retail		
TAZ 125			(specialty)	AC	19.7
(unplanned)			Industrial		
Agriculture	AC	1014.6	(light)	AC	39.4
Open Space / ROW	AC	53.4	Open Space / ROW	AC	39.4
TAZ 126			Residential		
(La Fuente)			(single family)	DU	413
Open Space / ROW	AC	1.9	Residential		
Residential			(multi-family)	DU	177
(multi-family)	DU	52			
TAZ 127					
(Bougainvillea					
Condominiums)					
Open Space / ROW	AC	1.6			
Residential					
(multi-family)	DU	81			

TAZ Assigned Land Use Table – Part N

TAZ ID / Land Use	Unit	Amount	TAZ ID / Land Use	Unit	Amount
TAZ 132			TAZ 136		
(existing residential /			(existing mixed use /		
unplanned)			unplanned)		
Industrial			Commercial Retail		
(light)	AC	7.7	(specialty)	AC	12.8
Industrial			Industrial		
(medium)	AC	11.6	(light)	AC	25.6
Open Space / ROW	AC	24.2	Open Space / ROW	AC	25.6
Residential			Residential		
(single family)	DU	149	(single family)	DU	269
Residential			Residential		
(multi-family)	DU	64	(multi-family)	DU	115
TAZ 133			TAZ 137		
(unplanned)			(existing mixed use /		
Active Park	AC	60.3	unplanned)		
Commercial Retail			Industrial		
(specialty)	AC	34.4	(light)	AC	7.7
Commercial Retail			Industrial		
(neighborhood)	AC	8.6	(medium)	AC	11.5
Commercial Retail			Open Space / ROW	AC	24.0
(community)	AC	25.8	Residential		
Open Space / ROW	AC	215.3	(single family)	DU	109
Residential			Residential		
(single family)	DU	2170	(multi-family)	DU	47
Residential			School		
(multi-family)	DU	930	(elementary)	AC	12.0
TAZ 134			School		
(unplanned)			(middle)	AC	15.0
Agriculture	AC	405.7	TAZ 138		
Open Space / ROW	AC	135.2	(existing mixed use /		
Residential			unplanned)		
(single family)	DU	270	Commercial Retail		
TAZ 135			(specialty)	AC	7.6
(existing industrial /			Industrial		
unplanned)			(light)	AC	15.2
Agriculture	AC	293.9	Open Space / ROW	AC	15.2
Industrial			Residential		
(light)	AC	70.5	(single family)	DU	228
Industrial					
(medium)	AC	105.8			
	٨C	117 5			

TAZ Assigned Land Use Table – Part O

TAZ ID / Land Use	Unit	Amount	TAZ ID / Land Use	Unit	Amount
TAZ 139			TAZ 142		
(existing mixed use /			(existing mixed use)		
unplanned)			Active Park	AC	7.0
Industrial			Commercial Retail		
(light)	AC	77.2	(specialty)	AC	12.0
Industrial			Industrial		
(medium)	AC	115.8	(light)	AC	12.0
Open Space / ROW	AC	96.5	Open Space / ROW	AC	18.3
Residential			Public Facilities	AC	5.0
(single family)	DU	811	Residential		
Residential			(single family)	DU	49
(multi-family)	DU	347	Residential		
TAZ 140			(multi-family)	DU	114
(existing industrial /			School		
unplanned)			(elementary)	AC	10.0
Industrial					
(light)	AC	73.1			
Industrial					
(medium)	AC	109.6			
Open Space / ROW	AC	91.4			
Residential					
(single family)	DU	768			
Residential					
(multi-family)	DU	329			
TAZ 141					
(existing mixed use)					
Commercial Retail					
(specialty)	AC	3.9			
Open Space / ROW	AC	15.5			
Residential					
(single family)	DU	243			
Residential					
(multi-family)	DU	104			

TAZ Assigned Land Use Table – Part P

APPENDIX C Roadway Cross Sections





Figure C-1a Imperial County Typical Cross Sections



Figure C-1b Imperial County Typical Cross Sections

APPENDIX D Cost Breakdown



Central Imperial County Traffic Impact Fee Study

Segment	Seament Description	Segment Length	Total Project Improvement Costs	Total Environmental Mitigation Costs	Total Design & Construction Administration Costs	Total Right- of-Way	% Share of Total	TOTAL COSTS
2		e line	14 000'5'	(1 000's)	(1 000'e)		COSIS 0/	÷
1110	CD 111 couth of Aton		C1,000 3/ C76 068	¢070	(1,000 3) ©F 202	(coon'i)	0E0/	¢0 OFF
1118	SR-11 btw Worthington & Aten	1.57	\$30.976	\$310	\$6,195	\$7,200	25%	\$11,170
1110	SR-111 btw Harris & Worthington	2.51	\$34.534	\$345	\$6.907	\$7.200	25%	\$12.247
111D	SR-111 btw Keystone & Harris	2.00	\$32,600	\$326	\$6,520	\$7,200	25%	\$11,662
111E	SR-111 btw Schartz & Keystone	2.00	\$32,615	\$326	\$6,523	\$7,200	25%	\$11,666
111F	SR-111 north of Schartz	1.00	\$28,815	\$288	\$5,763	\$7,200	25%	\$10,517
86A	SR-86 south of Aten	0.51	\$26,650	\$266	\$5,330	\$13,818	100%	\$46,064
86B	SR-86 btw Huston & Aten	1.08	\$3,196	\$32	\$639	\$5,595	100%	\$9,462
86C	SR-86 btw Worthington & Huston	0.43	\$1,434	\$14	\$287	\$2,215	100%	\$3,950
86D	SR-86 btw 15th & Worthington	0.49	\$1,628	\$16	32560%	\$2,548	100%	\$4,518
86E	SR-86 btw Neckel & 15th	0.51	\$1,658	\$17	\$332	\$2,622	100%	\$4,628
86F	SR-86 btw Ralph & Neckel	0.50	\$1,612	\$16	\$322	\$2,596	100%	\$4,546
86G	SR-86 btw Larsen & Ralph	0.50	\$26,599	\$266	\$5,320	\$8,866	100%	\$41,051
86H	SR-86 btw Harris & Larsen	0.48	\$2,572	\$51	\$514	\$1,593	100%	\$4,731
86J	SR-86 btw Keystone & Harris	1.99	\$35,124	\$702	\$7,025	\$16,103	100%	\$58,954
86K	SR-86 btw Carey & Keystone	1.00	\$7,061	\$141	\$1,412	\$4,458	100%	\$13,073
86L	SR-86 btw Schartz & Carey	1.00	\$31,042	\$621	\$6,208	\$11,677	100%	\$49,548
86M	SR-86 btw Austin & Schartz	0.71	\$2,956	\$59	\$591	\$3,180	100%	\$6,786
86N	SR-86 north of Austin	1.47	\$5,750	\$57	\$1,150	\$10,187	100%	\$17,144
ATEN1	Aten btw Forrester & Austin	1.50	\$4,483	06\$	\$897	\$1,711	100%	\$7,180
ATEN2	Aten btw Austin & SR-86	1.46	\$10,841	\$108	\$2,168	\$10,780	100%	\$23,898
ATEN3	Aten btw SR-86 & Dogwood	1.99	\$24,921	\$498	\$4,984	\$23,357	100%	\$53,761
ATEN4	Aten btw Dogwood & OLD SR-111	2.00	\$21,913	\$438	\$4,383	\$15,088	100%	\$41,823
ATEN5	Aten btw OLD SR-111 & SR-111	0.06	\$766	\$8	\$153	\$477	100%	\$1,404
AUS1	Austin south of Aten	0.50	\$7,349	\$147	\$1,470	\$6,618	100%	\$15,584
AUS2	Austin btw Worthington & Aten	1.50	\$21,794	\$436	\$4,359	\$19,913	100%	\$46,501
AUS3	Austin btw Neckel & Worthington	1.00	\$14,547	\$291	\$2,909	\$8,485	100%	\$26,233
AUS4	Austin btw Larsen & Neckel	1.00	\$14,512	\$290	\$2,902	\$8,464	100%	\$26,169
AUS5	Austin btw Harris & Larsen	0.98	\$14,358	\$287	\$2,872	\$8,606	100%	\$26,123
AUS6	Austin btw Keystone & Harris	1.51	\$46,795	\$936	\$9,359	\$20,393	100%	\$77,483
AUS7	Austin btw SR-86 & Keystone	3.30	\$39,787	\$796	\$7,957	\$28,869	100%	\$77,409

Cost Breakdown Table – Part A

Appendix D

KOA Corporation

March 2008

Central Imperial County Traffic Impact Fee Study

Segment ID	Segment Description	Segment Length	Total Project Improvement Costs	Total Environmental Mitigation Costs	Total Design & Construction Administration Costs	Total Right- of-Way Costs	% Share of Total Costs	TOTAL COSTS
		miles	÷	÷	÷	\$	%	\$
CAR1	Carey btw SR-86 & Dogwood	1.99	\$15,145	\$303	\$3,029	\$5,391	100%	\$23,868
CAR2	Carey btw Dogwood & SR-111	1.49	\$9,201	\$184	\$1,840	\$4,046	100%	\$15,271
D0G1	Dogwood south of Aten	0.49	\$4,452	\$89	\$890	\$6,496	100%	\$11,927
D0G2	Dogwood btw Huston & Aten	1.01	\$7,143	\$143	\$1,429	\$8,559	100%	\$17,274
D0G3	Dogwood btw Worthington & Huston	0.50	\$4,220	\$84	\$844	\$4,290	100%	\$9,439
DOG4	Dogwood btw Robinson & Worthington	0.50	\$4,613	\$92	\$923	\$4,258	100%	\$9,886
D0G5	Dogwood btw Neckel & Robinson	0.49	\$3,556	\$36	\$711	\$4,190	100%	\$8,494
DOG6	Dogwood btw Ralph & Neckel	0.51	\$3,691	\$74	\$738	\$4,319	100%	\$8,822
D0G7	Dogwood btw Harris & Ralph	1.00	\$31,882	\$319	\$6,376	\$15,669	100%	\$54,246
DOG8	Dogwood btw Keystone & Harris	2.00	\$38,839	\$388	\$7,768	\$24,235	100%	\$71,229
D0G9	Dogwood btw Carey & Keystone	1.00	\$7,969	\$159	\$1,594	\$8,508	100%	\$18,230
D0G10	Dogwood btw Schartz & Carey	1.00	\$31,949	\$639	\$6,390	\$15,696	100%	\$54,674
D0G11	Dogwood north of Schartz	1.49	\$20,444	\$409	\$4,089	\$11,553	100%	\$36,495
FOR1	Forrester south of Aten	0.48	\$3,289	\$66	\$658	\$1,861	100%	\$5,874
FOR2	Forrester btw Worthington & Aten	1.51	\$15,717	\$314	\$3,143	\$7,163	100%	\$26,337
FOR3	Forrester btw Worthington & Neckel	1.00	\$10,502	\$210	\$2,100	\$4,740	100%	\$17,553
FOR4	Forrester btw Neckel & Larsen	0.92	\$7,863	\$157	\$1,573	\$4,388	100%	\$13,981
FOR5	Forrester btw Keystone & Larsen	2.58	\$28,614	\$2,861	\$5,723	\$9,309	100%	\$46,506
HAR1	Harris btw Austin & SR-86	1.64	\$8,007	\$160	\$1,601	\$4,430	100%	\$14,199
HAR2	W. Harris btw SR-86 & Dogwood	0.55	\$2,828	\$57	\$566	\$1,481	100%	\$4,932
HAR3	E. Harris btw SR-86 & Dogwood	1.47	\$10,311	\$206	\$2,062	\$8,039	100%	\$20,618
HAR4	Harris btw Dogwood & OLD SR-111	1.45	\$10,830	\$217	\$2,166	\$6,907	100%	\$20,119
HAR5	Harris btw OLD SR-111 & SR-111	0.08	\$833	\$8	\$167	\$375	100%	\$1,383
HUS1	2nd/Huston btw SR-86 & Dogwood	1.97	\$10,253	\$205	\$2,051	\$4,953	100%	\$17,462
HUS2	Huston btw Dogwood & SR-111	1.85	\$11,963	\$239	\$2,393	\$2,108	100%	\$16,703
KEY1	Keystone btw Forrester & Austin	1.54	\$21,228	\$2,123	\$4,246	\$6,301	100%	\$33,897
KEY2	Keystone btw Austin & SR-86	1.44	\$14,927	\$299	\$2,985	\$7,548	100%	\$25,758
KEY3	Keystone btw SR-86 & Dogwood	2.00	\$29,473	\$589	\$5,895	\$10,478	100%	\$46,435
KEY4	Keystone btw Dogwood & OLD SR-111	1.47	\$14,256	\$285	\$2,851	\$7,687	100%	\$25,080
KEY5	Keystone btw OLD SR-111 & SR-111	0.05	\$668	\$7	\$134	\$280	100%	\$1,089

Cost Breakdown Table – Part B

Appendix D

KOA Corporation

March 2008

>	
-pn	
Š	
Fee	
Ę	
upa	
E	
Ĕ	
Tra	
Ę.	
unc	
Ŭ	
rial	
be	
ΓL	
tral	
Cen	
\circ	

Appendix D

U
Part
Fable –
l nwob
Break
Cost

Segment ID	Segment Description	Segment Length	Total Project Improvement Costs	Total Environmental Mitigation Costs	Total Design & Construction Administration Costs	Total Right- of-Way Costs	% Share of Total Costs	TOTAL COSTS
		miles	÷	÷	S	Ş	%	÷
LAR1	W. Larsen btw Forrester & Austin	1.52	\$4,419	\$88	\$884	\$2,457	100%	\$7,849
LAR2	E. Larsen btw Austin & SR-86	0.93	\$5,815	\$116	\$1,163	\$3,803	100%	\$10,897
LAR3	Larsen btw Austin & SR-86	0.50	\$3,215	\$64	\$643	\$2,062	100%	\$5,984
LAR4	Larsen east of SR-86 to Harris	0.40	\$12,479	\$125	\$2,496	\$1,632	100%	\$16,732
NCK1	Neckel btw Forrester & Austin	1.50	\$4,972	\$50	\$994	\$5,983	100%	\$11,999
NCK2	Neckel btw Austin & SR-86	1.44	\$4,125	\$82	\$825	\$2,660	100%	\$7,692
NCK3	Neckel btw SR-86 & Dogwood	2.01	\$7,579	\$152	\$1,516	\$5,803	100%	\$15,050
OLD111A	Old SR-111 south of Aten	0.52	\$5,060	\$101	\$1,012	\$785	100%	\$6,958
OLD111B	Old SR-111 btw Huston & Aten	1.01	\$5,163	\$52	\$1,033	\$1,542	100%	\$7,789
OLD111C	Old SR-111 btw Worthington & Huston	0.58	\$3,051	\$31	\$610	\$886	100%	\$4,577
0LD111D	Old SR-111 btw Robinson & Worthington	0.51	\$2,787	\$56	\$557	\$776	100%	\$4,176
OLD111E	Old SR-111 btw Ralph & Robinson	1.00	\$5,378	\$108	\$1,076	\$1,522	100%	\$8,083
OLD111F	Old SR-111 btw Harris & Ralph	1.00	\$5,381	\$108	\$1,076	\$1,523	100%	\$8,088
OLD111G	Old SR-111 btw Keystone & Harris	2.01	\$12,645	\$253	\$2,529	\$4,005	100%	\$19,432
OLD111H	Old SR-111 btw Carey & Keystone	1.01	\$5,719	\$114	\$1,144	\$2,012	100%	\$8,989
OLD111J	Old SR-111 btw Schartz & Carey	1.00	\$6,589	\$132	\$1,318	\$1,998	100%	\$10,038
OLD111K	Old SR-111 north of Schartz	1.01	\$5,180	\$104	\$1,036	\$2,007	100%	\$8,326
RAL1	Ralph west of SR-86 to Larsen	0.49	\$2,458	\$49	\$492	\$1,676	100%	\$4,676
RAL2	Ralph btw SR-86 & Dogwood	2.01	\$12,105	\$242	\$2,421	\$11,307	100%	\$26,075
RAL3	Ralph btw Dogwood & SR-111	1.49	\$11,503	\$230	\$2,301	\$5,377	100%	\$19,410
ROB1	Robinson SR-86 to Dogwood	1.94	\$7,576	\$152	\$1,515	\$12,019	100%	\$21,261
ROB2	Robinson btw Dogwood & SR-111	1.49	\$10,479	\$210	\$2,096	\$2,770	100%	\$15,554
SCH1	Schartz btw SR-86 & Dogwood	2.01	\$33,142	\$663	\$6,628	\$15,245	100%	\$55,679
SCH2	Schartz btw Dogwood & OLD SR-111	1.45	\$17,869	\$357	\$3,574	\$7,928	100%	\$29,728
SCH3	Schartz btw OLD SR-111 & SR-111	0.09	\$875	\$9	\$175	\$469	100%	\$1,527
WOR1	Worthington btw Forrester & Austin	1.50	\$4,336	\$87	\$867	\$2,068	100%	\$7,358
WOR2	Worthington btw Austin & SR-86	1.51	\$4,356	\$87	\$871	\$446	100%	\$5,760
WOR3	Worthington btw SR-86 & Dogwood	1.93	\$14,087	\$282	\$2,817	\$6,579	100%	\$23,766
WOR4	Worthington btw Dogwood & OLD SR-111	1.54	\$14,695	\$294	\$2,939	\$4,108	100%	\$22,036
WOR5	Worthington btw OLD SR-111 & SR-111	0.08	\$698	\$7	\$140	\$217	100%	\$1,062
	Total All Segments	108.03	\$1,174,246	\$23,776	\$234,849	\$234,849		\$1,829,569

KOA Corporation

March 2008

APPENDIX E Existing Intersection Turn Movements



Figure E-1a Existing AM Peak Hour Intersection Volumes



Figure E-1b Existing AM Peak Hour Intersection Volumes



Figure E-2a Existing PM Peak Hour Intersection Volumes



Figure E-2b Existing PM Peak Hour Intersection Volumes

APPENDIX F Sensitivity Study

Sensitivity Study

This table demonstrates what effect certain changes in assumptions relating to costs would have upon the resulting fee. For instance, in the first row a 33% decrease in the assumed ROW cost for "urbanized" property would result in a 3% decrease in the fee.

Item	Change In Variable	Change In Fee
Urban ROW Cost	-33%	-3%
Rural ROW Cost	-66%	-14%
Remove All Grade Separations: Grade Separation Costs	-100%	-30%
Removing Interchanges: Grade Separation Costs	-87%	-26%
Removing River/Railroad Bridges: Grade Separation Costs	-13%	-4%

APPENDIX G Summary of Comments

Summary of Comments

No.	Comment	Response
1	 Robert Prince, via email on 7/7/07 The main concern that I have heard so far is that the estimated fees that are cited in the report would cripple or stop commercial development as it would add between \$9.00 to \$24.00 PSF to the cost of development according to one Developer/Builder. Is that true? 	 The fees being applied to commercial land uses are capable of being adjusted to lower them, but the residential rates (and possibly others) would obviously have to go up to make up the missing revenue. This is expected to part of the policy discussion with the Commission and Board as necessary.
2	 Jason Shepard, The Corky McMillin Companies, via a letter dated 7/9/07 In general, a fee of \$10,390 per EDU would be very difficult if not impossible for any homebuilding operation in the valley to absorb, we suggest that at a priority list of 	Comment noted.
	 improvements be prepared and look into phasing a fee to a more reasonable amount. The extent of improvements, in particular the grade separations, are extensive, we would like to review any back up documentation that suggest all the grade separation improvements. 	 Grade Separations: To expand upon the discussion in the report, grade separations were used when intersections had approximately 60,000 or greater in two opposing directions. Because of the relationship between the future ADTs and number of lanes and road classifications, the following were the specific criteria used: 1) Where Expressways intersected 8-lane Prime Arterials, a diamond interchange was used; 2) Where 8-lane Expressways met 8-lane Expressways or Freeways, cloverleaf interchanges were used; 3) River bridges were used for the two segments on Forrester and Keystone where they cross the River; 4) Railroad Bridges were used when any Prime Arterial or Expressway crossed the railroad.
	 It is not clear how the right of way assumption was derived, we would like to review any supporting documentation. 	• Right of Way: Existing R/W width was approximated and averaged using aerial photography. Future R/W width needs were based upon ultimate road classification road cross-sections. Additional R/W was also calculated for the construction of grade separations. Right of Way Costs used approximations of land costs that were used in recent studies for urban and rural land characteristics. Urban land costs were applied to all segments within or adjacent to incorporated City limits and rural land costs were applied to all other segments.
	 Page 10: Figure 3-2. The figure depicts Ralph Road connecting to Larsen Road west of SR 86. This connection should be a T intersection similar to what is shown on page 13, Figure 4-2. 	• The alignment of Ralph Road and Larsen Road are based on the McMillan and Barioni Lakes project site plans, which are unclear as to how Ralph Road intersects Larsen Road. We recognize this may evolve further in the planning process.
	• It is not clear how the nexus for the improvements are spread throughout its service area, clearly the improvement listed benefit an area much greater than the discussed study area.	The nexus between the land use and the study area is derived by including all possible land use and improvements within the same boundary. Improvements and land uses outside this boundary are not included.

3	Bill Ostram, The Eastlake Company, via email on 7/15/07	
	• The KOA report uses \$9 per sq.ft. for ROW acquisition. There seems rather high, how has was this determined?	 R/W Costs: The rural R/W Costs were derived from previous studies in the Coachella area. The urban costs were taken from a study near the I- 10/Imperial interchange. To determine the effect of differeing ROW costs on the fee see the Appendix of the report.
	• For the proposed TIF, commercial office construction costs go up \$21/sf with 40% lot coverage.	Comment noted.
	• For neighborhood commercial and 20% lot coverage, the construction cost increase is \$125 per building sf. This cost makes retail difficult, if not impossible.	Comment noted.
	• There is an allocation of \$900 per foot of 4 lane roads. \$700 per foot was used for Neckel. Why is this different?	• The Collector streets are typically just widened from their existing 2 lanes to 4, whereas the Minor Arterial requires a median/turn lane, which is a larger cross section, and will involve the reconstruction of the existing road. Other factors that are localized can be the existence of irrigation channels that require relocation, R/W costs and other factors.
	 Some of the cost for components seem excessive in compared regional cost estimates, the components are as follows: 1. Clover interchange at Austin/SR86, 2. Clover interchange at Dogwood/Aten, 3. About 12 diamond interchanges (see Figure 4.2), 4. Most of the 8 lane expressway proposals (see Figure 4-2). 	 Costs for Interchanges and 8-lane Expressways: Interchange costs were taken from other nearby interchange projects. Three unit costs were used: Cloverleaf = \$45,000,000, Diamond = \$25,000,000, and 8-lane bridge \$10,000,000.
4	Jorge Galvan, City of Imperial, via a letter dated July 25, 2007	
	• The City does not support the proposed interchanges, particularly those on Dogwood Road. Figure 4-2 shows required roadway improvements to accommodate the projected average daily trips. Roadway width and the number of lanes are justified with the numbers shown in Table 4-1, but no real justification is given for the diamond and cloverleaf interchanges.	 The interchanges referenced in the study are defined at particularly high volume intersections of roadways where conventional, at-grade treatments would not likely result in the desired congestion levels that have been policy specifications.
	 The feasibility of the cloverleaf at Dogwood and Aten Road is questionable. The Victoria Ranch Specific Plan is an approved project and right-of-way (ROW) has been set aside to the standards specified in the County General Plan. Implementation of the proposed cloverleaf would require additional ROW acquisition and a realignment of Dogwood Road within the City of Imperial's Sphere of Influence and El 	 Yes, the implementation of interchanges would be physically impactive on adjacent development.

• The diamond interchange proposed at the intersection of Austin Road and Aten Road will require the removal of a number of existing residential units and significant improvements to existing IID water and power facilities. The diamond interchange at the intersection of Highway 86 and Aten Road requires ROW acquisition and the possible relocation of existing businesses. Runway 14-32 could also be impacted by such an interchange.	 Yes, the implementation of interchanges would be physically impactive on adjacent development.
 It is our understanding that the underlying goal of the County's General Plan Circulation Element, this traffic impact fee study, and various regional transportation policies is to provide regional connectivity. We question the methodology used in the traffic model as it relates to trip distribution and destination nodes. It appears that a disproportionate number of trips are assigned to Dogwood Road, presumably because of the connection to the Imperial Valley Mall. The Study does not appear to consider the commercial centers incorporated into each development project which would reduce the number of trips attributable to the Mall and other external destinations. 	 The directionality of the trips is derived from the model's assumptions and land uses as run by Caltrans. In that sense, every trip interaction was considered by the model in the appropriate manner, and this was not the result of making individual, customized decisions by the analysts.
• The TIF Study recommends Austin Road, Highway 86, and Dogwood Road as expressways with 6 lanes and up to 8 lanes at various segments. These roadways are within approximately one mile of each other. Highway 111 and Forrester Road complete the one- mile spacing of north-south roadways. Is this abundance of expressways necessary? Increasing roadway capacity may help reduce traffic congestion but it has the propensity to increase total traffic volumes and vehicle mileage, which is contradictory to the region's economic, social and environmental goals.	 Another interpretation of the need for large volume parallel roadways would be to plan a circulation system of more roadways at a spacing of less than a mile if this intensity of land use is to be achieved.

	• The City understands that the scope of the Traffic Impact Fee Study is limited, but traffic impacts can be mitigated through a variety of other means, and the fees proposed in the Study are counter-productive to economic development. The \$10,390 fee per equivalent dwelling unit is a constraint to future residential, commercial and industrial development in the City's Sphere of Influence and the proposed industrial development in the Mesquite Lake Specific Plan area	Comment noted. Also, the calculated fee has changed slightly.
	• The City of Imperial favors solutions that address both the supply side and the demand side of transportation management. The City encourages higher density residential projects, location efficient developments, and other smart growth techniques to minimize the number of the internal and external trips described in the study.	• Addressing both the demand and the supply of land use and circulation would be appropriate in the ongoing planning for the area.
	 In closing, the City supports an equitable fee program that will not hinder economic development growth within the confines of the study area and the region as a whole. It is our hope that the improvements identified in this study connect with and are consistent with other regional roadway improvements in the southern and northern portions of the county. 	Comment noted.
5	 Fred Bell, BIA Desert Chapter via a letter dated July 25, 2007 The County has no authority to establish fees in areas in which they do not have control. We do not know of any law providing this authority. The authority of any municipality to act outside its boundaries simply does not exist unless such power is expressly granted by the State Legislature. Mulvill v. City of San Diego (1920) 183 Cal. 734, 738. The only exception to this general rule is where "extreme emergency or necessity" gives rise to an implication of extra-territorial power so as to enable the municipality to carry out functions that are plainly essential to its proper intra-territorial municipal affairs. <i>Id.</i> 	The County would expect that each of the jurisdictions involved in the Study would independently adopt the suggested fee. The County's action alone would not establish a fee in another jurisdiction.
- · As to the incorporated city or cities, they could not utilize this report as substantiation of need within their city, nor could they collect the fee in their city on behalf of the County. They would have to do a complete study of those roads and intersections within the city and then do the improvements called for in that report. In addition, there is no indication in this report that the City's General Plan supports the size and design of roadways as set forth in the report nor that they approve the County assessment of needs within their city, i.e. the city may not agree that a present two lane road should be expanded to four lanes.
- At this point in time Highway 111 and State Route 86 are under state control. The County has no authority to set a design standard, nor increase capacity of the state system. The report omits any state or federal funds for improvements to these roadways, including overpasses, bridges, etc.
 - Where are the traffic studies to support the various interchange improvements?
 - With Hwy 111 and Forrester Road, what is the impact from residential construction versus commercial and industrial? These two areas seem to be primarily through traffic facilities to I-8 or the Mexican border.
 - What is the mechanism that determines how residential versus commercial/industrial trips are generated on these routes and at what ratio?
- The level of service standard for these proposed facilities is at LOS C the report states that and all roadway improvements will be the responsibility of new construction. There are several areas which need improvement to meet this standard (Existing Roadway Segment Conditions Table Part B and Existing Intersection Conditions - following page). These identified areas are current deficiencies and the responsibility of the existing population. Page 14, third paragraph states, that "reconstructtion was assumed for existing roads that require substantial..." New construction is not responsible for repair, replacement or reconstruction of existing roadway.

 Again, each jurisdiction would be expected to take independent action towards adopting the fee. We believe the report is adequate to serve as the basis for their independent action. We agree that the roadway sizes used in the study exceed in many, if not most, cases the currently adopted system of future roadway classifications, and they would need to be amended to match the levels of demand shown in this study.

The assumptions of the Study include no allowance for receiving other money to pay for the State facilities, or any other portion of the circulation system. If that were to become likely, the fee would be updated in one of the review cycles, but there is no identified or probably other source of funds at this time. Typically, Caltrans would be pleased to receive funds for State Routes from development, and these contributions would be processed through the appropriate land use approving agency. Eventually, every improvement included in this proposed fee program would be subject to further planning and pre-design studies. The questions about the relative contribution due to land use types is a bit complex to respond to since regional transportation demand models were used to develop the volumes. While it is theoretically possible to diagnose these questions about land use using the model, it represents the best practices in the industry and the Study process did not require us to make individual assumptions about how and where trips were generated and assigned.

 The Study revealed no existing deficiencies, other than some isolated, stopcontrolled intersections, which necessitated remedial correction. Resurfacing of the lesser roadways that currently exist is somewhat moot since the existing roadbed would typically have been torn out to provide the location where the future roadway's median would be positioned. This fee program is not a repair and rehabilitate program.

 On which improvements are you expecting to put sidewalks? Each of these improvements is to provide for a certain transit capacity and speed. Most of these arterial and highway expansions would not need sidewalks. 	 Provisions for sidewalks and other features of the cross section are consistent with the County's adopted classification scheme as shown in the Appendices of the Study.
 The trip generation rate for single family residential should be consistent with the area. Coachella Valley Association of Governments (CVAG) has determined that 9.57 is a more accurate trip generation rate. This number is also being used by the Imperial County Air Pollution Control District in their draft for operational site mitigation of new residential construction. The trip generation rates for commercial and industrial purposes should not be based on the residential rate. They are unique to the design purpose of the new construction. Traffic patterns are also different between providers and producers, impacting road usage with varying levels of traffic. This should be pointed out as responsibility for facility improvements is shared between these groups of expected new construction and the burden in which they impose. 	 As stated in the Study, the rates of trip generation are as shown, and CVAG's rates are not assumed to be the ideal model. The residential trip rate is not the basis for industrial and commercial rates. This may be the subject of some debate with the policymakers about whether to grant some concessions relative to the commercial and industrial uses in the program.
• The costs of right of way are not that of the Coachella Valley. There are current projects where a more accurate determination may be made. However, land costs for right of way needs are subject to the environment of the area for the improvement. Just as construction and mitigation costs will fluctuate depending upon the segment of the improvement. Each segment's needs will also be driven by a different ratio or mix of new construction, with varying responsibility for the improvement. Therefore, using average costs is inappropriate in determining a cross-the-board impact fee.	• The property costs were derived from other work in Imperial County and elsewhere. As mentioned in the report, only two types of land costs are used, urban and non-urban. Having a more detailed project-by-project land cost assumption would be appropriate at the design stage for each project.
 Residential construction has brought a new found interest in commercial and industrial development from outside the Imperial Valley. It does affect commercial and industrial growth, but residential construction has no control over what commercial and industrial endeavors will come or where. These are determined by local government: zoning, for type 	Comment noted.



	 <u>Recommendations</u> Re-evaluate needs. Determine actual costs of segments. Identify outside sources of funding. No clover-leaf interchange at Dogwood and Aten. Reduce the number of interchanges on Highway 111. Plan for Imperial Valley as a whole, with necessary expansions to create just one plan, with a shared cost, over a larger population of expectant projects. All cities join JPA with IVAG as managing entity for uniform mitigation program. A quarter to one-half percent sales tax County-wide, that should prove justifiable as nearly everyone will benefit from the economic growth. 	• Comment noted.
	 Step in fees over the period of several years. 	
6	Various developers at meetings with County staff	
	 Our project definition and size is no longer what was assumed in the study. 	 Changes to projects can be updated in the cyclic process of revisiting the fee and the assumptions as stated in the Study.

NOTE: Two meetings were held on July 9, 2007 and August 15, 2007 at which stakeholders were given the opportunity to voice their comments and opinions regarding the Study. A number of verbal comments were received, however, due to the fact that those comments were covered by the written comments received (see above), they were not included in order to avoid unnecessary duplication.